

# TECHNICAL MEMORANDUM

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**To:** Nevada Environmental Response Trust

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**Cc:** Nevada Division of Environmental Protection  
United States Environmental Protection Agency

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**From:** Chris Hayes and Dana Grady

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**Date:** May 29, 2024

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**Subject:** Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report

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At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this memorandum to summarize Tetra Tech's progress during April 2024 toward successfully implementing the Unit 4 Source Area In-Situ Bioremediation (ISB) Treatability Study.

## Task Progress Update: April 2024

### Task M21 – Unit 4 Source Area ISB Treatability Study

- Current Status –

Operations and maintenance activities for Phase 2 of the Unit 4 Source Area ISB Treatability Study were completed on April 9, 2024. Following system shutdown, system decommissioning activities began and will continue through May 2024. The post-treatment effectiveness monitoring program for Phase 2 of the treatability study will consist of two quarterly sampling events scheduled for June 2024 and September 2024. A layout map and construction details of all injection, monitoring, and extraction wells are provided on **Figure 1** and in **Table 1**, respectively. Operations, maintenance, and monitoring activities completed during April 2024 are summarized below.

- Operations and Maintenance

- Area 1 – The first phase of the treatability study for Area 1 consisted of a total dissolved solids (TDS) reduction period prior to the injection of a carbon substrate due to the presence of elevated TDS concentrations in groundwater in the Area 1 deep zone. This phase included the injection of clean water (formerly known as stabilized Lake Mead water [SLMW]) in a pulsed manner and continuous groundwater extraction to reduce TDS concentrations to levels that would allow biodegradation processes to proceed (i.e., TDS concentrations to below 21,000 milligrams per liter [mg/L] prior to carbon substrate/water injections). The TDS reduction period began on September 8, 2022 in the Area 1 deep zone. Once TDS concentrations were below the TDS goal of 21,000 mg/L for three consecutive events, a baseline groundwater sampling event was performed and the second phase of the treatability study, which included the start-up of carbon substrate injections for application of ISB into Area 1 intermediate and deep zones, was initiated.

The baseline groundwater sampling event was performed in March 2023 and the carbon substrate injections as part of the ISB phase began on April 6, 2023.

The ISB injection process into Area 1 consisted of daily-pulsed injections of a carbon substrate solution, followed by daily injections of anaerobic distribution water (clean water amended with Vitamin C). The carbon substrate solution initially consisted of 0.5 percent molasses solution, 0.5 molar sodium bicarbonate solution, trace mineral solution, vitamin B12, and filtered biosolids collected from the on-site fluidized bed reactors (FBRs). The addition of the biosolids in the carbon substrate solution was discontinued on June 6, 2023, after the Area 1 60-day evaluation period. The macronutrient solution consisting of urea and diammonium phosphate is not currently being added to the injectate solution to minimize precipitate formation.

In an effort to meet the large theoretical carbon demand due to the high concentrations of chemicals of potential concern present in Area 1, the molasses concentration was increased from 0.5 percent to 1.0 percent on July 12, 2023 and then further increased to 2.5 percent on October 24, 2023. The Area 1 deep extraction well U4-E-03D was also transitioned to an injection well on October 24, 2023. Extraction operations within the Area 1 deep treatment interval ceased when deep extraction well U4-E-03D was converted into an injection well. Extraction operations in the Area 1 intermediate zone ceased on November 8, 2023 based on the elevated total organic carbon (TOC) concentrations measured in the extraction effluent to prevent further development of preferential flow pathways and removal of carbon substrate from the targeted treatment interval. No extraction operations have since been performed.

On January 29, 2024, the molasses concentration was increased from 2.5 percent to 5 percent in an effort to meet the large theoretical carbon demand for Area 1. Additionally, filtered biosolids from the on-site FBRs were added back into the carbon substrate solution in an effort to increase the microbial community with perchlorate reducing bacteria to aid in the biodegradation of perchlorate.

In accordance with the Work Plan Addendum, Area 1 ISB operations were implemented for approximately 12 months and were completed on April 9, 2024. A summary of Area 1 injections is provided in **Table 2**. Specific details of operations in April 2024 include the following:

- Area 1 Intermediate Zone – Active injections continued for nine days of April 2024, with a total of 7,271 gallons of carbon substrate solution and 6,066 gallons of distribution water injected into the two intermediate injection wells.
- Area 1 Deep Zone – Approximately 7,447 gallons of carbon substrate solution and 5,493 gallons of distribution water were injected into five deep injection wells in April 2024.
- Area 2 – Because TDS concentrations in Area 2 were lower than Area 1 and averaged approximately 19,500 mg/L during baseline sampling, ISB injection/extraction activities were implemented without an initial TDS reduction step. Carbon substrate solution/water injection and groundwater extraction operations in both the intermediate and deep zones within Area 2 began on September 13, 2022. The injection process consisted of daily-pulsed injections of a carbon substrate solution, followed by daily injections of anaerobic distribution water (clean water amended with Vitamin C). The carbon substrate solution initially consisted of 0.5 percent molasses solution, 0.5 molar sodium bicarbonate solution, trace mineral solution, vitamin B12, and filtered biosolids collected from the on-site FBRs. The addition of the biosolids in the carbon substrate solution was discontinued on December 15, 2022 following completion of the first 90 days of system operation (in

accordance with the NDEP-approved Unit 4 Source Area ISB Treatability Study Work Plan Addendum). The macronutrient solution consisting of urea and diammonium phosphate is not currently being added to the injectate solution to minimize precipitate formation.

The molasses concentration was increased from 0.5 percent to 1.0 percent on July 12, 2023 and further increased to 2.5 percent on October 24, 2023. In order to minimize hydraulic effects and potential for overdosing specifically in Area 2 following the increase to 2.5 percent molasses, the injection rates for Area 2 intermediate and deep injection wells were simultaneously reduced to approximately 0.5 gallons per minute (gpm) in all Area 2 intermediate and deep injection wells.

Extraction operations within the Area 2 deep treatment interval were ceased when deep extraction well U4-E-08D was converted into an injection well in July 2023. Extraction operations in the Area 2 intermediate zone ceased on November 8, 2023 based on the elevated TOC concentrations measured in the extraction effluent to prevent further development of preferential flow pathways and removal of carbon substrate from the targeted treatment interval. No extraction operations have since been performed.

On January 29, 2024, the molasses concentration was increased from 2.5 percent to 5 percent and the injection rates into all Area 2 intermediate injection wells were increased from 0.5 gpm to 1.9 gpm in an effort to improve distribution of carbon within Area 2. Additionally, filtered biosolids from on-site FBRs were added back into the carbon substrate solution in an effort to increase the microbial community with perchlorate reducing bacteria to aid in the biodegradation of perchlorate.

Area 2 ISB operations were implemented for approximately 19 months, concluding on April 9, 2024 at the same time as Area 1 ISB operations. A summary of Area 2 injections is provided in **Table 3**. Specific details of operations during April 2024 include the following:

- Area 2 Intermediate Zone – Active injections continued for nine days of April 2024, with a total of 3,995 gallons of carbon substrate solution and 3,234 gallons of distribution water injected into two intermediate injection wells.
  - Area 2 Deep Zone – Approximately 3,032 gallons of carbon substrate solution and 2,198 gallons of distribution water were injected into three deep injection wells in April 2024.
- Effectiveness Monitoring – The effectiveness monitoring program included a baseline groundwater sampling event completed in April 2022 prior to system start-up. Following start-up in early September 2022, the effectiveness monitoring program was implemented in accordance with the Work Plan Addendum. During the first month of operations in Area 2, one biweekly sampling event of Area 2 monitoring wells was conducted in September 2022. The monitoring program shifted to monthly sampling in October 2022 and is ongoing for both Areas 1 and 2. In March 2023, groundwater samples were collected from all Area 1 intermediate and deep injection, extraction, and monitoring wells to establish baseline conditions prior to the startup of carbon substrate solution injections in Area 1, which began on April 6, 2023. The April 2023 sampling event was performed approximately two weeks after ISB start-up in Area 1, and therefore serves as a biweekly sampling event for Area 1 monitoring wells and the regular monthly sampling event for Area 2. Similar to the Area 2 monitoring program, the sampling in Area 1 then shifted to a monthly basis in May 2023 and coincides with the monthly sampling performed for Area 2. Monthly sampling concluded in March 2024. Two post-treatment monitoring events are planned for June 2024 and September 2024. Available draft groundwater analytical results from the baseline sampling event and subsequent monitoring events performed from

September 2022 to March 2024 are presented in **Table 4**. The March 2024 groundwater results are summarized below. Final validated data will be provided in the final treatability study results report.

- Area 1 Intermediate – The March 2024 sampling event was conducted approximately eleven months after the start of ISB injections into Area 1 and included collection of groundwater samples from two former intermediate extraction wells (i.e., U4-E-011 and U4-E-021) and ten monitoring wells, including three monitoring wells located immediately within the Area 1 intermediate study area, four monitoring wells around the perimeter of the Area 1 intermediate study area, and three monitoring wells screened in the overlying shallow zone. Groundwater analytical results from the March 2024 sampling event are summarized below.
  - Perchlorate concentrations in the samples collected from the two former intermediate extraction wells U4-E-011 and U4-E-021 indicated concentration reductions of greater than 99 percent and 97 percent, respectively, compared to baseline concentrations. Perchlorate concentrations in the groundwater sample collected from U4-E-011 remained below the sample detection limit of 0.3 milligrams per liter (mg/L) compared to the baseline concentration of 219 mg/L. Perchlorate concentrations in groundwater samples collected from all three monitoring wells screened in the overlying shallow zone were the lowest measured to date and represented reductions ranging from 66 percent to 80 percent compared to March 2023 pre-ISB baseline conditions. Results from groundwater samples collected from three of the seven intermediate monitoring wells located within or around the perimeter of the Area 1 intermediate treatment zone (namely, U4-MW-02I, U4-MW-03I, and U4-MW-04I) indicated an average perchlorate concentration reduction of approximately 20 percent compared to pre-ISB baseline concentrations in March 2023. October/November 2023 system/operational changes, which included an increase in injection rates within the underlying deep zone by converting U4-E-03D into an injection well and discontinuation of overlying extraction within the Area 1 intermediate zone, likely resulted in changes to the hydraulic gradient and an increased flux of untreated groundwater into the intermediate zone.
  - Chlorate concentration trends were similar to perchlorate concentration trends. Chlorate concentrations in the samples collected from the two former intermediate extraction wells U4-E-011 and U4-E-021 indicated concentration reductions of 98 percent and 86 percent, respectively, compared to baseline concentrations. Of the samples collected from the three intermediate monitoring wells, the greatest chlorate concentration reduction of 32 percent was observed in the groundwater sample collected from monitoring well U4-MW-02I, with a chlorate concentration of 8,150 mg/L compared to a pre-ISB baseline concentration of 12,000 mg/L. The March 2024 concentration of 4,210 mg/L in the groundwater sample collected from monitoring well U4-MW-05I represents a 13 percent reduction in chlorate concentration compared to the pre-ISB baseline concentration of 4,840 mg/L. Although initially reduced, chlorate concentrations in groundwater samples collected from monitoring well U4-MW-07I have remained elevated above the pre-ISB baseline concentrations since the July 2023 system modifications. Chlorate concentrations in groundwater samples collected from intermediate perimeter monitoring wells showed similar concentrations to the March 2023

pre-ISB baseline concentrations. Lastly, groundwater samples collected from all three shallow monitoring wells (i.e., M-251-60, U4-MW-01S, and U4-MW-03S) indicated the lowest chlorate concentrations measured in groundwater at these locations since the start of ISB, with reductions ranging from 62 to 81 percent compared to March 2023 pre-ISB baseline concentrations.

- Nitrate concentration reductions were generally greater than perchlorate and chlorate, with reductions from 42 to 96 percent compared to pre-ISB baseline concentrations in the samples collected from the three monitoring wells located immediately within the Area 1 intermediate study area (i.e., U4-MW-02I, U4-MW-05I, and U4-MW-07I). Nitrate concentrations in groundwater samples collected from monitoring wells U4-MW-05I and U4-MW-07I were below the sample detection limit of 0.48 mg/L. Nitrate concentrations in groundwater samples collected from three of the four intermediate perimeter monitoring wells showed reductions ranging from 39 percent to greater than 99 percent compared to the March 2023 pre-ISB baseline concentrations. Lastly, groundwater samples collected from all three shallow monitoring wells (i.e., M-251-60, U4-MW-01S and U4-MW-03S) indicated the lowest nitrate concentrations measured in groundwater at these locations since the start of ISB, with reductions ranging from 83 percent to greater than 99 percent compared to March 2023 pre-ISB baseline concentrations.
- Groundwater samples collected from all three monitoring wells located in the immediate vicinity of the Area 1 intermediate treatment zone (i.e., U4-MW-02I, U4-MW-05I, and U4-MW-07I) continued to indicate significant hexavalent chromium reductions ranging from 53 percent to greater than 99 percent. Hexavalent chromium concentration reductions were also greater than 96 percent in the groundwater samples collected from the former intermediate extraction wells U4-E-01I and U4-E-02I, with concentrations of 16 µg/L and 84 µg/L, respectively. Hexavalent chromium concentrations in groundwater samples collected from six of the seven intermediate perimeter and shallow monitoring wells showed an average concentration reduction of 52 percent compared to the March 2023 pre-ISB baseline concentrations.
- TOC concentrations in groundwater samples collected from intermediate monitoring wells located in the immediate vicinity of Area 1 and former intermediate extraction wells ranged from 188 mg/L to 11,400 mg/L in March 2024, which is substantially above baseline concentrations and indicates widespread carbon distribution in the subsurface. TOC concentrations in groundwater samples collected from five of the seven intermediate perimeter and shallow monitoring wells were notably elevated above the average baseline concentration of 1.6 mg/L, with the highest TOC concentration of 544 mg/L measured in the sample collected from intermediate perimeter monitoring well U4-MW-06I.
- Area 1 Deep – During the March 2024 sampling event performed eleven months after the start of ISB operations in Area 1, groundwater samples were collected from four deep monitoring wells within Area 1, six perimeter monitoring wells surrounding Area 1 screened in the targeted deep treatment interval or underlying deep zone (designated with “DD”), and one monitoring well screened in the underlying deep zone within Area 1 (namely, M-252). Groundwater analytical results from the March 2024 sampling event are summarized below.

- The groundwater sample collected from M-251-100 in March 2024 continued to indicate a reduced perchlorate concentration, with a perchlorate concentration of 843 mg/L in March 2024 compared to the January 2024 perchlorate concentration of 1,520 mg/L and a pre-study concentration of 3,110 mg/L. Perchlorate concentrations in groundwater samples collected from the remaining monitoring wells located immediate within the Area 1 study area footprint (U4-MW-02D, U4-MW-05D, and U4-MW-07D) indicated similar concentrations to those measured in the samples collected during the January and February 2024 sampling events. Perchlorate concentrations in groundwater samples collected from two downgradient deep perimeter monitoring wells U4-MW-01D and U4-MW-03D indicated reductions of 67 percent and 27 percent, respectively, compared to pre-ISB March 2023 baseline concentrations. Perchlorate concentrations in groundwater collected from the remaining deep perimeter monitoring wells and the underlying deep zone fluctuated but generally remained similar to the previous September and December 2023 sampling events. Notable results include perchlorate concentration reductions of 37 percent and 66 percent in groundwater samples collected from the underlying deep zone monitoring wells of U4-MW-01DD and U4-MW-03DD, respectively.
- Chlorate concentration trends were similar to perchlorate concentration trends. The results from the groundwater sample collected from M-251-100 in March 2024 continued to indicate a decreasing trend in chlorate concentrations, with a March 2024 detection of 5,560 mg/L compared to 9,610 mg/L in January 2024 and 6,040 mg/L in February 2024. Chlorate concentrations measured in groundwater samples collected from the three remaining deep zone monitoring wells within Area 1, namely, U4-MW-02D, U4-MW-05D, and U4-MW-07D, were similar to or slightly higher than those observed during the February 2024 sampling event. Chlorate concentrations in groundwater samples collected from two downgradient deep perimeter monitoring wells U4-MW-01D and U4-MW-03D were the lowest concentrations measured to date in groundwater at these locations, with an average reduction of 30 percent compared to pre-ISB March 2023 baseline concentrations. Chlorate concentrations in groundwater collected from the remaining deep perimeter monitoring wells and underlying deep zone fluctuated but generally remained similar to the previous September and December 2023 sampling events. Notable results from these monitoring wells include chlorate concentration reductions of 33 percent and 66 percent in groundwater samples collected from the underlying deep zone monitoring wells of U4-MW-01DD and U4-MW-03DD, respectively.
- Nitrate concentration reductions were generally greater than perchlorate and chlorate. Nitrate concentrations in groundwater collected from all four Area 1 deep zone monitoring wells (i.e., U4-MW-02D, U4-MW-05D, U4-MW-07D, and M-251-100) were less than the March 2023 pre-ISB baseline concentrations with reductions ranging from 22 percent to 74 percent. Nitrate was not detected above the sample detection limit of 4.8 mg/L in groundwater samples collected from M-251-100 and U4-MW-07D in March 2024. Nitrate concentrations in groundwater samples collected from all four deep perimeter monitoring wells (i.e., U4-MW-01D, U4-MW-03D, U4-MW-04D, and U4-MW-06D) decreased compared to the previous December 2023 sampling event, with an average reduction of 62 percent compared to baseline conditions. Nitrate concentrations



- in groundwater collected from the underlying deep zone fluctuated but generally remained similar to the previous December 2023 sampling event.
- Hexavalent concentration reductions ranging from 28 percent to greater than 99 percent were observed in groundwater samples collected from all four Area 1 deep zone monitoring wells. The greatest hexavalent chromium concentration reductions were observed in the groundwater samples collected from monitoring wells U4-MW-07D and M-251-100, which measured 46 µg/L and 52 µg/L, respectively. These results represent greater than 99 percent reduction when compared to pre-study baseline concentrations of 23,900 µg/L and 96,900 µg/L, respectively. Hexavalent chromium concentrations in groundwater samples collected from three of the four deep perimeter monitoring wells (i.e., U4-MW-01D, U4-MW-03D, and U4-MW-06D) were the lowest measured to date in groundwater at these locations, with an average reduction of 40 percent compared to pre-ISB March 2023 baseline concentrations. Hexavalent chromium concentrations in groundwater collected from the underlying deep zone fluctuated but generally remained similar to the previous December 2023 sampling event. Notable results from these monitoring wells include hexavalent chromium concentration reductions ranging from 41 percent to 76 percent in groundwater samples collected from the underlying deep zone monitoring wells of U4-MW-01DD, U4-MW-03DD, and M-252.
  - TOC concentrations in the groundwater samples collected from three of the four Area 1 deep zone monitoring wells in March 2024 were significantly elevated with concentrations ranging from 700 mg/L to 8,170 mg/L compared to baseline TOC concentrations of less than 2 mg/L. Furthermore, the TOC concentration measured in the groundwater sample collected from M-251-100 measuring 8,170 mg/L continues to indicate an increasing trend following the October 2023 operational changes and represents the highest TOC concentration measured to date in samples collected from this location. Elevated TOC concentrations were also detected in samples collected from perimeter monitoring wells U4-E-03D, U4-MW-04D, and U4-MW-06D, with concentrations ranging from 15 mg/L to 763 mg/L in March 2024.
  - Area 2 Intermediate – In March 2024, approximately eighteen months after the start of ISB in Area 2, groundwater samples were collected from two former extraction wells screened in the Area 2 intermediate zone, three intermediate monitoring wells immediately located within Area 2 study area, and ten monitoring wells located around the perimeter of the Area 2 study area. Four of these ten perimeter monitoring wells are screened in the overlying shallow zone, while the remaining six monitoring wells are screened in the intermediate zone. Groundwater samples from two monitoring wells U4-MW-08S and U4-MW15S were collected via bailer during the March 2024 sampling event because low flow pumps could not be lowered to mid-screen for sample collection. These two monitoring wells were redeveloped on March 21 to 22, 2024 and subsequently resampled on March 25 to 26, 2024 via low-flow sampling methods. Groundwater analytical results from the March 2024 sampling event are summarized below.
    - As discussed in previous monthly progress reports, perchlorate concentrations in the groundwater samples collected from all three intermediate monitoring wells located within the Area 2 study footprint (i.e., U4-MW-11I, U4-MW-12I, and U4-MW-13I) increased following the operational modifications completed in July 2023 that likely altered the vertical hydraulic gradient and caused a flux of

untreated groundwater into the Area 2 intermediate treatment zone (i.e., converting extraction well U4-E-08D into an injection well and increasing injection rates). The perchlorate concentrations observed in the groundwater samples collected in March 2024 from all three intermediate monitoring wells located within Area 2 decreased slightly compared to the previous February 2024 sampling event, although concentrations remain above the July 2023 concentrations. The lowest perchlorate concentration during the March 2024 sampling event in Area 2 was 95.4 mg/L, which was measured in the groundwater sample collected from the former intermediate extraction well U4-E-06I and represents a reduction of 70 percent compared to baseline conditions. Perchlorate concentrations in groundwater samples collected from all four overlying shallow monitoring wells (i.e., U4-MW-08S, U4-MW-09S, U4-MW-15S, and U4-MW-16S) indicated perchlorate concentration reductions ranging from 83 percent to greater than 99 percent, with perchlorate concentrations ranging from less than 0.3 mg/L to 2.03 mg/L. Perchlorate concentrations in groundwater collected from the six intermediate perimeter monitoring wells fluctuated but generally remained similar or slightly increased compared to the previous December 2023 sampling event.

- Chlorate concentration trends were similar to perchlorate trends, with concentration increases compared to the results prior to the July 2023 operational changes. Despite the concentration fluctuations, chlorate concentration reductions of 57 and greater than 99 percent were observed in the groundwater samples collected from monitoring well U4-MW-12I and former intermediate extraction well U4-E-06I, respectively. Chlorate concentrations in groundwater samples collected from all four of the overlying shallow monitoring wells indicated chlorate concentration reductions of greater than 95 percent compared to baseline concentrations. Chlorate concentrations in groundwater collected from the six intermediate perimeter monitoring wells fluctuated but generally remained similar or increased compared to the previous December 2023 sampling event.
- Nitrate concentration reductions were generally greater than perchlorate and chlorate concentration reductions, with nitrate concentrations decreasing compared to the previous February 2024 sampling event. The nitrate concentration in the sample collected from monitoring well U4-MW-13I decreased significantly from 9.77 mg/L in February 2024 to less than the sample detection limit of 0.48 mg/L in March 2024. Nitrate also measured below the sample detection limit of 0.048 mg/L in monitoring well U4-MW-13I and former intermediate extraction well U4-E-06I. Nitrate concentrations in groundwater samples collected in March 2024 from six of the ten shallow and intermediate perimeter monitoring wells were significantly reduced compared to baseline concentrations, with samples collected from five locations (U4-MW-08S, U4-MW-08I, U4-MW-09I, U4-MW-15S, and U4-MW-16S) measuring less than the sample detection limit of 0.48 mg/L. Nitrate concentrations in groundwater collected from the remaining four intermediate perimeter monitoring wells fluctuated but generally remained similar or increased compared to the previous September and December 2023 sampling events.
- Hexavalent chromium concentration reductions were observed in groundwater samples collected in March 2024 from two of the three intermediate monitoring wells located within Area 2, namely, U4-MW-12I and U4-MW-13I, and former



intermediate extraction well U4-E-06I. The hexavalent chromium concentrations in the groundwater samples collected from monitoring well U4-MW-12I and former extraction well U4-E-06I in March 2024 measured 673  $\mu\text{g/L}$  and less than the sample detection limit of 3.00  $\mu\text{g/L}$ , which represent greater than 97 percent reductions compared to the baseline concentrations of 21,200  $\mu\text{g/L}$  and 3,080  $\mu\text{g/L}$ , respectively. Hexavalent chromium concentrations in groundwater samples collected from all four of the overlying shallow monitoring wells indicated hexavalent chromium concentration reductions greater than 98 percent, with hexavalent chromium concentrations ranging from less than 0.150  $\mu\text{g/L}$  to 6.4  $\mu\text{g/L}$ . Hexavalent chromium concentrations in groundwater collected from the six intermediate perimeter monitoring wells fluctuated but generally remained similar to the previous December 2023 sampling event.

- TOC concentrations in groundwater samples collected from intermediate monitoring wells within Area 2 ranged from 2.26 mg/L to 13.7 mg/L, which are slightly elevated above the average baseline TOC concentration of 1.25 mg/L. The highest TOC concentration measured within Area 2 of 47.8 mg/L was observed in groundwater collected from former intermediate extraction well U4-E-06I. TOC concentrations in groundwater samples collected from all ten intermediate and shallow perimeter monitoring wells were elevated above baseline concentrations and ranged from 2.88 mg/L to 599 mg/L.
- Area 2 Deep – During the March 2024 sampling event performed eighteen months after the start of ISB operations in Area 2, groundwater samples were collected from three deep monitoring wells within Area 2 and ten perimeter monitoring wells surrounding Area 2 that are screened in the targeted deep treatment interval or the underlying deep zone (designated with “DD”). Groundwater analytical results from the March 2024 sampling event are summarized below.
  - When compared to baseline concentrations, perchlorate concentration reductions ranging from 43 percent to 84 percent were observed in groundwater samples collected from the three deep monitoring wells located within Area 2 (i.e., U4-MW-11D, U4-MW-12D, and U4-MW-13D). The most notable concentration reduction of 84 percent was observed in the groundwater sample collected from monitoring well U4-MW-12D, with a March 2024 concentration of 209 mg/L. In addition, perchlorate concentration reductions averaging 65 percent were observed in groundwater samples collected from eight out of ten perimeter monitoring wells. The most notable reductions in the perimeter of Area 2 deep included reductions ranging from 87 to 98 percent in groundwater samples collected from monitoring wells U4-MW-09D, U4-MW-10D, and U4-MW-15DD.
  - Concentration reductions of chlorate and nitrate in the groundwater samples collected from all three deep monitoring wells within Area 2 were slightly greater than perchlorate (reductions averaging 70 percent for chlorate and 88 percent for nitrate when compared to baseline concentrations). Notable results in March 2024 include the detection of nitrate at a concentration of 3.08 mg/L in groundwater collected from monitoring well U4-MW-13D, which represents the lowest concentration observed in samples collected from this location since the July 2023 operational changes. In addition, chlorate and/or nitrate concentration reductions ranging from 51 percent to greater than 99 percent were observed in

groundwater samples collected from eight of the ten perimeter wells sampled in March 2024.

- Hexavalent chromium concentration reductions ranging from 50 percent to 89 percent when compared to baseline concentrations were observed in groundwater samples collected in March 2024 from all three deep monitoring wells located within Area 2. The hexavalent chromium concentration in the groundwater sample collected from U4-MW-12D in March 2024 was 6,950 µg/L, which represents an 89 percent reduction compared to the baseline concentration of 63,700 µg/L. In addition, hexavalent chromium concentration reductions averaging 79 percent were also observed in groundwater samples collected from nine of the ten perimeter monitoring wells sampled in March 2024. Of these, groundwater samples collected from five of these monitoring wells indicated reductions of greater than 98 percent.
  - TOC concentrations in groundwater samples collected from the three deep monitoring wells located within Area 2 (i.e., U4-MW-11D, U4-MW-12D, and U4-MW-13D) ranged from 2.41 mg/L to 351 mg/L (baseline concentration average of 2.17 mg/L) in March 2024. These observed increases in TOC concentrations are likely a result of the system modifications performed in an effort to improve distribution of carbon substrate throughout the Area 2 deep zone, which included increasing the molasses concentration and converting extraction well U4-E-08D into an injection well. In addition, elevated TOC concentrations ranging from 8.79 mg/L to 50.1 mg/L were also observed in groundwater samples collected from five of the ten perimeter wells sampled in March 2024, namely, U4-MW-08D, U4-MW-09D, U4-MW-09DD, U4-MW-10D, and U4-MW-14D.
- Schedule and Progress Updates
    - Both Area 1 and Area 2 ISB operations were completed on April 9, 2024.
    - Following system shutdown on April 9, 2024, system decommissioning activities commenced and will continue through May 2024.
    - Two quarterly post-treatment effectiveness monitoring events will be performed in June and September 2024 in accordance with the Work Plan Addendum. These post-treatment effectiveness monitoring events will be performed in each test area to evaluate long-term changes in contaminant concentrations and geochemical conditions.
  - Health and Safety
    - There were no health and safety incidents related to Task M21 in April 2024.

## CERTIFICATION

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### Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report

**Nevada Environmental Response Trust Site  
(Former Tronox LLC Site)  
Henderson, Nevada**

**Nevada Environmental Response Trust (NERT) Representative Certification**

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the systems(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

**Not Individually, but Solely  
as President of the Trustee**

**Signature:** Jay A. Steinberg, President, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

**Name:** Jay A. Steinberg, not individually, but solely in his representative capacity as President of the Nevada Environmental Response Trust Trustee

**Title:** Solely as President and not individually

**Company:** Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

**Date:** 5/29/24

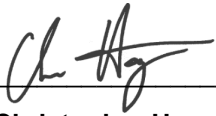
## CERTIFICATION

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I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been prepared in a manner consistent with the current standards of the profession, and to the best of my knowledge, comply with all applicable federal, state, and local statutes, regulations, and ordinances. I hereby certify that all laboratory analytical data was generated by a laboratory certified by the NDEP for each constituent and media presented herein.

***Description of Services Provided:***

Prepared Unit 4 Source Area In-Situ Bioremediation Treatability Study Monthly Progress Report.



**Christopher Hayes, CEM**  
Environmental Engineer  
Tetra Tech, Inc.

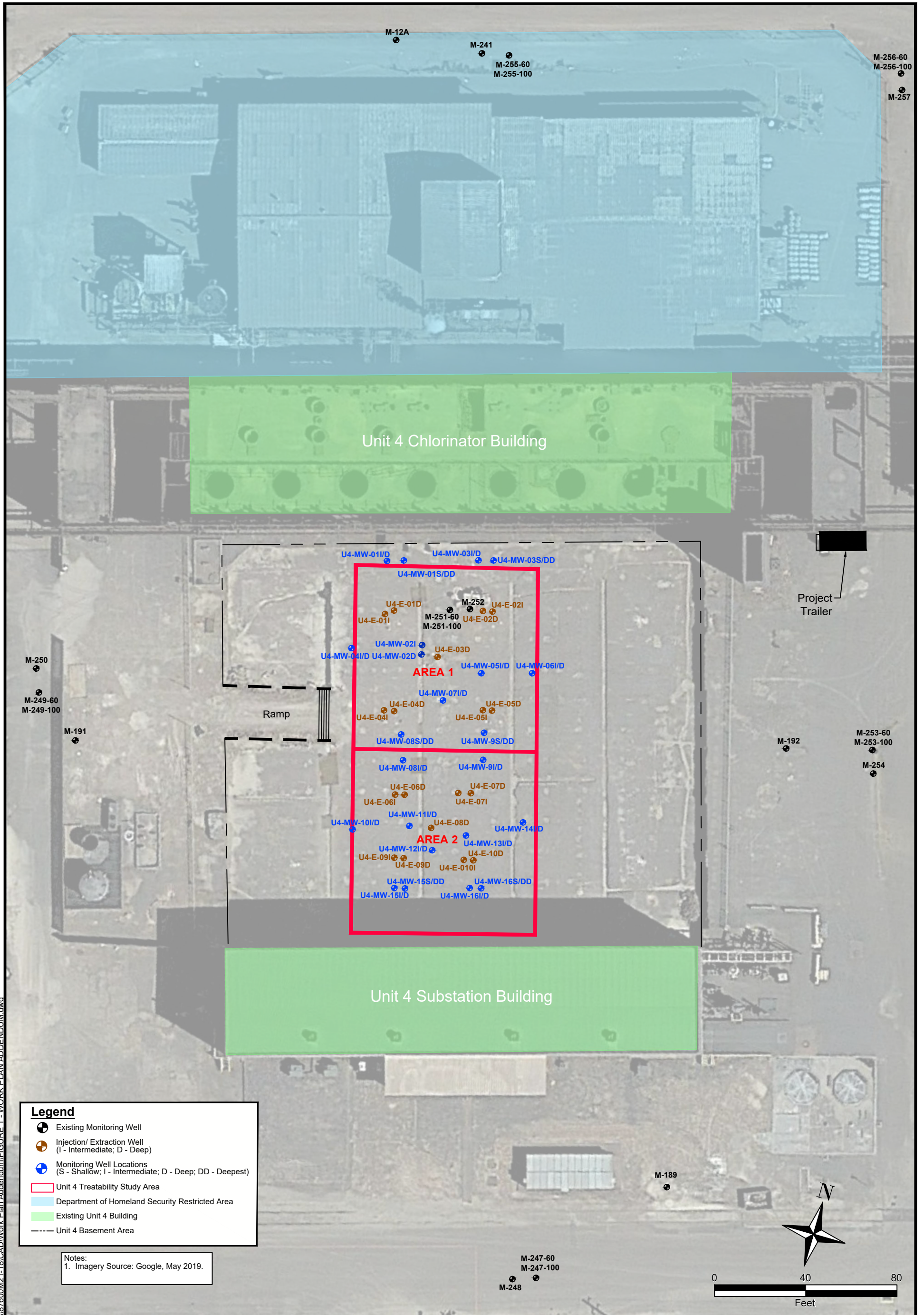
May 29, 2024

Date

Nevada CEM Certificate Number: EM2499  
Nevada CEM Expiration Date: December 15, 2024

# Figures

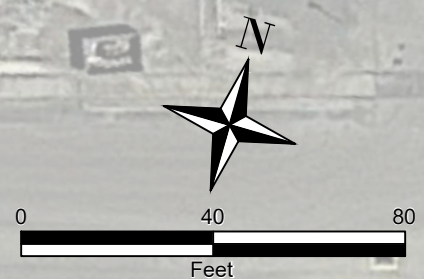




**Legend**

- Existing Monitoring Well
- ⊕ Injection/ Extraction Well (I - Intermediate, D - Deep)
- ⊕ Monitoring Well Locations (S - Shallow; I - Intermediate; D - Deep; DD - Deepest)
- ▭ Unit 4 Treatability Study Area
- ▭ Department of Homeland Security Restricted Area
- ▭ Existing Unit 4 Building
- Unit 4 Basement Area

Notes:  
1. Imagery Source: Google, May 2019.



\\its318fs3.tt.local\CES\Projects\87600\M21-18\CAD\Work Plan Addendum\FIGURE 1 - WORK PLAN ADDENDUM.dwg

NEVADA ENVIRONMENTAL RESPONSE TRUST SITE

UNIT 4 SOURCE AREA IN-SITU BIOREMEDIATION TREATABILITY STUDY  
HENDERSON, NEVADA

INJECTION/ EXTRACTION AND MONITORING WELL LAYOUT

www.tetrattech.com  
150 S. 4th Street, Unit A  
Henderson, Nevada 89015  
Phone: (702) 854-2293

Project No.:	117-7502021-M21
Date:	May 10, 2022
Designed By:	AC
Figure No.:	<b>1</b>



# Tables

**Table 1**  
**Well Construction Details**  
 Unit 4 Source Area In-Situ Bioremediation Treatability Study

Well ID	Screened Lithology	Northing	Easting	Ground Surface Elevation <sup>1</sup>	Top of Casing Elevation	Construction Type	Casing Material	Screen Material	Slot Size	Filter Pack Gradation	Borehole Diameter	Borehole Total Depth	Well Diameter	Nominal Screen Length	Well Total Depth	Bottom of Screen	Top of Screen
				feet amsl	feet amsl				inches		inches	feet bgs <sup>1</sup>	inches	feet	feet bgs <sup>1</sup>	feet bgs <sup>1</sup>	feet bgs <sup>1</sup>
U4-E-01D	UMCf	26717332.49	828215.74	1805.50	1805.11	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	94.7	109.7
U4-E-01I	UMCf	26717330.42	828212.11	1805.40	1805.15	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	74.6	89.6
U4-E-02D	UMCf	26717338.47	828258.40	1805.55	1804.99	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	94.4	109.4
U4-E-02I	UMCf	26717338.14	828254.24	1805.51	1804.99	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	74.4	89.4
U4-E-04D	UMCf	26717288.90	828222.53	1805.49	1804.95	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	95.0	110.0
U4-E-03D	UMCf	26717310.37	828241.13	1805.49	1804.94	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	113.0	4	15	111.1	110.1	95.1
U4-E-04I	UMCf	26717288.51	828217.91	1805.64	1805.03	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	75.0	90.0
U4-E-05D	UMCf	26717295.64	828264.86	1805.48	1804.95	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	95.0	110.0
U4-E-05I	UMCf	26717295.15	828260.95	1805.58	1804.72	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	75.0	90.0
U4-E-06D	UMCf	26717253.44	828232.43	1805.44	1804.74	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	112.0	4	15	111.1	110.1	95.1
U4-E-06I	UMCf	26717252.90	828228.29	1805.47	1805.04	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.5	4	15	89.2	88.2	73.2
U4-E-07D	UMCf	26717258.48	828261.02	1805.62	1805.31	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	111.5	4	15	110.6	109.6	94.6
U4-E-07I	UMCf	26717257.68	828255.56	1805.62	1805.16	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.7	89.7	74.7
U4-E-08D	UMCf	26717240.82	828246.11	1805.45	1804.91	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	120.0	4	15	110.6	109.6	94.6
U4-E-09D	UMCf	26717225.92	828236.22	1805.45	1804.91	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	112.0	4	15	110.5	109.5	94.5
U4-E-09I	UMCf	26717225.46	828232.18	1805.47	1805.14	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	93.3	4	15	90.9	89.9	74.9
U4-E-10D	UMCf	26717229.55	828266.50	1805.66	1805.28	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	112.0	4	15	110.5	109.5	94.5
U4-E-10I	UMCf	26717229.15	828262.34	1805.71	1805.37	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.2	89.2	74.2
U4-MW-01I	UMCf	26717353.59	828209.51	1805.57	1805.14	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.7	86.7	76.7
U4-MW-01D	UMCf	26717353.51	828209.25	1805.57	1805.10		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.7	106.7	96.7
U4-MW-01S	UMCf	26717354.83	828216.42	1805.57	1805.02	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.0	2	10	64.7	64.7	54.7
U4-MW-01DD	UMCf	26717354.86	828216.87	1805.57	1805.09		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.9	129.9	119.9
U4-MW-02D	UMCf	26717315.33	828230.47	1805.50	1805.07	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	115.0	4	15	110.3	95.0	110.0
U4-MW-02I	UMCf	26717319.45	828230.17	1805.47	1805.07	Single	Schedule 80 PVC	Stainless Steel	0.010	#2/16	8	92.0	4	15	90.3	75.0	90.0
U4-MW-03I	UMCf	26717359.79	828248.76	1805.61	1805.17	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.3	2	10	86.6	86.6	76.6
U4-MW-03D	UMCf	26717360.01	828249.20	1805.61	1805.18		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.6	106.6	96.6
U4-MW-03S	UMCf	26717360.79	828255.35	1805.56	1805.19	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.3	2	10	64.5	64.5	54.5
U4-MW-03DD	UMCf	26717360.84	828255.62	1805.56	1805.20		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.7	129.7	119.7
U4-MW-04I	UMCf	26717313.50	828199.89	1805.49	1805.13	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.5	2	10	86.8	86.8	76.8
U4-MW-04D	UMCf	26717313.36	828199.55	1805.49	1805.15		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.0	107.0	97.0
U4-MW-05I	UMCf	26717311.18	828257.53	1805.52	1805.06	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.6	86.6	76.6
U4-MW-05D	UMCf	26717311.18	828257.89	1805.52	1805.05		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	108.2	108.2	98.2
U4-MW-06I	UMCf	26717314.46	828279.53	1805.52	1805.21	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.3	2	10	86.5	86.5	76.5
U4-MW-06D	UMCf	26717314.51	828279.82	1805.52	1805.20		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.1	107.1	97.1
U4-MW-07I	UMCf	26717296.98	828242.85	1805.36	1805.16	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.2	2	10	86.8	86.8	76.8
U4-MW-07D	UMCf	26717296.68	828242.80	1805.36	1805.01		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.5	106.5	96.5
U4-MW-08I	UMCf	26717268.25	828229.36	1805.45	1804.97	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	88.0	88.0	78.0
U4-MW-08D	UMCf	26717268.30	828229.62	1805.45	1804.99		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	108.6	108.6	98.6
U4-MW-08S	UMCf	26717279.33	828226.78	1805.47	1804.94	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.2	2	10	64.9	64.9	54.9
U4-MW-08DD	UMCf	26717279.35	828227.22	1805.47	1804.95		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.8	129.8	119.8
U4-MW-09I	UMCf	26717273.70	828264.04	1805.62	1805.22	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.8	86.8	76.8
U4-MW-09D	UMCf	26717273.73	828264.40	1805.62	1805.20		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.9	106.9	96.9
U4-MW-09S	UMCf	26717285.44	828262.62	1805.55	1805.12	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	132.0	2	10	65.3	65.3	55.3
U4-MW-09DD	UMCf	26717285.52	828263.00	1805.55	1805.12		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	129.8	129.8	119.8
U4-MW-10I	UMCf	26717234.83	828212.05	1805.55	1805.10	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.1	87.1	77.1
U4-MW-10D	UMCf	26717235.18	828212.26	1805.55	1805.07		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.9	106.9	96.9
U4-MW-11I	UMCf	26717240.19	828236.42	1805.41	1805.03	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.0	87.0	77.0
U4-MW-11D	UMCf	26717240.23	828236.77	1805.41	1804.96		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.4	107.4	97.4
U4-MW-12I	UMCf	26717231.25	828247.87	1805.47	1805.11	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.0	2	10	86.8	86.8	76.8
U4-MW-12D	UMCf	26717231.22	828248.29	1805.47	1805.12		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.1	107.1	97.1
U4-MW-13I	UMCf	26717242.66	828261.00	1805.64	1805.28	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.1	87.1	77.1
U4-MW-13D	UMCf	26717242.70	828261.37	1805.64	1805.35		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	108.2	108.2	98.2
U4-MW-14I	UMCf	26717249.26	828285.32	1805.43	1805.13	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	87.3	87.3	77.3
U4-MW-14D	UMCf	26717249.24	828285.84	1805.43	1805.05		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	107.3	107.3	97.3
U4-MW-15I	UMCf	26717212.34	828233.91	1805.48	1805.03	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	109.0	2	10	86.8	86.8	76.8
U4-MW-15D	UMCf	26717212.35	828234.41	1805.48	1804.97		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.0	106.0	96.0
U4-MW-15S	UMCf	26717212.89	828238.61	1805.44	1805.05	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	132.0	2	10	64.8	64.8	54.8
U4-MW-15DD	UMCf	26717212.87	828239.01	1805.44	1804.98		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	130.3	130.3	120.3
U4-MW-16I	UMCf	26717217.25	828266.62	1805.68	1805.36	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	108.5	2	10	87.0	87.0	77.0
U4-MW-16D	UMCf	26717217.40	828266.90	1805.68	1805.27		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	106.8	106.8	96.8
U4-MW-16S	UMCf	26717217.87	828271.70	1805.59	1805.24	Dual-Nested	Schedule 80 PVC	Stainless Steel	0.010	#2/16	11	131.0	2	10	64.8	64.8	54.8
U4-MW-16DD	UMCf	26717218.04	828271.95	1805.59	1805.32		Schedule 80 PVC	Stainless Steel	0.010	#2/16			2	10	130.8	130.8	120.8

Notes

amsl - above mean sea level

bgs - below ground surface

bTOC - below top of casing

PVC - polyvinyl chloride

UMCf - Upper Muddy Creek formation

1. Ground surface refers to the concrete floor of the Unit 4 basement, which is approximately 8 feet below the surrounding grade.

2. Well names including E indicate an extraction/injection well. Well names including MW indicate a monitoring well.

Table 2  
Summary of Injection Activities  
Area 1 -April 2024  
Unit 4 Source Area Bioremediation Treatability Study

Study Area			Area 1 Intermediate									Area 1 Deep				Area 1 Deep															
Well ID			U4-E-04I				U4-E-05I				U4-E-01D				U4-E-02D				U4-E-03D				U4-E-04D				U4-E-05D				
Date	Injection Start Time	Injection Stop Time	Duration <sup>(1)</sup>	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3,4)</sup>	Average Flow Rate	Maximum Injection Pressure
			minutes	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi
4/1/2024	6:40	13:50	389	399.02	302.19	1.8	15	405.21	318.31	1.9	7	141.72	122.05	0.7	24	163.18	106.12	0.7	33	168.56	137.53	0.8	19	165.15	127.77	0.8	28	175.07	128.12	0.8	34
4/2/2024	6:40	14:06	405	376.96	315.26	1.7	18	390.42	346.48	1.8	8	146.34	122.97	0.7	26	171.86	96.48	0.7	32	156.71	126.81	0.7	20	190.47	104.76	0.7	23	180.92	132.14	0.8	33
4/3/2024	6:40	13:59	399	390.68	343.12	1.8	26	425.92	352.98	2.0	9	168.17	108.48	0.7	25	165.67	100.48	0.7	32	171.98	135.82	0.8	20	159.96	126.51	0.7	25	167.76	110.61	0.7	34
4/4/2024	6:40	13:57	393	438.24	316.92	1.9	20	396.11	365.32	1.9	8	152.86	150.66	0.8	26	146.27	98.97	0.6	31	179.12	138.20	0.8	20	168.74	120.57	0.7	27	165.89	117.12	0.7	36
4/5/2024	6:40	14:09	407	375.05	326.73	1.7	22	410.61	365.11	1.9	8	159.27	129.94	0.7	26	155.18	107.74	0.6	32	161.50	129.16	0.7	18	150.66	124.77	0.7	28	176.16	125.73	0.7	34
4/6/2024	2:01	8:49	359	414.30	311.07	2.0	20	410.24	349.78	2.1	9	147.66	109.79	0.7	27	162.16	109.90	0.8	33	182.30	146.58	0.9	19	172.24	114.43	0.8	29	163.62	127.09	0.8	35
4/7/2024	6:40	13:59	397	422.89	341.98	1.9	22	410.79	357.47	1.9	10	155.14	107.56	0.7	26	161.55	116.74	0.7	33	172.22	128.64	0.8	16	145.55	119.65	0.7	25	180.06	129.49	0.8	33
4/8/2024	6:40	13:59	396	393.69	349.54	1.9	20	400.90	320.17	1.8	8	166.99	123.21	0.7	26	170.85	121.29	0.7	32	173.01	124.67	0.8	19	165.89	126.28	0.7	26	168.45	127.45	0.7	34
4/9/2024	6:40	14:05	404	408.86	343.90	1.9	20	400.79	339.58	1.8	8	170.27	114.82	0.7	24	164.85	125.66	0.7	32	170.75	125.62	0.7	19	168.32	129.57	0.7	22	176.31	135.47	0.8	34
<b>April 2024 Total</b>				<b>3,620</b>	<b>2,951</b>			<b>3,651</b>	<b>3,115</b>			<b>1,408</b>	<b>1,089</b>			<b>1,462</b>	<b>983</b>			<b>1,536</b>	<b>1,193</b>			<b>1,487</b>	<b>1,094</b>			<b>1,554</b>	<b>1,133</b>		
<b>Cumulative Total</b>				<b>165,710</b>	<b>129,263</b>			<b>168,193</b>	<b>131,219</b>			<b>58,715</b>	<b>181,287</b>			<b>55,806</b>	<b>176,402</b>			<b>28,008</b>	<b>21,602</b>			<b>69,224</b>	<b>187,195</b>			<b>67,019</b>	<b>183,998</b>		

- Notes:
- gpm - gallons per minute
  - psi - pounds per square inch
  - 1. Injection duration indicates the total minutes of active injection per day, accounting for any downtime in injections that may have occurred throughout the day. Therefore, injection duration may be less than the difference in daily injection start and stop times indicated.
  - 2. Carbon substrate solution is batch mixed. Batches of carbon substrate solution includes the following components in solution with water: 5% molasses, 12.5% 0.5 Molar Sodium Bicarbonate Solution, 0.5% filtered fluidized bed reactor sludge, 0.001% trace mineral solution, and 5 milligrams per liter Vitamin B12.
  - 3. Distribution water solution is batch mixed. Batches of distribution water solution includes 0.0025 pounds of Vitamin C per gallon of water.
  - 4. Prior to April 6, 2023, injections into Area 1 Deep wells consisted of only water as part of the total dissolved solids (TDS)-reduction period of the treatability study water injection.

**Table 3**  
**Summary of Injection Activities**  
**Area 2 - April 2024**  
 Unit 4 Source Area Bioremediation Treatability Study

Study Area				Area 2 Intermediate								Area 2 Deep												
Well ID				U4-E-09I				U4-E-10I				U4-E-06D				U4-E-09D				U4-E-010D				
Date	Injection Start Time	Injection Stop Time	Duration <sup>(1)</sup>	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3)</sup>	Average Flow Rate	Maximum Injection Pressure	Volume Carbon Solution Injected <sup>(2)</sup>	Volume Distribution Water Solution Injected <sup>(3)</sup>	Average Flow Rate	Maximum Injection Pressure	
			minutes	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons	gallons	gpm	psi	gallons
4/1/2024	6:40	13:50	389	211.21	178.74	1.0	8	209.91	167.51	1.0	11	138.05	85.42	0.6	16	110.45	84.57	0.5	9	97.61	73.12	0.4	23	
4/2/2024	6:40	14:06	405	229.60	165.25	1.0	8	228.84	179.27	1.0	12	124.77	79.44	0.5	15	109.84	83.06	0.5	9	48.65	71.24	0.3	22	
4/3/2024	6:40	13:59	399	205.76	175.87	1.0	8	217.01	186.97	1.0	12	117.40	90.56	0.5	16	112.23	68.11	0.5	10	93.37	58.71	0.4	23	
4/4/2024	6:40	13:57	393	227.80	186.58	1.1	10	228.62	194.47	1.1	12	113.47	84.54	0.5	18	120.49	77.33	0.5	10	68.69	68.80	0.3	24	
4/5/2024	6:40	14:09	407	222.62	176.77	1.0	9	234.52	186.32	1.0	14	116.51	86.69	0.5	19	110.26	80.27	0.5	12	120.37	69.49	0.5	25	
4/6/2024	2:01	8:49	359	218.33	172.11	1.1	9	199.71	183.43	1.1	12	110.77	84.50	0.5	19	117.42	106.33	0.6	12	120.17	106.39	0.6	25	
4/7/2024	6:40	13:59	397	232.98	198.38	1.1	9	220.77	186.51	1.0	13	115.66	74.54	0.5	20	111.72	93.44	0.5	11	124.70	64.48	0.5	24	
4/8/2024	6:40	13:59	396	207.87	168.94	1.0	9	246.79	177.04	1.1	14	132.93	96.05	0.6	20	123.04	100.64	0.6	11	112.43	49.52	0.4	24	
4/9/2024	6:40	14:05	404	203.05	175.37	0.9	9	249.86	174.90	1.1	14	130.53	92.33	0.6	19	127.99	85.07	0.5	10	102.48	83.11	0.5	24	
<b>April 2024 Total</b>				<b>1,959</b>	<b>1,598</b>			<b>2,036</b>	<b>1,636</b>			<b>1,100</b>	<b>774</b>			<b>1,043</b>	<b>779</b>			<b>888</b>	<b>645</b>			
<b>Cumulative Total</b>				<b>160,565</b>	<b>127,591</b>			<b>162,327</b>	<b>129,372</b>			<b>113,514</b>	<b>81,778</b>			<b>114,617</b>	<b>82,385</b>			<b>109,379</b>	<b>79,599</b>			

- Notes:
- gpm - gallons per minute
  - psi - pounds per square inch
  - 1. Injection duration indicates the total minutes of active injection per day, accounting for any downtime in injections that may have occurred throughout the day. Therefore, injection duration may be less than the difference in daily injection start and stop times indicated.
  - 2. Carbon substrate solution is batch mixed. Batches of carbon substrate solution includes the following components in solution with water: 5% molasses, 12.5% 0.5 Molar Sodium Bicarbonate Solution, 0.5% filtered fluidized bed reactor sludge, 0.001% trace mineral solution, and 5 milligrams per liter Vitamin B12.
  - 3. Distribution water solution is batch mixed. Batches of distribution water solution includes 0.0025 pounds of Vitamin C per gallon of water.

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	3,080	12,800	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	2,850,000	26,900,000	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	3,110,000	21,100,000	<240,000	----	----	----	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	2,000,000	11,700,000	----	----	----	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	1,410,000	679	----	----	----	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	1,210,000	7,040,000	----	----	----	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	1,600,000	7,360,000	----	----	----	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	886,000	4,550,000	----	----	----	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	955,000	6,010,000	<24,000	<117	<700	<33.3	109,000	109,000
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	1,340,000	6,790,000	<240,000	<117	<1,400	42.7 J	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	1,500,000	10,000,000	<240,000	<117	<1,400	64.2 J	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	1,280,000	7,880,000	<240,000	<117	<1,400	51.7 J	73,000	73,000
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	1,530,000	9,340,000	<240,000	<117	<1,400	<33.3	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	1,590,000	9,400,000	<24,000	<117	<1,400	84.9 J	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	1,550,000	9,930,000	<24,000	<117	<1,400	38.4 J	79,000	79,000
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	1,540,000	9,780,000	<24,000	<117	<700	<33.3	----	----
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	1,370,000 J+	8,730,000 J+	<24000 UJ	<117	<1,400	<33.3	----	----
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	1,400,000	7,950,000	<240,000	<117	<2,800	<33.3	285,000	285,000
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	1,520,000	9,610,000	<24,000	<117	<1,400	60.8 J	----	----
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	873,000	6,040,000	134,000	<1,170	7,900	98.8 J	----	----
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	843,000	5,560,000	<24,000	<5,850	11,100	640	1,370,000	1,370,000
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	27,900	316,000	<2,400	----	----	----	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	30,800	326,000	<2,400	<117	<140	<33.3	139,000	<8,450
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	29,700	316,000	<2,400	<117	<140	50.4 J	126,000	<8,450
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	27,600	378,000	<2,400	<117	<140	<33.3	149,000	<8,450
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	27,200	322,000	<2,400	<117	<140	46.3 J	138,000	<8,450
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	6,140	62,500	<240	<117	704	192	345,000	294,000
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	91,200	381,000	<2,400	----	----	----	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	180,000	835,000	<2,400	<117	<140	<33.3	49,300	49,300
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	108,000	644,000	<2,400	<117	<140	<33.3	42,200	42,200
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	156,000	821,000	<2,400	<117	<140	<33.3	69,200	69,200
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	235,000	1,150,000	<2,400	<117	<140	<33.3	29,100	29,100
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	457,000	505,000	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	75,100	564,000	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	2,500,000	19,700,000	<240000 R	----	----	----	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	41.5 J+	1,360	<24.0	<117	346	<33.3	140,000	140,000
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	219,000	1,670,000	<24,000	----	----	----	----	----
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	253,000	2,010,000	<24,000	----	----	----	----	----
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	394,000 J+	3,630,000	<24,000	<117	<560	<33.3	109,000	109,000
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	262,000	2,310,000	<24,000	----	----	----	----	----
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	262,000	2,590,000	<24,000	----	----	----	----	----
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	466,000	4,230,000	<24000 UJ	----	----	----	----	----
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	138,000	912,000	131,000	----	----	----	----	----
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	66,000	457,000	<24,000	----	----	----	----	----
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	24,800	197,000	500,000	----	----	----	----	----
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	54,700	497,000	103,000	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	24,800	1,100	239,000 J-	---	---	---	---	---
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	1,220	<24,000	324,000	---	---	---	---	---
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<0.300	54,800	350,000	---	---	---	---	---
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<30.0	58,200	529,000	---	---	---	---	---
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	1,040,000	5,060,000	<24,000	---	---	---	---	---
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	618 J+	2,490 J+	<240	<117	351	<33.3	140,000	140,000
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	428,000	2,390,000	<24000 R	---	---	---	---	---
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	75,800 J+	393,000	<2,400	<117	<140	116	143,000	143,000
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	274,000	1,140,000	<24,000	---	---	---	---	---
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	309,000	1,190,000	<24,000	---	---	---	---	---
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	194,000	913,000	64,100 J-	---	---	---	---	---
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	193,000	859,000	39,200 J	---	---	---	---	---
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	133,000	572,000	80,300	---	---	---	---	---
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	111,000	508,000	999,000	---	---	---	---	---
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	63,400	237,000	149,000	---	---	---	---	---
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	21,600	89,400	494,000 J-	---	---	---	---	---
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	25,800	61,800	711,000 J-	---	---	---	---	---
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	33,200	94,000	936,000	---	---	---	---	---
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	2,020	55,600	627,000	---	---	---	---	---
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	2,170,000	16,600,000	<24,000	---	---	---	---	---
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	1,320,000	8,100,000	<240,000	---	---	---	---	---
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	1,090,000	7,560,000	<240,000	---	---	---	---	---
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	1,110,000 J+	6,630,000	<240000 UJ	---	---	---	---	---
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	937,000	6,670,000	<240,000	---	---	---	---	---
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	948,000	6,890,000	<24,000	---	---	---	---	---
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	654,000 J-	6,260,000	<24,000	---	---	---	---	---
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	833,000 J+	6,370,000	<24,000	<117	<1,400	<33.3	131,000	131,000
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	948,000	6,990,000	<24,000	---	---	---	---	---
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	797,000	5,450,000	27,000 J	---	---	---	---	---
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	835,000	5,650,000	<240000 UJ	---	---	---	---	---
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	963,000	6,280,000	<240,000	---	---	---	---	---
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	934,000	6,410,000	<240,000	---	---	---	---	---
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	1,030,000	7,790,000	<24,000	---	---	---	---	---
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	1,100,000	7,760,000	<24,000	---	---	---	---	---
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	1,270,000	12,100,000	<24,000	---	---	---	---	---
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	29.6 J+	1,200	<24.0	<117	345	35.3 J	142,000	142,000
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	47,900	793,000	<2,400	---	---	---	---	---
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	1,020,000 J+	11,600,000	<240,000	<117	<1,400	<33.3	128,000	128,000
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	1,900,000	11,600,000	<240,000	---	---	---	---	---
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	269	1,560	<24.0	304	636	49.9 J	151,000	151,000
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	164,000	993,000	<24,000	---	---	---	---	---
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	181,000	1,030,000	<24,000	<117	<140	92.3 J	142,000	142,000
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	320,000	4,550,000	<24000 R	<117	<1,400	33.3 R	68,700	68,700
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	36,400	660,000	<2,400	<117	<700	33.3 R	96,800	96,800
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	35,900	553,000	<12,000	<117	<700	33.3 R	96,100	96,100
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	367,000	4,900,000	<240,000	---	---	---	---	---



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	243,000	3,180,000	<240,000	---	---	---	---	---
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	133,000 J+	1,860,000	25,700 J	---	---	---	---	---
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	346,000	5,170,000 J-	<240,000	---	---	---	---	---
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	313,000	4,250,000	<24,000	---	---	---	---	---
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	145,000	1,550,000	63,600	---	---	---	---	---
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	163,000	2,300,000	<24,000	---	---	---	---	---
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	490,000	7,840,000	<24,000	---	---	---	---	---
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	431,000	5,570,000	<240000 UJ	---	---	---	---	---
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	440,000	6,040,000	<240,000	---	---	---	---	---
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	461,000	6,900,000	<24,000	---	---	---	---	---
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	171,000	2,810,000	31,700 J	---	---	---	---	---
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	119,000	2,010,000	<24,000	---	---	---	---	---
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	179,000	1,510,000	76,700	---	---	---	---	---
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	198,000	895,000	53,200	---	---	---	---	---
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	219,000	305,000	<24,000	---	---	---	---	---
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	95,400	12,700	<120	---	---	---	---	---
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	1,700,000	18,500,000	<240,000	<117	<7,000	<33.3	120,000	---
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	301,000	4,470,000	<24,000	<117	<7,000	194 J+	179,000	---
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	948,000	7,420,000	<240,000	---	---	---	---	---
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	877,000	6,410,000	<240,000	---	---	---	---	---
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	891,000	6,320,000	<240000 UJ	---	---	---	---	---
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	855,000	7,100,000	531,000	---	---	---	---	---
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	858,000	7,680,000	<24,000	---	---	---	---	---
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	768,000 J-	7,090,000	<24,000	---	---	---	---	---
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	738,000	6,690,000	<24,000	---	---	---	---	---
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	561,000	5,320,000	<24,000	---	---	---	---	---
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	618,000	5,540,000	<24000 UJ	---	---	---	---	---
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	667,000	6,050,000	<24,000	---	---	---	---	---
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	672,000	5,870,000	<24,000	---	---	---	---	---
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	689,000	7,300,000	<24,000	---	---	---	---	---
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	687,000	7,380,000	<24,000	---	---	---	---	---
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	747,000	8,270,000	<24,000	---	---	---	---	---
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	920,000	7,010,000	<120,000	---	---	---	---	---
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	975,000	7,090,000	<120,000	---	---	---	---	---
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	801,000	7,890,000	<24,000	---	---	---	---	---
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	1,570,000	20,600,000	<240,000	<117	<7,000	<33.3	131,000	---
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	1,330,000	12,000,000	<240,000	---	---	---	---	---
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	1,200,000	15,000,000	<240,000	---	---	---	---	---
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	1,110,000 J+	9,590,000	<240000 UJ	---	---	---	---	---
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	1,140,000	10,900,000	<240,000	---	---	---	---	---
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	1,070,000	9,600,000	<240,000	---	---	---	---	---
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	1,130,000	8,690,000	<240,000	---	---	---	---	---
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	930,000	779,000	<24,000	---	---	---	---	---
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	910,000	8,830,000	<24,000	---	---	---	---	---
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	859,000	7,060,000	<240000 UJ	---	---	---	---	---
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	921,000	8,980,000	<24,000	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	464,000	7,850,000	<24,000	<117	<3,500	<33.3	76,100	76,100
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	130,000	2,210,000	<24,000	<117	<1,400	52.3 J	105,000	105,000
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	412,000	3,430,000	<24,000	<117	<1,400	33.3 R	59,100	51,600
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	407,000	3,550,000	<24,000	<117	<1,400	33.3 R	114,000	114,000
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	708,000	5,180,000	<24,000	----	----	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	647,000	6,010,000	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	1,140,000	4,300,000	<24,000	<117	<560	<33.3	126,000	126,000
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	469,000	3,100,000	<24000 UJ	<117	<280	40.0 J	78,100	78,100
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	429,000	3,000,000	<24,000	<117	<280	<33.3	85,200	85,200
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	372,000	3,030,000	<24,000	<117	<280	1,900	440,000	440,000
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	374,000	2,890,000	<24,000	<117	<140	<33.3	131,000	131,000
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	29,800	217,000	<2,400	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	28,500	202,000	<2,400	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	307,000	2,140,000	<24,000	<117	<140	108	62,600	62,600
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	239,000	1,480,000	<24000 UJ	<117	<140	87.1 J	36,300	36,300
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	267,000	2,110,000	<24,000	<117	<140	<33.3	46,600	46,600
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	118,000 J-	944,000	<24,000	<117	<140	51.0 J	55,200	55,200
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	193,000	1,440,000	<12,000	<117	<280	<33.3	55,300	55,300
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	410,000	3,510,000	<24,000	----	----	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	679,000	5,140,000	<24,000	<117	<280	<33.3	339,000	339,000
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	485,000	3,060,000	<24000 UJ	<117	<560	51.7 J	75,300	75,300
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	532,000	3,980,000	<24,000	<117	<280	<33.3	81,500	81,500
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	569,000 J-	5,310,000	<24,000	<117	<280	<33.3	88,400	88,400
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	664,000	5,540,000	<24,000	<1,170	<700	<33.3	130,000	130,000
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	37,300	312,000	<2,400	----	----	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	22,600	241,000	3,630 J	<117	<140 UJ	39.4 J	142,000	131,000
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	28,100	288,000	<2,400	<117	<140 UJ	37.6 J	129,000	119,000
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	21,300	251,000	<2,400	<117	<140 UJ	<33.3	138,000	126,000
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	15,600	213,000	<2,400	<117	<140	<33.3	161,000	145,000
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	7,580	90,800	<240 UJ	<117	302	<33.3	347,000	347,000
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	2,850,000	24,800,000	<240,000	----	----	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	3,530,000	28,400,000	----	----	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	3,790,000	27,900,000	----	----	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	3,590,000	23,500,000	----	----	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	3,140,000	23,800,000	----	----	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	3,220,000	21,700,000	----	----	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	2,190,000	19,700,000	<240,000	<117	<1,400	<33.3	126,000	126,000
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	3,080,000	21,900,000	<240,000	<117	<5,600	64.6 J	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	2,720,000	25,300,000	<240,000	<117	<2800 R	55.1 J	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	2,820,000	17,800,000	<240,000	<117	<2,800	98.1 J	129,000	129,000
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	2,780,000	21,200,000	<240,000	<117	<2800 UJ	<33.3	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	2,620,000	16,900,000	<240,000	<117	<1,400	<33.3	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	2,210,000	18,500,000	<480,000	<117	<2,800	148	140,000	140,000
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	2,450,000	21,600,000	<240,000	<117	<2,800	<33.3	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	1,240,000 J-	17,600,000	<240000 UJ	<117	<1,400	<33.3	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	2,170,000	18,300,000	<240,000	<117	<7,000	58.0 J	128,000	128,000

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	2,120,000	16,700,000	<240,000	<117	<1,400	142 J+	----	----
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	2,350,000	16,800,000	<240,000	<117	<1,400	67.5 J	----	----
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	2,310,000	18,500,000	<120,000	<117	<1,400	<33.3	122,000	122,000
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	291,000	2,420,000	<24,000	----	----	----	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	891,000	5,380,000	----	----	----	----	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	1,190,000	7,270,000	----	----	----	----	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	1,200,000	6,610,000	----	----	----	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	103,000	707,000	----	----	----	----	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	105,000	737,000	----	----	----	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	619,000	4,490,000	----	----	----	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	620,000	4,410,000	----	----	----	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	1,490,000 J+	12,600,000	----	----	----	----	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	1,410,000 J+	12,000,000	----	----	----	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	1,300,000	12,000,000	<240,000	<117	<1,400	<33.3	311,000	311,000
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	133,000 J	12,300,000	<240,000	<117	<1,400	<33.3	306,000	306,000
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	33,000	211,000	<2,400	<117	1,780	34.1 J	----	----
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	32,200	212,000	<2,400	<117	1,560	<33.3	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	35,000	187,000	37,600	<117	894	38.4 J	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	35,800	190,000	32,800	<117	1,030	43.2 J	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	56,200	174,000	8,820 J-	<117	<140	60.1 J	1,130,000	1,130,000
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	57,500	170,000	9,030 J-	<117	<140	43.8 J	1,160,000	1,160,000
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	158	<120	33,900 J-	<117	1,400	<33.3 UJ	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	159	<240	37,300 J-	<117	1,400	35.4 J	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	435,000	3,240,000	<24,000	<117	<1,400	56.9 J	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	429,000	3,120,000	<24,000	<117	<700	<33.3	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	239,000	1,430,000	118,000 J+	<117	<140	<33.3	1,490,000	1,490,000
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	246,000	1,360,000	128,000 J+	<117	<140	34.8 J	1,490,000	1,490,000
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	678,000	5,630,000	<24,000	<117	<700	<33.3	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	692,000	5,640,000	<24,000	<117	<700	<33.3	----	----
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	532,000 J-	4,390,000 J+	<24000 UJ	<117	<280	<33.3	----	----
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	535,000 J-	4,370,000 J+	<24000 UJ	<117	<280	<33.3	----	----
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	614,000	5,460,000	47,100 J	<117	<1,400	<33.3	1,840,000	1,840,000
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	723,000	5,490,000	35,700 J	<117	<1,400	<33.3	1,860,000	1,860,000
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	1,020,000	8,400,000	47,700 J	<117	<1,400	53.8 J	----	----
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	1,050,000	8,470,000	47,400 J	<117	<1,400	51.1 J	----	----
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	1,070,000	7,320,000	<120,000	<117	<560	43.1 J	----	----
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	1,130,000	7,280,000	<120,000	<117	<560	45.2 J	----	----
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	1,050,000	8,150,000	<24,000	<117	<1,400	<33.3	1,410,000	1,410,000
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	986,000	8,130,000	52,500	<117	<1,400	<33.3	1,430,000	1,430,000
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	1,430,000	9,200,000	<240,000	----	----	----	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	997,000	7,490,000	----	----	----	----	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	1,070,000	6,830,000	<24,000	<117	<1,400	<33.3	62,000	62,000
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	985,000	7,070,000	<24,000	<117	<1,400	<33.3	62,100	62,100
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	1,050,000	5,910,000	<24,000	<117	<700	<33.3	62,800	62,800
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	1,300,000	7,370,000	<24,000	<117	<700	<33.3	130,000	130,000
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	1,120,000	6,360,000	<24,000	<117	<700	<33.3	493,000	493,000

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	785,000	4,910,000	<24,000	<117	<1,400	181	480,000	480,000
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	152,000	735,000	<2,400	----	----	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	5,060	24,200	<240	<117	<140	128	88,000	88,000
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	229	7,040	<120	<117	<140	121	81,800	81,800
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	1,720	6,610	<120	<117	<140	95.7 J	87,400	83,800
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	1,740 J-	10,000	<120 UJ	<117	<140	135 J+	88,200	88,200
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	1,710 J+	8,280 J+	<24.0	<117	<140	49.6 J	88,600	88,300
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	207,000	1,200,000	<24,000	----	----	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	930,000	5,940,000	<24,000	<117	<700	<33.3	96,300	96,300
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	954,000	5,330,000	<24,000	<117	<1,400	46.2 J	73,900	73,900
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	983,000	5,480,000	<24,000	<117	<1,400	<33.3	73,700	73,700
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	1,270,000	6,400,000	<24,000	<117	<1,400	<33.3	136,000	136,000
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	1,340,000	6,880,000	<24,000	<117	<1,400	<33.3	142,000	142,000
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	993,000	6,090,000	<24,000	<117	<140	<33.3	495,000	495,000
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	1,010,000	6,050,000	<24,000	<117	<140	43.3 J	492,000	492,000
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	727,000	4,670,000	<24000 R	<117	<140	<33.3	730,000	730,000
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	728,000	4,660,000	<24000 R	<117	<140	54.7 J	733,000	733,000
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	26,500	262,000	<2,400	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	26,200	264,000	<2,400	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	54,600	389,000	<2,400	<117	<140	72.7 J	260,000	152,000
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	57,800	431,000	<2,400	<117	<140	71.7 J	226,000	191,000
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	46,400	359,000	<2,400	<117	<140	<33.3	358,000	319,000
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	39,700	254,000	<2,400	<117	<140 UJ	97.4 J	394,000	336,000
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	17,500	132,000	<2,400	<117	<140	85.6 J	750,000	666,000
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	3,270,000	26,400,000	<240,000	----	----	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	427,000	3,370,000	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	42,200	2,770,000	<24,000	<117	<280	<33.3	169,000	169,000
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	306,000	1,970,000	<24,000	<117	<560	<33.3	280,000	280,000
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	527,000	3,430,000	<24,000	<117	<280	<33.3	202,000	202,000
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	366,000	2,650,000	<24,000	<117	<140	<33.3	514,000	514,000
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	458,000	3,460,000	<24,000	<117	<280	<33.3	741,000	741,000
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	1,100,000	10,700,000	<24,000	----	----	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	1,880,000	7,880,000	<240,000	<117	<1,400	<33.3	111,000	111,000
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	735,000	6,020,000	<24,000	<117	<1,400	37.2 J	307,000	307,000
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	1,540,000	13,500,000	<240,000	<117	<1,400	41.5 J	179,000	179,000
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	1,260,000	12,900,000	<240,000	<117	<14,000	<33.3	267,000	267,000
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	1,470,000	16,800,000	<120,000	<117	<1,400	340	278,000	278,000
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	2,240,000	13,600,000	<240,000	----	----	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	2,930,000	12,500,000	----	----	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	1,780,000	8,150,000	----	----	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	2,000,000 J+	7,730,000	----	----	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	1,720,000	6,020,000	----	----	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	1,210,000	5,810,000	----	----	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	1,070,000	5,680,000	<24,000	<117	<1,400	73.2 J	132,000	132,000
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	757,000	3,130,000	<24,000	<117	<1,400	<33.3	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	581,000	2,040,000	<24,000	<117	<140	66.8 J	----	----



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	379,000	1,170,000	<24,000	<117	<140	38.7 J	1,130,000	1,130,000
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	683,000	2,170,000	<24,000	<117	<140	<33.3	---	---
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	940,000	3,610,000	<24,000	<117	<560	<33.3	---	---
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	323,000	937,000	<24,000	<117	<140	<33.3	1,590,000	1,590,000
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	654,000	2,740,000	24,500 J	<117	<700	<33.3	---	---
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	677,000 J	2,990,000 J+	<24000 UJ	<117	<280	<33.3	---	---
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	386,000 J-	1,660,000	340,000	<117	4,980	200 J+	2,160,000	2,160,000
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	1,060,000	4,910,000	106,000	<117	<700	60.7 J	---	---
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	1,130,000	4,840,000	69,100	<117	<140	74.2 J	---	---
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	1,020,000	4,400,000	<24,000	<117	<280	35.1 J	1,960,000	1,960,000
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	1,220,000	8,940,000	<24,000	---	---	---	---	---
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	2,760,000	12,200,000	---	---	---	---	---	---
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	2,180,000	10,700,000	---	---	---	---	---	---
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	1,810,000	8,360,000	---	---	---	---	---	---
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	1,590,000	6,270,000	---	---	---	---	---	---
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	1,240,000	6,080,000	---	---	---	---	---	---
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	1,020,000 J+	4,840,000	<24,000	<117	<1,400	60.9 J	216,000	216,000
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	174,000	434,000	41,400	<117	<140	<33.3	---	---
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	73,900	104,000	204,000	<117	<140	54.4 J	---	---
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	4,030	19,700	80,600 J-	<117	2,000	46.2 J	1,820,000	1,820,000
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	563,000	1,510,000	38,000 J	<117	<140	<33.3	---	---
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	488,000	1,210,000	<24,000	<117	<140	100 J	---	---
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	443,000	6,170,000	<120,000	<117	<140	<33.3	2,010,000	2,010,000
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	431,000	1,020,000	<24,000	<117	<140	2,680	---	---
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	415,000 J-	860,000	<12000 UJ	<117	<140	<33.3	---	---
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	467,000	1,270,000	36,300 J	<117	1,500	<33.3	2,220,000	2,220,000
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	780,000	2,720,000	81,100	<117 UJ	<140	73.1 J	---	---
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	765,000	2,830,000	42,900 J	<585	<140 R	40.7 J	---	---
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	1,010,000	4,210,000	<24,000	<1,170	<140	<33.3	2,510,000	2,510,000
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	4,270,000	17,900,000	<240,000	---	---	---	---	---
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	1,130,000 J+	7,290,000	---	---	---	---	---	---
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	405,000	7,000,000	<240,000	<117	<1,400	<33.3	101,000	101,000
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	1,350,000	5,310,000	<240,000	<117	<560	45.7 J	87,100	87,100
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	1,800,000	7,990,000	28,600 J	<117	<1,120	<33.3	870,000	870,000
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	2,280,000	9,350,000	<240,000	<117	<2,800	36.7 J	1,170,000	1,170,000
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	1,760,000	9,300,000	210,000	<117	<1,400	<33.3	1,700,000	1,700,000
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	201,000	801,000	<24,000	---	---	---	---	---
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	1,810,000 J+	7,820,000	<240,000	<117	<1,400	<33.3	138,000	138,000
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	1,380,000	5,070,000	<240,000	<117	<1,400	50.1 J	237,000	237,000
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	1,840,000	8,310,000	<24,000	<117	<1,120	<33.3	702,000	702,000
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	2,600,000	6,420,000	36,200 J	<117	<14,000	<33.3	765,000	765,000
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	1,750,000	9,470,000	111,000	<117	<1,400	<33.3	1,320,000	1,320,000
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	471,000	5,210,000	<24,000	---	---	---	---	---
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	76,400	413,000	---	---	---	---	---	---
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	61,100	383,000	---	---	---	---	---	---
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	53,800	391,000	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	53,300	283,000	---	---	---	---	---	---
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	66,700	336,000	---	---	---	---	---	---
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	43,000	263,000	---	---	---	---	---	---
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	400,000	278,000	<2,400	<117	<140	39.5 J	119,000	119,000
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	120,000	888,000	49,500 J	<117	<140	37.0 J	---	---
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	41,700	111,000	179,000	<117	1,570	<33.3	---	---
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	76,400	305,000	74,400 J-	<117	777	38.2 J	1,480,000	1,480,000
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	656,000	5,770,000	<24,000	<117	<1,400	<33.3	---	---
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	548,000	4,600,000	28,000 J	<117	<1,400	<33.3	---	---
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	500,000	4,320,000	<24,000	<117	<560	<33.3	1,290,000	1,290,000
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	481,000	4,580,000	75,100	<117	<700	<33.3	---	---
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	530,000 J+	5,110,000 J+	58,000 J-	<117	<700	<33.3	---	---
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	624,000	3,270,000	146,000	<117	<140	46.1 J	1,200,000	1,200,000
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	501,000	2,680,000	218,000	<117	5,360	68.0 J	---	---
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	654,000	2,270,000	298,000	<1,170	14,600	237 J+	---	---
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	661,000	4,110,000	<24,000	<585	666	78.7 J	2,310,000	2,310,000
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	140,000	1,150,000	<24,000	---	---	---	---	---
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	69,100 J-	426,000	---	---	---	---	---	---
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	63,700	445,000	---	---	---	---	---	---
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	66,800	346,000	---	---	---	---	---	---
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	86,700	428,000	---	---	---	---	---	---
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	51,000 J+	515,000	---	---	---	---	---	---
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	325,000	637,000	<2,400	<117	<140	<33.3	130,000	130,000
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	135,000	746,000	3,190 J	<117	<140	35.3 J	---	---
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	1,810	1,130	80,000	<117	831	48.0 J	---	---
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	48.3	2,620	<120	<117	820	118 J+	1,450,000	1,450,000
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	391,000	2,940,000	<24,000	<117	<140	<33.3	---	---
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	261,000	1,740,000	43,200 J	<117	<140	<33.3	---	---
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	287,000	1,330,000	155,000 J+	<117	<140	<33.3	2,150,000	2,150,000
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	213,000	1,170,000	205,000	<117	<140	<33.3	---	---
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	194,000 J+	1,340,000 J+	57,600 J-	<117	<140	<33.3	---	---
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	458,000	3,330,000	167,000	<117	<140	33.5 J	1,520,000	1,520,000
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	474,000	2,900,000	157,000	<117	<140	64.2 J	---	---
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	577,000	2,870,000	245,000	<1,170	9,790	99.2 J	---	---
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	682,000	5,340,000	<24,000	373	<140	43.8 J	2,010,000	2,010,000
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	1,640,000	2,450,000	<24,000	<117	<2,800	68.2 J	184,000	184,000
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	889,000	10,400,000	<240,000	<117	<1,400	63.8 J	219,000	219,000
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	821,000	9,450,000	<240,000	<117	<1,400	<33.3	919,000	919,000
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	1,210,000	11,100,000	<240,000	<117	<2,800	66.6 J	545,000	545,000
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	1,300,000	16,600,000	<240,000	<117	<1,400	<33.3	236,000	236,000
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	1,160,000	16,700,000	<240,000	<117	<2,800	37.9 J	489,000	489,000
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	1,140,000	15,200,000	<120,000	<117	<1,400	39.4 J	868,000	868,000
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	25,700	281,000	<2,400	<117	<140	146 J+	89,800	89,800
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	23,800	294,000	<2,400	<117	<140	133 J	84,300	84,300
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	8,820	55,300	<12,000	<117	<140	191 J-	111,000	111,000
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	170,000	966,000	<24,000	<117	<140	162	57,900	57,900



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	146,000	806,000	<24,000	<117	<140	102 J+	55,200	55,200
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	75,000	514,000	<2,400	<117	<140	89.2 J	78,200	78,200
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	69,900 J-	472,000	<240 UJ	<117	<140	103 J+	77,000	77,000
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	58,400	350,000	<2,400	<117 R	<140	59.1 J	67,500	67,500
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	152,000	2,550,000	<24,000	<117	<700	55.5 J	175,000	166,000
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	609,000	5,800,000	<240,000	<117	<700	46.0 J	164,000	164,000
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	566,000	4,980,000	<240,000	<117	<700	<33.3 UJ	----	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	872,000	9,870,000	<240,000	<117	<1400 R	<33.3	243,000	243,000
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	243,000	2,360,000	<24,000	<117	<140 R	41.4 J	631,000	631,000
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	578,000	6,670,000	72,300 J+	<117	<560 R	<33.3	526,000	526,000
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	533,000	8,630,000	<24,000	<117	<1400 R	<33.3	1,090,000	1,090,000
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	869,000	9,110,000	<24,000	<117	<700 R	122	1,110,000	1,110,000
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	11,600	154,000	<2,400	<117	<140	<33.3	57,500	15,500 J
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	5,150	52,300	<480	<117	755 J	77.4 J	417,000 J	417,000 J
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	5,740	55,200	<480	<117	226 J	74.1 J	299,000 J	299,000 J
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	98.0 J	2,860 J	<24.0	<117	639	243	1,150,000	1,150,000
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.300 UJ	<240 UJ	<240	<117	723	246	1,370,000	1,370,000
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.300	<120	<120	<117	1,850 J	105 J+	1,460,000	1,460,000
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.300	276	<120	<117	1,200 J	98.0 J	1,460,000	1,460,000
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.300	1,350	<24.0	<117	1,450	53.0 J	1,680,000	1,680,000
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.300	1,370	<24.0	<117	1,600	71.1 J	1,690,000	1,690,000
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	6,010	1,390	99,700 J-	<1,170	4,420 J-	77.8 J	4,110,000	4,110,000
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	4,310	1,310	90,500	<117	3,340	30,200 J	3,880,000	3,880,000
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.300	1,580	1,810	<23400 UJ	3,270	2,340 J	7,510,000	7,510,000
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.300	1,380	1,700	1,010,000 J	2,450	4,400 J	7,390,000	7,390,000
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	2,030	2,520	45,400	<117	1,420 J+	65.3 J	1,510,000	1,510,000
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	2,160	2,280	44,800	<117	1,540 J+	77.7 J	1,450,000	1,450,000
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	1,770,000	14,600,000	<240,000	<117	<1,400	58.0 J	179,000	179,000
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	209,000 J+	1,480,000	<24000 UJ	<117 UJ	<280 UJ	<33.3 UJ	136,000	136,000
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	189,000	1,240,000	24,900	<117	<140 R	<33.3	905,000	905,000
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	114,000	698,000	4,790 J	<117	<140	<33.3	955,000	955,000
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	219,000	1,300,000	<24,000	<117	<140	<33.3	1,160,000	1,160,000
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	287,000 J-	1,350,000	<24,000	<117	<140 R	<33.3	1,810,000	1,810,000
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	216,000	934,000	<2,400	<117	<140	<33.3	2,200,000	2,200,000
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	25,200	110,000	<2,400	<117	<140	84.5 J	98,100	91,300
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	12,200 J+	48,600	<2400 UJ	<117 UJ	<140 UJ	46.8 J	83,000	83,000
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	88,700	387,000	<2,400	<117	<140	37.1 J	61,000	61,000
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	89,700	329,000	<2,400	<117	<140	50.2 J	66,300	66,300
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	143,000	464,000	3,710 J	<117	<140	<33.3	340,000	340,000
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	199,000	669,000	<2,400	<117	<140	53.0 J	230,000	230,000
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	150,000	230,000	<2,400	<117	<140	<33.3	455,000	455,000
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	78,700	439,000	<2,400	<117	<140	120 J+	109,000	109,000
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	448,000 J+	2,560,000	<240000 UJ	<117 UJ	<140 UJ	<33.3 UJ	133,000	133,000
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	340,000	2,090,000	<24,000	<117	<140	<33.3	723,000	723,000
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	198,000	519,000	<2,400	<117	<140	<33.3	1,040,000	1,040,000
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	316,000	1,780,000	<24,000	<117	<140	<33.3	1,110,000	1,110,000

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	348,000 J-	1,370,000	<24,000	<117	<140	<33.3	1,750,000	1,750,000
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	354,000	1,070,000	<24,000	<1,170	<140 R	<33.3	----	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	14,800	91,400	<2,400	<117	<140	76.5 J	141,000	123,000
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	91,500	503,000	<24000 UJ	<117 UJ	<140 UJ	<33.3 UJ	258,000	238,000
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	84,500	474,000	<2,400	<117	<140	44.7 J	265,000	249,000
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.300	199 J	150,000 J-	<117	1,790	129 J+	2,290,000	2,280,000
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.300	1,470 J+	<120	181 J	2,320	99.4 J	2,920,000	2,920,000
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	206,000	986,000	304,000	<117	8,050	246	2,060,000	2,060,000
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<300	298 J	6,990	4,680	8,460	1,150	3,040,000	3,040,000
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	118,000	2,180,000	<24,000	<117	<700	<33.3	93,000	93,000
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	82,300	956,000	<24,000	<117	<140	<33.3 UJ	60,800	60,800
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	10,600	74,700	101,000	<117 UJ	966 J+	<33.3	1,200,000	1,200,000
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	789	4,000	<120	<117	776	<33.3	1,010,000	1,010,000
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	15,900	164,000	<2,400	<117	937	<33.3	725,000	725,000
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	13,600 J-	186,000	<2400 UJ	<117	913	36.5 J	534,000	534,000
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	15,100	219,000	<2,400	<117	774	<33.3	567,000	567,000
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	141,000	2,330,000	<24,000	<117	<1,400	65.7 J	187,000	187,000
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	8,680	96,300	<2,400	<117	<140	<33.3 UJ	144,000	144,000
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	14,700 J-	138,000	<2,400	<117	1,220 J+	<33.3	1,010,000	1,010,000
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	1,440	14,200	<240	<117	1,260	39.0 J	1,410,000	1,410,000
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	4,990	29,500	<240	314	3,060	<33.3	1,390,000	1,390,000
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	236,000 J-	5,090,000	<24000 UJ	201 J	<1,400	<33.3	490,000	490,000
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	458,000	8,060,000	<24,000	161 J	<1,400	<33.3	240,000	240,000
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	1,290,000	20,100,000	<240,000	<117	<3,500	71.7 J	201,000	201,000
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	1,350,000	20,700,000	<120,000	<117	<700	118 J-	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	1,410,000	19,000,000	<240,000	<117	<2,800	42.1 J	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	1,380,000	18,400,000	<240,000	153 J	<2,800	<33.3	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	561,000	8,610,000	<240000 UJ	<117 UJ	<2800 UJ	97.7 J	279,000	279,000
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	1,190,000	17,600,000	<240,000	<117	<2,800	<33.3	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	1,130,000	14,300,000	<240,000	<117	<1400 UJ	<33.3	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	996,000 J-	13,600,000	<240,000	<117	<1,400	<33.3	406,000	406,000
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	64,300	9,540,000	<240,000	<117	<1400 R	64.3 J	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	617,000 J	9,600,000	<240,000	<117	<700 R	50.8 J	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	1,080,000	14,200,000	<240,000	<117	<1,400	46.9 J	286,000	286,000
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	997,000	12,800,000	<240,000	<117	<2800 R	36.9 J	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	813,000	11,200,000	<240,000	<117	<700 R	<33.3 UJ	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	825,000 J-	11,500,000	<240,000	<117	<1,120	<33.3	444,000	444,000
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	791,000	11,800,000	<240,000	<117	<1400 R	174 J+	----	----
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	758,000 J+	9,640,000 J+	<240000 R	<117	<1400 R	<33.3	----	----
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	686,000	9,640,000	<240,000	<117	<2,800	44.8 J	925,000	925,000
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	758,000	9,530,000	32,900 J	<117	<1,400	205 J+	----	----
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	898,000	9,900,000	<240,000	<117	<560	201 J	----	----
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	734,000	9,880,000	<24,000	<117	<2,800	41.0 J	881,000	881,000
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	98,700	1,550,000	<24000 R	<117	<1,400	210 J+	96,300	92,500
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	33,000	266,000	54,400	<117	968	739 J	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	34,400	265,000	53,300	<117	792	35.9 J	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	530	<2,400	66,800	<117	970 J	<33.3 UJ	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	476	2,400 J	66,100	<117	1,230 J	102 J	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	2,900 J	7,470 J	66,500	<117	1,100 J	<33.3	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	1,800 J	3,470 J	84,800	<117	1,560 J	<33.3	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.300 UJ	<2400 UJ	<2400 UJ	191 J	1,030 J	59.1 J	1,320,000	1,320,000
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	198 J	<2400 UJ	<2400 UJ	178 J	1,340 J	41.8 J	1,320,000	1,320,000
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	381	2,380	81.2 J+	124 J	1,160	<33.3	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	389	2,220	<24.0	120 J	1,050	<33.3	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	213,000	3,030,000	<24,000	572	<140	<33.3	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	264,000	3,530,000	<24,000	535	<140	33.4 J	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	70.0	<2,400	<2,400	<117 UJ	1,170	50.0 J	1,720,000	1,720,000
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	87.0	<2,400	<2,400	<117 UJ	1,270	63.6 J	1,750,000	1,750,000
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	1,390	10,400 J	<120	<117	1,850 J	43.3 J	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	1,590	17,100 J	<120	<117	1,130 J	36.6 J	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	423	4,830 J	<240 UJ	<117	1,120	44.9 J	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	478	3,070 J	<24.0	<117	1,150	<33.3	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	23.4	<120	<120	<117	1,050 J	83.8 J	1,280,000	1,280,000
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	28.6	<120	<120	<117	1,460 J	118	1,290,000	1,290,000
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	1,340	9,920	<240	<117	1,530	96.7 J	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	1,310	10,700	<240	<117	1,520	133	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	343,000	3,460,000	<24,000	<117	<140	46.4 J	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	342,000	3,390,000	<24,000	<117	<140	<33.3	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	396,000	5,100,000	<24,000	243 J	<560	<33.3	666,000	666,000
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	391,000	4,920,000	<24,000	223 J	<560	<33.3	672,000	672,000
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	597,000	9,720,000	<24,000	<117	<280	<33.3	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	616,000	9,710,000	<24,000	<117	<560	<33.3	----	----
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	525,000 J+	7,530,000 J+	<24000 UJ	<117	<140	<33.3	----	----
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	519,000 J+	7,980,000 J+	<480 UJ	<117	<140	<33.3	----	----
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	489,000	7,310,000	<24,000	<117	<140	113	916,000	916,000
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	500,000	7,350,000	<24,000	<117	<140	91.8 J	907,000	907,000
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	541,000	7,780,000	<24,000	<117	<700	101 J+	----	----
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	541,000	7,700,000	<24,000	<117	<700	103 J+	----	----
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	618,000	6,970,000	<120,000	<117	<140	84.8 J	----	----
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	601,000	7,020,000	<120,000	<117	<140	78.4 J	----	----
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	558,000	8,540,000	<24,000	140 J	<280	<33.3	797,000	797,000
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	580,000	8,560,000	<24,000	133 J	<280	<33.3	798,000	798,000
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	1,280,000	14,400,000	<24,000	<117	<3,500	67.4 J	138,000	138,000
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	793,000	8,490,000	<120,000	<117	<1,400	161 J-	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	1,070,000	9,510,000	<240,000	<117	<700	48.9 J	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	1,030,000	9,430,000	<240,000	<117	<7,000	<33.3	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	1,060,000	6,990,000	<240,000	<117	<700	45.3 J	218,000	218,000
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	918,000	8,540,000	<240,000	<117	<2,800	<33.3	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	617,000 J+	8,230,000	<24,000	<117	<1,400	<33.3	----	----
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	567,000 J+	6,130,000	<24,000	<117	<700	<33.3	302,000	302,000
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	1,080,000	8,070,000	<240,000	<117	<1,400	<33.3	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	1,070,000	8,420,000	<240,000	118 J	<700	<33.3	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	814,000	6,910,000	<240,000	<117	<700	62.1 J	148,000	148,000
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	366,000	4,230,000	<24,000	<117	<560	36.7 J	---	---
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	357,000	4,010,000	<24,000	<117	<280	<33.3	---	---
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	256,000	3,370,000	<24,000	<117	<280	<33.3	369,000	369,000
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	218,000	2,520,000	<24,000	<117	<140	<33.3 UJ	---	---
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	213,000	2,360,000	<24000 UJ	<117	<140 R	<33.3	---	---
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	222,000	2,120,000	29,600 J	<117	<140	<33.3	1,080,000	1,080,000
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	209,000	2,220,000	72,300	<117	<140	47.1 J	---	---
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	192,000	2,020,000	110,000	<117	<140	61.3 J	---	---
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	209,000	2,290,000	<24,000	<117	<140	45.9 J	1,290,000	1,290,000
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	424,000	4,000,000	<24,000	<117	<1,400	68.0 J	147,000	147,000
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	420,000	3,920,000	<24,000	<117	<1,400	104 J+	139,000	139,000
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	51,500	535,000	<2,400	<117	<140	271 J-	---	---
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	35,100	475,000 J	<240000 R	<117 UJ	<140 UJ	42.6 J	---	---
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	28,800	170,000	<2400 UJ	<117	<140 UJ	<33.3	---	---
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	6,800	26,800	<12,000	<117	629 J+	<33.3	592,000	592,000
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	6,630	28,700	<12,000	<117	739 J+	<33.3	---	---
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	2,450	24,100	<2,400	<117	579	<33.3	---	---
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	1,720 J+	16,900	46,000	<117	878	<33.3	---	---
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	269	1,800	31,200	<117	1,220	<33.3	1,560,000	1,560,000
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	2.13 J	<24.0	<24.0	<117	1,270	53.9 J	---	---
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	36,700	<240	<240 UJ	<117	1,050	98.7 J	---	---
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	9.08 J-	202 J	<120	<117	1,610	86.9 J	1,810,000	1,810,000
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	469	3,660	<240	<117	1,470 J-	50.4 J	---	---
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	238,000	2,110,000	<24,000	<117	<140	<33.3	---	---
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	31,900	109,000	<2,400	<117	679	209 J-	1,150,000	1,150,000
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	321	1,700	<240	195 J	1,530	<33.3 UJ	---	---
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	130,000 J+	1,020,000 J+	<12000 UJ	595	<140 R	<33.3	---	---
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	158,000	1,150,000	<24,000	<117	<140 R	45.4 J	1,080,000	1,080,000
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	210,000	1,050,000	<24,000	<117	<140 R	40.4 J	---	---
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	301,000	1,210,000	<24000 R	<117	<140 R	64.3 J	---	---
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	277,000	1,710,000	<24000 R	224 J	<140 R	356 J-	1,120,000	1,120,000
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	1,330,000	14,700,000	<240,000	<117	<1,400	115 J+	128,000	128,000
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	401,000	5,370,000	<24,000	<117	<280	<33.3 UJ	---	---
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	413,000	4,100,000	<120,000	<117	<560	<33.3	---	---
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	433,000	4,080,000	<240,000	<117	<280	<33.3	---	---
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	411,000	3,380,000	<240,000	257	<700	<33.3	190,000	190,000
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	383,000	3,950,000	<240,000	<117	<280	<33.3	---	---
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	374,000 J+	3,490,000	<24,000	<117	<560	<33.3	---	---
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	337,000	3,160,000	<24,000	<117	<280	193	107,000	107,000
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	224,000	1,910,000	<24,000	<117	<140	<33.3	---	---
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	207,000	1,660,000	<24,000	<117	<140	<33.3	---	---
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	241,000	1,840,000	<24,000	<117	<140	33.7 J	202,000	202,000
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	224,000	1,770,000	<24,000	<117	<140	<33.3	---	---
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	277,000	2,460,000	<24,000	<117	<560	42.6 J	---	---
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	288,000	3,190,000	<24,000	<117	<560	<33.3	189,000	189,000



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	314,000	3,130,000	<24,000	<117	<700	<33.3	----	----
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	281,000 J-	3,340,000	<24000 UJ	<117	<280	<33.3	----	----
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	302,000	3,410,000	<24,000	<117	<700	<33.3	190,000	190,000
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	365,000	3,270,000	<120,000	<117	<560	<33.3	----	----
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	382,000	3,510,000	<24000 R	<117	<560	36.7 J	----	----
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	344,000	3,790,000	<24,000	<117	<1,400	<33.3	198,000	198,000
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	418,000	4,180,000	<24,000	<117	<1,400	109 J+	116,000	116,000
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	233,000	1,720,000	<12,000	<117	<280	79.5 J	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	212,000	1,410,000	<24,000	<117	<140	50.5 J	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	149,000	830,000	<24,000	<117	<140	<33.3	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	69,200	337,000	<24000 UJ	122 J	<140 UJ	<33.3 UJ	599,000	599,000
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	59,400	261,000	<24,000	<117	<140	75.6 J	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	117,000	790,000	<24,000	183 J	<140	<33.3	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	2,680 J+	12,500	<240	<117	959 J	66.8 J	1,100,000	1,100,000
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	1,350	4,660	<240	<117	848	54.7 J	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	5,630	52,900	<240	582	1,360	122 J+	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	9,360 J-	53,200	<2400 UJ	138 J	859	47.6 J	1,160,000	1,160,000
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	13,600	94,400	<240	122 J	1,090	50.5 J	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	353,000	2,600,000	<24,000	284	<560	41.8 J	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	327,000	3,300,000	<24,000	130 J	<560	38.5 J	222,000	222,000
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	355,000	3,620,000	<24,000	<117	<280	<33.3 UJ	----	----
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	441,000 J-	3,990,000	<24000 UJ	<117	<280	<33.3	----	----
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	520,000	4,360,000	<24,000	<117	<700	65.0 J	307,000	307,000
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	712,000	5,050,000	<24,000	<585	<140	<33.3	----	----
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	667,000	5,160,000	<24,000	<1,170	<560	51.3 J	----	----
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	660,000	5,540,000	<24,000	<1,170	<1,400	<33.3	365,000	365,000
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	140,000	462,000	<12,000	<117	<140	33.3 R	101,000	101,000
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	207,000 J+	1,300,000	<24000 UJ	<117 UJ	<140 UJ	<33.3 UJ	71,300	71,300
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	159,000	1,260,000	<24,000	<117	<140	38.2 J	85,900	85,900
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	119,000	57,700	<24,000	<117	<140	<33.3	175,000	175,000
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	75,100	627,000	<2,400	<117	<140	<33.3	569,000	569,000
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	98,900 J-	733,000	<24,000	<117	<140	<33.3	477,000	477,000
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	106,000	879,000	<2,400	<117	<140	<33.3	395,000	395,000
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	181,000	506,000	<2,400	<117	<140	173 J+	77,600	70,500
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	249,000	1,060,000	<24000 UJ	<117 UJ	<140 UJ	<33.3 UJ	87,400	87,400
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	427,000	1,200,000	<24,000	<117	<140	56.8 J	87,300	87,300
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	243,000	752,000	<24,000	<117	<140	69.3 J	258,000	258,000
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	133,000	683,000	<2400 UJ	<117	<140	45.3 J	521,000	521,000
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	178,000 J-	942,000	<24,000	<117	<140	77.4 J	588,000	588,000
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	156,000	791,000	<2,400	<117	<140	64.0 J	700,000	700,000
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	141,000	2,400,000	<24,000	<117	<700	63.7 J	112,000	112,000
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	75,300	1,220,000	<24,000	<117	<140	<33.3 UJ	108,000	108,000
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	61,600	1,070,000	<24,000	<117	<140	68.9 J	77,100	77,100
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	80,000	1,500,000	<24,000	<117	<140	37.7 J	95,600	95,600
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	68,000	1,100,000	<24,000	<117	<140	<33.3	75,600	75,600
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	64,100	1,010,000	<24,000	<117	<140	<33.3	259,000	259,000

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	68,600	1,180,000	<12,000	<117	<280	1,050	543,000	543,000
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	1,380	19,700	<2,400	<117	<140	<33.3	108,000	100,000
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	20.1	1,580	<240	142 J	<140	36.9 J	82,600	77,800
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	14.5	<240	<240	<117	<140	52.3 J	81,600	79,300
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	22.0	<120	<120	<117	<140	45.5 J	85,500	85,500
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	21.2	126 J	<120	<117	<140	<33.3	82,200	82,200
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	19.5	2,070	<24.0	<117	<140	81.6 J	82,700	78,900
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	21.4	844 J+	<120	<117	484 J	497	78,100	78,100
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	86,400	1,190,000	<24,000	<117	<140	85.9 J	233,000	----
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	84,200	862,000	<24,000	<117	<140	45.5 J	486,000	486,000
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	376 J	<240	179,000	<117	2,510 J+	45.7 J	1,440,000	1,440,000
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	13.4	<120	<120	131 J	2,050	81.8 J	1,460,000	1,460,000
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	93,500	1,400,000	<24,000	213 J	<140	<33.3	734,000	734,000
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	108,000	1,590,000	<24,000	<117	----	56.6 J	657,000	657,000
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	207,000	3,600,000	<24,000	201 J	<280	842	499,000	499,000
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	3,800	36,100	<24.0	<117	<140	74.6 J	100,000	100,000
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	663	<24,000	70,700	<117	2,030	143 J-	650,000	650,000
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	21.6 J-	<240	<2,400	<117	810	185	1,500,000	1,500,000
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.300	<120	<120	<117	7,440	257 J+	2,360,000	2,360,000
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.300	253 J	<240	257 J-	15,700 J-	232	4,130,000	4,130,000
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.300	<120	<24.0 UJ	<11700 UJ	2,160 J-	11,800	6,570,000	6,570,000
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.300	426 J	<240	<23400 UJ	2,290	30,100 J-	1,900,000	1,900,000
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	9.17	1,910	<24.0	298	1,850	159	1,370,000	1,370,000
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	1,670,000	15,000,000	<240,000	<117	<2,800	33.3 R	119,000	119,000
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	974,000	5,970,000	<240,000	<117 UJ	<700	<33.3 UJ	259,000	259,000
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	476,000 J+	4,140,000	<24,000	<117	<700	37.5 J	657,000	657,000
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	1,170,000	8,530,000	<240,000	208 J	<1,400	88.1 J	554,000	554,000
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	629,000	5,870,000	<24,000	208 J	<700	<33.3	483,000	483,000
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	552,000	6,850,000	<24,000	<117	<1,400	136	90,500	90,500
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	515,000	5,750,000	<24,000	<117	<1,400	<33.3	181,000	181,000
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	77,900	396,000	<240	<117	<140	87.1 J	94,500	----
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	49,600	146,000	<24,000	<117	<140	<33.3 UJ	99,100	99,100
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	35,700	163,000	<2,400	<117	<140	<33.3	98,200	98,200
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	28,800	110,000	<2,400	<117	<140 UJ	<33.3	93,500	93,500
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	24,200	105,000	<480	<117	<140	<33.3	97,900	97,900
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	21,800	78,200	<2,400	<117	<140	<33.3	99,600	99,600
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	20,900	78,800	<480	<117	<140 UJ	<33.3	129,000	129,000
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	366,000	1,820,000	<24,000	<117	<700	33.3 R	60,000	42,800
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	205	<2,400	<24,000	<117	943	<33.3 UJ	1,030,000	1,030,000
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	263	<24,000	82,400	<117 UJ	956	<33.3 UJ	1,060,000	1,060,000
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.300	<24.0	109,000	<117	1,760 J-	35.3 J	1,770,000	1,770,000
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.300	<24.0	107,000	<117 UJ	1,910 J-	37.5 J	1,770,000	1,770,000
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.300	<120	<120 UJ	<117	1,530	48.2 J	1,670,000	1,670,000
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.300	<120	<120 UJ	<117	1,470	47.4 J	1,640,000	1,640,000
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	1,080,000	6,830,000	<24,000	174 J	<1,400	49.2 J	401,000	401,000
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	926,000	6,880,000	<24,000	172 J	<1,400	<33.3	396,000	396,000



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	E314.0	E300.1	E300.1	E350.1	E351.2	E365.1	Alkalinity by SM2320B	Alkalinity by SM2320B
						Perchlorate	Chlorate	Chlorite	Ammonia (as N)	Total Kjeldahl Nitrogen (TKN)	Phosphorus	Alkalinity as CaCO3	Bicarbonate Alkalinity as CaCO3
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	978,000	<240	<240	160 J	<1,400	33.9 J	240,000	240,000
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	1,060,000	<240	<240	157 J	<1,400	<33.3	243,000	243,000
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	1,280,000	9,860,000	<24,000	137 J	<2,800	46.7 J	176,000	176,000
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	1,240,000	9,920,000	<24,000	138 J	<2,800	<33.3	174,000	174,000
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	9,400	64,100	<240	<117	<140	<33.3	64,800	----
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	9,860	64,100	<240	<117	<140	33.3 R	64,400	----
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	1,030 J+	<2400 UJ	<2400 R	<117 UJ	522	68.4 J	174,000	174,000
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.300	<24,000	84,200	<117	944	253	1,770,000	1,770,000
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.300	<240	<240 UJ	<117	1,790	260 J+	1,860,000	1,860,000
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.300	1,680 J	254,000	<117	1,270	322	1,220,000	1,220,000
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.300	293 J	355 J	<117	1,730 J+	343	1,510,000	1,510,000
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	20.8	501	44,900	<117	1,400	273	1,650,000	1,650,000
U4-SLMW	11/10/2022	N	EM03		-	<0.300	4,220 J-	<240	<117	325	46.9 J	----	----
U4-T3	10/13/2022	N	EM02		-	928,000	7,380,000	<240,000	----	----	----	----	----
U4-T3	11/3/2022	N	EM03		-	887,000	7,450,000	<240,000	----	----	----	----	----
U4-T3	12/6/2022	N	EM04		-	766,000	5,280,000	<240000 UJ	----	----	----	----	----
U4-T3	1/9/2023	N	EM05		-	886,000	7,910,000	<240,000	----	----	----	----	----
U4-T3	2/13/2023	N	EM06		-	877,000	7,800,000	<24,000	----	----	----	----	----
U4-T3	3/13/2023	N	EM07		-	815,000	7,400,000	<24,000	----	----	----	----	----
U4-T3	4/19/2023	N	EM08		-	406,000	2,880,000	<24,000	----	----	----	----	----
U4-T3	5/18/2023	N	EM09		-	498,000	4,200,000	<24,000	----	----	----	----	----
U4-T3	6/12/2023	N	EM10		-	488,000	3,720,000	<240000 UJ	----	----	----	----	----
U4-T3	7/11/2023	N	EM11		-	451,000	3,990,000	<24,000	----	----	----	----	----
U4-T3	8/10/2023	N	EM12		-	252,000	2,110,000	30,400 J	----	----	----	----	----
U4-T3	9/11/2023	N	EM13		-	217,000	1,990,000	54,900 J+	----	----	----	----	----
U4-T3	10/16/2023	N	EM14		-	149,000	1,090,000	29,300 J	----	----	----	----	----

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	----	5,360,000	52,900	1,480,000	----	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	----	----	29,700	----	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	----	----	21,500	----	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	----	----	22,300	----	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	----	----	31,100 J+	----	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	----	----	15,000	----	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<8,450	<8,450	1,480,000 J+	15,000 J-	388,000 J	<56.1	<5.15	12.4
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	----	2,250,000	23,000	503,000	----	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	----	2,290,000	23,200	513,000	----	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<8,450	<8,450	2,120,000	24,500 J-	469,000 J	143 J	<5.15	9.84 J
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	----	2,390,000	23,800	519,000	----	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	----	1,870,000	16,200 J+	361,000 J	----	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<8,450	<8,450	2,410,000	26,800 J+	454,000 J	<56.1	<5.15	6.38 J
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	----	2,490,000	3,340	465,000	----	----	----
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	----	----	2,230,000	20,800	390,000 J	----	----	----
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<8,450	<8,450	2,450,000	20,100 J+	465,000 J	85.4 J	<10.3	7.09 J
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	----	----	2,490,000	23,500	465,000 J	----	----	----
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	----	----	1,490,000	<4,800	365,000 J	----	----	----
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<8,450	<8,450	1,470,000	<4800 UJ	365,000 J	3,070	<5.15	16.0
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	234,000	2,360	1,220,000	----	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	68,100	70,900	240,000	4,430	1,130,000	138 J	2.99 J	49.8
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	72,000	54,200	246,000	3,720 J	1,150,000	105 J	1.82 J	60.3
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	82,400	66,800	281,000	6,040	1,150,000	60.6 J	2.01 J	47.6
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	120,000	18,200 J	293,000	3,180 J	1,020,000	172 J	1.91 J	49.1
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	50,300	<8,450	339,000	<48.0	589,000	<56.1	2.11 J	93.8
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	259,000	2,440	180,000	----	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<8,450	<8,450	344,000	1,230	153,000	<56.1	<1.03	4.03
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<8,450	<8,450	325,000	1,720	165,000	56.6 J	<1.03	7.37
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<8,450	<8,450	366,000	1,390	168,000	<56.1	<1.03	4.88
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<8,450	<8,450	478,000	4,640	158,000	<56.1	<1.03	4.69
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	----	4,560,000	45,200	1,020,000	----	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<8,450	<8,450	108,000	357	229,000	<56.1	<1.03	1.52 J
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	----	542,000	4,170	1,050,000	----	----	----
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	706,000	6,420	1,030,000	----	----	----
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<8,450	<8,450	892,000	8,200	389,000	<56.1	<1.03	15.1
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	----	693,000	----	----	----	----	----
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	----	686,000	----	----	----	----	----
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	----	1,410,000	----	----	----	----	----
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	----	528,000	----	----	----	----	----
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	----	347,000	----	----	----	----	----
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	----	334,000	----	250,000 J	----	----	----
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	----	375,000	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	----	----	160,000	<4,800	136,000 J	----	----	----
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	----	----	177,000	7,590 J	111,000 J	----	----	----
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	----	----	150,000	<480	185,000	----	----	----
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	----	----	141,000	3,320	244,000	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	1,460,000	12,200	1,120,000	----	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<8,450	<8,450	109,000	311	234,000	<56.1	<1.03	1.39 J
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	842,000	7,430	1,020,000	----	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<8,450	<8,450	218,000	374	253,000	<56.1	<1.03	18.2
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	503,000	----	----	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	604,000	----	----	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	569,000	----	----	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	576,000	----	----	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	544,000	----	----	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	523,000	----	111,000	----	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	497,000	----	----	----	----	----
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	----	----	231,000	<4,800	177,000 J	----	----	----
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	----	----	539,000	6,670 J	369,000 J	----	----	----
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	----	----	715,000	<4,800	450,000 J	----	----	----
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	----	----	308,000 J+	<4,800	357,000 J	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	4,310,000	48,700	1,420,000	----	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	2,400,000	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	1,950,000	----	----	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	1,740,000	----	----	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	1,730,000	----	----	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	1,620,000	----	----	----	----	----
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	1,690,000	16,100	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<8,450	<8,450	1,700,000	12,100	591,000	<56.1	<5.15	21.2
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	1,750,000	----	----	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	1,530,000	----	----	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	1,870,000	----	----	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	2,180,000	----	----	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	2,360,000	----	----	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	2,280,000	----	537,000	----	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	2,340,000	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	2,640,000	27,800	508,000	----	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<8,450	<8,450	106,000	328	235,000	<56.1	<1.03	1.61 J
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	321,000	3,940	1,090,000	----	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<8,450	<8,450	2,810,000	<480	709,000	<56.1	<5.15	18.6
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	2,770,000	4,770	758,000	----	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<8,450	<8,450	110,000	<48.0	237,000	<56.1	<1.03	4.08
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	400,000	3,290	1,100,000	----	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<8,450	<8,450	368,000	4,630	363,000	<56.1	<1.03	32.9
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<8,450	<8,450	1,150,000	12,200	214,000	81.0 J	<1.03	5.21
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<8,450	<8,450	355,000	3,550	1,220,000	87.1 J	<1.03	32.9
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<8,450	<8,450	345,000	3,660	1,300,000	68.8 J	<1.03	32.6
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	1,140,000	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	---	---	895,000	---	---	---	---	---
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	---	---	572,000	---	---	---	---	---
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	---	---	1,340,000	---	---	---	---	---
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	---	---	1,200,000	---	---	---	---	---
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	---	---	753,000	<960 R	---	---	---	---
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	---	---	905,000	---	---	---	---	---
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	---	---	1,920,000	---	---	---	---	---
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	---	---	1,670,000	---	---	---	---	---
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	---	---	1,680,000	---	---	---	---	---
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	---	---	1,900,000	---	---	---	---	---
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	---	---	949,000	---	379,000	---	---	---
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	---	---	766,000	---	---	---	---	---
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	---	---	1,830,000	6,080 J	550,000 J+	---	---	---
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	---	---	2,070,000	775 J	436,000	---	---	---
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	---	---	2,570,000	40,500 J	559,000 J	---	---	---
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	---	---	3,400,000	<48.0 UJ	358,000	---	---	---
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	---	---	3,780,000	56,100	965,000	<280	<10.3	12.2 J
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	---	---	723,000	10,200	1,120,000	117 J	1.17 J	72.5
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	---	---	1,810,000	---	---	---	---	---
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	---	---	1,580,000	---	---	---	---	---
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	---	---	1,490,000	---	---	---	---	---
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	---	---	1,720,000	---	---	---	---	---
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	---	---	1,690,000	---	---	---	---	---
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	---	---	1,770,000	14,200	---	---	---	---
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	---	---	1,630,000	---	---	---	---	---
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	---	---	1,600,000	---	---	---	---	---
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	---	---	1,530,000	---	---	---	---	---
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	---	---	1,750,000	---	---	---	---	---
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	---	---	1,860,000	---	---	---	---	---
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	---	---	2,080,000	---	685,000	---	---	---
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	---	---	2,020,000	---	---	---	---	---
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	---	---	1,990,000	14,500	555,000 J+	---	---	---
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	---	---	2,420,000	10,300	670,000	---	---	---
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	---	---	1,970,000	11,200	533,000	---	---	---
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	---	---	1,800,000	10,900 J-	494,000 J	---	---	---
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	---	---	4,180,000	63,500	948,000	<280	<10.3	5.36 J
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	---	---	2,780,000	---	---	---	---	---
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	---	---	2,490,000	---	---	---	---	---
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	---	---	2,210,000	---	---	---	---	---
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	---	---	2,400,000	---	---	---	---	---
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	---	---	2,140,000	---	---	---	---	---
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	---	---	2,370,000	14,600	---	---	---	---
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	---	---	2,140,000	---	---	---	---	---
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	---	---	2,060,000	---	---	---	---	---
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	---	---	1,930,000	---	---	---	---	---
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	---	---	2,010,000	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<8,450	<8,450	1,710,000	19,200	475,000	106 J	<10.3	9.35 J
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<8,450	<8,450	638,000	9,440	1,100,000	<56.1	1.07 J	30.8
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<8,450	<8,450	895,000	11,200	550,000	102 J	<1.03	6.71
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<8,450	<8,450	911,000	10,400	711,000	115 J	<1.03	19.6
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	1,040,000	5,360	437,000	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<8,450	<8,450	955,000	8,720	429,000	<56.1	<1.03	7.27
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<8,450	<8,450	723,000	2,400	385,000	<56.1	<10.3	7.99 J
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<8,450	<8,450	727,000	6,890	356,000	<56.1	<5.15	7.50 J
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<8,450	<8,450	714,000	5,860	358,000	<56.1	<5.15	7.29 J
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<8,450	<8,450	708,000	4,660	310,000	<56.1	<5.15	5.74 J
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	191,000	230	214,000	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	191,000	259	214,000	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<8,450	<8,450	539,000	4,730	249,000	<56.1	<1.03	9.69
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<8,450	<8,450	430,000	3,700	279,000	<56.1	<10.3	4.73 J
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<8,450	<8,450	437,000	4,470 J+	242,000	<56.1	<1.03	5.37
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<8,450	<8,450	312,000	<48.0 R	200,000	<56.1	<1.03	9.11
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<8,450	<8,450	355,000	3,840	197,000	<56.1	<1.03	9.44
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	920,000	5,610	590,000	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<8,450	<8,450	1,420,000	13,400	458,000 J	61.0 J	1.22 J	8.10
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<8,450	<8,450	772,000	6,470	383,000	270 J+	<1.03	6.24
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<8,450	<8,450	850,000	7,850	348,000	67.7 J	<5.15	6.96 J
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<8,450	<8,450	1,160,000	<48.0	341,000	8,760	<1.03	17.5
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<8,450	<8,450	1,280,000	8,190	313,000	<56.1	<5.15	6.11 J
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	289,000	2,730	1,290,000	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	10,300 J	<8,450	261,000	5,680	1,190,000	56.8 J	<1.03	57.0
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	9,840 J	<8,450	270,000	1,190 J-	1,170,000	<56.1	<1.03	52.7
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	12,100 J	<8,450	286,000	2,760 J-	1,200,000	63.4 J	<1.03	50.6
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	15,900 J	<8,450	257,000	2,200	1,060,000	<56.1	<1.03	60.8
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<8,450	<8,450	231,000	988	705,000	<56.1	<1.03	66.7
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	6,150,000	72,300	993,000	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	84,600	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	81,900	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	73,900	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	63,000	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	70,200	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<8,450	<8,450	4,810,000	53,100 J-	943,000	<56.1	<10.3	6.71 J
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	5,540,000	68,100	1,210,000	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	5,200,000	64,000	1,140,000	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<8,450	<8,450	4,360,000	55,000	906,000	<280	<10.3	8.58 J
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	5,070,000	<480	1,140,000	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	4,680,000	72,000	1,140,000	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<8,450	<8,450	4,350,000	54,700	1,010,000	84.2 J	<20.6	8.17 J
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	4,900,000	57,900	1,150,000	----	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	----	----	4,410,000	38,400	1,030,000	----	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<8,450	<8,450	3,810,000	40,300	676,000	<56.1	<20.6	6.58 J



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	---	---	3,740,000	44,100	708,000	---	---	---
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	---	---	3,750,000	46,900	764,000	---	---	---
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<8,450	<8,450	3,720,000	41,400	699,000 J+	56.5 J	<10.3	5.40 J
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	---	---	808,000	9,670	1,200,000	---	---	---
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	---	---	---	15,300	---	---	---	---
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	---	---	---	23,800	---	---	---	---
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	---	---	---	20,600	---	---	---	---
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	---	---	---	<4800 R	---	---	---	---
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	---	---	---	<4800 R	---	---	---	---
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	---	---	---	13,300	---	---	---	---
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	---	---	---	13,100	---	---	---	---
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	---	---	---	35,000	---	---	---	---
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	---	---	---	37,500	---	---	---	---
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<8,450	<8,450	3,130,000	33,700 J-	981,000	<56.1	<5.15	23.8
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<8,450	<8,450	3,120,000	32,300 J-	935,000	<56.1	<5.15	23.3
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	---	---	237,000	208 J+	74,700	---	---	---
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	---	---	240,000	222 J+	74,900	---	---	---
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	---	---	521,000	<48.0	374,000	---	---	---
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	---	---	510,000	<48.0	372,000	---	---	---
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<8,450	<8,450	611,000	1,790	267,000	<56.1	<1.03	60.7
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<8,450	<8,450	611,000	1,340	265,000	<56.1	<1.03	60.1
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	---	---	452,000	56.3 J	736 J	---	---	---
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	---	---	457,000	56.0 J	761 J	---	---	---
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	---	---	1,480,000	5,410	377,000	---	---	---
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	---	---	1,630,000	5,230	406,000	---	---	---
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<8,450	<8,450	1,490,000	779 J	299,000	<56.1	<5.15	66.5
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<8,450	<8,450	1,490,000	<48.0	298,000	<56.1	<5.15	65.9
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	---	---	2,360,000	4,260	672,000	---	---	---
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	---	---	2,350,000	4,960	673,000	---	---	---
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	---	---	2,440,000	8,540 J	583,000	---	---	---
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	---	---	2,450,000	8,600 J	580,000	---	---	---
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<8,450	<8,450	2,360,000	14,300	552,000 J+	<56.1	<10.3	74.8
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<8,450	<8,450	2,550,000	14,300	580,000 J+	<56.1	<5.15	72.9
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	---	---	2,760,000	21,500	599,000	---	---	---
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	---	---	2,720,000	21,200	591,000	---	---	---
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	---	---	2,870,000	18,100	717,000	---	---	---
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	---	---	2,930,000	19,100	739,000	---	---	---
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<8,450	<8,450	2,930,000	19,600	617,000 J+	58.2 J	<10.3	56.3
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<8,450	<8,450	2,850,000	19,100	614,000 J+	68.5 J	<10.3	52.4
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	---	---	2,110,000	22,400	534,000	---	---	---
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	---	---	---	---	---	---	---	---
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<8,450	<8,450	1,550,000	16,100	363,000	76.8 J	<5.15	7.03 J
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<8,450	<8,450	1,520,000	15,800	358,000	76.7 J	<5.15	7.05 J
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<8,450	<8,450	1,330,000	11,000	337,000 J	<56.1	<5.15	7.58 J
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<8,450	<8,450	1,690,000	21,700 J+	437,000 J	<56.1	<5.15	6.25 J
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<8,450	<8,450	2,020,000	12,600 J-	364,000 J	81.0 J	<5.15	8.33 J

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<8,450	<8,450	1,770,000	5,220 J-	302,000	<56.1	<1.03	<0.180
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	319,000	1,180	255,000	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<8,450	<8,450	140,000	1,290	159,000	<56.1	<1.03	12.6
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<8,450	<8,450	134,000	447	163,000	<56.1	<1.03	12.7
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<8,450	<8,450	140,000 J-	1,300	170,000	<56.1	<1.03	11.0
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<8,450	<8,450	139,000 J-	1,050	178,000	<56.1	<1.03	11.3
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<8,450	<8,450	140,000 J-	998 J-	164,000	57.7 J	<1.03	12.2
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	391,000	3,990 J	1,080,000	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<8,450	<8,450	1,340,000	9,430	335,000	<56.1	<1.03	7.08
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<8,450	<8,450	1,290,000	13,400	373,000	144 J	<5.15	10.3
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<8,450	<8,450	1,290,000	13,300	373,000	125 J	<5.15	11.3
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<8,450	<8,450	1,600,000	17,900 J	402,000 J	19,800	<5.15	19.9
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<8,450	<8,450	1,660,000	37,500 J	499,000 J	14,900	<5.15	18.2
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<8,450	<8,450	1,480,000	<4,800	276,000 J	72.5 J	<5.15	8.78 J
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<8,450	<8,450	1,600,000	5,080 J	305,000 J	83.4 J	<5.15	9.60 J
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<8,450	<8,450	1,790,000	<48.0 UJ	284,000	58.1 J	<5.15	11.8
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<8,450	<8,450	1,910,000	<48.0 UJ	304,000	<56.1	<5.15	12.1
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	222,000	1,750	1,160,000	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	215,000	1,680	1,180,000	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	109,000	<8,450	241,000	4,110	1,040,000	<56.1	<1.03	122
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	35,000	<8,450	259,000	3,030	1,010,000	<56.1	<1.03	99.2
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	38,900	<8,450	313,000	4,650	989,000	<56.1	<1.03	116
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	57,600	<8,450	308,000	1,030	857,000	74.6 J	<1.03	160
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	84,600	<8,450	342,000	<48.0 UJ	690,000	83.2 J	<1.03	133
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	5,690,000	53,500	1,160,000	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<8,450	<8,450	680,000 J+	10,400	326,000 J	<56.1	<1.03	23.4
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<8,450	<8,450	612,000	3,710 J	291,000	<56.1	<5.15	23.9
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<8,450	<8,450	842,000	6,060	266,000	<56.1	<5.15	10.8
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<8,450	<8,450	955,000	10,400 J+	229,000 J	<56.1	<5.15	46.0
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<8,450	<8,450	1,250,000	6,540	258,000	<56.1	<5.15	24.6
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	2,460,000	23,300	1,150,000	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<8,450	<8,450	2,080,000	25,300	591,000	<56.1	<5.15	15.1
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<8,450	<8,450	1,470,000	15,000 J-	411,000 J	<56.1	<5.15	18.1
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<8,450	<8,450	3,240,000	40,000 J+	729,000	<56.1	<10.3	12.5 J
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<8,450	<8,450	3,200,000	40,000 J+	709,000 J+	67.8 J	<20.6	15.8 J
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<8,450	<8,450	3,350,000	38,400	768,000	<56.1	<10.3	16.2 J
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	4,020,000	46,500	1,400,000	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	42,000	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	24,900	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	27,600	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	27,200 J+	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	22,100	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<8,450	<8,450	1,630,000	17,200	558,000	<56.1	<5.15	34.2
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	1,160,000	14,200 J+	441,000 J	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	1,230,000	2,620	439,000	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<8,450	<8,450	1,250,000	<240	305,000	<56.1	7.74 J	78.5
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	----	1,750,000	3,090	388,000	----	----	----
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	----	1,950,000	9,660	485,000	----	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<8,450	<8,450	1,410,000	752 J	217,000	<56.1	8.82	82.1
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	2,020,000	6,150	282,000	----	----	----
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	----	----	1,850,000	11,300	258,000 J	----	----	----
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<8,450	<8,450	1,010,000	<48.0	316,000	3,530	5.28 J	83.0
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	----	----	2,000,000	2,860 J+	411,000	----	----	----
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	----	----	2,480,000	5,210	452,000	----	----	----
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<8,450	<8,450	2,090,000	4,390	383,000	<56.1	18.6 J	59.4
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	2,380,000	26,000	1,300,000	----	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	----	----	40,500	----	----	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	----	----	37,200 J-	----	----	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	----	----	33,100	----	----	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	----	----	25,600 J+	----	----	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	----	----	21,000	----	----	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<8,450	<8,450	1,500,000	11,600	641,000	107 J	<5.15	41.1
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	----	631,000	<480	386,000	----	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	----	598,000	<480	283,000	----	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<8,450	<8,450	710,000	<48.0	83,700	<56.1	12.9	200
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	----	1,740,000	2,320	420,000	----	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	----	1,850,000	1,070	410,000	----	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<8,450	<8,450	1,980,000	<480	366,000	<56.1	<5.15	132
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	----	2,240,000	840 J	358,000	----	----	----
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	----	----	2,480,000	<480	367,000	----	----	----
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<8,450	<8,450	1,870,000	1,920 J+	400,000	<56.1	<10.3	106
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	----	----	2,770,000 J	1,820 J	411,000	----	----	----
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	----	----	3,150,000	1,210	482,000	----	----	----
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<8,450	<8,450	3,080,000	<480 UJ	505,000	<56.1	6.73 J	89.9
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	4,670,000	48,100	1,160,000	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<8,450	<8,450	1,890,000	20,800	501,000	<56.1	<1.03	9.68
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<8,450	<8,450	1,830,000	16,600 J-	467,000 J	89.9 J	<5.15	9.97 J
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<8,450	<8,450	2,460,000	15,000	455,000	<56.1	<5.15	20.4
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<8,450	<8,450	3,110,000	21,000	487,000 J	75.5 J	<20.6	24.2 J
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<8,450	<8,450	2,810,000	<480 UJ	410,000	<56.1	<5.15	20.9
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	353,000	146 J+	967,000	----	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<8,450	<8,450	2,130,000	15,200	655,000	<56.1	<5.15	17.0
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<8,450	<8,450	2,100,000	14,800 J-	556,000	<56.1	<5.15	28.4
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<8,450	<8,450	2,270,000	14,700	456,000 J	94.4 J	<5.15	33.4
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<8,450	<8,450	3,240,000	17,900 J+	548,000 J+	91.9 J	<20.6	25.6 J
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<8,450	<8,450	3,110,000	<480 UJ	532,000	64.5 J	<5.15	31.5
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	----	1,260,000	13,500	568,000	----	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	----	----	1,240	----	----	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	1,230	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	----	----	1,220	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----	1,050	----	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----	1,140 J+	----	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----	1,030	----	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<8,450	<8,450	167,000	756	230,000	<56.1	<1.03	6.14
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	426,000	1,300	237,000	----	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	318,000	<48.0	67,300	----	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<8,450	<8,450	620,000	500	71,600	<56.1	<1.03	26.3
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	1,950,000	8,830	596,000	----	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	1,960,000	11,800 J+	543,000	----	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<8,450	<8,450	1,750,000	<240	367,000	<56.1	<5.15	32.9
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	2,060,000	5,160 J+	468,000	----	----	----
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	----	----	1,910,000	11,300	407,000 J	----	----	----
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<8,450	<8,450	1,580,000	<48.0	330,000	130 J	<5.15	33.2
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	----	----	1,450,000	2,100 J+	354,000	----	----	----
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	----	----	1,370,000	<4,800	344,000 J	----	----	----
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<8,450	<8,450	1,900,000	<480 UJ	399,000	469	<5.15	44.8
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	463,000	4,200	1,190,000	----	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	1,290	----	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	1,280	----	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	1,180	----	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	1,140 J+	----	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	1,440	----	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<8,450	<8,450	249,000	2,010	253,000	<56.1	<1.03	7.70
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	662,000	<480	379,000	----	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	591,000	74.4 J	302,000	----	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<8,450	<8,450	788,000	<48.0 UJ	212,000	<56.1	<1.03	76.2
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	1,570,000	<240	537,000	----	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	1,480,000	412 J	392,000	----	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<8,450	<8,450	1,800,000	<240	366,000	<56.1	<5.15	91.6
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	1,560,000	1,070 J+	293,000	----	----	----
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	1,730,000	1,430	273,000	----	----	----
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<8,450	<8,450	1,800,000	<48.0 UJ	344,000	<56.1	<5.15	52.8
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	----	----	1,750,000	2,000 J+	417,000	----	----	----
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	2,800,000	<4,800	661,000	----	----	----
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<8,450	<8,450	2,190,000	<480 UJ	518,000	61.1 J	<5.15	49.7
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<8,450	<8,450	4,960,000	71,400	1,130,000	<280	<10.3	10.8 J
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<8,450	<8,450	2,730,000	26,500	603,000	<92.5	<5.15	8.66 J
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<8,450	<8,450	2,780,000	27,700 J-	421,000 J	<56.1	<5.15	17.0
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<8,450	<8,450	3,330,000	21,700	486,000 J	102 J	<10.3	15.1 J
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<8,450	<8,450	4,010,000	53,800	860,000	<56.1	<10.3	10.1 J
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<8,450	<8,450	3,840,000	46,100 J	679,000	<56.1	<10.3	12.2 J
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<8,450	<8,450	3,400,000	28,300	584,000	<56.1	<10.3	17.1 J
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<8,450	<8,450	213,000	1,520	210,000	<56.1	<1.03	10.9
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<8,450	<8,450	227,000	1,610	230,000	<56.1	<1.03	11.1
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<8,450	<8,450	175,000	282	179,000	<18.5	1.33 J	10.8
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<8,450	<8,450	406,000	1,360	163,000	<56.1	<1.03	6.32



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<8,450	<8,450	368,000	691 J-	163,000	<56.1	<1.03	6.79
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<8,450	<8,450	262,000	1,390	160,000	<56.1	<1.03	6.97
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<8,450	<8,450	255,000	1,540	167,000	<56.1	<1.03	7.43
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<8,450	<8,450	231,000	1,640 J-	167,000	<56.1	<1.03	7.49
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	9,060 J	<8,450	768,000	7,610	1,160,000	92.7 J	<1.03	43.1
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<8,450	<8,450	1,660,000	19,200	941,000	<92.5	<5.15	37.2
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	----	----	1,530,000	17,000	948,000	<92.5	<5.15	37.3
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<8,450	<8,450	2,290,000	26,700 J-	796,000	<56.1	<5.15	28.5
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<8,450	<8,450	968,000	946 J	702,000	<56.1	<10.3	39.7
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<8,450	<8,450	1,990,000	13,300 J-	710,000	68.2 J	<5.15	45.6
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<8,450	<8,450	2,760,000	20,300 J	561,000	128 J	<10.3	63.3
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<8,450	<8,450	2,840,000	16,800	654,000	<56.1	<10.3	59.4
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	42,000	<8,450	227,000	3,430	1,280,000	<56.1	<1.03	14.5
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<8,450	<8,450	222,000	1,410	1,050,000	<18.5	<1.03	77.3
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<8,450	<8,450	217,000	1,460	1,070,000	<18.5	<1.03	76.3
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<8,450	<8,450	192,000	<48.0	297,000	63.0 J	<1.03	43.0
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<8,450	<8,450	187,000	<48.0	250,000	<56.1	<1.03	42.3
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<8,450	<8,450	189,000	<480	18,800 J	<56.1	<1.03	68.1 J
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<8,450	<8,450	187,000	<480	2,640 J	<56.1	<1.03	35.7 J
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<8,450	<8,450	195,000	57.9 J	1,540 J	<56.1	<1.03	31.4
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<8,450	<8,450	196,000	50.7 J	1,780 J	<56.1	<10.3	41.3
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<8,450	<8,450	182,000	667 J	11,900 J	<56.1	<1.03	70.8
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<8,450	<8,450	183,000	<480	8,860 J	<56.1	<1.03	70.8
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<8,450	<8,450	201,000	<480 UJ	<5,940	<56.1	1.05 J	67.0
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<8,450	<8,450	199,000	<480 UJ	<5,940	<56.1	<1.03	59.9
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<8,450	<8,450	251,000	<48.0	90,700	<56.1	<1.03	71.6
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<8,450	<8,450	251,000	<48.0	91,100	<56.1	<1.03	72.4
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<8,450	<8,450	3,270,000	43,200	877,000	<56.1	<10.3	7.44 J
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<8450 UJ	<8450 UJ	439,000	<4800 UJ	274,000 J	<18.5 UJ	<1.03 UJ	33.5
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<8,450	<8,450	909,000	756 J	200,000	59.0 J	<1.03	25.6
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<8,450	<8,450	865,000	2,090 J-	123,000	<56.1	<1.03	69.6
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<8,450	<8,450	1,410,000	1,540	129,000	<56.1	8.48	28.8
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<8,450	<8,450	1,790,000	<48.0	187,000	<56.1	1.11 J	21.1
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<8,450	<8,450	1,720,000	<480	138,000	66.9 J	<5.15	30.2
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<8,450	<8,450	172,000	1,060	178,000	<56.1	<1.03	10.2
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<8450 UJ	<8450 UJ	159,000	963	179,000	<18.5 UJ	<1.03 UJ	11.7
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<8,450	<8,450	257,000	1,770	151,000	<56.1	<1.03	9.50
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<8,450	<8,450	245,000	1,520	148,000	<56.1	<1.03	7.53
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<8,450	<8,450	508,000	<48.0	106,000	<56.1	<1.03	6.26
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<8,450	<8,450	500,000	117	116,000	<56.1	<1.03	4.56
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<8,450	<8,450	673,000	<48.0 UJ	119,000	<56.1	<1.03	8.24
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<8,450	<8,450	242,000	3,120	1,100,000	<56.1	<1.03	24.8
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<8450 UJ	<8450 UJ	715,000	7,720 J	431,000 J	<92.5 UJ	<5.15 UJ	20.0
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<8,450	<8,450	946,000	2,140	292,000	<56.1	<1.03	25.5
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<8,450	<8,450	1,100,000	1,280 J-	202,000	<56.1	1.05 J	33.0
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<8,450	<8,450	1,430,000	1,620	183,000	<56.1	1.58 J	30.1



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<8,450	<8,450	1,880,000	<48.0	237,000	<56.1	2.89 J	33.3
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	----	----	1,930,000	<480	190,000	<56.1	11.1 J	33.0
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	17,900 J	<8,450	182,000	2,260	964,000	<56.1	<1.03	46.2
U4-MW-09S	12/16/2022	N	EM04	UMCf	55.3 - 65.3	20,400	<8450 UJ	256,000	3,360	1,020,000	<18.5 UJ	<1.03 UJ	56.2
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	15,300 J	<8,450	373,000	1,820	822,000	<56.1	<1.03	46.3
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<8,450	<8,450	161,000	<48.0	26,900	<56.1	<1.03	113
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<8,450	<8,450	163,000	<48.0	3,600 J	<56.1	<10.3	123
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<8,450	<8,450	948,000	<480	521,000	117 J	<5.15	114
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<8,450	<8,450	1,150,000	<4,800	<59,400	<56.1	<5.15	135
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<8,450	<8,450	706,000	4,090	340,000	<56.1	<1.03	8.78
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<8,450	<8,450	383,000	1,720	180,000	<56.1	<1.03	7.91
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<8,450	<8,450	478,000	<48.0	74,500	<56.1	<1.03	33.0
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<8,450	<8,450	453,000	<48.0 UJ	2,780 J	<56.1	<1.03	49.8
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<8,450	<8,450	760,000	<48.0	174,000	<56.1	1.36 J	11.2
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<8,450	<8,450	565,000	<48.0	97,400	2,250	<1.03	20.6
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<8,450	<8,450	519,000	<48.0 UJ	80,200	<56.1	<1.03	29.1
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<8,450	<8,450	936,000	8,520	1,300,000	<56.1	<1.03	12.6
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<8,450	<8,450	219,000	1,200	1,180,000	<56.1	<1.03	42.8
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<8,450	<8,450	897,000	94.2 J	295,000	<56.1	<1.03	37.7
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<8,450	<8,450	262,000	352 J	5,490	<56.1	<1.03	19.4
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<8,450	<8,450	686,000	<48.0	273,000	<56.1	<1.03	37.4
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<8,450	<8,450	1,210,000	9,420	285,000	67.7 J	5.94 J	21.4
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<8,450	<8,450	1,620,000	21,300	377,000 J	<56.1	<5.15	17.4
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<8,450	<8,450	4,040,000	62,300	880,000	<280	<10.3	6.16 J
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	3,720,000	47,900	751,000	----	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	4,260,000	55,600	886,000	----	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	3,850,000	51,800	768,000	----	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<8450 UJ	<8450 UJ	1,750,000	14,700	482,000 J	<1850 UJ	<103 UJ	<18.0 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	3,940,000	41,000	740,000	----	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	3,660,000	47,200	746,000	----	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<8,450	<8,450	3,030,000	29,700	603,000	94.7 J	<5.15	14.6
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	2,330,000	27,400	448,000 J	----	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	2,610,000	27,200	664,000	----	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<8,450	<8,450	3,420,000	27,700 J-	657,000	<56.1	<5.15	11.2 J+
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	2,850,000 J+	24,600 J-	524,000	----	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	3,270,000	<480 R	662,000	----	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<8,450	<8,450	3,240,000	13,500	637,000	<56.1	<5.15	10.6
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	3,050,000	18,700	586,000	----	----	----
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	----	----	3,050,000	17,400 J-	503,000	----	----	----
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<8,450	<8,450	3,500,000	17,500	635,000	62.1 J	<20.6	15.7 J
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	----	----	2,790,000	18,000	460,000 J	----	----	----
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	----	----	3,220,000	16,000	583,000	----	----	----
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<8,450	<8,450	3,050,000	17,700	561,000	<56.1	<10.3	15.0 J
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<8,450	<8,450	512,000	7,100	1,080,000	<56.1	<1.03	17.5
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	328,000	<48.0	694,000	----	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	328,000	<48.0	694,000	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	----	363,000	<48.0	508,000	----	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	362,000	<48.0	509,000	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	----	321,000	<48.0	273,000	----	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	316,000	<48.0	244,000	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<8450 UJ	<8450 UJ	386,000	<48.0 UJ	27,000 J	<18.5 UJ	5.80	112
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<8450 UJ	<8450 UJ	371,000	<48.0 UJ	42,600 J	<18.5 UJ	3.56 J	96.5
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	----	346,000	50.1 J	74,100	----	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	338,000	54.5 J	72,600	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	----	1,000,000	7,230	160,000	----	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	1,090,000	8,170	185,000	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<8,450	<8,450	298,000	<48.0	979 J	<56.1	2.20 J	63.1
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<8,450	<8,450	292,000	<48.0	1,060 J	91.7 J	1.97 J	59.2
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	----	267,000	<48.0	17,300	----	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	282,000	<48.0	19,700	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	----	262,000	<48.0	7,200	----	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	263,000	<48.0	7,860	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<8,450	<8,450	190,000	<48.0	53,500	<56.1	<1.03	53.5
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<8,450	<8,450	190,000	<48.0	52,200	<56.1	<1.03	51.0
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	----	227,000	<48.0	22,600	----	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	225,000	<48.0	22,500	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	----	2,000,000	5,850	1,290,000	----	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	1,970,000	3,190	1,280,000	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<8,450	<8,450	2,030,000	5,990	1,070,000	<56.1	<5.15	8.23 J
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<8,450	<8,450	2,110,000	6,440	1,110,000	<56.1	<5.15	7.62 J
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	----	2,600,000	1,500	632,000	----	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	2,600,000	1,390	633,000	----	----	----
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	----	----	2,200,000 J	6,720 J	456,000 J	----	----	----
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	----	----	21,300 J	62.8 J	4,460 J	----	----	----
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<8,450	<8,450	1,880,000	4,920 J	417,000 J	<56.1	25.5 J	11.5 J
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<8,450	<8,450	2,030,000	5,090 J	422,000 J	<56.1	22.5 J	12.1 J
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	----	----	1,960,000	9,350 J	378,000 J	----	----	----
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	----	----	2,300,000	9,860 J	448,000 J	----	----	----
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	----	----	2,280,000	6,930	484,000	----	----	----
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	----	----	2,370,000	2,210	491,000	----	----	----
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<8,450	<8,450	2,400,000	6,470 J-	480,000	84.0 J	19.1 J	8.16 J
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<8,450	<8,450	2,450,000	6,570	481,000	107 J	20.0	7.78 J
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<8,450	<8,450	3,380,000	61,000	1,130,000	115 J	<10.3	6.66 J
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	----	2,080,000	29,800	696,000	----	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	----	2,150,000	32,400	846,000	----	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	----	2,060,000	28,700	842,000	----	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<8,450	<8,450	2,010,000	22,700	818,000	<92.5	<5.15	14.8
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	----	1,900,000	21,600	624,000	----	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	1,840,000	21,700	537,000	----	----	----
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<8,450	<8,450	1,610,000	10,100	468,000	<56.1	<5.15	15.0
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	----	1,970,000	19,500	714,000	----	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	----	2,110,000	30,700	907,000	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<8,450	<8,450	1,840,000	16,500 J-	506,000	93.0 J	<5.15	9.72 J
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	----	1,170,000	8,640	276,000	----	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	----	1,220,000	<240 UJ	279,000	----	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<8,450	<8,450	1,180,000	9,300 J	269,000 J	<56.1	1.14 J	8.71
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	----	1,320,000	1,680 J-	252,000	----	----	----
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	----	----	1,370,000	1,710 J-	234,000 J	----	----	----
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<8,450	<8,450	1,300,000	<48.0	212,000 J+	<56.1	<5.15	18.1
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	----	----	1,460,000	1,850	179,000	----	----	----
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	----	----	1,390,000	<4,800	174,000 J	----	----	----
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<8,450	<8,450	1,560,000	2,390	154,000	<56.1	31.9	30.6
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<8,450	<8,450	967,000	7,700	1,230,000	<56.1	3.92 J	14.6
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<8,450	<8,450	968,000	8,310	1,220,000	61.1 J	1.29 J	12.6
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	----	278,000	2,190	1,080,000	----	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	280,000	535	1,030,000	----	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	----	283,000	383	989,000	----	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<8,450	<8,450	----	----	----	<18.5	1.36 J	108
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	----	----	----	----	----	21.6 J	1.26 J	108
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	197,000	83.5 J	44,500	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	169,000	99.2 J	24,700	----	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<8,450	<8,450	151,000	<48.0	3,350 J	<56.1	<1.03	47.2
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	----	152,000	48.0 J	1,600 J	----	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	----	143,000	<48.0	894 J	----	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<8,450	<8,450	144,000 J-	<48.0 UJ	1,770 J	<56.1	<1.03	46.5
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	----	157,000	56.8 J	9,270	----	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	----	1,170,000	4,190	616,000	----	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<8,450	<8,450	610,000	395	348,000	<56.1	1.45 J	5.09
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	----	234,000	<48.0 R	9,860	----	----	----
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	1,020,000	<480	277,000	----	----	----
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<8,450	<8,450	1,420,000	<48.0 UJ	280,000	<56.1	<5.15	7.98 J
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	----	----	1,560,000	716 J	241,000	----	----	----
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	1,350,000	<4,800	211,000 J	----	----	----
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<8,450	<8,450	1,630,000	<48.0 R	392,000 J	<56.1	3.76 J	11.5
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<8,450	<8,450	3,130,000	60,700	662,000	375 J	<10.3	5.43 J
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	----	1,330,000	10,900	336,000 J	----	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	----	1,400,000	6,780 J	379,000 J	----	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	1,300,000	6,960	295,000	----	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<8,450	<8,450	1,190,000	9,910 J	288,000 J	<92.5	<5.15	7.37 J
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	----	984,000	10,300	289,000 J	----	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	----	820,000	12,000	296,000 J	----	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<8,450	<8,450	699,000 J+	8,410 J	280,000 J	<56.1	<1.03	5.75
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	----	567,000	<4,800	241,000 J	----	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	----	595,000	15,200 J-	259,000	----	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<8,450	<8,450	747,000	3,030	252,000	<56.1	<1.03	6.27
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	----	855,000	2,840	244,000	----	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	----	876,000	5,230	241,000	----	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<8,450	<8,450	1,030,000	4,860	255,000	<56.1	<1.03	6.15

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	1,070,000	6,420	258,000	----	----	----
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	----	----	1,070,000	6,180 J	230,000 J	----	----	----
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<8,450	<8,450	1,090,000	11,500 J	252,000 J	<56.1	<5.15	5.82 J
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	----	----	1,210,000	7,540	286,000	----	----	----
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	----	----	1,220,000	7,890	280,000	----	----	----
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<8,450	<8,450	1,160,000	3,080 J-	234,000	<56.1	<5.15	6.40 J
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<8,450	<8,450	943,000	7,030	1,090,000	<56.1	<1.03	12.6
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	----	----	487,000	9,130 J	1,040,000	----	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	----	----	441,000	5,560	1,060,000	----	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	----	----	402,000	3,730	932,000	----	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<8450 UJ	<8450 UJ	467,000	<48.0 UJ	545,000	<18.5 UJ	2.00 J	79.2
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	----	----	447,000	360	433,000	----	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	----	----	521,000	1,780	399,000	----	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<8,450	<8,450	341,000	<48.0	55,400	<56.1	1.14 J	74.9
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	----	----	287,000	<48.0	115,000	----	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	----	----	234,000	<48.0	77,800	----	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<8,450	<8,450	225,000	<48.0	97,300	<56.1	6.01	73.1
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	----	----	229,000	135	90,200	----	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	----	----	890,000	4,960 J+	340,000	----	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<8,450	<8,450	1,020,000	5,460	311,000	<56.1	3.62 J	20.6
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	----	----	1,090,000	5,720 J-	317,000	----	----	----
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	----	----	1,150,000	7,940 J	333,000 J	----	----	----
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<8,450	<8,450	1,190,000	13,600 J	353,000 J	78.2 J	<5.15	14.7
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	----	----	1,390,000	11,200	442,000	----	----	----
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	----	----	1,370,000	9,770	399,000	----	----	----
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<8,450	<8,450	1,380,000	<480 UJ	437,000	<56.1	11.6 J	19.0
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<8,450	<8,450	349,000	729 J	2,560,000	<56.1	<1.03	21.3
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<8450 UJ	<8450 UJ	432,000	3,700	946,000	20.6 J	<1.03 UJ	14.6
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<8,450	<8,450	316,000	2,420	387,000	<56.1	<1.03	13.2
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<8,450	<8,450	379,000	1,230	453,000	<56.1	<1.03	14.4
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<8,450	<8,450	656,000	856	179,000	<56.1	<1.03	15.3
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<8,450	<8,450	592,000	855	217,000	<56.1	<1.03	13.7
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<8,450	<8,450	616,000	1,640	213,000	<56.1	<1.03	16.4
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<8,450	<8,450	274,000	2,490	1,410,000	<56.1	<1.03	16.6
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<8450 UJ	<8450 UJ	401,000	2,700	1,490,000	<18.5 UJ	<1.03 UJ	17.1
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<8,450	<8,450	346,000	2,510	597,000	<56.1	<1.03	14.1
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<8,450	<8,450	404,000	970	733,000	<56.1	<1.03	17.7
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<8,450	<8,450	623,000	658	438,000	<56.1	<1.03	20.7
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<8,450	<8,450	668,000	<48.0	348,000	161 J	<1.03	15.8
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<8,450	<8,450	777,000	1,240	305,000	<56.1	<1.03	19.0
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<8,450	<8,450	749,000	3,170	410,000	149 J	<1.03	9.66
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<8,450	<8,450	458,000	1,220	225,000	<56.1	<1.03	10.6
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<8,450	<8,450	403,000	2,030	196,000	<56.1	<1.03	8.49
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<8,450	<8,450	489,000	2,020 J	193,000	<56.1	<1.03	9.43
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<8,450	<8,450	419,000	1,650	196,000	<56.1	<1.03	10.0
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<8,450	<8,450	409,000	<48.0	183,000	<56.1	<1.03	9.07



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<8,450	<8,450	407,000	9,980	185,000	<56.1	<1.03	10.3
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<8,450	<8,450	152,000	878	214,000	<56.1	<1.03	18.8
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<8,450	<8,450	144,000	1,260	177,000	<56.1	<1.03	16.8
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<8,450	<8,450	141,000	1,470	165,000	62.9 J	<1.03	13.4
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<8,450	<8,450	138,000	1,340	169,000	<56.1	<1.03	8.61
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<8,450	<8,450	143,000	1,590	174,000	<56.1	<1.03	13.7
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<8,450	<8,450	143,000	1,290	183,000	<56.1	<1.03	15.0
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<8,450	<8,450	143,000	2,310	178,000	<56.1	<1.03	11.7
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	----	----	420,000	5,590	1,070,000	<56.1	<1.03	31.1
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<8,450	<8,450	500,000	827	875,000	<56.1	1.24 J	44.9
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<8,450	<8,450	189,000	<48.0	1,640 J	<56.1	<1.03	39.0
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<8,450	<8,450	226,000	<48.0 UJ	<594	<56.1	<1.03	83.2
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<8,450	<8,450	938,000	<48.0	223,000	<56.1	<1.03	26.8
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<8,450	<8,450	873,000	<48.0	184,000	<56.1	<5.15	28.4
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<8,450	<8,450	1,150,000	8,020	270,000	<56.1	<5.15	35.9
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<8,450	<8,450	178,000	2,750	1,190,000	112 J	<1.03	35.0
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<8,450	<8,450	137,000	132	212,000	186 J	<1.03	49.4
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<8,450	<8,450	155,000	<480	14,700 J	<56.1	<1.03	44.0
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<8,450	<8,450	121,000	<48.0	12,200	<56.1	<1.03	40.4
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<8,450	<8,450	136,000	5,550 J	<59,400	<56.1	<1.03	80.5
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<8,450	<8,450	126,000	<48.0 UJ	6,580	59.4 J	<1.03	135
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<8,450	<8,450	125,000	435	12,800	60.6 J	1.48 J	37.0
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<8,450	<8,450	140,000	<48.0	174,000	<56.1	<1.03	74.5
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<8,450	<8,450	3,030,000	39,300	722,000	<56.1	<10.3	7.23 J
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<8,450	<8,450	1,740,000	17,100	573,000	<56.1	<1.03	1.92 J
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<8,450	<8,450	1,490,000	10,500	205,000	<56.1	<5.15	10.3
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<8,450	<8,450	2,180,000	25,200	377,000 J	378	<10.3	17.5 J
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<8,450	<8,450	1,460,000	15,200	217,000	<56.1	<5.15	12.7
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<8,450	<8,450	1,410,000	18,200	219,000	<56.1	<10.3	4.71 J
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<8,450	<8,450	1,310,000	<48.0 UJ	197,000	<56.1	<5.15	5.66 J
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	----	----	229,000	569	623,000	<56.1	<1.03	20.0
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<8,450	<8,450	188,000	260	444,000	<56.1	<1.03	21.7
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<8,450	<8,450	171,000	512	369,000	<56.1	<1.03	23.8
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<8,450	<8,450	162,000	<48.0	361,000	<56.1	<1.03	24.5
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<8,450	<8,450	166,000	728	336,000	<56.1	<1.03	23.7
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<8,450	<8,450	162,000	295	328,000	<56.1	<1.03	25.2
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<8,450	<8,450	164,000	432 J-	298,000	<56.1	<1.03	19.2
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	17,200 J	<8,450	546,000	6,600	979,000	<56.1	<1.03	11.2
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<8,450	<8,450	147,000	72.8 J	195,000	<56.1	<1.03	69.5
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<8,450	<8,450	144,000	73.1 J	179,000	<56.1	<1.03	52.5
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<8,450	<8,450	120,000	<48.0	2,340 J	<56.1	<1.03	59.2
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<8,450	<8,450	120,000	<48.0	1,760 J	<56.1	<1.03	58.9
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<8,450	<8,450	133,000	49.8 J	<594	61.2 J	<1.03	83.7
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<8,450	<8,450	132,000	49.6 J	<594	<56.1	3.28 J	83.0
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<8,450	<8,450	1,660,000	4,520	498,000	<56.1	<1.03	8.62
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<8,450	<8,450	1,690,000	3,660	501,000	<56.1	<1.03	8.52



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Alkalinity by SM2320B	Alkalinity by SM2320B	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Anions by E300.0/SW9065 A	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Chloride	Nitrate (as N)	Sulfate	Aluminum	Antimony	Arsenic
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<8,450	<8,450	188,000	2,200 J	50,400	<56.1	<5.15	12.7
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<8,450	<8,450	184,000	5,450 J	71,700	<56.1	<5.15	12.6
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<8,450	<8,450	1,500,000	18,600 J-	381,000 J	<56.1	<5.15	13.1
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<8,450	<8,450	1,470,000	17,500 J-	358,000 J	<56.1	<5.15	14.1
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	----	----	173,000	2,700	1,150,000	<56.1	<1.03	20.9
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	----	----	171,000	2,850	1,140,000	<56.1	<1.03	21.2
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<8450 UJ	<8450 UJ	173,000	<48.0 UJ	988,000	<18.5 UJ	<1.03 UJ	37.5
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<8,450	<8,450	107,000	<48.0	<594	<56.1	<1.03	61.8
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<8,450	<8,450	113,000	<48.0	861 J	<56.1	<1.03	72.6
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<8,450	<8,450	129,000	<48.0	34,700	<56.1	<1.03	170
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<8,450	<8,450	127,000	<48.0 UJ	<594	<56.1	<1.03	194
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<8,450	<8,450	139,000	<48.0 UJ	4,560 J	<56.1	<1.03	236
U4-SLMW	11/10/2022	N	EM03		-	----	----	----	384	221,000	----	----	----
U4-T3	10/13/2022	N	EM02		-	----	----	1,890,000	----	----	----	----	----
U4-T3	11/3/2022	N	EM03		-	----	----	1,780,000	----	----	----	----	----
U4-T3	12/6/2022	N	EM04		-	----	----	1,250,000	----	----	----	----	----
U4-T3	1/9/2023	N	EM05		-	----	----	1,850,000	----	----	----	----	----
U4-T3	2/13/2023	N	EM06		-	----	----	1,770,000	----	----	----	----	----
U4-T3	3/13/2023	N	EM07		-	----	----	1,810,000	14,500	----	----	----	----
U4-T3	4/19/2023	N	EM08		-	----	----	885,000	----	----	----	----	----
U4-T3	5/18/2023	N	EM09		-	----	----	1,230,000	----	----	----	----	----
U4-T3	6/12/2023	N	EM10		-	----	----	1,240,000	----	----	----	----	----
U4-T3	7/11/2023	N	EM11		-	----	----	1,260,000	----	----	----	----	----
U4-T3	8/10/2023	N	EM12		-	----	----	879,000	----	----	----	----	----
U4-T3	9/11/2023	N	EM13		-	----	----	836,000	----	292,000	----	----	----
U4-T3	10/16/2023	N	EM14		-	----	----	597,000	----	----	----	----	----

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	---	---	---	---	---	---	---	---
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	---	---	---	---	---	---	---	---
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	75.8	<0.330	<0.750	500,000	20,700	<0.840	<7.55	<18.0
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	117	<0.330	<0.750	775,000	35,400	<0.840	<7.55	<18.0
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	119	<0.330	<0.750	856,000	28,200	<0.840	25.0	<18.0
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	155	<0.330	<1.50	914,000	30,400	<0.840	<15.1	<18.0
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	273	0.414 J	<0.750	1,130,000	16,900	6.89 J	10.8 J	2,910
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	---	---	---	---	---	---	---	---
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	28.8	<0.330	<0.150	30,600	1,520	<0.840	1.58 J	<18.0
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	7.04	<0.330	<0.150	22,200	1,760	1.83 J	2.35 J	<18.0
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	20.1	<0.330	<0.150	25,400	1,640	<0.840	1.75 J	<18.0
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	15.2	<0.330	<0.150	36,200	1,600	2.45 J	2.41 J	30.9 J
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	10.8	<0.330	<0.150	14,800	406	<0.840	<1.51	33.2 J
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	---	---	---	---	---	---	---	---
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	661	<0.330	<0.150	382,000	91.0	<0.840	1.88 J	44.5 J
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	338	<0.330	<0.150	225,000	26.2	<0.840	<1.51	<18.0
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	376	<0.330	<0.150	281,000	10.9	<0.840	2.73 J	25.9 J
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	630	<0.330	<0.150	426,000	13.3	0.942 J	8.08	<18.0
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	---	---	---	---	---	---	---	---
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	---	---	---	---	---	---	---	---
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	---	---	---	---	---	---	---	---
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	133	<0.330	<0.150	84,300	3.28 J	<0.840	2.98 J	<18.0
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	49.5	<0.330	<0.150	370,000	16,400	<0.840	<1.51	24.9 J
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	---	---	---	---	---	---	---	---
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	138	<0.330	<0.150	82,600	9.61 J	<0.840	2.84 J	33.4 J
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	58.1	<0.330	<0.150	87,500	2,140	<0.840	<1.51	182
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	---	---	---	---	---	---	---	---
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	65.5	<0.330	<0.750	383,000	34,800	<0.840	16.8 J	<18.0
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	---	---	---	---	---	---	---	---
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	---	---	---	---	---	---	---	---
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	138	<0.330	<0.150	82,200	<1.40	<0.840	3.27 J	342
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	82.7	<0.330	<0.750	872,000	58,500	<0.840	<7.55	20.6 J
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	---	---	---	---	---	---	---	---
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	156	<0.330	<0.150	80,300	1.57 J	0.903 J	3.65 J	23.0 J
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	30.3	<0.330	<0.150	59,400	7,780	<0.840	5.23	<18.0
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	187 J	<0.330	<0.150	515,000 J	11,900 J	<0.840	<1.51	<18.0
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	34.2	<0.330	<0.150	223,000	2,270	<0.840	2.20 J	<18.0
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	33.8	<0.330	<0.150	222,000	2,260	<0.840	3.02 J	<18.0
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	135	<1.65	<1.50	1,450,000	79,000	<4.20	<15.1	<90.0
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	29.6 J+	<0.330	<0.150	157,000	15,100	<0.840	2.99 J	<18.0
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	143	<1.65	<1.50	1,670,000	92,600	<4.20	<15.1	<90.0
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	106	<0.330	<1.50	832,000	27,200	<0.840	<15.1	18.8 J
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	27.1	<0.330	<0.150	215,000	9,660	<0.840	6.53	<18.0
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	112	<0.330	<0.150	436,000	9,680	<0.840	<1.51	<18.0
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	34.7	<0.330	<0.150	307,000	16,100	<0.840	4.02 J	<18.0
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	40.6	<0.330	<0.150	110,000	4,860	<0.840	6.39	<18.0
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	158	0.722 J	<1.50	421,000	19,800	<0.840	<15.1	<18.0
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	132	<0.330	<0.750	423,000	17,500	<0.840	8.15 J	<18.0
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	143	<0.330	<0.750	405,000	16,000	<0.840	8.30 J	<18.0
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	121	<0.330	<0.750	473,000	14,900	1.04 J	<7.55	<18.0
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	117	<0.330	<0.150	276,000	8,120	<0.840	3.13 J	<18.0
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	109	<0.330	<1.50	246,000	9,010	<0.840	<15.1	<18.0
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	119	<0.330	<0.150	290,000	9,630	<0.840	<1.51	<18.0
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	67.7	<0.330	<0.150	162,000	4,960	<0.840	<1.51	<18.0
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	68.7	<0.330	<0.150	157,000	5,010	<0.840	<1.51	21.1 J
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	48.9	<0.330	<0.150	156,000	5,440	<0.840	7.21	<18.0
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	124	<0.330	<0.150	444,000	19,200	<0.840	4.18 J	<18.0 UJ
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	131	<0.330	<0.750	548,000	18,700	2.50 J	8.54 J	32.0 J
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	216	0.749 J	<1.50	756,000	19,500	3.22 J	8.11	3,360
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	196	<0.330	<0.750	874,000	19,500	1.31 J	<7.55	<18.0
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	12.1	<0.330	<0.150	15,200	1,290	<0.840	5.26	66.4 J
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	13.3 J+	<0.330	<0.150	17,100	1,530	<0.840	<1.51	43.8 J
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	11.9	<0.330	<0.150	17,000	1,510	<0.840	<1.51	<18.0
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	9.92	<0.330	<0.150	14,100	1,150	1.33 J	<1.51	<18.0
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	16.0	<0.330	<0.150	25,200	774	<0.840	<1.51	<18.0
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	142	<0.330	<1.50	1,230,000	94,700	<0.840	<15.1	<18.0
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	115	<1.65	<1.50	1,130,000	96,900	<4.20	<15.1	<90.0
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	102	<0.330	<3.00	1,080,000	107,000	24.4 J	<30.2	27.3 J
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	118	<0.330	<3.00	1,240,000	85,600	<0.840	69.6 J	<18.0



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	---	---	---	---	---	---	---	---
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	---	---	---	---	---	---	---	---
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	108	<0.330	<1.50	1,270,000	85,400	<8.40	<15.1	<18.0
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	96.6	<0.330	<0.750	581,000	61,100	<0.840	<7.55	<18.0
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	97.1	<0.330	<0.750	555,000	61,000	<0.840	<7.55	<18.0
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	72.6	<0.330	<0.150	129,000	515	2.84 J	4.33 J	236 J+
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	69.8	<0.330	<0.150	124,000	491	2.71 J	7.48	214 J+
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	421	<0.330	<0.750	254,000	2,410	6.69 J	<7.55	322
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	416	<0.330	<0.750	250,000	2,190	5.73 J	<7.55	346
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	220	<0.330	<1.50	255,000	23,400	1.88 J	44.1 J	<18.0
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	219	<0.330	<0.750	255,000	23,400	<0.840	41.2	<18.0
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	193	<0.330	<1.50	438,000	34,300	6.11 J	<15.1	<18.0
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	194	<0.330	<1.50	440,000	34,300	6.48 J	<15.1	<18.0
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	---	---	---	---	---	---	---	---
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	---	---	---	---	---	---	---	---
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	138	<0.330	<0.750	692,000	28,100	<0.840	<7.55	<18.0
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	137	<0.330	<0.750	684,000	28,200	<0.840	<7.55	<18.0
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	118	<0.330	<0.750	634,000	28,300	<0.840	<7.55	<18.0
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	130	<0.330	<0.750	681,000	31,400	<0.840	17.8 J	<18.0
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	131	<0.330	<0.750	640,000	24,500	<0.840	23.1 J	18.9 J

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	128	<0.330	<0.150	560,000	16,200	<0.840	<1.51	<18.0
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	24.1	<0.330	<0.150	30,700	64.2	<0.840	<1.51	<18.0
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	25.8	<0.330	<0.150	30,700	48.5	<0.840	<1.51	<18.0
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	24.1	<0.330	<0.150	30,800	27.6	<0.840	<1.51	83.8 J
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	24.1	<0.330	<0.150	32,200	21.4	0.884 J	<1.51	58.4 J
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	23.7	<0.330	<0.150	31,400	44.4	1.04 J	3.61 J	<18.0
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	121	<0.330	<0.150	600,000	25,400	<0.840	<1.51	<18.0
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	93.6	<0.330	<0.750	514,000	23,500	<0.840	<7.55	<18.0
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	95.9	<0.330	<0.750	529,000	24,400	<0.840	<7.55	<18.0
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	170	1.45 J	<0.750	717,000	27,800	7.31 J	9.56 J	5,590
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	157	1.05 J	<0.750	698,000	27,900	6.45 J	9.01 J	4,580
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	133	<0.330	<0.750	638,000	22,600	<0.840	20.7 J	<18.0
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	133	<0.330	<0.750	640,000	22,700	<0.840	20.7 J	<18.0
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	136	<0.330	<0.750	569,000	14,400	<0.840	<7.55	<18.0
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	137	<0.330	<0.750	572,000	14,500	0.876 J	<7.55	<18.0
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	10.8	<0.330	<0.150	4,160	2,290	<0.840	<1.51	<18.0
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	13.6	<0.330	<0.150	7,570	2,620	<0.840	<1.51	<18.0
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	11.5	<0.330	<0.150	5,300	1,860	<0.840	<1.51	<18.0
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	11.3	<0.330	<0.150	4,900	1,210	1.50 J	<1.51	51.2 J
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	12.0	<0.330	<0.150	3,980	709	1.32 J	16.9	59.0 J
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	10.5	<0.330	<0.150	43,100	2,740	<0.840	<1.51	<18.0
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	50.3	<0.330	<0.750	166,000	11,100	2.01 J	<7.55	<18.0
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	93.1	<0.330	<0.750	314,000	17,200	<0.840	8.84 J	<18.0
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	127	<0.330	<0.750	244,000	11,800	1.59 J	15.1 J	56.9 J
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	190	<0.330	<0.750	352,000	16,500	2.59 J	33.5	26.0 J
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	17.4	<0.330	<0.750	141,000	7,070	<0.840	19.3 J	<18.0
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	84.5	<0.330	<0.750	483,000	28,200	<0.840	<7.55	<18.0
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	132	<0.330	<1.50	1,240,000	58,800	<0.840	37.7 J	<18.0
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	115	<0.330	<3.00	1,170,000	61,600	<0.840	<30.2	<18.0
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	118	<0.330	<1.50	1,170,000	68,800	7.45 J	94.9	<18.0
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	60.8	<0.330	<0.750	258,000	28,700	<0.840	<7.55	<18.0
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	110	<0.330	<0.750	156,000	6,510	<0.840	<7.55	<18.0
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	129	<0.330	<0.150	154,000	3,000	1.88 J	<1.51	<18.0
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	254	<0.330	<0.750	318,000	10,200	17.3	23.2 J	805
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	330	<0.330	<0.750	498,000	8,330	7.24 J	62.7	178
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	57.4	<0.330	<0.750	234,000	30,300	<0.840	<7.55	490
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	367	<0.330	<0.150	116,000	468	<0.840	<1.51	742
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	171	1.32 J	<0.750	162,000	991	4.93 J	10.7 J	<18.0
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	175	<0.330	<1.50	181,000	3,930	3.49 J	27.7 J	115
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	272	<0.330	<0.750	314,000	2,610	1.44 J	<7.55	230
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	19.8	<0.330	<0.150	121,000	7,300	<0.840	<1.51	<18.0
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	97.1	<0.330	<0.750	686,000	38,400	<0.840	18.1 J	<18.0
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	227	3.85	<0.750	748,000	30,100	3.39 J	15.7 J	20.9 J
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	214	<0.330	<3.00	926,000	38,400	<0.840	51.3 J	25.0 J
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	353	<0.330	<0.750	979,000	30,500	<0.840	<7.55	<18.0
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	---	---	---	---	---	---	---	---
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	78.4	<0.330	<0.750	642,000	40,000	<0.840	<7.55	<18.0
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	94.6	<0.330	<0.750	612,000	40,100	<0.840	22.5 J	<18.0
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	123	<0.330	<0.750	687,000	33,500	<0.840	<7.55	146
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	161	<0.330	<3.00	815,000	38,300	<0.840	43.7 J	35.3 J
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	230	<0.330	<0.750	850,000	30,500	<0.840	<7.55	<18.0
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	26.5	<0.330	<0.150	84,500	931	<0.840	<1.51	86.5 J
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	529	<0.330	<0.150	342,000	1,700	5.04 J	1.55 J	<18.0
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	140	2.31	<0.750	360,000	16,100	5.81 J	14.0 J	<18.0
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	298	<0.330	<0.750	575,000	11,100	15.8	25.2 J+	1,340
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	593	<0.330	<0.750	1,050,000	13,900	39.5	<7.55	2,680
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	32.6	<0.330	<0.150	93,500	2,670	<0.840	<1.51	29.1 J
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	256	<0.330	<0.150	159,000	161	3.08 J	<1.51	638
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	167	1.39 J	<0.750	188,000	4,220	6.58 J	12.6 J	<18.0
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	352	<0.330	<0.750	449,000	6,720	7.75 J	33.3 J+	41.6 J
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	501	<0.330	1.11 J	640,000	11,000	8.21 J	<7.55	276
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	144	<1.65	<1.50	1,610,000	112,000	<4.20	<15.1	<90.0
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	81.9 J+	<0.950	<0.750	665,000	49,000	<0.298	<7.55	<140
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	131	<0.330	<0.750	532,000	40,100	<0.840	<7.55	<18.0
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	147	<0.330	<1.50	719,000	56,200	<0.840	<15.1	<18.0
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	122	5.16	<1.50	1,100,000	90,000	9.79 J	31.5 J	<18.0
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	110	<0.330	<1.50	1,070,000	73,600	<8.40	87.2 J+	<18.0
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	116	<0.330	<1.50	774,000	54,400	5.62 J	96.4	<18.0
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	19.0	<0.330	<0.150	58,200	764	<0.840	<1.51	<18.0
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	19.2	<0.330	<0.150	58,000	780	<0.840	<1.51	<18.0
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	21.3	<0.190	<0.150	45,600	56.7	0.145 J	<1.51	<28.1
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	90.8	<0.330	<0.150	167,000	1,300	<0.840	2.67 J	<18.0

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	78.6	1.14 J	<0.150	139,000	1,220	1.76 J	<1.51	18.3 J
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	43.8	<0.330	<0.150	82,400	504	<0.840	<1.51	40.2 J
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	46.1	<0.330	<0.150	87,900	543	0.850 J	<1.51	<18.0
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	37.8	<0.330	<0.150	77,000	458	<0.840	<1.51	<18.0
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	20.6	<0.330	<0.150	107,000	8,950	<0.840	1.90 J	<18.0
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	51.8 J+	<0.950	<0.750	355,000	31,400	1.54 J	<7.55	<140
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	49.4 J+	<0.950	<0.750	349,000	31,000	1.41 J	<7.55	<140
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	87.0	<0.330	<0.750	538,000	48,700	<0.840	<7.55	<18.0
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	26.7	<0.330	<1.50	129,000	11,200	<0.840	<15.1	<18.0
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	62.2	2.30	<0.750	307,000	30,500	3.48 J	13.8 J	<18.0
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	93.0	<0.330	<1.50	406,000	30,800	<0.840	53.9 J+	36.4 J
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	106	<0.330	<1.50	401,000	32,900	4.06 J	81.6	<18.0
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	25.0	<0.330	<0.150	165,000	519	<0.840	<1.51	26.0 J
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	20.0	<0.190	<0.150	68,400	284	0.0886 J	<1.51	31.9 J
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	19.4	<0.190	<0.150	67,600	275	0.0711 J	<1.51	39.7 J
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	184	<0.330	<0.150	73,900	10.3	<0.840	<1.51	38.3 J
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	174	<0.330	<0.150	68,900	8.64 J	<0.840	<1.51	54.4 J
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	324	<0.330	<0.150	91,400	10.0 J	<0.840	<1.51	81.2 J
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	323	<0.330	<0.150	91,700	9.09 J	<0.840	<1.51	84.9 J
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	335	0.836 J	<0.150	118,000	25.4 J	2.00 J	<1.51	1,480
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	335	0.893 J	<1.50	117,000	15.2 J	1.94 J	<15.1	1,360
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	787	<0.330	<0.150	261,000	61.9	2.04 J	<1.51	30,100
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	793	<0.330	<0.150	265,000	63.2	1.97 J	<1.51	30,400
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	655	<0.330	<0.150	157,000	12.6	1.75 J	<1.51	351 J+
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	631	<0.330	<0.150	156,000	12.1	2.02 J	<1.51	381 J+
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	532	<0.330	<0.150	119,000	13.0	<0.840	<1.51	3,790
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	520	<0.330	<0.150	114,000	12.4	<0.840	<1.51	3,660
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	14.2	<0.330	<1.50	123,000	5,930	<0.840	<15.1	<18.0
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	50.7	<0.190 UJ	<0.150 UJ	145,000	7,460	0.202 J	<1.51 UJ	<28.1 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	152	<0.330	<0.150	235,000	3,650	<0.840	1.58 J	30.6 J
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	151	<0.330	<0.150	204,000	1,830	4.15 J	<1.51	<18.0
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	457	<0.330	<0.150	318,000	2,950	1.21 J	<1.51	80.7 J
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	577	<0.330	<0.150	395,000	2,510	3.69 J	<1.51	92.9 J
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	505	<0.330	<0.750	483,000	1,620	2.79 J	<7.55	280
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	27.6	<0.330	<0.150	41,300	154	<0.840	3.53 J	18.0 J
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	28.5	<0.190 UJ	<0.150 UJ	39,300	137	<0.0596 UJ	<1.51 UJ	<28.1 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	65.3	<0.330	<0.150	76,600	199	<0.840	<1.51	<18.0
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	64.8	<0.330	<0.150	81,500	117	<0.840	<1.51	<18.0
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	188	1.25 J	<0.150	167,000	13.8	5.65 J	<1.51	107
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	236	<0.330	<0.150	181,000	46.2	1.38 J	4.49 J	53.4 J
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	308	<0.330	<0.150	245,000	24.6	1.76 J	<1.51	837 J+
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	16.6	<0.330	<0.150	114,000	2,350	<0.840	2.16 J	<18.0
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	44.2	<0.950 UJ	<0.750 UJ	218,000	13,400	0.835 J	8.06 J	<140 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	89.2	<0.330	<0.150	266,000	8,400	<0.840	<1.51	22.6 J
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	107	<0.330	<0.150	224,000	2,550	2.84 J	<1.51	35.7 J
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	281	<0.330	<0.150	328,000	5,550	<0.840	<1.51	<18.0



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	336	<0.330	<1.50	366,000	3,860	3.59 J	1.57 J	<18.0
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	330	<0.330	<0.750	436,000	2,480	2.96 J	<7.55	<18.0
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	17.5	<0.330	<0.150	72,400	398	<0.840	1.69 J	141
U4-MW-09S	12/16/2022	N	EM04	UMCf	55.3 - 65.3	10.2	<0.190 UJ	<0.150 UJ	17,700	2,780	<0.0596 UJ	<1.51 UJ	<28.1 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	17.1	<0.330	<0.150	15,100	2,360	<0.840	<1.51	25.0 J
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	88.3	<0.330	<0.150	18,200	45.2	<0.840	<1.51	96.5 J
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	402	0.397 J	<1.50	36,300	120	2.28 J	<15.1	586
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	572	<0.330	<0.750	448,000	2,710	2.04 J	17.1 J	21,700
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	406	<0.330	<0.750	181,000	584	<0.840	<7.55	408
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	58.7	<0.330	<0.150	275,000	5,290	<0.840	<1.51	<18.0
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	106	<0.330	<0.150	165,000	3,310	<0.840	<1.51	<18.0
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	413	<0.330	<0.150	230,000	196	1.20 J	2.98 J	421
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	1,010	<0.330	<0.150	187,000	45.6	0.983 J	<1.51	502
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	783	1.31 J	<0.150	197,000	12.7	1.73 J	<1.51	2,470
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	416	<0.330	<0.150	145,000	18.9	1.22 J	<1.51	852
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	339	<0.330	<0.150	140,000	30.4	1.24 J	4.79 J	141 J+
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	35.2	<0.330	0.369 J	278,000	5,960	<0.840	2.97 J	27.9 J
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	13.3	<0.330	<0.150	180,000	490	<0.840	<1.51	<18.0
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	187	<0.330	<0.150	208,000	23.9	1.35 J	<1.51	266
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	697	<0.330	<0.150	159,000	45.1	<0.840	<1.51	1,070
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	897	1.54 J	<0.150	225,000	38.7	2.53 J	2.78 J	15,200
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	438	<0.330	4.14 J	421,000	13,900	2.82 J	19.7 J	34.5 J
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	282	<0.330	<0.750	601,000	27,100	1.76 J	<7.55	<18.0
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	151	<1.65	<1.50	1,530,000	92,800	<4.20	<15.1	<90.0
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	107 J	<19.0 UJ	<15.0 UJ	1,200,000	75,700	<5.96 UJ	35.1 J	<2810 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	133	<0.330	<0.750	925,000	58,900	<0.840	<7.55	25.8 J
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	131	0.381 J	<0.750	1,140,000	85,700	<8.40	32.6	<18.0
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	110	4.28	<0.750	851,000	58,400	19.5 J	22.4 J	20.0 J
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	114	<0.330	<3.00	659,000	46,400	<0.840	44.4 J	<18.0
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	----	----	----	----	----	----	----	----
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	113	<0.330	<1.50	619,000	48,200	5.90 J	<15.1	18.1 J
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	24.6	<0.330	<0.150	161,000	6,040	<0.840	1.60 J	40.5 J
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	459	<0.190 UJ	<0.150 UJ	140,000	77.4	0.243 J	<1.51 UJ	134
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	463	<0.190 UJ	<0.150 UJ	140,000	76.1	0.242 J	<1.51 UJ	128
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	554 J	<0.330	<0.150	158,000 J	54.2 J	<0.840	<1.51	271 J+
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	375 J	<0.330	<0.150	105,000 J	37.1 J	<0.840	<1.51	295 J+
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	449	<0.330	<0.150	133,000	40.6	<0.840	<1.51 UJ	607
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	445	<0.330	<0.150	134,000	40.2	<0.840	11.4 J	629
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	195	2.76	<0.750	501,000	2,820	17.6	17.6 J	18.0 J
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	203	2.87	<0.750	515,000	2,820	17.8	17.6 J	<18.0
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	246	<0.330	<1.50	465,000	17,400	5.18 J	34.0 J	<18.0
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	247	<0.330	<1.50	467,000	17,400	3.90 J	33.3 J	<18.0
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	283	<0.330	<0.750	559,000	22,900	7.05 J	<7.55	<18.0
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	284	<0.330	<0.750	562,000	22,900	6.77 J	<7.55	<18.0
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	115	<0.330	<1.50	1,230,000	72,500	<4.20	<15.1	92.3 J
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	64.9 J+	<0.950	<0.750	662,000	48,500	<0.298	<7.55	<140
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	98.4	<0.330	<0.750	596,000	32,900	<0.840	<7.55	29.5 J
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	97.4	<0.330	<0.750	646,000	37,600	<0.840	18.2 J	<18.0
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	96.9	<0.330	<0.150	397,000	11,900	<0.840	<1.51	<18.0
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	127	<0.330	<0.750	396,000	8,060	1.51 J	15.3 J	<18.0
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	360	<0.330	<0.750	413,000	8,090	1.57 J	28.9	28.5 J
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	48.2	<0.330	2.51 J	317,000	17,200	<0.840	3.24 J	18.3 J
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	47.3	<0.330	<0.150 UJ	314,000	16,700	<0.840	2.11 J	41.4 J
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	20.7	<0.190	<0.150	86,600	63.3	0.171 J	<1.51	<28.1
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	20.7	<0.190	<0.150	86,400	64.8	0.173 J	<1.51	41.2 J
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	439	<0.330	<0.150	127,000	15.9	1.39 J	<7.55	243
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	564	<0.330	<0.150	141,000	25.7	<0.840	<1.51	1,420
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	99.2	<0.330	<0.150	154,000	20.0	<0.840	<1.51	32.3 J
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	383	<0.330	<0.750	281,000	267	4.44 J	14.5 J	31.0 J
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	333	<0.330	0.607 J	281,000	1,280	2.96 J	3.35 J	40.0 J
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	173	<1.65	<1.50	1,520,000	55,300	<4.20	<15.1	<90.0
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	100	<0.950	<0.750	494,000	17,900	<0.298	<7.55	<140
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	76.8	<0.330	<0.150	303,000	12,900	<0.840	<1.51	<18.0
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	69.5	<0.330	<0.150	261,000	9,000	<0.840	1.84 J	<18.0
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	92.8	<0.330	<0.150	364,000	12,500	1.97 J	5.42	<18.0

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	92.0	<0.330	<0.750	404,000	14,000	<0.840	15.7 J	<18.0
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	93.4	<0.330	<0.750	431,000	14,500	<0.840	<7.55	<18.0
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	43.5	<0.330	<0.150	395,000	20,300	<0.840	<1.51	<18.0
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	19.6	<0.190 UJ	<0.150 UJ	100,000	892	0.138 J	<1.51 UJ	32.3 J
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	239	<0.330	0.223 J	66,300	255	<0.840	<1.51	52.5 J
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	395	<0.330	<0.150	61,700	151	<0.840	<1.51	500
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	127	<0.330	<0.150	341,000	12,600	3.13 J	<1.51	<18.0
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	113	<0.330	<0.750	452,000	17,800	<0.840	19.8 J	<18.0
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	116	<0.330	<0.750	527,000	21,500	<0.840	<7.55	<18.0
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	33.5	<0.330	<0.150	561,000	308	<0.840	3.44 J	<18.0
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	56.2	<0.190 UJ	<0.150 UJ	395,000	6,790	<0.0596 UJ	<1.51 UJ	40.3 J
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	52.1	<0.330	<0.150	181,000	4,500	<0.840	3.77 J	65.8 J
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	49.1	<0.330	<0.150	224,000	4,270	<0.840	<1.51	<18.0
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	191	<0.330	<0.150	219,000	2,540	<0.840	5.59	<18.0
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	178	<0.330	<0.150	230,000	2,810	0.928 J	3.06 J	<18.0
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	129	<0.330	<0.150	253,000	3,590	<0.840	<1.51	<18.0
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	23.1	<0.330	<0.150	237,000	2,150	<0.840	<1.51	<18.0
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	49.4	<0.190 UJ	<0.150 UJ	524,000	4,710	0.0650 J	<1.51 UJ	<28.1 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	49.1	<0.330	<0.150	250,000	4,510	<0.840	<1.51	<18.0
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	129	<0.330	<0.150	263,000	700	<0.840	1.54 J	<18.0
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	63.8	<0.330	<0.150	296,000	2,060	<0.840	1.60 J	<18.0
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	92.4	<0.330	<0.150	301,000	2,150	1.42 J	<1.51	38.9 J
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	98.6	<0.330	<0.150	363,000	2,410	<0.840	1.61 J	<18.0
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	56.0	<0.330	<0.150	338,000	4,940	<0.840	<1.51	21.8 J
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	49.7	<0.330	<0.150	208,000	3,170	<0.840	<1.51	<18.0
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	56.3	<0.330	<0.150	156,000	3,210	<0.840	2.97 J	<18.0
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	61.7	<0.330	<0.150	197,000	3,870	<0.840	<1.51	<18.0
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	50.3	1.26 J	<0.150	185,000	3,310	1.23 J	<1.51	<18.0
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	71.8	<0.330	<0.150	214,000	3,370	<0.840	4.29 J	49.3 J

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	76.4	<0.330	<0.150	243,000	3,560	0.981 J	<1.51	35.5 J
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	21.3	<0.330	<0.150	34,000	64.4	<0.840	2.23 J	162
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	25.2	<0.330	<0.150	32,300	16.3	<0.840	<1.51	<18.0
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	25.3	<0.330	<0.150	30,600	13.8	<0.840	1.53 J	45.7 J
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	24.1	<0.330	<0.150	32,300	7.06 J	<0.840	<1.51	29.4 J
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	22.6	<0.330	<0.150	28,400	3.78 J	<0.840	<1.51	40.0 J
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	22.8	<0.330	<0.150	30,100	5.60 J	<0.840	2.13 J	85.5 J
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	24.9	<0.330	<0.150	31,800	2.07 J	<0.840	<1.51	<18.0
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	20.5 J+	<0.330	<0.150	127,000	5,510	<0.840	<1.51	24.4 J
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	24.9	<0.330	<0.150	163,000	5,040	<0.840	<1.51	<18.0
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	874	<0.330	<0.150	194,000	108	<0.840	<1.51	7,360
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	629	<0.330	<0.150	178,000	89.2	1.25 J	<1.51	5,050
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	509	<0.330	<0.150	180,000	42.6	1.59 J	<1.51	143
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	469	<0.330	<0.750	190,000	1,940	2.81 J	11.5 J	92.8 J
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	535	<0.330	<0.750	264,000	5,400	1.82 J	31.0	29.5 J
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	21.0	<0.330	<0.150	166,000 J	268 J	<0.840	<1.51	95.9 J
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	419	<0.330	<0.150	197,000	16.9	<0.840	<1.51	3,440
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	217	<0.330	<0.150	94,100	9.67 J	1.30 J	<7.55	<18.0
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	360	<0.330	0.278 J	96,700	9.11 J	<0.840	<1.51	154 J+
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	694	<0.330	<0.150	135,000	11.0	<0.840	<1.51	1,790
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	776	<0.330	<0.150	143,000	5.70 J	3.00 J	7.07 J	289
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	593	<0.330	<0.150	138,000	6.41 J	1.77 J	<1.51	260 J+
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	431	<0.330	<0.150	117,000	5.49 J	<0.840	<1.51	97.9 J
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	191	<0.330	<1.50	474,000	12,600	<0.840	<15.1	<18.0
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	94.1	<0.330	<0.150	149,000	27,600	<0.840	<1.51	<18.0
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	137	<0.330	<0.750	601,000	16,800	<0.840	<7.55	<18.0
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	227	<0.330	<1.50	816,000	39,300	<0.840	<15.1	<18.0
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	137	<0.330	<0.750	596,000	17,700	<0.840	15.1 J	21.7 J
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	137	<0.330	<1.50	713,000	22,000	<0.840	21.5 J	<18.0
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	132	<0.330	<0.750	628,000	17,300	<0.840	<7.55	<18.0
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	24.7 J+	<0.330	<0.150	114,000	922	<0.840	2.29 J	25.5 J
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	23.1	<0.330	<0.150	77,200	203	<0.840	<1.51	<18.0
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	23.5	<0.330	<0.150	67,600	167	<0.840	2.22 J	<18.0
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	22.7	<0.330	<0.150	60,000	192	<0.840	3.20 J	<18.0
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	21.6	<0.330	<0.150	54,700	146	<0.840	1.68 J	<18.0
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	23.0	<0.330	<0.150	55,700	99.0	<0.840	3.38 J	<18.0
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	24.1	<0.330	<0.150	59,000	18.5	<0.840	2.06 J	<18.0
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	38.6	<0.330	<0.150	231,000	8,620	<0.840	<1.51	<18.0
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	182	<0.330	<0.150	153,000	10.9	<0.840	<1.51	33.5 J
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	184	<0.330	<0.150	147,000	11.4	<0.840	<1.51	33.8 J
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	652	<0.330	<0.150	264,000	19.0	1.47 J	<1.51	3,540
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	650	<0.330	<0.150	264,000	18.7	1.01 J	<1.51	3,530
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	459	<0.330	<0.150	215,000	16.8	<0.840	1.67 J	5,740
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	459	<0.330	<0.150	217,000	14.7	<0.840	2.48 J	5,810
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	408	<0.330	0.162 J	515,000	13,800	6.06 J	3.78 J	18.7 J
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	408	<0.330	<0.150	509,000	13,800	5.81 J	3.43 J	20.4 J



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Barium	Beryllium	Cadmium	Calcium	Chromium	Cobalt	Copper	Iron
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	275	<0.330	<0.750	628,000	28,900	<0.840	36.4 J+	<18.0
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	271	<0.330	<0.750	621,000	28,700	<0.840	37.2 J+	<18.0
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	222	<0.330	<0.750	676,000	31,700	<0.840	<7.55	<18.0
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	234	<0.330	<0.750	707,000	33,300	<0.840	<7.55	<18.0
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	22.2 J+	<0.330	<0.150	169,000	427	<0.840	<1.51	<18.0
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	22.5 J+	<0.330	<0.150	168,000	426	<0.840	<1.51	<18.0
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	18.0	<0.190 UJ	<0.150 UJ	136,000	77.3	0.147 J	<1.51 UJ	<28.1 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	260	<0.330	<0.150	203,000	6.40 J	<0.840	<1.51	10,700
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	462	<0.330	<0.150	254,000	13.3 J+	<0.840	<1.51	12,500
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	183	<0.330	<0.150	86,400	6.78 J	1.28 J	<1.51	4,050
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	362	<0.330	<0.150	120,000	4.64 J	1.99 J	5.88 J+	5,940
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	452	<0.330	<0.150	145,000	9.10 J	<0.840	<1.51	7,480
U4-SLMW	11/10/2022	N	EM03		-	----	----	----	----	----	----	----	----
U4-T3	10/13/2022	N	EM02		-	----	----	----	----	----	----	----	----
U4-T3	11/3/2022	N	EM03		-	----	----	----	----	----	----	----	----
U4-T3	12/6/2022	N	EM04		-	----	----	----	----	----	----	----	----
U4-T3	1/9/2023	N	EM05		-	----	----	----	----	----	----	----	----
U4-T3	2/13/2023	N	EM06		-	----	----	----	----	----	----	----	----
U4-T3	3/13/2023	N	EM07		-	----	----	----	----	----	----	----	----
U4-T3	4/19/2023	N	EM08		-	----	----	----	----	----	----	----	----
U4-T3	5/18/2023	N	EM09		-	----	----	----	----	----	----	----	----
U4-T3	6/12/2023	N	EM10		-	----	----	----	----	----	----	----	----
U4-T3	7/11/2023	N	EM11		-	----	----	----	----	----	----	----	----
U4-T3	8/10/2023	N	EM12		-	----	----	----	----	----	----	----	----
U4-T3	9/11/2023	N	EM13		-	----	----	----	----	----	----	----	----
U4-T3	10/16/2023	N	EM14		-	----	----	----	----	----	----	----	----

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	---	---	---	---	---	---	---	---
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	---	---	---	---	---	---	---	---
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<4.24	235,000	2.11 J	8.60	<4.08	---	33,800	4.45 J
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<4.24	380,000	3.41 J	7.87	<4.08	---	60,000	4.63 J
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	4.50 J	396,000	<0.934	10.2	<4.08	---	53,600	3.17 J
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<8.49	467,000	34.0	3.50 J	<8.16	---	55,600	3.48 J
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	---	---	---	---	---	---	---	---
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<4.24	622,000	1,220	9.13	51.6	---	118,000	5.73 J
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	---	---	---	---	---	---	---	---
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.849	155 J	<0.934	24.2	<0.816	---	31,400	2.90
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.849	149 J	<0.934	23.4	<0.816	---	18,800	3.26
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	1.05 J	142 J	2.49 J	21.7	1.01 J	---	24,800	2.73
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.849	769 J	13.2	21.9	1.54 J	---	20,200	2.31
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.849	4,000	21.2	19.1	2.07	---	19,300	0.963 J
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	---	---	---	---	---	---	---	---
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.849	21,100	21.9	7.34	<0.816	---	23,700	1.89 J
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.849	22,600	<0.934	5.67	6.46	---	11,600	1.75 J
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.849	32,000	41.6	7.84	0.936 J	---	13,300	1.99 J
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.849	28,900	3.03 J	7.94	0.958 J	---	15,300	1.82 J
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	---	---	---	---	---	---	---	---
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	---	---	---	---	---	---	---	---
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	---	---	---	---	---	---	---	---
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.849	28,500	3.24 J	5.79	1.55 J	---	5,180	2.33 J+
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	2.57	183,000	9.17 J	7.93	1.50 J	---	23,900	2.79 J+
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	----	----	----	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.849	28,000	5.58 J	5.60	7.62	----	5,090	2.54 J+
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.849	34,100	25.4	6.14	<0.816	----	7,080	2.28 J+
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	----	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<4.24	190,000	3.76 J	13.1	<4.08	----	39,600	4.70 J
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.849	27,900	4.47 J	4.87 J	4.33	----	5,050	1.98 J
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<4.24	414,000	20.2	13.6	78.0	----	65,500	6.52 J
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.849	27,900	253	5.45	7.12	----	5,590	1.43 J
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.849	28,600	9.92 J	9.77	58.2	----	11,800	1.85 J
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.849	255,000 J	19.9	3.31 J	5.53	25.3 J	32,800 J	2.53
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.849	88,400	8.86 J	13.6	<0.816	45.1 J	23,300	2.37
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.849	87,900	8.46 J	13.9	<0.816	46.2 J	23,200	2.53
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<8.49	634,000	22.5 J	8.85 J	<8.16	<91.5	74,800	9.10 J
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.849	66,000	8.86 J	18.0	1.14 J	194 J	23,400	3.34
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<8.49	737,000	54.7	10.2 J	<8.16	<91.5	82,200	7.15 J
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<8.49	360,000	23.2	<5.80	<8.16	172 J	46,900	3.01 J
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.849	91,600	21.6	13.2	2.61	199 J	25,300	2.47
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.849	165,000	7.51 J	8.19	20.5	34.0 J	29,700	2.51
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.849	133,000	7.93 J	11.6	2.29	<18.3	26,000	2.58
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.849	62,300	<0.934	<1.16	<0.816	----	5,630	3.03
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<8.49	240,000 J+	2.25 J	5.02 J+	<8.16	----	26,500	148
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<4.24	230,000	3.88 J	4.70 J	<4.08	----	27,600	1.74 J
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<4.24	222,000	1.48 J	1.41 J	<4.08	----	27,600	2.49 J
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<4.24	239,000	6.51 J	5.12	<4.08	----	26,900	1.71 J
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.849	125,000	11.3 J+	6.64	<0.816	----	21,800	1.92 J
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<8.49	108,000 J+	3.52 J	3.58 J	<8.16	----	23,300	82.9
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.849	126,000	8.70 J	5.18	<0.816	----	25,300	2.05
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.849	76,100	8.30 J	5.29	1.75 J	----	16,100	2.07
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.849	80,800	4.82 J	6.42	<0.816	----	16,300	2.12
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	1.06 J	85,700	4.20 J	<1.16	<0.816	----	7,270	3.38
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.849	252,000	1.32 J	5.17	2.49	----	27,400	2.52
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<4.24	304,000	1.96 J	5.64	<4.08	----	31,100	2.68 J
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<8.49	426,000	178	<1.16	11.1	----	35,700	3.03
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<4.24	432,000	5.75 J	7.31	<4.08	----	38,700	1.98 J
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.849	4,240	<0.934	24.4	<0.816	----	17,500	2.64
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.849	3,920 J+	82.4	24.6	172	----	18,800	3.01
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.849	4,790	0.987 J	26.5	<0.816	----	19,300	2.67
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.849	3,970	<0.934	22.8	<0.816	----	16,800	1.85 J
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	1.79 J	5,050	3.03 J	25.9	1.40 J	----	16,000	1.08 J
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<8.49	636,000	5.23 J	16.0	<8.16	----	94,100	7.47 J
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<8.49	599,000 J+	4.80 J	14.7 J	<8.16	----	82,700	51.6
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<17.0	525,000	3.39 J	16.4	<16.3	----	110,000	6.05 J
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	----	----	----	----	----	----	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<17.0	560,000	12.7	7.97	<16.3	----	101,000	<6.00



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	---	---	---	---	---	---	---	---
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	---	---	---	---	---	---	---	---
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<8.49	600,000	7.50 J	16.4	<8.16	---	87,200	3.46 J
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<4.24	294,000	221	23.4	103	---	73,000	6.92 J
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<4.24	289,000	229	23.8	99.2	---	71,300	4.91 J
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.849 UJ	82,700	972	7.65	46.0	---	19,000	0.654 J
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	4.08 J	79,800	943	7.12	46.1	---	18,400	0.552 J
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<4.24	202,000	2,330	22.4	104	---	34,700	<1.50
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	4.25 J	199,000	2,310	20.9	105	---	34,000	1.65 J
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<8.49	223,000	984	15.3	123	---	59,000	3.15 J
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<4.24	221,000	983	14.9	116	---	58,700	2.20 J
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<8.49	367,000	1,350	23.4	153	---	65,300	<3.00
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<8.49	369,000	1,370	23.0	152	---	66,600	3.91 J
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	---	---	---	---	---	---	---	---
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	---	---	---	---	---	---	---	---
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<4.24	369,000	8.20 J	4.49 J	<4.08	---	35,900	1.88 J
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	4.90 J	369,000	2.65 J	5.12	<4.08	---	35,900	3.11 J
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<4.24	332,000	1.55 J	4.90 J	<4.08	---	36,600	3.02 J
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<4.24	354,000	<0.934	6.42	<4.08	---	39,000	2.48 J
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<4.24	386,000	44.3	<1.16	<4.08	---	38,000	2.72 J

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.849	348,000	281	2.18 J	39.3	----	34,700	1.40 J
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.849	16,400	3.34 J	8.98	<0.816	----	6,600	1.83 J
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.849	16,600	1.74 J	8.83 J+	1.35 J	----	6,690	1.57 J
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.849	16,000	3.27 J	8.47	1.26 J	----	6,230	1.36 J
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.849	16,500	8.00 J	8.15	<0.816	----	6,760	1.42 J
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.849	17,500	4.16 J	7.48	<0.816	----	6,740	1.38 J
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.849	325,000	5.11 J	5.12	<0.816	----	37,100	2.88 J+
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<4.24	274,000	1.63 J	6.28	<4.08	----	36,500	3.33 J
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<4.24	284,000	1.57 J	7.16	<4.08	----	38,100	3.25 J
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	9.18 J	458,000	416	3.18 J	8.15 J	----	43,500	2.90 J
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	10.3 J+	434,000	312	3.98 J	7.49 J	----	42,700	2.59 J
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<4.24	379,000	66.5	2.36 J	<4.08	----	39,300	2.39 J
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<4.24	381,000	67.8	2.21 J	<4.08	----	38,600	2.81 J
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<4.24	369,000	214	2.76 J	<4.08	----	36,400	3.48 J
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<4.24	370,000	221	3.33 J	<4.08	----	36,600	3.25 J
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.849	584 J	3.04 J	20.8	<0.816	----	11,100	3.27 J+
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.849	16,800	<0.934	21.4	<0.816	----	12,000	2.90
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	1.51 J	1,230	1.29 J	26.2	1.23 J	----	10,400	2.07
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.849	1,140	11.7	36.9	2.77 J+	----	10,700	2.28
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.849	1,170	23.2	37.1	2.92	----	10,700	0.989 J
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.849	23,700	1.08 J	<1.16	<0.816	----	2,920	2.08
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<4.24	92,600	8.64 J	3.74 J	<4.08	----	16,200	2.08 J
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<4.24	164,000	73.2	5.53	<4.08	----	23,500	1.70 J
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<4.24	137,000	112	4.66 J	<4.08	----	20,200	1.89 J
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<4.24	218,000	233	3.98 J	7.70 J	----	25,600	<1.50
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<4.24	71,500	<0.934	1.55 J	<4.08	----	6,810	2.95 J
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<4.24	256,000	17.1	3.55 J	<4.08	----	34,800	4.23 J
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<8.49	607,000	10.7	9.54	<8.16	----	60,900	4.06 J
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<17.0	586,000	26.2	4.68 J	<16.3	----	64,900	7.66 J
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<8.49	615,000	14.6	8.26	8.56 J	----	67,600	3.88 J
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<4.24	129,000	2.45 J	15.8	<4.08	----	34,300	<1.50
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<4.24	108,000	432	17.0	6.24 J	---	26,000	2.13 J
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<0.849	137,000	714	12.0	7.62	---	27,000	0.894 J
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<4.24	244,000	3,220	15.7	188	---	36,500	1.55 J
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<4.24	427,000	3,360	14.7	24.6	---	47,900	<1.50
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<4.24	117,000	9.99 J	22.5	<4.08	---	36,600	3.42 J
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.849	81,600	609	4.70 J	11.8	---	20,900	0.461 J
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	6.99 J	166,000	470	59.2	17.3	---	33,200	<1.50
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<8.49	228,000	474	13.2	30.1 J+	---	36,800	<3.00
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	---	---	---	---	---	---	---	---
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<4.24	361,000	1,260	16.7	107	---	52,400	2.18 J
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.849	62,500	1.26 J	<1.16	<0.816	---	7,760	3.38
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<4.24	370,000	10.4	6.49	<4.08	---	47,800	2.38 J
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<4.24	455,000	209	80.8	<4.08	---	48,700	2.50 J
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<17.0	609,000	367	3.89 J	48.7 J+	---	63,600	<6.00
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<4.24	714,000	1,360	5.27	9.05 J	---	60,300	4.14 J
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	---	---	---	---	---	---	---	---
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<4.24	322,000	3.27 J	13.6	<4.08	---	51,200	6.26 J
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<4.24	352,000	37.1	10.8	<4.08	---	52,400	3.90 J
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<4.24	420,000	102	9.96	<4.08	---	50,900	2.82 J
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<17.0	542,000	219	7.35	<16.3	---	62,200	<6.00
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<4.24	638,000	927	7.78	11.9	---	62,500	6.24 J
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.849	39,700	1.27 J	3.84 J	<0.816	----	5,290	1.91 J
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.849	204,000 J+	2,920	3.64 J	32.4	----	15,100 J+	5.68
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<4.24	249,000	614	69.3	6.87 J	----	36,300	<1.50
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<4.24	385,000	4,790	6.45	135	----	32,600	2.24 J
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<4.24	523,000	8,550	9.15	194	----	61,400	3.40 J
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.849	46,800	0.976 J	3.33 J	0.924 J	----	7,190	1.39 J
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.849	108,000	971	2.53 J	6.14 J+	----	16,500	0.349 J
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<4.24	218,000	600	57.7	22.7	----	32,700	<1.50
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<4.24	351,000	2,060	7.08	19.5 J+	----	36,100	1.68 J
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<4.24	450,000	4,020	10.8	129	----	48,900	3.10 J
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<8.49	707,000	37.2 J	11.9 J	<8.16	<91.5	102,000	7.61 J
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<4.24	330,000	11.7 J	3.10 J	<4.08	----	43,000	4.50 J
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<4.24	378,000	40.2 J+	4.72 J	<4.08	----	49,900	6.98 J
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<8.49	542,000 J+	68.9	5.34 J+	<8.16	----	61,800	4.01 J
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<8.49	557,000	39.7	117	<8.16	----	90,900	3.93 J
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<8.49	511,000	43.3	5.94	<8.16	----	69,400	4.36 J
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<8.49	569,000	180	9.24	<8.16	----	66,400	3.20 J
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.849	28,400	14.7	9.57	1.49 J	110 J	11,000	2.68
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.849	28,400	14.6	9.89	1.44 J	107 J	11,100	2.31
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.849	23,100	31.7	10.9	3.15	----	9,950	2.00
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	0.963 J	92,600	2.52 J	4.92 J	1.72 J	----	15,400	2.01

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.849	80,800	19.3	8.85	17.2 J+	----	15,400	1.85 J
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	1.42 J	45,200	2.85 J	8.49	1.61 J	----	11,300	1.50 J
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.849	47,900	4.63 J	8.01	<0.816	----	11,700	1.74 J
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.849	40,000	12.6 J+	6.56	1.10 J	----	10,400	2.44
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.849	44,400	5.20 J	18.7	0.820 J	25.4 J	23,000	2.69
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<4.24	166,000	29.6	12.8 J	113	----	36,600	3.16 J
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<4.24	163,000	28.6	12.7 J	106	----	36,200	3.40 J
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<4.24	288,000	13.6 J+	16.2	29.8	----	55,900	6.53 J
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<8.49	78,400 J+	23.4	11.1 J+	9.78 J	----	25,100	<3.00
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<4.24	210,000	35.6	77.0	14.9	----	42,800	2.03 J
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<8.49	349,000	44.0	6.66	12.8 J	----	52,100	3.39 J
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<8.49	432,000	60.4	15.1	17.0 J	----	57,600	<3.00
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.849	3,570	<0.934	20.1	<0.816	<18.3	20,400	2.19
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.849	30,800	10.2	20.4	3.02	----	18,200	1.95 J
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.849	30,800	10.5	20.0	2.30	----	17,900	1.80 J
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.849	61,700	428	3.71 J	1.37 J	----	17,800	<0.300
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.849	55,500	406	4.57 J	1.59 J	----	16,900	<0.300
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.849	68,300 J+	1,310	2.92 J	2.34	----	15,900	<0.300
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.849	66,600 J+	1,300	1.59 J	2.34	----	15,800	<0.300
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	6.72	88,500	2,800	35.5	2.03	----	18,500	<0.300
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<8.49	87,600	2,750	35.9	<8.16	----	17,400	<3.00
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.849	186,000	10,600	<1.16	3.64	----	26,100	<0.300
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.849	187,000	10,700	<1.16	4.04	----	26,400	<0.300
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.849	156,000	2,550	51.4	8.13	----	22,300	<0.300
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.849	154,000	2,470	44.5	8.99	----	21,600	<0.300
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.849	110,000	1,430	42.4	2.90	----	20,800	<0.300
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.849	109,000	1,370	42.1	3.04	----	19,800	<0.300
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<8.49	532,000	4.62 J	<1.16	<8.16	<18.3	6,610	3.90 J
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<0.849 UJ	71,500	5.78	6.30	11.1	----	12,100	1.98 J
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<0.849	136,000	71.7	1.39 J	10.6	----	17,400	1.73 J
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.849	144,000	536	8.71	13.9 J+	----	19,700	0.834 J
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.849	241,000	979	10.0	9.23	----	24,800	0.867 J
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<0.849	349,000	1,380	12.5	15.3	----	29,700	1.85 J
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<4.24	413,000	1,360	9.73	21.5	----	32,700	<1.50
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.849	20,000	7.39 J	9.61	<0.816	221 J	7,460	1.98 J
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.849 UJ	21,100	1.17 J	9.02	<0.816 UJ	----	7,030	1.86 J
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.849	43,200	2.54 J	5.69	7.63	----	9,310	2.06
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.849	45,600	6.67 J	6.80 J+	53.7	----	10,000	2.18
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.849	97,000	300	40.7	32.1	----	14,900	1.29 J
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.849	94,000	246	2.97 J	5.51 J+	----	15,200	1.46 J
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.849	112,000	549	3.62 J	7.72	----	21,400	0.954 J
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.849	42,300	4.58 J	13.2	0.971 J	172 J	19,300	2.24
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<4.24 UJ	100,000	21.9 J	7.84 J	83.7	----	20,600	2.26 J
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.849	153,000	44.5	3.36 J	105	----	21,400	1.80 J
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.849	160,000	251	4.93 J	32.4	----	23,300	1.04 J
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.849	251,000	458	8.86	23.7	----	27,100	1.06 J



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<0.849	350,000	816	8.79	25.1	---	30,200	1.81 J
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<4.24	426,000	1,170	10.4	39.2	---	34,800	1.80 J
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.849	30,200	5.72 J	19.0	<0.816	168 J	14,000	2.13
U4-MW-09S	12/16/2022	N	EM04	UMCf	55.3 - 65.3	<0.849 UJ	7,810	1.21 J	14.0	1.83 J	---	9,350	2.30
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	1.12 J	7,010	4.65 J	27.9	1.63 J	---	9,940	2.10
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.849	11,600	186	8.50 J+	14.6	---	13,400	<0.300
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<8.49	30,500	515	36.4	<8.16	---	16,600	<3.00
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<4.24	116,000	2,050	13.9	22.7 J+	---	76,800	1.70 J
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<4.24	90,700	572	2.62 J	8.82 J	---	38,600	<1.50
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.849	134,000	23.5	8.67	<0.816	32.2 J	24,200	2.14
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.849	87,500	2.32 J	3.34 J	<0.816	---	15,500	2.22
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.849	184,000	2,160	3.54 J	11.9	---	18,100	0.811 J
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.849	164,000	2,470	1.71 J	3.57 J+	---	18,000	0.312 J
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.849	178,000	1,910	66.3	7.78	---	19,800	0.441 J
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.849	126,000	1,190	24.8	5.58	---	17,600	0.434 J
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.849	128,000	1,100	16.8	6.71	---	16,200	0.598 J
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.849	135,000	25.2	17.8	1.08 J	194 J	31,700	2.88
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.849	87,800	34.4	16.9	<0.816	---	17,000	2.24
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	1.14 J	157,000	917	11.2	58.9	---	22,400	0.803 J
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.849	119,000	3,120	1.25 J	1.44 J	---	20,200	<0.300
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.849	184,000	4,630	47.6	4.72	---	22,900	<0.300
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<4.24	324,000	1,910	16.1	8.69 J	---	39,200	5.73 J
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<4.24	409,000	1,020	12.2	4.29 J	---	45,700	3.38 J
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<8.49	652,000	68.0	17.8 J	<8.16	315 J	86,800	6.05 J
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<84.9 UJ	601,000	<70.4 UJ	<34.8 UJ	<8.16 UJ	---	60,900 J	<30.0 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<4.24	499,000	88.2	9.80	<4.08	---	62,800	4.91 J
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<4.24	596,000	136	11.7	<4.08	---	80,500	5.86 J
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<4.24	526,000	90.1	97.3	<4.08	---	64,400	3.40 J
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<17.0	480,000	143	9.98	<16.3	---	56,500	<6.00
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	---	---	---	---	---	---	---	---
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<8.49	511,000	193	11.6	12.3 J	---	58,900	4.08 J
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.849	47,100	10.4	18.7	1.07 J	202 J	26,900	2.57
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.849 UJ	89,300	577	2.21 J	3.32	---	22,800	<0.300 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.849 UJ	88,400	564	1.46 J	2.79	---	23,200	3.38
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.849	117,000 J	1,250 J	<1.16	1.86 J	---	23,000 J	0.614 J
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.849	78,000 J	831 J	<1.16	1.87 J	---	15,200 J	<0.300
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.849	107,000	1,240	2.49 J	1.94 J	---	19,900	0.379 J
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.849	105,000	1,230	1.89 J	1.75 J	---	20,000	<0.300
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<4.24	373,000	2,400	82.6	80.7	---	50,600	5.48 J
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<4.24	385,000	2,440	81.2	82.1	---	51,700	7.34 J
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<8.49	377,000	1,430	36.0	23.5 J+	---	49,700	5.48 J
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<8.49	378,000	1,430	37.9	24.3 J+	---	50,300	8.78 J
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	---	---	---	---	---	---	---	---
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<4.24	500,000	1,490	24.2	19.6	---	57,300	4.39 J
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<4.24	502,000	1,490	24.9	17.8	---	59,000	4.78 J
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<8.49	501,000	59.4	15.8 J	<8.16	365 J	83,300	6.13 J
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<4.24	300,000	23.4 J	8.18 J	<4.08	---	43,100	3.67 J
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<4.24	286,000	37.2	7.27	<4.08	---	44,100	4.79 J
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<4.24	334,000	79.3	8.08	<4.08	---	49,400	3.24 J
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<0.849	232,000	50.0 J+	5.17	1.11 J	---	27,800	1.94 J
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<4.24	302,000	241	1.88 J	12.3 J+	---	28,900	2.35 J
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	---	---	---	---	---	---	---	---
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<4.24	362,000	901	2.76 J	14.3	---	48,000	1.54 J
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	2.29	126,000	44.1	17.6	4.10 J	122 J	35,700	5.65 J
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.849	125,000	44.4	17.7	1.90 J	265 J+	35,500	3.39 J
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.849	44,500	264	15.7	2.09	---	16,700	0.587 J
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.849	44,600	264	16.2	3.19	---	16,800	0.457 J
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.849	89,200	1,200	1.40 J	<4.08	---	23,800	0.309 J
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.849	121,000	1,920	<1.16	1.81 J	---	20,400	<0.300
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.849	121,000	1,080	146	4.28	---	26,100	0.954 J
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<4.24	233,000	1,100	24.1	81.0	---	29,200	2.49 J
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	---	---	---	---	---	---	---	---
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<0.849	265,000	1,000	29.2	255	---	33,500 J+	3.27 J+
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<8.49	664,000	32.9 J	9.95 J	<8.16	140 J	71,200	4.11 J
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<4.24	276,000	92.8	2.40 J	<4.08	---	26,600	2.64 J
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<0.849	150,000	40.4 J+	4.44 J	0.893 J	---	22,300	2.57
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.849	146,000	44.0	2.60 J	0.858 J	---	21,200	2.16
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	3.07 J+	211,000	51.6	3.59 J	1.42 J	---	29,500	1.80 J

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<4.24	226,000	47.9	3.27 J	<4.08	---	27,700	2.07 J
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	---	---	---	---	---	---	---	---
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<4.24	246,000	67.0	2.50 J	<4.08	---	28,900	2.03 J
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.849	169,000	28.6	13.8	1.80 J	132 J	33,100	3.62
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.849 UJ	48,300	161	9.01	2.47	---	16,700	1.08 J
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.849	44,100	228	5.96	2.33	---	13,800	<0.300
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.849	54,900	381	12.0 J+	3.27	---	15,300	<0.300
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	3.32 J+	210,000	197	4.85 J	2.18	---	30,400	2.04
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<4.24	256,000	134	3.90 J	<4.08	---	32,600	1.55 J
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	---	---	---	---	---	---	---	---
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<4.24	297,000	149	5.26	36.7	---	35,100	2.79 J
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.849	152,000	79.2	41.2	9.04	<18.3	25,400	3.31
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	1.09 J	128,000	21.5	5.90	<0.816 UJ	---	19,100	2.46
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.849	71,500	14.2 J+	3.16 J	<0.816	---	14,500	1.69 J
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.849	85,000	17.7	4.70 J	<0.816	---	16,800	1.85 J
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.849	126,000	283	7.16	3.52	---	18,000	1.93 J
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.849	142,000	330	7.58	10.2	---	17,300	1.67 J
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.849	131,000	268	5.45	3.88	---	18,300	1.63 J
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.849	52,400	19.0	16.2	1.09 J	191 J	25,400	2.53
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.849 UJ	139,000	32.4	9.57	1.12 J	---	22,000	2.86
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.849	79,600	11.1 J+	5.22	<0.816	---	16,700	1.98 J
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.849	115,000	214	7.41 J+	8.26	---	21,000	1.67 J
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.849	123,000	85.8	5.72	5.21	---	20,100	1.13 J
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.849	167,000	137	8.32	31.7	---	21,800	1.57 J
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.849	200,000	213	5.06	4.75	---	22,800	1.47 J
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.849	157,000	26.1	9.77	0.944 J	<18.3	25,500	2.38
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.849	92,400	10.3	6.33	<0.816	---	18,700	2.23
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.849	80,100	5.33 J	6.57	<0.816	---	15,400	2.33
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.849	99,200	25.2	7.40	<0.816	---	20,900	2.44
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.849	89,900	10.3	45.5	5.43	---	17,400	1.90 J
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.849	105,000	17.3	2.44 J	<0.816	---	17,400	2.06

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.849	152,000	26.5	2.51 J	2.70	----	20,100	1.88 J
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.849	15,400	2.57 J	10.4	2.78	<18.3	6,830	2.15
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.849	16,800	5.61 J	7.88	31.6	----	6,430	1.91 J
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	4.52 J+	17,300	7.24 J	8.41	44.8	----	6,510	1.89 J
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.849	17,000 J+	14.9 J+	12.7 J+	57.6	----	6,460 J+	2.25
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.849	16,000	5.65 J	9.31	17.7	----	6,150	1.70 J
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.849	16,900	5.40 J	8.44	48.5	----	6,340	1.97 J
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.849	19,200	16.3	10.1	45.0	----	6,910	2.23
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.849	56,500	14.9	17.8	<0.816	25.2 J	22,300	2.64
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.849	73,800	61.8	11.5	2.11	----	22,500	2.82
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<0.849	137,000	4,380	<1.16	2.63	----	16,200	<0.300
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.849	136,000	3,610	<1.16	2.53 J+	----	18,700	<0.300
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.849	145,000	1,240	32.2	50.1	----	25,200	2.07
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<4.24	147,000	1,370	14.1	9.26 J	----	24,600	2.49 J
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<4.24	227,000	1,320	16.6	11.6	----	33,300	<1.50
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.849	50,100 J	2.61 J	19.2	<0.816	50.3 J	15,200 J	2.71
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<0.849	61,300	465	1.18 J	2.37	----	33,300	0.690 J
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.849	56,900	267	<1.16	<4.08	----	18,700	<0.300
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.849	69,600 J+	354	<1.16	1.34 J	----	20,100	<0.300
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	1.22 J	120,000	1,190	2.44 J	3.15	----	25,800	<0.300
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.849	142,000	1,680	13.1	14.9	----	24,200	<0.300
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.849	161,000	1,420	11.6	16.3	----	25,600	<0.300
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.849	120,000	1,190	<1.16	1.90 J	----	21,100	<0.300
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<8.49	240,000	12.4	4.62 J	<8.16	<18.3	30,600	5.89 J
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.849	318,000	25.7	11.8	<0.816 UJ	----	8,140	0.707 J
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<4.24	326,000	114	5.53	<4.08	----	39,200	5.22 J
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<8.49	502,000 J+	286	7.04 J+	<8.16	----	52,500	3.17 J
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<4.24	340,000	199	8.47	7.75 J	----	37,400	<1.50
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<8.49	357,000	17.4	3.94 J	<8.16	----	44,400	<3.00
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<4.24	312,000	27.7	3.83 J	<4.08	----	36,600	1.98 J
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.849	48,200	11.0	13.8	0.870 J	<18.3	12,500	3.05
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.849	36,000	7.25 J	12.6	<0.816	----	10,300	2.31
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.849	33,400	4.46 J	10.4	2.13	----	9,810	1.97 J
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.849	28,800 J+	2.70 J	12.0 J+	<0.816	----	10,000 J+	2.26
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.849	25,900	3.25 J	11.0	2.56	----	8,270	1.76 J
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.849	26,600	5.94 J	10.6	16.5	----	8,410	1.78 J
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.849	26,600	9.14 J	12.1	37.2	----	9,020	1.67 J
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.849	76,200	2.20 J	13.7	<0.816	<18.3	30,800	2.58
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.849	85,400	629	5.24	7.02	----	25,600	<0.300
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.849	86,100	634	5.43	4.10 J	----	24,600	<0.300
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	1.23 J	229,000	4,580	<1.16	6.94	----	25,600	<0.300
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.849	229,000	4,600	1.59 J	6.97	----	25,500	<0.300
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.849 UJ	199,000	4,650	<1.16	8.25	----	17,500	<0.300
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	4.76 J	202,000	4,640	<1.16	8.37	----	17,600	<0.300
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	2.11 J+	473,000	2,590	25.9	77.3	----	51,000	3.86
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.849	472,000	2,590	26.9	75.6	----	49,700	3.61



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020
						Lead	Magnesium	Manganese	Molybdenum	Nickel	Phosphorus	Potassium	Selenium
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<4.24	443,000	865	10.1	9.29 J	---	52,100	3.01 J
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<4.24	438,000	857	8.91	9.01 J	---	51,100	3.49 J
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<4.24	417,000	586	8.15	14.7	---	48,900	3.96 J
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<4.24	437,000	614	8.21	13.7	---	51,100	4.36 J
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.849	37,500	2.69 J	18.3	<0.816	28.9 J	18,500	2.47
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.849	37,700	2.07 J	18.4	<0.816	25.5 J	18,300	2.96
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.849 UJ	57,200	19.9	40.2	<0.816 UJ	---	16,000	1.13 J
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.849	151,000	1,240	<1.16	<4.08	---	21,100	0.408 J
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.849	203,000 J+	2,430	<1.16	3.19	---	20,200	<0.300
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	1.26 J	93,200	720	<1.16	2.79	---	14,000	<0.300
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.849	118,000	944	1.63 J	2.50 J+	---	13,900	<0.300
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.849	169,000	1,100	<1.16	3.18	---	16,000	<0.300
U4-SLMW	11/10/2022	N	EM03		-	---	---	---	---	---	---	---	---
U4-T3	10/13/2022	N	EM02		-	---	---	---	---	---	---	---	---
U4-T3	11/3/2022	N	EM03		-	---	---	---	---	---	---	---	---
U4-T3	12/6/2022	N	EM04		-	---	---	---	---	---	---	---	---
U4-T3	1/9/2023	N	EM05		-	---	---	---	---	---	---	---	---
U4-T3	2/13/2023	N	EM06		-	---	---	---	---	---	---	---	---
U4-T3	3/13/2023	N	EM07		-	---	---	---	---	---	---	---	---
U4-T3	4/19/2023	N	EM08		-	---	---	---	---	---	---	---	---
U4-T3	5/18/2023	N	EM09		-	---	---	---	---	---	---	---	---
U4-T3	6/12/2023	N	EM10		-	---	---	---	---	---	---	---	---
U4-T3	7/11/2023	N	EM11		-	---	---	---	---	---	---	---	---
U4-T3	8/10/2023	N	EM12		-	---	---	---	---	---	---	---	---
U4-T3	9/11/2023	N	EM13		-	---	---	---	---	---	---	---	---
U4-T3	10/16/2023	N	EM14		-	---	---	---	---	---	---	---	---

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	0.956	1.80
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	34.552	0.56
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	----	----	----	----	----	42.112	1.63
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	----	----	----	----	----	16.998	4.13
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	----	----	----	----	----	18.268	4.61
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	----	----	----	----	----	19.870	4.83
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	----	----	----	----	----	9.502	5.52
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	----	----	----	----	----	10.973	6.27
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<0.350	1,700,000	<0.605	6.02 J	11.3 J	<15.1	12.924	8.09
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	----	----	----	----	----	17.375	0.57
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	----	----	----	----	----	19.858	4.58
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<0.350	2,690,000	<0.605	5.71	<4.99	<15.1	19.291	3.85
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	----	----	----	----	----	17.476	5.11
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	----	----	----	----	----	22.933	3.58
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.350	2,520,000	<0.605	9.66	<4.99	<15.1	18.1	1.48
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	----	----	----	----	----	19.504	0.11
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	----	----	----	----	----	----	19.571	0.19
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.700	2,820,000	<1.21	16.9	<4.99	<30.2	21.045	1.01
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	----	----	----	----	----	----	20.918	0.43
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	----	----	----	----	----	----	11.741	0.00
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<0.350	2,670,000	<0.605	84.3	67.8	96.8 J	17.631	-0.01
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----	----	----	----	5.163	5.64
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.0700	815,000	<0.121	0.164 J	88.6	3.06 J	3.539	2.45
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.0700	836,000	<0.121	0.184 J	82.9	9.60 J	4.110	1.37
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.0700	772,000	<0.121	<0.0789	75.2	<3.02	4.01	0.65
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.0700	770,000	<0.121	0.379 J	84.3	<3.02	3877.000	2.70
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.0700	642,000	<0.121	17.5	39.3	27.5 J+	3.206	6.34
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----	----	----	----	2.053	5.66
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.0700	307,000	<0.121	0.682 J	<4.99	<3.02	1.095	1.94
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.0700	195,000	<0.121	1.93	9.74 J	10.5 J	3.971	-4.01
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.0700	225,000	<0.121	3.34	9.22 J	<3.02	2.708	3.52
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.0700	254,000	<0.121	1.81	8.51 J	4.00 J	3.452	6.06
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	2.393	3.04
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	2.198	1.87
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	----	----	----	----	----	42.734	0.85
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.0700	109,000	<0.121	4.22	<4.99	31.6	1.180	7.21
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	0.072	9.17
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.0700	1,240,000	<0.121	13.1	11.1 J	6.82 J	8.100	8.18
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	----	----	----	----	----	6.667	0.56
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	----	----	----	----	----	19.499	-8.13
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	----	----	----	----	----	5.467	6.43
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	----	----	----	----	----	4.658	2.89
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	----	----	----	----	----	0.158	2.53
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	----	----	----	----	----	3.207	0.47
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	----	----	----	----	----	3.439	2.71

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	----	----	----	----	----	----	2.931	0.03
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	----	----	----	----	----	----	3.143	0.24
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	----	----	----	----	----	----	1.943	0.09
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	----	----	----	----	----	----	2.777	-1.93
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----	----	----	----	9.255	0.62
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	0.250 J	107,000	<0.121	4.17	<4.99	39.1	1.040	5.47
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----	----	----	----	9.309	4.25
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	0.161 J	310,000	<0.121	8.65	11.2 J	109	1.211	5.22
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	----	----	----	----	5.027	0.34
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	----	----	----	----	59.186	15.52
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	----	----	----	----	5.989	5.67
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	----	----	----	----	5.684	5.14
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	----	----	----	----	3.161	4.11
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	----	----	----	----	2.626	0.82
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	----	----	----	----	5.429	3.75
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	----	----	----	----	----	----	6.511	-0.06
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	----	----	----	----	----	----	5.245	0.00
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	----	----	----	----	----	----	6.017	0.07
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	----	----	----	----	----	----	5.748	0.15
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----	----	----	----	36.139	0.68
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	----	----	----	----	16.802	4.86
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	----	----	----	----	11.752	6.10
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	----	----	----	----	9.776	7.80
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	----	----	----	----	11.469	7.00
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<0.350	2,730,000	<0.605	13.7	11.5 J	<15.1	13.740	5.37
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	----	----	----	----	11.829	0.51
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	----	----	----	----	121.248	17.27
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	----	----	----	----	16.419	6.77
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	----	----	----	----	16.930	2.16
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	----	----	----	----	9.19	3.25
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	----	----	----	----	17.112	1.28
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	----	----	----	----	10.941	3.51
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	22.249	1.29
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.0700	106,000	<0.121	4.19	<4.99	35.1	0.999	6.07
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	4.524	0.84
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<0.350	4,390,000	<0.605	10.1	6.22 J	<15.1	22.410	4.33
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	26.037	3.43
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.0700	102,000	<0.121	3.57	<4.99	90.4	0.537	1.78
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----	----	----	----	5.209	0.59
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.0700	698,000	<0.121	13.2	16.6 J	10.1 J	8.778	7.39
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.0700	1,310,000	<0.121	5.59	<4.99	5.24 J	9.911	2.39
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.0700	624,000	<0.121	7.83	17.4 J	4.73 J	4.282	2.10
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.0700	622,000	<0.121	7.85	15.5 J	5.71 J	----	----
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	---	---	---	---	---	---	---	---
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	---	---	---	---	---	---	5.809	2.83
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	---	---	---	---	---	---	3.965	55.80
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	---	---	---	---	---	---	8.481	6.55
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	---	---	---	---	---	---	1.755	2.06
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	---	---	---	---	---	---	8.065	0.62
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	---	---	---	---	---	---	13.700	2.61
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	---	---	---	---	---	---	15.651	5.52
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	---	---	---	---	---	---	14.385	2.42
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	---	---	---	---	---	---	11.976	2.61
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	---	---	---	---	---	---	3.76	2.52
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	---	---	---	---	---	---	7.728	2.43
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	---	---	---	---	---	---	10.273	0.08
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	---	---	---	---	---	---	9.874	0.67
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	---	---	---	---	---	---	11.720	0.57
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	---	---	---	---	---	---	12.557	0.34
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.700	5,760,000	<1.21	5.33 J	<25.0	<30.2	28.599	1.02
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.0700	1,610,000	<0.121	9.05	45.7	3.42 J	6.791	2.78
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	---	---	---	---	---	---	---	---
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	---	---	---	---	---	---	14.508	4.32
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	---	---	---	---	---	---	13.019	2.90
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	---	---	---	---	---	---	7.227	4.15
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	---	---	---	---	---	---	12.582	6.63
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	---	---	---	---	---	---	5.774	3.04
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	---	---	---	---	---	---	12.284	0.26
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	---	---	---	---	---	---	7.144	2.56
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	---	---	---	---	---	---	14.175	2.72
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	---	---	---	---	---	---	14.819	1.95
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	---	---	---	---	---	---	24.122	1.8
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	---	---	---	---	---	---	6.764	1.89
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	---	---	---	---	---	---	16.492	1.98
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	---	---	---	---	---	---	17.411	0.10
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	---	---	---	---	---	---	15.515	0.80
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	---	---	---	---	---	---	15.736	0.31
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	---	---	---	---	---	---	18.588	0.22
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.700	6,200,000	<1.21	7.00 J	<25.0	<30.2	31.747	1.11
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	---	---	---	---	---	---	---	---
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	---	---	---	---	---	---	22.510	2.00
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	---	---	---	---	---	---	17.697	3.19
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	---	---	---	---	---	---	10.120	58.00
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	---	---	---	---	---	---	16.329	6.82
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	---	---	---	---	---	---	13.288	2.58
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	---	---	---	---	---	---	15747.000	0.26
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	---	---	---	---	---	---	13.979	3.62
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	---	---	---	---	---	---	18.024	2.95
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	---	---	---	---	---	---	16.343	1.76

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.700	1,840,000	<1.21	5.49 J	7.06 J	<30.2	16.373	1.12
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.0700	1,100,000	<0.121	9.29	16.8 J	3.75 J	6.980	5.93
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.0700	1,120,000	<0.121	1.64	6.53 J	<3.02	8.624	0.77
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.0700	1,410,000	<0.121	10.6	14.5 J	7.05 J	9.367	1.04
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----	----	----	----	11.556	0.72
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----	----	----	----	7.060	11.76
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.0700	165,000	<0.121	3.18	<4.99	<3.02	12.024	5.68
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.700	769,000	<1.21	3.51	6.20 J	<30.2	7.279	5.89
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.350	729,000	<0.605	4.02 J	6.62 J	<15.1	6.26	5.35
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.350	705,000	<0.605	3.45 J	5.20 J	<15.1	7.489	1.80
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.350	783,000	<0.605	6.31	5.93 J	<15.1	7.074	1.45
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	1.873	0.81
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.0700	377,000	<0.121	2.59	<4.99	<3.02	6.737	2.84
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.700	421,000	<1.21	1.09	<4.99	<30.2	4.786	3.56
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.0700	425,000	<0.121	1.65	<4.99	12.8 J	4.64	2.03
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.0700	296,000	<0.121	2.61	<4.99	24.5 J	2.687	3.13
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.0700	290,000	<0.121	2.94	8.43 J	<3.02	4.138	2.42
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----	----	----	----	9.209	0.67
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	0.146 J	213,000	0.148 J	3.88	<4.99	<3.02	16.598	7.69
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.0700	779,000	<0.121	3.83	<4.99	11.4 J	7.447	5.80
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.350	873,000	<0.605	5.11	<4.99	<15.1	7.818	4.76
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	0.562 J	972,000	<1.21	7.14 J	<25.0	46.4 J+	----	----
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.350	1,040,000	<0.605	8.01	<4.99	<15.1	12.389	1.60
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----	----	----	----	4.903	4.81
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.0700	859,000	<0.121	2.66	66.7	<3.02	4.199	5.90
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.0700	854,000	<0.121	2.22	67.6	<3.02	4.283	4.21
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.0700	907,000	<0.121	3.16	68.2	<3.02	3.367	0.79
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.0700	742,000	<0.121	5.09	70.3	<3.02	3.665	0.10
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.0700	664,000	<0.121	18.6	70.0	4.53 J	2.929	0.13
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----	----	----	----	47.936	0.74
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----	----	----	----	82.713	0.99
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----	----	----	----	61.099	0.93
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----	----	----	----	41.262	1.18
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----	----	----	----	28.405	1.73
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----	----	----	----	25.274	2.04
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	1.64 J	6,650,000	<1.21	3.50 J	<4.99	<30.2	38.385	2.05
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----	----	----	----	37.915	0.18
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----	----	----	----	35.930	2.52
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	0.800 J	7,010,000	<1.21	53.6	<25.0	<30.2	35.233	7.26
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----	----	----	----	40.985	1.73
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----	----	----	----	38.61	2.22
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<1.40	7,670,000	<2.42	4.70 J	<4.99	<60.4	33.003	1.98
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----	----	----	----	38.108	1.6
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	----	----	----	----	----	----	30.650	0.41
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<1.40	6,490,000	<2.42	6.29 J	<4.99	<60.4	30.653	1.97



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	---	---	---	---	---	---	35.341	0.65
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	---	---	---	---	---	---	30.620	0.62
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.700	6,640,000	<1.21	6.81 J	14.4 J	<30.2	31.672	0.72
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	---	---	---	---	---	---	8.827	3.75
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	---	---	---	---	---	---	20.389	0.98
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	---	---	---	---	---	---	17.936	0.44
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	---	---	---	---	---	---	1.625	1.11
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	---	---	---	---	---	---	22.789	1.09
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<0.350	4,660,000	<0.605	19.3	8.84 J	<15.1	27.205	0.39
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<0.350	4,660,000	<0.605	18.7	12.3 J	<15.1	---	---
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	---	---	---	---	---	---	3.331	0.04
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	---	---	---	---	---	---	3.966	1.00
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.0700	836,000	<0.121	60.1	18.9 J	12.9 J	4.378	1.99
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.0700	810,000	<0.121	62.5	18.3 J	15.9 J	---	---
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	---	---	---	---	---	---	4.126	0.21
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	---	---	---	---	---	---	12.098	1.33
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.350	1,630,000	<0.605	65.1	34.5	<15.1	8.481	0.14
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.350	1,600,000	<0.605	63.9	34.0	<15.1	---	---
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	---	---	---	---	---	---	15.953	0.24
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	---	---	---	---	---	---	12.991	0.08
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<0.700	3,760,000	<1.21	222	38.5	<30.2	16.823	1.32
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<0.350	3,670,000	<0.605	196	41.9	<15.1	---	---
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	---	---	---	---	---	---	23.065	0.31
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	---	---	---	---	---	---	20.049	0.62
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	---	---	---	---	---	---	---	---
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.700	4,450,000	<1.21	161	30.4	<30.2	20.070	0.44
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.700	4,330,000	<1.21	155	34.5	<30.2	---	---
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	---	---	---	---	---	---	19.006	2.71
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	---	---	---	---	---	---	7.848	5.12
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<0.350	1,840,000	<0.605	2.41 J	<4.99	<15.1	797.196	3.67
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.350	1,890,000	<0.605	2.52 J	<4.99	<15.1	---	---
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.350	1,820,000	<0.605	2.67	<25.0	<15.1	12.408	7.77
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.350	2,000,000	<0.605	19.6	<4.99	<15.1	12.23	-1.53
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.350	1,980,000	<0.605	72.6	<4.99	<15.1	15.255	0.67

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.0700	1,660,000	<0.121	1.02	<4.99	41.1	11.974	1.50
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----	----	----	----	2.756	1.07
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.0700	145,000	<0.121	2.55	7.92 J	<3.02	1.855	2.71
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.0700	143,000	<0.121	2.35	11.0 J	<3.02	1.081	1.55
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.0700	138,000	<0.121	2.53	8.13 J	3.18 J	0.855	-1.23
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.0700	141,000	<0.121	2.46	9.56 J	<3.02	0.997	1.58
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.0700	141,000	<0.121	2.38	10.1 J	<3.02	1.046	2.25
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	6.055	1.28
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	0.0987 J	1,590,000	0.158 J	4.09	<4.99	<3.02	22.711	4.02
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<0.350	1,540,000	<0.605	3.39 J	8.63 J	<15.1	12.632	4.07
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<0.350	1,640,000	<0.605	3.43 J	7.62 J	<15.1	----	----
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	0.501 J	1,910,000	<0.605	13.0	16.6 J	36.4 J	13.726	2.78
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	0.414 J	1,900,000	<0.605	11.9	14.1 J	27.8 J	----	----
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.350	1,850,000	<0.605	64.2	<4.99	<15.1	14.049	0.09
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.350	1,840,000	<0.605	63.1	<4.99	<15.1	----	----
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<0.350	1,670,000	<0.605	70.5	<4.99	21.3 J	12.568	1.56
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<0.350	1,660,000	<0.605	68.8	7.14 J	16.9 J	----	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	4.716	9.18
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.0700	892,000	<0.121	6.81	159	<3.02	7.108	3.63
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.0700	971,000	<0.121	5.87	105	<3.02	4.357	0.56
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.0700	881,000	<0.121	13.0	127	<3.02	3.313	-1.93
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.0700	878,000	<0.121	26.9	170	<3.02	4.153	0.37
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.0700	897,000	<0.121	91.0	138	<3.02	4.188	1.42
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----	----	----	----	50.188	0.90
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----	----	----	----	5.802	7.81
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.0700	205,000	<0.121	9.80	<4.99	<3.02	5.697	7.32
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.350	965,000	<0.605	15.5	11.8 J	<15.1	5.920	0.79
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.350	1,330,000	<0.605	14.8	5.26 J	50.2 J	8.782	2.88
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.350	1,280,000	<0.605	24.5	<4.99	<15.1	8.464	0.52
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<0.350	1,590,000	<0.605	40.9	<4.99	<15.1	8.859	0.72
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	22.833	0.68
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.350	482,000	<0.605	7.91	<4.99	<15.1	15.330	5.23
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.350	2,010,000	<0.605	22.0	6.74 J	<15.1	12.208	1.12
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.700	4,020,000	<1.21	30.1	<4.99	<30.2	27.215	0.72
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<1.40	4,460,000	<2.42	33.6	<4.99	<60.4	28.039	0.40
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<0.700	4,430,000	<1.21	49.6	<4.99	<30.2	23.480	1.15
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----	----	----	----	39.740	0.77
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	24.933	3.56
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	17.012	4.46
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----	----	----	----	16.306	4.72
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	10.893	5.62
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	5.665	7.00
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<0.350	2,670,000	<0.605	13.1	11.8 J	<15.1	13.970	5.77
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	8.597	0.09
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	22.381	-39.98

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.350	1,810,000	<0.605	93.9	<4.99	<15.1	6.646	0.78
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	----	----	----	11.868	0.37
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	----	----	----	14.812	1.44
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<0.0700	1,680,000	0.257 J	117	<4.99	12.8 J	9.152	0.08
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----	----	----	----	10.688	0.77
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	----	----	----	----	----	----	11.339	0.18
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<0.350	2,060,000	<0.605	113	151	<15.1	10.356	0.02
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	----	----	----	----	----	----	16.203	0.61
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	----	----	----	----	----	----	11.861	1.56
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<0.350	2,590,000	0.761 J	219	27.1	35.5 J	12.653	-1.97
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----	----	----	----	20.080	0.87
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	----	----	----	----	----	24.065	2.94
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	----	----	----	----	----	21.533	3.08
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	----	----	----	----	----	0.258	6.78
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	----	----	----	----	----	12.599	4.84
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	----	----	----	----	----	5.446	5.76
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<0.350	2,700,000	<0.605	16.0	21.8	<15.1	23.991	6.62
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	----	----	----	----	----	5.477	0.92
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	----	----	----	----	----	13.468	-1.10
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.0700	1,810,000	<0.121	96.4	24.8	9.57 J	4.781	0.37
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	----	----	----	----	----	10.427	0.14
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	----	----	----	----	----	12.637	1.39
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.350	2,130,000	<0.605	163	21.9	20.6 J	10.838	0.08
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	----	----	----	----	----	9.508	7.01
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	----	----	----	----	----	----	11.545	0.18
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.700	2,270,000	<1.21	155	11.3 J	<30.2	12.780	0.45
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	----	----	----	----	----	----	16.872	0.13
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	----	----	----	----	----	----	13.126	0.54
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.350	3,670,000	0.632 J	219	15.2 J	24.1 J	18.403	0.16
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----	----	----	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	16.354	5.93
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	0.293 J	530,000	0.144 J	6.77	<4.99	<3.02	9.930	5.41
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.350	3,030,000	<0.605	7.14	<49.9	16.2 J	10.958	5.42
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.350	2,900,000	<0.605	74.5	<4.99	16.4 J	20.472	0.84
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<1.40	3,930,000	<2.42	106	<4.99	<60.4	19.371	0.33
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<0.350	3,240,000	<0.605	146	6.78 J	20.6 J	18.486	0.30
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----	----	----	----	6.356	0.75
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.350	3,280,000	<0.605	9.11	11.5 J	<15.1	4.941	6.89
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.350	3,300,000	<0.605	31.8	<49.9	15.5 J	6.217	8.13
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<0.350	3,330,000	<0.605	87.3	<25.0	24.4 J	20.743	0.68
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<1.40	3,990,000	<2.42	85.0	<4.99	<60.4	25.356	0.33
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<0.350	3,700,000	0.989 J	167	<4.99	18.9 J	20.279	0.30
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	----	----	----	----	----	10.924	4.48
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	2.057	6.89
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	----	----	----	----	----	1.730	6.43

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----	----	----	----	1.462	8.66
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----	----	----	----	1.736	11.30
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----	----	----	----	1.217	9.30
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.0700	189,000	<0.121	7.45	<4.99	<3.02	0.029	7.54
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	----	----	----	----	4.642	0.05
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	----	----	----	----	37.585	44.89
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.0700	537,000	0.168 J	3.74 J	8.40 J	<3.02	4.893	1.10
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	----	----	----	----	16.019	0.37
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	----	----	----	----	14.895	2.61
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.350	2,250,000	<0.605	128	8.03 J	<15.1	13.126	0.06
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	----	----	----	----	11.854	1.09
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	----	----	----	----	----	----	14.100	0.40
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.350	1,610,000	<0.605	94.9	21.3	24.4 J	11.893	0.10
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	----	----	----	----	----	----	13.083	0.01
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	----	----	----	----	----	----	10.076	-0.06
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<0.350	2,230,000	1.09 J	216	166	35.7 J	16.620	0.08
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	5.556	0.59
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	2.078	6.24
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	1.794	6.05
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----	----	----	----	1.562	8.32
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	1.955	9.11
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	1.786	8.45
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.0700	314,000	<0.121	8.83	5.92 J	5.20 J	6.144	7.27
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	4.708	0.07
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	42.407	48.03
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.0700	946,000	<0.121	62.7	10.3 J	<3.02	4.631	0.23
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	10.648	0.37
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	10.453	3.21
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.350	2,130,000	<0.605	218	22.2	18.6 J	11.049	0.1
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	8.236	0.87
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	----	----	----	----	10.506	0.19
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.350	1,890,000	<0.605	123	12.0 J	163	12.676	0.36
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	----	----	----	----	----	----	14.572	0.07
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	----	----	----	----	11.454	-0.02
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<0.350	3,010,000	0.660 J	158	29.2	27.4 J	17.404	0.14
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.700	7,950,000	<1.21	10.1	<25.0	<30.2	43.677	1.07
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.350	3,880,000	<0.605	24.7	6.96 J	<15.1	15.745	1.70
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<0.350	3,810,000	<0.605	103	<4.99	<15.1	15.242	1.42
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	0.863 J	4,800,000	<1.21	96.5	<4.99	<30.2	26.142	2.23
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.700	6,620,000	<1.21	39.1	<4.99	<30.2	50.933	-1.16
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.700	5,580,000	<1.21	52.6	<4.99	2.860	32.434	0.45
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<0.700	4,810,000	<1.21	112	<4.99	<30.2	26.147	0.83
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.0700	258,000	<0.121	3.24	10.4 J	<3.02	1.774	0.95
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.0700	258,000	<0.121	3.20	9.34 J	<3.02	----	----
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.0700	179,000	<0.121	3.17	8.61	23.0 J	1.034	1.20
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.0700	359,000	<0.121	2.28	<4.99	<3.02	7.824	2.01



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.0700	330,000	0.830 J	2.36	8.83 J	<3.02	2.973	2.71
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.0700	230,000	<0.121	2.91	7.29 J	<3.02	1.655	-1.71
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.0700	244,000	<0.121	2.74	6.41 J	<3.02	2.416	0.73
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.0700	222,000	<0.121	2.35	6.96 J	<3.02	1.252	0.92
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.0700	1,300,000	<0.121	6.55	23.5	3.30 J	8.786	1.97
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.350	2,570,000	<0.605	23.7	18.2 J	<15.1	8.950	2.32
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.350	2,540,000	<0.605	23.2	18.3 J	<15.1	----	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<0.350	3,640,000	<0.605	41.3	11.9 J	<15.1	7.198	2.29
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.700	1,580,000	1.43 J	75.9	16.6 J	<30.2	8.097	1.90
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.350	2,860,000	<0.605	109	10.5 J	<15.1	22.556	-1.3
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.700	3,770,000	<1.21	151	7.13 J	343	20.541	0.37
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<0.700	3,730,000	<1.21	199	6.07 J	<30.2	19.060	2.89
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.0700	580,000	<0.121	0.591 J	47.5	<3.02	3.391	3.42
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.0700	624,000	<0.121	13.4	49.2	<3.02	2.838	2.17
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.0700	612,000	<0.121	13.2	48.5	4.34 J	----	----
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.0700	464,000	<0.121	11.8	5.34 J	<3.02	0.027	7.40
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.0700	467,000	<0.121	13.7	5.55 J	<3.02	----	----
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.0700	551,000	<0.121	18.7	8.86 J	<3.02	2.956	0.72
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.0700	554,000	<0.121	18.0	9.37 J	<3.02	----	----
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.0700	527,000	<0.121	8.27	22.2	9.25 J	4.902	-1.41
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.700	517,000	<1.21	8.89 J	22.4	<30.2	----	----
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.0700	680,000	<0.121	9.03	66.6	4.48 J	5.477	-0.18
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.0700	683,000	<0.121	8.53	66.6	4.80 J	----	----
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.0700	602,000	<0.121	23.8	13.2 J	<3.02	3.231	0.99
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.0700	601,000	<0.121	23.9	14.6 J	<3.02	----	----
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.0700	569,000	<0.121	50.0	23.0	8.44 J	4.249	0.15
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.0700	547,000	<0.121	49.3	18.6 J	6.90 J	----	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.700	475,000	<1.21	10.2	<4.99	165 J	25.834	1.79
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<0.0700 UJ	680,000	<0.121 UJ	9.26	23.1	<3.02 UJ	3.375	6.84
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<0.0700	879,000	<0.121	48.7	8.91 J	<3.02	4.632	1.55
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.0700	821,000	0.147 J	62.1	8.47 J	<3.02	5.788	1.36
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.0700	1,140,000	0.195 J	86.5	<4.99	14.3 J	7.12	1.59
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<0.0700	1,360,000	0.485 J	173	<4.99	11.6 J	8.668	1.12
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.350	1,440,000	<0.605	163	7.77 J	<15.1	10.857	0.99
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.0700	181,000	<0.121	2.98	9.16 J	3.03 J	1.339	1.49
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.0700 UJ	162,000	<0.121 UJ	3.11	10.6	<3.02 UJ	1.036	1.23
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.0700	199,000	<0.121	2.36	9.68 J	<3.02	1.698	4.64
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.0700	214,000	<0.121	2.86	8.61 J	<3.02	1.722	3.91
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.0700	319,000	<0.121	7.89	<4.99	4.42 J	5.041	-1.2
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.0700	304,000	0.331 J	5.08	<4.99	3.24 J	2.495	1.35
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.0700	321,000	<0.121	8.21	<4.99	8.68 J	3.874	-0.02
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.0700	588,000	<0.121	5.48	19.1 J	<3.02	3.354	10.37
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<0.350 UJ	1,150,000	<0.605 UJ	10.8	10.7 J	<15.1 UJ	4.939	5.28
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.0700	1,140,000	<0.121	60.5	9.36 J	<3.02	16.829	0.37
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.0700	966,000	<0.121	83.1	12.0 J	<3.02	6.158	1.16
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0700	1,280,000	0.188 J	86.2	<4.99	14.9 J	7.94	0.34



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<0.0700	1,480,000	0.261 J	165	<4.99	71.7 J+	9.014	1.21
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.350	1,610,000	<0.605	189	7.60 J	<15.1	10.546	4.20
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.0700	461,000	<0.121	6.57	36.3	<3.02	2.893	4.00
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.0700 UJ	841,000	<0.121 UJ	4.45	67.2	<3.02 UJ	3.158	5.76
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.0700	780,000	<0.121	9.84	61.6	8.34 J	3.822	1.29
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.0700	1,500,000	1.23 J	81.8	48.1	9.78 J	4.352	0.69
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.700	1,530,000	<1.21	10.1	34.9	<30.2	8.97	-1.46
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.350	1,690,000	<0.605	137	85.0	<15.1	9.939	0.04
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.350	1,760,000	<0.605	17.0	40.2	<15.1	7.231	0.11
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.0700	626,000	<0.121	9.13	8.78 J	3.53 J	5.411	0.91
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.0700	----	<0.121	5.41	7.55 J	<3.02	2.690	3.80
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.0700	303,000	<0.121	95.1	<4.99	7.73 J	542.825	0.85
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.0700	300,000	<0.121	25.4	<4.99	<3.02	3.761	0.26
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.0700	362,000	0.332 J	130	5.23 J	3.27 J	3.965	1
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.0700	297,000	<0.121	66.0	14.2 J	<3.02	2.943	0.28
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.0700	290,000	0.147 J	48.4	20.7	<3.02	2.389	0.98
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.0700	995,000	0.490 J	6.45	9.70 J	4.88 J	7.650	0.90
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.0700	----	<0.121	11.5	16.8 J	<3.02	2.740	0.62
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.0700	586,000	<0.121	0.368 J	10.7 J	10.4 J	735.012	3.48
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.0700	465,000	<0.121	5.72	23.8	<3.02	3.790	0.34
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.0700	571,000	<0.121	42.9	17.0 J	4.53 J	4.813	0.57
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	0.903 J	1,540,000	4.16 J	46.1	19.1 J	<15.1	10.020	8.38
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.350	2,180,000	<0.605	38.5	22.7	<15.1	13.707	0.46
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.700	5,920,000	<1.21	5.93 J	<25.0	<30.2	31.458	0.75
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	----	----	----	----	49.507	1.26
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	----	----	----	----	49.047	1.30
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	----	----	----	----	25.648	1.17
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<7.00 UJ	5,170,000	<12.1 UJ	32.5 J	<66.4 UJ	<302 UJ	5.464	1.37
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	----	----	----	----	25.673	0.68
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	----	----	----	----	20.311	1.11
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<0.350	4,620,000	<0.605	40.9	<4.99	<15.1	24.191	1.15
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	----	----	----	----	18.366	0.11
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	----	----	----	----	26.832	1.06
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	0.357 J	5,770,000	0.739 J	37.0	<49.9	29.6 J	13.654	1.92
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	----	----	----	----	19.620	0.72
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	----	----	----	----	24.679	0.37
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.350	4,240,000	0.844 J	70.5	<4.99	21.4 J	22.158	1.2
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	----	----	----	----	26.749	0.26
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	----	----	----	----	----	----	21.842	0.96
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<1.40	4,100,000	<2.42	112	<4.99	<60.4	20.757	1.25
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	----	----	----	----	----	----	21.175	0.60
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	----	----	----	----	----	----	21.735	0.61
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<0.700	3,930,000	1.39 J	113	5.21 J	<30.2	17.774	-1.74
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.0700	924,000	<0.121	3.18	14.2 J	<3.02	7.803	1.01
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	5.582	10.67
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	2.413	1.08
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	3.179	0.82
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.0700 UJ	609,000	<0.121 UJ	37.6	21.7	<3.02 UJ	3.016	2.77
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.0700 UJ	595,000	<0.121 UJ	38.2	21.2	<3.02 UJ	----	----
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	3.038	7.09
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	9.120	0.83
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.0700	602,000 J	<0.121	14.1	19.2 J	<3.02	3.476	0.45
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.0700	398,000 J	<0.121	13.7	10.2 J	4.87 J	----	----
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	3.218	0.53
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	3.152	0.28
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.0700	495,000	<0.121	9.57	23.2	<3.02	3.350	1.03
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.0700	498,000	<0.121	9.57	22.3	<3.02	----	----
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	3.282	0.19
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	11.584	0.33
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.350	2,050,000	<0.605	242	<4.99	213 J+	15.082	0.86
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.350	2,090,000	<0.605	246	<4.99	212 J+	----	----
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	29.354	0.77
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	----	----	----	----	----	----	16.246	0.99
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.700	2,710,000	<1.21	157	<4.99	<30.2	13.935	1.71
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.700	2,710,000	<1.21	156	<4.99	<30.2	----	----
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	----	----	----	----	----	----	16.091	0.55
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	----	----	----	----	----	----	16.043	0.64
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.350	3,160,000	<0.605	125	7.29 J	25.3 J	17.230	1.87
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.350	3,130,000	<0.605	122	<4.99	29.5 J	----	----
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.700	4,920,000	<1.21	10.8	<4.99	<30.2	32.048	0.90
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	----	----	----	----	----	17.403	5.30
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	----	----	----	----	----	11.998	2.16
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	----	----	----	----	----	9.367	1.89
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.350	3,260,000	<0.605	23.3	9.35 J	20.1 J	15.505	2.44
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	----	----	----	----	----	9.215	1.80
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----	----	----	----	16.607	1.11
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<0.350	2,610,000	<0.605	13.7	8.65 J	<15.1	12.160	1.14
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	----	----	----	----	----	18.271	10.22
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	----	----	----	----	----	27.758	1.10

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.350	2,850,000	<0.605	13.4	<49.9	19.1 J	14.311	0.66
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	----	----	----	----	----	13.058	1.09
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	----	----	----	----	----	9.089	0.87
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<0.0700	1,150,000	0.201 J	56.9	<25.0	15.4 J	9.274	0.83
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	----	----	----	----	----	8.087	0.4
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	----	----	----	----	----	----	8.470	1.02
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.350	1,140,000	<0.605	115	<4.99	<15.1	7.742	1.24
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	----	----	----	----	----	----	8.277	0.99
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	----	----	----	----	----	----	6.756	0.56
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<0.350	1,240,000	<0.605	135	6.73 J	<15.1	9.274	1.41
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	0.454 J	1,720,000	2.39	9.47	9.09 J	<3.02	11.234	1.32
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.0700	1,690,000	<0.121	7.29	6.67 J	<3.02	----	----
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	----	----	----	----	----	3.677	0.92
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----	----	----	----	2.587	1.25
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----	----	----	----	1.684	1.15
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.0700	490,000	<0.121	41.0	6.05	<3.02	2.533	1.36
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.0700	499,000	<0.121	41.4	6.27	<3.02	----	----
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----	----	----	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----	----	----	----	3.485	0.76
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.0700	591,000	<0.121	15.5	13.0 J	<15.1	2.868	0.28
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----	----	----	----	3.160	0.35
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----	----	----	----	5.078	0.72
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.0700	628,000	0.831 J	12.9	19.9 J	4.77 J	3.243	0.35
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----	----	----	----	3.411	2.36
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----	----	----	----	8.021	1.05
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0700	742,000	<0.121	257	<4.99	15.9 J	5.619	0.68
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----	----	----	----	3.377	0.09
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	----	----	----	----	6.389	0.90
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.350	1,100,000	<0.605	143	<4.99	<15.1	7.120	1.11
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	----	----	----	----	----	----	7.613	0.54
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	----	----	----	----	6.857	0.82
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<0.0700	1,390,000	0.195 J	168	10.3 J	11.1 J	9.139	1.13
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.700	3,990,000	<1.21	10.8	<25.0	<30.2	32.518	0.90
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	----	----	----	----	----	11.793	0.96
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----	----	----	----	11.124	1.77
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----	----	----	----	5.404	1.67
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.350	1,170,000	<0.605	34.4	4.77 J	<15.1	7.937	2.99
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----	----	----	----	4.505	1.39
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----	----	----	----	8.150	1.44
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	0.289 J	849,000	0.310 J	13.2	6.57 J	13.0 J	5.920	2.07
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----	----	----	----	4.930	0.14
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----	----	----	----	7.513	1.34
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.0700	790,000	0.240 J	35.0	<4.99	<3.02	6.112	0.61
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----	----	----	----	6.603	0.50
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----	----	----	----	11.972	1.24
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<0.0700	929,000	0.342 J	30.2	5.22 J	6.85 J	7.059	1.65

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	---	---	---	---	---	---	9.096	0.63
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	---	---	---	---	---	---	8.038	1.57
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.350	1,060,000	<0.605	28.0	<4.99	<15.1	8.078	1.65
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	---	---	---	---	---	---	8.075	1.21
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	---	---	---	---	---	---	6.175	2.73
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.350	1,140,000	<0.605	40.3	8.22 J	39.6 J	8.838	0.30
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.0700	1,640,000	<0.121	7.29	9.14 J	<3.02	11.607	2.38
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	---	---	---	---	---	---	5.667	2.79
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	---	---	---	---	---	---	6.053	1.93
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	---	---	---	---	---	---	2.675	2.64
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.0700 UJ	759,000	<0.121 UJ	38.3	7.72	<3.02 UJ	3.613	1.73
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	---	---	---	---	---	---	2.079	1.19
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	---	---	---	---	---	---	3.065	0.61
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.0700	655,000	<0.121	19.8	<4.99	<3.02	1.654	0.98
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	---	---	---	---	---	---	2.452	0.02
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	---	---	---	---	---	---	4.125	0.52
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.0700	606,000	<0.121	27.5	12.0 J	<3.02	3.300	0.32
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	---	---	---	---	---	---	3.564	2.68
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	---	---	---	---	---	---	14.898	0.97
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<0.0700	1,060,000	<0.121	30.7	<4.99	9.22 J	8.29	1.69
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	---	---	---	---	---	---	8.605	0.64
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	---	---	---	---	---	---	9.056	1.19
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.350	1,330,000	<0.605	30.8	<4.99	<15.1	8.638	1.59
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	---	---	---	---	---	---	9.544	1.63
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	---	---	---	---	---	---	9.005	1.01
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.350	1,590,000	<0.605	40.0	9.30 J	35.2 J	11.292	1.54
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.0700	673,000	<0.121	18.5	22.2	<3.02	5.770	0.87
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.0700 UJ	469,000	0.156 J	8.22	14.1	<3.02 UJ	4.415	2.55
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.0700	373,000	<0.121	8.52	9.49 J	6.57 J	181.910	1.08
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.0700	420,000	<0.121	23.0	<4.99	<3.02	4.035	0.82
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.0700	425,000	<0.121	47.7	9.33 J	5.36 J	3.694	1.94
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.0700	456,000	0.123 J	58.0	<4.99	17.3 J	3.257	2.42
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.0700	508,000	0.128 J	34.2	8.12 J	10.1 J	4.998	3.12
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.0700	596,000	<0.121	4.68	13.3 J	<3.02	5.720	0.77
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.0700 UJ	518,000	0.243 J	15.3	14.3	<3.02 UJ	4.279	2.18
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.0700	413,000	<0.121	11.3	13.6 J	<3.02	213.617	0.55
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.0700	553,000	<0.121	36.8	12.4 J	<3.02	4.589	0.61
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.0700	450,000	<0.121	55.6	10.2 J	8.92 J	4.131	0.73
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.0700	502,000	<0.121	89.2	<4.99	<3.02	4.580	0.14
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.0700	589,000	0.180 J	72.0	<4.99	<3.02	5.115	3.13
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.0700	646,000	0.186 J	13.6	8.06 J	<3.02	5.015	1.02
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.0700	436,000	<0.121	11.6	7.40 J	<3.02	2.298	15.40
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.0700	318,000	<0.121	6.45	8.42 J	<3.02	2.799	0.93
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.0700	415,000	<0.121	10.1	11.3 J	<3.02	5.069	0.61
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.0700	358,000	<0.121	6.81	9.95 J	3.80 J	3.276	1.03
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.0700	343,000	<0.121	25.3	7.10 J	<3.02	3.211	1.20

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	Dissolved Metals by SW6010B/SW6 020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.0700	381,000	0.143 J	58.4	<4.99	<3.02	3.458	0.73
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.0700	159,000	<0.121	4.23	17.9 J	<3.02	0.999	2.14
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.0700	----	<0.121	3.37	12.9 J	<3.02	0.666	2.14
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.0700	137,000	<0.121	3.10	11.8 J	<3.02	0.888	1.96
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.0700	138,000	<0.121	2.81	6.34 J	<3.02	1.027	0.94
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.0700	130,000	<0.121	3.64	13.1 J	<3.02	0.905	2.24
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.0700	135,000	<0.121	3.84	15.5 J	<3.02	0.827	3.34
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.0700	138,000	<0.121	3.50	9.51 J	<3.02	0.866	1.80
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.0700	897,000	<0.121	6.59	18.7 J	<3.02	5.348	1.45
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	0.105 J	976,000	0.663 J	52.3	14.2 J	<3.02	2.972	1.05
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<0.0700	387,000	<0.121	69.9	65.7	6.91 J	473.418	0.66
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.0700	448,000	<0.121	5.30	31.2	5.29 J	3.653	0.38
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0700	1,010,000	<0.121	95.8	13.3 J	16.5 J	6.172	1.16
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.350	935,000	<0.605	49.9	29.0	<15.1	5.160	3.57
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<0.350	1,300,000	<0.605	83.2	35.7	<15.1	8.283	10.56
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.0700	387,000 J	<0.121	4.94	23.5	<3.02	2.466	5.73
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<0.0700	277,000	<0.121	6.64	21.0	<3.02	1.328	0.91
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.0700	299,000	<0.121	1.92	14.4 J	<15.1	1.687	1.02
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	0.0721 J	421,000	0.259 J	2.57	8.42 J	<3.02	2.659	0.19
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	0.0732 J	478,000	<0.121	3.32	13.9 J	8.39 J	2.629	0.25
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.0700	482,000	<0.121	10.9	5.22 J	<3.02	3.228	-0.25
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.0700	475,000	<0.121	7.22	<4.99	<3.02	3.022	1.60
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.0700	412,000	<0.121	3.40	8.51 J	<3.02	3.428	0.12
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.700	1,210,000	<1.21	6.64 J	<4.99	44.4 J	27.119	4.03
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.0700	522,000	<0.121	5.45	<4.99	<3.02	14.259	2.61
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.350	1,750,000	<0.605	18.7	6.38 J	<15.1	9.893	2.42
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.700	2,970,000	<1.21	35.6	5.43 J	<30.2	23.075	1.17
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.350	1,800,000	<0.605	24.8	7.10 J	<15.1	18.739	-7.04
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.700	1,820,000	<1.21	3.83 J	<4.99	<30.2	11.484	1.99
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<0.350	1,490,000	<0.605	6.30	<4.99	<15.1	10.706	7.51
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.0700	390,000	<0.121	7.68	18.9 J	5.37 J	2.380	1.10
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.0700	----	<0.121	7.92	14.0 J	<3.02	1.722	1.93
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.0700	246,000	<0.121	7.16	15.9 J	3.04 J	1.622	2.67
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.0700	227,000	<0.121	6.69	21.9	<3.02	1.625	0.95
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.0700	199,000	<0.121	7.28	19.3 J	3.51 J	1.398	1.21
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.0700	204,000	<0.121	7.66	18.5 J	3.26 J	1.424	2.44
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.0700	208,000	<0.121	6.64	17.0 J	<3.02	6.202	5.96
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.0700	968,000	<0.121	2.26	<4.99	3.91 J	6.673	8.63
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.0700	----	<0.121	65.4	7.90 J	6.02 J	2.618	1.36
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.0700	----	<0.121	62.1	5.85 J	<3.02	----	----
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.0700	342,000	<0.121	20.1	18.4 J	<3.02	0.020	8.09
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.0700	342,000	<0.121	18.7	23.0	<3.02	----	----
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.0700	276,000	<0.121	13.7	19.6 J	5.25 J	3.244	1.03
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.0700	280,000	0.282 J	13.0	21.3	8.93 J	----	----
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.0700	1,990,000	0.152 J	108	<4.99	10.2 J	14.244	0.85
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.0700	1,980,000	0.142 J	107	<4.99	<3.02	----	----



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	Dissolved Metals by SW6010B/SW6020	FIELD TESTS	FIELD TESTS
						Silver	Sodium	Thallium	Uranium	Vanadium	Zinc	Conductivity	Dissolved Oxygen
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mS/cm	mg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.350	2,610,000	<0.605	38.2	7.72 J	<15.1	17.713	0.05
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.350	2,530,000	<0.605	36.6	7.10 J	<15.1	----	----
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.350	2,660,000	<0.605	26.2	10.5 J	31.1 J	16.108	1.13
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.350	2,760,000	<0.605	29.3	10.9 J	31.2 J	----	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.0700	409,000	<0.121	3.64	15.4 J	<3.02	2.712	4.29
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.0700	405,000	<0.121	3.66	14.3 J	<3.02	----	----
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.0700 UJ	386,000	<0.121 UJ	12.5	7.59	<3.02 UJ	2.562	1.29
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	0.100 J	567,000	<0.121	0.247 J	7.88 J	<15.1	3.549	0.71
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.0700	455,000	<0.121	0.234 J	8.63 J	<3.02	3.772	0.40
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.0700	362,000	<0.121	0.266 J	<4.99	<3.02	2.498	1.55
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.0700	423,000	<0.121	0.0878 J	5.81 J	9.20 J	3.172	0.20
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.0700	441,000	<0.121	0.124 J	9.51 J	46.3 J+	3.088	0.48
U4-SLMW	11/10/2022	N	EM03		-	----	----	----	----	----	----	----	----
U4-T3	10/13/2022	N	EM02		-	----	----	----	----	----	----	----	----
U4-T3	11/3/2022	N	EM03		-	----	----	----	----	----	----	16.618	2.05
U4-T3	12/6/2022	N	EM04		-	----	----	----	----	----	----	10.943	3.89
U4-T3	1/9/2023	N	EM05		-	----	----	----	----	----	----	10.447	5.03
U4-T3	2/13/2023	N	EM06		-	----	----	----	----	----	----	13.131	7.12
U4-T3	3/13/2023	N	EM07		-	----	----	----	----	----	----	9.552	6.11
U4-T3	4/19/2023	N	EM08		-	----	----	----	----	----	----	6.951	0.42
U4-T3	5/18/2023	N	EM09		-	----	----	----	----	----	----	17.125	3.18
U4-T3	6/12/2023	N	EM10		-	----	----	----	----	----	----	13.126	6.38
U4-T3	7/11/2023	N	EM11		-	----	----	----	----	----	----	0.029	1.56
U4-T3	8/10/2023	N	EM12		-	----	----	----	----	----	----	4.655	2.7
U4-T3	9/11/2023	N	EM13		-	----	----	----	----	----	----	6.711	1.03
U4-T3	10/16/2023	N	EM14		-	----	----	----	----	----	----	4.54	0.53

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	0.0 U	22.9	8.02	0.0 U	26.9	22.0	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	0.0 U	140.6	6.99	0.0 U	27.5	60.6	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	0.0 U	212.1	7.36	0.0 U	26.3	17.1	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	172.0	7.19	----	24.9	58.8	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	118.7	7.71	----	24.1	33.2	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	123.6	7.38	----	22.0	17.3	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	132.4	7.49	----	23.0	50.5	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	184.3	8.08	----	23.4	21.0	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	0.0 U	129.4	7.57	0.0 U	23.8	21.3	<4.07	<4.26
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	0.0 U	106.3	7.44	0.0 U	24.3	32.6	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	0.0 U	147.1	7.40	0.0 U	29.7	9.1	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	0.0 U	221.0	7.55	0.0 U	27.4	47.1	<4.07	<4.26
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	0.0 U	285.2	7.83	0.0 U	30.3	19.4	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	0 U	129.1	7.53	0 U	33.6	16.5	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	0 U	-27.3	7.22	0 U	27.7	144.9	<4.07	<4.26
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	0 U	-7.9	6.59	0 U	27.9	55.6	----	----
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	0 U	-25.9	6.57	0 U	25.9	18.6	----	----
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	0.0 U	135.1	6.79	0.0 U	24.2	-144082.9	<4.07	<4.26
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	0.0 U	-306.6	6.75	0.0 U	25.6	72.8	----	----
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	1.0	-81.3	4.80	0.2	19.9	63.6	----	----
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	3.5	-383.0	5.99	0.0 U	26.4	283.9	<4.07	<4.26
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	0.0 U	44.4	10.69	0.0 U	30.5	18.3	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	0.0 U	14.4	11.12	0.0 U	23.5	10.4	<4.07	<4.26
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	0.0 U	112.5	10.40	0.0 U	27.1	203.3	<4.07	<4.26
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	0 U	25	10.46	0 U	28.7	84.9	<4.07	<4.26
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	----	-11.9	10.35	----	24.3	81.5	<4.07	<4.26
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	0.0 U	0.9	9.03	0.2	21.4	7.5	<4.07	<4.26
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	0.0 U	142.6	8.13	0.0 U	29.6	9.9	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	0.0 U	142.0	8.10	0.0 U	21.5	9.8	<4.07	<4.26
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	0 U	363.8	7.32	0 U	36	2	<4.07	<4.26
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	0.0 U	305.6	7.08	0.0 U	23.9	13.7	<4.07	<4.26
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	0.0 U	201.3	7.89	0.0 U	17.8	0.2	<4.07	<4.26
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	0.0 U	36.4	8.03	0.0 U	25.2	21.0	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	0.0 U	175.7	7.89	0.0 U	25.1	12.0	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	0.0 U	167.3	7.78	0.0 U	26.2	8.7	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	0.0 U	172.0	8.08	0.0 U	21.8	9.1	<4.07	<4.26
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	0.0 U	120.6	8.70	0.0 U	26.5	2.7	----	----
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----	----	----	----	----	----
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	0.0 U	138.0	7.74	0.0 U	23.0	14.8	<4.07	<4.26
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	41.1	7.06	----	23.3	3.9	----	----
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	92.8	6.87	----	30.7	12.3	----	----
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	234.8	6.65	----	28.8	1.8	----	----
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	-164.3	6.15	----	29.2	147.7	----	----
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	-105.1	6.85	----	34.9	234.5	----	----
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	-377.9	5.96	----	29.5	1311.9	----	----
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	-147.9	5.45	----	27.9	2139.2	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	2.0	-103.0	4.19	0.0 U	23.6	140.9	----	----
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	4.0	-95.8	3.93	0.0 U	20.2	152.4	----	----
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	----	-134.9	4.33	----	19.3	151.7	----	----
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	0.0 U	-140.5	4.39	0.0 U	23.4	162.2	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	0.0 U	129.9	7.36	0.0 U	27.0	2.0	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	0.0 U	36.0	7.96	0.0 U	21.6	14.7	<4.07	<4.26
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	0.0 U	190.6	8.46	0.0 U	24.6	9.8	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	0.0 U	162.8	7.49	0.0 U	19.2	7.6	<4.07	<4.26
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	-84.5	7.19	----	24.3	56.6	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	10.9	8.30	----	32.0	28.2	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	-127.4	6.82	----	28.1	3.8	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	-26.8	7.10	----	28.7	12.3	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	-1.6	7.04	----	33.7	204.8	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	-204.4	6.43	----	32.5	175.6	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	-170.1	6.29	----	29.4	54.2	----	----
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	5.5	-253.0	5.23	0.0 U	23.2	116.6	----	----
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	5.0	-187.9	5.33	0.1	18.2	54.9	----	----
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	----	-128.9	4.93	----	21.7	82.0	----	----
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	0.0 U	-167.5	5.35	0.0 U	24.1	244.0	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	0.0 U	96.0	7.14	0.0 U	28.6	33.2	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	109.3	7.34	----	17.8	225.3	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	198.2	7.40	----	22.1	1.8	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	117.4	7.79	----	21.2	0.0	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	83.8	7.44	----	22.4	0.1	----	----
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	0.0 U	76.6	7.30	0.0 U	23.7	33.0	<4.07	<4.26
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	-58.5	6.55	----	21.7	62.2	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	51.7	6.26	----	30.3	35.2	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	180.8	6.40	----	28.6	9.5	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	154.2	6.62	----	30.3	181.7	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	246.9	9.01	----	34	159.1	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	95.6	6.58	----	33.9	371.6	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	81.8	6.15	----	30.4	329.6	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	0.0 U	34.2	7.19	0.0 U	25.5	15.1	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	0.0 U	48.3	8.06	0.0 U	21.1	13.7	<4.07	<4.26
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	0.0 U	-18.2	8.40	0.0 U	27.4	28.9	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	0.0 U	83.0	7.42	0.0 U	22.2	15.0	<4.07	<4.26
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	0.0 U	177.7	7.33	0.0 U	28.8	45.2	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	0.0 U	116.2	7.65	0.0 U	18.5	56.5	<4.07	<4.26
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	0.0 U	101.8	8.45	0.0 U	28.4	10.5	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	0.0 U	56.3	7.92	0.0 U	23.0	31.5	<4.07	<4.26
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	0.0 U	138.8	7.24	0.0 U	23.5	37.2	<4.07	<4.26
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	0.0 U	128.1	7.47	0.0 U	25.8	11.6	<4.07	<4.26
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	----	----	----	----	----	----	<4.07	<4.26
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	----	----	----	----	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	----	-204.0	6.62	----	23.2	38.3	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	----	111.2	6.81	----	23.0	4.4	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	----	-78.1	6.72	----	23.0	75.8	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	----	5.2	5.87	----	15.5	29.5	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	----	137.4	6.39	----	25.4	64.2	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	----	68.3	7.63	----	33.7	59.0	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	----	259.0	6.56	----	26.4	60.6	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	----	83.3	6.39	----	30.3	244.0	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	----	77.8	5.77	----	27.5	29.3	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	----	-110.2	6.1	----	32.3	165	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	----	-129.9	6.18	----	31.4	534.4	----	----
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	1.0	25.0	5.98	0.0 U	22.5	523.4	----	----
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	1.0	-6.0	6.23	0.0 U	16.3	32.5	----	----
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	----	161.6	6.26	----	22.1	24.2	----	----
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	0.0 U	502.2	6.68	0.0 U	21.4	160.0	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	0.0 U	134.9	7.20	0.0 U	18.5	16.0	<4.07	<4.26
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	0.0 U	164.9	8.12	0.0 U	20.2	2.8	<4.07	<4.26
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	----	----	----	----	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	----	191.3	7.16	----	22.3	21294.5	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	----	29.1	7.20	----	24.0	3.7	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	----	90.9	7.45	----	21.9	0.2	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	----	28.0	7.84	----	21.8	1.1	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	----	90.3	7.05	----	24.2	79.0	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	----	138.8	6.73	----	23.9	12.1	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	----	120.1	7.60	----	34.0	189.9	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	----	225.2	6.92	----	27.4	8.7	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	----	220.3	6.87	----	34.4	398.2	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	----	121.4	6.03	----	28.5	274.4	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	----	107.1	6.68	----	33.3	246.8	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	----	74.9	6.56	----	30.4	597.3	----	----
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	0.0 U	139.3	6.66	0.0 U	23.7	67.1	----	----
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	0.0 U	181.1	6.54	0.0 U	18.3	197.5	----	----
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	----	86.5	6.65	----	24.8	8.8	----	----
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	0.0 U	469.3	6.94	0.0 U	24.4	266.5	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	0.0 U	185.4	7.17	0.0 U	20.2	3.6	<4.07	<4.26
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	----	----	----	----	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	----	-21.2	6.86	----	21.8	24.9	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	----	140.3	7.03	----	23.8	-0.4	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	----	94.3	7.21	----	21.7	0.0	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	----	139.4	7.51	----	21.7	11.6	----	----
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	----	188.9	6.86	----	24.5	72.7	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	----	52.0	6.45	----	24.2	2.4	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	----	138.5	7.13	----	33.3	149.7	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	----	271.2	6.93	----	27.4	10.9	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	----	307.9	6.95	----	31.1	3385.4	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	0.0 U	131.3	7.20	0.0 U	26.7	5.2	<4.07	<4.26
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	0.0 U	42.3	7.51	0.0 U	25.0	53.8	<4.07	<4.26
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	0.0 U	200.4	8.07	0.0 U	23.0	13.1	<4.07	<4.26
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	0.0 U	223.7	7.20	0.0 U	21.6	17.0	<4.07	<4.26
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	0.0 U	130.5	7.14	0.0 U	30.0	7.9	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	190.0	7.35	----	22.9	55.9	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	0.0 U	164.9	7.53	0.0 U	22.7	543.3	<4.07	<4.26
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	0.0 U	217.9	7.51	0.0 U	26.1	437.1	<4.07	<4.26
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	0 U	171.4	7.5	0 U	29.3	110.3	<4.07	<4.26
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	0.0 U	192.5	7.64	0.0 U	25.9	-42779.5	<4.07	<4.26
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	0.0 U	419.8	6.96	0.0 U	23.1	895.7	<4.07	<4.26
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	0.0 U	70.8	7.75	0.0 U	33.3	27.7	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	0.0 U	61.8	7.33	0.0 U	24.7	56.4	<4.07	<4.26
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	0.0 U	171.6	7.59	0.0 U	31.4	73.2	<4.07	<4.26
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	0 U	145.3	7.45	0 U	28.6	55.4	<4.07	<4.26
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	0.0 U	160.6	7.57	0.0 U	21.0	7.4	<4.07	<4.26
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	0.0 U	276.8	7.64	0.0 U	23.5	36.1	<4.07	<4.26
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	0.0 U	103.3	7.70	0.0 U	27.3	60.1	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	0.0 U	137.9	7.59	0.0 U	23.5	2768.5	<4.07	<4.26
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	0.0 U	159.7	7.60	0.0 U	27.3	515.2	<4.07	<4.26
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	0 U	133.7	7.49	0 U	30.9	151	<4.07	<4.26
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	----	----	----	----	----	----	<4.07	<4.26
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	0.0 U	352.0	7.21	0.0 U	25.1	517.7	<4.07	<4.26
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	0.0 U	99.5	8.75	0.0 U	27.6	1501.7	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	0.0 U	-4.5	8.44	0.0 U	24.7	147.1	<4.07	<4.26
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	0.0 U	164.7	8.57	0.0 U	28.4	158.0	<4.07	<4.26
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	0 U	83.9	8.6	0 U	28.8	167.4	<4.07	<4.26
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	0.0 U	-48.3	8.50	0.0 U	25.3	26.6	<4.07	<4.26
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	0.0 U	-14.7	7.31	0.0 U	25.7	66.5	<4.07	<4.26
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	0.0 U	206.4	7.25	0.0 U	26.4	5.4	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	202.1	7.14	----	26.1	2.9	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	114.9	7.21	----	27.6	1.4	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	139.7	7.32	----	23.6	5.1	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	124.2	7.31	----	23.0	3.5	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	199.9	7.39	----	23.7	11.6	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	0.0 U	178.4	7.26	0.0 U	24.8	8.9	<4.07	<4.26
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	0.0 U	42.5	7.15	0.0 U	26.0	9.4	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	0.0 U	94.9	7.25	0.0 U	25.5	12.2	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	0.0 U	154.1	7.28	0.0 U	28.1	3.4	<4.07	<4.26
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	0.0 U	117.3	7.25	0.0 U	27.7	32.3	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	0 U	133.6	7.33	0 U	29.4	4	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	0 U	150.9	7.38	0 U	28.9	92.1	<4.07	<4.26
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	0 U	161.6	7.19	0 U	26.1	28.9	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	0 U	233.7	7.16	0 U	24.1	1.5	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	0.0 U	325.6	6.99	0.0 U	21.8	14.1	<4.07	<4.26



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	0.0 U	469.9	7.33	0.0 U	24.9	180.8	----	----
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	0.0 U	153.5	7.25	0.0 U	22.3	8.5	----	----
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	0.0 U	168.1	7.15	0.0 U	25.5	11.5	<4.07	<4.26
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	0.0 U	159.8	8.09	0.0 U	28.4	15.2	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	----	172.7	7.07	----	25.3	56.9	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	----	148.7	6.86	----	25.0	36.2	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	----	168.4	6.91	----	14.5	5.0	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	----	232.8	6.61	----	23.4	115.7	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	0.0 U	129.0	6.43	0.0 U	25.4	37.4	<4.07	<4.26
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	0.0 U	8.1	6.31	0.0 U	25.3	129.2	----	----
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	0.0 U	135.2	6.57	0.0 U	26.8	30.3	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	0.0 U	110.4	6.57	0.0 U	30.7	13.7	<4.07	<4.26
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	1.0	-196.8	6.37	2.0	27.0	79.4	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	0 U	47.7	6.36	0 U	32.7	20.9	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	0 U	128.6	6.31	0 U	28	102	<4.07	<4.26
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	0 U	136.3	6.61	0 U	26.9	43.3	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	0 U	-80.6	6.68	0 U	25.7	7.5	----	----
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	0.0 U	176.3	6.32	0.0 U	24.2	15.0	<4.07	<4.26
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	0.0 U	502.1	6.58	0.0 U	24.0	157.0	----	----
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	0.0 U	191.9	6.48	0.0 U	23.2	6.0	----	----
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	----	----	----	----	----	----	----	----
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	0.0 U	172.4	6.39	0.0 U	24.2	15.3	<4.07	<4.26
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	0.0 U	209.7	7.29	0.0 U	26.7	31.0	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	----	168.2	7.47	----	22.6	35.4	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	0.0 U	76.1	7.37	0.0 U	23.8	35.8	<4.07	<4.26
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	----	----	----	----	----	----	<4.07	<4.26
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	0.0 U	277.6	7.31	0.0 U	26.5	236.1	<4.07	<4.26
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	0 U	198.5	6.9	0 U	27.1	385	<4.07	<4.26
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	0.0 U	-104.9	6.21	0.0 U	26.2	226.1	<4.07	<4.26

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	0.0 U	-40.4	6.22	0.0 U	19.3	145.4	<4.07	<4.26
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	0.0 U	220.6	7.54	0.0 U	26.3	24.2	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	0.0 U	35.0	8.22	0.0 U	22.1	-57.2	<4.07	<4.26
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	0.0 U	185.0	8.22	0.0 U	28.0	20.2	<4.07	<4.26
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	0 U	189.8	8.45	0 U	30.1	28.4	<4.07	<4.26
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	0.0 U	233.3	8.43	0.0 U	22.8	29.4	<4.07	<4.26
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	0.0 U	90.8	8.39	0.0 U	22.4	29.5	<4.07	<4.26
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	0.0 U	57.0	8.02	0.0 U	30.2	8489.8	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	0.0 U	95.9	7.44	0.0 U	25.2	159.7	<4.07	<4.26
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	0.0 U	230.1	7.54	0.0 U	29.9	181.6	<4.07	<4.26
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	----	----	----	----	----	----	<4.07	<4.26
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	0 U	157.1	7.16	0 U	36.1	76.7	<4.07	<4.26
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	----	----	----	----	----	----	<4.07	<4.26
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	0.0 U	-89.0	6.44	0.0 U	25.5	676.1	<4.07	<4.26
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	----	----	----	----	----	----	<4.07	<4.26
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	0.0 U	59.0	6.22	0.0 U	21.4	618.5	<4.07	<4.26
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	----	----	----	----	----	----	<4.07	<4.26
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	0.0 U	105.4	9.74	0.0 U	27.3	38.0	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	0.0 U	-0.9	9.48	0.0 U	22.1	-21.0	<4.07	<4.26
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	0.0 U	171.1	8.84	0.0 U	27.3	21.3	<4.07	<4.26
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	0 U	-20	8.81	0 U	27.3	7.7	<4.07	<4.26
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	0.0 U	180.6	8.94	0.0 U	25.8	41.8	<4.07	<4.26
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	0.0 U	62.4	8.86	0.0 U	24.3	37.2	<4.07	<4.26
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	0.0 U	76.7	7.01	0.0 U	30.1	18.0	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	185.1	7.60	----	21.5	38.7	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	0.0 U	43.3	7.80	0.0 U	20.3	420.1	<4.07	<4.26
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	0.0 U	22.8	7.20	0.0 U	37.5	7.3	<4.07	<4.26
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	0 U	279.6	6.88	0 U	28.7	14.3	<4.07	<4.26
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	0.0 U	188.3	6.51	0.0 U	23.9	231.9	<4.07	<4.26
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	0.0 U	209.3	5.92	0.0 U	22.3	30.8	<4.07	<4.26
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	0.0 U	49.8	7.36	0.0 U	27.6	78.2	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	0.0 U	144.6	7.43	0.0 U	23.3	482.0	<4.07	<4.26
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	0.0 U	96.3	6.90	0.0 U	32.3	185.0	<4.07	<4.26
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	0 U	168.9	6.83	0 U	28.4	403.3	<4.07	<4.26
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	0.0 U	107.2	6.53	0.0 U	23.2	169.0	<4.07	<4.26
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	0.0 U	174.7	6.43	0.0 U	19.8	135.5	<4.07	<4.26
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	0.0 U	146.1	7.03	0.0 U	28.3	39.5	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	190.6	7.02	----	28.3	235.7	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	121.3	7.64	----	23.6	92823.7	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	143.6	7.59	----	23.1	106.9	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	187.0	7.27	----	22.5	138.6	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	190.5	7.55	----	15.4	268.7	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	0.0 U	57.4	7.45	0.0 U	24.8	331.6	<4.07	<4.26
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	0.0 U	36.1	7.31	0.0 U	27.4	130.7	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	0.0 U	133.6	5.83	0.0 U	28.4	22.4	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	0.0 U	133.4	6.48	0.0 U	34.4	127.1	<4.07	<4.26
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	0.0 U	182.4	6.42	0.0 U	31.1	127.0	----	----
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	0 U	100.2	6.71	0 U	36.5	54.6	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	0 U	99.9	6.21	0 U	29.4	28.3	<4.07	<4.26
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	0 U	104.5	6.41	0 U	31.1	76.6	----	----
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	0 U	-35.5	6.34	0 U	23.7	24.7	----	----
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	0.0 U	-183.3	6.03	0.0 U	23.5	105.3	<4.07	<4.26
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	0.0 U	-279.7	6.10	0.0 U	20.9	56.5	----	----
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	0.0 U	22.7	5.94	0.0 U	19.1	25.1	----	----
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	0.0 U	28.8	6.04	0.0 U	19.3	15.4	<4.07	<4.26
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	0.0 U	140.1	7.54	0.0 U	23.2	2057.3	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	205.5	7.04	----	25.6	1860.6	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	130.9	7.57	----	24.1	90637.6	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	132.0	7.34	----	23.3	1119.7	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	192.5	7.29	----	23.1	7501.5	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	179.4	7.53	----	22.3	1495.6	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	0.5	77.0	7.65	0.0 U	24.0	6501.9	<4.07	<4.26
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	0.0 U	-3.0	7.08	0.0 U	26.2	62.0	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	0.0 U	-31.5	5.71	0.0 U	26.6	61.6	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	0.5	-156.7	6.57	0.2	34.2	28.6	<4.07	<4.26
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	0.0 U	141.8	6.71	0.0 U	29.0	5574.9	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	0 U	107.5	6.74	0 U	36.7	168	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	0 U	126.6	6.36	0 U	28.2	5801.7	<4.07	<4.26
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	0 U	99.1	6.95	0 U	28.2	1318.1	----	----
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	0 U	-1.8	6.59	0 U	25.9	173.7	----	----
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	0.0 U	-181.9	6.27	0.0 U	24.4	169.3	<4.07	<4.26
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	0.0 U	-459.5	6.38	0.0 U	23.5	174.6	----	----
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	0.0 U	-87.5	6.16	0.0 U	19.8	139.8	----	----
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	0.0 U	149.7	6.36	0.0 U	24.8	118.8	<4.07	<4.26
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	0.0 U	----	----	0.0 U	----	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	198.6	7.34	----	21.3	76.0	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	0.0 U	196.2	7.10	0.0 U	21.2	55.0	<4.07	<4.26
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	0.0 U	140.6	7.26	0.0 U	20.3	-2.7	<4.07	<4.26
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	0 U	23.9	6.08	0 U	34.2	52.2	<4.07	<4.26
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	0.0 U	280.8	5.82	0.0 U	14.9	222.9	<4.07	<4.26
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	0.0 U	201.2	5.64	0.0 U	18.0	55.7	<4.07	<4.26
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	0.0 U	132.2	8.14	0.0 U	27.5	171.5	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	0.0 U	120.3	7.90	0.0 U	18.2	204.9	<4.07	<4.26
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	0.0 U	94.8	8.27	0.0 U	22.3	-4.5	<4.07	<4.26
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	0 U	31.2	6.42	0 U	36.9	23.1	<4.07	<4.26
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	0.0 U	-77.3	6.06	0.0 U	24.5	130.8	<4.07	<4.26
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	0.0 U	28.1	5.76	0.0 U	20.1	45.6	<4.07	<4.26
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	0.0 U	182.2	7.48	0.0 U	26.7	52.5	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	93.5	7.79	----	28.7	9.7	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----	----	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	111.1	7.85	----	23.9	97.4	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	106.4	7.83	----	23.8	14.1	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	105.0	7.74	----	24.3	22.8	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	161.8	7.79	----	22.3	73.4	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	0.0 U	140.8	7.92	0.0 U	28.6	39.6	<4.07	<4.26
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	0.0 U	-393.7	6.15	0.0 U	26.2	106.9	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	0.0 U	47.7	5.65	0.0 U	27.5	34.4	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	0.0 U	108.0	6.37	0.0 U	32.9	8.8	<4.07	<4.26
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	0.0 U	162.4	6.70	0.0 U	30.8	156.5	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	0 U	128.8	6.46	0 U	28.9	214.8	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	0 U	174.6	6.3	0 U	29.2	41.7	<4.07	<4.26
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	0 U	124.7	6.6	0 U	26.8	25.5	----	----
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	0 U	-32.5	6.21	0 U	24.3	31.9	----	----
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	0.0 U	-147.3	5.88	0.0 U	20.0	113.4	<4.07	<4.26
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	0.0 U	-428.7	5.93	0.0 U	23.7	70.5	----	----
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	0.0 U	-132.6	5.57	0.0 U	22.1	75.0	----	----
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	1.0	166.3	5.85	0.0 U	23.7	16.7	<4.07	<4.26
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	0.0 U	158.2	7.86	0.0 U	25.6	10.7	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	135.0	7.86	----	26.9	119.0	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	141.5	7.93	----	23.9	1667.5	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	96.7	7.97	----	24.0	210.3	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	104.4	7.82	----	24.3	73.4	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	124.7	7.66	----	22.3	134.0	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	0.0 U	83.7	7.72	0.2	24.3	259.7	<4.07	<4.26
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	0.0 U	-161.7	6.53	0.0 U	26.1	277.9	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	1.0	-80.3	6.08	0.0 U	26.1	156.9	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	1.0	-262.2	6.78	0.4	29.9	105.6	<4.07	<4.26
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	0.0 U	133.1	6.53	0.0 U	27.5	504.0	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	0 U	99.4	6.44	0 U	30	218.7	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	0 U	156.1	6.31	0 U	29	97.1	<4.07	<4.26
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	0 U	96.4	6.51	0 U	25.8	100.1	----	----
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	0 U	-112.3	6.36	0 U	25.2	145.2	----	----
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	0.0 U	-111.1	6.10	0.0 U	23.8	127.9	<4.07	<4.26
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	0.0 U	-488.4	6.10	0.0 U	24.8	64.7	----	----
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	0.0 U	-185.6	5.64	0.0 U	23.7	94.4	----	----
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	0.0 U	90.4	5.91	0.0 U	22.6	58.5	<4.07	<4.26
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	0.0 U	166.4	6.92	0.0 U	24.7	98.8 E	<4.07	<4.26
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	0.0 U	52.2	6.62	0.0 U	22.4	21.7	<4.07	<4.26
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	0.0 U	174.5	6.38	0.0 U	21.6	144.4	<4.07	<4.26
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	0.0 U	126.1	6.54	0.0 U	27.2	142.7	<4.07	<4.26
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	0 U	263.7	6.48	0 U	28.6	193.8	<4.07	<4.26
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	0.0 U	181.2	6.28	0.0 U	23.5	189.1	<4.07	<4.26
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	0.0 U	38.5	6.20	0.0 U	25.4	76.2	<4.07	<4.26
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	0.0 U	5.0	7.70	0.0 U	24.6	62.4	<4.07	<4.26
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	0.0 U	138.4	7.44	0.0 U	21.4	20.3	<4.07	<4.26
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	0.0 U	63.2	7.54	0.0 U	24.5	8.5	<4.07	<4.26

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	0.0 U	46.7	6.77	0.0 U	26.6	124.9	<4.07	<4.26
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	0 U	290.1	7.54	0 U	27.1	9.8	<4.07	<4.26
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	0.0 U	-1.3	7.34	0.0 U	23.2	4.4	<4.07	<4.26
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	0.0 U	122.9	7.64	0.0 U	15.0	9.0	<4.07	<4.26
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	0.0 U	183.3	7.71	0.0 U	22.8	-5857914.0 E	<4.07	<4.26
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	0.0 U	137.7	7.48	0.0 U	22.7	304.1	<4.07	<4.26
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	0.0 U	157.8	6.95	0.0 U	20.5	641.8	<4.07	<4.26
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	0.0 U	13.5	7.06	0.0 U	25.2	49.9	<4.07	<4.26
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	0 U	216.1	6.72	0 U	27.1	82.9	<4.07	<4.26
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	0.0 U	146.5	6.42	0.0 U	23.8	217.1	<4.07	<4.26
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	0.0 U	150.8	6.50	0.0 U	24.1	46.2	<4.07	<4.26
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	0.0 U	79.6	9.96	0.0 U	27.1	55.4	<4.07	<4.26
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	0.0 U	40.0	8.08	0.0 U	22.4	182.5	<4.07	<4.26
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	0.0 U	-138.1	7.85	0.2	31.0	2.9	<4.07	<4.26
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	0.0 U	-258.8	7.13	2.0	26.7	192.0	<4.07	<4.26
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	0 U	-184.8	6.65	0 U	29	154.1	<4.07	<4.26
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	5.5	-203.2	6.34	0.0 U	24.8	10.5	<4.07	<4.26
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	0.0 U	-175.8	6.77	0.1	22.0	81.3	<4.07	<4.26
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	0.0 U	-78.8	6.40	0.0 U	24.3	122089.0	<4.07	<4.26
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	----	----	----	----	----	----	<4.07	<4.26
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	0.0 U	36.4	7.03	0.0 U	24.3	640.2	<4.07	<4.26
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	0.0 U	104.4	7.69	0.0 U	22.1	305.7	<4.07 UJ	<4.26 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	0.0 U	-81.6	6.58	0.0 U	22.9	678.2	<4.07	<4.26
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	0.0 U	2.5	6.50	0.0 U	29.0	13.1	<4.07	<4.26
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	0 U	-170.2	6.4	0 U	29.6	7.4	<4.07	<4.26
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	0.0 U	-0.3	5.88	0.0 U	19.5	28.4	<4.07	<4.26
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	0.0 U	162.1	6.12	0.0 U	26.3	36.9	<4.07	<4.26
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	0.0 U	144.1	7.81	0.0 U	23.2	25.6	<4.07	<4.26
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	0.0 U	63.9	7.85	0.0 U	22.6	11.4	<4.07 UJ	<4.26 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	0.0 U	146.4	7.90	0.0 U	20.1	26.7	<4.07	<4.26
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	0.0 U	-41.8	8.18	0.0 U	32.4	26.3	<4.07	<4.26
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	0 U	160	6.36	0 U	29.8	14.4	<4.07	<4.26
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	0.0 U	11.8	6.36	0.0 U	14.4	5.5	<4.07	5.11 J
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	1.2	201.1	6.32	0.0 U	21.2	1176.1	<4.07	<4.26
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	0.0 U	8.8	7.57	0.0 U	24.5	322.6	<4.07	<4.26
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	0.0 U	124.5	7.49	0.0 U	22.6	1626.2	<4.07 UJ	<4.26 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	0.7	-149.7	6.48	0.0 U	24.5	1692.0	<4.07	<4.26
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	0.0 U	112.1	6.32	0.0 U	28.3	49.1	<40.7	<42.6
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	0 U	-130.8	6.44	0 U	29.4	132	<4.07	<4.26



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	0.0 U	88.0	5.97	0.0 U	20.5	98.4	<4.07	<4.26
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	0.0 U	173.0	6.33	0.0 U	23.3	9493.7	<4.07	<4.26
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	0.0 U	179.7	8.27	0.0 U	23.4	33.5	<4.07	<4.26
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	0.0 U	73.5	8.69	0.0 U	21.6	60.9	<4.07 UJ	<4.26 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	0.0 U	97.1	8.96	0.0 U	23.0	99.2	<4.07	<4.26
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	0.0 U	-300.0	7.24	2.0	26.6	7.3	<4.07	<4.26
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	0.5	-170.8	6.79	0.3	27.3	57.2	<4.07	<4.26
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	1.5	-130.4	6.04	0.0 U	25.1	123.4	<4.07	<4.26
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	0.0 U	-236.7	6.87	0.1	23.2	178.3	<4.07	<4.26
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	0.0 U	206.3	7.33	0.0 U	22.6	52.9	<4.07	<4.26
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	0.0 U	70.0	7.73	0.0 U	22.9	43.2	<4.07	<4.26
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	0.5	-107.9	6.38	0.0 U	22.4	-399.7	<4.07	<4.26
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	1.0	-202.3	6.59	0.1	27.1	14.9	<4.07	<4.26
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	3	-29.7	6.66	0 U	31.3	49.9	<4.07	<4.26
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	0.0 U	83.2	6.67	0.0 U	21.8	37.7	<4.07	<4.26
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	0.0 U	70.3	6.67	0.0 U	18.5	46.5	<4.07	<4.26
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	0.0 U	183.9	7.68	0.0 U	23.9	72915.5	<4.07	<4.26
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	0.0 U	9.6	7.73	0.0 U	23.2	48.5	<4.07	<4.26
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	0.0 U	25.5	6.62	0.0 U	23.1	-345.3	<4.07	<4.26
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	3.0	-173.2	6.54	0.6	25.7	22.8	<4.07	<4.26
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	6	-70.6	6.46	0.2	30.5	55.3	<4.07	<4.26
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	0.0 U	165.5	7.20	0.0 U	23.1	74.2	<4.07	<4.26
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	0.0 U	185.5	6.75	0.0 U	22.2	324.9	<4.07	<4.26
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	0.0 U	194.9	7.12	0.0 U	23.3	218.4	<4.07	<4.26
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	0.0 U	49.2	7.38	0.0 U	31.6	74.6	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	0.0 U	5.2	7.07	0.0 U	23.7	155.4	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	0.0 U	-20.2	7.07	0.0 U	22.8	53.4	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	0.0 U	156.0	6.76	0.0 U	16.9	21.4	<4.07 UJ	<4.26 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	0.0 U	87.9	6.46	0.0 U	21.5	254.4	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	0.0 U	120.7	6.27	0.0 U	21.3	55.2	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	0.0 U	46.8	6.50	0.0 U	20.0	303.2	<4.07	<4.26
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	0.0 U	42.3	6.36	0.0 U	25.2	154.0	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	0.0 U	155.6	5.79	0.0 U	24.2	83.1	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	0.0 U	54.6	6.71	0.0 U	22.1	4.2	<4.07	<4.26
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	0.0 U	254.6	6.88	0.0 U	27.2	52.9	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	0 U	-278.7	6.41	0 U	27.6	132.3	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	0 U	-2.9	6.49	0 U	28.6	35	<4.07	<4.26
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	0 U	76.7	6.22	0 U	25.6	278.7	----	----
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	0 U	-59.7	6.26	0 U	24.8	664.2	----	----
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	0.0 U	-39.3	6.07	0.0 U	22.2	1492.2	<4.07	<4.26
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	0.0 U	169.3	6.10	0.0 U	20.8	380.1	----	----
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	0.0 U	184.8	6.19	0.0 U	20.7	4503.5	----	----
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	0.0 U	105.7	6.41	0.0 U	18.3	43.5	<4.07	<4.26
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	0.0 U	123.8	7.72	0.0 U	26.3	99.8	<4.07	<4.26
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	0.0 U	-17.7	6.92	0.0 U	27.0	384.2	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	0.0 U	-117.1	6.58	0.0 U	24.4	170.6	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	0.0 U	-266.8	6.57	0.6	23.3	36.5	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	0.5	-294.3	7.16	0.6	23.8	41.5	<4.07 UJ	<4.26 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07 UJ	<4.26 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	0.0 U	-240.4	7.70	0.0 U	23.3	169.3	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	0.0 U	-236.7	6.75	0.0 U	20.1	50.9	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	0.0 U	-241.6	6.86	0.8	20.3	130.6	<4.07	<4.26
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	0.0 U	-141.1	6.69	0.5	24.3	377.3	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	0.0 U	-267.3	6.73	0.0 U	26.7	1679.2	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	1.0	-79.7	6.70	2.0	32.3	63.7	<4.07	<4.26
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	0.2	-243.1	6.68	2.4	27.1	39.7	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	0.6	119.4	6.13	0 U	27	69.7	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	0 U	261.3	6.3	0 U	33.4	15.2	<4.07	<4.26
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	0 U	181.1	6.33	0 U	24.5	115.7	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	0 U	122.7	6.43	0 U	24.5	103.5	----	----
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	0.0 U	235.5	6.27	0.0 U	19.0	93.0	<4.07	<4.26
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	0.0 U	176.1	6.32	0.0 U	19.6	85.5	----	----
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	0.0 U	159.8	6.37	0.0 U	20.2	96.6	----	----
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	----	----	----	----	----	----	----	----
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	0.0 U	180.6	6.44	0.0 U	19.6	73.1	<4.07	<4.26
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	0.0 U	90.8	6.98	0.0 U	26.2	40.3	<4.07	<4.26
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	0.0 U	183.7	7.31	0.0 U	27.2	97.6	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	0.0 U	193.7	7.02	0.0 U	23.4	141.7	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	0.0 U	145.9	7.12	0.0 U	20.8	84.0	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	0.0 U	41.1	7.21	0.0 U	17.7	89.2	<4.07	<4.26
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	0.0 U	94.5	6.98	0.0 U	21.3	23.7	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	0.0 U	42.6	6.93	0.0 U	22.0	44.6	----	----
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	0.0 U	72.1	7.06	0.0 U	20.5	234.2	<4.07	<4.26
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	0.0 U	73.8	7.66	0.0 U	27.5	32.0	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	0.0 U	99.8	6.14	0.0 U	28.5	33.5	----	----

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 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	0.0 U	225.8	7.11	0.0 U	21.3	53.6	<4.07	<4.26
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	0.0 U	149.3	6.95	0.0 U	33.1	27.3	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	0 U	177.1	6.74	0 U	28	87.7	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	0 U	257.9	6.63	0 U	29.7	17.6	<4.07	<4.26
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	0 U	136.9	6.3	0 U	24.4	405.8	----	----
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	0 U	176.8	6.45	0 U	24.6	250.4	----	----
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	0.0 U	193.8	6.14	0.0 U	20.3	55.6	<4.07	<4.26
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	0.0 U	55.8	6.09	0.0 U	16.3	15.9	----	----
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	0.0 U	162.4	6.08	0.0 U	16.5	24.5	----	----
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	0.0 U	158.8	6.19	0.0 U	20.1	169.8	<4.07	<4.26
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	----	35.2	7.74	----	26.1	988.9	<4.07	<4.26
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	----	----	----	----	----	----	<4.07	<4.26
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	0.0 U	121.6	7.60	0.0 U	27.4	70.6	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	0.0 U	190.1	7.30	0.0 U	23.5	343.0	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	0.0 U	95.4	7.23	0.0 U	22.6	123.8	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	0.0 U	-290.6	7.38	0.6	20.5	20.9	<4.07	<4.26
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	----	----	----	----	----	----	<4.07	<4.26
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	0.0 U	----	----	0.0 U	----	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	0.0 U	-291.6	6.89	0.0 U	20.6	2.3	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	0.5	-279.2	6.90	1.4	21.4	4.0	<4.07	<4.26
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	0.0 U	-233.8	7.15	0.4	26.1	18.8	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	0.5	-107.3	6.19	0.4	27.6	10.9	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	0.0 U	-162.1	7.01	0.0 U	22.3	53.8	<4.07	<4.26
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	0.0 U	-71.0	7.01	0.4	30.0	43.8	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	0 U	9.8	6.17	0 U	27.7	30.6	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	0 U	-81.5	6.69	0 U	34	5	<4.07	<4.26
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	3.5	-185.5	6.79	0.4	24.6	159.1	----	----
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	0.5	-90.0	6.46	0 U	23.4	64.4	----	----
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	0.0 U	309.8	6.20	0.0 U	21.7	51.5	<4.07	<4.26
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	0.0 U	50.7	6.24	0.0 U	18.1	163.7	----	----
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	0.0 U	165.5	6.26	0.0 U	16.8	298.2	----	----
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	0.0 U	148.1	6.39	0.0 U	22.8	609.1	<4.07	<4.26
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	0.0 U	136.1	6.94	0.0 U	25.2	85.7	<4.07	<4.26
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	0.0 U	-329.7	6.65	0.0 U	28.9	50.9	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	0.0 U	-147.3	6.57	0.0 U	23.5	22.7	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	0.0 U	26.5	6.45	0.0 U	21.5	138.4	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	0.0 U	122.7	6.70	0.0 U	16.8	55.9	<4.07	<4.26
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	0.0 U	60.0	6.88	0.0 U	21.4	76.1	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	0.0 U	65.4	6.90	0.0 U	20.6	58.9	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	0.0 U	172.0	7.19	0.0 U	18.5	202.8	<4.07	<4.26
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	0.0 U	74.2	7.35	0.0 U	26.3	119.0	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	0.0 U	115.2	6.74	0.0 U	29.8	63.6	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	0.0 U	101.0	7.03	0.0 U	26.8	1.8	<4.07	<4.26
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	0.0 U	154.1	6.92	0.0 U	32.5	67.5	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	0 U	328	6.37	0 U	27.8	225.5	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	0 U	255.6	6.9	0 U	29.6	22.8	<4.07	<4.26

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	0 U	129.4	6.72	0 U	24.8	179.3	----	----
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	0 U	260.8	6.86	0 U	24.5	214.3	----	----
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	0.0 U	229.3	6.83	0.0 U	21.7	514.5	<4.07	<4.26
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	0.0 U	159.0	6.83	0.0 U	18.2	141.3	----	----
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	0.0 U	214.6	6.94	0.0 U	17.4	77.6	----	----
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	0.0 U	182.8	7.01	0.0 U	22.1	84.6	<4.07	<4.26
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	0.0 U	127.9	7.42	0.0 U	23.7	2478.1	<4.07	<4.26
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	0.0 U	96.9	7.52	0.0 U	27.2	70.5	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	0.0 U	110.0	7.58	0.0 U	27.9	142.6	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	0.0 U	141.8	7.46	0.0 U	20.1	119.3	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	0.0 U	-292.7	7.58	0.1	19.9	94.5	<4.07 UJ	<4.26 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	0.0 U	-245.9	7.13	0.0 U	20.1	118.8	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	0.0 U	-309.2	7.19	0.0 U	20.7	552.4	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	0.0 U	-313.7	7.44	0.0 U	19.2	114.6	<4.07	<4.26
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	0.0 U	-303.7	7.07	0.4	23.5	23.1	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	0.0 U	-123.7	6.73	0.4	29.7	55.5	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	0.0 U	-73.9	7.04	0.0 U	27.5	10.7	<4.07	<4.26
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	0.2	135.1	7.11	0.0 U	35.1	121.0	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	0 U	309.3	6.8	0 U	35.2	174.7	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	0 U	227	7	0 U	34.6	44	<4.07	<4.26
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	0 U	91	6.92	0 U	25.5	136.9	----	----
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	0 U	262.2	7.07	0 U	24.0	5951.8	----	----
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	0.0 U	269.2	6.93	0.0 U	17.1	8253.6	<4.07	<4.26
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	0.0 U	165.9	6.95	0.0 U	16.1	9392.9	----	----
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	0.0 U	227.6	7.07	0.0 U	16.8	5590.5	----	----
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	0.0 U	170.2	7.19	0.0 U	22.1	2260.1	<4.07	<4.26
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	0.0 U	161.5	7.20	0.0 U	26.5	50.4	<4.07	<4.26
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	0.0 U	75.3	7.39	0.0 U	20.7	58.1	<4.07 UJ	<4.26 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	0.0 U	143.2	7.47	0.0 U	21.8	115.4	<4.07	<4.26
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	0.0 U	119.7	7.08	0.0 U	30.3	59.1	<4.07	<4.26
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	0 U	273.2	6.53	0 U	28.2	13.8	<4.07	<4.26
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	0.0 U	201.8	6.52	0.0 U	16.0	7.9	<4.07	7.68 J
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	0.0 U	393.4	6.17	0.0 U	24.3	28.7	<4.07	<4.26
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	0.0 U	110.5	8.07	0.0 U	22.8	57.4	<4.07	<4.26
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	0.0 U	63.8	7.41	0.0 U	16.8	23.4	<4.07 UJ	<4.26 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	0.0 U	166.5	7.45	0.0 U	21.5	-48.0	<4.07	<4.26
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	0.0 U	174.8	7.01	0.0 U	26.9	11.4	<4.07	<4.26
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	0 U	238.2	6.83	0 U	30.5	18.8	<4.07	<4.26
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	0.0 U	96.4	6.51	0.0 U	19.9	60.0	<4.07	<4.26
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	0.0 U	360.6	6.37	0.0 U	20.9	83.5	<4.07	<4.26
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	0.0 U	209.2	7.09	0.0 U	20.7	76.6	<4.07	<4.26
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	0.0 U	168.4	7.52	0.0 U	22.3	435.5	<4.07	<4.26
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	0.0 U	127.9	7.39	0.0 U	20.8	20.3	<4.07	<4.26
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	0.0 U	36.2	7.16	0.0 U	26.4	119.9	<4.07	<4.26
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	0 U	31.4	7.55	0 U	26	146.2	<4.07	<4.26
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	0.0 U	366.3	6.63	0.0 U	20.1	115.4	<4.07	<4.26

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	0.0 U	189.4	6.45	0.0 U	20.6	2085.0	<4.07	<4.26
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	0.0 U	123.8	8.36	0.0 U	18.6	82.3	<4.07	<4.26
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	0.0 U	-139.8	8.59	0.0 U	21.5	51.1	<4.07	<4.26
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	0.0 U	104.0	9.13	0.0 U	22.2	99.0	<4.07	<4.26
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	0.0 U	20.5	8.36	0.0 U	28.2	779.0	<4.07	<4.26
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	0 U	-32	8.48	0 U	28.1	479.8	<4.07	<4.26
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	0.0 U	125.3	8.67	0.0 U	12.2	62.9	<4.07	<4.26
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	0.0 U	119.7	8.59	0.0 U	18.0	62.5	<4.07	<4.26
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	0.0 U	125.1	7.95	0.0 U	22.6	20895.7 E	<4.07	<4.26
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	0.0 U	161.9	6.87	0.0 U	23.0	137.7	<4.07	<4.26
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	0.4	-173.7	6.17	6.0	21.6	-223.4	<4.07	<4.26
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	5.5	-124.6	6.30	0.0 U	24.3	30.1	<40.7	<42.6
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	0 U	7	6.57	0 U	27.2	308.6	<4.07	<4.26
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	0.5	76.2	6.88	0.0 U	21.9	181.0	<4.07	<4.26
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	0.0 U	173.2	7.16	0.0 U	21.1	118.8	<4.07	<4.26
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	0.0 U	165.2	8.11	0.0 U	21.5	71.7	<4.07	<4.26
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	0.0 U	-309.1	5.99	0.0 U	22.0	32.2	<4.07	<4.26
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	0.0 U	-307.8	7.07	0.0 U	20.4	38.9	<4.07	<4.26
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	0.0 U	-211.4	6.94	0.0 U	32.8	2.4	<4.07	<4.26
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	0 U	-165.9	6.53	0 U	25.6	8.2	<4.07	<4.26
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	0.0 U	-110.5	6.58	0.0 U	20.7	8.1	<4.07	<4.26
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	0.0 U	-148.8	6.62	0.0 U	23.2	27.1	<4.07	<4.26
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	0.0 U	-134.0	6.59	0.0 U	21.9	113.5	<4.07	<4.26
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	0.0 U	165.2	7.15	0.0 U	23.7	84.8 E	<4.07	<4.26
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	0.0 U	63.9	7.13	0.0 U	21.8	84.8	<4.07	<4.26
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	0.0 U	134.5	6.47	0.0 U	17.8	12.1	<4.07	<4.26
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	0.0 U	212.9	6.65	0.0 U	25.2	34.1	<4.07	<4.26
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	0 U	367.1	6.59	0 U	24.7	15.7	<4.07	<4.26
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	0.0 U	165.4	7.16	0.0 U	18.6	35.7	<4.07	<4.26
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	0.0 U	408.4	7.40	0.0 U	18.4	238.5	<4.07	<4.26
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	0.0 U	121.7	7.62	0.0 U	18.3	35.4	<4.07	<4.26
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	0.0 U	43.7	7.71	0.0 U	21.7	18.9	<4.07	<4.26
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	0.0 U	-32.6	7.56	0.0 U	18.6	11.4	<4.07	<4.26
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	0.0 U	44.0	7.78	0.0 U	27.3	12.0	<4.07	<4.26
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	0 U	-27.1	7.75	0 U	28.2	14	<4.07	<4.26
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	0.0 U	150.2	7.86	0.0 U	18.1	17.9	<4.07	<4.26
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	0.0 U	351.8	7.25	0.0 U	13.8	13.7	<4.07	<4.26
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	0.0 U	129.8	8.36	0.0 U	23.5	-449448.0 E	<4.07	<4.26
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	0.0 U	-277.0	7.32	0.5	22.2	5.3	<4.07	<4.26
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	----	-54.8	7.33	----	20.6	5.3	<4.07	<4.26
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	5.5	-65.3	6.76	0.1	25.4	12.6	<4.07	<4.26
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	0 U	120.2	6.61	0 U	26.2	38.9	<4.07	<4.26
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	----	----	----	----	----	----	<4.07	<4.26



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	FIELD TESTS	RSK175	RSK175
						Ferrous Iron	Oxidation-Reduction Potential	pH	Sulfide	Temperature	Turbidity	Ethane	Ethene
						mg/L	mV	SU	mg/L	C	NTU	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	0.0 U	381.7	6.75	0.0 U	23.3	78.6	<4.07	<4.26
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	---	---	---	---	---	---	<4.07	<4.26
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	0.0 U	168.3	7.13	0.0 U	20.5	110.7	<4.07	<4.26
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	---	---	---	---	---	---	<4.07	<4.26
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	0.0 U	136.6	8.80	0.0 U	22.3	-8.5	<4.07	8.07 J
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	---	---	---	---	---	---	<4.07	<4.26
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	0.0 U	24.7	8.01	0.0 U	22.5	35.4	<4.07 UJ	<4.26 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	6.0	-159.7	6.65	0.4	20.5	74.4	<4.07	<4.26
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	7.0	-105.2	6.67	0.6	25.3	87.7	<4.07	<4.26
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	2	-84.7	7.14	2.5	27.8	60.4	<4.07	<4.26
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	0.5	-132.8	7.13	0.0 U	23.7	70.8	<4.07	<4.26
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	0.0 U	-163.5	7.14	5.0	21.9	238.8	<4.07	<4.26
U4-SLMW	11/10/2022	N	EM03		-	---	---	---	---	---	---	---	---
U4-T3	10/13/2022	N	EM02		-	---	---	---	---	---	---	---	---
U4-T3	11/3/2022	N	EM03		-	---	-60.4	6.51	---	20.4	169.1	---	---
U4-T3	12/6/2022	N	EM04		-	---	-8.5	6.72	---	21.4	30.1	---	---
U4-T3	1/9/2023	N	EM05		-	---	111.4	7.05	---	19.9	0.0	---	---
U4-T3	2/13/2023	N	EM06		-	---	159.2	7.44	---	23.6	3.3	---	---
U4-T3	3/13/2023	N	EM07		-	---	197.0	7.43	---	23.5	1.9	---	---
U4-T3	4/19/2023	N	EM08		-	---	-27.7	6.94	---	22.6	3.7	---	---
U4-T3	5/18/2023	N	EM09		-	---	49.6	5.71	---	30.9	5.5	---	---
U4-T3	6/12/2023	N	EM10		-	---	225.9	6.88	---	33.8	1.9	---	---
U4-T3	7/11/2023	N	EM11		-	---	-61.3	6.54	---	35.0	111.4	---	---
U4-T3	8/10/2023	N	EM12		-	---	-73.1	6.74	---	36.3	38.6	---	---
U4-T3	9/11/2023	N	EM13		-	---	-247	6.23	---	29.2	95.4	---	---
U4-T3	10/16/2023	N	EM14		-	---	-216.9	6.05	---	36.5	45.8	---	---

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	712,000	<150	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	54,000,000	77,000	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	39,900,000	96,900 J-	1,410 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	25,800,000	57,600	3,660 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	18,700,000	39,500	1,030 J+	<1.47	<1.49	<1.33	<1.58
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	15,000,000 J	32,300	1,720 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	22,400,000	43,900	1,240 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	9,740,000	42,700	1,130 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<2.91	15,300,000	23,100	1,660 J+	<7.35	<7.45	<6.65	<7.90
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	18,500,000	34,100	1,460 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	19,900,000	34,200	1,540 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	49.1	20,400,000	16,600	957 J	<7.35	<7.45	<6.65	<7.90
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	18,000,000	43,900 J-	1,540	<0.147	<0.149	<0.133	<0.158
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	21,500,000	30,800	1,140 J+	<0.147	<0.149	<0.133	<0.158
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	5,540	12,500,000	31,600	963 J	<0.147	<0.149	<0.133	<0.158
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	19,800,000 J-	28,500	13,900	<0.147	<0.149	<0.133	<0.158
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	----	16,400,000	32,300	37,600	<7.35	<7.45	<6.65	<7.90
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	25,700	16,400,000	31,600	50,800	<0.147	<0.149	<0.133	<0.158
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	----	16,800,000	32,100	57,300	<0.147	<0.149	<0.133	<0.158
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	----	12,500,000	<150	2,380,000	<7.35	<7.45	<6.65	<7.90
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	4,410	23,300,000	52.0	8,170,000	<7.35	<7.45	<6.65	<7.90
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	2,330,000 J	1,510 J-	1,590 J+	<0.147	<0.149	<0.133	<0.158
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<2.91	2,490,000	1,590	3,420 J+	<0.147	<0.149	<0.133	<0.158
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	233	2,690,000	1,780	1,290 J+	<0.147	<0.149	<0.133	<0.158
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	1,410	2,330,000	1,740	1,430 J+	<0.147	<0.149	<0.133	<0.158
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	5,770	2,050,000	1,640	5,240 J+	<0.147	<0.149	<0.133	<0.158
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	8,640	1,930,000	325	14,400	<0.147	<0.149	<0.133	<0.158
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	1,410,000	32.5 J	520 J	<0.147	<0.149	<0.133	<0.158
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<2.91	2,590,000	45.8	1,020 J+	<0.147	<0.149	<0.133	<0.158
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	12.8	2,110,000	23.5	1,480	<0.147	<0.149	<0.133	<0.158
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	139	2,850,000	6.26	996 J	<0.147	<0.149	<0.133	<0.158
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	78.8	3,790,000	11.2	529 J	<0.147	<0.149	<0.133	<0.158
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	2,130,000	598	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	1,600,000	1,350	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	43,600,000	87,000 J-	1,030 J+	<0.735	<0.745	<0.665	<0.790
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<2.91	606,000	1.43	36,400	<0.147	<0.149	<0.133	<0.158
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	4,770,000 J	6,190 J-	2,420 J+	<0.147	<0.149	<0.133	<0.158
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	2,770,000 J	7,860 J-	2,670 J+	<0.147	<0.149	<0.133	<0.158
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<2.91	6,170,000	16,300	2,230 J+	<0.147	<0.149	<0.133	<0.158
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	4,720,000	9,830	12,700	<0.147	<0.149	<0.133	<0.158
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	6,020,000	9,400 J-	34,200	<0.147	<0.149	<0.133	<0.158
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	8,260,000	17,400	94,200	<0.147	<0.149	<0.133	<0.158
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	3,590,000	<30.0	968,000	<0.735	<0.745	<0.665	<0.790
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	2,020,000	0.992	217,000	<0.147	<0.149	<0.133	<0.158
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	7,010,000	22.3	3,310,000	<0.735	<0.745	<0.665	<0.790
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	4,630,000 J-	10.1	3,350,000	<0.147	<0.149	<0.133	<0.158

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	----	4,870,000	17.8	3,990,000	<1.47	<1.49	<1.33	<1.58
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	----	6,470,000	71.4	4,870,000	<2.94	<2.98	<2.66	<3.16
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	----	2,530,000	6.42	2,290,000	<1.47	<1.49	<1.33	<1.58
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	----	4,870,000	16.0 J	3,030,000	<1.47	<1.49	<1.33	<1.58
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	10,800,000	17,400	1,540 J+	<0.147	<0.149	<0.133	<0.158
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<2.91	625,000	7.77	2,720 J+	<0.147	<0.149	<0.133	<0.158
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	4,130,000	8,910 J-	1,240 J+	<0.147	<0.149	<0.133	<0.158
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<2.91	1,340,000	1,980 J-	3,580 J+	<0.147	<0.149	<0.133	<0.158
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	3,830,000	6,860	53,000	<0.147	<0.149	<0.133	<0.158
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	3,440,000	5,730	125,000	<0.147 UJ	<0.149	<0.133	<0.158
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	3,940,000	2,190	312,000	<0.147	<0.149	<0.133	<0.158
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	4,560,000	3,130	315,000 J-	<0.147	<0.149	<0.133	<0.158
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	3,810,000	1.16	626,000 J-	<0.147	<0.149	<0.133	<0.158
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	4,850,000	11.0	845,000 J-	<0.147	<0.149	<0.133	<0.158
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	4,660,000 J-	4.10	535 J	<1.47	<1.49	<1.33	<1.58
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	----	6,860,000	69.1	3,540,000 J-	<1.47	<1.49	<1.33	<1.58
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	----	7,290,000	182	3,340,000 J-	<0.147	<0.149	<0.133	<0.158
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	----	6,120,000	143	5,720,000 J-	<0.147	<0.149	<0.133	<0.158
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	----	20,500,000	84.0	11,400,000 J-	<3.68	<3.73	<3.33	<3.95
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	34,400,000	77,900 J-	1,660 J+	<0.147	<0.149	<0.133	<0.158
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	18,900,000 J-	48,700	971 J	<29.4	<29.8	<26.6	<31.6
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	15,400,000	44,000	1,710 J+	<0.147	<0.149	<0.133	<0.158
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	16,000,000	37,000 J-	1,380 J+	<2.94 UJ	<2.98 UJ	<2.66 UJ	<3.16 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	9,860,000	36,100	1,410 J+	<0.147	<0.149	<0.133	<0.158
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	12,000,000	34,100	1,260 J+	<14.7	<14.9	<13.3	<15.8
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	11,700,000	35,600	1,920 J+	<14.7	<14.9	<13.3	<15.8
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	683	12,200,000	35,400	1,520 J+	<29.4	<29.8	<26.6	<31.6
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	12,600,000	35,400	83,500	<0.735	<0.745	<0.665	<0.790
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	8,660,000	28,600	213,000	<0.147 UJ	<0.149	<0.133	<0.158
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	12,000,000	35,500	123,000	<0.147	<0.149	<0.133	<0.158
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	15,400,000	38,500	28,700	<0.147	<0.149	<0.133	<0.158
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	15,600,000	36,200	12,200	<0.147	<0.149	<0.133	<0.158
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	15,500,000	35,700	34,500	<0.147	<0.149	<0.133	<0.158
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	17,100,000 J-	35,100	122,000	<29.4	<29.8	<26.6	<31.6
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	24,000,000	37,500 J-	1,380 J+	<0.147	<0.149	<0.133	<0.158
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<2.91	640,000	0.538	3,170 J+	<0.147	<0.149	<0.133	<0.158
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	3,430,000	3,380 J-	863 J	<0.147	<0.149	<0.133	<0.158
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	32.4	20,900,000	60,300	1,580 J+	<7.35	<7.45	<6.65	<7.90
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	28,400,000	47,900 J-	1,070 J+	<0.147	<0.149	<0.133	<0.158
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	45.8 J+	641,000	0.272 J	2,450 J+	<0.147	<0.149	<0.133	<0.158
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	4,070,000	5,710 J-	1,110 J+	<0.147	<0.149	<0.133	<0.158
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<2.91	2,690,000	8,200	2,960 J+	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<2.91	9,590,000	10,800	605 J	<0.147	<0.149	<0.133	<0.158
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<2.91	3,220,000	2,420	863 J	<0.147	<0.149	<0.133	<0.158
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<2.91	3,150,000	3,210	909 J	<0.147	<0.149	<0.133	<0.158
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	9,760,000 J-	9,930	221,000	<0.147	<0.149	<0.133	<0.158

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	5,900,000	3,080	659,000	<0.147	<0.149	<0.133	<0.158
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	----	6,870,000	1,860 J-	69,200	<1.47 UJ	<1.49 UJ	<1.33 UJ	<1.58 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	----	7,540,000	17,700	117,000	<0.147	<0.149	<0.133	<0.158
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	----	7,500,000	158 J-	516,000	<14.7	<14.9	<13.3	<15.8
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	----	4,760,000	34.3 J-	399,000	<2.94	<2.98	<2.66	<3.16
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	----	4,860,000	1,190	198,000	<2.94	<2.98	<2.66	<3.16
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	----	18,800,000	37,200	29,900	<3.68	<3.73	<3.33	<3.95
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	----	11,600,000	25,300	66,900 J-	<0.147	<0.149	<0.133	<0.158
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	----	13,200,000	22,800	10,600	<0.147	<0.149	<0.133	<0.158
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	----	11,700,000	28,200	54,700	<0.735	<0.745	<0.665	<0.790
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	----	7,360,000	7.42	1,270,000	<0.147	<0.149	<0.133	<0.158
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	----	6,000,000 J-	30.1	486,000	<7.35	<7.45	<6.65	<7.90
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	----	6,680,000	28.7	513,000	<0.147	<0.149	<0.133	<0.158
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	----	5,420,000	0.676	430,000 J-	<0.147	<0.149	<0.133	<0.158
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	----	6,280,000	8.67	155,000	<7.35	<7.45	<6.65	<7.90
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	----	7,040,000	<3.00	47,800	<7.35	<7.45	<6.65	<7.90
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<2.91	37,900,000	76,300 J-	3,200 J	<0.147	<0.149	<0.133	<0.158
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<2.91	6,860,000	12,200 J	2,760 J	<0.147	<0.149	<0.133	<0.158
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	17,000,000	48,700	12,500	<1.47	<1.49	<1.33	<1.58
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	----	12,800,000	42,300 J-	18,800	<0.147	<0.149	<0.133	<0.158
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	----	15,000,000	38,500	17,100	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	----	11,800,000	39,800	4,110	<0.147	<0.149	<0.133	<0.158
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	----	13,100,000	43,200	10,100	<14.7	<14.9	<13.3	<15.8
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	----	12,500,000	41,600	6,770	<14.7	<14.9	<13.3	<15.8
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	----	12,300,000	35,400	8,630	<0.735	<0.745	<0.665	<0.790
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	----	12,800,000	31,700	6,020	<14.7	<14.9	<13.3	<15.8
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	----	9,840,000	29,400	7,650 J+	<0.147	<0.149	<0.133	<0.158
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	----	11,300,000	33,100	11,400	<0.147	<0.149	<0.133	<0.158
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	----	12,200,000	30,400	10,700	<0.735	<0.745	<0.665	<0.790
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	----	15,900,000	36,500	15,700	<0.147	<0.149	<0.133	<0.158
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	----	15,200,000 J-	37,600	13,800	<14.7	<14.9	<13.3	<15.8
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	----	15,400,000	36,600	8,740	<0.147	<0.149	<0.133	<0.158
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	----	14,600,000	35,200	7,810	<0.147	<0.149	<0.133	<0.158
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	----	11,100,000	36,400	8,210 J-	<29.4	<29.8	<26.6	<31.6
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	----	15,700,000	33,100	8,790	<29.4	<29.8	<26.6	<31.6
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<2.91	39,500,000	85,100 J-	3,170 J	<0.147	<0.149	<0.133	<0.158
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	24,000,000	69,700	2,450	<1.47	<1.49	<1.33	<1.58
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	----	22,800,000	60,100 J-	2,770 J+	<0.147	<0.149	<0.133	<0.158
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	----	23,600,000	52,600 J-	2,490 J+	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	----	14,100,000	52,500	2,610 J+	<0.147	<0.149	<0.133	<0.158
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	----	15,800,000	51,000	2,770	<14.7	<14.9	<13.3	<15.8
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	----	16,100,000	47,800	3,510 J+	<14.7	<14.9	<13.3	<15.8
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	----	17,200,000	42,700	3,960	<0.735	<0.745	<0.665	<0.790
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	----	18,900,000	37,700	5,820 J+	<14.7	<14.9	<13.3	<15.8
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	----	16,600,000	36,800	3,530	<0.147	<0.149	<0.133	<0.158
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	----	16,500,000	42,100	3,900 J+	<0.147	<0.149	<0.133	<0.158



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<2.91	7,500,000	26,400 J-	875 J	<0.147	<0.149	<0.133	<0.158
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<2.91	5,550,000	13,000	1,280 J	<0.147	<0.149	<0.133	<0.158
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<2.91	3,940,000	9,360	766 J	<0.147	<0.149	<0.133	<0.158
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<2.91	3,690,000	17,000	1,790 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	7,230,000	16,500 J-	952 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	31,700	----	<1.47	<1.49	<1.33	<1.58
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<2.91	11,300,000	26,300	768 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<2.91	7,810,000	19,500	742 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<2.91	3,940,000	18,300	456 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	26,800	6,680,000	16,000	563 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	19,100	5,850,000	13,900	850 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	1,040,000	477 J	1,120 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	1,020,000	458 J	1,080 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<2.91	3,960,000	11,400	1,100 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<2.91	4,250,000	9,380	1,010 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<2.91	3,910,000	11,000	447 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<2.91	2,810,000	5,040	462 J	<0.735	<0.745	<0.665	<0.790
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<2.91	3,490,000	6,510	374 J	<0.735	<0.745	<0.665	<0.790
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	3,790,000	<150 UJ	1,160 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	11.4	12,700,000	26,500	751 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<2.91	7,010,000	18,000	706 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	29.9	5,630,000	19,300	494 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	21,400	6,280,000 J-	19,600	570 J	<7.35	<7.45	<6.65	<7.90
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	36,500	6,380,000	18,200	1,310 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	3,130,000	1,770 J-	972 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<2.91	2,670,000	1,330	1,420 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<2.91	2,950,000	1,440	803 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	2,150	2,850,000	1,460	963 J	<0.147	<0.149	<0.133	<0.158
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	8,920	2,360,000	1,160	1,810	<0.147	<0.149	<0.133	<0.158
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	18,500	1,660,000	760	5,520	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	63,700,000	95,800	1,570 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	75,100,000 J-	148,000	787 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	53,300,000	139,000	558 J	<7.35	<7.45	<6.65	<7.90
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	29,900,000	152,000 J-	924 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	36,600,000	110,000	1,850 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	44,500,000	120,000 J-	869 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<2.91	51,200,000	106,000	1,830 J+	<14.7	<14.9	<13.3	<15.8
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	41,000,000	122,000	1,620	<0.735	<0.745	<0.665	<0.790
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	26,900,000 J	107,000 J-	1,930 J+	<0.735	<0.745	<0.665	<0.790
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<2.91	42,700,000	95,500	1,140 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	55,900,000	109,000	1,680 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	41,000,000	96,200	1,380 J+	<36.8	<37.3	<33.3	<39.5
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	67.6	39,000,000	92,700	1,570 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	37,300,000	115,000	1,070	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	----	29,400,000 J-	87,500	2,910	<14.7	<14.9	<13.3	<15.8
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	29,600	38,400,000	84,100	819 J	<14.7	<14.9	<13.3	<15.8



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	----	28,300,000	76,700	1,120	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	----	32,700,000	77,500	1,260 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	28,300	28,800,000	76,000	1,130 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	6,660,000	12,800	1,100 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	----	11,000,000	33,900	8,510	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	----	15,700,000	48,200	88,500	<1.47	<1.49	<1.33	<1.58
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	20,400,000	46,600	75,900	<1.47	<1.49	<1.33	<1.58
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	----	1,860,000 J	3,720 J-	31,600 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	3,300,000 J	3,620	161,000 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	8,500,000	21,700	76,100	<1.47	<1.49	<1.33	<1.58
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	8,640,000	21,900	74,900 J-	<1.47	<1.49	<1.33	<1.58
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	----	26,500,000	69,100 J-	10,700	<1.47	<1.49	<1.33	<1.58
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	24,800,000	69,400 J-	13,300	<1.47	<1.49	<1.33	<1.58
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	3,560	30,400,000	69,400	12,000	<29.4	<29.8	<26.6	<31.6
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	3,310	29,100,000	68,600	12,700	<29.4	<29.8	<26.6	<31.6
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	----	2,060,000	3.98 J-	104,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	1,990,000	4.15 J-	105,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	----	2,200,000	4.96	141,000 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	2,770,000	5.57	35,900 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	6,720	2,860,000	1.15	159,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	6,540	2,990,000	1.28	157,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	----	2,810,000	0.301 J	255,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	2,690,000 J-	0.573	291,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	----	8,140,000	6,390	19,700	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	9,020,000	5,680	19,500	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	9,930	7,750,000	867	253,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	10,300	6,530,000	869	253,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	----	9,840,000 J	24,700	25,000	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	14,000,000 J	25,000	24,900	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	----	10,700,000	20,000	128,000	<7.35	<7.45	<6.65	<7.90
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	----	11,500,000	19,300	128,000	<7.35	<7.45	<6.65	<7.90
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	7,170	8,420,000	24,300	293,000	<7.35	<7.45	<6.65	<7.90
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	7,010	7,660,000	24,700	293,000	<7.35	<7.45	<6.65	<7.90
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	----	15,900,000	35,900	257,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	----	17,300,000	35,800	255,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	----	14,900,000	36,200	286,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	----	17,700,000	36,000	285,000 J	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	7,880	14,900,000	32,800	252,000	<0.147	<0.149	<0.133	<0.158
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	9,200	15,000,000	32,800	247,000	<0.147	<0.149	<0.133	<0.158
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	23,000,000	42,100	964 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	----	----	31,800	----	<0.735	<0.745	<0.665	<0.790
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	59.1 J	14,400,000	28,100	816 J	<2.94	<2.98	<2.66	<3.16
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<2.91 UJ	13,400,000	27,200	831 J	<0.735	<0.745	<0.665	<0.790
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<2.91	10,000,000	28,000	538 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	920	14,700,000	34,700 J	1,900	<0.147	<0.149	<0.133	<0.158
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	4,850	14,100,000	25,300	64,500	<0.147	<0.149	<0.133	<0.158

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	23,000	6,520,000	14,800	15,000	<0.147	<0.149	<0.133	<0.158
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	2,070,000	2,660	999 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<2.91	567,000	60.5	846 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<2.91	556,000	42.9	274 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<2.91	560,000	20.7	161 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<2.91	576,000	33.8	156 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<2.91	589,000	35.6	293 J	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	2,350,000	<150 UJ	3,300 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<2.91	12,000,000	24,500	1,260 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	35.1	12,300,000	11,400	607 J	<2.94	<2.98	<2.66	<3.16
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	33.9	12,100,000	11,500	620 J	<3.68	<3.73	<3.33	<3.95
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	316 J	14,900,000	26,400	1,120 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	149 J	13,700,000	26,700	1,190 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	11,500	13,300,000	22,900	4,540	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	9,730	13,100,000	22,800	4,600	<0.147	<0.149	<0.133	<0.158
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	15,000	8,660,000	13,000	78,000	<7.35	<7.45	<6.65	<7.90
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	16,100	7,240,000	13,100	77,500	<7.35	<7.45	<6.65	<7.90
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	2,890,000	1,390 J-	1,200 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	2,190,000 J-	1,390 J-	1,320 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<2.91	2,440,000 J	2,300	1,480 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	799	2,880,000	2,470	2,310 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	3,620	2,470,000	1,840	5,950	<0.147	<0.149	<0.133	<0.158
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	6,400	2,680,000	1,210	3,280	<0.147	<0.149	<0.133	<0.158
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	8,130	2,500,000	641	5,120	<0.147	<0.149	<0.133	<0.158
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	56,100,000	103,000 J	7,260 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	18,300	----	<7.35	<7.45	<6.65	<7.90
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<2.91	5,570,000 J	14,300	1,210 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	1,030	5,170,000	5,350	57,600	<0.147	<0.149	<0.133	<0.158
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	15,100	9,070,000	19,800	4,430	<0.147	<0.149	<0.133	<0.158
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	27,900	6,330,000	12,000	127,000	<0.147	<0.149	<0.133	<0.158
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	23,000	8,550,000	13,300	69,000	<7.35	<7.45	<6.65	<7.90
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	22,500,000	34,300 J-	1,530 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<2.91	19,200,000	38,600	1,200 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	148	13,200,000	34,300	39,000	<0.735	<0.745	<0.665	<0.790
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	3,910	30,700,000	63,400	1,630	<0.147	<0.149	<0.133	<0.158
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	24,000	24,400,000	59,900	7,380	<0.147	<0.149	<0.133	<0.158
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	19,900	31,100,000	64,000	2,780	<29.4	<29.8	<26.6	<31.6
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	27,800,000	73,100 J-	1,710 J	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	30,400,000 J-	69,500	1,300 J	<14.7	<14.9	<13.3	<15.8
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	15,100,000	46,500	1,450 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	15,100,000	44,900	1,200 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	10,200,000	44,700	1,200 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	9,200,000	31,800	1,090	<14.7	<14.9	<13.3	<15.8
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	55.6 J+	11,400,000	28,200	1,370 J+	<14.7	<14.9	<13.3	<15.8
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	6,160,000	18,900	4,520	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	3,790,000	10,400	94,100	<0.147	<0.149	<0.133	<0.158

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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	1,860	6,880,000	5,460	129,000	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	8,820,000	7,530	22,100	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	9,980,000	15,300	50,700	<3.68	<3.73	<3.33	<3.95
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	23,000	4,150,000	2,260	127,000	<3.68	<3.73	<3.33	<3.95
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	9,400,000	10,200	185,000 J-	<3.68	<3.73	<3.33	<3.95
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	----	8,100,000	10,800	215,000	<3.68	<3.73	<3.33	<3.95
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	4,060	11,600,000	697	3,170,000 J-	<3.68	<3.73	<3.33	<3.95
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	----	10,100,000	4,790	1,390,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	----	9,640,000	4,090	647,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	10,200	15,800,000	3,640	700,000	<3.68	<3.73	<3.33	<3.95
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	12,900,000	42,800 J-	1,460 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	29,100,000	70,800	1,180 J	<14.7	<14.9	<13.3	<15.8
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	22,800,000	61,900 J-	1,370 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	19,400,000 J	49,600	1,630 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	10,300,000	45,300	1,400 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	9,860,000	36,900	1,260 J+	<14.7	<14.9	<13.3	<15.8
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<2.91	9,700,000	30,400	1,990 J+	<14.7	<14.9	<13.3	<15.8
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	3,810,000	5,170	379,000	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	4,590,000	1.83	531,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	1,350	3,650,000	4.86	485,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	8,240,000	5,340	54,600 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	7,900,000	1,150	131,000	<7.35	<7.45	<6.65	<7.90
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	21,300	4,520,000	293	98,100 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	7,100,000	390	66,000 J-	<7.35	<7.45	<6.65	<7.90
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	----	7,920,000	279	166,000 J-	<7.35	<7.45	<6.65	<7.90
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	11,200	8,280,000	607	403 J	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	----	12,800,000	33.0 J	651,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	----	10,200,000	97.6	361,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	6,660	14,900,000	103	188,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	43,400,000	73,100 J-	1,350 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	36,900 J-	----	<7.35	<7.45	<6.65	<7.90
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<2.91	16,000,000	36,500	919 J	<0.147	<0.149	<0.133	<0.158
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<2.91	12,500,000	29,300	863 J	<0.147	<0.149	<0.133	<0.158
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	14,500	11,800,000	31,500	180,000	<0.147	<0.149	<0.133	<0.158
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	16,300	22,800,000	39,100	359,000	<0.147	<0.149	<0.133	<0.158
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	2,790	20,900,000	27,100	763,000	<7.35	<7.45	<6.65	<7.90
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	3,420,000	3,070 J-	1,190 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<2.91	17,100,000	42,800	1,660 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	110	12,600,000	29,000	4,040	<0.147	<0.149	<0.133	<0.158
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	12,100	16,800,000	35,200	73,800	<7.35	<7.45	<6.65	<7.90
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	16,300	24,300,000	40,300	150,000	<0.147	<0.149	<0.133	<0.158
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	10,700	20,900,000	26,900	544,000	<14.7	<14.9	<13.3	<15.8
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	5,820,000	23,900 J+	631 J	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	1,310,000 J-	2,080	1,630 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	1,330,000	2,120	1,490 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	1,220,000 J+	1,610 J-	1,680 J+	<0.147	<0.149	<0.133	<0.158

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	1,050,000	1,080 J-	1,580 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	1,260,000	1,380 J-	1,480 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	1,070,000	1,250 J-	1,320	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	53.0 J+	1,070,000	922	1,930 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	3,630,000	5,020	416,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	3,170,000	692	1,390 J+	<0.147 UJ	<0.149	<0.133	<0.158
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	18,000	3,280,000	1,160 J-	392,000 J-	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	13,200,000	29,900	38,900	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	11,800,000	26,900	192,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	17,700	7,100,000	15,700	129,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	11,800,000	23,100	282,000 J-	<14.7	<14.9	<13.3	<15.8
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	----	12,500,000	22,500	592,000 J-	<14.7	<14.9	<13.3	<15.8
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	7,250	7,320,000	3,150	1,210 J	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	----	11,600,000	722	1,880,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	----	8,400,000	<15.0	4,510,000 J-	<3.68	<3.73	<3.33	<3.95
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	622	16,200,000	46.1 J	2,530,000	<3.68	<3.73	<3.33	<3.95
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	1,670,000	4,810 J+	2,760 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	1,350,000 J	2,720	1,370 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	1,340,000	1,650 J-	1,530 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	1,220,000	1,360 J-	1,630 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	1,440,000	1,810 J-	1,420 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	1,520,000	2,640 J-	1,250	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	54.8 J+	1,630,000 J	2,670 J-	25,900 J-	<0.735	<0.745	<0.665	<0.790
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	2,670,000	4,860	113,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	2,820,000	0.158 J	352,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	376	3,030,000	<15.0	171,000	<0.735	<0.745	<0.665	<0.790
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	7,260,000	1,900	47,900	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	7,180,000	7,420 J-	255,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	14,700	5,300,000	4,220	409,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	7,440,000	340	271 J	<7.35	<7.45	<6.65	<7.90
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	7,700,000	4,230	613,000 J-	<7.35	<7.45	<6.65	<7.90
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	5,450	7,540,000	2,720	937,000	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	----	12,000,000	116	1,430,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	5,180,000	255	3,700,000	<7.35	<7.45	<6.65	<7.90
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	2,390	15,700,000	<15.0	1,170,000 J-	<7.35	<7.45	<6.65	<7.90
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<2.91	48,000,000	106,000	3,420 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	166	14,700,000	52,900 J-	6,460	<0.147	<0.149	<0.133	<0.158
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	22,600	22,700,000	44,800	10,900 J-	<14.7	<14.9	<13.3	<15.8
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	31,700	37,200,000	55,900	9,200 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	21,800	31,900,000	85,600	1,930 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	22,300	30,600,000 J	75,900	4,540	<0.147	<0.149	<0.133	<0.158
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	27,400	26,800,000	49,100	50,100	<29.4	<29.8	<26.6	<31.6
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<2.91	1,240,000	694	670 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<2.91	1,220,000	723	672 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<2.91	751,000 J	384	1,170 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<2.91	2,690,000	1,280	935 J	<0.147	<0.149	<0.133	<0.158



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5 310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<2.91	2,380,000	1,270	550 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<2.91	1,330,000 J	504	214 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<2.91	1,540,000 J	513	873 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	4,060	1,210,000	387	337 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<2.91	3,380,000	7,950	1,740 J	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	57.2	11,000,000	33,700	1,790 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	55.5	----	34,200 J-	1,310 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	17,900	22,300,000	54,200	1,640 J+	<7.35	<7.45	<6.65	<7.90
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	4,260	5,340,000	11,600	12,000	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	10,200	9,260,000	30,800	5,260	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	13,400	11,600,000	32,200 J-	18,000	<0.147	<0.149	<0.133	<0.158
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	15,100	19,700,000	30,300	12,600	<14.7	<14.9	<13.3	<15.8
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<2.91	1,970,000	506 J+	1,190 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	427	1,600,000	254 J-	3,390 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	472	1,850,000	265 J-	2,830 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	21,300	1,570,000	<0.150	9,910	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	21,300	1,410,000	<0.750 UJ	12,800 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	23,300	2,530,000	<15.0	190,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	26,800	2,110,000	<15.0	201,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	23,900	1,710,000	<0.150	52,200 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	24,800	1,580,000	<0.150	51,600 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	15,900	3,210,000	1.99	1,050,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	18,800	3,190,000	1.97	1,010,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	12,600	2,060,000	<3.00	41,700 J-	<0.294 UJ	<0.298 UJ	<0.266 UJ	<0.316 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	13,000	1,980,000	<3.00	43,000 J-	<0.294 UJ	<0.298 UJ	<0.266 UJ	<0.316 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	15,200 J	2,120,000	<0.150 UJ	234,000	<0.147	<0.149	<0.133	<0.158
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	21,300 J	2,070,000	<0.150 UJ	220,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<2.91	30,000,000	67,800	1,590 J	<0.147	<0.149	<0.133	<0.158
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	291	3,560,000	7,060 J-	751 J	<1.47 UJ	<1.49 UJ	<1.33 UJ	<1.58 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	13,400	4,200,000	3,520	146,000	<1.47	<1.49	<1.33	<1.58
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	4,200	3,820,000	1,490	223,000	<0.147	<0.149	<0.133	<0.158
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	28,900	4,020,000	2,990	87,700	<0.147	<0.149	<0.133	<0.158
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	8,200	7,680,000	2,200	168,000	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	2,560	6,410,000	855	40,700	<0.147	<0.149	<0.133	<0.158
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<2.91	759,000 J	121	493 J	<0.147	<0.149	<0.133	<0.158
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<2.91 UJ	693,000	134	398 J	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<2.91	1,290,000	215 J-	310 J	<0.147	<0.149	<0.133	<0.158
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<2.91	1,210,000 J	94.8	699 J	<0.147	<0.149	<0.133	<0.158
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	2,520	1,880,000	<0.300	9,120	<0.147	<0.149	<0.133	<0.158
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	10,500	2,390,000	17.3	2,950	<0.147	<0.149	<0.133	<0.158
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	41,200	2,130,000	<0.150	48,200	<0.147	<0.149	<0.133	<0.158
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<2.91	2,030,000	2,320	1,090 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	194	6,780,000	13,500 J-	1,040 J+	<1.47 UJ	<1.49 UJ	<1.33 UJ	<1.58 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	18,200	4,970,000	7,920	43,900	<1.47	<1.49	<1.33	<1.58
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	7,840	4,140,000	1,130	33,900	<0.147	<0.149	<0.133	<0.158
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	34,600	5,690,000	5,850	33,600	<0.147	<0.149	<0.133	<0.158



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	16,000	7,980,000	3,150	63,000	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	8,180	6,380,000	1,570	37,400	<0.147	<0.149	<0.133	<0.158
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<2.91	1,900,000	387	892 J	<0.147	<0.149	<0.133	<0.158
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<2.91 UJ	3,460,000 J	2,740 J-	999 J	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	4,840	2,960,000	2,630	2,440 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	11,800	3,740,000	<15.0	724,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	24,500	3,690,000	<0.150 UJ	895,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	19,600	7,510,000	9.36	1,190 J	<0.147	<0.149	<0.133	<0.158
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	17,200	5,510,000	6.40 J	599,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<2.91	4,840,000	5,450	1,020 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	257	2,400,000	3,640 J-	868 J	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	29,800	3,170,000	1.22	225,000	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	26,700	2,340,000	0.228 J	234,000	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	35,300	2,200,000	<0.150	10,700	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	41,400	1,900,000	0.153 J	9,960	<0.147	<0.149	<0.133	<0.158
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	32,900	1,670,000	<0.150	11,200	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<2.91	5,670,000	6,160	1,200 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	50.1	1,870,000	566 J-	3,630 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	20,300	3,110,000	1.11	11,400	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	21,500	2,240,000	0.333 J	257,000	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	25,500	2,570,000	0.261 J	43,800	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	7,750	11,100,000	15,200	8,050	<0.147	<0.149	<0.133	<0.158
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	19,800	6,140,000	25,900	4,300	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<2.91	34,200,000	90,100 J+	3,440 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	34,600,000	93,300	20,200 J+	<7.35	<7.45	<6.65	<7.90
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	40,200,000	96,300	1,360 J+	<1.47	<1.49	<1.33	<1.58
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	38,300,000	91,100	1,820 J+	<7.35	<7.45	<6.65	<7.90
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	215	27,000,000	32,300 J-	33,300	<3.68 UJ	<3.73 UJ	<3.33 UJ	<3.95 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	24,800,000	74,400	5,100	<29.4	<29.8	<26.6	<31.6
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	25,800,000	76,700	6,540	<29.4	<29.8	<26.6	<31.6
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	19,400	22,900,000	55,600 J-	5,970 J-	<29.4	<29.8	<26.6	<31.6
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	23,800,000	45,700	8,540	<0.735	<0.745	<0.665	<0.790
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	647,000	47,300	3,860	<2.94 UJ	<2.98 UJ	<2.66 UJ	<3.16 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	29,300	25,900,000	71,900	5,300	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	22,400,000	62,600 J-	6,680	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	24,900,000	59,700 J-	30,700	<29.4	<29.8	<26.6	<31.6
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	24,000	22,400,000	58,100	13,200	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	19,200,000	53,700	181,000 J	<29.4	<29.8	<26.6	<31.6
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	----	20,100,000	47,600	191,000 J+	<7.35	<7.45	<6.65	<7.90
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	15,800	21,900,000	47,400	173,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	----	20,900,000	44,300	206,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	----	20,400,000	46,800	173,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	19,700	23,200,000	44,600	145,000	<14.7	<14.9	<13.3	<15.8
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<2.91	2,730,000	6,370	1,040 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	2,470,000	1,320 J	208,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	2,690,000	1,330 J	201,000	<0.147	<0.149	<0.133	<0.158

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	2,200,000	0.753 J-	61,800 J	<1.47	<1.49	<1.33	<1.58
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	2,450,000	0.886	306,000 J	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	2,390,000	1.95	364,000	<0.735	<0.745	<0.665	<0.790
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	2,340,000	2.25	370,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	5,160	2,550,000	1.79 J	55,800 J	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	5,360	2,610,000	0.403 J	276,000 J	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	1,610,000	0.800	189,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	1,750,000	0.556	195,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	8,560,000	<0.150	165,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	7,900,000	0.324 J	186,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	23,600	2,020,000	<0.150 UJ	188,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	21,400	2,030,000	<0.150 UJ	197,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	1,950,000	<0.150	146,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	2,070,000	0.158 J	147,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	2,390,000	<0.150 R	89,600 J-	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	2,430,000	<0.150 R	89,600 J-	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	23,000	1,960,000	<0.150	103,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	24,000	1,910,000	<0.150	103,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	2,070,000 J	<0.150	79,100 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	2,070,000 J	<0.150	82,900 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	9,340,000	556	11,700	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	10,100,000	299	12,800	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	24,100	7,240,000	2,050	12,500	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	21,000	7,060,000	2,050	12,000	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	19,800,000 J-	29,500	10,500	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	16,200,000 J-	29,500	10,700	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	----	10,900,000 J	19,200	13,400	<7.35	<7.45	<6.65	<7.90
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	----	16,500,000 J	19,600	13,500	<7.35	<7.45	<6.65	<7.90
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	18,700	13,700,000	17,900	14,100	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	20,100	11,200,000	17,800	14,300	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	----	11,400,000	19,400	13,700	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	----	12,900,000	19,400	13,900	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	----	14,700,000 J	19,100	11,900	<7.35	<7.45	<6.65	<7.90
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	----	10,500,000 J	19,000	15,400	<7.35	<7.45	<6.65	<7.90
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	13,700	13,700,000	20,700 J-	13,700	<0.147	<0.149	<0.133	<0.158
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	15,200	10,300,000	20,900 J-	13,500	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<2.91	29,700,000	63,700 J-	1,440 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	14,900,000	41,900	903 J	<2.94	<2.98	<2.66	<3.16
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	19,300,000 J-	50,700	1,020 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	16,600,000	47,900	469 J	<1.47	<1.49	<1.33	<1.58
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	410	13,400,000	39,900	2,090 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	14,300,000	39,300	1,970 J+	<14.7	<14.9	<13.3	<15.8
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	13,800,000	37,000 J-	2,920	<14.7	<14.9	<13.3	<15.8
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	26,600	12,700,000	28,700	34,300	<7.35	<7.45	<6.65	<7.90
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	9,900,000	43,400	14,800	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	21,200,000	46,500	5,670 J+	<14.7	<14.9	<13.3	<15.8

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5 310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2- Tetrachloroeth ane	1,1,1- Trichloroethan e	1,1,2,2- Tetrachloroeth ane	1,1,2- Trichloroethan e
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	20,600	8,760,000	35,200	2,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	8,720,000	16,800	13,700	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	7,950,000	15,600	3,810	<7.35	<7.45	<6.65	<7.90
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	24,100	6,550,000	11,900	7,900	<7.35	<7.45	<6.65	<7.90
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	6,920,000	9,270 J-	98,800	<0.735	<0.745	<0.665	<0.790
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	----	7,110,000	8,440	158,000	<0.735	<0.745	<0.665	<0.790
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	26,000	6,000,000 J	8,390	328,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	----	8,410,000	7,750	513,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	----	5,160,000	6,060	551,000	<2.94	<2.98	<2.66	<3.16
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	29,800	8,730,000	6,950	351,000	<2.94	<2.98	<2.66	<3.16
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<2.91	8,680,000	21,200	1,630 J	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<2.91	8,670,000	19,400	1,930 J	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	2,360,000	2,880 J-	1,440 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	2,410,000 J-	2,060	4,410 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	4,360,000	1,520	11,100	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	1,070	1,370,000	<0.150 UJ	95,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	1,110	----	2.33 J	84,500	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	1,580,000	0.446 J	229,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	3,010,000	<7.50 UJ	356,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	35,200	2,270,000	<1.50	407,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	2,040,000	<0.150	354,000	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	3,020,000	<0.150	374,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	25,600	2,180,000	<0.150	189,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	2,250,000 J	<0.150	126,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	4,790,000	372	6,100	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	31,400	2,660,000	1.65	14,300	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	2,280,000 J-	0.720 J-	123,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	4,940,000	<0.150	13,700	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	25,600	4,710,000	143 J-	16,000	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	----	5,990,000	104	36,500	<0.147	<0.149	<0.133	<0.158
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	6,100,000 J-	192	24,900	<2.94	<2.98	<2.66	<3.16
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	25,200	6,530,000	673	12,900	<2.94	<2.98	<2.66	<3.16
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<2.91	30,300,000	56,200	1,640 J	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	6,280,000 J+	45,000	58,400	<1.47	<1.49	<1.33	<1.58
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	6,140,000	19,800	55,200	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	9,360,000 J	1,860	7,010	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	7,020	7,430,000	16,100	2,790 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	5,460,000	15,100	2,110 J+	<2.94	<2.98	<2.66	<3.16
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	6,380,000	15,600 J-	2,000 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	5,480	7,680,000	14,200	1,730 J+	<2.94	<2.98	<2.66	<3.16
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	5,400,000	9,530	1,240	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	4,570,000	8,150	1,670	<2.94	<2.98	<2.66	<3.16
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	3,790	4,240,000	8,680	2,210 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	4,940,000	8,450	3,020	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	5,220,000	10,400	2,050 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	9,280	7,100,000	12,500	1,750 J+	<3.68	<3.73	<3.33	<3.95

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	6,860,000	13,600	2,510 J+	<3.68	<3.73	<3.33	<3.95
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	----	7,950,000 J-	13,400	2,810	<3.68	<3.73	<3.33	<3.95
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	11,600	5,120,000	14,300	2,810 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	----	7,630,000	14,300	2,580	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	----	5,030,000	14,200	3,170 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	25,700	8,550,000	13,700	2,410 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<2.91	8,680,000	21,900	1,080 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	----	2,540,000 J+	17,000	2,450 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	----	2,660,000	8,000	1,900 J	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	----	3,340,000 J	5,840 J-	2,000 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	1,300	2,710,000	<0.150 UJ	37,400	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	----	1,960,000	4.48	67,800	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	----	3,420,000	0.250 J	43,400	<0.735	<0.745	<0.665	<0.790
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	20,300	1,550,000	1.05 J	43,900	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	----	1,690,000	0.606	25,800 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	----	1,970,000	0.178 J	19,800	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	23,600	1,680,000	0.559	21,100	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	----	1,580,000 J	99.0	21,300	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	----	5,810,000	9,230	2,880 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	9,520	7,040,000	13,100	2,560 J+	<3.68	<3.73	<3.33	<3.95
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	----	8,440,000 J-	15,300	2,780	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	----	9,010,000 J-	16,500	2,840	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	11,300	5,700,000	18,900	3,260 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	----	9,860,000	20,500	3,080	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	----	8,220,000	19,600	3,230 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	16,700	11,800,000	20,900	2,260 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<2.91	2,550,000	239	1,220 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<2.91 UJ	4,530,000	5,860	570 J	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	15.0 J+	2,650,000	4,450	1,010 J+	<0.735	<0.745	<0.665	<0.790
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	619	2,750,000	3,980	1,710 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	15,500	2,320,000	2,670	6,160	<0.147	<0.149	<0.133	<0.158
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	12,400	3,700,000	26,300	5,390	<0.147	<0.149	<0.133	<0.158
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	4,500	3,230,000	2,630	8,790	<0.147	<0.149	<0.133	<0.158
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<2.91	3,220,000	2,270	1,090 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	29.8	5,260,000	4,360 J-	786 J	<0.735 UJ	<0.745 UJ	<0.665 UJ	<0.790 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	123 J+	3,130,000	4,560	1,030 J+	<0.735	<0.745	<0.665	<0.790
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	5,640	3,260,000	782	3,660	<0.147	<0.149	<0.133	<0.158
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	12,800	2,590,000	2,240	4,970	<0.147	<0.149	<0.133	<0.158
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	14,400	3,900,000 J	2,160	8,570	<0.147	<0.149	<0.133	<0.158
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	13,700	3,140,000	2,110	6,420	<0.147	<0.149	<0.133	<0.158
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<2.91	3,490,000	5,240	1,240 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<2.91	2,880,000	3,380 J-	922 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	324	3,030,000	3,630	362 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	8,050	3,680,000	4,490	818 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	47,400	2,460,000	3,270	447 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	32,000	2,750,000	3,380	1,180 J+	<0.147	<0.149	<0.133	<0.158



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5 310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2- Tetrachloroeth ane	1,1,1- Trichloroethan e	1,1,2,2- Tetrachloroeth ane	1,1,2- Trichloroethan e
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	41,500	3,350,000	3,260	743 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<2.91	677,000	67.5	532 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<2.91	553,000	14.5	505 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<2.91	548,000	12.5 J-	224 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<2.91	589,000	2.29 J	337 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<2.91	551,000	0.817	109 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<2.91	517,000	4.37	<102	<0.147	<0.149	<0.133	<0.158
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<2.91	618,000	1.09	111 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<2.91	4,080,000	5,010	1,440 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	3,490	3,130,000	4,730 J-	60,700	<0.147	<0.149	<0.133	<0.158
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	10,900	3,730,000	2.22	565,000	<2.94	<2.98	<2.66	<3.16
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	21,400	2,280,000	<0.750	306,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	14,600	3,370,000	6.35	11,900	<0.147	<0.149	<0.133	<0.158
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	28,400	4,190,000	768	38,500	<0.147	<0.149	<0.133	<0.158
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	7,250	8,110,000	4,610	6,880	<7.35	<7.45	<6.65	<7.90
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<2.91	1,450,000	262	848 J	<0.147	<0.149	<0.133	<0.158
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	20,200	1,850,000	0.995	499,000	<3.68	<3.73	<3.33	<3.95
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	24,500	1,250,000	<0.150	116,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	34,800	1,600,000	<15.0	95,700 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	21,000	1,450,000	<0.150	41,400 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	13,000	1,320,000	<150	28,500 J-	<0.294	<0.298	<0.266	<0.316
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	7,110	2,270,000	<15.0	24,600 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	17,900	1,810,000	<0.150	25,100	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<2.91	30,500,000	61,300	1,340 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	374	13,400,000	21,900	3,980 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	6,230	10,300,000	13,800	25,100	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	11,800	28,600,000	38,700	10,500 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	7,240	7,180,000 J-	17,600	4,300	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	22,800	11,200,000	17,900	463 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	17,100	10,900,000	15,000	1,940	<7.35	<7.45	<6.65	<7.90
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<2.91	1,940,000	682	827 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<2.91	1,220,000	215 J-	852 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<2.91	1,160,000	149 J-	1,350 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	55.6	1,130,000	183	825 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<2.91	972,000 J	153	151 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<2.91	808,000	89.1	128 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<2.91	976,000	9.19	<102	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<2.91	5,220,000	9,350	950 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	2,930	2,120,000	0.467 J	515,000	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	3,090	2,000,000	0.735	515,000	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	28,900	2,930,000	<0.750 UJ	747,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	26,500	2,980,000	<0.750	731,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	34,000	2,200,000 J	<1.50	363,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	32,700	2,130,000 J	<1.50	372,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	22,900	15,900,000	14,100	6,750	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	22,500	13,200,000	14,100	6,830	<0.147	<0.149	<0.133	<0.158



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	RSK175	SM2540C	SW7199	SW9060A/SM5310B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Methane	Total Dissolved Solids	Chromium, Hexavalent	Total Organic Carbon	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	19,700	8,980,000	29,500	3,990 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	16,500	12,100,000	29,600	4,090 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	13,500	19,000,000	31,400	2,880 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	14,600	18,800,000	31,500	2,970 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	19.8	1,990,000	365 J-	1,070 J+	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<2.91	2,000,000	361 J-	931 J	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	134	1,630,000	50.6	23,300	<0.147 UJ	<0.149 UJ	<0.133 UJ	<0.158 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	26,300	3,050,000	<0.150 UJ	726,000	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	25,200	3,330,000	<0.150	710,000 J-	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	25,400	1,400,000 J	<0.150	41,600	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	23,500	1,310,000	<0.150	140,000	<0.147	<0.149	<0.133	<0.158
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	16,500	2,360,000	<3.00	240,000	<0.147	<0.149	<0.133	<0.158
U4-SLMW	11/10/2022	N	EM03		-	----	588,000	<0.150	3,660 J+	<0.735	<0.745	<0.665	<0.790
U4-T3	10/13/2022	N	EM02		-	----	16,100,000 J-	38,400	114,000	<0.147	<0.149	<0.133	<0.158
U4-T3	11/3/2022	N	EM03		-	----	15,400,000	36,900	61,500	<0.147	<0.149	<0.133	<0.158
U4-T3	12/6/2022	N	EM04		-	----	12,600,000	25,100 J-	76,300	<2.94 UJ	<2.98 UJ	<2.66 UJ	<3.16 UJ
U4-T3	1/9/2023	N	EM05		-	----	12,200,000	37,400	17,100	<0.147	<0.149	<0.133	<0.158
U4-T3	2/13/2023	N	EM06		-	----	13,200,000	36,600	17,700	<14.7	<14.9	<13.3	<15.8
U4-T3	3/13/2023	N	EM07		-	----	11,700,000	39,800	2,980 J+	<3.68	<3.73	<3.33	<3.95
U4-T3	4/19/2023	N	EM08		-	----	7,080,000	14,900	31,800	<0.147	<0.149	<0.133	<0.158
U4-T3	5/18/2023	N	EM09		-	----	10,800,000	20,400	89,500	<0.147	<0.149	<0.133	<0.158
U4-T3	6/12/2023	N	EM10		-	----	9,060,000	20,700	150,000	<0.147	<0.149	<0.133	<0.158
U4-T3	7/11/2023	N	EM11		-	----	9,260,000 J-	9,780	388,000	<0.147	<0.149	<0.133	<0.158
U4-T3	8/10/2023	N	EM12		-	----	3,850,000	4.61	278,000	<0.147	<0.149	<0.133	<0.158
U4-T3	9/11/2023	N	EM13		-	----	6,800,000	57.0	1,400,000	<0.147	<0.149	<0.133	<0.158
U4-T3	10/16/2023	N	EM14		-	----	3,840,000 J-	2.08 J-	324,000	<3.68	<3.73	<3.33	<3.95

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	0.204 J	0.484 J	<0.142	<0.230	0.428 J	<0.481	<0.322	<0.276
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.100	0.398 J	0.297 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.100	0.206 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.100	<0.188	0.158 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.100	0.195 J	0.194 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.100	0.242 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.100	0.228 J	0.251 J	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.100	0.276 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.100	0.200 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322 UJ	<0.276
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	0.126 J	0.465 J	<0.142	<0.230	0.293 J	<0.481	<0.322	<0.276
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.100	0.481 J	0.479 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<2.00 UJ	<3.76 UJ	<2.84 UJ	<4.60 UJ	<4.74 UJ	<9.62 UJ	<6.44 UJ	<5.52 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.100	0.264 J	0.273 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.100	0.331 J	0.346 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.100	<0.188	0.275 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.100	0.270 J	0.373 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.100	0.223 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.100	0.271 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.100	0.210 J	0.258 J	<0.230	<0.237	<0.481	<0.322	<0.276

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.100	<0.188	0.204 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.00 UJ	<1.88 UJ	<1.42 UJ	<2.30 UJ	<2.37 UJ	<4.81 UJ	<3.22 UJ	<2.76 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.100	<0.188	0.224 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.100	0.235 J	0.288 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.100	0.682 J	0.594 J	<0.230	0.393 J	<0.481	<0.322	<0.276
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	0.122 J	0.424 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.100	0.225 J	0.316 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.100	0.281 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.100	0.315 J	0.338 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.100	0.277 J	0.388 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.100	0.275 J	0.428 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.100	0.759 J	0.631 J	<0.230	0.429 J	<0.481	<0.322	<0.276
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.100	0.501 J	0.528 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.100	0.285 J	0.335 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.100	0.250 J	0.284 J	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.100	0.401 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.100	0.398 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22 UJ	<2.76
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	0.135 J	0.735 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.100	0.517 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	0.165 J	0.832 J	0.619 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	0.118 J	0.763 J	0.566 J	<0.230 UJ	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	0.124 J	0.902 J	0.663 J	<0.230	0.363 J	<0.481	<0.322	<0.276
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.100	0.382 J	0.188 J	<0.230	0.266 J	<0.481	<0.322	<0.276
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	0.108 J	0.768 J	<0.142	<0.230	<0.237	<0.481	0.391 J	<0.276
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<25.0	<47.0	<35.5	<57.5	<59.3	<120	<80.5	<69.0
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	0.113 J	0.594 J	0.313 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	0.161 J	0.745 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.100	0.444 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.100	0.420 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.100	0.518 J	0.387 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.100	0.431 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.00	<1.88	<1.42	<2.30 UJ	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.00	<1.88	<1.42	<2.30 UJ	<2.37	<4.81	<3.22	<2.76
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.100 UJ	0.377 J	0.286 J	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.100	0.396 J	<0.142	<0.230	0.287 J	<0.481	<0.322	<0.276
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.100	0.333 J	0.488 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.100	0.342 J	0.434 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.100	0.281 J	0.325 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.100	0.277 J	0.393 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.100	0.260 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.100	0.341 J	0.439 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61 UJ	<1.38
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.100	<0.188	0.165 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.100	0.560 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1 UJ	<13.8
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.100	<0.188	0.158 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	0.181 J	0.659 J	0.565 J	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	0.118 J	0.278 J	0.297 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	0.116 J	0.436 J	0.544 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	0.106 J	0.330 J	0.362 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.100	<0.188	0.187 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.100	<0.188	0.197 J	<0.230	<0.237	<0.481	<0.322	<0.276

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.100	0.359 J	0.311 J	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	0.154 J	0.448 J	0.557 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	0.135 J	0.345 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.100	0.289 J	0.462 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	0.134 J	0.315 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.100	0.391 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.100	0.303 J	0.210 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.100	0.671 J	0.485 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.100	0.303 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.100	1.02	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.100	0.223 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.100	0.232 J	0.238 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.100	<0.188	0.152 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.100	0.259 J	0.285 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.100	0.233 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.200 UJ	<0.376 UJ	<0.284 UJ	<0.460 UJ	<0.474 UJ	<0.962 UJ	<0.644 UJ	<0.552 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.200 UJ	<0.376 UJ	<0.284 UJ	<0.460 UJ	<0.474 UJ	<0.962 UJ	<0.644 UJ	<0.552 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322 UJ	<0.276
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.100	0.455 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.00 UJ	<1.88 UJ	<1.42 UJ	<2.30 UJ	<2.37 UJ	<4.81 UJ	<3.22 UJ	<2.76 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	38.8 J-	<6.90 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.00 UJ	<1.88 UJ	<1.42 UJ	<2.30 UJ	<2.37 UJ	<4.81 UJ	<3.22 UJ	<2.76 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.100	0.373 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.100	0.543 J	0.380 J	<0.230	0.334 J	<0.481 UJ	<0.322	<0.276
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.50 UJ	<4.70 UJ	<3.55 UJ	<5.75 UJ	<5.93 UJ	<12.0 UJ	<8.05 UJ	<6.90 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<2.00 UJ	<3.76 UJ	<2.84 UJ	<4.60 UJ	<4.74 UJ	<9.62 UJ	<6.44 UJ	<5.52 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.100	0.456 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.100	0.370 J	0.445 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.100	0.407 J	0.234 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<20.0	<37.6	<28.4	<46.0	<47.4	<96.2	<64.4	<55.2
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.100	0.283 J	0.152 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.100	<0.188	0.193 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.100	0.385 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41 UJ	<1.61	<1.38
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.100	<0.188	0.155 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.100	0.400 J	0.303 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.100	0.394 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.100	0.417 J	0.374 J	<0.230	<0.237	<0.481 UJ	<0.322	<0.276
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.100	0.326 J	0.350 J	<0.230	0.325 J	<0.481	<0.322	<0.276
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.100	0.351 J	0.507 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.100	0.465 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.100	0.461 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.100	0.565 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.00	<1.88	<1.42	<2.30	<2.37	<4.81	<3.22	<2.76
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.100	0.403 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.100	0.409 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.500 UJ	<0.940 UJ	<0.710 UJ	<1.15 UJ	<1.19 UJ	<2.41 UJ	<1.61 UJ	<1.38 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.100	0.367 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<2.00	<3.76	<2.84	<4.60	<4.74	<9.62	<6.44	<5.52
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.200	<0.376	<0.284	<0.460	<0.474	<0.962	<0.644	<0.552 UJ
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.100	0.237 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.100	0.189 J	0.196 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<5.00	<9.40	<7.10	<11.5	<11.9	<24.1	<16.1	<13.8
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropane	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.100	0.201 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.100	0.447 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.100	0.405 J	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.100 UJ	<0.188 UJ	<0.142 UJ	<0.230 UJ	<0.237 UJ	<0.481 UJ	<0.322 UJ	<0.276 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276 UJ
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-SLMW	11/10/2022	N	EM03		-	<0.500	<0.940	<0.710	<1.15	<1.19	<2.41	<1.61	<1.38
U4-T3	10/13/2022	N	EM02		-	<0.100	0.284 J	0.271 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	11/3/2022	N	EM03		-	<0.100	0.293 J	0.376 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	12/6/2022	N	EM04		-	<2.00 UJ	<3.76 UJ	<2.84 UJ	<4.60 UJ	<4.74 UJ	<9.62 UJ	<6.44 UJ	<5.52 UJ
U4-T3	1/9/2023	N	EM05		-	<0.100	0.236 J	0.273 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	2/13/2023	N	EM06		-	<10.0	<18.8	<14.2	<23.0	<23.7	<48.1	<32.2	<27.6
U4-T3	3/13/2023	N	EM07		-	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90
U4-T3	4/19/2023	N	EM08		-	<0.100	<0.188	0.143 J	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	5/18/2023	N	EM09		-	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	6/12/2023	N	EM10		-	<0.100	<0.188	<0.142	<0.230 UJ	<0.237	<0.481	<0.322	<0.276
U4-T3	7/11/2023	N	EM11		-	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	8/10/2023	N	EM12		-	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	9/11/2023	N	EM13		-	<0.100	<0.188	<0.142	<0.230	<0.237	<0.481	<0.322	<0.276
U4-T3	10/16/2023	N	EM14		-	<2.50	<4.70	<3.55	<5.75	<5.93	<12.0	<8.05	<6.90

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.126	<0.107	0.346 J	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.126	<0.107	0.142 J	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.126	<0.107	0.171 J	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.126	<0.107	0.126 J	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.126	<0.107	0.0909 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104 R	<0.110	<0.110	<0.120
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<2.52 UJ	<2.14 UJ	<1.64 UJ	<2.98 UJ	<2.08 UJ	<2.20 UJ	<2.20 UJ	<2.40 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.126	<0.107	0.131 J	0.183 J	<0.104	<0.110	<0.110	<0.120
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.26 UJ	<1.07 UJ	<0.819 UJ	<1.49 UJ	<1.04 UJ	<1.10 UJ	<1.10 UJ	<1.20 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.126	<0.107	0.205 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.126	<0.107	0.138 J	0.191 J	<0.104	<0.110	<0.110	<0.120
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.126	<0.107	0.137 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.126	<0.107	0.105 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.126	<0.107	0.104 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.126	<0.107	0.240 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.126	<0.107	0.131 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.126	<0.107	0.118 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.126	<0.107	0.132 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.126	<0.107	0.120 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.126	<0.107	0.322 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.126	<0.107	0.360 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.630	<0.535	0.515 J	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.126	<0.107	0.199 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<31.5	<26.8	<20.5	<37.3	<26.0	<27.5	<27.5	<30.0
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	0.155 J	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.126	<0.107	0.348 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.126	<0.107	0.268 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.126	<0.107	0.211 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.126	<0.107	0.102 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.126	<0.107	0.203 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.126	<0.107	0.201 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.126	<0.107	0.152 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.630	<0.535	<0.409	<0.745	<0.520 UJ	<0.550	<0.550	<0.600
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.126	<0.107	<0.0819	<0.149 UJ	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45 UJ	<5.20	<5.50	<5.50	<6.00
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45 UJ	<5.20	<5.50	<5.50	<6.00
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.126	<0.107	<0.0819	<0.149 UJ	<0.104	<0.110	<0.110	<0.120
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.126	<0.107	0.900 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.126	<0.107	0.186 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120 UJ
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.126	<0.107	0.531 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120 UJ
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.126	<0.107	0.0850 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.126	<0.107	0.785 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45 UJ	<5.20	<5.50	<5.50	<6.00
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.126	<0.107	0.117 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<12.6	<10.7	<8.19	<14.9 UJ	<10.4	<11.0	<11.0	<12.0
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120 UJ
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120 UJ
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149 UJ	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.126	<0.107	0.345 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.252 UJ	<0.214 UJ	<0.164 UJ	<0.298 UJ	<0.208 UJ	<0.220 UJ	<0.220 UJ	<0.240 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.252 UJ	<0.214 UJ	<0.164 UJ	<0.298 UJ	<0.208 UJ	<0.220 UJ	<0.220 UJ	<0.240 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104 UJ	<0.110	<0.110	<0.120
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.126	<0.107	0.239 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.26 UJ	<1.07 UJ	<0.819 UJ	<1.49 UJ	<1.04 UJ	<1.10 UJ	<1.10 UJ	<1.20 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	11.6 J	<2.75 UJ	<2.75 UJ	<3.00 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.126	<0.107	<0.0819	<0.149 UJ	<0.104	<0.110	<0.110	<0.120
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.26 UJ	<1.07 UJ	<0.819 UJ	<1.49 UJ	<1.04 UJ	<1.10 UJ	<1.10 UJ	<1.20 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.126	<0.107	<0.0819	<0.149 UJ	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.126	<0.107	0.115 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<3.15 UJ	<2.68 UJ	<2.05 UJ	<3.73 UJ	<2.60 UJ	<2.75 UJ	<2.75 UJ	<3.00 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<2.52 UJ	<2.14 UJ	<1.64 UJ	<2.98 UJ	<2.08 UJ	<2.20 UJ	<2.20 UJ	<2.40 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.126	<0.107	0.0940 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.126	<0.107	0.106 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<25.2	<21.4	<16.4	<29.8	<20.8	<22.0	<22.0	<24.0
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.126	<0.107 UJ	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104 UJ	<0.110	<0.110	<0.120
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<6.30	<5.35	31.5 J	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.126	<0.107	0.157 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.126	<0.107	0.196 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.126	<0.107	0.406 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	0.144 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	0.146 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.126	<0.107	0.0834 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.126	<0.107	0.200 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.26	<1.07	<0.819	<1.49	<1.04	<1.10	<1.10	<1.20
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.126	<0.107	0.133 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.126	<0.107	0.134 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.630	<0.535	<0.409	<0.745	<0.520 UJ	<0.550	<0.550	<0.600
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.630 UJ	<0.535 UJ	<0.409 UJ	<0.745 UJ	<0.520 UJ	<0.550 UJ	<0.550 UJ	<0.600 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.630	<0.535	<0.409	<0.745	<0.520 UJ	<0.550	<0.550	<0.600
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<2.52	<2.14	<1.64	<2.98	<2.08	<2.20	<2.20	<2.40
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<6.30	<5.35	<4.09	<7.45	<5.20	<5.50	<5.50	<6.00
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.252	<0.214	<0.164	<0.298	<0.208	<0.220	<0.220	<0.240
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<6.30	<5.35	<4.09	<7.45 UJ	<5.20	<5.50	<5.50	<6.00
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.126	<0.107	<0.0819	<0.149 UJ	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene (Mesitylene)	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.126	<0.107	0.112 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.126	<0.107	0.130 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.126 UJ	<0.107 UJ	<0.0819 UJ	<0.149 UJ	<0.104 UJ	<0.110 UJ	<0.110 UJ	<0.120 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-SLMW	11/10/2022	N	EM03		-	<0.630	<0.535	<0.409	<0.745	<0.520	<0.550	<0.550	<0.600
U4-T3	10/13/2022	N	EM02		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	11/3/2022	N	EM03		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	12/6/2022	N	EM04		-	<2.52 UJ	<2.14 UJ	<1.64 UJ	<2.98 UJ	<2.08 UJ	<2.20 UJ	<2.20 UJ	<2.40 UJ
U4-T3	1/9/2023	N	EM05		-	<0.126	<0.107	0.0844 J	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	2/13/2023	N	EM06		-	<12.6	<10.7	<8.19	<14.9	<10.4	<11.0	<11.0	<12.0
U4-T3	3/13/2023	N	EM07		-	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00
U4-T3	4/19/2023	N	EM08		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	5/18/2023	N	EM09		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	6/12/2023	N	EM10		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	7/11/2023	N	EM11		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	8/10/2023	N	EM12		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	9/11/2023	N	EM13		-	<0.126	<0.107	<0.0819	<0.149	<0.104	<0.110	<0.110	<0.120
U4-T3	10/16/2023	N	EM14		-	<3.15	<2.68	<2.05	<3.73	<2.60	<2.75	<2.75	<3.00

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<11.3	<0.941
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.161	1.46 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.161	35.6	<0.106	2.52 J	<0.114	<0.478	21.9 J	<0.0941
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.161	1.97 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.161	5.41 J	<0.106	<0.787	<0.114	<0.478	19.1 J	<0.0941
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<8.05	100 J	<5.30	<39.4	<5.70	<23.9	<565	<4.71
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.161	39.7 J	<0.106	<0.787	<0.114	<0.478	135 J+	<0.0941
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.161	24.5	<0.106	<0.787	<0.114	<0.478	217	<0.0941
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<8.05	135 J	<5.30	<39.4	<5.70	<23.9	<565	<4.71
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.132 J
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.161	2.11 J	<0.106	<0.787	<0.114	<0.478	11.6 J	<0.0941
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.161	7.60 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.161	4.31 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.161	3.29 J	<0.106	<0.787	<0.114	<0.478	11.7 J	<0.0941
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.161	3.45 J	<0.106	0.848 J	<0.114	<0.478	11.7 J	<0.0941
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.161	5.34 J	<0.106	<0.787	<0.114	<0.478	44.5 J	<0.0941
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.161	19.7	<0.106	<0.787 UJ	<0.114	<0.478	84.3 J+	<0.0941
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	59.3 J	<0.471
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.161	7.24 J	<0.106	<0.787	<0.114	0.711 J	27.4 J	<0.0941
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.161	20.5	<0.106	<0.787	<0.114	<0.478	24.9 J	<0.0941

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.61	62.0 J	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.61	18.5 J	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.161	5.27 J	<0.106	<0.787	<0.114	<0.478	17.6 J	<0.0941
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.161	12.3	<0.106	<0.787	<0.114	<0.478	52.8	<0.0941
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.161	31.6	<0.106	<0.787 UJ	<0.114	<0.478	31.2 J	<0.0941
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	36.2 J	<0.0941
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.161	47.5	<0.106	<0.787	<0.114	<0.478	41.5 J	<0.0941
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.161	41.3	<0.106	<0.787	<0.114	<0.478	57.0	<0.0941
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.61	47.8 J	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.161	17.9	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.161	46.6	<0.106	<0.787	<0.114	1.16 J	<11.3	<0.0941
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<3.22 UJ	<23.8 UJ	<2.12 UJ	<15.7 UJ	<2.28 UJ	<9.56 UJ	<226 UJ	<1.88 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.161	50.0	<0.106	<0.787	<0.114	<0.478	164	<0.0941
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.161	46.8	<0.106	<0.787 UJ	<0.114	<0.478	233	<0.0941
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.161	18.4	<0.106	<0.787	<0.114	<0.478	195	<0.0941
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.161	6.05 J	<0.106	<0.787	<0.114	<0.478	29.5 J	<0.0941
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.161	32.7	<0.106	<0.787	<0.114	<0.478	201	<0.0941
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.161	2.86 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.161	4.61 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.161 UJ	110 J	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	98.1 J	<0.0941 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.186 J
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.166 J
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.153 J
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.161	8.89 J	<0.106	<0.787	<0.114	<0.478	33.8 J	<0.0941

**Table 4**  
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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.161	10.5	<0.106	<0.787	<0.114	<0.478	39.8 J	<0.0941
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.61 UJ	36.1 J	<1.06 UJ	<7.87 UJ	<1.14 UJ	<4.78 UJ	<113 UJ	<0.941 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.161	16.0 J+	<0.106	<0.787	<0.114	<0.478	32.8 J	<0.0941
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<3.22	26.1 J	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.161	7.09 J	<0.106	<0.787 UJ	<0.114	<0.478	21.0 J	<0.0941
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.161	14.1	<0.106	<0.787	<0.114	<0.478	52.8	<0.0941
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.161	11.1	<0.106	<0.787	<0.114	<0.478	87.0	<0.0941
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.161	196	<0.106	7.34 J	<0.114	9.20 J	497 J	<0.0941
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.161	927	<0.106	17.1 J-	<0.114	19.1	1,100 J	<0.0941
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<8.05	1,020	<5.30	<39.4	<5.70	<23.9	959 J	<4.71
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.161	1.25 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.161	2.17 J	<0.106	<0.787	<0.114	<0.478	<11.3	0.186 J
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<4.03 UJ	<29.8 UJ	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ	<2.35 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.161	6.21 J	<0.106	<0.787	<0.114	<0.478	32.0 J	<0.0941
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.161	1.32 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<4.03 UJ	<29.8 UJ	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ	<2.35 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.161	2.81 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.161	1.24 J	<0.106	<0.787	<0.114	<0.478	<11.3	0.188 J
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.161	3.67 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<11.3	<0.941
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.161	1.37 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.161	1.26 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.161	5.15 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.161	5.81 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.161	2.36 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.161	1.51 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	0.872 J	<1,130	<0.0941
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<9.41
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<40.3	<298	<26.5	<197	<28.5	<120	<2,820	<23.5
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.161	5.69 J	<0.106	0.860 J	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	11.9 J	<0.0941
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.161	<1.19 UJ	<0.106	<0.787	<0.114	<0.478	32.3 J	<0.0941
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.161	34.2 J	<0.106	<0.787	<0.114	<0.478	61.2	<0.0941
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	176 J	<0.941
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	190 J	<0.941
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.161	26.0	<0.106	<0.787	<0.114	<0.478	39.3 J	<0.0941
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.161	28.7	<0.106	<0.787	<0.114	<0.478	46.3 J	<0.0941
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.161	21.7 J+	<0.106	<0.787	<0.114	<0.478	46.0 J	<0.0941
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.161	19.6 J+	<0.106	<0.787	<0.114	<0.478	47.8 J	<0.0941
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.161	6.47 J	<0.106	<0.787 UJ	<0.114	<0.478	49.2 J	<0.0941
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.161	7.53 J	<0.106	<0.787 UJ	<0.114	<0.478	48.9 J	<0.0941
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.161	24.0	<0.106	<0.787	<0.114	<0.478	32.7 J	<0.0941
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.161	26.0	<0.106	<0.787	<0.114	<0.478	35.3 J	<0.0941
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.161	60.9 J	<0.106	1.26 J	<0.114	0.779 J	437 J	<0.0941
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.161	36.0 J	<0.106	<0.787	<0.114	<0.478	274 J	<0.0941
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.161 UJ	4.80 J	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	39.4 J	<0.0941 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	76.5 J	<0.0941
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<8.05	200 J	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.161	38.1	<0.106	<0.787	<0.114	<0.478	469 J	<0.0941
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.161	39.7	<0.106	<0.787	<0.114	<0.478	506 J	<0.0941
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.161	39.0	<0.106	<0.787	<0.114	<0.478	291	<0.0941
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.161	41.6	<0.106	<0.787	<0.114	<0.478	311	<0.0941
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.161	38.6	<0.106	<0.787	<0.114	<0.478	263	<0.0941
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.161	44.7	<0.106	<0.787	<0.114	<0.478	297	<0.0941
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<4.71
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	4.74 J
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<2.35 UJ
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.161	1.43 J	<0.106	<0.787	<0.114	<0.478	13.4 J	<0.0941
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.161	97.4	<0.106	<0.787	<0.114	<0.478	236 J	<0.0941

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.161	46.8	<0.106	<0.787	<0.114	<0.478	263	<0.0941
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.161	3.03 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.161	17.3	<0.106	1.71 J	<0.114	<0.478	<11.3	<0.0941
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.161	9.75 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.161	16.8	<0.106	<0.787	<0.114	<0.478	63.3	<0.0941
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.161	15.4	<0.106	<0.787	<0.114	<0.478	59.2	<0.0941
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.161	2.95 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.161	20.6	<0.106	<0.787	<0.114	<0.478	86.7 J+	<0.0941
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	21.3 J	<0.0941
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.161	54.9 J	<0.106	<0.787	<0.114	<0.478	291 J+	<0.0941
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.161	2.71 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.805	23.3 J	<0.530	<3.94	<0.570	<2.39	87.0 J	<0.471
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.161	39.6 J	<0.106	<0.787	<0.114	<0.478	272 J+	<0.0941
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	16.9 J	<0.0941
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.161	35.3	<0.106	<0.787	<0.114	<0.478	80.9	<0.0941

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	103	<0.0941
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.161	1.80 J	<0.106	<0.787	<0.114	<0.478	50.4	<0.0941
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<4.03	30.9 J	<2.65	<19.7	<2.85	<12.0	311 J	<2.35
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.161	97.6	<0.106	<0.787	<0.114	2.18 J	587	<0.0941
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	4.70	1,480	<0.0941
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<4.03	203 J	<2.65	<19.7	<2.85	<12.0	1,110 J	<2.35
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.161	14.3	<0.106	<0.787	<0.114	<0.478	23.4 J	<0.0941
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.161	89.2	<0.106	<0.787	<0.114	<0.478	44.0 J	<0.0941
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.161	78.9	<0.106	<0.787	<0.114	<0.478	76.6	<0.0941
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.161	212	<0.106	<0.787	<0.114	<0.478	51.1	<0.0941
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<8.05	92.4 J	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.161	42.3	<0.106	4.26 J	<0.114	<0.478	103	<0.0941
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.161	66.7 J	<0.106	<0.787	<0.114	<0.478	469 J+	<0.0941
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.161	332	<0.106	4.06 J	<0.114	2.47 J	2,320	<0.0941
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.161	317	<0.106	5.18	<0.114	3.17	1,770	<0.0941
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.161	202	<0.106	2.53 J	<0.114	2.85 J	1,030 J	<0.0941
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.161	4.05 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.161	55.5	<0.106	<0.787 UJ	<0.114	<0.478	200	<0.0941
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.161	52.9	<0.106	<0.787	<0.114	<0.478	231 J	<0.0941
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.128 J
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.161	29.3 J	<0.106	<0.787	<0.114	<0.478	268 J+	<0.0941
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.161	1.20 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.161	18.5	<0.106	<0.787	<0.114	<0.478	23.4 J	<0.0941
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.161	142	<0.106	<0.787	<0.114	<0.478	314	<0.0941
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.161 UJ	85.0 J	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	176 J	<0.0941 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.161	16.0	<0.106	<0.787	<0.114	<0.478	77.4	<0.0941
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	203	<0.0941
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.161	125	<0.106	<0.787 UJ	<0.114	<0.478	970	<0.0941
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<16.1	161 J	<10.6	<78.7	<11.4	<47.8	1,170 J	<9.41
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.161	74.5 J	<0.106	<0.787	<0.114	<0.478	491 J+	<0.0941
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.161	56.9	<0.106	<0.787	<0.114	<0.478	389	<0.0941
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<4.03	66.2 J	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.161	17.3	<0.106	<0.787	<0.114	<0.478	62.0	<0.0941
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.161	5.24 J	<0.106	<0.787	<0.114	<0.478	12.2 J	<0.0941
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.805	14.9 J	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.161	14.7	<0.106	<0.787	<0.114	<0.478	15.2 J	<0.0941
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	201	<0.0941
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.161	117	<0.106	3.53 J	<0.114	<0.478	780	<0.0941
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<8.05	150 J	<5.30	<39.4	<5.70	<23.9	894 J	<4.71
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<8.05	135 J	<5.30	<39.4	<5.70	<23.9	705 J	<4.71
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.161	68.0	<0.106	<0.787 UJ	<0.114	<0.478	521	<0.0941
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.161	56.2	<0.106	<0.787	<0.114	<0.478	443	<0.0941
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<8.05	227 J	<5.30	<39.4	<5.70	<23.9	1,020 J	<4.71
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.161	11.7 J+	<0.106	<0.787	<0.114	<0.478	39.5 J	<0.0941
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.161	18.7 J	<0.106	3.03 J	<0.114	<0.478	<11.3	<0.0941
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.161	5.79 J	<0.106	1.23 J	<0.114	<0.478	<11.3	<0.0941
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.870 J
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	18.2 J	<0.0941
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.161	1.31 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.161	2.44 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.161	17.6	<0.106	<0.787	<0.114	<0.478	23.2 J	<0.0941
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.161	16.5	<0.106	<0.787	<0.114	<0.478	21.4 J	<0.0941
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.161	13.7	<0.106	<0.787 UJ	<0.114	<0.478	16.4 J	<0.0941
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.161	14.3	<0.106	<0.787 UJ	<0.114	<0.478	16.6 J	<0.0941
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.161	44.6	<0.106	<0.787	<0.114	<0.478	31.2 J	<0.0941
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.161	44.7	<0.106	<0.787	<0.114	<0.478	32.0 J	<0.0941
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.322 UJ	5.96 J	<0.212 UJ	<1.57 UJ	<0.228 UJ	<0.956 UJ	<22.6 UJ	<0.188 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.322 UJ	6.75 J	<0.212 UJ	<1.57 UJ	<0.228 UJ	<0.956 UJ	<22.6 UJ	<0.188 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.161	32.6 J	<0.106	<0.787	<0.114	<0.478	21.8 J	<0.0941 UJ
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.161	44.9 J	<0.106	5.01 J	<0.114	<0.478	27.3 J	<0.0941
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.61 UJ	<11.9 UJ	<1.06 UJ	<7.87 UJ	<1.14 UJ	<4.78 UJ	<113 UJ	<0.941 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.61	38.2 J	<1.06	<7.87	<1.14	<4.78	287 J	<0.941
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.161	39.7	<0.106	<0.787	<0.114	<0.478	126 J+	<0.0941
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.161	38.2	<0.106	<0.787	<0.114	<0.478	201	<0.0941
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<4.03 UJ	131 J	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	640 J	<2.35 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.161	158	<0.106	2.58 J	<0.114	2.32 J	760	<0.0941
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.161 UJ	<1.19 UJ	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	<11.3 UJ	<0.0941 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478 UJ	<11.3	<0.0941
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.161	6.38 J	<0.106	<0.787 UJ	<0.114	<0.478	12.9 J	<0.0941
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.161	44.6	<0.106	2.88 J	<0.114	1.48 J	349	<0.0941
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	2.49
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.61 UJ	<11.9 UJ	<1.06 UJ	<7.87 UJ	<1.14 UJ	<4.78 UJ	<113 UJ	<0.941 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.61	17.2 J	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.161	3.02 J	<0.106	<0.787	<0.114	<0.478	22.0 J	<0.941
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.161	4.54 J	<0.106	<0.787	<0.114	<0.478	32.8 J	<0.0941



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<4.03 UJ	<29.8 UJ	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ	<2.35 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.161	79.9	<0.106	1.07 J	<0.114	3.12 J	465	<0.0941
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.161 UJ	<1.19 UJ	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	<11.3 UJ	<0.0941 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.161	151	<0.106	<0.787	<0.114	<0.478	26.0 J	<0.0941
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.161	164	<0.106	<0.787 UJ	<0.114	<0.478	85.5	<0.0941
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.161	85.6 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.161	783	<0.106	<0.787	<0.114	<0.478	184	<0.0941
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.161	27.8	<0.106	<0.787	<0.114	<0.478	45.7 J	<0.0941
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.161	20.5	<0.106	<0.787	<0.114	<0.478	74.4 J+	<0.0941
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.161	61.6	<0.106	<0.787	<0.114	<0.478	90.1 J+	<0.0941
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.161	11.4	<0.106	<0.787 UJ	<0.114	<0.478	29.0 J	<0.0941
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<4.03 UJ	88.4 J	<2.65 UJ	<19.7 UJ	<2.85 UJ	<12.0 UJ	<282 UJ	<2.35 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<3.22 UJ	<23.8 UJ	<2.12 UJ	<15.7 UJ	<2.28 UJ	<9.56 UJ	<226 UJ	<1.88 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.161	2.53 J	<0.106	<0.787	<0.114	<0.478	16.9 J	<0.0941
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.161	2.58 J	<0.106	<0.787	<0.114	<0.478	11.4 J	<0.0941
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.161	10.4	<0.106	<0.787 UJ	<0.114	<0.478	158	<0.0941
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<32.2	<238	<21.2	<157	<22.8	<95.6	<2,260	<18.8
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<8.05	92.3 J	<5.30	<39.4	<5.70	<23.9	736 J	<4.71
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.161	117	<0.106	<0.787	<0.114	<0.478	<565	<0.0941
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.161	118	<0.106	<0.787	<0.114	<0.478	855 J	<0.0941
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.161	96.3	<0.106	<0.787	<0.114	<0.478	592	<0.0941
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<16.1	121 J	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.161	20.1	<0.106	<0.787	<0.114	<0.478	184	<0.0941
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.161	20.5	<0.106	<0.787	<0.114	<0.478	176	<0.0941

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.61	16.0 J	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.161	24.1	<0.106	<0.787	<0.114	<0.478	18.3 J	<0.0941
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.805	62.2	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.161	70.6	<0.106	<0.787	<0.114	<0.478	44.2 J	<0.0941
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.161 UJ	57.4 J+	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	57.7 J+	<0.0941 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.161 UJ	57.2 J+	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	57.8 J+	<0.0941 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.161	44.0	<0.106	<0.787	<0.114	<0.478	54.7 J+	<0.0941
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.161	43.9	<0.106	<0.787	<0.114	<0.478	52.3 J+	<0.0941
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.161	20.8 J+	<0.106	<0.787	<0.114	<0.478	22.1 J	<0.0941
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.161	19.3 J+	<0.106	<0.787	<0.114	<0.478	20.6 J	<0.0941
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.161	44.6	<0.106	<0.787	<0.114	<0.478	44.6 J	<0.0941
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.161	42.2	<0.106	<0.787	<0.114	<0.478	43.6 J	<0.0941
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.161	34.4	<0.106	<0.787	<0.114	<0.478	45.3 J	<0.0941
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.161	33.9	<0.106	<0.787	<0.114	<0.478	42.6 J	<0.0941
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.161 UJ	31.4 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	43.6 J	<0.0941 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.161 UJ	30.9 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	45.1 J	<0.0941 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.161	22.2	<0.106	<0.787	<0.114	<0.478	30.9 J	<0.0941
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.161	21.8	<0.106	<0.787	<0.114	<0.478	29.7 J	<0.0941
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.161	13.7	<0.106	<0.787	<0.114	<0.478	24.5 J	<0.0941
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.161	14.9	<0.106	<0.787	<0.114	<0.478	24.2 J	<0.0941
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	15.8 J	<0.0941
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.161	16.2	<0.106	<0.787	<0.114	<0.478	<226	<0.0941
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.161	11.6	<0.106	<0.787	<0.114	<0.478	<226	<0.0941
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.161	13.5	<0.106	<0.787	<0.114	<0.478	96.2	<0.0941
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.161	15.2	<0.106	<0.787	<0.114	<0.478	98.5	<0.0941
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.161	1.23 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.805 UJ	<5.95 UJ	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ	<0.471 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.161	4.52 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.805	154	<0.530	<3.94	<0.570	<2.39	718	<0.471
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.805	158	<0.530	<3.94	<0.570	<2.39	1,010	<0.471
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.161	92.3 J	<0.106	<0.787	<0.114	0.760 J	498 J+	<0.0941
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.161	69.2	<0.106	<0.787	<0.114	<0.478	306	<0.0941
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<3.22	78.4 J	<2.12	<15.7	<2.28	<9.56	309 J	<1.88
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<3.22	105 J	<2.12	<15.7	<2.28	<9.56	376 J	<1.88
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.161	1.87 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.161	2.86 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	13.7 J	<0.0941
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.161	10.6 J+	<0.106	<0.787	<0.114	<0.478	16.9 J	<0.0941
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.161	10.3 J+	<0.106	<0.787	<0.114	<0.478	16.1 J	<0.0941
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.161	9.72 J	<0.106	<0.787	<0.114	<0.478	30.3 J	<0.0941
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.161	24.7 J+	<0.106	<0.787	<0.114	<0.478	23.4 J	<0.0941
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.161	14.6	<0.106	<0.787	<0.114	<0.478	19.6 J	<0.0941
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.161 UJ	22.4 J-	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	32.0 J	<0.0941 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.161	26.4	<0.106	<0.787	<0.114	<0.478	43.1 J	<0.0941
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.161	30.4	<0.106	<0.787	<0.114	<0.478	63.2	<0.0941
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.161	57.2	<0.106	5.56 J	<0.114	<0.478	63.6	<0.0941
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.161	2.25 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.161	2.56 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.161	20.5	<0.106	2.02 J	<0.114	<0.478	26.8 J	<0.0941
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.161	7.26 J	<0.106	<0.787	<0.114	<0.478	18.7 J	<0.0941
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	73.9 J	<0.0941
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.161	59.7 J	<0.106	3.76 J	<0.114	<0.478	401	<0.0941
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.61	<11.9	<1.06	<7.87	<1.14	<4.78	<113	<0.941
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.161	14.7	<0.106	<0.787	<0.114	<0.478	66.9	<0.0941
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.161	2.69 J	<0.106	<0.787	<0.114	<0.478	15.0 J	<0.0941
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.157 J
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.161	1.81 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.805 UJ	19.1 J	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ	<0.471 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.161	20.5 J+	<0.106	<0.787	<0.114	<0.478	16.9 J	<0.0941
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.805	17.5 J	<0.530	<3.94	<0.570	<2.39	<56.5	0.558 J
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.161	25.9	<0.106	<0.787	<0.114	<0.478	11.3 J	<0.0941
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.161	25.2	<0.106	<0.787	<0.114	<0.478	16.5 J	<0.0941
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	18.3 J	<0.0941
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.161	5.78 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.805 UJ	<5.95 UJ	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ	<0.471 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.161	2.06 J	<0.106	<0.787	<0.114	<0.478	21.4 J	<0.0941
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.805 UJ	<5.95 UJ	<0.530 UJ	<3.94 UJ	<0.570 UJ	<2.39 UJ	<56.5 UJ	<0.471 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.161	1.46 J	<0.106	<0.787	<0.114	<0.478	15.3 J	<0.0941
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941



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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	14.4 J	<0.0941
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.161	20.3 J+	<0.106	<0.787	<0.114	<0.478	37.2 J	<0.0941
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<3.22	<23.8	<2.12	<15.7	<2.28	<9.56	<226	<1.88
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.161	51.5	<0.106	<0.787	<0.114	<0.478	103 J+	<0.0941
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.161	2.14 J	<0.106	<0.787	<0.114	<0.478	13.1 J	<0.0941
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.161	5.52 J	<0.106	<0.787	<0.114	<0.478	22.9 J	<0.0941
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.161	14.5	<0.106	<0.787	<0.114	<0.478	22.3 J	<0.0941
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.161	19.5	<0.106	<0.787	<0.114	<0.478	32.1 J	<0.0941
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.161	6.88 J	<0.106	<0.787	<0.114	<0.478	15.5 J	<0.0941
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.322	<2.38	<0.212	<1.57 UJ	<0.228	<0.956	<22.6	<0.188
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.161	2.42 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.261 J
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.161	31.3	<0.106	<0.787	<0.114	<0.478	644	<0.0941
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<8.05	<59.5	<5.30	<39.4	<5.70	<23.9	<565	<4.71
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.161	1.54 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.186 J
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.161	36.1 J+	<0.106	<0.787	<0.114	<0.478	20.0 J	<0.0941
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.161	34.3 J+	<0.106	<0.787	<0.114	<0.478	18.7 J	<0.0941
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.161	23.8	<0.106	<0.787	<0.114	<0.478	37.6 J	<0.0941
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.161	22.0	<0.106	<0.787	<0.114	<0.478	34.6 J	<0.0941
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.161	39.0	<0.106	<0.787 UJ	<0.114	<0.478	46.3 J	<0.0941
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.161	37.3	<0.106	<0.787 UJ	<0.114	<0.478	44.5 J	<0.0941
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						2,2-Dichloropropane	2-Butanone (MEK)	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	4-Methyl-2-Pentanone	Acetone	Benzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787 UJ	<0.114	<0.478	<11.3	<0.0941
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	0.180 J
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.161	1.22 J	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	<11.3	<0.0941
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.161 UJ	<1.19 UJ	<0.106 UJ	<0.787 UJ	<0.114 UJ	<0.478 UJ	<11.3 UJ	<0.0941 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.161	42.6	<0.106	<0.787	<0.114	<0.478	38.0 J	<0.0941
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.161	47.0	<0.106	<0.787	<0.114	<0.478	54.0	<0.0941
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.161	16.4	<0.106	<0.787	<0.114	<0.478	32.1 J	<0.0941
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.161	11.8	<0.106	<0.787 UJ	<0.114	<0.478	27.2 J	<0.0941
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.161	20.3	<0.106	<0.787	<0.114	<0.478	50.4 J+	<0.0941
U4-SLMW	11/10/2022	N	EM03		-	<0.805	<5.95	<0.530	<3.94	<0.570	<2.39	<56.5	<0.471
U4-T3	10/13/2022	N	EM02		-	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	22.8 J	<0.0941
U4-T3	11/3/2022	N	EM03		-	<0.161	3.43 J	<0.106	<0.787	<0.114	<0.478	12.3 J	<0.0941
U4-T3	12/6/2022	N	EM04		-	<3.22 UJ	<23.8 UJ	<2.12 UJ	<15.7 UJ	<2.28 UJ	<9.56 UJ	<226 UJ	<1.88 UJ
U4-T3	1/9/2023	N	EM05		-	<0.161	2.47 J	<0.106	<0.787	<0.114	<0.478	11.4 J	<0.0941
U4-T3	2/13/2023	N	EM06		-	<16.1	<119	<10.6	<78.7	<11.4	<47.8	<1,130	<9.41
U4-T3	3/13/2023	N	EM07		-	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35
U4-T3	4/19/2023	N	EM08		-	<0.161	2.01 J	<0.106	<0.787	<0.114	<0.478	12.8 J	<0.0941
U4-T3	5/18/2023	N	EM09		-	<0.161	26.1 J+	<0.106	<0.787	<0.114	<0.478	121	<0.0941
U4-T3	6/12/2023	N	EM10		-	<0.161	25.8	<0.106	<0.787 UJ	<0.114	<0.478	96.7 J+	<0.0941
U4-T3	7/11/2023	N	EM11		-	<0.161	<1.19	<0.106	<0.787	<0.114	<0.478	90.2	<0.0941
U4-T3	8/10/2023	N	EM12		-	<0.161	17.1	<0.106	<0.787	<0.114	0.823 J	39.1 J	<0.0941
U4-T3	9/11/2023	N	EM13		-	<0.161	22.7	<0.106	<0.787	<0.114	<0.478	69.8	<0.0941
U4-T3	10/16/2023	N	EM14		-	<4.03	<29.8	<2.65	<19.7	<2.85	<12.0	<282	<2.35

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.118	<0.128	13.1	8.80	<0.605	<0.128	<0.116	<0.192
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.118	<0.128	6.92	3.40	<0.605	<0.128	<0.116	<0.192
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.18	<1.28	5.61 J	<1.29	<6.05	<1.28	<1.16	<1.92
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.118	<0.128	4.81	1.77	<0.605	1.55	<0.116	<0.192
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.118	<0.128	4.88	1.80	<0.605	<0.128	<0.116	<0.192
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.118	<0.128	4.13	1.02	<0.605	1.37	<0.116	<0.192
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.118	<0.128	4.56	1.33	<0.605	1.65	<0.116	<0.192
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.118	<0.128	5.11	2.19	<0.605	1.58	<0.116	<0.192
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.118	<0.128	4.24	2.14	<0.605	1.90	<0.116	<0.192
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.118	<0.128	2.50	0.978 J	<0.605	<0.128	<0.116	<0.192
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.118	<0.128	3.13	1.23	<0.605	<0.128	<0.116	<0.192
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.118	<0.128	3.31	1.17	<0.605	<0.128	<0.116	<0.192
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.118	<0.128	3.09	1.28	<0.605	<0.128	<0.116	<0.192
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.118	<0.128	3.30	1.64	<0.605	<0.128	<0.116	<0.192
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	0.212 J	<0.605	<0.128	<0.116	<0.192
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.590	<0.640	5.46	9.81 J-	<3.03	<0.640	<0.580	<0.960
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.118	<0.128	3.04	0.458 J	<0.605	<0.128	<0.116	<0.192
U4-E-01I	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.118	<0.128	0.521 J	0.388 J	<0.605	<0.128	<0.116	<0.192
U4-E-01I	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.118	<0.128	0.509 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-01I	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.118	<0.128	2.27	0.446 J	<0.605	0.646 J	<0.116	<0.192
U4-E-01I	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.118	<0.128	0.887 J	<0.129	<0.605	0.439 J	<0.116	<0.192
U4-E-01I	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.118	<0.128	0.980 J	0.189 J	<0.605	<0.128	<0.116	<0.192
U4-E-01I	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.118	<0.128	1.63	0.383 J	<0.605	0.814 J	<0.116	<0.192
U4-E-01I	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.590	<0.640	0.904 J	<0.645	<3.03	<0.640	<0.580	<0.960
U4-E-01I	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.118	<0.128	0.955 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-01I	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-E-01I	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.118	<0.128	0.388 J	<0.129	<0.605	<0.128	<0.116	<0.192

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.118	<0.128	3.33 J+	1.82	<0.605	<0.128	<0.116	<0.192
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.118	<0.128	3.21	0.376 J	<0.605	<0.128	<0.116	<0.192
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.118 UJ	<0.128	1.65	1.65	<0.605	<0.128	<0.116	<0.192
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.118	<0.128	2.11	0.378 J	<0.605	0.176 J	<0.116	<0.192
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.118	<0.128	1.66	<0.129	<0.605	0.401 J	<0.116	<0.192
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.118	<0.128	1.19	0.412 J	<0.605	0.376 J	<0.116	<0.192
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.118	<0.128	0.953 J	0.197 J	<0.605	0.180 J	<0.116	<0.192
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.118	<0.128	0.630 J	<0.129	<0.605	0.336 J	<0.116	<0.192
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.118	<0.128	0.380 J	0.224 J	<0.605	<0.128	<0.116	<0.192
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.118	<0.128	10.9	6.45	<0.605	<0.128	<0.116	<0.192
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.118	<0.128	9.37	4.31	<0.605	2.75	<0.116	<0.192
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<2.36 UJ	<2.56 UJ	7.65 J	3.37 J	<12.1 UJ	6.86 J	<2.32 UJ	<3.84 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.118	<0.128	7.40	2.90	<0.605	2.25	<0.116	<0.192
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.590	<0.640	4.48 J	2.05 J	<3.03	1.47 J	<0.580	<0.960
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.118	0.159 J	4.02	1.58	<0.605	<0.128	<0.116	<0.192
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.118	<0.128	5.66	2.26	<0.605	2.20	<0.116	<0.192
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.118	<0.128	5.08	2.45	<0.605	1.56	<0.116	<0.192
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.118	<0.128	4.55	1.84	<0.605	<0.128	<0.116	<0.192
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.118	<0.128	4.84	2.48	<0.605	2.88	<0.116	<0.192
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.118	<0.128	2.28	0.947 J	<0.605	<0.128	<0.116	<0.192
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.118	<0.128	3.30	0.484 J	<0.605	<0.128	<0.116	<0.192
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.118	<0.128	0.591 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<5.90	<6.40	<6.80	<6.45	<30.3	12.3 J	<5.80	<9.60
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.118	<0.128	4.11	3.20	<0.605	<0.128	<0.116	<0.192
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.118	<0.128	0.727 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.118	<0.128	1.41	1.99	<0.605	<0.128	<0.116	<0.192
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.118 UJ	<0.128 UJ	3.94 J-	1.44 J-	<0.605 UJ	0.706 J	<0.116 UJ	<0.192 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.118	<0.128	0.502 J	0.185 J	<0.605	<0.128	<0.116	<0.192
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.118	<0.128	0.679 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.118	<0.128	0.605 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.118	0.445 J	1.58	0.258 J	<0.605	1.14	<0.116	<0.192

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.118	<0.128	1.16 J+	0.235 J	<0.605	0.654 J	<0.116	<0.192
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.18 UJ	<1.28 UJ	<1.36 UJ	<1.29 UJ	<6.05 UJ	2.80 J	<1.16 UJ	<1.92 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.118	<0.128	1.18	0.386 J	<0.605	0.877 J	<0.116	<0.192
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.118	<0.128	1.99	0.446 J	<0.605	1.54	<0.116	<0.192
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.118	<0.128	1.55	<0.129	<0.605	1.00 J	<0.116	<0.192
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.590	<0.640	1.57 J	<0.645	<3.03	<0.640	<0.580	<0.960
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.118	<0.128	0.936 J	0.305 J	<0.605	0.612 J	<0.116	<0.192
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.118	<0.128	0.440 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.118	<0.128	3.05	1.20	<0.605	2.62	<0.116	<0.192
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.118	<0.128	1.21	0.866 J	<0.605	1.03	<0.116	<0.192
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.18	<1.28	2.84 J	<1.29	<6.05	5.80 J	<1.16	<1.92
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.118	<0.128	4.41	1.98 J+	<0.605	1.58	<0.116	<0.192
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<2.95 UJ	<3.20 UJ	4.68 J	<3.22 UJ	<15.1 UJ	8.58 J	<2.90 UJ	<4.80 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.118	<0.128	4.48	1.88	<0.605	1.92	<0.116	<0.192
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.590	<0.640	4.35 J	1.69 J	<3.03	1.59 J	<0.580	<0.960
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.118	<0.128	3.88	1.06	<0.605	1.69	<0.116	<0.192
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.118	<0.128	2.96	1.12	<0.605	1.07	<0.116	<0.192
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.590	<0.640	2.46 J	<0.645	<3.03	<0.640	<0.580	<0.960
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.118	<0.128	2.90	1.33	<0.605	2.21	<0.116	<0.192
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.118	<0.128	2.84	0.998 J	<0.605	<0.128	<0.116	<0.192
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.118	<0.128	1.74	<0.129	<0.605	<0.128	<0.116	<0.192
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.118	0.298 J	2.74	0.954 J	<0.605	2.96	<0.116	<0.192
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.18	<1.28	<1.36	<1.29	<6.05	5.96 J	<1.16	<1.92
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.118	<0.128	2.56 J+	0.740 J	<0.605	2.84	<0.116	<0.192
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<2.95 UJ	<3.20 UJ	<3.40 UJ	<3.22 UJ	<15.1 UJ	8.37 J	<2.90 UJ	<4.80 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.118	<0.128	1.99	0.639 J	<0.605	1.73	<0.116	<0.192
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.590	<0.640	1.92 J	<0.645	<3.03	1.54 J	<0.580	<0.960
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.118	<0.128	1.54	0.321 J	<0.605	1.44	<0.116	<0.192
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.118	<0.128	1.61	<0.129	<0.605	1.06	<0.116	<0.192



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.118	<0.128	0.642 J	0.461 J	<0.605	0.533 J	<0.116	<0.192
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.118	<0.128	1.00 J	0.618 J	<0.605	0.610 J	<0.116	<0.192
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.118	<0.128	1.14	0.707 J	<0.605	0.717 J	<0.116	<0.192
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.118	<0.128	0.478 J	0.509 J	<0.605	0.585 J	<0.116	<0.192
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.118	<0.128	0.564 J	0.346 J	<0.605	<0.128	<0.116	<0.192
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.118	<0.128	2.14	0.356 J	<0.605	0.863 J	<0.116	<0.192
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.118	<0.128	1.89	0.216 J	<0.605	0.652 J	<0.116	<0.192
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.118	<0.128	1.54	0.184 J	<0.605	0.348 J	<0.116	<0.192
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.118	<0.128	1.39	0.181 J	<0.605	0.291 J	<0.116	<0.192
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.118	<0.128	0.170 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.118	<0.128	0.644 J	<0.129	<0.605	0.471 J	<0.116	<0.192
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.118	<0.128	1.48	0.166 J	<0.605	0.178 J	<0.116	<0.192
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.118	<0.128	0.622 J	0.371 J	<0.605	<0.128	<0.116	<0.192
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.118	<0.128	1.99	0.431 J	<0.605	0.789 J	<0.116	<0.192
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.118	<0.128	2.08	0.203 J	<0.605	0.793 J	<0.116	<0.192
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.118	<0.128	2.22	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.118	<0.128	1.47	0.180 J	<0.605	0.681 J	<0.116	<0.192
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.118	<0.128	0.375 J	0.147 J	<0.605	<0.128	<0.116	<0.192
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.118	<0.128	0.346 J	<0.129	<0.605	0.227 J	<0.116	<0.192
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.118	<0.128	0.294 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.118	<0.128	0.274 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.118	<0.128	0.305 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.118	<0.128	0.190 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.118	<0.128	9.08	5.28	<0.605	2.50	<0.116	<0.192
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.118	<0.128	13.2	6.19	<0.605	5.24	<0.116	<0.192
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<5.90	<6.40	10.6 J	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.118	<0.128	12.1	5.74	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.118	<0.128	9.38	4.64	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.118	<0.128	10.7	3.75	<0.605	4.15	<0.116	<0.192
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.590	<0.640	9.38	3.77 J	<3.03	2.96 J	<0.580	<0.960
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.590	<0.640	9.24	3.51 J	<3.03	8.04	<0.580	<0.960
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.118	<0.128	7.28	3.82	<0.605	2.24	<0.116	<0.192
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.118	<0.128	9.63	5.00	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<29.5	<32.0	<34.0	<32.3	<151	<32.0	<29.0	<48.0
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.118	<0.128	7.33	3.71	<0.605	3.41	<0.116	<0.192
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.118	<0.128	10.9	4.73	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.118	<0.128	8.30	3.74	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.118	<0.128	6.16	2.57	<0.605	<0.128	<0.116	<0.192
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.118	<0.128	6.99	2.78	<0.605	2.21	<0.116	<0.192
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.118	<0.128	2.73	1.62	<0.605	0.809 J	<0.116	<0.192
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.118	<0.128	4.87	2.46	<0.605	2.06	<0.116	<0.192
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.18	<1.28	3.93 J	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.18	<1.28	2.76 J	<1.29	<6.05	5.26 J	<1.16	<1.92
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.118	<0.128	0.766 J	0.454 J	<0.605	0.173 J	<0.116	<0.192
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.118	<0.128	0.924 J	0.569 J	<0.605	0.214 J	<0.116	<0.192
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.18	<1.28	2.62 J	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.18	<1.28	3.20 J	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.18	<1.28	8.86 J	5.67 J	<6.05	<1.28	<1.16	<1.92
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.18	<1.28	8.84 J	6.04 J	<6.05	<1.28	<1.16	<1.92
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.118	<0.128	0.189 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.118	<0.128	0.188 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.118	<0.128	0.204 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.118	<0.128	0.228 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.118	<0.128	0.371 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.118	<0.128	0.294 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.118	<0.128	2.03	0.743 J	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.118	<0.128	2.10	0.833 J	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.118	<0.128	1.13	0.404 J	<0.605	0.320 J	<0.116	<0.192
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.118	<0.128	1.64	0.713 J	<0.605	0.722 J	<0.116	<0.192
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.118 UJ	<0.128 UJ	4.68 J-	1.82 J-	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.118	<0.128	5.37	2.05	<0.605	<0.128	<0.116	<0.192
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.118	<0.128	6.26	3.17	<0.605	3.80 J+	<0.116	<0.192
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.118	<0.128	5.91	2.87	<0.605	3.32 J+	<0.116	<0.192
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.118	<0.128	6.02	2.52	<0.605	2.31	<0.116	<0.192
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.118	<0.128	5.59	2.41	<0.605	2.15	<0.116	<0.192
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.118	<0.128	<0.136	2.03	<0.605	1.57	<0.116	<0.192
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.118	<0.128	<0.136	2.28	<0.605	1.85	<0.116	<0.192
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.118	<0.128	1.81 J+	0.629 J	<0.605	<0.128	<0.116	<0.192
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.590	<0.640	1.71 J	<0.645	<3.03	0.835 J	<0.580	<0.960
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.118	<0.128	1.13	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.118	<0.128	2.75	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.118	<0.128	1.91	0.573 J	<0.605	0.987 J	<0.116	<0.192

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.118	<0.128	1.02	0.203 J	<0.605	<0.128	<0.116	<0.192
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.118	<0.128	0.152 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.118	<0.128	0.846 J	0.580 J	<0.605	<0.128	<0.116	<0.192
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.118	<0.128	2.03	0.539 J	<0.605	0.737 J	<0.116	<0.192
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.118	<0.128	2.32	0.674 J	<0.605	1.43	<0.116	<0.192
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.118	<0.128	2.14	0.706 J	<0.605	1.17	<0.116	<0.192
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.118	<0.128	1.69	0.578 J	<0.605	<0.128	<0.116	<0.192
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.118	<0.128	1.75	0.505 J	<0.605	0.999 J	<0.116	<0.192
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.118 UJ	<0.128	0.176 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.118 UJ	<0.128	0.182 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.118	<0.128	0.383 J	0.218 J	<0.605	0.312 J	<0.116	<0.192
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.118	<0.128	0.259 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.118	<0.128	0.261 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.118	<0.128	4.27	1.46	<0.605	<0.128	<0.116	<0.192
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.118	<0.128	2.44	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.118	<0.128	1.56	0.221 J	<0.605	<0.128	<0.116	<0.192
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.118	<0.128	1.78	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.118	<0.128	1.26	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	1.86	0.968 J	<0.605	<0.128	<0.116	<0.192
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.118	<0.128	2.91	0.558 J	<0.605	1.26	<0.116	<0.192
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.590	<0.640	1.90 J	<0.645	<3.03	1.01 J	<0.580	<0.960
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.118	<0.128	3.07	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.118	<0.128	4.31	1.09	<0.605	<0.128	<0.116	<0.192
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.118	<0.128	14.8	8.45 J-	<0.605	3.80	<0.116	<0.192
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.118	<0.128	11.3	5.15	<0.605	1.89	<0.116	<0.192
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.118	<0.128	12.9	6.25	<0.605	<0.128	<0.116	<0.192
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.118	<0.128	11.2	5.71	<0.605	<0.128	<0.116	<0.192
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.118	<0.128	5.26	1.92	<0.605	0.960 J	<0.116	<0.192
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.118	<0.128	4.76	1.58	<0.605	<0.128	<0.116	<0.192

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.118	<0.128	2.36	0.972 J	<0.605	<0.128	<0.116	<0.192
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.118	<0.128	2.89	1.40	<0.605	<0.128	<0.116	<0.192
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.118	<0.128	3.21	1.22	<0.605	<0.128	<0.116	<0.192
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.118	<0.128	3.43	1.30	<0.605	<0.128	<0.116	<0.192
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.118	<0.128	9.46	5.71 J-	<0.605	2.53	<0.116	<0.192
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.118	<0.128	15.2	8.95	<0.605	3.70	<0.116	<0.192
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.118	<0.128	14.5	8.16	<0.605	3.07	<0.116	<0.192
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.118	<0.128	12.4	6.41	<0.605	2.70	<0.116	<0.192
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<11.8	<12.8	20.3 J	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.118	<0.128	2.29	0.809 J	<0.605	0.368 J	<0.116	<0.192
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.118	<0.128	0.375 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.118	<0.128	3.26	1.21	<0.605	0.471 J	<0.116	<0.192
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.118	<0.128	1.72	0.525 J	<0.605	0.192 J	<0.116	<0.192
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.118	<0.128	2.15	0.759 J	<0.605	<0.128	<0.116	<0.192
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.118	<0.128	3.28	1.17	<0.605	<0.128	<0.116	<0.192
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.118	<0.128	2.72	1.02	<0.605	<0.128	<0.116	<0.192
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.118	0.132 J	2.82	0.820 J	<0.605	<0.128	<0.116	<0.192
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.118	<0.128	10.0	5.10	<0.605	<0.128	<0.116	<0.192
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.118	<0.128	6.74	1.89	<0.605	<0.128	<0.116	<0.192
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.118	<0.128	4.96	1.48	<0.605	1.13	<0.116	<0.192
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.118	<0.128	3.65	0.843 J	<0.605	<0.128	<0.116	<0.192
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.118	<0.128	4.15	1.63	<0.605	<0.128	<0.116	<0.192
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.118	<0.128	0.674 J	0.297 J	<0.605	<0.128	<0.116	<0.192
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.118	<0.128	7.41	4.03	<0.605	1.67	<0.116	<0.192
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.118	<0.128	6.36	2.39	<0.605	1.75	<0.116	<0.192
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.118	<0.128	6.15	2.38	<0.605	<0.128	<0.116	<0.192
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.118	<0.128	1.13	0.515 J	<0.605	0.461 J	0.137 J	<0.192
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.118	<0.128	3.77	0.211 J	<0.605	0.373 J	<0.116	<0.192
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.118	<0.128	2.98	0.201 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.118	<0.128	3.76	0.280 J	<0.605	<0.128	<0.116	<0.192

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.118	<0.128	3.77	0.338 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.118	<0.128	2.84	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.118	<0.128	1.38	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.118	<0.128	1.21	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.118	<0.128	0.461 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.118	0.361 J	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.118 UJ	<0.128 UJ	0.363 J	0.563 J	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.118	<0.128	3.88	1.52	<0.605	1.31	<0.116	<0.192
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.118	<0.128	3.93	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.118	<0.128	2.06	0.654 J	<0.605	0.698 J	<0.116	<0.192
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.118	<0.128	<0.136	0.468 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.118	<0.128	0.955 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	0.676 J	0.206 J	<0.605	0.313 J	<0.116	<0.192
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.118	<0.128	5.11	0.403 J	<0.605	0.425 J	<0.116	<0.192
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.118	<0.128	3.61	0.321 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.118	<0.128	4.08	0.353 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.118	<0.128	2.79	0.162 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.118	<0.128	1.57	0.149 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.590	<0.640	1.40 J	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.118	<0.128	1.82	0.262 J	<0.605	0.333 J	<0.116	<0.192
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.118	<0.128	2.26	0.574 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.118	<0.128	2.01	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.118	<0.128	1.68	0.394 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	0.663 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.118	<0.128	1.39	0.732 J	<0.605	<0.128	<0.116	<0.192
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.118	<0.128	<0.136	0.452 J	<0.605	<0.128	<0.116	<0.192
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.118	<0.128	3.42	0.921 J	<0.605	1.85	<0.116	<0.192
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.118	<0.128	2.36	0.768 J	<0.605	<0.128	<0.116	<0.192
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.118	<0.128	5.95	1.99	<0.605	3.03	<0.116	<0.192
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.118	<0.128	<0.136	1.41	<0.605	<0.128	<0.116	<0.192
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.118	<0.128	0.192 J	<0.129	<0.605	0.251 J	<0.116	<0.192



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.118	<0.128	0.148 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.118	<0.128	5.72	2.19	<0.605	2.14	<0.116	<0.192
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.118	<0.128	2.33	1.08	<0.605	1.46	<0.116	<0.192
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.118	<0.128	2.52	1.14	<0.605	1.40	<0.116	<0.192
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.118	<0.128	1.34	0.411 J	<0.605	<0.128	<0.116	<0.192
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.118	<0.128	3.80	0.489 J	<0.605	1.84	<0.116	<0.192
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.118	<0.128	<0.136	1.41	<0.605	<0.128	<0.116	<0.192
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.118	<0.128	0.213 J	<0.129 UJ	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.118	<0.128	0.290 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.118	<0.128	0.275 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.236 UJ	<0.256 UJ	<0.272 UJ	<0.258 UJ	<1.21 UJ	<0.256 UJ	<0.232 UJ	<0.384 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.236 UJ	<0.256 UJ	<0.272 UJ	<0.258 UJ	<1.21 UJ	<0.256 UJ	<0.232 UJ	<0.384 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.118	<0.128	1.86	0.936 J	<0.605	0.488 J	<0.116	<0.192
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.18 UJ	<1.28 UJ	3.78 J	<1.29 UJ	<6.05 UJ	2.57 J	<1.16 UJ	<1.92 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.118	0.224 J	0.372 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<2.95 UJ	<3.20 UJ	<3.40 UJ	<3.22 UJ	<15.1 UJ	<3.20 UJ	<2.90 UJ	<4.80 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.118	<0.128	0.189 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	0.516 J	0.526 J	<0.605	0.384 J	<0.116	<0.192
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.18 UJ	<1.28 UJ	4.46 J	<1.29 UJ	<6.05 UJ	2.97 J	<1.16 UJ	<1.92 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.18	<1.28	2.16 J	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.118	0.185 J	0.718 J	0.136 J	<0.605	<0.128	<0.116	<0.192
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<2.95 UJ	<3.20 UJ	<3.40 UJ	<3.22 UJ	<15.1 UJ	<3.20 UJ	<2.90 UJ	<4.80 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.118	<0.128	0.196 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.118	<0.128	0.248 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.118 UJ	<0.128 UJ	0.450 J	<0.129 UJ	<0.605 UJ	0.464 J	<0.116 UJ	<0.192 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.118	<0.128	0.213 J	0.477 J	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.118	<0.128	0.138 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.118	<0.128	0.790 J	0.558 J	<0.605	0.491 J	<0.116	<0.192
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.118	<0.128	0.387 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.118	<0.128	0.484 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.118	<0.128	1.15	0.531 J	<0.605	0.840 J	<0.116	<0.192
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.118	<0.128	2.44	0.612 J	<0.605	2.22	<0.116	<0.192
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.18	<1.28	1.68 J	<1.29	<6.05	6.48 J	<1.16	<1.92
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.95 UJ	<3.20 UJ	<3.40 UJ	<3.22 UJ	<15.1 UJ	7.62 J	<2.90 UJ	<4.80 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.590	<0.640	1.39 J	<0.645	<3.03	1.30 J	<0.580	<0.960
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<2.36 UJ	<2.56 UJ	<2.72 UJ	<2.58 UJ	<12.1 UJ	<2.56 UJ	<2.32 UJ	<3.84 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.118	<0.128	2.37	0.836 J	<0.605	5.26	<0.116	<0.192
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.118	<0.128	1.68	0.712 J	<0.605	1.98	<0.116	<0.192
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<23.6	<25.6 UJ	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.118	<0.128	1.87	0.509 J	<0.605	1.98	<0.116	<0.192
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<23.6	<25.6	<27.2	<25.8	<121	<25.6	<23.2	<38.4
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.118	0.407 J	1.26	0.411 J	<0.605	1.78	<0.116	<0.192
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.118	0.196 J	1.27	0.447 J	<0.605	<0.128	<0.116	<0.192
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.118	<0.128	1.06	0.165 J	<0.605	<0.128	<0.116	<0.192
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.118	<0.128	0.588 J	0.503 J	<0.605	0.593 J	<0.116	<0.192
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.118	<0.128	0.397 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.118	0.663 J	0.336 J	<0.129	<0.605	<0.128	<0.116	<0.192

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.118	0.614 J	<0.136	<0.129	<0.605	2.85	<0.116	<0.192
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.118	<0.128	0.752 J	0.309 J	<0.605	0.919 J	<0.116	<0.192
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.118	<0.128	0.915 J	0.348 J	<0.605	0.717 J	<0.116	<0.192
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.118	<0.128	0.672 J	<0.129	<0.605	0.339 J	<0.116	<0.192
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.118	<0.128	0.695 J	<0.129	<0.605	0.597 J	<0.116	<0.192
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.118	<0.128	0.727 J	<0.129	<0.605	0.753 J	<0.116	<0.192
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.118	<0.128	1.39	0.364 J	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.118	<0.128	1.54	0.363 J	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.118	0.183 J	0.587 J	0.160 J	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.118	0.163 J	0.586 J	0.190 J	<0.605	0.215 J	<0.116	<0.192
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.118	<0.128	0.642 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.118	<0.128	0.763 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.118	<0.128	0.775 J	<0.129	<0.605	0.539 J	<0.116	<0.192
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.118	<0.128	0.836 J	<0.129	<0.605	0.488 J	<0.116	<0.192
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.118	<0.128	2.15	0.934 J	<0.605	1.81	<0.116	<0.192
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.118	<0.128	1.59	0.380 J	<0.605	1.63	<0.116	<0.192
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.118	<0.128	1.96	0.515 J	<0.605	<0.128	<0.116	<0.192
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<5.90	<6.40	<6.80	<6.45	<30.3	10.0 J	<5.80	<9.60
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.590 UJ	<0.640 UJ	1.50 J	<0.645 UJ	<3.03 UJ	0.770 J	<0.580 UJ	<0.960 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.118	<0.128	1.03	0.258 J	<0.605	1.15	<0.116	<0.192
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.118	<0.128	0.552 J	0.170 J	<0.605	0.522 J	<0.116	<0.192
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.590	<0.640	<0.680	<0.645	<3.03	0.821 J	<0.580	<0.960
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	1.28	0.688 J	<0.605	0.961 J	<0.116	<0.192
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	1.16	0.609 J	<0.605	0.812 J	<0.116	<0.192
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.118	<0.128	0.456 J	<0.129	<0.605	0.351 J	<0.116	<0.192
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.118	<0.128	0.344 J	<0.129 UJ	<0.605	0.486 J	<0.116	<0.192
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.118	<0.128	0.236 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.118 UJ	<0.128 UJ	<0.136 UJ	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	0.190 J	<0.116	<0.192
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.118	<0.128	1.63	0.706 J	<0.605	1.11	<0.116	<0.192
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.18	<1.28	<1.36	<1.29	<6.05	<1.28	<1.16	<1.92
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.118	<0.128	0.628 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.118	<0.128	1.01 J+	0.198 J	<0.605	0.415 J	<0.116	<0.192
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.118	<0.128	1.83	0.233 J	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.118	<0.128	2.28	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.118	<0.128	1.62	0.134 J	<0.605	0.223 J	<0.116	<0.192
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.118	<0.128	1.35	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.118	<0.128	1.12	<0.129	<0.605	0.271 J	<0.116	<0.192
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.118	<0.128	1.19	<0.129	<0.605	0.432 J	<0.116	<0.192
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.118	<0.128	0.687 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.118	<0.128	0.946 J	<0.129	<0.605	0.252 J	<0.116	<0.192
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.118	<0.128	1.18	0.624 J	<0.605	0.865 J	<0.116	<0.192
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.118	<0.128	0.584 J	<0.129	<0.605	0.400 J	<0.116	<0.192
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.118	<0.128	0.505 J	<0.129	<0.605	0.759 J	<0.116	<0.192
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.118	<0.128	0.580 J	<0.129	<0.605	0.426 J	<0.116	<0.192
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.590 UJ	<0.640 UJ	<0.680 UJ	<0.645 UJ	<3.03 UJ	<0.640 UJ	<0.580 UJ	<0.960 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.118	<0.128	1.07	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.118	<0.128	1.23	0.135 J	<0.605	0.400 J	<0.116	<0.192
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.118	<0.128	1.17	<0.129	<0.605	0.455 J	<0.116	<0.192
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.118	<0.128	<0.136	0.159 J	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.118	<0.128	0.673 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.118	<0.128	1.02	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.118	<0.128	1.03	0.165 J	<0.605	0.279 J	<0.116	<0.192
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.118	<0.128	0.920 J	0.628 J	<0.605	0.805 J	<0.116	<0.192
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.590 UJ	<0.640 UJ	1.17 J	<0.645 UJ	<3.03 UJ	1.27 J	<0.580 UJ	<0.960 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.118	<0.128	0.557 J	0.536 J	<0.605	0.537 J	<0.116	<0.192
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.590 UJ	<0.640 UJ	<0.680 UJ	<0.645 UJ	<3.03 UJ	1.27 J	<0.580 UJ	<0.960 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.590	<0.640	<0.680	<0.645	<3.03	<0.640	<0.580	<0.960
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.118	<0.128	0.217 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.118	<0.128	0.402 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.118	<0.128	<0.136	<0.129	<0.605	0.136 J	<0.116	<0.192
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.118	<0.128	0.609 J	0.428 J	<0.605	0.809 J	<0.116	<0.192
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.118	<0.128	0.582 J	<0.129	<0.605	0.371 J	<0.116	<0.192
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<2.36	<2.56	<2.72	<2.58	<12.1	<2.56	<2.32	<3.84
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.236	<0.256	<0.272	<0.258	<1.21	<0.256	<0.232	<0.384
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.118	<0.128	1.91	0.510 J	<0.605	<0.128	<0.116	<0.192
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.118	<0.128	0.840 J	0.281 J	<0.605	0.646 J	<0.116	<0.192
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.118	<0.128	0.443 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.118	<0.128	1.36	0.366 J	<0.605	<0.128	<0.116	<0.192
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.118	<0.128	0.318 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.118	<0.128	0.255 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<5.90	<6.40	<6.80	<6.45	<30.3	<6.40	<5.80	<9.60
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	0.369 J	<0.116	<0.192
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.118	<0.128	0.794 J	0.154 J	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192



**Table 4**  
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 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Chlorobenzene	Chloroethane
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	0.384 J	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.118	<0.128	<0.136	0.347 J	<0.605	<0.128	<0.116	<0.192
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.118	<0.128	1.25	0.411 J	<0.605	0.742 J	<0.116	<0.192
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.118	<0.128	1.07	0.394 J	<0.605	0.695 J	<0.116	<0.192
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.118	<0.128	0.323 J	<0.129	<0.605	0.365 J	<0.116	<0.192
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.118	<0.128	0.308 J	<0.129	<0.605	0.346 J	<0.116	<0.192
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.118 UJ	<0.128 UJ	0.193 J	<0.129 UJ	<0.605 UJ	<0.128 UJ	<0.116 UJ	<0.192 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.118	<0.128	<0.136	<0.129	<0.605	<0.128	<0.116	<0.192
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.118	<0.128	0.212 J	<0.129	<0.605	<0.128	<0.116	<0.192
U4-SLMW	11/10/2022	N	EM03		-	<0.590	<0.640	1.60 J	<0.645	<3.03	<0.640	<0.580	<0.960
U4-T3	10/13/2022	N	EM02		-	<0.118	<0.128	4.01	1.87	<0.605	<0.128	<0.116	<0.192
U4-T3	11/3/2022	N	EM03		-	<0.118	<0.128	5.54	2.33	<0.605	2.09	<0.116	<0.192
U4-T3	12/6/2022	N	EM04		-	<2.36 UJ	<2.56 UJ	3.81 J	<2.58 UJ	<12.1 UJ	6.19 J	<2.32 UJ	<3.84 UJ
U4-T3	1/9/2023	N	EM05		-	<0.118	<0.128	4.50	1.86	<0.605	1.63	<0.116	<0.192
U4-T3	2/13/2023	N	EM06		-	<11.8	<12.8	<13.6	<12.9	<60.5	<12.8	<11.6	<19.2
U4-T3	3/13/2023	N	EM07		-	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80
U4-T3	4/19/2023	N	EM08		-	<0.118	<0.128	1.94	0.640 J	<0.605	0.658 J	<0.116	<0.192
U4-T3	5/18/2023	N	EM09		-	<0.118	<0.128	1.87	0.557 J	<0.605	<0.128	<0.116	<0.192
U4-T3	6/12/2023	N	EM10		-	<0.118	<0.128	2.41	0.589 J	<0.605	1.13	<0.116	<0.192
U4-T3	7/11/2023	N	EM11		-	<0.118	<0.128	1.91	0.716 J	<0.605	0.657 J	<0.116	<0.192
U4-T3	8/10/2023	N	EM12		-	<0.118	<0.128	1.14	<0.129	<0.605	<0.128	<0.116	<0.192
U4-T3	9/11/2023	N	EM13		-	<0.118	<0.128	1.29	<0.129	<0.605	<0.128	<0.116	<0.192
U4-T3	10/16/2023	N	EM14		-	<2.95	<3.20	<3.40	<3.22	<15.1	<3.20	<2.90	<4.80

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	8,010	<0.960	<0.126	<0.111	6.51	<0.122	<0.374	<0.105
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	3,950	<0.960	<0.126	<0.111	3.91	<0.122	<0.374	<0.105
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	2,420	<9.60	<1.26	<1.11	2.27 J	<1.22	<3.74	<1.05
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	2,240	<0.960	<0.126	<0.111	2.75	<0.122	<0.374	<0.105
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	2,680	<0.960	<0.126	<0.111	2.88	<0.122	<0.374	<0.105
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	1,480	<0.960	<0.126	<0.111	2.53	<0.122	<0.374	<0.105
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	1,630	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	1,950 J+	<0.960	<0.126	<0.111	1.95	<0.122	<0.374	<0.105
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	2,200	<0.960	<0.126	<0.111	2.31	<0.122	<0.374	<0.105
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	2,240	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	2,600	<0.960	<0.126	<0.111	2.44	<0.122	<0.374	<0.105
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	2,010	<0.960	<0.126	<0.111	1.11	<0.122	<0.374	<0.105
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	2,340	<0.960	<0.126	<0.111	1.36	<0.122	<0.374	<0.105
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	2,400	<0.960	<0.126	<0.111	1.30	<0.122	<18.7	<0.105
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	1,900	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	2,380 J+	<0.960	<0.126	<0.111	1.40	<0.122	<0.374	<0.105
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	2,730 J+	<0.960	<0.126	<0.111	1.64	<0.122	<0.374	<0.105
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	1,520	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	1,750	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	13.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	14.5 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	19.9	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	22.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	27.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	9.43	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	0.192 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	17.8 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	5.55	<0.960	<0.126	<0.111 UJ	<0.140	<0.122	<0.374	<0.105
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	1.69 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	6,650	<4.80	<0.630	<0.555	4.26 J	<0.610	<1.87	<0.525
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	5.08	<0.960	<0.126	<0.111	2.59	<0.122	<0.374	<0.105
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	186 J	<0.960	<0.126	<0.111	0.328 J	<0.122	<0.374	<0.105
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	280 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	1,300	<0.960	<0.126	<0.111	0.871 J	<0.122	<0.374	<0.105
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	477 J+	<0.960	<0.126	<0.111	0.207 J	<0.122	<0.374	<0.105
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	553	<0.960	<0.126	<0.111	0.280 J	<0.122	<0.374	<0.105
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	1,530	<0.960	<0.126	<0.111	0.341 J	<0.122	<0.374	<0.105
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	381	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	153	<0.960	<0.126	<0.111	0.907 J	<0.122	<0.374	<0.105
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	101	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	152	<0.960	<0.126	<0.111	0.307 J	0.246 J	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.11	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<2.22	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.11	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.11	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	1,660	<0.960	<0.126	<0.111	1.39	<0.122	<0.374	<0.105
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	6.95	<0.960	<0.126	<0.111	2.36	<0.122	<0.374	<0.105
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	727	<0.960	<0.126	<0.111	0.956 J	<0.122	<0.374	<0.105
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	165	<0.960	<0.126	<0.111	1.15	<0.122	<0.374	<0.105
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	503 J+	<0.960	<0.126	<0.111	0.761 J	<0.122	<0.374	<0.105
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	477	<0.960	<0.126	<0.111	0.499 J	<0.122 UJ	<0.374	<0.105
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	398	<0.960	<0.126	<0.111	0.297 J	<0.122	<0.374	<0.105
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	321	<0.960	<0.126	<0.111	0.232 J	<0.122	<0.374	<0.105
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	214	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	198	<0.960	<0.126	<0.111	0.179 J	<0.122	<0.374	<0.105
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	151	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	55.6	<9.60	2.42 J	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	39.1 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	27.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	11.7 J	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	6,390	<0.960	<0.126	<0.111	4.96	<0.122	<0.374	<0.105
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	4,280	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	4,350	<0.960	<0.126	<0.111	5.14 J+	<0.122	<0.374	<0.105
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	3,470	<19.2 UJ	<2.52 UJ	<2.22 UJ	3.45 J	<2.44 UJ	<7.48 UJ	<2.10 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	3,520	<0.960	<0.126	<0.111	3.66	<0.122	<0.374	<0.105
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	3,130	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	3,070	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	12,200	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	3,360 J+	<4.80	<0.630	<0.555	1.97 J	<0.610	<1.87	<0.525
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	2,640	<0.960	<0.126	<0.111	1.55 J-	<0.122 UJ	<0.374	<0.105
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	3,700	<0.960	<0.126	<0.111	2.21	<0.122	<0.374	<0.105
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	3,470	<0.960	<0.126	<0.111	2.15	<0.122	<0.374	<0.105
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	3,320	<0.960	<0.126	<0.111	1.92	<0.122	<0.374	<0.105
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	3,570	<0.960	<0.126	<0.111	2.11	<0.122	<0.374	<0.105
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	3,140	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	2,980	<0.960	<0.126	<0.111	0.812 J	<0.122	<0.374	<0.105
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	4.96 J	<0.960	<0.126	<0.111	2.85	<0.122	<0.374	<0.105
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	433	<0.960	<0.126	<0.111	0.141 J	<0.122	<0.374	<0.105
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	5,600	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	3,780	<0.960	<0.126	<0.111	2.06	<0.122	<0.374	<0.105
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	5.23 J+	<0.960	<0.126	<0.111	0.449 J	<0.122	<0.374	<0.105
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	516	<0.960	<0.126	<0.111	0.948 J	<0.122	<0.374	<0.105
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	459 J	<0.960 UJ	<0.126 UJ	<0.111 UJ	1.53 J-	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	819	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	218	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	215	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.111	<0.960	<0.126	<0.111	0.447 J	<0.122	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	1,740	<0.960	<0.126	<0.111	0.414 J	<0.122	<0.374	<0.105
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	1,080	<9.60 UJ	<1.26 UJ	<1.11 UJ	<1.40 UJ	<1.22 UJ	<3.74 UJ	<1.05 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	2,050	<0.960	<0.126	<0.111	0.412 J	<0.122	<0.374	<0.105
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	1,730	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	923	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	1,080	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	1,840	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	3,080	<0.960	<0.126	<0.111	0.486 J	<0.122	<0.374	<0.105
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	2,820	<0.960	<0.126	<0.111	0.449 J	<0.122	<0.374	<0.105
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	2,630 J	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	1,470	<0.960	<0.126	<0.111	0.340 J	<0.122	<0.374	<0.105
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	1,120	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	765 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	1,020 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	927	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	1,200	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	5,980	<0.960	<0.126	<0.111	1.08	<0.122	<0.374	<0.105
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	1,140	<0.960	<0.126	<0.111	0.715 J	<0.122	<0.374	<0.105
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	3,920	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	3,510	<0.960	<0.126	<0.111	2.14 J+	<0.122	<0.374	<0.105
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	4,200	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ	<9.35 UJ	<2.63 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	3,840	<0.960	<0.126	<0.111	2.24	<0.122	<0.374	<0.105
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	3,670	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	3,520	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	3,410 J+	<4.80	<0.630	<0.555	1.67 J	<0.610	<1.87	<0.525
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	2,910	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	2,840	<0.960	<0.126	<0.111	1.15	<0.122	<0.374	<0.105
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	2,850	<0.960	<0.126	<0.111	1.07	<0.122	<0.374	<0.105
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	2,840 J	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	3,620	<0.960	<0.126	<0.111	1.30	<0.122	<0.374	<0.105
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	3,520	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	3,950	<0.960	<0.126	<0.111	1.09	<0.122	<0.374	<0.105
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	2,940	<0.960	<0.126	<0.111	0.444 J	<0.122	<0.374	<0.105
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	3,660	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	4,770	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	7,120	<0.960	<0.126	<0.111	1.00 J	<0.122	<0.374	<0.105
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	4,850	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	5,020	<0.960	<0.126	<0.111	0.768 J	<0.122	<0.374	<0.105
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	4,090	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ	<9.35 UJ	<2.63 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	4,300	<0.960	<0.126	<0.111	0.743 J	<0.122	<0.374	<0.105
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	3,920	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	3,480	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	3,410 J+	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	2,880	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	2,820	<0.960	<0.126	<0.111	0.399 J	<0.122	<0.374	<0.105
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	2,620	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	1,450	<0.960	<0.126	<0.111	0.209 J	<0.122	<0.374	<0.105
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	1,240	<0.960	<0.126	<0.111	0.576 J	<0.122	<0.374	<0.105
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	704 J+	<0.960	<0.126	<0.111	0.612 J	<0.122	<0.374	<0.105
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	1,330	<0.960	<0.126	<0.111	0.441 J	<0.122	<0.374	<0.105
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	608	<0.960	<0.126	<0.111	0.274 J	<0.122	<0.374	<0.105
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	857	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	1,100	<0.960	<0.126	<0.111	1.08	<0.122	<0.374	<0.105
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	871	<0.960	<0.126	<0.111	0.948 J	<0.122	<0.374	<0.105
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	671	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	428	<0.960	<0.126	<0.111	0.579 J	<0.122	<0.374	<0.105
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	612	<0.960	<0.126	<0.111	0.667 J	<0.122	<0.374	<0.105
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	21.2	<0.960	<0.126	<0.111	0.190 J	<0.122	<0.374	<0.105
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	20.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	363 J+	<0.960	<0.126	<0.111	0.307 J	<0.122	<0.374	<0.105
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	374	<0.960	<0.126	<0.111	0.722 J	<0.122	<0.374	<0.105
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	417	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	180	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	197	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	395	<0.960	<0.126	<0.111	0.259 J	<0.122	<0.374	<0.105
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	1,060	<0.960	<0.126	<0.111	1.10	<0.122	<0.374	<0.105
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	908	<0.960	<0.126	<0.111	0.777 J	<0.122	<0.374	<0.105
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	969	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	892	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	1,000	<0.960	<0.126	<0.111	0.555 J	<0.122	<0.374	<0.105
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	56.8	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	32.5 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	31.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	35.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	26.7 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	27.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	8,990	<0.960	<0.126	<0.111	3.00	0.473 J	<0.374	<0.105
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	10,700	<0.960	<0.126	<0.111	4.51	<0.122	<0.374	<0.105
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	4,950	<48.0	16.2 J	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	11,200	<0.960	<0.126	<0.111	4.53	0.149 J	<0.374	<0.105
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	7,970	<0.960	<0.126	<0.111	3.70	<0.122	<0.374	<0.105
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	7,230	<0.960	<0.126	<0.111	3.77	0.157 J	<0.374	<0.105
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	9,500	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	10,100 J+	<4.80	<0.630	<0.555	3.33 J	<0.610	<1.87	<0.525
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	10,300	<4.80	<0.630	<0.555	3.44 J	<0.610	<1.87	<0.525
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.111	<0.960	<0.126	<0.111	2.86	0.148 J	<0.374	<0.105
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	10,700	<0.960	<0.126	<0.111	4.13	0.170 J	<0.374	<0.105
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	7,970	<240	43.0 J	<27.8	<35.0	<30.5	<93.5	<26.3
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	8,840	<0.960	<0.126	<0.111	2.71	0.152 J	<0.374	<0.105
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	10,200	<0.960	<0.126	<0.111	3.45	<0.122	<37.4	<0.105
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	8,080	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	6,310	<96.0	59.6 J	<11.1	<14.0	<12.2	<37.4	<10.5

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	6,250 J+	<0.960	<0.126	<0.111	3.42	<0.122	<0.374	<0.105
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	6,880	<0.960	<0.126	<0.111	2.01	<0.122	<0.374	<0.105
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	7,740 J+	<0.960	0.144 J	<0.111	2.36	<0.122	<0.374	<0.105
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	1,380	<0.960	<0.126	<0.111	1.22	<0.122	<0.374	<0.105
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	2,860	<0.960	<0.126	<0.111	1.94	<0.122	<0.374	<0.105
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	3,760	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	3,760	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	474	<0.960	<0.126	<0.111	0.184 J	<0.122	<0.374	<0.105
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	462	<0.960	<0.126	<0.111	0.426 J	<0.122	<0.374	<0.105
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	1,910	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	1,890	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	6,040	<9.60	<1.26	<1.11	4.74 J	<1.22	<3.74	<1.05
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	6,030	<9.60	<1.26	<1.11	4.62 J	<1.22	<3.74	<1.05
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	7,070	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	7,210	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	128	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	134	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	313	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	301 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	390	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	385	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	118	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	143	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	1,860 J	<0.960	<0.126	<0.111	0.719 J	<0.122	<0.374	<0.105
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	1,910 J	<0.960	<0.126	<0.111	0.705 J	0.123 J	<0.374	<0.105
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	1,270 J	<0.960	<0.126	<0.111	0.410 J	<0.122	<0.374	<0.105
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	2,040 J	<0.960	<0.126	<0.111	0.669 J	<0.122	<0.374	<0.105
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	3,570 J-	<0.960 UJ	<0.126 UJ	<0.111 UJ	1.74 J-	<0.122 UJ	<18.7 UJ	<0.105 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	4,030	<0.960	<0.126	<0.111	1.82	0.166 J	<18.7	<0.105
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	3,240	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	3,230	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	3,480	<48.0	18.0 J	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	3,370	<48.0	11.3 J	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	4,980 J	<0.960	<0.126	<0.111	2.81	<0.122	<0.374	<0.105
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	4,170 J	<0.960	<0.126	<0.111	2.93	<0.122	<0.374	<0.105
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	4,640	<0.960	<0.126	<0.111	2.34	<0.122	<0.374	<0.105
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	4,680	<0.960	<0.126	<0.111	2.02	<0.122	<0.374	<0.105
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	4,890 J+	<0.960	<0.126	<0.111	1.82	<0.122	<0.374	<0.105
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	4,940 J+	<0.960	0.166 J	<0.111	2.09	<0.122	<0.374	<0.105
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	2,270	<0.960	<0.126	<0.111	0.605 J	<0.122	<0.374	<0.105
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	1,350	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	1,670	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	1,620	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	1,130 J+	<0.960	<0.126	<0.111	<0.140	<0.122 UJ	<0.374	<0.105
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	2,150	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	1,600	<0.960	<0.126	<0.111	0.789 J	<0.122	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	882	<0.960	<0.126	<0.111	0.488 J	<0.122	<0.374	<0.105
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	173	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	4.62 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	1.95 J	<0.960	<0.126	<0.111	<0.140	<0.122 UJ	<0.374	<0.105
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	2.98 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	2.42 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	2.21 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	277	<0.960	<0.126	<0.111	0.457 J	<0.122	<0.374	<0.105
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	1,210 J+	<0.960	<0.126	<0.111	1.01	<0.122	<0.374	<0.105
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	884 J	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	1,220 J	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	1,470 J	<0.960	<0.126	<0.111	0.877 J	<0.122	<0.374	<0.105
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	912 J	<0.960	<0.126	<0.111	1.00 J	<0.122	<0.374	<0.105
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	1,390	<0.960	<0.126	<0.111	0.739 J	<0.122	<0.374	<0.105
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	1,470 J+	<0.960	<0.126	<0.111	0.817 J	<0.122	<0.374	<0.105
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	1,100	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	1,030	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	45.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	44.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	76.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	59.9	<0.960	<0.126	<0.111	<0.140	<0.122 UJ	<0.374	<0.105
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	81.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	70.6	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	59.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	6,140	<0.960	<0.126	<0.111	1.42	<0.122	<0.374	<0.105
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	1,240	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	1,160	<0.960	<0.126	<0.111	0.946 J	<0.122	<0.374	<0.105
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	891	<0.960	<0.126	<0.111	0.643 J	<0.122	<0.374	<0.105
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	1,430	<0.960	<0.126	<0.111	0.612 J	<0.122	<0.374	<0.105
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	979 J+	<0.960	<0.126	<0.111	0.499 J	<0.122	<0.374	<0.105
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	841	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	1,830	<0.960	<0.126	<0.111	0.749 J	<0.122	<0.374	<0.105
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	2,350	<0.960	<0.126	<0.111	1.06	<0.122	<0.374	<0.105
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	2,250	<4.80	<0.630	<0.555	0.810 J	<0.610	<1.87	<0.525
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	3,860	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	4,550 J+	<0.960	<0.126	<0.111	1.64	<0.122	<0.374	<0.105
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	4,860	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	6,320	<0.960	<0.126	<0.111	7.16	<0.122	<0.374	<0.105
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	5,350	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	3,790	<0.960	<0.126	<0.111	6.10	<0.122	<0.374	<0.105
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	3,950	<0.960	<0.126	<0.111	6.85	<0.122	<0.374	<0.105
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	3,990	<0.960	<0.126	<0.111	5.60	<0.122	<0.374	<0.105
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	2,590	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	2,710 J+	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	1,950	<0.960	<0.126	<0.111	2.41	<0.122	<0.374	<0.105
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	1,630	<0.960	<0.126	<0.111	1.81	0.311 J	<0.374	<0.105

**Table 4**  
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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	1,510 J+	<0.960	<0.126	<0.111	1.13	<0.122 UJ	<0.374	<0.105
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	1,950	<0.960	<0.126	<0.111	1.41	<0.122	<0.374	<0.105
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	2,150	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	756	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	1,010	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	1,670	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	915	<24.0	4.69 J	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	2,050 J+	<0.960	<0.126	<0.111	0.963 J	<0.122	<0.374	<0.105
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	2,010	<0.960	<0.126	<0.111	1.09	<0.122	<0.374	<0.105
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	850	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	3,530	<0.960	<0.126	<0.111	4.75	<0.122	<0.374	<0.105
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	5,930	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	5,800	<0.960	<0.126	<0.111	7.90	<0.122	<0.374	<0.105
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	3,970	<0.960	<0.126	<0.111	6.57	<0.122	<0.374	<0.105
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	4,040	<96.0	<0.126	<0.111	6.99	<0.122	<0.374	<0.105
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	3,270	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	6,720	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	646 J+	<0.960	<0.126	<0.111	0.942 J	0.197 J	<0.374	<0.105
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	531	<0.960	<0.126	<0.111	<0.140	0.447 J	<0.374	<0.105
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	415 J+	<0.960	<0.126	<0.111	<0.140	<0.122 UJ	<0.374	<0.105
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	1,830	<0.960	<0.126	<0.111	1.27	<0.122	<0.374	<0.105
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	1,620	<48.0	8.24 J	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	985	<0.960	<0.126	<0.111	0.560 J	0.225 J	<0.374	<0.105
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	920	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	1,310	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	1,800 J+	<0.960	<0.126	<0.111	0.789 J	<0.122	<0.374	<0.105
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	2,400 J+	<0.960	<0.126	<0.111	0.881 J	<0.122	<0.374	<0.105
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	2,380	<0.960	<0.126	<0.111	0.724	<0.122	<0.374	<0.105
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	2,010	<0.960	<0.126	<0.111	0.950 J	0.253 J	<0.374	<0.105
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	4,840	<0.960	<0.126	<0.111	3.82	<0.122	<0.374	<0.105
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	2,110	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	2,440 J+	<0.960	<0.126	<0.111	2.77	<0.122	<0.374	<0.105
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	1,920	<0.960	<0.126	<0.111	2.12	<0.122	<0.374	<0.105
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	1,650	<0.960	<0.126	<0.111	1.32	<0.122	<0.374	<0.105
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	1,950	<0.960	<0.126	<0.111	1.61	<0.122	<0.374	<0.105
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	1,740	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	217	<0.960	<0.126	<0.111	0.273 J	<0.122	<0.374	<0.105
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	3,220	<0.960	<0.126	<0.111	3.44	<0.122	<0.374	<0.105
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	2,420	<0.960	<0.126	<0.111	2.69	<0.122	<0.374	<0.105
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	2,620	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	2,770 J+	<0.960	<0.126	<0.111	2.54	<0.122	<0.374	<0.105
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	2,950	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	1,330	<0.960	<0.126	<0.111	0.410 J	<0.122	<0.374	<0.105
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	113	<0.960	<0.126	<0.111	2.38	<0.122	<0.374	<0.105
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	95.5	<0.960	<0.126	<0.111	1.83	<0.122	<0.374	<0.105
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	146	<0.960	<0.126	<0.111	2.53 J+	<0.122	<0.374	<0.105



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	101	<0.960	<0.126	<0.111	2.25	0.240 J	<0.374	<0.105
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	119	<0.960	<0.126	<0.111	1.21	<0.122	<0.374	<0.105
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	92.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	75.1	<0.960	<0.126	<0.111	0.211 J	<0.122	<0.374	<0.105
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	267 J+	<0.960	<0.126	<0.111	0.146 J	0.125 J	<0.374	<0.105
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	98.3	<0.960	<0.126	<0.111	<0.140 UJ	<0.122 UJ	<0.374	<0.105
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	205 J	<0.960 UJ	<0.126 UJ	<0.111 UJ	0.295 J	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	2,740	<0.960	<0.126	<0.111	1.57	<0.122	<0.374	<0.105
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	3,100	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	1,940	<0.960	<0.126	<0.111	0.754 J	<0.122	<0.374	<0.105
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	2,400	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	2,840	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	1,590 J+	<0.960	<0.126	<0.111	0.567 J	<0.122	<0.374	<0.105
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	1,230 J+	<0.960	<0.126	<0.111	0.176 J	<0.122	<0.374	<0.105
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	779	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	757	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	373	<0.960	<0.126	<0.111	0.189 J	<0.122	<0.374	<0.105
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	164	<0.960	<0.126	<0.111	3.22	<0.122	<0.374	<0.105
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	153	<0.960	<0.126	<0.111	2.52 J+	<0.122	<0.374	<0.105
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	129	<0.960	<0.126	<0.111	2.47	<0.122	<0.374	<0.105
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	154	<4.80	<0.126	<0.111	1.11	<0.122	<0.374	<0.105
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	180	<0.960	<0.126	<0.111	0.700 J	<0.122	<0.374	<0.105
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	250	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	578 J+	<0.960	<0.126	<0.111	0.559 J	<0.122	<0.374	<0.105
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	344	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	131	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	2,180	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	1,730	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	1,600	<0.960	<0.126	<0.111	0.511 J	<0.122	<0.374	<0.105
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	1,370	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	1,750	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	1,880	<0.960	<0.126	<0.111	0.760 J	<0.122	<0.374	<0.105
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	2,340 J+	<0.960	<0.126	<0.111	0.290 J	0.270 J	<0.374	<0.105
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	1,140	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	2,350	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	10,300 J+	<0.960	<0.126	<0.111	0.370 J	<0.122	<0.374	<0.105
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	4,240	<0.960	<0.126	<0.111	1.82	<0.122	<0.374	<0.105
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	4,220	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	5,060	<0.960	<0.126	<0.111	0.778 J	<0.122	<0.374	<0.105
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	7,970	<0.960	<0.126	<0.111	1.83	<0.122	<0.374	<0.105
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	6,060	<0.960	<0.126	<0.111	1.27	<0.122	<0.374	<0.105
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	4,480	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	90.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	85.4	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	28.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	126	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	97.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	64.9	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	52.7	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	46.9	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	1,100 J+	<0.960	<0.126	<0.111	1.76	<0.122	<0.374	<0.105
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	2,660	<0.960	<0.126	<0.111	1.02	<0.122	<0.374	<0.105
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	2,560	<0.960	<0.126	<0.111	1.05	<0.122	<0.374	<0.105
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	5,210	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	1,520	<0.960	<0.126	<0.111	0.497 J	<0.122	<0.374	<0.105
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	3,410	<0.960	<0.126	<0.111	1.34	<0.122	<0.374	<0.105
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	4,500 J-	<0.960	<0.126	<0.111	1.38	<0.122	<0.374	<0.105
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	3,770	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	38.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	15.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	15.4	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	0.792 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	0.964 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	2.78 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	3.05 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	0.174 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	0.229 J	<1.92 UJ	<0.252 UJ	<0.222 UJ	<0.280 UJ	<0.244 UJ	<0.748 UJ	<0.210 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	0.770 J	<1.92 UJ	<0.252 UJ	<0.222 UJ	<0.280 UJ	<0.244 UJ	<0.748 UJ	<0.210 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	2,940	<0.960	<0.126	<0.111	0.814 J	<0.122	<0.374	<0.105
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	602	<9.60 UJ	<1.26 UJ	<1.11 UJ	2.99 J	<1.22 UJ	<3.74 UJ	<1.05 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	525	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	360	<0.960	<0.126	<0.111	0.158 J	<0.122	<0.374	<0.105
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	609 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	558 J-	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ	<9.35 UJ	<2.63 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	419	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	21.9	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	12.5	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	15.9 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	12.8	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	24.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	21.1 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	23.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	130	<0.960	<0.126	<0.111	0.509 J	<0.122	<0.374	<0.105
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	1,150	<9.60 UJ	<1.26 UJ	<1.11 UJ	2.89 J	<1.22 UJ	<3.74 UJ	<1.05 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	767	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	501	<0.960	<0.126	<0.111	0.270 J	<0.122	<0.374	<0.105
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	849 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B	Volatil Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloroprope ne	Dibromochloro methane	Dibromometha ne	Dichlorodifluor omethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	611 J-	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ	<9.35 UJ	<2.63 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	505	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	20.3	<0.960	<0.126	<0.111	0.374 J	<0.122	<0.374	<0.105
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	135	<0.960 UJ	<0.126 UJ	<0.111 UJ	0.224 J	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	148	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	24.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	47.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	785 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	67.4	<0.960	0.136 J	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	316	<0.960	<0.126	<0.111	0.400 J	<0.122	<0.374	<0.105
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	153	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	46.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	0.843 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	52.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	25.9	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	45.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	695	<0.960	<0.126	<0.111	0.460 J	<0.122	<0.374	<0.105
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	33.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	180	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	18.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	30.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	1,400	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	2,810	<0.960	0.145 J	<0.111	0.195 J	<0.122	<0.374	<0.105
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	5,540	<0.960	<0.126	<0.111	0.584 J	<0.122	<0.374	<0.105
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	8,910	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	6,480	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	8,490	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	5,290	<24.0 UJ	<3.15 UJ	<2.78 UJ	<3.50 UJ	<3.05 UJ	<9.35 UJ	<2.63 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	6,580	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	7,100	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	5,710 J+	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	3,870	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	4,000 J-	<19.2 UJ	<2.52 UJ	<2.22 UJ	<2.80 UJ	<2.44 UJ	<7.48 UJ	<2.10 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	6,060	<0.960	<0.126	<0.111	0.685 J	<0.122	<0.374	<0.105
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	5,610	<0.960	<0.126	<0.111	0.558 J	<0.122	<0.374	<0.105
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	6,900	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	5,440	<0.960	<0.126	<0.111	0.523 J	<0.122	<0.374	<0.105
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	3,100	<192	<25.2	<22.2	<28.0	<24.4	<74.8	<21.0
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	4,930	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	4,440	<0.960	<0.126	<0.111	0.372 J	<0.122	<0.374	<0.105
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	5,430 J+	<0.960	<0.126	<0.111	0.323 J	<0.122	<0.374	<0.105
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	4,590	<0.960	<0.126	<0.111	0.149 J	<0.122	<0.374	<0.105
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	4,640	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	704	<0.960	<0.126	<0.111	0.462 J	<0.122	<0.374	<0.105
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	287	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	273	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105

**Table 4**  
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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	203	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	214	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	125	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	151	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	145	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	150	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	27.9	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	27.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	1,630	<0.960	<0.126	<0.111	0.217 J	<0.122	<0.374	<0.105
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	1,850	<0.960	<0.126	<0.111	0.214 J	<0.122	<0.374	<0.105
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	0.831 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	0.889 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	11.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	11.7	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	16.3 J-	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	16.4 J-	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	2.45 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	2.43 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	12.1	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	12.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	1,480	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	2,720	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	2,190	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	2,110	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	4,050	<0.960	<0.126	<0.111	0.345 J	<0.122	<18.7	<0.105
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	4,000	<0.960	<0.126	<0.111	0.385 J	<0.122	<18.7	<0.105
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	2,260	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	2,500	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	2,870	<0.960	<0.126	<0.111	0.144 J	<0.122	<0.374	<0.105
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	2,570	<0.960	<0.126	<0.111	0.157 J	<0.122	<0.374	<0.105
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	2,100 J	<0.960	<0.126	<0.111	0.206 J	<0.122	<0.374	<0.105
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	3,030 J	<0.960	<0.126	<0.111	0.153 J	<0.122	<0.374	<0.105
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	2,800	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	2,970	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	3,090	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	3,180	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	4,690	<0.960	<0.126	<0.111	0.664 J	<0.122	<0.374	<0.105
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	4,030 J	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.111	<0.960	<0.126	<0.111	0.454 J	<0.122	<0.374	<0.105
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	3,140	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	3,560	<0.960	<0.126	<0.111	0.535 J	<0.122	<0.374	<0.105
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	3,260	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	2,520	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	2,740	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	2,760 J-	<4.80 UJ	<0.630 UJ	<0.555 UJ	<0.700 UJ	<0.610 UJ	<1.87 UJ	<0.525 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	3,780	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	2,250	<0.960	<0.126	<0.111	0.297 J	<0.122	<0.374	<0.105
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	1,210	<0.960	<0.126	<0.111	0.176 J	<0.122	<0.374	<0.105
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	973	<48.0	22.4 J	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	888	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	924	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	704	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	820 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	652	1.16 J	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	536	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	474	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	1,670	<0.960	<0.126	<0.111	0.610 J	<0.122	<0.374	<0.105
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	1,640	<0.960	<0.126	<0.111	0.573 J	<0.122	<0.374	<0.105
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	231	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	194	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	182	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	91.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	90.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	36.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	36.5	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	8.18	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	0.265 J	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	0.714 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	0.731 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	468	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	181 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	2.19 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	495	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	688 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	567	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	614	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	601	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	3,460	<0.960	<0.126	<0.111	0.639 J	<0.122	<0.374	<0.105
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	1,270	<9.60	<1.26	<1.11	<1.40	<1.22	<3.74	<1.05
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	983	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	1,060	<0.960	<0.126	<0.111	0.551 J	<0.122	<0.374	<0.105
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	874	<0.960	<0.126	<0.111	1.04	<0.122	<0.374	<0.105
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	837	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	729	<0.960	<0.126	<0.111	1.12	<0.122	<0.374	<0.105
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	687	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	489	<0.960	<0.126	<0.111	0.572 J	<0.122	<0.374	<0.105
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	475	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	473	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	447	<0.960	<0.126	<0.111	0.304 J	<0.122	<0.374	<0.105
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	412 J+	<0.960	<0.126	<0.111	0.430 J	<0.122	<0.374	<0.105
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	716	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	451	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	485	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	761	<0.960	<0.126	<0.111	0.504 J	<0.122	<0.374	<0.105
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	660	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	686	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	778	<0.960	<0.126	<0.111	0.302 J	<0.122	<0.374	<0.105
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	1,350	<0.960	<0.126	<0.111	0.618 J	<0.122	<0.374	<0.105
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	154 J-	<0.960	<0.126	<0.111	0.164 J	<0.122	<0.374	<0.105
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	451	<0.960	0.394 J	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	441	<0.960	<0.126	<0.111	0.159 J	<0.122	<0.374	<0.105
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	305	<4.80 UJ	<0.630 UJ	<0.555 UJ	<0.700 UJ	<0.610 UJ	<1.87 UJ	<0.525 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	236	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	373	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	133	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	34.8 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	38.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	46.7	<0.960	<0.126	<0.111	<0.140	<0.122 UJ	<0.374	<0.105
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	44.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	685	<0.960	<0.126	<0.111	0.361 J	<0.122	<0.374	<0.105
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	805	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	904	<0.960	<0.126	<0.111	0.488 J	<0.122	<0.374	<0.105
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	831	<0.960	<0.126	<0.111	0.433 J	<0.122	<0.374	<0.105
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	1,100	<0.960	<0.126	<0.111	0.535 J	<0.122	<0.374	<0.105
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	1,060	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	1,090	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	1,170	<0.960	<0.126	<0.111	0.353 J	<0.122	<0.374	<0.105
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	110 J	<0.960	<0.126	<0.111	0.561 J	<0.122	<0.374	<0.105
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	287	<4.80 UJ	<0.630 UJ	<0.555 UJ	0.751 J	<0.610 UJ	<1.87 UJ	<0.525 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	217 J+	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	147	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	120	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	177	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	121	<0.960	0.203 J	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	157	<0.960	<0.126	<0.111	0.471 J	<0.122	<0.374	<0.105
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	212	<4.80 UJ	<0.630 UJ	<0.555 UJ	<0.700 UJ	<0.610 UJ	<1.87 UJ	<0.525 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	229 J+	<4.80	<0.630	<0.555	<0.700	<0.610	<1.87	<0.525
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	133	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	122	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	233	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	155	<0.960	0.197 J	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	407 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	165	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	114	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	298	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	144	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	92.6	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropane	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	92.0	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	13.2 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	0.237 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	0.232 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	0.336 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	0.329 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	0.261 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	705	<0.960	<0.126	<0.111	0.447 J	<0.122	<0.374	<0.105
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	758	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	47.6 J	<19.2	<2.52	<2.22	<2.80	<2.44	<7.48	<2.10
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	4.51 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	214 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	643 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	975	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	9.07 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	8.04 J	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	0.191 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.222	<1.92	<0.252	<0.222	<0.280	<0.244	<0.748	<0.210
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	1.18 J	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	3,310	<0.960	<0.126	<0.111	0.533 J	<0.122	<0.374	<0.105
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	2,020	<0.960	<0.126	<0.111	0.216 J	<0.122	<0.374	<0.105
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	1,290	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	3,560	<0.960	<0.126	<0.111	0.315 J	<0.122	<0.374	<0.105
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	1,470	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	1,000	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	1,190	<48.0	<6.30	<5.55	<7.00	<6.10	<18.7	<5.25
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	121	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	43.7	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	34.8 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	26.8	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	23.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	17.4 J+	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	16.2	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	424	<0.960	<0.126	<0.111	0.256 J	<0.122	<0.374	<0.105
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	7.96	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	8.00	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	1,440	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	1,420	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Diisopropyl Ether (DIPE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	2,280	<0.960	<0.126	<0.111	0.384 J	<0.122	<0.374	<0.105
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	2,360	<0.960	<0.126	<0.111	0.352 J	<0.122	<0.374	<0.105
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	1,880	<0.960	<0.126	<0.111	0.289 J	<0.122	<0.374	<0.105
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	1,880	<0.960	<0.126	<0.111	0.324 J	<0.122	<0.374	<0.105
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	12.8	<0.960	<0.126	<0.111	0.363 J	<0.122	<0.374	<0.105
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	12.3	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	7.61	<0.960 UJ	<0.126 UJ	<0.111 UJ	<0.140 UJ	<0.122 UJ	<0.374 UJ	<0.105 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.111 UJ	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.111	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-SLMW	11/10/2022	N	EM03		-	1.75 J	<4.80	<0.630	<0.555	1.52 J	<0.610	<1.87	<0.525
U4-T3	10/13/2022	N	EM02		-	3,720	<0.960	<0.126	<0.111	2.05	<0.122	<0.374	<0.105
U4-T3	11/3/2022	N	EM03		-	3,460	<0.960	<0.126	<0.111	3.01 J+	<0.122	<0.374	<0.105
U4-T3	12/6/2022	N	EM04		-	2,520	<19.2 UJ	<2.52 UJ	<2.22 UJ	<2.80 UJ	<2.44 UJ	<7.48 UJ	<2.10 UJ
U4-T3	1/9/2023	N	EM05		-	3,390	<0.960	<0.126	<0.111	2.19	<0.122	<0.374	<0.105
U4-T3	2/13/2023	N	EM06		-	3,210	<96.0	<12.6	<11.1	<14.0	<12.2	<37.4	<10.5
U4-T3	3/13/2023	N	EM07		-	1,410	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63
U4-T3	4/19/2023	N	EM08		-	1,150 J+	<0.960	<0.126	<0.111	0.810 J	<0.122	<0.374	<0.105
U4-T3	5/18/2023	N	EM09		-	1,750	<0.960	<0.126	<0.111	0.668 J	<0.122	<0.374	<0.105
U4-T3	6/12/2023	N	EM10		-	1,720	<0.960	<0.126	<0.111	0.682 J	<0.122	<0.374	<0.105
U4-T3	7/11/2023	N	EM11		-	1,490	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-T3	8/10/2023	N	EM12		-	815	<0.960	<0.126	<0.111	0.598 J	<0.122	<0.374	<0.105
U4-T3	9/11/2023	N	EM13		-	911	<0.960	<0.126	<0.111	<0.140	<0.122	<0.374	<0.105
U4-T3	10/16/2023	N	EM14		-	618	<24.0	<3.15	<2.78	<3.50	<3.05	<9.35	<2.63

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	1.11 J	<1.00	<0.157
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	0.845 J	<1.00 UJ	<0.157
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	0.576 J	<1.00	<0.157
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	0.536 J	<1.00	<0.157
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337 UJ	<0.105	<0.430	0.475 J	<1.00	<0.157 UJ
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	0.506 J	<1.00	<0.157
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	0.443 J	<1.00	<0.157
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	0.806 J	<1.00	<0.157
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	1.04 J	<1.00 UJ	<0.157
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.101	<0.137	<0.337	<0.105	<0.430	1.17 J	<1.00	<0.157
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.101	<0.137	<0.337	<0.105	<0.430	0.731 J	<1.00	<0.157
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785 UJ
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.461 J	<20.0	<0.157
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.999 J	<1.00	<0.157
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	2.63 J	<25.0	<0.157
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.505	<0.685	<1.69	<0.525	<2.15	3.49 J	<5.00	<0.785
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.101	<0.137	<0.337	<0.105	<0.430	1.79 J	<1.00	<0.157
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.101	0.157 J	<0.337	<0.105	<0.430	2.41 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	65.4	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	40.1	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	62.2	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.101	<0.137	<0.337	<0.105	<0.430	0.478 J	<1.00	<0.157
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.101	<0.137	<0.337	<0.105	<0.430 UJ	<0.430	<1.00 UJ	<0.157 UJ
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	3.56	<0.137	<0.337	<0.105	<0.430	0.970 J	<1.00	<0.157
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.101	<0.137	<0.337	<0.105	<0.430	6.89	<10.0	<0.157
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.101	<0.137	<0.337	<0.105	<0.430	4.58 J	<1.00	<0.157
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.101	<0.137	<0.337	<0.105	<0.430	2.23 J	<1.00	<0.157
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	16.6	0.184 J	<0.337	<0.105	<0.430	3.59 J	<1.00	<0.157
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.01	<1.37	<3.37	<1.05	<4.30	5.64 J	<10.0 UJ	<1.57 UJ
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	115	<1.37	<3.37	<1.05	<4.30	6.75 J	<10.0	<1.57
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	149	<0.137	<0.337	<0.105	<0.430	7.93	1.03 J	<0.157
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.101	0.315 J	<0.337	<0.105	<0.430	7.22	<1.00 UJ	<0.157
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	327	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.797 J	<1.00	<0.157
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.543 J	<1.00	<0.157
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<2.02 UJ	<2.74 UJ	<6.74 UJ	<2.10 UJ	<8.60 UJ	<8.60 UJ	<20.0 UJ	<3.14 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.516 J	<1.00	<0.157
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	0.730 J	<0.137	<0.337	<0.105	<0.430	2.04 J	<1.00	<0.157
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	2.05 J	<100	<0.157
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	2.69 J	<1.00	<0.157
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	3.09 J	<1.00	<0.157
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	3.22 J	<1.00	<0.157
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4 UJ
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	4.56	<0.137	<0.337	<0.105	<0.430	0.976 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.101	<0.137	<0.337	<0.105	<0.430	2.60 J	<1.00	<0.157
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.01 UJ	<1.37 UJ	<3.37 UJ	<1.05 UJ	<4.30 UJ	6.34 J	<10.0 UJ	<1.57 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.101	<0.137	<0.337	<0.105	<0.430	2.99 J	<1.00	<0.157
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	7.88 J	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.101	<0.137	<0.337	<0.105	<0.430	1.87 J	<100	<0.157
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.101	<0.137	<0.337	<0.105	<0.430	1.96 J	<1.00	<0.157
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.505	<0.685	<1.69	<0.525	<2.15	2.47 J	<5.00	<0.785
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	7.88	<0.137	<0.337	<0.105	<0.430	2.30 J	<1.00	<0.157
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	19.1	<0.137	<0.337	<0.105	<0.430	7.03	<1.00	<0.157
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	2.40	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.637 J	<1.00	<0.157
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	2.44 J	<1.00	<0.157
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	0.747 J	<1.00	<0.157
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	2.86 J	<100	<0.157
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	3.33 J	<1.00	<0.157
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.505	<0.685	<1.69	<0.525	<2.15	3.45 J	<5.00	<0.785
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	0.286 J	<0.137	<0.337	<0.105	<0.430	1.81 J	<1.00	<0.157
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7 UJ
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	2.00 J	<1.00	<0.157
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.101	<0.137	<0.337	<0.105	<0.430	1.88 J	<1.00	<0.157
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.819 J	<1.00	<0.157
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.540 J	<1.00	<0.157
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.101	<0.137	<0.337	<0.105	<0.430	1.08 J	<1.00	<0.157
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.101	<0.137	<0.337	<0.105	<0.430	1.40 J	<100	<0.157
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.101	<0.137	<0.337	<0.105	<0.430	1.19 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<25.0	<0.157
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.101	<0.137	<0.337	<0.105	<0.430	0.430 J	<1.00	<0.157
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.47 J	<1.00	<0.157
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.47 J	<1.00	<0.157
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.73 J	<1.00	<0.157
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.33 J	<1.00	<0.157
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337 UJ	<0.105	<0.430	1.36 J	<1.00	<0.157 UJ
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.831 J	<1.00	<0.157
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.16 J	<1.00	<0.157
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<25.3	<34.3	<84.3	<26.3	<108	<108	<250	<39.3
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.37 J	<1.00	<0.157
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.887 J	<1.00	<0.157
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.09 J	<1.00	<0.157
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.14 J	<1.00	<0.157
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.571 J	<1.00	<0.157
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.01	<1.37	<3.37	<1.05	<4.30	4.54 J	<10.0	<1.57
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	0.335 J	<0.430	3.23 J	<1.00	<0.157
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	12.3 J	<1.00	<0.157
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	6.15	<1.00 UJ	<0.157
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	6.54	<1.00 UJ	<0.157
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	9.93 J+	<1.00	<0.157
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	9.73 J+	<1.00	<0.157
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	6.47	<10.0	<0.157
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	6.42	<10.0	<0.157
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.55 J	<1.00	<0.157
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.01 J	<1.00	<0.157
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	6.37	<1.00	<0.157
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	6.77	<1.00	<0.157
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	5.18	<1.00	<0.157
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	5.32	<1.00	<0.157
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	4.79 J	<1.00 UJ	<0.157 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.101	<0.137	<0.337	<0.105	<0.430	5.03	<1.00	<0.157
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	11.2 J	<0.137	<0.337	<0.105	<0.430	5.02	<1.00	<0.157
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.101 UJ	<0.137	<0.337	<0.105	<0.430	5.28	<1.00	<0.157
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	14.4	<0.137	<0.337	<0.105	<0.430	4.32 J	<1.00	<0.157
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	16.6	<0.137	<0.337	<0.105	<0.430	4.34 J	<1.00	<0.157
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	19.5	<0.137	<0.337	<0.105	<0.430	3.77 J	<1.00	<0.157
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	21.3	<0.137	<0.337	<0.105	<0.430	4.23 J	<1.00	<0.157
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.101	<0.137	<0.337	<0.105	<0.430	2.28 J	<1.00	<0.157
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	1.85	<0.137	<0.337	<0.105	<0.430	4.36 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	0.555 J	<0.137	<0.337	<0.105	<0.430	4.41 J	<1.00	<0.157
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	1.06	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	3.61 J	<1.00	<0.157
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	3.29 J	<1.00	<0.157
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.856 J	<1.00	<0.157
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	0.126 J	<0.137	<0.337	<0.105	<0.430	0.479 J	<1.00	<0.157
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.580 J	<1.00	<0.157
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.64 J	<1.00 UJ	<0.157
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	0.491 J	<1.00 UJ	<0.157
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	0.693 J	<1.00	<0.157
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.07 J	<1.00 UJ	<0.157
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	0.767 J	<1.00	<0.157
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	0.757 J	<1.00	<0.157
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	0.566 J	<1.00	<0.157
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	4.02 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	7.82	<1.00	<0.157
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	6.87	<1.00	<0.157
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0 UJ	<3.93
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	51.7	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	4.45 J	<1.00	<0.157
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	3.87	<1.00	<0.157
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	42.5	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.570 J	<1.00	<0.157
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.635 J	<1.00	<0.157
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.474 J	<1.00	<0.157
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	0.722 J	<1.00	<0.157
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	32.9	<1.00	<0.157
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	17.1	<1.00	<0.157
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	10.5	<1.00	<0.157
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	9.65	<1.00 UJ	<0.157
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	18.1	<0.137	<0.337	<0.105	<0.430	8.12	<1.00 UJ	<0.157
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	5.12	<1.00	<0.157
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	4.40	<1.00	<0.157
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.101	<0.137	<0.337	<0.105	<0.430	5.86	<1.00	<0.157 UJ
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.58 J	<1.00	<0.157
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.567 J	<1.00	<0.157
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.542 J	<1.00	<0.157
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	4.45 J	<1.00 UJ	<0.157
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	10.3	<0.137	<0.337	<0.105	<0.430	3.87 J	<1.00	<0.157
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	32.3 J	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.101	<0.137	<0.337	<0.105	<0.430	0.560 J	<50.0	<0.157
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.101	<0.137	<0.337	<0.105	<0.430	1.28 J	<1.00	<0.157
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	4.31	<0.137	<0.337	<0.105	<0.430	2.87 J	<1.00 UJ	<0.157
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	15.8 J	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	1.37 J	<1.00	<0.157
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	1.69	<0.137	<0.337	<0.105	<0.430	11.0	<1.00	<0.157
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	2.86 J	<1.00 UJ	<0.157 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	3.05 J	<1.00	<0.157
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	8.31	<1.00	<0.157
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	5.26	<1.00 UJ	<0.157
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	22.0	<0.137	<0.337	0.120 J	<0.430	4.57 J	<1.00 UJ	<0.157
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.101	<0.137	<0.337	<0.105	<0.430	4.71 J	<1.00	<0.157
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0 UJ	<3.93
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	317	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93 UJ
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	0.478 J	<1.00	<0.157
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.101	<0.137 UJ	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	7.26	<0.137	<0.337	<0.105	<0.430	2.67 J	<1.00	<0.157
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.505	<0.685	<1.69	<0.525	<2.15	8.82 J	<5.00	<0.785
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	4.27 J	<1.00	<0.157
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	10.9	<1.00	<0.157
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	10.5	<1.00 UJ	<0.157
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	7.52	<0.137	<0.337	<0.105	<0.430	8.19	<1.00 UJ	<0.157
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	7.02	<1.00	<0.157
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.101	<0.137	<0.337	<0.105	<0.430	0.846 J	<1.00	<0.157
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.101	<0.137	<0.337	<0.105	<0.430	4.91 J	<1.00	<0.157
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.101	<0.137	<0.337	<0.105	<0.430	1.64 J	<1.00 UJ	<0.157
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.101	<0.137	<0.337	<0.105	<0.430	2.12 J	<1.00 UJ	<0.157
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	17.5	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.14 J	<1.00	<0.157
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.436 J	<1.00	<0.157
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.94 J	<1.00	<0.157
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.101	<0.137	<0.337	<0.105	<0.430	5.22	<1.00 UJ	<0.157
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.101	<0.137	<0.337	<0.105	<0.430	9.52 J+	<1.00 UJ	<0.157
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	2.53 J	<1.00	<0.157
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	2.59 J	<1.00	<0.157
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	37.7	<0.137	<0.337	<0.105	<0.430	3.66 J	<1.00	<0.157
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	40.3	<0.137	<0.337	<0.105	<0.430	3.81 J	<1.00	<0.157
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.202 UJ	<0.274 UJ	<0.674 UJ	<0.210 UJ	<0.860 UJ	2.46 J	<2.00 UJ	<0.314 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.202 UJ	<0.274 UJ	<0.674 UJ	<0.210 UJ	<0.860 UJ	3.53 J	<2.00 UJ	<0.314 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.101	<0.137 UJ	<0.337	<0.105	<0.430 UJ	0.481 J	<1.00 UJ	0.909 J
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.101	<0.137 UJ	<0.337	<0.105	<0.430 UJ	0.528 J	1.20 J	<0.157
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	0.520 J	<1.00	<0.157
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.01 UJ	<1.37 UJ	<3.37 UJ	<1.05 UJ	<4.30 UJ	<4.30 UJ	<10.0 UJ	<1.57 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	14.8	<1.00	<0.157
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	2.81 J	<1.00	<0.157
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<2.53 UJ	4.83 J	<8.43 UJ	<2.63 UJ	12.4 J	<10.7 UJ	<25.0 UJ	<3.93 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	0.373 J	<0.137	<0.337	<0.105	<0.430	6.06 J+	<1.00	<0.157
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.83 J	<1.00 UJ	<0.157
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	0.464 J	<1.00	<0.157
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.18 J	<1.00	<0.157
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.101	0.232 J	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.01 UJ	<1.37 UJ	<3.37 UJ	<1.05 UJ	<4.30 UJ	<4.30 UJ	<10.0 UJ	<1.57 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	6.76	<10.0	<0.157
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	3.08 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	4.60 J	<1.00	<0.157
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.101	<0.137	<0.337	<0.105	<0.430	1.06 J	<1.00	<0.157
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.101	<0.137	<0.337	<0.105	<0.430	2.16 J	<1.00 UJ	<0.157
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	77.0	<0.137	<0.337	<0.105	<0.430	18.5	<1.00 UJ	<0.157
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.101	0.241 J	<0.337	<0.105	<0.430	5.94 J+	<1.00	<0.157
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	1.61	<0.137	<0.337	<0.105	<0.430	1.73 J	<1.00 UJ	<0.157
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	0.683 J	<1.00	<0.157
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	0.930 J	<1.00 UJ	<0.157
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	4.66 J	<1.00 UJ	<0.157
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.757 J	<1.00	<0.157
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.26 J	<1.00 UJ	<0.157
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.922 J	<1.00	<0.157
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.21 J	<1.00	<0.157
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.101	<0.137	<0.337	<0.105	<0.430	0.565 J	<1.00 UJ	<0.157
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.53 UJ	<3.43 UJ	<8.43 UJ	<2.63 UJ	<10.7 UJ	<10.7 UJ	<25.0 UJ	<3.93 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<2.02 UJ	<2.74 UJ	<6.74 UJ	<2.10 UJ	<8.60 UJ	<8.60 UJ	<20.0 UJ	<3.14 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.101	<0.137	<0.337	<0.105	<0.430	1.39 J	<1.00	<0.157
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.101	<0.137	<0.337	<0.105	<0.430	1.81 J	<1.00	<0.157
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<20.2	78.8 J	<67.4	<21.0	<86.0	<86.0	<200 UJ	<31.4
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.101	<0.137	<0.337	<0.105	<0.430	2.98 J	<1.00 UJ	<0.157
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<20.2	<27.4	<67.4	<21.0	<86.0	<86.0	<200	<31.4
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	10.4 J	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	15.7	<0.137	<0.337	<0.105	<0.430	2.67 J	<1.00	<0.157
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	14.3	<0.137	<0.337	<0.105	<0.430	2.64 J	<1.00	<0.157
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	11.1	<0.137	<0.337	<0.105	<0.430	2.51	<1.00	<0.157
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	13.2 J	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	4.90	<0.137	<0.337	<0.105	<0.430	0.707 J	<1.00	<0.157
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	5.43	<0.137	<0.337	<0.105	<0.430	0.866 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.01	<1.37	<3.37	<1.05	<4.30	5.54 J	<10.0	<1.57
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	3.02	<0.137	<0.337	<0.105	<0.430	2.44 J	<1.00	<0.157
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.505	<0.685	<1.69	<0.525	<2.15	12.9 J	<5.00	<0.785
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	14.6	<1.00	<0.157
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	5.79 J+	<1.00 UJ	<0.157 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	6.35	<1.00 UJ	<0.157 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.544 J	<1.00	<0.157
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.510 J	<1.00	<0.157
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.58 J	<1.00	<0.157
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.64 J	<1.00	<0.157
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.13 J	<1.00	<0.157
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.47 J	<1.00	<0.157
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	8.45	<1.00	<0.157
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	8.69	<1.00	<0.157
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	3.38 J	<1.00 UJ	<0.157 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	3.38 J	<1.00 UJ	<0.157 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.14 J	<1.00	<0.157
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.32 J	<1.00	<0.157
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.555 J	<1.00	<0.157
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.78 J	<1.00 UJ	<0.157
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.57 J	<1.00	<0.157
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	3.48 J	<1.00 UJ	<0.157
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	3.82 J	<1.00 UJ	<0.157
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.71 J	<1.00	<0.157
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.95 J	<1.00	<0.157
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0 UJ	<7.85
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.21 J	<1.00	<0.157
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.28 J	<1.00	<0.157
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.92 J	<1.00	<0.157
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	1.86 J	<1.00	<0.157
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.23 J	<1.00	<0.157
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	2.51 J	<1.00	<0.157
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.639 J	<1.00 UJ	<0.157
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.01	<1.37	<3.37	<1.05	<4.30	<4.30	<10.0	<1.57
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.31 J	<1.00	<0.157
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100 UJ	<15.7
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	<2.15 UJ	<5.00 UJ	<0.785 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.654 J	<1.00	<0.157
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.698 J	<1.00	<0.157
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00 UJ	<0.785
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	25.3	<0.137	<0.337	<0.105	<0.430	1.96 J	<1.00 UJ	<0.157
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	31.1	<0.137	<0.337	<0.105	<0.430	2.77 J	<1.00	<0.157
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0 UJ	<3.14
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	11.4 J	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.52 J	<1.00	<0.157
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	4.69 J	<1.00	<0.157
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	4.62 J	<1.00	<0.157
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.37 J	<1.00	<0.157
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	<0.430 UJ	<1.00 UJ	<0.157 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.17 J	<1.00	<0.157
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.11 J	<1.00	<0.157
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.55 J	<1.00	<0.157
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	3.98 J	<1.00	<0.157
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	3.92 J	<1.00 UJ	<0.157
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	2.57	<0.137	<0.337	<0.105	<0.430	3.23 J	<1.00 UJ	<0.157
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	5.68 J-	<0.137	<0.337	<0.105	<0.430	2.10 J	<1.00	<0.157
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0 UJ	<3.14
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.01	<1.37	<3.37	<1.05	<4.30	5.02 J	<10.0	<1.57
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	0.543 J	<1.00	<0.157
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	0.508 J	<1.00	<0.157
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	0.439 J	<1.00	<0.157
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0 UJ	<3.14
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0	<3.14
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	1.22 J	<1.00	<0.157
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	2.99 J	<1.00	<0.157
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	3.47 J	<1.00	<0.157
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0 UJ	<3.93
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	3.09 J	<1.00 UJ	<0.157
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	2.25 J	<1.00	<0.157
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	2.09 J	<1.00	<0.157
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.101	<0.137	<0.337	<0.105	<0.430	2.68 J	<20.0	<0.157
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	2.01 J	<0.157
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.573 J	<1.00	<0.157
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	7.70 J	<5.00 UJ	<0.785 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.03 J	<1.00	<0.157
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.861 J	<1.00	<0.157
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.905 J	<1.00	<0.157
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.645 J	<1.00	<0.157
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.433 J	<1.00	<0.157
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	0.610 J	<1.00	<0.157
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	2.39 J	<1.00	<0.157
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	3.40 J	<1.00	<0.157
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	3.07 J	<1.00 UJ	<0.157
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	2.52 J	<1.00 UJ	<0.157
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.93 J	<1.00	<0.157
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.82 J	<1.00	<0.157
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.101	<0.137	<0.337	<0.105	<0.430	1.96 J	<25.0	<0.157
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	<2.15 UJ	<5.00 UJ	<0.785 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.101	<0.137	<0.337	<0.105	<0.430	0.531 J	<1.00	<0.157
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.101	<0.137	<0.337	<0.105	<0.430	0.964 J	<1.00	<0.157
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.101	<0.137	<0.337	<0.105	<0.430	1.20 J	<1.00	<0.157
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.101	<0.137	<0.337	<0.105	<0.430	0.964 J	<1.00	<0.157
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.505 UJ	<0.685 UJ	<1.69 UJ	<0.525 UJ	<2.15 UJ	<2.15 UJ	<5.00 UJ	<0.785 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.101	<0.137	<0.337	<0.105	<0.430	1.40 J	<1.00	<0.157
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.101	<0.137	<0.337	<0.105	<0.430	1.62 J	<1.00	<0.157
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.101	<0.137	<0.337	<0.105	<0.430	1.26 J	<1.00	<0.157
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.81 J	<1.00	<0.157
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<2.02	<2.74	<6.74	<2.10	<8.60	<8.60	<20.0 UJ	<3.14
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.08 J	<1.00	<0.157
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.10 J	<1.00 UJ	<0.157
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.101	0.321 J	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.202	<0.274	<0.674	<0.210	<0.860	<0.860	<2.00 UJ	<0.314
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.101	<0.137	<0.337	<0.105	<0.430	1.30 J	<1.00	<0.157
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.101	<0.137	<0.337	<0.105	<0.430	0.576 J	<20.0	<0.157
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.101	<0.137	<0.337	<0.105	<0.430	0.627 J	<1.00	<0.157
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<5.05	<6.85	<16.9	<5.25	<21.5	<21.5	<50.0	<7.85
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	5.10	<1.00	<0.157
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	5.03	<1.00	<0.157
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.963 J	<1.00	<0.157
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.963 J	<1.00	<0.157
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.813 J	<1.00	<0.157
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.932 J	<1.00	<0.157

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						Ethyl Tert-Butyl Ether (ETBE)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene	m,p-Xylene (Sum of Isomers)	Methylene Chloride	Naphthalene	n-Butylbenzene
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.873 J	<1.00 UJ	<0.157
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.919 J	<1.00 UJ	<0.157
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.718 J	<1.00	<0.157
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.101	<0.137	<0.337	<0.105	<0.430	0.655 J	<1.00	<0.157
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.101 UJ	<0.137 UJ	<0.337 UJ	<0.105 UJ	<0.430 UJ	0.573 J	<1.00 UJ	<0.157 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00 UJ	<0.157
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-SLMW	11/10/2022	N	EM03		-	<0.505	<0.685	<1.69	<0.525	<2.15	<2.15	<5.00	<0.785
U4-T3	10/13/2022	N	EM02		-	<0.101	<0.137	<0.337	<0.105	<0.430	0.687 J	<1.00 UJ	<0.157
U4-T3	11/3/2022	N	EM03		-	<0.101	<0.137	<0.337	<0.105	<0.430	0.879 J	<1.00	<0.157
U4-T3	12/6/2022	N	EM04		-	<2.02 UJ	<2.74 UJ	<6.74 UJ	<2.10 UJ	<8.60 UJ	<8.60 UJ	<20.0 UJ	<3.14 UJ
U4-T3	1/9/2023	N	EM05		-	<0.101	<0.137	<0.337	<0.105	<0.430	0.864 J	<1.00	<0.157
U4-T3	2/13/2023	N	EM06		-	<10.1	<13.7	<33.7	<10.5	<43.0	<43.0	<100	<15.7
U4-T3	3/13/2023	N	EM07		-	<2.53	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93
U4-T3	4/19/2023	N	EM08		-	<0.101	<0.137	<0.337	<0.105	<0.430	<0.430	<1.00	<0.157
U4-T3	5/18/2023	N	EM09		-	0.962 J	<0.137	<0.337	<0.105	<0.430	1.96 J	<1.00 UJ	<0.157
U4-T3	6/12/2023	N	EM10		-	<0.101	<0.137	<0.337	<0.105	<0.430	3.51 J	<50.0	<0.157
U4-T3	7/11/2023	N	EM11		-	<0.101	<0.137	<0.337	<0.105	<0.430	2.84 J	<1.00	<0.157
U4-T3	8/10/2023	N	EM12		-	<0.101	<0.137	<0.337	<0.105	<0.430	2.09 J	<1.00	<0.157
U4-T3	9/11/2023	N	EM13		-	13.0	<0.137	<0.337	<0.105	<0.430	2.71 J	<1.00	<0.157
U4-T3	10/16/2023	N	EM14		-	3.08 J	<3.43	<8.43	<2.63	<10.7	<10.7	<25.0	<3.93

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	12.5 J+	<0.101
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	7.40	<0.101
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<5.90	<0.195	<4.06	<0.101
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.497	<0.870	<0.600	<0.625	<0.590 UJ	<0.975	<20.3 UJ	<0.505
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.58	<0.101
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.05	<0.101
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.0993 UJ	<0.174 UJ	<0.120	<0.125 UJ	<0.118 R	<0.195	<4.06	<0.101
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	0.302 J	<4.06	<0.101
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.74	<0.101
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<1.99 UJ	<3.48 UJ	<2.40 UJ	<2.50 UJ	<2.36 UJ	<3.90 UJ	<81.2 UJ	<2.02 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.43 J	<0.101
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.71	<0.101
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.31 J	<0.101
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<0.993 UJ	<1.74 UJ	<1.20 UJ	<1.25 UJ	<1.18 UJ	<1.95 UJ	<40.6 UJ	<1.01 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	15.6 J+	<0.101
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	1,440	<5.05
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.41 J	<0.101
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	13.0	<0.101
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ	<4.88 UJ	<102 UJ	<2.53 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	26.7 J+	<0.101
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.12	<0.101
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ	<4.88 UJ	<102 UJ	<2.53 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	58.3 J+	<0.101
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.0993	0.220 J	<0.120	<0.125	<0.118	<0.195	12.7	<0.101
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	7.15	<0.101
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<0.993 UJ	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	38.4 J+	<0.101
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.42	<0.101
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	14.9	<0.101
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.93	<0.101
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<9.93	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<24.8	<43.5 UJ	<30.0	<31.3	<29.5	<48.8	<1,020	<25.3
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<11.8	<0.195	<4.06	<0.101
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<5.90 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<5.90	<0.195	<4.06	<0.101
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.74 J	<0.101
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.497 UJ	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.28 J	<0.101
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.59	<0.101
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<4.97 UJ	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	10.8	<0.101
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.34	<0.101
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<2.48	<4.35 UJ	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<9.93 UJ	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<4.97	<8.70 UJ	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75 UJ	<203	<5.05
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.95 J+	<0.101
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.04 J	<0.101
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.0993	0.181 J	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	8.05	<0.101
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.37	<0.101
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.48	<0.101
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06 UJ	<0.101
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.199 UJ	<0.348 UJ	<0.240 UJ	<0.250 UJ	<0.236 UJ	<0.390 UJ	<8.12 UJ	<0.202 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.199 UJ	<0.348 UJ	<0.240 UJ	<0.250 UJ	<0.236 UJ	<0.390 UJ	<8.12 UJ	<0.202 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	0.400 J	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	0.103 J	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<0.993 UJ	<1.74 UJ	<1.20 UJ	<1.25 UJ	<1.18 UJ	<1.95 UJ	<40.6 UJ	<1.01 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	5.03 J	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ	<4.88 UJ	<102 UJ	<2.53 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.0993	0.326 J	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<0.993 UJ	<1.74 UJ	<1.20 UJ	<1.25 UJ	<1.18 UJ	<1.95 UJ	<40.6 UJ	<1.01 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ	<4.88 UJ	<102 UJ	<2.53 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.48 UJ	<4.35 UJ	<3.00 UJ	<3.13 UJ	<2.95 UJ	<4.88 UJ	<102 UJ	<2.53 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<19.9 UJ	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<1.99 UJ	<3.48 UJ	<2.40 UJ	<2.50 UJ	<2.36 UJ	<3.90 UJ	<81.2 UJ	<2.02 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.22	<0.101
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<19.9	<34.8	<24.0	<25.0	<23.6	<39.0	<812	<20.2
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118 R	<0.195	<4.06	<0.101
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.0993 UJ	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.0993 UJ	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<5.90	<0.195	<4.06	<0.101
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<5.90	<0.195	<4.06	<0.101
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5 UJ	<406	<10.1
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ	<0.975 UJ	<20.3 UJ	<0.505 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<4.97	<8.70 UJ	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	5.31	<0.101
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.0993	<0.174 UJ	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	7.16	<0.101
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<0.993	<1.74	<1.20	<1.25	<1.18	<1.95	<40.6	<1.01
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195 UJ	<4.06	<0.101
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	0.202 J	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.13 J	<0.101
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ	<0.975 UJ	<20.3 UJ	<0.505 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ	<0.975 UJ	<20.3 UJ	<0.505 UJ
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ	<0.975 UJ	<20.3 UJ	<0.505 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.75	<0.101
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.497 UJ	<0.870 UJ	<0.600 UJ	<0.625 UJ	<0.590 UJ	<0.975 UJ	<20.3 UJ	<0.505 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118 UJ	<0.195	<4.06	<0.101
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.48 J	<0.101
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<1.99	<3.48	<2.40	<2.50	<2.36	<3.90	<81.2	<2.02
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.199	<0.348	<0.240	<0.250	<0.236	<0.390	<8.12	<0.202
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<4.97	<8.70	<6.00	<6.25	<5.90	<9.75	<203	<5.05
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	6.66 J+	<0.101
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	4.56 J	<0.101
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						n-Propylbenzene	o-Xylene	p-Cymene (p-Isopropyltoluene)	sec-Butylbenzene	Styrene	tert-Amyl Methyl Ether	tert-Butyl Alcohol	tert-Butyl Methyl Ether (MTBE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.0993 UJ	<0.174 UJ	<0.120 UJ	<0.125 UJ	<0.118 UJ	<0.195 UJ	<4.06 UJ	<0.101 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-SLMW	11/10/2022	N	EM03		-	<0.497	<0.870	<0.600	<0.625	<0.590	<0.975	<20.3	<0.505
U4-T3	10/13/2022	N	EM02		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	35.0 J+	<0.101
U4-T3	11/3/2022	N	EM03		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	12/6/2022	N	EM04		-	<1.99 UJ	<3.48 UJ	<2.40 UJ	<2.50 UJ	<2.36 UJ	<3.90 UJ	<81.2 UJ	<2.02 UJ
U4-T3	1/9/2023	N	EM05		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	2/13/2023	N	EM06		-	<9.93	<17.4	<12.0	<12.5	<11.8	<19.5	<406	<10.1
U4-T3	3/13/2023	N	EM07		-	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53
U4-T3	4/19/2023	N	EM08		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	5/18/2023	N	EM09		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	6/12/2023	N	EM10		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	7.68 J+	<0.101
U4-T3	7/11/2023	N	EM11		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	8/10/2023	N	EM12		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	9/11/2023	N	EM13		-	<0.0993	<0.174	<0.120	<0.125	<0.118	<0.195	<4.06	<0.101
U4-T3	10/16/2023	N	EM14		-	<2.48	<4.35	<3.00	<3.13	<2.95	<4.88	<102	<2.53

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.907 J	<0.160	<0.234
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.557 J	<0.160	<0.234
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.528 J	<0.160	<0.234
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.462 J	<0.160	<0.234
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.241 J	<0.160	<0.234
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.351 J	<0.160	<0.234
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.356 J	<0.160	<0.234
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.526 J	<0.160 UJ	<0.234
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.382 J	<0.160	<0.234
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.385 J	<0.160	<0.234
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.127	<0.300	0.538 J	<0.149	<0.118	<0.190	<0.160	<0.234
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.127	<0.300	0.292 J	<0.149	<0.118	<0.190	<0.160	<0.234
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.127	<0.300	0.471 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.127	<0.300	0.330 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.307 J	<0.160	<0.234
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.635	10.1	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.127	<0.300	0.910 J	<0.149	<0.118	<0.190	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.127	<0.300	0.644 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.260 J	<0.160	<0.234
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.127	<0.300	2.67	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.27	<3.00	6.65 J	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<1.27	4.11 J	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.127	<0.300	0.333 J	<0.149	<0.118	0.609 J	<0.160	<0.234
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.127	0.494 J	<0.278	<0.149	<0.118	0.753 J	<0.160	<0.234
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<2.54 UJ	<6.00 UJ	<5.56 UJ	<2.98 UJ	<2.36 UJ	<3.80 UJ	<3.20 UJ	<4.68 UJ
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.127	0.342 J	<0.278	<0.149	<0.118	0.602 J	<0.160	<0.234
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.384 J	<0.160	<0.234
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.127	0.379 J	<0.278	<0.149	<0.118	0.638 J	<0.160	<0.234
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.607 J	<0.160	<0.234
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.252 J	<0.160	<0.234
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.127	0.471 J	2.08	<0.149	<0.118	0.623 J	<0.160	<0.234
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.127	<0.300	0.341 J	<0.149	<0.118	0.460 J	<0.160	<0.234
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.127	<0.300	0.513 J	<0.149	<0.118	0.429 J	<0.160	<0.234
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.127	0.450 J	<0.278	<0.149	<0.118	0.514 J	<0.160	<0.234



**Table 4**  
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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.127	0.389 J	<0.278	<0.149	<0.118	0.394 J	<0.160	<0.234
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.27 UJ	<3.00 UJ	<2.78 UJ	<1.49 UJ	<1.18 UJ	<1.90 UJ	<1.60 UJ	<2.34 UJ
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.127	0.300 J	<0.278	<0.149	<0.118	0.429 J	<0.160	<0.234
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.629 J	<0.160	<0.234
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.512 J	<0.160	<0.234
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.127	<0.300	0.863 J	<0.149	<0.118	0.263 J	<0.160	<0.234
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.127	<0.300	10.4	<0.149	<0.118	0.193 J	<0.160	<0.234
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.127	<0.300	25.6	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<6.35	<15.0	19.8 J	<7.45	<5.90	<9.50	<8.00	<11.7
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<6.35	<15.0	14.5 J	<7.45	<5.90	<9.50	<8.00	<11.7
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.127	<0.300	3.53	<0.149	<0.118	0.745 J	<0.160	<0.234
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.127	<0.300	<0.278	<0.149	<0.118	0.259 J	<0.160	<0.234
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.127	0.397 J	<0.278	<0.149	<0.118	0.652 J	<0.160	<0.234
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.127	0.370 J	<0.278	<0.149	<0.118	0.819 J	<0.160	<0.234
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.127	0.394 J	<0.278	<0.149	<0.118	0.666 J	<0.160	<0.234
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.127	0.307 J	<0.278	<0.149	<0.118	0.512 J	<0.160	<0.234
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.127	0.479 J	<0.278	<0.149	<0.118	0.614 J	<0.160	<0.234
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.127	0.448 J	<0.278	<0.149	<0.118	0.837 J	<0.160	<0.234
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.127	<0.300	1.49	<0.149	<0.118	0.807 J	<0.160	<0.234
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.127	0.399 J	<0.278	<0.149	<0.118	1.13	<0.160	<0.234
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.706 J	<0.160	<0.234
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.522 J	<0.160	<0.234
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.575 J	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.127	<0.300	0.672 J	<0.149	<0.118	0.211 J	<0.160	<0.234
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	<0.127	<0.300	0.454 J	<0.149	<0.118	0.223 J	<0.160	<0.234
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.235 J	<0.160	<0.234
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.127	<0.300	<0.278	<0.149	<0.118	0.204 J	<0.160	<0.234
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.127	<0.300	<0.278	<0.149	<0.118	0.192 J	<0.160	<0.234
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.883 J	<0.160	<0.234
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.127	0.459 J	<0.278	<0.149	<0.118	1.23	<0.160	<0.234
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<6.35	<15.0	<13.9	<7.45	<5.90	<95.0	<8.00	<11.7
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	1.28	<0.160	<0.234
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	1.07	<0.160	<0.234
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.127	0.320 J	<0.278	<0.149	<0.118	1.30	<0.160	<0.234
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.635	<1.50	<1.39	<0.745	<0.590	1.21 J	<0.800	<1.17
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.767 J	<0.160	<0.234
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	1.02 J	<0.160	<0.234
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<31.8	<75.0	<69.5	<37.3	<29.5	<47.5	<40.0	<58.5
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.609 J	<0.160	<0.234
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	1.06	<0.160	<0.234
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.684 J	<0.160	<0.234
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.705 J	<0.160	<0.234
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.845 J	<0.160	<0.234
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.222 J	<0.160	<0.234
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.127	0.429 J	<0.278	<0.149	<0.118	0.414 J	<0.160	<0.234
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.247 J	<0.160	<0.234
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.223 J	<0.160	<0.234
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	0.432 J	<0.160 UJ	<0.234 UJ
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.587 J	<0.160	<0.234
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.127	0.904 J	16.2	<0.149	<0.118	0.768 J	<0.160	<0.234
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.127	0.739 J	16.5	<0.149	<0.118	0.841 J	<0.160	<0.234
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.127	0.421 J	13.9	<0.149	<0.118	0.665 J	<0.160	<0.234
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.127	0.437 J	13.3	<0.149	<0.118	0.711 J	<0.160	<0.234
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.127	0.469 J	13.2	<0.149	<0.118	0.514 J	<0.160	<0.234
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.127	0.715 J	18.2	<0.149	<0.118	0.713 J	<0.160	<0.234
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.208 J	<0.160	<0.234
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.635	<1.50	<13.9	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.204 J	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.127	<0.300	0.285 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.127	<0.300	0.798 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.190 J	<0.160	<0.234
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.246 J	<0.160	<0.234
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.225 J	<0.160	<0.234
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.805 J	<0.160	<0.234
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.127	<0.300	0.375 J	<0.149	<0.118	0.225 J	<0.160	<0.234
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.315 J	<0.160	<0.234
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.646 J	<0.160	<0.234
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.920 J	<0.160	<0.234
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.421 J	<0.160	<0.234
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.543 J	<0.160	0.238 J
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.492 J	<0.160	<0.234
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.241 J	<0.160	<0.234
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.216 J	<0.160	<0.234



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.127	<0.300	1.12 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.127	<0.300	1.17 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.500 J	<0.160	<0.234
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.127	0.354 J	<0.278	<0.149	<0.118	0.797 J	<0.160	<0.234
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.693 J	<0.160	<0.234
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.127	0.331 J	<0.278	<0.149	<0.118	0.592 J	<0.160	<0.234
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.127	<0.300	0.612 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.127	<0.300	1.08 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.127	<0.300	0.566 J	<0.149	<0.118	0.193	<0.160	<0.234
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.127	<0.300	0.820 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.524 J	<0.160	<0.234
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.127	<0.300	0.332 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.369 J	<0.160	<0.234
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.191 J	<0.160	<0.234
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	<0.127	<0.300	0.557 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.127	<0.300	0.576 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	0.288 J	<0.160	<0.234
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.127	<0.300	4.23	<0.149	<0.118	0.220 J	<0.160	<0.234
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.127	<0.300	12.0	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.127	<0.300	1.66 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.127	<0.300	0.315 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.127	<0.300	8.41	<0.149	<0.118	0.205 J	<0.160	<0.234
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.127	<0.300	1.30 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.127	2.63	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.670 J	<0.160	<0.234
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.127	<0.300	<0.278	<0.149	<0.118	0.584 J	<0.160	<0.234
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.127	<0.300	<0.278	<0.149	<0.118	1.09	<0.160	<0.234
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.127	<0.300	2.35 J+	<0.149	<0.118	0.565 J	<0.160	<0.234
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.127	<0.300	0.486 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.127	<0.300	0.531 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.904 J	<0.160	0.413 J
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.466 J	<0.160	<0.234
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.489 J	<0.160	<0.234
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.329 J	<0.160	<0.234
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.127	0.405 J	<0.278	<0.149	<0.118	0.649 J	<0.160	<0.234
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.127	0.362 J	0.421 J	<0.149	<0.118	0.699 J	<0.160	<0.234
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.127	<0.300	1.64 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.127	<0.300	1.60 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.127	<0.300	1.22 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.127	<0.300	1.24 J+	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.254 UJ	<0.600 UJ	1.50 J	<0.298 UJ	<0.236 UJ	<0.380 UJ	<0.320 UJ	<0.468 UJ
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.254 UJ	<0.600 UJ	1.80 J	<0.298 UJ	<0.236 UJ	<0.380 UJ	<0.320 UJ	<0.468 UJ
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.127	<0.300	0.504 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.127	<0.300	0.868 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	0.195 J	<0.160	<0.234
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.27 UJ	<3.00 UJ	<2.78 UJ	<1.49 UJ	<1.18 UJ	<1.90 UJ	<1.60 UJ	<2.34 UJ
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.127	<0.300	2.81	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.127	<0.300	3.30	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.27 UJ	<3.00 UJ	<2.78 UJ	<1.49 UJ	<1.18 UJ	<1.90 UJ	<1.60 UJ	<2.34 UJ
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.127	<0.300	3.17	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.127	<0.300	1.37	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.127	<0.300	1.26	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.127	<0.300	6.13	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.308 J	<0.160	<0.234
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.873 J	<0.160	<0.234
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<3.18 UJ	<7.50 UJ	<6.95 UJ	<3.73 UJ	<2.95 UJ	<4.75 UJ	<4.00 UJ	<5.85 UJ
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<2.54 UJ	<6.00 UJ	<5.56 UJ	<2.98 UJ	<2.36 UJ	<3.80 UJ	<3.20 UJ	<4.68 UJ
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.875 J	<0.160 UJ	<0.234
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.637 J	<0.160	<0.234
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<25.4	<60.0	<55.6	<29.8	<23.6	<38.0	<32.0	<46.8
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.474 J	<0.160	<0.234
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.325 J	<0.160	<0.234
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.127	<0.300	<0.278	<0.149	<0.118	0.286	<0.160	<0.234
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.194 J	<0.160	<0.234
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.27	95.7 J	3.30 J	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.127	1.82 J	<0.278	<0.149	<0.118	0.631 J	<0.160	<0.234
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.472 J	<0.160	<0.234
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.478 J	<0.160	<0.234
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.275 J	<0.160	<0.234
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.306 J	<0.160	<0.234
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.362 J	<0.160	<0.234
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.618 J	<0.160	<0.234
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.680 J	<0.160	<0.234
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.248 J	<0.160	<0.234
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.194 J	<0.160	<0.234
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.752 J	<0.160	<0.234
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.684 J	<0.160	<0.234
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.741 J	<0.160	<0.234
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4

**Table 4**  
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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<9.50	<0.160	<0.234
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.192 J	<0.160	<0.234
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.363 J	<0.160	<0.234
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.314 J	<0.160	<0.234
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	0.456 J	<0.160	<0.234
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.27	<3.00	<2.78	<1.49	<1.18	<1.90	<1.60	<2.34
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.291 J	<0.160	<0.234
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.127	<0.300	0.395 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.127	5.02	0.914 J	<0.149	<0.118	1.49	<0.160	<0.234
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118 UJ	<0.190	<0.160	<0.234
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	0.200 J	<0.160	<0.234
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.127	<0.300	<0.278	<0.149	<0.118	0.295 J	<0.160	<0.234
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.127	<0.300	0.400 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.127	<0.300	0.540 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.635 UJ	<1.50 UJ	<1.39 UJ	<0.745 UJ	<0.590 UJ	<0.950 UJ	<0.800 UJ	<1.17 UJ
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.127	<0.300	0.903 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.127	<0.300	0.750 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B	Volatile Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.215 J	<0.160	<0.234
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<2.54	<6.00	<5.56	<2.98	<2.36	<3.80	<3.20	<4.68
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.127	<0.300	61.9	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.254	<0.600	13.7	<0.298	<0.236	<0.380	<0.320	<0.468
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.127	<0.300	2.54	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.534 J	<0.160	<0.234
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.260 J	<0.160	<0.234
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.127	<0.300	<0.278	<0.149	<0.118	0.418 J	<0.160	<0.234
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<6.35	<15.0	<13.9	<7.45	<5.90	<9.50	<8.00	<11.7
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B	Volatiles Organic Compounds by SW8260B
						tert-Butylbenzene	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropane	Trichloroethene (TCE)	Trichlorofluoromethane	Vinyl Chloride
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.456 J	<0.160	<0.234
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.446 J	<0.160	<0.234
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.367 J	<0.160	<0.234
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.127	<0.300	<0.278	<0.149	<0.118	0.276 J	<0.160	<0.234
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.127 UJ	<0.300 UJ	<0.278 UJ	<0.149 UJ	<0.118 UJ	<0.190 UJ	<0.160 UJ	<0.234 UJ
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.127	<0.300	0.417 J	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.127	<0.300	10.2	<0.149	<0.118	<0.190	<0.160	<0.234
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.127	<0.300	7.85	<0.149	<0.118	<0.190	<0.160	<0.234
U4-SLMW	11/10/2022	N	EM03		-	<0.635	<1.50	<1.39	<0.745	<0.590	<0.950	<0.800	<1.17
U4-T3	10/13/2022	N	EM02		-	<0.127	<0.300	<0.278	<0.149	<0.118	0.525 J	<0.160	<0.234
U4-T3	11/3/2022	N	EM03		-	<0.127	0.440 J	<0.278	<0.149	<0.118	0.746 J	<0.160	<0.234
U4-T3	12/6/2022	N	EM04		-	<2.54 UJ	<6.00 UJ	<5.56 UJ	<2.98 UJ	<2.36 UJ	<3.80 UJ	<3.20 UJ	<4.68 UJ
U4-T3	1/9/2023	N	EM05		-	<0.127	0.353 J	<0.278	<0.149	<0.118	0.584 J	<0.160	<0.234
U4-T3	2/13/2023	N	EM06		-	<12.7	<30.0	<27.8	<14.9	<11.8	<19.0	<16.0	<23.4
U4-T3	3/13/2023	N	EM07		-	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85
U4-T3	4/19/2023	N	EM08		-	<0.127	<0.300	<0.278	<0.149	<0.118	0.210 J	<0.160	<0.234
U4-T3	5/18/2023	N	EM09		-	<0.127	<0.300	<0.278	<0.149	<0.118	0.339 J	<0.160	<0.234
U4-T3	6/12/2023	N	EM10		-	<0.127	<0.300	<0.278	<0.149	<0.118	0.289 J	<0.160	<0.234
U4-T3	7/11/2023	N	EM11		-	<0.127	<0.300	<0.278	<0.149	<0.118	0.385 J	<0.160	<0.234
U4-T3	8/10/2023	N	EM12		-	<0.127	<0.300	<0.278	<0.149	<0.118	<0.190	<0.160	<0.234
U4-T3	9/11/2023	N	EM13		-	<0.127	<0.300	1.83	<0.149	<0.118	<0.190	<0.160	<0.234
U4-T3	10/16/2023	N	EM14		-	<3.18	<7.50	<6.95	<3.73	<2.95	<4.75	<4.00	<5.85

Notes:  
 FD - Field duplicate  
 E - Field instrument error.  
 J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.  
 J- - The result is an estimated quantity, but the result may be biased low.  
 J+ - The result is an estimated quantity, but the result may be biased high.  
 N/A - Not Applicable  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter  
 N - Normal field sample  
 R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not  
 UMCf- Upper Muddy Creek Formation  
 < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.  
 -- Not tested.  
 M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.  
 U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----	----	----	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----	----	----	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	<1.74	----	----	----	----	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<8.70	<6.1 UJ	28 J	<5.8 UJ	630 J	<5.8 UJ	<5.6 UJ	<5.3 UJ
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	<8.70	----	----	----	----	----	----	----
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<0.174	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	29.2 J
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	<8.70	----	----	----	----	----	----	----
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.174	<0.061	75.8 J+	<0.058	<0.055	<0.058	<0.056	35.6 J+
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	<0.174	----	----	----	----	----	----	----
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	<8.70	----	----	----	----	----	----	----
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<8.70	<0.12	559	163	142	<0.24	<0.11	2,770
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	<0.174	----	----	----	----	----	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	<0.174	----	----	----	----	----	----	----
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	<0.174	----	----	----	----	----	----	----
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	<0.174	----	----	----	----	----	----	----
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	<0.174	----	----	----	----	----	----	----
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	<0.174	----	----	----	----	----	----	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	<0.174	----	----	----	----	----	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	<0.174	----	----	----	----	----	----	----
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	<0.174	----	----	----	----	----	----	----
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	<0.174	----	----	----	----	----	----	----
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	<0.174	----	----	----	----	----	----	----
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----	----	----	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----	----	----	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	<0.870	----	----	----	----	----	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	<0.174	----	----	----	----	----	----	----
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	<0.870	----	----	----	----	----	----	----
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	<0.870	----	----	----	----	----	----	----
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	<0.174	----	----	----	----	----	----	----

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 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	<1.74	----	----	----	----	----	----	----
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	<3.48	----	----	----	----	----	----	----
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	<1.74	----	----	----	----	----	----	----
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	<1.74	----	----	----	----	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	<0.174	----	----	----	----	----	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	<1.74	----	----	----	----	----	----	----
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	<1.74	----	----	----	----	----	----	----
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	<0.174	----	----	----	----	----	----	----
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	<4.35	----	----	----	----	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	<34.8	----	----	----	----	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	<3.48 UJ	----	----	----	----	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	<17.4	----	----	----	----	----	----	----
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	<17.4	----	----	----	----	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	<34.8	----	----	----	----	----	----	----
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	<0.870	----	----	----	----	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	<34.8	----	----	----	----	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	<8.70	----	----	----	----	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	<0.174 UJ	----	----	----	----	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	<0.174	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	<1.74 UJ	----	----	----	----	----	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	<17.4	----	----	----	----	----	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	<3.48	----	----	----	----	----	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	<3.48	----	----	----	----	----	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	<4.35	----	----	----	----	----	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	<0.870	----	----	----	----	----	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	<8.70	----	----	----	----	----	----	----
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	<0.174	----	----	----	----	----	----	----
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	<8.70	----	----	----	----	----	----	----
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	<8.70	----	----	----	----	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.174	----	----	----	----	----	----	----
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	<1.74	----	----	----	----	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	<4.35 UJ	----	----	----	----	----	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	<17.4	----	----	----	----	----	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	<17.4	----	----	----	----	----	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	<0.870	----	----	----	----	----	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	<17.4	----	----	----	----	----	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	<0.870	----	----	----	----	----	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	<17.4	----	----	----	----	----	----	----
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	<0.174	----	----	----	----	----	----	----
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	<34.8	----	----	----	----	----	----	----
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	<34.8	----	----	----	----	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	<0.174	----	----	----	----	----	----	----
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	<1.74	----	----	----	----	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	<0.174	----	----	----	----	----	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	<4.35 UJ	----	----	----	----	----	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	<0.174	----	----	----	----	----	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	<17.4	----	----	----	----	----	----	----
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	<17.4	----	----	----	----	----	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	<0.870	----	----	----	----	----	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	<17.4	----	----	----	----	----	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	<0.174	----	----	----	----	----	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	<0.174	----	----	----	----	----	----	----



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	<0.174	----	----	----	----	----	----	----
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	0.220 J	----	----	----	----	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	<0.174	----	----	----	----	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	<0.174	----	----	----	----	----	----	----
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	<0.174	----	----	----	----	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	<1.74	----	----	----	----	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	<0.174	----	----	----	----	----	----	----
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	<0.174	----	----	----	----	----	----	----
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	<0.174	----	----	----	----	----	----	----
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	<0.174	----	----	----	----	----	----	----
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	<0.174	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	<0.174	----	----	----	----	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	<0.174	----	----	----	----	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	<0.174	----	----	----	----	----	----	----
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	<0.174	----	----	----	----	----	----	----
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	<0.174	----	----	----	----	----	----	----
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	<0.870	----	----	----	----	----	----	----
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	<0.870	----	----	----	----	----	----	----
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	<0.174	----	----	----	----	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	<0.174	----	----	----	----	----	----	----
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	<0.174	----	----	----	----	----	----	----
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	<0.174	----	----	----	----	----	----	----
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	<8.70	----	----	----	----	----	----	----
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	<0.174	----	----	----	----	----	----	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	<0.174	----	----	----	----	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	<0.174	----	----	----	----	----	----	----
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	<0.174	----	----	----	----	----	----	----
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	<0.174	----	----	----	----	----	----	----
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	<0.174	----	----	----	----	----	----	----
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	<0.174	----	----	----	----	----	----	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	<8.70	----	----	----	----	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<17.4	<12 UJ	49 J	<12 UJ	1,200 J	<12 UJ	<11 UJ	<11 UJ
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	<0.870	----	----	----	----	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	<0.870	----	----	----	----	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<0.174	<12	34 J	<12	1,100 J+	<12	<11	<11
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	<43.5	----	----	----	----	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<0.174	<12.2	28.8 J	<11.5	<11.0	<11.5 UJ	<11.1 UJ	<10.6
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	<17.4	----	----	----	----	----	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<17.4	<0.061	30.0	<0.058	<0.055	<0.058	<0.056	37.1

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	<0.174	----	----	----	----	----	----	----
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.174	<0.12	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	<1.74	----	----	----	----	----	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	<1.74	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	<1.74	----	----	----	----	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	<1.74	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	<1.74	----	----	----	----	----	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	<1.74	----	----	----	----	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<34.8	<12 UJ	60 J	<12 UJ	1,200 J	<12 UJ	<11 UJ	<11 UJ
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<34.8	<12 UJ	61 J	<12 UJ	1,200 J	<12 UJ	<11 UJ	<11 UJ
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	<0.174	<1.2	200	48	94	<1.2	<1.1	8.0 J
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<0.174	<1.2	190	46	98	<1.2	<1.1	8.2 J
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<0.174	<3.0	122 J	75.4 J	<2.7	<2.9 UJ	<2.8 UJ	11.8 J
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<0.174	<60.9	213 J	91.0 J	<54.9	<57.6 UJ	<55.5 UJ	<53.0
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	<8.70	----	----	----	----	----	----	----
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	<8.70	----	----	----	----	----	----	----
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<8.70	<0.061	209	97.6	<0.055	<0.058	<0.056	156
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<8.70	<0.061	212	84.8	<0.055	<0.058	<0.056	162
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	<0.174	----	----	----	----	----	----	----
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.174	<0.12	166	<0.058	<0.11	<0.24	<0.11	109
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.174	<0.12	190	<0.058	<0.11	<0.24	<0.11	130
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	<0.174	----	----	----	----	----	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	<0.870	----	----	----	----	----	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	<3.48	----	----	----	----	----	----	----
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	<0.870	----	----	----	----	----	----	----
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	<0.174	----	----	----	----	----	----	----
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	<0.174	----	----	----	----	----	----	----
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	<0.174	----	----	----	----	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	<0.174	----	----	----	----	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	<0.174	----	----	----	----	----	----	----
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	<0.174	----	----	----	----	----	----	----
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	<0.174	----	----	----	----	----	----	----
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	<0.174	----	----	----	----	----	----	----
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	<0.174	----	----	----	----	----	----	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	<3.48	----	----	----	----	----	----	----
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	<4.35	----	----	----	----	----	----	----
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	<8.70	----	----	----	----	----	----	----
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	<8.70	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	<0.174	----	----	----	----	----	----	----
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	<0.174	----	----	----	----	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	<8.70	----	----	----	----	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	<0.174	----	----	----	----	----	----	----
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	<0.174	----	----	----	----	----	----	----
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	<0.174	----	----	----	----	----	----	----
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	<0.174	----	----	----	----	----	----	----
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	<8.70	----	----	----	----	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.870	----	----	----	----	----	----	----
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<34.8	----	----	----	----	----	----	----
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	<17.4	----	----	----	----	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	<17.4	----	----	----	----	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<17.4	<6.1	28 J	<5.8	620 J+	<5.8	<5.6	<5.3
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.174	<3.0	150	24 J	280	<2.9	<2.8	16 J
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	<4.35	----	----	----	----	----	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<4.35	<3.0	111	21.9 J	<2.7	<2.9 UJ	<2.8 UJ	12.0 J
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<4.35	----	----	----	----	----	----	----
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	<4.35	----	----	----	----	----	----	----
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	<4.35	<0.061	575	417	124	3.8	<0.056	1,250
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<4.35	<0.12	415	213	<0.11	<0.24	<0.11	378
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	<17.4	----	----	----	----	----	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	<17.4	----	----	----	----	----	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<17.4	<3.0	14 J	<2.9	290	2.9 J	<2.8	11 J
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	<0.174	<6.1	460	170	120	<5.8	<5.6	15 J
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	<8.70	----	----	----	----	----	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<0.174	<30.4	145 J	<28.8	<27.4	<28.8 UJ	<27.8 UJ	32.9 J
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	<8.70	----	----	----	----	----	----	----
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	<8.70	----	----	----	----	----	----	----
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.174	<0.061	264	87.8	<0.055	<0.058	<0.056	154 J+
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	<0.174	----	----	----	----	----	----	----
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.174	<0.12	77.8	<0.058	<0.11	<0.24	<0.11	58.5
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<8.70	----	----	----	----	----	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	<8.70	----	----	----	----	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	<0.174	----	----	----	----	----	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	<0.174	----	----	----	----	----	----	----
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	<0.174	----	----	----	----	----	----	----
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	<8.70	----	----	----	----	----	----	----
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	<0.174	----	----	----	----	----	----	----
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	<17.4	----	----	----	----	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	0.181 J	----	----	----	----	----	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----



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Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.174	<0.61	2.8 J	<0.58	61 J+	<0.58	<0.56	<0.53
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<0.174 UJ	<12	370 J+	150	120 J+	<12	<11	19 J
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<0.174	<30.4	174 J	54.0 J	<27.4	<28.8 UJ	<27.8 UJ	43.0 J
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	<17.4	----	----	----	----	----	----	----
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	<17.4	----	----	----	----	----	----	----
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.174	<0.061	378	267	39.0	<0.058	<0.056	913
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	<0.174	----	----	----	----	----	----	----
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	<4.35	----	----	----	----	----	----	----
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	<4.35	<0.12	844	674	<0.11	<0.24	<0.11	2,660
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.870	<0.61	3.0 J	<0.58	66 J+	<0.58	<0.56	<0.53
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.870	<3.0	260	7.8 J	220	6.6 J	<2.8	12 J
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<0.174	<30.4	330	207 J	<27.4	<28.8 UJ	<27.8 UJ	38.4 J
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	<8.70	----	----	----	----	----	----	----
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<8.70	----	----	----	----	----	----	----
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	<0.174	<0.061	287	186	8.9	<0.058	<0.056	514 J
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<8.70	----	----	----	----	----	----	----
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<8.70	<0.12	422	211	<0.11	<0.24	<0.11	994
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	<0.174	----	----	----	----	----	----	----
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	<0.174	----	----	----	----	----	----	----
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	<17.4	----	----	----	----	----	----	----
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	<0.174	----	----	----	----	----	----	----
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	<0.174	----	----	----	----	----	----	----
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	<0.174	----	----	----	----	----	----	----
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	<34.8	----	----	----	----	----	----	----
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	<0.174	----	----	----	----	----	----	----
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	<0.174	----	----	----	----	----	----	----
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	<0.174	----	----	----	----	----	----	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	<8.70	----	----	----	----	----	----	----
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	<0.174	----	----	----	----	----	----	----
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	<0.174	----	----	----	----	----	----	----
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	<0.174	----	----	----	----	----	----	----
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	<17.4	----	----	----	----	----	----	----
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	<0.174	----	----	----	----	----	----	----
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	<0.348 UJ	----	----	----	----	----	----	----
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	<0.348 UJ	----	----	----	----	----	----	----
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	<1.74 UJ	----	----	----	----	----	----	----
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	<1.74	----	----	----	----	----	----	----
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	12.4 J	----	----	----	----	----	----	----
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	<0.174	----	----	----	----	----	----	----
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	0.326 J	----	----	----	----	----	----	----
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	<1.74 UJ	----	----	----	----	----	----	----
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<1.74	----	----	----	----	----	----	----
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	<4.35 UJ	----	----	----	----	----	----	----
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	<0.174	----	----	----	----	----	----	----
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	<0.174	----	----	----	----	----	----	----
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	<0.174	----	----	----	----	----	----	----
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	<0.174	----	----	----	----	----	----	----
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	<0.174	----	----	----	----	----	----	----
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	<0.174	----	----	----	----	----	----	----
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	<0.174	----	----	----	----	----	----	----
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<0.174	<6.1	25 J	<5.8	460	<5.8	<5.6	<5.3
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	<8.70	----	----	----	----	----	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	<1.74	----	----	----	----	----	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	<8.70	----	----	----	----	----	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<4.35 UJ	<3.0	27 J+	4.1 J	320 J+	<2.9	<2.8	6.7 J
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	<34.8	----	----	----	----	----	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	<34.8	----	----	----	----	----	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<34.8	<12	<25	<12	670 J+	<12	<11	<11
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	<0.870	----	----	----	----	----	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	<3.48 UJ	----	----	----	----	----	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<0.174	<12	36 J	<12	1,100	<12	<11	<11
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	<0.174	----	----	----	----	----	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	<34.8	----	----	----	----	----	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<0.174	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	<26.5
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	<34.8	----	----	----	----	----	----	----
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	<8.70	----	----	----	----	----	----	----
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.174	<0.061	118	54.6	<0.055	<0.058	<0.056	43.7
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	<0.174	----	----	----	----	----	----	----
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	<0.174	----	----	----	----	----	----	----
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<17.4	<0.12	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<0.174	<1.2	3.6 J	<1.2	91	<1.2	<1.1	<1.1
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	<1.74	----	----	----	----	----	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	<0.870	----	----	----	----	----	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<0.174 UJ	<6.1 UJ	480 J-	11 J	21 J	<5.8 UJ	<5.6 UJ	8.7 J
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<0.174 UJ	<6.1 UJ	490 J-	15 J	53 J	<5.8 UJ	<5.6 UJ	10 J
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<0.174	<3.0	270	<2.9	59 J+	<2.9	<2.8	4.4 J
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<0.174	<3.0	290	<2.9	58 J+	<2.9	<2.8	3.7 J
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.174	1.3 J	90	<0.58	63	0.63 J	<0.56	7.6
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.174	0.96 J	95	<0.58	61	<0.58	<0.56	7.8
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<0.174	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	30.1 J
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<0.174	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	44.6 J
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	<8.70	----	----	----	----	----	----	----
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	<8.70	----	----	----	----	----	----	----
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.174	<0.061	<0.12	<0.058	<0.055	<0.058	<0.056	28.3
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.174	<0.061	<0.12	<0.058	<0.055	<0.058	<0.056	28.0
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	<8.70	----	----	----	----	----	----	----
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	<8.70	----	----	----	----	----	----	----
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.174	<0.12	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.174	<0.12	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<0.174	<6.1	26 J	<5.8	460	<5.8	43 J	<5.3
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	<3.48	----	----	----	----	----	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	<1.74	----	----	----	----	----	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<0.174	<6.1 R	49 J	<5.8 R	<5.5 R	6.9 J	<5.6 R	9.4 J
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	<17.4	----	----	----	----	----	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	<17.4	----	----	----	----	----	----	----
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<8.70	<6.1	65	<5.8	260	<5.8	<5.6	<5.3
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	<0.870 UJ	----	----	----	----	----	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	<17.4	----	----	----	----	----	----	----



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<0.174	<12	28 J	<12	1,200	<12	<11	<11
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	<8.70	----	----	----	----	----	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<8.70	<3.0	10.9 J	<2.9	<2.7	<2.9 UJ	<2.8 UJ	6.1 J
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	<0.870	----	----	----	----	----	----	----
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	<0.870	----	----	----	----	----	----	----
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.174	<0.061	252	93.6	<0.055	3.8	<0.056	32.2 J+
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	<0.174	----	----	----	----	----	----	----
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	<3.48	----	----	----	----	----	----	----
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<3.48	<0.12	317	64.2	<0.11	56.1	<0.11	<0.12
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<0.174	<6.1	<12	<5.8	240	<5.8	<5.6	<5.3
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<0.174	<6.1	<12	<5.8	220	<5.8	<5.6	<5.3
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<0.174	<1.2 R	170 J-	<1.2 R	110 J-	2.1 J	<1.1 R	6.9 J
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<0.174	<6.1	590	26 J	54	<5.8	<5.6	15 J
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<0.174	<3.0	170	<2.9	290	<2.9	<2.8	<2.7
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.174	<1.2	3.5 J	<1.2	<1.1	<1.2 UJ	<1.1 UJ	10.6
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.174	<0.061	<0.12	<0.058	<0.055	<0.058	<0.056	17.9 J+
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	<3.48	----	----	----	----	----	----	----
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<3.48	<0.12 UJ	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<0.174	<12	27 J	<12	490	<12	<11	<11
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	<1.74	----	----	----	----	----	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<0.174	<3.0 R	18 J	<2.9 R	<2.7 R	<2.9 R	<2.8 R	6.6 J
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	<3.48	----	----	----	----	----	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<3.48	<1.2 UJ	5.2 J	<1.2 UJ	130 J	<1.2 UJ	<1.1 UJ	<1.1 UJ
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	<3.48	----	----	----	----	----	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<0.174	<1.2	5.7 J	<1.2	120	<1.2	<1.1	5.2 J
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<4.35	<3.0	7.4 J	<2.9	<2.7	<2.9 UJ	<2.8 UJ	4.9 J

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	<4.35	----	----	----	----	----	----	----
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	<4.35	----	----	----	----	----	----	----
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.174	<0.061	<0.12	<0.058	<0.055	<0.058	<0.056	18.1 J+
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	<0.174	----	----	----	----	----	----	----
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.174	<0.12	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<0.174	<3.0	17 J	<2.9	240	<2.9	<2.8	21 J
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<0.870 UJ	<1.2	68	<1.2	130 J+	<1.2	<1.1	7.3 J
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	<0.870	----	----	----	----	----	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.174	<0.61	56	<0.58	58 J+	<0.58	<0.56	<0.53
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.174	<0.61	4.2 J	<0.58	58	<0.58	<0.56	12
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<4.35	<30.4	<61.6	<28.8	<27.4	<28.8 UJ	<27.8 UJ	<26.5
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.174	<0.061	<0.12	<0.058	<0.055	<0.058	<0.056	20.1 J+
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	<0.174	----	----	----	----	----	----	----
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.174	<0.12	<0.12	<0.058	<0.11	<0.24	<0.11	<0.12
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	<0.174	----	----	----	----	----	----	----
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	<0.870 UJ	----	----	----	----	----	----	----
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	<0.870	----	----	----	----	----	----	----
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	<0.174	----	----	----	----	----	----	----
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	<0.174	----	----	----	----	----	----	----
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	<0.174	----	----	----	----	----	----	----
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	<0.174	----	----	----	----	----	----	----
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	<0.174	----	----	----	----	----	----	----
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	<0.870 UJ	----	----	----	----	----	----	----
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	<0.870	----	----	----	----	----	----	----
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	<0.174	----	----	----	----	----	----	----
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	<0.174	----	----	----	----	----	----	----
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	<0.174	----	----	----	----	----	----	----
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	<0.174	----	----	----	----	----	----	----
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	<0.174	----	----	----	----	----	----	----
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	<3.48	----	----	----	----	----	----	----
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.174	----	----	----	----	----	----	----
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<8.70	----	----	----	----	----	----	----
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	<4.35	----	----	----	----	----	----	----
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.348	----	----	----	----	----	----	----
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	<0.174	----	----	----	----	----	----	----
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	<8.70	----	----	----	----	----	----	----
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	<0.174	----	----	----	----	----	----	----
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Organic Compounds by SW8260B	Volatile Fatty Acids by AM20GAX/AM23 G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Xylenes, Total	3-Methylbutanoic Acid	Acetic Acid	Butyric Acid	Formic Acid	Hexanoic Acid	i-Hexanoic Acid	Lactic Acid
						µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	<0.174	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	<0.174 UJ	----	----	----	----	----	----	----
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	<0.174	----	----	----	----	----	----	----
U4-SLMW	11/10/2022	N	EM03		-	<0.870	----	----	----	----	----	----	----
U4-T3	10/13/2022	N	EM02		-	<0.174	----	----	----	----	----	----	----
U4-T3	11/3/2022	N	EM03		-	<0.174	----	----	----	----	----	----	----
U4-T3	12/6/2022	N	EM04		-	<3.48 UJ	----	----	----	----	----	----	----
U4-T3	1/9/2023	N	EM05		-	<0.174	----	----	----	----	----	----	----
U4-T3	2/13/2023	N	EM06		-	<17.4	----	----	----	----	----	----	----
U4-T3	3/13/2023	N	EM07		-	<4.35	----	----	----	----	----	----	----
U4-T3	4/19/2023	N	EM08		-	<0.174	----	----	----	----	----	----	----
U4-T3	5/18/2023	N	EM09		-	<0.174	----	----	----	----	----	----	----
U4-T3	6/12/2023	N	EM10		-	<0.174	----	----	----	----	----	----	----
U4-T3	7/11/2023	N	EM11		-	<0.174	----	----	----	----	----	----	----
U4-T3	8/10/2023	N	EM12		-	<0.174	----	----	----	----	----	----	----
U4-T3	9/11/2023	N	EM13		-	<0.174	----	----	----	----	----	----	----
U4-T3	10/16/2023	N	EM14		-	<4.35	----	----	----	----	----	----	----

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
M-247-100	4/20/2022	N	BL02	UMCf	100.5 - 110.5	----	----	----
M-249-100	4/20/2022	N	BL02	UMCf	99.6 - 109.6	----	----	----
M-251-100	4/19/2022	N	BL02	UMCf	92.5 - 102.5	----	----	----
M-251-100	10/13/2022	N	EM02	UMCf	92.5 - 102.5	----	----	----
M-251-100	11/2/2022	N	EM03	UMCf	92.5 - 102.5	----	----	----
M-251-100	12/8/2022	N	EM04	UMCf	92.5 - 102.5	----	----	----
M-251-100	1/11/2023	N	EM05	UMCf	92.5 - 102.5	----	----	----
M-251-100	2/13/2023	N	EM06	UMCf	92.5 - 102.5	----	----	----
M-251-100	3/17/2023	N	EM07	UMCf	92.5 - 102.5	<5.6 UJ	5.6 J	<6.0 UJ
M-251-100	4/21/2023	N	EM08	UMCf	92.5 - 102.5	----	----	----
M-251-100	5/9/2023	N	EM09	UMCf	92.5 - 102.5	----	----	----
M-251-100	6/14/2023	N	EM10	UMCf	92.5 - 102.5	----	----	----
M-251-100	7/14/2023	N	EM11	UMCf	92.5 - 102.5	----	----	----
M-251-100	8/10/2023	N	EM12	UMCf	92.5 - 102.5	----	----	----
M-251-100	9/14/2023	N	EM13	UMCf	92.5 - 102.5	<27.8 UJ	<26.5	<29.9
M-251-100	10/19/2023	N	EM14	UMCf	92.5 - 102.5	----	----	----
M-251-100	11/16/2023	N	EM15	UMCf	92.5 - 102.5	----	----	----
M-251-100	12/12/2023	N	EM16	UMCf	92.5 - 102.5	<0.056	19.5	<0.060
M-251-100	1/25/2024	N	EM17	UMCf	92.5 - 102.5	----	----	----
M-251-100	2/13/2024	N	EM18	UMCf	92.5 - 102.5	----	----	----
M-251-100	3/11/2024	N	EM19	UMCf	92.5 - 102.5	<0.17	350	<0.12
M-251-60	4/18/2022	N	BL02	UMCf	52.3 - 62.3	----	----	----
M-251-60	3/15/2023	N	EM07	UMCf	52.3 - 62.3	----	----	----
M-251-60	6/14/2023	N	EM10	UMCf	52.3 - 62.3	----	----	----
M-251-60	9/14/2023	N	EM13	UMCf	52.3 - 62.3	----	----	----
M-251-60	12/11/2023	N	EM16	UMCf	52.3 - 62.3	----	----	----
M-251-60	3/12/2024	N	EM19	UMCf	52.3 - 62.3	----	----	----
M-252	4/21/2022	N	BL02	UMCf	132.3 - 142.3	----	----	----
M-252	3/15/2023	N	EM07	UMCf	132.3 - 142.3	----	----	----
M-252	9/19/2023	N	EM13	UMCf	132.3 - 142.3	----	----	----
M-252	12/18/2023	N	EM16	UMCf	132.3 - 142.3	----	----	----
M-252	3/12/2024	N	EM19	UMCf	132.3 - 142.3	----	----	----
M-253-100	4/20/2022	N	BL02	UMCf	100.8 - 110.8	----	----	----
M-255-100	4/20/2022	N	BL02	UMCf	100.2 - 110.2	----	----	----
U4-E-01D	4/18/2022	N	BL02	UMCf	94.7 - 109.7	----	----	----
U4-E-01D	3/14/2023	N	EM07	UMCf	94.7 - 109.7	----	----	----
U4-E-011	4/19/2022	N	BL02	UMCf	74.6 - 89.6	----	----	----
U4-E-011	4/19/2022	FD	BL02	UMCf	74.6 - 89.6	----	----	----
U4-E-011	3/14/2023	N	EM07	UMCf	74.6 - 89.6	----	----	----
U4-E-011	4/20/2023	N	EM08	UMCf	74.6 - 89.6	----	----	----
U4-E-011	5/10/2023	N	EM09	UMCf	74.6 - 89.6	----	----	----
U4-E-011	6/12/2023	N	EM10	UMCf	74.6 - 89.6	----	----	----
U4-E-011	7/11/2023	N	EM11	UMCf	74.6 - 89.6	----	----	----
U4-E-011	8/10/2023	N	EM12	UMCf	74.6 - 89.6	----	----	----
U4-E-011	9/11/2023	N	EM13	UMCf	74.6 - 89.6	----	----	----
U4-E-011	10/16/2023	N	EM14	UMCf	74.6 - 89.6	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-E-01I	12/13/2023	N	EM16	UMCf	74.6 - 89.6	----	----	----
U4-E-01I	1/24/2024	N	EM17	UMCf	74.6 - 89.6	----	----	----
U4-E-01I	2/14/2024	N	EM18	UMCf	74.6 - 89.6	----	----	----
U4-E-01I	3/12/2024	N	EM19	UMCf	74.6 - 89.6	----	----	----
U4-E-02D	4/20/2022	N	BL02	UMCf	94.4 - 109.4	----	----	----
U4-E-02D	3/14/2023	N	EM07	UMCf	94.4 - 109.4	----	----	----
U4-E-02I	4/18/2022	N	BL02	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	3/14/2023	N	EM07	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	4/20/2023	N	EM08	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	5/11/2023	N	EM09	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	6/12/2023	N	EM10	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	7/11/2023	N	EM11	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	8/10/2023	N	EM12	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	9/11/2023	N	EM13	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	10/16/2023	N	EM14	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	12/14/2023	N	EM16	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	1/22/2024	N	EM17	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	2/13/2024	N	EM18	UMCf	74.4 - 89.4	----	----	----
U4-E-02I	3/13/2024	N	EM19	UMCf	74.4 - 89.4	----	----	----
U4-E-03D	4/19/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	10/13/2022	N	EM02	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	11/3/2022	N	EM03	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	12/6/2022	N	EM04	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	1/9/2023	N	EM05	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	2/13/2023	N	EM06	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	3/13/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	3/14/2023	N	EM07	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	4/19/2023	N	EM08	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	5/11/2023	N	EM09	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	6/12/2023	N	EM10	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	7/11/2023	N	EM11	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	8/10/2023	N	EM12	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	9/11/2023	N	EM13	UMCf	95.1 - 110.1	----	----	----
U4-E-03D	10/16/2023	N	EM14	UMCf	95.1 - 110.1	----	----	----
U4-E-04D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----
U4-E-04D	3/14/2023	N	EM07	UMCf	95.0 - 110.0	----	----	----
U4-E-04I	4/18/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----
U4-E-04I	3/14/2023	N	EM07	UMCf	75.0 - 90.0	----	----	----
U4-E-05D	4/19/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----
U4-E-05D	3/16/2023	N	EM07	UMCf	95.0 - 110.0	----	----	----
U4-E-05I	4/19/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----
U4-E-05I	3/15/2023	N	EM07	UMCf	75.0 - 90.0	----	----	----
U4-E-06D	4/11/2022	N	BL02	UMCf	95.1 - 110.1	----	----	----
U4-E-06I	4/11/2022	N	BL02	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	4/11/2022	FD	BL02	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	10/12/2022	N	EM02	UMCf	73.2 - 88.2	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-E-06I	11/3/2022	N	EM03	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	12/6/2022	N	EM04	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	1/9/2023	N	EM05	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	2/13/2023	N	EM06	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	3/13/2023	N	EM07	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	4/17/2023	N	EM08	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	5/15/2023	N	EM09	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	6/12/2023	N	EM10	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	7/11/2023	N	EM11	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	8/11/2023	N	EM12	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	9/11/2023	N	EM13	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	10/16/2023	N	EM14	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	12/13/2023	N	EM16	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	1/22/2024	N	EM17	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	2/13/2024	N	EM18	UMCf	73.2 - 88.2	----	----	----
U4-E-06I	3/11/2024	N	EM19	UMCf	73.2 - 88.2	----	----	----
U4-E-07D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	----	----	----
U4-E-07I	4/12/2022	N	BL02	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	10/11/2022	N	EM02	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	11/3/2022	N	EM03	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	12/6/2022	N	EM04	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	1/9/2023	N	EM05	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	2/13/2023	N	EM06	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	3/13/2023	N	EM07	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	4/19/2023	N	EM08	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	5/15/2023	N	EM09	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	6/12/2023	N	EM10	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	7/11/2023	N	EM11	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	8/11/2023	N	EM12	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	9/11/2023	N	EM13	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	10/16/2023	N	EM14	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	12/13/2023	N	EM16	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	1/23/2024	N	EM17	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	2/13/2024	N	EM18	UMCf	74.7 - 89.7	----	----	----
U4-E-07I	3/11/2024	N	EM19	UMCf	74.7 - 89.7	----	----	----
U4-E-08D	4/12/2022	N	BL02	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	10/11/2022	N	EM02	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	11/3/2022	N	EM03	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	12/6/2022	N	EM04	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	1/9/2023	N	EM05	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	2/13/2023	N	EM06	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	3/13/2023	N	EM07	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	4/19/2023	N	EM08	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	5/17/2023	N	EM09	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	6/12/2023	N	EM10	UMCf	94.6 - 109.6	----	----	----
U4-E-08D	7/11/2023	N	EM11	UMCf	94.6 - 109.6	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-E-09D	4/15/2022	N	BL02	UMCf	94.5 - 109.5	----	----	----
U4-E-09I	4/14/2022	N	BL02	UMCf	74.9 - 89.9	----	----	----
U4-E-10D	4/13/2022	N	BL02	UMCf	94.5 - 109.5	----	----	----
U4-E-10I	4/13/2022	N	BL02	UMCf	74.2 - 89.2	----	----	----
U4-MW-01D	4/19/2022	N	BL02	UMCf	96.7 - 106.7	----	----	----
U4-MW-01D	2/16/2023	N	EM06	UMCf	96.7 - 106.7	----	----	----
U4-MW-01D	3/20/2023	N	EM07	UMCf	96.7 - 106.7	----	----	----
U4-MW-01D	6/13/2023	N	EM10	UMCf	96.7 - 106.7	----	----	----
U4-MW-01D	9/14/2023	N	EM13	UMCf	96.7 - 106.7	----	----	----
U4-MW-01D	12/14/2023	N	EM16	UMCf	96.7 - 106.7	----	----	----
U4-MW-01D	3/13/2024	N	EM19	UMCf	96.7 - 106.7	----	----	----
U4-MW-01DD	4/19/2022	N	BL02	UMCf	119.9 - 129.9	----	----	----
U4-MW-01DD	4/19/2022	FD	BL02	UMCf	119.9 - 129.9	----	----	----
U4-MW-01DD	3/15/2023	N	EM07	UMCf	119.9 - 129.9	----	----	----
U4-MW-01DD	6/13/2023	N	EM10	UMCf	119.9 - 129.9	----	----	----
U4-MW-01DD	9/14/2023	N	EM13	UMCf	119.9 - 129.9	----	----	----
U4-MW-01DD	12/15/2023	N	EM16	UMCf	119.9 - 129.9	----	----	----
U4-MW-01DD	3/12/2024	N	EM19	UMCf	119.9 - 129.9	----	----	----
U4-MW-01I	4/19/2022	N	BL02	UMCf	76.7 - 86.7	----	----	----
U4-MW-01I	3/20/2023	N	EM07	UMCf	76.7 - 86.7	----	----	----
U4-MW-01I	6/12/2023	N	EM10	UMCf	76.7 - 86.7	----	----	----
U4-MW-01I	9/14/2023	N	EM13	UMCf	76.7 - 86.7	----	----	----
U4-MW-01I	12/15/2023	N	EM16	UMCf	76.7 - 86.7	----	----	----
U4-MW-01I	3/13/2024	N	EM19	UMCf	76.7 - 86.7	----	----	----
U4-MW-01S	4/18/2022	N	BL02	UMCf	54.7 - 64.7	----	----	----
U4-MW-01S	3/15/2023	N	EM07	UMCf	54.7 - 64.7	----	----	----
U4-MW-01S	6/13/2023	N	EM10	UMCf	54.7 - 64.7	----	----	----
U4-MW-01S	9/15/2023	N	EM13	UMCf	54.7 - 64.7	----	----	----
U4-MW-01S	12/13/2023	N	EM16	UMCf	54.7 - 64.7	----	----	----
U4-MW-01S	3/13/2024	N	EM19	UMCf	54.7 - 64.7	----	----	----
U4-MW-02D	4/14/2022	N	BL02	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	10/11/2022	N	EM02	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	11/1/2022	N	EM03	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	12/7/2022	N	EM04	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	1/10/2023	N	EM05	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	2/13/2023	N	EM06	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	3/17/2023	N	EM07	UMCf	95.0 - 110.0	<11 UJ	<11 UJ	<12 UJ
U4-MW-02D	4/19/2023	N	EM08	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	5/9/2023	N	EM09	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	6/13/2023	N	EM10	UMCf	95.0 - 110.0	<11	12 J	<12
U4-MW-02D	7/18/2023	N	EM11	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	8/14/2023	N	EM12	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	9/11/2023	N	EM13	UMCf	95.0 - 110.0	<11.1 UJ	<10.6	<12.0
U4-MW-02D	10/19/2023	N	EM14	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	11/15/2023	N	EM15	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	12/14/2023	N	EM16	UMCf	95.0 - 110.0	<0.056	<0.053	<0.060



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-02D	1/25/2024	N	EM17	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	2/12/2024	N	EM18	UMCf	95.0 - 110.0	----	----	----
U4-MW-02D	3/13/2024	N	EM19	UMCf	95.0 - 110.0	<0.17	<0.053	<0.12
U4-MW-02I	4/14/2022	N	BL02	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	10/11/2022	N	EM02	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	11/2/2022	N	EM03	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	11/2/2022	FD	EM03	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	12/8/2022	N	EM04	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	12/8/2022	FD	EM04	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	1/13/2023	N	EM05	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	1/13/2023	FD	EM05	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	2/15/2023	N	EM06	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	2/15/2023	FD	EM06	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	3/17/2023	N	EM07	UMCf	75.0 - 90.0	<11 UJ	18 J	<12 UJ
U4-MW-02I	3/17/2023	FD	EM07	UMCf	75.0 - 90.0	<11 UJ	17 J	<12 UJ
U4-MW-02I	4/20/2023	N	EM08	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	4/20/2023	FD	EM08	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	5/9/2023	N	EM09	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	5/9/2023	FD	EM09	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	6/12/2023	N	EM10	UMCf	75.0 - 90.0	1.3 J	30	1.8 J
U4-MW-02I	6/12/2023	FD	EM10	UMCf	75.0 - 90.0	<1.1	30	<1.2
U4-MW-02I	7/18/2023	N	EM11	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	7/18/2023	FD	EM11	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	8/11/2023	N	EM12	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	8/11/2023	FD	EM12	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	9/11/2023	N	EM13	UMCf	75.0 - 90.0	<2.8 UJ	21.1 J	<3.0
U4-MW-02I	9/11/2023	FD	EM13	UMCf	75.0 - 90.0	<55.5 UJ	<53.0 UJ	<59.8
U4-MW-02I	10/19/2023	N	EM14	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	10/19/2023	FD	EM14	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	11/15/2023	N	EM15	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	11/15/2023	FD	EM15	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	12/14/2023	N	EM16	UMCf	75.0 - 90.0	<0.056	61.9	<0.060
U4-MW-02I	12/14/2023	FD	EM16	UMCf	75.0 - 90.0	<0.056	70.3	<0.060
U4-MW-02I	1/25/2024	N	EM17	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	1/25/2024	FD	EM17	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	2/12/2024	N	EM18	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	2/12/2024	FD	EM18	UMCf	75.0 - 90.0	----	----	----
U4-MW-02I	3/13/2024	N	EM19	UMCf	75.0 - 90.0	<0.17	147	<0.12
U4-MW-02I	3/13/2024	FD	EM19	UMCf	75.0 - 90.0	<0.17	161	<0.12
U4-MW-03D	4/20/2022	N	BL02	UMCf	96.6 - 106.6	----	----	----
U4-MW-03D	2/16/2023	N	EM06	UMCf	96.6 - 106.6	----	----	----
U4-MW-03D	3/16/2023	N	EM07	UMCf	96.6 - 106.6	----	----	----
U4-MW-03D	3/16/2023	FD	EM07	UMCf	96.6 - 106.6	----	----	----
U4-MW-03D	6/15/2023	N	EM10	UMCf	96.6 - 106.6	----	----	----
U4-MW-03D	9/14/2023	N	EM13	UMCf	96.6 - 106.6	----	----	----
U4-MW-03D	12/13/2023	N	EM16	UMCf	96.6 - 106.6	----	----	----

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**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-03D	3/15/2024	N	EM19	UMCf	96.6 - 106.6	----	----	----
U4-MW-03DD	4/20/2022	N	BL02	UMCf	119.7 - 129.7	----	----	----
U4-MW-03DD	3/15/2023	N	EM07	UMCf	119.7 - 129.7	----	----	----
U4-MW-03DD	6/15/2023	N	EM10	UMCf	119.7 - 129.7	----	----	----
U4-MW-03DD	9/14/2023	N	EM13	UMCf	119.7 - 129.7	----	----	----
U4-MW-03DD	12/14/2023	N	EM16	UMCf	119.7 - 129.7	----	----	----
U4-MW-03DD	3/14/2024	N	EM19	UMCf	119.7 - 129.7	----	----	----
U4-MW-03I	4/19/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	3/15/2023	N	EM07	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	6/14/2023	N	EM10	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	6/14/2023	FD	EM10	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	9/11/2023	N	EM13	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	9/11/2023	FD	EM13	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	12/13/2023	N	EM16	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	12/13/2023	FD	EM16	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	3/14/2024	N	EM19	UMCf	76.6 - 86.6	----	----	----
U4-MW-03I	3/14/2024	FD	EM19	UMCf	76.6 - 86.6	----	----	----
U4-MW-03S	4/18/2022	N	BL02	UMCf	54.5 - 64.5	----	----	----
U4-MW-03S	4/18/2022	FD	BL02	UMCf	54.5 - 64.5	----	----	----
U4-MW-03S	3/15/2023	N	EM07	UMCf	54.5 - 64.5	----	----	----
U4-MW-03S	6/15/2023	N	EM10	UMCf	54.5 - 64.5	----	----	----
U4-MW-03S	9/14/2023	N	EM13	UMCf	54.5 - 64.5	----	----	----
U4-MW-03S	12/13/2023	N	EM16	UMCf	54.5 - 64.5	----	----	----
U4-MW-03S	3/14/2024	N	EM19	UMCf	54.5 - 64.5	----	----	----
U4-MW-04D	4/19/2022	N	BL02	UMCf	97.0 - 107.0	----	----	----
U4-MW-04D	2/16/2023	N	EM06	UMCf	97.0 - 107.0	----	----	----
U4-MW-04D	3/21/2023	N	EM07	UMCf	97.0 - 107.0	----	----	----
U4-MW-04D	6/14/2023	N	EM10	UMCf	97.0 - 107.0	----	----	----
U4-MW-04D	9/15/2023	N	EM13	UMCf	97.0 - 107.0	----	----	----
U4-MW-04D	12/12/2023	N	EM16	UMCf	97.0 - 107.0	----	----	----
U4-MW-04D	3/12/2024	N	EM19	UMCf	97.0 - 107.0	----	----	----
U4-MW-04I	4/19/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----
U4-MW-04I	3/20/2023	N	EM07	UMCf	76.8 - 86.8	----	----	----
U4-MW-04I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	----	----	----
U4-MW-04I	9/14/2023	N	EM13	UMCf	76.8 - 86.8	----	----	----
U4-MW-04I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	----	----	----
U4-MW-04I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	----	----	----
U4-MW-05D	4/15/2022	N	BL02	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	10/13/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	1/11/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	2/14/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	3/16/2023	N	EM07	UMCf	98.2 - 108.2	<5.6	5.5 J	<6.0
U4-MW-05D	4/20/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	5/10/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-05D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<2.8	21 J	<3.0
U4-MW-05D	7/18/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	8/14/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	9/12/2023	N	EM13	UMCf	98.2 - 108.2	<2.8 UJ	18.9 J	3.2 J
U4-MW-05D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	11/16/2023	N	EM15	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	12/14/2023	N	EM16	UMCf	98.2 - 108.2	6.1	178	74.0
U4-MW-05D	1/26/2024	N	EM17	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	2/14/2024	N	EM18	UMCf	98.2 - 108.2	----	----	----
U4-MW-05D	3/12/2024	N	EM19	UMCf	98.2 - 108.2	<0.17	314	<0.12
U4-MW-05I	4/15/2022	N	BL02	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	10/13/2022	N	EM02	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	11/3/2022	N	EM03	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	12/8/2022	N	EM04	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	1/11/2023	N	EM05	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	2/14/2023	N	EM06	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	3/14/2023	N	EM07	UMCf	76.6 - 86.6	<2.8	2.9 J	<3.0
U4-MW-05I	4/21/2023	N	EM08	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	5/10/2023	N	EM09	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	6/15/2023	N	EM10	UMCf	76.6 - 86.6	9.2 J	120	<6.0
U4-MW-05I	7/17/2023	N	EM11	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	8/14/2023	N	EM12	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	9/13/2023	N	EM13	UMCf	76.6 - 86.6	<27.8 UJ	<26.5	<29.9
U4-MW-05I	10/18/2023	N	EM14	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	11/15/2023	N	EM15	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	12/12/2023	N	EM16	UMCf	76.6 - 86.6	<0.056	61.0	35.3
U4-MW-05I	1/26/2024	N	EM17	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	2/14/2024	N	EM18	UMCf	76.6 - 86.6	----	----	----
U4-MW-05I	3/11/2024	N	EM19	UMCf	76.6 - 86.6	<0.17	<0.053	<0.12
U4-MW-06D	4/19/2022	N	BL02	UMCf	97.1 - 107.1	----	----	----
U4-MW-06D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----
U4-MW-06D	3/21/2023	N	EM07	UMCf	97.1 - 107.1	----	----	----
U4-MW-06D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	----	----	----
U4-MW-06D	9/13/2023	N	EM13	UMCf	97.1 - 107.1	----	----	----
U4-MW-06D	12/13/2023	N	EM16	UMCf	97.1 - 107.1	----	----	----
U4-MW-06D	3/14/2024	N	EM19	UMCf	97.1 - 107.1	----	----	----
U4-MW-06I	4/19/2022	N	BL02	UMCf	76.5 - 86.5	----	----	----
U4-MW-06I	3/14/2023	N	EM07	UMCf	76.5 - 86.5	----	----	----
U4-MW-06I	6/16/2023	N	EM10	UMCf	76.5 - 86.5	----	----	----
U4-MW-06I	9/12/2023	N	EM13	UMCf	76.5 - 86.5	----	----	----
U4-MW-06I	12/12/2023	N	EM16	UMCf	76.5 - 86.5	----	----	----
U4-MW-06I	3/14/2024	N	EM19	UMCf	76.5 - 86.5	----	----	----
U4-MW-07D	4/15/2022	N	BL02	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	10/12/2022	N	EM02	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	10/12/2022	FD	EM02	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	11/3/2022	N	EM03	UMCf	96.8 - 106.5	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-07D	12/7/2022	N	EM04	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	1/11/2023	N	EM05	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	2/14/2023	N	EM06	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	3/16/2023	N	EM07	UMCf	96.8 - 106.5	<0.56	0.54 J	<0.60
U4-MW-07D	4/21/2023	N	EM08	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	5/11/2023	N	EM09	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	6/13/2023	N	EM10	UMCf	96.8 - 106.5	<11	180	<12
U4-MW-07D	7/17/2023	N	EM11	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	8/11/2023	N	EM12	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	9/13/2023	N	EM13	UMCf	96.8 - 106.5	<27.8 UJ	47.2 J	<29.9
U4-MW-07D	10/18/2023	N	EM14	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	11/16/2023	N	EM15	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	12/12/2023	N	EM16	UMCf	96.8 - 106.5	<0.056	131	44.5
U4-MW-07D	1/26/2024	N	EM17	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	2/13/2024	N	EM18	UMCf	96.8 - 106.5	----	----	----
U4-MW-07D	3/11/2024	N	EM19	UMCf	96.8 - 106.5	159	1,500	<0.12
U4-MW-07I	4/15/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	11/3/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	1/11/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	<0.56	0.59 J	<0.60
U4-MW-07I	4/21/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	5/11/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	<2.8	23 J	<3.0
U4-MW-07I	7/17/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	8/11/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	9/13/2023	N	EM13	UMCf	76.8 - 86.8	<27.8 UJ	157 J	<29.9
U4-MW-07I	10/18/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	12/11/2023	N	EM16	UMCf	76.8 - 86.8	4.2	92.3	27.2
U4-MW-07I	1/26/2024	N	EM17	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	----
U4-MW-07I	3/11/2024	N	EM19	UMCf	76.8 - 86.8	<0.17	466	<0.12
U4-MW-08D	4/13/2022	N	BL02	UMCf	98.6 - 108.6	----	----	----
U4-MW-08D	12/7/2022	N	EM04	UMCf	98.6 - 108.6	----	----	----
U4-MW-08D	3/17/2023	N	EM07	UMCf	98.6 - 108.6	----	----	----
U4-MW-08D	6/13/2023	N	EM10	UMCf	98.6 - 108.6	----	----	----
U4-MW-08D	9/13/2023	N	EM13	UMCf	98.6 - 108.6	----	----	----
U4-MW-08D	12/11/2023	N	EM16	UMCf	98.6 - 108.6	----	----	----
U4-MW-08D	3/12/2024	N	EM19	UMCf	98.6 - 108.6	----	----	----
U4-MW-08DD	4/20/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----
U4-MW-08DD	4/20/2022	FD	BL02	UMCf	119.8 - 129.8	----	----	----
U4-MW-08DD	12/8/2022	N	EM04	UMCf	119.8 - 129.8	----	----	----
U4-MW-08DD	3/15/2023	N	EM07	UMCf	119.8 - 129.8	----	----	----



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-08DD	6/14/2023	N	EM10	UMCf	119.8 - 129.8	----	----	----
U4-MW-08DD	9/14/2023	N	EM13	UMCf	119.8 - 129.8	----	----	----
U4-MW-08DD	12/14/2023	N	EM16	UMCf	119.8 - 129.8	----	----	----
U4-MW-08DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	----	----	----
U4-MW-08I	4/13/2022	N	BL02	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	12/7/2022	N	EM04	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	12/7/2022	FD	EM04	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	3/17/2023	N	EM07	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	6/13/2023	N	EM10	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	9/13/2023	N	EM13	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	12/11/2023	N	EM16	UMCf	78.0 - 88.0	----	----	----
U4-MW-08I	3/12/2024	N	EM19	UMCf	78.0 - 88.0	----	----	----
U4-MW-08S	4/15/2022	N	BL02	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	12/7/2022	N	EM04	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	12/7/2022	FD	EM04	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	3/13/2023	N	EM07	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	3/13/2023	FD	EM07	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	6/13/2023	N	EM10	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	6/13/2023	FD	EM10	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	9/13/2023	N	EM13	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	9/13/2023	FD	EM13	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	12/14/2023	N	EM16	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	12/14/2023	FD	EM16	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	3/14/2024	N	EM19	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	3/14/2024	FD	EM19	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	3/25/2024	N	EM19	UMCf	54.9 - 64.9	----	----	----
U4-MW-08S	3/25/2024	FD	EM19	UMCf	54.9 - 64.9	----	----	----
U4-MW-09D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	----	----	----
U4-MW-09D	12/6/2022	N	EM04	UMCf	96.9 - 106.9	----	----	----
U4-MW-09D	3/16/2023	N	EM07	UMCf	96.9 - 106.9	----	----	----
U4-MW-09D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	----	----	----
U4-MW-09D	9/12/2023	N	EM13	UMCf	96.9 - 106.9	----	----	----
U4-MW-09D	12/15/2023	N	EM16	UMCf	96.9 - 106.9	----	----	----
U4-MW-09D	3/13/2024	N	EM19	UMCf	96.9 - 106.9	----	----	----
U4-MW-09DD	4/14/2022	N	BL02	UMCf	119.8 - 129.8	----	----	----
U4-MW-09DD	12/6/2022	N	EM04	UMCf	119.8 - 129.8	----	----	----
U4-MW-09DD	3/21/2023	N	EM07	UMCf	119.8 - 129.8	----	----	----
U4-MW-09DD	6/15/2023	N	EM10	UMCf	119.8 - 129.8	----	----	----
U4-MW-09DD	9/13/2023	N	EM13	UMCf	119.8 - 129.8	----	----	----
U4-MW-09DD	12/13/2023	N	EM16	UMCf	119.8 - 129.8	----	----	----
U4-MW-09DD	3/14/2024	N	EM19	UMCf	119.8 - 129.8	----	----	----
U4-MW-09I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----
U4-MW-09I	12/6/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----
U4-MW-09I	3/16/2023	N	EM07	UMCf	76.8 - 86.8	----	----	----
U4-MW-09I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	----	----	----
U4-MW-09I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-09I	12/15/2023	N	EM16	UMCf	76.8 - 86.8	----	----	----
U4-MW-09I	3/13/2024	N	EM19	UMCf	76.8 - 86.8	----	----	----
U4-MW-09S	4/14/2022	N	BL02	UMCf	55.3 - 65.3	----	----	----
U4-MW-09S	12/6/2022	N	EM04	UMCf	55.3 - 65.3	----	----	----
U4-MW-09S	3/17/2023	N	EM07	UMCf	55.3 - 65.3	----	----	----
U4-MW-09S	6/15/2023	N	EM10	UMCf	55.3 - 65.3	----	----	----
U4-MW-09S	9/13/2023	N	EM13	UMCf	55.3 - 65.3	----	----	----
U4-MW-09S	12/12/2023	N	EM16	UMCf	55.3 - 65.3	----	----	----
U4-MW-09S	3/13/2024	N	EM19	UMCf	55.3 - 65.3	----	----	----
U4-MW-10D	4/14/2022	N	BL02	UMCf	96.9 - 106.9	----	----	----
U4-MW-10D	12/5/2022	N	EM04	UMCf	96.9 - 106.9	----	----	----
U4-MW-10D	3/17/2023	N	EM07	UMCf	96.9 - 106.9	----	----	----
U4-MW-10D	6/14/2023	N	EM10	UMCf	96.9 - 106.9	----	----	----
U4-MW-10D	9/13/2023	N	EM13	UMCf	96.9 - 106.9	----	----	----
U4-MW-10D	12/14/2023	N	EM16	UMCf	96.9 - 106.9	----	----	----
U4-MW-10D	3/14/2024	N	EM19	UMCf	96.9 - 106.9	----	----	----
U4-MW-10I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	----	----	----
U4-MW-10I	12/5/2022	N	EM04	UMCf	77.1 - 87.1	----	----	----
U4-MW-10I	3/17/2023	N	EM07	UMCf	77.1 - 87.1	----	----	----
U4-MW-10I	6/14/2023	N	EM10	UMCf	77.1 - 87.1	----	----	----
U4-MW-10I	9/13/2023	N	EM13	UMCf	77.1 - 87.1	----	----	----
U4-MW-10I	12/14/2023	N	EM16	UMCf	77.1 - 87.1	----	----	----
U4-MW-10I	3/13/2024	N	EM19	UMCf	77.1 - 87.1	----	----	----
U4-MW-11D	4/15/2022	N	BL02	UMCf	97.4 - 107.4	<5.6	<5.3	<6.0
U4-MW-11D	9/26/2022	N	EM01	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	10/11/2022	N	EM02	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	11/1/2022	N	EM03	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	12/6/2022	N	EM04	UMCf	97.4 - 107.4	<2.8	3.4 J	<3.0
U4-MW-11D	1/12/2023	N	EM05	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	2/14/2023	N	EM06	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	3/16/2023	N	EM07	UMCf	97.4 - 107.4	<11	<11	<12
U4-MW-11D	4/18/2023	N	EM08	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	5/17/2023	N	EM09	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	6/16/2023	N	EM10	UMCf	97.4 - 107.4	<11	16 J	<12
U4-MW-11D	7/14/2023	N	EM11	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	8/14/2023	N	EM12	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	9/13/2023	N	EM13	UMCf	97.4 - 107.4	<27.8 UJ	<26.5	<29.9
U4-MW-11D	10/18/2023	N	EM14	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	11/16/2023	N	EM15	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	12/13/2023	N	EM16	UMCf	97.4 - 107.4	<0.056	46.3	<0.060
U4-MW-11D	1/25/2024	N	EM17	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	2/14/2024	N	EM18	UMCf	97.4 - 107.4	----	----	----
U4-MW-11D	3/12/2024	N	EM19	UMCf	97.4 - 107.4	<0.17	<0.053	<0.12
U4-MW-11I	4/14/2022	N	BL02	UMCf	77.0 - 87.0	<1.1	<1.1	<1.2
U4-MW-11I	9/26/2022	N	EM01	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	9/26/2022	FD	EM01	UMCf	77.0 - 87.0	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-11I	10/10/2022	N	EM02	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	10/10/2022	FD	EM02	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	10/31/2022	N	EM03	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	10/31/2022	FD	EM03	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	12/6/2022	N	EM04	UMCf	77.0 - 87.0	<5.6 UJ	21 J	<6.0 UJ
U4-MW-11I	12/6/2022	FD	EM04	UMCf	77.0 - 87.0	<5.6 UJ	26 J	<6.0 UJ
U4-MW-11I	1/12/2023	N	EM05	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	1/12/2023	FD	EM05	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	2/14/2023	N	EM06	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	2/14/2023	FD	EM06	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	3/16/2023	N	EM07	UMCf	77.0 - 87.0	<2.8	92	<3.0
U4-MW-11I	3/16/2023	FD	EM07	UMCf	77.0 - 87.0	<2.8	94	<3.0
U4-MW-11I	4/18/2023	N	EM08	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	4/18/2023	FD	EM08	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	5/19/2023	N	EM09	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	5/19/2023	FD	EM09	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	6/15/2023	N	EM10	UMCf	77.0 - 87.0	<0.56	46	1.9 J
U4-MW-11I	6/15/2023	FD	EM10	UMCf	77.0 - 87.0	<0.56	48	1.4 J
U4-MW-11I	7/13/2023	N	EM11	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	7/13/2023	FD	EM11	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	8/14/2023	N	EM12	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	8/14/2023	FD	EM12	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	9/13/2023	N	EM13	UMCf	77.0 - 87.0	<27.8 UJ	<26.5	<29.9
U4-MW-11I	9/13/2023	FD	EM13	UMCf	77.0 - 87.0	<27.8 UJ	<26.5	<29.9
U4-MW-11I	10/19/2023	N	EM14	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	10/19/2023	FD	EM14	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	11/16/2023	N	EM15	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	11/16/2023	FD	EM15	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	12/13/2023	N	EM16	UMCf	77.0 - 87.0	<0.056	<0.053	<0.060
U4-MW-11I	12/13/2023	FD	EM16	UMCf	77.0 - 87.0	<0.056	<0.053	<0.060
U4-MW-11I	1/25/2024	N	EM17	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	1/25/2024	FD	EM17	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	2/14/2024	N	EM18	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	2/14/2024	FD	EM18	UMCf	77.0 - 87.0	----	----	----
U4-MW-11I	3/13/2024	N	EM19	UMCf	77.0 - 87.0	<0.17	<0.053	<0.12
U4-MW-11I	3/13/2024	FD	EM19	UMCf	77.0 - 87.0	<0.17	<0.053	<0.12
U4-MW-12D	4/15/2022	N	BL02	UMCf	97.1 - 107.1	<5.6	<5.3	<6.0
U4-MW-12D	9/27/2022	N	EM01	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	10/12/2022	N	EM02	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	11/2/2022	N	EM03	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	12/7/2022	N	EM04	UMCf	97.1 - 107.1	<5.6 R	1,500 J-	<6.0 R
U4-MW-12D	1/12/2023	N	EM05	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	2/15/2023	N	EM06	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	3/14/2023	N	EM07	UMCf	97.1 - 107.1	<5.6	10 J	<6.0
U4-MW-12D	4/17/2023	N	EM08	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	5/17/2023	N	EM09	UMCf	97.1 - 107.1	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-12D	6/16/2023	N	EM10	UMCf	97.1 - 107.1	<11	11 J	<12
U4-MW-12D	7/13/2023	N	EM11	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	8/14/2023	N	EM12	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	9/12/2023	N	EM13	UMCf	97.1 - 107.1	<2.8 UJ	<2.6	<3.0
U4-MW-12D	10/17/2023	N	EM14	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	11/15/2023	N	EM15	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	12/12/2023	N	EM16	UMCf	97.1 - 107.1	<0.056	136	<0.060
U4-MW-12D	1/24/2024	N	EM17	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	2/13/2024	N	EM18	UMCf	97.1 - 107.1	----	----	----
U4-MW-12D	3/12/2024	N	EM19	UMCf	97.1 - 107.1	<0.17	170	<0.12
U4-MW-12I	4/14/2022	N	BL02	UMCf	76.8 - 86.8	<5.6	<5.3	<6.0
U4-MW-12I	4/14/2022	FD	BL02	UMCf	76.8 - 86.8	<5.6	<5.3	<6.0
U4-MW-12I	9/27/2022	N	EM01	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	10/12/2022	N	EM02	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	11/2/2022	N	EM03	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	12/7/2022	N	EM04	UMCf	76.8 - 86.8	<1.1 R	6.1 J	<1.2 R
U4-MW-12I	12/7/2022	FD	EM04	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	1/13/2023	N	EM05	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	2/15/2023	N	EM06	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	3/13/2023	N	EM07	UMCf	76.8 - 86.8	<5.6	150	<6.0
U4-MW-12I	4/17/2023	N	EM08	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	5/17/2023	N	EM09	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	6/16/2023	N	EM10	UMCf	76.8 - 86.8	<2.8	82	<3.0
U4-MW-12I	7/11/2023	N	EM11	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	8/14/2023	N	EM12	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	<1.1 UJ	<1.1	<1.2
U4-MW-12I	10/17/2023	N	EM14	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	11/16/2023	N	EM15	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	<0.056 R	<0.053	<0.060
U4-MW-12I	1/24/2024	N	EM17	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	2/13/2024	N	EM18	UMCf	76.8 - 86.8	----	----	----
U4-MW-12I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	<0.17	<0.053	<0.12
U4-MW-13D	4/14/2022	N	BL02	UMCf	98.2 - 108.2	<11	<11	<12
U4-MW-13D	9/28/2022	N	EM01	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	10/11/2022	N	EM02	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	11/3/2022	N	EM03	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	12/7/2022	N	EM04	UMCf	98.2 - 108.2	<2.8 R	300 J-	<3.0 R
U4-MW-13D	1/12/2023	N	EM05	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	2/15/2023	N	EM06	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	3/17/2023	N	EM07	UMCf	98.2 - 108.2	<1.1 UJ	<1.1 UJ	<1.2 UJ
U4-MW-13D	4/18/2023	N	EM08	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	5/17/2023	N	EM09	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	6/15/2023	N	EM10	UMCf	98.2 - 108.2	<1.1	1.8 J	<1.2
U4-MW-13D	7/12/2023	N	EM11	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	8/11/2023	N	EM12	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	9/11/2023	N	EM13	UMCf	98.2 - 108.2	<2.8 UJ	<2.6	<3.0



**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-13D	10/18/2023	N	EM14	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	11/15/2023	N	EM15	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	12/11/2023	N	EM16	UMCf	98.2 - 108.2	<0.056	<0.053	<0.060
U4-MW-13D	1/23/2024	N	EM17	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	2/12/2024	N	EM18	UMCf	98.2 - 108.2	----	----	----
U4-MW-13D	3/11/2024	N	EM19	UMCf	98.2 - 108.2	<0.17	<0.053	<0.12
U4-MW-13I	4/14/2022	N	BL02	UMCf	77.1 - 87.1	<2.8	<2.6	<3.0
U4-MW-13I	9/28/2022	N	EM01	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	10/10/2022	N	EM02	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	11/3/2022	N	EM03	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	12/6/2022	N	EM04	UMCf	77.1 - 87.1	<1.1	1.5 J	<1.2
U4-MW-13I	1/12/2023	N	EM05	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	2/14/2023	N	EM06	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	3/16/2023	N	EM07	UMCf	77.1 - 87.1	<0.56	4.2 J	<0.60
U4-MW-13I	4/19/2023	N	EM08	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	5/17/2023	N	EM09	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	6/15/2023	N	EM10	UMCf	77.1 - 87.1	<0.56	0.86 J	<0.60
U4-MW-13I	7/12/2023	N	EM11	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	8/11/2023	N	EM12	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	9/11/2023	N	EM13	UMCf	77.1 - 87.1	<27.8 UJ	<26.5	<29.9
U4-MW-13I	10/17/2023	N	EM14	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	11/15/2023	N	EM15	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	12/11/2023	N	EM16	UMCf	77.1 - 87.1	<0.056	<0.053	<0.060
U4-MW-13I	1/23/2024	N	EM17	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	2/12/2024	N	EM18	UMCf	77.1 - 87.1	----	----	----
U4-MW-13I	3/11/2024	N	EM19	UMCf	77.1 - 87.1	<0.17	<0.053	<0.12
U4-MW-14D	4/13/2022	N	BL02	UMCf	97.3 - 107.3	----	----	----
U4-MW-14D	12/6/2022	N	EM04	UMCf	97.3 - 107.3	----	----	----
U4-MW-14D	3/16/2023	N	EM07	UMCf	97.3 - 107.3	----	----	----
U4-MW-14D	6/15/2023	N	EM10	UMCf	97.3 - 107.3	----	----	----
U4-MW-14D	9/14/2023	N	EM13	UMCf	97.3 - 107.3	----	----	----
U4-MW-14D	12/15/2023	N	EM16	UMCf	97.3 - 107.3	----	----	----
U4-MW-14D	3/13/2024	N	EM19	UMCf	97.3 - 107.3	----	----	----
U4-MW-14I	4/14/2022	N	BL02	UMCf	77.3 - 87.3	----	----	----
U4-MW-14I	12/6/2022	N	EM04	UMCf	77.3 - 87.3	----	----	----
U4-MW-14I	3/16/2023	N	EM07	UMCf	77.3 - 87.3	----	----	----
U4-MW-14I	6/15/2023	N	EM10	UMCf	77.3 - 87.3	----	----	----
U4-MW-14I	9/14/2023	N	EM13	UMCf	77.3 - 87.3	----	----	----
U4-MW-14I	12/14/2023	N	EM16	UMCf	77.3 - 87.3	----	----	----
U4-MW-14I	3/13/2024	N	EM19	UMCf	77.3 - 87.3	----	----	----
U4-MW-15D	4/13/2022	N	BL02	UMCf	96.0 - 106.0	----	----	----
U4-MW-15D	12/5/2022	N	EM04	UMCf	96.0 - 106.0	----	----	----
U4-MW-15D	3/20/2023	N	EM07	UMCf	96.0 - 106.0	----	----	----
U4-MW-15D	6/14/2023	N	EM10	UMCf	96.0 - 106.0	----	----	----
U4-MW-15D	9/13/2023	N	EM13	UMCf	96.0 - 106.0	----	----	----
U4-MW-15D	12/12/2023	N	EM16	UMCf	96.0 - 106.0	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-15D	3/12/2024	N	EM19	UMCf	96.0 - 106.0	----	----	----
U4-MW-15DD	4/13/2022	N	BL02	UMCf	120.3 - 130.3	----	----	----
U4-MW-15DD	12/5/2022	N	EM04	UMCf	120.3 - 130.3	----	----	----
U4-MW-15DD	3/15/2023	N	EM07	UMCf	120.3 - 130.3	----	----	----
U4-MW-15DD	6/13/2023	N	EM10	UMCf	120.3 - 130.3	----	----	----
U4-MW-15DD	9/14/2023	N	EM13	UMCf	120.3 - 130.3	----	----	----
U4-MW-15DD	12/13/2023	N	EM16	UMCf	120.3 - 130.3	----	----	----
U4-MW-15DD	3/12/2024	N	EM19	UMCf	120.3 - 130.3	----	----	----
U4-MW-15I	4/12/2022	N	BL02	UMCf	76.8 - 86.8	----	----	----
U4-MW-15I	12/5/2022	N	EM04	UMCf	76.8 - 86.8	----	----	----
U4-MW-15I	3/17/2023	N	EM07	UMCf	76.8 - 86.8	----	----	----
U4-MW-15I	6/14/2023	N	EM10	UMCf	76.8 - 86.8	----	----	----
U4-MW-15I	9/12/2023	N	EM13	UMCf	76.8 - 86.8	----	----	----
U4-MW-15I	12/12/2023	N	EM16	UMCf	76.8 - 86.8	----	----	----
U4-MW-15I	3/12/2024	N	EM19	UMCf	76.8 - 86.8	----	----	----
U4-MW-15S	4/13/2022	N	BL02	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	12/5/2022	N	EM04	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	3/13/2023	N	EM07	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	9/14/2023	N	EM13	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	3/12/2024	N	EM19	UMCf	54.8 - 64.8	----	----	----
U4-MW-15S	3/26/2024	N	EM19	UMCf	54.8 - 64.8	----	----	----
U4-MW-16D	4/11/2022	N	BL02	UMCf	96.8 - 106.8	----	----	----
U4-MW-16D	12/5/2022	N	EM04	UMCf	96.8 - 106.8	----	----	----
U4-MW-16D	3/14/2023	N	EM07	UMCf	96.8 - 106.8	----	----	----
U4-MW-16D	6/13/2023	N	EM10	UMCf	96.8 - 106.8	----	----	----
U4-MW-16D	9/15/2023	N	EM13	UMCf	96.8 - 106.8	----	----	----
U4-MW-16D	12/14/2023	N	EM16	UMCf	96.8 - 106.8	----	----	----
U4-MW-16D	3/14/2024	N	EM19	UMCf	96.8 - 106.8	----	----	----
U4-MW-16DD	4/12/2022	N	BL02	UMCf	120.8 - 130.8	----	----	----
U4-MW-16DD	12/5/2022	N	EM04	UMCf	120.8 - 130.8	----	----	----
U4-MW-16DD	3/15/2023	N	EM07	UMCf	120.8 - 130.8	----	----	----
U4-MW-16DD	6/13/2023	N	EM10	UMCf	120.8 - 130.8	----	----	----
U4-MW-16DD	9/14/2023	N	EM13	UMCf	120.8 - 130.8	----	----	----
U4-MW-16DD	12/13/2023	N	EM16	UMCf	120.8 - 130.8	----	----	----
U4-MW-16DD	3/14/2024	N	EM19	UMCf	120.8 - 130.8	----	----	----
U4-MW-16I	4/11/2022	N	BL02	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	12/5/2022	N	EM04	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	12/5/2022	FD	EM04	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	3/13/2023	N	EM07	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	3/13/2023	FD	EM07	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	6/12/2023	N	EM10	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	6/12/2023	FD	EM10	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	9/11/2023	N	EM13	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	9/11/2023	FD	EM13	UMCf	77.0 - 87.0	----	----	----

**Table 4**  
**Groundwater Analytical Results**  
 Unit 4 Source Area Bioremediation Treatability Study

Well	Sample Date	QC Type	Event	Screened Lithology	Screened Interval	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G	Volatile Fatty Acids by AM20GAX/AM2 3G
						Pentanoic Acid	Propionic Acid	Pyruvic Acid
						mg/L	mg/L	mg/L
U4-MW-16I	12/11/2023	N	EM16	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	12/11/2023	FD	EM16	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	3/11/2024	N	EM19	UMCf	77.0 - 87.0	----	----	----
U4-MW-16I	3/11/2024	FD	EM19	UMCf	77.0 - 87.0	----	----	----
U4-MW-16S	4/12/2022	N	BL02	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	4/12/2022	FD	BL02	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	12/6/2022	N	EM04	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	3/15/2023	N	EM07	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	6/13/2023	N	EM10	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	9/11/2023	N	EM13	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	12/11/2023	N	EM16	UMCf	54.8 - 64.8	----	----	----
U4-MW-16S	3/11/2024	N	EM19	UMCf	54.8 - 64.8	----	----	----
U4-SLMW	11/10/2022	N	EM03		-	----	----	----
U4-T3	10/13/2022	N	EM02		-	----	----	----
U4-T3	11/3/2022	N	EM03		-	----	----	----
U4-T3	12/6/2022	N	EM04		-	----	----	----
U4-T3	1/9/2023	N	EM05		-	----	----	----
U4-T3	2/13/2023	N	EM06		-	----	----	----
U4-T3	3/13/2023	N	EM07		-	----	----	----
U4-T3	4/19/2023	N	EM08		-	----	----	----
U4-T3	5/18/2023	N	EM09		-	----	----	----
U4-T3	6/12/2023	N	EM10		-	----	----	----
U4-T3	7/11/2023	N	EM11		-	----	----	----
U4-T3	8/10/2023	N	EM12		-	----	----	----
U4-T3	9/11/2023	N	EM13		-	----	----	----
U4-T3	10/16/2023	N	EM14		-	----	----	----

Notes:

- FD - Field duplicate
- E - Field instrument error.
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J- - The result is an estimated quantity, but the result may be biased low.
- J+ - The result is an estimated quantity, but the result may be biased high.
- N/A - Not Applicable
- mg/L - milligrams per liter
- µg/L - micrograms per liter
- N - Normal field sample
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not
- UMCf- Upper Muddy Creek Formation
- < - The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- Not tested.
- M-252 damaged/obstructed when checked on June 14, 2023 and September 14, 2023.
- U4-MW-08S and U4-MW-15S were purged and resampled for EM19 on March 25-26, 2024; Original EM19 samples were collected via