



Revised Annual Report 2023 Remedial Action Performance and Groundwater Compliance Monitoring

Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington

Farallon PN: 301-001

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ACRONYMS AND ABBREVIATIONS

1,2-DCP	1,2-dichloropropane
1,2,3-TCP	1,2,3-trichloropropane
Second PR	<i>Second Periodic Review, CENEX Supply & Marketing Inc. Rinsate, 300 Division St. East, Quincy, Grant County, Facility Site ID No. 33599645, Cleanup Site ID No. 370</i> dated December 2022, prepared by Toxics Cleanup Program, Eastern Region, Washington State Department of Ecology
Annual Report	<i>Annual Report 2023, Remedial Action Performance and Groundwater Compliance Monitoring, Cenex Harvest States Cooperatives Site, 300 Division Street East, Quincy, Washington</i> dated December 4, 2023 prepared by Farallon Consulting, L.L.C. (this document)
bgs	below ground surface
CHS	CHS Inc.
CHS Property	Grant County Parcel No. 040525043, near 300 Division Street East, in Quincy, Washington
COCs	constituents of concern
Consent Decree	Consent Decree No. DE-00TCPER-1815 dated February 22, 2001 entered into by the Washington State Department of Ecology and Cenex Harvest States Cooperatives
Ecology	Washington State Department of Ecology
EDB	1,2-dibromoethane
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
Final CAP	<i>Final Cleanup Action Plan, Cenex/Quincy Site, Quincy, WA</i> dated February 22, 2001
IHSs	indicator hazardous substances
kg	kilogram
µg/l	micrograms per liter



$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
msl	mean sea level
MS/SVE	microsparge/soil vapor extraction
MSW	microsparge well
O&M	operation and maintenance
PQL	practical quantitation limit
PR	Periodic Review
QA/QC	quality assurance/quality control
RAP	<i>Draft Remedial Action Work Plan, Cenex Harvest States Cooperatives Site, 300 Division Street, Quincy, Washington</i> dated July 2, 2001 prepared by Farallon Consulting, L.L.C.
RPD	relative percent difference
scfh	standard cubic feet per hour
Site	Grant County Parcel No. 040525043, near 300 Division Street East, in Quincy, Washington and adjacent and down-gradient properties where hazardous substances released from the CHS Property have come to be located
SVE	soil vapor extraction
VEW	vapor extraction well
VI	vapor intrusion
VOCs	volatile organic compounds



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Revised Annual Report 2023 (Annual Report) for CHS Inc. (CHS) (formerly Cenex Harvest States Cooperatives) to present the results from performance air monitoring, groundwater compliance monitoring, and operation and maintenance (O&M) activities performed between November 2022 and September 2023 at the Cenex Harvest States Cooperatives Site (herein referred to as the Site) (Figure 1). The Site is defined as Grant County Parcel No. 040525043, near 300 Division Street East, in Quincy, Washington (herein referred to as the CHS Property) and adjacent and down-gradient properties where hazardous substances released from the CHS Property have come to be located. A facility plan of the CHS Property and the monitoring well network are provided on Figures 2 and 3, respectively.

The monitoring and maintenance cleanup activities were performed in accordance with the requirements of Consent Decree No. DE-00TCPER-1815 dated February 22, 2001 entered into by the Washington State Department of Ecology (Ecology) (2001b) and Cenex Harvest States Cooperatives (Consent Decree). This Annual Report presents a summary of quarterly performance air and groundwater compliance monitoring and O&M activities conducted November 2022 through September 2023, a summary of the Second Periodic Review completed by Ecology (2023), and conclusions. The quarterly September 2023 Performance Air and Groundwater Compliance Monitoring Report is provided in Appendix A. Work was completed in accordance with the *Final Cleanup Action Plan, Cenex/Quincy Site, Quincy, WA* dated February 22, 2001 (Final CAP), Exhibit B of the Consent Decree (Ecology 2001a), along with the Technical Memorandum regarding Proposed Operational Modifications for the Microsparge/Soil Vapor Extraction System (Farallon 2021), approved by Ecology (2021) on August 10, 2021.

1.1 BACKGROUND

Remedial activities have been conducted at the Site since the early 1990s due to historical releases of volatile organic compounds (VOCs) to soil and groundwater from a former fumigant tank storage area and rinsate collection system on the CHS Property (Figure 2). The rinsate collection system consisted of a concrete rinse pad and a rinsate collection pond used to collect rinsate water from the cleaning of agricultural application equipment. Based on the historical remedial investigation activities, the indicator hazardous substances (IHSs) for groundwater were established as a subset of the constituents of concern (COCs) for the Site and defined by Ecology (2001a) in the Final CAP, Exhibit B of the Consent Decree. The



IHSs for groundwater for the Site are chloroform, 1,2-dibromoethane (EDB), 1,2-dichloroethane, 1,2-dichloropropane (1,2-DCP), 1,1,2-trichloroethane, 1,2,3-trichloropropane (1,2,3-TCP), and vinyl chloride.

Releases at the CHS Property impacted soil and groundwater and have migrated in groundwater to the southwest. One or more IHSs have been detected in groundwater at concentrations exceeding the Site cleanup levels in groundwater samples collected 2,000 to 2,500 feet down-gradient of the source area on the CHS Property. The southwest-trending groundwater plume is relatively narrow in width compared to its length, approximately 300 feet at the widest point.

An extensive groundwater monitoring network is in place at the Site consisting of both shallow and deep monitoring wells designed to monitor groundwater near the top and bottom of the uppermost aquifer at the Site. Shallow monitoring wells at the Site are completed to a total depth of approximately 20 to 25 feet below ground surface; and deep monitoring wells to a total depth of approximately 40 to 45 feet below ground surface. The groundwater plume has been regularly monitored since 1996 to ensure cleanup activities at the CHS Property continue to protect human health and the environment.

Historical remedial actions at the Site included removal of COC-affected soil from the former rinsate pond, fumigant tank, and rinse pad areas and installation of an air sparge and soil vapor extraction (SVE) system. CHS completed installation and start-up of the current microsparge/SVE (MS/SVE) soil and groundwater treatment system at the Site in November 2001. Performance air and groundwater compliance monitoring generally has been conducted quarterly since system start-up. Details of system start-up and operation were presented in the *Cleanup Action Report, Cenex Harvest States Cooperative [sic] Site, 300 Division Street, Quincy, Washington* dated April 5, 2002, prepared by Farallon (2002). The MS/SVE system conducts three primary operations:

- Extraction of VOCs from vadose zone soil using SVE wells VEW-1 through VEW-9 (VEW wells);
- Air sparging for stripping of VOCs from groundwater at two depths in MS/SVE microsparge wells (MSW) MSW-1 through MSW-12; and
- Extraction of VOCs from vadose zone soil and stripped VOC vapors from the SVE component of the 12 MSW wells.



The MS/SVE system has operated under a modified configuration since August 2021 that was approved by Ecology (2021) to optimize recovery of VOCs (Farallon 2021). Details of the November 2022 to September 2023 MS/SVE system operations are provided in Section 4.0, Operation and Maintenance Annual Summary.

1.2 ORGANIZATION

This Annual Report is organized into the following sections:

- **Section 2, Performance Air Monitoring Annual Summary and Evaluation**, presents the performance air monitoring results for the past year.
- **Section 3, Groundwater Compliance Monitoring Annual Summary**, presents a summary of the groundwater elevation and analytical results for the past year.
- **Section 4, Operation and Maintenance Annual Summary**, provides a summary of O&M activities conducted for the MS/SVE system and monitoring wells at the Site over the past year.
- **Section 5, Second Periodic Review**, provides a summary of the final Second Periodic Review (PR) completed by Ecology for the Site in December 2022, and work toward implementing the Second PR recommendations.
- **Section 6, Conclusions**, provides Farallon's conclusions pertaining to the ongoing remediation and monitoring activities at the Site.
- **Section 7, References**, presents a list of the documents cited in this report.
- **Section 8, Limitations**, presents Farallon's standard limitations for this Annual Report.



2.0 PERFORMANCE AIR MONITORING ANNUAL SUMMARY

This section presents a summary of the results from performance air monitoring conducted over the past year. Performance air samples were collected in November 2022, and January, June, and September 2023 from monitoring ports installed in the MS/SVE system effluent and influent piping. The monitoring ports for the influent and effluent monitoring conducted at the Site are located as follows:

- MSW influent monitoring: upstream of the air bleed-in valve, and upstream of all carbon filters to monitor the air drawn from the MSW wells;
- Vapor extraction well (VEW) influent monitoring: upstream of the air bleed-in valve, and upstream of all carbon filters to monitor the air drawn from the VEW wells.
- Effluent monitoring: downstream of all carbon filters; and
- Breakthrough effluent monitoring: downstream of the first carbon filter.

In addition to the MSW and VEW influent, effluent, and breakthrough air samples, air samples were collected from the three VEW well piping runs in November 2022, and June and September 2023 as part of the MS/SVE system operational modification evaluation.

A summary of the performance air sampling parameters and analytical results for the past year are provided in Tables 1 through 3 and as follows:

- IHSs were not detected at a concentration exceeding the laboratory practical quantitation limit (PQL) of 1.0 microgram per liter ($\mu\text{g/l}$) in the effluent or breakthrough effluent air samples collected during the November 2022 or June and September 2023 sampling events (Table 2).
- 1,2-DCP was detected at concentrations exceeding laboratory PQLs in the air samples collected from the MSW and VEW monitoring ports in November 2022, and January, June, and September 2023 (Table 3).
- Vinyl chloride was detected at concentrations exceeding the laboratory PQL in air samples collected from the VEW well monitoring port in September 2023 (Table 3).
- Chloroform was detected at a concentration exceeding laboratory the laboratory PQL in air samples collected from the MSW well monitoring port in November 2022 and from the VEW well monitoring port in November 2022 and September 2023 (Table 3).



- 1,2-DCP was detected at the highest concentrations in the air samples collected from the VEW piping run for VEW wells VEW-1 through VEW-3 ranging from 72 to 140 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) (Table 3).
- 1,2-DCP was detected at the lowest concentrations in the air samples collected from the VEW piping run for VEW wells VEW-7 through VEW-9 ranging from 33 to 38 $\mu\text{g}/\text{m}^3$ (Table 3).

Chart 1 depicts 1,2-DCP concentrations detected in the air samples collected from the MSW and VEW monitoring ports from March 2015 through September 2023, and shows the significant periods of MS/SVE system shut-down periods (shaded in blue) that occurred due to planned evaluation shut-down periods or unforeseen mechanical malfunctions. The shut-down periods were:

- Between April 20, 2015 and February 10, 2016;
- Between February 1 and April 2, 2018;
- Between January 31 and July 18, 2019;
- Between May 19 and September 23, 2020;
- Between August 17 and October 28, 2021;
- Between June 13 and November 10, 2022;
- Between December 31, 2022 and Jun 22, 2023; and
- Between July 20 and September 26, 2023.

1,2-DCP concentrations detected in the air samples collected from the VEW monitoring port increased following restart of the MS/SVE system after the shutdown periods between June and November 2022 and July and September 2023, which is consistent with 1,2-DCP concentrations detected in the VEW air samples following restart of the MS/SVE system after other shutdown periods identified above. 1,2-DCP concentrations detected in the air samples collected from the MSW monitoring port were relatively unchanged following the shutdown periods with a slight increase following the July to September 2023 shutdown period. Concentrations of 1,2-DCP in air samples tend to decrease upon continuous operation of the MS/SVE system as previously observed following prior shutdown and restart cycles of the MS/SVE system.

1,2-DCP concentrations in vadose zone soil gas appear to reach static levels as shown by 1,2-DCP concentrations decreasing to near the laboratory PQLs in air samples collected



from the MSW and VEW monitoring ports when the MS/SVE system operates continuously (Table 3; Chart 1).

In 2021, based on the historical data, Ecology approved the following modifications to the operation of the MS/SVE system to optimize recovery of IHSs and further reduce IHS concentrations in groundwater in the vicinity of the MS/SVE system:

- Operate the MS/SVE system on an alternating schedule with the system off for approximately 3 months beginning the summer of 2021 and on for approximately 9 months beginning the fall of 2021.
- Operation of the MS and SVE components of MSW wells MSW-11 and MSW-12 and operation of MSW wells MSW-5 through MSW-10 with airflows set at approximately 60 standard cubic feet per hour (scfh) in the lower portions of the MSW wells, and at 10 to 15 scfh in the upper portions of the MSW wells.
- Collect air samples from each of the three piping runs of the VEW wells prior to shutting the MS/SVE system off in the summer of 2021 and upon restart of the MS/SVE system in the fall of 2021. If the air samples collected from the individual piping runs indicate one or more of the piping runs does not contain concentrations of IHSs exceeding the laboratory PQL, the piping run(s) will be turned off to focus SVE airflow in areas where IHSs are present in the vadose zone to maximize recovery.

The MS/SVE system has operated under the modified operational scenario detailed above since August 2021.

Results from the air samples collected from each of the three VEW well piping runs in November 2022 and June and September 2023 indicated that all three of the piping runs contained IHSs exceeding the laboratory PQL. Therefore, all three of the piping runs remained on during MS/SVE operation. The highest concentrations of IHSs were detected in the VEW piping run from VEW wells VEW-1 through VEW-3.

The estimated mass of 1,2-DCP recovered by the MS/SVE system has been calculated since February 2016. 1,2,3-TCP has not been detected at concentrations exceeding the laboratory PQL in air samples collected from the MS/SVE system at a frequency to enable calculation of the mass recovered.



The estimated mass of 1,2-DCP recovered by the MS/SVE system over the past year was 0.020 pound. The estimated mass of 1,2-DCP recovered by the MS/SVE system between February 2016 and September 2023 was 0.295 pound (Table 4).

A summary of the estimated mass of 1,2-DCP recovered by the MSW-series and the VEW-series SVE wells is provided in Chart 2, which also depicts extended periods of MS/SVE system planned and unplanned shut-down periods (shaded in blue). Following each of the MS/SVE system shut-down periods between 2015 and 2023, the rate of 1,2-DCP recovery by the system increased for several quarters compared to the rate of recovery prior to the shut-downs.

While the MS/SVE system continues to recover 1,2-DCP from the CHS Property, the amount recovered is minimal. Only 0.087 pound was recovered over the last 2 years under the modified operation and only 0.295 pound recovered over the last 7.5 years, despite continued optimization efforts. The pulsed operation of the MS/SVE system has shown temporary increases in the 1,2-DCP concentrations detected in influent air samples immediately after system restart; however, concentrations detected generally decrease to levels similar before the shutdown period by the next sampling event (scheduled each quarter) (Chart 1). Short-term increases in contaminant recovery after restarting the MS/SVE system is typical and are not representative of overall system performance or IHS recovery trends.



3.0 GROUNDWATER COMPLIANCE MONITORING ANNUAL SUMMARY

This section presents a summary of the groundwater compliance monitoring results for the past year, including groundwater elevation and analytical results for the quarterly groundwater monitoring events conducted in January, March, June, and September 2023.

3.1 GROUNDWATER ELEVATION

Groundwater elevation measurements from the past year of monitoring are provided in Table 5. Groundwater elevation contour maps for the shallow monitoring well network were constructed using data collected during the past four quarterly groundwater monitoring events to depict the direction and gradient of groundwater flow at the Site. The groundwater elevation contour map for the September 2023 monitoring event is provided in Appendix A on Figure A1. Groundwater elevation contour maps for the January, March, and June 2023 monitoring events are provided in Appendix B on Figures B1 through B3.

The groundwater flow direction at the Site is generally to the southeast with a south-southwest groundwater flow direction in the down-gradient area of the Site, near the West Canal. Groundwater elevations generally fluctuate seasonally due to irrigation activities conducted in the area, resulting in an increase in groundwater elevation during the spring and summer irrigation season, and a decrease in groundwater elevation during the fall and winter. Historically, the highest groundwater elevations in the shallow monitoring well network typically were measured during the third quarter monitoring event each year, and the lowest during the first quarter monitoring event. Groundwater measurements over the past several years have shown shifts in seasonal elevation trends in areas of the Site, as discussed below.

Over the past year, groundwater elevations in the shallow monitoring well network were generally the highest during the September 2023 monitoring event and lowest during the March 2023 monitoring event with the exception of monitoring wells near the West Canal, which had the highest elevations during the June 2023 monitoring event (Table 5).

Surface water elevations measured in the West Canal over the past year were the highest during the June 2023 monitoring event and the lowest during the January 2023 monitoring event. The surface water elevation in the West Canal influences the groundwater elevation, gradient, and flow direction in monitoring wells adjacent to the canal. When the surface water elevation in the West Canal is high (June), higher groundwater elevations usually are observed in adjacent monitoring wells; when the surface water elevation in the West Canal



is low (January) lower groundwater elevations are observed. A steeper groundwater gradient generally is observed in monitoring wells adjacent to the West Canal when the surface water elevation in the West Canal is low (Table 5; Chart 3).

Surface water elevations measured in the West Canal drainage ditch over the past year were lowest in March 2023 and the highest in June and September 2023. Surface water elevations measured in the West Canal drainage ditch generally have been lower than groundwater elevations measured in monitoring wells adjacent to the West Canal drainage ditch during the June and September monitoring events at the Site, indicating that shallow groundwater discharges to the West Canal drainage ditch for approximately one-half of the year (Chart 3). However, the surface water elevation measured in the West Canal drainage ditch over the past year was only lower than the groundwater elevations measured in monitoring well MW-41 and MW-42 in June 2023 and MW-41 in September 2023 (Chart 3).

3.2 ANALYTICAL RESULTS

This section presents a summary of the groundwater compliance monitoring analytical results for this reporting year of monitoring at the Site.

3.2.1 Isoconcentration Contour Figures

Groundwater analytical results from the past year of monitoring at the Site are summarized in Table 6. The isoconcentration contours and groundwater analytical results for 1,2-DCP in the shallow and the deep monitoring well networks for the January, March, and June 2023 monitoring events are presented in Appendix C on Figures C1 through C10. Figures A2 through A9 depict isoconcentration contours and groundwater analytical results for 1,2-DCP and 1,2,3-TCP in the shallow and deep monitoring wells for the September 2023 monitoring event. For construction of the isoconcentration figures, monitoring wells not sampled as part of the quarterly monitoring program were assumed to contain no detectable concentrations of 1,2-DCP and/or 1,2,3-TCP, based on recent (2020) and historical groundwater monitoring results for the Site.

A southeast-trending plume of dissolved-phase 1,2-DCP and 1,2,3-TCP is present at concentrations exceeding the Site cleanup level in groundwater at the Site. The overall plume geometry in the shallow and deeper groundwater for 2023 has remained consistent with historical data. Concentrations of 1,2-DCP and 1,2,3-TCP continue to fluctuate slightly within the plume area with overall stable to decreasing overall concentration trends associated with historical source control measures.



1,2-DCP and 1,2,3-TCP concentrations detected in groundwater samples collected from monitoring well MW-41, located adjacent to the West Canal, appear to be disconnected from the 1,2-DCP/1,2,3-TCP plume at the Site, indicating a separate source. Monitoring well MW-41 is approximately 30 feet cross- to up-gradient of the 1,2-DCP/1,2,3-TCP plume associated with the Site (Figures A1 through A3, B1 through B3, C1, C3, and C7). The apparent separate source of 1,2-DCP/1,2,3-TCP detected in monitoring well MW-41 has been noted since 2015 (Farallon 2015).

1,2-DCP and 1,2,3-TCP has not been detected at concentrations exceeding the Site cleanup level in groundwater samples collected from monitoring wells MW-34, MW-39, and MW-44, the farthest down-gradient wells in the deep monitoring well network at the Site, over the past year of monitoring (Figures A6, C2, C5, and C9).

3.2.2 Cross Sections

Cross sections depicting 1,2-DCP distribution in groundwater in the shallow aquifer beneath the Site for the January, March, and June 2023 monitoring events are presented in Appendix D on Figures D1 through D3. Figures A10 and A11 depict cross sections of the 1,2-DCP and 1,2,3-TCP distribution in groundwater at the Site for the September 2023 sampling event. The cross sections were constructed along the approximate center line of the 1,2-DCP and 1,2,3-TCP groundwater plume, with monitoring wells outside of the centerline projected to line A-A' on Figure 3 and shown on the cross sections for spatial reference. The cross sections constructed over the past year generally show the highest concentrations of 1,2-DCP in deep groundwater down-gradient of the CHS Property in the central portion of the Site. The highest concentrations of 1,2,3-TCP have been detected in groundwater samples collected from monitoring wells MW-16 and MW-24, in the central portion of the CHS Property.

3.2.3 Domestic Water Supply Well

Groundwater samples were collected from the privately owned domestic water supply well on the property southeast of the West Canal (Figure 3) during the September 2023 sampling event. The domestic water supply well did not contain concentrations of IHSs exceeding the laboratory PQLs or Site cleanup levels, which is consistent with previous samples collected from the domestic water supply well.



4.0 OPERATION AND MAINTENANCE ANNUAL SUMMARY

This section provides a summary of the O&M activities conducted for the MS/SVE system and monitoring wells at the Site over the past year.

4.1 MICROSPARGING/SOIL VAPOR EXTRACTION SYSTEM

The MS/SVE system is operating under a modified configuration approved by Ecology (2021) to optimize recovery of VOCs (Farallon 2021). The modified operational scenario consists of the following:

- Operating VEW wells VEW-1 through VEW-9;
- Operating the MS and SVE components of MSW wells MSW-5 through MSW-12 only;
- Controlling airflow to the upper portion of MSW wells MSW-5 through MSW-12 at 5 scfh, and to the deep portion of MSW wells MSW-5 through MSW-12 at 60 scfh; and
- Operating the MS/SVE system under a pulsed operational mode, off in the summer and on in the fall, winter, and spring.

O&M activities conducted on the MS/SVE system from November 2022 through June 2023 were detailed in quarterly reports previously submitted to Ecology (Farallon 2023a, 2023b, 2023d). O&M activities conducted in September 2023 are provided in Appendix A.

A summary of O&M activities conducted on the MS/SVE system over the past year is provided below.

Routine O&M activities on the MS/SVE system were conducted in May, June, and September 2023. The MS/SVE system was not operating for the January and March 2023 monitoring events after a replacement blower installed in November 2022 was found to be malfunctioning.

A new ROTRON Regenerative DR858AY72W blower was installed at the Site on May 24, 2023. The MS/SVE system was restarted following installation of the blower and air flow to the MSW wells, overall system pressure and vacuum were adjusted.

The MS/SVE system shut down on May 26, 2023 and attempts by CHS to re-start the system were unsuccessful. Ecology was notified of the MS/SVE shutdown via email on June 14, 2023 (Farallon 2023c). On June 22, 2023, Tobin Electric of Quincy, Washington inspected the remediation system equipment and found that the float switch inside the



knock-out drum was broken, which was causing the system to shut down. A new float switch was installed along with a time delay and the remediation system was restarted.

CHS turned off the remediation system on July 20, 2023 for the summer and the system remained off until September 26, 2023 when it was restarted. The MS/SVE system will remain on until the June 2024 sampling event when it will be shut down as part of the planned pulsed operational modifications (Farallon 2021).

During the 2023 monitoring events, aboveground piping was inspected for leaks, misalignment, loose fittings, corrosion, deformation, and overall condition; the temperature of air sparge piping was checked tactilely at the connections between the galvanized steel pipe and the polyvinyl chloride piping; and fittings on the carbon filtration system and the biofilter were inspected for leaks, misalignment, and loose fittings. All fittings appeared to be tight and in alignment.

During the September 2023 monitoring event, the piping for the deep portion of well MSW-9 and the flow meter for the deep portion of well MSW-8 were found to be broken. Both the deep portions of these wells have been turned off and will be repaired for the December 2023 monitoring event.

4.2 MONITORING WELLS

During each of the monitoring events conducted over the past year, monitoring wells were inspected for overall integrity; gasket seals were cleaned and inspected; and missing bolts, washers, and gasket seals were replaced, as needed. Site monitoring wells, including monitoring wells not part of the routine quarterly compliance groundwater monitoring and sampling program, were inspected for overall integrity during the March 2023 monitoring event.

Monitoring well monuments that were identified during the March 2023 sampling event as needing maintenance were replaced or re-tapped during the June 2023 monitoring event. The monuments for monitoring wells MW-25, MW-30, MW-31, MW-33, MW-40, and MW-41 were replaced and the bolt holes re-tapped for monitoring wells MW-17, MW-29, MW-34, MW-36, MW-37, MW-39, and MW-42 through MW-46.

The condition of monitoring well MW-4 was evaluated following construction at the adjacent building and it was observed that the monument for monitoring well MW-4 will need to be



replaced. Work to replace the well monument for MW-4 will be conducted in the spring of 2024.

4.3 ASPHALT MAINTENANCE

On July 20, 2023, cracks were repaired and the asphalt sealed on the CHS Property. An asphalt cap is maintained on the CHS Property to prevent direct contact with soil and to enhance the MS/SVE system efficiency in accordance with the Consent Decree (Ecology 2001b). The asphalt cap also prevents surface water infiltration on the CHS Property (Farallon 2002).



5.0 SECOND PERIODIC REVIEW

Ecology completed the Second PR for the Site in December 2022 (Ecology 2022). The Second PR concluded that although cleanup levels have not been met at the point of compliance at the Site, human health and the environment continue to be protected. Ecology reviewed the 2020 vapor intrusion (VI) assessment prepared to evaluate the VI risk at Quincy Middle School (Farallon 2020). Ecology separately conducted VI assessment to evaluate the VI risk at Quincy Middle School and determined that the current conditions do not represent a VI risk to the school.

The Second PR noted that the MS/SVE system continues to remove small quantities of IHSs from soil and groundwater on the CHS Property and the residual IHS concentrations in the source-area soil are low and are expected to fall below the Site cleanup levels. The Second PR also noted that groundwater monitoring data indicate that the concentrations and mass of IHSs in groundwater continue to slowly decline and have declined measurably since the 2009 PR (Ecology 2009). Ecology concluded that if the current cleanup approaches are maintained with continued system optimization, cleanup levels can potentially be met in most areas of the Site within the next 10 years.

Recommendations by Ecology in the Second PR for the Site are as follows:

- Continue groundwater monitoring at an agreed-upon frequency and sampling locations.
- Continue to optimize the MS/SVE system operations at the CHS Property as proposed and approved by Ecology in August 2021.
- Continue to optimize the vadose zone SVE operations at the CHS property, where possible. Collect soil gas samples from individual SVE wells to assess any potential elevated IHS areas. Modify existing SVE operations according to the approved plan to address SVE wells that show the highest IHS vapor concentrations.
- Sample the domestic water supply well southeast of the West Canal at least once every 5 years for Site IHSs.
- Record environmental covenants for all parcels within the Site.
- Prepare a comprehensive remediation performance evaluation as part of an annual report submitted a year prior to the next PR.



Work to address the recommendations is on-going and progress toward completing the recommendations is provided in the following sections.

5.1 GROUNDWATER MONITORING FREQUENCY AND SCOPE

Groundwater monitoring has continued since the Second PR on a quarterly basis and at the monitoring wells specified in the approved *Draft Remedial Action Work Plan, Cenex Harvest States Cooperatives Site, 300 Division Street, Quincy, Washington* dated July 2, 2001, prepared by Farallon (2001) (RAP), approved by Ecology (2001c) on October 8, 2001.¹ Many monitoring wells have not contained concentrations of IHSs exceeding the laboratory PQLs for the last 10 years, and over 20 years of quarterly groundwater data has been collected at the Site. Further, the historical groundwater data has demonstrated that the plume is stable to decreasing over the past 10 years. For these reasons, CHS proposes the following changes to the groundwater frequency and sampling locations:

- Collect groundwater samples semiannually during the first and third quarters from monitoring wells MW-3, MW-5, MW-6, MW-7, MW-13, MW-16, MW-17, MW- 20, MW- 24 through MW-26, MW-28 through MW-31, MW-34, MW-35, MW-38, MW-39, MW- 42 through MW-44, and MW-46 for IHSs. IHSs generally are detected at concentrations exceeding the laboratory PQL and/or Site cleanup level in these wells. If this sampling frequency is approved by Ecology, the first semiannual event would be conducted in the first quarter of 2024.
- Collect groundwater samples every 18 months from monitoring wells MW-1, MW-2, MW-8, MW-9, MW-11, MW-12, MW-15, MW-21, MW-32, MW-33, MW-36, MW-37, MW-40, MW-41, and MW-45 for IHSs. The 18-month interval will allow for collection of groundwater samples from select Site monitoring wells during an alternating semiannual event every other year. Groundwater samples will be collected in March 2024 per the current quarterly schedule and then if approved by Ecology, the next event would occur at these wells in the third quarter of 2025.
- Prepare and submit semiannual and annual reports documenting the first and third quarter groundwater compliance monitoring events and any MS/SVE system operations or sampling conducted in the first and third quarters. In addition, submit performance air monitoring letter reports for the second and fourth quarters to

¹ Monitoring wells installed at the Site subsequent to the approval of the RAP have also been included in quarterly monitoring events (monitoring wells MW-34 through MW-46).



document any MS/SVE system operations or sampling conducted in the second and fourth quarters.

5.2 OPTIMIZE MS/SVE SYSTEM

The MS/SVE system is operating under a modified operational scenario to optimize recovery of VOCs (Farallon 2021). As discussed in Section 2.0, Performance Air Monitoring Annual Summary, the system is being pulsed to optimize the recovery with planned operation of the system for approximately 9 months between the September and June monitoring events and the system off during the summer for approximately 3 months. The current modified operational scenario has been implemented for the past 2 years, beginning in August 2021. Despite the optimization efforts, the mass removal continues to be negligible nor has there been a corresponding benefit on groundwater quality (Appendix E). It does not appear that the MS/SVE system can be further optimized and it is not expected to further reduce the mass of IHSs at the CHS Property or the Site with continued operation. The reductions in IHS concentrations at and immediately down-gradient of the CHS Property are likely associated with dispersion of the residual dissolved-phase IHSs.

The MS/SVE system has recovered approximately 0.295 pound of 1,2-DCP over the last 7.5 years of operation, and has recovered an estimated 0.087 pound of 1,2-DCP over the last 2 years of operation under the current pulsed operational scenario. As previously stated, the continued optimization efforts do not appear to have had a significant impact on increasing the 1,2-DCP recovered by the MS/SVE system. Continued operation of the system is not anticipated to significantly reduce the restoration time frame for cleanup of the CHS Property or Site. However, at this time, CHS will conduct system repairs and continue to operate the system to evaluate whether optimization efforts without shutdowns increases IHS mass removal and/or have a notable beneficial effect on groundwater quality that could reduce the overall cleanup restoration time. The results of the system operation performance data will be presented as a component of the remediation performance evaluation in the next annual report along with recommendations for further actions. CHS understands that the remediation performance evaluation will not coincide with the next Ecology periodic review period. However, Ecology and CHS have agreed that evaluating the system optimization efforts without the unexpected shutdowns that have occurred has value for evaluating potential further actions. Details regarding the proposed operations plan for 2024 will be presented to Ecology under a separate cover.



5.3 DOMESTIC WATER SUPPLY WELL

The domestic water supply well southeast of the West Canal was sampled during the September 2023 monitoring event and samples will be collected once every 5 years as recommended by Ecology.

5.4 ENVIRONMENTAL COVENANTS

CHS has been working to record environmental covenants for parcels within the Site that do not currently have environmental covenants. Parcels identified in the Second PR owned by Blakal Packing Inc. were found to be subject to an environmental covenant recorded in 2001. CHS has contacted the property owner for Grant County Parcel No. 040376001 and is currently working to finalize an environmental covenant for the parcel. CHS has also contacted the City of Quincy and is currently working to finalize an environmental covenant for the Grant County Parcel No. 040376001. Once the environmental covenants for these two parcels have been recorded, the parcels identified within the Site boundary will have environmental covenants recorded.

5.5 REMEDIATION PERFORMANCE EVALUATION

A remediation performance evaluation will be prepared as part of the next annual report submitted in 2025. At that time, the results of the MS/SVE system optimization efforts will be reviewed again to determine whether the system will continue to operate with ongoing optimization efforts, whether the system should be shut down without further active treatment measures, or whether additional focused remediation measures are appropriate to meet the remedial action objectives.



6.0 CONCLUSIONS

1,2-DCP and 1,2,3-TCP continue to be detected at concentrations exceeding Site cleanup levels in groundwater samples collected from Site monitoring wells during the past year of groundwater monitoring, which is consistent with previous sampling results. The geometry of the plumes, including the lateral and vertical distribution, has remained relatively stable since groundwater sampling began in the late 1990s. The down-gradient and lateral extent of 1,2,3-TCP in groundwater at the Site has remained less widespread than that of 1,2-DCP (Figures A2 through A9 and Appendix C). Groundwater conditions, including the flow direction, and groundwater quality through the distribution of the plumes are well understood due to results collected over the past 20 years of groundwater monitoring. Therefore, the quarterly groundwater sampling frequency is no longer necessary to determine plume stability or potential impacts to human health or the environment. The semiannual monitoring frequency proposed in Section 5.1 is appropriate and has been discussed with Ecology. A groundwater monitoring plan will be submitted to Ecology prior to the March 2024 groundwater sampling event and will be implemented in March 2024 upon approval from Ecology.

1,2-DCP was detected in SVE effluent air samples collected from the MSW and VEW monitoring ports over the past year of MS/SVE system operation. The estimated mass of 1,2-DCP recovered by the MS/SVE system since February 2016 is 0.295 pound. The source of 1,2-DCP detected in SVE influent air samples appears to be residual soil gas in the vadose zone soil and stripped VOCs from groundwater. The continued optimization efforts to increase IHS mass removal at the CHS Property have not been successful but due to equipment issues, the system has not operated continuously during the planned operational time periods. The MS/SVE system compressor repairs will be completed, and the system restarted to include the sparge portion of the select MSW wells. The MS/SVE system vacuum blower is currently operating the VEW wells and the VEW portion of MSW wells MSW-5 through MSW-12. The system performance will be evaluated to determine whether continued operation and optimization results in increased IHS mass removal and/or improvements in groundwater quality that correlate directly to the MS/SVE system operation and could result in a notable decrease in the overall cleanup restoration time. The aforementioned groundwater monitoring plan will include details regarding system operation optimization plans for 2024. The results of the operation performance data will be presented as a component of the remediation performance evaluation in the next annual report along with recommendations for further actions. .



The next quarterly groundwater compliance monitoring and performance air sampling event at the Site is scheduled for March 2024. A quarterly sampling event was conducted in December 2023 in accordance with the current sampling schedule. The operation of the MS/SVE system will continue per the requirements of the Consent Decree and the findings in the Second PR (Ecology 2022). As previously cited herein, the remediation performance under the optimized operations will be evaluated again in the next annual report.



7.0 REFERENCES

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8.0 LIMITATIONS

8.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and CHS, and currently accepted industry standards. No other warranties, representations, or certifications are made.

8.2 LIMITATION ON RELIANCE BY THIRD PARTIES

Reliance by third parties is prohibited. This report/assessment has been prepared for the exclusive use of CHS to address the unique needs of CHS at the Site at a specific point in time.

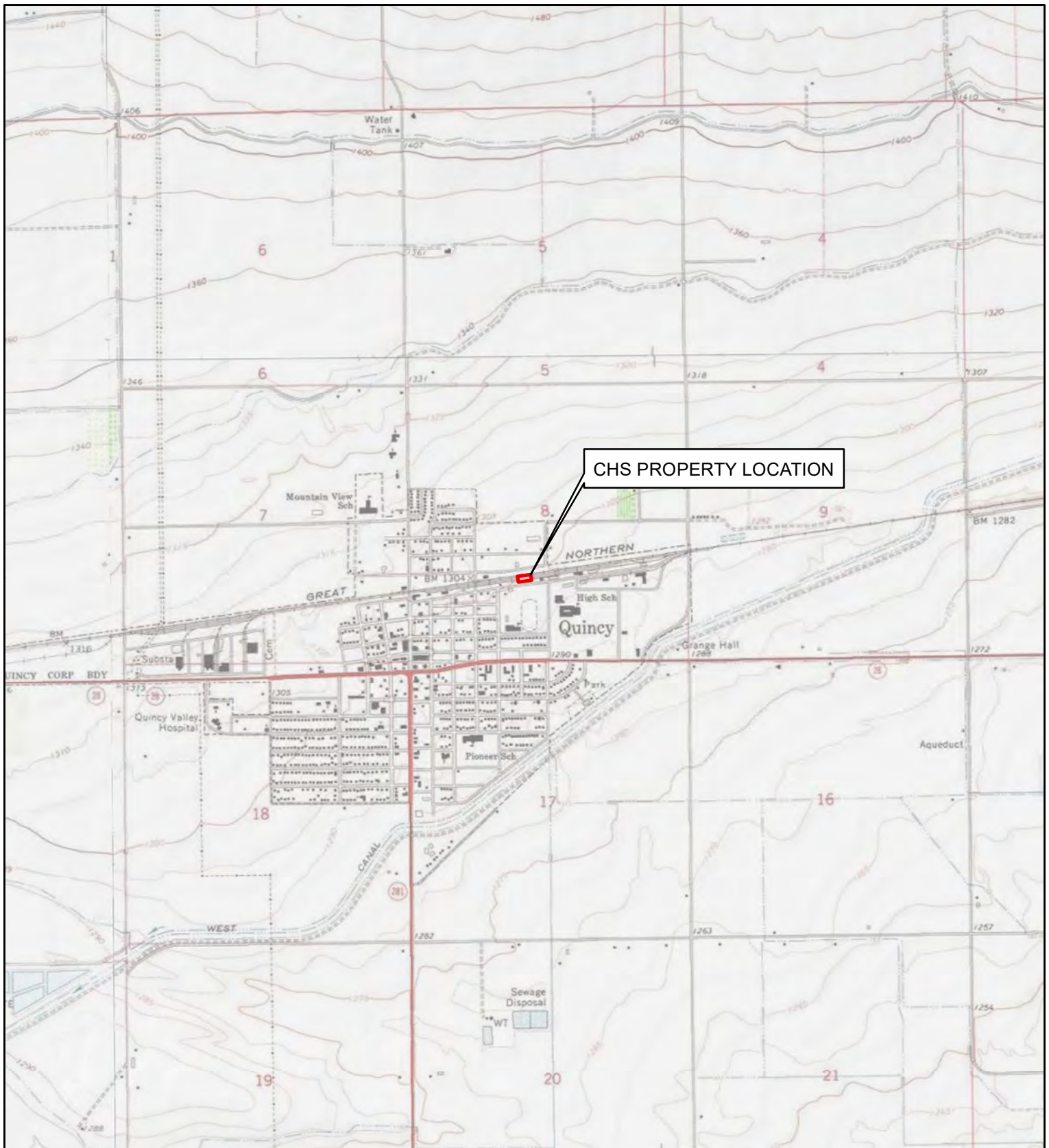


This is not a general grant of reliance. No one other than CHS may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

ANNUAL REPORT 2023
Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington

Farallon PN: 301-001



REFERENCE: 7.5 MINUTE USGS QUADRANGLE QUINCY, WASHINGTON, DATED 2013



0 2,500
SCALE IN FEET



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FIGURE 1

PROPERTY VICINITY MAP
CENEX HARVEST STATES
COOPERATIVES SITE
QUINCY, WASHINGTON
FARALLON PN: 301-001

Drawn By: jjones

Checked By: AM

Date: 11/30/2023

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LEGEND

- AIR SPARGE WELL
- MICROSPARGE WELL
- VAPOR EXTRACTION WELL
- MONITORING WELL (SHALLOW)
- MONITORING WELL (DEEP)
- AIR SPARGE WELL PIPING
- MICROSPARGE EXTRACTION WELL PIPING
- VAPOR EXTRACTION WELL PIPING
- CURRENT SITE FEATURE
- FORMER SITE FEATURE
- GRANT COUNTY PARCEL BOUNDARY
- CHS PROPERTY BOUNDARY

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SCALE IN FEET

1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR.
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FIGURE 2

CHS PROPERTY PLAN
CENEX HARVEST STATES COOPERATIVES SITE
QUINCY, WASHINGTON

FARALLON PN: 301-001



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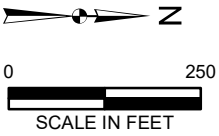
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LEGEND

- MONITORING WELL (SHALLOW)
- MONITORING WELL (DEEP)
- WEST CANAL SURVEYED MEASURING POINT
- WEST CANAL DRAINAGE DITCH SURVEYED MEASURING POINT
- DOMESTIC WELL
- WEST CANAL/DRAINAGE DITCH FLOW DIRECTION
- WEST CANAL DRAINAGE DITCH CULVERT
- CHS PROPERTY BOUNDARY
- WEST CANAL DRAINAGE DITCH
- LINE OF CROSS-SECTION



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FIGURE 3

CHS PROPERTY AND DOWN-GRADIENT
MONITORING WELL NETWORK
CENEX HARVEST STATES COOPERATIVES SITE
QUINCY, WASHINGTON

FARALLON PN: 301-001



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TABLES

ANNUAL REPORT 2023
Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington

Farallon PN: 301-001

Table 1
Air Sampling Parameters
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Sample Volume (liters)	Sampling Device	Sample Start Time	Sample End Time	Sample Duration (minutes)	Initial Pressure (inches of mercury) ¹	Final Pressure (inches of mercury) ²
MSW Wells									
Influent From MSW Wells, Upstream of Air Bleed-In Valve	MSW-121420-P-A	12/14/2020	1	Summa Canister	15:52	15:58	0:06	-28.0	-5.0
	MSW-033121-P-A	3/31/2021	1	Summa Canister	8:48	8:55	0:07	-29.0	-5.0
	MSW-062321-P-A	6/23/2021	1	Summa Canister	12:13	12:19	0:06	-27.0	-5.0
	MSW-102821-P-A	10/28/2021	6	Summa Canister	16:40	17:09	0:29	-26.0	-7.4
	MSW-121421-P-A	12/14/2021	6	Summa Canister	8:34	8:41	0:07	-27.0	-22.0
	MSW-032922-P-A	3/29/2022	6	Summa Canister	8:45	9:33	0:48	-27.0	-6.0
	MSW-111022	11/10/2022	6	Summa Canister	16:18	16:54	0:36	-27.0	-5.0
	MSW-011023-P-A	1/10/2023	6	Summa Canister	17:30	18:04	0:34	-25.0	-4.5
	MSW-062223-P-A	6/22/2023	6	Summa Canister	14:03	14:43	0:40	-27.0	-4.0
	MSW-092623-P-A	9/26/2023	6	Summa Canister	15:39	16:19	0:40	-26.0	-5.0
VEW Wells									
Influent From VEW Wells	VEW-121420-P-A	12/14/2020	1	Summa Canister	15:56	16:02	0:06	-29.0	-5.0
	VEW-033121-P-A	3/31/2021	1	Summa Canister	8:55	9:01	0:06	-27.0	-5.0
	VEW-062321-P-A	6/23/2021	1	Summa Canister	12:26	12:33	0:07	-29.0	-5.0
	VEW-102821-P-A	10/28/2021	6	Summa Canister	16:38	17:12	0:34	-28.7	-8.4
	VEW-121421-P-A	12/14/2021	6	Summa Canister	9:11	9:23	0:12	-25.5	-20.5
	VEW-032922-P-A	3/29/2022	6	Summa Canister	9:46	11:55	2:09	-28.0	-7.0
	VEW-111022	11/10/2022	6	Summa Canister	16:19	17:02	0:43	-27.2	-5.0
	VEW-011023	1/10/2023	6	Summa Canister	17:30	18:04	0:34	-26.0	-4.75
	OVERALL-062223-P-A	6/22/2023	6	Summa Canister	14:03	14:39	0:36	-26.0	-5.0
	VEW-092623-P-A	9/26/2023	6	Summa Canister	16:30	17:11	0:41	-26.0	-5.0

Table 1
Air Sampling Parameters
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Sample Volume (liters)	Sampling Device	Sample Start Time	Sample End Time	Sample Duration (minutes)	Initial Pressure (inches of mercury) ¹	Final Pressure (inches of mercury) ²
VEW Wells - Individual Piping Runs									
Influent From VEW Wells VEW-1 through VEW-3 (MSW Wells Off)	VEW-1-081721-P-A	8/17/2021	1	Summa Canister	11:36	11:43	0:07	-30.0	-5.0
	VEW-123-102821-P-A	10/28/2021	6	Summa Canister	14:20	15:08	0:48	-27.5	-9.1
	VEW-1-111022	11/10/2022	6	Summa Canister	15:02	15:48	0:46	-24.5	-5.0
	VEW-123-062223-P-A	6/22/2023	6	Summa Canister	13:10	13:48	0:38	-27.0	-5.0
	VEW-123-092623-P-A	9/26/2023	6	Summa Canister	8:35	9:15	0:40	-26.0	-5.0
Influent From VEW Wells VEW-4 through VEW-6 (MSW Wells Off)	VEW-2-081721-P-A	8/17/2021	1	Summa Canister	11:48	11:54	0:06	-28.5	-5.0
	VEW-456-102821-P-A	10/28/2021	6	Summa Canister	15:50	16:24	0:34	-28.5	-8.1
	VEW-2-111022	11/10/2022	6	Summa Canister	15:03	15:40	0:37	-26.7	-5.0
	VEW-456-062223-P-A	6/22/2023	6	Summa Canister	12:17	13:41	1:24	-26.0	-5.0
	VEW-456-092623-P-A	9/26/2023	6	Summa Canister	12:40	13:17	0:37	-26.0	-5.0
Influent From VEW Wells VEW-7 through VEW-9 (MSW Wells Off)	VEW-3-081721-P-A	8/17/2021	1	Summa Canister	11:58	12:03	0:05	-25.0	-5.0
	VEW-789-102821-P-A	10/28/2021	6	Summa Canister	15:50	16:24	0:34	-28.6	-9.0
	VEW-3-111022	11/10/2022	6	Summa Canister	15:04	15:37	0:33	-25.0	-5.0
	VEW-789-062223-P-A	6/22/2023	6	Summa Canister	12:17	13:42	1:25	-25.0	-5.0
	VEW-789-092623-P-A	9/26/2023	6	Summa Canister	13:24	14:10	0:46	-25.0	-5.0
Breakthrough Monitoring									
Downstream from First Carbon Filter	ECF1E-121520-P-A	12/15/2020	1	Tedlar Bag	9:45	N/A	N/A	N/A	N/A
	ECF1E-033121-P-A	3/31/2021	1	Tedlar Bag	9:05	N/A	N/A	N/A	N/A
	ECF1E-062321-P-A	6/23/2021	1	Tedlar Bag	12:50	N/A	N/A	N/A	N/A
	ECF1E-102821-P-A	10/28/2021	1	Tedlar Bag	16:50	N/A	N/A	N/A	N/A
	ECF1E-102821-P-A	3/29/2022	1	Tedlar Bag	8:16	N/A	N/A	N/A	N/A
	MID-CARBON-062223	6/22/2023	1	Tedlar Bag	13:55	N/A	N/A	N/A	N/A
	ECF1E-092723-P-A	9/27/2023	1	Tedlar Bag	8:26	N/A	N/A	N/A	N/A

Table 1
Air Sampling Parameters
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Sample Volume (liters)	Sampling Device	Sample Start Time	Sample End Time	Sample Duration (minutes)	Initial Pressure (inches of mercury) ¹	Final Pressure (inches of mercury) ²
Effluent Monitoring									
Downstream of All Carbon Filters	AAE-121520-P-A	12/15/2020	1	Tedlar Bag	9:50	N/A	N/A	N/A	N/A
	AAE-033121-P-A	3/31/2021	1	Tedlar Bag	9:00	N/A	N/A	N/A	N/A
	AAE-062321-P-A	6/23/2021	1	Tedlar Bag	12:52	N/A	N/A	N/A	N/A
	AAE-102121-P-A	10/28/2021	1	Tedlar Bag	16:52	N/A	N/A	N/A	N/A
	AAE-102121-P-A	3/29/2022	1	Tedlar Bag	8:17	N/A	N/A	N/A	N/A
	Carbon-EFFLUENT-111022	11/10/2022	1	Tedlar Bag	16:20	N/A	N/A	N/A	N/A
	POST-CARBON-062223	6/22/2023	1	Tedlar Bag	13:56	N/A	N/A	N/A	N/A
	AAE-092723-P-A	9/27/2023	1	Tedlar Bag	8:37	N/A	N/A	N/A	N/A

NOTES:

¹Pressure in Summa canister prior to sample collection.

²Final pressure in Summa canister at termination of sample collection.

MSW = microsparge well

N/A = not applicable

VEW = vapor extraction well

Table 2
Summary of Laboratory Analytical Results for IHSs in Effluent Air
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Air Sample Location	Sample Date	Analytical Results (micrograms per liter) ¹						
		Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
Effluent Monitoring: Downstream of All Carbon Filters	12/14/2021	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	3/29/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	11/10/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	6/22/2023	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	9/27/2023	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.3
Breakthrough Monitoring: Downstream from First Carbon Filter	12/14/2021	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	3/29/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	6/22/2023	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
	9/27/2023	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.3

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

IHSs = indicator hazardous substances

¹Analyzed using U.S. Environmental Protection Agency Method 8260D.

Table 3
Summary of Laboratory Analytical Results for IHSs in SVE Influent Air
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per cubic meter) ¹						
			Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
MSW Wells									
Influent Upstream of Air Bleed-In Valve	MSW-032015-P-A	3/20/2015	<0.47	<0.90	<0.74	16	<1.0	<1.4	<5.5
Influent Upstream of Air Bleed-In Valve (MSW Wells Off)	MSW-072215-P-A	7/22/2015	<0.45	<0.85	<0.71	17	<0.95	<1.3	<5.3
Influent Upstream of Air Bleed-In Valve	MSW-031416-P-A	3/14/2016	<0.45	<0.85	<0.71	39	<0.95	<1.3	9.0
Influent Upstream of Air Bleed-In Valve	MSW-060916-P-A	6/9/2016	<0.49	<0.94	<0.78	<0.89	<1.0	<1.5	<5.8
Influent Upstream of Air Bleed-In Valve	MSW-072716-P-A	7/27/2016	<0.47	<0.90	<0.74	14	<1.0	<1.4	<5.5
Influent Upstream of Air Bleed-In Valve	MSW-091516-P-A	9/15/2016	<0.46	<0.87	<0.72	9.6	<0.98	<1.4	<5.4
Influent Upstream of Air Bleed-In Valve	MSW-120816-P-A	12/8/2016	<0.40	<0.76	<0.63	5.4	<0.84	<1.2	<4.7
Influent Upstream of Air Bleed-In Valve	MSW-032317-P-A	3/23/2017	<0.41	<0.78	<0.64	4.5	<0.87	<1.2	<4.8
Influent Upstream of Air Bleed-In Valve	MSW-062717-P-A	6/27/2017	<0.45	<0.85	<0.71	<0.81	<0.95	<1.3	<5.3
Influent Upstream of Air Bleed-In Valve	MSW-092017-P-A	9/20/2017	<0.42	<0.80	<0.66	8.5	<0.89	<1.3	<4.9
Influent Upstream of Air Bleed-In Valve	MSW-122117-P-A	12/21/2017	<0.40	<0.77	<0.64	5.2	<0.86	<1.2	<4.7
Influent Upstream of Air Bleed-In Valve	MSW-040418-P-A	4/4/2018	< 0.44	< 0.83	< 0.69	17	< 0.93	< 1.3	< 5.2
Influent Upstream of Air Bleed-In Valve	MSW-062018-P-A	6/20/2018	<0.43	<0.82	<0.68	9.6	<0.92	<1.3	<5.1
Influent Upstream of Air Bleed-In Valve	MSW-092018-P-A	9/20/2018	<0.42	<0.80	<0.66	8.2	<0.89	<1.3	<4.9
Influent Upstream of Air Bleed-In Valve	MSW-121818-P-A	12/18/2018	<0.47	<0.90	<0.75	2.2	<1.0	<1.4	<5.6

Table 3
Summary of Laboratory Analytical Results for IHSs in SVE Influent Air
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per cubic meter) ¹						
			Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
MSW Wells Continued									
Influent Upstream of Air Bleed-In Valve	MSW-071819-P-A	7/18/2019	0.46	<0.77	<0.64	22	<0.86	<1.2	<4.8
Influent Upstream of Air Bleed-In Valve	MSW-091919-P-A	9/19/2019	<0.40	<0.77	<0.64	12	<0.86	<1.2	ND ²
Influent Upstream of Air Bleed-In Valve	MSW-121219-P-A	12/12/2019	<0.79	0.21	0.13	4.5	<0.34	<0.24	<19 ²
Influent Upstream of Air Bleed-In Valve	MSW-092320-P-A	9/23/2020	<0.89	0.58	<0.14	35	<0.19	<0.27	<21 ²
Influent Upstream of Air Bleed-In Valve	MSW-121420-P-A	12/14/2020	< 0.89	< 0.17	< 0.14	2.9	< 0.19	< 0.27	< 21 ⁵
Influent Upstream of Air Bleed-In Valve	MSW-033121-P-A	3/31/2021	< 0.84	< 0.16	< 0.13	8.5	< 0.18	< 0.25	< 20 ⁵
Influent Upstream of Air Bleed-In Valve	MSW-062321-P-A	6/23/2021	< 1.7	< 0.32	< 0.26	20	< 0.35	< 0.50	< 39 ⁵
Influent Upstream of Air Bleed-In Valve	MSW-102821-P-A	10/28/2021	< 0.42	< 0.80	< 0.67	39	< 0.90	< 1.3	< 5.0
Influent Upstream of Air Bleed-In Valve	MSW-121421-P-A	12/14/2021	< 1.2	< 2.3	< 1.9	7.8	< 2.6	< 3.6	< 14
Influent Upstream of Air Bleed-In Valve	MSW-032922-P-A	3/29/2022	< 0.39	< 0.75	< 0.62	7.5	< 0.83	< 1.2	< 4.6
Influent Upstream of Air Bleed-In Valve	MSW-111022	11/10/2022	< 0.35	0.66 J	< 0.55	20	< 0.74	< 1.0	< 4.1
Influent Upstream of Air Bleed-In Valve	MSW-011023-P-A	1/10/2023	< 0.36	< 0.68	< 0.56	7.8	< 0.76	< 1.1	< 4.2
Influent Upstream of Air Bleed-In Valve	MSW-062223-P-A	6/22/2023	< 0.36	< 0.68	< 0.57	9.0	< 0.76	< 1.1	< 4.2
Influent Upstream of Air Bleed-In Valve	MSW-092623-P-A	9/26/2023	< 0.34	< 0.66	< 0.55	17	< 0.74	< 1.0	< 4.1
VEW Wells									
Influent From VEW Wells	VEW-032015-P-A	3/20/2015	<0.46	<0.88	<0.73	23	<0.98	<1.4	<5.4
Influent From VEW Wells (MSW Wells Off)	VEW-072215-P-A	7/22/2015	2.2	1.4	<0.79	92	<1.1	<1.5	6.7
Influent From VEW Wells	VEW-031416-P-A	3/14/2016	<0.44	<0.85	<0.70	56	<0.95	<1.3	<5.2
Influent From VEW Wells	VEW-060916-P-A	6/9/2016	<0.48	<0.91	1	<0.86	<1.0	<1.4	<5.6

Table 3
Summary of Laboratory Analytical Results for IHSs in SVE Influent Air
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per cubic meter) ¹						
			Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
VEW Wells Continued									
Influent From VEW Wells	VEW-072716-P-A	7/27/2016	<0.48	<0.93	<0.77	<0.88	<1.0	<1.5	<5.7
Influent From VEW Wells	VEW-091516-P-A	9/15/2016	<0.43	<0.83	<0.69	34	<0.93	<1.3	<5.1
Influent From VEW Wells	VEW-120816-P-A	12/8/2016	<0.41	<0.79	<0.66	13	<0.88	<1.2	<4.9
Influent From VEW Wells	VEW-032317-P-A	3/23/2017	<0.35	<0.66	<0.55	5.5	<0.74	<1.0	<4.1
Influent From VEW Wells	VEW-062717-P-A	6/27/2017	<0.43	<0.82	<0.68	<0.78	<0.92	<1.3	<5.1
Influent From VEW Wells	VEW-092017-P-A	9/20/2017	<0.39	<0.75	<0.62	<0.71	<0.83	<1.2	<4.6
Influent From VEW Wells	VEW-122117-P-A	12/21/2017	<0.41	<0.78	<0.65	6.7	<0.87	<1.2	<4.8
Influent From VEW Wells	VEW-040418-P-A	4/4/2018	<0.46	<0.87	<0.72	31	<0.98	<1.4	<5.4
Influent From VEW Wells	VEW-062018-P-A	6/20/2018	<0.45	<0.86	<0.72	38	<0.96	<1.4	<5.3
Influent From VEW Wells	VEW-092018-P-A	9/20/2018	<0.42	<0.80	<0.66	29	<0.89	<1.3	<4.9
Influent From VEW Wells	VEW-121818-P-A	12/18/2018	<0.44	<0.85	<0.70	2.1	<0.95	<1.3	<5.2
Influent From VEW Wells	VEW-071819-P-A	7/18/2019	1.2	<0.74	<0.62	43	<0.83	<1.2	<4.6
Influent From VEW Wells	VEW-091919-P-A	9/19/2019	<0.40	<0.76	<0.63	49	<0.84	<1.2	1.1 ^{2,3,4}
Influent From VEW Wells	VEW-121219-P-A	12/12/2019	<0.79	<0.15	0.15	4.5	<0.34	<0.24	<19 ²
Influent From VEW Wells	VEW-092320-P-A	9/23/2020	<0.87	0.90	<0.14	63	0.19	<0.26	<20 ²
Influent From VEW Wells	VEW-121420-P-A	12/14/2020	< 0.92	< 0.18	< 0.15	< 0.83	< 0.2	< 0.28	< 21 ⁵
Influent From VEW Wells	VEW-033121-P-A	3/31/2021	< 0.92	< 0.18	< 0.15	5.2	< 0.2	< 0.28	< 22 ⁵
Influent From VEW Wells	VEW-062321-P-A	6/23/2021	< 1.6	0.36	< 0.25	32	< 0.33	< 0.47	< 37 ⁵

Table 3
Summary of Laboratory Analytical Results for IHSs in SVE Influent Air
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per cubic meter) ¹						
			Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
VEW Wells Continued									
Influent From VEW Wells	VEW-102821-P-A	10/28/2021	1.1	1.2	< 0.61	100	0.99	< 1.2	6.9
Influent From VEW Wells	VEW-121421-P-A	12/14/2021	< 1.2	< 2.2	< 1.8	16	< 2.5	< 3.5	< 14
Influent From VEW Wells	VEW-032922-P-A	3/29/2022	< 0.39	< 0.75	< 0.62	2.3	< 0.84	< 1.2	< 4.6
Influent From VEW Wells	VEW-OVERALL-111022	11/10/2022	< 0.31	1.5	< 0.49	85	< 0.66	< 0.94	< 3.7
Influent From VEW Wells	VEW-011023-P-A	1/10/2023	< 0.38	< 0.72	< 0.60	26	< 0.81	< 1.1	< 4.5
Influent From VEW Wells	OVERALL-062223-P-A	6/22/2023	< 3.8	< 7.4	< 6.1	19	< 8.2	< 12	< 46
Influent From VEW Wells	VEW-092623-P-A	9/26/2023	0.65	0.78	< 0.57	52	< 0.76	< 1.1	< 4.2
VEW Wells – Individual Piping Runs									
Influent From VEW Wells VEW-1 through VEW-3 (MSW Wells Off)	VEW-123-121815-P-A	12/18/2015	5.2	3.8	<0.74	250	<0.99	<1.4	8.0
	VEW-1-081721-P-A	8/17/2021	<2.2	<0.42	<0.35	58	0.56	<0.66	<52 ⁵
	VEW-123-102821-P-A	10/28/2021	2.3	1.4	<0.71	160	1.6	<0.81	<5.3
	VEW-1-111022	11/10/2022	2.4	1.9	< 0.60	120	< 0.81	< 1.1	< 4.5
	VEW-123-062223-P-A	6/22/2023	1.4	0.75	< 0.62	72	< 0.84	< 1.2	< 4.6
	VEW-123-092623-P-A	9/26/2023	3.2	1.7	< 0.62	140	1.6	< 1.2	< 4.6
Influent From VEW Wells VEW-4 through VEW-6 (MSW Wells Off)	VEW-456-121815-P-A	12/18/2015	6.9	5.4	<0.83	250	<1.1	<1.6	7.2
	VEW-2-081721-P-A	8/17/2021	<1.6	<0.3	<0.25	32	<0.33	<0.47	<36 ⁵
	VEW-456-102821-P-A	10/28/2021	<0.37	1.1	<0.58	99	0.99	<1.1	8.5
	VEW-2-111022	11/10/2022	< 0.34	1.7	< 0.54	82	< 0.73	< 1.0	5.6
	VEW-456-062223-P-A	6/22/2023	1.1	0.84	< 0.61	58	< 0.82	< 1.2	< 4.6
	VEW-456-092623-P-A	9/26/2023	1.8	1.5	< 0.58	80	0.87	< 1.1	< 4.3

Table 3
Summary of Laboratory Analytical Results for IHSs in SVE Influent Air
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Analytical Results (micrograms per cubic meter) ¹						
			Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
VEW Wells – Individual Piping Runs Continued									
Influent From VEW Wells VEW-7 through VEW-9 (MSW Wells Off)	VEW-789-121815-P-A	12/15/2015	0.88	1.2	<0.74	100	<1.0	<1.4	6.9
	VEW-3-081721-P-A	8/17/2021	<1.4	<0.27	<0.22	14	<0.3	<0.42	<33 ⁵
	VEW-789-102821-P-A	10/28/2021	<0.39	0.82	<0.62	72	<0.83	<1.2	<4.6
	VEW-3-111022	11/10/2022	< 0.36	< 0.68	< 0.56	36	< 0.76	< 1.1	< 4.2
	VEW-789-062223-P-A	6/22/2023	< 0.47	< 0.90	< 0.74	33	< 1.0	< 1.4	< 5.5
	VEW-789-092623-P-A	9/26/2023	< 0.37	< 0.71	< 0.59	38	< 0.80	< 1.1	< 4.4

NOTES:

Results in **bold** denote concentrations detected exceeding the laboratory reporting limit.

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

¹Analyzed by U.S. Environmental Protection Agency Method TO-15 GC/MS.

²Tentatively identified compound.

³The identification is based on presumption.

⁴Estimated.

⁵The reported concentration was generated from a library search.

IHSs = indicator hazardous substances

J = result is an estimate

MS/SVE = microsparge/soil vapor extraction

MSW = microsparge well

ND = not detected

SVE = soil vapor extraction

VEW = vapor extraction well

Table 4
Summary of MS/SVE System 1,2-DCP Recovered February 2016 to July 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Airflow Rate (scfm)	1,2-Dichloropropane Analytical Results (micrograms per cubic meter) ¹	Recovery Rate (milligrams per minute) ²	Amount Recovered Between Events (pounds)	Cumulative Amount Recovered (pounds)
MSW Wells							
Influent Upstream of Air Bleed-In Valve	— ³	2/10/2016	81.47	— ³	0.090	— ³	— ³
	MSW-031416-P-A	3/14/2016	70.55	39	0.078	0.0088	0.0088
	MSW-060916-P-A	6/9/2016	119.92	<0.89	0.0015	0.0110	0.0198
	MSW-072716-P-A	7/27/2016	106.75	14	0.042	0.0033	0.0231
	MSW-091516-P-A	9/15/2016	129.28	9.6	0.035	0.0061	0.029
	MSW-120816-P-A	12/8/2016	109.51	5.4	0.017	0.0069	0.036
	MSW-032317-P-A	3/23/2017	128.81	4.5	0.016	0.0055	0.042
	MSW-062717-P-A	6/27/2017	128.81	<0.81	0.0015	0.0027	0.044
	MSW-092017-P-A	9/20/2017	128.81	8.5	0.031	0.0044	0.049
	MSW-122117-P-A	12/21/2017	112.79	5.2	0.017	0.0069	0.056
	— ⁴	2/1/2018	112.79	— ⁴	0.017	0.0022	0.058
	— ⁵	4/2/2018	— ⁵	— ⁵	— ⁵	— ⁵	0.058
	MSW-040418-P-A	4/4/2018	101.43	17	0.049	0.0002	0.058
	MSW-062018-P-A	6/20/2018	84.79	9.6	0.023	0.0088	0.067
	MSW-092018-P-A	9/20/2018	94.07	8.2	0.022	0.0065	0.074
	MSW-121818-P-A	12/18/2018	90.47	2.2	0.006	0.0039	0.077
	— ⁶	1/31/2019	90.47	— ⁶	0.006	0.0008	0.078
	MSW-071819-P-A	7/18/2019	91.08	22	0.057	— ⁷	0.078
	MSW-091919-P-A	9/19/2019	119.92	12	0.041	0.0097	0.088
	MSW-121219-P-A	12/12/2019	119.92	4.5	0.015	0.0075	0.095
	— ⁸	5/19/2020	— ⁸	— ⁸	0.015	0.0077	0.103
	MSW-092320-P-A	9/23/2020	138.36	35	0.137	— ⁹	0.103
	MSW-121420-P-A	12/14/2020	166.3	2.9	0.014	0.0196	0.123
	MSW-033121-P-A	3/31/2021	96.97	8.5	0.023	0.0062	0.129
	MSW-062321-P-A ¹⁰	6/23/2021	141.11	20	— ¹⁰	— ¹⁰	0.129
	— ¹¹	8/17/2021	141.11	— ¹¹	0.080	0.0090	0.138
	MSW-121421-P-A	12/14/2021	132.53	7.8	0.029	0.0207	0.159
	MSW-032922-P-A	3/29/2022	132.53	7.5	0.028	0.0095	0.168
	— ¹²	6/13/2022	132.53	— ¹²	0.028	0.0068	0.175
	MSW-111022	11/10/2022	99.15	20	— ¹³	— ¹³	0.175
	— ¹⁴	12/31/2022	— ¹⁴	— ¹⁴	0.05615	0.0057	0.181
	MSW-011023-P-A	1/10/2023	66.22	7.8	0.01463	— ¹⁵	0.181
	MSW-062223-P-A	6/22/2023	102.51	9.0	— ¹⁶	— ¹⁶	0.181
	— ¹⁷	7/20/2023	— ¹⁷	— ¹⁷	0.02612	0.0023	0.183
	MSW-092623-P-A	9/26/2023	128.81	17	— ¹⁸	— ¹⁸	0.183

Table 4
Summary of MS/SVE System 1,2-DCP Recovered February 2016 to July 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Sample Location	Sample Identification	Sample Date	Airflow Rate (scfm)	1,2-Dichloropropane Analytical Results (micrograms per cubic meter) ¹	Recovery Rate (milligrams per minute) ²	Amount Recovered Between Events (pounds)	Cumulative Amount Recovered (pounds)
VEW Wells							
Influent From VEW Wells	— ³	2/10/2016	32.43	— ³	0.051	— ³	— ³
	VEW-031416-P-A	3/14/2016	21.40	56	0.0339	0.0045	0.0045
	VEW-060916-P-A	6/9/2016	25.70	<0.86	0.00031	0.0047	0.0092
	VEW-072716-P-A	7/27/2016	19.45	<0.88	0.00024	0.000042	0.0092
	VEW-091516-P-A	9/15/2016	36.35	34	0.035	0.0028	0.0120
	VEW-120816-P-A	12/8/2016	38.46	13	0.014	0.0066	0.019
	VEW-032317-P-A	3/23/2017	26.80	5.5	0.0042	0.0031	0.022
	VEW-062717-P-A	6/27/2017	25.10	<0.78	0.00028	0.0007	0.022
	VEW-092017-P-A	9/20/2017	25.10	<0.71	0.00025	0.0001	0.022
	VEW-122117-P-A	12/21/2017	43.19	6.7	0.00819	0.0012	0.024
	— ⁴	2/1/2018	43.19	— ⁴	0.00819	0.0011	0.025
	— ⁵	4/2/2018	— ⁵	— ⁵	— ⁵	— ⁵	0.025
	VEW-040418-P-A	4/4/2018	34.58	31	0.03036	0.0001	0.025
	VEW-062018-P-A	6/20/2018	31.17	38	0.03354	0.0077	0.033
	VEW-092018-P-A	9/20/2018	45.10	29	0.03704	0.0104	0.043
	VEW-121818-P-A	12/18/2018	45.17	2.1	0.00269	0.0056	0.049
	— ⁶	1/31/2019	45.17	— ⁶	0.00269	0.0004	0.049
	VEW-071819-P-A	7/18/2019	35.78	43	0.04357	— ⁷	0.049
	VEW-091919-P-A	9/19/2019	36.98	49	0.05131	0.0095	0.058
	VEW-121219-P-A	12/12/2019	36.98	4.5	0.00471	0.0075	0.066
	— ⁸	5/19/2020	— ⁸	— ⁸	0.00471	0.0024	0.068
	VEW-092320-P-A	9/23/2020	41.92	63	0.07478	— ⁹	0.068
	VEW-121420-P-A	12/14/2020	53.60	<0.83	0.00063	0.0098	0.078
	VEW-033121-P-A	3/31/2021	37.92	5.2	0.00558	0.0010	0.079
	VEW-062321-P-A ¹⁰	6/23/2021	39.28	32	— ¹⁰	— ¹⁰	0.079
	— ¹¹	8/17/2021	39.28	— ¹¹	0.03559	0.0062	0.085
	VEW-121421-P-A	12/14/2021	41.94	16	0.01900	0.0103	0.096
	VEW-032922-P-A	3/29/2022	41.94	2.3	0.00273	0.0036	0.099
	— ¹²	6/13/2022	41.94	— ¹²	0.00273	0.0007	0.100
	VEW-OVERALL-111022	11/10/2022	39.78	85	— ¹³	— ¹³	0.100
	— ¹⁴	12/31/2022	— ¹⁴	— ¹⁴	0.09575	0.0098	0.110
	VEW-011023-P-A	1/10/2023	36.98	26	0.02723	— ¹⁵	0.110
	OVERALL-062223-P-A	6/22/2023	47.10	19	— ¹⁶	— ¹⁶	0.110
	— ¹⁷	7/20/2023	— ¹⁷	— ¹⁷	0.02534	0.0022	0.112
	VEW-092623-P-A	9/26/2023	53.00	52	— ¹⁸	— ¹⁸	0.112
TOTAL							0.295

NOTES:

Results in **bold** denote concentrations exceeding laboratory reporting limit.

— denotes not

< denotes analyte not detected at or exceeding the reporting limit listed.

¹Analyzed by U.S. Environmental Protection Agency Method TO-15 GC/MS.

²Where analyte was not detected, half the detection limit was used for calculation.

³Analytical results from the March 14, 2016 sampling event were used for calculation.

⁴Analytical results from the December 21, 2017 sampling event were used for calculation; the MS/SVE system was shut down on February 1, 2018.

⁵MS/SVE system was restarted on April 2, 2018.

⁶Analytical results from the December 18, 2018 sampling event were used for calculation; the MS/SVE system was shut down on January 31, 2019.

⁷MS/SVE system was restarted on July 18, 2019.

⁸Analytical results from the December 12, 2019 sampling event were used for calculation; the MS/SVE system was shut down on May 19, 2020.

⁹MS/SVE system was restarted on September 21, 2020.

¹⁰MS/SVE system not operating upon arrival for sampling event on June 21, 2021, recovery rate and amount of 1,2-DCP recovered not calculated.

¹¹Analytical results from the June 23, 2021 sampling event were used for calculation; the MS/SVE system operated from June 23 to August 17, 2021.

¹²Analytical results and airflow rate from the March 29, 2022 sampling event were used for calculation; the MS/SVE system operated from March 29 to June 13, 2022.

¹³MS/SVE system restarted on November 10, 2022 after the planned shutdown period between June 13 and November 10, 2022.

¹⁴MS/SVE system shutdown sometime the end of December 2022 or first week of January 2023.

¹⁵Recovery not calculated, used average of the recovery rate calculated for the November 10, 2022 and January 10, 2023 sampling events for calculation of recovered amount between November 10 and December 31, 2022.

¹⁶MS/SVE system restarted on June 22, 2023.

¹⁷MS/SVE system shutdown July 20, 2023.

¹⁸MS/SVE system restarted on September 26, 2023.

1,2-DCP = 1,2-dichloropropane

MS/SVE = microsparge/soil vapor extraction

scfm = standard cubic feet per minute

VEW = vapor extraction well

Table 5
Groundwater and Surface Water Elevation Data
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well or Measuring Point Identification (total depth in feet) ¹	Screened Interval (feet) ²	Sample Date	Elevation Top of Well Casing or Measuring Point (feet) ³	Depth to Water (feet) ¹	Groundwater or Surface Water Elevation (feet) ³
MW-1 (26.31)	20-25	1/10/2023	1,303.29	20.99	1,282.30
		3/20/2023		21.30	1,281.99
		6/26/2023		21.22	1,282.07
		9/25/2023		20.36	1,282.93
MW-2 (26.00)	20-25	1/10/2023	1,303.46	21.38	1,282.08
		3/20/2023		21.70	1,281.76
		6/26/2023		21.58	1,281.88
		9/25/2023		20.69	1,282.77
MW-3 (27.14)	20-25	1/10/2023	1,302.76	20.79	1,281.97
		3/20/2023		21.17	1,281.59
		6/26/2023		20.84	1,281.92
		9/25/2023		20.06	1,282.70
MW-5 (24.38)	20-25	1/10/2023	1,299.53	17.54	1,281.99
		3/20/2023		17.91	1,281.62
		6/26/2023		17.65	1,281.88
		9/25/2023		16.79	1,282.74
MW-6 (24.36)	20-25	1/11/2023	1,299.75	18.33	1,281.42
		3/20/2023		18.61	1,281.14
		6/26/2023		18.23	1,281.52
		9/25/2023		17.34	1,282.41
MW-7 (23.92)	20-25	1/10/2023	1,299.76	17.84	1,281.92
		3/20/2023		18.24	1,281.52
		6/26/2023		18.00	1,281.76
		9/25/2023		17.10	1,282.66
MW-8 (60.31)	55-60	1/10/2023	1,303.82	21.84	1,281.98
		3/20/2023		22.27	1,281.55
		6/26/2023		22.03	1,281.79
		9/25/2023		21.13	1,282.69
MW-9 (42.70)	35-40	1/10/2023	1,302.83	20.7	1,282.13
		3/20/2023		21.05	1,281.78
		6/26/2023		20.92	1,281.91
		9/25/2023		20.01	1,282.82
MW-11 (25.29)	20-25	1/10/2023	1,300.97	19.58	1,281.39
		3/20/2023		20.05	1,280.92
		6/26/2023		19.52	1,281.45
		9/25/2023		18.66	1,282.31
MW-12 (24.71)	20-25	1/10/2023	1,297.41	16.48	1,280.93
		3/20/2023		17.01	1,280.40
		6/26/2023		16.30	1,281.11
		9/25/2023		15.45	1,281.96

Table 5
Groundwater and Surface Water Elevation Data
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well or Measuring Point Identification (total depth in feet) ¹	Screened Interval (feet) ²	Sample Date	Elevation Top of Well Casing or Measuring Point (feet) ³	Depth to Water (feet) ¹	Groundwater or Surface Water Elevation (feet) ³
MW-13 (44.85)	40-45	1/11/2023	1,299.34	18	1,281.34
		3/20/2023		18.25	1,281.09
		6/26/2023		17.94	1,281.40
		9/25/2023		16.95	1,282.39
MW-15 (43.20)	35-45	1/10/2023	1,300.71	19.49	1,281.22
		3/20/2023		20.00	1,280.71
		6/26/2023		19.45	1,281.26
		9/25/2023		18.62	1,282.09
MW-16 (45.20)	35-45	1/10/2023	1,300.08	18.02	1,282.06
		3/20/2023		18.46	1,281.62
		6/26/2023		18.38	1,281.70
		9/25/2023		17.34	1,282.74
MW-17 (45.18)	35-45	1/10/2023	1,297.55	16.64	1,280.91
		3/20/2023		17.15	1,280.40
		6/26/2023		16.45	1,281.10
		9/25/2023		15.59	1,281.96
MW-20 (26.80)	17-27	1/9/2023	1,296.97	16.61	1,280.36
		3/20/2023		17.26	1,279.71
		6/26/2023		16.15	1,280.82
		9/25/2023		15.42	1,281.55
MW-21 (25.15)	22-27	1/10/2023	1,296.28	15.8	1,280.48
		3/20/2023		16.36	1,279.92
		6/26/2023		15.50	1,280.78
		9/25/2023		14.74	1,281.54
MW-24 (23.84)	19-24 ⁴	1/10/2023	1,300.59	18.48	1,282.11
		3/20/2023		18.83	1,281.76
		6/26/2023		18.63	1,281.96
		9/25/2023		17.79	1,282.80
MW-25 (47.40)	43-48	1/10/2023	1,297.31	17.05	1,280.26
		3/20/2023		17.61	1,279.70
		6/26/2023		16.55	1,280.76
		9/25/2023		15.83	1,281.48
MW-26 (26.75)	23-28	1/10/2023	1,297.19	16.86	1,280.33
		3/20/2023		17.38	1,279.81
		6/26/2023		16.35	1,280.84
		9/25/2023		15.64	1,281.55
MW-28 (27.17)	18-28	1/10/2023	1,296.32	15.48	1,280.84
		3/20/2023		16.00	1,280.32
		6/26/2023		15.34	1,280.98
		9/25/2023		14.42	1,281.90

Table 5
Groundwater and Surface Water Elevation Data
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well or Measuring Point Identification (total depth in feet) ¹	Screened Interval (feet) ²	Sample Date	Elevation Top of Well Casing or Measuring Point (feet) ³	Depth to Water (feet) ¹	Groundwater or Surface Water Elevation (feet) ³
MW-29 (26.87)	23-28	1/9/2023	1,295.98	15.96	1,280.02
		3/20/2023		16.48	1,279.50
		6/26/2023		15.20	1,280.78
		9/25/2023		14.62	1,281.36
MW-30 (27.66)	18-28	1/9/2023	1,293.71	14.26	1,279.45
		3/20/2023		14.85	1,278.86
		6/26/2023		13.30	1,280.41
		9/25/2023		12.80	1,280.91
MW-31 (43.26)	33-43	1/9/2023	1,293.72	14.25	1,279.47
		3/20/2023		14.84	1,278.88
		6/26/2023		13.30	1,280.42
		9/25/2023		12.61	1,281.11
MW-32 (26.28)	17-27	1/9/2023	1,296.46	16.68	1,279.78
		3/20/2023		17.21	1,279.25
		6/26/2023		15.83	1,280.63
		45194.60		15.30	1,281.16
MW-33 (41.80)	32.5-42.5	1/9/2023	1,296.50	16.66	1,279.84
		3/20/2023		17.19	1,279.31
		6/26/2023		15.83	1,280.67
		9/25/2023		15.30	1,281.20
MW-34 (43.20)	34-44	1/9/2023	1,292.18	13.93	1,278.25
		3/20/2023		14.40	1,277.78
		6/26/2023		12.63	1,279.55
		9/25/2023		12.01	1,280.17
MW-35 (24.72)	15-25	1/9/2023	1,292.33	14.11	1,278.22
		3/20/2023		14.56	1,277.77
		6/26/2023		12.52	1,279.81
		9/25/2023		12.14	1,280.19
MW-36 (24.67)	15-25	1/9/2023	1,291.31	14.20	1,277.11
		3/20/2023		14.62	1,276.69
		6/26/2023		12.28	1,279.03
		9/25/2023		11.91	1,279.40
MW-37 (24.54)	15-25	1/9/2023	1,290.70	14	1,276.70
		3/20/2023		14.42	1,276.28
		6/26/2023		11.80	1,278.90
		9/25/2023		11.49	1,279.21
MW-38 (24.51)	15-25	1/10/2023	1,290.30	14.49	1,275.81
		3/20/2023		14.91	1,275.39
		6/26/2023		11.79	1,278.51
		9/25/2023		11.66	1,278.64
MW-39 (47.42)	37-47	1/10/2023	1,290.34	14.27	1,276.07
		3/20/2023		14.74	1,275.60
		6/26/2023		11.54	1,278.80
		9/25/2023		11.37	1,278.97

Table 5
Groundwater and Surface Water Elevation Data
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well or Measuring Point Identification (total depth in feet) ¹	Screened Interval (feet) ²	Sample Date	Elevation Top of Well Casing or Measuring Point (feet) ³	Depth to Water (feet) ¹	Groundwater or Surface Water Elevation (feet) ³
MW-40 (25.18)	15-25	1/9/2023	1,289.95	14.12	1,275.83
		3/20/2023		14.56	1,275.39
		6/26/2023		11.22	1,278.73
		9/25/2023		11.06	1,278.89
MW-41 (25.27)	15-25	1/9/2023	1,286.25	12.73	1,273.52
		3/20/2023		13.12	1,273.13
		6/26/2023		7.37	1,278.88
		9/25/2023		7.91	1,278.34
MW-42 (25.17)	15-25	1/9/2023	1,285.38	12.2	1,273.18
		3/20/2023		12.73	1,272.65
		6/26/2023		7.30	1,278.08
		9/25/2023		7.83	1,277.55
MW-43 (24.99)	15-25	1/9/2023	1,286.11	13.24	1,272.87
		3/20/2023		13.65	1,272.46
		6/26/2023		8.61	1,277.50
		9/25/2023		9.07	1,277.04
MW-44 (44.93)	35-45	1/9/2023	1,285.39	12.81	1,272.58
		3/20/2023		13.26	1,272.13
		6/26/2023		8.08	1,277.31
		9/25/2023		8.59	1,276.80
MW-45 (24.94)	15-25	1/9/2023	1,293.21	17.91	1,275.30
		3/20/2023		18.33	1,274.88
		6/26/2023		14.86	1,278.35
		9/25/2023		14.82	1,278.39
MW-46 (25.09)	15-25	1/9/2023	1,285.99	14.15	1,271.84
		3/20/2023		14.55	1,271.44
		6/26/2023		9.44	1,276.55
		9/25/2023		9.96	1,276.03
West Canal	NA	1/10/2023	1,295.86	21.33	1,274.53
		3/20/2023		21.00	1,274.86
		6/26/2023		8.58	1,287.28
		9/25/2023		9.53	1,286.33
West Canal Drainage Ditch	NA	1/10/2023	1,277.80	0.72	1277.08
		3/20/2023		0.80	1,277.00
		6/26/2023		0.00	1,277.80
		9/25/2023		0.00	1,277.80

NOTES:

¹In feet below top of well casing.

²In feet below ground surface according to boring logs for each monitoring well.

³Elevation in feet above mean sea level, adjusted to common datum.

⁴Screened interval estimated based on total depth of well. Farallon has not located a well installation log for monitoring well MW-24. The water well report filed with the Washington State Department of Ecology by the driller in 1998 listed a screened interval of 23 to 28 feet below ground surface, which appears to be an error, based on the measured total depth.

NA = not applicable

NM = not measured

Table 6
Summary of Laboratory Analytical Results for IHSs in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Analytical Results (micrograms per liter) ¹						
		Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
Domestic Well ²	6/24/2009	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/25/2014	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/26/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-1 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-2 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-3 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	0.55	< 0.20	< 0.20	0.63
	3/22/2023	< 0.20	< 0.20	< 0.20	0.38	< 0.20	< 0.20	0.88
	6/29/2023	< 0.20	< 0.20	< 0.20	1.3	< 0.20	< 0.20	0.78
	9/28/2023	< 0.20	< 0.20	< 0.20	1.1	< 0.20	< 0.20	0.97
MW-5 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	0.27	< 0.20	< 0.20	0.26
	3/22/2023	< 0.20	< 0.20	< 0.20	0.23	< 0.20	< 0.20	0.37
	6/28/2023	< 0.20	< 0.20	< 0.20	0.24	< 0.20	< 0.20	0.35
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-6 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	1.3	< 0.20	< 0.20	0.60
	3/22/2023	< 0.20	< 0.20	< 0.20	1.1	< 0.20	< 0.20	0.59
	6/28/2023	< 0.20	< 0.20	< 0.20	0.99	< 0.20	< 0.20	0.63
	9/27/2023	< 0.20	< 0.20	< 0.20	1.2	< 0.20	< 0.20	0.62
MW-7 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	0.73	< 0.20	< 0.20	0.22
	6/28/2023	< 0.20	< 0.20	< 0.20	1.1	< 0.20	< 0.20	0.33
	9/27/2023	< 0.20	< 0.20	< 0.20	1.4	< 0.20	< 0.20	0.34
MW-8 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/29/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-9 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-11 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/29/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Groundwater Cleanup Levels for the Cenex/Quincy Site ³		1⁴	7.2⁵	1⁴	1⁴	1⁴	1⁴	1⁴

Table 6
Summary of Laboratory Analytical Results for IHSs in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Analytical Results (micrograms per liter) ¹						
		Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
MW-12 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/28/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-13 (deep)	1/12/2023	< 0.20	< 0.20	< 0.20	0.26	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	0.32	< 0.20	< 0.20	0.29
	6/28/2023	< 0.20	< 0.20	< 0.20	0.78	< 0.20	< 0.20	0.87
	9/27/2023	< 0.20	< 0.20	< 0.20	0.97	< 0.20	< 0.20	0.83
MW-15 (deep)	1/12/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/22/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/29/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-16 (deep)	1/12/2023	< 0.20	< 0.20	< 0.20	2.7	< 0.20	< 0.20	2.8
	3/22/2023	< 0.20	< 0.20	< 0.20	2.2	< 0.20	< 0.20	2.2
	3/22/2023 ⁶	< 0.20	< 0.20	< 0.20	2.1	< 0.20	< 0.20	2.3
	6/28/2023	< 0.20	< 0.20	< 0.20	5.4	< 0.20	< 0.20	7.7
	9/28/2023	< 0.20	< 0.20	< 0.20	3.1	< 0.20	< 0.20	7.3
MW-17 (deep)	1/12/2023	< 0.20	< 0.20	< 0.20	1.8	< 0.20	< 0.20	0.99
	3/22/2023	< 0.20	< 0.20	< 0.20	1.1	< 0.20	< 0.20	0.82
	6/28/2023	< 0.20	< 0.20	< 0.20	0.98	< 0.20	< 0.20	0.84
	9/27/2023	< 0.20	< 0.20	< 0.20	1.6	< 0.20	< 0.20	1.1
MW-20 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	3.0	< 0.20	0.22	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	2.3	< 0.20	< 0.20	< 0.20
	6/28/2023	< 0.20	< 0.20	< 0.20	2.3	< 0.20	0.25	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	2.8	< 0.20	0.24	< 0.20
MW-24 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	2.1	< 0.20	< 0.20	6.8
	1/11/2023 ⁶	< 0.20	< 0.20	< 0.20	2.1	< 0.20	< 0.20	6.6
	3/22/2023	< 0.20	< 0.20	< 0.20	3.0	< 0.20	< 0.20	10
	6/28/2023	< 0.20	< 0.20	< 0.20	6.4	< 0.20	< 0.20	36
	9/28/2023	< 0.20	< 0.20	< 0.20	6.0	< 0.20	< 0.20	23
	9/28/2023 ⁶	< 0.20	< 0.20	< 0.20	5.7	< 0.20	< 0.20	22
MW-25 (deep)	1/12/2023	< 0.20	< 0.20	< 0.20	12	< 0.20	< 0.20	1.3
	3/21/2023	< 0.20	< 0.20	< 0.20	12	< 0.20	< 0.20	1.7
	6/28/2023	< 0.20	< 0.20	< 0.20	11	< 0.20	< 0.20	1.8
	6/28/2023 ⁶	< 0.20	< 0.20	< 0.20	10	< 0.20	< 0.20	1.8
	9/27/2023	< 0.20	< 0.20	< 0.20	13	< 0.20	< 0.20	1.1
	9/27/2023 ⁶	< 0.20	< 0.20	< 0.20	13	< 0.20	< 0.20	1.3
Groundwater Cleanup Levels for the Cenex/Quincy Site ³		1⁴	7.2⁵	1⁴	1⁴	1⁴	1⁴	1⁴

Table 6
Summary of Laboratory Analytical Results for IHSs in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Analytical Results (micrograms per liter) ¹						
		Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
MW-26 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	2.7	< 0.20	< 0.20	0.53
	3/22/2023	< 0.20	< 0.20	< 0.20	1.8	< 0.20	< 0.20	0.52
	6/28/2023	< 0.20	< 0.20	< 0.20	0.81	< 0.20	< 0.20	0.55
	9/27/2023	< 0.20	< 0.20	< 0.20	0.92	< 0.20	< 0.20	0.38
MW-28 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	2.0	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	4.1	< 0.20	< 0.20	< 0.20
	6/28/2023	< 0.20	< 0.20	< 0.20	5.7	< 0.20	< 0.20	0.24
	9/27/2023	< 0.20	< 0.20	< 0.20	8.1	< 0.20	< 0.20	0.21
MW-29 (shallow)	1/12/2023	< 0.20	< 0.20	< 0.20	1.2	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	0.72	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	0.57	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	0.79	< 0.20	< 0.20	< 0.20
MW-30 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	0.40	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	0.77	< 0.20	< 0.20	0.35
	6/27/2023	< 0.20	< 0.20	< 0.20	0.53	< 0.20	< 0.20	0.26
	9/28/2023	< 0.20	< 0.20	< 0.20	0.34	< 0.20	< 0.20	< 0.20
MW-31 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	9.6	< 0.20	< 0.20	0.76
	1/11/2023 ⁶	< 0.20	< 0.20	< 0.20	9.8	< 0.20	< 0.20	0.81
	3/21/2023	< 0.20	< 0.20	< 0.20	12	< 0.20	< 0.20	1.1
	3/21/2023 ⁶	< 0.20	< 0.20	< 0.20	12	< 0.20	< 0.20	1.1
	6/27/2023	< 0.20	< 0.20	< 0.20	7.6	< 0.20	< 0.20	1.1
	6/27/2023 ⁵	< 0.20	< 0.20	< 0.20	7.6	< 0.20	< 0.20	1.2
	9/28/2023	< 0.20	< 0.20	< 0.20	14	< 0.20	< 0.20	1.1
MW-32 (shallow)	1/11/2023	< 0.20	0.23	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	0.24	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	0.22	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	0.41	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-33 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-34 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	0.36	< 0.20	< 0.20	0.39
	6/27/2023	< 0.20	< 0.20	< 0.20	0.56	< 0.20	< 0.20	0.27
	9/27/2023	< 0.20	< 0.20	< 0.20	0.74	< 0.20	< 0.20	< 0.20
Groundwater Cleanup Levels for the Cenex/Quincy Site ³		1 ⁴	7.2 ⁵	1 ⁴	1 ⁴	1 ⁴	1 ⁴	1 ⁴

Table 6
Summary of Laboratory Analytical Results for IHSs in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Analytical Results (micrograms per liter) ¹						
		Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
MW-35 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	0.45	< 0.20	< 0.20	0.22
	3/21/2023	< 0.20	0.40	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	1.7	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	3.6	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-36 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-37 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-38 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	6.7	< 0.20	< 0.20	< 0.20
	1/11/2023 ⁶	< 0.20	< 0.20	< 0.20	6.6	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	5.9	< 0.20	< 0.20	< 0.20
	3/21/2023 ⁶	< 0.20	< 0.20	< 0.20	5.8	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	4.4	< 0.20	< 0.20	< 0.20
	6/27/2023 ⁶	< 0.20	< 0.20	< 0.20	4.6	< 0.20	< 0.20	< 0.20
	9/26/2023	< 0.20	< 0.20	< 0.20	6.3	< 0.20	< 0.20	< 0.20
MW-39 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	0.55	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	0.51	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/26/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-40 (shallow)	1/11/2023	< 0.20	0.24	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/26/2023	< 0.20	0.24	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-41 (shallow)	1/11/2023	< 0.20	< 0.20	0.24	2.4	< 0.20	< 0.20	1.9
	3/21/2023	< 0.20	< 0.20	< 0.20	1.4	< 0.20	< 0.20	2.2
	6/27/2023	< 0.20	< 0.20	< 0.20	2.3	< 0.20	< 0.20	0.97
	9/26/2023	< 0.20	< 0.20	< 0.20	1.6	< 0.20	< 0.20	0.32
MW-42 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	0.37	< 0.20	< 0.20	1.2
	9/26/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.35
Groundwater Cleanup Levels for the Cenex/Quincy Site ³		1⁴	7.2⁵	1⁴	1⁴	1⁴	1⁴	1⁴

Table 6
Summary of Laboratory Analytical Results for IHSs in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Analytical Results (micrograms per liter) ¹						
		Vinyl Chloride	Chloroform	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2-Trichloroethane	1,2-Dibromoethane	1,2,3-Trichloropropane
MW-43 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	4.2	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	4.0	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	0.25	< 0.20	< 0.20	0.53
	9/26/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-44 (deep)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	9/26/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW-45 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	0.28	< 0.20	< 0.20	0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	0.25	< 0.20	< 0.20	0.25
	6/27/2023	< 0.20	< 0.20	< 0.20	0.27	< 0.20	< 0.20	0.21
	9/27/2023	< 0.20	< 0.20	< 0.20	0.29	< 0.20	< 0.20	0.24
MW-46 (shallow)	1/11/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	3/21/2023	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	6/27/2023	< 0.20	< 0.20	< 0.20	0.46	< 0.20	< 0.20	< 0.20
	9/26/2023	< 0.20	< 0.20	< 0.20	0.83	< 0.20	< 0.20	< 0.20
Groundwater Cleanup Levels for the Cenex/Quincy Site³		1⁴	7.2⁵	1⁴	1⁴	1⁴	1⁴	1⁴

NOTES:

Results in **bold** denote concentrations at or exceeding applicable cleanup levels.

< denotes analyte not detected at or exceeding the reporting limit listed.

¹Analyzed by U.S. Environmental Protection Agency Method 8260D.

²Domestic well located at 16099 Highway 28, Quincy, Washington

³Groundwater cleanup levels established in the *Final Consent Decree and Cleanup Action* Washington State

Department of Ecology.

⁴Cleanup level based on analytical method practical quantitation

⁵Washington State Model Toxics Control Act Cleanup Regulation Cleanup

<https://fortress.wa.gov/ecy/clarc/>

⁶QA/QC duplicate sample.

IHSs = indicator hazardous substances

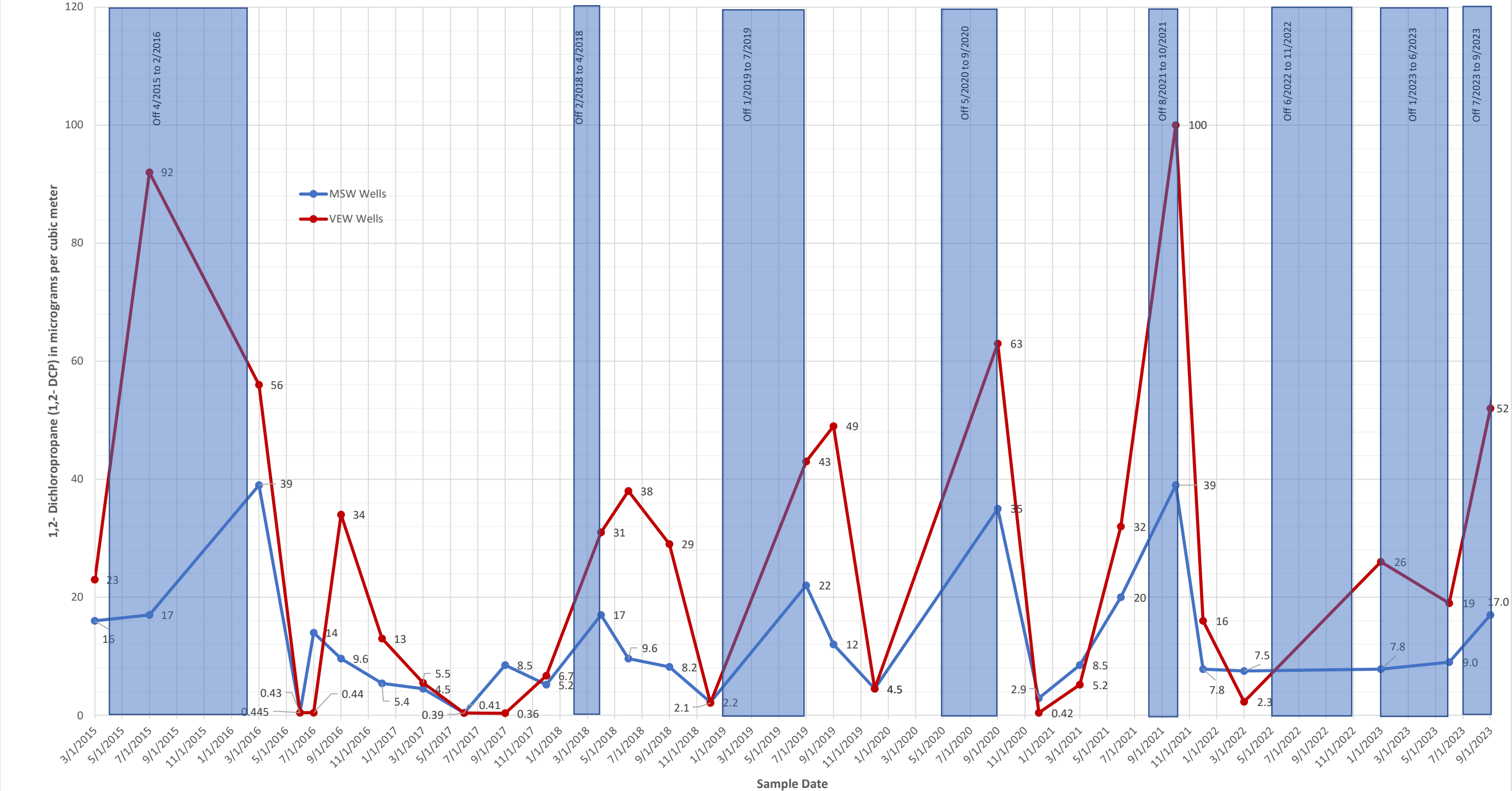
QA/QC = quality assurance/quality control

CHARTS

ANNUAL REPORT 2023
Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington

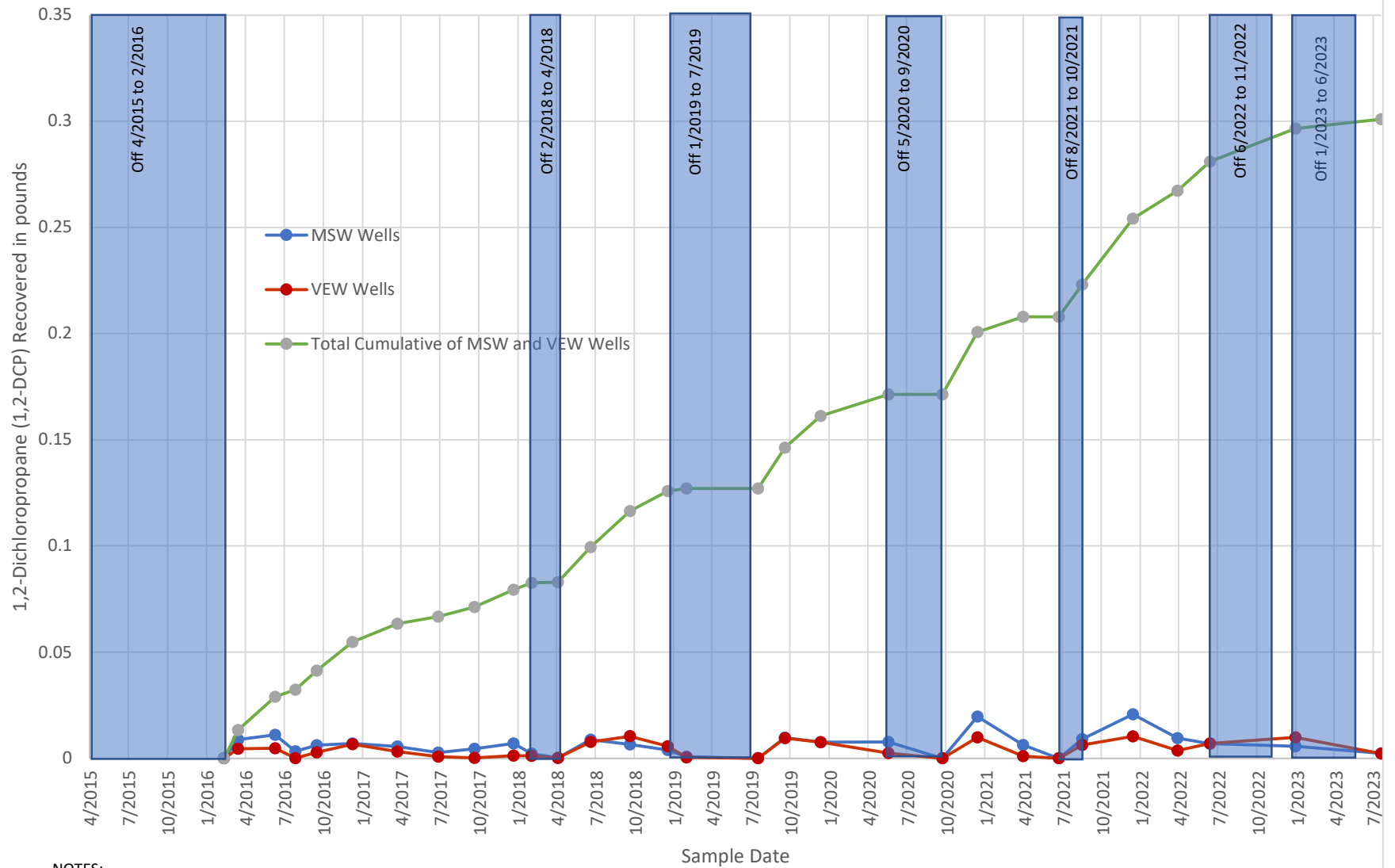
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Chart 1
Summary of Laboratory Analytical Results for 1,2-DCP in SVE Influent Air
March 2015 to Septebmer 2023
Cenex Harvest State Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



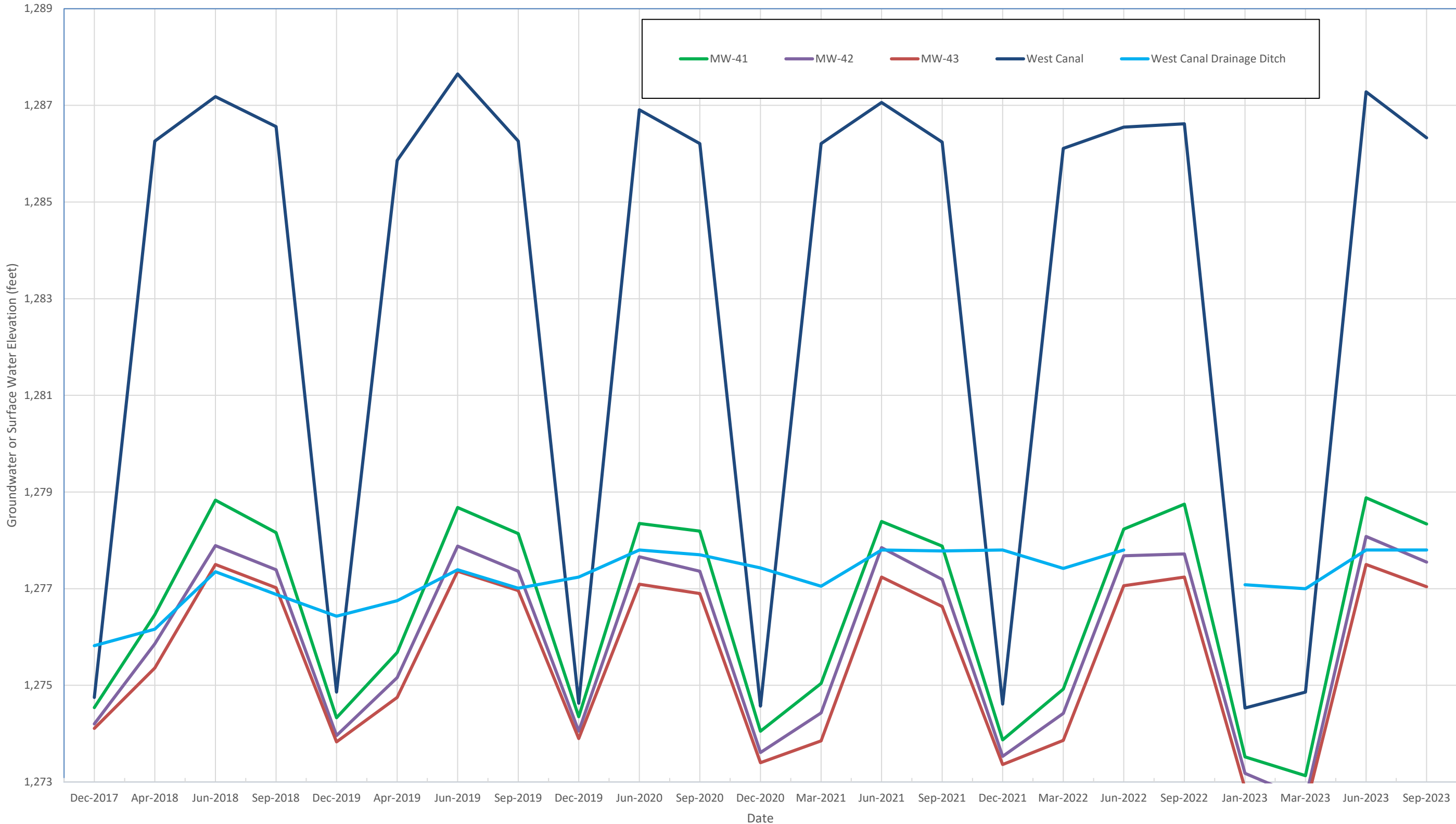
NOTES:
Where not detected, half the detection limit used.
MS/SVE = microsparge/soil vapor extraction
VEW = vapor extraction well

Chart 2
Summary of 1,2-DCP Recovered by MS/SVE System
February 2016 to July 2023
Cenex Harvest States Cooperatives Site
Farallon PN: 301-001



NOTES:
MS/SVE = microsparge/soil vapor extraction
VEW = vapor extraction well

Chart 3
Groundwater and Surface Water Elevations – December 2017 to September 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



NOTES:
MW = monitoring well
Drainage Ditch not measured September 2022

APPENDIX A
SEPTEMBER 2023 PERFORMANCE AIR AND GROUNDWATER
COMPLIANCE MONITORING REPORT

ANNUAL REPORT 2023
Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington

Farallon PN: 301-001



**September 2023 Performance Air and Groundwater
Compliance Monitoring Report
Appendix A of the 2023 Annual Report**

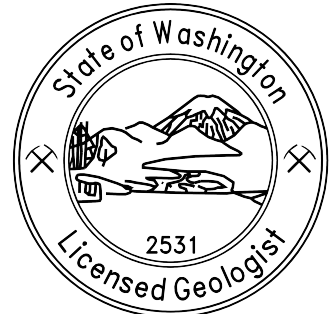
**Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington**

Farallon PN: 301-001

December 12, 2023

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Figure A9	<i>Isoconcentration Contours and Groundwater Analytical Results for 1,2,3-TCP in Deep Monitoring Wells in Source Area– September 2023</i>
Figure A10	<i>Cross Section of 1,2-DCP Groundwater Plume, September 2023</i>
Figure A11	<i>Cross Section of 1,2,3-TCP Groundwater Plume, September 2023</i>

TABLE

Table A1	<i>Summary of pH, Temperature, Specific Conductivity, DO, and ORP in Groundwater</i>
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ATTACHMENT

Attachement A Laboratory Analytical Reports



ACRONYMS AND ABBREVIATIONS

1,2-DCP	1,2-dichloropropane
1,2,3-TCP	1,2,3-trichloropropane
Annual Report	<i>Annual Report 2023, Remedial Action Performance and Groundwater Compliance Monitoring, Cenex Harvest States Cooperatives Site, 300 Division Street East, Quincy, Washington</i> dated December 4, 2023 prepared by Farallon Consulting, L.L.C. (this document)
bgs	below ground surface
CHS	CHS Inc.
CHS Property	Grant County Parcel No. 040525043, near 300 Division Street East, in Quincy, Washington
Consent Decree	Consent Decree No. DE-00TCPER-1815 dated February 22, 2001 entered into by the Washington State Department of Ecology and Cenex Harvest States Cooperatives
Ecology	Washington State Department of Ecology
EDB	1,2-dibromoethane
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
Final CAP	<i>Final Cleanup Action Plan, Cenex/Quincy Site, Quincy, WA</i> dated February 22, 2001
IHSs	indicator hazardous substances
µg/l	micrograms per liter
µg/m ³	micrograms per cubic meter
msl	mean sea level
MS/SVE	microsparge/soil vapor extraction
MSW	microsparge well
O&M	operation and maintenance
PQL	practical quantitation limit



QA/QC	quality assurance/quality control
RAP	<i>Draft Remedial Action Work Plan, Cenex Harvest States Cooperatives Site, 300 Division Street, Quincy, Washington</i> dated July 2, 2001 prepared by Farallon Consulting, L.L.C.
RPD	relative percent difference
scfh	standard cubic feet per hour
Site	Grant County Parcel No. 040525043, near 300 Division Street East, in Quincy, Washington and adjacent and down-gradient properties where hazardous substances released from the CHS Property have come to be located
SVE	soil vapor extraction
VEW	vapor extraction well
VOCs	volatile organic compounds



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this September 2023 Remedial Action Performance and Groundwater Compliance Monitoring Report as Appendix A of the 2023 Annual Report (Annual Report) on behalf CHS Inc. (CHS) (formerly Cenex Harvest States Cooperatives) to present the results from the groundwater compliance monitoring and operation and maintenance (O&M) activities performed at the Cenex Harvest States Cooperatives Site (herein referred to as the Site) (Annual Report, Figure 1). The Site consists of the property near 300 Division Street East in Quincy, Washington (herein referred to as the CHS Property) and adjacent and down-gradient properties where hazardous substances released from the CHS Property have come to be located. A facility plan of the CHS Property and a site plan are provided in the Annual Report on Figures 2 and 3, respectively.

Performance air monitoring activities were conducted in September 2023 when the microsparge/soil vapor extraction (MS/SVE) system was re-started as planned under the current pulsed operations scenario. Groundwater compliance monitoring activities were performed September 25 through 28, 2023. Work was completed in accordance with the *Final Cleanup Action Plan, Cenex/Quincy Site, Quincy, WA* dated February 22, 2001 (Final CAP), Exhibit B of the Consent Decree (Ecology 2001a), along with the Technical Memorandum regarding Proposed Operational Modifications for the Microsparge/Soil Vapor Extraction System (Farallon 2021), approved by Ecology (2021) on August 10, 2021. The sampling was conducted pursuant to the requirements of Consent Decree No. DE-00TCPER-1815 dated February 22, 2001, entered into by Ecology (2001b) and Cenex Harvest States Cooperatives (Consent Decree). This report presents a description of the third quarter 2023 performance air and groundwater compliance monitoring, a discussion of the analytical data quality assurance/quality control (QA/QC) review, a summary of the operation and maintenance activities conducted, and a summary and conclusions based on the results.

1.1 BACKGROUND

CHS completed installation and start-up of the MS/SVE soil and groundwater treatment system at the Site in November 2001. The MS/SVE system conducts three primary operations:

- Extraction of soil gas from vadose zone soil using SVE wells VEW-1 through VEW-9 (VEW wells);



- Air sparging for stripping of volatile organic compounds (VOCs) from groundwater from two depths in MS/SVE wells MSW-1 through MSW-12 (MSW wells); and
- Extraction of soil gas from vadose zone soil and stripped VOC vapors from the SVE component of the 12 MSW wells.

Since installation and start-up of the MS/SVE soil and groundwater treatment system, groundwater compliance monitoring has generally been conducted on a quarterly basis since December 2001. The MS/SVE system has been operating since December 2001 with periodic shut-downs due to mechanical failures or for evaluation purposes.

1.2 REPORT ORGANIZATION

The report has been organized into the following sections:

- **Section 2, Field Methods**, describes the performance air monitoring and compliance groundwater compliance monitoring field program including sample collection, analytical methods, depth to groundwater measurement, and purge water handling. The field methods used for the collection of the domestic water supply wells are also described.
- **Section 3, Results**, provides results from the September 2023 performance and groundwater compliance monitoring.
- **Section 4, Analytical Data Quality Assurance/Quality Control Review**, provides a QA/QC review of the air and groundwater analytical data collected for the September 2023 monitoring event.
- **Section 5, Operation and Maintenance Activities**, provides a summary of the O&M activities conducted on the MS/SVE system over the past quarter.
- **Section 6, Summary and Conclusions**, provides a summary of the September 2023 sampling event and Farallon's conclusions regarding the results.
- **Section 7, References**, presents a list of the documents cited in this report.
- **Section 8, Limitations**, presents Farallon's standard limitations for this report.



2.0 FIELD METHODS

The field methods for the performance air and groundwater compliance monitoring are provided in the following sections.

2.1 PERFORMANCE AIR MONITORING

Performance air monitoring was conducted in September 2023 when the MS/SVE system was re-started as planned under the current pulsed operational scenario. Additional details regarding the MS/SVE system operation are provided in Section 5.0, Operation and Maintenance Activities. Tables 1 through 3 of the Annual Report present performance air monitoring data collected at the Site and Table 4 of the Annual Report presents a summary of the 1,2-dichloropropane (1,2-DCP) recovered by the MS/SVE system.

2.1.1 Sample Collection

Performance air samples were collected on September 26, 2023 from each of the three piping runs of the VEW wells with the MS and SVE components of the 12 MSW wells turned off and only the SVE portion of the VEW wells operating. The samples were collected after restarting the system and allowing only the SVE component of the VEW wells to operate for approximately 15 minutes prior to beginning collection of the first of the three samples. Prior to the restart for sampling the VEW wells, the SVE system had been off since July 20, 2023 as part of the MS/SVE system pulsed operational modifications. Once the MS/SVE system was restarted on September 26, 2023 and airflow adjustments were made to the system, air samples also were collected from sampling ports installed in the MS/SVE system influent and effluent piping. The locations of the air sampling ports are as follows:

- MSW influent monitoring: upstream of the air bleed-in valve, and upstream of all carbon filters to monitor the air drawn from the MSW wells;
- VEW influent monitoring: upstream of the air bleed-in valve, and upstream of all carbon filters to monitor the air drawn from the VEW wells; and
- Effluent monitoring: downstream of all carbon filters.

Influent air samples collected from each of the three VEW well piping runs and from the MSW and VEW influent air sample ports during the September 2023 monitoring event were collected directly from the sampling ports using 6-liter Summa canisters. The samples collected from the VEW well piping runs were collected in accordance with the Technical Memorandum Regarding Proposed Operational Modifications for the Microsparge/Soil



Vapor Extraction System (Farallon 2021). The influent air sampling was conducted in accordance with the sampling procedure provided in Attachment A of the Technical Memorandum Regarding Scope of Work for Supplemental Operation and Monitoring Activities for the Microsparge/Soil Vapor Extraction System dated February 26, 2015 (Farallon 2015).

Dedicated fittings and disposable Teflon tubing were used for collection of the MSW and VEW influent air samples. The initial pressures of the Summa canisters were recorded, and the sampling train was checked for leaks. Upon confirmation that there was no measurable leakage in the sampling train, the sample tubing was purged of five internal volumes of air using a GilAir Plus air pump. After the sampling train had been purged, the Summa canister valve was opened, and the canister was allowed to fill until the final pressure reached approximately -5.0 inches of mercury. Air sample parameters from the last four sampling events, including sample volume, collection duration, and initial and final pressures, are summarized on Table 1 of the Annual Report. The air samples were transported under standard chain-of-custody protocols to Eurofins Air Toxics, LLC of Folsom, California.

The effluent and breakthrough air samples were collected directly from the sampling port into a 1-liter Tedlar sample bag using disposable silicone tubing (Annual Report, Table 1). The samples were labeled and transported under chain-of-custody protocols in accordance with the RAP to OnSite Environmental Inc. of Redmond, Washington.

2.1.2 Analytical Methods

VEW air samples collected from the three piping runs and MSW and VEW influent air samples collected in September 2023 using 6-liter Summa canisters were analyzed for the groundwater indicator hazardous substances (IHSs) by Modified U.S. Environmental Protection Agency (EPA) Method TO-15 GC/MS. The IHSs for groundwater are a subset of the constituents of concern for the Site defined by Ecology in the *Final Cleanup Action Plan, Cenex/Quincy Site, Quincy, WA* dated February 22, 2001 (Ecology 2001a) (Final CAP), Exhibit B of the Consent Decree. The IHSs for groundwater for the Site are chloroform, 1,2-dibromoethane (EDB), 1,2-dichloroethane, 1,2-DCP, 1,1,2-trichloroethane, 1,2,3-trichloropropane (1,2,3-TCP), and vinyl chloride. The effluent air samples collected using a 1-liter Tedlar bag were analyzed for the groundwater IHSs by EPA Method 8260D.



2.2 GROUNDWATER COMPLIANCE MONITORING PROGRAM

Between September 25 and 28, 2023, groundwater compliance samples were collected from monitoring wells MW-1 through MW-3, MW-5 through MW-9, MW-11 through MW-13, MW-15 through MW-17, MW-20, MW-24 through MW-26, and MW-28 through MW-46. Monitoring well MW-21 was included in the groundwater compliance monitoring program for groundwater elevation measurement only. Monitoring well locations are presented on Figure 3 of the Annual Report. Groundwater samples also were collected from the domestic well on the property southeast of the West Canal (Annual Report, Figure 3). The depth to groundwater was not measured in the domestic well.

2.2.1 Depth to Groundwater

Prior to sampling, the depth to groundwater in each monitoring well was measured using an electronic water-level indicator. The monitoring wells were opened, and the water levels were allowed to equilibrate for approximately 1 hour before measurement. The groundwater level was measured from the surveyed reference point on the top of the well casing to derive the groundwater elevation at each monitoring well. The distance to the water surface in the West Canal was measured from the surveyed measuring point on the top of the bridge along F Street Southeast; the distance to the water surface in the West Canal drainage ditch was measured from the surveyed measuring point on the top of the West Canal drainage ditch culvert (Annual Report, Figure 3). The depth-to-groundwater and depth-to-surface-water measurements were completed on September 25, 2023.

2.2.2 Sample Collection

Groundwater samples were collected September 26 through 28, 2023. Before the monitoring wells were purged, the dedicated polyethylene tubing intake was placed at the approximate center of the screened interval in each monitoring well. Groundwater was then purged from each well using a peristaltic pump at a flow rate of approximately 100 to 250 milliliters per minute. During the purging of groundwater, field measurements of pH, temperature, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) were collected with YSI Model ProDSS water-quality analyzers equipped with flow-through cells. Two sets of water sampling instruments and pumps were used to conduct the September 2023 monitoring event. Groundwater samples were collected after the pH, temperature, and specific conductivity parameters stabilized. Stabilization for pH is determined as a change of plus or minus 0.1 pH unit between readings for three consecutive measurements, and for temperature and specific conductivity as a relative



percent difference (RPD) of less than 3 percent between readings for three consecutive measurements. After stabilization was achieved, groundwater samples were collected immediately from each well by discharging groundwater directly from the dedicated polyethylene tubing outlet into laboratory-prepared sample containers.

The samples were labeled, placed on ice, and transported under chain of custody protocols in accordance with the approved RAP to OnSite Environmental Inc. of Redmond, Washington. Duplicate QA/QC samples were collected from monitoring wells MW-24, MW-25, and MW-31.

2.2.3 Domestic Well Sample Collection

Groundwater samples were collected from the domestic well at 16099 Highway 28 on September 26, 2023. The domestic well at 16099 Highway 28 is located on the southeast side of the West Canal inside the well house, approximately 400 feet down-gradient of monitoring well MW-43 (Annual Report Figure 3).

The domestic well at the residence was installed in 1975 to a depth of 65 feet below ground surface (bgs) and is constructed with a 6-inch-diameter casing to 61 feet bgs and a total well depth of 65 feet bgs.

The sample was collected from the spigot located on the north side of the well house, which is the closest spigot to the well head. This location was used to collect samples from the domestic well in June 2009 and June 2014. The spigot used for sample collection is connected to the well head by approximately 14 feet of 0.75-inch-diameter piping and a Well Mate Model WM-35 WB 119.7-gallon pressure tank. According to the information provided on the pressure tank, the pressure tank holds approximately 35 gallons of water. The estimated volume of water contained in the conveyance piping from the well pump intake to the sample point is less than 2 gallons. The conveyance piping volume was calculated using an estimated length of 65 feet pipe from the pump intake to the well head plus 14 feet of above ground piping with a per foot piping volume of 0.023 gallon per foot for a 0.75-inch-diameter pipe.

To collect a sample from the domestic well, a Y-fitting was installed on the spigot to split the flow into two pipes with a ¼-turn valve on each pipe to control the flow rate. One of the pipes was connected directly to a YSI Model ProDSS water-quality analyzer equipped with a flow-through cell. The flow rate of water diverted through the flow-through cell was approximately 350 milliliters per minute. The other pipe was directed into a 5-gallon-capacity bucket to



measure total volume purged at a flow rate of approximately 5 gallons per minute. After purging 35 gallons the pump for the well turned on. Samples were collected directly from the Y-fitting into laboratory-prepared sample containers after approximately 90 gallons of water had been purged. Groundwater quality measurements were collected for pH, temperature, specific conductivity, DO, and ORP prior to sample collection. The samples were then labeled, placed on ice, and transported to OnSite under chain-of-custody protocols in accordance with the approved RAP. The purge water from the domestic well was discharged to the landscaped areas on the property.

2.2.4 Analytical Method

The groundwater samples were analyzed for the groundwater IHSs for the Site using EPA Method 8260D.

2.2.5 Purge Water Handling

The purge water from the June through September 2023 sampling events is being stored in 55-gallon drums inside the remediation building on the CHS Property pending development of a waste profile and disposal.



3.0 RESULTS

The results from the September 2023 performance air monitoring and groundwater compliance monitoring are provided in the following sections.

3.1 PERFORMANCE AIR MONITORING RESULTS

The analytical results for the performance air monitoring samples collected from the Site in September 2023 are summarized in Tables 1 through 4 of the Annual Report. The laboratory analytical reports for the performance air monitoring are provided in Attachment A.

3.1.1 MSW and VEW Influent and Effluent Samples

The September 2023 MSW and VEW influent and effluent air analytical results are summarized in Tables 2 and 3 of the Annual Report and are as follows:

- Groundwater IHSs were not detected at concentrations exceeding the laboratory practical quantitation limit (PQL) of 1.0 microgram per liter ($\mu\text{g/l}$) in the effluent and breakthrough air samples collected from the MS/SVE system (Annual Report Table 2).
- 1,2-DCP was detected at a concentration of 17 micrograms per cubic meter ($\mu\text{g/m}^3$) in the influent air sample collected from the MSW wells.
- Other groundwater IHSs were not detected at a concentration exceeding the laboratory PQLs in the air samples collected from the MSW wells.
- 1,2-DCP was detected at a concentration of 52 $\mu\text{g/m}^3$ in the influent air sample collected from the VEW wells.
- Vinyl chloride was detected at a concentration of 0.65 $\mu\text{g/m}^3$ and chloroform was detected at a concentration of 0.78 $\mu\text{g/m}^3$ in the influent air sample collected from the VEW wells.

3.1.2 VEW Well Piping Runs

The September 2023 analytical results from air samples collected from the VEW well piping runs are summarized in Table 3 of the Annual Report and are as follows:

- 1,2-DCP was detected at a concentration of 140 $\mu\text{g/m}^3$ in the air sample collected from VEW wells VEW-1 through VEW-3.



- 1,2-DCP was detected at a concentration of 80 $\mu\text{g}/\text{m}^3$ in the air sample collected from VEW wells VEW-4 through VEW-6.
- 1,2-DCP was detected at a concentration of 38 $\mu\text{g}/\text{m}^3$ in the air sample collected from VEW wells VEW-7 through VEW-9.
- Vinyl chloride was detected at a concentration of 3.2 $\mu\text{g}/\text{m}^3$ in the air sample collected from VEW wells VEW-1 through VEW-3 and at 1.8 $\mu\text{g}/\text{m}^3$ in the air sample collected from VEW wells VEW-4 through VEW-6.
- Chloroform was detected at a concentration of 1.7 $\mu\text{g}/\text{m}^3$ in the air sample collected from VEW wells VEW-1 through VEW-3 and at 1.5 $\mu\text{g}/\text{m}^3$ in the air sample collected from VEW wells VEW-4 through VEW-6.
- Other groundwater IHSs were not detected at a concentration exceeding the laboratory PQLs in the air samples collected from the three VEW well piping runs in September 2023.

3.1.3 Mass of 1,2-DCP Recovered

The airflow rates of the SVE component of the MSW and VEW wells, and the 1,2-DCP concentrations detected in air samples were used to calculate the estimated cumulative mass of 1,2-DCP recovered by the MS/SVE system since February 2016. After starting the MS/SVE system on June 22, 2023, the system was shut down on July 20, 2023 as part of the pulsed operations scenario and remained off for the remainder of the summer and was re-started on September 26, 2023. An estimated 0.0023 pound of 1,2-DCP was recovered by the MSW wells and an estimated 0.0022 pound of 1,2-DCP was recovered by the VEW wells between June 22 and July 20, 2023. An estimated 0.183 pound of 1,2-DCP has been recovered by the MSW wells and 0.112 pound by the VEW wells between February 10, 2016 and July 20, 2023, for a cumulative total of 0.295 pound of 1,2-DCP recovered between those dates. A summary of the airflow rates and the estimated mass of 1,2-DCP recovered by the MS/SVE system is provided in Table 4 of the Annual Report.

3.2 GROUNDWATER COMPLIANCE MONITORING RESULTS

Table 5 of the Annual Report presents a summary of the groundwater and surface water elevation data for the Site. Table 6 presents a summary of analytical results for IHSs in groundwater for the September 2023 monitoring event and those from the previous three quarters. Data collected prior to January 2023 were provided in Remedial Action Performance and Groundwater Compliance Monitoring Reports prepared for the Site previously submitted to Ecology. Site-specific cleanup levels established in the Final CAP,



Exhibit B of the Consent Decree, are included in Table 6 of the Annual Report. Groundwater quality parameters measured in the field are summarized in Table 7 of the Annual Report. The laboratory analytical report for the September 2023 groundwater monitoring event is provided in Attachment A.

3.2.1 Groundwater Elevation

Groundwater elevations at the Site during the September 2023 monitoring event ranged from 1,276.03 feet above mean sea level (msl) in monitoring well MW-46 to 1,282.93 feet above msl in monitoring well MW-1. Table 5 of the Annual Report presents a summary of groundwater elevation data. Figure A1 depicts the groundwater elevation contours for monitoring wells in the shallow monitoring well network measured in September 2023. Shallow monitoring wells at the Site are completed to a total depth of approximately 20 to 25 feet bgs; and deep monitoring wells to a total depth of approximately 40 to 45 feet bgs. The depth of the screened interval and the total depth of each monitoring well are shown in Table 5 of the Annual Report.

The average hydraulic gradient was approximately 0.0022 foot per foot across the Site in September 2023. The groundwater elevations measured during the September 2023 monitoring event ranged from 0.54 foot lower to 1.04 feet higher at the Site than those measured during June 2023.

On September 25, 2023, the surface water elevation in the West Canal was 1,286.33 feet above msl, 0.95 foot higher than the elevation measured in June 2023. The surface water elevation in the West Canal drainage ditch was 1,277.80 feet above msl, the same elevation measured in June 2023. The groundwater elevation measured in monitoring well MW-41, installed near the West Canal and the West Canal drainage ditch surveyed measurement points, was 7.99 feet lower than the surface water elevation measured in the West Canal, and 0.54 foot higher than the surface water elevation measured in the West Canal drainage ditch.

3.2.2 Analytical Results

The September 2023 groundwater compliance monitoring event included all monitoring wells that are required for sampling along with collection of groundwater samples from the



domestic well on the property southeast of the West Canal. The groundwater analytical results follow:

- 1,2-DCP was detected at concentrations at or exceeding the Site cleanup level of 1 microgram per liter ($\mu\text{g/l}$) in groundwater samples collected from 12 of the 37 monitoring wells sampled during the September 2023 monitoring event.
- 1,2-DCP was detected at concentrations ranging from 0.29 $\mu\text{g/l}$ in the sample collected from monitoring well MW-45 to 14 $\mu\text{g/l}$ in the sample collected from monitoring well MW-31.
- Vinyl chloride, chloroform, 1,2-dichloroethane, 1,1,2-trichloroethane, and EDB were not detected at concentrations exceeding Site cleanup levels in any of the groundwater samples collected from Site monitoring wells.
- Chloroform was detected at concentrations exceeding the laboratory PQL but not the Site cleanup level in the groundwater samples collected from monitoring wells MW-32, MW-35, and MW-40.
- EDB was detected at a concentration exceeding the laboratory PQL but not the Site cleanup level in the groundwater sample collected from monitoring well MW-20.
- 1,2,3-TCP was detected at concentrations at or exceeding the Site cleanup level in groundwater samples collected from five of the 37 monitoring wells sampled.
- 1,2,3-TCP was detected at concentrations ranging from 0.21 $\mu\text{g/l}$ in the sample collected from monitoring well MW-28 to 23 $\mu\text{g/l}$ in the sample collected from monitoring well MW-24.
- Groundwater IHSs were not detected at concentrations exceeding the laboratory PQL or the Site cleanup level in the groundwater sample collected from the domestic well.

3.2.3 Groundwater Quality Parameters

The final groundwater quality parameters recorded during purging of groundwater at each monitoring well prior to sample collection are provided in Table A1 and summarized below:

- pH values ranged from 6.90 to 8.29;
- Groundwater temperatures ranged from 13.5 to 17.5 degrees Celsius;
- Specific conductivity ranged from 553 to 6,028 microSiemens per centimeter;
- DO concentrations ranged from 0.30 to 8.81 milligrams per liter; and
- ORP values ranged from 61.9 to 225.7 millivolts.



4.0 ANALYTICAL DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

This section presents the analytical data QA/QC review for the groundwater samples collected in September 2023. Analytical results were reviewed in accordance with the procedures outlined in the Quality Assurance Project Plan, presented as Appendix B of the RAP.

4.1 METHOD DEVIATIONS

The RAP specified use of EPA Method 8260B for analysis for VOCs in groundwater and air. EPA Method 8260D was used for analysis for VOCs in water and Tedlar bag air samples for the September 2023 sampling event because it is the most-current version of EPA Method 8260 analysis, and includes additional laboratory QA/QC measures. The RAP specifies use of EPA Method 8260B for analysis for VOCs in groundwater and air. Use of Summa canisters for collection of air samples was not discussed in the RAP, so no analytical method was specified. Summa canister air samples were analyzed using Modified EPA Method TO-15 GC/MS, which provides lower detection limits for analysis for VOCs in air than EPA Method 8260 provides.

4.2 SAMPLE EXTRACTION AND HOLDING TIMES

Groundwater samples collected in September 2023 were extracted and analyzed within method-specified holding times.

4.3 METHOD REPORTING LIMITS

The laboratory PQLs for the groundwater analyses were less than or equal to Site cleanup levels.

4.4 FIELD DUPLICATE SAMPLES

Three groundwater field duplicate samples were collected during the September 2023 monitoring event:

- Sample QA/QC-1-092723-P-GW, a duplicate of MW-25-092723-P-GW;
- Sample QA/QC-2-092823-P-GW, a duplicate of MW-31-092823-P-GW; and
- Sample QA/QC-3-092823-P-GW, a duplicate of MW-24-092823-P-GW.



RPD is a measure of precision or reproducibility of measurements. RPDs were calculated for detected IHSs in groundwater samples and field duplicates for the EPA Method 8260D analyses as follows:

$$RPD = \frac{(C_1 - C_2)}{(C_1 + C_2)/2} \times 100$$

Where:

RPD = relative percent difference

C₁ = the larger of the two duplicate results (i.e., the highest detected concentration)

C₂ = the smaller of the two duplicate results (i.e., the lowest detected concentration)

If sample results were less than five times the laboratory PQL, the absolute difference between the two results would be calculated instead of an RPD. In the case where an analyte was not detected, the RPD or absolute difference for that compound was not calculated.

The RPDs for the QA/QC duplicate sample collected from monitoring well MW-2 were 5.1 percent for 1,2-DCP and 4.4 percent for 1,2,3-TCP. The RPDs for the QA/QC duplicate sample collected from monitoring well MW-25 were 0.0 percent for 1,2-DCP and 16.7 percent for 1,2,3-TCP. The RPDs for the QA/QC duplicate sample collected from monitoring well MW-31 were 7.4 percent for 1,2-DCP and 16.7 percent for 1,2,3-TCP.

Because there are no criteria for evaluating RPDs for organic sample analyses, the results were compared to the EPA *National Functional Guidelines for Inorganic Superfund Methods Data Review* dated November 2020,¹ Part B: Method-Specific Data Review, ICP-MS Data Review, Section VII: Duplicate Sample Analysis, ICP-MS Table 7, *Duplicate Sample Actions*. For groundwater, the criteria for evaluating the precision or reproducibility of duplicate samples are an RPD of less than 20 percent, or an absolute difference of less than one times the laboratory PQL for results less than five times the laboratory PQL. The field duplicate samples collected during the September 2023 sampling event were within the criteria for inorganic laboratory analyses.

4.5 TRIP BLANK

Trip blanks were provided by the analytical laboratory to accompany the groundwater samples. The trip blanks were analyzed for the groundwater IHSs using EPA Method 8260D.

¹ EPA 542-R-20-006.



IHSs were not detected at a concentration exceeding laboratory reporting limits in the trip blank samples for the EPA Method 8260D groundwater analyses. Trip blank results are provided in the laboratory analytical report in Attachment A.

4.6 METHOD BLANK OR LABORATORY BLANK SAMPLES

One air and four groundwater method blank samples were analyzed using EPA Method 8260D for the June 2023 sampling event, and two air laboratory blank samples were analyzed using Modified EPA Method TO-15 GC/MS in the September 2023 sampling event. None of the analytes were detected at a concentration exceeding the laboratory PQLs in the air or groundwater samples.

4.7 SPIKE BLANK/SPIKE BLANK DUPLICATE SAMPLES

Four groundwater spike blank/spike blank duplicate samples were analyzed using EPA Method 8260D. RPDs for the four groundwater spike blank/spike blank duplicate samples were within acceptable laboratory control limits.

4.8 LABORATORY DUPLICATE SAMPLE

A laboratory duplicate sample was analyzed as part of the EPA Method 8260D air analysis. None of the analytes were detected at concentrations exceeding the laboratory PQL in the laboratory duplicate sample; therefore, RPDs and percent recoveries were not calculated.

4.9 CONTINUING CALIBRATION VERIFICATION

Two continuing calibration verification samples were analyzed as part of the Modified EPA Method TO-15 GC/MS analysis for the September 2023 sampling event. The percent recoveries for the continuing calibration verification samples were within the method limits.

4.10 LABORATORY SAMPLE CONTROL/LABORATORY CONTROL SAMPLE DUPLICATE

Two air laboratory control sample/laboratory control sample duplicates were analyzed as part of the Modified EPA Method TO-15 GC/MS analysis. The percent recoveries were within the method control limit.

4.11 SURROGATE RECOVERIES

Surrogate recoveries were analyzed as part of the EPA Method 8260D groundwater and air analyses, and the Modified EPA Method TO-15 GC/MS air analysis. The surrogate recoveries were within laboratory control limits.



4.12 PERCENT COMPLETENESS

No sample results were determined to be invalid. Therefore, the percent completeness for the analytical results for the September 2023 sampling event was 100 percent.



5.0 OPERATION AND MAINTENANCE ACTIVITIES

The MS/SVE system was off between July 20 and September 26, 2023 as part of the MS/SVE system pulsed operational modifications. Once the MS/SVE system was restarted on September 26, 2023, airflow adjustments were made to the system. The modified operation of the MS/SVE system during the operating period of each pulse cycle includes:

- Operating VEW wells VEW-1 through VEW-9;
- Operating the MS and SVE components of MSW wells MSW-5 through MSW-12 only;
- Controlling airflow to the upper portion of MSW wells MSW-5 through MSW-12 at 5 standard cubic feet per hour (scfh); and to the deep portion of MSW wells MSW-5 through MSW-12 at 60 scfh; and
- Controlling overall system pressure at approximately 18.5 pounds per square inch, and vacuum at approximately 25.0 inches of water.

When the adjustments were being made to the MSW wells, the piping for the deep portion of MSW-9 was found to be broken. The deep portion of MSW-8 was turned off and was repaired during the December 2023 monitoring event. The MS/SVE system was left running following the September 2023 monitoring event with plans to run the MS/SVE system until the June 2024 sampling event when it will be shut down as part of the planned pulsed operational modifications (Farallon 2021). However, during the December 2023 monitoring event, the remediation system compressor appeared to have seized and the remediation system was not running. The compressor is being evaluated at Cascade Machinery & Electric of Settle, Washington. The MS/SVE system vacuum blower is operating VEW wells VEW-1 through VEW-9 and the VEW portion of MSW wells MSW-5 through MSW-12.

Aboveground piping was inspected for leaks, misalignment, loose fittings, corrosion, deformation, and overall condition. The temperature of air sparge piping was checked tactilely at the connections between the galvanized steel pipe and the polyvinyl chloride piping. Fittings on the carbon filtration system and the biofilter were inspected for leaks, misalignment, and loose fittings. All fittings appeared to be tight and in alignment.

The condition of monitoring well MW-4 was evaluated following construction at the adjacent building. The monument for monitoring well MW-4 will need to be raised up approximately 4.5 inches to be flush with the ground surface. The lid for monitoring well MW-4 was cracked but still functioning and the well plug and casing were in good condition. The well monument will be repaired or replaced in the spring of 2024.



6.0 SUMMARY AND CONCLUSIONS

Groundwater elevations measured at the Site in September 2023 were generally higher than those measured in June 2023 (Annual Report, Table 5). Groundwater elevations measured in monitoring wells MW-41 through MW-44, and MW-46, which are adjacent to the West Canal, were lower than those measured in June 2023. Groundwater elevations in monitoring wells adjacent to the West Canal were lower than the surface water elevation in the canal and were higher than the surface water elevation in the West Canal drainage ditch. The groundwater and surface water elevations were generally consistent with historical groundwater/surface water elevation results. The groundwater flow direction was to the southeast during the September 2023 monitoring event, which was also consistent with historical groundwater flow measurements at the Site.

The IHSs 1,2-DCP and 1,2,3-TCP were detected at concentrations exceeding Site cleanup levels in groundwater at the Site in September 2023, which is consistent with previous sampling results (Annual Report, Table 6).

A southeast-trending plume of dissolved-phase 1,2-DCP and 1,2,3-TCP at concentrations exceeding the Site cleanup level is present in groundwater at the Site. The southeast-trending groundwater plume is relatively narrow in width compared to its length and has remained relatively stable since groundwater sampling began in the late 1990s. Figures A2 through A9 depict the estimated isoconcentration contours and groundwater analytical results for 1,2-DCP and 1,2,3-TCP in the shallow and deep monitoring well networks for the September 2023 monitoring event. Figures A10 and A11 depict cross sections and 1,2-DCP and 1,2,3-TCP concentrations in groundwater at the Site.

1,2-DCP and 1,2,3-TCP concentrations in both shallow and deep monitoring wells in the vicinity of the MS/SVE system have remained stable during the last several monitoring events while the MS/SVE system has been shut down due to a faulty blower and as part of the pulsed operations scenario to optimize recovery of VOCs (Annual Report, Table 6; Figures A4, A5, A8, and A9).

1,2-DCP was detected in the influent air samples collected from the MSW and VEW sampling ports and the three VEW piping runs upon restart of the MS/SVE system in September 2023. Less than 0.3 pound of 1,2-DCP has been recovered by the MS/SVE system over the past 7 years. While the MS/SVE system continues to recover VOCs from the subsurface, the amount recovered remains minimal despite optimization efforts.



7.0 REFERENCES

- Farallon Consulting, L.L.C. (Farallon). 2001. *Draft Remedial Action Work Plan, Cenex Harvest States Cooperatives Site, 300 Division Street, Quincy, Washington*. Prepared for Cenex Harvest States Cooperatives. July 2.
- . 2015. Technical Memorandum Regarding Scope of Work for Supplemental Operation and Monitoring Activities for the Microsparge/Soil Vapor Extraction System, Cenex Harvest States Cooperative Site, Quincy Washington. From Paul Grabau. To Chuck Gruenenfelder, Washington State Department of Ecology. February 26.
- . 2021. Technical Memorandum Regarding Proposed Operational Modifications for the Microsparge/Soil Vapor Extraction System, Cenex, Cenex Harvest States Cooperatives Site, Quincy, Washington. From Paul Grabau and Tracey Mulhern. To Chuck Gruenenfelder, Washington State Department of Ecology. July 22.
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- . 2001b. *Final Consent Decree and Cleanup Action Plan, Cenex/Quincy Site, Quincy, WA*. February 22.
- . 2001c. Letter Regarding Responsiveness Summary and Removal Action Plan Approval. From Guy Gregory. To Jerry Eide, Cenex Harvest States Cooperatives. October 8.
- . 2009. *Cenex/Quincy Site, Final Periodic Review, Quincy, Washington*. Eastern Regional Office, Toxics Cleanup Program. June.
- . 2021. Email Regarding Approval of the Cenex Quincy – Proposed Operational Modifications for the MS/SVE System. From Chuck Gruenenfelder. To Tracey Mulhern, Farallon Consulting, L.L.C. August 10.



8.0 LIMITATIONS

8.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and CHS, and currently accepted industry standards. No other warranties, representations, or certifications are made.

8.2 LIMITATION ON RELIANCE BY THIRD PARTIES

Reliance by third parties is prohibited. This report/assessment has been prepared for the exclusive use of CHS to address the unique needs of CHS at the Site at a specific point in time.

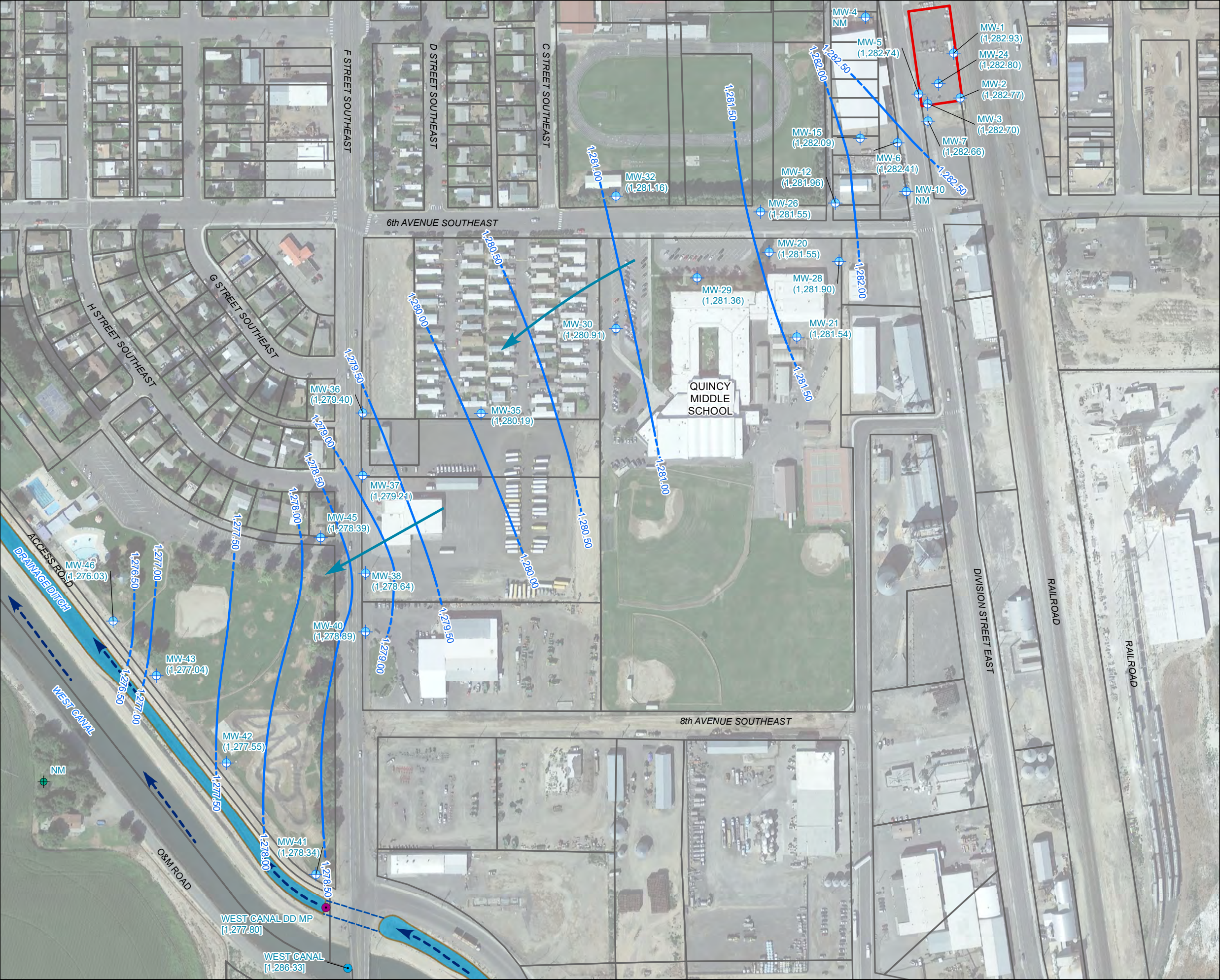


This is not a general grant of reliance. No one other than CHS may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

SEPTEMBER 2023 PERFORMANCE AIR AND GROUNDWATER COMPLIANCE MONITORING REPORT Cenex Harvest States Cooperatives Site 300 Division Street East Quincy, Washington

Farallon PN: 301-001



LEGEND

- MONITORING WELL (SHALLOW)
- WEST CANAL SURVEYED MEASURING POINT
- WEST CANAL DRAINAGE DITCH SURVEYED MEASURING POINT
- DOMESTIC WELL
- WEST CANAL/DRAINAGE DITCH FLOW DIRECTION
- CULVERT
- CHS PROPERTY BOUNDARY
- GRANT COUNTY PARCEL BOUNDARY
- WEST CANAL DRAINAGE DITCH
- LINE OF CROSS-SECTION
- GROUNDWATER ELEVATION MEASURED IN FEET RELATIVE TO NORTH AMERICAN VERTICAL DATUM 1988
- [1,287.28] SURFACE WATER ELEVATION
- NM GROUNDWATER ELEVATION NOT MEASURED
- 1,286.00 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPROXIMATE DIRECTION OF SHALLOW GROUNDWATER FLOW


0 250
SCALE IN FEET

1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR.
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FIGURE A1

GROUNDWATER ELEVATION CONTOUR MAP,
SEPTEMBER 25, 2023
CENEX HARVEST STATES COOPERATIVES SITE
QUINCY, WASHINGTON

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Q:\Projects\301 Cenix\001 Quincy\Mapfiles\011Figure-A1_GW_Elevations_Shallow_2023-09.mxd



LEGEND

- MONITORING WELL (SHALLOW)
- WEST CANAL/DRAINAGE DITCH FLOW DIRECTION
- WEST CANAL DRAINAGE DITCH CULVERT
- CHS PROPERTY BOUNDARY
- WEST CANAL DRAINAGE DITCH
- LINE OF CROSS-SECTION

[0.74] = CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP) IN MICROGRAMS PER LITER (ug/l)

BOLD = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 ug/l

< = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED

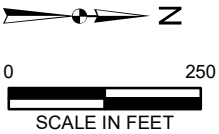
NS = WELL NOT SAMPLED

--- ESTIMATED LIMITS OF 1,2-DCP ARE DASHED WHERE INFERRED

1,2-DCP CONCENTRATION IN ug/l

0.20 - 0.99

1.0 - 9.9



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FIGURE A2

ISOCONCENTRATION CONTOURS AND GROUNDWATER ANALYTICAL RESULTS FOR 1,2-DCP IN SHALLOW MONITORING WELLS - SEPTEMBER 2023
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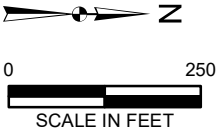
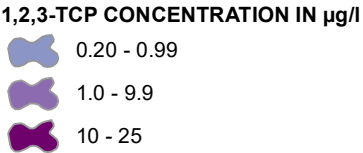
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- LEGEND**
- MONITORING WELL (SHALLOW)
 - WEST CANAL/DRAINAGE DITCH FLOW DIRECTION
 - WEST CANAL DRAINAGE DITCH CULVERT
 - CHS PROPERTY BOUNDARY
 - WEST CANAL DRAINAGE DITCH
 - LINE OF CROSS-SECTION
- [0.74] = CONCENTRATIONS OF 1,2,3-TRICHLOROPROPANE (1,2,3-TCP) IN MICROGRAMS PER LITER (µg/l)
- BOLD** = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 µg/l
- < = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED
- NS = WELL NOT SAMPLED
- ESTIMATED LIMITS OF 1,2,3-TCP ARE DASHED WHERE INFERRED



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FIGURE A3

ISOCONCENTRATION CONTOURS AND GROUNDWATER ANALYTICAL RESULTS FOR 1,2,3-TCP
IN SHALLOW MONITORING WELLS - SEPTEMBER 2023
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LEGEND

- MONITORING WELL (SHALLOW)
- CURRENT SITE FEATURE
- FORMER SITE FEATURE
- CHS PROPERTY BOUNDARY

[1.1] = CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP) IN MICROGRAMS PER LITER (µg/l)

BOLD = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 µg/l

< = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED

--- ESTIMATED LIMITS OF 1,2-DCP ARE DASHED WHERE INFERRED

1,2-DCP CONCENTRATION IN µg/l

- 0.20 - 0.99
- 1.0 - 9.9

N

0 25

SCALE IN FEET


1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR.
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FIGURE A4

ISOCONCENTRATION CONTOURS AND GROUNDWATER ANALYTICAL RESULTS FOR 1,2-DCP IN SHALLOW MONITORING WELLS IN SOURCE AREA - SEPTEMBER 2023

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LEGEND

MONITORING WELL (SHALLOW)

CURRENT SITE FEATURE

FORMER SITE FEATURE

CHS PROPERTY BOUNDARY

[0.97] =CONCENTRATIONS OF
1,2,3-TRICHLOROPROPANE (1,2,3-TCP)
IN MICROGRAMS PER LITER (µg/l)

BOLD =INDICATES SAMPLE OR REPORTING LIMIT
EXCEED SITE CLEANUP LEVEL OF 1 µg/l

< =INDICATES NOT DETECTED AT OR
ABOVE REPORTING LIMIT LISTED

— — — ESTIMATED LIMITS OF 1,2,3-TCP
ARE DASHED WHERE INFERRED

1,2,3-TCP CONCENTRATION IN µg/l

0.20 - 0.99

1.0 - 9.9

10 - 25

N

0 25

SCALE IN FEET

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FIGURE A5
ISOCONCENTRATION CONTOURS AND
GROUNDWATER ANALYTICAL RESULTS
FOR 1,2,3-TCP
IN SHALLOW MONITORING WELLS IN SOURCE AREA -
SEPTEMBER 2023
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LEGEND

- MONITORING WELL (DEEP)
- WEST CANAL/DRAINAGE DITCH FLOW DIRECTION
- WEST CANAL DRAINAGE DITCH CULVERT
- CHS PROPERTY BOUNDARY
- WEST CANAL DRAINAGE DITCH
- LINE OF CROSS-SECTION

[0.74] = CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP) IN MICROGRAMS PER LITER (µg/l)

* = MONITORING WELL MW-8 NOT USED FOR CONSTRUCTION OF ISOCONCENTRATION CONTOURS

BOLD = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 µg/l

< = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED

NS = WELL NOT SAMPLED

— — — ESTIMATED LIMITS OF 1,2-DCP ARE DASHED WHERE INFERRED

1,2-DCP CONCENTRATION IN µg/l

- 0.20 - 0.99
- 1.0 - 9.9
- 10 - 25

0 250
SCALE IN FEET

1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR.
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FIGURE A6

ISOCONCENTRATION CONTOURS AND GROUNDWATER ANALYTICAL RESULTS FOR 1,2-DCP IN DEEP MONITORING WELLS - SEPTEMBER 2023
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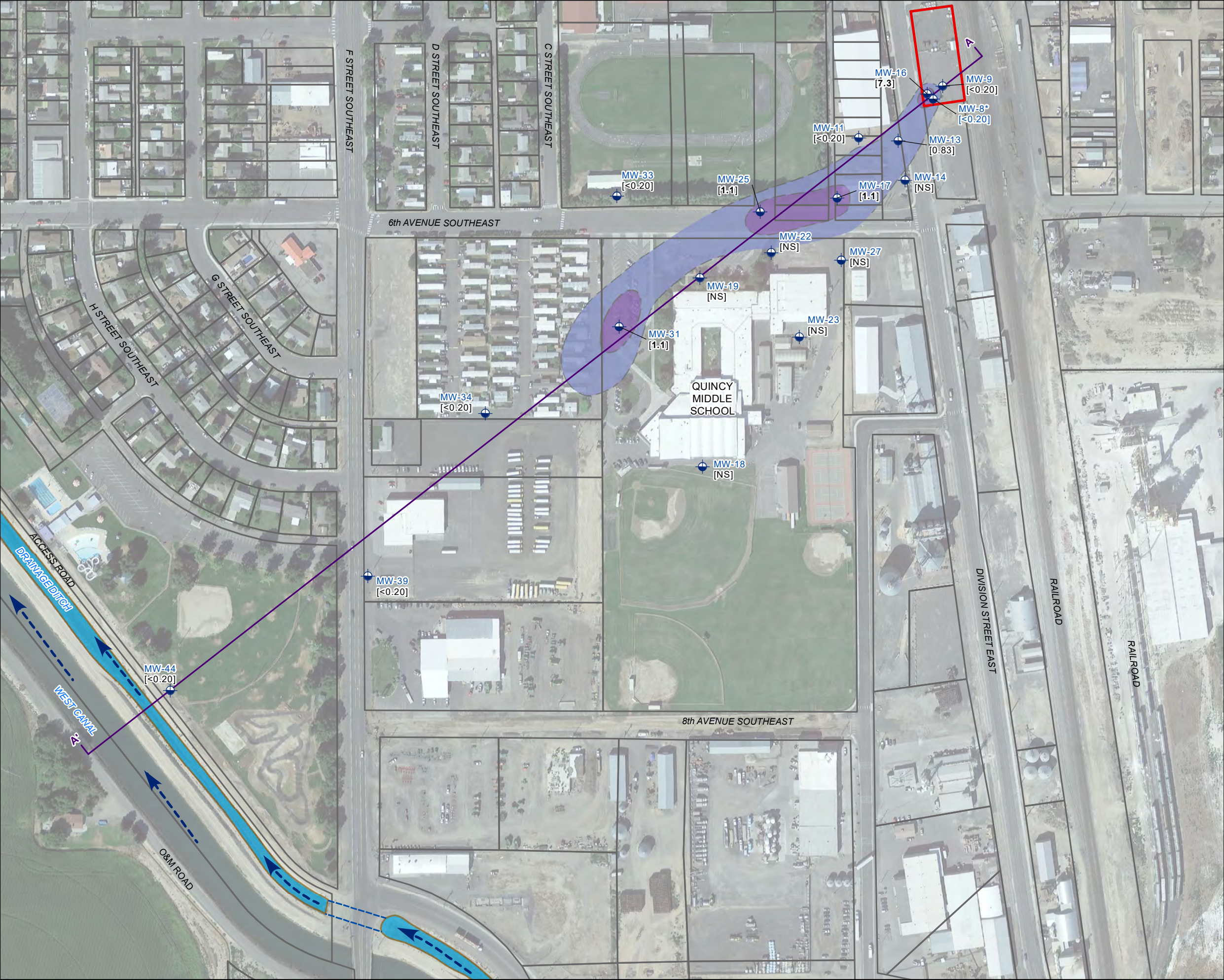
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- LEGEND**
- MONITORING WELL (DEEP)
 - WEST CANAL/DRAINAGE DITCH FLOW DIRECTION
 - WEST CANAL DRAINAGE DITCH CULVERT
 - CHS PROPERTY BOUNDARY
 - WEST CANAL DRAINAGE DITCH

A' A' LINE OF CROSS-SECTION

[0.83] = CONCENTRATIONS OF 1,2,3-TRICHLOROPROPANE (1,2,3-TCP) IN MICROGRAMS PER LITER (µg/l)

* = MONITORING WELL MW-8 NOT USED FOR CONSTRUCTION OF ISOCONCENTRATION CONTOURS

BOLD = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 µg/l

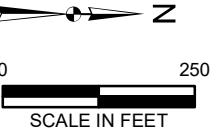
< = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED

NS = WELL NOT SAMPLED

--- ESTIMATED LIMITS OF 1,2,3-TCP ARE DASHED WHERE INFERRED

1,2,3-TCP CONCENTRATION IN µg/l

- 0.20 - 0.99
- 1.0 - 9.9



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2. FIGURES WERE PRODUCED IN COLOR.
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FIGURE A7

ISOCONCENTRATION CONTOURS AND GROUNDWATER ANALYTICAL RESULTS FOR 1,2,3-TCP
IN DEEP MONITORING WELLS - SEPTEMBER 2023
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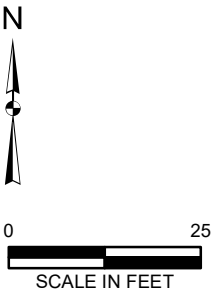


- LEGEND**
- MONITORING WELL (DEEP)
 - CURRENT SITE FEATURE
 - FORMER SITE FEATURE
 - CHS PROPERTY BOUNDARY
- [3.1]** = CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP) IN MICROGRAMS PER LITER (µg/l)
- * = MONITORING WELL MW-8 NOT USED FOR CONSTRUCTION OF ISOCONCENTRATION CONTOURS
- BOLD** = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 µg/l
- < = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED
- — — ESTIMATED LIMITS OF 1,2-DCP ARE DASHED WHERE INFERRED

1,2-DCP CONCENTRATION IN µg/l

0.20 - 0.99

1.0 - 9.9



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FIGURE A8

ISOCONCENTRATION CONTOURS AND
GROUNDWATER ANALYTICAL RESULTS
FOR 1,2-DCP
IN DEEP MONITORING WELLS IN SOURCE AREA -
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LEGEND

- MONITORING WELL (DEEP)
- CURRENT SITE FEATURE
- FORMER SITE FEATURE
- CHS PROPERTY BOUNDARY

[7.3] = CONCENTRATIONS OF 1,2,3-TRICHLOROPROPANE (1,2,3-TCP) IN MICROGRAMS PER LITER (µg/l)

* = MONITORING WELL MW-8 NOT USED FOR CONSTRUCTION OF ISOCONCENTRATION CONTOURS

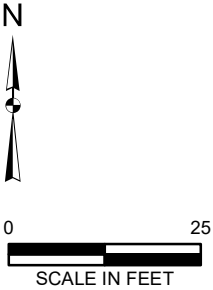
BOLD = INDICATES SAMPLE OR REPORTING LIMIT EXCEED SITE CLEANUP LEVEL OF 1 µg/l

< = INDICATES NOT DETECTED AT OR ABOVE REPORTING LIMIT LISTED

— — — ESTIMATED LIMITS OF 1,2,3-TCP ARE DASHED WHERE INFERRED

1,2,3-TCP CONCENTRATION IN µg/l

- 0.20 - 0.99
- 1.0 - 9.9




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FIGURE A9

ISOCONCENTRATION CONTOURS AND GROUNDWATER ANALYTICAL RESULTS FOR 1,2,3-TCP IN DEEP MONITORING WELLS IN SOURCE AREA - SEPTEMBER 2023

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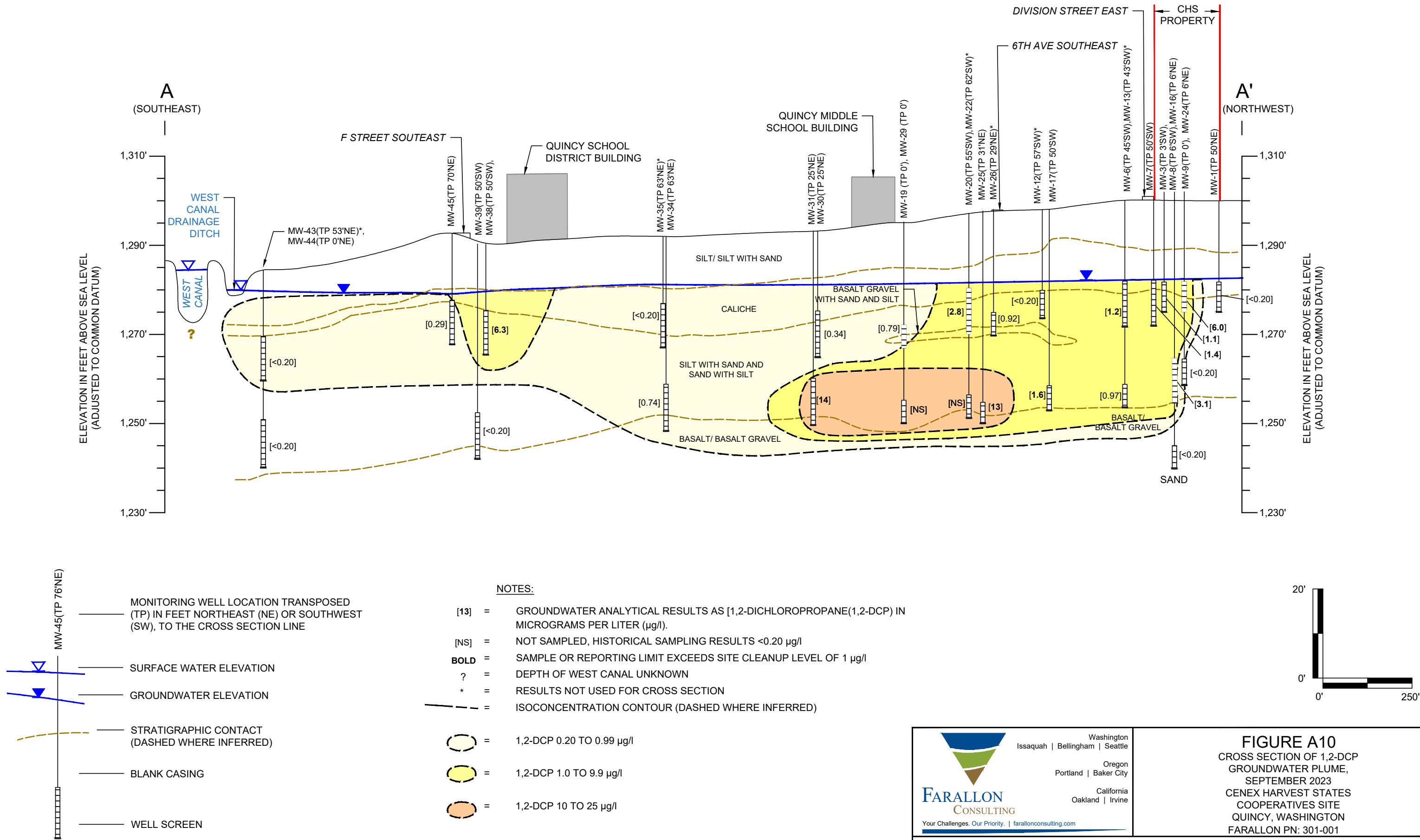
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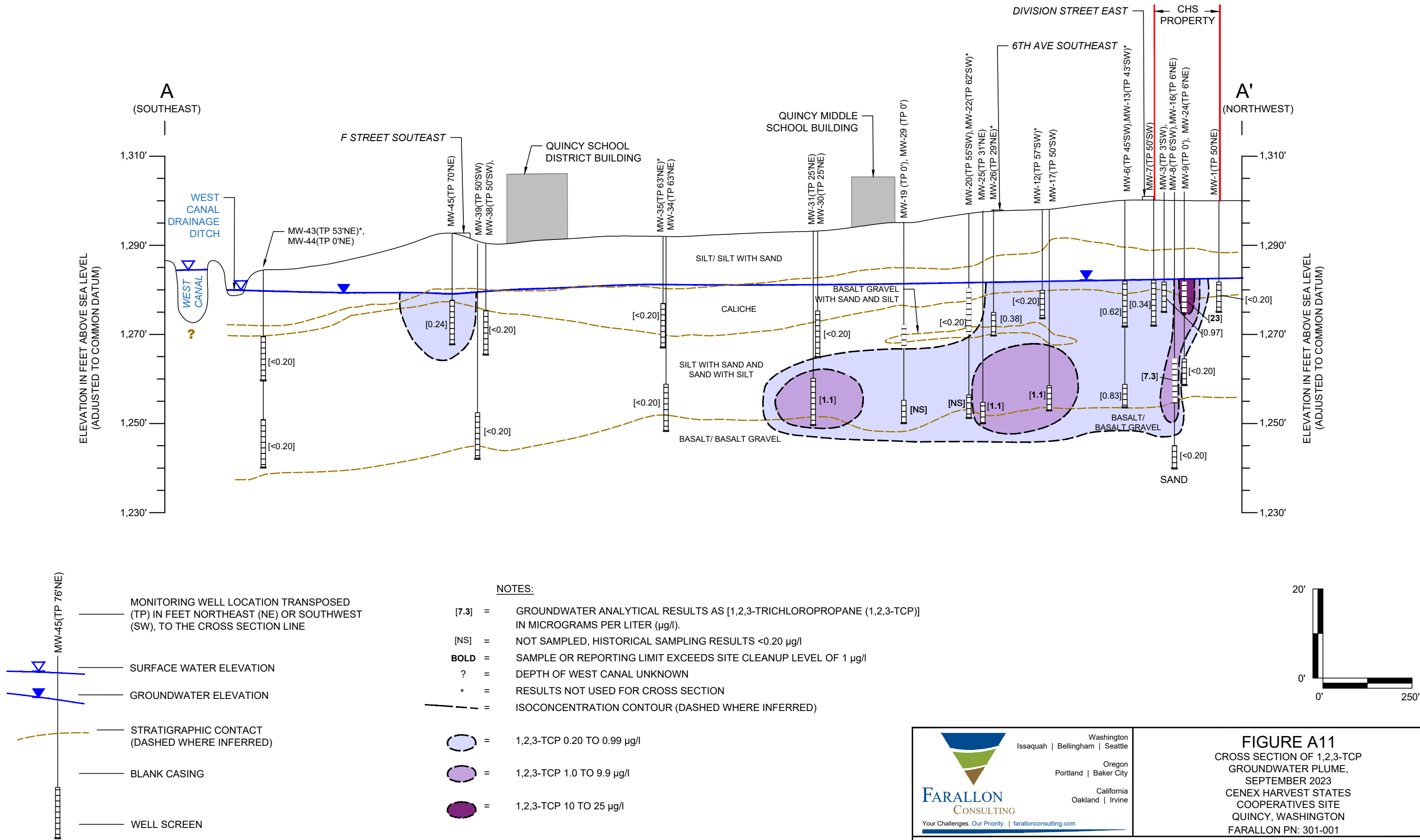
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TABLE

SEPTEMBER 2023 PERFORMANCE AIR AND GROUNDWATER COMPLIANCE MONITORING REPORT Cenex Harvest States Cooperatives Site 300 Division Street East Quincy, Washington

Farallon PN: 301-001

Table A1
Summary of pH, Temperature, Specific Conductivity, DO, and ORP in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Field Measurements ¹				
		pH	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)	ORP (mV)
Domestic Well	9/26/2023	7.67	14.3	702	6.11	147.4
MW-1	1/11/2023	7.99	13.9	1,700	5.38	173.2
	3/22/2023	7.73	15.2	1,849	4.26	— ²
	6/28/2023	7.69	18.3	1,388	4.60	212.3
	9/27/2023	7.66	16.2	1,589	5.39	112.8
MW-2	1/12/2023	8.19	12.4	1,644	5.97	222.1
	3/22/2023	7.92	15.7	1,628	6.58	— ²
	6/28/2023	7.82	19.7	1,300	5.90	236.0
	9/28/2023	7.76	15.2	1,747	5.34	84.8
MW-3	1/12/2023	7.32	13.9	2,647	4.01	287.8
	3/22/2023	7.18	16.0	1,778	7.48	124.3
	6/29/2023	7.26	18.0	2,579	7.56	171.5
	9/28/2023	7.64	15.8	2,728	8.81	195.9
MW-5	1/12/2023	7.47	14.8	2,408	1.48	244.9
	3/22/2023	7.06	15.5	2,407	0.47	— ²
	6/28/2023	7.17	18.2	1,885	0.19	192.8
	9/27/2023	7.44	16.1	2,060	0.30	128.8
MW-6	1/12/2023	7.78	14.3	3,165	2.80	261.1
	3/22/2023	7.48	15.1	2,348	8.15	64.4
	6/28/2023	7.41	18.2	2,671	3.52	214.2
	9/27/2023	7.66	16.7	3,281	2.29	136.1
MW-7	1/12/2023	— ³	9.1	— ⁴	— ⁵	197.4
	3/22/2023	7.57	15.1	2,050	0.51	— ²
	6/28/2023	7.38	17.4	3,006	0.35	137.9
	9/27/2023	7.36	16.4	3,673	0.39	76.2
MW-8	1/11/2023	8.09	13.4	1,389	5.96	208.3
	3/22/2023	7.76	15.9	1,010	8.43	149.8
	6/29/2023	7.58	18.6	1,363	4.38	149.7
	9/28/2023	7.94	15.3	1,386	3.78	165.1
MW-9	1/11/2023	8.36	13.5	2,087	1.76	188.0
	3/22/2023	8.04	15.7	1,237	7.14	90.0
	6/28/2023	8.07	19.1	1,560	0.26	188.8
	9/28/2023	8.20	15.8	1,913	0.54	65.8
MW-11	1/12/2023	— ³	13.7	1,742	— ⁵	— ²
	3/22/2023	7.61	14.6	1,200	8.02	65.2
	6/29/2023	7.51	15.6	1,613	0.84	129.4
	9/27/2023	7.82	15.1	1,707	0.46	126.6
MW-12	1/12/2023	— ³	12.6	1,642	— ⁵	— ²
	3/21/2023	7.60	14.9	1,468	8.13	91.6
	6/28/2023	7.62	16.7	1,427	6.50	204.8
	9/27/2023	7.65	16.0	1,542	7.38	112.5

Table A1
Summary of pH, Temperature, Specific Conductivity, DO, and ORP in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Field Measurements ¹				
		pH	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)	ORP (mV)
MW-13	1/12/2023	8.02	12.7	1,424	4.34	236.8
	3/22/2023	7.57	14.8	1,356	8.03	81.8
	6/28/2023	7.55	17.8	1,967	0.22	186.1
	9/27/2023	7.80	16.4	2,471	0.24	145.9
MW-15	1/12/2023	— ³	13.4	1,517	— ⁵	-93.4
	3/22/2023	7.76	14.4	1,003	8.57	70.6
	6/29/2023	7.67	16.2	1,316	1.90	92.8
	9/27/2023	7.98	15.4	1,384	3.33	138.1
MW-16	1/12/2023	6.90	12.2	2,675	1.83	265.2
	3/22/2023	7.00	16.3	2,043	7.47	115.2
	6/28/2023	6.75	19.6	2,483	0.18	201.7
	9/28/2023	6.90	16.3	3,262	2.18	202.6
MW-17	1/12/2023	— ³	13.2	2,380	— ⁵	-87.1
	3/22/2023	7.62	13.5	1,411	8.75	53.6
	6/28/2023	7.50	16.6	1,675	0.24	189.5
	9/27/2023	7.41	16.3	2,203	0.51	61.9
MW-20	1/12/2023	— ³	13.2	2,164	— ⁵	— ²
	3/21/2023	7.48	14.2	2,020	0.35	— ²
	6/28/2023	7.34	16.2	2,132	0.34	155.9
	9/27/2023	7.68	14.6	2,285	0.34	178.6
MW-24	1/11/2023	8.08	14.8	2,489	1.66	199.6
	3/22/2023	7.81	16.1	3,212	0.46	— ²
	6/28/2023	7.25	19.7	5,769	0.16	197.1
	9/28/2023	7.33	16.5	6,028	0.55	88.8
MW-25	1/12/2023	— ³	12.8	2,807	— ⁵	— ²
	3/21/2023	7.53	13.4	2,530	0.37	— ²
	6/28/2023	7.42	16.0	2,514	0.52	194.1
	9/27/2023	7.52	15.0	2,803	0.63	90.6
MW-26	1/12/2023	— ³	13.3	2,721	— ⁵	— ²
	3/22/2023	7.36	13.2	2,213	0.75	— ²
	6/28/2023	7.50	15.3	2,403	0.98	93.2
	9/27/2023	7.43	14.5	2,933	0.57	112.2
MW-28	1/12/2023	— ³	13.8	3,260	— ⁵	— ²
	3/21/2023	7.88	15.3	2,842	6.73	109.4
	6/28/2023	7.88	17.2	3,341	0.58	92.2
	9/27/2023	8.17	15.9	4,324	0.54	160.5
MW-29	1/12/2023	— ³	13.7	1,278	— ⁵	— ²
	3/21/2023	7.48	14.6	946	7.93	87.5
	6/27/2023	7.50	16.5	1,269	0.44	102.4
	9/27/2023	7.74	13.9	1,433	0.81	185.8

Table A1
Summary of pH, Temperature, Specific Conductivity, DO, and ORP in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Field Measurements ¹				
		pH	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)	ORP (mV)
MW-30	1/11/2023	— ³	15.4	1,650	— ⁵	— ²
	3/21/2023	7.54	16.0	1,879	1.20	— ²
	6/27/2023	7.57	18.7	1,471	0.68	220.5
	9/28/2023	8.05	15.3	1,273	0.58	191.7
MW-31	1/11/2023	— ³	14.9	2,160	— ⁵	— ²
	3/21/2023	7.67	15.5	2,265	0.38	— ²
	6/27/2023	7.62	19.7	1,854	0.20	209.3
	9/28/2023	8.01	15.5	2,137	0.26	172.9
MW-32	1/11/2023	8.29	12.0	1,219	— ⁵	— ²
	3/21/2023	7.59	12.9	916	8.83	114.6
	6/27/2023	7.61	15.0	1,051	4.19	209.2
	9/27/2023	7.54	13.5	1,339	5.75	139.6
MW-33	1/11/2023	— ³	11.5	1,210	— ⁵	— ²
	3/21/2023	7.53	12.9	947	8.85	94.5
	6/27/2023	7.53	16.3	1,071	2.90	232.4
	9/27/2023	7.49	13.5	1,382	3.36	133.8
MW-34	1/11/2023	— ³	9.8	— ⁴	— ⁵	— ²
	3/21/2023	7.68	14.1	1,049	8.37	174.3
	6/27/2023	7.62	19.4	1,599	0.61	127.9
	9/27/2023	7.94	15.4	1,608	1.02	183.9
MW-35	1/11/2023	— ³	14.3	1,557	— ⁵	— ²
	3/21/2023	7.86	13.8	723	9.14	91.1
	6/27/2023	8.03	18.4	570	8.72	139.1
	9/27/2023	8.29	17.5	553	8.20	179.2
MW-36	1/11/2023	7.88	12.3	1,204	6.46	262.6
	3/21/2023	7.67	14.0	1,214	5.75	— ²
	6/27/2023	7.67	19.0	1,042	5.91	232.1
	9/27/2023	7.99	14.1	1,153	5.56	187.8
MW-37	1/11/2023	8.00	13.1	1,192	5.94	261.1
	3/21/2023	7.66	14.6	1,210	5.01	— ²
	6/27/2023	7.68	17.7	1,041	4.57	214.8
	9/27/2023	7.96	14.4	1,376	4.28	198.0
MW-38	1/11/2023	7.91	13.3	1,596	1.77	245.3
	3/21/2023	7.56	15.2	1,155	8.08	1.7
	6/27/2023	7.56	18.8	1,323	0.18	192.8
	9/26/2023	7.80	17.0	1,602	0.20	127.5
MW-39	1/11/2023	8.02	11.5	1,302	2.95	223.9
	3/21/2023	7.66	15.2	969	8.94	102.5
	6/27/2023	7.68	18.8	1,004	4.55	216.2
	9/26/2023	7.93	17.5	1,186	3.99	146.1

Table A1
Summary of pH, Temperature, Specific Conductivity, DO, and ORP in Groundwater
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001

Monitoring Well Identification	Sample Date	Field Measurements ¹				
		pH	Temperature (°C)	Specific Conductivity (µS/cm)	DO (mg/l)	ORP (mV)
MW-40	1/11/2023	7.91	14.3	1,292	5.94	186.3
	3/21/2023	7.55	15.1	943	9.61	109.7
	6/27/2023	7.60	18.1	898	5.36	218.8
	9/26/2023	7.82	16.6	1,114	5.27	161.4
MW-41	1/11/2023	— ³	13.4	1,242	— ⁵	— ²
	3/21/2023	7.43	12.9	973	9.59	113.6
	6/27/2023	7.62	17.0	649	0.30	116.1
	9/26/2023	7.84	15.2	708	0.33	163.3
MW-42	1/11/2023	— ³	12.8	1,190	— ⁵	-85.2
	3/21/2023	7.45	12.2	1,281	5.56	— ²
	6/27/2023	7.64	15.2	1,174	3.04	132.9
	9/26/2023	7.85	14.8	1,254	4.84	198.5
MW-43	1/11/2023	— ³	12.4	1,390	— ⁵	— ²
	3/21/2023	7.42	13.3	1,531	0.40	— ²
	6/27/2023	7.68	14.5	848	3.85	110.4
	9/26/2023	7.81	13.7	992	5.12	213.5
MW-44	1/11/2023	— ³	12.1	1,135	— ⁵	— ²
	3/21/2023	7.60	13.0	1,205	3.56	— ²
	6/27/2023	7.74	16.2	1,097	3.86	123.7
	9/26/2023	7.97	14.4	1,144	4.28	204.9
MW-45	1/11/2023	7.96	12.9	1,886	5.36	185.3
	3/21/2023	7.53	14.5	2,111	4.86	— ²
	6/27/2023	7.61	17.7	1,437	1.56	201.1
	9/27/2023	7.95	14.7	1,992	4.36	210.3
MW-46	1/11/2023	— ³	12.2	1,201	— ⁵	— ²
	3/21/2023	7.70	13.2	917	10.47	77.3
	6/27/2023	7.62	14.7	1,377	0.80	63.9
	9/26/2023	7.71	14.0	1,542	0.46	225.7

NOTES:

¹pH, temperature, conductivity, DO, and ORP in the field using a water-quality analyzer with a flow-through cell once stabilization had been achieved immediately prior to sample collection.

²ORP probe malfunction.

³pH probe malfunction.

⁴Specific Conductivity probe malfunction.

⁵DO probe malfunction.

°C = degrees Celsius

DO = dissolved oxygen

mg/l = milligrams per liter

µS/cm = microSiemens per centimeter

mV = millivolts

ORP = oxidation-reduction potential

**ATTACHMENT A
LABORATORY ANALYTICAL REPORTS**

**SEPTEMBER 2023 PERFORMANCE AIR AND GROUNDWATER COMPLIANCE
MONITORING REPORT**

**Cenex Harvest States Cooperatives Site
300 Division Street East
Quincy, Washington**

Farallon PN: 301-001



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 2, 2023

Tracey Mulhern
Farallon Consulting
1201 Cornwall Avenue, Suite 105
Bellingham, WA 98225

Re: Analytical Data for Project 301-001
Laboratory Reference No. 2309-316

Dear Tracey:

Enclosed are the analytical results and associated quality control data for samples submitted on September 28, 2023.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DeB" followed by a stylized flourish.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 2, 2023
Samples Submitted: September 28, 2023
Laboratory Reference: 2309-316
Project: 301-001

Case Narrative

Samples were collected on September 27, 2023 and received by the laboratory on September 28, 2023. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 2, 2023
 Samples Submitted: September 28, 2023
 Laboratory Reference: 2309-316
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: ECF1E-092723-P-A						
Laboratory ID: 09-316-01						
Vinyl Chloride	ND	1.0	EPA 8260D	9-29-23	9-29-23	
Chloroform	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dichloroethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dichloropropane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dibromoethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2,3-Trichloropropane	ND	1.3	EPA 8260D	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				

Client ID: AAE-092723-P-A						
Laboratory ID: 09-316-02						
Vinyl Chloride	ND	1.0	EPA 8260D	9-29-23	9-29-23	
Chloroform	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dichloroethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dichloropropane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dibromoethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2,3-Trichloropropane	ND	1.3	EPA 8260D	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				



Date of Report: October 2, 2023
 Samples Submitted: September 28, 2023
 Laboratory Reference: 2309-316
 Project: 301-001

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0929A1					
Vinyl Chloride	ND	1.0	EPA 8260D	9-29-23	9-29-23	
Chloroform	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dichloroethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dichloropropane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,1,2-Trichloroethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2-Dibromoethane	ND	1.0	EPA 8260D	9-29-23	9-29-23	
1,2,3-Trichloropropane	ND	1.3	EPA 8260D	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	95	78-125				

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE						
Laboratory ID:	09-316-02					
	ORIG	DUP				
Vinyl Chloride	ND	ND			NA 30	
Chloroform	ND	ND			NA 30	
1,2-Dichloroethane	ND	ND			NA 30	
1,2-Dichloropropane	ND	ND			NA 30	
1,1,2-Trichloroethane	ND	ND			NA 30	
1,2-Dibromoethane	ND	ND			NA 30	
1,2,3-Trichloropropane	ND	ND			NA 30	
<i>Surrogate:</i>						
<i>Dibromofluoromethane</i>			94 92	75-127		
<i>Toluene-d8</i>			98 99	80-127		
<i>4-Bromofluorobenzene</i>			97 98	78-125		





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- X2 - Sample extract treated with a silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference





**OnSite
Environmental Inc.**

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.on-site-env.com

Chain of Custody

Page 1 of 1

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-8881 • www.on-site-env.com					
Company: Favallon					
Project Number: 301-001					
Project Name: CMS Quincy					
Project Manager: Tracey Mulhern					
Sampled by: C. Van Stolk					
<div style="text-align: right;">(Check One)</div> <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day</div><div><input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days</div></div> <div><input checked="" type="checkbox"/> Standard (7 Days)</div> <div><input type="checkbox"/> _____ (other)</div>					
Turnaround Request (in working days)					
Laboratory Number: 09-316					
Number of Containers					
NWTPH-HCID					
NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)					
NWTPH-Gx					
NWTPH-Dx (SG Clean-up <input type="checkbox"/>)					
Volatiles 8260 <input checked="" type="checkbox"/>					
Halogenated Volatiles 8260					
EDB EPA 8011 (Waters Only)					
Semivolatiles 8270/SIM (with low-level PAHs) PAHs 8270/SIM (low-level)					
PCBs 8082					
Organochlorine Pesticides 8081					
Organophosphorus Pesticides 8270/SIM					
Chlorinated Acid Herbicides 8151					
Total RCRA Metals					
Total MTCA Metals					
TCLP Metals					
HEM (oil and grease) 1664					
% Moisture					



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 6, 2023

Tracey Mulhern
Farallon Consulting
1201 Cornwall Avenue, Suite 105
Bellingham, WA 98225

Re: Analytical Data for Project 301-001
Laboratory Reference No. 2309-330

Dear Tracey:

Enclosed are the analytical results and associated quality control data for samples submitted on September 29, 2023.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Baumeister', with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 6, 2023
Samples Submitted: September 29, 2023
Laboratory Reference: 2309-330
Project: 301-001

Case Narrative

Samples were collected on September 26, 2023 and received by the laboratory on September 29, 2023. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-46-092623-P-GW						
Laboratory ID: 09-330-01						
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	0.83	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	89	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	96	78-125				

Client ID: MW-43-092623-P-GW						
Laboratory ID: 09-330-02						
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	90	75-127				
<i>Toluene-d8</i>	100	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-44-092623-P-GW						
Laboratory ID: 09-330-03						
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	98	78-125				

Client ID: MW-42-092623-P-GW						
Laboratory ID: 09-330-04						
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	0.35	0.20	EPA 8260D	10-3-23	10-3-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	101	80-127				
<i>4-Bromofluorobenzene</i>	105	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-41-092623-P-GW						
Laboratory ID: 09-330-05						
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	1.6	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	0.32	0.20	EPA 8260D	10-3-23	10-3-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	100	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				

Client ID: MW-40-092623-P-GW						
Laboratory ID: 09-330-06						
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	0.24	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	97	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	101	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-39-092623-P-GW						
Laboratory ID: 09-330-07						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>78-125</i>				

Client ID: MW-38-092623-P-GW						
Laboratory ID: 09-330-08						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	6.3	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-45-092723-P-GW						
Laboratory ID: 09-330-09						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	0.29	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	0.24	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	99	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				

Client ID: MW-37-092723-P-GW						
Laboratory ID: 09-330-10						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	97	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-36-092723-P-GW						
Laboratory ID: 09-330-11						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	95	75-127				
<i>Toluene-d8</i>	101	80-127				
<i>4-Bromofluorobenzene</i>	103	78-125				

Client ID: MW-34-092723-P-GW						
Laboratory ID: 09-330-12						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	0.74	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	94	80-127				
<i>4-Bromofluorobenzene</i>	95	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-35-092723-P-GW						
Laboratory ID: 09-330-13						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	3.6	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	89	75-127				
<i>Toluene-d8</i>	100	80-127				
<i>4-Bromofluorobenzene</i>	101	78-125				

Client ID: MW-33-092723-P-GW						
Laboratory ID: 09-330-14						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	90	75-127				
<i>Toluene-d8</i>	101	80-127				
<i>4-Bromofluorobenzene</i>	98	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-29-092723-P-GW						
Laboratory ID: 09-330-15						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	0.79	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	95	75-127				
<i>Toluene-d8</i>	102	80-127				
<i>4-Bromofluorobenzene</i>	99	78-125				

Client ID: MW-32-092723-P-GW						
Laboratory ID: 09-330-16						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	0.41	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	97	80-127				
<i>4-Bromofluorobenzene</i>	99	78-125				



Date of Report: October 6, 2023
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 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-20-092723-P-GW						
Laboratory ID: 09-330-17						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	2.8	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	0.24	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	95	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	100	78-125				

Client ID: MW-26-092723-P-GW						
Laboratory ID: 09-330-18						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	0.92	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	0.38	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	92	75-127				
<i>Toluene-d8</i>	97	80-127				
<i>4-Bromofluorobenzene</i>	96	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-25-092723-P-GW						
Laboratory ID: 09-330-19						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	13	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	1.1	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	99	78-125				

Client ID: MW-28-092723-P-GW						
Laboratory ID: 09-330-20						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	8.1	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	0.21	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	75-127				
<i>Toluene-d8</i>	102	80-127				
<i>4-Bromofluorobenzene</i>	101	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-12-092723-P-GW						
Laboratory ID: 09-330-21						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>78-125</i>				

Client ID: MW-15-092723-P-GW						
Laboratory ID: 09-330-22						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: QA/QC-1-092723-P-GW						
Laboratory ID: 09-330-23						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	13	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	1.3	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	99	75-127				
<i>Toluene-d8</i>	103	80-127				
<i>4-Bromofluorobenzene</i>	97	78-125				

Client ID: MW-11-092723-P-GW						
Laboratory ID: 09-330-24						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	101	80-127				
<i>4-Bromofluorobenzene</i>	92	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-17-092723-P-GW						
Laboratory ID: 09-330-25						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	1.6	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	1.1	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	97	75-127				
<i>Toluene-d8</i>	100	80-127				
<i>4-Bromofluorobenzene</i>	93	78-125				

Client ID: MW-13-092723-P-GW						
Laboratory ID: 09-330-26						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	0.97	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	0.83	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	94	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-6-092723-P-GW						
Laboratory ID: 09-330-27						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	1.2	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	0.62	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	99	75-127				
<i>Toluene-d8</i>	102	80-127				
<i>4-Bromofluorobenzene</i>	93	78-125				

Client ID: MW-7-092723-P-GW						
Laboratory ID: 09-330-28						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	1.4	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	0.34	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	100	80-127				
<i>4-Bromofluorobenzene</i>	95	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-5-092723-P-GW						
Laboratory ID: 09-330-29						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>78-125</i>				

Client ID: MW-1-092723-P-GW						
Laboratory ID: 09-330-30						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>78-125</i>				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-30-092823-P-GW						
Laboratory ID: 09-330-31						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	0.34	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	97	75-127				
<i>Toluene-d8</i>	100	80-127				
<i>4-Bromofluorobenzene</i>	92	78-125				

Client ID: MW-31-092823-P-GW						
Laboratory ID: 09-330-32						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	14	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	1.1	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	100	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	94	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: QA/QC-2-092823-P-GW						
Laboratory ID: 09-330-33						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	13	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	1.3	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	95	78-125				

Client ID: MW-2-092823-P-GW						
Laboratory ID: 09-330-34						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	101	75-127				
<i>Toluene-d8</i>	97	80-127				
<i>4-Bromofluorobenzene</i>	92	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-9-092823-P-GW						
Laboratory ID: 09-330-35						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	98	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	92	78-125				

Client ID: MW-8-092823-P-GW						
Laboratory ID: 09-330-36						
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	92	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-24-092823-P-GW						
Laboratory ID: 09-330-37						
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	6.0	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	23	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	97	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	101	78-125				

Client ID: QA/QC-3-092823-P-GW						
Laboratory ID: 09-330-38						
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	5.7	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	22	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	75-127				
<i>Toluene-d8</i>	97	80-127				
<i>4-Bromofluorobenzene</i>	102	78-125				



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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: MW-3-092823-P-GW						
Laboratory ID: 09-330-39						
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	1.1	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	0.97	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	101	80-127				
<i>4-Bromofluorobenzene</i>	100	78-125				

Client ID: MW-16-092823-P-GW						
Laboratory ID: 09-330-40						
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	3.1	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	7.3	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	94	75-127				
<i>Toluene-d8</i>	96	80-127				
<i>4-Bromofluorobenzene</i>	101	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: Domestic-092623-P-GW						
Laboratory ID: 09-330-41						
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	95	75-127				
<i>Toluene-d8</i>	103	80-127				
<i>4-Bromofluorobenzene</i>	105	78-125				

Client ID: TB-092823						
Laboratory ID: 09-330-42						
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	96	75-127				
<i>Toluene-d8</i>	99	80-127				
<i>4-Bromofluorobenzene</i>	100	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water

Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1003W1					
Vinyl Chloride	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Chloroform	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-3-23	10-3-23	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	75-127				
Toluene-d8	100	80-127				
4-Bromofluorobenzene	100	78-125				
Laboratory ID:	MB1004W1					
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	93	75-127				
Toluene-d8	96	80-127				
4-Bromofluorobenzene	96	78-125				
Laboratory ID:	MB1004W2					
Vinyl Chloride	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Chloroform	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-4-23	10-4-23	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	75-127				
Toluene-d8	104	80-127				
4-Bromofluorobenzene	98	78-125				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water

Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1005W1					
Vinyl Chloride	ND	0.20	EPA 8260D	10-5-23	10-5-23	
Chloroform	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-5-23	10-5-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>91</i>	<i>75-127</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-127</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>78-125</i>				



Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water

Units: ug/L

Analyte	Result		Spike Level		Percent	Recovery	RPD			
					Recovery	Limits	RPD	Limit	Flags	
SPIKE BLANKS										
Laboratory ID:	SB1003W1									
	SB	SBD	SB	SBD	SB	SBD				
Vinyl Chloride	9.56	10.6	10.0	10.0	96	106	71-135	10	20	
Chloroform	9.67	10.7	10.0	10.0	97	107	80-123	10	16	
1,2-Dichloroethane	9.93	11.2	10.0	10.0	99	112	80-124	12	15	
1,2-Dichloropropane	10.2	11.0	10.0	10.0	102	110	80-123	8	15	
1,1,2-Trichloroethane	9.36	10.2	10.0	10.0	94	102	77-126	9	20	
1,2-Dibromoethane	9.85	11.1	10.0	10.0	99	111	80-127	12	15	
1,2,3-Trichloropropane	11.6	10.5	10.0	10.0	116	105	71-129	10	25	
Surrogate:										
Dibromofluoromethane					97	96	75-127			
Toluene-d8					101	99	80-127			
4-Bromofluorobenzene					101	103	78-125			
Laboratory ID:	SB1004W1									
	SB	SBD	SB	SBD	SB	SBD				
Vinyl Chloride	11.7	9.98	10.0	10.0	117	100	71-135	16	20	
Chloroform	10.1	8.70	10.0	10.0	101	87	80-123	15	16	
1,2-Dichloroethane	10.1	9.24	10.0	10.0	101	92	80-124	9	15	
1,2-Dichloropropane	10.5	9.44	10.0	10.0	105	94	80-123	11	15	
1,1,2-Trichloroethane	9.86	8.68	10.0	10.0	99	87	77-126	13	20	
1,2-Dibromoethane	10.6	9.15	10.0	10.0	106	92	80-127	15	15	
1,2,3-Trichloropropane	8.77	7.62	10.0	10.0	88	76	71-129	14	25	
Surrogate:										
Dibromofluoromethane					92	93	75-127			
Toluene-d8					99	100	80-127			
4-Bromofluorobenzene					102	101	78-125			
Laboratory ID:	SB1004W2									
	SB	SBD	SB	SBD	SB	SBD				
Vinyl Chloride	9.09	8.94	10.0	10.0	91	89	71-135	2	20	
Chloroform	10.4	10.5	10.0	10.0	104	105	80-123	1	16	
1,2-Dichloroethane	11.3	11.2	10.0	10.0	113	112	80-124	1	15	
1,2-Dichloropropane	10.8	10.9	10.0	10.0	108	109	80-123	1	15	
1,1,2-Trichloroethane	11.4	11.5	10.0	10.0	114	115	77-126	1	20	
1,2-Dibromoethane	11.6	11.6	10.0	10.0	116	116	80-127	0	15	
1,2,3-Trichloropropane	9.36	9.26	10.0	10.0	94	93	71-129	1	25	
Surrogate:										
Dibromofluoromethane					103	100	75-127			
Toluene-d8					106	104	80-127			
4-Bromofluorobenzene					109	107	78-125			



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 6, 2023
 Samples Submitted: September 29, 2023
 Laboratory Reference: 2309-330
 Project: 301-001

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water

Units: ug/L

Analyte	Result		Spike Level		Percent		Recovery		RPD	
					Recovery		Limits		RPD	Limit
SPIKE BLANKS										
Laboratory ID:	SB1005W1									
	SB	SBD	SB	SBD	SB	SBD				
Vinyl Chloride	11.0	12.0	10.0	10.0	110	120	71-135	9	20	
Chloroform	9.62	10.5	10.0	10.0	96	105	80-123	9	16	
1,2-Dichloroethane	10.1	10.9	10.0	10.0	101	109	80-124	8	15	
1,2-Dichloropropane	10.6	11.5	10.0	10.0	106	115	80-123	8	15	
1,1,2-Trichloroethane	8.89	9.89	10.0	10.0	89	99	77-126	11	20	
1,2-Dibromoethane	9.96	10.6	10.0	10.0	100	106	80-127	6	15	
1,2,3-Trichloropropane	8.85	9.25	10.0	10.0	89	93	71-129	4	25	
Surrogate:										
Dibromofluoromethane					91	93	75-127			
Toluene-d8					101	101	80-127			
4-Bromofluorobenzene					104	104	78-125			





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- X2 - Sample extract treated with a silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference





Monsite Environmental Inc.
Analytical Laboratory Testing Services
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Chain of Custody

Company: Favallion		Turnaround Request (in working days)		Laboratory Number: 09-330													
Project Number: 301-001		<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day															
Project Name: CHS Quiney		<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days															
Project Manager: Tracey Mulhern		<input checked="" type="checkbox"/> Standard (7 Days)															
Sampled by: J. Smith + C. van Stolk		<input type="checkbox"/> (other)															
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers												
1	MW-4b-092b23-P-GW	9/26/23	0910	GW	3												
2	MW-43-092b23-P-GW		0940														
3	MW-44-092b23-P-GW		1110														
4	MW-42-092b23-P-GW		1140														
5	MW-41-092b23-P-GW		1215														
6	MW-40-092b23-P-GW		1345														
7	MW-39-092b23-P-GW		1610														
8	MW-38-092b23-P-GW		1630														
9	MW-45-092723-P-GW	9/27/23	0815														
10	MW-37-092723-P-GW	"	0845														
Signature		Company		Date	Time	Comments/Special Instructions											
Relinquished <i>Conting Smith</i>		Favallion		9-28-23	1610	* = only: chloroform 1,2-dibromoethane 1,2-dichloroethane 1,2-dichloropropane 1,1,2-trichloroethane 1,1,2-trichloropropane vinyl chloride											
Received <i>Van</i>				9-29-23	0910												
Relinquished <i>Van</i>				9-23-23	1030												
Received <i>Van</i>				9/28/23	1030												
Relinquished <i>[Signature]</i>																	
Received						Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>											
Reviewed/Date		Reviewed/Date		Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>													



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Chain of Custody

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Company: <u>Farallon</u>		Turnaround Request (in working days)		Laboratory Number: 09-330															
Project Number: <u>301-001</u>		<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input checked="" type="checkbox"/> Standard (7 Days)																	
Project Name: <u>CHS Quincy</u>		<input type="checkbox"/> _____ (other)																	
Project Manager: <u>Tracey Mulhern</u>																			
Sampled by: <u>J. Smith + C. van Stolk</u>																			
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers														
11	MW-36-092723-P-GW	9/27/23	0910	GW	3														
12	MW-34-092723-P-GW		1000																
13	MW-35-092723-P-GW		1030																
14	MW-33-092723-P-GW		1050																
15	MW-29-092723-P-GW		1100																
16	MW-32-092723-P-GW		1110																
17	MW-20-092723-P-GW		1220																
18	MW-26-092723-P-GW		1230																
19	MW-25-092723-P-GW		1256																
20	MW-28-092723-P-GW		1305																
Signature		Company		Date		Time		Comments/Special Instructions											
Relinquished		Farallon		9-28-23		1610		* only: chloroform 1,2-dibromethane 1,2-dichloroethane 1,2-dichloropropane 1,1,2-trichloroethane 1,1,2-trichloropropane vinyl chloride											
Received		Farallon		9-29-23		0910													
Relinquished		SP84		9-29-23		1030													
Received		CO81E		9/29/23		1030													
Relinquished																			
Received																			
Reviewed/Date		Reviewed/Date		Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/> Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>															



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Chain of Custody

Company: <u>Favallion</u>		Turnaround Request (in working days)		Laboratory Number: 09-330												
Project Number: <u>301-001</u>		<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day														
Project Name: <u>CHS Quince</u>		<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days														
Project Manager: <u>Tracey Mulhern</u>		<input checked="" type="checkbox"/> Standard (7 Days)														
Sampled by: <u>J. Smith, C. van Stolk</u>		<input type="checkbox"/> (other)														
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers											
21	MW-12-092723-P-GW	9/27/23	1337	GW	3											
22	MW-15-092723-P-GW		1400		1											
23	QA/QC-1-092723-P-GW		1256		1											
24	MW-11-092723-P-GW		1420		1											
25	MW-17-092723-P-GW		1433		1											
26	MW-13-092723-P-GW		1450		1											
27	MW-6-092723-P-GW		1510		1											
28	MW-7-092723-P-GW		1521		1											
29	MW-5-092723-P-GW		1540		1											
30	MW-1-092723-P-GW		1606		1											
Relinquished	Signature <u>Gertrude Lavette</u>	Company <u>Favallion</u>	Date <u>9-28-23</u>	Time <u>1610</u>	Comments/Special Instructions											
Received					* = only chloroform											
Relinquished					1,2-dibromethane											
Received					1,2-dichloroethane											
Relinquished					1,2-dichloropropane											
Received					1,1,2-trichloroethane											
Relinquished					1,2,3-trichloropropane											
Received					vinyl chloride											
Reviewed/Date					Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>											
					Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>											



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Company: <u>Farellon</u>							<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day								
Project Number: <u>301-001</u>							<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days								
Project Name: <u>CHS Aquino</u>							<input checked="" type="checkbox"/> Standard (7 Days)								
Project Manager: <u>Tracey Mulhern</u>															
Sampled by: <u>J. Smith, C. van Stolk</u>							<input type="checkbox"/> _____ (other)								
Lab ID	Sample Identification				Date Sampled	Time Sampled	Matrix	Number of Containers							
31	MW-30-092823-P-GW	9/28/23	0820	GW	3	NWTPH-HCID									
32	MW-31-092823-P-GW		0845			NWTPH-Gx/BTEX (8021 <input type="checkbox"/> 8260 <input type="checkbox"/>)									
33	QA/QC-2-092823-P-GW		0910			NWTPH-Gx									
34	MW-2-092823-P-GW		0849			NWTPH-Dx (SG Clean-up <input type="checkbox"/>)									
35	MW-9-092823-P-GW		0923			Volatiles 8260									
36	MW-8-092823-P-GW		0945			Halogenated Volatiles 8260	<input checked="" type="checkbox"/>								
37	MW-24-092823-P-GW		0953			EDB EPA 8011 (Waters Only)									
38	QA/QC-3-092823-P-GW		1008			Semivolatiles 8270/SIM (with low-level PAHs)									
39	MW-3-092823-P-GW		1010			PAHs 8270/SIM (low-level)									
40	MW-Ho-092823-P-GW		1035			PCBs 8082									
Signature		Company		Date	Time	Comments/Special Instructions									
Corrections van Stolk		Farellon		9-28-23	1610	* Only: chloroform 1,2-dibromoethane 1,2-dichloroethane 1,2-dichloropropane 1,1,2-trichloroethane 1,2,3-trichloropropane vinyl chloride									
Received		SP84		9-29-23	0910										
Relinquished		SP84		9-29-23	1030										
Received		ORE		9/28/23	1030										
Relinquished															
Received															
Reviewed/Date		Reviewed/Date		Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>											
Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>															



Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 5 of 5

Company: Favallon		Turnaround Request (in working days)		Laboratory Number: 09-330	
Project Number: 301-001		<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day			
Project Name: Tracey Mulhern		<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days			
Project Manager: JCHS Quincy		<input type="checkbox"/> Standard (7 Days)			
Sampled by: J. Smith, L. van Stolk		<input type="checkbox"/> (other)			
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
41	Domestic-092623-P-GW	9/26/23	1115	GW	3
42	TB-092823	9/28/23	1610	GW	3
<div>Comments/Special Instructions</div> <p>*=only: 1,2-dibromethane 1,2-dichloroethane 1,2-dichloropropane 1,1,2-trichloroethane 1,2,3-trichloropropane vinyl chloride chloroform</p>					
Data Package: Standard <input type="checkbox"/> Level III <input type="checkbox"/> Level IV <input type="checkbox"/>					
Chromatograms with final report <input type="checkbox"/> Electronic Data Deliverables (EDDs) <input type="checkbox"/>					

10/16/2023

Ms. Tracey Mulhern
Farallon Consulting, LLC
1201 Cornwall Avenue
Suite 105
Bellingham WA 98225

Project Name:
Project #: 301-001
Workorder #: 2310029

Dear Ms. Tracey Mulhern

The following report includes the data for the above referenced project for sample(s) received on 10/3/2023 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Monica Tran at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Monica Tran
Project Manager

WORK ORDER #: 2310029

Work Order Summary

CLIENT:	Ms. Tracey Mulhern Farallon Consulting, LLC 1201 Cornwall Avenue Suite 105 Bellingham, WA 98225	BILL TO:	Accounts Payable Farallon Consulting, LLC 975 Fifth Avenue NW Issaquah, WA 98027-3333
PHONE:	360.527.0241	P.O. #	301-001
FAX:	360.527.0243	PROJECT #	301-001
DATE RECEIVED:	10/03/2023	CONTACT:	Monica Tran
DATE COMPLETED:	10/16/2023		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VEW-123-092623-P-A	Modified TO-15	8 "Hg	1.9 psi
02A	VEW-456-092623-P-A	Modified TO-15	6.5 "Hg	1.9 psi
03A	VEW-789-092623-P-A	Modified TO-15	6.7 "Hg	1.9 psi
04A	MSW-092623-P-A	Modified TO-15	4.7 "Hg	1.9 psi
05A	VEW-092623-P-A	Modified TO-15	5.7 "Hg	1.9 psi
06A	Lab Blank	Modified TO-15	NA	NA
06B	Lab Blank	Modified TO-15	NA	NA
07A	CCV	Modified TO-15	NA	NA
07B	CCV	Modified TO-15	NA	NA
08A	LCS	Modified TO-15	NA	NA
08AA	LCSD	Modified TO-15	NA	NA
08B	LCS	Modified TO-15	NA	NA
08BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 10/16/23

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017

Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000

LABORATORY NARRATIVE
Modified TO-15
Farallon Consulting, LLC
Workorder# 2310029

Five 6 Liter Summa Canister (100% Certified) samples were received on October 03, 2023. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	$\leq 30\%$ RSD with 4 compounds allowed out to $< 40\%$ RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. A time was not provided by the field sampler.

The Chain of Custody (COC) information for samples VEW-456-092623-P-A, MSW-092623-P-A and VEW-092623-P-A did not match the information on the canister with regard to canister barcode. The samples labeled 0654, 64994, 660176 on the COC are labeled as 6L1654, 6L1994, 6L0176 on the canister. The client was notified of the discrepancy and the information on the canister was used to process and report the samples.

Analytical Notes

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue



Air Toxics

Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VEW-123-092623-P-A

Lab ID#: 2310029-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	1.2	0.39	3.2
Chloroform	0.15	0.35	0.75	1.7
1,2-Dichloropropane	0.15	31	0.71	140
1,1,2-Trichloroethane	0.15	0.29	0.84	1.6

Client Sample ID: VEW-456-092623-P-A

Lab ID#: 2310029-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.14	0.69	0.37	1.8
Chloroform	0.14	0.31	0.70	1.5
1,2-Dichloropropane	0.14	17	0.66	80
1,1,2-Trichloroethane	0.14	0.16	0.78	0.87

Client Sample ID: VEW-789-092623-P-A

Lab ID#: 2310029-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloropropane	0.15	8.3	0.67	38

Client Sample ID: MSW-092623-P-A

Lab ID#: 2310029-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloropropane	0.14	3.6	0.62	17

Client Sample ID: VEW-092623-P-A

Lab ID#: 2310029-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.14	0.25	0.36	0.65
Chloroform	0.14	0.16	0.68	0.78

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VEW-092623-P-A

Lab ID#: 2310029-05A

1,2-Dichloropropane	0.14	11	0.65	52
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Air Toxics

Client Sample ID: VEW-123-092623-P-A

Lab ID#: 2310029-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101110	Date of Collection: 9/26/23 9:15:00 AM
Dil. Factor:	1.54	Date of Analysis: 10/11/23 05:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	1.2	0.39	3.2
Chloroform	0.15	0.35	0.75	1.7
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
1,2-Dichloropropane	0.15	31	0.71	140
1,1,2-Trichloroethane	0.15	0.29	0.84	1.6
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
1,2,3-Trichloropropane	0.77	Not Detected	4.6	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: VEW-456-092623-P-A

Lab ID#: 2310029-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101116	Date of Collection:	9/26/23 1:17:00 PM
Dil. Factor:	1.44	Date of Analysis:	10/11/23 10:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.14	0.69	0.37	1.8
Chloroform	0.14	0.31	0.70	1.5
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
1,2-Dichloropropane	0.14	17	0.66	80
1,1,2-Trichloroethane	0.14	0.16	0.78	0.87
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
1,2,3-Trichloropropane	0.72	Not Detected	4.3	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: VEW-789-092623-P-A

Lab ID#: 2310029-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101207	Date of Collection:	9/26/23 2:10:00 PM
Dil. Factor:	1.46	Date of Analysis:	10/12/23 12:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
1,2-Dichloropropane	0.15	8.3	0.67	38
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
1,2,3-Trichloropropane	0.73	Not Detected	4.4	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: MSW-092623-P-A

Lab ID#: 2310029-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101209	Date of Collection:	9/26/23 4:19:00 PM
Dil. Factor:	1.35	Date of Analysis:	10/12/23 02:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.14	Not Detected	0.34	Not Detected
Chloroform	0.14	Not Detected	0.66	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.55	Not Detected
1,2-Dichloropropane	0.14	3.6	0.62	17
1,1,2-Trichloroethane	0.14	Not Detected	0.74	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.0	Not Detected
1,2,3-Trichloropropane	0.68	Not Detected	4.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: VEW-092623-P-A

Lab ID#: 2310029-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101208	Date of Collection: 9/26/23 5:11:00 PM
Dil. Factor:	1.40	Date of Analysis: 10/12/23 01:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.14	0.25	0.36	0.65
Chloroform	0.14	0.16	0.68	0.78
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
1,2-Dichloropropane	0.14	11	0.65	52
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
1,2,3-Trichloropropane	0.70	Not Detected	4.2	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: Lab Blank

Lab ID#: 2310029-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101106d	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/11/23 12:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
1,2,3-Trichloropropane	0.50	Not Detected	3.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: Lab Blank

Lab ID#: 2310029-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101206c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/23 11:13 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
1,2,3-Trichloropropane	0.50	Not Detected	3.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: CCV

Lab ID#: 2310029-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/11/23 08:49 AM

Compound	%Recovery
Vinyl Chloride	109
Chloroform	105
1,2-Dichloroethane	107
1,2-Dichloropropane	107
1,1,2-Trichloroethane	86
1,2-Dibromoethane (EDB)	85
1,2,3-Trichloropropane	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	116	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 2310029-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/23 08:39 AM

Compound	%Recovery
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Vinyl Chloride	103
Chloroform	100
1,2-Dichloroethane	104
1,2-Dichloropropane	103
1,1,2-Trichloroethane	79
1,2-Dibromoethane (EDB)	78
1,2,3-Trichloropropane	78

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	123	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 2310029-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/11/23 09:26 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	101	70-130
Chloroform	96	70-130
1,2-Dichloroethane	108	70-130
1,2-Dichloropropane	105	70-130
1,1,2-Trichloroethane	92	70-130
1,2-Dibromoethane (EDB)	91	70-130
1,2,3-Trichloropropane	92	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCSD

Lab ID#: 2310029-08AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/11/23 10:03 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	101	70-130
Chloroform	98	70-130
1,2-Dichloroethane	110	70-130
1,2-Dichloropropane	107	70-130
1,1,2-Trichloroethane	93	70-130
1,2-Dibromoethane (EDB)	91	70-130
1,2,3-Trichloropropane	92	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 2310029-08B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/23 09:20 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	92	70-130
Chloroform	88	70-130
1,2-Dichloroethane	108	70-130
1,2-Dichloropropane	105	70-130
1,1,2-Trichloroethane	85	70-130
1,2-Dibromoethane (EDB)	84	70-130
1,2,3-Trichloropropane	84	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	112	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 2310029-08BB

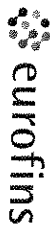
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	22101204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/23 09:56 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	96	70-130
Chloroform	91	70-130
1,2-Dichloroethane	106	70-130
1,2-Dichloropropane	105	70-130
1,1,2-Trichloroethane	89	70-130
1,2-Dibromoethane (EDB)	88	70-130
1,2,3-Trichloropropane	89	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Eurofins Environment Testing Northern California, LLC
180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

Analysis Request / Canister Chain of Custody

Instructions



page 1 of 1

Workorder #

2310029

Client: Farellon

Site Name: CHS Quincy

Project Manager: Tracey Mulhern

Sampler: C. van Stolk + J. Smith

Project Name:

Project #: 301-001

PO#: 301-001

Standard ✓ Rush (Surcharges will apply, per availability)
Samples received after 3PM PST are subject to be received on the following working day.
Requested Date (mm/dd/yy):
DB Number of Days:

Requested Analyses

Canister Vacuum/Pressure

Lab Use Only

Initial (in Hg) Final (in Hg) Receipt (in Hg) Final (in psi) Gas: N2 / He

Lab ID

Field Sample Identification (Location)

Canister Barcode #

Flow Controller Barcode #

Start Sampling Information

Stop Sampling Information

01A

VEN-123-092623-P-A

02A

VEN-456-092623-P-A

03A

VEN-789-092623-P-A

04A

MSM-092623-P-A

05A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

VEN-092623-P-A

Relinquished by: (Signature/Affiliation)

Relinquished by: (Signature/Affiliation)

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Relinquished by: (Signature/Affiliation)

Shipper Name:

Feed

Custody Seals Intact?

Yes

No

None

Condition:

10/3/23

10/3/23

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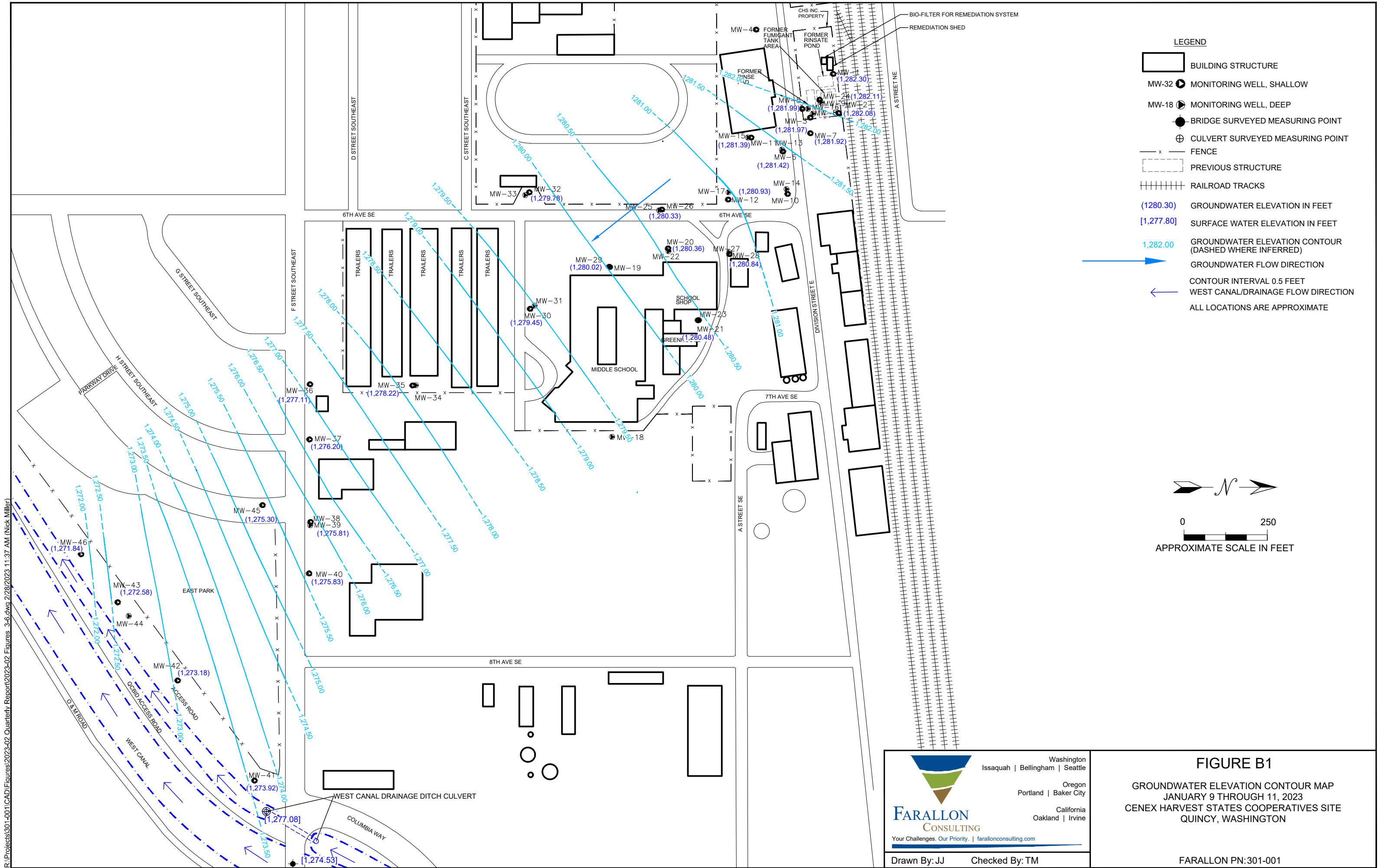
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APPENDIX B
GROUNDWATER ELEVATION CONTOUR FIGURES

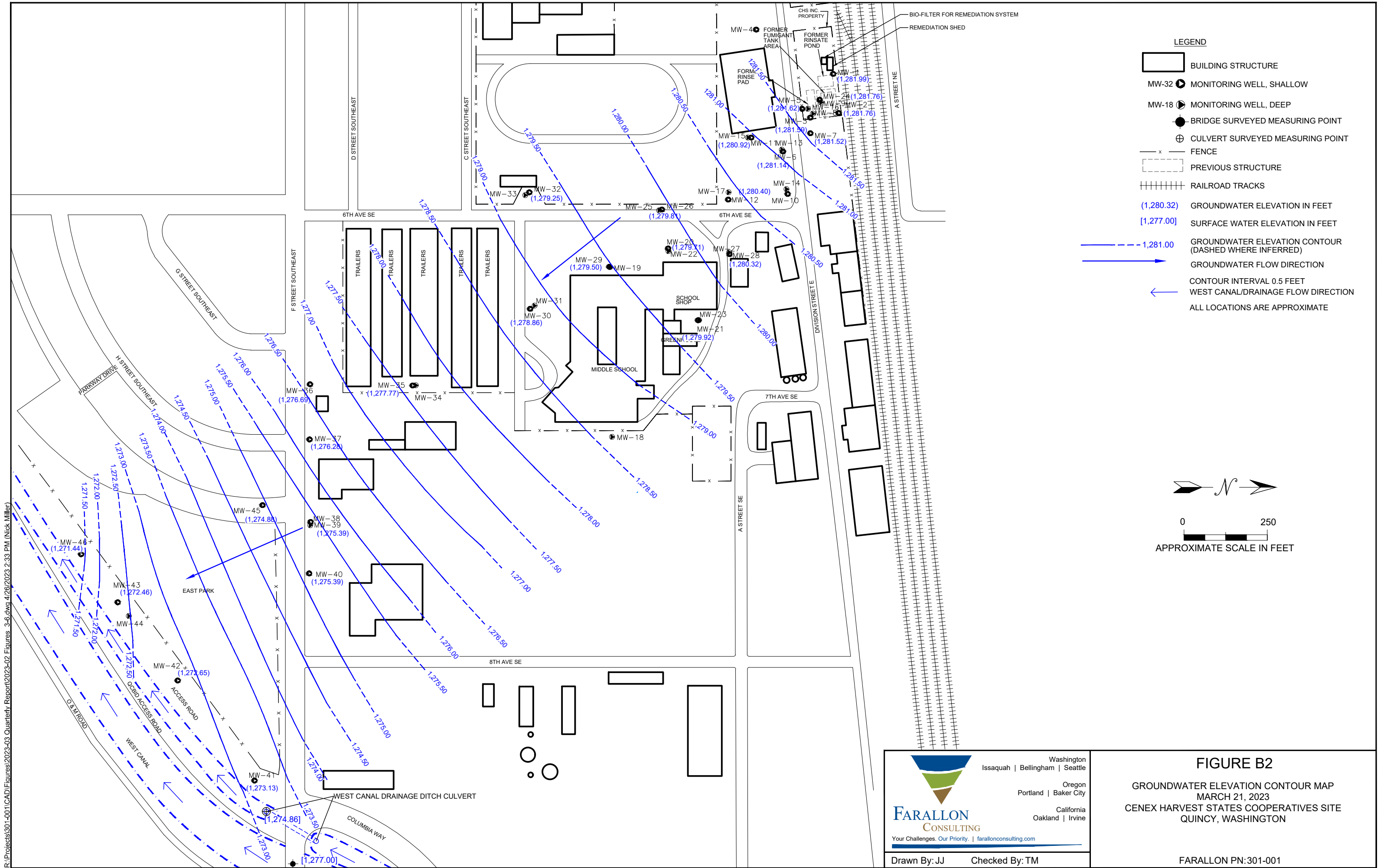
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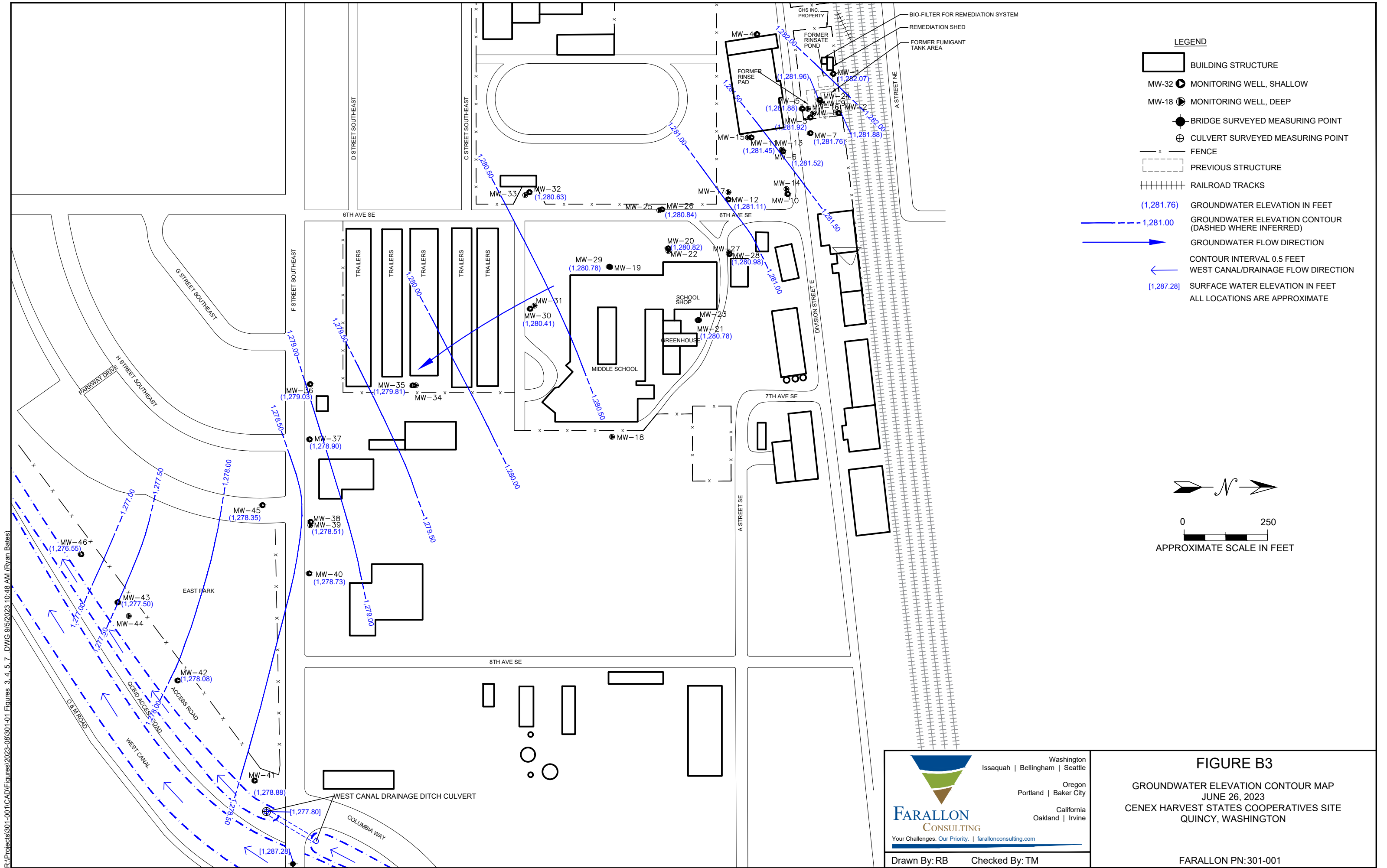


FIGURE B3
GROUNDWATER ELEVATION CONTOUR MAP
JUNE 26, 2023
CENEX HARVEST STATES COOPERATIVES SITE
QUINCY, WASHINGTON

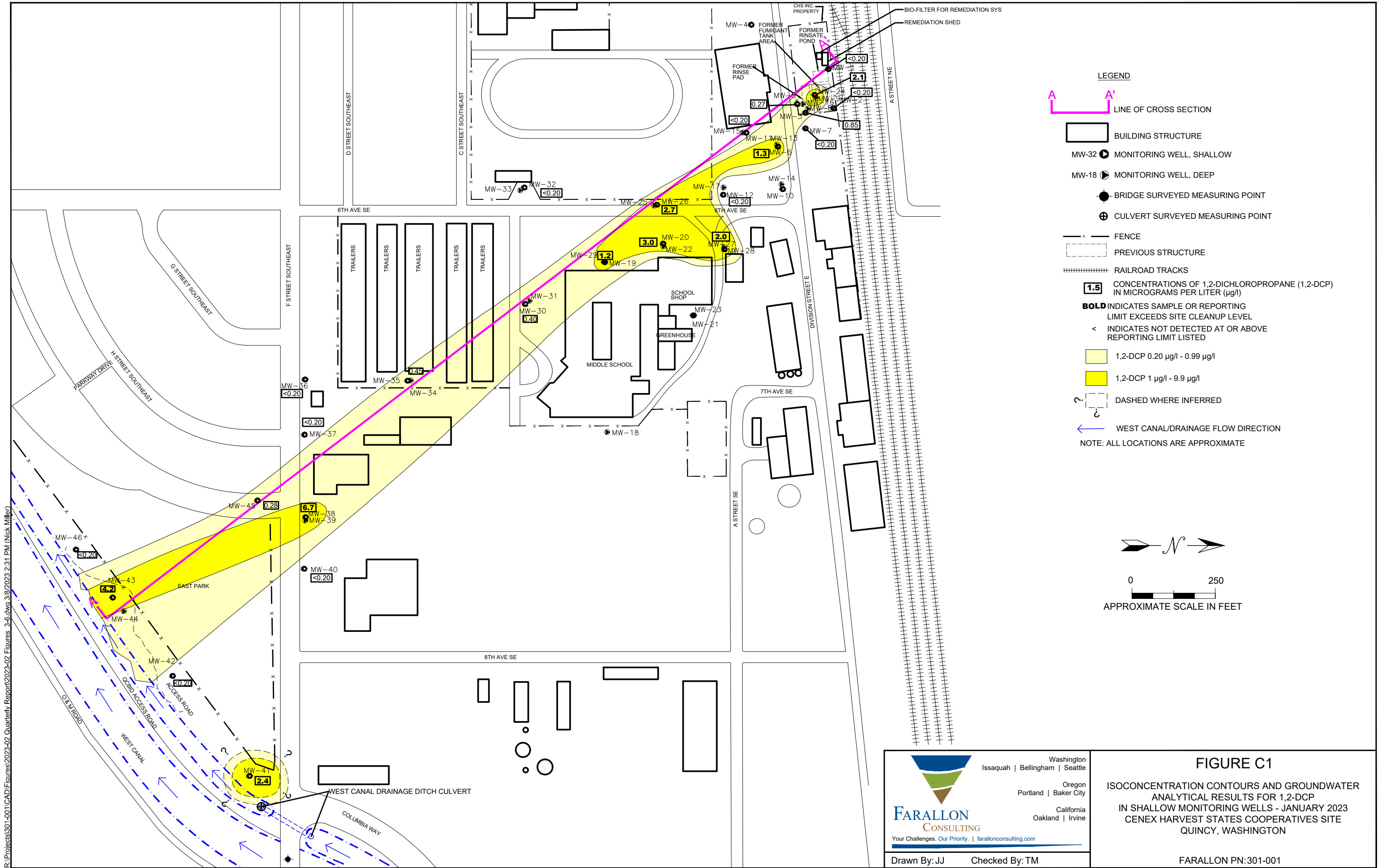
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APPENDIX C
ISOCONCENTRATION CONTOUR AND GROUNDWATER ANALYTICAL RESULT
FIGURES

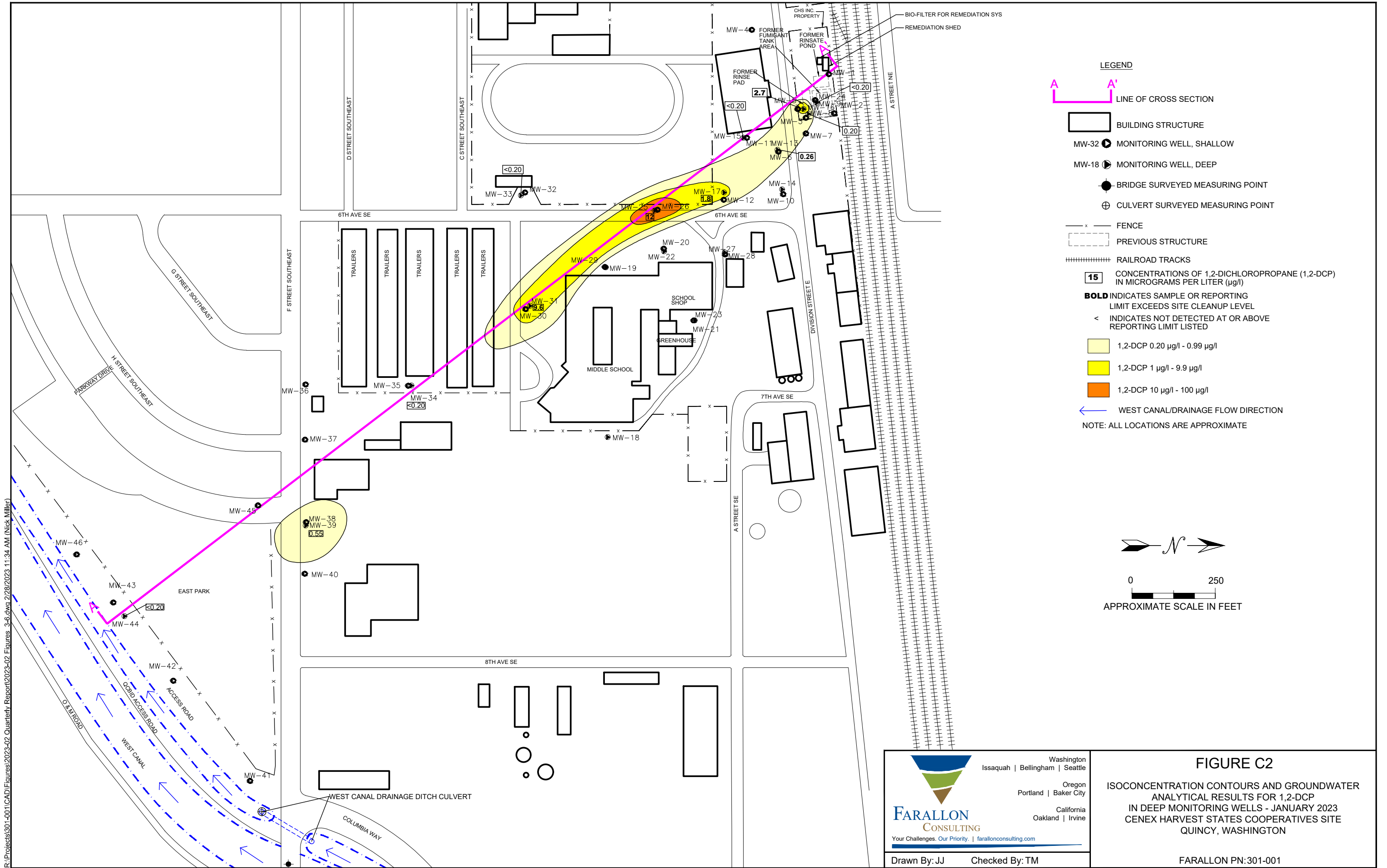
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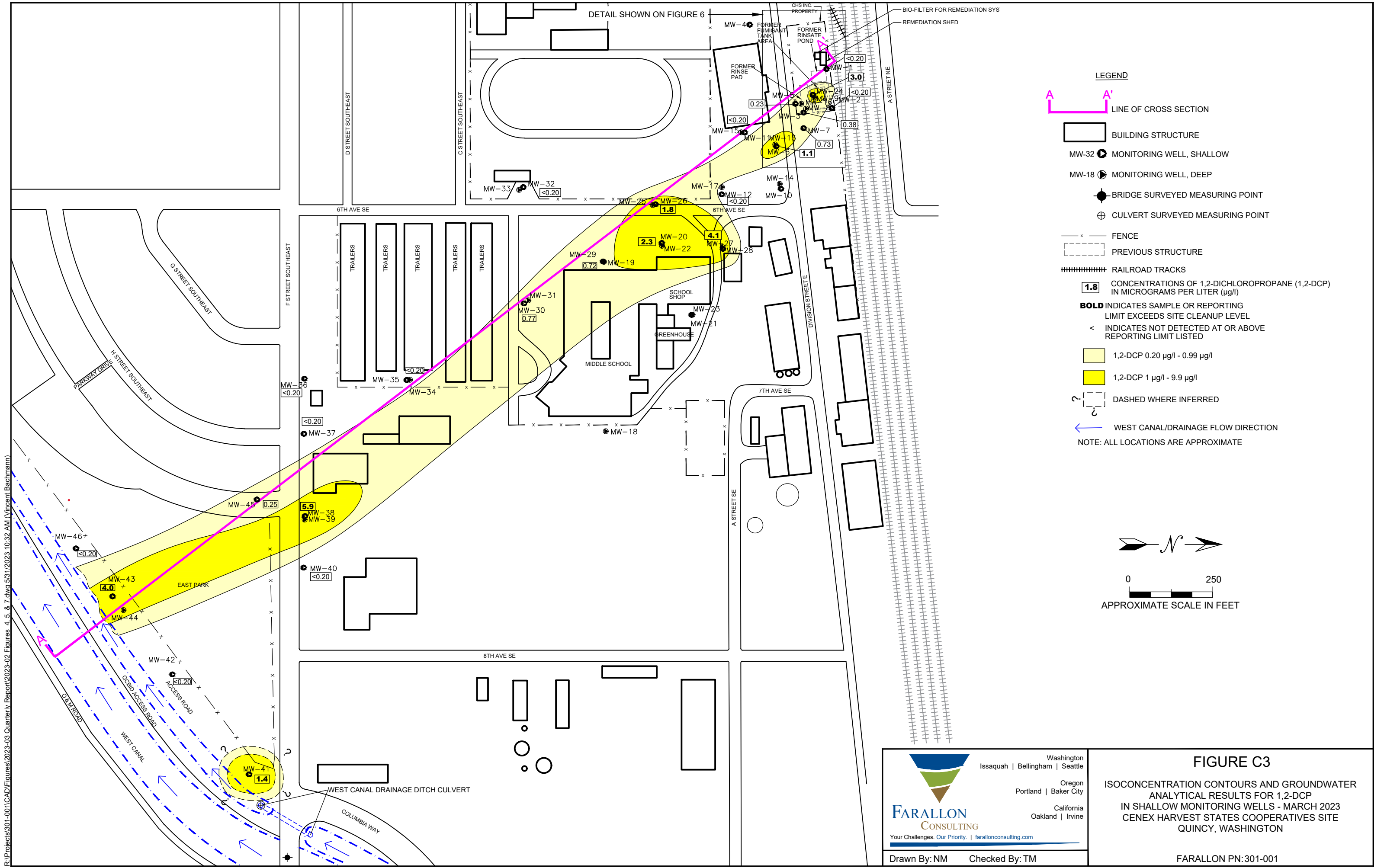
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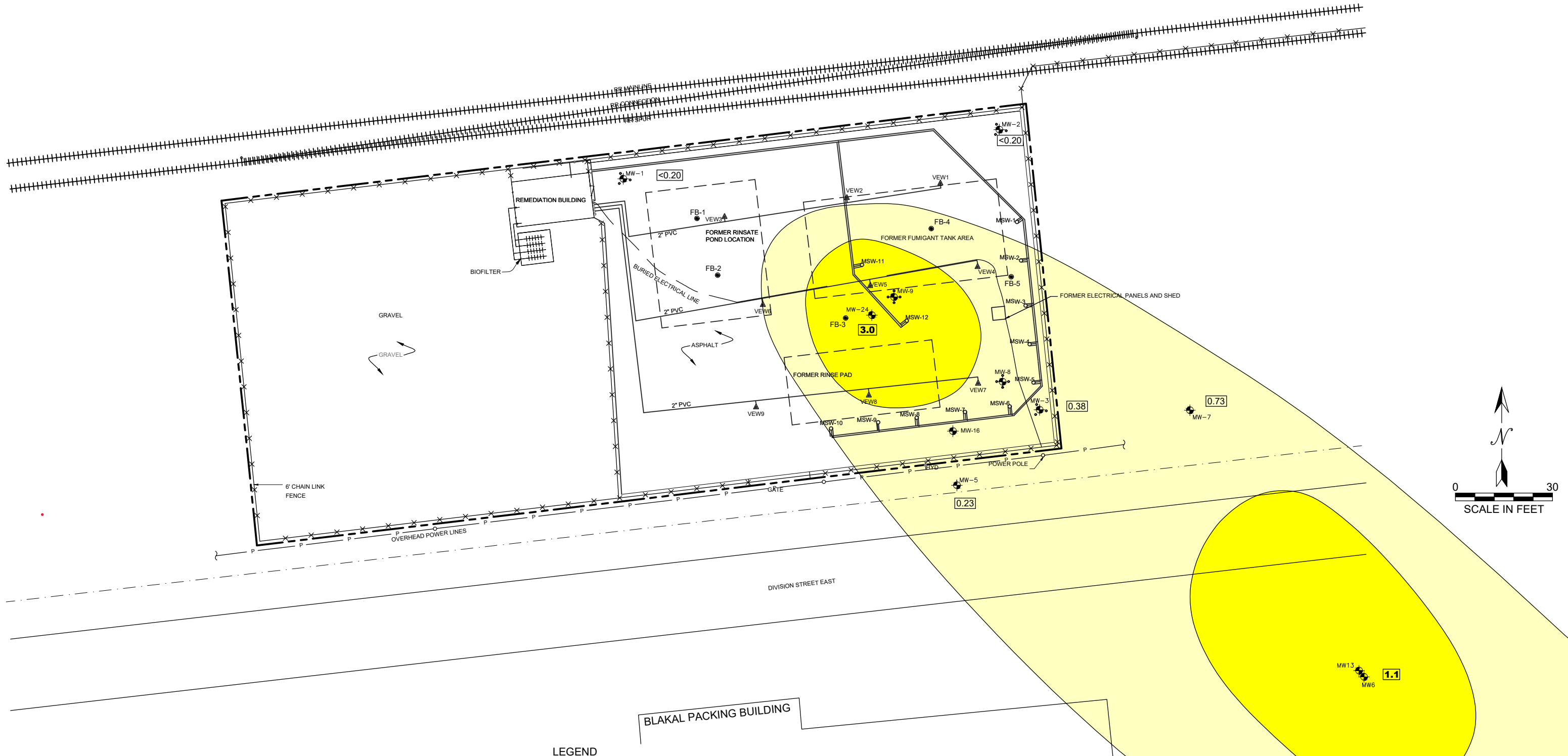
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- APPROXIMATE CHS PROPERTY BOUNDARY
- FORMER SITE FEATURES
- X — FENCING
- - - STORM DRAIN LINES
- SOIL VAPOR / AIR SPARGE SYSTEM PIPING
- == MICROSPARGE SYSTEM PIPING
- ALL LOCATIONS ARE APPROXIMATE

- FB-3 ● BORING LOCATION
FARALLON CONSULTING, L.L.C. (2011)
- MONITORING WELL
- VEW8 ▲ SOIL VAPOR EXTRACTION WELL
- MSW-3 ≡ MICROSPARGE WELL
- HYD = WATER HYDRANT
- PVC = POLYVINYL CHLORIDE

- 3.0** CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP)
IN MICROGRAMS PER LITER (µg/l)
- BOLD** INDICATES SAMPLE OR REPORTING
LIMIT EXCEEDS SITE CLEANUP LEVEL
- < INDICATES NOT DETECTED AT OR ABOVE
REPORTING LIMIT LISTED
- 0.20 1,2-DCP 0.20 µg/l - 0.99 µg/l
- 1.1 1,2-DCP 1 µg/l - 9.9 µg/l

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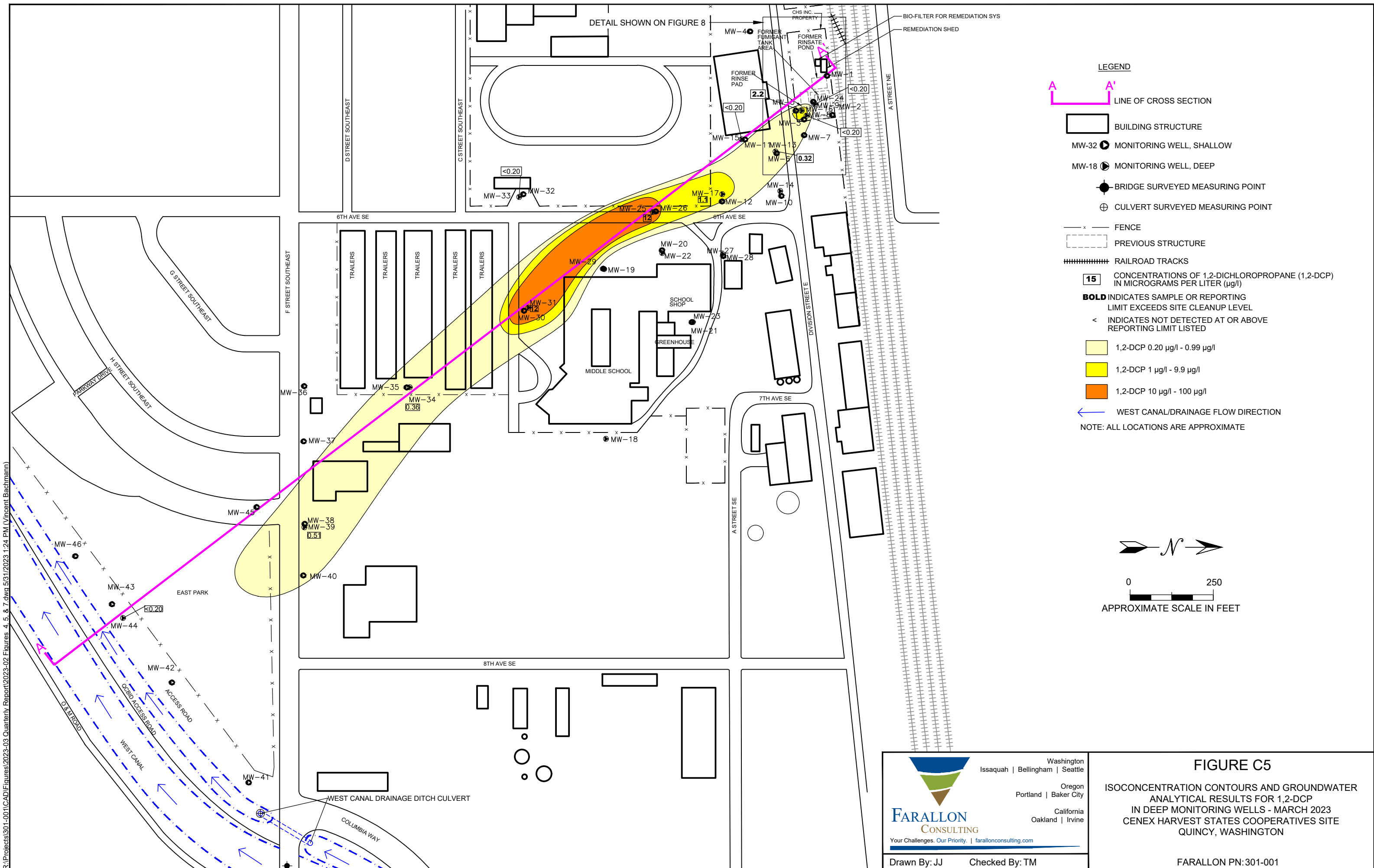
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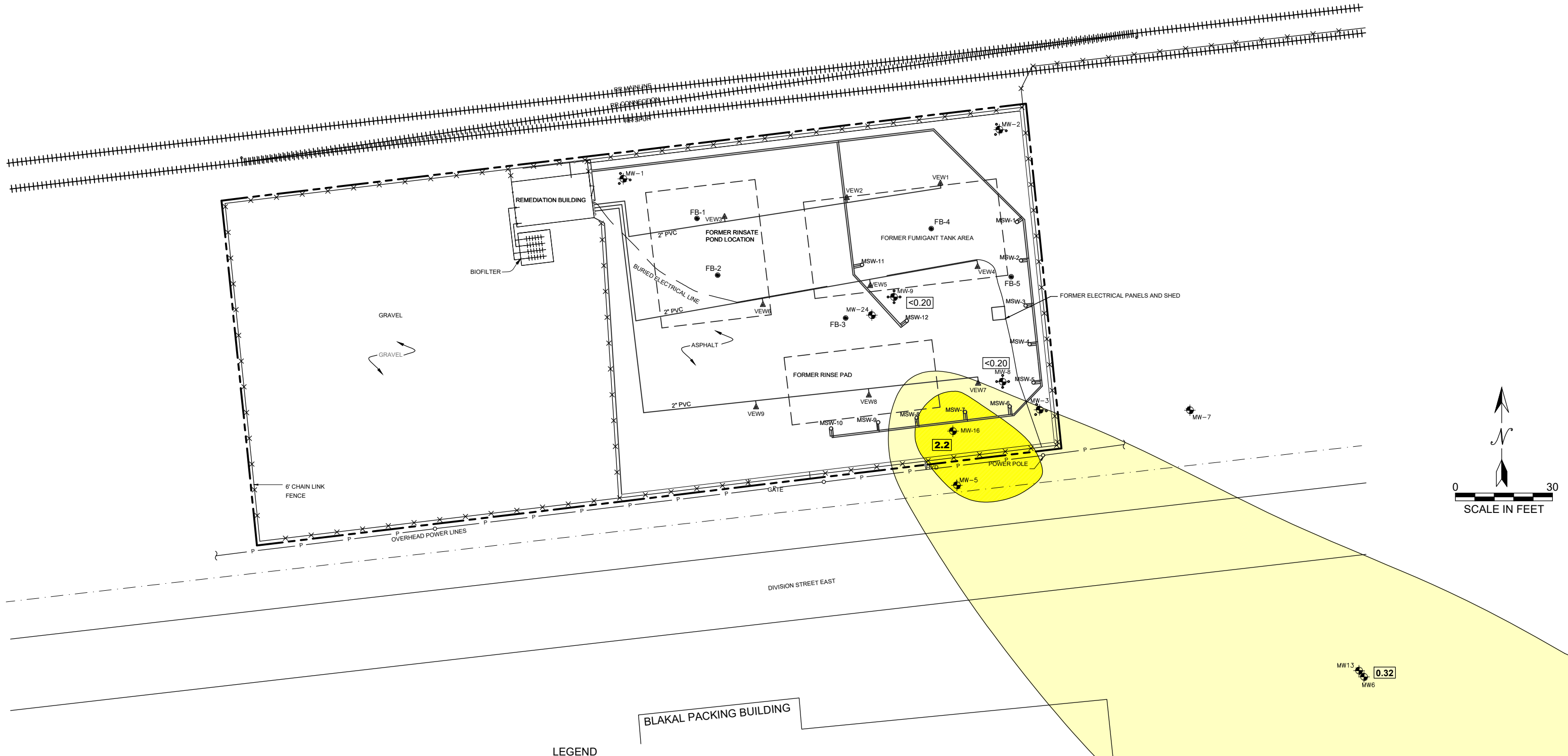
FIGURE C4

ISOCONCENTRATION CONTOURS AND GROUNDWATER
ANALYTICAL RESULTS FOR 1,2-DCP IN SHALLOW
MONITORING WELLS IN SOURCE AREA - MARCH 2023
CENEX HARVEST STATES COOPERATIVES SITE
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- APPROXIMATE CHS PROPERTY BOUNDARY
- - - FORMER SITE FEATURES
- X FENCING
- . - . - . STORM DRAIN LINES
- SOIL VAPOR / AIR SPARGE SYSTEM PIPING
- MICROSPARGE SYSTEM PIPING
- ALL LOCATIONS ARE APPROXIMATE

- FB-3 BORING LOCATION
FARALLON CONSULTING, L.L.C. (2011)
- MONITORING WELL
- VEW8 SOIL VAPOR EXTRACTION WELL
- MSW-3 MICROSPARGE WELL
- HYD = WATER HYDRANT
- PVC = POLYVINYL CHLORIDE

- 3.0** CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP)
IN MICROGRAMS PER LITER (µg/l)
- BOLD** INDICATES SAMPLE OR REPORTING
LIMIT EXCEEDS SITE CLEANUP LEVEL
- < INDICATES NOT DETECTED AT OR ABOVE
REPORTING LIMIT LISTED
- 1,2-DCP 0.20 µg/l - 0.99 µg/l
- 1,2-DCP 1 µg/l - 9.9 µg/l

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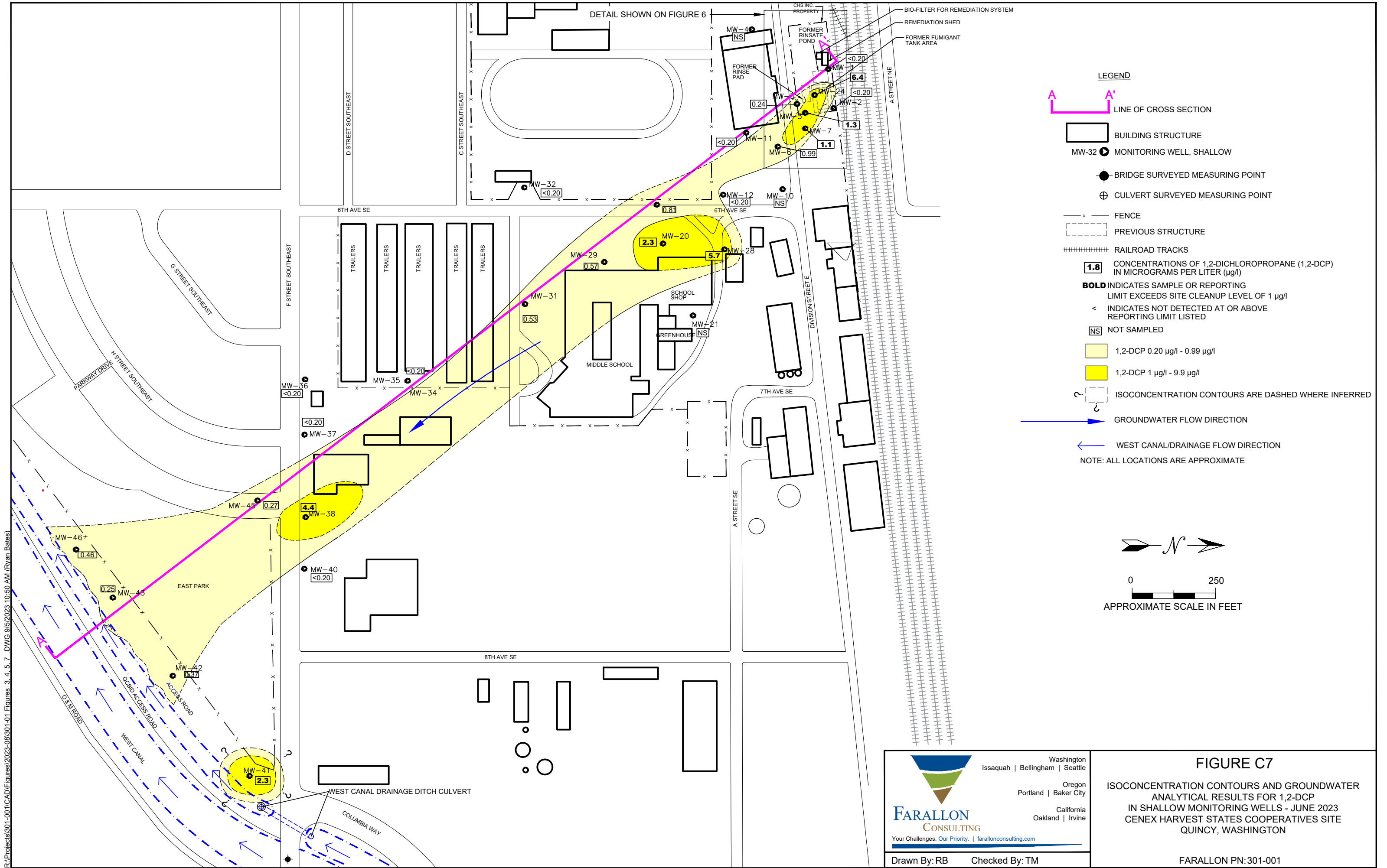
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FIGURE C6

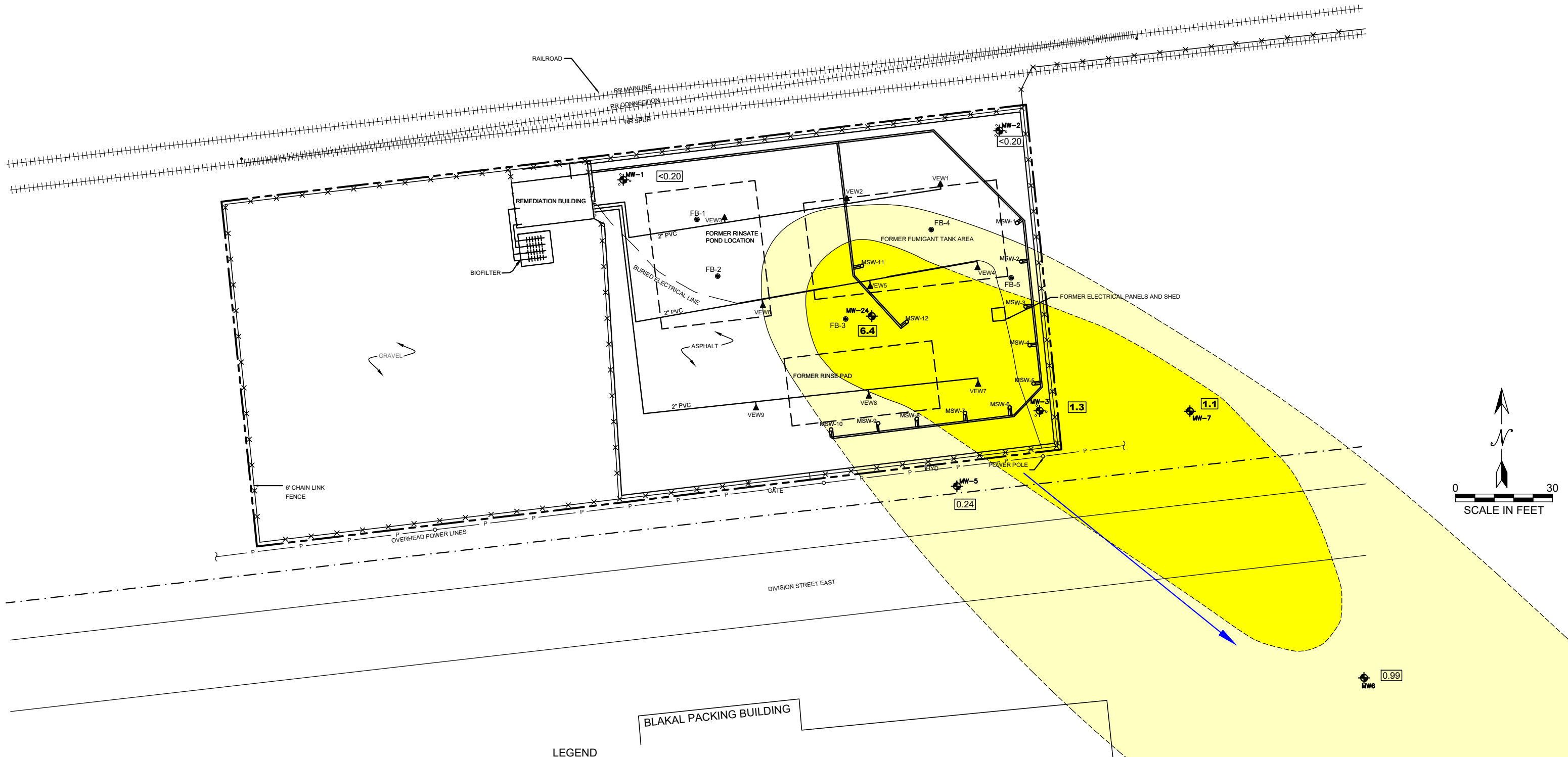
ISOCONCENTRATION CONTOURS AND GROUNDWATER
ANALYTICAL RESULTS FOR 1,2-DCP IN DEEP
MONITORING WELLS IN SOURCE AREA - MARCH 2023
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- GROUNDWATER FLOW DIRECTION
APPROXIMATE CHS PROPERTY BOUNDARY
FORMER SITE FEATURES
FENCING
STORM DRAIN LINES
SOIL VAPOR / AIR SPARGE SYSTEM PIPING
MICROSPARGE SYSTEM PIPING
ALL LOCATIONS ARE APPROXIMATE

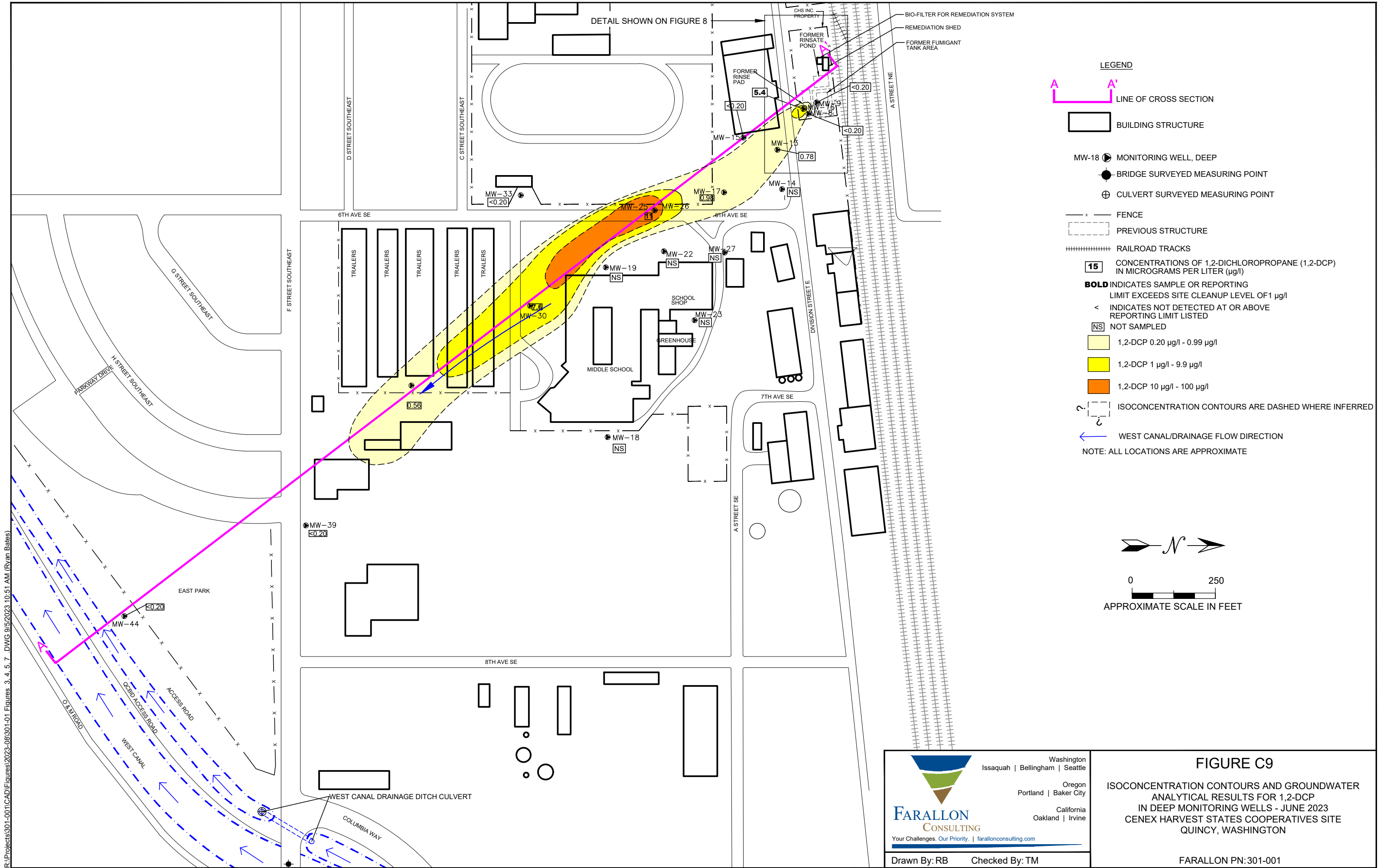
- LEGEND**
BORING LOCATION
FARALLON CONSULTING, L.L.C. (2011)
MONITORING WELL, SHALLOW
SOIL VAPOR EXTRACTION WELL
MICROSPARGE WELL
HYD = WATER HYDRANT
PVC = POLYVINYL CHLORIDE

- 3.0** CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP)
IN MICROGRAMS PER LITER (µg/l)
BOLD INDICATES SAMPLE OR REPORTING
LIMIT EXCEEDS SITE CLEANUP LEVEL OF 1 µg/l
< INDICATES NOT DETECTED AT OR ABOVE
REPORTING LIMIT LISTED
1,2-DCP 0.20 µg/l - 0.99 µg/l
1,2-DCP 1 µg/l - 9.9 µg/l
ISOCONCENTRATION CONTOURS,
DASHED WHERE INFERRED

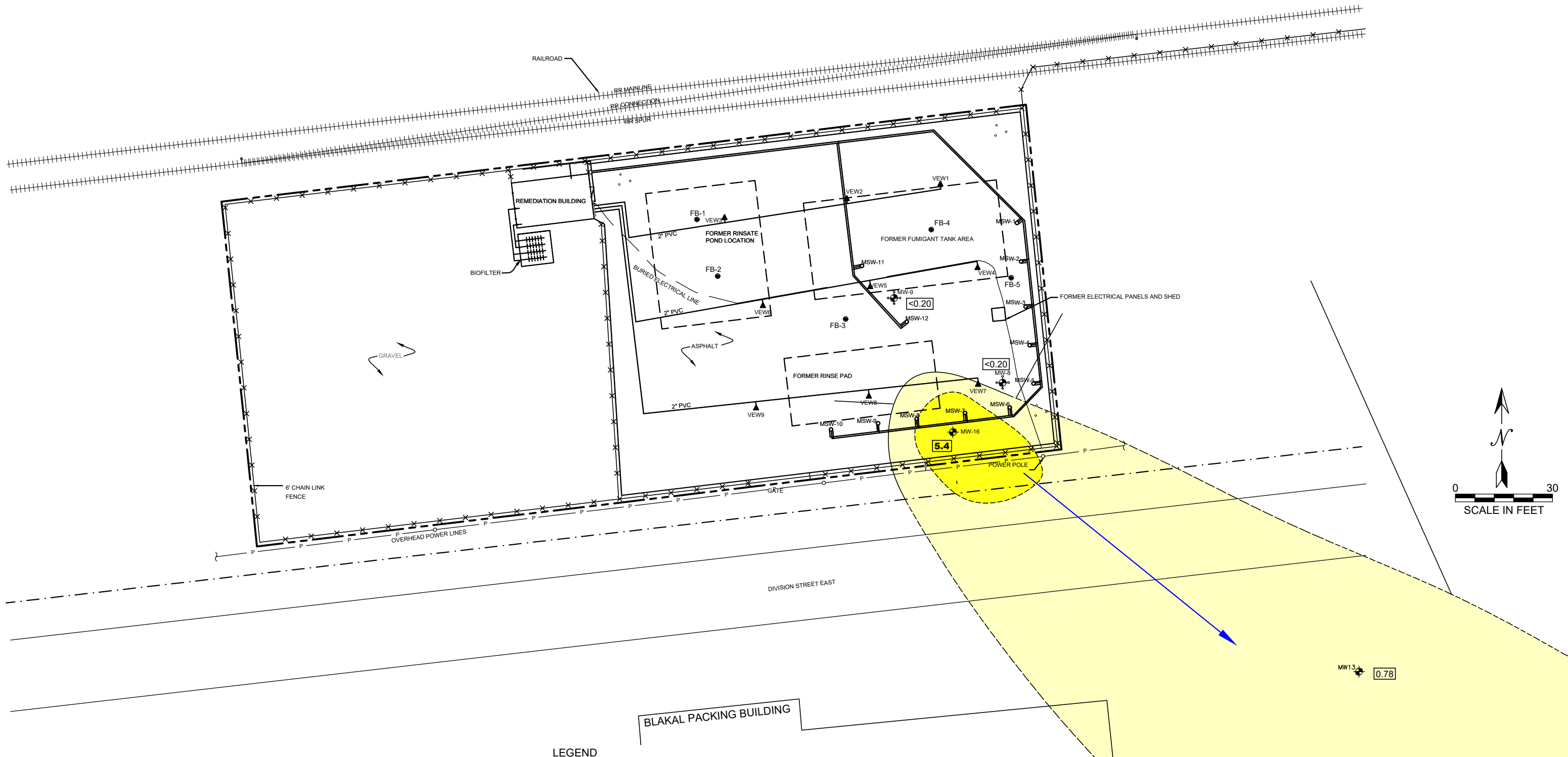
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FIGURE C8
ISOCONCENTRATION CONTOURS AND GROUNDWATER
ANALYTICAL RESULTS FOR 1,2-DCP IN SHALLOW
MONITORING WELLS IN SOURCE AREA - JUNE 2023
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- GROUNDWATER FLOW DIRECTION
APPROXIMATE CHS PROPERTY BOUNDARY
FORMER SITE FEATURES
FENCING
STORM DRAIN LINES
SOIL VAPOR / AIR SPARGE SYSTEM PIPING
MICROSPARGE SYSTEM PIPING
ALL LOCATIONS ARE APPROXIMATE

- LEGEND**
BORING LOCATION
FARALLON CONSULTING, L.L.C. (2011)
MONITORING WELL, DEEP
SOIL VAPOR EXTRACTION WELL
MICROSPARGE WELL
HYD = WATER HYDRANT
PVC = POLYVINYL CHLORIDE

- 3.0** CONCENTRATIONS OF 1,2-DICHLOROPROPANE (1,2-DCP)
IN MICROGRAMS PER LITER ($\mu\text{g/l}$)
BOLD INDICATES SAMPLE OR REPORTING
LIMIT EXCEEDS SITE CLEANUP LEVEL OF 1 $\mu\text{g/l}$
< INDICATES NOT DETECTED AT OR ABOVE
REPORTING LIMIT LISTED
1,2-DCP 0.20 $\mu\text{g/l}$ - 0.99 $\mu\text{g/l}$
1,2-DCP 1 $\mu\text{g/l}$ - 9.9 $\mu\text{g/l}$
ISOCONCENTRATION CONTOURS,
DASHED WHERE INFERRED

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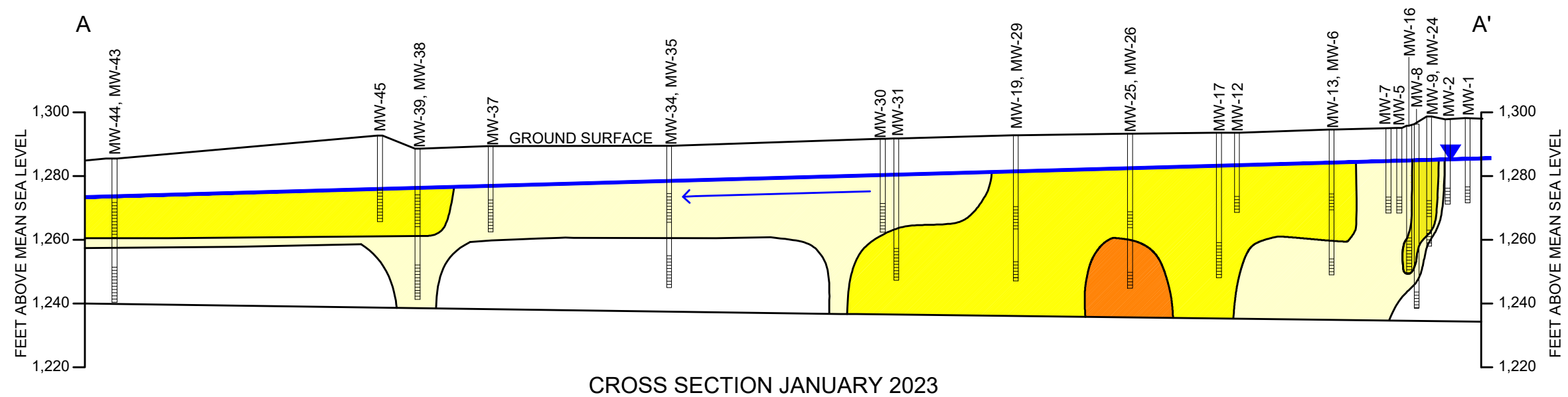
FIGURE C10
ISOCONCENTRATION CONTOURS AND GROUNDWATER
ANALYTICAL RESULTS FOR 1,2-DCP IN DEEP
MONITORING WELLS IN SOURCE AREA - JUNE 2023
GENEX HARVEST STATES COOPERATIVES SITE
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APPENDIX D
CROSS SECTION FIGURES

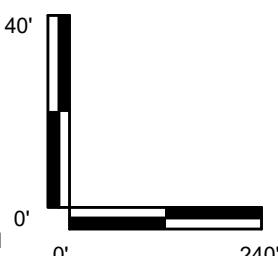
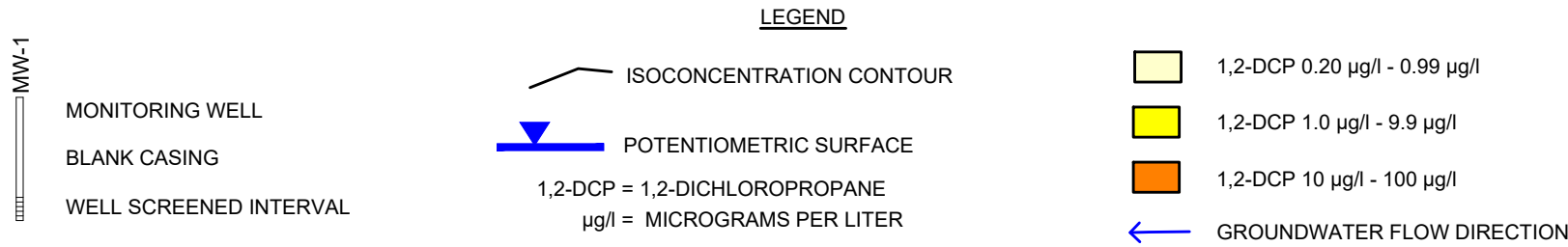
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CROSS SECTION JANUARY 2023



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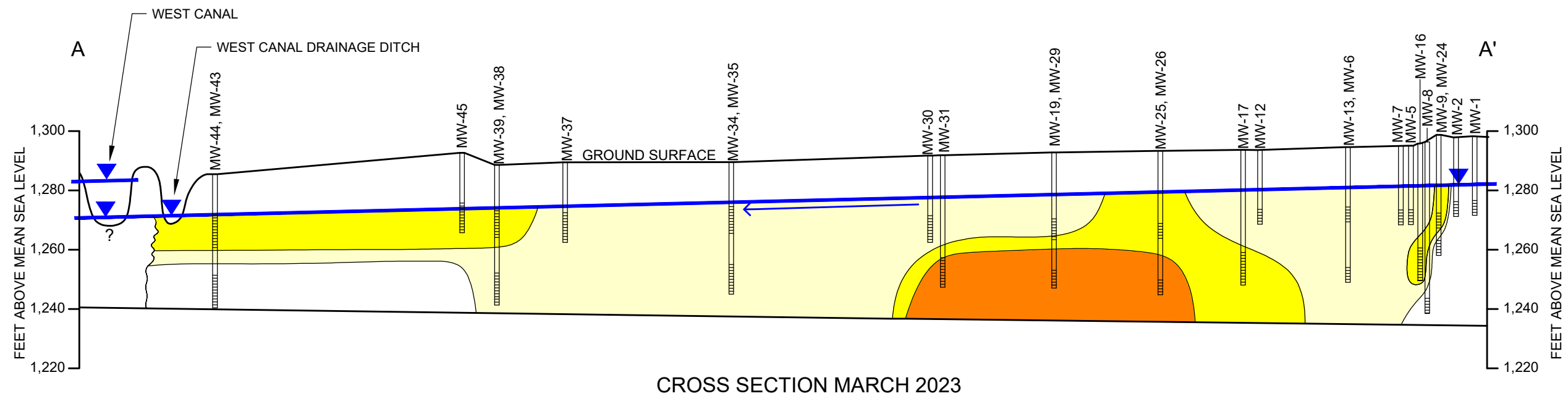
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FIGURE D1
CROSS SECTION OF 1,2-DCP
GROUNDWATER PLUME
JANUARY 2023
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CROSS SECTION MARCH 2023

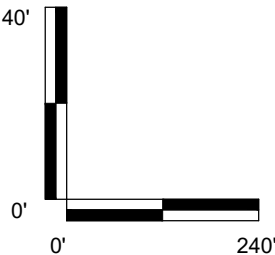
MW-1

MONITORING WELL
BLANK CASING
WELL SCREENED INTERVAL

LEGEND

ISOCONCENTRATION CONTOUR
POTENTIOMETRIC SURFACE
1,2-DCP = 1,2-DICHLOROPROPANE
µg/l = MICROGRAMS PER LITER

1,2-DCP 0.20 µg/l - 0.99 µg/l
1,2-DCP 1.0 µg/l - 9.9 µg/l
1,2-DCP 10 µg/l - 100 µg/l
GROUNDWATER FLOW DIRECTION



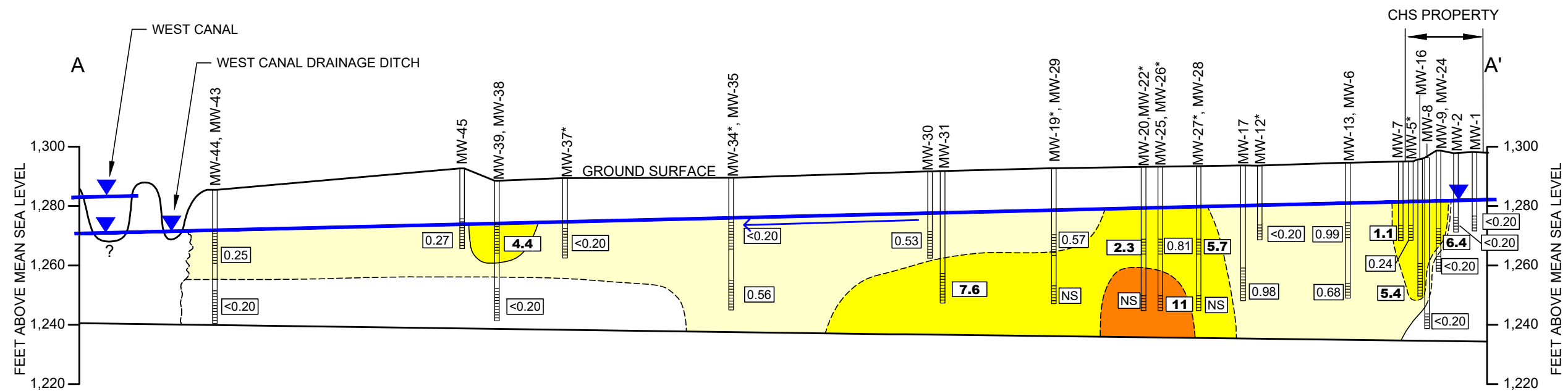
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FIGURE D2
CROSS SECTION OF 1,2-DCP
GROUNDWATER PLUME
MARCH 2023
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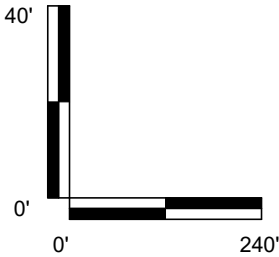
CROSS SECTION JUNE 2023

LEGEND

- 15** CONCENTRATION OF 1,2-DICHLOROPROPANE (1,2-DCP) IN GROUNDWATER IN MICROGRAMS PER LITER (µg/l)
BOLD INDICATES SAMPLE OR REPORTING LIMIT EXCEEDS SITE CLEANUP LEVEL OF 1 µg/l
- NS** NOT SAMPLED, HISTORICAL SAMPLING RESULTS <0.20 µg/l
- ?** DEPTH OF WEST CANAL UNKNOWN
- M-26*** RESULTS NOT USED FOR CROSS SECTION CONSTRUCTION

- MW-1** MONITORING WELL
- BLANK CASING
- WELL SCREEN INTERVAL

- ISOCONCENTRATION CONTOUR
- POTENTIOMETRIC SURFACE
- 1,2-DCP = 1,2-DICHLOROPROPANE
µg/l = MICROGRAMS PER LITER
- 1,2-DCP 0.20 µg/l - 0.99 µg/l
- 1,2-DCP 1.0 µg/l - 9.9 µg/l
- 1,2-DCP 10 µg/l - 100 µg/l
- ISOCONCENTRATION CONTOURS, DASHED WHERE INFERRED
- ESTIMATED GROUNDWATER FLOW DIRECTION



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FIGURE D3
CROSS SECTION OF 1,2-DCP
GROUNDWATER PLUME
JUNE 2023
CENEX HARVEST STATES COOPERATIVES SITE
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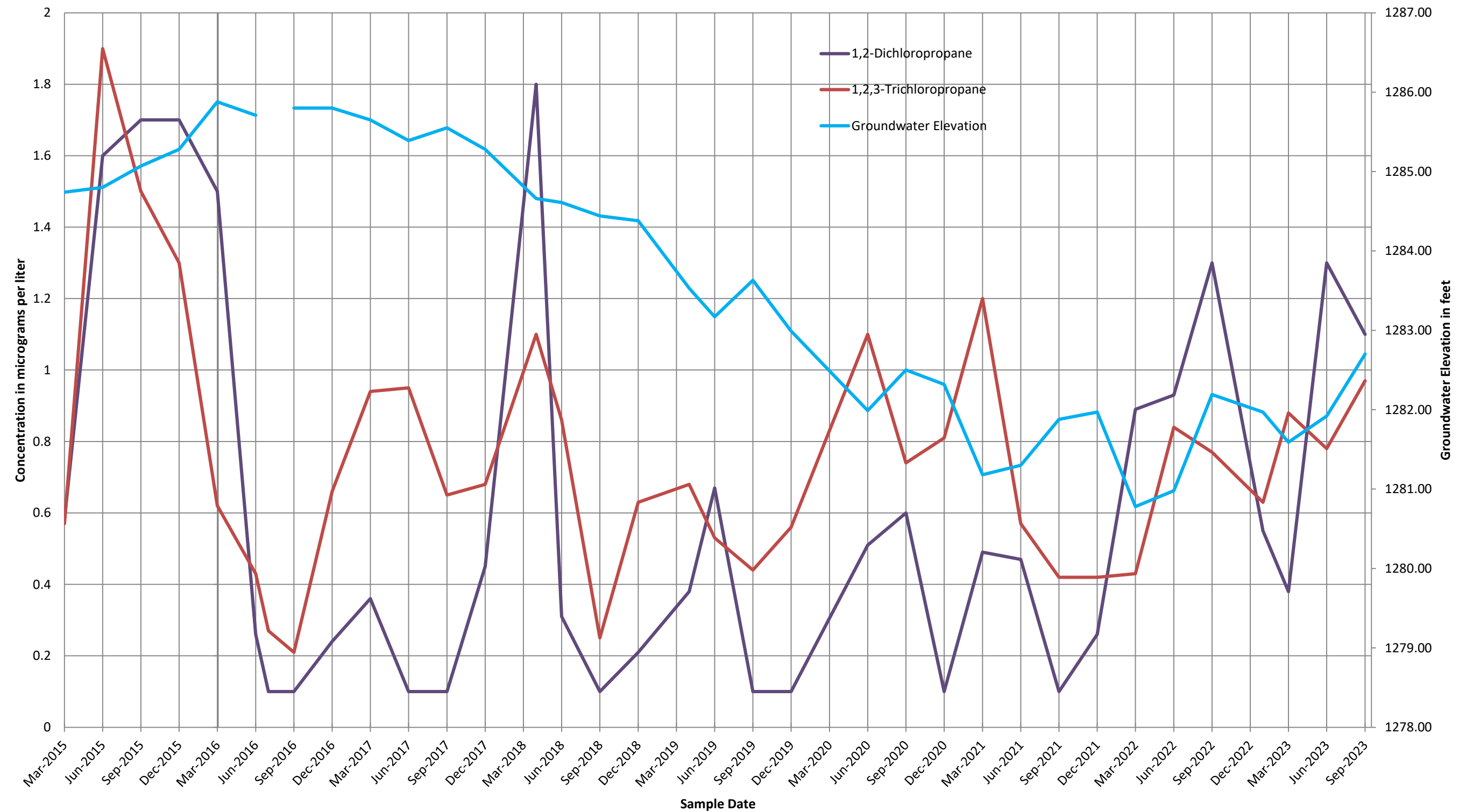
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APPENDIX E
GROUNDWATER CHARTS

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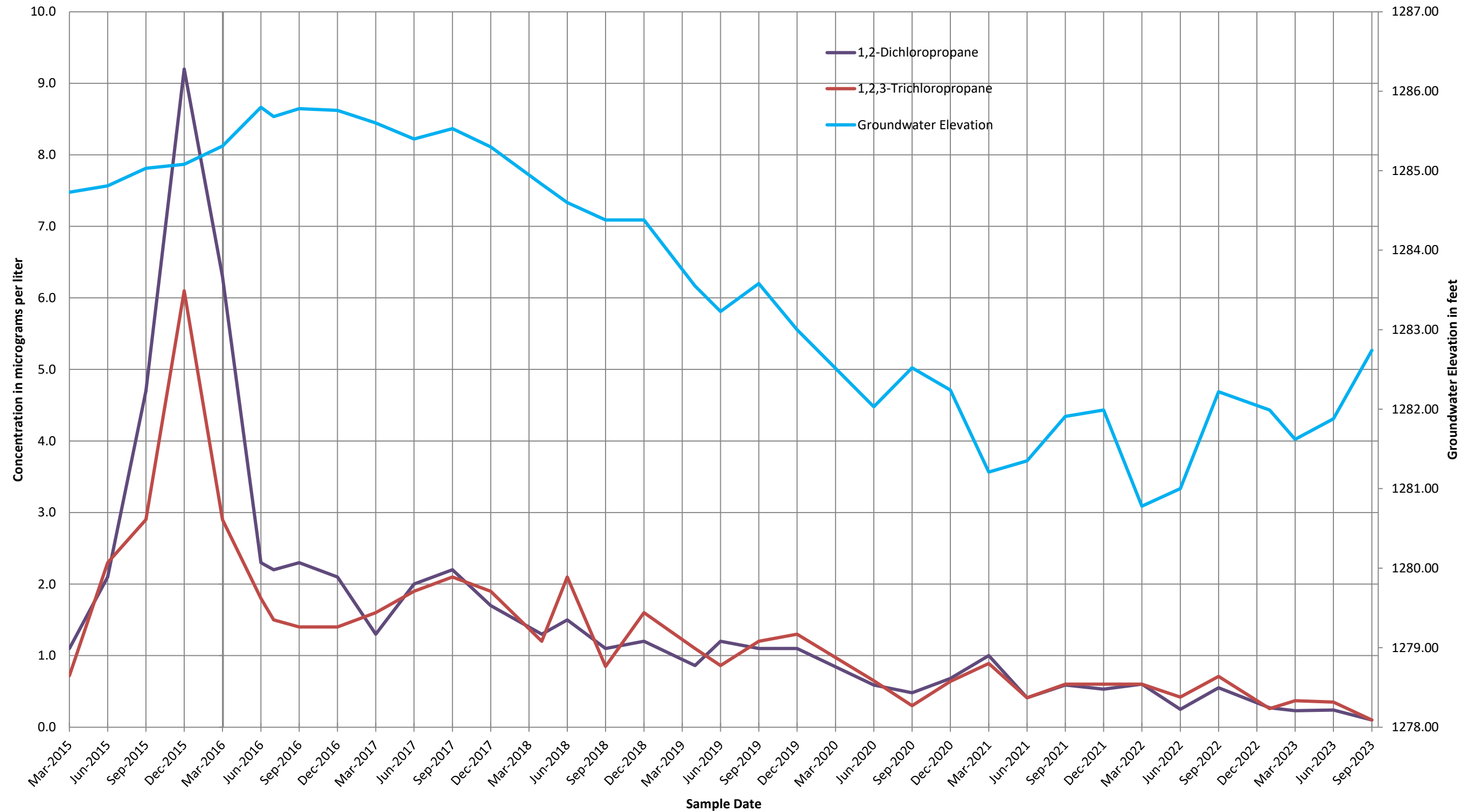
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Chart E1
Monitoring Well MW-3 (shallow) Groundwater Analytical Results 2015 to 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



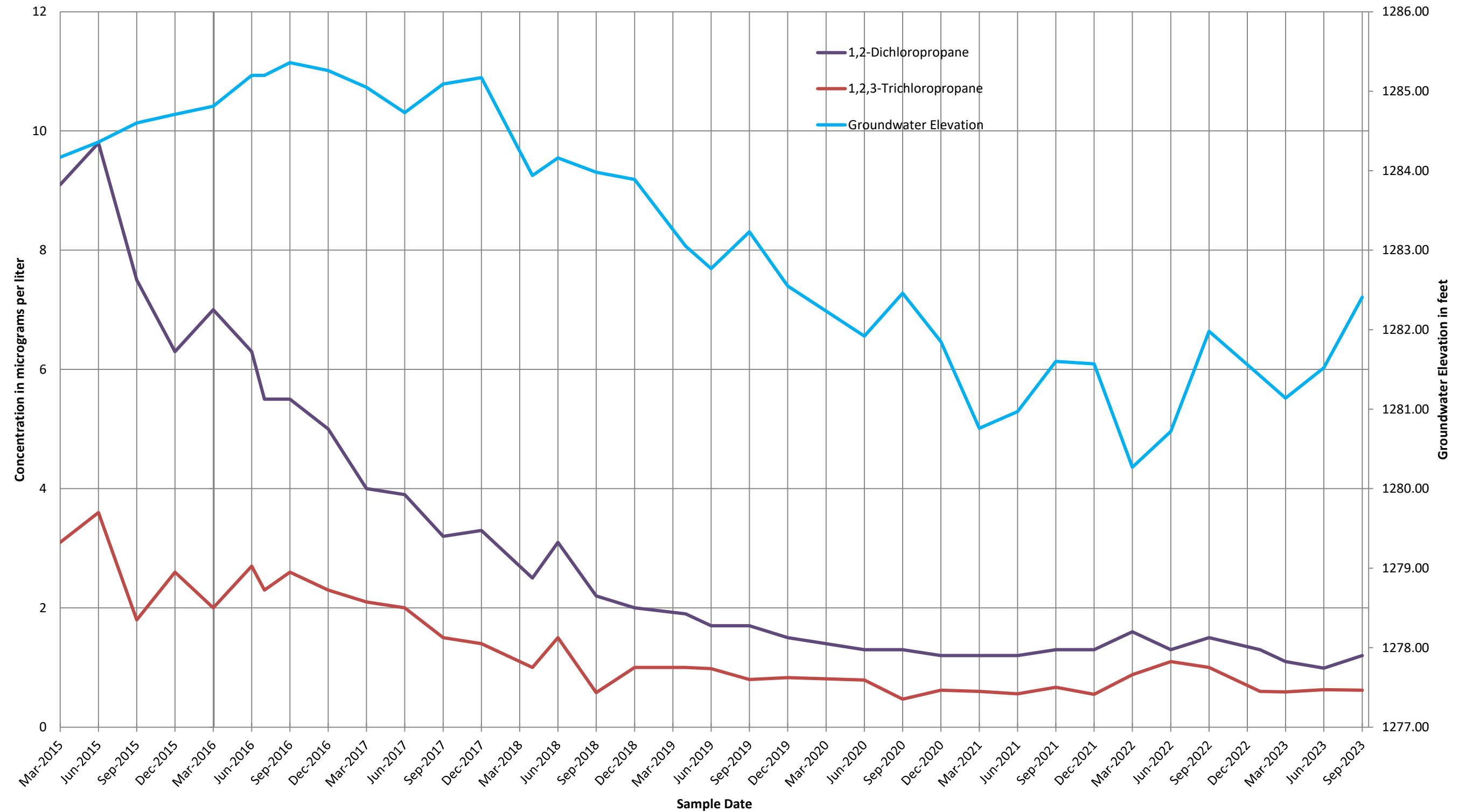
NOTES:
Where not detected, half the detection limit used.

Chart E2
Monitoring Well MW-5 (shallow) Groundwater Analytical Results 2015 to 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



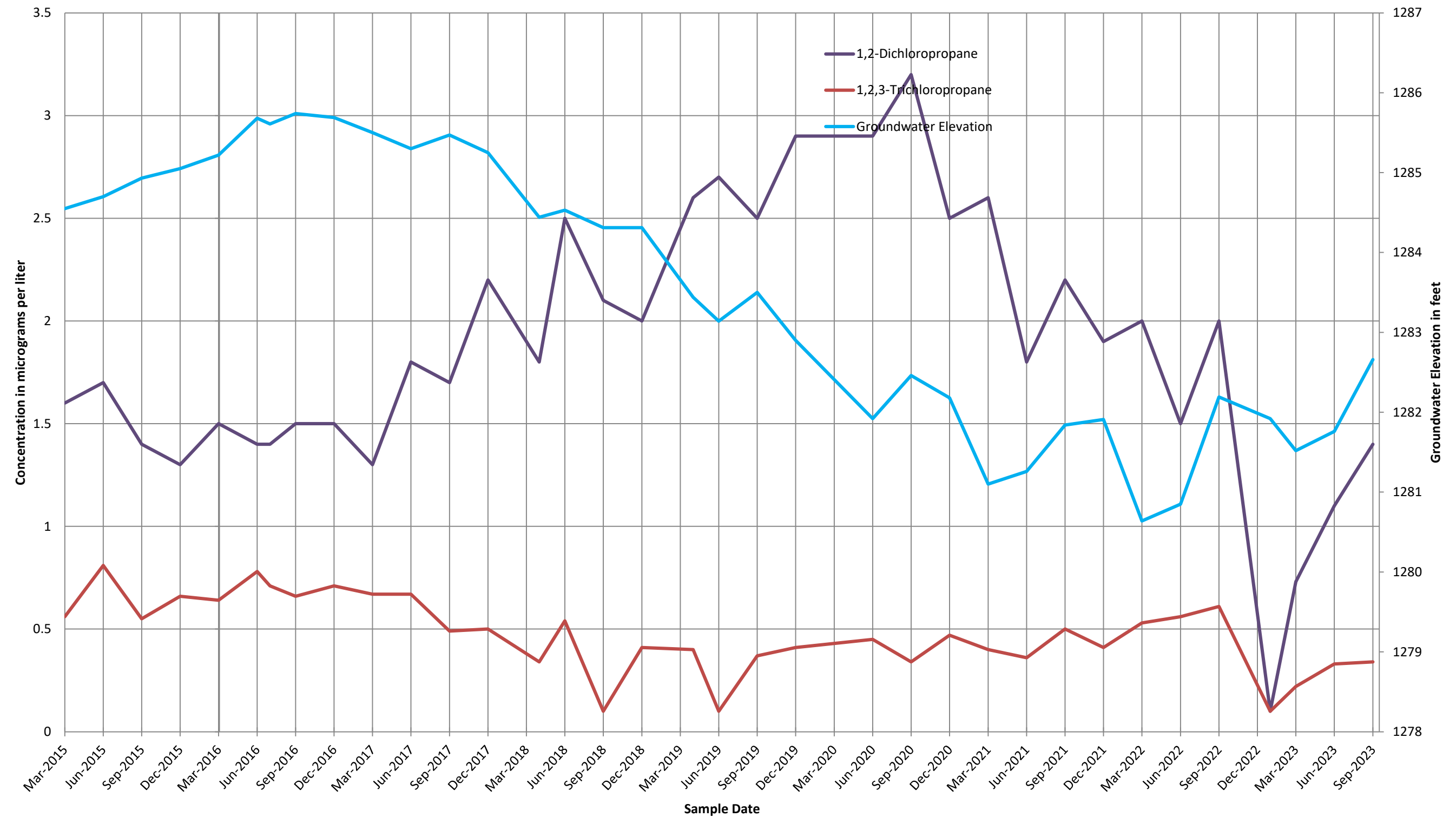
NOTES:
Where not detected, half the detection limit used.

Chart E3
Monitoring Well MW-6 (shallow) Groundwater Analytical Results 2015 to 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



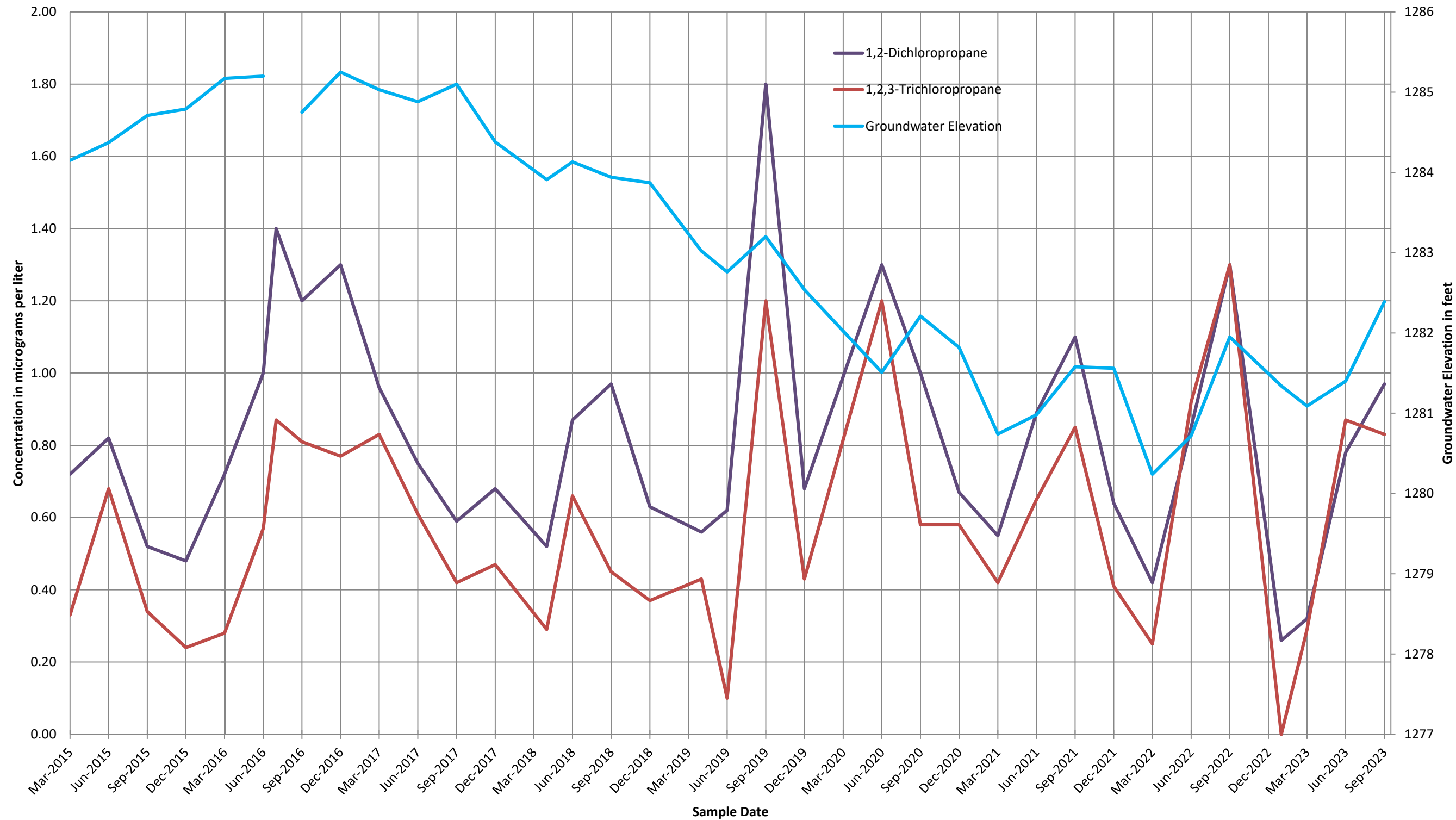
NOTES:
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Chart E4
Monitoring Well MW-7 (shallow) Groundwater Analytical Results 2015 to 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



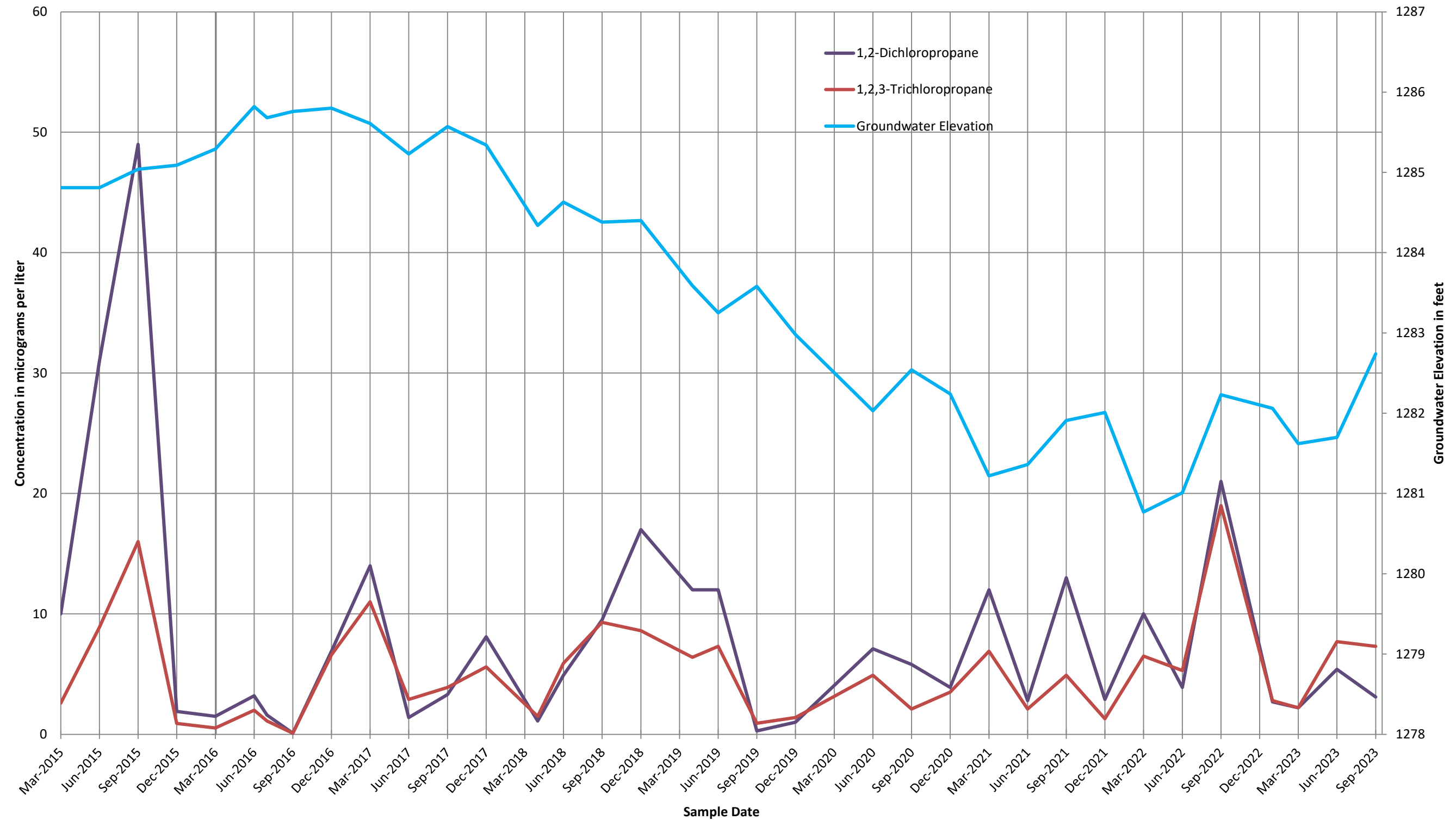
NOTES:
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Chart E5
Monitoring Well MW-13 (deep) Groundwater Analytical Results 2015 to 2023
Cenex Harvest States Cooperatives Site
Quincy, Washington
Farallon PN: 301-001



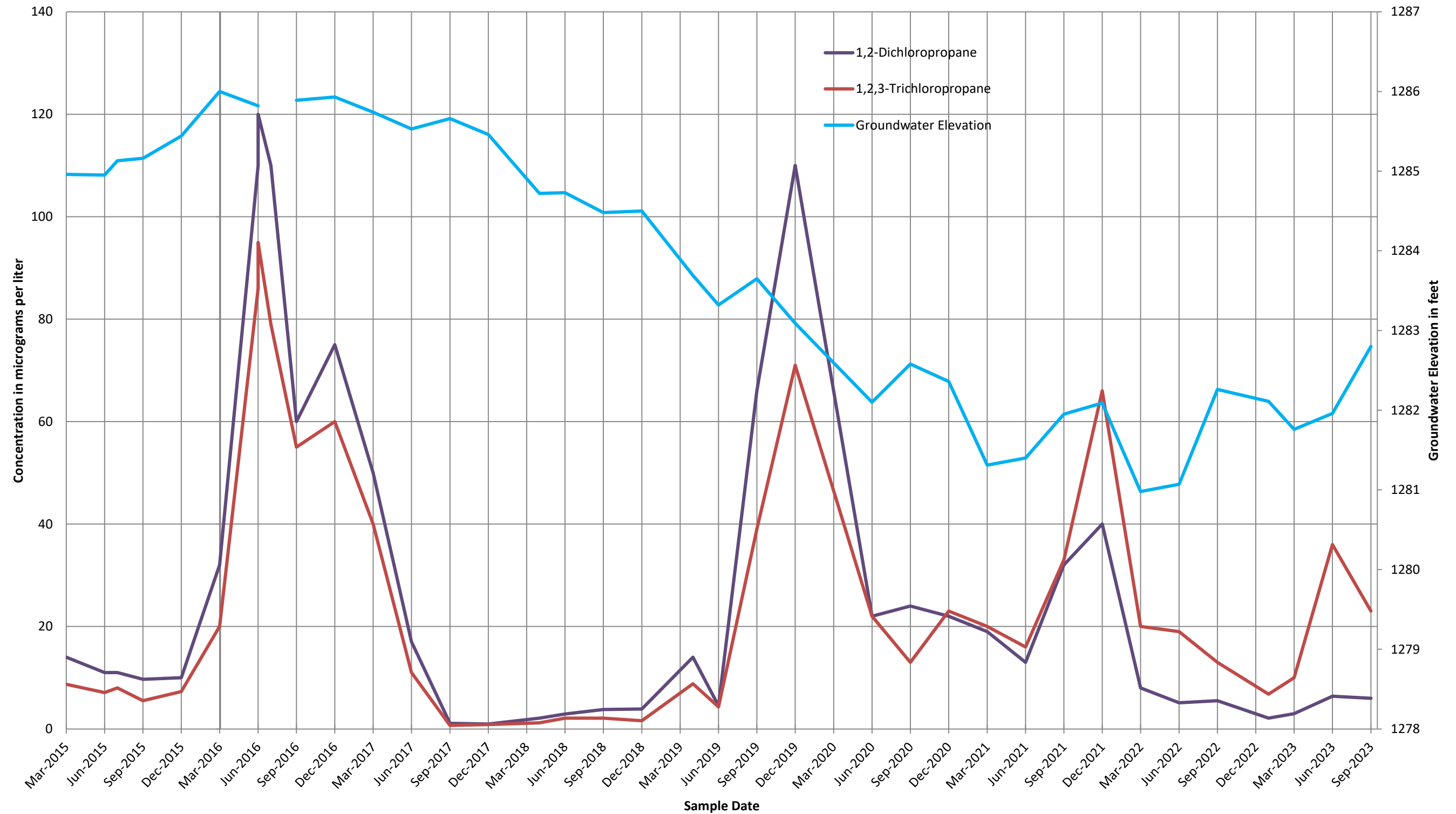
NOTES:
Where not detected, half the detection limit used.

Chart E6
Monitoring Well MW-16 (deep) Groundwater Analytical Results 2015 to 2023
Cenex Harvest States Cooperatives Site
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NOTES:
Where not detected, half the detection limit used.

Chart E7
Monitoring Well MW-24 (shallow) Groundwater Analytical Results 2015 to 2023
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Quincy, Washington
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NOTES:
Where not detected, half the detection limit used.