



Prepared for:
LANXESS Corporation
Kalama Site

Prepared by:
RSEC Environmental

2024-2025
Annual Remedial Action Report
LANXESS Corporation
Kalama Site

August 2025



August 28, 2025

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**RE: 2024 – 2025 Remedial Action Annual Report, LANXESS Corporation, Kalama Site,
Kalama, Washington.**

Dear Lyddie:

On behalf of LANXESS Corporation, RSEC Environmental, Inc. (RSEC) is pleased to provide the attached 2024 – 2025 Remedial Action Annual Report for the Kalama facility.

In summary, the remedial systems at the facility continue to operate as designed. The Annual Report follows the same format and organization as the past several years. A PDF of the entire report and appendices has also been sent via email.

Please feel free to contact me (541) 490-4223 / rsec.rich@outlook.com (please note new email) if you have any questions or need additional copies of the document.

Sincerely,

RSEC Environmental, Inc.

A handwritten signature in black ink, appearing to read "R. Truax", enclosed within a large, loopy oval shape.

Richard Truax, P.E.
Senior Project Manager

cc: C. McKinney, LANXESS Corporation



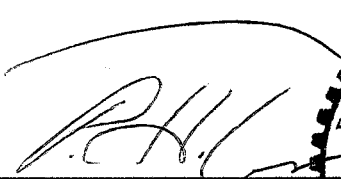
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2024-2025
Remedial Action Annual Report
LANXESS Corporation
Kalama Site

August 2025

Prepared by: RSEC Environmental, Inc.
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Reviewed and certified by Richard H. Truax, P.E.
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1.0 Introduction

This document presents the annual monitoring report for ongoing remediation activities pursuant to the 2008 Consent Decree (CD) between the Washington State Department of Ecology (Ecology), and BF Goodrich, Inc. and Emerald Kalama Chemical, LLC (EKC), at the Emerald facility in Kalama, Washington. A name change occurred in November 2023 from Emerald Kalama Chemical to LANXESS Corporation – Kalama Site (“the site”).

The CD requires operation of the remedial actions (RA) presented in the *Cleanup Action Plan* (CAP) (Exhibit B of the CD; RETEC 2004a). The RAs presented in the CAP constitute the final cleanup actions for the site. This report describes maintenance, operation, and compliance monitoring of the RAs from May 2024 through April 2025.

The remediation systems design, operations, and compliance monitoring are described in the following documents:

- *Revised Design Report – North Impacted Area Interception Trench* (EMCON 1994)
- *West Impacted Area Interim Corrective Measure Phase 3 Final Design Report* (EMCON 1995)
- *Shallow Interception Trench System Operation and Maintenance Guidelines* (RETEC 1997)
- *Feasibility Study* (RETEC 2003)
- *Corrective Action Plan* (CAP; RETEC 2004a)
- *Compliance Monitoring Plan* (CMP; RETEC 2007)
- *Engineering Design Report* (EDR; ENSR/AECOM 2008)
- *Operations and Maintenance Plan* (O&M Plan; AECOM 2009).

Cleanup levels (CUL's) referred to in this document are those presented in the CAP and approved by Ecology on October 11, 2004 (RETEC 2004a). Additional relevant discussion of the location and behavior of contaminants in the intermediate sand at the site are also available in the RCRA WIA ICM Dispute Resolution September 23 – October 4, 1996 Documents, ICM Scope of Work WIA (RETEC, November 1996), and ICM Annual Report (RETEC, April 1998) – collectively referred to herein as “ICM DR Documents”.

1.1 Background

Historic spills at the site resulted in impacts to the subsurface. These releases are described in the *Remedial Investigation Report, Rev. 2* (ThermoRetec 2000). As detailed in the Remedial Investigation Report, the impacts are contained within the upper sand unit at the remediation areas identified as the NIA and WIA, and the intermediate sand layer that extends under the WIA. The remediation monitoring and systems are therefore located in the North Impacted Area (NIA, shallow sand), West Impacted Area (WIA, shallow sand), and the intermediate sand unit beneath the WIA shallow sand. The layout of the site is shown in Figure 1-1.

1.2 Summary of Remediation Activities and Contaminant Status

This section provides a summary description of remediation activities at the facility, and current contaminant(s) status in each area.

1.2.1 North Impacted Area

The NIA remediation consists of a 1,500-foot-long interception trench with two sumps (east and west) and a down-gradient liner the length of the trench (Figure 1-1). The NIA system was constructed between October and November 1995 and continues to operate pursuant to the CD. The system objectives are to capture affected groundwater in the NIA upper sand aquifer and thereby prevent migration to the wetland north of the NIA trench. The combined east and west sumps of the NIA pump an average of approximately 27-million gallons of water through the site water treatment plant each year. Ongoing sampling of the east and west sumps indicates constituent concentrations below or intermittently above CULs for benzene and/or diphenyl oxide. Toluene has been non-detect or two orders of magnitude below CUL in both sumps for over a decade. Biphenyl is also monitored in the sumps but has never exceeded the CUL.

1.2.2 Central Impacted Area

The Central Impacted Area (CIA, Figure 1-1) contains portions of the shallow sand aquifer upgradient of the WIA and NIA. Remediation efforts in the CIA have targeted mass reduction of toluene via use of a soil vapor extraction system and mass reduction of DPO via use of Waterloo Emitters™; a device intended to provide controlled release of oxygen to groundwater to enhance biodegradation. The soil vapor extraction system was successful in achieving the intended toluene removal goal and was closed with Ecology approval in an Ecology letter dated December 23, 2013. The Waterloo Emitter™ system was closed following EKC's request and Ecology approval in May 2017. Gauging data has shown the CIA potentiometric gradient to be shallow and at times to reverse gradient direction. CIA data is reported in the NIA and WIA data tables and maps according to the shallow sand aquifer groundwater flow direction at the wells (northerly [NIA] and westerly [WIA]).

1.2.3 West Impacted Area

The WIA remediation has consisted of two components (Figure 1-1):

- Two shallow interception trenches (identified as north and south) parallel to the river in the upper sand aquifer. This portion of the WIA remediation has reached CUL and was shut down with Ecology approval in November 2018.
- A groundwater capture system comprised of ten recovery wells with submersible pumps in the intermediate sand aquifer (separate and below the shallow sand aquifer) and aligned parallel to the river (ISRW system).

Summaries of WIA systems are provided in the following subsections.

1.2.3.1 WIA Shallow Interception Trench

The WIA shallow interception trench system was constructed as an ICM during November 1997. The system is comprised of a south and a north unlined trench each with sump and pump. The system objective was to collect contaminated groundwater (originally focused on toluene) from the upper sand aquifer, preventing discharge to the Columbia River. Toluene has been below the CUL since 2008. With the absence of toluene, DPO was the only constituent that continued to be detected but has been below the CUL since 2013 in the North sump and 2011 in the South sump. EKC requested Ecology approval to cease operation of the trenches and Ecology approved EKC's request in a November 14, 2018 recommended changes to system operations letter. The WIA shallow trench

system remains in place and operable in the event future groundwater data indicates a reason to restart the system. Per Ecology's request, a follow-up sampling of the shallow WIA sumps was completed in October 2022 and re-confirmed the below CUL / non-detect concentrations (2022-2023 Annual Report).

1.2.3.2 WIA Intermediate Sand Recovery Wells (ISRW)

The ISRW system is the most active remaining remedial system at the site. The system consists of ten intermediate sand recovery wells (ISRW's); wells one through seven were installed as an ICM during April 1997, and eight through ten added pursuant to the CAP during February 2009. The system objective is to minimize discharge of benzene and toluene affected intermediate sand aquifer groundwater to the Columbia River and reduce the mass of these constituents in the aquifer. This is accomplished by maintaining an inward gradient to the recovery wells from upgradient and the river. Submersible pumps in the recovery wells transfer water to the facility low COD ModuTank (Fig 1-1) which discharges to the wastewater treatment plant.

The ISRW benzene and toluene data set indicates decreasing concentrations and areal extent at the upgradient (east), north and south boundaries of the alignment, and somewhat more consistent concentrations in the central area. The site continues to utilize the collected data to focus ISRW operations on constituent mass removal and minimizing discharge to the river. The ISRW wells pumped approximately 636,000 gallons of water to the site water treatment plant in 2024 – 2025 resulting in the removal of 62 pounds of toluene and 0.1 pounds of benzene.

1.3 Report Format

The NIA area groundwater monitoring and interception trench performance is described in Section 2. The WIA shallow groundwater monitoring is described in Section 3. The WIA intermediate sand groundwater monitoring and ISRW system performance is described in Section 4. References are provided in Section 5.

Supporting documentation includes Appendix A – potentiometric surface data tables, Appendix B - laboratory analytical reports (transmitted via e-file with e-copy of this report), and Appendix C – ISRW benzene and toluene concentration trend charts.

A PDF of this entire document has also been transmitted via email e-file.

2.0 NIA Well Monitoring & Interception Trench System

In the NIA, the upper sand aquifer consists of approximately 9 to 17 feet of hydraulically placed sand fill overlying 3 to 7 feet of interbedded sands and silts. The upper sand aquifer is the uppermost hydrostratigraphic unit at the facility. The NIA interception trench is approximately 1,500 feet long and is constructed to variable depths such that it extends to the top of the underlying upper silt (collects groundwater from the shallow formation above the silt). The trench includes two collection sumps: an east sump collecting from approximately 950 feet of the trench, and a west sump collecting from the remaining approximately 550 feet of trench. Water from the sumps is pumped to the facility Low/High COD ModuTanks and then to the wastewater treatment system. The base and downgradient faces of the trench are lined with an impermeable geosynthetic liner. The liner contains groundwater within the trench and reduces the inflow of standing water that may be seasonally present in a wetland downgradient (north) of the trench.

2.1 Monitoring Program Description

The monitoring plan for the upper sand aquifer NIA interception trench consists of three primary components:

1. Collection of data to evaluate the ongoing groundwater quality in the NIA.
2. Collection of groundwater elevation data to monitor ongoing flow direction and gradient in the NIA including the barrier trench and sumps.
3. Visual inspection of ground surface integrity to assure no erosion or other damage of the length of interception trench.

The NIA monitoring program scope is described in the following sections and summarized in Table 2-1. All NIA monitoring locations are provided in Figure 2-1.

2.2 Visual Inspection of Integrity of NIA Trench

The entire 1,500-foot length of the NIA trench and barrier wall was inspected for ground surface indications of damage, leaks, or erosion during the April 2025 groundwater sampling event. This inspection involved walking the top of the soil berm above the barrier wall / trench alignment. No indications of damage, leaks or erosion were observed. The entire length is heavily vegetated, firm, and well established. As in the past, the inspection included removing areas of downed trees and brush presenting obstructions to trench operation and monitoring locations.

2.3 Groundwater Levels and Flow

NIA groundwater levels are measured annually (during the April monitoring event) at the following locations:

- Shallow (upper) sand monitor wells and piezometers (KC-8, KC-9, KC-21, KC-23, PZ-102, PDW-117, MW-210, MW-230, MW-232, MW-245, and MW-256) located upgradient of the trench. These locations include NIA and CIA areas from which groundwater is generally flowing northerly towards the NIA barrier and recovery trench.
- Three piezometers (NTP-1, NTP-2, NTP-3) along the length of the trench that monitor groundwater elevations in the trench.
- Wetland staff gauge.

The NIA and CIA groundwater and wetland elevation data are provided in respective tables Appendix A. The data were used to construct a shallow sand potentiometric surface map (Figure 2-1) for April 2025.

The wetland staff gauge indicated a water depth of 2.5-feet during the April 2025 monitoring event. This is in the typical range of historical data for the wetland during spring-runoff. As shown on Figure 2-1, water elevations in the trench were below up-gradient groundwater elevations indicating the ongoing normal operation of the trench.

NIA aquifer groundwater flow is towards the north (Figure 2-1) and is consistent with historical monitoring results. The groundwater gradient is shallow in the CIA region of northerly flow and steepens as it approaches the containment recovery trench. The overall average northerly gradient was 0.008 ft/ft.

2.4 Groundwater Quality

The NIA groundwater quality monitoring network is comprised of four wells (MW-245, MW-256, PDW-117, and KC-9), and the east and west NIA trench sumps.

Monitoring results are described below and presented in Table 2-2. Areal distributions for benzene and DPO are provided in Figures 2-2 and 2-3 respectively and include an overlay of the potentiometric contours. Laboratory data reports are provided in Appendix B (e-file).

2.4.1 Sampling and Analytical Procedures

All sampling and laboratory analyses were completed in accordance with the *Sampling and Analysis Plan* (SAP; RETEC 2004c). The April 2025 samples were submitted to ALS Laboratories (Kelso, WA). The following analytical methods we utilized per the sample requirements (Table 2-1):

- Volatile organic compounds (VOCs) [benzene and toluene] using EPA Method 8260C.
- Semi-volatile organic compounds (SVOCs) [diphenyl oxide (DPO), and in the east and west sumps biphenyl] using EPA Method 8270D.

2.4.2 Upper Sand Aquifer Sampling Results

The analytical results are detailed on Table 2-2. Benzene was detected above the CUL (1.2 ug/L) at two locations: east sump [1.4 ug/L, October sample] and PDW-117 [3.0 ug/L, April sample]. DPO was detected above the CUL (410 ug/L) at four locations: east sump [730 ug/L, October sample], west sump [1,000 ug/L, October and 430 ug/L, April], PDW-117 [1,600 ug/L, April] & KC-9 [2,000 ug/L, April]. Figures 2-2 (benzene) and 2-3 (DPO) provide areal map views of concentration data for these constituents. These data agree with historical location and concentration trends for the NIA. Biphenyl is also sampled in the sumps (CUL 230 ug/L) and results continued consistent at non-detect (east sump) or far below the CUL (2.0 ug/L, west sump).

2.5 NIA Trench & Sump System Monitoring

The NIA interception trench system operated continuously throughout the monitoring period. Monitoring results are described below and summarized in Tables 2-3 and 2-4.

2.5.1 Groundwater Extraction

Table 2-3 summarizes the east and west sump pump operation data, the volume of water removed from the trench, and the average pumping rates during the 2024 - 2025 and past performance

periods. Approximately 29.4 million gallons of water were pumped from the NIA interception trench during 24/25 which is similar to the annual average since 1999. The NIA trench water volumes are dependent on annual precipitation and the flows vary with wetter / drier seasons.

2.5.2 Mass Removal

Table 2-4 provides data for the east and west sump discharges and the approximate mass of contaminants removed during the 24/25 performance period. The contaminant mass calculations were determined by multiplying semi-annual sump sample concentration data by the cumulative pump discharge volume for the corresponding 6-month period. Approximately 0.5-pounds of benzene, 0.6-pounds of toluene, and 130 pounds of DPO were removed during this reporting period.

The annual quantities of benzene, toluene and DPO removed from the 2007-2008 monitoring period to present are summarized in the table below. Historical soil vapor extraction system operations also played a role in the NIA VOC reductions as shown by the significant reductions in benzene and toluene mass removals (and analytical sample concentrations) in the earlier years of NIA operations.

Performance Period	Benzene Removed (lbs)	Toluene Removed (lbs)	DPO Removed (lbs)
2024-25	0.5	0.6	130
2023-24	0.4	0.1	75
2022-23	0.2	0.1	93
2021-22	0.2	0	39
2020-21	4.2	0.3	103.3
2019-20	0.5	0.5	89.9
2018-19	0.9	0.5	82.7
2017-18	1.5	0.7	97.8
2016-17	4.5	2.9	58.9
2015-16	3.5	2.4	35.1
2014-15	3.2	3.4	91.3
2013-14	5.4	7.5	90.1
2012-13	5.1	7.8	103.5
2011-12	6.4	24.0	98.0
2010-11	7.6	16.6	105
2009-10	6.0	38.1	103
2008-09	6.6	46.1	127
2007-08	26.4	254	207
Total	83	406	1,655

2.5.3 System Maintenance

LANXESS has maintained system flows via regular maintenance including pipe cleaning using compressed air agitation and line-pigging. Other significant maintenance efforts conducted from time to time as needed include vacuum removal of sediments from the sump bottoms, flushing the NIA trench collection pipe, replacing old PVC piping with stainless steel piping, and replacing/repairing pumps. In addition, the sump areas and outlying NIA wells and piezometers are maintained with tree and brush clearing for access along with paint and label identification upkeep.

2.6 Performance Evaluation

The NIA data set dating back to October 2007 is indicative of the groundwater constituent plume being in a state of ongoing intrinsic biodegradation with continued recovery trench operation to contain any residuals that may eventually migrate to the trench. The trench system continues to fulfill its purpose of hydraulic control of the NIA, preventing discharge of groundwater from the upper sand aquifer to the wetland.

2.7 Recommended Changes to NIA Operation / Monitoring

No changes are proposed for the NIA operations and monitoring program.

3.0 WIA Shallow Wells & Interception Trench System

3.1 Monitoring Program Description

The WIA shallow well monitoring is described in the following sections and summarized in Table 3-1. All monitoring locations are shown on Figure 2-1. The monitoring plan for the shallow WIA wells consists of two primary components:

- 1) collection of water elevation data to define groundwater flow direction and gradient, and
- 2) collection of water quality data to evaluate the occurrence and movement, if any, of dissolved residual constituents of interest.

3.2 Groundwater Levels and Flow

Water levels are measured annually at the following upper sand (shallow) locations:

- KC-24R, PZ-104, PZ-107, USRW-2, KC-13, MW-238, MW-255, PZ-110, and the North and South WIA-trench sumps.

The WIA groundwater elevation data is provided in the titled table Appendix A. The data were used to construct the shallow potentiometric surface map for April 2024 (Figure 2-1).

3.3 WIA Upper Sand Aquifer Groundwater Flow

In the WIA, groundwater flow within the upper sand aquifer is westerly from a nearly flat gradient in the PZ-104 / -107 / MW-230 area to the westerly USRW-2 / MW-255 area (Figure 2-1). The average hydraulic gradient across this area during April 2025 was 0.009 ft/ft. These flow data are similar to past years.

3.4 WIA Upper Sand Groundwater Quality

Groundwater samples were collected from WIA upper sand wells USRW-2, PZ-104, and PZ-107.

3.4.1 Sampling and Analytical Procedures

All sampling and laboratory analyses were completed in accordance with the SAP and analyte revisions approved by Ecology. The samples were submitted to ALS Laboratories (Kelso, WA). Samples were analyzed using one or both of the following methods per the sample analytical requirement (Table 3-1):

- Volatile organic compounds (VOCs) [benzene and toluene] using EPA Method 8260C.
- Semi-volatile organic compounds (SVOCs) [DPO, biphenyl, and bis(2-ethylhexyl) phthalate] using EPA Method 8270D.

Laboratory data are included in Appendix B (e-file).

3.4.2 Upper Sand Aquifer Sampling Results

The WIA upper sand data are summarized in Table 3-2 and shown on Figures 2-3 (benzene) and 2-4 (DPO).

DPO concentrations in the area of the WIA shallow trench (USRW-2) continue to agree with historical results indicating non-detect (<1.0 ug/L). USRW-2 DPO concentrations have been below the CUL (410 ug/L) since 2013 with one exception in 2015.

Over 300-feet upgradient of the WIA trenches, in the shallow westerly flow gradient portion of the CIA area, wells PZ-104 and PZ-107 continue to show detections of DPO and biphenyl. The concentration of DPO at PZ-104 has been relatively consistent over time and indicated 4,600 ug/L in April 2025. PZ-107 indicated 170 ug/L DPO in April 2025 continuing the above / below CUL concentration fluctuations since 2020 and further below more historical concentrations. Biphenyl concentrations continued below the CUL (230 ug/L) at both wells with 46 ug/L at PZ-104 and 79 ug/L at PZ-107.

Benzene concentrations followed recent results at both wells with just above the CUL at PZ-104 (2.3 ug/L) and non-detect at PZ-107 (<0.50 ug/L). Toluene has never been detected at PZ-104 (excepting a one-time 6.8 ug/L detection in 2018), and far below the CUL or non-detect at PZ-107 since 2013.

Bis (2-ethylhexyl) phthalate was not detected in either PZ-104 and PZ-107 at the achieved method detection level of 2.4 ug/L.

3.5 WIA Shallow Trench Operations

As detailed in Section 1.2.3.1, the WIA shallow interception trench system ceased operation with Ecology approval in November 2018. In accordance with Ecology's approval the system remains in place and available for future operations if indicated by future monitoring. As discussed in Section 3.4, the ongoing data set continues to support the WIA Shallow Trench shutdown. In addition, Section 3.4.3 of the 22/23 Annual Report and Table 3-2 include results of an Ecology requested additional sampling of the north and south WIA-sumps that further confirmed the system shut down.

3.6 Recommended Changes to WIA Shallow Monitoring

No changes are proposed for the shallow WIA operations and monitoring program.

4.0 WIA Intermediate Sand System

The ISRW system includes 10 recovery wells (ISRW-1 through ISRW-10). Seven of the recovery wells (ISRW-1 through ISRW-7) were installed as part of interim corrective measures (ICM) in February and March 1997. Recovery wells ISRW-1, ISRW-2b, ISRW-3, and ISRW-4 began operation during April 1997; groundwater modeling provided in the ICM Scope of Work (RETEC, 1986) indicated pumping these four wells at one gallon per minute would capture the targeted intermediate sand aquifer flow. Subsequent operation data (ICM Annual Report, RETEC 1998) confirmed the modeled design basis, however at the request of Ecology, pumping of recovery wells ISRW-5, ISRW-6, and ISRW-7 was added during November and December 1997; this was done for added groundwater capture protection and operational backup redundancy of the system. Recovery wells ISRW-8, ISRW-9, and ISRW-10 were then added during February 2009 pursuant to the CAP and began operation during March 2009. These additional wells were requested by Ecology to additionally further ensure containment capability and redundancy.

An important ISRW operations understanding is that the 10-well system provides significant capture zone overlap and dewatering redundancy. As a result, the capture alignment is maintained even in the event of some ISRW's being temporarily off-line; for example, ISRW-1, -2, -3, and -4 captured the entire targeted alignment on their own when first constructed as documented in Section 4 of the 1998 ICM Annual Report (RETEC, 1998).

4.1 Monitoring Program Description

The monitoring plan for the WIA intermediate sand recovery well (ISRW) system consists of the following components: 1) weekly monitoring of recovery system operation and water volume production with appropriate operation adjustments; 2) semi-annual sampling of recovery wells discharge water quality; and 3) semi-annual water quality sampling and water elevation gauging of monitoring wells. WIA intermediate sand monitoring is described in the following sections and is summarized in Table 4-1.

In 2018 EKC elected to voluntarily increase the sampling frequency at the 10 ISRW wells from semi-annual to quarterly. The additional ISRW data are to assist in focusing benzene and toluene mass removal efforts at the ISRW wells as described further in the following sections.

4.2 Groundwater and River Elevations and Groundwater Flow

Intermediate sand aquifer groundwater elevations were measured quarterly in July & October 2024, and January and April 2025. Groundwater elevations are recorded at the following locations:

- Recovery wells ISRW-1 through ISRW-10
- Monitoring wells KC-6, KC-14, MW-239, MW-243, and MW-250 (note MW-250 is not used for potentiometric surface mapping as it is screened below the intermediate sand).
- Piezometers PZ-117 and PZ-118

The intermediate sand quarterly groundwater elevation data are provided in tabular form in Appendix A. The data was used to construct WIA potentiometric surface maps quarterly for the intermediate sand zone (Figures 4-1 through 4-4). As shown on Figures 4-1 through 4-4, the ISRW well alignment maintains an inward groundwater depression capturing intermediate sand groundwater and some portion of river water. The ISRW system is designed and operated to maintain ISRW well pumping elevations below the river elevation and thereby maintain some inward gradient from the river.

4.3 Groundwater Quality

Groundwater samples were collected semi-annually (October and April) from 10 recovery wells (ISRW-1 through ISRW-10) and four monitoring wells: KC-14, MW-239, MW-243, and MW-250. Laboratory data reports are included in Appendix B (e-file). As noted earlier, LANXESS also elected to continue to collect two additional rounds (January and July) of groundwater samples for benzene and toluene analysis from just the 10 ISRW wells resulting in quarterly data for the ISRW wells.

4.3.1 Sampling and Analytical Procedures

All sampling and laboratory analyses were completed in accordance with the SAP (RETEC 2004c), and Ecology approved revisions reported in past Annual Reports. All samples were submitted to ALS Laboratories (Kelso, WA) with all analyses being conducted using EPA Method 8260C (as noted on Table 4-2).

4.3.2 Intermediate Sand Aquifer Sampling Results

The monitor well and ISRW groundwater quality analytical results are summarized in Table 4-2, and Figures 4-5 (benzene) and 4-6 (toluene). Benzene and toluene average annual concentration trend charts for each of the ISRW wells are provided in Appendix C. As can be observed on the Appendix C charts, benzene and toluene concentrations are generally decreasing over time since system startup, some significantly, while wells in the central portion of the ISRW alignment indicate somewhat steadier concentrations. The overall data set for five of the ISRW Wells (1 & 2, 4 & 7, and 6) located at the up-gradient (east), southern, and northern plume boundaries respectively, indicate reduced concentrations and receding of the plume. The remaining five ISRW wells (10, 5, 9, 3, and 8, moving south to north along the river) are located centrally in the plume area and continue comparatively higher mass removal.

During the 24/25 monitoring period, three of the four intermediate sand monitoring network wells (MW-243, KC-14, MW-250) indicate non-detect results for benzene and toluene. These results agree with the historical data at these wells. Monitor well MW-239 results continued a downward trend with only the October 2024 benzene result (4.5 ug/L) above the CUL (1.2 ug/L). The MW-239 April 2025 (5/1/25) benzene result was non-detect and toluene results were far below the CUL for both October and April.

4.4 ISRW System Performance

Table 4-3 presents the ISRW water extraction volumes for the monitoring period including the total volume of groundwater pumped from each well. As shown, approximately 636,000 gallons of groundwater were extracted from the WIA intermediate sand aquifer during the 2024–2025 performance period. Table 4-4 combines the groundwater extraction volumes and average benzene and toluene concentrations to calculate the mass removals for the ISRW wells. Approximately 0.1 pound of benzene and 62 pounds of toluene were removed during the 2024-2025 performance period. Based on statements from historical reports and calculation of more recent data, estimated benzene and toluene removals to date are:

Estimated Toluene Removed Since ISRW Startup April 1997: 53,026 lbs.

Estimated Benzene Removed Since 2011 (earlier data not specific): 108 lbs.

4.5 ISRW System Maintenance

The ISRW system operated continuously throughout the monitoring period, except during short-duration individual well shutdowns (typically 1 – 2 hours for an individual well while other wells continue to operate). The ISRW maintenance activities for the current reporting period included:

- During October 2024 the ISRW's were cleaned and redeveloped using a vac-truck to remove accumulated sediment in the well bottom, fill and surge the wells with clean water, and repeat vac-removal of water and sediment until clear.
- Pump and float removal, cleaning, and reinstallation. This maintenance is conducted on an approximately monthly per well rolling schedule.
- As-needed replacement of electrical system fuses, capacitors, level floats, totalizers, and power cables due to normal wear.
- Replacement of submersible pumps and/or motors when required – typically due to wear of bearings, pump mechanisms, and pump motors.
- Ongoing maintenance of above ground apparatus including well-heads, hoses, and connections.

These ongoing maintenance efforts have ensured continued uninterrupted operation of the ISRW system.

4.6 ISRW Future Operations Plan

The WIA ISRW system continues to minimize discharge of affected intermediate sand groundwater to the Columbia River and reduce the mass of constituents in the aquifer. Ongoing appropriate system monitoring and maintenance will continue to minimize pump down times and equipment replacement requirements.

ISRW operations will continue much as they have in the recent past. ISRW-7 is currently shut-down and expected to remain that way unless groundwater samples return to above CULs. LANXESS will continue to operate the system in accordance with the requirements and goals described herein.

4.7 Recommended Changes to System Operation

LANXESS is not proposing any revisions to the ISRW operations and monitoring program.

5.0 References

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Tables

**Table 2-1
NIA Monitoring Program 2024 - 2025**

Well Location	Sampling Frequency	Field Parameters	Analytical Parameters	Gauging Frequency
NTP-1, NTP-2, NTP-3, KC-8, KC-9, KC-21, KC-23, MW-210, MW-232, MW-230, PZ-102, PDW-117, MW-245, MW-256, Wetland Staff Gauge	—	—	—	Annually
East Sump, West Sump	Semiannually	—	Benzene, Toluene, Biphenyl, DPO	
KC-9, PDW-117	Annually	Temperature, pH, ORP, conductivity, turbidity, DO	Benzene, Toluene, DPO	
MW-245, MW-256	Annually	Temperature, pH, ORP, conductivity, turbidity, DO	DPO	
Observation Walk Length of NIA Containment Trench Ground Surface	Annually	Visual observation for surface damage that may impact trench & subsurface containment berm	—	—

Notes:

DO = dissolved oxygen; ORP = oxidation reduction potential; NIA = North Impacted Area; DEHP / Bis(2-ethylhexyl)phthalate not required at MW-232, -245 & -256 Ecy 112916 & 111418; DPO = Diphenyl Oxide; biphenyl add NIA E&W, remove -210, -231, -230, -9, -117 Ecy 111418. Cease sampling MW-210 & -232 (continue gauging) Ecy 111418.

**Table 2-2
NIA Groundwater Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
	Cleanup Level	1.2	2,000	24,590	230	1.8	410	2,560
MW-210	10/20/2009	51	< 1.0	< 9.6 J	74	< 0.96	1,800	19
	4/22/2010	23	< 1.0	<10 J	79	< 1.0	820	27
	10/21/2010	22	< 1.0	< 9.8	39	<0.98	1,700	17
	10/10/2011	7.7	< 1.0	<9.3	100	<2.4	1,400	11
	4/18/2012	16	< 1.0	9.6	150	<0.93	990	40
	11/8/2012	5.7	< 1.0	<9.5 UJ	21	<0.95	850	4.8
	4/11/2013	1.5	< 1.0	<9.5	10	<0.95	580	4.9
	10/15/2013	< 1.0	< 1.0	<9.9 UJ	<0.99	<0.99	250	7.6
	4/16/2014	< 1.0	< 1.0	<9.5	<0.95	<0.95	490	<1.9
	10/23/2014	< 0.060	< 0.11	< 0.39 H	< 0.095 H	< 0.26 H	590 H	1.2 JH
	4/22/2015	< 0.42	< 0.44	< 0.39	< 0.095	1.2 JB	330	2.2 J
	10/20/2015	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	1,500 D	14
	4/13/2016	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	44	8.5
	10/28/2016	< 1.0	< 1.0	NA	1.6	NA	780 D	NA
	4/11/2017	< 0.50	< 1.0	NA	1.8	NA	32	NA
	10/5/2017	< 0.50	< 1.0	NA	< 0.97	NA	210	NA
	4/26/2018	< 1.0	< 1.0	NA	< 0.96	NA	88	NA
10/2/2018	< 0.30	< 1.0	NA	< 0.47	NA	654 D	NA	
MW-210 Ecy Approved Cease Sampling, Continue Water Level Gauging 11-14-18								
MW-230	10/22/2009	32	9.9	91 J	380	1.7	520	12
	4/23/2010	18	5.9	< 200 J	350	<20	390	93
	10/20/2010	23	5.2	74	470	6.8	590	44
	10/11/2011	44	5.2	22	450	<2.4	460	27
	4/18/2012	10	1.3	180	160	<0.95	220	38
	11/7/2012	16	2.7	30 J	130	<0.95	220	48
	4/11/2013	31	5.4	130	160	<0.95	240	39
	10/16/2013	8.8	8.0	79,000 J	170	<1.1	420	210
	4/15/2014	7.9	6.0	<48	500	<4.8	520	22
	10/23/2014	6.4	1.2	< 0.39 H	490 H	< 0.26 H	690 H	22 H
	10/23/2014 Dup	4.8	0.87 J	9.3 JH	520 H	< 0.26 H	690 H	23 H
	4/22/2015	14	0.90 J	28	250	2.5 JB	320	20 J
	10/21/2015	7.4	3.8	< 9.5	150	< 0.95	480 D	7.4
	10/21/2015 Dup	7.5	3.6	< 9.5	160	< 0.95	400 D	6.8
	4/12/2016	11	< 1.0	15	200	< 0.95	260 D	11
	10/28/2016	10	1.0	60	190	< 0.95	450 D	51
	10/28/2016 Dup	11	1.0	64	200	<0.95	420	45
	4/11/2017	2.4	< 1.0	NA	110 D	NA	180 D	NA
	4/11/2017 Dup	2.3	< 1.0	NA	99 D	NA	160 D	NA
	10/5/2017	7.0	< 1.0	NA	190	NA	240	NA
	10/5/2017 Dup	6.8	< 1.0	NA	160	NA	230	NA
	4/25/2018	1.4	< 1.0	NA	120	NA	120	NA
	4/25/2018 Dup	1.5	< 1.0	NA	130	NA	130	NA
	10/2/2018	1.8	1.6	NA	109 D	NA	192 D	NA
	10/2/2018 Dup	2.5	2.0	NA	89	NA	172	NA
	4/15/2019	0.98	< 1.0	NA	NA	NA	119 D	NA
	4/15/2019 Dup	0.64	< 1.0	NA	NA	NA	129 D	NA
	10/15/2019	1.75	1.99	NA	NA	NA	312	NA
	4/9/2020	<0.300	<1.00	NA	NA	NA	74.6 D	NA
	10/20/2020	1.70	1.13	NA	NA	NA	312 D	NA
4/12/2021	1.18	1.82	NA	NA	NA	373 D	NA	
10/6/2021	2.18	<1.00	NA	NA	NA	375 D	NA	
4/21/2022	<0.50 U	<0.50 U	NA	NA	NA	110	NA	
MW-230 Ecy Apprvd Cease Sampling, Continue Gauging 10-2022								

**Table 2-2
NIA Groundwater Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		1.2	2,000	24,590	230	1.8	410	2,560
	Cleanup Level	1.2	2,000	24,590	230	1.8	410	2,560
MW-231	10/22/2009	110	68,000	30 J	840	<0.95	2,300	14
	4/22/2010	48	18,000	14 J	410	<0.95	920	4.7
	10/20/2010	110	48,000	23	260	<0.96	710	2.5
	10/11/2011	50	48,000	13	560	<2.4	1,700	44
	4/18/2012	5.3	1,200	<9.5	32	<0.95	110	4.0
	11/8/2012	75	23,100	15 J	210	<0.95	730	5.5
	4/11/2013	25	14,000	22	220	<0.95	930	14
	10/16/2013	13	15,000	230 J	240	<0.95	820	3.9
	4/15/2014	9.1	6,200	<9.5	77	<0.95	370	3.4
	10/23/2014	< 60	6,600	< 0.39 H	450 H	0.86 JH	2,200 H	3.5 JH
	4/22/2015	< 21	3,600	< 0.39	320	1.3 JB	1,700	2.6 J
	4/22/2015 Dup	< 100	3,800	< 0.39	300	1.4 JB	1,800	3.8 J
	10/19/2015	13 D	14,000 D	11	200	< 0.95	1,700 D	3.3
	4/11/2016	< 1.0	52	< 9.5	< 0.95	< 0.95	1.3	< 1.9
	4/17/2016 Dup	< 1.0	63	< 9.5	< 0.95	< 0.95	5.5	< 1.9
	10/27/2016	< 2.0	1,800 D	NA	160	NA	850 D	NA
	4/10/2017	< 1.0	13	NA	17	NA	67.0	NA
	10/4/2017	< 0.50	3,600 D	NA	370 D	NA	1,200 D	NA
	4/26/2018	< 1.0	< 1.0	NA	5.6	NA	26	NA
	10/2/2018	1.0	1,110 D	NA	163	NA	639	NA
	4/12/2019	16.1	61.9	NA	NA	NA	1060 D	NA
	10/15/2019	1.1	2.68	NA	NA	NA	1190 D	NA
	4/9/2020	1,370 D	57,800 D	NA	NA	NA	91.0 D	NA
	5/12/2020	0.590	<1.00	NA	NA	NA	NA	NA
	5/12/2020 Dup	0.540	<1.00	NA	NA	NA	NA	NA
	10/20/2020	0.710	2.88	NA	NA	NA	1,670 D	NA
	10/20/2020 Dup	0.770	3.22	NA	NA	NA	1,650 D	NA
	4/13/2021	< 0.300	< 1.00	NA	NA	NA	56.1	NA
4/13/2021 Dup	< 0.300	< 1.00	NA	NA	NA	52.9	NA	
10/6/2021	0.370	3.65	NA	NA	NA	51.1 D	NA	
4/21/2022	0.56	<0.50 U	NA	NA	NA	45	NA	
MW-231 Ecy Apprvd Cease Sampling & Gauging 10-2022								
MW-232	10/22/2009	< 1.0	< 1.0	< 9.7 J	<0.97	<0.97	280	7.3
	4/22/2010	< 1.0	< 1.0	<10 J	< 1.0	< 1.0	220	9.2
	10/20/2010	< 1.0	< 1.0	<9.6	<0.96	<0.96	260	3.5
	10/10/2011	<1.0	< 1.0	<9.3	<0.93	<0.93	190 J	10 J
	4/19/2012	<1.0	< 1.0	<9.5	<0.95	<2.4	110	3.3
	11/8/2012	<1.0	< 1.0	<9.5 UJ	<0.95	<0.95	200	7.0
	4/10/2013	<1.0	< 1.0	11	<0.95	1.9	160	6.7
	10/15/2013	<1.0	< 1.0	<10 UJ	<1.0	<1.0	130	23
	4/16/2014	< 1.0	< 1.0	<9.5	<0.95	<0.95	140	8.3
	10/21/2014	< 0.06	NA	NA	NA	< 0.26	92	NA
	4/21/2015	< 0.42	NA	NA	NA	1.3 JB	190	NA
	10/20/2015	< 0.50	NA	NA	NA	< 0.95	150	NA
	4/13/2016	< 0.50	NA	NA	NA	< 0.95	84	NA
	10/27/2016	NA	NA	NA	NA	NA	180	NA
	4/11/2017	NA	NA	NA	NA	NA	96	NA
	10/5/2017	NA	NA	NA	NA	NA	160	NA
	4/25/2018	NA	NA	NA	NA	NA	68	NA
	10/1/2018	NA	NA	NA	NA	NA	52 D	NA
MW-232 Ecy Approved Cease Sampling, Continue Water Level Gauging 11-14-18								

**Table 2-2
NIA Groundwater Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		Cleanup Level	1.2	2,000	24,590	230	1.8	410
MW-245	10/25/2007	4.4	< 1.0	<10 UJ	< 1.0	< 1.0	870	18
	4/17/2008	3.2	< 1.0	<9.6 UJ	<0.96	<0.96	1,600	23
	10/24/2008	< 1	< 1.0	NA	<0.98	<0.98	700	17
	4/20/2009	< 1.0	< 1.0	< 9.6 J	<0.96	<0.96	770	12
	10/22/2009	< 1.0	< 1.0	< 9.6 J	<0.96	<0.96	400	7.3
	4/22/2010	< 1.0	< 1.0	< 9.0 J	<0.99	<0.99	470	14
	10/21/2010	< 1.0	< 1.0	< 10	< 1.0	< 1.0	320	15
	10/10/2011	<1.0	< 1.0	<9.3	<0.93	<0.93	330 J	12 J
	4/19/2012	<1.0	< 1.0	<9.5	<0.95	<2.4	350	8.3
	11/7/2012	<1.0	< 1.0	<9.5 UJ	<0.95	<0.95	180	2.1
	4/10/2013	<1.0	< 1.0	<9.6	<0.96	<0.96	260	7.5
	10/16/2013	<1.0	< 1.0	<9.5 UJ	<0.95	<0.95	150	5.7
	4/15/2014	< 1.0	< 1.0	<9.5	<0.95	21	130	3.0
	10/21/2014	< 0.06	NA	NA	NA	< 0.26	140	NA
	4/21/2015	< 0.42	NA	NA	NA	1.1 JB	200	NA
	10/20/2015	< 0.50	NA	NA	NA	< 0.95	77	NA
	4/13/2016	< 0.50	NA	NA	NA	< 0.95	180	NA
	10/27/2016	NA	NA	NA	NA	< 0.96	140	NA
	4/11/2017	NA	NA	NA	NA	< 0.95	130	NA
	10/5/2017	NA	NA	NA	NA	< 2.5	96	NA
	4/26/2018	NA	NA	NA	NA	< 0.96	120	NA
	10/1/2018	NA	NA	NA	NA	< 0.50	81	NA
	4/12/2019	NA	NA	NA	NA	NA	161 D	NA
	10/15/2019	NA	NA	NA	NA	NA	74	NA
	4/7/2020	NA	NA	NA	NA	NA	124 D	NA
10/20/2020	NA	NA	NA	NA	NA	97.5 D	NA	
4/12/2021	NA	NA	NA	NA	NA	105 D	NA	
10/4/2021	NA	NA	NA	NA	NA	101 D	NA	
4/21/2022	NA	NA	NA	NA	NA	97	NA	
4/19/2023	NA	NA	NA	NA	NA	98	NA	
4/4/2024	NA	NA	NA	NA	NA	80	NA	
4/28/2025	NA	NA	NA	NA	NA	85	NA	
MW-256	10/25/2007	< 1.0	< 1.0	<11 UJ	< 1.1	< 1.1	200	6.6
	4/17/2008	< 1.0	< 1.0	< 9.5 UJ	<0.95	<0.95	120	1.9
	10/28/2008	< 1.0	< 1.0	17 J	<0.95	<0.95	150	4.7
	4/20/2009	< 1.0	< 1.0	<9.6 J	<0.96	<0.96	47	< 2
	10/22/2009	< 1.0	< 1.0	<9.5 J	<0.95	<0.95	22	<1.9
	4/22/2010	< 1.0	< 1.0	<9.0 J	<0.95	<0.95	28	<1.0
	10/21/2010	< 1.0	< 1.0	<9.9	<0.99	<0.99	25	<2.0
	10/10/2011	< 1.0	< 1.0	<9.3	<0.93	<0.93	31 J	<1.9
	4/18/2012	< 1.0	< 1.0	<9.7	<0.97	<2.4	5.9	<2.0
	11/8/2012	< 1.0	< 1.0	<9.5 UJ	<0.95	<0.95	23	<1.9
	4/10/2013	< 1.0	< 1.0	<9.5	<0.95	<0.95	5.6	<1.9
	10/16/2013	< 1.0	< 1.0	<9.5 UJ	<0.95	<0.95	23	<1.9
	4/15/2014	< 1.0	< 1.0	<9.5	<0.95	<0.95	24	<1.9
	10/21/2014	< 0.06	NA	NA	NA	NA	27	NA
	4/21/2015	< 0.42	NA	NA	NA	NA	26	NA
	10/20/2015	< 0.50	NA	NA	NA	NA	16	NA
	4/13/2016	< 0.50	NA	NA	NA	NA	30	NA
	10/27/2016	NA	NA	NA	NA	NA	10	NA
	4/11/2017	NA	NA	NA	NA	NA	1.5	NA
	10/5/2017	NA	NA	NA	NA	NA	23	NA
	4/26/2018	NA	NA	NA	NA	NA	5.0	NA
	10/1/2018	NA	NA	NA	NA	NA	14.9	NA
	4/12/2019	NA	NA	NA	NA	NA	17.5	NA
	10/15/2019	NA	NA	NA	NA	NA	21.3	NA
	4/7/2020	NA	NA	NA	NA	NA	<0.517	NA
10/20/2020	NA	NA	NA	NA	NA	21.6	NA	
4/12/2021	NA	NA	NA	NA	NA	8.64	NA	
10/4/2021	NA	NA	NA	NA	NA	8.24 D	NA	
4/21/2022	NA	NA	NA	NA	NA	14	NA	
4/19/2023	NA	NA	NA	NA	NA	15	NA	
4/4/2024	NA	NA	NA	NA	NA	15	NA	
4/28/2025	NA	NA	NA	NA	NA	18	NA	

**Table 2-2
NIA Groundwater Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method)		SVOCs (µg/L) (EPA Method 8270C SIM)					
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol	
	Cleanup Level	1.2	2,000	24,590	230	1.8	410	2,560	
KC-9	10/22/2009	28	1.7	< 9.5 J	1300	< 0.95	5,400	21	
	4/23/2010	5	< 1.0	< 9.0 J	170	< 0.98	730	7.4	
	10/21/2010	14	< 1.0	< 9.6	840	< 0.96	3,600	18	
	10/10/2011	10	<1.0	<9.3	420	<2.4	1,900	21	
	4/18/2012	3.6	<1.0	<9.5	150	<0.93	600	8.7	
	11/8/2012	2.2	<1.0	<9.5 UJ	170	<0.95	1,000	10	
	4/10/2013	3.7	< 1.0	11	110	<0.95	810	5.1	
	10/16/2013	4.3	< 1.0	<9.5 UJ	99	<0.95	1,300	6.6	
	4/15/2014	2.8	< 1.0	<9.5	51	<0.95	740	6.4	
	10/21/2014	Inaccessible due to construction; not sampled							
	4/21/2015	5.8	< 0.44	5.4 J	150	1.2 JB	1,300	9.4 J	
	10/20/2015	18	< 1.0	< 9.5	570 D	< 0.95	4,000 D	25	
	4/13/2016	3.5	< 1.0	< 9.5	100	< 0.95	690 D	12	
	10/27/2016	3.0	< 1.0	NA	120	NA	1,800 D	NA	
	4/11/2017	1.3	< 1.0	NA	62	NA	810 D	NA	
	10/5/2017	2.2	< 1.0	NA	73	NA	1,900 D	NA	
	4/26/2018	2.9	< 1.0	NA	57	NA	1,600 D	NA	
	10/1/2018	4.9	< 1.0	NA	53 D	NA	2,010 D	NA	
	4/15/2019	2.09	< 1.0	NA	NA	NA	5,980 D	NA	
	10/15/2019	3.58	<1.00	NA	NA	NA	3,290 D	NA	
	4/7/2020	<0.300	<1.00	NA	NA	NA	1,930 D	NA	
	10/20/2020	2.79	<1.00	NA	NA	NA	2,660 D	NA	
	4/12/2021	2.37	<1.00	NA	NA	NA	2,870 D	NA	
	10/4/2021	2.96	<1.00	NA	NA	NA	2,630 D	NA	
	4/19/2022	1.0	< 0.50 U	NA	NA	NA	1,400 D	NA	
4/19/2023	0.9	< 0.50 U	NA	NA	NA	1,800 D	NA		
4/4/2024	< 0.50 U	< 0.50 U	NA	NA	NA	900 D	NA		
4/28/2025	0.72	< 0.50 U	NA	NA	NA	2,000 D	NA		
PDW-117	10/22/2009	21	5.4	36 J	750	6.5	1,700	6.2	
	4/22/2010	< 1.0	< 1.0	<9.0 J	47	<0.95	140	5.6	
	10/20/2010	5.7	< 1.0	<9.9	180	<0.99	970	15	
	10/11/2011	7.6	< 1.0	<9.5	57	<2.4	400	8.4	
	4/18/2012	1.1	< 1.0	<9.5	41	<0.95	180	4.4	
	11/8/2012	23	< 1.0	<9.5 UJ	48	<0.95	360	20	
	4/11/2013	4.4	< 1.0	<9.5	160	<0.95	1,200	6.3	
	10/15/2013	5.9	< 1.0	< 10 UJ	150	<1.0	1,000	12	
	4/16/2014	4.7	< 1.0	<9.5	59	<0.95	740	6.3	
	10/23/2014	7	0.23 J	4.8 JH	22 H	< 0.26 H	1,700 H	8.6 JH	
	4/22/2015	3.6	< 0.44	< 0.40	8.7	< 0.26	1,900	16	
	10/20/2015	7.1	< 1.0	< 9.5	34	< 0.95	2,500 D	19	
	4/13/2016	< 1.0	< 1.0	< 9.5	38	< 0.95	310 D	4.9	
	10/28/2016	< 1.0	< 1.0	NA	1.0	NA	140	NA	
	4/11/2017	< 1.0	< 1.0	NA	7.9	NA	150	NA	
	10/5/2017	2	< 1.0	NA	< 0.97	NA	540 D	NA	
	4/26/2018	< 1.0	< 1.0	NA	< 0.96	NA	1,700 D	NA	
	10/2/2018	2.6	< 1.0	NA	9.6 D	NA	524 D	NA	
	4/15/2019	0.99	< 1.0	NA	NA	NA	4,600 D	NA	
	10/15/2019	2.06	<1.00	NA	NA	NA	1950 D	NA	
	4/9/2020	0.860	<1.00	NA	NA	NA	2040 D	NA	
	4/9/2020 Dup	0.930	<1.00	NA	NA	NA	1560 D	NA	
	10/20/2020	0.500	<1.00	NA	NA	NA	1,570 D	NA	
	4/12/2021	< 0.300	< 1.00	NA	NA	NA	1,070 D	NA	
	10/4/2021	0.680	<1.00	NA	NA	NA	1,030 D	NA	
	4/19/2022	< 0.50 U	< 0.50 U	NA	NA	NA	1,300 D	NA	
	4/19/2023	< 0.50 U	< 0.50 U	NA	NA	NA	1,900 D	NA	
4/4/2024	< 0.50 U	< 0.50 U	NA	NA	NA	1,700 D	NA		
4/28/2025	3.0	< 0.50 U	NA	NA	NA	1,600 D	NA		

**Table 2-2
NIA Groundwater Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		1.2	2,000	24,590	230	1.8	410	2,560
East Sump	7/25/2007	7.5	30	< 9.5 U	29	<0.95 U	910 D	8
	10/24/2007	6	16	< 9.0 UJ	13	<0.96	960	11
	1/17/2008	9.7 D	160 D	< 9.5 U	13	<0.95 U	650 D	8.1
	4/15/2008	12	710	< 9.5 UJ	19	<0.95	730	27
	7/28/2008	5.6	69	< 9.6	21	<0.96	600	5.6
	10/24/2008	7.9	57	NA	17	<0.97	1,200	14
	1/30/2009	2.3	< 1	< 9.5	13	<0.95	580	6.2
	4/20/2009	4.3	79	< 9.6 J	7.6	<0.96	590	3.6
	10/21/2009	2.4	< 1.0	< 11 J	3.4	< 1.1	500	15
	4/22/2010	1.9	< 1.0	< 10 J	4.4	< 1.0	330	4.4
	10/21/2010	14	< 1.0	< 10	6.7	< 1.0	760	18
	10/10/2011	9.7	< 1.0	<9.5	3.3 J	<0.95	310 J	5.1 J
	4/19/2012	1.9	< 1.0	<9.5	4.4	<2.4	280	<1.9
	11/7/2012	<1.0	< 1.0	<9.5 UJ	2.4	<0.95	220	2.4
	4/10/2013	<1.0	< 1.0	<9.5	2.0	<0.95	200	2.8
	10/16/2013	<1.0	< 1.0	<9.5 UJ	1.8	<0.95	260	2.8
	4/14/2014	< 1.0	< 1.0	<9.5	1.6	<0.95	190	<1.9
	10/21/2014	< 0.06	< 0.11	NA	NA	NA	200	NA
	4/20/2015	< 0.42	1.2 J	NA	NA	NA	150	NA
	10/20/2015	< 1.0	< 1.0	NA	NA	NA	<0.95	NA
	4/13/2016	< 1.0	< 1.0	NA	NA	NA	260 D	NA
	10/27/2016	< 1.0	< 1.0	NA	NA	NA	53	NA
	4/10/2017	< 1.0	< 1.0	NA	NA	NA	170	NA
	10/4/2017	< 0.50	< 1.0	NA	NA	NA	360 D	NA
	4/23/2018	< 1.0	< 1.0	NA	NA	NA	140	NA
	10/2/2018	< 0.3	< 1.0	NA	NA	NA	92 D	NA
	4/12/2019	< 0.3	< 1.0	NA	< 0.644	NA	112	NA
	10/15/2019	<0.300	<1.00	NA	<0.473	NA	266	NA
	4/7/2020	<0.300	<1.00	NA	<0.475	NA	80.5 D	NA
	10/19/2020	54.5	<1.00	NA	<0.481	NA	216 D	NA
	10/19/2020 Dup	55.1	<1.00	NA	<0.483	NA	278	NA
	1/15/2021	5.98	<1.00	NA	NA	NA	NA	NA
	4/8/2021	15.5	<1.00	NA	<0.479	NA	117 D	NA
	7/16/21 ALS 8260	2.0		NA	NA	NA	NA	NA
	7/16/21 Spclty 802	2.19	1.15	NA	NA	NA	NA	NA
	10/1/2021 Spclty 82	<0.300	<1.00	NA	<0.473	NA	104 H (lab)	NA
	10/1/2021 DUP	<0.300	<1.00	NA	<0.474	NA	NA	NA
	4/14/2022 ALS	<0.50 U	<0.50 U	NA	<0.94	NA	99	NA
	4/14/2022 DUP	<0.50 U	<0.50 U	NA	<0.94	NA	99	NA
	10/18/2022	< 0.50 U	<0.50 U	NA	<0.66 U	NA	290 D	NA
4/19/2023	< 0.50 U	< 0.50 U	NA	<0.98 U	NA	95	NA	
10/12/2023	< 0.50 U	< 0.50 U	NA	<0.94 U	NA	160	NA	
4/4/2024	< 0.50 U	< 0.50 U	NA	<0.96 U	NA	200 D	NA	
10/17/2024	1.4	8.7	NA	<0.94 U	NA	730 D	NA	
4/17/2025	< 0.50 U	< 0.50 U	NA	<0.94 U	NA	120	NA	

**Table 2-2
NIA Groundwater Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		Cleanup Level	1.2	2,000	24,590	230	1.8	410
West Sump	7/25/2007	270 D	1,900 D	12	180 D	<0.95 U	1,600 D	9.5
	7/25/2007 Dup	270 D	1,500 D	11	160 D	2.5	1,600 D	14
	10/24/2007	270 J	1,300 J	32 J	190	<0.96	2,200	22 J
	10/24/2007 Dup	450 J	2,000 J	20 J	210	<0.95	2,100	16 J
	1/17/2008	410 D	8,300 D	9.8	45	<0.96 U	620 D	62 D
	1/17/2008 Dup	400 D	7,900 D	< 9.7 U	42	<0.97 U	600 D	55 D
	4/15/2008	79	820	< 9.5 UJ	160	1.1	1,200	8.7
	4/15/2008 Dup	83	780	< 9.5 UJ	160	<0.95	1,200	8.4
	7/28/2008	200	740	< 9.5	140	<0.95	1,300	18
	7/28/2008 Dup	200	740	< 9.5	140	<0.95	1,200	21
	10/24/2008	140	1,700	26 J-	110	<0.95	1,000	15
	1/30/2009	160	1,400	26	78	<0.95	880	2.5
	1/30/2009 Dup	150	1,300	< 9.5	110	<0.95	870	17
	4/20/2009	26	78	< 9.6 J	150	<0.96	1,100	5.7
	4/20/2009 Dup	27	78	< 9.6 J	130	<0.96	1,000	5.3
	10/20/2009	100	1,100	< 9.5 J	5.0 J	<0.95	570 J	31
	10/21/2009 Dup	100	1,100	< 9.5 J	59 J	<0.95	970 J	28
	4/22/2010	56	77	< 9.0 J	46	<0.95	490	5
	4/22/2010 Dup	59	85	< 9.0 J	45	<0.99	490	6.8
	10/21/2010	42	69	< 9.8	15	< 0.98	470	100
	10/10/2011	33	210	<9.5	45 J	<0.95	730 J	8.7 J
	10/10/2011 Dup	33	210	<9.3	23 J	<0.93	560 J	20 J
	4/19/2012	71	230	<9.5	27	< 2.4	320	4.2
	4/19/2012 Dup	71	230	<9.5	27	< 2.4	310	4.3
	11/7/2012	52	109	<9.5 UJ	49	<0.95	760	6.1
	11/7/2012 Dup	48	101	<9.5 UJ	46	<0.95	750	6.1
	4/10/2013	34	23	12	42	<0.95	410	5.0
	4/10/2013 Dup	34	22	9.8	42	<0.95	430	5.3
	10/16/2013	33	18	<9.5	45	<0.95	770	4.6
	10/16/2013 Dup	33	19	<9.5	42	<0.95	750	5.1
	4/14/2014	67	120	<9.5 UJ	47	<0.95	520	7.4
	4/14/2014 Dup	72	120	<9.5 UJ	46	<0.95	520	8.4
	10/21/2014	4.4	0.91	NA	NA	NA	830	NA
	10/21/2014 Dup	4.4	0.85	NA	NA	NA	980	NA
	4/20/2015	56	60	NA	NA	NA	550	NA
	10/20/2015	4.4	< 1.0	NA	NA	NA	200	NA
	10/20/2015 Dup	4.5	< 1.0	NA	NA	NA	200	NA
	4/13/2016	74	51	NA	NA	NA	180	NA
	4/13/2016 Dup	71	50	NA	NA	NA	190	NA
	10/27/2016	5.0	5.5	NA	NA	NA	1,100 D	NA
	10/27/2016 Dup	6.1	7.1	NA	NA	NA	1,100 D	NA
	4/10/2017	65 D	40 D	NA	NA	NA	100	NA
	4/10/2017 Dup	68 D	42 D	NA	NA	NA	100	NA
	10/4/2017	2.7	3.7	NA	NA	NA	790 D	NA
	10/4/2017 Dup	2.8	3.4	NA	NA	NA	770 D	NA
	4/23/2018	21	8.6	NA	NA	NA	300 D	NA
	4/23/2018 Dup	21	8.6	NA	NA	NA	300 D	NA
	10/2/2018	3.3	< 1.0	NA	NA	NA	844 D	NA
	10/2/2018 Dup	2.9	< 1.0	NA	NA	NA	595 D	NA
	4/12/2019	18.2	11.8	NA	37.8	NA	898 D	NA
4/12/2019 Dup	18.6	12.4	NA	37.8	NA	962 D	NA	
10/15/2019	1.11	<1.00	NA	22.1	NA	996 D	NA	
10/15/2019 Dup	1.16	<1.00	NA	24.1	NA	1020 D	NA	
4/7/2020	9.57	11.8	NA	11.9	NA	532 D	NA	
4/7/2020 Dup	9.69	10.7	NA	12.9	NA	603 D	NA	
10/19/2020	0.970	<1.00	NA	13.1	NA	874 D	NA	
1/15/2021	15.2	2.45	NA	NA	NA	NA	NA	
4/8/2021	4.51	1.86	NA	8.82	NA	690 D	NA	
10/1/2021	0.500	<1.00	NA	<0.474	NA	119 H (lab)	NA	
4/14/2022	2.7	<0.50 U	NA	5.4	NA	400 D	NA	
10/18/2022	0.55	<0.50 U	NA	6.1	NA	750 D	NA	
4/19/2023	2.3	3.0	NA	7.0	NA	410 D	NA	
10/12/2023	< 0.50 U	< 0.50 U	NA	2.9	NA	820 D	NA	
4/4/2024	14	2.6	NA	2.7	NA	230 D	NA	
10/17/2024	< 0.50 U	< 0.50 U	NA	3.1	NA	1000 D	NA	
10/17/2024 Dup	NA	NA	NA	2.9	NA	960 D	NA	
4/17/2025	< 0.50 U	< 0.50 U	NA	2.0	NA	430 D	NA	

Notes: < - Result is non-detected above the laboratory detection limit.
Bold indicates detection.
Bold and shaded Detection above cleanup level.
Dup - Field Duplicate Sample.
J - Estimated concentration / UJ - Not detected, estimate concentration

**Table 2-3
NIA Interception Trench Sump Pump Operation Data (2024-2025)**

Current Reporting Year: Monthly Data	Total Groundwater Extracted			Days of Operation	Average Flow Rate ¹	
	East Sump (gallons)	West Sump (gallons)	Combined (gallons)		(gallons per day)	(gallons per minute)
April 2025	2,310,062	1,559,009	3,869,071	35	110,545	77
March 2025	1,787,162	913,738	2,700,900	29	93,134	65
February 2025	1,668,324	974,896	2,643,220	29	91,146	63
January 2025	2,437,053	1,152,095	3,589,148	35	102,547	71
December 2024	1,585,389	961,772	2,547,161	28	90,970	63
November 2024	894,475	892,996	1,787,471	28	63,838	44
October 2024	21,314	590,155	611,469	35	17,471	12
September 2024	330,854	483,426	814,280	27	30,159	21
August 2024	775,766	721,694	1,497,460	35	42,785	30
July 2024	769,671	1,311,900	2,081,571	28	74,342	52
June 2024	1,984,644	1,062,875	3,047,519	29	105,087	73
May 2024	2,603,554	1,614,687	4,218,241	34	124,066	86
Data by Year (1999 – 2025)						
May 2024 - April 2025 Total			29,407,511	365	80,569	56
May 2023 - April 2024 Total			28,338,340	365	77,639	54
May 2022 - April 2023 Total			33,363,099	365	91,406	63
May 2021 - April 2022 Total			29,004,774	364	79,683	55
May 2020 - April 2021 Total			25,686,164	335	76,675	53
May 2019 - April 2020 Total			25,672,040	364	70,528	49
May 2018 - April 2019 Total			26,892,240	365	73,677	51
May 2017 - April 2018 Total			34,527,000	365	94,595	66
May 2016 - April 2017 Total			27,211,420	357	76,222	53
May 2015 - April 2016 Total			22,279,780	364	61,208	43
May 2014 - April 2015 Total			28,283,351	364	77,702	54
May 2013 - April 2014 Total			26,146,043	364	71,830	50
May 2012 - April 2013 Total			32,377,430	367	88,222	61
May 2011 - April 2012 Total			29,560,750	364	81,211	56
May 2010 - April 2011 Total			27,198,659	364	74,722	52
May 2009 - April 2010 Total			23,801,041	365	66,114	46
May 2008 - April 2009 Total			24,827,910	365	68,022	47
May 2007 - April 2008 Total			24,318,988	366	66,493	46
May 2006 - April 2007 Total			30,981,555	365	85,000	59
May 2005 - April 2006 Total			28,741,209	365	78,986	55
May 2004 - April 2005 Total			22,890,809	365	62,791	44
May 2003 - April 2004 Total			25,980,637	366	71,036	49
May 2002 - April 2003 Total			22,689,839	363	62,700	44
May 2001 - April 2002 Total			18,336,898	365	50,465	35
May 2000 - April 2001 Total			16,158,522	365	44,230	31
May 1999 - April 2000 Total			27,663,437	366	75,565	53
Notes:			Averages:			
			27,693,578		66,973	47

¹ Calculated based on weekly totalizer readings.

NIA = North Impacted Area

**Table 2-4
NIA Discharge Data (2024 – 2025)**

East Sump

Chemical Name	Average Concentration (µg/L)*		May 2024 - October 2024 Contaminant Removal (lb)	November 2024 - April 2025 Contaminant Removal (lb)	East Sump Total Removal (lb)
	4/24 & 10/24 Avg.	10/24 & 4/25 Avg.			
Volatile Organic Compounds (EPA Method 8260)					
Benzene	0.7	0.7	0.0	0.1	0.1
Toluene	4.4	4.4	0.2	0.4	0.6
Semivolatile Organic Compounds (EPA Method 8270 mod.)					
Diphenyl Oxide	465	425	25.2	37.9	63.1

West Sump

Chemical Name	Average Concentration (µg/L)*		May 2024 - October 2024 Contaminant Removal (lb)	November 2024 - April 2025 Contaminant Removal (lb)	West Sump Total Removal (lb)
	4/24 & 10/24 Avg.	10/24 & 4/25 Avg.			
Volatile Organic Compounds (EPA Method 8260)					
Benzene	7.0	1.3	0.3	0.1	0.4
Toluene	0	0	0.0	0.0	0.0
Semivolatile Organic Compounds (EPA Method 8270 mod.)					
Diphenyl Oxide	615	695	29.7	37.4	67.1

East & West Combined NIA Total

Chemical Name	May 2024 - October 2024 Contaminant Removal (lb)	November 2024 - April 2025 Contaminant Removal (lb)	Combined NIA Total Removal (lb)
Volatile Organic Compounds (EPA Method 8260)			
Benzene	0.4	0.1	0.5
Toluene	0.2	0.4	0.6
Semivolatile Organic Compounds (EPA Method 8270 mod.)			
Diphenyl Oxide	54.9	75.3	130.2

Notes:

East Sump groundwater extracted = 17,168,268

West Sump groundwater extracted = 12,239,243

***Chemical concentrations are average for the period (May&Oct, Oct&April)**

Contaminant removal results are rounded.

EPA = U.S. Environmental Protection Agency; lb = pound; µg/L = micrograms per liter; NIA = North Impacted Area

**Table 3-1
WIA Shallow Interception Trench Monitoring Program 2024 - 2025**

Well Location	Sampling Frequency	Field Parameters	Analytical Parameters	Gauging Frequency
KC-13, KC-24R, PZ-110, MW-238, MW-255, N&S Sumps	—	—	—	Annually
PZ-104, PZ-107	Annually	Temperature, pH, ORP, conductivity, turbidity, DO	Benzene, Toluene, Biphenyl, DEHP, DPO	
USRW-2	Annually	Temperature, pH, ORP, conductivity, turbidity, DO	DPO	

Notes:

DO = dissolved oxygen; ORP = oxidation reduction potential; DPO = Diphenyl Oxide; DEHP = Bis (2-ethylhexyl) phthalate.
 Ecy 11-28-17 Approval of EKC recommendation: Remove Well KC-11 from sampling and gauging list (already sampled Oct 2017)
 Ecy 11-14-18 Approval cease WIA shallow sump pumping & sampling, but maintain system functionality
 Ecy 10-21-20 Approval cease MW-244 gauging & sampling, and STP-1 gauging
 Ecy 10-2022 Approval monitoring & gauging modified to Annual

**Table 3-2
WIA Upper Sand Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B / 8260)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		1.2	2,000	24,590	230	1.8	410	2,560
	Cleanup Level							
PZ-104	10/20/2009	5.8	< 1.0	<9.7 J	550	<0.97	3,600	12
	4/23/2010	4.5	< 1.0	<9.0 J	180	<0.95	2,600	8.6
	10/20/2010	8.3	< 1.0	< 10	260	< 1.0	4,100	83
	10/10/2011	7.7	< 1.0	<9.5	150	<2.4	4,700	69
	4/19/2012	5.8	< 1.0	<9.5	29	<0.95	3,600	37
	11/8/2012	9.2	< 1.0	<9.5 UJ	36	<0.95	4,600	80
	4/11/2013	5.5	< 1.0	<9.5	47	<0.95	3,100	30
	10/16/2013	5.5	< 1.0	<9.5 UJ	4.9	<0.95	2,600	38
	4/15/2014	2.9	< 1.0	<9.5	13	<0.95	2,400	37
	10/23/2014	5.3	< 0.11	< 0.40 H	10 H	< 0.26 H	4,800 H	38 H
	4/22/2015	3	< 0.44	< 0.40	6.4	1.3 JB	3000	52
	4/22/2015 Dup	3	< 0.44	< 0.39	6.3	1.2 JB	3100	46
	10/20/2015	1.9	< 1.0	< 9.5	2.3	< 0.95	3,300 D	48
	4/12/2016	< 1.0	< 1.0	< 9.5	2.8	69	1,700 D	31
	10/28/2016	1.9	< 1.0	NA	< 0.95	< 0.95	3,700 D	NA
	4/12/2017	< 0.50	< 1.0	NA	2.2	< 0.95	1,600	NA
	10/5/2017	2.2	< 1.0	NA	4.7	< 2.5	2,800 D	NA
	4/25/2018	< 1.0	< 1.0	NA	< 0.96	< 0.96	1,600 D	NA
	10/2/2018	4.3	6.8	NA	50.2 D	< 4.7 D	3,620 D	NA
	4/15/2019	12.2	< 1.0	NA	381 D	< 0.505	8,350 D	NA
	10/15/2019	5.29	<1.00	NA	0.665	<0.475	2,740 D	NA
	4/9/2020	9.28	<1.00	NA	79.7 D	47.3 D	4,740 D	NA
	5/12/2020	NA	NA	NA	268 D	<0.484	12,100 D	NA
	10/20/2020	1.65	<1.00	NA	16.6	<0.478	3,140 D	NA
	10/20/2020 Dup N	1.66	<1.00	NA	22.4 D	<0.479	3,420 D	NA
	4/12/2021	5.67	<1.00	NA	86.1	<0.478	4,530 D	NA
	10/4/2021	0.970	<1.00	NA	81.5 D	<47.9 D	4,300 D	NA
	10/4/2021 Dup	0.760	<1.00	NA	3,430 D	<47.8 D	4,080 D**	NA
	4/21/2022	1.7	<0.50 U	NA	54	<1.9 U	3,300 D	NA
	4/21/2022 Dup 4	1.6	<0.50 U	NA	44	<1.9 U	2,900 D	NA
	4/18/2023	2.3	<0.50 U	NA	34	2.5 B	2,900 D	NA
	4/18/2023 Dup 4	2.4	<0.50 U	NA	40	2.5 B	3,000 D	NA
4/4/2024	1.3	<0.50 U	NA	110 D	< 2.4 U	4000 D	NA	
4/4/2024 Dup4	1.4	<0.50 U	NA	100	< 2.4 U	3700 D	NA	
4/28/2025	2.3	<0.50 U	NA	38	< 2.4 U	4600 D	NA	
4/28/2025 Dup4	2.3	<0.50 U	NA	46	< 2.4 U	4300 D	NA	
PZ-107	10/22/2009	NA	NA	NA	NA	NA	NA	NA
	4/23/2010	5.3	590	1,300 J	1,500	<4.0	3,600	210
	10/20/2010	37	5,300	4,300	24,000	<200	65,000	< 390
	10/11/2011 ^s	100	5,300	38,000	110,000	3.4	300,000	220
	4/19/2012 ^s	18	130	7,400	1,700	600	4,300	140
	11/7/2012 ^s	19	227	900 J	4,400	30	12,000	41
	4/11/2013 ^s	160	2,000	8,000	140,000	1,200	330,000	270
	10/16/2013 ^s	13	200	450 J	1,200	6.4	4,400	40
	4/15/2014 ^s	5.5	57	640	1,000	<9.5	2,800	53
	10/23/2014 ^s	Not sampled						
	4/23/2015 ^s	6.6	82	2100	720	6.2 B	2,200	19
	10/20/2015 ^s	12	530 D	2,600 D	5,700 D	62 D	20,000 D	< 48
	4/12/2016	2.5	30	1,200 D	930 D	<0.95	2,300 D	36
	10/28/2016	< 1.0	6.8	NA	760 D	< 0.96	2,100 D	NA
	4/12/2017	0.62	15	NA	860 D	< 9.5	1,900 D	NA
	10/5/2017	1.2	32 D	NA	440 D	2.7	1,100 D	NA
	4/25/2018	< 1.0	1.7	NA	670 D	< 9.6	1,600 D	NA
	10/3/2018	< 0.30	3.9	NA	404 D	< 4.7 D	936 D	NA
	4/15/2019	< 0.30	< 1.0	NA	269 D	<0.625	622 D	NA
	10/15/2019	<0.300	1.45	NA	209	<0.473	1,080 D	NA
	4/9/2020	<0.300	<1.00	NA	22.1	1.08	176 D	NA
	5/12/2020	NA	NA	NA	159 D	<0.487	1,430 D	NA
	10/20/2020	<0.300	<1.00	NA	261 D	<0.480	649 D	NA
	4/12/2021	<0.300	3.67	NA	33.4	<0.478	85.8 D	NA
	10/4/2021	<0.300	<1.00	NA	60.9	<0.345	21.8	NA
	4/21/2022	<0.50 U	<0.50 U	NA	17	<1.9 U	64	NA
	4/19/2023	<0.50 U	<0.50 U	NA	150	2.7 B	480 D	NA
	4/4/2024	<0.50 U	<0.50 U	NA	29	< 2.4 U	72	NA
	4/28/2025	<0.50 U	1.2	NA	79	< 2.4 U	170	NA

**Table 3-2
WIA Upper Sand Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B / 8260)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		1.2	2,000	24,590	230	1.8	410	2,560
	Cleanup Level							
MW-244	10/24/2007	1.1	< 1.0	< 9.8 UJ	< 0.98	< 0.98	720	30
	4/17/2008	1.1	< 1.0	< 9.7 UJ	< 0.97	< 0.97	560	16
	10/27/2008	3	< 1.0	11 J	< 0.95	< 0.95	960	20
	4/22/2009	1	< 1.0	< 9.6 J	< 0.96	< 0.96	1,300	9.1
	10/20/2009	1.3	< 1.0	< 9.8 J	< 0.98	< 0.98	820	41
	4/22/2010	< 1.0	< 1.0	< 9.0 J	< 0.98	< 0.98	1,000	38
	10/19/2010	< 1.0	< 1.0	< 9.6	< 0.96	< 0.96	340	5.7
	10/11/2011	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	68	< 1.9
	4/18/2012	< 1.0	2,400	< 9.5	< 0.95	< 2.4	550	4.8
	11/8/2012	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	590	7.8
	11/8/2012 Dup	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	600	8.4
	4/11/2013	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	530	14
	4/11/2013 Dup	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	610	14
	10/17/2013	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	410	8.2
	4/15/2014	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	600	9.4
	10/22/2014	0.12 J	< 0.11	NA	NA	< 0.28	570	NA
	4/21/2015	< 0.42	< 0.44	NA	NA	1.2 JB	450	NA
	10/20/2015	NA	NA	NA	NA	NA	780 D	NA
	4/13/2016	NA	NA	NA	NA	NA	190	NA
	10/27/2016	NA	NA	NA	NA	NA	470 D	NA
4/11/2017	NA	NA	NA	NA	NA	68	NA	
10/3/2017	NA	NA	NA	NA	NA	330 D	NA	
4/24/2018	NA	NA	NA	NA	NA	340 D	NA	
10/1/2018	NA	NA	NA	NA	NA	207	NA	
4/15/2019	NA	NA	NA	NA	NA	269 D	NA	
10/15/2019	NA	NA	NA	NA	NA	79.7 D	NA	
4/9/2020	NA	NA	NA	NA	NA	156 D	NA	
Cease sampling Oct 2020 Sampling Round Per Ecy 10/21/20 Approval								
KC-11	10/20/2009 *	NS	NS	NS	NS	NS	NS	NS
	4/23/2010 *	NS	NS	NS	NS	NS	NS	NS
	10/11/2011	< 1.0	2.8	26	28	< 9.9	160	< 9.9
	4/19/2012	1.4	< 1.0	< 9.5	< 0.95	< 2.4	4.6	< 1.9
	11/7/2012 *	NS	NS	NS	NS	NS	NS	NS
	4/10/2013	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	38	< 1.9
	10/16/2013	1.0	< 1.0	< 10 UJ	< 1.0	< 1.0	18	< 2.0
	4/15/2014	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	4.3	< 1.9
	10/22/2014 *	NS	NS	NS	NS	NS	NS	NS
	4/22/2015	< 0.42	< 0.44	NA	NA	1.3 JB	4.9	NA
	10/20/2015 *	NS	NS	NS	NS	NS	NS	NS
	4/12/2016	NA	NA	NA	NA	NA	2.6	NA
	10/27/2016	NA	NA	NA	NA	NA	3.2	NA
4/10/2017	NA	NA	NA	NA	NA	31	NA	
10/4/2017	NA	NA	NA	NA	NA	NS	NA	
Cease Monitoring & Gauging KC-11 Per Ecy Approval 11-28-17								

**Table 3-2
WIA Upper Sand Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B / 8260)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		1.2	2,000	24,590	230	1.8	410	2,560
KC-13	10/20/2009 *	NS	NS	NS	NS	NS	NS	NS
	4/23/2010 *	NS	NS	NS	NS	NS	NS	NS
	10/11/2011 *	NS	NS	NS	NS	NS	NS	NS
	4/19/2012 *	NS	NS	NS	NS	NS	NS	NS
	11/7/2012 *	NS	NS	NS	NS	NS	NS	NS
	4/10/2013 *	NS	NS	NS	NS	NS	NS	NS
	10/16/2013 *	NS	NS	NS	NS	NS	NS	NS
	4/15/2014 *	NS	NS	NS	NS	NS	NS	NS
	10/22/2014 *	NS	NS	NS	NS	NS	NS	NS
	4/22/2015	< 0.42	< 0.44	NA	NA	1.7 JB	1.7 J	NA
10/20/2015 *	NS	NS	NS	NS	NS	NS	NS	
4/12/2016 *	NS	NS	NS	NS	NS	NS	NS	
Cease Monitoring KC-13, Continue Gauging Per Ecy 11/29/16 Ltr.								
USRW-2	10/25/2007	2.8	< 1.0	< 9.9 UJ	< 0.99	< 0.99	1,500	39
	10/25/2007 Dup	2.7	< 1.0	< 9.9 UJ	< 0.99	< 0.99	1,400	40
	4/17/2008	< 1.0	< 1.0	< 9.7 UJ	< 0.97	< 0.97	< 0.97	< 2
	4/17/2008 Dup	< 1.0	< 1.0	< 9.7 UJ	< 0.97	< 0.97	< 0.97	< 2
	10/28/2008	1.2	< 1.0	< 9.5 J	< 0.95	< 0.95	1,500	22
	10/28/2008 Dup	1.1	< 1.0	< 9.5 J	< 0.95	< 0.95	1,600	23
	4/22/2009	< 1.0	< 1.0	< 9.6 J	< 0.96	< 0.96	1,000	10
	4/22/2009 Dup	< 1.0	< 1.0	< 9.6 J	< 0.96	< 0.96	1,100	8.4
	10/20/2009	1.2	< 1.0	< 11 J	< 1.1	< 1.1	800	41
	10/20/2009 Dup	1.2	< 1.0	< 10 J	< 1.0	< 1.0	970	43
	4/22/2010	< 1.0	< 1.0	< 10 J	< 1.0	< 1.0	850	20
	4/22/2010 Dup	< 1.0	< 1.0	< 9.0 J	< 0.99	< 0.99	780	20
	10/19/2010	< 1.0	< 1.0	< 9.8	5	< 0.98	880	43
	10/11/2011	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	310	5.5
	10/11/2011 Dup	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	490	6.7
	4/19/2012	< 1.0	< 1.0	< 9.5	< 0.95	< 2.4	400	9.6
	4/19/2012 Dup	< 1.0	< 1.0	< 9.5	< 0.95	< 2.4	400	9.3
	11/7/2012	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	500	11
	11/7/2012 Dup	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	410	9.4
	4/11/2013	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	430	7.5
	10/17/2013	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	380	6.3
	10/17/2013 Dup	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	380	8.1
	4/15/2014	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	330	6.1
	4/15/2014 Dup	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	340	6.4
	10/23/2014	< 0.060	< 0.11	NA	NA	< 0.27 H	370 H	NA
	10/23/2014 Dup	< 0.060	< 0.11	NA	NA	< 0.26 H	360 H	NA
	4/22/2015	< 0.42	< 0.44	NA	NA	1.2 JB	270	NA
	10/20/2015	NA	NA	NA	NA	NA	430 D	NA
	4/13/2016	NA	NA	NA	NA	NA	340 D	NA
	10/27/2016	NA	NA	NA	NA	NA	290 D	NA
	4/11/2017	NA	NA	NA	NA	NA	< 1.0	NA
	10/3/2017	NA	NA	NA	NA	NA	390 D	NA
4/25/2018	NA	NA	NA	NA	NA	140	NA	
10/1/2018	NA	NA	NA	NA	NA	204	NA	
4/15/2019	NA	NA	NA	NA	NA	< 1.0	NA	
10/15/2019	NA	NA	NA	NA	NA	178 D	NA	
4/9/2020	NA	NA	NA	NA	NA	1.43	NA	
10/20/2020	NA	NA	NA	NA	NA	280	NA	
4/12/2021	NA	NA	NA	NA	NA	< 0.478	NA	
10/6/2021	NA	NA	NA	NA	NA	< 0.480	NA	
4/19/2022	NA	NA	NA	NA	NA	< 1.0 U	NA	
4/18/2023	NA	NA	NA	NA	NA	< 1.0 U	NA	
4/3/2024	NA	NA	NA	NA	NA	< 1.0 U	NA	
5/1/2025	NA	NA	NA	NA	NA	< 1.0 U	NA	

**Table 3-2
WIA Upper Sand Analytical Data (10/2007 – 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B / 8260)		SVOCs (µg/L) (EPA Method 8270C SIM)				
		Benzene	Toluene	Benzoic Acid	Biphenyl	Bis (2-ethylhexyl) phthalate	Diphenyl Oxide	Phenol
		Cleanup Level	1.2	2,000	24,590	230	1.8	410
North Sump	7/25/2007	< 1 U	< 1 U	< 9.5 U	< 0.95 U	< 0.95 U	550 D	38
	10/23/2007	< 1.0	< 1.0	< 9.0 UJ	< 0.95	< 0.95	600	13
	1/17/2008	< 1 U	< 1 U	< 11 U	< 1.1 U	< 1.1 U	330 D	8.4
	4/15/2008	< 1.0	< 1.0	< 9.5 UJ	< 0.95	< 0.95	490	5.2
	7/28/2008	< 1.0	< 1.0	< 9.5	< 0.95	< 0.95	950	19
	10/24/2008	140	1,500	27 J	120	< 0.95	1,100	16
	11/3/2008	< 1.0	< 1.0	< 10 J	< 1	< 1	140	38
	1/30/2009	< 1.0	< 1.0	< 9.8	< 0.98	< 0.98	710	24
	4/22/2009	< 1.0	< 1.0	< 11 J	< 1.1		3.7	570
	10/21/2009 *	NS	NS	NS	NS	NS	NS	NS
	4/21/2010	< 1.0	< 1.0	< 9.0 J	< 0.97	< 0.97	290	15
	10/19/2010	< 1.0	< 1.0	< 9.6	< 0.96	< 0.96	390	9.3
	10/11/2011	<1.0	<1.0	<9.7	<0.97	<0.97	470	8.5
	4/19/2012	<1.0	<1.0	<9.5	<0.95	<2.4	320	6.2
	11/7/2012	<1.0	<1.0	<9.5 UJ	<0.95	<0.95	380	11
	4/10/2013	<1.0	<1.0	<9.5	<0.95	<0.95	310	5.2
	10/16/2013	<1.0	<1.0	<9.5 UJ	<0.95	<0.95	460	7.7
	4/14/2014	< 1.0	< 1.0	<9.7	<0.97	<0.97	340	8.7
	10/21/2014	< 0.060	< 0.11	NA	NA	< 0.30	210	NA
	4/20/2015	< 0.42	< 0.44	NA	NA	1.1 JB	370	NA
	10/19/2015	NA	NA	NA	NA	NA	180	NA
	4/12/2016	NA	NA	NA	NA	NA	140	NA
	10/24/2016	NA	NA	NA	NA	NA	99	NA
	4/10/2017	NA	NA	NA	NA	NA	130	NA
	10/4/2017	NA	NA	NA	NA	NA	190	NA
4/23/2018	NA	NA	NA	NA	NA	190	NA	
10/2/2018	NA	NA	NA	NA	NA	268	NA	
10/18/2022	<0.50 U	< 0.50 U	NA	<0.66 U	2.0 B	110 D	NA	
Ceased Sump Pumping & Sampling, Maintain Functionality - Ecy Approval 11-14-18								
South Sump	7/25/2007	2.2	1.9	< 9.6 U	<0.96 U	<0.96 U	73 D	28
	10/23/2007	< 1.0	2.5	< 9.0 UJ	<0.97	<0.97	1.5 J	< 2.0
	1/17/2008	< 1 U	< 1 U	< 9.5 U	<0.95 U	<0.95 U	< 0.95	< 1.9 U
	4/15/2008	< 1.0	1.7	< 9.6 UJ	<0.96	<0.96	140	12
	7/28/2008	10	3	< 9.6	<0.96	<0.96	370	5.5
	1/30/2009	< 1.0	700	< 9.9	<0.99	<0.99	380	7.9
	4/22/2009	< 1.0	4.8	< 9.6 J	<0.96	<0.96	620	6.4
	10/21/2009 *	NS	NS	NS	NS	NS	NS	NS
	4/21/2010	< 1.0	< 1.0	< 9.0 J	< 0.97	<0.97	130 J	13 J
	10/19/2010	< 1.0	< 1.0	< 9.6	<0.96	<0.96	38	9.7
	10/11/2011	<1.0	<1.0	<9.5	<0.95	<0.95	550	11
	4/19/2012	<1.0	3.4	<9.7	<0.97	<0.97	110	2.8
	11/7/2012	<1.0	<1.0	<9.5 UJ	<0.95	<0.95	130	2.2
	4/10/2013	<1.0	<1.0	11	<0.95	<0.95	76	6.7 J
	10/16/2013	<1.0	<1.0	<9.5 UJ	<0.95	<0.95	230	5.2
	4/14/2014	<1.0	<1.0	<9.5	<0.95	<0.95	130	3.3
	10/21/2014	< 0.060	< 0.11	NA	NA	< 0.26	200	NA
	4/20/2015	< 0.42	< 0.44	NA	NA	1.1 JB	160	NA
	10/19/2015	NA	NA	NA	NA	NA	320	NA
	4/12/2016	NA	NA	NA	NA	NA	1.6	NA
	10/24/2016	NA	NA	NA	NA	NA	< 0.95	NA
	4/10/2017	NA	NA	NA	NA	NA	< 0.96	NA
	10/4/2017	NA	NA	NA	NA	NA	65	NA
	4/23/2018	NA	NA	NA	NA	NA	71	NA
	10/2/2018	NA	NA	NA	NA	NA	63	NA
10/18/2022	< 0.50 U	< 0.50 U	NA	<0.66 U	2.0 B	6.2	NA	
10/18/2022 Dup	< 0.50 U	< 0.50 U	NA	<0.66 U	2.2 B	5.1	NA	
Ceased Sump Pumping & Sampling, Maintain Functionality - Ecy Approval 11-14-18								

Notes:
 < - Constituent Non-detect
Bold indicates detection.
 Dup - Field Duplicate Sample.
 NA - Not analyzed, Ecy Apprvl.
 J - Estimated concentration.
 H - Sample prep or analyzed beyond specified holding time
Bold and shaded Detection above cleanup level.
 * NS - Not sampled due to lack of water.

**Table 4-1
WIA Intermediate Sand Aquifer Groundwater Monitoring Program 2024 - 2025**

Well Location	Sampling Frequency	Field Parameters	Analytical Parameters	Gauging Frequency
KC-6, PZ-117, PZ-118, Columbia River	—	—	—	Quarterly (Per LANXESS Temporary Request)
ISRW-1, ISRW-2B, ISRW-3, ISRW-4, ISRW-5, ISRW-6, ISRW-7, ISRW-8, ISRW-9, ISRW-10	Quarterly (Per LANXESS Temporary Request)	—	Benzene, Toluene (8260)	
KC-14, MW-239, MW-243, MW-250	Semi-Annual	Temperature, pH, ORP, conductivity, turbidity, DO	Benzene, Toluene (8260)	

Notes:

DO = dissolved oxygen; ORP = oxidation reduction potential; WIA = West Impacted Area

Ecy 11-28-17 approval of EKC recommendation: remove wells MW-247, MW-248, & KCP-3 from gauging list.

Ecy 11-14-18 approval GW Elev gauging one time at sampling (cease high/low tide, but compare new data to historic)

2019 / 2020 - Ecy approved EKC requests to use Method 8021 for ISRW benzene and toluene analyses (MW semi-annual analyses continue 826)

2019 / 2020 - Ecy approved EKC request to temporarily sample the ISRW wells (not the MW's) on a quarterly basis.

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)		
		Benzene	Toluene	
		Cleanup Level	1.2	2,000
ISRW-1	7/25/2007	290 D	35,000 D	
	7/25/2007 Dup	310 D	34,000 D	
	10/23/2007	380	61,000	
	10/23/2007 Dup	370	59,000	
	1/17/2008	390 D	65,000 D	
	1/17/2008 Dup	390 D	69,000 D	
	4/15/2008	350	55,000	
	4/15/2008 Dup	360	54,000	
	7/28/2008	550	56,000	
	7/28/2008 Dup	570	63,000	
	10/23/2008	250	27,000	
	10/23/2008 Dup	240	29,000	
	1/30/2009	360	35,000	
	1/30/2009 Dup	340	35,000	
	4/20/2009	100	26,000 J	
	4/20/2009 Dup	110	45,000 J	
	10/21/2009	400	58,000	
	10/21/2009 Dup	410	58,000	
	4/21/2010	430	47,000	
	4/21/2010 Dup	440	49,000	
	10/19/2010	190	23,000	
	10/11/2011	250	49,000	
	10/11/2011 Dup	260	49,000	
	4/19/2012	200	36,000	
	4/19/2012 Dup	200	35,000	
	11/6/2012	153	40,600	
	11/6/2012 Dup	170	45,700	
	4/9/2013	230	66,000	
	4/9/2013 Dup	230	66,000	
	10/16/2013	160	49,000	
	10/16/2013 Dup	150	47,000	
	4/14/2014	240	55,000	
	4/14/2014 Dup	240	55,000	
	10/21/2014	< 600	68,000	
	4/20/2015	170	46,000	
	10/19/2015	110 D	33,000 D	
	4/11/2016	200 D	61,000 D	
	10/24/2016	120 D	48,000 D	
	4/10/2017	240 D	63,000 D	
	10/4/2017	160 D	48,000 D	
	4/23/2018	all on	200 D 72,000 D	
	4/26/2018	5-10off	270 D 110,000 D	
	5/16/2018	HiRVR	280 D 110,000 D	
	8/6/2018	Smr1/4	107	35,800 D
	10/2/2018		99 D	43,100 D
	1/16/2019		87	51,800 D
	4/12/2019		166	92,500
	7/30/2019		45.0	12,300 D
	10/15/2019		30.3	11,100 D
	1/7/2020		91.2	45,800 D
4/7/2020 VOA#1(4/15)		37.3	4,140 D	
4/7/2020 VOA#3(4/24)		NA	21,100 H	
7/28/2020		89.8	19,700 D	
10/19/2020		39.0	16,100 D	
10/19/2020 Dup ISRW		36.0	11,400 D	
1/15/2021		68.6	51,400 D	
1/15/2021 Dup ISRW		86.6	50,600 D	
4/8/2021		23.8 D	13,600 D	
7/16/2021(ALS 8260)		34	26,000	
7/16/2021(Spclty 8021)		34.2 D	21,900 D	
10/1/2021(Spclty 8260)		< 300 DQ	1,720 D	
10/1/2021 Dup Spclty		6.8 D	1,870 D	
1/18/2022 (ALS)		< 50 U,D	30,000 D	
1/18/2022 Dup ALS (11)		< 50 U,D	32,000 D	
4/14/2022		< 25 U,D	11,000 D	
7/6/2022		< 50 U,D	23,000 D	
10/18/2022		< 5 U,D	1,900 D	
1/11/2023		< 25 U,D	8,500 D	
4/18/2023		< 50 U,D	28,000 D	
7/6/2023		< 25 U,D	18,000 D	
4/17/2025		< 25 U,D	1,500 D	
1/11/2024		< 25 U,D	14,000 D	
4/3/2024		< 13 U,D	14,000 D	
7/11/2024		< 13 U,D	8,300 D	
10/24/2024		< 25 U,D	5,700 D	
1/31/2025		< 25 U,D	12,000 D	
4/17/2025		< 25 U,D	16,000 D	
4/17/2025 (DUP ISRW11)		< 50 U,D	23,000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
ISRW-2B	7/25/2007	14 D	8,500 D
	10/23/2007	7.6	3,000
	1/17/2008	45 D	22,000 D
	4/15/2008	60	20,000
	7/28/2008	150	36,000
	10/23/2008	130	31,000
	1/30/2009	77	33,000
	4/20/2009	230	150,000
	10/21/2009	330	260,000
	4/21/2010	470	720,000
	10/11/2011	95	83,000
	4/19/2012	300	23,000
	11/6/2012	71	53,900
	4/9/2013	130	61,000
	10/16/2013	97	68,000
	4/14/2014	94	72,000
	10/21/2014	< 600	75,000
	4/20/2015	94 J	72,000
	10/19/2015	-1 47 D	18,000 D
	4/11/2016	-1 160 D	110,000 D
	10/24/2016	< 20	11,000 D
	4/10/2017	110 D	92,000 D
	10/4/2017	130 D	74,000 D
	4/23/2018	all on 54 D	9,800 D
	4/26/2018	5-10off 130 D	89,000 D
	8/6/2018	Smr1/4 58	23,600 D
	10/2/2018	59 D	43,200 D
	1/16/2019	96	77,200 D
	4/12/2019	75	52,900
	7/30/2019	42.6	16,600 D
	10/15/2019	62.8	18,500 D
	1/7/2020	56.1	32,500 D
	4/7/2020	VOA#1(4/15) 100	5,760 D
	4/7/2020	VOA#3(4/24) NA	50,700 H
	7/28/2020	53.3	18,400 D
	10/19/2020	33.1	8,090 D
	1/15/2021	45.9	54,200 D
	4/8/2021	57.6	20,200 D
	7/16/2021	68.4 D	32,500 D
	10/1/2021	Spclty 96.0 D	17,000 D
1/18/2022	ALS 69 D	37,000 D	
4/14/2022	ALS 27 D	8,600 D	
7/6/2022	65 D	27,000 D	
10/18/2022	27 D	5,700 D	
1/11/2023	< 25 U,D	9,900 D	
4/18/2023	62 D	43,000 D	
7/6/2023	20 D	9,800 D	
10/12/2023	9 D	3,600 D	
1/11/2024	62 D	40,000 D	
4/3/2024	23 D	9,000 D	
7/11/2024	24 D	5,900 D	
10/24/2024	< 13 U,D	9,000 D	
1/31/2025	54 D	39,000 D	
4/17/2025	< 50 U,D	39,000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)		
		Benzene	Toluene	
	Cleanup Level	1.2	2,000	
ISRW-3	7/25/2007	150 D	110,000 D	
	10/23/2007	110	82,000	
	1/17/2008	210 D	130,000 D	
	4/15/2008	150	100,000	
	7/28/2008	150	110,000	
	10/23/2008	< 500	140,000	
	1/30/2009	98	97,000	
	4/20/2009	13	14,000	
	10/21/2009	9.4	25,000 J	
	4/21/2010	17,000	980,000	
	10/19/2010	13	34,000	
	10/11/2011	20	47,000	
	4/19/2012	70	65,000	
	11/6/2012	25	45,000	
	4/9/2013	50	58,000	
	10/16/2013	16	22,000	
	4/14/2014	23	33,000	
	10/21/2014	< 600	47,000	
	4/20/2015	56 J	51,000	
	10/19/2015	-1	55 D	71,000 D
	4/11/2016	-1	120 D	150,000 D
	10/24/2016		290 D	200,000 D
	4/10/2017	<	50 U	74,000 D
	10/4/2017		140 D	100,000 D
	4/23/2018	all on	< 50 U	19,000 D
	4/26/2018	5-10off	< 100 U	67,000 D
	8/6/2018	Smr1/4	54	23,700 D
	10/2/2018		54 D	30,800 D
	1/16/2019		129	93,000 D
	4/12/2019		337	172,000
	7/30/2019		97.4	63,400 D
	10/15/2019		80.4	51,900 D
	1/7/2020		204 D	142,000 D
	4/7/2020	VOA#1(4/15)	117	17,200 D
	4/7/2020	VOA#3(4/24)	NA	81,400 H
	7/28/2020		157	44,300 D
	10/19/2020		92.4	56,400 D
	1/15/2021		206 D	204,000 D
	4/8/2021		92.5 D	61,400 D
	4/8/2021	Dup ISRW-13	106 D	72,500 D
	7/16/2021		243 D	133,000 D
	10/1/2021		58.0 D	17,800 D
	1/18/2022	(ALS)	150 D	100,000 D
	4/14/2022	ALS	120 D	73,000 D
	7/6/2022		<50 U,D	45,000 D
	10/18/2022		42 D	13,000 D
	1/11/2023		74 D	22,000 D
4/18/2023		< 130 D	90,000 D	
7/6/2023		110 D	77,000 D	
10/12/2023		59 D	25,000 D	
1/11/2024		< 100 U,D	48,000 D	
4/3/2024		53 D	34,000 D	
7/11/2024		< 50 U,D	28,000 D	
10/24/2024		< 50 U,D	22,000 D	
1/31/2025		< 100 U,D	47,000 D	
4/17/2025		< 100 U,D	62,000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
ISRW-4	7/25/2007	35 D	20,000 D
	10/23/2007	350	65,000
	1/17/2008	130 D	34,000 D
	4/15/2008	430	77,000
	7/28/2008	48	24,000
	10/23/2008	130	55,000
	1/30/2009	120	59,000
	4/20/2009	28	10,000
	10/21/2009	3.1	4,700
	4/21/2010	3.7	7,300
	10/19/2010	7.8	3,200
	10/11/2011	20	14,000
	4/19/2012	< 1.0	650
	11/6/2012	< 0.5	29
	4/9/2013	0.57	200
	10/16/2013	< 1.0	59
	4/14/2014	< 1.0	35
	10/21/2014	< 600	32,000
	4/20/2015	15	6,400
	10/19/2015	8.8 D	29,000 D
	4/11/2016	2.1	1,000 D
	10/24/2016	14	3,100 D
	4/10/2017	< 0.50 U	< 1.0 U
	10/4/2017	< 50 U	9,000 D
	4/23/2018	all on < 25 U	18,000 D
	4/26/2018	5-10off < 50 U	15,000 D
	8/6/2018	Smr1/4 6	526 D
	10/2/2018	34 D	6,280 D
	1/16/2019	167 D	34,600 D
	4/12/2019	140	27,800
	7/30/2019	62.2 D	1,440 D
	10/15/2019	41.2	261
	1/7/2020	94.5 D	10,000 D
	4/7/2020	VOA#1(4/15) 30.6	2,200 D
	4/7/2020	VOA#3(4/24) NA	5,640 H
	7/28/2020	6.03	1,250 D
	10/19/2020	96.9	25,100 D
	1/15/2021	0.918	40
	4/8/2021	6.76 D	296 D
	7/16/2021	25.8 D	6,080 D
10/1/2021	7.30	78.8	
1/18/2022	(ALS) 10 D	3,800 D	
4/14/2022	ALS 11 D	690 D	
7/6/2022	0.56	8.9	
10/18/2022	40 D	1,300 D	
1/11/2023	27 D	11,000 D	
4/18/2023	28 D	5,400 D	
7/6/2023	13 D	1,800 D	
10/12/2023	4	19	
1/11/2024	19 D	3,100 D	
4/3/2024	1.7	63	
7/11/2024	2.4	4.9	
10/24/2024	< 0.50 U	14	
1/31/2025	4.2 D	810 D	
4/17/2025	5.5 D	2000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
ISRW-5	7/25/2007	110 D	37,000 D
	10/23/2007	110	45,000
	1/17/2008	170 D	62,000 D
	4/15/2008	140	68,000
	7/28/2008	360	110,000
	10/23/2008	130	47,000
	1/30/2009	100	33,000
	4/22/2009	79	52,000
	10/21/2009	40	20,000
	4/21/2010	7.5	2,400
	10/19/2010	26	7,900
	10/11/2011	36	15,000
	4/19/2012	30	12,000
	11/6/2012	402	48,500
	4/9/2013	94	46,000
	10/16/2013	160	92,000
	4/14/2014	37	16,000
	10/21/2014	< 600	19,000
	4/20/2015	76 J	25,000
	10/19/2015	84 D	17,000 D
	4/11/2016	< 100	31,000 D
	10/24/2016	120 D	130,000 D
	4/10/2017	50 D	46,000 D
	10/4/2017	80 D	53,000 D
	4/23/2018	190 D	110,000 D
	8/6/2018 Smr1/4	88	59,700 D
	10/2/2018	72 D	106,000 D
	1/16/2019	79	60,300 D
	4/12/2019	106	90,200
	7/30/2019	72.5	56,000 D
	10/15/2019	20.9	15,900 D
	1/7/2020	58.6	71,900 D
	4/7/2020 VOA#1(4/15)	42.2	11,000 D
	4/7/2020 VOA#3(4/24)	NA	93,800 H
	5/12/20 VOA#1	66.9	74,700 D
	5/12/20 VOA #3	68.4	74,300 D
	7/28/2020	110	45,400 D
	10/19/2020	47.2	28,900 D
	1/15/2021	256 D	158,000 D
	4/8/2021	25.4 D	46,400 D
	7/16/21 ALS 8260	31	38,000
	7/16/21 Spclty 8021	27.6 D	36,300 D
	10/1/2021 Spclty 8260	<30.0 D	21,300 D
	1/18/2022 ALS	<100 U,D	78,000 D
	4/14/2022 ALS	<100 U,D	34,000 D
	7/6/2022	110 D	92,000 D
	10/18/2022	10 D	900 D
1/11/2023	< 50 U,D	62,000 D	
4/18/2023	< 100 U,D	44,000 D	
7/6/2023	51 D	56,000 D	
10/12/2023	14 D	14,000 D	
1/11/2024	< 25 U,D	24,000 D	
4/3/2024	< 50 U,D	34,000 D	
7/11/2024	< 50 U,D	24,000 D	
10/24/2024	22 D	11,000 D	
1/31/2025	34 D	14,000 D	
4/17/2025	< 50 U,D	24,000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
ISRW-6	7/25/2007	150 D	59,000 D
	10/23/2007	120	47,000
	1/17/2008	150 D	58,000 D
	4/15/2008	190	69,000
	7/28/2008	140	53,000
	10/23/2008	< 200	62,000
	1/30/2009	140	61,000
	4/20/2009	15	16,000
	10/21/2009	1.4	270
	4/21/2010	56	22,000
	10/19/2010	49	42,000
	10/11/2011	4.3	1,000
	4/19/2012	18	14,000
	11/7/2012	2.0	1,420
	4/9/2013	8.6	6,900
	10/16/2013	1.1	1,200
	4/14/2014	6.1	8,100
	10/21/2014	1.3 J	890
	4/20/2015	0.73 J	790
	10/19/2015	1.7	270 D
	4/11/2016	3.7 D	2,300 D
	10/24/2016	140 D	57,000 D
	4/12/2017	< 0.50 U	< 1.0 U
	10/4/2017	< 50 U	10,000 D
	4/23/2018	1.8	1,400 D
	5/16/2018	HiRvr 1.1	1,400 D
	8/6/2018	Smr1/4 0.6	377 D
	10/2/2018	2.7	2,220 D
	1/16/2019	34 D	10,100 D
	4/12/2019	32.6	5,940
	7/30/2019	45.4	2,470 D
	10/15/2019	33.2	1,860 D
	1/7/2020	7.90 D	341 D
	4/7/2020	VOA#1(4/15) 1.35	120 D
	4/7/2020	VOA#3(4/24) NA	630 H
	7/28/2020	0.750	1,340 D
	10/19/2020	0.710	365 D
	1/15/2021	< 3.00 D	3,120 D
	4/8/2021	3.94 D	2,990 D
	7/16/2021	57.5 D	16,900 D
	10/1/2021	54.0 D	7,520 D
	1/18/2022	46 D	18,000 D
	4/14/2022	140 D	31,000 D
	7/6/2022	51 D	19,000 D
	10/18/2022	35 D	1,400 D
	1/11/2023	14 D	1,600 D
	4/18/2023	30 D	4,700 D
7/6/2023	11 D	920 D	
10/12/2023	12	480 D	
1/11/2024	17 D	1,900 D	
4/3/2024	51 D	6,800 D	
7/11/2024	33 D	1,900 D	
10/24/2024	3.7	160 D	
1/31/2025	12 D	1,400 D	
4/17/2025	11 D	910 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)		
		Benzene	Toluene	
	Cleanup Level	1.2	2,000	
ISRW-7	7/25/2007	1,100	24,000 D	
	10/23/2007	350	9,400	
	1/17/2008	540 D	19,000 D	
	4/15/2008	200	11,000	
	7/28/2008	520	32,000	
	10/23/2008	280	14,000	
	1/30/2009	120	9,100	
	4/20/2009	83	5,900	
	10/21/2009	3,400	45,000	
	4/21/2010	2,700	30,000	
	10/19/2010	17,000	18,000	
	10/11/2011	4,000	27,000	
	4/19/2012	1,100	18,000	
	11/6/2012	1,220	18,700	
	4/9/2013	180	9,900	
	10/16/2013	380	6,600	
	4/14/2014	900	14,000	
	10/21/2014	530	1,800	
	4/20/2015	12	2,100	
	10/19/2015	170 D	1,700 D	
	4/11/2016	54 D	4,300 D	
	10/24/2016	92 D	1,600 D	
	4/10/2017	190 D	10,000 D	
	10/4/2017	180 D	2,800 D	
	4/23/2018	72 D	330 D	
	5/16/2018	HiRvr	270 D	1,700 D
	8/6/2018	Smr1/4	8	46
	10/2/2018		1.1	< 1.0
	1/16/2019		0.6	< 1.00
	4/12/2019		< 0.300	< 1.00
	7/30/2019		0.500	3.24
	10/15/2019		< 0.300	19.7
	1/7/2020		7.27	730 D
	4/7/2020	VOA#1(4/15)	4.51	124 D
	4/7/2020	VOA#3(4/24)	NA	372 H
	7/28/2020		0.32	123 D
	10/19/2020		< 0.300	28.7
	1/15/2021		< 0.300	0.515
	4/8/2021		< 0.300	< 0.500
	7/16/2021		< 0.300	1.31
	10/1/2021		< 0.300	< 1.00
	1/18/2022	ALS	< 0.50	0.66
	4/14/2022	ALS	< 0.50	< 0.50
	7/6/2022		< 0.50	0.90
	10/18/2022		< 0.50 U	< 0.50 U
	1/11/2023		< 0.50 U	< 0.50 U
	4/18/2023		< 0.50 U	< 0.50 U
7/6/2023		< 0.50 U	< 0.50 U	
10/12/2023		< 0.50 U	< 0.50 U	
1/11/2024		< 0.50 U	< 0.50 U	
4/3/2024		< 0.50 U	< 0.50 U	
7/11/2024		< 0.50 U	< 0.50 U	
10/24/2024		< 0.50 U	< 0.50 U	
1/31/2025		< 0.50 U	< 0.50 U	
4/17/2025		< 0.50 U	< 0.50 U	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
ISRW-8	4/20/2009	90	66,000
	10/21/2009	45	50,000
	4/21/2010	71	57,000
	10/19/2010	31	72,000
	10/11/2011	52	54,000
	4/19/2012	53	40,000
	11/6/2012	69	51,200
	4/9/2013	58	33,000
	10/16/2013	64	39,000
	4/14/2014	61	40,000
	10/21/2014	< 600	36,000
	4/20/2015	84 J	51,000
	10/19/2015	-1 58 D	39,000 D
	4/11/2016	-1 < 100	79,000 D
	10/24/2016	140 D	74,000 D
	4/10/2017	17 D	20,000 D
	10/4/2017	140 D	84,000 D
	4/23/2018	< 100 U	44,000 D
	4/26/2018	5-10off < 100 U	69,000 D
	8/6/2018	Smr1/4 127	49,500 D
	10/2/2018	170	61,800 D
	1/16/2019	148	67,400 D
	4/12/2019	164	107,000
	7/30/2019	102	49,100 D
	10/15/2019	130	34,800
	1/7/2020	107	69,700 D
	4/7/2020	VOA#1(4/15) 115	7,240 D
	4/7/2020	VOA#3(4/24) NA	62,700 H
	7/28/2020	111	33,200 D
	10/19/2020	115	31,700 D
	1/15/2021	81.6	43,400 D
	4/8/2021	64.0 D	45,800 D
	7/16/2021	ALS 8260 70	52,000
	7/16/21	Spclty 8021 71.8 D	44,000 D
	10/1/2021	60.0 D	17,000 D
	1/18/2022	ALS 77 D	45,000 D
	4/14/2022	ALS 56 D	39,000 D
	7/6/2022	68 D	42,000 D
	10/18/2022	25 D	850 D
	1/11/2023	90 D	68,000 D
4/18/2023	76 D	57,000 D	
7/6/2023	43 D	24,000 D	
10/12/2023	< 25 U,D	8,100 D	
1/11/2024	71 D	37,000 D	
4/3/2024	30 D	15,000 D	
7/11/2024	22 D	8,900 D	
10/24/2024	< 50 U,D	15,000 D	
1/31/2025	< 50 U,D	23,000 D	
4/17/2025	< 50 U,D	19,000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
ISRW-9	4/20/2009	120	62,000
	10/21/2009	71	36,000
	4/21/2010	81	42,000
	10/19/2010	71	55,000
	10/11/2011	4.1	920
	4/19/2012	22	16,000
	11/6/2012	40	20,100
	4/9/2013	47	35,000
	10/16/2013	83	73,000
	4/14/2014	39	35,000
	10/21/2014	< 600	30,000
	4/20/2015	79 J	64,000
	10/19/2015	55 D	44,000 D
	4/11/2016	< 100	53,000 D
	10/24/2016	77 D	95,000 D
	4/10/2017	19 D	19,000 D
	10/4/2017	< 50 U	22,000 D
	4/23/2018	< 100 U	83,000 D
	5/16/2018	HiRvr < 200 U	59,000 D
	8/6/2018	Smr1/4 27	11,500 D
	10/2/2018	36	12,600 D
	1/16/2019	28	25,300 D
	4/12/2019	81.3	77,900
	7/30/2019	20.3	8,570 D
	10/15/2019	58.5	45,800 D
	1/7/2020	64.4	71,700 D
	4/7/2020	VOA#1(4/15) 45.7	3,440 D
	4/7/2020	VOA#3(4/24) NA	33,300 H
	7/28/2020	31.2	18,600 D
	10/19/2020	26.3	14,200 D
	1/15/2021	42.0	48,800 D
	4/8/2021	60.8 D	40,900 D
	7/16/2021	9.98 D	7,430 D
	10/1/2021	Spclty < 15.0 D	4,360 D
	1/18/2022	ALS < 25 U,D	17,000 D
	4/14/2022	ALS 36 D	8,700 D
	7/6/2022	26 D	23,000 D
	10/18/2022	18 D	1000 D
	1/11/2023	< 25 U,D	25,000 D
	4/18/2023	33 D	25,000 D
7/6/2023	29 D	12,000 D	
10/12/2023	22 D	5,000 D	
1/11/2024	< 25 U,D	16,000 D	
4/3/2024	63 D	36,000 D	
7/11/2024	11 D	4,300 D	
10/24/2024	< 50 U,D	23,000 D	
1/31/2025	< 50 U,D	43,000 D	
4/17/2025	< 100 U,D	44,000 D	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)		
		Benzene	Toluene	
	Cleanup Level	1.2	2,000	
ISRW-10	4/20/2009	180	38,000	
	10/21/2009	3.8	1,400	
	4/21/2010	2	380	
	10/19/2010	< 1.0	63	
	10/11/2011	16	1,100	
	4/19/2012	85	15,000	
	11/6/2012	< 1.0	2.5	
	4/9/2013	34	3,300	
	10/16/2013	96	8,300	
	4/14/2014	< 1.0	7.7	
	10/21/2014	3.9	140	
	4/20/2015	< 0.42	13	
	10/19/2015	-1	52 D	3,800 D
	4/11/2016	-1	49 D	4,700 D
	10/24/2016		190 D	29,000 D
	4/10/2017		29	4,300 D
	10/4/2017		110 D	43,000 D
	4/23/2018		220 D	30,000 D
	8/6/2018		36	2,900 D
	10/2/2018		151	18,800 D
	1/16/2019		204 D	78,300 D
	4/12/2019		385	113,000
	7/30/2019		160 D	43,900 D
	10/15/2019		82.9	22,600 D
	1/7/2020		243 D	80,200 D
	4/7/2020 VOA#1(4/15)		72.5	4,300 D
	4/7/2020 VOA#3(4/24)		NA	29,300 H
	7/28/2020		319	34,900 D
	10/19/2020		135 D	328,000 D
	1/15/2021		145	50,200 D
	4/8/2021		53.8 D	20,600 D
	7/16/2021 ALS 8260		150	74,000
	7/16/2021 Spclty 8021		148 D	61,600 D
	10/1/2021		127 D	35,900 D
	1/18/2022 ALS		110 D	47,000 D
	4/14/2022 ALS		63 D	45,000 D
	7/6/2022		81 D	33,000 D
	10/18/2022		35 D	860 D
	1/11/2023		59 D	35,000 D
	4/18/2023		45 D	32,000 D
	7/6/2023		55 D	30,000 D
	10/12/2023		26 D	17,000 D
	1/11/2024		22 D	12,000 D
	4/3/2024		36 D	24,000 D
	7/11/2024		< 50 D	29,000 D
	10/24/2024		< 13 U,D	3,300 D
	1/31/2025		< 25 U,D	8,200 D
4/17/2025		< 100 U,D	29,000 D	
KC-14	10/24/2007	2.9	940	
	4/16/2008	< 1.0	180	
	10/27/2008	3.1	1,100	
	4/22/2009	< 1.0	99	
	10/20/2009	1.3	1,300	
	4/23/2010	0.92	690	
	10/19/2010	14	270,000	
	10/10/2011	< 1.0	420	
	4/18/2012	1.4 J	140 J	
	11/7/2012	< 1.0	< 1.0	
	4/10/2013	< 0.5	200	
	10/17/2013	4.2	88	
	4/16/2014	< 1.0	30	
	10/22/2014	< 0.060	< 0.11	
	4/22/2015	< 0.42	< 0.44	
	4/22/2015 Dup	< 0.42	< 0.44	
	10/20/2015	< 1.0	66 D	
	4/12/2016	< 1.0	20	
	10/24/2016	< 1.0	1.9	
	4/12/2017	2.5	160 D	
	10/4/2017	< 0.50	< 1.0	
	4/25/2018	< 1.0	20	
	10/1/2018	NS	NS	
	4/15/2019	0.420	7.15	
	10/15/2019	< 0.300	1.14	
	4/9/2020	< 0.300	9.52	
	10/21/2020	< 0.300	< 1.00	
	4/13/2021	< 0.300	< 1.00	
	10/6/2021	< 0.300	< 1.00	
	4/19/2022	2.8	15	
	10/18/2022	< 0.50 U	< 0.50 U	
	4/18/2023	< 0.50 U	< 0.50 U	
	10/12/2023	< 0.50 U	< 0.50 U	
	4/3/2024	< 0.50 U	< 0.50 U	
	10/17/2024	< 0.50 U	< 0.50 U	
	5/1/2025	< 0.50 U	< 0.50 U	

Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
MW-239	10/24/2007	660	120,000
	4/16/2008	1200	190,000
	10/27/2008	580	100,000
	4/22/2009	< 1.0	< 1.0
	10/20/2009	< 1.0	1.4
	4/23/2010	9.3	3,500
	10/19/2010	7.7	260
	10/11/2011	310	55,000
	4/18/2012	< 1.0	< 1.0
	11/7/2012	413	35,300
	4/10/2013	71	390
	10/17/2013	180	15,000
	4/16/2014	< 1.0	< 1.0
	10/23/2014	5.2	0.62
	4/23/2015	80 J	8,400
	10/20/2015	280 D	8,200 D
	10/20/2015 Dup	290 D	8,500 D
	4/12/2016	90 D	810 D
	4/12/2016 Dup	87 D	1,000 D
	10/24/2016	340 D	43,000 D
	10/24/2016 Dup	360 D	43,000 D
	4/11/2017	< 0.50 U	< 1.0 U
	4/11/2017 Dup MV	< 0.50 U	< 1.0 U
	10/3/2017	580 D	140,000 D
	4/25/2018	130 D	3,100 D
	4/25/2018 Dup MW9	140 D	3,200 D
	10/3/2018	320 D	32,700 D
	10/3/2018 Dup 97	370 D	40,200 D
	4/15/2019	454 D	39,700 D
	4/15/2019 Dup 97	450 D	39,100 D
	10/15/2019	178	15,700 D
	10/15/2019 Dup 97	175	15,400 D
	4/9/2020	160	11,200 D
	4/9/2020 Dup 97	< 0.300	24.4
	10/21/2020	341 D	17,300 D
	10/21/2020 Dup 97	407 D	17,600 D
	4/13/2021	426 D	32,300 D
	10/6/2021	< 60.0 DQ	1,470 D
	10/6/2021 Dup97	54.0 D	1,900 D
	4/19/2022	91 D	2,200 D
4/19/2022 Dup97	87 D	2,100 D	
10/18/2022	22 D	2,000 D	
10/18/2022 Dup97	23 D	1,900 D	
4/18/2023	5.7	82 D	
4/18/2023 Dup97	5.3	59	
10/12/2023	9.3	9	
10/12/2023 Dup97	5.7	5	
4/3/2024	10	330 D	
4/3/2024 Dup97	8.0	230 D	
10/17/2024	4.5	30	
10/17/2024 Dup97	4.5	32	
5/1/2025	< 0.50 U	5.5	
5/1/2025 Dup97	< 0.50 U	1.7	
MW-243	10/24/2007	< 1.0	< 1.0
	4/17/2008	< 1.0	< 1.0
	10/27/2008	< 1.0	< 1.0
	4/22/2009	< 1.0	< 1.0
	10/20/2009	< 1.0	< 1.0
	4/22/2010	< 1.0	< 1.0
	10/19/2010	< 1.0	< 1.0
	10/11/2011	< 1.0	< 1.0
	4/18/2012	< 1.0	< 1.0
	11/7/2012	< 1.0	< 1.0
	4/10/2013	< 1.0	< 1.0
	10/17/2013	< 1.0	< 1.0
	4/15/2014	< 1.0	< 1.0
	10/22/2014	< 0.06	< 0.11
	4/21/2015	< 0.42	< 0.44
	10/20/2015	< 1.0	< 1.0
	4/13/2016	< 1.0	< 1.0
	10/24/2016	< 1.0	< 1.0
	4/12/2017	< 0.50	< 1.0
	10/4/2017	< 0.50	< 1.0
	4/24/2018	< 1.0	< 1.0
	10/1/2018	< 0.30	< 1.0
	4/15/2019	< 0.30	< 1.00
	10/15/2019	< 0.300	< 1.00
	4/9/2020	< 0.300	< 1.00
	10/21/2020	< 0.300	< 1.00
	4/13/2021	< 0.300	7.98
	10/6/2021	< 0.300 U	< 1.00 U
	4/19/2022	< 0.50 U	< 0.50 U
	10/18/2022	< 0.50 U	< 0.50 U
4/18/2023	< 0.50 U	< 0.50 U	
10/12/2023	< 0.50 U	< 0.50 U	
4/3/2024	< 0.50 U	< 0.50 U	
10/17/2024	< 0.50 U	< 0.50 U	
5/1/2025	< 0.50 U	< 0.50 U	

**Table 4-2
WIA Intermediate Sand Aquifer Analytical Data
(10/2007 - 4/2025)**

Well	Date	VOCs (µg/L) (EPA Method 8021B/8260)	
		Benzene	Toluene
	Cleanup Level	1.2	2,000
MW-249	10/24/2007	< 1.0	< 1.0
	4/16/2008	< 1.0	< 1.0
	10/27/2008	< 1.0	< 1.0
	4/22/2009	< 1.0	< 1.0
	10/20/2009	< 1.0	< 1.0
	4/23/2010	< 1.0	< 1.0
	10/20/2010	< 1.0	< 1.0
	10/10/2011	< 1.0	< 1.0
	4/18/2012	< 1.0	< 1.0
	11/7/2012	< 1.0	< 1.0
	4/10/2013	< 1.0	< 1.0
	10/17/2013	< 1.0	< 1.0
	4/15/2014	< 1.0	< 1.0
	10/22/2014	< 0.060	< 1.0
	4/23/2015	< 0.42	< 1.0
	10/20/2015	< 1.0	< 1.0
	4/12/2016	< 1.0	< 1.0
MW-249 Monitoring Ceased Per 112916 Ecy Ltr.			
MW-250	10/25/2007	< 1.0	< 1.0
	4/17/2008	< 1.0	< 1.0
	4/17/2008 Dup	< 1.0	< 1.0
	10/27/2008	< 1.0	3
	10/27/2008 Dup	< 1.0	3
	4/23/2009	< 1.0	< 1.0
	4/23/2009 Dup	< 1.0	< 1.0
	10/20/2009 Dup	< 1.0	< 1.0
	10/20/2009	< 1.0	< 1.0
	4/23/2010 Dup	< 1.0	< 1.0
	4/23/2010	< 1.0	< 1.0
	10/19/2010	< 1.0	< 1.0
	10/11/2011	< 1.0	< 1.0
	10/11/2011 Dup	< 1.0	< 1.0
	4/18/2012	< 1.0	< 1.0
	11/7/2012	< 1.0	< 1.0
	4/10/2013	< 1.0	< 1.0
	4/10/2013 Dup	< 1.0	< 1.0
	10/17/2013	< 1.0	< 1.0
	10/17/2013 Dup	< 1.0	< 1.0
	4/15/2014	< 1.0	< 1.0
	4/15/2014 Dup	< 1.0	< 1.0
	10/22/2014	< 0.060	< 0.1
	10/22/2014 Dup	< 0.060	< 0.1
	4/23/2015	< 0.42	< 0.4
	4/23/2015 Dup	< 0.42	< 0.4
	10/20/2015	< 1.0	< 1.0
	4/12/2016	< 73 D	< 1.0
	10/24/2016	< 1.0	< 1.0
	4/12/2017	< 0.50	< 1.0
	10/4/2017	< 0.50	< 1.0
	4/25/2018	< 1.0	< 1.0
	10/3/2018	< 0.30	13.8
4/15/2019	< 0.30	3.47	
10/16/2019	< 0.30	< 1.0	
4/9/2020	< 0.300	13.8	
10/21/2020	< 0.300	< 1.00	
4/13/2021	< 0.300	< 1.00	
10/6/2021	< 0.300	< 1.00	
4/19/2022	< 0.50	< 0.50	
10/18/2022	< 0.50 U	< 0.50 U	
4/18/2023	< 0.50 U	< 0.50 U	
10/12/2023	< 0.50 U	< 0.50 U	
4/3/2024	< 0.50 U	< 0.50 U	
10/17/2024	< 0.50 U	< 0.50 U	
5/1/2025	< 0.50 U	< 0.50 U	

Notes:

(1) - ISRW pump wells sampled by peristaltic pump October 2015 & April 2

< - Result is non-detected above the laboratory reporting limit.

< - **Detection limit above cleanup level.**

Bold indicates detection.

Dup - Field Duplicate Sample.

D - Laboratory analytical dilution

J - Estimated concentration.

Bold and shaded:

Detection above cleanup level/Benzene Non-Detects at elevated MRL with elevated Toluene detect assumed

EPA = U.S. Environmental Protection Agency; µg/L micrograms per liter;

VOC = volatile organic compound; WIA = West Impacted Area

**Table 4-3
WIA ISRW Groundwater Extraction Pump Volume Data (2024 - 2025)**

Date	Groundwater Extracted (gallons)										Total
	ISRW-1	ISRW-2	ISRW-3	ISRW-4	ISRW-5	ISRW-6	ISRW-7	ISRW-8	ISRW-9	ISRW-10	
April 2025	15,833	10,904	8,568	1,889	10,945	5,741		15,299	11,836	6,785	87,800
March 2025	15,276	9,347	8,852	1,562	9,526	4,529		13,392	10,544	5,646	78,674
February 2025	9,446	5,060	5,716	1,170	5,323	2,669		8,767	6,256	4,749	49,156
January 2025	19,286	8,500	8,844	1,850	9,807	5,311		14,973	12,064	7,541	88,176
December 2024	12,246	6,213	6,464	1,380	6,776	3,572		11,059	9,400	6,059	63,169
November 2024	11,066	6,477	6,856	1,310	6,524	2,878		11,351	9,170	6,581	62,213
October 2024	6,530	3,150	2,740	740	4,030	1,239		5,990	3,590	3,380	31,389
September 2024	2,835	3,426	913	468	2,770	674		3,052	953	1,987	17,078
August 2024	6,135	4,404	3,817	762	3,770	1,330		5,718	1,827	3,433	31,196
July 2024	4,900	4,130	3,260	720	3,530	1,100		5,190	1,730	2,900	27,460
June 2024	9,900	5,970	5,040	1,010	5,330	1,900		7,430	2,630	4,790	44,000
May 2024	10,800	6,630	6,850	1,380	7,380	2,300	-	9,490	3,410	7,750	55,990
TOTALS	124,253	74,211	67,920	14,241	75,711	33,243	0	111,711	73,410	61,601	636,301

**Table 4-4
WIA ISRW Discharge Analytical/Mass Removal Data (2024 - 2025)**

Well	May 2024 - October 2024					November 2024 - April 2025					May 2024 - April 2025	
	Groundwater Extracted (gallons)	Avg Benz (Apr, Jul, Oct) (ug/L)	Benz Remvd (lb)	Avg Toluene (Apr, Jul, Oct) (ug/L)	Toluene Remvd (lb)	Groundwater Extracted (gallons)	Avg Benz (Oct, Jan, Apr) (ug/L)	Benz Remvd (lb)	Avg Toluene (Oct, Jan, Apr) (ug/L)	Toluene Remvd (lb)	Benz Remvd (lb)	Toluene Remvd (lb)
ISRW-1	41,100	17	0.01	9,333	3.2	83,153	25	0.01	12,400	4.2	0.01	7
ISRW-2B	27,710	18	0.00	7,967	1.8	46,501	29	0.01	29,000	6.7	0.01	9
ISRW-3	22,620	34	0.01	28,000	5.3	45,300	42	0.01	43,667	8.2	0.01	14
ISRW-4	5,080	1	0.00	27	0.0	9,161	3	0.00	941	0.0	0.00	0
ISRW-5	26,810	24	0.01	23,000	5.1	48,901	27	0.01	16,333	3.7	0.01	9
ISRW-6	8,543	29	0.00	2,953	0.2	24,700	9	0.00	823	0.1	0.00	0
ISRW-7	0	0.0	0.00	0	0.0	0	0	0.00	0	0.0	0.00	0
ISRW-8	36,870	26	0.01	12,967	4.0	74,841	25	0.01	19,000	5.8	0.02	10
ISRW-9	14,140	33	0.00	21,100	2.5	59,270	33	0.00	36,667	4.3	0.01	7
ISRW-10	24,240	23	0.00	18,767	3.8	37,361	23	0.00	13,500	2.7	0.01	7
Total	207,113		0.04		26	429,188		0.0		36	0.09	62

Notes:

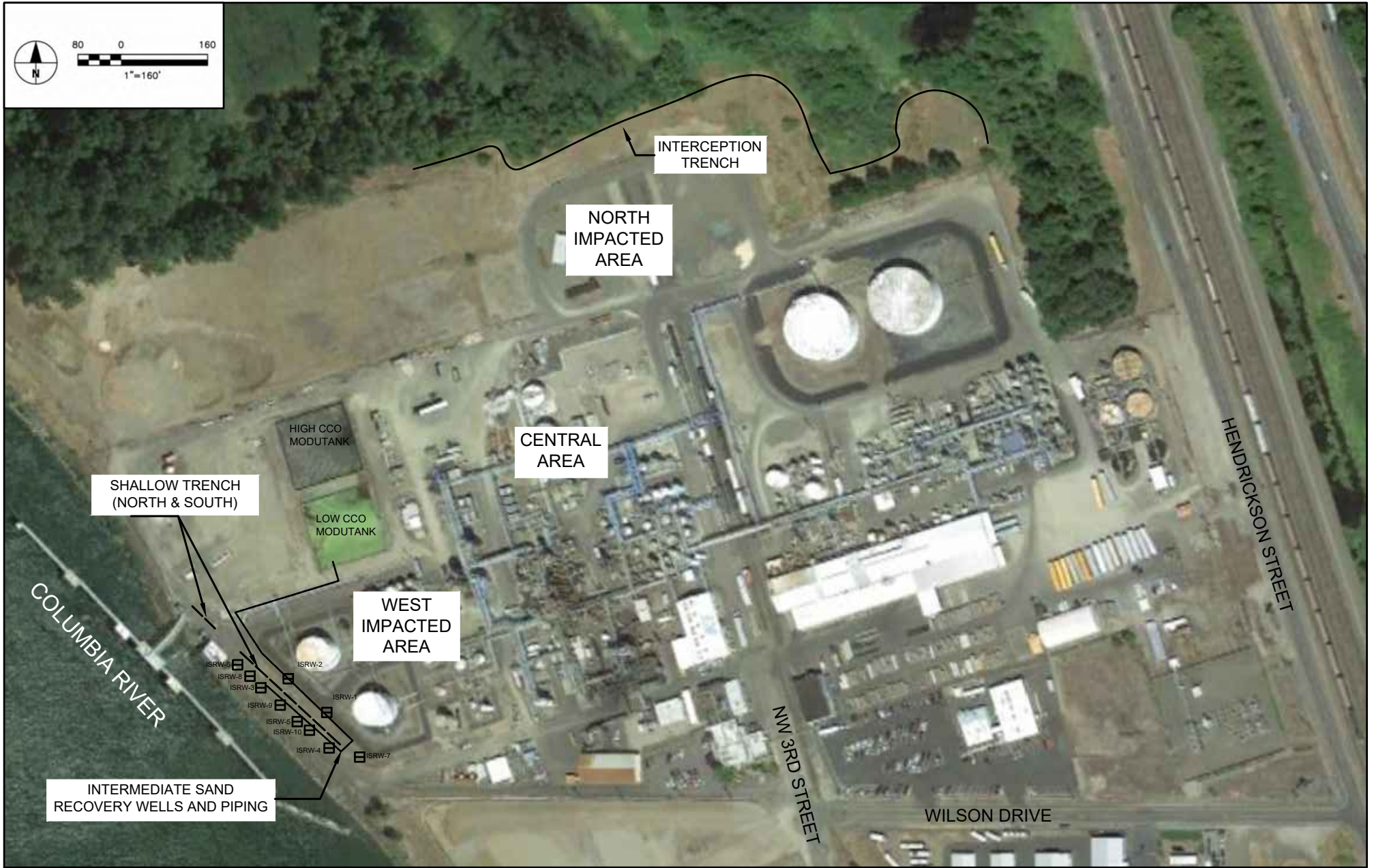
Averages include duplicate samples.

Average concentration values are rounded.

ISRW = intermediate sand recovery well; lb = pounds; ug/L = micrograms per liter

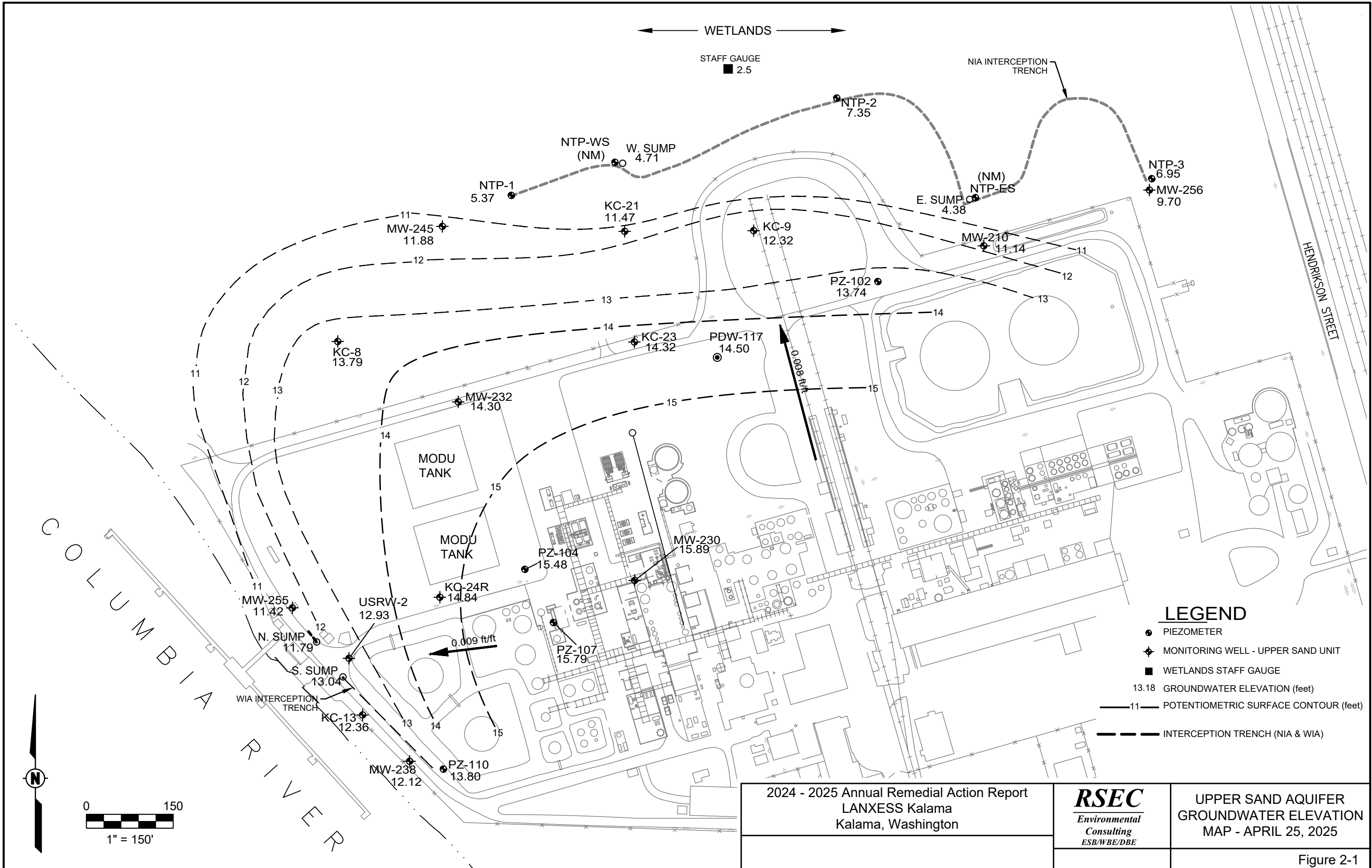
Benzene concentration assumed 50% of detection level / MRL for diluted samples (marked D) where toluene concentration > CUL (i.e., ISRW-1, Table 4-2)

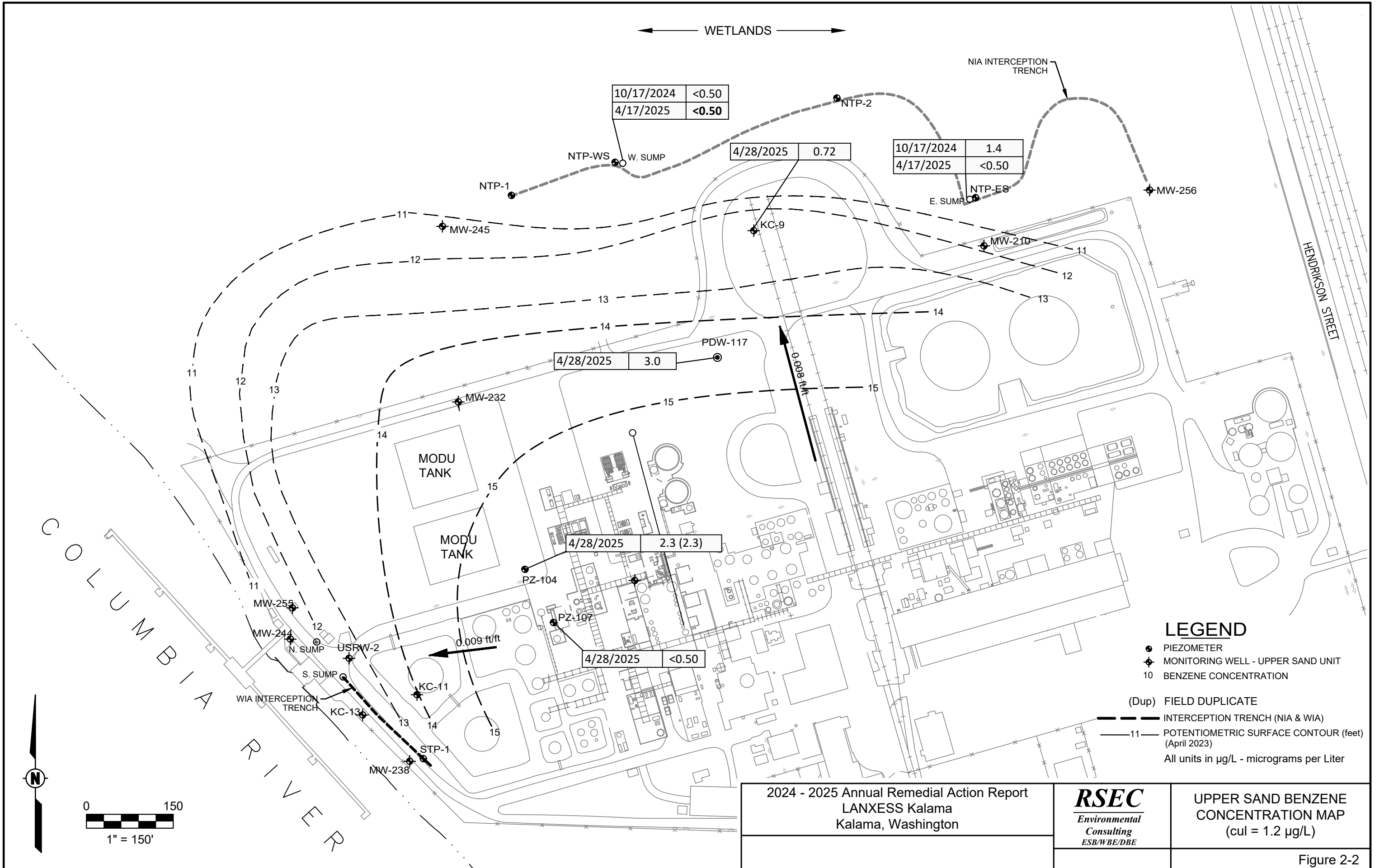
Figures

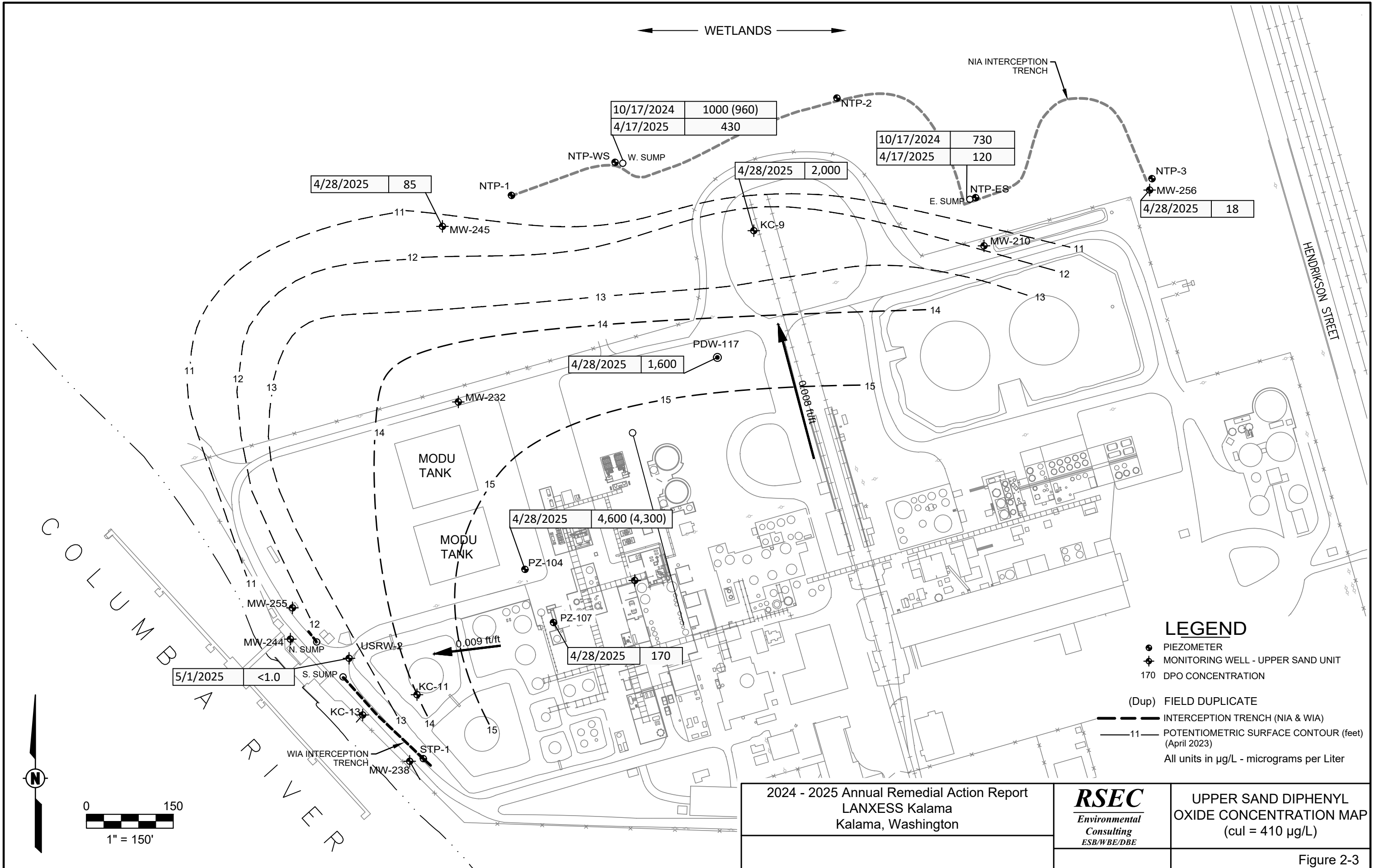


Site Layout

Figure 1-1







10/17/2024	1000 (960)
4/17/2025	430

10/17/2024	730
4/17/2025	120

4/28/2025	85
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4/28/2025	2,000
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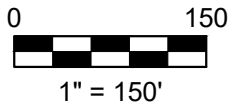
4/28/2025	18
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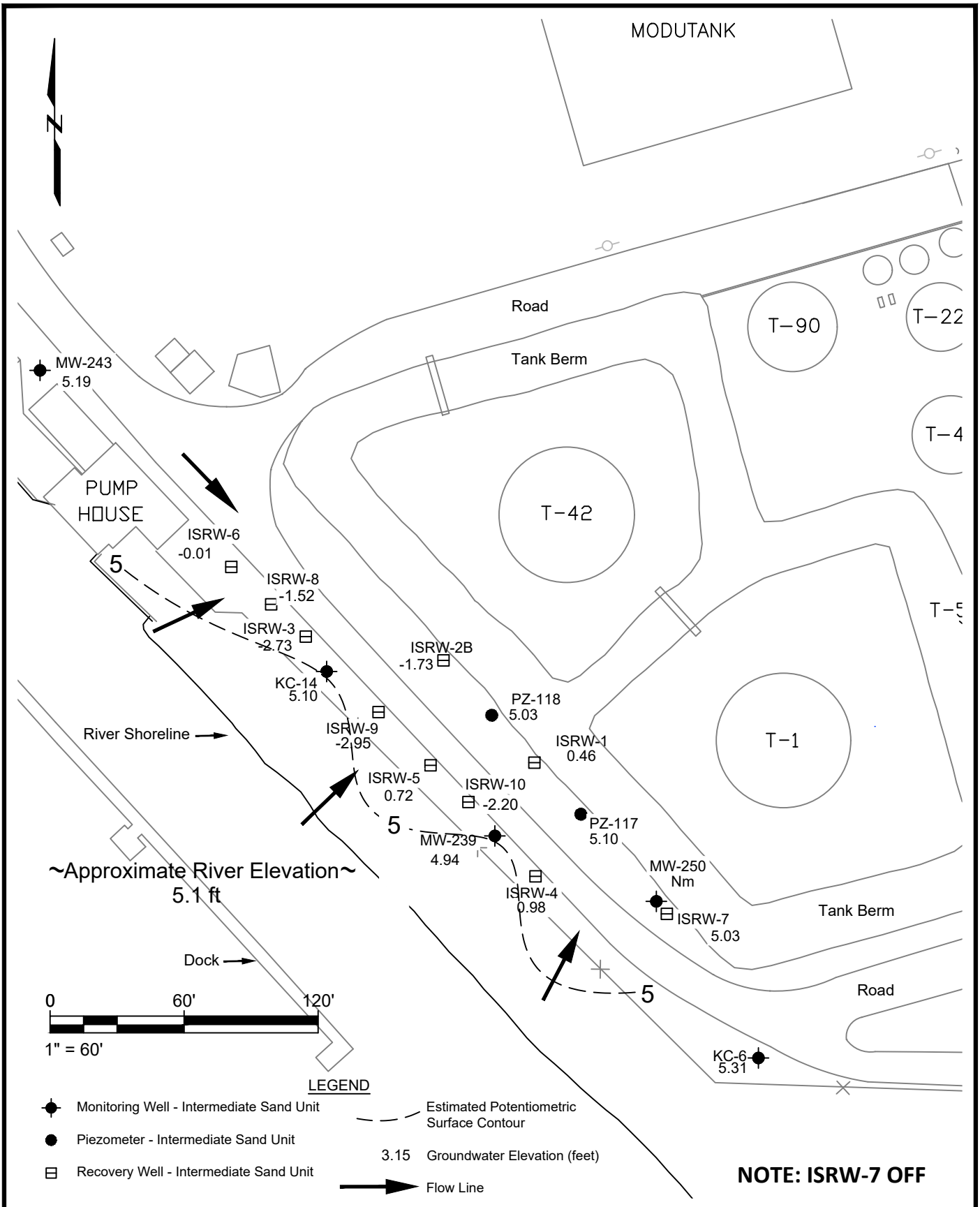
4/28/2025	1,600
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4/28/2025	4,600 (4,300)
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4/28/2025	170
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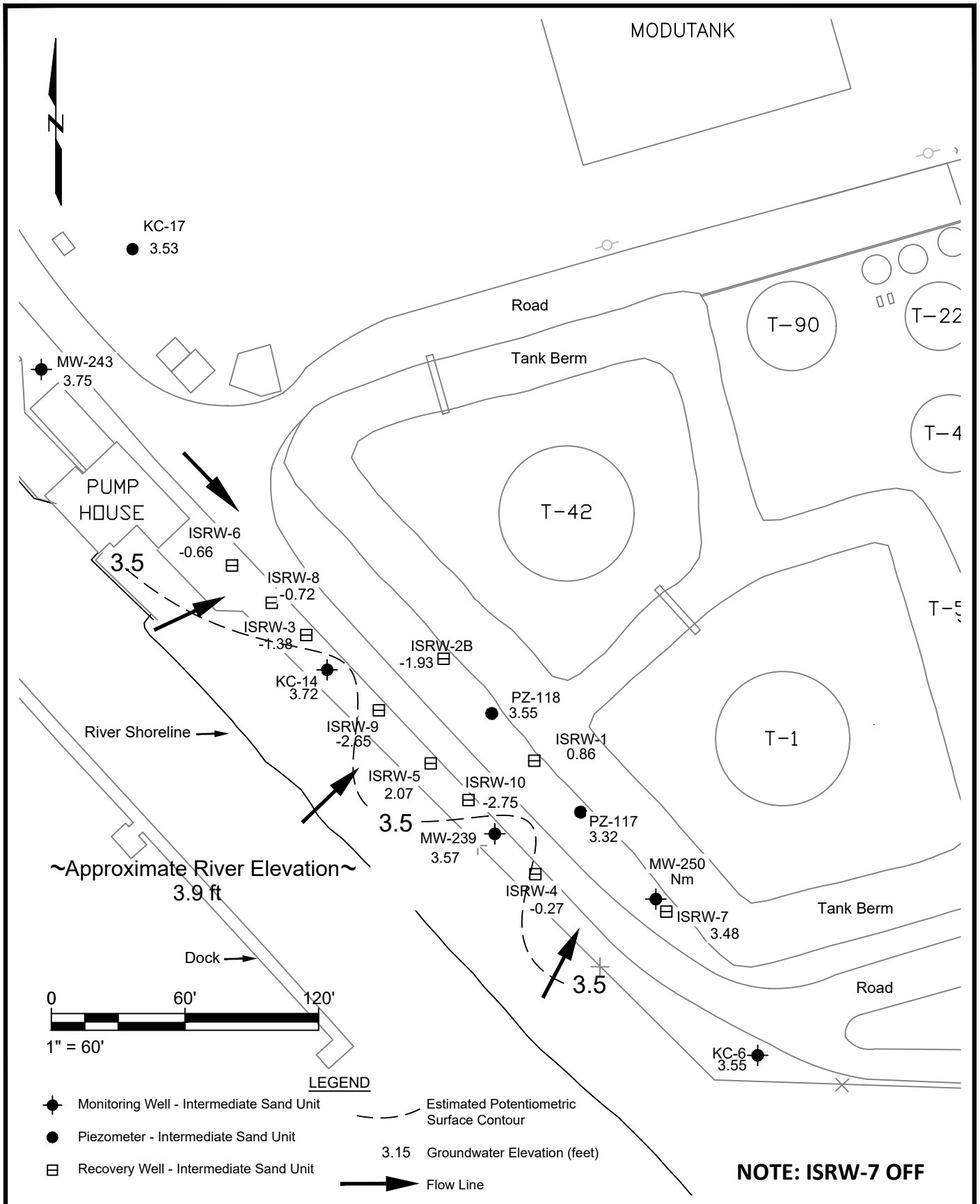
5/1/2025	<1.0
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NOTE: ISRW-7 OFF

<p>2024 - 2025 Annual Remedial Action Report LANXESS Kalama Kalama, Washington</p>	<p>RSEC Environmental Consulting ESB/WBE/DBE</p>	<p>WIA Intermediate Sand Aquifer Potentiometric Surface Map July 11, 2024</p>
		<p>Figure 4-1</p>



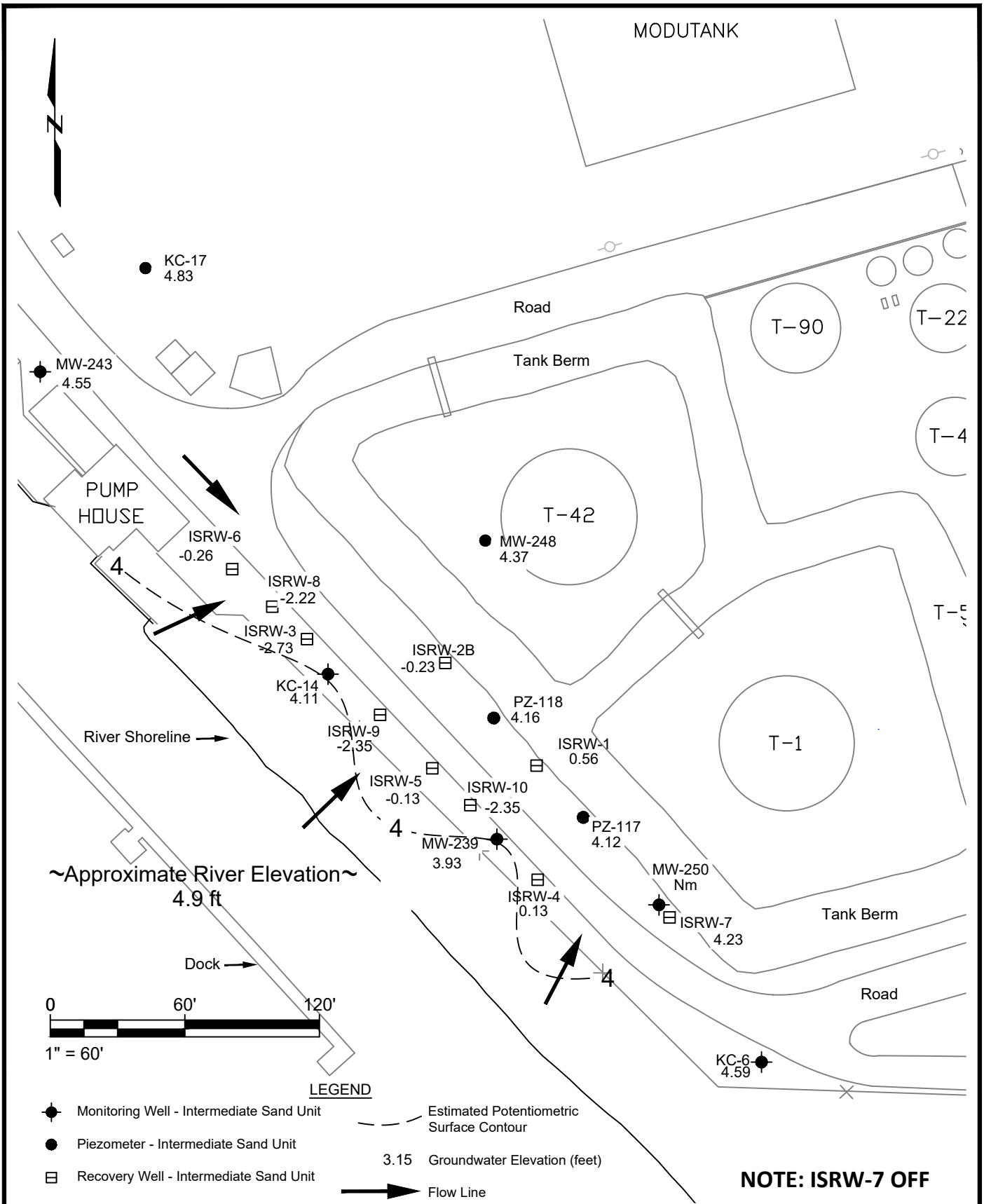
NOTE: ISRW-7 OFF

2024 - 2025 Annual Remedial Action Report
 LANXESS Kalama
 Kalama, Washington

RSEC
 Environmental
 Consulting
 ESB/WBE/DBE

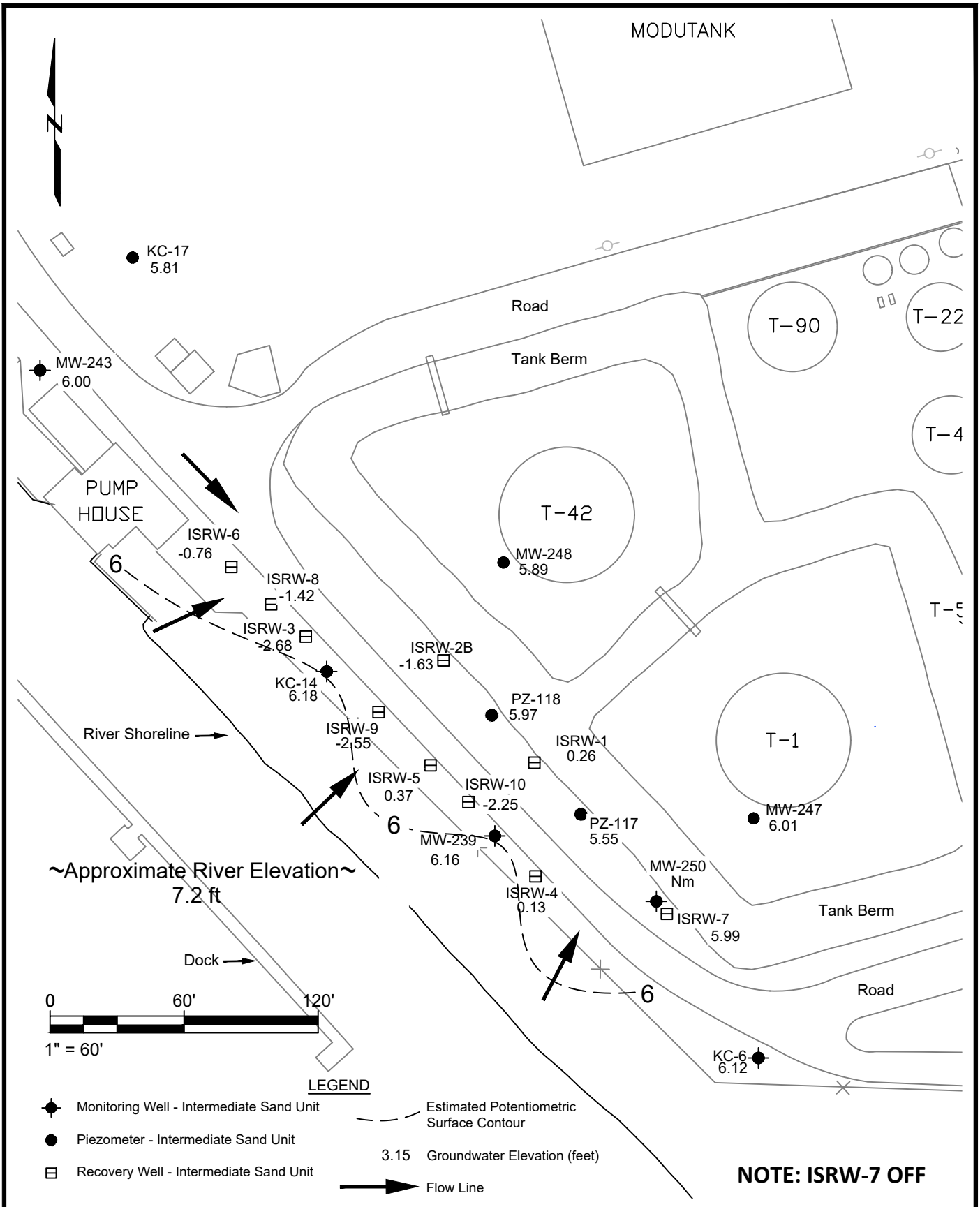
WIA Intermediate Sand Aquifer
 Potentiometric Surface Map
 October 24, 2024

Figure 4-2



NOTE: ISRW-7 OFF

<p>2024 - 2025 Annual Remedial Action Report LANXESS Kalama Kalama, Washington</p>	<p>RSEC Environmental Consulting ESB/WBE/DBE</p>	<p>WIA Intermediate Sand Aquifer Potentiometric Surface Map January 30, 2025</p>
		<p>Figure 4-3</p>

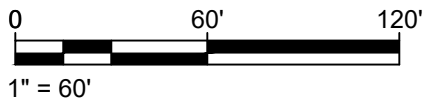
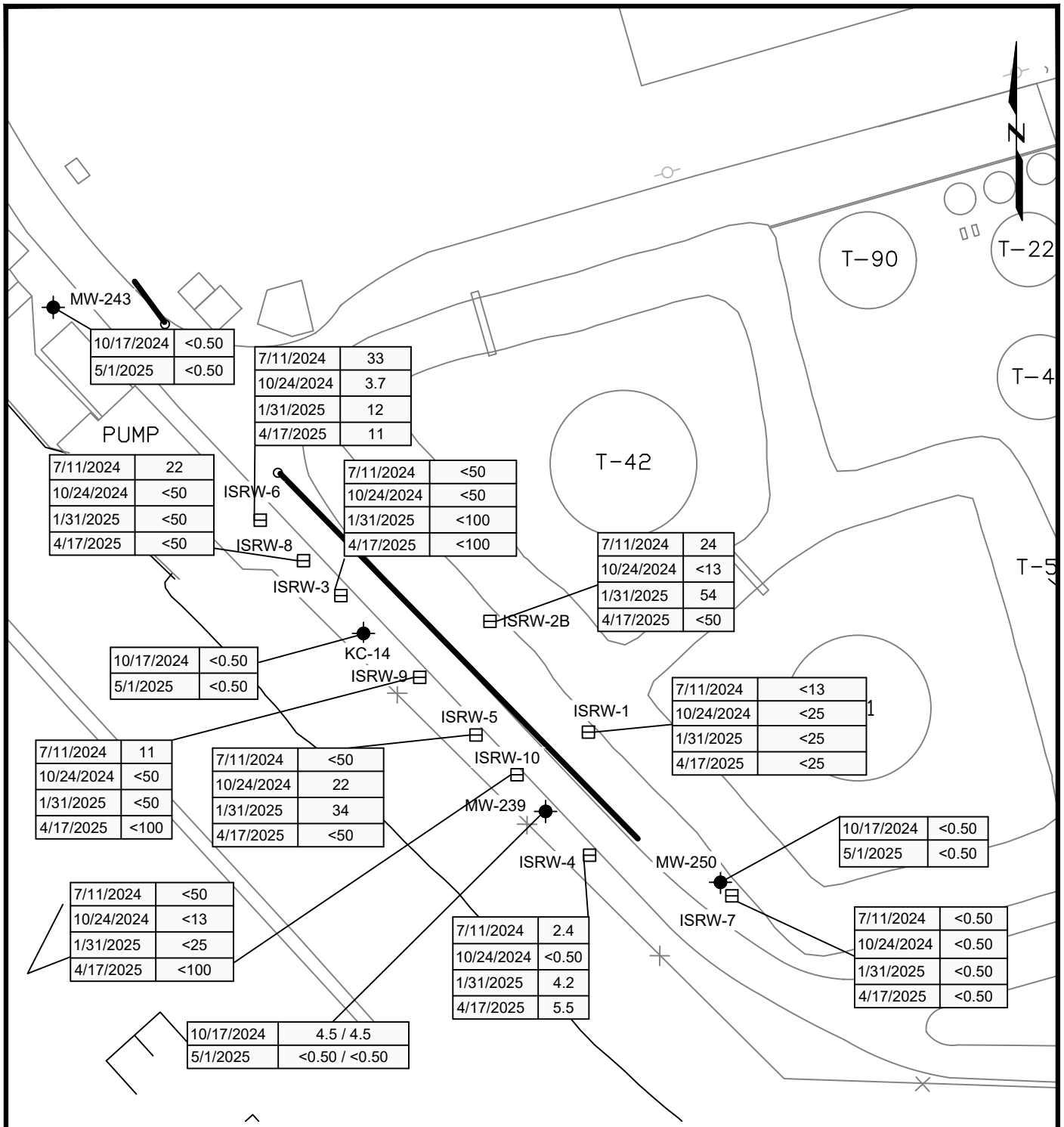


2024 - 2025 Annual Remedial Action Report
 LANXESS Kalama
 Kalama, Washington



WIA Intermediate Sand Aquifer
 Potentiometric Surface Map
 April 25, 2025

Figure 4-4



LEGEND

- Monitoring Well - Intermediate Sand Unit
- Piezometer - Intermediate Sand Unit
- Recovery Well - Intermediate Sand Unit
- (Dup) Field Duplicate Sample
- Interception Trench

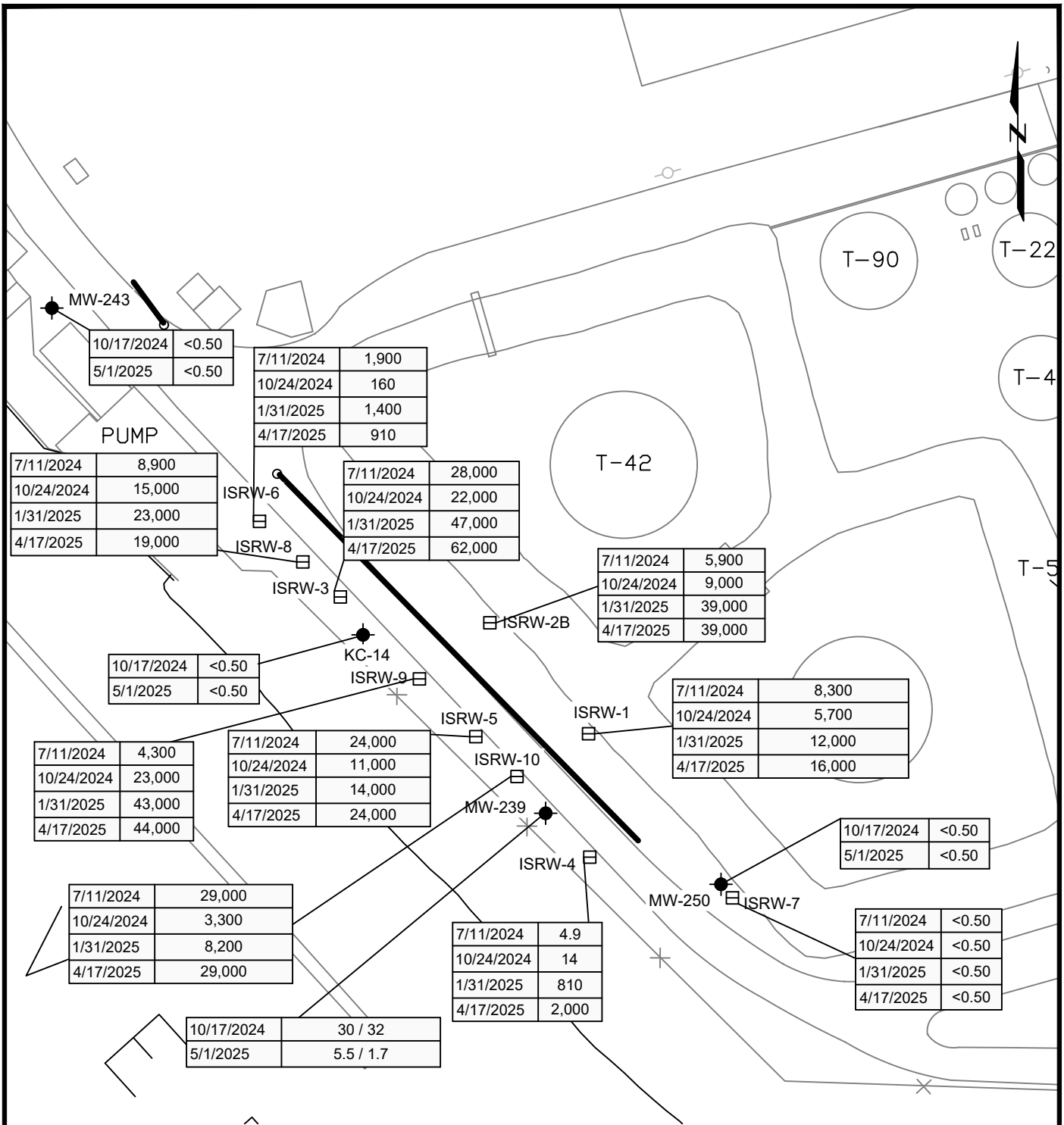
All units in µg/L - micrograms per Liter

2024 - 2025 Annual Remedial Action Report
LANXESS Kalama
Kalama, Washington



WIA Intermediate Sand Aquifer
Benzene Concentrations
(cul = 1.2 µg/L)

Figure 4-5



10/17/2024	<0.50
5/1/2025	<0.50

7/11/2024	1,900
10/24/2024	160
1/31/2025	1,400
4/17/2025	910

7/11/2024	8,900
10/24/2024	15,000
1/31/2025	23,000
4/17/2025	19,000

7/11/2024	28,000
10/24/2024	22,000
1/31/2025	47,000
4/17/2025	62,000

7/11/2024	5,900
10/24/2024	9,000
1/31/2025	39,000
4/17/2025	39,000

10/17/2024	<0.50
5/1/2025	<0.50

7/11/2024	4,300
10/24/2024	23,000
1/31/2025	43,000
4/17/2025	44,000

7/11/2024	24,000
10/24/2024	11,000
1/31/2025	14,000
4/17/2025	24,000

7/11/2024	8,300
10/24/2024	5,700
1/31/2025	12,000
4/17/2025	16,000

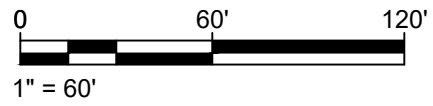
10/17/2024	<0.50
5/1/2025	<0.50

7/11/2024	29,000
10/24/2024	3,300
1/31/2025	8,200
4/17/2025	29,000

7/11/2024	4.9
10/24/2024	14
1/31/2025	810
4/17/2025	2,000

7/11/2024	<0.50
10/24/2024	<0.50
1/31/2025	<0.50
4/17/2025	<0.50

10/17/2024	30 / 32
5/1/2025	5.5 / 1.7



LEGEND

- Monitoring Well - Intermediate Sand Unit
- Piezometer - Intermediate Sand Unit
- Recovery Well - Intermediate Sand Unit
- (Dup) Field Duplicate Sample
- Interception Trench

All units in µg/L - micrograms per Liter

---- C:\Users\stalex\Documents\Rich Traux\2025 Work\Fig_4-6 v7.9.2025.dwg - 7/10/2025

Appendix A

Ground Water Elevation Data Tables

Table B NIA Upper Sand Gauging Data

Well	MP Elevation	4/25/2025			4/3 - 4 /2024			4/19/2023		
		Time	Depth to Water	Ground-water Elevation	Time	Depth to Water	Ground-water Elevation	Time	Depth to Water	Ground-water Elevation
KC-8	24.57	1206	10.78	13.79	4/4 1128	10.14	14.43	1300	10.2	14.37
KC-9 (2)	21.07	1314	8.75	12.32	4/4 1145	7.15	13.92	1200	8.29	12.78
KC-21	24.61	1219	13.14	11.47	4/4 1024	11.37	13.24	1305	12.35	12.26
KC-23	23.87	1257	9.55	14.32	4/3 1539	8.39	15.48	1110	9.21	14.66
MW-210	26.44	1308	15.3	11.14	4/3 1545	14.23	12.21	1250	14.99	11.45
MW-232	24.59	1151	10.29	14.30	4/3 1535	9.36	15.23	1100	10.01	14.58
MW-245	25.81	1202	13.93	11.88	4/4 1045	13.06	12.75	1430	13.32	12.49
MW-256	19.09	1234	9.39	9.70	4/4 0855	8.74	10.35	1255	9.18	9.91
PZ-102	25.76	1305	12.02	13.74	4/3 1543	10.94	14.82	1245	11.7	14.06
NTP-1	23.99	1210	18.62	5.37	4/4 1118	12.59	11.40	1445	17.5	6.49
NTP-2	16.91	1225	9.56	7.35	4/4 1029	6.98	9.93	1455	8.6	8.31
NTP-3	15.61	1232	8.66	6.95	4/4 0917	6.12	9.49	1310	7.69	7.92
NTP-WS	14.79									
MW-201	14.76									
MW-205/lsw	12.77									
East Sump	13.47	1229	9.09	4.38	4/4 1000	4.36	9.11	1340	6.3	7.17
West Sump	13.62	1213	8.91	4.71	4/4 1020	2.41	11.21	1410	7.4	6.22
Staff Gauge	8.17	1223	1.6	2.5	4/4 1032	2.5	2.5	1450	1.8	1.8

Notes:

Wetlands staff gauge used to measure surface water elevation
 NM - Not Measured - due to either wetland flooding or other obstruction.
 NTP-ES&WS, MW-201 & -205 Removed from gauging per Ecy 10/21/20 apprvl.
 New MP elevation starting April 20, 2015 data due to RR infrastructure changes
 Gauging modified to Annual in April, Ecy Oct 2022

Table B CIA Upper Sand Gauging Data

Well	MP Elevation	4/25/2025			4/4/2024			4/19/2023		
		Time	Depth to Water	Ground-water Elevation	Time	Depth to Water	Ground-water Elevation	Time	Depth to Water	Ground-water Elevation
KC-9 (2)	21.07	1314	8.75	12.32	4/4 1145	7.15	13.92	1200	8.29	12.78
MW-210	26.44	1308	15.3	11.14	4/3 1545	14.23	12.21	1250	14.99	11.45
MW-230	26.16	1125	10.27	15.89	4/3 1555	8.99	17.17	1430	10.14	16.02
MW-231 (2,3)	22.15									
PDW-117	25.85	1300	11.35	14.50	4/4 1228	10.13	15.72	1120	11.04	14.81
PZ-104	24.83	1118	9.35	15.48	4/4 1356	8.21	16.62	1425	9.17	15.66
PZ-107	25.5	1122	9.71	15.79	4/4 1312	8.49	17.01	1420	9.54	15.96

Notes: 1 - Facility RR extension temporarily blocked well

2 - New MP elevation starting April 20, 2015 data due to RR infrastructure changes

3 - Cease gauging MW-231 Oct 2022 / CIA Gauging Annual in April starting Oct 2022

Table B WIA Upper Sand Gauging Data

Well	MP Elevation	4/25/2025			4/3/2024			4/18/2023		
		Time	Depth to Water	Ground-water Elevation	Time	Depth to Water	Ground-water Elevation	Time	Depth to Water	Ground-water Elevation
KC-13	23.34	1044	10.98	12.36	1359	10.5	12.84	1400	10.9	12.44
KC-24R	24.76	1115	9.92	14.84	1408	9.03	15.73	1410	9.7	15.06
MW-238	25.10	1041	12.98	12.12	1401	11.96	13.14	1355	12.63	12.47
MW-255	21.96	1055	10.54	11.42	1410	9.88	12.08	1350	10.41	11.55
PZ-110	25.76	1039	11.96	13.8	1403	11.16	14.6	1358	11.72	14.04
USRW-2	22.85	1050	9.92	12.93	1423	9.4	13.45	1330	9.8	13.05
STP-1	23.15									
N. SUMP	23.29	1054	11.5	11.79	1356	11.1	12.19	1340	11.72	11.57
S. SUMP	23.34	1052	10.3	13.04	1358	9.65	13.69	1345	10.11	13.23

WIA Intermediate Sand Gauging Data

Well	Updated MP Elevation 7- 2019 (#4,5,7,8 stakup lowered 7-15-19)	4/25/2025		1/30/2025		10/24/24		7/11/2024		4/3/2024		1/11/2024		10/12/2023		7/6/2023	
		DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)	DTW	GW Elev (7-15-19 MP)
River	0 - MSL		7.2		5	3.9	3.9	5.1	5.1	5.6	5.6	8.5	8.5				
KC-6	25.02	18.90	6.12	20.43	4.59	21.47	3.55	19.71	5.31	19.19	5.83	17.60	7.42	20.79	4.23	19.40	5.62
KC-14	23.29	17.11	6.18	19.18	4.11	19.57	3.72	18.19	5.10	17.89	5.40	15.91	7.38	18.38	4.91	18.12	5.17
MW-239	25.35	19.19	6.16	21.42	3.93	21.78	3.57	20.41	4.94	20.20	5.15	17.90	7.45	20.50	4.85	20.32	5.03
MW-243	25.9	19.90	6.00	21.35	4.55	22.15	3.75	20.71	5.19	20.58	5.32	18.80	7.10	21.35	4.55	20.36	5.54
MW-247	30.01	24.00	6.01														
MW-248	29.84	23.95	5.89	25.47	4.37												
MW-250	26.12	20.19	5.93	21.92	4.20	22.64	3.48	nm	nm	20.92	5.20	nm	nm	21.86	4.26	nm	nm
PZ-117	25.92	20.37	5.55	21.80	4.12	22.60	3.32	20.82	5.10	20.62	5.30	19.24	6.68	21.95	3.97	20.46	5.46
PZ-118	25.18	19.21	5.97	21.02	4.16	21.63	3.55	20.15	5.03	19.84	5.34	18.08	7.10	20.68	4.50	20.00	5.18
KC-17	23.02	17.21	5.81	18.19	4.83	19.49	3.53	nm	nm	17.92	5.10	nm	nm	nm	nm	17.56	5.46
ISRW-1	25.26	25.0	0.26	24.70	0.56	24.4	0.86	24.80	0.46	24.70	0.56	23.50	1.76	26.60	-1.34	26.10	-0.84
ISRW-2b	24.47	26.1	-1.63	24.70	-0.23	26.4	-1.93	26.20	-1.73	26.30	-1.83	25.90	-1.43	26.75	-2.28	26.90	-2.43
ISRW-3	23.82	26.5	-2.68	26.60	-2.78	25.2	-1.38	26.55	-2.73	26.40	-2.58	26.50	-2.68	26.70	-2.88	26.80	-2.98
ISRW-4	24.33	24.2	0.13	24.20	0.13	24.6	-0.27	23.35	0.98	23.50	0.83	25.00	-0.67	25.00	-0.67	25.10	-0.77
ISRW-5	24.07	23.7	0.37	24.20	-0.13	22.0	2.07	23.35	0.72	23.10	0.97	23.60	0.47	24.10	-0.03	23.90	0.17
ISRW-6	23.54	24.3	-0.76	23.80	-0.26	24.2	-0.66	23.55	-0.01	22.40	1.14	24.00	-0.46	24.80	-1.26	24.20	-0.66
ISRW-7	24.83	18.8	5.99	20.60	4.23	21.4	3.48	19.80	5.03	19.35	5.48	17.00	7.83	20.40	4.43	19.60	5.23
ISRW-8	23.88	25.3	-1.42	26.10	-2.22	24.6	-0.72	25.40	-1.52	25.60	-1.72	26.00	-2.12	26.70	-2.82	26.70	-2.82
ISRW-9	23.55	26.1	-2.55	25.90	-2.35	26.2	-2.65	26.50	-2.95	26.90	-3.35	26.30	-2.75	27.30	-3.75	26.90	-3.35
ISRW-10	24.35	26.6	-2.25	26.70	-2.35	27.1	-2.75	26.55	-2.20	28.80	-4.45	27.40	-3.05	27.60	-3.25	27.30	-2.95

Appendix B

Laboratory Reports (transmitted
via e-file)



July 25, 2024

Service Request No:K2407202

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxess Kalama

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory July 11, 2024
For your reference, these analyses have been assigned our service request number **K2407202**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3364. You may also contact me via email at howard.holmes@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Howard Holmes
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama
Sample Matrix: Water

Service Request: K2407202
Date Received: 07/11/2024

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 07/11/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

Method 8260C, 07/17/2024: Several samples required dilution due to the presence of elevated levels of Toluene. The reporting limits are adjusted to reflect the dilution.

Method 8260C, 07/17/2024: The detection limit was elevated for all analytes in several samples. The sample extract was diluted prior to instrumental analysis due to anticipated high levels of non-target background components. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The reporting limits were adjusted to reflect the dilution.

Approved by



Date

07/25/2024



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: ISRW-2b		Lab ID: K2407202-002					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	24			13	ug/L	8260C	
Toluene	5900			250	ug/L	8260C	

CLIENT ID: ISRW-4		Lab ID: K2407202-004					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	2.4			0.50	ug/L	8260C	
Toluene	4.9			0.50	ug/L	8260C	

CLIENT ID: ISRW-6		Lab ID: K2407202-006					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	33			25	ug/L	8260C	
Toluene	1900			25	ug/L	8260C	

CLIENT ID: ISRW-8		Lab ID: K2407202-008					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	22			5.0	ug/L	8260C	
Toluene	8900			500	ug/L	8260C	

CLIENT ID: ISRW-9		Lab ID: K2407202-009					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	11			10	ug/L	8260C	
Toluene	4300			250	ug/L	8260C	

CLIENT ID: ISRW-1		Lab ID: K2407202-001					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	8300			250	ug/L	8260C	

CLIENT ID: ISRW-3		Lab ID: K2407202-003					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	28000			2500	ug/L	8260C	

CLIENT ID: ISRW-5		Lab ID: K2407202-005					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	24000			2500	ug/L	8260C	

CLIENT ID: ISRW-10		Lab ID: K2407202-010					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	29000			1000	ug/L	8260C	



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724

Service Request:K2407202

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2407202-001	ISRW-1	7/11/2024	0900
K2407202-002	ISRW-2b	7/11/2024	0915
K2407202-003	ISRW-3	7/11/2024	0930
K2407202-004	ISRW-4	7/11/2024	0945
K2407202-005	ISRW-5	7/11/2024	1000
K2407202-006	ISRW-6	7/11/2024	1015
K2407202-007	ISRW-7	7/11/2024	1030
K2407202-008	ISRW-8	7/11/2024	1045
K2407202-009	ISRW-9	7/11/2024	1100
K2407202-010	ISRW-10	7/11/2024	1115
K2407202-011	Trip Blank	7/11/2024	

PM HH

Cooler Receipt and Preservation Form

Client Lanier SS Service Request K24 07202
Received: 7/11/24 Opened: 7/11/24 By: HS Unloaded: 7/11/24 By: HS

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 present
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with 'X'	PM Notified If out of temp	Tracking Number NA	Filed
<u>113</u>	<u>7.1</u>	<u>TROB</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- 6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ic, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724

Service Request: K2407202

Sample Name: ISRW-1
Lab Code: K2407202-001
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-1
Lab Code: K2407202-001.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-2b
Lab Code: K2407202-002
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-2b
Lab Code: K2407202-002.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-3
Lab Code: K2407202-003
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724

Service Request: K2407202

Sample Name: ISRW-3
Lab Code: K2407202-003.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-4
Lab Code: K2407202-004
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-4
Lab Code: K2407202-004.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-4
Lab Code: K2407202-004.R02
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-5
Lab Code: K2407202-005
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724

Service Request: K2407202

Sample Name: ISRW-5
Lab Code: K2407202-005.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-5
Lab Code: K2407202-005.R02
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-6
Lab Code: K2407202-006
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-6
Lab Code: K2407202-006.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-6
Lab Code: K2407202-006.R02
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724

Service Request: K2407202

Sample Name: ISRW-7
Lab Code: K2407202-007
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-8
Lab Code: K2407202-008
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-8
Lab Code: K2407202-008.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-8
Lab Code: K2407202-008.R02
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-9
Lab Code: K2407202-009
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724

Service Request: K2407202

Sample Name: ISRW-9
Lab Code: K2407202-009.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-10
Lab Code: K2407202-010
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-10
Lab Code: K2407202-010.R01
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: Trip Blank
Lab Code: K2407202-011
Sample Matrix: Water

Date Collected: 07/11/24
Date Received: 07/11/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 09:00
Date Received: 07/11/24 14:30

Sample Name: ISRW-1
Lab Code: K2407202-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	13	25	07/17/24 20:12	
Toluene	8300	250	500	07/17/24 17:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	07/17/24 20:12	
Dibromofluoromethane	108	73 - 122	07/17/24 20:12	
Toluene-d8	101	65 - 144	07/17/24 20:12	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 09:15
Date Received: 07/11/24 14:30

Sample Name: ISRW-2b
Lab Code: K2407202-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	24	13	25	07/17/24 20:37	
Toluene	5900	250	500	07/17/24 17:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	07/17/24 20:37	
Dibromofluoromethane	110	73 - 122	07/17/24 20:37	
Toluene-d8	101	65 - 144	07/17/24 20:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 09:30
Date Received: 07/11/24 14:30

Sample Name: ISRW-3
Lab Code: K2407202-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	07/17/24 21:02	
Toluene	28000	2500	5000	07/17/24 18:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	07/17/24 21:02	
Dibromofluoromethane	112	73 - 122	07/17/24 21:02	
Toluene-d8	102	65 - 144	07/17/24 21:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 09:45
Date Received: 07/11/24 14:30

Sample Name: ISRW-4
Lab Code: K2407202-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	2.4	0.50	1	07/18/24 15:25	
Toluene	4.9	0.50	1	07/18/24 15:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	68 - 117	07/18/24 15:25	
Dibromofluoromethane	94	73 - 122	07/18/24 15:25	
Toluene-d8	99	65 - 144	07/18/24 15:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 10:00
Date Received: 07/11/24 14:30

Sample Name: ISRW-5
Lab Code: K2407202-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	07/18/24 21:12	
Toluene	24000	2500	5000	07/17/24 18:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	68 - 117	07/18/24 21:12	
Dibromofluoromethane	92	73 - 122	07/18/24 21:12	
Toluene-d8	101	65 - 144	07/18/24 21:12	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 10:15
Date Received: 07/11/24 14:30

Sample Name: ISRW-6
Lab Code: K2407202-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	33	25	50	07/18/24 21:37	
Toluene	1900	25	50	07/18/24 21:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	68 - 117	07/18/24 21:37	
Dibromofluoromethane	93	73 - 122	07/18/24 21:37	
Toluene-d8	101	65 - 144	07/18/24 21:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 10:30
Date Received: 07/11/24 14:30

Sample Name: ISRW-7
Lab Code: K2407202-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	07/18/24 15:50	
Toluene	ND U	0.50	1	07/18/24 15:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	68 - 117	07/18/24 15:50	
Dibromofluoromethane	93	73 - 122	07/18/24 15:50	
Toluene-d8	102	65 - 144	07/18/24 15:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 10:45
Date Received: 07/11/24 14:30

Sample Name: ISRW-8
Lab Code: K2407202-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	22	5.0	10	07/18/24 22:02	
Toluene	8900	500	1000	07/17/24 19:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	68 - 117	07/18/24 22:02	
Dibromofluoromethane	94	73 - 122	07/18/24 22:02	
Toluene-d8	101	65 - 144	07/18/24 22:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water
Sample Name: ISRW-9
Lab Code: K2407202-009

Service Request: K2407202
Date Collected: 07/11/24 11:00
Date Received: 07/11/24 14:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	11	10	20	07/17/24 20:27	
Toluene	4300	250	500	07/17/24 19:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	68 - 117	07/17/24 20:27	
Dibromofluoromethane	99	73 - 122	07/17/24 20:27	
Toluene-d8	107	65 - 144	07/17/24 20:27	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24 11:15
Date Received: 07/11/24 14:30

Sample Name: ISRW-10
Lab Code: K2407202-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	07/17/24 20:52	
Toluene	29000	1000	2000	07/17/24 20:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	68 - 117	07/17/24 20:52	
Dibromofluoromethane	98	73 - 122	07/17/24 20:52	
Toluene-d8	106	65 - 144	07/17/24 20:52	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Collected: 07/11/24
Date Received: 07/11/24 14:30

Sample Name: Trip Blank
Lab Code: K2407202-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	07/18/24 15:00	
Toluene	ND U	0.50	1	07/18/24 15:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	68 - 117	07/18/24 15:00	
Dibromofluoromethane	94	73 - 122	07/18/24 15:00	
Toluene-d8	100	65 - 144	07/18/24 15:00	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
ISRW-1	K2407202-001	86	108	101
ISRW-2b	K2407202-002	86	110	101
ISRW-3	K2407202-003	87	112	102
ISRW-4	K2407202-004	93	94	99
ISRW-5	K2407202-005	95	92	101
ISRW-6	K2407202-006	95	93	101
ISRW-7	K2407202-007	92	93	102
ISRW-8	K2407202-008	94	94	101
ISRW-9	K2407202-009	102	99	107
ISRW-10	K2407202-010	100	98	106
Trip Blank	K2407202-011	94	94	100
Lab Control Sample	KQ2411104-02	101	112	98
Duplicate Lab Control Sample	KQ2411104-03	99	111	98
Method Blank	KQ2411104-05	95	113	93
Lab Control Sample	KQ2411239-03	98	94	101
Duplicate Lab Control Sample	KQ2411239-04	98	99	100
Method Blank	KQ2411239-05	95	95	100
Lab Control Sample	KQ2411310-03	102	104	108
Duplicate Lab Control Sample	KQ2411310-04	102	102	107
Method Blank	KQ2411310-05	101	99	105

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2411104-05

Service Request: K2407202
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	07/17/24 15:17	
Toluene	ND U	0.50	1	07/17/24 15:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	68 - 117	07/17/24 15:17	
Dibromofluoromethane	113	73 - 122	07/17/24 15:17	
Toluene-d8	93	65 - 144	07/17/24 15:17	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2411239-05

Service Request: K2407202
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	07/18/24 14:35	
Toluene	ND U	0.50	1	07/18/24 14:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	68 - 117	07/18/24 14:35	
Dibromofluoromethane	95	73 - 122	07/18/24 14:35	
Toluene-d8	100	65 - 144	07/18/24 14:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2411310-05

Service Request: K2407202
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	07/17/24 12:10	
Toluene	ND U	0.50	1	07/17/24 12:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	68 - 117	07/17/24 12:10	
Dibromofluoromethane	99	73 - 122	07/17/24 12:10	
Toluene-d8	105	65 - 144	07/17/24 12:10	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Analyzed: 07/17/24
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 847648

Lab Control Sample
KQ2411104-02

Duplicate Lab Control Sample
KQ2411104-03

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	8.75	10.0	88	9.07	10.0	91	69-124	4	30
Toluene	8.53	10.0	85	8.92	10.0	89	69-124	4	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Analyzed: 07/18/24
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 847809

Lab Control Sample
KQ2411239-03

Duplicate Lab Control Sample
KQ2411239-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	9.26	10.0	93	9.49	10.0	95	69-124	2	30
Toluene	9.24	10.0	92	9.49	10.0	95	69-124	3	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LK-0724
Sample Matrix: Water

Service Request: K2407202
Date Analyzed: 07/17/24
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 847604

Lab Control Sample
KQ2411310-03

Duplicate Lab Control Sample
KQ2411310-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	10.2	10.0	102	10.8	10.0	108	69-124	5	30
Toluene	10.1	10.0	101	10.8	10.0	108	69-124	7	30



November 12, 2024

Service Request No:K2411384

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxess Kalama

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory October 24, 2024
For your reference, these analyses have been assigned our service request number **K2411384**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: RSEC Inc
Project: Lanxess Kalama
Sample Matrix: Water

Service Request: K2411384
Date Received: 10/24/2024

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 10/24/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

Method 8260C, 11/05/2024:M samples required dilution due to the presence of elevated levels of target analyte. The reporting limits are adjusted to reflect the dilution.

Approved by 

Date 11/12/2024



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: ISRW-5	Lab ID: K2411384-005
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	22			13	ug/L	8260C
Toluene	11000			250	ug/L	8260C

CLIENT ID: ISRW-6	Lab ID: K2411384-006
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	3.7			0.50	ug/L	8260C
Toluene	160			5.0	ug/L	8260C

CLIENT ID: ISRW-1	Lab ID: K2411384-001
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	5700			250	ug/L	8260C

CLIENT ID: ISRW-2b	Lab ID: K2411384-002
---------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	9000			250	ug/L	8260C

CLIENT ID: ISRW-3	Lab ID: K2411384-003
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	22000			1300	ug/L	8260C

CLIENT ID: ISRW-4	Lab ID: K2411384-004
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	14			0.50	ug/L	8260C

CLIENT ID: ISRW-8	Lab ID: K2411384-008
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	15000			1000	ug/L	8260C

CLIENT ID: ISRW-9	Lab ID: K2411384-009
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Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	23000			1300	ug/L	8260C

CLIENT ID: ISRW-10	Lab ID: K2411384-010
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Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	3300			250	ug/L	8260C



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024

Service Request:K2411384

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2411384-001	ISRW-1	10/24/2024	0900
K2411384-002	ISRW-2b	10/24/2024	0915
K2411384-003	ISRW-3	10/24/2024	0930
K2411384-004	ISRW-4	10/24/2024	0945
K2411384-005	ISRW-5	10/24/2024	1000
K2411384-006	ISRW-6	10/24/2024	1015
K2411384-007	ISRW-7	10/24/2024	1030
K2411384-008	ISRW-8	10/24/2024	1045
K2411384-009	ISRW-9	10/24/2024	1100
K2411384-010	ISRW-10	10/24/2024	1115
K2411384-011	Trip Blank		

PM LR

Cooler Receipt and Preservation Form

Client Lanxess Service Request K24 11359 H3 K24 11384

Received: 10/24/24 Opened: 10/24/24 By: NP Unloaded: 10/24/24 By: NP

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? 2 Front
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number <input checked="" type="radio"/> NA	Filed
<u>5.0</u>		<u>1R06</u>					

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:

If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges? NA Y N

If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N

8. Were samples received in good condition (unbroken) NA Y N

9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N

10. Did all sample labels and tags agree with custody papers? NA Y N

11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N

12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N

13. Were VOA vials received without headspace? Indicate in the table below. NA Y N

14. Was C12/Res negative? NA Y N

15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N

16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024

Service Request: K2411384

Sample Name: ISRW-1
Lab Code: K2411384-001
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MKANALY

Sample Name: ISRW-1
Lab Code: K2411384-001.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MKANALY

Sample Name: ISRW-2b
Lab Code: K2411384-002
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-2b
Lab Code: K2411384-002.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-3
Lab Code: K2411384-003
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024

Service Request: K2411384

Sample Name: ISRW-3
Lab Code: K2411384-003.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-4
Lab Code: K2411384-004
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-4
Lab Code: K2411384-004.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-5
Lab Code: K2411384-005
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-5
Lab Code: K2411384-005.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024

Service Request: K2411384

Sample Name: ISRW-6
Lab Code: K2411384-006
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-6
Lab Code: K2411384-006.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-7
Lab Code: K2411384-007
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-8
Lab Code: K2411384-008
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-8
Lab Code: K2411384-008.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024

Service Request: K2411384

Sample Name: ISRW-9
Lab Code: K2411384-009
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-9
Lab Code: K2411384-009.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-10
Lab Code: K2411384-010
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: ISRW-10
Lab Code: K2411384-010.R01
Sample Matrix: Water

Date Collected: 10/24/24
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER

Sample Name: Trip Blank
Lab Code: K2411384-011
Sample Matrix: Water

Date Collected: NA
Date Received: 10/24/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
GROETTGER



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 09:00
Date Received: 10/24/24 15:05

Sample Name: ISRW-1
Lab Code: K2411384-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	25	50	11/04/24 18:24	
Toluene	5700	250	500	11/04/24 15:33	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	68 - 117	11/04/24 18:24	
Dibromofluoromethane	101	73 - 122	11/04/24 18:24	
Toluene-d8	109	65 - 144	11/04/24 18:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water
Sample Name: ISRW-2b
Lab Code: K2411384-002

Service Request: K2411384
Date Collected: 10/24/24 09:15
Date Received: 10/24/24 15:05
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	13	25	11/05/24 18:44	
Toluene	9000	250	500	11/05/24 14:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	11/05/24 18:44	
Dibromofluoromethane	102	73 - 122	11/05/24 18:44	
Toluene-d8	99	65 - 144	11/05/24 18:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 09:30
Date Received: 10/24/24 15:05

Sample Name: ISRW-3
Lab Code: K2411384-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	11/05/24 19:09	
Toluene	22000	1300	2500	11/05/24 15:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	11/05/24 19:09	
Dibromofluoromethane	105	73 - 122	11/05/24 19:09	
Toluene-d8	99	65 - 144	11/05/24 19:09	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 09:45
Date Received: 10/24/24 15:05

Sample Name: ISRW-4
Lab Code: K2411384-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	11/05/24 18:20	
Toluene	14	0.50	1	11/05/24 18:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	11/05/24 18:20	
Dibromofluoromethane	113	73 - 122	11/05/24 18:20	
Toluene-d8	98	65 - 144	11/05/24 18:20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 10:00
Date Received: 10/24/24 15:05

Sample Name: ISRW-5
Lab Code: K2411384-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	22	13	25	11/05/24 19:33	
Toluene	11000	250	500	11/05/24 15:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	11/05/24 19:33	
Dibromofluoromethane	97	73 - 122	11/05/24 19:33	
Toluene-d8	98	65 - 144	11/05/24 19:33	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 10:15
Date Received: 10/24/24 15:05

Sample Name: ISRW-6
Lab Code: K2411384-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	3.7	0.50	1	11/05/24 17:55	
Toluene	160	5.0	10	11/05/24 16:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	11/05/24 17:55	
Dibromofluoromethane	103	73 - 122	11/05/24 17:55	
Toluene-d8	98	65 - 144	11/05/24 17:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 10:30
Date Received: 10/24/24 15:05

Sample Name: ISRW-7
Lab Code: K2411384-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	11/05/24 13:51	
Toluene	ND U	0.50	1	11/05/24 13:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	11/05/24 13:51	
Dibromofluoromethane	113	73 - 122	11/05/24 13:51	
Toluene-d8	99	65 - 144	11/05/24 13:51	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 10:45
Date Received: 10/24/24 15:05

Sample Name: ISRW-8
Lab Code: K2411384-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	11/05/24 19:58	
Toluene	15000	1000	2000	11/05/24 16:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	11/05/24 19:58	
Dibromofluoromethane	104	73 - 122	11/05/24 19:58	
Toluene-d8	96	65 - 144	11/05/24 19:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water
Sample Name: ISRW-9
Lab Code: K2411384-009

Service Request: K2411384
Date Collected: 10/24/24 11:00
Date Received: 10/24/24 15:05
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	11/05/24 20:22	
Toluene	23000	1300	2500	11/05/24 17:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	11/05/24 20:22	
Dibromofluoromethane	109	73 - 122	11/05/24 20:22	
Toluene-d8	100	65 - 144	11/05/24 20:22	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Collected: 10/24/24 11:15
Date Received: 10/24/24 15:05

Sample Name: ISRW-10
Lab Code: K2411384-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	13	25	11/05/24 20:47	
Toluene	3300	250	500	11/05/24 17:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	11/05/24 20:47	
Dibromofluoromethane	103	73 - 122	11/05/24 20:47	
Toluene-d8	97	65 - 144	11/05/24 20:47	

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dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water
Sample Name: Trip Blank
Lab Code: K2411384-011

Service Request: K2411384
Date Collected: NA
Date Received: 10/24/24 15:05
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	11/05/24 14:15	
Toluene	ND U	0.50	1	11/05/24 14:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	68 - 117	11/05/24 14:15	
Dibromofluoromethane	112	73 - 122	11/05/24 14:15	
Toluene-d8	97	65 - 144	11/05/24 14:15	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
ISRW-1	K2411384-001	96	101	109
ISRW-2b	K2411384-002	84	102	99
ISRW-3	K2411384-003	84	105	99
ISRW-4	K2411384-004	87	113	98
ISRW-5	K2411384-005	84	97	98
ISRW-6	K2411384-006	84	103	98
ISRW-7	K2411384-007	86	113	99
ISRW-8	K2411384-008	83	104	96
ISRW-9	K2411384-009	82	109	100
ISRW-10	K2411384-010	82	103	97
Trip Blank	K2411384-011	89	112	97
Lab Control Sample	KQ2418162-03	97	100	101
Duplicate Lab Control Sample	KQ2418162-04	101	99	101
Method Blank	KQ2418162-05	90	115	100
Lab Control Sample	KQ2418265-03	99	103	109
Duplicate Lab Control Sample	KQ2418265-04	101	99	108
Method Blank	KQ2418265-05	98	96	103

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2418162-05

Service Request: K2411384
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	11/05/24 13:02	
Toluene	ND U	0.50	1	11/05/24 13:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	68 - 117	11/05/24 13:02	
Dibromofluoromethane	115	73 - 122	11/05/24 13:02	
Toluene-d8	100	65 - 144	11/05/24 13:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2418265-05

Service Request: K2411384
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	11/04/24 10:15	
Toluene	ND U	0.50	1	11/04/24 10:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	68 - 117	11/04/24 10:15	
Dibromofluoromethane	96	73 - 122	11/04/24 10:15	
Toluene-d8	103	65 - 144	11/04/24 10:15	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Analyzed: 11/05/24
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 859986

Lab Control Sample
KQ2418162-03

Duplicate Lab Control Sample
KQ2418162-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	8.36	10.0	84	7.90	10.0	79	69-124	6	30
Toluene	8.20	10.0	82	7.74	10.0	77	69-124	6	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-1024
Sample Matrix: Water

Service Request: K2411384
Date Analyzed: 11/04/24
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 860534

Lab Control Sample
KQ2418265-03

Duplicate Lab Control Sample
KQ2418265-04

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzene	10.6	10.0	106	10.9	10.0	109	69-124	3	30
Toluene	10.6	10.0	106	11.0	10.0	110	69-124	4	30



November 21, 2024

Service Request No:K2411091

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxiss Kalama

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory October 17, 2024
For your reference, these analyses have been assigned our service request number **K2411091**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091
Date Received: 10/17/2024

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 10/17/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

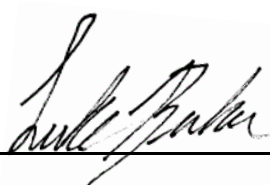
Method 8270D, 11/20/2024: All samples required dilution due to the presence of elevated levels of Diphenyl Ether. The reporting limits are adjusted to reflect the dilution.

The reporting limit was elevated for Bis(2-Ethylhexyl) Phthalate in all samples due to the calibration level required to support the routine reporting limit not being included in the associated calibration. The reporting limit was elevated to the level supported by the calibration.

Method 8270D, 11/20/2024: The control criteria were exceeded for 2-Fluorobiphenyl in sample NIA-W. Sump due to matrix interference. The presence of non-target background components prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by 

Date 11/21/2024



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-239 **Lab ID: K2411091-002**

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	4.5			0.50	ug/L	8260C
Toluene	30			0.50	ug/L	8260C

CLIENT ID: MW-97 **Lab ID: K2411091-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	4.5			0.50	ug/L	8260C
Toluene	32			0.50	ug/L	8260C

CLIENT ID: NIA-E. Sump **Lab ID: K2411091-006**

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	1.4			0.50	ug/L	8260C
Diphenyl Ether	730			20	ug/L	8270D
Toluene	8.7			0.50	ug/L	8260C

CLIENT ID: NIA-W. Sump **Lab ID: K2411091-007**

Analyte	Results	Flag	MDL	MRL	Units	Method
Biphenyl	3.1			0.94	ug/L	8270D
Diphenyl Ether	1000			20	ug/L	8270D

CLIENT ID: WSD **Lab ID: K2411091-008**

Analyte	Results	Flag	MDL	MRL	Units	Method
Biphenyl	2.9			0.94	ug/L	8270D
Diphenyl Ether	960			20	ug/L	8270D



Sample Receipt Information

ALS Environmental—Kelso Laboratory
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www.alsglobal.com

Client: RSEC Inc
Project: Lanxiss Kalama

Service Request:K2411091

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2411091-001	MW-250	10/17/2024	0900
K2411091-002	MW-239	10/17/2024	0930
K2411091-003	MW-97	10/17/2024	1000
K2411091-004	KC-14	10/17/2024	1030
K2411091-005	MW-243	10/17/2024	1100
K2411091-006	NIA-E. Sump	10/17/2024	1130
K2411091-007	NIA-W. Sump	10/17/2024	1200
K2411091-008	WSD	10/17/2024	1230
K2411091-009	TB	10/17/2024	

PM Luick

Cooler Receipt and Preservation Form

Client RSEC Service Request K24 11091

Received: 10/17/2024 Opened: 10/17/2024 By: AD Unloaded: 10/17/2024 By: AD

- 1. Samples were received via? **USPS** Courier ~~Fed Ex~~ ~~UPS~~ ~~DHL~~ ~~PDX~~ ~~Hand Delivered~~
- 2. Samples were received in: (circle) Cooler ~~Box~~ ~~Envelope~~ ~~Other~~ ~~NA~~
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
- 4. If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number <u>NA</u>	Filed
<u>4.6</u>		<u>1206</u>					

- 4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; note in the column "Sample Temp":
- 5. Were samples received within the method specified temperature ranges? NA Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen ~~Partially Thawed~~ ~~Thawed~~
- 6. Packing material: Inserts Baggies Bubble Wrap ~~Gel Packs~~ ~~Wet-ice~~ ~~Dry Ice~~ ~~Sleeves~~
- 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- 8. Were samples received in good condition (unbroken) NA Y N
- 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- 10. Did all sample labels and tags agree with custody papers? NA Y N
- 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 13. Were VOA vials received without headspace? Indicate in the table below NA Y N
- 14. Was C12/Res negative? NA Y N
- 15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____

ALS Group USA, Corp.
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Analyst Summary report

Client: RSEC Inc
Project: Lanxiss Kalama/

Service Request: K2411091

Sample Name: MW-250
Lab Code: K2411091-001
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-239
Lab Code: K2411091-002
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-97
Lab Code: K2411091-003
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: KC-14
Lab Code: K2411091-004
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-243
Lab Code: K2411091-005
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxiss Kalama/

Service Request: K2411091

Sample Name: NIA-E. Sump
Lab Code: K2411091-006
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C
8270D

Extracted/Digested By

SMATZ

Analyzed By
MCRESWELL
CDEGNER

Sample Name: NIA-E. Sump
Lab Code: K2411091-006.R01
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8270D

Extracted/Digested By
SMATZ

Analyzed By
CDEGNER

Sample Name: NIA-W. Sump
Lab Code: K2411091-007
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C
8270D

Extracted/Digested By

SMATZ

Analyzed By
MCRESWELL
CDEGNER

Sample Name: NIA-W. Sump
Lab Code: K2411091-007.R01
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8270D

Extracted/Digested By
SMATZ

Analyzed By
CDEGNER

ALS Group USA, Corp.
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Analyst Summary report

Client: RSEC Inc
Project: Lanxiss Kalama/

Service Request: K2411091

Sample Name: WSD
Lab Code: K2411091-008
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8270D

Extracted/Digested By
SMATZ

Analyzed By
CDEGNER

Sample Name: WSD
Lab Code: K2411091-008.R01
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8270D

Extracted/Digested By
SMATZ

Analyzed By
CDEGNER

Sample Name: TB
Lab Code: K2411091-009
Sample Matrix: Water

Date Collected: 10/17/24
Date Received: 10/17/24

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL



Sample Results

ALS Environmental—Kelso Laboratory
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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: MW-250
Lab Code: K2411091-001

Service Request: K2411091
Date Collected: 10/17/24 09:00
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	10/21/24 19:32	
Toluene	ND U	0.50	1	10/21/24 19:32	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	68 - 117	10/21/24 19:32	
Dibromofluoromethane	102	73 - 122	10/21/24 19:32	
Toluene-d8	105	65 - 144	10/21/24 19:32	

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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: MW-239
Lab Code: K2411091-002

Service Request: K2411091
Date Collected: 10/17/24 09:30
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	4.5	0.50	1	10/21/24 19:56	
Toluene	30	0.50	1	10/21/24 19:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	68 - 117	10/21/24 19:56	
Dibromofluoromethane	100	73 - 122	10/21/24 19:56	
Toluene-d8	108	65 - 144	10/21/24 19:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: MW-97
Lab Code: K2411091-003

Service Request: K2411091
Date Collected: 10/17/24 10:00
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	4.5	0.50	1	10/21/24 20:21	
Toluene	32	0.50	1	10/21/24 20:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	68 - 117	10/21/24 20:21	
Dibromofluoromethane	101	73 - 122	10/21/24 20:21	
Toluene-d8	105	65 - 144	10/21/24 20:21	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: KC-14
Lab Code: K2411091-004

Service Request: K2411091
Date Collected: 10/17/24 10:30
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	10/21/24 20:45	
Toluene	ND U	0.50	1	10/21/24 20:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	68 - 117	10/21/24 20:45	
Dibromofluoromethane	98	73 - 122	10/21/24 20:45	
Toluene-d8	108	65 - 144	10/21/24 20:45	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091
Date Collected: 10/17/24 11:00
Date Received: 10/17/24 14:20

Sample Name: MW-243
Lab Code: K2411091-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	10/21/24 21:10	
Toluene	ND U	0.50	1	10/21/24 21:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	68 - 117	10/21/24 21:10	
Dibromofluoromethane	102	73 - 122	10/21/24 21:10	
Toluene-d8	104	65 - 144	10/21/24 21:10	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091
Date Collected: 10/17/24 11:30
Date Received: 10/17/24 14:20

Sample Name: NIA-E. Sump
Lab Code: K2411091-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	1.4	0.50	1	10/21/24 21:34	
Toluene	8.7	0.50	1	10/21/24 21:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	68 - 117	10/21/24 21:34	
Dibromofluoromethane	102	73 - 122	10/21/24 21:34	
Toluene-d8	108	65 - 144	10/21/24 21:34	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: NIA-W. Sump
Lab Code: K2411091-007

Service Request: K2411091
Date Collected: 10/17/24 12:00
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	10/21/24 21:59	
Toluene	ND U	0.50	1	10/21/24 21:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	68 - 117	10/21/24 21:59	
Dibromofluoromethane	103	73 - 122	10/21/24 21:59	
Toluene-d8	108	65 - 144	10/21/24 21:59	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: TB
Lab Code: K2411091-009

Service Request: K2411091
Date Collected: 10/17/24
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	10/21/24 22:23	
Toluene	ND U	0.50	1	10/21/24 22:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	68 - 117	10/21/24 22:23	
Dibromofluoromethane	95	73 - 122	10/21/24 22:23	
Toluene-d8	104	65 - 144	10/21/24 22:23	



Semivolatile Organic Compounds by GC/MS

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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: NIA-E. Sump
Lab Code: K2411091-006

Service Request: K2411091
Date Collected: 10/17/24 11:30
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	ND U	0.94	1	11/20/24 15:24	10/21/24	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	11/20/24 15:24	10/21/24	
Diphenyl Ether	730	20	20	11/20/24 16:40	10/21/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	84	48 - 114	11/20/24 15:24	
p-Terphenyl-d14	100	22 - 146	11/20/24 15:24	

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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: NIA-W. Sump
Lab Code: K2411091-007

Service Request: K2411091
Date Collected: 10/17/24 12:00
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	3.1	0.94	1	11/20/24 15:48	10/21/24	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	11/20/24 15:48	10/21/24	
Diphenyl Ether	1000	20	20	11/20/24 17:04	10/21/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	122	48 - 114	11/20/24 15:48	*
p-Terphenyl-d14	99	22 - 146	11/20/24 15:48	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: WSD
Lab Code: K2411091-008

Service Request: K2411091
Date Collected: 10/17/24 12:30
Date Received: 10/17/24 14:20
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	2.9	0.94	1	11/20/24 16:12	10/21/24	
Diphenyl Ether	960	20	20	11/20/24 17:29	10/21/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	109	48 - 114	11/20/24 16:12	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
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QA/QC Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
MW-250	K2411091-001	99	102	105
MW-239	K2411091-002	94	100	108
MW-97	K2411091-003	94	101	105
KC-14	K2411091-004	96	98	108
MW-243	K2411091-005	98	102	104
NIA-E. Sump	K2411091-006	97	102	108
NIA-W. Sump	K2411091-007	100	103	108
TB	K2411091-009	96	95	104
Lab Control Sample	KQ2417333-03	103	103	107
Duplicate Lab Control Sample	KQ2417333-04	99	101	110
Method Blank	KQ2417333-05	97	98	108

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2417333-05

Service Request: K2411091
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	10/21/24 17:30	
Toluene	ND U	0.50	1	10/21/24 17:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	68 - 117	10/21/24 17:30	
Dibromofluoromethane	98	73 - 122	10/21/24 17:30	
Toluene-d8	108	65 - 144	10/21/24 17:30	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091
Date Analyzed: 10/21/24
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 858238

Lab Control Sample
KQ2417333-03

Duplicate Lab Control Sample
KQ2417333-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	9.72	10.0	97	9.76	10.0	98	69-124	<1	30
Toluene	9.75	10.0	98	9.92	10.0	99	69-124	2	30



Semivolatile Organic Compounds by GC/MS

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Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Extraction Method: EPA 3520C

Sample Name	Lab Code	2-Fluorobiphenyl	p-Terphenyl-d14
		48 - 114	22 - 146
NIA-E. Sump	K2411091-006	84	100
NIA-W. Sump	K2411091-007	122 *	99
WSD	K2411091-008	109	
Method Blank	KQ2417037-01	85	114
Lab Control Sample	KQ2417037-02	89	109
Duplicate Lab Control Sample	KQ2417037-03	81	92

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2417037-01

Service Request: K2411091
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	ND U	0.94	1	11/20/24 14:11	10/21/24	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	11/20/24 14:11	10/21/24	
Diphenyl Ether	ND U	1.0	1	11/20/24 14:11	10/21/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	85	48 - 114	11/20/24 14:11	
p-Terphenyl-d14	114	22 - 146	11/20/24 14:11	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxiss Kalama
Sample Matrix: Water

Service Request: K2411091
Date Analyzed: 11/20/24
Date Extracted: 10/21/24

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Units: ug/L
Basis: NA
Analysis Lot: 861852

Lab Control Sample
KQ2417037-02

Duplicate Lab Control Sample
KQ2417037-03

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Biphenyl	3.75	5.00	75	3.56	5.00	71	70-130	5	30
Bis(2-ethylhexyl) Phthalate	6.04	5.00	121	4.93	5.00	99	64-122	20	30
Diphenyl Ether	3.89	5.00	78	3.71	5.00	74	70-130	5	30



February 06, 2025

Service Request No:K2501030

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxess

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory January 31, 2025
For your reference, these analyses have been assigned our service request number **K2501030**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Client: RSEC Inc
Project: Lanxess
Sample Matrix: Water

Service Request: K2501030
Date Received: 01/31/2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 01/31/2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Volatiles by GC/MS:

Method 8260C, 02/03/2025: Multiple samples required dilution due to the presence of elevated levels of Toluene. The reporting limits are adjusted to reflect the dilution.

Method 8260C, 02/03/2025: The detection limit was elevated for all analytes in multiple samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The reporting limit was elevated to reflect the dilution.

Approved by 

Date 02/06/2025



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: ISRW-2b		Lab ID: K2501030-002					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	54			50	ug/L	8260C	
Toluene	39000			500	ug/L	8260C	
CLIENT ID: ISRW-4		Lab ID: K2501030-004					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	4.2			1.3	ug/L	8260C	
Toluene	810			13	ug/L	8260C	
CLIENT ID: ISRW-5		Lab ID: K2501030-005					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	34			25	ug/L	8260C	
Toluene	14000			250	ug/L	8260C	
CLIENT ID: ISRW-6		Lab ID: K2501030-006					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Benzene	12			1.3	ug/L	8260C	
Toluene	1400			13	ug/L	8260C	
CLIENT ID: ISRW-1		Lab ID: K2501030-001					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	12000			250	ug/L	8260C	
CLIENT ID: ISRW-3		Lab ID: K2501030-003					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	47000			1000	ug/L	8260C	
CLIENT ID: ISRW-8		Lab ID: K2501030-008					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	23000			500	ug/L	8260C	
CLIENT ID: ISRW-9		Lab ID: K2501030-009					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	43000			500	ug/L	8260C	
CLIENT ID: ISRW-10		Lab ID: K2501030-010					
Analyte	Results	Flag	MDL	MRL	Units	Method	
Toluene	8200			250	ug/L	8260C	



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess/LKC-0125

Service Request:K2501030

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2501030-001	ISRW-1	1/31/2025	0900
K2501030-002	ISRW-2b	1/31/2025	0915
K2501030-003	ISRW-3	1/31/2025	0930
K2501030-004	ISRW-4	1/31/2025	0945
K2501030-005	ISRW-5	1/31/2025	1000
K2501030-006	ISRW-6	1/31/2025	1015
K2501030-007	ISRW-7	1/31/2025	1030
K2501030-008	ISRW-8	1/31/2025	1045
K2501030-009	ISRW-9	1/31/2025	1100
K2501030-010	ISRW-10	1/31/2025	1115
K2501030-011	TB		

PM lh

RSEC

Cooler Receipt and Preservation Form

Client RSEC Service Request K25 01030
Received: 113125 Opened: 113125 By: NP Unloaded: 113125 By: NP

- 1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
- 2. Samples were received in: (circle) Cooler Box Envelope Other NA
- 3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 front
- If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with 'X'	PM Notified if out of temp	Tracking Number / NA	Filed
<u>6.0</u>		<u>113125</u>					

- Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
- Were samples received within the method specified temperature ranges? NA Y N
- If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N
- If applicable, tissue samples were received: Frozen Partially Thawed Thawed
- Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
- Were custody papers properly filled out (ink, signed, etc.)? NA Y N
- Were samples received in good condition (unbroken) NA Y N
- Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
- Did all sample labels and tags agree with custody papers? NA Y N
- 1. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
- 2. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
- 3. Were VOA vials received without headspace? Indicate in the table below NA Y N
- 4. Was C12/Res negative? NA Y N
- 5. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
- 6. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess/LKC-0125

Service Request: K2501030

Sample Name: ISRW-1
Lab Code: K2501030-001
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-1
Lab Code: K2501030-001.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-2b
Lab Code: K2501030-002
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-2b
Lab Code: K2501030-002.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-3
Lab Code: K2501030-003
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess/LKC-0125

Service Request: K2501030

Sample Name: ISRW-3
Lab Code: K2501030-003.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-4
Lab Code: K2501030-004
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-4
Lab Code: K2501030-004.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-5
Lab Code: K2501030-005
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-5
Lab Code: K2501030-005.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess/LKC-0125

Service Request: K2501030

Sample Name: ISRW-6
Lab Code: K2501030-006
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-6
Lab Code: K2501030-006.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-7
Lab Code: K2501030-007
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-8
Lab Code: K2501030-008
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-8
Lab Code: K2501030-008.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess/LKC-0125

Service Request: K2501030

Sample Name: ISRW-9
Lab Code: K2501030-009
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-9
Lab Code: K2501030-009.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-10
Lab Code: K2501030-010
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-10
Lab Code: K2501030-010.R01
Sample Matrix: Water

Date Collected: 01/31/25
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: TB
Lab Code: K2501030-011
Sample Matrix: Water

Date Collected: NA
Date Received: 01/31/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 09:00
Date Received: 01/31/25 14:20

Sample Name: ISRW-1
Lab Code: K2501030-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	25	50	02/03/25 21:33	
Toluene	12000	250	500	02/03/25 18:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/03/25 21:33	
Dibromofluoromethane	100	73 - 122	02/03/25 21:33	
Toluene-d8	95	65 - 144	02/03/25 21:33	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 09:15
Date Received: 01/31/25 14:20

Sample Name: ISRW-2b
Lab Code: K2501030-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	54	50	100	02/03/25 21:54	
Toluene	39000	500	1000	02/03/25 19:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	02/03/25 21:54	
Dibromofluoromethane	96	73 - 122	02/03/25 21:54	
Toluene-d8	96	65 - 144	02/03/25 21:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 09:30
Date Received: 01/31/25 14:20

Sample Name: ISRW-3
Lab Code: K2501030-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	100	200	02/03/25 22:15	
Toluene	47000	1000	2000	02/03/25 19:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	80	68 - 117	02/03/25 22:15	
Dibromofluoromethane	96	73 - 122	02/03/25 22:15	
Toluene-d8	97	65 - 144	02/03/25 22:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 09:45
Date Received: 01/31/25 14:20

Sample Name: ISRW-4
Lab Code: K2501030-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	4.2	1.3	2.5	02/03/25 22:36	
Toluene	810	13	25	02/03/25 19:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	02/03/25 22:36	
Dibromofluoromethane	99	73 - 122	02/03/25 22:36	
Toluene-d8	95	65 - 144	02/03/25 22:36	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 10:00
Date Received: 01/31/25 14:20

Sample Name: ISRW-5
Lab Code: K2501030-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	34	25	50	02/03/25 22:57	
Toluene	14000	250	500	02/03/25 20:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	02/03/25 22:57	
Dibromofluoromethane	97	73 - 122	02/03/25 22:57	
Toluene-d8	100	65 - 144	02/03/25 22:57	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 10:15
Date Received: 01/31/25 14:20

Sample Name: ISRW-6
Lab Code: K2501030-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	12	1.3	2.5	02/03/25 23:18	
Toluene	1400	13	25	02/03/25 20:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	02/03/25 23:18	
Dibromofluoromethane	102	73 - 122	02/03/25 23:18	
Toluene-d8	94	65 - 144	02/03/25 23:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 10:30
Date Received: 01/31/25 14:20

Sample Name: ISRW-7
Lab Code: K2501030-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	02/03/25 20:51	
Toluene	ND U	0.50	1	02/03/25 20:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	81	68 - 117	02/03/25 20:51	
Dibromofluoromethane	100	73 - 122	02/03/25 20:51	
Toluene-d8	98	65 - 144	02/03/25 20:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 10:45
Date Received: 01/31/25 14:20

Sample Name: ISRW-8
Lab Code: K2501030-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	02/03/25 23:39	
Toluene	23000	500	1000	02/03/25 21:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	02/03/25 23:39	
Dibromofluoromethane	98	73 - 122	02/03/25 23:39	
Toluene-d8	98	65 - 144	02/03/25 23:39	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 11:00
Date Received: 01/31/25 14:20

Sample Name: ISRW-9
Lab Code: K2501030-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	02/03/25 23:46	
Toluene	43000	500	1000	02/03/25 22:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	68 - 117	02/03/25 23:46	
Dibromofluoromethane	108	73 - 122	02/03/25 23:46	
Toluene-d8	108	65 - 144	02/03/25 23:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: 01/31/25 11:15
Date Received: 01/31/25 14:20

Sample Name: ISRW-10
Lab Code: K2501030-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	25	50	02/04/25 00:10	
Toluene	8200	250	500	02/03/25 23:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	68 - 117	02/04/25 00:10	
Dibromofluoromethane	113	73 - 122	02/04/25 00:10	
Toluene-d8	109	65 - 144	02/04/25 00:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: NA
Date Received: 01/31/25 14:20

Sample Name: TB
Lab Code: K2501030-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	02/03/25 17:00	
Toluene	ND U	0.50	1	02/03/25 17:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	02/03/25 17:00	
Dibromofluoromethane	98	73 - 122	02/03/25 17:00	
Toluene-d8	97	65 - 144	02/03/25 17:00	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
ISRW-1	K2501030-001	87	100	95
ISRW-2b	K2501030-002	86	96	96
ISRW-3	K2501030-003	80	96	97
ISRW-4	K2501030-004	83	99	95
ISRW-5	K2501030-005	83	97	100
ISRW-6	K2501030-006	83	102	94
ISRW-7	K2501030-007	81	100	98
ISRW-8	K2501030-008	87	98	98
ISRW-9	K2501030-009	98	108	108
ISRW-10	K2501030-010	101	113	109
TB	K2501030-011	86	98	97
Lab Control Sample	KQ2501713-03	104	108	102
Duplicate Lab Control Sample	KQ2501713-04	104	108	101
Method Blank	KQ2501713-05	104	118	111
Lab Control Sample	KQ2501795-03	82	98	99
Duplicate Lab Control Sample	KQ2501795-04	85	97	98
Method Blank	KQ2501795-05	84	101	99

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2501713-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	02/03/25 17:17	
Toluene	ND U	0.50	1	02/03/25 17:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	68 - 117	02/03/25 17:17	
Dibromofluoromethane	118	73 - 122	02/03/25 17:17	
Toluene-d8	111	65 - 144	02/03/25 17:17	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2501795-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	02/03/25 16:17	
Toluene	ND U	0.50	1	02/03/25 16:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	02/03/25 16:17	
Dibromofluoromethane	101	73 - 122	02/03/25 16:17	
Toluene-d8	99	65 - 144	02/03/25 16:17	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Analyzed: 02/03/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 868884

Lab Control Sample
KQ2501713-03

Duplicate Lab Control Sample
KQ2501713-04

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzene	9.68	10.0	97	8.76	10.0	88	69-124	10	30
Toluene	9.86	10.0	99	8.80	10.0	88	69-124	11	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess/LKC-0125
Sample Matrix: Water

Service Request: K2501030
Date Analyzed: 02/03/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 868861

Lab Control Sample
KQ2501795-03

Duplicate Lab Control Sample
KQ2501795-04

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzene	9.22	10.0	92	9.73	10.0	97	69-124	5	30
Toluene	8.82	10.0	88	9.61	10.0	96	69-124	9	30



May 22, 2025

Service Request No:K2504426

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxess Kalama

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory May 01, 2025
For your reference, these analyses have been assigned our service request number **K2504426**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Client: RSEC Inc
Project: Lanxess Kalama
Sample Matrix: Water, Ground Water

Service Request: K2504426
Date Received: 05/01/2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Seven water, ground water samples were received for analysis at ALS Environmental on 05/01/2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by 

Date 05/22/2025



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-239	Lab ID: K2504426-002					
--------------------------	-----------------------------	--	--	--	--	--

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	5.5			0.50	ug/L	8260C

CLIENT ID: MW-97	Lab ID: K2504426-003					
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Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	1.7			0.50	ug/L	8260C



Sample Receipt Information

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request:K2504426

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2504426-001	KC-14	5/1/2025	0900
K2504426-002	MW-239	5/1/2025	0930
K2504426-003	MW-97	5/1/2025	1000
K2504426-004	MW-243	5/1/2025	1030
K2504426-005	MW-250	5/1/2025	1100
K2504426-006	USRW-2	5/1/2025	1130

Cooler Receipt and Preservation Form

PM LB

Client BSEC Service Request K25 04426
 Received: 5/1/25 Opened: 5/1/25 By: VM Unloaded: 5/1/25 By: VM

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front
- If present, were custody seals intact? NA Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp. Indicate with "X"	PM Notified If out of temp.	Tracking Number NA	Filed
<u>0.7</u>	<u>9.4</u>	<u>IR000</u>					

4. Was a Temperature Blank present in cooler? NA Y N If yes, note the temperature in the appropriate column below:

If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges? NA Y N

If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N

8. Were samples received in good condition (unbroken) NA Y N

9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N

10. Did all sample labels and tags agree with custody papers? NA Y N

11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N

12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N

13. Were VOA vials received without headspace? Indicate in the table below. NA Y N

14. Was C12/Res negative? NA Y N

15. Were samples received within method specified time limit? If not, notate the error below and notify the PM. NA Y N

16. Were 100mL sterile microbiology bottles filled exactly to the 100mL mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Received 2 trip blanks not on COC

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504426

Sample Name: KC-14
Lab Code: K2504426-001
Sample Matrix: Ground Water

Date Collected: 05/1/25
Date Received: 05/1/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-239
Lab Code: K2504426-002
Sample Matrix: Ground Water

Date Collected: 05/1/25
Date Received: 05/1/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-97
Lab Code: K2504426-003
Sample Matrix: Ground Water

Date Collected: 05/1/25
Date Received: 05/1/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-243
Lab Code: K2504426-004
Sample Matrix: Ground Water

Date Collected: 05/1/25
Date Received: 05/1/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: MW-250
Lab Code: K2504426-005
Sample Matrix: Ground Water

Date Collected: 05/1/25
Date Received: 05/1/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504426

Sample Name: USRW-2
Lab Code: K2504426-006
Sample Matrix: Ground Water

Date Collected: 05/1/25
Date Received: 05/1/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER



Sample Results

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Collected: 05/01/25 09:00
Date Received: 05/01/25 12:50

Sample Name: KC-14
Lab Code: K2504426-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 20:48	
Toluene	ND U	0.50	1	05/05/25 20:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	68 - 117	05/05/25 20:48	
Dibromofluoromethane	95	73 - 122	05/05/25 20:48	
Toluene-d8	95	65 - 144	05/05/25 20:48	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Collected: 05/01/25 09:30
Date Received: 05/01/25 12:50

Sample Name: MW-239
Lab Code: K2504426-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 21:12	
Toluene	5.5	0.50	1	05/05/25 21:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	68 - 117	05/05/25 21:12	
Dibromofluoromethane	97	73 - 122	05/05/25 21:12	
Toluene-d8	96	65 - 144	05/05/25 21:12	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Collected: 05/01/25 10:00
Date Received: 05/01/25 12:50

Sample Name: MW-97
Lab Code: K2504426-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 21:37	
Toluene	1.7	0.50	1	05/05/25 21:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	68 - 117	05/05/25 21:37	
Dibromofluoromethane	97	73 - 122	05/05/25 21:37	
Toluene-d8	94	65 - 144	05/05/25 21:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Collected: 05/01/25 10:30
Date Received: 05/01/25 12:50

Sample Name: MW-243
Lab Code: K2504426-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 22:02	
Toluene	ND U	0.50	1	05/05/25 22:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	68 - 117	05/05/25 22:02	
Dibromofluoromethane	98	73 - 122	05/05/25 22:02	
Toluene-d8	96	65 - 144	05/05/25 22:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Collected: 05/01/25 11:00
Date Received: 05/01/25 12:50

Sample Name: MW-250
Lab Code: K2504426-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 22:26	
Toluene	ND U	0.50	1	05/05/25 22:26	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	68 - 117	05/05/25 22:26	
Dibromofluoromethane	96	73 - 122	05/05/25 22:26	
Toluene-d8	93	65 - 144	05/05/25 22:26	



Semivolatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water
Sample Name: USRW-2
Lab Code: K2504426-006

Service Request: K2504426
Date Collected: 05/01/25 11:30
Date Received: 05/01/25 12:50
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Diphenyl Ether	ND U	1.0	1	05/21/25 01:52	5/5/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	91	48 - 114	05/21/25 01:52	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
KC-14	K2504426-001	101	95	95
MW-239	K2504426-002	99	97	96
MW-97	K2504426-003	99	97	94
MW-243	K2504426-004	102	98	96
MW-250	K2504426-005	99	96	93
Lab Control Sample	KQ2507543-03	101	98	96
Duplicate Lab Control Sample	KQ2507543-04	100	96	95
Method Blank	KQ2507543-05	100	96	94

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water
Sample Name: Method Blank
Lab Code: KQ2507543-05

Service Request: K2504426
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 17:55	
Toluene	ND U	0.50	1	05/05/25 17:55	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	68 - 117	05/05/25 17:55	
Dibromofluoromethane	96	73 - 122	05/05/25 17:55	
Toluene-d8	94	65 - 144	05/05/25 17:55	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Analyzed: 05/05/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 878034

Lab Control Sample
KQ2507543-03

Duplicate Lab Control Sample
KQ2507543-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	9.48	10.0	95	9.72	10.0	97	69-124	3	30
Toluene	9.25	10.0	93	9.53	10.0	95	69-124	3	30



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Extraction Method: EPA 3520C

Sample Name	Lab Code	2-Fluorobiphenyl
		48 - 114
USRW-2	K2504426-006	91
Method Blank	KQ2507341-01	71
Lab Control Sample	KQ2507341-02	83
Duplicate Lab Control Sample	KQ2507341-03	84

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water
Sample Name: Method Blank
Lab Code: KQ2507341-01

Service Request: K2504426
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Diphenyl Ether	ND U	1.0	1	05/20/25 19:02	5/5/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	71	48 - 114	05/20/25 19:02	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504426
Date Analyzed: 05/20/25
Date Extracted: 05/05/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Units: ug/L
Basis: NA
Analysis Lot: 879999

Lab Control Sample
KQ2507341-02

Duplicate Lab Control Sample
KQ2507341-03

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Diphenyl Ether	3.67	5.00	73	4.04	5.00	81	70-130	9	30



May 22, 2025

Service Request No:K2504015

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxess Kalama

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory April 17, 2025
For your reference, these analyses have been assigned our service request number **K2504015**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Client: RSEC Inc
Project: Lanxess Kalama
Sample Matrix: Water

Service Request: K2504015
Date Received: 04/17/2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Fourteen water samples were received for analysis at ALS Environmental on 04/17/2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

The reporting limit was elevated for Bis(2-ethylhexyl) Phthalate in all samples due to the calibration level required to support the routine reporting limit not being included in the associated calibration. The reporting limit was elevated to the level supported by the calibration.

Method 8270D, 05/20/2025: Sample ISRW-W required dilution due to the presence of elevated levels of Diphenyl Ether. The reporting limits are adjusted to reflect the dilution.

Volatiles by GC/MS:

Method 8260C, 04/21/2025: The detection limit was elevated for Toluene and Benzene in multiple samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The reporting limits were elevated to reflect the dilution.

Method 8260C, 04/21/2025: Multiple samples required dilution due to the presence of elevated levels of Toluene. The reporting limits are adjusted to reflect the dilution.

Approved by 

Date 05/22/2025



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: ISRW-4	Lab ID: K2504015-004
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	5.5			2.5	ug/L	8260C
Toluene	2000			25	ug/L	8260C

CLIENT ID: ISRW-6	Lab ID: K2504015-006
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	11			2.5	ug/L	8260C
Toluene	910			25	ug/L	8260C

CLIENT ID: ISRW-W	Lab ID: K2504015-012
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Biphenyl	2.0			0.94	ug/L	8270D
Diphenyl Ether	430			5.0	ug/L	8270D

CLIENT ID: ISRW-E	Lab ID: K2504015-013
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Diphenyl Ether	120			1.0	ug/L	8270D

CLIENT ID: ISRW-1	Lab ID: K2504015-001
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	16000			250	ug/L	8260C

CLIENT ID: ISRW-2b	Lab ID: K2504015-002
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Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	39000			500	ug/L	8260C

CLIENT ID: ISRW-3	Lab ID: K2504015-003
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	62000			1000	ug/L	8260C

CLIENT ID: ISRW-5	Lab ID: K2504015-005
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	24000			500	ug/L	8260C

CLIENT ID: ISRW-8	Lab ID: K2504015-008
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	19000			500	ug/L	8260C

CLIENT ID: ISRW-9	Lab ID: K2504015-009
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	44000			1000	ug/L	8260C

CLIENT ID: ISRW-10	Lab ID: K2504015-010
---------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	29000			1000	ug/L	8260C



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: ISRW-11		Lab ID: K2504015-011				
Analyte	Results	Flag	MDL	MRL	Units	Method
Toluene	23000			500	ug/L	8260C



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request:K2504015

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2504015-001	ISRW-1	4/17/2025	0900
K2504015-002	ISRW-2b	4/17/2025	0915
K2504015-003	ISRW-3	4/17/2025	0930
K2504015-004	ISRW-4	4/17/2025	0945
K2504015-005	ISRW-5	4/17/2025	1000
K2504015-006	ISRW-6	4/17/2025	1015
K2504015-007	ISRW-7	4/17/2025	1030
K2504015-008	ISRW-8	4/17/2025	1045
K2504015-009	ISRW-9	4/17/2025	1100
K2504015-010	ISRW-10	4/17/2025	1115
K2504015-011	ISRW-11	4/17/2025	1200
K2504015-012	ISRW-W	4/17/2025	1230
K2504015-013	ISRW-E	4/17/2025	1215
K2504015-014	Trip Blank	4/17/2025	



CHAIN OF CUSTODY

1317 South 13th Ave., Kelso, WA 98626 | +1 360 577 7222 | +1 800 695 7222 | +1 360 636 1068 (fax)

PAGE _____ OF _____

K2504015**5**RSEC Inc
Lanxess Kalama

PROJECT NAME	LANXESS Kalama
PROJECT NUMBER	LKC-0425
PROJECT MANAGER	Rich Truax
COMPANY NAME	RSEC
ADDRESS	958 Hood View Ct
CITY/STATE/ZIP	Hood River, OR 97031
E-MAIL ADDRESS	rsec.rich@outlook.com
PHONE #	541.490.4223
FAX #	4223
SAMPLER'S SIGNATURE	

NUMBER OF CONTAINERS

- Semivolatile Organics by GC/MS
625 8270 8270LL SIM/PAH
- Volatile Organics
624 8260
- Hydrocarbons (*see below)
8021 BTEX
- Gas Diesel Oil
- Oil & Grease/TRPH
1664 HEM 1664 SGT
- PCBs
- Aroclors
- Pesticides/Herbicides
608 8081
- Chlorophenolics
Tri Tetra 8141 8151
- Metals, Total or Dissolved
(See List below) PCP
- Cyanide
- (circle) pH, Cond., Cl, SO₄, PO₄, F, NO₂, NO₃, BOD, TSS, TDS, Turb.
(circle) NH₃-N, COD, TKN, TOC, DOC, NO₂+NO₃, T-Phos
- TOX 9020 AOX 1650 506
- Alkalinity CO₃ HCO₃
- Dioxins/Furans
1613 8290
- Dissolved Gases
RSK 175 Methane CO₂ Ethane Et

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	CONTAINERS	ANALYSIS	REMARKS
ISRW-1	4/17	0940		GW	3	X	
ISRW-2b		0915					
ISRW-3		0930					
ISAW-4		0945					
ISRW-5		1000					
ISRW-6		1015					
ISRW-7		1030					
ISRW-8		1045					
ISRW-9		1100					
ISRW-10		1115					

REPORT REQUIREMENTS

I. Routine Report: Method Blank, Surrogate, as required

II. Report Dup., MS, MSD as required

III. CLP Like Summary (no raw data)

IV. Data Validation Report

V. EDD

INVOICE INFORMATION

P.O. # LKC-0425

Bill To: rsec.rich@outlook.com

TURNAROUND REQUIREMENTS

24 hr. 48 hr.

5 day

Standard (15 working days)

Provide FAX Results

Requested Report Date _____

Circle which metals are to be analyzed:

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg

***INDICATE STATE HYDROCARBON PROCEDURE: AK CA WI NORTHWEST OTHER: _____ (CIRCLE ONE)**

SPECIAL INSTRUCTIONS/COMMENTS:

Typical kalama/RSEC for ISRW 8260's; benzene+toluene. Some likely elevated concentrations. Need concentration limit <2ug/L for benzene when possible.

Sample Shipment contains USDA regulated soil samples (check box if applicable)

RELINQUISHED BY:

Signature: Rich Truax Date/Time: 4/17/12 4:55

Printed Name: Rich Truax Firm: RSEC

RECEIVED BY:

Signature: Anthony Decorte Date/Time: 04/17/25 1330

Printed Name: ANTHONY DECORTE Firm: ALS

RELINQUISHED BY:

Signature: _____ Date/Time: _____

Printed Name: _____ Firm: _____

RECEIVED BY:

Signature: _____ Date/Time: _____

Printed Name: _____ Firm: _____

Cooler Receipt and Preservation Form

PM JB

Client Lanxess Service Request K25 04015
 Received: 4/17/25 Opened: 4/17/25 By: plp Unloaded: 4/17/25 By: plp

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 2. Samples were received in: (circle) Cooler Box Envelope Other NA
 3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / <u>NA</u>	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number <u>NA</u>	Filed
<u>6.0</u>	<u>4.7</u>	<u>IR02</u>					

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column below:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
 5. Were samples received within the method specified temperature ranges? NA Y N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves
 7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
 8. Were samples received in good condition (unbroken) NA Y N
 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
 10. Did all sample labels and tags agree with custody papers? NA Y N
 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
 13. Were VOA vials received without headspace? Indicate in the table below. NA Y N
 14. Was C12/Res negative? NA Y N
 15. Were samples received within method specified time limit? If not, notate the error below and notify the PM. NA Y N
 16. Were 100mL sterile microbiology bottles filled exactly to the 100mL mark? NA Y N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Trip Blanks not listed on COC
No time stamp on label chain for 153W-11. Logged per label.
 (1200)

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504015

Sample Name: ISRW-1
Lab Code: K2504015-001
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-1
Lab Code: K2504015-001.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-2b
Lab Code: K2504015-002
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-2b
Lab Code: K2504015-002.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-3
Lab Code: K2504015-003
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504015

Sample Name: ISRW-3
Lab Code: K2504015-003.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-4
Lab Code: K2504015-004
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-4
Lab Code: K2504015-004.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-5
Lab Code: K2504015-005
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-5
Lab Code: K2504015-005.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504015

Sample Name: ISRW-6
Lab Code: K2504015-006
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-6
Lab Code: K2504015-006.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-7
Lab Code: K2504015-007
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-8
Lab Code: K2504015-008
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-8
Lab Code: K2504015-008.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504015

Sample Name: ISRW-9
Lab Code: K2504015-009
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-9
Lab Code: K2504015-009.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-10
Lab Code: K2504015-010
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-10
Lab Code: K2504015-010.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-11
Lab Code: K2504015-011
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504015

Sample Name: ISRW-11
Lab Code: K2504015-011.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL

Sample Name: ISRW-W
Lab Code: K2504015-012
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

Sample Name: ISRW-W
Lab Code: K2504015-012.R01
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: ISRW-E
Lab Code: K2504015-013
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504015

Sample Name: Trip Blank
Lab Code: K2504015-014
Sample Matrix: Water

Date Collected: 04/17/25
Date Received: 04/17/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 09:00
Date Received: 04/17/25 13:30

Sample Name: ISRW-1
Lab Code: K2504015-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	25	50	04/21/25 19:21	
Toluene	16000	250	500	04/21/25 14:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	04/21/25 19:21	
Dibromofluoromethane	103	73 - 122	04/21/25 19:21	
Toluene-d8	95	65 - 144	04/21/25 19:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 09:15
Date Received: 04/17/25 13:30

Sample Name: ISRW-2b
Lab Code: K2504015-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	04/21/25 19:42	
Toluene	39000	500	1000	04/21/25 15:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	04/21/25 19:42	
Dibromofluoromethane	106	73 - 122	04/21/25 19:42	
Toluene-d8	94	65 - 144	04/21/25 19:42	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 09:30
Date Received: 04/17/25 13:30

Sample Name: ISRW-3
Lab Code: K2504015-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	100	200	04/21/25 20:03	
Toluene	62000	1000	2000	04/21/25 15:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	04/21/25 20:03	
Dibromofluoromethane	103	73 - 122	04/21/25 20:03	
Toluene-d8	101	65 - 144	04/21/25 20:03	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 09:45
Date Received: 04/17/25 13:30

Sample Name: ISRW-4
Lab Code: K2504015-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	5.5	2.5	5	04/21/25 20:24	
Toluene	2000	25	50	04/21/25 15:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	04/21/25 20:24	
Dibromofluoromethane	101	73 - 122	04/21/25 20:24	
Toluene-d8	99	65 - 144	04/21/25 20:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 10:00
Date Received: 04/17/25 13:30

Sample Name: ISRW-5
Lab Code: K2504015-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	04/21/25 20:45	
Toluene	24000	500	1000	04/21/25 16:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	04/21/25 20:45	
Dibromofluoromethane	101	73 - 122	04/21/25 20:45	
Toluene-d8	97	65 - 144	04/21/25 20:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 10:15
Date Received: 04/17/25 13:30

Sample Name: ISRW-6
Lab Code: K2504015-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	11	2.5	5	04/21/25 21:06	
Toluene	910	25	50	04/21/25 16:33	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	82	68 - 117	04/21/25 21:06	
Dibromofluoromethane	102	73 - 122	04/21/25 21:06	
Toluene-d8	100	65 - 144	04/21/25 21:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 10:30
Date Received: 04/17/25 13:30

Sample Name: ISRW-7
Lab Code: K2504015-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/21/25 16:54	
Toluene	ND U	0.50	1	04/21/25 16:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	04/21/25 16:54	
Dibromofluoromethane	108	73 - 122	04/21/25 16:54	
Toluene-d8	102	65 - 144	04/21/25 16:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 10:45
Date Received: 04/17/25 13:30

Sample Name: ISRW-8
Lab Code: K2504015-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	04/21/25 21:28	
Toluene	19000	500	1000	04/21/25 17:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	83	68 - 117	04/21/25 21:28	
Dibromofluoromethane	106	73 - 122	04/21/25 21:28	
Toluene-d8	97	65 - 144	04/21/25 21:28	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 11:00
Date Received: 04/17/25 13:30

Sample Name: ISRW-9
Lab Code: K2504015-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	100	200	04/21/25 21:49	
Toluene	44000	1000	2000	04/21/25 17:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	68 - 117	04/21/25 21:49	
Dibromofluoromethane	102	73 - 122	04/21/25 21:49	
Toluene-d8	98	65 - 144	04/21/25 21:49	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 11:15
Date Received: 04/17/25 13:30

Sample Name: ISRW-10
Lab Code: K2504015-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	100	200	04/21/25 22:10	
Toluene	29000	1000	2000	04/21/25 17:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	04/21/25 22:10	
Dibromofluoromethane	105	73 - 122	04/21/25 22:10	
Toluene-d8	93	65 - 144	04/21/25 22:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 12:00
Date Received: 04/17/25 13:30

Sample Name: ISRW-11
Lab Code: K2504015-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	50	100	04/22/25 17:56	
Toluene	23000	500	1000	04/21/25 18:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	68 - 117	04/22/25 17:56	
Dibromofluoromethane	114	73 - 122	04/22/25 17:56	
Toluene-d8	97	65 - 144	04/22/25 17:56	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 12:30
Date Received: 04/17/25 13:30

Sample Name: ISRW-W
Lab Code: K2504015-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/21/25 18:39	
Toluene	ND U	0.50	1	04/21/25 18:39	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	04/21/25 18:39	
Dibromofluoromethane	105	73 - 122	04/21/25 18:39	
Toluene-d8	96	65 - 144	04/21/25 18:39	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 12:15
Date Received: 04/17/25 13:30

Sample Name: ISRW-E
Lab Code: K2504015-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/21/25 19:00	
Toluene	ND U	0.50	1	04/21/25 19:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	04/21/25 19:00	
Dibromofluoromethane	106	73 - 122	04/21/25 19:00	
Toluene-d8	97	65 - 144	04/21/25 19:00	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water
Sample Name: Trip Blank
Lab Code: K2504015-014

Service Request: K2504015
Date Collected: 04/17/25
Date Received: 04/17/25 13:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/21/25 14:27	
Toluene	ND U	0.50	1	04/21/25 14:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	04/21/25 14:27	
Dibromofluoromethane	104	73 - 122	04/21/25 14:27	
Toluene-d8	102	65 - 144	04/21/25 14:27	



Semivolatile Organic Compounds by GC/MS

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 12:30
Date Received: 04/17/25 13:30

Sample Name: ISRW-W
Lab Code: K2504015-012

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	2.0	0.94	1	05/20/25 22:16	4/23/25	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 22:16	4/23/25	
Diphenyl Ether	430	5.0	5	05/21/25 12:10	4/23/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	88	48 - 114	05/20/25 22:16	
p-Terphenyl-d14	110	22 - 146	05/20/25 22:16	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25 12:15
Date Received: 04/17/25 13:30

Sample Name: ISRW-E
Lab Code: K2504015-013

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	ND U	0.94	1	05/20/25 22:40	4/23/25	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 22:40	4/23/25	
Diphenyl Ether	120	1.0	1	05/20/25 22:40	4/23/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	85	48 - 114	05/20/25 22:40	
p-Terphenyl-d14	78	22 - 146	05/20/25 22:40	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
ISRW-1	K2504015-001	82	103	95
ISRW-2b	K2504015-002	88	106	94
ISRW-3	K2504015-003	84	103	101
ISRW-4	K2504015-004	83	101	99
ISRW-5	K2504015-005	88	101	97
ISRW-6	K2504015-006	82	102	100
ISRW-7	K2504015-007	84	108	102
ISRW-8	K2504015-008	83	106	97
ISRW-9	K2504015-009	85	102	98
ISRW-10	K2504015-010	88	105	93
ISRW-11	K2504015-011	85	114	97
ISRW-W	K2504015-012	84	105	96
ISRW-E	K2504015-013	87	106	97
Trip Blank	K2504015-014	84	104	102
Lab Control Sample	KQ2506665-03	88	99	100
Duplicate Lab Control Sample	KQ2506665-04	94	94	100
Method Blank	KQ2506665-05	85	98	97
ISRW-E MS	KQ2506665-06	94	99	103
ISRW-E DMS	KQ2506665-07	91	99	96
Lab Control Sample	KQ2506744-03	87	97	103
Duplicate Lab Control Sample	KQ2506744-04	92	103	100
Method Blank	KQ2506744-05	80	108	101

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25
Date Received: 04/17/25
Date Analyzed: 04/21/25
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: ISRW-E
Lab Code: K2504015-013
Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike KQ2506665-06		Duplicate Matrix Spike KQ2506665-07		% Rec Limits	RPD	RPD Limit	
			Spike Amount	% Rec	Result	Spike Amount				% Rec
Benzene	ND U	9.48	10.0	95	9.40	10.0	94	63-144	<1	30
Toluene	ND U	8.98	10.0	90	9.15	10.0	92	71-136	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2506665-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/21/25 14:06	
Toluene	ND U	0.50	1	04/21/25 14:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	68 - 117	04/21/25 14:06	
Dibromofluoromethane	98	73 - 122	04/21/25 14:06	
Toluene-d8	97	65 - 144	04/21/25 14:06	

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dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2506744-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/22/25 14:47	
Toluene	ND U	0.50	1	04/22/25 14:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	80	68 - 117	04/22/25 14:47	
Dibromofluoromethane	108	73 - 122	04/22/25 14:47	
Toluene-d8	101	65 - 144	04/22/25 14:47	

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Analyzed: 04/21/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 876629

Lab Control Sample
KQ2506665-03

Duplicate Lab Control Sample
KQ2506665-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	8.82	10.0	88	9.38	10.0	94	69-124	6	30
Toluene	8.43	10.0	84	9.26	10.0	93	69-124	9	30

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Analyzed: 04/22/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 876774

Lab Control Sample
KQ2506744-03

Duplicate Lab Control Sample
KQ2506744-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	9.07	10.0	91	9.88	10.0	99	69-124	9	30
Toluene	8.52	10.0	85	9.16	10.0	92	69-124	7	30



Semivolatile Organic Compounds by GC/MS

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Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Extraction Method: EPA 3520C

Sample Name	Lab Code	2-Fluorobiphenyl	p-Terphenyl-d14
		48 - 114	22 - 146
ISRW-W	K2504015-012	88	110
ISRW-E	K2504015-013	85	78
Method Blank	KQ2506691-01	84	97
Lab Control Sample	KQ2506691-02	91	101
ISRW-E MS	KQ2506691-03	86	82
ISRW-E DMS	KQ2506691-04	88	87

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: 04/17/25
Date Received: 04/17/25
Date Analyzed: 05/20/25
Date Extracted: 04/23/25

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS SIM

Sample Name: ISRW-E
Lab Code: K2504015-013
Analysis Method: 8270D
Prep Method: EPA 3520C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike KQ2506691-03			Duplicate Matrix Spike KQ2506691-04			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Biphenyl	ND U	4.05	4.72	86	4.12	4.72	87	70-130	2	30
Bis(2-ethylhexyl) Phthalate	ND U	3.09	4.72	66	3.78	4.72	80	10-197	20	30
Diphenyl Ether	120	125	4.72	85 #	125	4.72	77 #	70-130	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2506691-01

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	ND U	0.94	1	05/20/25 18:14	4/23/25	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 18:14	4/23/25	
Diphenyl Ether	ND U	1.0	1	05/20/25 18:14	4/23/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	84	48 - 114	05/20/25 18:14	
p-Terphenyl-d14	97	22 - 146	05/20/25 18:14	

ALS Group USA, Corp.
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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Water

Service Request: K2504015
Date Analyzed: 05/20/25
Date Extracted: 04/23/25

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Units: ug/L
Basis: NA
Analysis Lot: 879999

Lab Control Sample
KQ2506691-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Biphenyl	4.16	5.00	83	70-130
Bis(2-ethylhexyl) Phthalate	3.60	5.00	72	64-122
Diphenyl Ether	4.13	5.00	83	70-130



May 22, 2025

Service Request No:K2504298

Rich Truax
RSEC Inc
958 Hood View Ct.
Hood River, OR 97031

Laboratory Results for: Lanxess Kalama

Dear Rich,

Enclosed are the results of the sample(s) submitted to our laboratory April 28, 2025
For your reference, these analyses have been assigned our service request number **K2504298**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager

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PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Client: RSEC Inc
Project: Lanxess Kalama
Sample Matrix: Ground Water

Service Request: K2504298
Date Received: 04/28/2025

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Eight ground water samples were received for analysis at ALS Environmental on 04/28/2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, 05/21/2025: The recovery of Biphenyl and Diphenyl Ether in Laboratory Control Sample (LCS) KQ2507046-02 was outside the control limits listed in the results summary. The limits are default values temporarily in use until sufficient data points are generated to calculate statistical control limits. Based on the method and historic data, the recoveries observed were in the range expected for this procedure. No further corrective action was taken.

The reporting limit was elevated for Bis(2-ethylhexyl) Phthalate in all samples due to the calibration level required to support the routine reporting limit not being included in the associated calibration. The reporting limit was elevated to the level supported by the calibration.

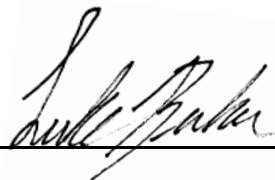
Method 8270D, 05/21/2025: The control criteria were exceeded for 2-Fluorobiphenyl in samples MW-401 and PZ-104 due to matrix interference. The presence of non-target background components prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

Method 8270D, 05/21/2025: Multiple samples required dilution due to the presence of elevated levels of Diphenyl Ether. The reporting limits are adjusted to reflect the dilution.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by



Date

05/22/2025



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: MW-401	Lab ID: K2504298-002
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	2.3			0.50	ug/L	8260C
Biphenyl	46			0.94	ug/L	8270D
Diphenyl Ether	4300			50	ug/L	8270D

CLIENT ID: PZ-104	Lab ID: K2504298-003
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	2.3			0.50	ug/L	8260C
Biphenyl	38			0.94	ug/L	8270D
Diphenyl Ether	4600			50	ug/L	8270D

CLIENT ID: PDW-117	Lab ID: K2504298-004
---------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	3.0			0.50	ug/L	8260C
Diphenyl Ether	1600			20	ug/L	8270D

CLIENT ID: KC-9	Lab ID: K2504298-005
------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Benzene	0.72			0.50	ug/L	8260C
Diphenyl Ether	2000			20	ug/L	8270D

CLIENT ID: PZ-107	Lab ID: K2504298-001
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Biphenyl	79			0.94	ug/L	8270D
Diphenyl Ether	170			1.0	ug/L	8270D
Toluene	1.2			0.50	ug/L	8260C

CLIENT ID: MW-256	Lab ID: K2504298-006
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Diphenyl Ether	18			1.0	ug/L	8270D

CLIENT ID: MW-245	Lab ID: K2504298-007
--------------------------	-----------------------------

Analyte	Results	Flag	MDL	MRL	Units	Method
Diphenyl Ether	85			1.0	ug/L	8270D



Sample Receipt Information

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Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request:K2504298

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2504298-001	PZ-107	4/28/2025	0800
K2504298-002	MW-401	4/28/2025	0830
K2504298-003	PZ-104	4/28/2025	0845
K2504298-004	PDW-117	4/28/2025	1200
K2504298-005	KC-9	4/28/2025	1230
K2504298-006	MW-256	4/28/2025	1300
K2504298-007	MW-245	4/28/2025	1330
K2504298-008	Trip Blank	4/28/2025	

Cooler Receipt and Preservation Form

PM Lh

Client CanXpress Service Request K25 04298
 Received: 4/18/25 Opened: 4/18/25 By: AL Unloaded: 4/18/25 By: AL

1. Samples were received via? **USPS** Cooler **Fed Ex** **UPS** **DHL** **PDX** **Courier** Hand Delivered
2. Samples were received in: (circle) Cooler **Box** **Envelope** **Other** NA
3. Were custody seals on coolers? **NA** Y **N** If yes, how many and where? 1 front
- If present, were custody seals intact? Y **N** If present, were they signed and dated? Y **N**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number <u>NA</u>	Filed
7.4	8.3	TR-06					
	15.2	TR-06					

4. Was a Temperature Blank present in cooler? **NA** Y **N** If yes, note the temperature in the appropriate column below:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? **NA** **Y** N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. **NA** Y **N**
- If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**
6. Packing material: Insects Baggies Bubble Wrap Gel Packs Wet Ice **Dry Ice** **Sleeves** _____
7. Were custody papers properly filled out (ink, signed, etc.)? **NA** Y **N**
8. Were samples received in good condition (unbroken) **NA** Y **N**
9. Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** Y **N**
10. Did all sample labels and tags agree with custody papers? **NA** Y **N**
11. Were appropriate bottles/containers and volumes received for the tests indicated? **NA** Y **N**
12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA **Y** **N**
13. Were VOA vials received without headspace? Indicate in the table below. **NA** Y **N**
14. Was C12/Res negative? NA **Y** **N**
15. Were samples received within method specified time limit? If not, notate the error below and notify the PM. NA **Y** **N**
16. Were 100mL sterile microbiology bottles filled exactly to the 100mL mark? NA **Y** **N** Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: Received 2 Trip blanks not on COC

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Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504298

Sample Name: PZ-107
Lab Code: K2504298-001
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8260C
8270D

Extracted/Digested By

JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

Sample Name: MW-401
Lab Code: K2504298-002
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8260C
8270D

Extracted/Digested By

JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

Sample Name: MW-401
Lab Code: K2504298-002.R01
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: PZ-104
Lab Code: K2504298-003
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8260C
8270D

Extracted/Digested By

JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

ALS Group USA, Corp.
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Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504298

Sample Name: PZ-104
Lab Code: K2504298-003.R01
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: PDW-117
Lab Code: K2504298-004
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8260C
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

Sample Name: PDW-117
Lab Code: K2504298-004.R01
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: KC-9
Lab Code: K2504298-005
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8260C
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
MCRESWELL
CDEGNER

ALS Group USA, Corp.
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Analyst Summary report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425

Service Request: K2504298

Sample Name: KC-9
Lab Code: K2504298-005.R01
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: MW-256
Lab Code: K2504298-006
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: MW-245
Lab Code: K2504298-007
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8270D

Extracted/Digested By
JCHRISTENSEN

Analyzed By
CDEGNER

Sample Name: Trip Blank
Lab Code: K2504298-008
Sample Matrix: Ground Water

Date Collected: 04/28/25
Date Received: 04/28/25

Analysis Method
8260C

Extracted/Digested By

Analyzed By
MCRESWELL



Sample Results

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 08:00
Date Received: 04/28/25 16:30

Sample Name: PZ-107
Lab Code: K2504298-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/29/25 16:38	
Toluene	1.2	0.50	1	04/29/25 16:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	68 - 117	04/29/25 16:38	
Dibromofluoromethane	98	73 - 122	04/29/25 16:38	
Toluene-d8	94	65 - 144	04/29/25 16:38	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 08:30
Date Received: 04/28/25 16:30

Sample Name: MW-401
Lab Code: K2504298-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	2.3	0.50	1	04/29/25 17:02	
Toluene	ND U	0.50	1	04/29/25 17:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	68 - 117	04/29/25 17:02	
Dibromofluoromethane	99	73 - 122	04/29/25 17:02	
Toluene-d8	94	65 - 144	04/29/25 17:02	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 08:45
Date Received: 04/28/25 16:30

Sample Name: PZ-104
Lab Code: K2504298-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	2.3	0.50	1	04/29/25 17:27	
Toluene	ND U	0.50	1	04/29/25 17:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	68 - 117	04/29/25 17:27	
Dibromofluoromethane	96	73 - 122	04/29/25 17:27	
Toluene-d8	94	65 - 144	04/29/25 17:27	

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 12:00
Date Received: 04/28/25 16:30

Sample Name: PDW-117
Lab Code: K2504298-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	3.0	0.50	1	04/29/25 17:52	
Toluene	ND U	0.50	1	04/29/25 17:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	68 - 117	04/29/25 17:52	
Dibromofluoromethane	97	73 - 122	04/29/25 17:52	
Toluene-d8	95	65 - 144	04/29/25 17:52	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 12:30
Date Received: 04/28/25 16:30

Sample Name: KC-9
Lab Code: K2504298-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	0.72	0.50	1	04/29/25 18:16	
Toluene	ND U	0.50	1	04/29/25 18:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	68 - 117	04/29/25 18:16	
Dibromofluoromethane	96	73 - 122	04/29/25 18:16	
Toluene-d8	96	65 - 144	04/29/25 18:16	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25
Date Received: 04/28/25 16:30

Sample Name: Trip Blank
Lab Code: K2504298-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 18:20	
Toluene	ND U	0.50	1	05/05/25 18:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	68 - 117	05/05/25 18:20	
Dibromofluoromethane	95	73 - 122	05/05/25 18:20	
Toluene-d8	94	65 - 144	05/05/25 18:20	



Semivolatile Organic Compounds by GC/MS

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 08:00
Date Received: 04/28/25 16:30

Sample Name: PZ-107
Lab Code: K2504298-001

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	79	0.94	1	05/20/25 23:04	4/29/25	*
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 23:04	4/29/25	
Diphenyl Ether	170	1.0	1	05/20/25 23:04	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	80	48 - 114	05/20/25 23:04	
p-Terphenyl-d14	77	22 - 146	05/20/25 23:04	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 08:30
Date Received: 04/28/25 16:30

Sample Name: MW-401
Lab Code: K2504298-002

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	46	0.94	1	05/20/25 23:28	4/29/25	*
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 23:28	4/29/25	
Diphenyl Ether	4300	50	50	05/21/25 13:23	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	159	48 - 114	05/20/25 23:28	*
p-Terphenyl-d14	79	22 - 146	05/20/25 23:28	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 08:45
Date Received: 04/28/25 16:30

Sample Name: PZ-104
Lab Code: K2504298-003

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	38	0.94	1	05/20/25 23:52	4/29/25	*
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 23:52	4/29/25	
Diphenyl Ether	4600	50	50	05/21/25 15:38	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	153	48 - 114	05/20/25 23:52	*
p-Terphenyl-d14	77	22 - 146	05/20/25 23:52	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 12:00
Date Received: 04/28/25 16:30

Sample Name: PDW-117
Lab Code: K2504298-004

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Diphenyl Ether	1600	20	20	05/21/25 12:34	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	89	48 - 114	05/21/25 12:34	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 12:30
Date Received: 04/28/25 16:30

Sample Name: KC-9
Lab Code: K2504298-005

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Diphenyl Ether	2000	20	20	05/21/25 12:58	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	84	48 - 114	05/21/25 12:58	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 13:00
Date Received: 04/28/25 16:30

Sample Name: MW-256
Lab Code: K2504298-006

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Diphenyl Ether	18	1.0	1	05/21/25 01:04	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	86	48 - 114	05/21/25 01:04	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Collected: 04/28/25 13:30
Date Received: 04/28/25 16:30

Sample Name: MW-245
Lab Code: K2504298-007

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Diphenyl Ether	85	1.0	1	05/21/25 01:28	4/29/25	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	83	48 - 114	05/21/25 01:28	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68 - 117	73 - 122	65 - 144
PZ-107	K2504298-001	100	98	94
MW-401	K2504298-002	102	99	94
PZ-104	K2504298-003	102	96	94
PDW-117	K2504298-004	98	97	95
KC-9	K2504298-005	101	96	96
Trip Blank	K2504298-008	99	95	94
Lab Control Sample	KQ2507161-03	100	100	96
Duplicate Lab Control Sample	KQ2507161-04	101	103	97
Method Blank	KQ2507161-05	100	97	94
Lab Control Sample	KQ2507543-03	101	98	96
Duplicate Lab Control Sample	KQ2507543-04	100	96	95
Method Blank	KQ2507543-05	100	96	94

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water
Sample Name: Method Blank
Lab Code: KQ2507161-05

Service Request: K2504298
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	04/29/25 15:24	
Toluene	ND U	0.50	1	04/29/25 15:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	68 - 117	04/29/25 15:24	
Dibromofluoromethane	97	73 - 122	04/29/25 15:24	
Toluene-d8	94	65 - 144	04/29/25 15:24	

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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water
Sample Name: Method Blank
Lab Code: KQ2507543-05

Service Request: K2504298
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Benzene	ND U	0.50	1	05/05/25 17:55	
Toluene	ND U	0.50	1	05/05/25 17:55	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	68 - 117	05/05/25 17:55	
Dibromofluoromethane	96	73 - 122	05/05/25 17:55	
Toluene-d8	94	65 - 144	05/05/25 17:55	

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Analyzed: 04/29/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 877534

Lab Control Sample
KQ2507161-03

Duplicate Lab Control Sample
KQ2507161-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	10.2	10.0	102	10.8	10.0	108	69-124	6	30
Toluene	10.0	10.0	100	10.5	10.0	105	69-124	5	30

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QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Analyzed: 05/05/25
Date Extracted: NA

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: None

Units: ug/L
Basis: NA
Analysis Lot: 878034

Lab Control Sample
KQ2507543-03

Duplicate Lab Control Sample
KQ2507543-04

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Benzene	9.48	10.0	95	9.72	10.0	97	69-124	3	30
Toluene	9.25	10.0	93	9.53	10.0	95	69-124	3	30



Semivolatile Organic Compounds by GC/MS

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Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Extraction Method: EPA 3520C

Sample Name	Lab Code	2-Fluorobiphenyl	p-Terphenyl-d14
		48 - 114	22 - 146
PZ-107	K2504298-001	80	77
MW-401	K2504298-002	159 *	79
PZ-104	K2504298-003	153 *	77
PDW-117	K2504298-004	89	
KC-9	K2504298-005	84	
MW-256	K2504298-006	86	
MW-245	K2504298-007	83	
Method Blank	KQ2507046-01	68	77
Lab Control Sample	KQ2507046-02	83	97
Duplicate Lab Control Sample	KQ2507046-03	85	98

ALS Group USA, Corp.
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Analytical Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water
Sample Name: Method Blank
Lab Code: KQ2507046-01

Service Request: K2504298
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
Biphenyl	ND U	0.94	1	05/20/25 18:38	4/29/25	
Bis(2-ethylhexyl) Phthalate	ND U	2.4	1	05/20/25 18:38	4/29/25	
Diphenyl Ether	ND U	1.0	1	05/20/25 18:38	4/29/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	68	48 - 114	05/20/25 18:38	
p-Terphenyl-d14	77	22 - 146	05/20/25 18:38	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: RSEC Inc
Project: Lanxess Kalama/LKC-0425
Sample Matrix: Ground Water

Service Request: K2504298
Date Analyzed: 05/20/25
Date Extracted: 04/29/25

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270D
Prep Method: EPA 3520C

Units: ug/L
Basis: NA
Analysis Lot: 879999

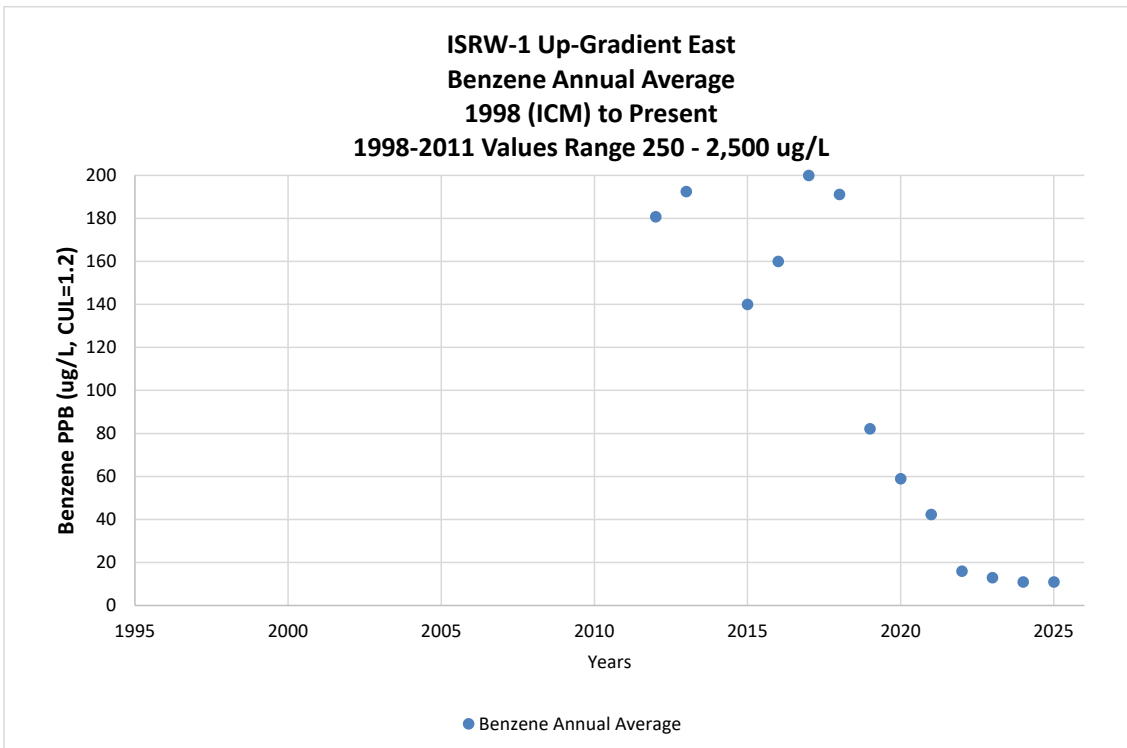
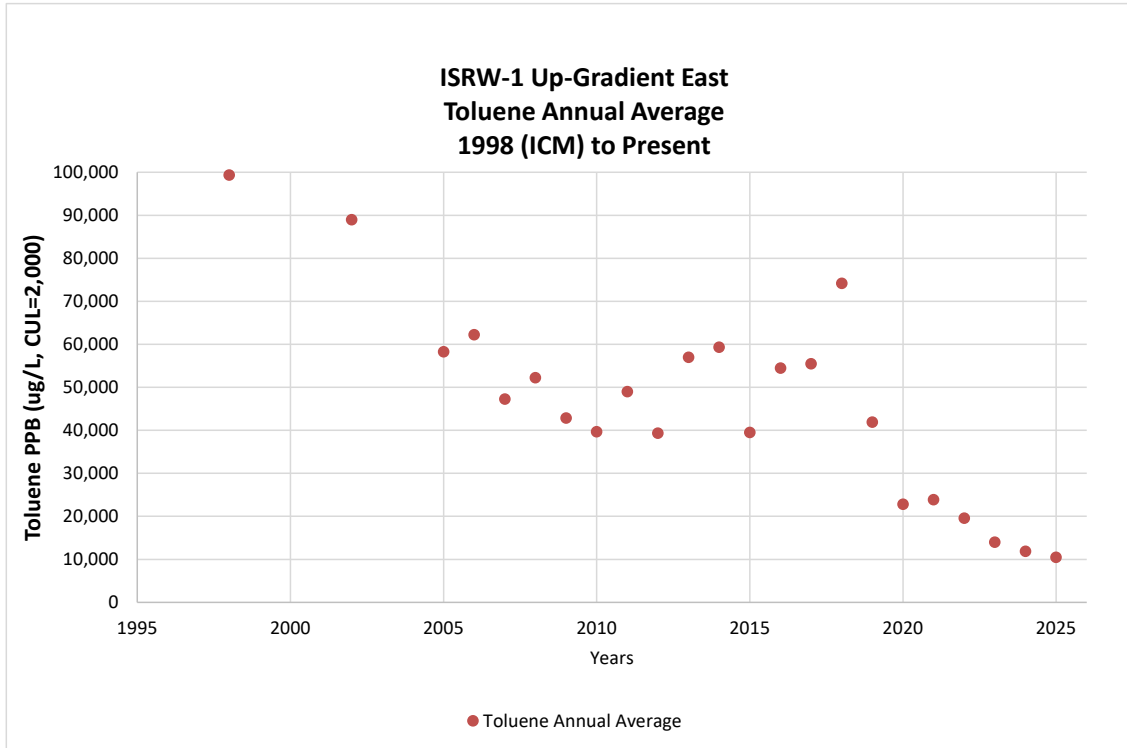
Lab Control Sample
KQ2507046-02

Duplicate Lab Control Sample
KQ2507046-03

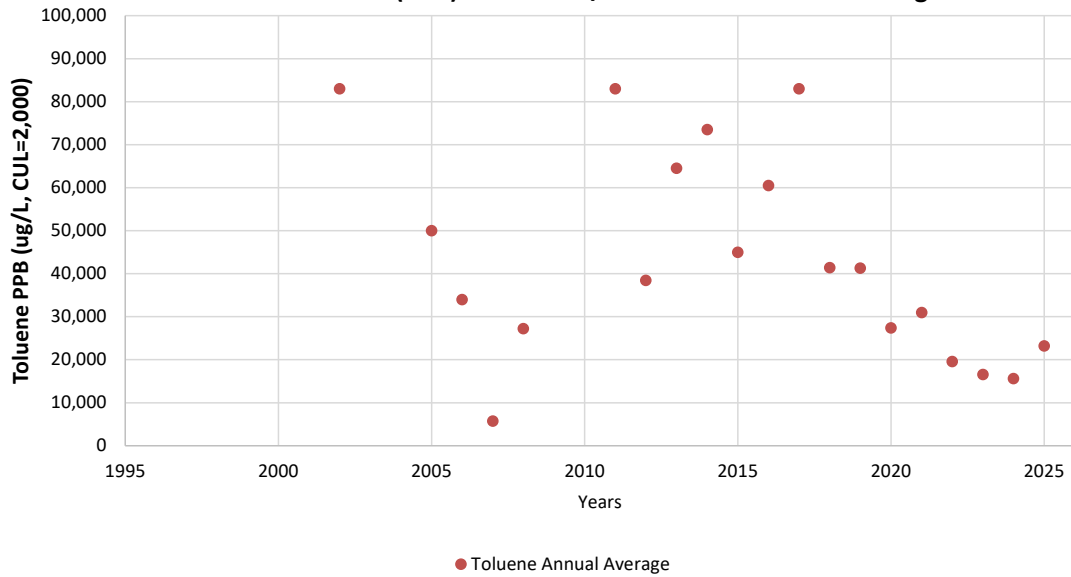
Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Biphenyl	3.23	5.00	65 *	4.01	5.00	80	70-130	21	30
Bis(2-ethylhexyl) Phthalate	3.42	5.00	68	3.71	5.00	74	64-122	8	30
Diphenyl Ether	3.32	5.00	66 *	4.05	5.00	81	70-130	20	30

Appendix C

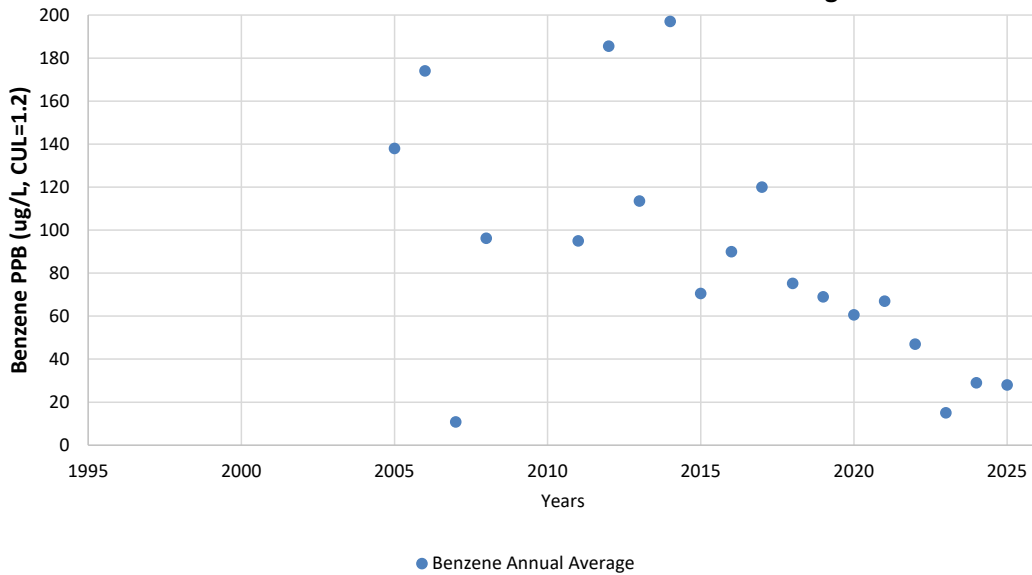
ISRW Benzene & Toluene Concentration Trend Charts



**ISRW-2b Up-Gradient East
Toluene Annual Average
1998 (ICM) to Present / Pre-2002 Above Chart Range**



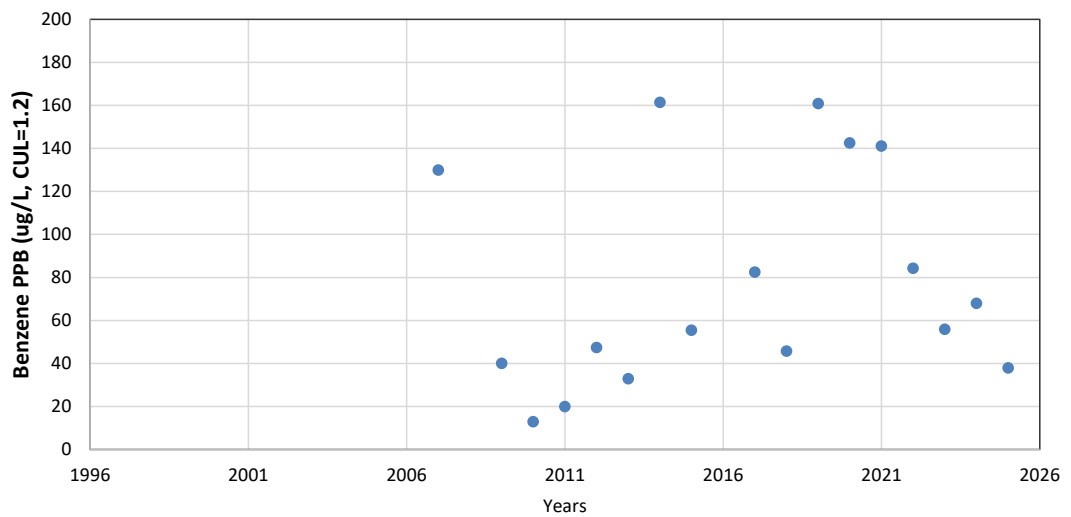
**ISRW-2b Up-Gradient East
Benzene Annual Average
1998 (ICM) to Present
Pre-2005 Concentration Above Chart Range**



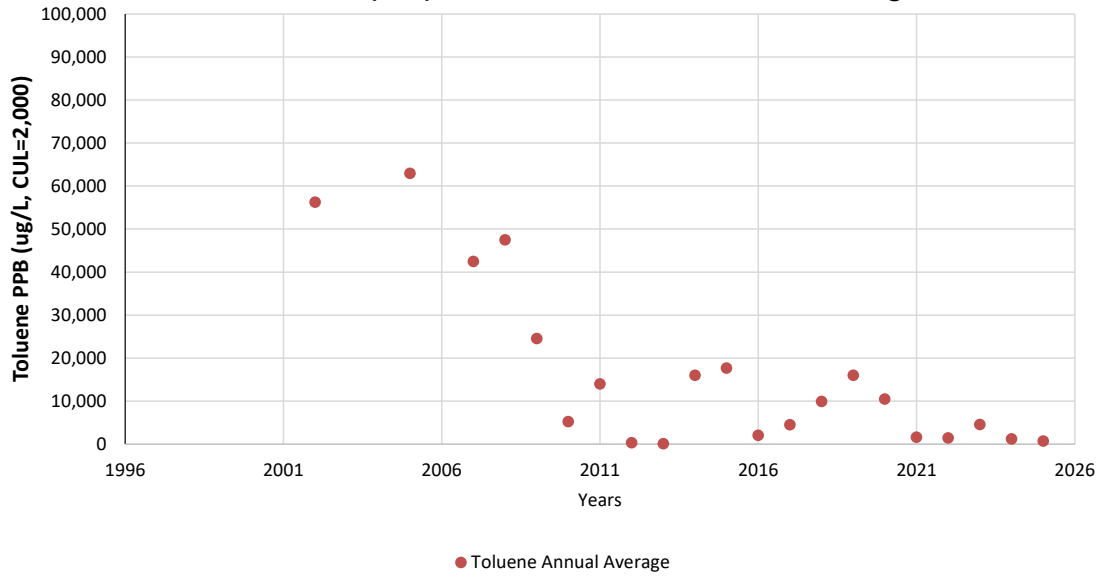
**ISRW-3 Central Plume Area
Toluene Annual Average
1998 (ICM) to Present / Pre-2002 Above Chart Range**



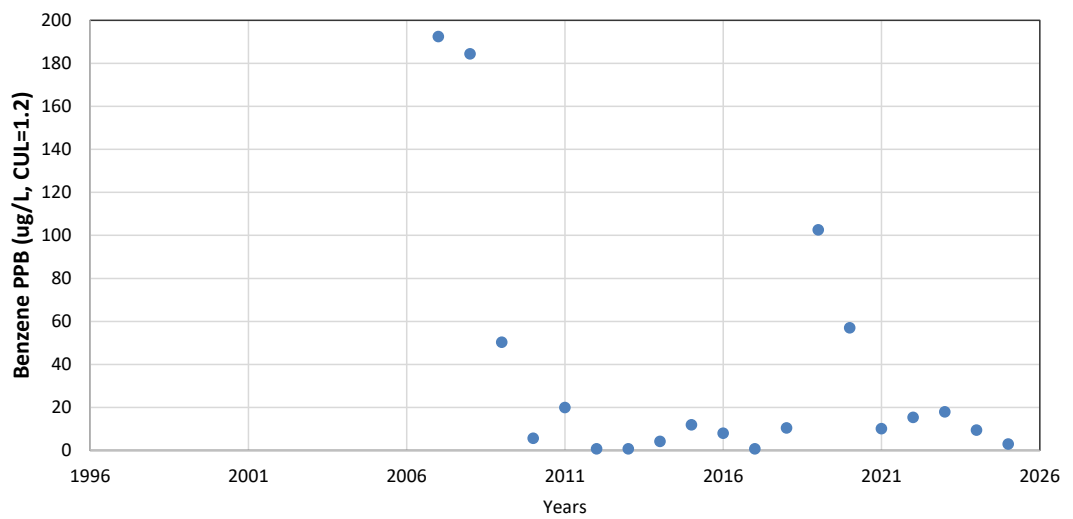
**ISRW-3 Central Plume Area
Benzene Annual Average
1998 (ICM) to Present / Pre-2007 Above Chart Range**



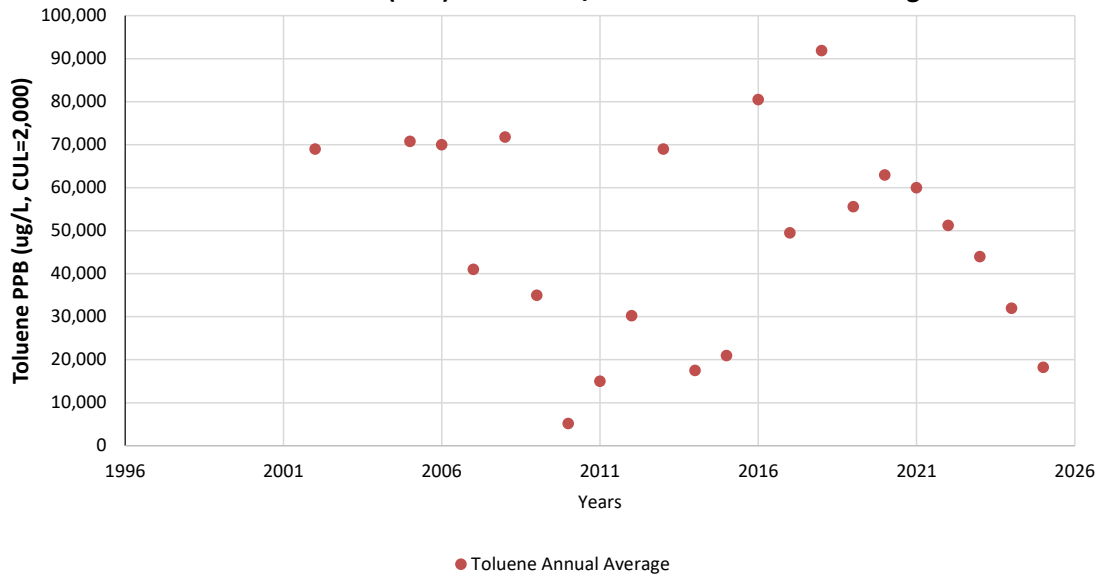
**ISRW-4 Inward from Southern Boundary
Toluene Annual Average
1998 (ICM) to Present / Pre-2002 Above Chart Range**



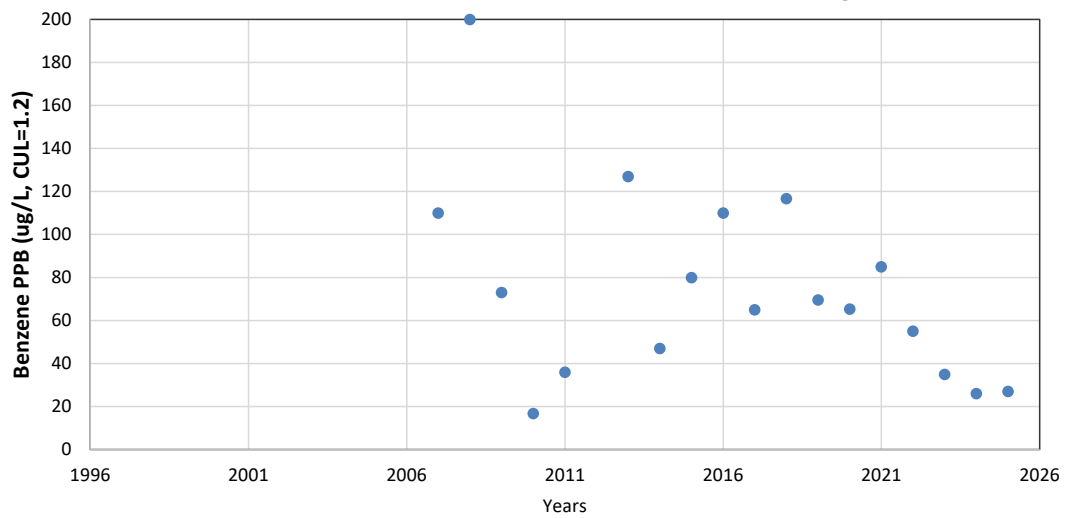
**ISRW-4 Inward from Southern Boundary
Benzene Annual Average
1998 (ICM) to Present / Pre-2007 Above Chart Range**



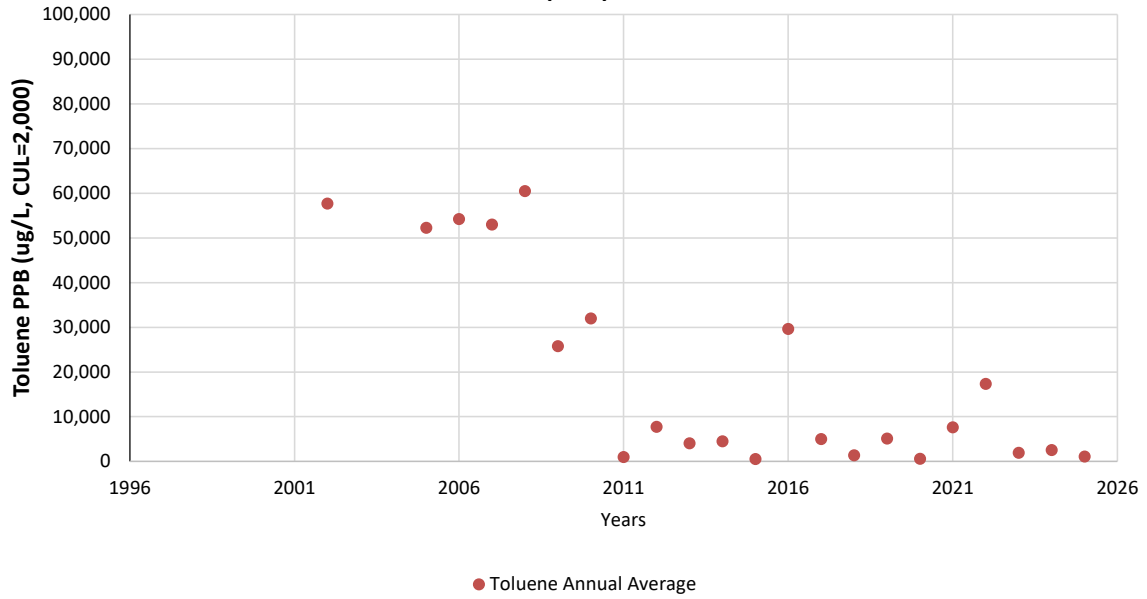
ISRW-5 Central Plume Area
Toluene Annual Average
1998 (ICM) to Present / Pre-2002 Above Chart Range



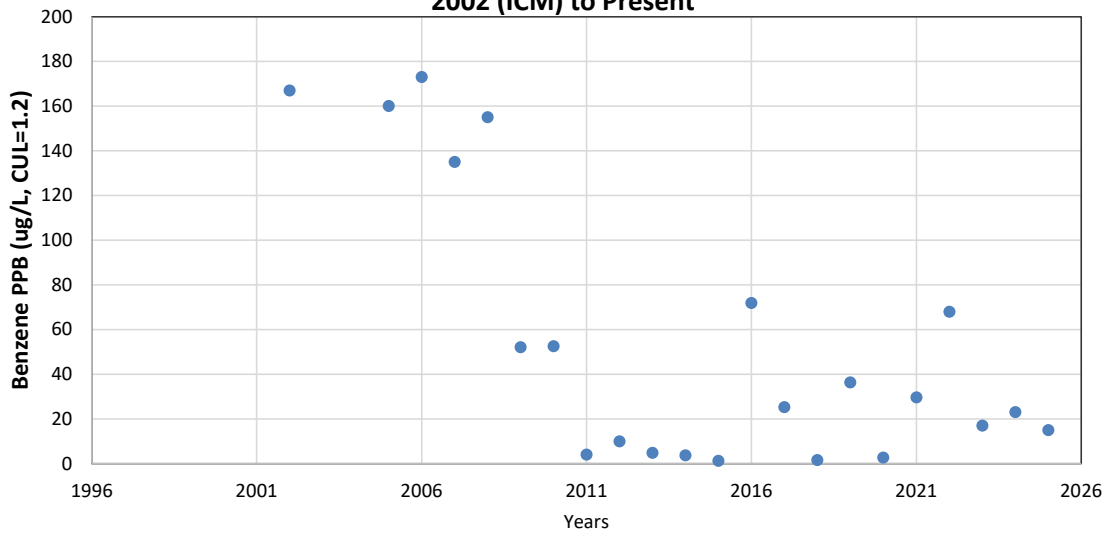
ISRW-5 Central Plume Area
Benzene Annual Average
1998 (ICM) to Present / Pre-2007 Above Chart Range



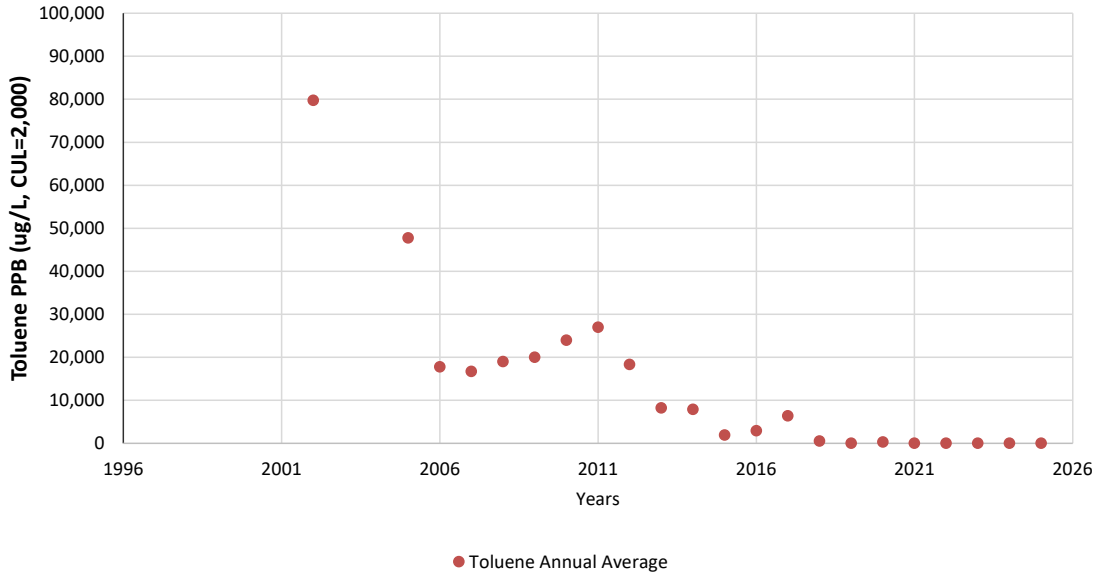
**ISRW-6 Northern Boundary
Toluene Annual Average
1998 (ICM) to Present**



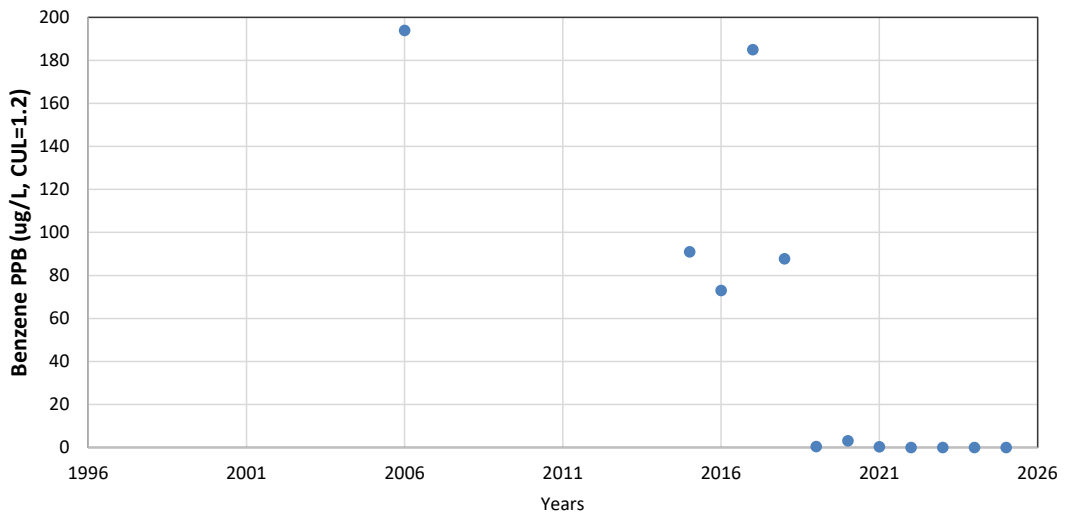
**ISRW-6 Northern Boundary
Benzene Annual Average
2002 (ICM) to Present**



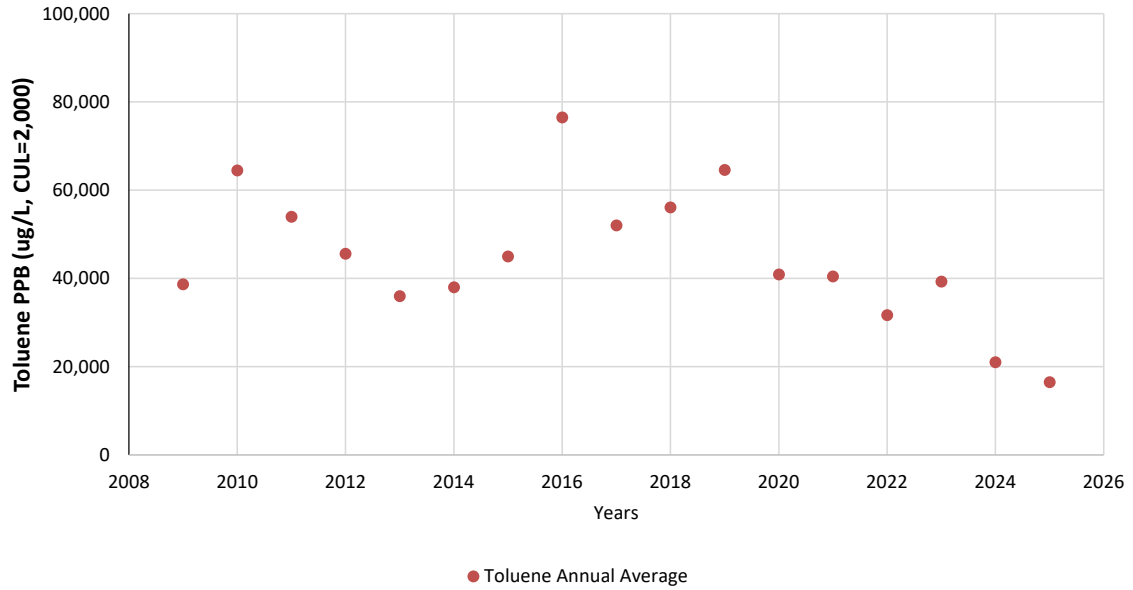
**ISRW-7 Southern Boundary
Toluene Annual Average
1998 (ICM) to Present**



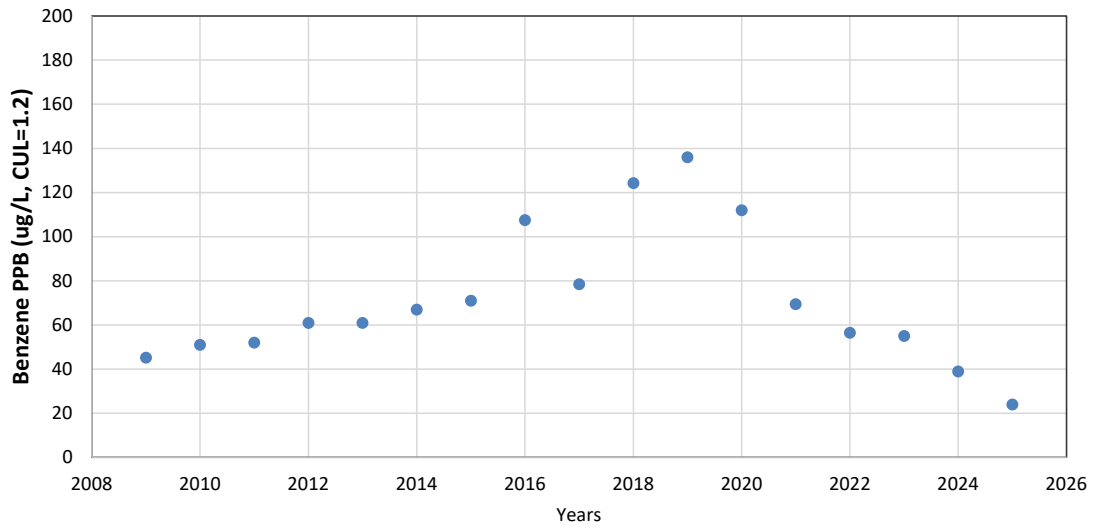
**ISRW-7 Southern Boundary
Benzene Annual Average
1998 (ICM) to Present / Missing Points Out of Data Range**



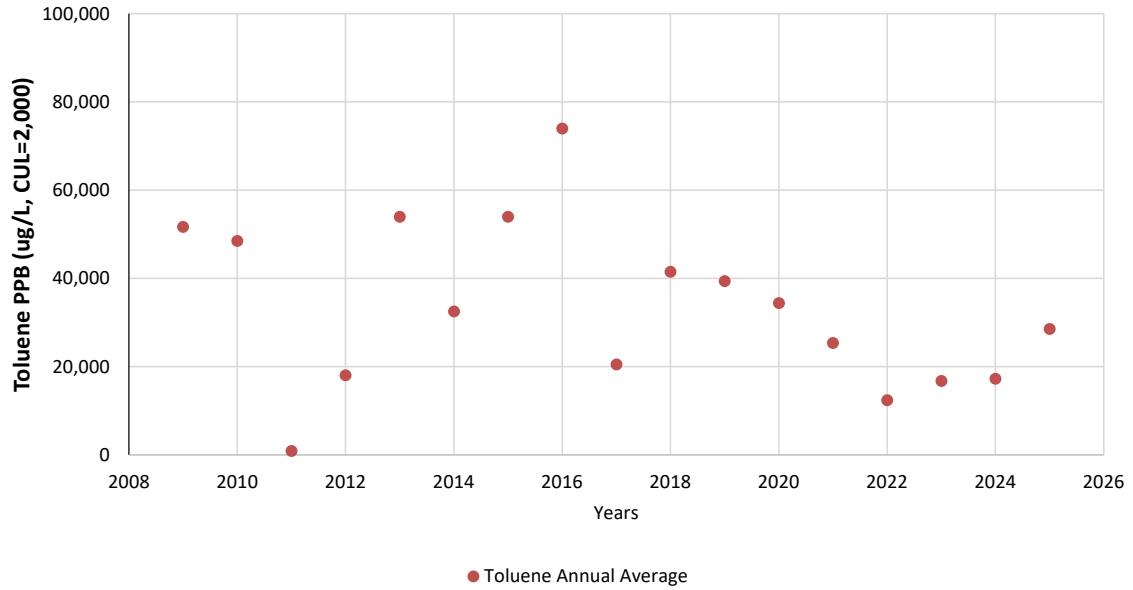
**ISRW-8 Central Plume Area
Toluene Annual Average
2008 (CD) to Present**



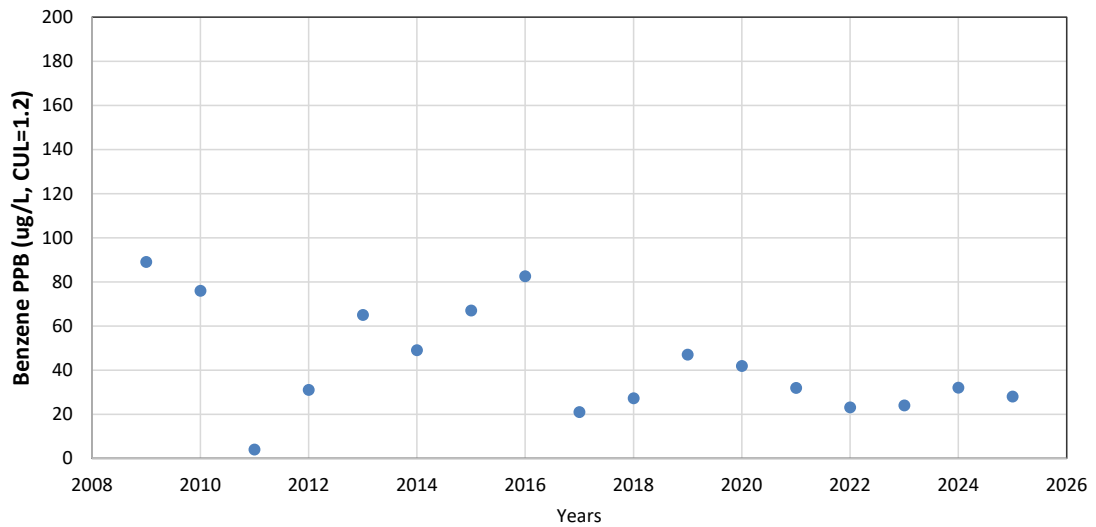
**ISRW-8 Central Plume Area
Benzene Annual Average
2008 (CD) to Present**



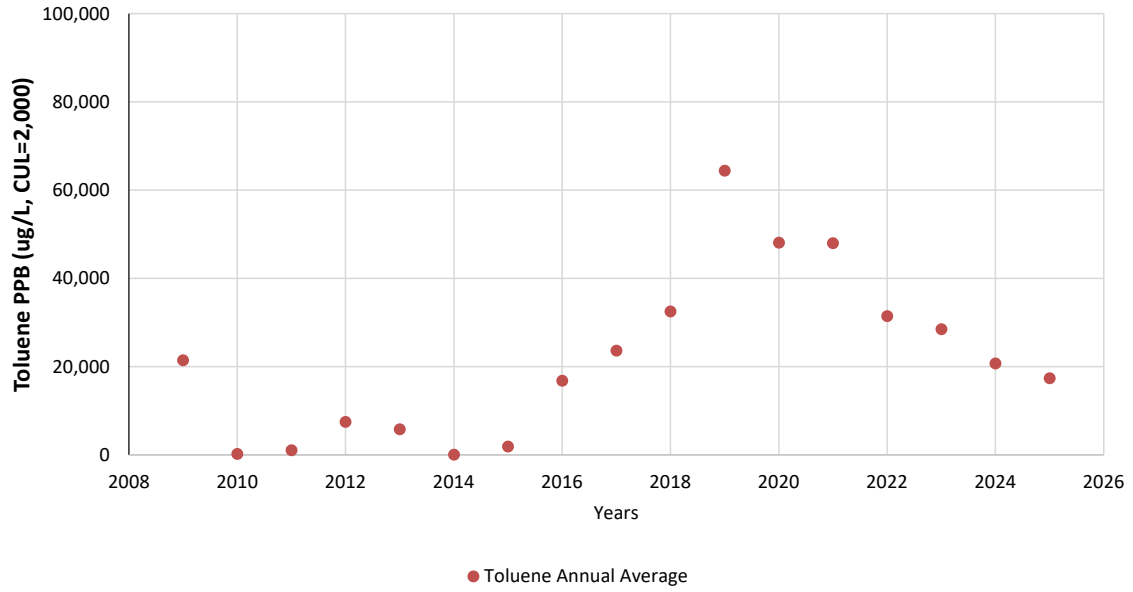
ISRW-9 Central Plume Area
Toluene Annual Average
2008 (CD) to Present



ISRW-9 Central Plume Area
Benzene Annual Average
2008 (CD) to Present



**ISRW-10 Central Plume Area
Toluene Annual Average
2008 (CD) to Present**



**ISRW-10 Central Plume Area
Benzene Annual Average
2008 (CD) to Present**

