Environmental Remediation Group

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Originally Submitted: June 9, 2025
Revision Submitted: August 19, 2025

Mr. Bradley Demo
Division of Environmental Remediation
New York State Department of Environmental Conservation
700 Delaware Ave.
Buffalo, NY 14209

Re: Industrial Welding Site, Niagara Falls, New York
Site No. 932050
Annual Periodic Review Report – 2025
Periodic Review Report – May 01, 2024 through May 01, 2025

Dear Mr. Demo:

As requested by NYSDEC, we have submitted this IWS PRR and certification electronically via email. This report summarizes the site conditions and activities performed from May 01, 2024 through May 01, 2025 for the monitoring, operation, and maintenance of the containment remedy for the Industrial Welding site in Niagara Falls, New York. This report is being submitted in accordance with the requirements and schedule listed in Site Management Plan.

Should you have questions, please contact me at (423) 508-2768. Should you have technical difficulties with the download/BOX process, please contact Lisa Harper (423) 336-4587 or ldharper@olin.com.

Sincerely,
OLIN CORPORATION

Adam Carringer, CHMM
Associate Environmental Specialist

Industrial Welding Site
Site No. 932050
2025 Periodic Review Report

Originally Submitted: June 9, 2025
Revision Submitted: August 19, 2025

Prepared for:

New York State Department of Environmental Conservation
Division of Environmental Remediation
700 Delaware Avenue
Buffalo, NY 14209

Prepared by:

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40 La Riviere Drive, Suite 320
Buffalo, NY 14202

On behalf of:

Olin Corporation
3855 North Ocoee St, Suite 200
Cleveland, TN 37312

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1 Introduction

This Periodic Review Report (PRR) presents an assessment of Remedial Action Objectives (RAOs) for the Industrial Welding Site (IWS or "the Site") in Niagara Falls, New York. IWS is currently listed in the Inactive Hazardous Waste Disposal Site Remedial Program as Site No. 932050 which is administered by New York State Department of Environmental Conservation (NYSDEC).

In accordance with the Site Management Plan (SMP), a PRR is provided annually to assure that the RAOs are maintained and that the Site Institutional Controls (ICs) and Engineering Controls (ECs) remain effective in protecting the public health and environment. This PRR discusses the protections in place and their effectiveness over the May 1, 2024–May 1, 2025 Certifying Period.

1.1 Site Location

IWS comprises three parcels. The original IWS (159.12-1-2.2) and the American Legion Post (ALP) property (159.12-1-10) are known as Operable Unit (OU) 2, and they lie immediately west of Veterans Drive, approximately 0.2 miles north of Buffalo Avenue in the City of Niagara Falls, New York. The third parcel (159.12-1-7), known as OU-3, was formerly called the Packard Road Parcel and lies immediately south of the ALP parcel. Gill Creek lies immediately to the east of Veterans Drive and, in 1998, was the site of a completed remedial action of what was known as OU-1. A map detailing the Site and OUs is presented in Figures 1-1 and 1-2.

1.2 Site History

The ownership and usage of the IWS property have varied over the past 60 years. The High Energy Fuels Division of the Olin Corporation (formerly Olin Mathieson Corporation) operated a research laboratory and pilot process plant at the property from 1952 until 1956. In 1956, the High Energy Fuels Division was disbanded, and the laboratory and plant buildings demolished. The eastern side of the property was filled with fly ash, concrete debris, salt dirt (brine muds), and rubble from a building possibly contaminated with hexachlorocyclohexane (commonly known as benzene hexachloride [BHC]).

In 1966, Olin conveyed the IWS property to Niagara County Community College. This property was subsequently transferred to Niagara County. The Cerebral Palsy

Association of Niagara County leases a building on property owned by Niagara County. Olin reacquired the IWS from Niagara County in 1997. The ALP property, part of OU-2, has been used as a meeting and event hall in the past.

1.3 Previous Investigations

Investigations were initiated at the IWS in 1981 when a soil sample containing mercury, BHC, and hexachlorobenzene was collected by the Niagara Department of Health from near the Niagara Cerebral Palsy Association property. Subsequently, Olin conducted a hydrogeological investigation in 1982 to determine the extent of the waste material, identify contaminants of concern, and evaluate the potential of contaminant migration through groundwater.

A Remedial Investigation (RI) was conducted between 1988 and 1989. RI activities included sampling soil, groundwater, sediment and surface water in Gill Creek, and ambient air vapor. Results confirmed the presence of mercury, BHC, and polycyclic aromatic hydrocarbons in Gill Creek sediment, in IWS groundwater in the overburden aquifer, and in IWS soil including areas outside of the footprint of the waste disposal area: the western portion of the IWS, on the Cerebral Palsy Association property, and on the ALP property. The RI results concluded that risks were posed by exposure to Gill Creek sediment (OU-1) and Site soils.

A final RI Feasibility Study (FS) was submitted to NYSDEC in July 1993. An addendum to the final FS was issued in November 1993.

The RI was performed in two phases. RI activities consisted of the following:

- Collecting soil samples to delineate the horizontal and vertical extent of contamination as well as to determine the physical properties of the underlying soils.
- Installing monitoring wells and piezometers to evaluate groundwater quality and determine the hydrogeologic properties of the IWS.
- Hydraulic monitoring of groundwater at the IWS and Gill Creek water levels to determine the groundwater flow direction, relationship to Gill Creek, and off-site migration.
- Collecting air samples to assess the existence of any airborne constituents.
- Collecting and analyzing sediments from catch basins adjacent to the IWS.

The data collected during the RI/FS were compared with NYSDEC Standards, Criteria, and Guidance for groundwater, drinking water, surface water, soils, and site-specific, risk-based criteria. Mercury, BHCs, and polycyclic aromatic hydrocarbons were determined to be the contaminants of concern.

1.4 Remediation Chronology

Predesign sampling and analysis was performed in 1997 and 1998. Additional soil sampling was conducted at OU-3 and evaluated to determine the appropriate remedy.

The selected remedy for the Site as stated in the 1994 Record of Decision consists of a multilayer final cover system over the main waste disposal area in OU-2 where contaminated soil outside the disposal area was excavated and contained under the cap, leachate collection and disposal, backfilling of excavated area with clean fill, and long-term monitoring and land use restriction at the Site. The sediments that were currently present at the Site under the temporary cover system were consolidated under the IWS final cover system.

The selected remedy for the Site as stated in the 2006 Record of Decision consists of the placement of an asphalt cover system detailed below.

There are two types of landfill cover systems (LCS) placed over the Site:

- The northern portion of OU-2, where waste is overlain by vegetated cover, has a 6-inch landfill cap made of clay, 40 mm high-density polyethylene geomembrane, 18 inches of well-drained soils, and 6 inches of seeded and mulched topsoil.

- The southern portion of OU-2 and OU-3 are covered with 6 inches of consolidated aggregate base, overlain by 2.5 inches of asphalt-concrete binder course and 1 inch of asphalt-concrete top course.

The final cover system installed over the main disposal area served to minimize the potential for contaminant migration from Site soils and prevent direct human exposure. Except for the ALP property and OU-3, which received asphalt-concrete cover, impacted soils outside the boundaries of the IWS was excavated and consolidated beneath the final cover system. Sediments from the Gill Creek Excavation and Restoration Project completed in 1998 were also consolidated beneath the final cover system.

Surface drainage from the IWS final cover system was captured by a perimeter drainage swale and was directed either to Gill Creek or through the existing combined storm sewer system located adjacent to the Site.

Based on the results of the predesign sampling and analysis, impacted soils from areas outside the IWS were excavated and consolidated under the IWS final cover system.

The remedial design of the IWS final cover system was based upon the estimated volume of soils and sediments that were consolidated. The material consolidated

beneath the IWS cover system was approximately 2,900 cubic yards of impacted soils and 6,900 cubic yards of sediments from the eastern perimeter. The volume of sediments was based on a survey of the consolidated material placed on IWS in 1998. The limits of excavation are based on the RI/FS sampling and the results of the predesign field activities. An asphalt cover was installed at The ALP and the OU-3 subsequent to the IWS cap construction.

Further details pertaining to the remedial actions on the IWS can be found in the updated SMP dated February 2025.

2 Remedy Performance, Effectiveness, and Protectiveness

The work performed for the IWS during the reporting period was reviewed and found to be in accordance with the approved Institutional and Engineering, Monitoring and Sampling and Operation and Maintenance (O&M) Plans presented in the SMP (WSP 2025). Activities to support the remedy performance, effectiveness and protectiveness are detailed in the Sections 3 and 4 below.

3 Institutional Controls/Engineering Controls Plan

Because remaining contamination exists at the IWS, IC/ECs are required to protect human health and the environment. Below is a brief summary of the IC/EC Plan, which describes the procedures for the implementation and management of all IC/ECs at the Site. Details of the IC/EC Plan can also be found in the SMP.

3.1 Institutional Controls/Engineering Controls Requirements

A series of ICs is required by the SMP to: (1) maintain and monitor EC systems; (2) prevent future exposure to remaining contamination; and (3) limit the use and development of the Site to existing uses only. Details of ICs are outlined in the SMP.

ECs at the Site include the following:

- Two types of landfill cover systems (LCS): vegetated cover in the northern portion of OU-2 and asphalt cover in the southern portion of OU-2 and OU-3 (see Section 1.4). Both of which are designed to restrict infiltration and promote runoff.
- A Leachate Capture and Recovery System (LCRS) to capture perched groundwater from material under the northern cover.
    - The LCRS system consists of a 4-inch HDPE trench drain line installed in coarse stone and wrapped in geotextile and a 12-inch recovery well housed within an enclosure equipped with a submersible pump for discharge to the City of Niagara Fall sanitary sewer.
- Surface water drainage system that discharges into Gill Creek.
- A chain link fence to secure the Site from unauthorized access.

ICs at the Site include the following:

- Soil Management Plan
- Monitoring Plan
- Operations & Maintenance (O & M) Plan

■

Details on the operation and maintenance of the ECs are provided in O&M Plan included with the SMP.

3.2 Assessment of Institutional Controls/Engineering Controls

Based on semiannual inspections, the LCS remains active and intact. The LCRS and surface water drainage system remains effective for the entire Site. Inspection documentation can be reviewed in **Appendix A.**

Currently, there are no outstanding maintenance items to be addressed. No excavations, change of use, or groundwater use occurred during the Certifying Period.

3.3 Certification

IC/EC certification is included in **Appendix B.**

4 Monitoring and Sampling Plan Compliance Report

4.1 Components of Monitoring and Sampling Plan

Operation, maintenance, and monitoring activities performed included:

- Sitewide inspection of IC/ECs (see Section 3).
- Monitoring of the LCS (see Section 3).
- Remedial System Sampling – semiannual collection from surface water discharge (SD-1) and annual collection of the LCRS discharge (MS-1).
- Post-Remediation Media Monitoring and Sampling – semiannual monitoring well sampling of two downgradient monitoring wells (MW-1 and MW-2) in accordance with the SMP to evaluate the effectiveness of the remedial system. Water levels of the two monitoring wells and six piezometers are included to evaluate groundwater flow at the Site.

4.2 Summary and Comparison to Remedial Objectives

Monitoring and sampling were performed on a semiannual basis. A sitewide inspection of all IC/ECs, including the LCS, was conducted during September 2024 (fall) and March 2025 (spring) monitoring and sampling events. Annual sample collection of the LCRS discharge was performed in December 2024. A summary of deficiencies that were observed as documented in the Inspection Report Forms in **Appendix A are as follows:.**

- cracks with growing weeds in asphalt cover;
- asphalt flaking around drainage grates was observed;
- well cap at P1R does not fully close, but well can still be adequately locked; and
- a steady drip observed around discharge gasket LCRS well, which flows back into recovery well.

Appendix E presents the analytical results for the two downgradient monitoring wells and surface water discharge point during fall 2024 and spring 2025. Also included are the analytical results from the December 2024 sampling of the LCRS discharge.

Results are compared to New York State Part 703 Groundwater Quality Standards or Guidance Values as applicable. Non-detect results are reported as less than the laboratory method reporting limits.

4.2.1 Groundwater Results

Semivolatile organic compounds (SVOCs) were not detected in MW-2, during the fall 2024 and spring 2025 events. SVOCs were not detected in MW-1 during the spring 2025 sampling event. Due to insufficient volume while purging, SVOCs were not sampled from MW-1 during the fall 2024 sampling event. The only detections observed in MW-1 were during the fall 2024 sampling event where mercury, alpha-BHC, and gamma-BHC were detected in exceedance of their respective Class GA water quality standards. Mercury detections in MW-1 are typically below reporting limits except for this fall 2024 and three other historical detections which were above Class GA standards. At MW-2, mercury was detected in exceedance of Class GA standards for each sampling event in the certifying period. Mercury concentrations appear to be trending toward historical concentrations observed during previous sampling events. Historical detections of mercury in MW-1 and MW-2 are presented in **Appendix C.**

Groundwater analytical results are summarized in Table 4-1, showing analytes detected in at least one sample in the 2024-2025 certifying period. Comprehensive results can be found in Appendix E.

4.2.2 Surface Water Discharge Results

The fall 2024 data showed detections of mercury and beta-BHC in the surface water sample, with beta-BHC exceeding NYSDEC Class GA water quality standards. The only surface water detections in the spring 2025 event were the following semivolatile organic compounds: benzo(b)fluoranthene, chrysene, and fluoranthene.

Surface water analytical results are summarized in Table 4-1, showing analytes detected in at least one sample in the 2024-2025 certifying period. Comprehensive results can be found in Appendix E.

4.2.3 Leachate Capture and Recovery System Discharge Results

The December 2024 results had detected compounds: trichloroethene and mercury. However, none of the concentrations exceed the limits set forth by the Niagara Falls Water Board wastewater discharge permit. A summary of the results are presented in Table 4-2, and annual Discharge Monitoring Report are presented in **Appendix D.**

4.2.4 Groundwater Elevations

Water elevation data collected from the piezometers and standpipes were used to confirm groundwater within the capped area remains at or below the LCRS drainage pipe and is maintained by current operation and maintenance activities. March 2025 elevations indicate slightly higher water table within the capped area compared to September 2024, however, the lack of water in both standpipes (SP1

and SP2) confirms capped area groundwater continues to be captured by the LCRS and no blockages are present. Water level elevations from September 2024 and March 2025 are provided in **Appendix A** and are shown with the LCRS drainage pipe elevations (shown as standpipe elevations) in Figures 4-1 and 4-2.

4.3 Deficiencies

Groundwater monitoring well MW-1 was not sampled for semivolatile organic compounds during the fall 2024 sampling event, due to insufficient volume while purging.

4.4 Recommendations for Changes

No recommendations. Conditions at the Site appear to be stable.

5 Operation and Maintenance Plan Compliance Report

5.1 Components of the Operation and Maintenance Plan

Operation, maintenance, and monitoring activities to be performed semiannually include:

- Inspection of security fencing for evidence of vandalism, missing or deteriorated warning signs, fencing member failure or degradation, and soil erosion.
- Inspection of the cover for settlement, surface erosion, vegetation, and asphalt-concrete conditions.
- Inspection of the surface water drainage and erosion control system for erosion, settlement, obstructions, and damage to vegetative-lined swales, drainage piping, and inlets.
- Inspection of the LCRS for proper pump operation, condition of cleanouts and pipes, and presence of standing water and debris.
- Inspection of the access ways for surface deterioration and erosion of shoulders.
- Maintenance of records for Site inspections and monitoring.

Engineering and institutional control boundaries/features are presented in **Figure 5-1.**

5.2 Operation and Maintenance Summary

Inspection reports, sampling logs, and site activities reports are presented in **Appendix A.** Inspections are conducted per the items listed on the Site Activities Report format. Information entered on these forms includes the inspector's name, date, item inspected, and any comments. The inspector indicates whether the condition of each item was acceptable or unacceptable per the requirements of this O&M Plan. The completed site activities reports are maintained at Olin Environmental Remediation offices in Cleveland, Tennessee.

The inspection of the LCRS and surface water drainage system was performed concurrently with inspection of the capped areas. No components of the LCRS and surface water drainage system were found to be malfunctioning; therefore, repairs or replacements were not identified

The capped area will be mowed annually after August 15th as recommended by NYSDEC to prevent establishment of woody vegetation. This instruction was verbally communicated to Sevenson Environmental Services during the March 2025 inspection. The capped area functions as designed and complies with the O&M Plan.
LCRS discharge volumes and concentrations to the City of Niagara Falls Publicly Owned Treatment Works did not exceed permit limits during the Certifying Period. The most recent annual Discharge Monitoring Report to the City Publicly Owned Treatment Works is included in **Appendix D.**

5.3 Evaluation of Remedial Systems

All components are performing as designed.

5.4 Operation and Maintenance Deficiencies

None. There are no major outstanding maintenance items that would effect the efficiency of the remedy which include the minor routine repairs that need to be addressed in Section 4.2.

The previous reporting period documented minor deficiencies at piezometer P-5R which included a broken hinge on the stick-up protective cover as well as loose concrete at the base. The hinge was replaced during this certifying period (see photolog in Appendix A) and the concrete base is not in need of repair currently, but will be monitored for efficacy in the future.

5.5 Conclusions

The O&M system is operating as designed and does not require additions or modifications at this time.

6 Conclusions and Recommendations

6.1 Compliance with Site Management Plan

Based on information provided in Sections 3, 4, and 5, Olin has adhered to the requirements outlined in the SMP. No new exposure pathways were identified at the Site, and additional plans or modifications are not necessary.

6.2 Remedy Effectiveness

The groundwater elevation data indicate that groundwater within the capped area is consistent with historical data and is being maintained by current O&M activities. The groundwater chemistry at the monitoring wells has been consistent across sampling events. No semi volatile organic compounds were detected at concentrations above the New York State Class GA standards in the monitoring wells surrounding the capped area, providing evidence that contaminants are not migrating from beneath the cap.

Overall, no appreciable difference in mercury concentrations were noted for MW-2 during this time frame. The mercury concentrations reported for MW-1 indicated an upward departure from the overall trend. Historically, mercury spikes have been detected but returned to historic levels in the following years. Over the past 19 years, the higher concentrations generally occurred during the fall events, with exception of the spring 2020 event. Whenever there were elevated levels in the fall, the results generally reduce within the historic ranges during the next sampling event. The fall outlier will be closely monitored in future sampling events. The trends for mercury concentrations are illustrated by the graph and data included in **Appendix C.**

Based on the data developed to date, the remedy has been effective in attaining the remedial objectives.

6.3 Recommendations

The O&M activities, inspections, and sampling activities remain consistent and within expected results. Remedial measures continue to remain effective over a long-term monitoring program. The IWS does not pose an immediate threat to human health or the environment with the current remedy in place.

Hydraulic control continues to be maintained on Site, and recent groundwater and surface water discharge data are generally non-detect or below Guidance Values. As a reduction in sampling locations, parameters, or frequency may be warranted. Olin may perform an evaluation of historical groundwater data and prepare a Monitoring Optimization Request for NYSDEC approval, with the goal of establishing a reduced Monitoring Plan in 2024.

NYSDEC requested to include two wells (PRMW-1 and PRMW-2) on site figures in future PRRs, these maybe included in the next PRR. These particular wells are not specifically called out in the SMP but are noted in the 2006 ROD. Further investigation is needed to include in this PRR.

Additionally, NYSDEC requested further information about a well observed in disrepair during a site visit located between Veterans Drive and Gill Creek in line with P-3R and SP-2. It was concluded that the well observed was identified as a preconstruction piezometer and is no longer utilized at the site. Therefore, Olin suggests possible abandonment during the next Certifying Period.

6.4 Future Submittals

It is acknowledged that site photos have not been included in submitted PRRs and with inspection reports. Olin will provide a photolog for future PRR submittals.

This report will continue to be submitted annually, typically on or around May 31 of each year, as dictated by NYSDEC.

7 References

WSP USA, Inc. (WSP). 2025. *Site Management Plan, Industrial Welding,* Niagara Falls, New York, January 2025.

Tables

Table 4-1: Groundwater and Surface Water Analytical Results
Industrial Welding, The Olin Corporation
Niagara Falls, New York

				Location ID:	MW-1		MW-1		MW-2		MW-2				SD-1		SD-1	
				Sample ID:	IWS-MW1-090424		IWS-MW1-032525		IWS-MW2-090424		IWS-MW2-032525				IWS-SD1-090424		IWS-SD1-032525	
				Sample Date:	9/4/2024		3/25/2025		9/4/2024		3/25/2025				9/4/2024		3/25/2025	
Method	**Chemical Name**	**Screening Criteria [1]**	**Units**										**Screening Criteria [2]**	**Units**				
SW7470	Mercury	0.7	µg/L		**2.10**		0.20	U	**2.67**		**3.69**		0.0007	µg/L	**0.37**		0.20	U
SW8081B	alpha-BHC	0.01	µg/L		**0.068**		0.048	U	0.048	U	0.050	U	0.002	µg/L	0.048	U	0.050	U
SW8081B	beta-BHC	0.04	µg/L		0.057	U	0.048	U	0.048	U	0.050	U	0.007	µg/L	**0.087**		0.050	U
SW8081B	delta-BHC	0.04	µg/L		0.057	U	0.048	U	0.048	U	0.050	U	0.008	µg/L	0.048	U	0.050	U
SW8081B	gamma-BHC	0.05	µg/L		**0.076**		0.048	U	0.048	U	0.050	U	0.008	µg/L	0.048	U	0.050	U
SW8270E	Benzo(b)fluoranthene	0.002	µg/L		--		10	U	9.6	U	10	U	NA	µg/L	9.6	U	**2.0**	**J**
SW8270E	Chrysene (1,2-Benzphenanthrene)	0.002	µg/L		--		10	U	9.6	U	10	U	NA	µg/L	9.6	U	**2.0**	**J**
SW8270E	Fluoranthene	50	µg/L		--		10	U	9.6	U	10	U	NA	µg/L	9.6	U	**1.8**	**J**

Notes:

ug/l = micrograms per liter

Bold values denote detections

Shaded cells exceed NYSDEC standard.

-- = analyte not tested

NA = not regulated/no available criteria

Only analytes detected in at least one sample during the 2024 - 2025 certifying period are shown.

Data Qualifier Definitions:

J = Estimated based on QC criteria or detected between the Method Detection Limit (MDL) and the Reporting Limit (RL)

U = Not Detected above the associated Reporting Limit

1. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

2. New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class C Fresh Water Standards and Guidance Values.

Table 4-2: Leachate Control and Recovery System Analytical Results
Industrial Welding, The Olin Corporation
Niagara Falls, New York

Parameter	Method	Results (mg/l)	Flag	Results (lb/day)	Daily Max Discharge Limits (lb/day)
Total Suspended Solids	SM 2540 D	**24.6**		0.064	15
Soluble Organic Carbon	SM 5310 B	**3.3**		0.009	10
Acetone	EPA 624.1	0.00500	U	0.000013	0.01
Dichloroethanes	EPA 624.1	0.002	U	0.000005	0.01
Trichloroethylenes	EPA 624.1	**0.00269**	**J**	0.000007	0.01
BHCs total	EPA 608.3	0.000136	UJ	0.0000004	0.001
Mercury	EPA 245.1	**0.00124**		0.0000032	0.008

Notes:

mg/l = milligrams per liter
lb/day = pounds per day
U = Analyte was analyzed but not detected
J = Estimated value
Results (lb/day) = Results (mg/l) X Flow (Gal/Day) X 0.00000834
Flows calculatede based on avg daily flow for year rather than for sampling month, due to flow variability and sampling month dry weather conditions

ICU PERMIT NAME Olin Corporation - Industrial Welding Site

ICU PERMIT NUMBER ICU - 23

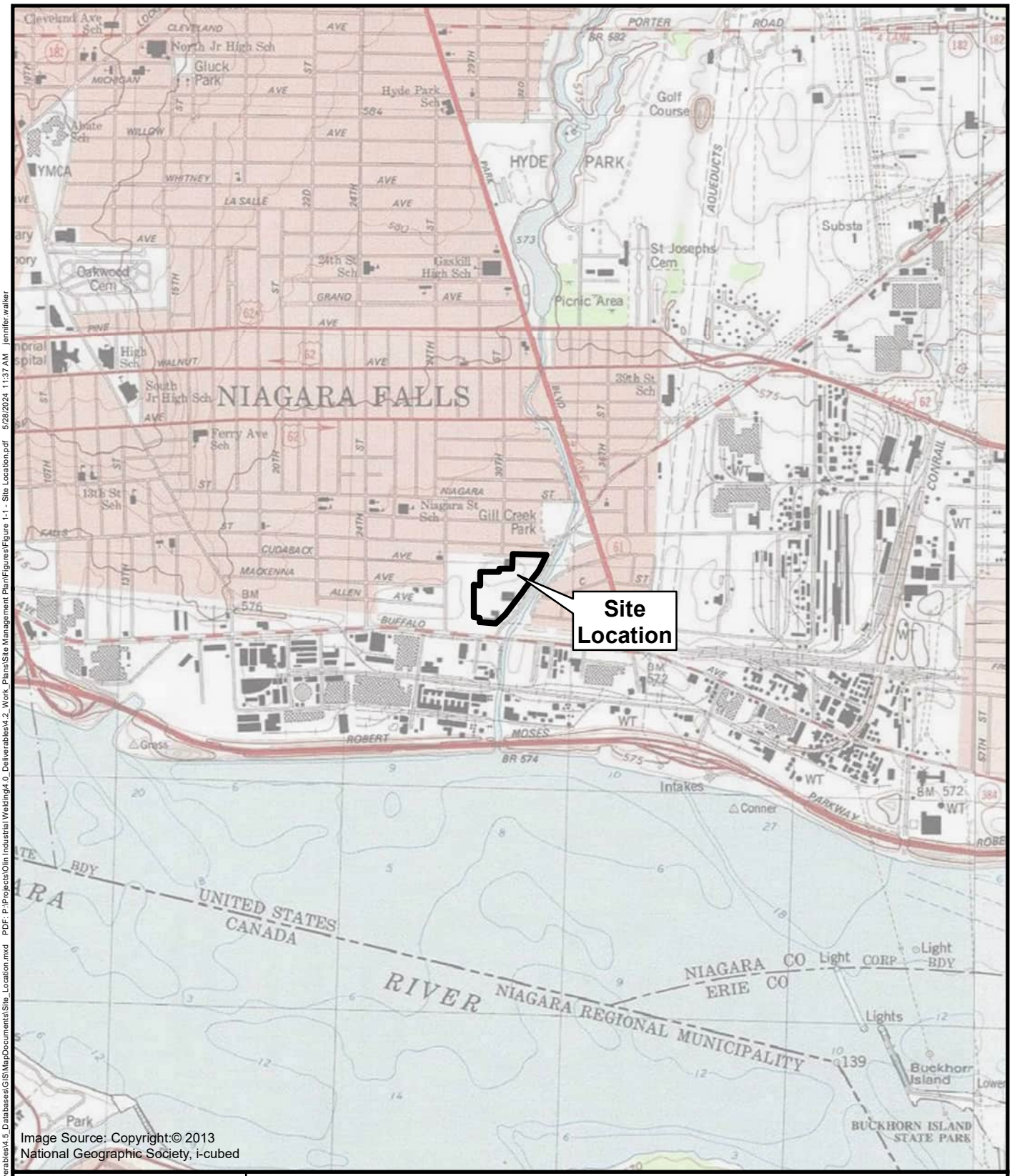
SAMPLE LOCATION MS#1

DATE SAMPLED 12/3/2024

ANALYSIS DATES Dec 4-17, 2024

ANALYTICAL LABORATORY ALS Environmental

Figures



0 1,000 2,000 Feet

Prepared/Date: JSW 5/28/24 | Checked/Date:

Figure 1-1
Site Location

Periodic Review Report
Industrial Welding
The Olin Corporation
Niagara Falls, New York

Niagara County color digital orthoimagery (2017)
obtained from New York State GIS Clearinghouse
at gis.ny.gov

MW-1
P-5R
P-6R
P-3R
SP2
P-4R
P-1R
SP1
P-2R
Gill Creek
159.12-1-2.2
159.12-1-10
American Legion Property
MS1
SD1
Packard Rd/Veterans Dr
MW-2
159.12-1-7
Packard Road Parcel
Buffalo Ave

N
0 60 120
Feet

Legend

- Standpipe
- Monitoring Well
- LCRS Recovery Well
- Piezometer
- Catch Basin
- OU-1
- OU-2
- OU-3
- Perimeter Fence

Prepared/Date: JSW 5/28/24 | Checked/Date:

Figure 1-2
Site Layout and Sampling/Monitoring Locations

Periodic Review Report
Industrial Welding
The Olin Corporation
Niagara Falls, New York

Document: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.2_Work_Plans\Site Management Plan\Figures\Figure 1-2 - Site Layout and Locations.pdf 5/28/2024 11:33 AM jennifer.walker
PDF: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\SMP\SMP_11x17P.mxd

Niagara County color digital orthoimagery (2017)
obtained from New York State GIS Clearinghouse
at gis.ny.gov

MW-1
563.41

North End LCRS
Invert Elevation
567.02

P-5R
564.45

P-6R
563.35

SP2
Invert Elevation
566.4

P-3R
564.89

159.12-1-2.2

MH1

P-4R
562.99

SP1
Invert Elevation
565.21

P-1R
Dry

Gill Creek

P-2R
563.39

159.12-1-10
American Legion Property

Invert Elevation of
Pipe at Recovery Well
564.3

Packard Rd/Veterans Dr

MS1
565.08

MW-2
566.41

159.12-1-7
Packard Road Parcel

MH2

Buffalo Ave

Monitoring Well
Recovery Well
Piezometer

OU-1
OU-2
OU-3
Clay Barrier
LCRS Enclosure

Catch Basin
Cleanout
Culvert
Drop Inlet
Manhole
Outfall/Headwall
Standpipe

Drain Pipe
Drainage Ditch
LCRS Discharge Pipe
LCRS Trench Drain
Combined Sewer
Storm Drain
Perimeter Fence

N
0 60 120
Feet

Prepared/Date: BGM 4/22/2025

Figure 4-1
Groundwater Elevation Map
September 2024
Site Management Plan
Industrial Welding
The Olin Corporation
Niagara Falls, New York

Document: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\SMP\SMP_11x17P.mxd PDF: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.2_Work_Plans\Site Management Plan\Figures\Figure 5-1 - E&I Con Boundaries.pdf 5/5/2025 11:19 AM jennifer.walker

Niagara County color digital orthoimagery (2017)
obtained from New York State GIS Clearinghouse
at gis.ny.gov

MW-1
564.17

North End LCRS
Invert Elevation
567.02

P-5R
564.41

P-6R
566.14

SP2
Invert Elevation
566.4

P-3R
566.25

159.12-1-2.2

MH1

P-4R
567.27

SP1
Invert Elevation
565.21

P-1R
DRY

Gill Creek

P-2R
565.81

159.12-1-10
American Legion Property

Invert Elevation of
Pipe at Recovery Well
564.3

Packard Rd/Veterans Dr

MS1
564.62

MW-2
566.96

159.12-1-7
Packard Road Parcel

MH2

Buffalo Ave

Monitoring Well
Recovery Well
Piezometer

OU-1
OU-2
OU-3
Clay Barrier
LCRS Enclosure

Catch Basin
Cleanout
Culvert
Drop Inlet
Manhole
Outfall/Headwall
Standpipe

Drain Pipe
Drainage Ditch
LCRS Discharge Pipe
LCRS Trench Drain
Combined Sewer
Storm Drain
Perimeter Fence

N
0 60 120
Feet

Prepared/Date: BGM 4/22/2025

Figure 4-1
Groundwater Elevation Map
March 2025
Site Management Plan
Industrial Welding
The Olin Corporation
Niagara Falls, New York

Document: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.2_Work_Plans\Site Management Plan\Figures\Figure 5-1 - E&I Con Boundaries.pdf 5/5/2025 11:19 AM jennifer.walker
PDF: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\SMP\SMP_11x17P.mxd

Niagara County color digital orthoimagery (2017)
obtained from New York State GIS Clearinghouse
at gis.ny.gov

MH1

MH2

Gill Creek

Packard Rd/Veterans Dr

Buffalo Ave

N

0 60 120
Feet

Catch Basin
Cleanout
Culvert
Drop Inlet
Manhole
Outfall/Headwall
Standpipe
Clay Barrier

Legend

Asphalt Cover
Northern Cover
LCRS Enclosure
Drain Pipe
Drainage Ditch
LCRS Discharge Pipe
LCRS Trench Drain
Combined Sewer
Storm Drain
Perimeter Fence

Figure 5-1
Engineering and Institutioal
Control Boundaries
Periodic Review Report
Industrial Welding
The Olin Corporation
Niagara Falls, New York

Prepared/Date: JSW 5/28/24 | Checked/Date:

Document: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\SMP\SMP_11x17P.mxd PDF: P:\Projects\Olin Industrial Welding\4.0_Deliverables\4.2_Work_Plans\Site Management Plan\Figures\Figure 5-1 - E&I Con Boundaries.pdf 5/28/2024 12:52 PM jennifer.walker

A Field Forms (Inspections, Sampling and Elevations) and Photo Log

Site Activities Report

Sevenson Environmental Services, Inc.
Niagara Falls, New York

REPORT NO.	Sevenson Job No. [redacted], 133201	DATE: 12/3/24		
PROJECT TITLE	OLIN CORPORATION, INDUSTRIAL WELDING SITE			
LOCATION OF WORK	VETERANS DRIVE, NIAGARA FALLS, NEW YORK			
DESCRIPTION	O & M OF REMEDIATION SITE			
WEATHER: Sunny 34of	RAINFALL ~~INCHES~~ millimeters: 0.00mm	TEMP (Deg F)	Min: 28°f	Max: 35of

1. **Work performed today by Prime Contractor (Include Labor Breakdown):**

Greg Fraft, Danny Fi, & Max Liffiton on site to collect LCRS Samples

2. **Work Performed Today By Subcontractors (Include Labor Breakdown):**

NONE

3. **Materials and/Or Equipment Delivered To Site (Include Equipment Demobilization)**

Horiba U-52
DOC Filter For DOC samples
Sample Bottles

4. **Type And Results Of Inspection:**

- Collected samples & Shipped to ALS for Analysis
- site & System in Fine condition
- Heater is on

FIELD DATA LOG FOR LCRS DISCHARGE SAMPLING
Industrial Welding Site, Niagara Falls, New York

Location ID: MS #1

Date: 12/3/24 Time: 930 to 1100

Sampler(s) Greg Frost & Danny Fei & Max Liffiton

Weather: Sunny, 34°F

System Status (Check): On X Off ____

Sample ID: IWS-MS1-120324 @ 0945

Sampling Method: Grab Sample via Sample port

Sample ID: ~~~~

COMMENTS:

Horiba Readings @ time of Sample

17.13 °C
6.44 pH
43 pH mV
195 ORP mV
2.03 ms/cm
173 NTU
8.42 mg/L DO

OLIN INDUSTRIAL WELDING SITE
Flow Meter Calibration

1. Recirculate water back into the well for 1 minute.
2. Record flow rate that is on meter.
3. Using valves in the system, redirect the water flow to the sample port and let it flow back down into the well.
4. Using a stop watch or a watch with a second hand, get ready to time how long it takes to fill a 5 gallon bucket by directing the sample port hose into it while starting the stop watch.
5. Record the time to fill the bucket.
6. Shut down the system, return all valves to normal operation mode, set system to AUTO.

Enter data below:

DATE	RECIRULATION RATE	TIME TO FILL 5 GALLON BUCKET	ESTIMATED ACTUAL FLOW
	(In GPM) 5.904	(In Seconds)	(In GPM) 3.5646 GPM
12/3/2024		84.16	
		1.40 minutes	

* Differences between Recirculation Rate (on meter readout) and Estimated Actual Flow Rate, may be attributed to reduction in the diameter of the sample port hose (3/8") when flowing through the sample port, as opposed to flow through the recirculation piping (3/4" pipe).

TECHNICIAN: Greg Ernst & Danny Fei

SEVENSON ENVIRONMENTAL SERVICES INC.
GROUNDWATER SAMPLING FIELD PARAMETERS
FIELD INSTRUMENTATION CALIBRATION FORM

DATE: 12/3/24 SAMPLING EVENT: IWS LCRS Resample 2024

PERSON CALIBRATING METER: Grey First / Danny Fei

INSTRUMENT USED:

MANUFACTURER: Horiba

MODEL NUMBER: RZB3YNXn U-52

HGS NUMBER:

DATE OF MANUFACTURE: April 2017

CALIBRATION STANDARDS USED:

STANDARD 7.00 METER READ:

STANDARD 4.00 METER READ: X

STANDARD 10.00 METER READ:

CALIBRATION SOLUTION EXPIRATION DATE: 4/27/25

	PRE CALIBRATION READINGS	POST CALIBRATION READINGS
TEMPERATURE (°F or °C):	19.90	19.91
pH:	4.15	3.97
pHmv:	146	188
OX-RED POT (ORPmv):	305	357
CONDUCTIVITY (ms/cm):	4.47	4.49
TURBIDITY (NTU):	0.1	0.0
mg/L DO:	11.10	9.86
% DO:	—	—

OTHER CALIBRATION COMMENTS:

Chain of Custody / Analytical Request Form

081454

SR#:

ALS
1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER

Report To:

Field	Entry
Company:	Olin Corp
Contact:	Adam Carringer
Email:	ABCarringer@Olin.com
Phone:	423-336-4000
Address:	490 Stuart Rd, Cleveland, TN 37312
Project Name:	Olin Industrial Welding Site
Project Number:	
ALS Quote #:	
Sampler's Signature:	[signature]
Email CC:	ABCarringer@Olin.com
Email CC:	
State Samples Collected (Circle or Write):	(NY circled) MA, PA, CT, Other:

Matrix: GW, WW, SW, DW, S, L, NA

Preservative codes: 0. None; 1. HCl; 2. HNO3; 3. H2SO4; 4. NAOH; 5. Zn Acet.; 6. MeOH; 7. NaHSO4; 8. Other

Lab ID (ALS)	Sample ID	Date	Time	Matrix	Number of Containers	MS/MSD?	GC/MS VOA - 8260 • 624 (circled) • 524 • TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	TSS	DOC					Notes
	Preservative						0		0			2		0	0					
	IWS-MS1-120324	12/3/24	0945	GW	31	Y	9		4			3		3	12					
	Trip Blank	11/7/24	1030																	lab provided
	Temp Blank	—	—																	lab provided

Special Instructions / Comments:

Metals, total Hg
DOC samples field filtered to 0.45 µm

Turnaround Requirements

___ Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM
X Standard (10 Business Days)
Date Required:

Report Requirements

X Tier II/Cat A - Results/QC
___ Tier IV/Cat B - Data Validation Report w/. Data
EDD: ___ Yes ___ No
EDD Type:

Metals: RCRA 8 • PP 13 • TAL 23 • TCLP • Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars • THM • Other: ________

Invoice To: (X Same as Report To)

PO #:
Company: Olin Corp
Contact: Adam Carringer
Email:
Phone:
Address:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	[signature]					
Printed Name	Greg Ernst					
Company	Sevenson					
Date/Time	12/3/24 1112					

Site Activities Report

Sevenson Environmental Services, Inc.
Niagara Falls, New York

REPORT NO.	**Sevenson Job No. 1305,**	DATE: 3-25-25		
PROJECT TITLE	**OLIN CORPORATION, INDUSTRIAL WELDING SITE**			
LOCATION OF WORK	**VETERANS DRIVE, NIAGARA FALLS, NEW YORK**			
DESCRIPTION	**O & M OF REMEDIATION SITE**			
WEATHER: cool & windy	**RAINFALL INCHES:** 0	**TEMP (Deg F)**	**Min:** 30	**Max:** 33

1. Work performed today by Prime Contractor (Include Labor Breakdown):

Steve Walsh, Max Lifton, Corey Haynes

2. Work Performed Today By Subcontractors (Include Labor Breakdown):

3. Materials and/Or Equipment Delivered To Site (Include Equipment Demobilization)

4. Type And Results Of Inspection:

INDUSTRIAL WELDING SITE
NIAGARA FALLS, NY
GROUNDWATER SAMPLING FIELD PARAMETERS
FIELD INSTRUMENTATION CALIBRATION FORM

DATE: 3-25-25 SAMPLING EVENT: Spring 2025

PERSON CALIBRATING METER: Steve Walsh

INSTRUMENT USED:

MANUFACTURER: YSI

MODEL NUMBER: PRO DSS

HGS NUMBER:

DATE OF MANUFACTURE:

CALIBRATION STANDARDS USED:

STANDARD 7.00 METER READ:

STANDARD 4.00 METER READ:

STANDARD 10.00 METER READ:

CALIBRATION SOLUTION EXPIRATION DATE:

	PRE CALIBRATION READINGS	POST CALIBRATION READINGS
TEMPERATURE (°F or °C):	5.9	
pH:	7.02 10.02 4.02	7.0 10.0 4.0
pHmv:		
OX-RED POT (ORPmv):	~~+1364 SW 238 SW~~	~~1413 SW 240 SW~~
CONDUCTIVITY (ms/cm):	1.364	1.413
TURBIDITY (NTU):	9.8	9.9
mg/L DO:	12.7	12.7
% DO:	99.1	100

OTHER CALIBRATION COMMENTS:

FIELD DATA LOG FOR WATER ELEVATION MEASUREMENTS
Industrial Welding Site, Niagara Falls, New York

Name of Sampler: _____

Organization: _____

Weather: _____

Water Level Indicator Make: _____ Model: _____ Serial No.: _____

Location	Location ID	Date/Time Measured	Top of Riser Elevation (ft msl)	Measured Depth to Water (Feet Below Top of Riser)	Water Elevation (ft msl)
LCRS Stand Pipe	SP1				
LCRS Stand Pipe	SP2				
LCRS Recovery Well	LCRS1		573.43		
Cover Area Piezometer	P1R		582.10		
East Easement Piezometer	P2R		572.17		
Cover Area Piezometer	P3R		581.90		
East Easement Piezometer	P4R		571.09		
Cover Area Piezometer	P5R		578.46		
East Easement Piezometer	P6R		570.91		
NE Easement Monitoring Well	MW1		570.87		
SE Easement Monitoring Well	MW2		572.76		

COMMENTS:

FIELD DATA LOG FOR STORM WATER SAMPLING
Industrial Welding Site, Niagara Falls, New York

Location Description: Storm Drain Sample Point East of Catch Basin

Sampler(s): Steve Walsh COREY HAYNES

Weather: Windy Partly cloudy

Date: 3-25-25 Time: 0845

Sample ID: SD-1-032525

Sampling Method:

Pipe Invert Elevation at Sample Point Riser (ft msl)	Measured Depth of Water Sample Point (ft)	Calculated Water Elevation - Sample Point (ft)	Outfall Invert Elevation (ft msl)	Measured Depth of Water Outfall Pipe (ft)	Calculated Outfall Water Elevation (ft msl)
	0.15				

COMMENTS:

pH	Temp	Cond	DO	Turb
5.23	4.7	0.175	10.8	11.7

MS/MSD

FIELD DATA LOG FOR GROUNDWATER SAMPLING
Industrial Welding Site, Niagara Falls, New York

Well ID: MW-1 Date: 3-25-25

Sampler(s): Steve Walsh / COREY Haynes

Weather: partly cloudy

Calibration of Field Equipment:

pH Meter:	Date:	3-25-25	Time	0815
Spec. Conduct. Meter:	Date:	3-25-25	Time	0815
Turbidity Meter:	Date:	3-25-25	Time	0815

Purging Method/Sampling Method: peristaltic

Sample ID: IWS-MW-1-032525

Well Purging Data:

Time	Water Level (Feet Below Top of Riser)	Volume Purged (Liters)	pH (Std. Units)	Specific Conductivity (Φmhos/cm)	Temp. (°C)	Turbidity (NTUs)
0950	6.7	1	6.76	0.981	5.5	6.11
0955	7.8	2	6.62	0.926	5.3	4.18
1000	8.0	3	6.61	0.925	5.2	4.22
1005	8.3	4	6.60	0.927	5.3	4.25

COMMENTS:

FIELD DATA LOG FOR GROUNDWATER SAMPLING
Industrial Welding Site, Niagara Falls, New York

Well ID: MW-2 Date: 3-25-25

Sampler(s): Steve Walsh, CoRey Haynes

Weather: P.C. / windy

Calibration of Field Equipment:

pH Meter: Date: 3-25-25 Time 0815

Spec. Conduct. Meter: Date: 3-25-25 Time 0815

Turbidity Meter: Date: 3-25-25 Time 0815

Purging Method/Sampling Method: peristaltic

Sample ID: IWS-MW-2-032525

Well Purging Data:

Time	Water Level (Feet Below Top of Riser)	Volume Purged (Liters)	pH (Std. Units)	Specific Conductivity (Φmhos/cm)	Temp. (°C)	Turbidity (NTUs)
0915	5.80	1	6.84	1.031	6.1	13.6
0920	5.92	2	7.09	1.056	6.1	9.30
0925	5.98	3	7.14	1.057	6.1	8.52
0930	6.05	4	7.14	1.056	6.2	8.63

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P1R

Date: 03/25/25

INSPECTOR: Max Lifton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

Well cap does not fully close. Still can be locked.

depth to bottom 17.36'

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P2R

Date: 03/25/25

INSPECTOR: Max Lifston

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

Depth to bottom 9.38'

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P3R

Date: 03/25/25

INSPECTOR: Max Liffton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

depth to bottom of 17.79ft

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P4R

Date: 03/25/25

INSPECTOR: Max Liffton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

depth of depth 9.29'

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P5R

Date: 03/25/25

INSPECTOR: Max Lifton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

of bottom
depth at 14.33

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P6R

Date: 03/25/25

INSPECTOR: Max Lifton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS: to bottom depth at 9.33

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: MW-1

Date: 03/25/25

INSPECTOR: Max Lifston

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS: to bottom of depth at 9.44'

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: MW-2

Date: 03/25/25

INSPECTOR: Max Litton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

to bottom
depth of 9.65 ft

FIELD DATA LOG FOR WATER ELEVATION MEASUREMENTS
Industrial Welding Site, Niagara Falls, New York

Name of Sampler: Max Liffton

Organization: Sevenson Environmental Service

Weather: Cloudy 35°F

Water Level Indicator Make: _____ Model: _____ Serial No.: _____

Location	Location ID	Date/Time Measured	Top of Riser Elevation (ft msl)	Measured Depth to Water (Feet Below Top of Riser)	Water Elevation (ft msl)
LCRS Stand Pipe	SP1	03/25/25 8:41am		dry at 16.72ft	X
~~LCRS Stand Pipe~~	~~SP2~~ P1R	03/25/25 8:44am	582.10	dry at 17.40ft	dry
LCRS Recovery Well	LCRS1	03/25/25 0950	573.43	water at 8.81 ft	564.62
~~Cover Area Piezometer~~	~~P1R~~ SP2	03/25/25 8:48am	~~582.10~~	water at 14.36ft	X
East Easement Piezometer	P2R	3/25/25 9:09	572.17	6.36'	565.81
Cover Area Piezometer	P3R	03/25/25 8:51am	581.90	water at 15.65ft	566.25
East Easement Piezometer	P4R	3/25/25 916	571.09	3.82	567.27
Cover Area Piezometer	P5R	03/25/25 8:55am	578.46	water at 14.05ft	564.41
East Easement Piezometer	P6R	3/25/25 0925	570.91	4.77	566.14
NE Easement Monitoring Well	MW1	3/25/25	570.87	6.70	564.17
SE Easement Monitoring Well	MW2	03/25/25 9:03am	572.76	water at 5.80ft	566.96

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: SP-1

Date: 03/25/25

INSPECTOR: Max Lifton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: SP-2

Date: 03/25/25

INSPECTOR: Max Liffton

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
	✓	**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
		Is the well depth consistent with the installed depth?

COMMENTS: to bottom

depth @ 14.42 ft

cracking on concrete pad

SEMI-ANNUAL INSPECTION REPORT FORM

DATE: **REPORT NO.:**

QUESTIONS	RESPONSE		COMMENTS AND RECOMMENDATIONS
	YES	NO	
1. Security Fence			
Is damage evident? If Yes, describe the type of damage(s), and indicate the location(s) the attached map.		✓	
Are warning signs missing or damaged? If Yes, describe the type of damage and indicate the location(s) on the attached map.		✓	
Is erosion evident under chain-link sections or around posts? If Yes, describe the type of erosion (rills, gullies, valleys, washouts), record approximate dimensions (length, width, depth) and indicate location(s) on the attached map.		✓	
Has failure of any fencing members occurred? If Yes, describe the failure(s) and indicate location(s) on attached map.		✓	
2. Vegetative Soil Cover			
Is settlement or standing water evident? If Yes, describe the degree of settlement(s) (slight, moderate, significant), record approximate dimensions, and indicate the location(s) on the attached map.		✓	
Is erosion evident? If Yes, describe the type of erosion (rills, gullies, valleys, washouts, slope failure), record approximate dimensions (length, width, depth) and indicate location(s) on the attached map.		✓	
Is vegetation distressed or are bare areas evident? If Yes, describe the type of disorder (distressed, sparsely vegetated, bare), record approximate dimensions and indicate location(s) on the attached map.		✓	
Is any other damage evident? If Yes, describe the type of damage(s) and indicate the location(s) on the attached map.		✓	
Are obstruction(s) (brush, debris, timber, leaves, sediment) interfering with the proper functioning of swales? Outlets from swales? If Yes, describe the type(s) of obstruction(s) and indicate the location(s) on the map attached. Is sediment deposited ins wales impending drainage? If Yes, record approximate dimensions and indicate location(s) on the attached map.		✓	

QUESTIONS	RESPONSE		COMMENTS AND RECOMMENDATIONS
	YES	NO	
3. Surface Water Drainage System			
Are catch basin(s) damaged? If Yes, describe the catch basin inspected, conditions observed (spalling, cracking, exposed reinforcement, joint separation) and indicate location(s) of damaged catch basin(s) on the attached map.		✓	
Are obstruction(s) (brush, debris, leaves, sediment) interfering with the proper functioning of the catch basin(s)? If Yes, describe the type(s) of obstruction(s) and indicated the location(s) on the attached map.		✓	
Is erosion evident? If Yes, describe the drainage structure inspected (swale, outfall) the type of erosion (rills, gullies, valley, washouts, slope failure), record approximate dimensions (length, width, depth) and indicate location(s) on the attached map.		✓	
Is sediment deposited in drainage pipe(s) deeper than 1/4 of the pipe diameter (shown on the contract drawings)? If Yes, record approximate dimension and indicate locations on the attached map.		✓	
Is structural damage to headwalls evident? If Yes, describe the type of damage (upheaval, cracking, undermined, overturned, fractured, broken) and indicate damaged structures on the map.		✓	
Have stones been dislodged at rip-rapped drainage outlet aprons? If Yes, record approximate dimensions and indicate location(s) on the attached map.		✓	
4. Asphalt Concrete Cover System			
Is pavement distress evident? If Yes, describe (cracking, pothole(s), upheaval, failed patch), record the approximate dimensions (length, width, and depth) and indicate location(s) on the attached map.	✓		Cracks seen in cover. Flaking around drainage grates
Is settlement or standing surface water evident? If Yes, describe the degree of settlement(s) (slight, moderate, significant), record approximate dimensions and indicate the location(s) on the attached map.		✓	
Are obstructions present in the catch basins? If Yes, describe the obstacle(s) (leaves, brush, sediment) and indicate the location(s) on the map attached.		✓	
Is sediment deposited in swale(s) impeding drainage? If Yes, record approximate dimensions and indicate location(s) on the map attached.		✓	

QUESTIONS	RESPONSE		COMMENTS AND RECOMMENDATIONS
	YES	NO	
5. Leachate Collection and Recovery System			
Is standing water present at the LCRS cleanout? If Yes, describe the depth of the standing water.		✓	
Is there evidence of any pipes or valves leaking at the recovery well? If Yes, describe the magnitude of the leak (drip, steady discharge, single overflow) and ~~tag location(s) of leak(s).~~	✓		Steady drip at discharge gasket. Leak flows back into well.
Is leachate extraction well pump operating properly based on visual inspection? If No, describe the condition.	✓		
Is damage or degradation evident at the extraction well or stand pipe(s)? If Yes, describe the type of damage (vent/well riser cover missing, vent/well riser cracked, overturned, leaning, broken) and indicate damaged vent/well riser(s) on the map attached.		✓	
Is damage or degradation evident at these system components? Extraction well pump and associated piping? Leachate collection pipe cleanout?	✓		see leakage comment.

Date: 3-25-25

INSPECTOR: Max Lifton

Chain of Custody / Analytical Request Form

083569

SR#:

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

Report To:	ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER
Company: Olin Corp	Project Name: Industrial Welding
Contact: Adam Carringer	Project Number:
Email: ABCarringer@olin.com	ALS Quote #:
Phone: 423-336-4987	Sampler's Signature:
Address: 490 Stuart Rd NE	Email CC:
Cleveland TN	Email CC:
35771	State Samples Collected (Circle or Write): NY, MA, PA, CT, Other:

Preservative: 0. None; 1. HCl; 2. HNO3; 3. H2SO4; 4. NAOH; 5. Zn Acet.; 6. MeOH; 7. NaHSO4; 8. Other

Lab ID (ALS)	Sample ID:	Date	Time	Matrix (GW WW SW DW S L NA)	Number of Containers	MS/MSD?	GC/MS VOA - 8260•624•524•TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	Notes:
	IWS-SD1-032525	03/25/25	0845	GW	15	✓		6	6			3		MS/MSD
	IWS-MW2-032525	03/25/25	0930					2	2			1		
	IWS-MW1-032525	03/25/25	1005					2	2			1		

Special Instructions / Comments:

Total Hg = metals

Turnaround Requirements

_____Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM

_____ Standard (10 Business Days)

Date Required:

Report Requirements

_____Tier II/Cat A -Results/QC

_____Tier IV/Cat B - Data Validation Report w/. Data

EDD: _____Yes _____No

EDD Type:

Metals: RCRA 8•PP 13•TAL 23•TCLP•Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars •THM • Other: _____

Invoice To: (□ Same as Report To)

PO #:

Company:

Contact:

Email:

Phone:

Address:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature						
Printed Name	Corey Hayne					
Company	Olin					
Date/Time	3/25/25					

Distribution: White - Lab Copy; Yellow - Return to Originator

Office DEPOT OfficeMax

Customer Drop Off Confirmation Receipt

Store # 06223

8329 NIAGARA FALLS BLVD.
NIAGARA FALLS NY 14304

Date: 03/25/2025

Tracking Number: 100230310286000146230 0712706618307

- I understand that Office Depot is not liable for packages improperly packaged.
- I understand that Office Depot will not ship any hazardous materials, as designated by the Department of Transportation, or any other materials restricted by FedEx or US Post Office rules. Please see an Office Depot associate if you have any item in question.
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- **FedEx claims for lost/damaged and missing content packages and late shipments are to be made by the customer/shipper.**
- You acknowledge and agree that each FedEx shipment you tender is governed by the applicable FedEx Express Terms and conditions
- and/or FedEx Ground Tariff, as contained in the FedEx Service Guide at fedex.com. Unless a higher value is declared and for, the maximum liability for each shipment you tender is US $100. You acknowledge and agree that shipment(s) does not contain any items, hazardous materials or dangerous goods

Customer Signature

Important Information Regarding Packing and Shipping Program

FedEx – Your Package can be tracked online at www.fedex.com

USPS – Your package can be tracked online at www.usps.com only if you purchased this additional service.

INDUSTRIAL WELDING SITE
NIAGARA FALLS, NY
GROUNDWATER SAMPLING FIELD PARAMETERS
FIELD INSTRUMENTATION CALIBRATION FORM

DATE: 9-4-24 SAMPLING EVENT: Fall 2024

PERSON CALIBRATING METER: _____

INSTRUMENT USED:

MANUFACTURER: YSI

MODEL NUMBER: PRO DSS

HGS NUMBER: _____

DATE OF MANUFACTURE: _____

CALIBRATION STANDARDS USED:

STANDARD 7.00 METER READ: 6.98 - 7.00

STANDARD 4.00 METER READ: 3.98 - 4.00

STANDARD 10.00 METER READ: 9.97 - 10.00

CALIBRATION SOLUTION EXPIRATION DATE: 6-26

	PRE CALIBRATION READINGS	POST CALIBRATION READINGS
TEMPERATURE (°F or °C):	/	
pH:		
pHmv:		
OX-RED POT (ORPmv):		
CONDUCTIVITY (ms/cm):	1.387	1.413
TURBIDITY (NTU):		
mg/L DO:		
% DO:		

OTHER CALIBRATION COMMENTS: _____

FIELD DATA LOG FOR WATER ELEVATION MEASUREMENTS
Industrial Welding Site, Niagara Falls, New York

Name of Sampler: Steve Walsh

Organization: O Lyon

Weather: Clear

Water Level Indicator Make: Solinst Model: 102 Serial No.: 573395

Location	Location ID	Date/Time Measured	Top of Riser Elevation (ft msl)	Measured Depth to Water (Feet Below Top of Riser)	Water Elevation (ft msl)	
LCRS Stand Pipe	SP1	9-4-24 SW ~~0905~~ 1025		16.7 ~~8.35~~ SW		DRY well
LCRS Stand Pipe	SP2	9-4-24 SW ~~0910~~ 1030		14.38 ~~7.90~~ SW		DRY well
LCRS Recovery Well	LCRS1	9-4-24 0905	573.43	8.35	565.08	
Cover Area Piezometer	P1R	9-4-24 1030	582.10	17.1	565.0	DRY well
East Easement Piezometer	P2R	9-4-24 1020	572.17	8.78	563.39	
Cover Area Piezometer	P3R	9-4-24 1032	581.90	17.01	564.89	
East Easement Piezometer	P4R	9-4-24 1017	571.09	8.1	562.99	
Cover Area Piezometer	P5R	9-4-24 1033	578.46	14.01	564.45	Pad is loose
East Easement Piezometer	P6R	9-4-24 1015	570.91	7.56	563.35	
NE Easement Monitoring Well	MW1	9-4-24 SW ~~0830~~ 0935	570.87	7.46 ~~6.35~~ SW	563.41	
SE Easement Monitoring Well	MW2	9-4-24 0830	572.76	6.35	566.41	

COMMENTS:

FIELD DATA LOG FOR STORM WATER SAMPLING
Industrial Welding Site, Niagara Falls, New York

Location Description: Storm Drain Sample Point East of Catch Basin

Sampler(s): Steve Walsh, Rick Hicks, Corey Haynes

Weather: clear

Date: ~~BSW~~ 9-4-24 Time: 0915

Sample ID: IWS-SD1-090424

Sampling Method: peristaltic

Pipe Invert Elevation at Sample Point Riser (ft msl)	Measured Depth of Water Sample Point (ft)	Calculated Water Elevation - Sample Point (ft)	Outfall Invert Elevation (ft msl)	Measured Depth of Water Outfall Pipe (ft)	Calculated Outfall Water Elevation (ft msl)
	8.35				

COMMENTS: Ph - 6.78 Cond 2,386 DO 2.06 Temp 19.5 Turb. 37

collected MS/MSD

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: SP-1

Date: 9-4-24

INSPECTOR: Steve Wagner

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

SEMI-ANNUAL INSPECTION REPORT FORM

DATE: **REPORT NO.:**

QUESTIONS	RESPONSE		COMMENTS AND RECOMMENDATIONS
	YES	NO	
1. Security Fence			
Is damage evident? If Yes, describe the type of damage(s), and indicate the location(s) the attached map.	~~✓~~ SW	✓	~~Cracks in asphalt~~ SW ~~and vegetation growing~~ SW
Are warning signs missing or damaged? If Yes, describe the type of damage and indicate the location(s) on the attached map.		✓	
Is erosion evident under chain-link sections or around posts? If Yes, describe the type of erosion (rills, gullies, valleys, washouts), record approximate dimensions (length, width, depth) and indicate location(s) on the attached map.		✓	
Has failure of any fencing members occurred? If Yes, describe the failure(s) and indicate location(s) on attached map.		✓	
2. Vegetative Soil Cover			
Is settlement or standing water evident? If Yes, describe the degree of settlement(s) (slight, moderate, significant), record approximate dimensions, and indicate the location(s) on the attached map.		✓	
Is erosion evident? If Yes, describe the type of erosion (rills, gullies, valleys, washouts, slope failure), record approximate dimensions (length, width, depth) and indicate location(s) on the attached map.		✓	
Is vegetation distressed or are bare areas evident? If Yes, describe the type of disorder (distressed, sparsely vegetated, bare), record approximate dimensions and indicate location(s) on the attached map.		✓	
Is any other damage evident? If Yes, describe the type of damage(s) and indicate the location(s) on the attached map.		✓	
Are obstruction(s) (brush, debris, timber, leaves, sediment) interfering with the proper functioning of swales? Outlets from swales? If Yes, describe the type(s) of obstruction(s) and indicate the location(s) on the map attached. Is sediment deposited ins wales impending drainage? If Yes, record approximate dimensions and indicate location(s) on the attached map.		✓	

QUESTIONS	RESPONSE		COMMENTS AND RECOMMENDATIONS
	YES	NO	
3. Surface Water Drainage System			
Are catch basin(s) damaged? If Yes, describe the catch basin inspected, conditions observed (spalling, cracking, exposed reinforcement, joint separation) and indicate location(s) of damaged catch basin(s) on the attached map.		✓	
Are obstruction(s) (brush, debris, leaves, sediment) interfering with the proper functioning of the catch basin(s)? If Yes, describe the type(s) of obstruction(s) and indicated the location(s) on the attached map.		✓	
Is erosion evident? If Yes, describe the drainage structure inspected (swale, outfall) the type of erosion (rills, gullies, valley, washouts, slope failure), record approximate dimensions (length, width, depth) and indicate location(s) on the attached map.		✓	
Is sediment deposited in drainage pipe(s) deeper than 1/4 of the pipe diameter (shown on the contract drawings)? If Yes, record approximate dimension and indicate locations on the attached map.		✓	
Is structural damage to headwalls evident? If Yes, describe the type of damage (upheaval, cracking, undermined, overturned, fractured, broken) and indicate damaged structures on the map.		✓	
Have stones been dislodged at rip-rapped drainage outlet aprons? If Yes, record approximate dimensions and indicate location(s) on the attached map.		✓	
4. Asphalt Concrete Cover System			
Is pavement distress evident? If Yes, describe (cracking, pothole(s), upheaval, failed patch), record the approximate dimensions (length, width, and depth) and indicate location(s) on the attached map.	✓		Cracks in asphalt vegetation growing in cracks
Is settlement or standing surface water evident? If Yes, describe the degree of settlement(s) (slight, moderate, significant), record approximate dimensions and indicate the location(s) on the attached map.		✓	
Are obstructions present in the catch basins? If Yes, describe the obstacle(s) (leaves, brush, sediment) and indicate the location(s) on the map attached.		✓	
Is sediment deposited in swale(s) impeding drainage? If Yes, record approximate dimensions and indicate location(s) on the map attached.		✓	

QUESTIONS	RESPONSE		COMMENTS AND RECOMMENDATIONS
	YES	NO	
5. Leachate Collection and Recovery System			
Is standing water present at the LCRS cleanout? If Yes, describe the depth of the standing water.		✓	
Is there evidence of any pipes or valves leaking at the recovery well? If Yes, describe the magnitude of the leak (drip, steady discharge, single overflow) and ~~tag location(s) of leak(s).~~		✓	
Is leachate extraction well pump operating properly based on visual inspection? If No, describe the condition.	✓		
Is damage or degradation evident at the extraction well or stand pipe(s)? If Yes, describe the type of damage (vent/well riser cover missing, vent/well riser cracked, overturned, leaning, broken) and indicate damaged vent/well riser(s) on the map attached.		✓	
Is damage or degradation evident at these system components? Extraction well pump and associated piping? Leachate collection pipe cleanout?		✓	

Date: 9-4-24

INSPECTOR: Steve Walsh

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: MW-1

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
✓		**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
~~DSW~~ ✓		**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

FIELD DATA LOG FOR GROUNDWATER SAMPLING
Industrial Welding Site, Niagara Falls, New York

Well ID: ~~MW-1~~ MW-2 Date: 9-4-24
Sampler(s): S. Walsh / R. Hicks / Corey Haynes
Weather: Clear
Calibration of Field Equipment:

pH Meter: Date: 9-4-24 Time 0830
Spec. Conduct. Meter: Date: 9-4-24 Time 0830
Turbidity Meter: Date: 9-4-24 Time 0830

Purging Method/Sampling Method: Peristaltic

Sample ID: FWS - MW-2 - 090423

Well Purging Data:

Time	Water Level (Feet Below Top of Riser)	Volume Purged (Liters)	pH (Std. Units)	Specific Conductivity (Φmhos/cm)	Temp. (°C)	Turbidity (NTUs)
0840	6.35	1	7.01	1.353	19.4	0.20
0845	7.05	2	6.90	1.198	19.9	0.21
0850	7.46	3	6.80	1.026	20.1	0.23
0855	7.85	4	6.71	0.961	20.2	0.22
0900	8.10	5	6.75	1.009	20.2	0.22

COMMENTS:

FIELD DATA LOG FOR GROUNDWATER SAMPLING
Industrial Welding Site, Niagara Falls, New York

Well ID: ~~MW-2~~ MW-1 Date: BSW 9-4-24
Sampler(s): Steve Walsh, Rick Hicks, Corey Haynes
Weather:
Calibration of Field Equipment:

pH Meter: Date: 9-4-24 Time 0830
Spec. Conduct. Meter: Date: 9-4-24 Time 0830
Turbidity Meter: Date: 9-4-24 Time 0830

Purging Method/Sampling Method: Peristaltic

Sample ID: IWS-MW-1-090424

Well Purging Data:

Time	Water Level (Feet Below Top of Riser)	Volume Purged (Liters)	pH (Std. Units)	Specific Conductivity (Φmhos/cm)	Temp. (°C)	Turbidity (NTUs)
0950	7.46	1	6.65	1.179	20.2	0.19
0955	8.40	2	6.59	1.049	20.4	0.21
1000	8.77	3	6.61	1.123	20.3	0.23
1005	9.14	4	6.64	1.135	20.1	0.22
1010	9.38	5	6.67	1.147	20.2	0.20

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P2R

Date: 9-4-24

INSPECTOR: Steve Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P5R

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
	✓	**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: MW-2

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
✓		**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P1R

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P4R

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P6R

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: SP-2

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

Industrial Welding Site

Piezometer and Monitoring Well

INSPECTION FORM

Inspection of Well/Piezometer No.: P3R

Date: 9-4-24

INSPECTOR: S. Walsh

YES	NO	
✓		**Is the wellhead clearly labeled?**
✓		**Is there a lock on the well?**
✓		**Is the concrete pad around the well in good condition**
	✓	**Has there been physical damage to the well?**
✓		**Is the wellhead protected from standing water?**
	✓	**Is there evidence of frost heave on the protective casing?**
	✓	**Is there settlement around the well?**
✓		**Is the well depth consistent with the installed depth?**

COMMENTS:

FIELD DATA LOG FOR LCRS DISCHARGE SAMPLING
Industrial Welding Site, Niagara Falls, New York

Location ID: MS #1

Date: _____ Time: _____

Sampler(s) _____

Weather: _____

System Status (Check): On _____ Off _____

Sample ID: _____

Sampling Method: _____

Sample ID: _____

COMMENTS:

ALSI BOTTLE REQUEST FORM

Order ID:	240823005	Date Due:	08/29/24	Completed:	
		Time Due:	16:00		

Date Ordered:	08/23/24	Company Name:	Olin Corp
Time Ordered:	12:23	Requested By:	Stephen Walsh
Order Taken By:	Meghan Pedro	Project Name/No.:	Industrial Welding

Method of Delivery:	Fed Ex Ground	Additional Supplies	Labels Temperature Blanks Pack Bottles By Sets Chain of Custodies - 1 Coolers
Address:	Holiday Inn 114 Buffalo Ave Niagara Falls, NY 14303		
Attn:	Stephen Walsh		
Phone:			

# of Bot.	# in Set	Size	Type	Preservation	Analyses
10	2	250 ml	AW - Amber (Wide)	None	Pesticides
10	2	250 ml	AW - Amber (Wide)	None	8270
5	1	125 ml	P - Plastic	HNO3	Hg

Special Notes		Sample Point ID's	

ID	Tracking Number	ID	Tracking Number	ID	Tracking Number

Chain of Custody / Analytical Request Form

74636

SR#:

Page / of /

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

Report To:	ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER
Company: OLIN CORP	Project Name: INDUSTRIAL WELDING
Contact: ADAM CARRINGER	Project Number:
Email: acarringer@olin.com	ALS Quote #:
Phone: 423-336-4987	Sampler's Signature: R Hicks S. WALSH C. HAYNES
Address: 490 STUART RD NE	Email CC:
CLEVELAND, TN 37312	Email CC:
	State Samples Collected (Circle or Write): (NY) MA, PA, CT, Other:

Preservative: D D 2

Lab ID (ALS)	Sample ID:	Date	Time	Matrix (GW WW SW DW S L NA)	Number of Containers	MS/MSD?	GC/MS VOA - 8260•624•524•TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	Notes:
	~~MW2-090424~~ JRH 9-4-24	~~9-3-24~~		~~GW~~	~~JRH~~		9-4-24							
	IWS-MW2-090424	9-4-24	0900	GW	5	NO		2	2			1		
	IWS-SD1-090424	9-4-24	0915	GW	15	YES		6	6			3		MS/MSD
	~~IWS-MW1-090424~~	~~9-4-24~~		~~GW~~	~~5~~	~~NO~~		~~2~~	~~2~~			~~1~~	JRH 9-4-24	
	IWS-MW1-090424	9-4-24	1010	GW	2	NO			1			1		

0. None
1. HCl
2. HNO3
3. H2SO4
4. NAOH
5. Zn Acet.
6. MeOH
7. NaHSO4
8. Other

Special Instructions / Comments:

METALS – TOTAL Hg

IWS-MW1= PUMPED DOWN, RECOVERY ONLY YIELDED ENOUGH H_2O FOR 2 SAMPLE BOTTLES

Turnaround Requirements

____Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM
X Standard (10 Business Days)
Date Required:

Report Requirements

____Tier II/Cat A -Results/QC
____Tier IV/Cat B - Data Validation Report w/. Data
EDD: ____Yes ____No
EDD Type:

Metals: RCRA 8•PP 13•TAL 23•TCLP•Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars •THM • Other: _____

Invoice To: (□ Same as Report To)

PO #:
Company:
Contact:
Email:
Phone:
Address:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature						
Printed Name	RICK HICKS					
Company	OLIN CORP					
Date/Time	9-4-24 / 1545					

Distribution: White - Lab Copy; Yellow - Return to Originator

Chain of Custody / Analytical Request Form

69247

SR#:

Page 1 of 1

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

Report To:	ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER
Company: Olin Corporation	Project Name: Industrial Welding
Contact: Adam Garringer	Project Number: 1332
Email: ARGarringer@Olin.com	ALS Quote #:
Phone: 423 336 4987	Sampler's Signature: Steve Walsh
Address: 490 Stuart Rd	Email CC:
Cleveland TN 37312	Email CC:
	State Samples Collected (Circle or Write): (NY), MA, PA, CT, Other:

Lab ID (ALS)	Sample Collection Information: Sample ID:	Date	Time	Matrix (GW / WW / SW / DW / S / L / NA)	Number of Containers	MS/MSD?	Preservative: GC/MS VOA - 8260•624•524•TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	Notes:
	IWS-SA1-031924	031924	0835	GW	15	Y		6	6			3		MS/MSD lab only
	IWS-MW1-031924	031924	0920	GW	5	N		2	2			1		
	IWS-MW2-031924	031924	0950	GW	5	N		2	2			1		

Preservative: 0. None; 1. HCl; 2. HNO3; 3. H2SO4; 4. NAOH; 5. Zn Acet.; 6. MeOH; 7. NaHSO4; 8. Other

Special Instructions / Comments:

Metals - total Mercury (Hg)

Turnaround Requirements

____Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM
X Standard (10 Business Days)
Date Required: Standard

Report Requirements

____Tier II/Cat A -Results/QC
____Tier IV/Cat B - Data Validation Report w/. Data
EDD: ____Yes ____No
EDD Type:

Metals: RCRA 8•PP 13•TAL 23•TCLP•Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars •THM • Other: _____

Invoice To: (☒ Same as Report To)

PO #:
Company:
Contact:
Email:
Phone:
Address:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature						
Printed Name	Greg Ernst					
Company	Sesco					
Date/Time	3/19/24 1115					

Distribution: White - Lab Copy; Yellow - Return to Originator

PHOTOGRAPHIC LOG		
Olin Corp	**Industrial Welding Site** **Niagara Falls, NY**	**PRR 2025**

Photo No.	**Date**
1	unknown

New hinge on the stickup protective cover replaced at P-5R.

PHOTOGRAPHIC LOG		
Olin Corp	**Industrial Welding Site** **Niagara Falls, NY**	**PRR 2025**

Photo No.	**Date**
2	unknown

New hinge on the stickup protective cover replaced at P-5R.

B Institutional and Engineering Certification Form

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 932050

Site Name Olin Corporation-Industrial Welding

Site Address: Packard Road near 30th Street Zip Code: 14303
City/Town: Niagara Falls
County: Niagara
Site Acreage: 13.290

Reporting Period: May 01, ~~2022~~ 2024 to May 01, ~~2023~~ 2025

	YES	NO
1. Is the information above correct?	☑	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Closed Landfill	☑	☐
7 Are all ICs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Adam P Cary

Signature of Owner, Remedial Party or Designated Representative

5/23/2025
Date

SITE NO. 932050

Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
159.12-1-10	Olin Corporation	Soil Management Plan Monitoring Plan O&M Plan

Record of Decision; November 3, 1994 for Operable Units one and two (OU1 and OU2).

Deed Restriction; December 7, 2001.

159.12-1-2.2	Olin Corporation	Monitoring Plan Soil Management Plan O&M Plan

Record of Decision (ROD) November 3, 1994 for Operable Units 1 and 2 (OU1 and OU2.)

Deed Restriction; December 7, 2001.

159.12-1-7	Olin Corporation	Site Management Plan O&M Plan

Operable Unit 3 (OU3) Packard Road Parcel.

Record of Decision (ROD) March 24, 2006.

Environmental Easement; June 24, 2010.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
159.12-1-10	Monitoring Wells Cover System Fencing/Access Control Groundwater Containment Leachate Collection

Southern Cover System (American Legion Post Parcel, 136 Packard Road):

Operable Unit Two (OU2) was constructed as a subgrade, aggregate base course, asphalt concrete pavement (binder and top course), storm drainage, catch basins, storm drain piping with landscaping and security fencing.

A leachate collection and recovery system is active and extends beneath both the northern (150 Packard) and southern (136 Packard) covers. An extraction well pump is under the southern asphalt cover and automatically activates at a pre-set leachate level. Leachate is discharged to the Niagara Falls sewer system by City Permit No. ICU-23. The status of pump operations are monitored remotely.

159.12-1-2.2

Parcel	Engineering Control
	Monitoring Wells Cover System Groundwater Containment Leachate Collection Fencing/Access Control

The remediation consisted of the consolidation of sediments, soils and demolition debris from Gill Creek the American Legion Post and other excavated materials.

The North Cover System (150 Packard Road, IWS Parcel) was constructed as a leachate collection and recovery system, consisting of a trench, geotextile, coarse stone aggregate, collection piping, recovery well, leachate extraction pumping system with a force main and a clay barrier.

The cap details are a six inch clay buffer layer, 40-mil. geomembrane liner, eighteen inch protective/drainage soil layer and six inch vegetative soil layer and vegetative cover.

A leachate collection and recovery system is active and extends beneath both the northern (150 Packard) and southern (136 Packard) covers. A extraction well pump is under the southern asphalt cover and automatically activates at a pre-set leachate level. Leachate is discharged to the Niagara Falls sewer system by City Permit No. ICU-23. The status of pump operations are monitored remotely.

159.12-1-7

Monitoring Wells
Cover System
Fencing/Access Control

Operable Unit 3 (OU3) Packard Road Parcel: The remediation consists of an asphalt cover to the equivalent specifications as the cover system of south OU2.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Adam B Conger

Signature of Owner, Remedial Party or Designated Representative

5/23/2025

Date

IC CERTIFICATIONS
SITE NO. 932050

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Adam Carringer at 490 Stuart Rd NE, Cleveland, TN 37312
print name print business address

am certifying as Site Owner - Olin Corporation (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Adam B Carringer 5-23-2025

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification — Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

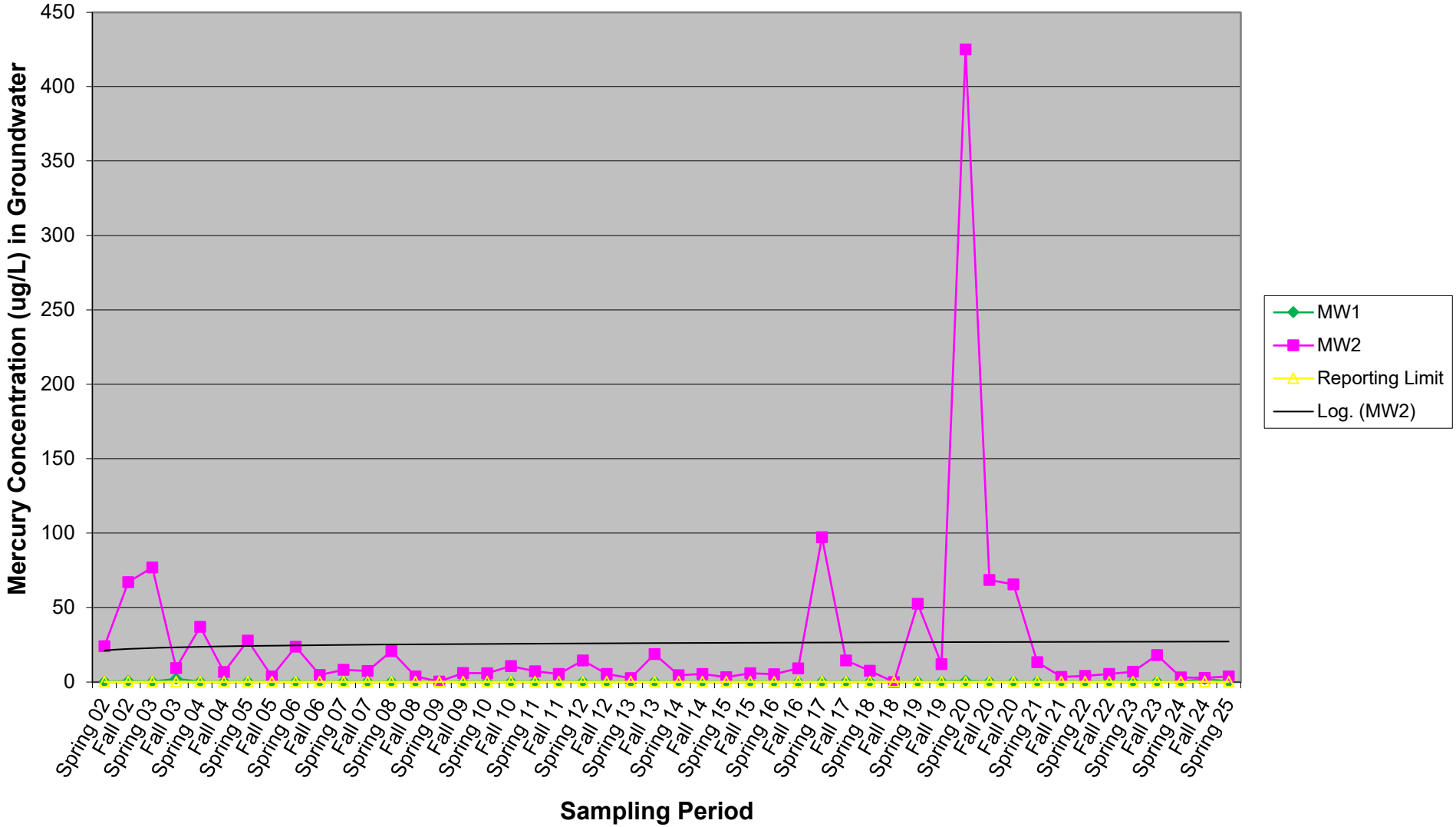
I Adam Carringer at 490 Stuart Rd NE, Cleveland, TN 37312.
print name print business address

am certifying as a Qualified Environmental Professional for the Site Owner, Okn Corporation
(Owner or Remedial Party)

Adam B Carringer CHMM #32670 5/23/2025
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification | Stamp (Required for PE) | Date

C Summary of Mercury Historical Detections in Monitoring Wells

Industrial Welding
Mercury Concentrations in Groundwater Over Time



IW GROUNDWATER MONITORING
ANALYTICAL RESULTS FOR Hg MONITORING WELL BY PERIOD
SUMMARY SPRING 2003 - SPRING 2025

Sampling Period	MW1 (ug/L)	MW2 (ug/L)	Rptg. Limit (ug/L)
Spring 02	0.2	**24**	0.2
Fall 02	**0.5**	**67**	0.2
Spring 03	0.2	**77**	0.2
Fall 03	**2.2**	**9.3**	0.2
Spring 04	0.2	**37**	0.2
Fall 04	0.2	**6.6**	0.2
Spring 05	0.2	**27.8**	0.2
Fall 05	0.2	**3.7**	0.2
Spring 06	0.2	**23.7**	0.2
Fall 06	0.2	**4.7**	0.2
Spring 07	0.2	**8.2**	0.2
Fall 07	0.2	**7.3**	0.2
Spring08	0.2	**20.7**	0.2
Fall08	0.2	**3.7**	0.2
Spring09	0.2	**0.2**	0.2
Fall09	0.2	**6.1**	0.2
Spring10	0.2	**5.8**	0.2
Fall10	0.2	**10.6**	0.2
Spring11	0.2	**7.2**	0.2
Fall 11	0.2	**5.3**	0.2
Spring 12	0.2	**14.4**	0.2
Fall 12	0.2	**5.3**	0.2
Spring 13	0.2	**2.5**	0.2
Fall 13	0.2	**18.7**	0.2
Spring 14	0.2	**4.5**	0.2
Fall 14	0.2	**5.4**	0.2
Spring 15	0.2	**3.2**	0.2
Fall 15	0.2	**5.9**	0.2
Spring 16	0.2	**5.2**	0.2
Fall 16	NA	**9.1**	0.2
Spring 17	0.2	**97.2**	0.2
Fall 17	0.2	**14.4**	0.2
Spring 18	0.2	**7.5**	0.2
Fall 18	dry	dry	0.2
Spring 19	0.2	**52.5**	0.2
Fall 19	0.2	**11.9**	0.2
Spring 20	**0.7**	**425**	0.2
*Summer 20[1]	0.2	**68.6**	0.2
Fall 20	0.2	**65.6**	0.2
Spring 21	0.2	**13.3**	0.2
Fall 21	0.2	**3.4**	0.2
Spring 22	0.2	**4**	0.2
Fall 22	0.2	**5.42**	0.2
Spring 23	0.2	**6.81**	0.2
Fall 23	0.2	**18.1**	0.2
Spring 24	0.2	**2.97**	0.2
Fall 24	**2.1**	**2.67**	0.2
Spring 25	0.2	**3.69**	0.2

= Detected value

*Resampled due to anomalous values from spring sampling event

[1]ERRATA: 2020 Sampling results/date were inadvertently reported.

D

Leachate Collect and Recovery System Annual Discharge Report

Environmental Remediation Group

490 Stuart Road NE
Cleveland, TN. 37312
(423) 508-2768
abcarringer@olin.com

SENT VIA OVERNIGHT COURIER

February 14, 2025

Industrial Monitoring Coordinator
City of Niagara Falls
Department of Wastewater Facilities
Enforcement Division
1200 Buffalo Avenue
PO Box 69
Niagara Falls, NY 14302-0069

Re: Olin Industrial Welding Site – No Violations
Niagara Falls, New York
Wastewater Discharge Permit No. ICU-23
Periodic Self-Monitoring Report

Dear Industrial Monitoring Coordinator:

Please find enclosed the annual Periodic Self-Monitoring Report in accordance with the reporting requirements of the Wastewater Discharge Permit for the Olin Industrial Welding Site. The site is in compliance for all monitored parameters; there are no violations.

Discharge during this monitoring period (January 2024 through December 2024) totaled 113,444 gallons. Daily flow documentation is included in Attachment 1. The annual monitoring samples were taken on December 04, 2024. The laboratory analytical report for compliance monitoring is included on CD, along with a printed summary sheet, in Attachment 2. The analytical results and loading data are tabulated in Part I of the report. There were no exceedances.

Please direct any questions or comments to me at 423/508-2768.

Sincerely,

Adam Carringer
Associate Specialist

Attachments

PERIODIC SELF MONITORING REPORT
INDUSTRIAL COMMERCIAL USER

PART II of the report is the Compliance Monitoring section. The user is obligated to determine if the analysis results indicate compliance or noncompliance. All violations noted should be brought to the City's attention immediately upon noting and should also be reported in this section. The analysis result should be compared against all applicable federal, state, and local standards and limitations. If no violations are noted, then "NO VIOLATIONS" should appear on the report.

Pursuant to 40 CFR Part 403.12 g of the federal standards, all violations noted must be followed up by a sample recollect/analysis and the results submitted to the City within thirty (30) days of first becoming aware of the violation.

Pursuant to 40 CFR Part 403.12 g, all Periodic self-Monitoring Reports must be signed by a 'responsible company official' certifying the following statement:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: _____ Date: 2/28/2024

PART 1
ANALYTICAL RESULTS

ICU PERMIT NAME	Olin Corporation - Industrial Welding Site
ICU PERMIT NUMBER	ICU - 23
SAMPLE LOCATION	MS#1
DATE SAMPLED	12/4/2024
ANALYSIS DATES	Dec 04-17, 2024
ANALYTICAL LABORATORY	ALS Environmental

Parameter	Method	Results (mg/l)	Flag	Results (lb/day)	Daily Max Discharge Limits (lb/day)
Total Suspended Solids	SM 2540 D	24.6		0.064	15
Soluble Organic Carbon	SM 5310 B	3.3		0.009	10
Acetone	EPA 624.1	0.00500		0.000013	0.01
Dichloroethanes	EPA 624.1	0.00200	U	0.000005	0.01
Trichloroethylenes	EPA 624.1	0.00269	J	0.000007	0.01
BHCs total	EPA 608.3	0.000136	UJ	0.0000004	0.001
Mercury	EPA 245.1	0.00124		0.0000032	0.008

Parameter	Value
Avg. Daily Flow (gal/day) for 2024	311
Avg. Daily Flow (Mgal/day) for 2024	0.000311
Discharge Limitations (Annual Avg. MGD)	0.005
Discharge Limitations (Daily Max MGD)	0.008

Notes:
U = Analyte was analyzed for but not detected
J = Estimated value based on QC data
UJ = Estimated value
Results (lb/day) = Results (mg/l) X Flow (Gal/Day) X .00000834
Flows calculated based on avg daily flow for year rather than for sampling month, due to flow variability and sampling month dry weather conditions.

PART II
COMPLIANCE MONITORING

INDUSTRY NAME Olin Corporation - Industrial Welding Site

PERMIT NO. ICU - 23

			SAMPLE			TYPE **
VIOLATION		FLOW	POINT	ACTUAL *	PERMIT	LIMIT
PARAMETER	DATE	(MGD)	LOCATION	DISCHARGE	LIMIT	VIOLATED
through	**Dec. 1999**	**NO VIOLATIONS**				
through	**Dec. 2000**	**NO VIOLATIONS**				
through	**Dec. 2001**	**NO VIOLATIONS**				
through	**Dec. 2002**	**NO VIOLATIONS**				
through	**Dec. 2003**	**NO VIOLATIONS**				
through	**Dec. 2004**	**NO VIOLATIONS**				
through	**Dec. 2005**	**NO VIOLATIONS**				
through	**Dec. 2006**	**NO VIOLATIONS**				
through	**Dec. 2007**	**NO VIOLATIONS**				
through	**Dec. 2008**	**NO VIOLATIONS**				
through	**Dec. 2009**	**NO VIOLATIONS**				
through	**Dec. 2010**	**NO VIOLATIONS**				
through	**Dec. 2011**	**NO VIOLATIONS**				
through	**Dec. 2012**	**NO VIOLATIONS**				
through	**Dec. 2013**	**NO VIOLATIONS**				
through	**Dec. 2014**	**NO VIOLATIONS**				
through	**Dec. 2015**	**NO VIOLATIONS**				
through	**Dec. 2016**	**NO VIOLATIONS**				
through	**Dec. 2017**	**NO VIOLATIONS**				
through	**Dec. 2018**	**NO VIOLATIONS**				
through	**Dec. 2019**	**NO VIOLATIONS**				
through	**Dec. 2020**	**NO VIOLATIONS**				
through	**Dec. 2021**	**NO VIOLATIONS**				
through	**Dec. 2022**	**NO VIOLATIONS**				
through	**Dec. 2023**	**NO VIOLATIONS**				
through	**Dec. 2024**	**NO VIOLATIONS**				

NOTE: * - Actual Discharge - List actual analytical results and appropriate units
** - Type Limit violated
A.A. = Annual Average
D.M = Daily Maximum
L.L. Local Limits (Ordinance 250.5.1)

ATTACHMENT 1

Industrial Welding Site - Discharge Flows: 2024

Month	Monthly Flow (gal)	gal/day
Jan	36,462	1,176
Feb	13,081	467
Mar	11,222	362
Apr	33,174	1,106
May	4,352	140
Jun	3,756	125
Jul	3,691	119
Aug	734	24
Sep	0	0
Oct	0	0
Nov	262	9
Dec	6,710	216
Total	**113,444**	
MONTHLY AVERAGE	9,454	
daily average	311	
daily avg Mgal	0.000311	

Daily Avg. Limit = 0.005 Mgal

Industrial Welding Site Flows
Jan-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **36,462 Gallons**

Date	Time	Hours	Gallons
1/1/2024	3:58:11	2.1	711
1/2/2024	3:58:12	0	0
1/3/2024	3:58:13	0	0
1/4/2024	3:58:12	0	0
1/5/2024	3:58:11	0	0
1/6/2024	3:58:14	0	0
1/7/2024	3:58:14	2.1	716
1/8/2024	3:58:18	0	0
1/9/2024	3:58:12	2.3	784
1/10/2024	3:58:12	2.2	752
1/11/2024	3:58:11	2.3	769
1/12/2024	3:58:12	2.2	763
1/13/2024	3:58:12	2.3	772
1/14/2024	3:58:14	2.3	767
1/15/2024	3:58:15	2.2	763
1/16/2024	3:58:12	0.7	252
1/17/2024	3:58:20	1.5	502
1/18/2024	3:58:14	2.2	745
1/19/2024	3:58:13	0	0
1/20/2024	3:58:12	2.1	727
1/21/2024	3:58:14	0	0
1/22/2024	3:58:13	2.2	728
1/23/2024	3:58:12	0	0
1/24/2024	3:58:11	3.9	1317
1/25/2024	3:58:11	14.6	4934
1/26/2024	3:58:13	16.1	5456
1/27/2024	3:58:13	15	5097
1/28/2024	3:59:16	10.1	3438
1/29/2024	3:58:17	8.8	2988
1/30/2024	3:58:14	5.2	1790
1/31/2024	3:59:37	4.9	1691

January Total Discharge **107.3 36,462**

Daily Discharge Limits: Max = 8,000 gal

Industrial Welding Site Flows
Feb-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **13,081 Gallons**

Date	Time	Hours	Gallons
2/1/2024	3:58:12	4.8	1632
2/2/2024	3:58:13	2.5	865
2/3/2024	3:58:11	2.6	920
2/4/2024	3:58:12	4.3	1483
2/5/2024	3:58:13	2.3	778
2/6/2024	3:57:54	2.3	768
2/7/2024	3:58:11	2.2	760
2/8/2024	3:58:12	0	0
2/9/2024	3:58:12	2.2	759
2/10/2024	3:58:13	2.2	748
2/11/2024	3:58:12	0	0
2/12/2024	3:58:11	2.2	741
2/13/2024	3:58:12	0	0
2/14/2024	3:58:11	0	0
2/15/2024	3:58:13	2.1	727
2/16/2024	3:58:13	0	0
2/17/2024	3:58:14	2.1	726
2/18/2024	3:58:13	0	0
2/19/2024	3:58:13	0	0
2/20/2024	3:58:11	0	0
2/21/2024	3:58:13	2.1	719
2/22/2024	3:57:45	0	0
2/23/2024	3:58:12	0	0
2/24/2024	3:58:13	2.1	729
2/25/2024	3:58:11	0	0
2/26/2024	3:58:14	0	0
2/27/2024	3:58:12	2.1	726
2/28/2024	3:58:12	0	0
2/29/2024	3:57:46	0	0

February Total Discharge **38.1** **13,081**

Daily Discharge Limits: **Max = 8,000 gal**

Industrial Welding Site Flows
Mar-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **11,222 Gallons**

Date	Time	Hours	Gallons
3/1/2024	13:00:02	2.1	729
3/2/2024	3:58:12	0	0
3/3/2024	3:58:13	0	0
3/4/2024	3:58:14	0	0
3/5/2024	3:58:14	2.1	716
3/6/2024	3:58:11	0	0
3/7/2024	3:58:13	0	0
3/8/2024	3:58:15	0.8	294
3/9/2024	3:58:15	1.2	419
3/10/2024	4:57:46	2.1	735
3/11/2024	3:58:12	0	0
3/12/2024	3:58:12	2.1	730
3/13/2024	3:58:13	0	0
3/14/2024	3:58:14	2.6	881
3/15/2024	3:58:12	0	0
3/16/2024	3:58:13	2.2	738
3/17/2024	3:58:21	0	0
3/18/2024	3:58:12	2.1	717
3/19/2024	3:58:11	0	0
3/20/2024	3:59:34	2.2	740
3/21/2024	3:58:12	0	0
3/22/2024	3:58:13	2.2	754
3/23/2024	3:58:12	2.2	785
3/24/2024	3:58:12	0	0
3/25/2024	3:58:13	2.2	736
3/26/2024	3:58:11	0	0
3/27/2024	3:58:12	2.3	767
3/28/2024	3:58:12	2.2	746
3/29/2024	3:58:12	0	0
3/30/2024	3:58:12	2.1	735
3/31/2024	3:58:13	0	0

March Total Discharge **33** **11,222**

Daily Discharge Limits: Max = 8,000 gal

Industrial Welding Site Flows
Apr-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **33,174 Gallons**

Date	Time	Hours	Gallons
4/1/2024	3:58:13	0	0
4/2/2024	3:58:13	2.2	727
4/3/2024	3:58:12	2.4	820
4/4/2024	3:58:13	2.2	759
4/5/2024	3:58:13	2.3	777
4/6/2024	3:58:12	2.3	771
4/7/2024	3:59:21	2.3	758
4/8/2024	3:58:13	2.2	764
4/9/2024	3:58:16	2.2	753
4/10/2024	3:58:11	2.2	746
4/11/2024	3:58:23	2.5	857
4/12/2024	3:58:15	9.2	3108
4/13/2024	3:58:13	11.5	3855
4/14/2024	3:58:13	7.8	2659
4/15/2024	3:58:13	6.6	2234
4/16/2024	3:58:12	5.1	1760
4/17/2024	3:58:13	5	1691
4/18/2024	3:58:12	3.4	1145
4/19/2024	3:58:12	3.8	1295
4/20/2024	3:58:13	2.4	807
4/21/2024	3:59:15	4.6	1576
4/22/2024	3:58:12	2.3	783
4/23/2024	3:58:12	2.3	774
4/24/2024	3:58:13	2.3	764
4/25/2024	3:58:13	0	0
4/26/2024	3:58:16	2.3	763
4/27/2024	3:58:14	2.2	755
4/28/2024	3:58:13	0.8	274
4/29/2024	3:58:13	1.3	459
4/30/2024	3:58:18	2.2	740

April Total Discharge **98** **33,174**

Daily Discharge Limits: Max = 8,000 gal

Industrial Welding Site Flows
May-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **4,352 Gallons**

Date	Time	Hours	Gallons
5/1/2024	3:58:15	0	0
5/2/2024	4:58:15	2.1	725
5/3/2024	5:58:15	0	0
5/4/2024	6:58:15	0	0
5/5/2024	7:58:15	2.2	737
5/6/2024	8:58:15	0	0
5/7/2024	9:58:15	2.1	724
5/8/2024	10:58:15	0	0
5/9/2024	11:58:15	0	0
5/10/2024	12:58:15	0	0
5/11/2024	13:58:15	2.1	727
5/12/2024	14:58:15	0	0
5/13/2024	15:58:15	0	0
5/14/2024	16:58:15	0	0
5/15/2024	17:58:15	0	0
5/16/2024	18:58:15	2.1	725
5/17/2024	19:58:15	0	0
5/18/2024	20:58:15	0	0
5/19/2024	21:58:15	0	0
5/20/2024	22:58:15	0	0
5/21/2024	23:58:15	0	0
5/22/2024	0:58:15	1.8	615
5/23/2024	1:58:15	0.3	99
5/24/2024	2:58:15	0	0
5/25/2024	3:58:15	0	0
5/26/2024	4:58:15	0	0
5/27/2024	5:58:15	0	0
5/28/2024	6:58:15	0	0
5/29/2024	7:58:15	0	0
5/30/2024	8:58:15	0	0
5/31/2024	9:58:15	0	0

May Total Discharge **12.7** **4,352**

Daily Discharge Limits: Max = 8,000 gal

Industrial Welding Site Flows
Jun-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **3,756 Gallons**

Date	Time	Hours	Gallons
6/1/2024	3:58:11	0	0
6/2/2024	3:58:15	0	0
6/3/2024	3:58:11	0	0
6/4/2024	3:58:13	0	0
6/5/2024	3:58:12	0	0
6/6/2024	3:58:15	2.3	792
6/7/2024	3:58:17	0	0
6/8/2024	3:58:15	0	0
6/9/2024	3:58:12	2.2	740
6/10/2024	3:58:13	0	0
6/11/2024	3:58:14	0	0
6/12/2024	3:58:11	0	0
6/13/2024	3:58:12	0	0
6/14/2024	3:58:12	0	0
6/15/2024	3:58:15	0	0
6/16/2024	3:58:21	0	0
6/17/2024	3:58:11	0	0
6/18/2024	3:58:13	0	0
6/19/2024	3:59:39	2.1	727
6/20/2024	3:58:14	0	0
6/21/2024	3:58:12	0	0
6/22/2024	3:58:13	2.2	727
6/23/2024	3:58:13	0	0
6/24/2024	3:58:12	0	0
6/25/2024	3:58:12	0	0
6/26/2024	3:58:11	0	0
6/27/2024	3:58:21	0	0
6/28/2024	3:58:13	0	0
6/29/2024	3:58:17	2.2	770
6/30/2024	3:58:13	0	0

June Total Discharge **11** **3,756**

Daily Discharge Limits: Max = 8,000 gal

Industrial Welding Site Flows
Jul-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **3,691 Gallons**

Date	Time	Hours	Gallons
7/1/2024	3:58:11	0	0
7/2/2024	3:58:18	0	0
7/3/2024	3:58:11	2.1	729
7/4/2024	3:58:11	0	0
7/5/2024	3:58:11	0	0
7/6/2024	3:58:12	0	0
7/7/2024	3:58:12	0	0
7/8/2024	3:58:13	0	0
7/9/2024	3:58:14	0	0
7/10/2024	3:58:12	0	0
7/11/2024	3:58:12	2.2	746
7/12/2024	3:58:14	0	0
7/13/2024	3:58:12	2.1	743
7/14/2024	3:58:12	0	0
7/15/2024	3:58:14	2.2	742
7/16/2024	3:58:13	0	0
7/17/2024	3:58:12	0	0
7/18/2024	3:58:11	0	0
7/19/2024	4:01:01	2.1	731
7/20/2024	3:58:22	0	0
7/21/2024	3:58:12	0	0
7/22/2024	3:58:12	0	0
7/23/2024	3:58:15	0	0
7/24/2024	3:58:18	0	0
7/25/2024	3:58:13	0	0
7/26/2024	3:58:12	0	0
7/27/2024	3:58:13	0	0
7/28/2024	3:58:14	0	0
7/29/2024	4:00:00	0	0
7/30/2024	3:58:14	0	0
7/31/2024	3:58:12	0	0

July Total Discharge **10.7** **3,691**

Daily Discharge Limits: Max = 8,000 gal

Industrial Welding Site Flows
Aug-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **734 Gallons**

Date	Time	Hours	Gallons
8/1/2024	3:58:12	0	0
8/2/2024	3:58:13	2.2	734
8/3/2024	3:58:13	0	0
8/4/2024	3:58:13	0	0
8/5/2024	3:58:14	0	0
8/6/2024	3:58:13	0	0
8/7/2024	3:58:18	0	0
8/8/2024	3:58:11	0	0
8/9/2024	3:58:13	0	0
8/10/2024	3:58:12	0	0
8/11/2024	3:58:13	0	0
8/12/2024	3:58:12	0	0
8/13/2024	3:58:24	0	0
8/14/2024	3:58:15	0	0
8/15/2024	3:58:15	0	0
8/16/2024	3:58:12	0	0
8/17/2024	3:58:21	0	0
8/18/2024	3:58:12	0	0
8/19/2024	3:58:13	0	0
8/20/2024	3:58:13	0	0
8/21/2024	3:59:17	0	0
8/22/2024	3:58:13	0	0
8/23/2024	3:58:13	0	0
8/24/2024	3:58:14	0	0
8/25/2024	3:58:12	0	0
8/26/2024	3:58:12	0	0
8/27/2024	3:58:13	0	0
8/28/2024	3:58:12	0	0
8/29/2024	3:58:15	0	0
8/30/2024	3:58:22	0	0
8/31/2024	3:58:14	0	0

August Total Discharge **2.2** **734**

Daily Discharge Limits: **Max = 8,000 gal**

Industrial Welding Site Flows
Sep-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **0** **Gallons**

Date	Time	Hours	Gallons
9/1/2024	3:58:12	0	0
9/2/2024	3:58:13	0	0
9/3/2024	3:58:12	0	0
9/4/2024	3:58:12	0	0
9/5/2024	3:58:13	0	0
9/6/2024	3:58:13	0	0
9/7/2024	3:58:13	0	0
9/8/2024	3:58:13	0	0
9/9/2024	3:58:14	0	0
9/10/2024	3:58:13	0	0
9/11/2024	3:58:12	0	0
9/12/2024	3:58:13	0	0
9/13/2024	3:58:13	0	0
9/14/2024	3:58:13	0	0
9/15/2024	3:58:13	0	0
9/16/2024	3:59:44	0	0
9/17/2024	3:58:12	0	0
9/18/2024	3:58:12	0	0
9/19/2024	3:58:24	0	0
9/20/2024	3:58:13	0	0
9/21/2024	3:58:13	0	0
9/22/2024	3:58:19	0	0
9/23/2024	3:58:13	0	0
9/24/2024	3:58:12	0	0
9/25/2024	3:58:12	0	0
9/26/2024	3:58:14	0	0
9/27/2024	3:58:11	0	0
9/28/2024	3:58:11	0	0
9/29/2024	3:58:13	0	0
9/30/2024	3:58:12	0	0

September Total Discharge **0** **0**

Daily Discharge Limits: **Max = 8,000 gal**

Industrial Welding Site Flows
Oct-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **0** **Gallons**

Date	Time	Hours	Gallons
10/1/2024	3:58:12	0	0
10/2/2024	3:58:18	0	0
10/3/2024	3:58:12	0	0
10/4/2024	3:58:13	0	0
10/5/2024	3:58:12	0	0
10/6/2024	3:58:15	0	0
10/7/2024	3:58:13	0	0
10/8/2024	3:58:12	0	0
10/9/2024	3:58:13	0	0
10/10/2024	3:58:13	0	0
10/11/2024	3:58:12	0	0
10/12/2024	3:58:12	0	0
10/13/2024	3:58:14	0	0
10/14/2024	3:58:14	0	0
10/15/2024	3:58:13	0	0
10/16/2024	3:58:13	0	0
10/17/2024	3:58:13	0	0
10/18/2024	3:58:20	0	0
10/19/2024	3:58:11	0	0
10/20/2024	3:58:15	0	0
10/21/2024	3:58:15	0	0
10/22/2024	4:00:28	0	0
10/23/2024	3:58:12	0	0
10/24/2024	3:58:24	0	0
10/25/2024	3:59:47	0	0
10/26/2024	3:58:12	0	0
10/27/2024	3:59:17	0	0
10/28/2024	3:59:37	0	0
10/29/2024	3:58:13	0	0
10/30/2024	3:57:45	0	0
10/31/2024	3:58:12	0	0

October Total Discharge **0** **0**

Daily Discharge Limits: **Max = 8,000 gal**

Industrial Welding Site Flows
Nov-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **262** **Gallons**

Date	Time	Hours	Gallons
11/1/2024	3:58:02	0	0
11/2/2024	3:58:20	0	0
11/3/2024	2:57:46	0	0
11/4/2024	3:57:52	0	0
11/5/2024	3:58:14	0.2	35
11/6/2024	3:58:14	0.7	227
11/7/2024	3:58:12	0	0
11/8/2024	3:58:21	0	0
11/9/2024	3:58:11	0	0
11/10/2024	3:58:14	0	0
11/11/2024	3:58:13	0	0
11/12/2024	3:58:18	0	0
11/13/2024	3:58:14	0	0
11/14/2024	3:58:15	0	0
11/15/2024	3:58:16	0	0
11/16/2024	3:58:12	0	0
11/17/2024	3:58:11	0	0
11/18/2024	3:58:35	0	0
11/19/2024	3:58:11	0	0
11/20/2024	3:58:11	0	0
11/21/2024	3:58:15	0	0
11/22/2024	3:58:18	0	0
11/23/2024	3:58:15	0	0
11/24/2024	3:58:12	0	0
11/25/2024	3:58:18	0	0
11/26/2024	3:58:11	0	0
11/27/2024	3:58:13	0	0
11/28/2024	3:58:11	0	0
11/29/2024	3:58:11	0	0
11/30/2024	3:58:13	0	0

November Total Discharge **0.9** **262**

Daily Discharge Limits: **Max = 8,000 gal**

Industrial Welding Site Flows
Dec-24

RTU NAME: Olin Industrial Welding
CUMULATEVE VALUES

Discharge Flow Meter **6,710 Gallons**

Date	Time	Hours	Gallons
12/1/2024	3:58:13	0	0
12/2/2024	3:58:31	0	0
12/3/2024	3:58:12	1.6	570
12/4/2024	3:59:16	0	0
12/5/2024	3:58:11	0	0
12/6/2024	3:58:16	0	0
12/7/2024	3:58:11	0	0
12/8/2024	3:58:12	0	0
12/9/2024	3:58:11	0	0
12/10/2024	3:58:11	0	0
12/11/2024	3:58:13	2	702
12/12/2024	3:58:13	0	0
12/13/2024	3:58:11	0	0
12/14/2024	3:58:23	0	0
12/15/2024	3:58:12	0	0
12/16/2024	3:58:12	0	0
12/17/2024	3:58:12	0	0
12/18/2024	3:58:11	2.2	739
12/19/2024	3:58:13	0	0
12/20/2024	3:58:22	0	0
12/21/2024	3:58:11	0	0
12/22/2024	3:58:13	2.1	712
12/23/2024	3:58:12	0	0
12/24/2024	3:58:12	0	0
12/25/2024	3:58:11	2.1	731
12/26/2024	3:58:13	2.4	806
12/27/2024	3:58:13	2.1	713
12/28/2024	3:58:23	0.1	13
12/29/2024	3:59:36	2.7	938
12/30/2024	3:58:12	2.2	786
12/31/2024	3:58:12	0	0

December Total Discharge **19.5** **6,710**

Daily Discharge Limits: **Max = 8,000 gal**

ATTACHMENT 2

Olin Corporation Industrial Welding Site

December-24

SDG-R2310409

Sample	Date Collected	Date Received	Date Analyzed	Component	MRL	Result	Flag	Units
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	Carbon, Dissolved Organic (DOC)	1.0	**3.3**		mg/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	Solids, Total Suspended (TSS)	1.0	**24.6**		mg/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	Mercury, Total	0.20	**1.24**		ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	Acetone	5.00	5.00	U	ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	1,1-Dichloroethane (1,1-DCA)	1.00	1.00	U	ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	1,2-Dichloroethane	1.00	1.000	U	ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	Trichloroethene (TCE)	1.00	**2.69**		ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	alpha-BHC	0.0481	**0.05**		ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	beta-BHC	0.0481	0.036	J	ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	delta-BHC	0.0481	**0.05**	U	ug/L
IWS-MS-110823	12/4/2024	12/4/2024	12/4/2024	gamma-BHC (Lindane)	0.0481	**0.05**	U	ug/L

Notes:

U = Analyte was analyzed for but not detected
J = Estimated value
MRL = Method Reporting Limit
Values in the "Results" column that are in bold font represent values above the the MRL

E Lab Reports

Industrial Welding Site
Data Evaluation Narrative
March 2025 Groundwater/Storm Drain Sampling Event

SDG R2503062: ALS Environmental, Rochester, NY

Deliverables

The data package as submitted to Olin Corporation is complete as stipulated under the Industrial Welding Site Quality Assurance Project Plan (QAPP) as approved by the New York State Department of Environmental Conservation. United States Environmental Protection Agency (USEPA) Methods 8270E, 8081B, and 7470A were utilized in the laboratory testing.

Samples submitted within this sample delivery group (SDG) were submitted to the ALS Environmental laboratory in Rochester, NY for analysis of select semi-volatile organic compounds, organochlorine pesticides, and total mercury. The laboratory subsequently applied login numbers to the SDG. The SDG number for this sampling event is R2503062. This evaluation narrative follows the listing of groundwater and storm drain sample field identifications. The topics are ordered to first assess issues affecting the entire data set.

Sample Integrity

Information provided on the Chain of Custody and Cooler Receipt Form provided by the laboratory confirmed the samples arrived at the laboratory intact. The cooler temperature as received by the laboratory was within the temperature control limits of 4.0°C ± 2.0°C. The proper bottles and preservatives were used, and the correct analytical methods were employed.

Sample Identification

This SDG contains the following samples collected on March 25, 2025:

SAMPLE	SAMPLE	SAMPLE
IWS-SD1-032525	IWS-MW2-032525	IWS-MW1-032525

Semi-Volatile Organic Compounds (EPA Method 8270E)

The samples in this SDG were submitted for analysis of select semi-volatile organic compounds—polyaromatic hydrocarbons (PAHs), by USEPA Method 8270E.

Holding Times:

The extraction and analytical logs indicate that applicable holding times were met for samples submitted for PAH analysis. The holding times of 7 days for extraction and 40 days for analysis were met.

GC/MS Instrument Performance Check:

The GC/MS tuning and mass calibration checks were performed with decafluorotriphenylphospine (DFTPP) and met the performance criteria as established by the method.

Calibration:

The initial calibration and continuing calibration data (ICV and CCVs respectively) indicate that applicable calibration criteria were met for samples submitted for PAH analysis. The RSDs for each calibration check were within the applicable criteria.

Blank Summary:
The analytical results of the laboratory method blanks indicated no PAHs were detected.

Laboratory Control Sample (LCS)/LCS Duplicate (LCSD):
The LCS/LCSD spike recoveries were within the applicable QC advisory limits, as were the relative percent differences (RPDs).

Matrix Spike/Matrix Spike Duplicate:
Sufficient sample volumes of IWS-SD1-032525 were submitted to the laboratory for MS/MSD analysis. The MS/MSD recoveries and RPDs were within laboratory control limits.

Internal Standards and Surrogates:
The internal standard area counts/retention times and the surrogate recoveries were within applicable QC advisory limits.

Organochlorine Pesticides (EPA Method 8081B)
The samples in this SDG were submitted for total HCCH (hexachlorocyclohexanes) analysis by USEPA Method 8081B.

Holding Times:
The extraction and analytical logs indicate that applicable holding times were met for samples submitted for HCCH analyses. The holding times of 7 days for extraction and 40 days for analysis were met.

Calibration:
The initial calibration data met method criteria. The continuing calibration data were within lab control limits except for one compound in the closing Continuing Calibration Verification which had a slight high bias. All samples were non-detect for that compound; therefore, the data quality was not significantly affected.

Surrogates:
The surrogate recoveries were within applicable QC advisory limits.

Blank Summary:
The analytical results of the laboratory method blanks indicated no HCCHs were detected.

Laboratory Control Sample (LCS)/LCS Duplicate (LCSD):
The LCS/LCSD spike recoveries were within the applicable QC advisory limits as were the RPDs.

Matrix Spike/Matrix Spike Duplicate:
Sufficient sample volumes of IWS-SD1-032525 were submitted to the laboratory for MS/MSD analysis. The MS/MSD recoveries and RPDs were within laboratory control limits.

Dual Column Confirmation:
The RPDs between the primary and confirmation results were within laboratory QC guidelines with the exception of one compound in the LCS which was biased high. Since the compound was within control limits in the LCSD and the recovery was within limits, no data qualification was required.

Total Mercury Analyses (EPA Method 7470A)

The samples in this SDG were submitted for total mercury analysis by USEPA Method 7470A.

Holding Times:

The extraction and analytical logs indicate that applicable holding times were met for samples submitted for total mercury analysis.

Calibration:

The initial and continuing calibration data for this SDG indicate that applicable calibration criteria were met for samples submitted for total mercury analysis. The low-level check standard recoveries were within QC advisory limits.

Blank Summary:

The analytical results of the initial and continuing laboratory method blanks indicated that total mercury was not detected.

Laboratory Control Sample:

The laboratory control sample (LCS) spike recovery was within the applicable QC advisory limits.

Matrix Spike/Matrix Spike Duplicate:

Sample IWS-SD1-032525 was submitted to the laboratory for MS/MSD analysis. The percent recoveries and RPD were within lab control limits.

Overall Site Evaluation and Professional Judgment Flagging Changes

The data within this SDG were compared to site data and edits to the DQE flags were not required based on professional judgment. Monitoring period completeness, which is the percentage of analytical results judged valid, including estimated values, was 100 percent for the March 2025 sampling event.

Prepared by: Randy T. Morris Date: May 15, 2025

September 24, 2024 Service Request No:R2408642

Adam Carringer
Olin Corporation
490 Stuart Road
Cleveland, TN 37312

Laboratory Results for: Industrial Welding

Dear Adam,

Enclosed are the results of the sample(s) submitted to our laboratory September 05, 2024
For your reference, these analyses have been assigned our service request number **R2408642.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

CC: Randy Morris

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation
Project: Industrial Welding
Sample Matrix: Water

Service Request: R2408642
Date Received: 09/05/2024

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 level IV requested by the client.
Manual Integrations may have been used in the quantitation of the results in this report. Manual Integrations are readily identified in the raw data on the Quantitation Reports (Organics) by the automatic placement of an “m” next to the sample result. For Ion Chromatography, the manual integrations are identified by the automatic placement of “manipulated” or "manually integrated" in the upper left corner of the chromatogram (Hexavalent Chromium) or “M” by the result in the “Type” column (anions). The reason for the manual integration is noted on the “after” chromatogram, which is found with the original chromatogram and quantitation report. All integrations follow the lab SOP ADM-INT “Manual Integration.”

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 09/05/2024. 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:

No significant anomalies were noted with this analysis.

Semivoa GC:

No significant anomalies were noted with this analysis.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 09/24/2024

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:**R2408642
Project: Industrial Welding

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R2408642-001	IWS-MW2-090424	9/4/2024	0900
R2408642-002	IWS-SD1-090424	9/4/2024	0915
R2408642-003	IWS-MW1-090424	9/4/2024	1010

Chain of Custody / Analytical Request Form

74636

SR#:

Page / of /

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com

Report To:

Company: OLIN CORP
Contact: ADAM CARRINGER
Email: acarringer@olin.com
Phone: 423-336-4987
Address: 490 STUART RD NE
CLEVELAND, TN 37312

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER

Project Name: INDUSTRIAL WELDING
Project Number:
ALS Quote #:
Sampler's Signature: R. Hicks S. Walsh C. Haynes
Email CC:
Email CC:
State Samples Collected (Circle or Write): (NY) MA, PA, CT, Other:

Preservative: D = 0, Z = 2

Lab ID (ALS)	Sample ID:	Date	Time	Matrix (GW WW SW DW S L NA)	Number of Containers	MS/MSD?	GC/MS VOA - 8260•624•524•TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	Notes:
	~~MW2-090424~~ JRH 9-5-24	~~9-3-24~~		~~GW~~ JRH			9-4-24							
*	IWS-MW2-090424	9-4-24	0900	GW	5	NO		2	2			1		
*	IWS-SD1-090424	9-4-24	0915	GW	15	YES		6	6			3		MS/MSD
	~~IWS-MW1-090424~~	~~9-4-24~~		~~GW~~	~~5~~	~~NO~~		~~2~~	~~2~~			~~1~~	JRH 9-4-24	
*	IWS-MW1-090424	9-4-24	1010	GW	2	NO			1			1		

Special Instructions / Comments:

METALS – TOTAL Hg

IWS-MW1= PUMPED DOWN, RECOVERY ONLY YIELDED ENOUGH H_2O FOR 2 SAMPLE BOTTLES

Turnaround Requirements

____Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM
X Standard (10 Business Days)
Date Required:

Report Requirements

____Tier II/Cat A -Results/QC
____Tier IV/Cat B - Data Validation Report w/. Data
EDD: ____Yes ____No
EDD Type:

Metals: RCRA 8•PP 13•TAL 23•TCLP•Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars •THM • Other: _____

Invoice To: (□ Same as Report To)

PO #:
Company:
Contact:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature						
Printed Name	RICK HICKS	Gregory O. Bowen Jr.				
Company	OLIN CORP	ALS				
Date/Time	9-4-24 / 1545	9/5/24 10:35				

R2408642 5
Olin Corporation
Industrial Welding

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Olin Corp Folder Number

Cooler received on 9/5/24 by: HE

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	Did **VOA** vials have sig* **bubbles?**	Y N (NA)		
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Sig* bubbles: **Alk?**	Y N (NA)	**Sulfide?**	Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	Y (N) *	6	Where did the bottles originate?	(ALS/ROC)	(CLIENT)	
4	Circle: (Wet Ice) Dry Ice Gel packs present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set		(NA)	

8. Temperature Readings Date: 9/5/24 Time: 11:31 ID: (IR#12) IR#11 From: Temp Blank (Sample Bottle)

Temp (°C)	24	0.8					
Within 0-6°C?	(Y) N	(Y) N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: SMO by HE on 9/5/24 at 11:38

5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 9/5/24 Time: 1849 by: RDH

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Were dissolved metals filtered in the field? YES NO (N/A)
14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	20424	HNO_3	✓		label covers hole					
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: 050324-163

Explain all Discrepancies/ Other Comments:

* MW-5-090424 : 1 of 4 Ambers had a cracked cap. The cap was replaced

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: RDH

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations[1]

NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Olin Corporation
Project: Industrial Welding/

Service Request: R2408642

Sample Name: IWS-MW2-090424
Lab Code: R2408642-001
Sample Matrix: Water

Date Collected: 09/4/24
Date Received: 09/5/24

Analysis Method	Extracted/Digested By	Analyzed By
7470A	ECASTROVINCI	ECASTROVINCI
8081B	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	EDEGRAY

Sample Name: IWS-SD1-090424
Lab Code: R2408642-002
Sample Matrix: Water

Date Collected: 09/4/24
Date Received: 09/5/24

Analysis Method	Extracted/Digested By	Analyzed By
7470A	ECASTROVINCI	ECASTROVINCI
8081B	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	EDEGRAY

Sample Name: IWS-MW1-090424
Lab Code: R2408642-003
Sample Matrix: Water

Date Collected: 09/4/24
Date Received: 09/5/24

Analysis Method	Extracted/Digested By	Analyzed By
7470A	ECASTROVINCI	ECASTROVINCI
8081B	JVANHEYNINGEN	AFELSER

PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

INORGANIC

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C or 6010D	3005A/3010A
6020A or 6020B	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-N-2016 Amenable and Residual Cyanide	SM 4500-CN-G and SM 4500-CN-B,C-2016
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C or 6010D	3050B
6020A or 6020B	3050B
6010C or 6010D TCLP (1311) extract	3005A/3010A
6010C or 6010D SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

ORGANIC

Preparation Methods for Organic methods are listed in the header of the Results pages.

Regarding "Bulk/5035A":
For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.

Sample Results

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24 09:00
Sample Matrix:	Water	**Date Received:**	09/05/24 10:35
Sample Name:	IWS-MW2-090424	**Units:**	ug/L
Lab Code:	R2408642-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	9.6 U	9.6	1.3	1	09/12/24 03:10	9/9/24	
Acenaphthene	9.6 U	9.6	1.4	1	09/12/24 03:10	9/9/24	
Acenaphthylene	9.6 U	9.6	1.4	1	09/12/24 03:10	9/9/24	
Anthracene	9.6 U	9.6	1.3	1	09/12/24 03:10	9/9/24	
Benz(a)anthracene	9.6 U	9.6	1.6	1	09/12/24 03:10	9/9/24	
Benzo(a)pyrene	9.6 U	9.6	1.2	1	09/12/24 03:10	9/9/24	
Benzo(b)fluoranthene	9.6 U	9.6	1.2	1	09/12/24 03:10	9/9/24	
Benzo(g,h,i)perylene	9.6 U	9.6	2.1	1	09/12/24 03:10	9/9/24	
Benzo(k)fluoranthene	9.6 U	9.6	1.3	1	09/12/24 03:10	9/9/24	
Chrysene	9.6 U	9.6	1.2	1	09/12/24 03:10	9/9/24	
Dibenz(a,h)anthracene	9.6 U	9.6	1.1	1	09/12/24 03:10	9/9/24	
Fluoranthene	9.6 U	9.6	1.5	1	09/12/24 03:10	9/9/24	
Fluorene	9.6 U	9.6	1.3	1	09/12/24 03:10	9/9/24	
Indeno(1,2,3-cd)pyrene	9.6 U	9.6	1.8	1	09/12/24 03:10	9/9/24	
Naphthalene	9.6 U	9.6	1.2	1	09/12/24 03:10	9/9/24	
Phenanthrene	9.6 U	9.6	1.4	1	09/12/24 03:10	9/9/24	
Pyrene	9.6 U	9.6	1.5	1	09/12/24 03:10	9/9/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	76	25 - 99	09/12/24 03:10	
Nitrobenzene-d5	75	22 - 104	09/12/24 03:10	
p-Terphenyl-d14	77	10 - 143	09/12/24 03:10	

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24 09:15
Sample Matrix:	Water	**Date Received:**	09/05/24 10:35
Sample Name:	IWS-SD1-090424	**Units:**	ug/L
Lab Code:	R2408642-002	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	9.6 U	9.6	1.3	1	09/12/24 03:34	9/9/24	
Acenaphthene	9.6 U	9.6	1.4	1	09/12/24 03:34	9/9/24	
Acenaphthylene	9.6 U	9.6	1.4	1	09/12/24 03:34	9/9/24	
Anthracene	9.6 U	9.6	1.3	1	09/12/24 03:34	9/9/24	
Benz(a)anthracene	9.6 U	9.6	1.6	1	09/12/24 03:34	9/9/24	
Benzo(a)pyrene	9.6 U	9.6	1.2	1	09/12/24 03:34	9/9/24	
Benzo(b)fluoranthene	9.6 U	9.6	1.2	1	09/12/24 03:34	9/9/24	
Benzo(g,h,i)perylene	9.6 U	9.6	2.1	1	09/12/24 03:34	9/9/24	
Benzo(k)fluoranthene	9.6 U	9.6	1.3	1	09/12/24 03:34	9/9/24	
Chrysene	9.6 U	9.6	1.2	1	09/12/24 03:34	9/9/24	
Dibenz(a,h)anthracene	9.6 U	9.6	1.1	1	09/12/24 03:34	9/9/24	
Fluoranthene	9.6 U	9.6	1.5	1	09/12/24 03:34	9/9/24	
Fluorene	9.6 U	9.6	1.3	1	09/12/24 03:34	9/9/24	
Indeno(1,2,3-cd)pyrene	9.6 U	9.6	1.8	1	09/12/24 03:34	9/9/24	
Naphthalene	9.6 U	9.6	1.2	1	09/12/24 03:34	9/9/24	
Phenanthrene	9.6 U	9.6	1.4	1	09/12/24 03:34	9/9/24	
Pyrene	9.6 U	9.6	1.5	1	09/12/24 03:34	9/9/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	75	25 - 99	09/12/24 03:34	
Nitrobenzene-d5	74	22 - 104	09/12/24 03:34	
p-Terphenyl-d14	74	10 - 143	09/12/24 03:34	

Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24 09:00
Sample Matrix:	Water	**Date Received:**	09/05/24 10:35
Sample Name:	IWS-MW2-090424	**Units:**	ug/L
Lab Code:	R2408642-001	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.048 U	0.048	1	09/17/24 21:30	9/10/24	
beta-BHC	0.048 U	0.048	1	09/17/24 21:30	9/10/24	
delta-BHC	0.048 U	0.048	1	09/17/24 21:30	9/10/24	
gamma-BHC (Lindane)	0.048 U	0.048	1	09/17/24 21:30	9/10/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	62	10 - 111	09/17/24 21:30	
Tetrachloro-m-xylene	62	10 - 101	09/17/24 21:30	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24 09:15
Sample Matrix:	Water	**Date Received:**	09/05/24 10:35
Sample Name:	IWS-SD1-090424	**Units:**	ug/L
Lab Code:	R2408642-002	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.048 U	0.048	1	09/17/24 21:48	9/10/24	
beta-BHC	**0.087**	0.048	1	09/17/24 21:48	9/10/24	
delta-BHC	0.048 U	0.048	1	09/17/24 21:48	9/10/24	
gamma-BHC (Lindane)	0.048 U	0.048	1	09/17/24 21:48	9/10/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	74	10 - 111	09/17/24 21:48	
Tetrachloro-m-xylene	69	10 - 101	09/17/24 21:48	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24 10:10
Sample Matrix:	Water	**Date Received:**	09/05/24 10:35
Sample Name:	IWS-MW1-090424	**Units:**	ug/L
Lab Code:	R2408642-003	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	**0.068**	0.057	1	09/17/24 22:40	9/10/24	
beta-BHC	0.057 U	0.057	1	09/17/24 22:40	9/10/24	
delta-BHC	0.057 U	0.057	1	09/17/24 22:40	9/10/24	
gamma-BHC (Lindane)	**0.076**	0.057	1	09/17/24 22:40	9/10/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	38	10 - 111	09/17/24 22:40	
Tetrachloro-m-xylene	67	10 - 101	09/17/24 22:40	

Metals

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Form 1

Inorganic Analysis Data Sheet

Mercury by EPA 7470A

Workorder

R2408642

Client

Olin Corporation

Project

Industrial Welding

09/24/2024

ALS Environmental–Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder **R2408642**

Mercury by EPA 7470A

IWS-MW2-090424	Collected	Received	Matrix	Prep Method
R2408642-001	09/04/24 0900	09/05/24 1035	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	2.67		ug/L	0.08	0.20	1	09/11/24 10:47	R-CVAA-03_853693	444553

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder **R2408642**

Mercury by EPA 7470A

IWS-SD1-090424	Collected	Received	Matrix	Prep Method
R2408642-002	09/04/24 0915	09/05/24 1035	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	0.37		ug/L	0.08	0.20	1	09/11/24 10:50	R-CVAA-03_853693	444553

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder **R2408642**

Mercury by EPA 7470A

IWS-MW1-090424	Collected	Received	Matrix	Prep Method
R2408642-003	09/04/24 1010	09/05/24 1035	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	2.10		ug/L	0.08	0.20	1	09/11/24 10:57	R-CVAA-03_853693	444553

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder
R2408642

Mercury by EPA 7470A

Method Blank

	Matrix	Prep Method
R2408642-MB	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	0.20	U	ug/L	0.08	0.20	1	09/11/24 09:49	R-CVAA-03_853693	444553

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

QC Summary Forms

ALS Environmental—Rochester Laboratory
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Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:** R2408642
Project: Industrial Welding
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Extraction Method: EPA 3510C

Sample Name	Lab Code	2-Fluorobiphenyl 25 - 99	Nitrobenzene-d5 22 - 104	p-Terphenyl-d14 10 - 143
IWS-MW2-090424	R2408642-001	76	75	77
IWS-SD1-090424	R2408642-002	75	74	74
Method Blank	RQ2411182-01	58	60	66
Lab Control Sample	RQ2411182-02	72	69	74
Duplicate Lab Control Sample	RQ2411182-03	73	73	78
IWS-SD1-090424 MS	RQ2411182-06	82	78	75
IWS-SD1-090424 DMS	RQ2411182-07	76	70	73

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24
Sample Matrix:	Water	**Date Received:**	09/05/24
		Date Analyzed:	09/12/24
		Date Extracted:	09/9/24

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	IWS-SD1-090424	**Units:**	ug/L
Lab Code:	R2408642-002	**Basis:**	NA
Analysis Method:	8270E		
Prep Method:	EPA 3510C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ2411182-06			RQ2411182-07					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	9.6 U	59.9	76.9	78	52.4	76.9	68	34-102	13	30
Acenaphthene	9.6 U	72.3	76.9	94	64.8	76.9	84	43-117	11	30
Acenaphthylene	9.6 U	79.5	76.9	103	71.1	76.9	92	45-119	11	30
Anthracene	9.6 U	87.0	76.9	113	78.4	76.9	102	45-127	10	30
Benz(a)anthracene	9.6 U	83.1	76.9	108	74.4	76.9	97	46-126	11	30
Benzo(a)pyrene	9.6 U	91.5	76.9	119 *	82.1	76.9	107	44-114	11	30
Benzo(b)fluoranthene	9.6 U	82.1	76.9	107	74.1	76.9	96	41-127	10	30
Benzo(g,h,i)perylene	9.6 U	89.2	76.9	116	80.6	76.9	105	50-143	10	30
Benzo(k)fluoranthene	9.6 U	90.4	76.9	118	79.5	76.9	103	46-139	13	30
Chrysene	9.6 U	84.5	76.9	110	75.9	76.9	99	47-126	11	30
Dibenz(a,h)anthracene	9.6 U	85.9	76.9	112	76.3	76.9	99	43-136	12	30
Fluoranthene	9.6 U	83.0	76.9	108	74.1	76.9	96	43-135	11	30
Fluorene	9.6 U	79.8	76.9	104	72.3	76.9	94	43-113	10	30
Indeno(1,2,3-cd)pyrene	9.6 U	88.2	76.9	115	79.9	76.9	104	49-140	10	30
Naphthalene	9.6 U	56.6	76.9	74	50.0	76.9	65	37-108	12	30
Phenanthrene	9.6 U	83.1	76.9	108	74.4	76.9	97	46-123	11	30
Pyrene	9.6 U	84.7	76.9	110	77.3	76.9	100	44-129	9	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.

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2411182-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	10 U	10	1.3	1	09/11/24 20:19	9/9/24	
Acenaphthene	10 U	10	1.4	1	09/11/24 20:19	9/9/24	
Acenaphthylene	10 U	10	1.4	1	09/11/24 20:19	9/9/24	
Anthracene	10 U	10	1.3	1	09/11/24 20:19	9/9/24	
Benz(a)anthracene	10 U	10	1.6	1	09/11/24 20:19	9/9/24	
Benzo(a)pyrene	10 U	10	1.2	1	09/11/24 20:19	9/9/24	
Benzo(b)fluoranthene	10 U	10	1.2	1	09/11/24 20:19	9/9/24	
Benzo(g,h,i)perylene	10 U	10	2.1	1	09/11/24 20:19	9/9/24	
Benzo(k)fluoranthene	10 U	10	1.3	1	09/11/24 20:19	9/9/24	
Chrysene	10 U	10	1.2	1	09/11/24 20:19	9/9/24	
Dibenz(a,h)anthracene	10 U	10	1.1	1	09/11/24 20:19	9/9/24	
Fluoranthene	10 U	10	1.5	1	09/11/24 20:19	9/9/24	
Fluorene	10 U	10	1.3	1	09/11/24 20:19	9/9/24	
Indeno(1,2,3-cd)pyrene	10 U	10	1.8	1	09/11/24 20:19	9/9/24	
Naphthalene	10 U	10	1.2	1	09/11/24 20:19	9/9/24	
Phenanthrene	10 U	10	1.4	1	09/11/24 20:19	9/9/24	
Pyrene	10 U	10	1.5	1	09/11/24 20:19	9/9/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	58	25 - 99	09/11/24 20:19	
Nitrobenzene-d5	60	22 - 104	09/11/24 20:19	
p-Terphenyl-d14	66	10 - 143	09/11/24 20:19	

Client: Olin Corporation
Project: Industrial Welding
Sample Matrix: Water

Service Request: R2408642
Date Analyzed: 09/11/24

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

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ2411182-02			RQ2411182-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	8270E	62.8	80.0	79	63.5	80.0	79	35-94	1	30
Acenaphthene	8270E	72.9	80.0	91	76.2	80.0	95	46-103	4	30
Acenaphthylene	8270E	79.4	80.0	99	83.2	80.0	104	51-114	5	30
Anthracene	8270E	79.7	80.0	100	83.0	80.0	104	61-115	4	30
Benz(a)anthracene	8270E	74.9	80.0	94	78.7	80.0	98	60-110	5	30
Benzo(a)pyrene	8270E	82.6	80.0	103	87.6	80.0	109	68-137	6	30
Benzo(b)fluoranthene	8270E	74.0	80.0	93	78.1	80.0	98	59-114	5	30
Benzo(g,h,i)perylene	8270E	80.9	80.0	101	85.8	80.0	107	60-123	6	30
Benzo(k)fluoranthene	8270E	82.1	80.0	103	87.2	80.0	109	62-122	6	30
Chrysene	8270E	76.4	80.0	95	80.9	80.0	101	64-116	6	30
Dibenz(a,h)anthracene	8270E	79.8	80.0	100	84.8	80.0	106	34-140	6	30
Fluoranthene	8270E	74.7	80.0	93	78.4	80.0	98	58-129	5	30
Fluorene	8270E	77.5	80.0	97	80.9	80.0	101	54-111	4	30
Indeno(1,2,3-cd)pyrene	8270E	81.1	80.0	101	86.5	80.0	108	54-119	6	30
Naphthalene	8270E	61.8	80.0	77	61.6	80.0	77	32-91	<1	30
Phenanthrene	8270E	76.3	80.0	95	80.0	80.0	100	60-111	5	30
Pyrene	8270E	76.6	80.0	96	81.5	80.0	102	62-111	6	30

Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:** R2408642
Project: Industrial Welding
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl 10 - 111	Tetrachloro-m-xylene 10 - 101
IWS-MW2-090424	R2408642-001	62	62
IWS-SD1-090424	R2408642-002	74	69
IWS-MW1-090424	R2408642-003	38	67
Method Blank	RQ2411244-01	24	60
Lab Control Sample	RQ2411244-02	79	67
Duplicate Lab Control Sample	RQ2411244-03	62	66
IWS-SD1-090424 MS	RQ2411244-04	67	66
IWS-SD1-090424 DMS	RQ2411244-05	73	70

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	09/04/24
Sample Matrix:	Water	**Date Received:**	09/05/24
		Date Analyzed:	09/17/24
		Date Extracted:	09/10/24

Duplicate Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:	IWS-SD1-090424	**Units:**	ug/L
Lab Code:	R2408642-002	**Basis:**	NA
Analysis Method:	8081B		
Prep Method:	EPA 3510C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ2411244-04			RQ2411244-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	0.048 U	0.312	0.385	81	0.329	0.385	85	27-154	5	30
beta-BHC	0.087	0.382	0.385	76	0.393	0.385	80	32-184	3	30
delta-BHC	0.048 U	0.299	0.385	78	0.315	0.385	82	10-182	5	30
gamma-BHC (Lindane)	0.048 U	0.303	0.385	79	0.317	0.385	82	43-164	5	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.

Client:	Olin Corporation	**Service Request:**	R2408642
Project:	Industrial Welding	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2411244-01	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.050 U	0.050	1	09/17/24 19:09	9/10/24	
beta-BHC	0.050 U	0.050	1	09/17/24 19:09	9/10/24	
delta-BHC	0.050 U	0.050	1	09/17/24 19:09	9/10/24	
gamma-BHC (Lindane)	0.050 U	0.050	1	09/17/24 19:09	9/10/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	24	10 - 111	09/17/24 19:09	
Tetrachloro-m-xylene	60	10 - 101	09/17/24 19:09	

Client: Olin Corporation
Project: Industrial Welding
Sample Matrix: Water

Service Request: R2408642
Date Analyzed: 09/17/24

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ2411244-02			RQ2411244-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	8081B	0.307	0.400	77	0.306	0.400	77	39-107	<1	30
beta-BHC	8081B	0.310	0.400	78	0.311	0.400	78	47-110	<1	30
delta-BHC	8081B	0.308	0.400	77	0.307	0.400	77	43-109	<1	30
gamma-BHC (Lindane)	8081B	0.319	0.400	80	0.318	0.400	79	41-105	<1	30

Metals

ALS Environmental—Rochester Laboratory
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Form 3

Blanks

Mercury by EPA 7470A

Workorder

R2408642

Client

Olin Corporation

Project

Industrial Welding

09/24/2024

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Form 3 - Blanks

Client Olin Corporation

Project Industrial Welding

Workorder
R2408642

Mercury by EPA 7470A

R-CVAA-03_853693			ICB		CCB		CCB		CCB		CCB		
		Run Date	09/11/24		09/11/24		09/11/24		09/11/24		09/11/24		
		Run Time	09:35		09:46		10:12		10:40		11:08		
		Units	ug/L		ug/L		ug/L		ug/L		ug/L		
Analyte	DL	LOQ	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Mercury	0.08	0.20	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	

Q - Result Flag * - Result Outside Limits

Form 5A

Matrix Spike Sample Recovery

Mercury by EPA 7470A

Workorder

R2408642

Client

Olin Corporation

Project

Industrial Welding

09/24/2024

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Form 5A - Matrix Spike Sample Recovery

Client Olin Corporation

Project Industrial Welding

Workorder **R2408642**

Mercury by EPA 7470A

RunID R-CVAA-03-853693

IWS-SD1-090424 (R2408642-002)				R2408642-002MS				R2408642-002DMS						
Sample Matrix Water		**Analysis Batch** 853693		**Run Date** 09/11/24				**Run Date** 09/11/24						
Result Units ug/L		**Prep Batch** 444553		**Run Time** 10:52				**Run Time** 10:55						
Prep Method Method		**Prep Date** 09/10/2024		**Prep Amt** 25 mL				**Prep Amt** 25 mL						
Analyte	%R Limits	DF	Sample Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Mercury, Total	75-125	1	0.37	1.37	1.00	**101**		1.39	1.00	**103**		20	**1**	

RPD Relative Percent Difference **%R** %Recovery **Q** %R or RPD Flag **NC** Not Calculated **DF** Dilution Factor

MS\D Matrix Spike \Duplicate **OOL** Out of Limits * %R or RPD OOL **NS** Not Spiked **Amt** weight or volume

Form 7

Laboratory Control Sample

Mercury by EPA 7470A

Workorder

R2408642

Client

Olin Corporation

Project

Industrial Welding

09/24/2024

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Form 7 - Laboratory Control Sample

Client Olin Corporation

Project Industrial Welding

Workorder
R2408642

Mercury by EPA 7470A

RunID
R-CVAA-03-853693

R-CVAA-03_853693			R2408642-LCS		
Spike Matrix Water	**Analysis Batch** ug/L		**Run Date** 09/11/24		
Result Units 09/10/24	**Prep Batch** 853693		**Run Time** 09:51		
Prep Method Method	**Prep Date** 444553		**Prep Amt** 25 mL		

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
Mercury	80-120	1.00	1.02	**102**	

Industrial Welding Site
Data Evaluation Narrative
December 2024 Discharge Sampling Event

SDG R2412441: ALS Environmental, Rochester, NY

Deliverables

The data package as submitted to Olin Corporation is complete as stipulated under the Industrial Welding Site Quality Assurance Project Plan (QAPP) as approved by the New York State Department of Environmental Protection. United States Environmental Protection Agency (USEPA) Methods 624, 608, 245.1, SM 2540D and SM 5310B were utilized in the laboratory testing.

Samples submitted within this sample delivery group (SDG) were submitted to the ALS Environmental laboratory in Rochester, NY for select volatile organic compounds and organochlorine pesticides, total mercury, total suspended solids, and dissolved organic carbon analyses. The laboratory subsequently applied login numbers to the SDG. The SDG number for this sampling event is R2412441. This evaluation narrative for the SDG follows the listing of discharge sample field identifications. The topics of each narrative are ordered to first assess issues affecting the entire data set.

Sample Integrity

Information provided on the Chain of Custody and Login Sample Receipt Checklist provided by the laboratory confirmed that the samples arrived at the laboratory intact and within the recommended temperature limits. The proper bottles and preservatives were used, and the correct analytical methods were employed.

Sample Identification

This SDG contains the following water samples collected on December 3, 2024:

SAMPLE ID	SAMPLE ID
IWS-MS1-120324*	Trip Blank (Analyzed for VOCs only)

*Note that lab misread the sample ID as “1WS” instead of “IWS”

Volatile Organic Compounds (EPA Method 624)

The samples in this SDG were submitted for select volatile organic compounds (VOCs) by USEPA Method 624.

Holding Times:

The analytical logs indicate that applicable holding times were met.

Practical Quantitation Limits:

The practical quantitation limits (PQLs) were met for the analysis of VOCs by USEPA Method 624.

GC/MS Instrument Performance Check:

The GC/MS tuning and mass calibration checks were performed with bromofluorobenzene (BFB) and met the performance criteria as established by the method.

Calibration:
The initial calibration data for this SDG indicate that applicable criteria were met for samples submitted for VOC analysis. For the continuing calibration verification (CCV), the %D values were significantly higher than the laboratory criteria which represents a potential high bias in sample results. TCE, at 2.69 µg/L, was the only VOC detected in sample IWS-MS1-120324; the result is qualified as an estimated concentration (J) as indicated below due to the potential of a high bias in the reported result.

Sample ID	Analyte	Result
IWS-MS1-120324	TCE	2.69 J µg/L

Blank Summary:
The analytical results of the laboratory method blank and the trip blank indicated no target VOCs were detected above the reporting limit (RL).

Laboratory Control Sample (LCS):
The LCS spike recoveries were within the applicable QC advisory limits.

Surrogates:
The surrogate recoveries were within applicable QC advisory limits.

Matrix Spike/Matrix Spike Duplicate:
Sample IWS-MS1-120324 was submitted for matrix spike and matrix spike duplicate (MS/MSD) analysis. The percent recoveries and relative percent differences (RPDs) were within applicable QC advisory limits.

Organochlorine Pesticides (EPA Method 608)
The sample in this SDG was submitted for HCCH (hexachlorocyclohexanes) analysis by USEPA Method 608.

Holding Times:
The extraction and analytical logs indicate that applicable holding times were met for HCCH analyses. The holding times of 7 days for extraction and 40 days for analysis were met.

Practical Quantitation Limits:
The practical quantitation limits (PQLs) were met for the analysis of HCCHs by USEPA Method 608. The lone detection in sample IWS-MS1-120324, for beta-BHC, had a concentration between the method detection limit (MDL) and the method reporting limit (MRL) and was qualified as an estimated concentration (J) by the laboratory.

Calibration:
The initial and continuing calibration data for this SDG indicate that applicable calibration criteria were met.

Surrogates:
Surrogate recoveries for all project related samples were within laboratory control limits.

Blank Summary:
The analytical results of the laboratory method blank indicated no HCCHs were detected.

Laboratory Control Sample (LCS) and LCS Duplicate (LCSD):
The LCS/LCSD recoveries were within laboratory control limits for all four BHC compounds.

Matrix Spike/Matrix Spike Duplicate:
Sample IWS-MS1-120324 was submitted for matrix spike and matrix spike duplicate (MS/MSD) analysis. The percent recoveries and relative percent differences (RPDs) were within applicable QC advisory limits.

Total Mercury Analyses (EPA Method 245.1)
The sample in this SDG was submitted for total mercury analysis by USEPA Method 245.1.

Holding Times:
The extraction and analytical logs indicate that applicable holding times were met.

Practical Quantitation Limits:
The practical quantitation limit (PQL) was met for the analysis of total mercury by USEPA Method 245.1.

Calibration:
The initial and continuing calibration data for this SDG indicate that applicable calibration criteria were met. The low-level check standard recoveries were within QC advisory limits.

Blank Summary:
The analytical results of the method blank and the initial/continuing calibration blanks indicated that total mercury was not detected.

Laboratory Control Sample:
The laboratory control sample (LCS) spike recovery was within the applicable QC advisory limits.

Matrix Spike/Matrix Spike Duplicate:
Sample IWS-MS1-120324 was submitted for MS/MSD analysis. The percent recoveries and RPD were within laboratory control limits.

Total Suspended Solids (SM 2540D)
The sample in this SDG was submitted for total suspended solids (TSS) analysis by SM 2540D.

Holding Times:
The holding time of 7 days was met as the sample was analyzed within this holding period.

Practical Quantitation Limits:
The practical quantitation limit (PQL) was met for the analysis of TSS.

Blank Summary:
The analytical results of the laboratory method blank indicated that no TSS were detected.

Laboratory Control Sample:
The laboratory control sample (LCS) recovery was within the applicable QC advisory limits.

Duplicate Sample:
The laboratory performed a duplicate analysis on IWS-MS1-120324. The RPD was within control limits.

Soluble Organic Carbon (SM 5310B)
The sample in this SDG was submitted for soluble (dissolved) organic carbon (DOC) analysis by SM 5310C.

Holding Times:
The holding time of 28 days was met.

Practical Quantitation Limits:
The practical quantitation limit (PQL) was met for the analysis of DOC.

Calibration Summary:
The initial and continuing calibration data for this SDG indicates that applicable calibration criteria were met.

Blank Summary:
The analytical results of the laboratory method blank and continuing calibration blanks (CCBs) indicated that no DOC was detected.

Laboratory Control Sample:
The laboratory control sample (LCS) recovery was within the applicable QC advisory limits.

Matrix Spike/Matrix Spike Duplicate:
Sample IWS-MS1-120324 was submitted for MS/MSD analysis. The percent recoveries and RPD were within applicable QC advisory limits.

Overall Site Evaluation and Professional Judgment Flagging Changes
The data within this SDG were compared to site data and one DQE flag was assigned based on professional judgment. Monitoring period completeness, which is the percentage of analytical results judged valid, including estimated values, was 100 percent for the December 2024 sampling event. Typically, project objectives are met when completeness is 90 percent or better.

Prepared by: *Randy T. Morris* Date: *January 24, 2025*

December 18, 2024 Service Request No:R2412441

Adam Carringer
Olin Corporation
490 Stuart Road
Cleveland, TN 37312

Laboratory Results for: Olin Industrial Welding Site

Dear Adam,

Enclosed are the results of the sample(s) submitted to our laboratory December 04, 2024
For your reference, these analyses have been assigned our service request number **R2412441.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

CC: Randy Morris

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

ALS Environmental

Client: Olin Corporation
Project: Olin Industrial Welding Site
Sample Matrix: Water

Service Request: R2412441
Date Received: 12/04/2024

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 level IV requested by the client.
Manual Integrations may have been used in the quantitation of the results in this report. Manual Integrations are readily identified in the raw data on the Quantitation Reports (Organics) by the automatic placement of an “m” next to the sample result. For Ion Chromatography, the manual integrations are identified by the automatic placement of “manipulated” or "manually integrated" in the upper left corner of the chromatogram (Hexavalent Chromium) or “M” by the result in the “Type” column (anions). The reason for the manual integration is noted on the “after” chromatogram, which is found with the original chromatogram and quantitation report. All integrations follow the lab SOP ADM-INT “Manual Integration.”

Sample Receipt:

Two water samples were received for analysis at ALS Environmental on 12/04/2024. 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.

Semivoa GC:

Method 608 Modified: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on one detector. All recoveries were acceptable on the secondary detector. Since there were no detections of the analyte (s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by _____ Date 12/17/2024

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:**R2412441

Project: Olin Industrial Welding Site/release order ERRE9845

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R2412441-001	1WS-MS1-120324	12/3/2024	0945
R2412441-002	Trip Blank	12/3/2024	

Chain of Custody / Analytical Request Form

081454

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SR#:

Page 1 of 1

Report To:

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER

Company: Olin Corp	Project Name: Olin Industrial Welding Site
Contact: Adam Carringer	Project Number:
Email: ABCarringer@Olin.com	ALS Quote #:
Phone: 423-336-4000	Sampler's Signature: [signature]
Address: 490 Stuart Rd	Email CC: ABCarringer@Olin.com
Cleveland, TN 37312	Email CC:
	State Samples Collected (Circle or Write): (NY circled) MA, PA, CT, Other:

Preservative key: 0. None; 1. HCl; 2. HNO3; 3. H2SO4; 4. NAOH; 5. Zn Acet.; 6. MeOH; 7. NaHSO4; 8. Other

Matrix: GW WW SW DW S L NA

Sample Collection Information:

Lab ID (ALS)	Sample ID	Date	Time	Matrix	Number of Containers	MS/MSD?	GC/MS VOA - 8260 • 624 (circled) • 524 • TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	TSS	DOC					Notes
Preservative							0		0			2		0	0					
	IWS-MS1-120324	12/3/24	0945	GW	31	Y	9		4			3		3	12					
	Trip Blank	11/7/24	1030																	lab provided
	Temp Blank	—	—																	lab provided

Special Instructions / Comments:

Metals, total Hg

DOC samples field filtered to 0.45 µm

Turnaround Requirements

____ Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM
X Standard (10 Business Days)
Date Required:

Report Requirements

X Tier II/Cat A - Results/QC
____ Tier IV/Cat B - Data Validation Report w/. Data
EDD: ____ Yes ____ No
EDD Type:

Metals: RCRA 8 • PP 13 • TAL 23 • TCLP • Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars • THM • Other: ________

Invoice To: (X Same as Report To)

PO #:
Company: Olin Corp
Contact: Adam Carringer
Email:
Phone:
Address:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	[signature]	[signature]				
Printed Name	Greg Fircet	Gregory D. Esmertan				
Company	Sevenson	ALS				
Date/Time	12/3/24 1112	12/4/24 12:30				

R2412441 5
Olin Corporation
Olin Industrial Welding Site

Distribution: White - Lab Copy; Yellow - Return to Originator

R2412441 5
Olin Corporation
Olin Industrial Welding Site

Cooler Receipt and Preservation Check Form

Project/Client Olin Corp Folder Number

Cooler received on 12/4/24 by: RE

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y)	N
2	**Custody papers** properly completed (ink, signed)?	(Y)	N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y)	N
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y)	N

5a	Did **VOA** vials have sig* **bubbles**?					(Y) N	NA
5b	Sig* bubbles: **Alk?**	Y	N	(NA)	**Sulfide?**	Y	N (NA)
6	Where did the bottles originate?	(ALS/ROC)	CLIENT				
7	Soil VOA received as:	Bulk	Encore	5035set	(NA)		

8. Temperature Readings Date: 12/4/24 Time: 1257 ID: (IR#12) IR#11 From: Temp Blank (Sample Bottle)

Temp (°C)	1.2						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: SMO by RE on 12/4/24 at 1300
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 12/4/24 Time: 1516 by: AA

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Were dissolved metals filtered in the field? YES NO (N/A)
14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	2216322	HNO_3	✓		24010872	3/26				
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9	2216322	For 608pest	✓		No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522		✓	If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: 101424-2AES, 090224-1GJ, 090924-2EFQ, 081924-3AWA
Explain all Discrepancies/ Other Comments:

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: AA *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations[1]

NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Texas ID#T104704581
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845		

Sample Name:	1WS-MS1-120324	**Date Collected:**	12/3/24
Lab Code:	R2412441-001	**Date Received:**	12/4/24
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
245.1	ECASTROVINCI	ECASTROVINCI
608 Modified	JVANHEYNINGEN	AFELSER
624		KRUEST
SM 2540 D-2015		CPETE
SM 5310 B-2014		KWONG

Sample Name:	Trip Blank	**Date Collected:**	12/3/24
Lab Code:	R2412441-002	**Date Received:**	12/4/24
Sample Matrix:	Water		

Analysis Method	Extracted/Digested By	Analyzed By
624		KRUEST

PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

INORGANIC

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C or 6010D	3005A/3010A
6020A or 6020B	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-N-2016 Amenable and Residual Cyanide	SM 4500-CN-G and SM 4500-CN-B,C-2016
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C or 6010D	3050B
6020A or 6020B	3050B
6010C or 6010D TCLP (1311) extract	3005A/3010A
6010C or 6010D SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

ORGANIC

Preparation Methods for Organic methods are listed in the header of the Results pages.

Regarding "Bulk/5035A":
For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.

Sample Results

ALS Environmental—Rochester Laboratory
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www.alsglobal.com

Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24 09:45
Sample Matrix:	Water	**Date Received:**	12/04/24 12:30
Sample Name:	1WS-MS1-120324	**Units:**	ug/L
Lab Code:	R2412441-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1-Dichloroethane (1,1-DCA)	1.00 U	1.00	0.200	1	12/06/24 17:26	
1,2-Dichloroethane	1.00 U	1.00	0.200	1	12/06/24 17:26	
Acetone	5.00 U	5.00	2.10	1	12/06/24 17:26	
Trichloroethene (TCE)	**2.69**	1.00	0.200	1	12/06/24 17:26	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	104	73 - 125	12/06/24 17:26	
4-Bromofluorobenzene	92	85 - 122	12/06/24 17:26	
Toluene-d8	97	87 - 121	12/06/24 17:26	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24
Sample Matrix:	Water	**Date Received:**	12/04/24 12:30
Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	R2412441-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1-Dichloroethane (1,1-DCA)	1.00 U	1.00	0.200	1	12/06/24 17:49	
1,2-Dichloroethane	1.00 U	1.00	0.200	1	12/06/24 17:49	
Acetone	5.00 U	5.00	2.10	1	12/06/24 17:49	
Trichloroethene (TCE)	1.00 U	1.00	0.200	1	12/06/24 17:49	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	102	73 - 125	12/06/24 17:49	
4-Bromofluorobenzene	96	85 - 122	12/06/24 17:49	
Toluene-d8	98	87 - 121	12/06/24 17:49	

Semivolatile Organic Compounds by GC

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1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24 09:45
Sample Matrix:	Water	**Date Received:**	12/04/24 12:30
Sample Name:	1WS-MS1-120324	**Units:**	ug/L
Lab Code:	R2412441-001	**Basis:**	NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.0500 U	0.0500	0.0200	1	12/09/24 15:10	12/5/24	
beta-BHC	**0.0360 J**	0.0500	0.0200	1	12/09/24 15:10	12/5/24	
delta-BHC	0.0500 U	0.0500	0.0200	1	12/09/24 15:10	12/5/24	
gamma-BHC (Lindane)	0.0500 U	0.0500	0.0200	1	12/09/24 15:10	12/5/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	68	10 - 95	12/09/24 15:10	
Decachlorobiphenyl	22	10 - 110	12/09/24 15:10	

Metals

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Form 1

Inorganic Analysis Data Sheet

Mercury by EPA 245.1

Workorder

R2412441

Client

Olin Corporation

Project

Olin Industrial Welding Site

12/17/2024

ALS Environmental–Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Form 1 - Inorganic Analysis Data Sheet

Client	Olin Corporation	Workorder	
Project	Olin Industrial Welding Site	**R2412441**	

Mercury by EPA 245.1

1WS-MS1-120324	Collected	Received	Matrix	Prep Method
R2412441-001	12/03/24 0945	12/04/24 1230	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	1.24		ug/L	0.08	0.20	1	12/06/24 10:35	R-CVAA-03_863418	449151

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client	Olin Corporation	Workorder	
Project	Olin Industrial Welding Site	**R2412441**	

Mercury by EPA 245.1

Method Blank

	Matrix	Prep Method
R2412441-MB	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	0.20	U	ug/L	0.08	0.20	1	12/06/24 09:40	R-CVAA-03_863418	449151

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

General Chemistry

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24 09:45
Sample Matrix:	Water	**Date Received:**	12/04/24 12:30
Sample Name:	1WS-MS1-120324	**Basis:**	NA
Lab Code:	R2412441-001		

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	SM 5310 B-2014	**3.3**	mg/L	1.0	1	12/13/24 16:53	
Solids, Total Suspended (TSS)	SM 2540 D-2015	**24.6**	mg/L	1.5	1	12/06/24 10:46	

QC Summary Forms

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

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:** R2412441

Project: Olin Industrial Welding Site/release order ERRE9845

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Sample Name	Lab Code	1,2-Dichloroethane-d4 73 - 125	4-Bromofluorobenzene 85 - 122	Toluene-d8 87 - 121
1WS-MS1-120324	R2412441-001	104	92	97
Trip Blank	R2412441-002	102	96	98
Lab Control Sample	RQ2415640-03	105	98	99
Method Blank	RQ2415640-05	102	92	98
1WS-MS1-120324 MS	RQ2415640-09	103	100	99
1WS-MS1-120324 DMS	RQ2415640-10	103	106	100

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24
Sample Matrix:	Water	**Date Received:**	12/04/24
		Date Analyzed:	12/6/24

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Sample Name:	1WS-MS1-120324	**Units:**	ug/L
Lab Code:	R2412441-001	**Basis:**	NA
Analysis Method:	624.1		

		Matrix Spike RQ2415640-09			**Duplicate Matrix Spike** RQ2415640-10					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1-Dichloroethane (1,1-DCA)	1.00 U	56.7	50.0	113	57.5	50.0	115	59-155	1	40
1,2-Dichloroethane	1.00 U	54.3	50.0	109	55.2	50.0	110	49-155	2	49
Acetone	5.00 U	48.0	50.0	96	48.7	50.0	97	35-183	1	30
Trichloroethene (TCE)	2.69	57.8	50.0	110	59.2	50.0	113	70-157	2	48

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.

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2415640-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS, Unpreserved

Analysis Method: 624.1

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1-Dichloroethane (1,1-DCA)	1.00 U	1.00	0.200	1	12/06/24 12:50	
1,2-Dichloroethane	1.00 U	1.00	0.200	1	12/06/24 12:50	
Acetone	5.00 U	5.00	2.10	1	12/06/24 12:50	
Trichloroethene (TCE)	1.00 U	1.00	0.200	1	12/06/24 12:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	102	73 - 125	12/06/24 12:50	
4-Bromofluorobenzene	92	85 - 122	12/06/24 12:50	
Toluene-d8	98	87 - 121	12/06/24 12:50	

Client: Olin Corporation
Project: Olin Industrial Welding Site/release order ERRE9845
Sample Matrix: Water

Service Request: R2412441
Date Analyzed: 12/06/24

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unpreserved

Units:ug/L
Basis:NA

Lab Control Sample
RQ2415640-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1-Dichloroethane (1,1-DCA)	624.1	20.5	20.0	102	70-130
1,2-Dichloroethane	624.1	20.9	20.0	104	70-130
Acetone	624.1	17.0	20.0	85	40-161
Trichloroethene (TCE)	624.1	20.6	20.0	103	65-135

Semivolatile Organic Compounds by GC

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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:** R2412441

Project: Olin Industrial Welding Site/release order ERRE9845

Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3

Extraction Method: Method

Sample Name	Lab Code	Decachlorobiphenyl 10 - 110	Tetrachloro-m-xylene 10 - 95
1WS-MS1-120324	R2412441-001	22	68
Method Blank	RQ2415571-01	42	55
Lab Control Sample	RQ2415571-02	27	64
Duplicate Lab Control Sample	RQ2415571-03	30	61
1WS-MS1-120324 MS	RQ2415571-04	22	73
1WS-MS1-120324 DMS	RQ2415571-05	23	68

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24
Sample Matrix:	Water	**Date Received:**	12/04/24
		Date Analyzed:	12/9/24
		Date Extracted:	12/5/24

Duplicate Matrix Spike Summary
Organochlorine Pesticides by GC/ECD

Sample Name:	1WS-MS1-120324	**Units:**	ug/L
Lab Code:	R2412441-001	**Basis:**	NA
Analysis Method:	608.3		
Prep Method:	Method		

		Matrix Spike RQ2415571-04			Duplicate Matrix Spike RQ2415571-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	0.0500 U	0.368	0.400	92	0.370	0.408	91	37-140	<1	36
beta-BHC	0.0360 J	0.401	0.400	91	0.396	0.408	88	17-147	1	44
delta-BHC	0.0500 U	0.390	0.400	98	0.388	0.408	95	19-140	<1	52
gamma-BHC (Lindane)	0.0500 U	0.366	0.400	91	0.367	0.408	90	32-140	<1	39

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.

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2415571-01	**Basis:**	NA

Organochlorine Pesticides by GC/ECD

Analysis Method: 608.3
Prep Method: Method

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.0500 U	0.0500	0.0200	1	12/09/24 14:18	12/5/24	
beta-BHC	0.0500 U	0.0500	0.0200	1	12/09/24 14:18	12/5/24	
delta-BHC	0.0500 U	0.0500	0.0200	1	12/09/24 14:18	12/5/24	
gamma-BHC (Lindane)	0.0500 U	0.0500	0.0200	1	12/09/24 14:18	12/5/24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Tetrachloro-m-xylene	55	10 - 95	12/09/24 14:18	
Decachlorobiphenyl	42	10 - 110	12/09/24 14:18	

Client: Olin Corporation
Project: Olin Industrial Welding Site/release order ERRE9845
Sample Matrix: Water

Service Request: R2412441
Date Analyzed: 12/09/24

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by GC/ECD

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ2415571-02			RQ2415571-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	608.3	0.344	0.400	86	0.360	0.400	90	37-140	4	36
beta-BHC	608.3	0.351	0.400	88	0.362	0.400	91	17-147	3	44
delta-BHC	608.3	0.361	0.400	90	0.375	0.400	94	19-140	4	52
gamma-BHC (Lindane)	608.3	0.344	0.400	86	0.372	0.400	93	32-140	8	39

Metals

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Form 3

Blanks

Mercury by EPA 245.1

Workorder

R2412441

Client

Olin Corporation

Project

Olin Industrial Welding Site

12/17/2024

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Form 3 - Blanks

Client	Olin Corporation	Workorder	
Project	Olin Industrial Welding Site	**R2412441**	

Mercury by EPA 245.1

R-CVAA-03_863418			ICB		CCB		CCB		CCB		CCB		
		Run Date	12/06/24		12/06/24		12/06/24		12/06/24		12/06/24		
		Run Time	09:29		09:37		10:00		10:25		10:53		
		Units	ug/L		ug/L		ug/L		ug/L		ug/L		
Analyte	DL	LOQ	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Mercury	0.08	0.20	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	

Q - Result Flag * - Result Outside Limits

Form 5A

Matrix Spike Sample Recovery

Mercury by EPA 245.1

Workorder

R2412441

Client

Olin Corporation

Project

Olin Industrial Welding Site

12/17/2024

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Form 5A - Matrix Spike Sample Recovery

Client	Olin Corporation	Workorder	
Project	Olin Industrial Welding Site	**R2412441**	

Mercury by EPA 245.1

RunID
R-CVAA-03-863418

1WS-MS1-120324 (R2412441-001)				R2412441-001MS				R2412441-001DMS						
Sample Matrix	Water	**Analysis Batch**	863418	**Run Date**	12/06/24			**Run Date**	12/06/24					
Result Units	ug/L	**Prep Batch**	449151	**Run Time**	10:38			**Run Time**	10:41					
Prep Method	Method	**Prep Date**	12/05/2024	**Prep Amt**	25 mL			**Prep Amt**	25 mL					

Analyte	%R Limits	DF	Sample Result		MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q
Mercury, Total	70-130	1	1.24		2.44	1.00	**120**		2.40	1.00	**116**		20	**2**	

RPD Relative Percent Difference **%R** %Recovery **Q** %R or RPD Flag **NC** Not Calculated **DF** Dilution Factor
MS\D Matrix Spike \Duplicate **OOL** Out of Limits * %R or RPD OOL **NS** Not Spiked **Amt** weight or volume

Form 7

Laboratory Control Sample

Mercury by EPA 245.1

Workorder

R2412441

Client

Olin Corporation

Project

Olin Industrial Welding Site

12/17/2024

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Form 7 - Laboratory Control Sample

Client	Olin Corporation	Workorder	
Project	Olin Industrial Welding Site	**R2412441**	

Mercury by EPA 245.1

RunID
R-CVAA-03-863418

R-CVAA-03_863418			R2412441-LCS		
Spike Matrix Water	**Analysis Batch** ug/L		**Run Date** 12/06/24		
Result Units 12/05/24	**Prep Batch** 863418		**Run Time** 09:42		
Prep Method Method	**Prep Date** 449151		**Prep Amt** 25 mL		

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
Mercury	85-115	1.00	0.912	**91**	

General Chemistry

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www.alsglobal.com

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R2412441-MB		

Inorganic Parameters

Analyte Name	Analysis Method	Result		Units	MRL	Dil.	Date Analyzed	Q
Carbon, Dissolved Organic (DOC)	SM 5310 B-2014	1.0	U	mg/L	1.0	1	12/13/24 15:37	
Solids, Total Suspended (TSS)	SM 2540 D-2015	1.0	U	mg/L	1.0	1	12/06/24 10:46	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project:	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24
Sample Matrix:	Water	**Date Received:**	12/04/24
		Date Analyzed:	12/13/24

Duplicate Matrix Spike Summary
Carbon, Dissolved Organic (DOC)

Sample Name:	1WS-MS1-120324	**Units:**	mg/L
Lab Code:	R2412441-001	**Basis:**	NA
Analysis Method:	SM 5310 B-2014		

		Matrix Spike R2412441-001MS			**Duplicate Matrix Spike** R2412441-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Dissolved Organic (DOC)	3.3	30.4	25.0	108	30.6	25.0	109	48-135	<1	20

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ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Olin Corporation	**Service Request:**	R2412441
Project	Olin Industrial Welding Site/release order ERRE9845	**Date Collected:**	12/03/24
Sample Matrix:	Water	**Date Received:**	12/04/24
		Date Analyzed:	12/06/24

Replicate Sample Summary

General Chemistry Parameters

Sample Name:	1WS-MS1-120324	**Units:**	mg/L
Lab Code:	R2412441-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R2412441-001DUP Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D-2015	1.5	24.6	24.5	24.5	<1	10

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.

Client: Olin Corporation
Project: Olin Industrial Welding Site/release order ERRE9845
Sample Matrix: Water

Service Request: R2412441
Date Analyzed: 12/06/24 - 12/13/24

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2412441-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Dissolved Organic (DOC)	SM 5310 B-2014	28.5	25.0	114	80-121
Solids, Total Suspended (TSS)	SM 2540 D-2015	200	214	93	80-120

April 10, 2025 Service Request No:R2503062

Adam Carringer
Olin Corporation
490 Stuart Road
Cleveland, TN 37312

Laboratory Results for: Industrial Welding

Dear Adam,

Enclosed are the results of the sample(s) submitted to our laboratory March 26, 2025
For your reference, these analyses have been assigned our service request number **R2503062.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Meghan Pedro
Project Manager

CC: Randy Morris

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Rochester Laboratory
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Client: Olin Corporation
Project: Industrial Welding
Sample Matrix: Water

Service Request: R2503062
Date Received: 03/26/2025

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 level IV requested by the client.
Manual Integrations may have been used in the quantitation of the results in this report. Manual Integrations are readily identified in the raw data on the Quantitation Reports (Organics) by the automatic placement of an “m” next to the sample result. For Ion Chromatography, the manual integrations are identified by the automatic placement of “manipulated” or "manually integrated" in the upper left corner of the chromatogram (Hexavalent Chromium) or “M” by the result in the “Type” column (anions). The reason for the manual integration is noted on the “after” chromatogram, which is found with the original chromatogram and quantitation report. All integrations follow the lab SOP ADM-INT “Manual Integration.”

Sample Receipt:

Three water samples were received for analysis at ALS Environmental on 03/26/2025. 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.

Semivoa GC:

Method 8081B, 04/01/2025: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 04/10/2025

Sample Receipt Information

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:**R2503062

Project: Industrial Welding/release order ERRE9845

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
R2503062-001	IWS-SD1-032525	3/25/2025	0845
R2503062-002	IWS-MW2-032525	3/25/2025	0930
R2503062-003	IWS-MW1-032525	3/25/2025	1005

Chain of Custody / Analytical Request Form

083569

SR#:

Page 1 of 1

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Report To:	ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER
Company: Olin Corp	Project Name: Industrial Welding
Contact: Adam Carringer	Project Number:
Email: ABCarringer@olin.com	ALS Quote #:
Phone: 423-336-4987	Sampler's Signature:
Address: 490 Stuart Rd NE	Email CC:
Cleveland TN	Email CC:
35771	State Samples Collected (Circle or Write): NY, MA, PA, CT, Other:

Preservative: 0. None; 1. HCl; 2. HNO3; 3. H2SO4; 4. NAOH; 5. Zn Acet.; 6. MeOH; 7. NaHSO4; 8. Other

Lab ID (ALS)	Sample Collection Information: Sample ID:	Date	Time	Matrix (GW WW SW DW S L NA)	Number of Containers	MS/MSD?	GC/MS VOA - 8260•624•524•TCLP	GC/MS SVOA - 8270 • 625 • TCLP	Pesticides - 8081 • 608 • TCLP	PCBs - 8082 • 608	Herbicides - 8151 • TCLP	Metals, Total - Select Below	Metals, Dissolved - Field / In-Lab Filter	Notes:
	IWS-SD1-032525	03/25/25	0845	GW	15	✓		6	6			3		MS/MSD
	IWS-MW2-032525	03/25/25	0930					2	2			1		
	IWS-MW1-032525	03/25/25	1005					2	2			1		

Special Instructions / Comments:

Total Hg = Metals

Turnaround Requirements

_____Rush (Surcharges Apply)
Subject to Availability
Please Check with your PM

_____Standard (10 Business Days)

Date Required:

Report Requirements

_____Tier II/Cat A -Results/QC

_____Tier IV/Cat B - Data Validation Report w/. Data

EDD: _____Yes _____No

EDD Type:

Metals: RCRA 8•PP 13•TAL 23•TCLP•Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars •THM • Other: _____

Invoice To: (□ Same as Report To)

PO #:

Company:

Contact:

Email:

	Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature						
Printed Name	Casey Hayes	Abbie Austin				
Company	Olin	ALS				
Date/Time	3/25/25	3/26/25 1030				

R2503062 5
Olin Corporation
Industrial Welding

Distribution: White - Lab Copy; Yellow - Return to Originator

R2503062 5
Olin Corporation
Industrial Welding

Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number _____

Cooler received on 3/26/25 by: AA

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N		5a	Did **VOA** vials have sig* **bubbles?**	Y N (NA)	
2	**Custody papers** properly completed (ink, signed)?	(Y) N		5b	Sig* bubbles: **Alk?**	Y N (NA)	**Sulfide?** Y N (NA)
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N		6	Where did the bottles originate?	(ALS/ROC) CLIENT	
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N		7	Soil VOA received as: Bulk Encore 5035set	(NA)	

8. Temperature Readings Date: 3/26/25 Time: 1121 ID: IR#12 (IR#1?) From: Temp Blank (Sample Bottle)

Temp (°C)	2.1						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: SM10 by AA on 3/26 at 1130
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 3/26/25 Time: 1255 by: AA

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
10. Did all bottle labels and tags agree with custody papers? YES (NO)*
11. Were correct containers used for the tests indicated? (YES) NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO (N/A)
13. Were dissolved metals filtered in the field? YES NO (N/A)
14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved? Yes	Preserved? No	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	2216322	HNO_3	/		24010872	3/26				
≤2		H_2SO_4								
<4		$NaHSO_4$								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol).					
		$Na_2S_2O_3$								
		ZnAcetate	-	-			**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).			
		HCl	**	**						

Bottle lot numbers: 102124-2AES, 102824-1GJ
Explain all Discrepancies/ Other Comments:

* 3 8270 bottles ₿ 1 Pest bottle for MW2
1 8270 bottle ₿ 3 Pest bottles for MW1

HPROD	BULK
HTR	FLDT
SUB	HGFB
ALS	LL3541

Labels secondary reviewed by: AA *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Miscellaneous Forms

ALS Environmental—Rochester Laboratory
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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.
MRL LOQ	Method Reporting Limit. Also known as: Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations[1]

NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Texas ID#T104704581
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Olin Corporation **Service Request:** R2503062
Project: Industrial Welding/release order ERRE9845

Sample Name: IWS-SD1-032525 **Date Collected:** 03/25/25
Lab Code: R2503062-001 **Date Received:** 03/26/25
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
7470A	ECASTROVINCI	ECASTROVINCI
8081B	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSES

Sample Name: IWS-MW2-032525 **Date Collected:** 03/25/25
Lab Code: R2503062-002 **Date Received:** 03/26/25
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
7470A	ECASTROVINCI	ECASTROVINCI
8081B	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSES

Sample Name: IWS-MW1-032525 **Date Collected:** 03/25/25
Lab Code: R2503062-003 **Date Received:** 03/26/25
Sample Matrix: Water

Analysis Method	Extracted/Digested By	Analyzed By
7470A	ECASTROVINCI	ECASTROVINCI
8081B	JVANHEYNINGEN	AFELSER
8270E	JVANHEYNINGEN	AMOSES

PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

INORGANIC

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C or 6010D	3005A/3010A
6020A or 6020B	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-N-2016 Amenable and Residual Cyanide	SM 4500-CN-G and SM 4500-CN-B,C-2016
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C or 6010D	3050B
6020A or 6020B	3050B
6010C or 6010D TCLP (1311) extract	3005A/3010A
6010C or 6010D SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	

ORGANIC

Preparation Methods for Organic methods are listed in the header of the Results pages.

Regarding "Bulk/5035A":
For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.

Sample Results

ALS Environmental—Rochester Laboratory
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Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25 08:45
Sample Matrix:	Water	**Date Received:**	03/26/25 10:30
Sample Name:	IWS-SD1-032525	**Units:**	ug/L
Lab Code:	R2503062-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	10 U	10	1.3	1	04/01/25 15:39	3/27/25	
Acenaphthene	10 U	10	1.4	1	04/01/25 15:39	3/27/25	
Acenaphthylene	10 U	10	1.4	1	04/01/25 15:39	3/27/25	
Anthracene	10 U	10	1.3	1	04/01/25 15:39	3/27/25	
Benz(a)anthracene	10 U	10	1.6	1	04/01/25 15:39	3/27/25	
Benzo(a)pyrene	10 U	10	1.2	1	04/01/25 15:39	3/27/25	
Benzo(b)fluoranthene	**2.0 J**	10	1.2	1	04/01/25 15:39	3/27/25	
Benzo(g,h,i)perylene	10 U	10	2.1	1	04/01/25 15:39	3/27/25	
Benzo(k)fluoranthene	10 U	10	1.3	1	04/01/25 15:39	3/27/25	
Chrysene	**2.0 J**	10	1.2	1	04/01/25 15:39	3/27/25	
Dibenz(a,h)anthracene	10 U	10	1.1	1	04/01/25 15:39	3/27/25	
Fluoranthene	**1.8 J**	10	1.5	1	04/01/25 15:39	3/27/25	
Fluorene	10 U	10	1.3	1	04/01/25 15:39	3/27/25	
Indeno(1,2,3-cd)pyrene	10 U	10	1.8	1	04/01/25 15:39	3/27/25	
Naphthalene	10 U	10	1.2	1	04/01/25 15:39	3/27/25	
Phenanthrene	10 U	10	1.4	1	04/01/25 15:39	3/27/25	
Pyrene	10 U	10	1.5	1	04/01/25 15:39	3/27/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	86	25 - 99	04/01/25 15:39	
Nitrobenzene-d5	74	22 - 104	04/01/25 15:39	
p-Terphenyl-d14	99	10 - 143	04/01/25 15:39	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25 09:30
Sample Matrix:	Water	**Date Received:**	03/26/25 10:30
Sample Name:	IWS-MW2-032525	**Units:**	ug/L
Lab Code:	R2503062-002	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	10 U	10	1.3	1	04/01/25 16:49	3/27/25	
Acenaphthene	10 U	10	1.4	1	04/01/25 16:49	3/27/25	
Acenaphthylene	10 U	10	1.4	1	04/01/25 16:49	3/27/25	
Anthracene	10 U	10	1.3	1	04/01/25 16:49	3/27/25	
Benz(a)anthracene	10 U	10	1.6	1	04/01/25 16:49	3/27/25	
Benzo(a)pyrene	10 U	10	1.2	1	04/01/25 16:49	3/27/25	
Benzo(b)fluoranthene	10 U	10	1.2	1	04/01/25 16:49	3/27/25	
Benzo(g,h,i)perylene	10 U	10	2.1	1	04/01/25 16:49	3/27/25	
Benzo(k)fluoranthene	10 U	10	1.3	1	04/01/25 16:49	3/27/25	
Chrysene	10 U	10	1.2	1	04/01/25 16:49	3/27/25	
Dibenz(a,h)anthracene	10 U	10	1.1	1	04/01/25 16:49	3/27/25	
Fluoranthene	10 U	10	1.5	1	04/01/25 16:49	3/27/25	
Fluorene	10 U	10	1.3	1	04/01/25 16:49	3/27/25	
Indeno(1,2,3-cd)pyrene	10 U	10	1.8	1	04/01/25 16:49	3/27/25	
Naphthalene	10 U	10	1.2	1	04/01/25 16:49	3/27/25	
Phenanthrene	10 U	10	1.4	1	04/01/25 16:49	3/27/25	
Pyrene	10 U	10	1.5	1	04/01/25 16:49	3/27/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	82	25 - 99	04/01/25 16:49	
Nitrobenzene-d5	71	22 - 104	04/01/25 16:49	
p-Terphenyl-d14	97	10 - 143	04/01/25 16:49	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25 10:05
Sample Matrix:	Water	**Date Received:**	03/26/25 10:30
Sample Name:	IWS-MW1-032525	**Units:**	ug/L
Lab Code:	R2503062-003	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	10 U	10	1.3	1	04/01/25 17:13	3/27/25	
Acenaphthene	10 U	10	1.4	1	04/01/25 17:13	3/27/25	
Acenaphthylene	10 U	10	1.4	1	04/01/25 17:13	3/27/25	
Anthracene	10 U	10	1.3	1	04/01/25 17:13	3/27/25	
Benz(a)anthracene	10 U	10	1.6	1	04/01/25 17:13	3/27/25	
Benzo(a)pyrene	10 U	10	1.2	1	04/01/25 17:13	3/27/25	
Benzo(b)fluoranthene	10 U	10	1.2	1	04/01/25 17:13	3/27/25	
Benzo(g,h,i)perylene	10 U	10	2.1	1	04/01/25 17:13	3/27/25	
Benzo(k)fluoranthene	10 U	10	1.3	1	04/01/25 17:13	3/27/25	
Chrysene	10 U	10	1.2	1	04/01/25 17:13	3/27/25	
Dibenz(a,h)anthracene	10 U	10	1.1	1	04/01/25 17:13	3/27/25	
Fluoranthene	10 U	10	1.5	1	04/01/25 17:13	3/27/25	
Fluorene	10 U	10	1.3	1	04/01/25 17:13	3/27/25	
Indeno(1,2,3-cd)pyrene	10 U	10	1.8	1	04/01/25 17:13	3/27/25	
Naphthalene	10 U	10	1.2	1	04/01/25 17:13	3/27/25	
Phenanthrene	10 U	10	1.4	1	04/01/25 17:13	3/27/25	
Pyrene	10 U	10	1.5	1	04/01/25 17:13	3/27/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	68	25 - 99	04/01/25 17:13	
Nitrobenzene-d5	58	22 - 104	04/01/25 17:13	
p-Terphenyl-d14	81	10 - 143	04/01/25 17:13	

Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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www.alsglobal.com

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25 08:45
Sample Matrix:	Water	**Date Received:**	03/26/25 10:30
Sample Name:	IWS-SD1-032525	**Units:**	ug/L
Lab Code:	R2503062-001	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.050 U	0.050	1	04/01/25 01:23	3/26/25	
beta-BHC	0.050 U	0.050	1	04/01/25 01:23	3/26/25	
delta-BHC	0.050 U	0.050	1	04/01/25 01:23	3/26/25	
gamma-BHC (Lindane)	0.050 U	0.050	1	04/01/25 01:23	3/26/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	30	10 - 111	04/01/25 01:23	
Tetrachloro-m-xylene	64	10 - 101	04/01/25 01:23	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25 09:30
Sample Matrix:	Water	**Date Received:**	03/26/25 10:30
Sample Name:	IWS-MW2-032525	**Units:**	ug/L
Lab Code:	R2503062-002	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.050 U	0.050	1	04/01/25 02:34	3/26/25	
beta-BHC	0.050 U	0.050	1	04/01/25 02:34	3/26/25	
delta-BHC	0.050 U	0.050	1	04/01/25 02:34	3/26/25	
gamma-BHC (Lindane)	0.050 U	0.050	1	04/01/25 02:34	3/26/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	49	10 - 111	04/01/25 02:34	
Tetrachloro-m-xylene	66	10 - 101	04/01/25 02:34	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25 10:05
Sample Matrix:	Water	**Date Received:**	03/26/25 10:30
Sample Name:	IWS-MW1-032525	**Units:**	ug/L
Lab Code:	R2503062-003	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.048 U	0.048	1	04/01/25 02:52	3/26/25	
beta-BHC	0.048 U	0.048	1	04/01/25 02:52	3/26/25	
delta-BHC	0.048 U	0.048	1	04/01/25 02:52	3/26/25	
gamma-BHC (Lindane)	0.048 U	0.048	1	04/01/25 02:52	3/26/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	52	10 - 111	04/01/25 02:52	
Tetrachloro-m-xylene	62	10 - 101	04/01/25 02:52	

Metals

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Form 1

Inorganic Analysis Data Sheet

Mercury by EPA 7470A (CV)

Workorder

R2503062

Client

Olin Corporation

Project

Industrial Welding

04/10/2025

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Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder
R2503062

Mercury by EPA 7470A (CV)

IWS-SD1-032525	Collected	Received	Matrix	Prep Method
R2503062-001	03/25/25 0845	03/26/25 1030	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	0.20	U	ug/L	0.08	0.20	1	04/02/25 08:57	R-CVAA-03_874681	454710

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder
R2503062

Mercury by EPA 7470A (CV)

IWS-MW2-032525	Collected	Received	Matrix	Prep Method
R2503062-002	03/25/25 0930	03/26/25 1030	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	3.69		ug/L	0.08	0.20	1	04/02/25 09:05	R-CVAA-03_874681	454710

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder
R2503062

Mercury by EPA 7470A (CV)

IWS-MW1-032525	Collected	Received	Matrix	Prep Method
R2503062-003	03/25/25 1005	03/26/25 1030	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	0.20	U	ug/L	0.08	0.20	1	04/02/25 09:07	R-CVAA-03_874681	454710

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

Form 1 - Inorganic Analysis Data Sheet

Client Olin Corporation

Project Industrial Welding

Workorder
R2503062

Mercury by EPA 7470A (CV)

Method Blank

	Matrix	Prep Method
R2503062-MB	Water	Method

MC	Analyte	Result	Q	Units	DL	LOQ	DF	Analysis Date	Run ID	PrepBatch
CV	Mercury, Total	0.20	U	ug/L	0.08	0.20	1	04/02/25 08:47	R-CVAA-03_874681	454710

MC - Method Class CV - Cold Vapor/AA P - ICP/AES MS - ICP/MS

QC Summary Forms

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Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:** R2503062
Project: Industrial Welding/release order ERRE9845
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Extraction Method: EPA 3510C

Sample Name	Lab Code	2-Fluorobiphenyl 25 - 99	Nitrobenzene-d5 22 - 104	p-Terphenyl-d14 10 - 143
IWS-SD1-032525	R2503062-001	86	74	99
IWS-MW2-032525	R2503062-002	82	71	97
IWS-MW1-032525	R2503062-003	68	58	81
Method Blank	RQ2503366-01	70	60	102
Method Blank	RQ2503366-01	71	64	105
Lab Control Sample	RQ2503366-02	80	66	103
Duplicate Lab Control Sample	RQ2503366-03	89	70	112
IWS-SD1-032525 MS	RQ2503366-04	93	76	104
IWS-SD1-032525 DMS	RQ2503366-05	76	63	82

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25
Sample Matrix:	Water	**Date Received:**	03/26/25
		Date Analyzed:	04/1/25
		Date Extracted:	03/27/25

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	IWS-SD1-032525	**Units:**	ug/L
Lab Code:	R2503062-001	**Basis:**	NA
Analysis Method:	8270E		
Prep Method:	EPA 3510C		

		Matrix Spike RQ2503366-04			**Duplicate Matrix Spike** RQ2503366-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	10 U	49.4	80.0	62	45.5	76.9	59	34-102	8	30
Acenaphthene	10 U	55.8	80.0	70	50.5	76.9	66	43-117	10	30
Acenaphthylene	10 U	61.7	80.0	77	57.0	76.9	74	45-119	8	30
Anthracene	10 U	57.2	80.0	71	51.9	76.9	67	45-127	10	30
Benz(a)anthracene	10 U	60.1	80.0	75	55.5	76.9	72	46-126	8	30
Benzo(a)pyrene	10 U	64.3	80.0	80	58.4	76.9	76	44-114	10	30
Benzo(b)fluoranthene	2.0 J	58.0	80.0	70	54.4	76.9	68	41-127	6	30
Benzo(g,h,i)perylene	10 U	64.7	80.0	81	59.8	76.9	78	50-143	8	30
Benzo(k)fluoranthene	10 U	64.5	80.0	81	60.3	76.9	78	46-139	7	30
Chrysene	2.0 J	63.5	80.0	77	59.2	76.9	74	47-126	7	30
Dibenz(a,h)anthracene	10 U	64.2	80.0	80	60.0	76.9	78	43-136	7	30
Fluoranthene	1.8 J	58.4	80.0	71	54.5	76.9	68	43-135	7	30
Fluorene	10 U	59.9	80.0	75	55.0	76.9	71	43-113	9	30
Indeno(1,2,3-cd)pyrene	10 U	64.4	80.0	81	60.5	76.9	79	49-140	6	30
Naphthalene	10 U	50.8	80.0	64	47.5	76.9	62	37-108	7	30
Phenanthrene	10 U	54.3	80.0	68	50.7	76.9	66	46-123	7	30
Pyrene	10 U	57.9	80.0	72	53.1	76.9	69	44-129	9	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.

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2503366-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	10 U	10	1.3	1	04/01/25 14:05	3/27/25	
Acenaphthene	10 U	10	1.4	1	04/01/25 14:05	3/27/25	
Acenaphthylene	10 U	10	1.4	1	04/01/25 14:05	3/27/25	
Anthracene	10 U	10	1.3	1	04/01/25 14:05	3/27/25	
Benz(a)anthracene	10 U	10	1.6	1	04/01/25 14:05	3/27/25	
Benzo(a)pyrene	10 U	10	1.2	1	04/01/25 14:05	3/27/25	
Benzo(b)fluoranthene	10 U	10	1.2	1	04/01/25 14:05	3/27/25	
Benzo(g,h,i)perylene	10 U	10	2.1	1	04/01/25 14:05	3/27/25	
Benzo(k)fluoranthene	10 U	10	1.3	1	04/01/25 14:05	3/27/25	
Chrysene	10 U	10	1.2	1	04/01/25 14:05	3/27/25	
Dibenz(a,h)anthracene	10 U	10	1.1	1	04/01/25 14:05	3/27/25	
Fluoranthene	10 U	10	1.5	1	04/01/25 14:05	3/27/25	
Fluorene	10 U	10	1.3	1	04/01/25 14:05	3/27/25	
Indeno(1,2,3-cd)pyrene	10 U	10	1.8	1	04/01/25 14:05	3/27/25	
Naphthalene	10 U	10	1.2	1	04/01/25 14:05	3/27/25	
Phenanthrene	10 U	10	1.4	1	04/01/25 14:05	3/27/25	
Pyrene	10 U	10	1.5	1	04/01/25 14:05	3/27/25	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2503366-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	70	25 - 99	04/01/25 14:05	
Nitrobenzene-d5	60	22 - 104	04/01/25 14:05	
p-Terphenyl-d14	102	10 - 143	04/01/25 14:05	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2503366-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
2-Methylnaphthalene	10 U	10	1.3	1	04/03/25 20:48	3/27/25	
Acenaphthene	10 U	10	1.4	1	04/03/25 20:48	3/27/25	
Acenaphthylene	10 U	10	1.4	1	04/03/25 20:48	3/27/25	
Anthracene	10 U	10	1.3	1	04/03/25 20:48	3/27/25	
Benz(a)anthracene	10 U	10	1.6	1	04/03/25 20:48	3/27/25	
Benzo(a)pyrene	10 U	10	1.2	1	04/03/25 20:48	3/27/25	
Benzo(b)fluoranthene	10 U	10	1.2	1	04/03/25 20:48	3/27/25	
Benzo(g,h,i)perylene	10 U	10	2.1	1	04/03/25 20:48	3/27/25	
Benzo(k)fluoranthene	10 U	10	1.3	1	04/03/25 20:48	3/27/25	
Chrysene	10 U	10	1.2	1	04/03/25 20:48	3/27/25	
Dibenz(a,h)anthracene	10 U	10	1.1	1	04/03/25 20:48	3/27/25	
Fluoranthene	10 U	10	1.5	1	04/03/25 20:48	3/27/25	
Fluorene	10 U	10	1.3	1	04/03/25 20:48	3/27/25	
Indeno(1,2,3-cd)pyrene	10 U	10	1.8	1	04/03/25 20:48	3/27/25	
Naphthalene	10 U	10	1.2	1	04/03/25 20:48	3/27/25	
Phenanthrene	10 U	10	1.4	1	04/03/25 20:48	3/27/25	
Pyrene	10 U	10	1.5	1	04/03/25 20:48	3/27/25	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2503366-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270E
Prep Method: EPA 3510C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	71	25 - 99	04/03/25 20:48	
Nitrobenzene-d5	64	22 - 104	04/03/25 20:48	
p-Terphenyl-d14	105	10 - 143	04/03/25 20:48	

Client: Olin Corporation
Project: Industrial Welding/release order ERRE9845
Sample Matrix: Water

Service Request: R2503062
Date Analyzed: 04/01/25

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

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ2503366-02			RQ2503366-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2-Methylnaphthalene	8270E	47.1	80.0	59	50.4	80.0	63	35-94	7	30
Acenaphthene	8270E	60.3	80.0	75	63.8	80.0	80	46-103	6	30
Acenaphthylene	8270E	66.1	80.0	83	69.7	80.0	87	51-114	5	30
Anthracene	8270E	65.8	80.0	82	68.7	80.0	86	61-115	4	30
Benz(a)anthracene	8270E	67.5	80.0	84	69.1	80.0	86	60-110	2	30
Benzo(a)pyrene	8270E	74.2	80.0	93	75.7	80.0	95	68-137	2	30
Benzo(b)fluoranthene	8270E	63.2	80.0	79	64.8	80.0	81	59-114	2	30
Benzo(g,h,i)perylene	8270E	67.0	80.0	84	69.4	80.0	87	60-123	3	30
Benzo(k)fluoranthene	8270E	72.7	80.0	91	75.4	80.0	94	62-122	4	30
Chrysene	8270E	71.0	80.0	89	72.4	80.0	90	64-116	2	30
Dibenz(a,h)anthracene	8270E	69.3	80.0	87	71.6	80.0	89	34-140	3	30
Fluoranthene	8270E	63.1	80.0	79	65.4	80.0	82	58-129	4	30
Fluorene	8270E	67.0	80.0	84	69.8	80.0	87	54-111	4	30
Indeno(1,2,3-cd)pyrene	8270E	67.3	80.0	84	69.8	80.0	87	54-119	4	30
Naphthalene	8270E	48.5	80.0	61	52.1	80.0	65	32-91	7	30
Phenanthrene	8270E	62.1	80.0	78	64.9	80.0	81	60-111	4	30
Pyrene	8270E	65.1	80.0	81	66.9	80.0	84	62-111	3	30

Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory
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Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Client: Olin Corporation **Service Request:** R2503062
Project: Industrial Welding/release order ERRE9845
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl 10 - 111	Tetrachloro-m-xylene 10 - 101
IWS-SD1-032525	R2503062-001	30	64
IWS-MW2-032525	R2503062-002	49	66
IWS-MW1-032525	R2503062-003	52	62
Method Blank	RQ2503275-01	45	57
Method Blank	RQ2503275-01	37	56
Lab Control Sample	RQ2503275-02	19	59
Duplicate Lab Control Sample	RQ2503275-03	35	61
IWS-SD1-032525 MS	RQ2503275-04	29	65
IWS-SD1-032525 DMS	RQ2503275-05	26	61

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	03/25/25
Sample Matrix:	Water	**Date Received:**	03/26/25
		Date Analyzed:	04/1/25
		Date Extracted:	03/26/25

Duplicate Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:	IWS-SD1-032525	**Units:**	ug/L
Lab Code:	R2503062-001	**Basis:**	NA
Analysis Method:	8081B		
Prep Method:	EPA 3510C		

		Matrix Spike			Duplicate Matrix Spike					
		RQ2503275-04			RQ2503275-05					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	0.050 U	0.312	0.400	78	0.307	0.385	80	27-154	2	30
beta-BHC	0.050 U	0.331	0.400	83	0.341	0.385	89	32-184	3	30
delta-BHC	0.050 U	0.354	0.400	89	0.352	0.385	91	10-182	<1	30
gamma-BHC (Lindane)	0.050 U	0.316	0.400	79	0.317	0.385	82	43-164	<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.

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2503275-01	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.050 U	0.050	1	03/31/25 20:21	3/26/25	
beta-BHC	0.050 U	0.050	1	03/31/25 20:21	3/26/25	
delta-BHC	0.050 U	0.050	1	03/31/25 20:21	3/26/25	
gamma-BHC (Lindane)	0.050 U	0.050	1	03/31/25 20:21	3/26/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 111	03/31/25 20:21	
Tetrachloro-m-xylene	57	10 - 101	03/31/25 20:21	

Analytical Report

Client:	Olin Corporation	**Service Request:**	R2503062
Project:	Industrial Welding/release order ERRE9845	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	RQ2503275-01	**Basis:**	NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Date Extracted	Q
alpha-BHC	0.050 U	0.050	1	04/02/25 15:19	3/26/25	
beta-BHC	0.050 U	0.050	1	04/02/25 15:19	3/26/25	
delta-BHC	0.050 U	0.050	1	04/02/25 15:19	3/26/25	
gamma-BHC (Lindane)	0.050 U	0.050	1	04/02/25 15:19	3/26/25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	33	10 - 111	04/02/25 15:19	
Tetrachloro-m-xylene	53	10 - 101	04/02/25 15:19	

Client: Olin Corporation
Project: Industrial Welding/release order ERRE9845
Sample Matrix: Water

Service Request: R2503062
Date Analyzed: 03/31/25

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

		Lab Control Sample			Duplicate Lab Control Sample					
		RQ2503275-02			RQ2503275-03					
Analyte Name	**Analytical Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	8081B	0.264	0.400	66	0.289	0.400	72	39-107	9	30
beta-BHC	8081B	0.283	0.400	71	0.304	0.400	76	47-110	7	30
delta-BHC	8081B	0.332 P	0.400	83	0.348	0.400	87	43-109	5	30
gamma-BHC (Lindane)	8081B	0.263	0.400	66	0.282	0.400	70	41-105	7	30

Metals

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Form 3

Blanks

Mercury by EPA 7470A (CV)

Workorder

R2503062

Client

Olin Corporation

Project

Industrial Welding

04/10/2025

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Form 3 - Blanks

Client	Olin Corporation	Workorder	
Project	Industrial Welding	**R2503062**	

Mercury by EPA 7470A (CV)

R-CVAA-03_874681			ICB		CCB		CCB		CCB		CCB		
		Run Date	04/02/25		04/02/25		04/02/25		04/02/25		04/02/25		
		Run Time	08:37		08:44		09:12		09:38		10:06		
		Units	ppb		ppb		ppb		ppb		ppb		
Analyte	DL	LOQ	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	
Mercury	0.08	0.20	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	

Q - Result Flag * - Result Above Limit

Form 5A

Matrix Spike Sample Recovery

Mercury by EPA 7470A (CV)

Workorder

R2503062

Client

Olin Corporation

Project

Industrial Welding

04/10/2025

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Form 5A - Matrix Spike Sample Recovery

Client Olin Corporation

Project Industrial Welding

Workorder **R2503062**

Mercury by EPA 7470A (CV)

RunID R-CVAA-03-874681

IWS-SD1-032525 (R2503062-001)				001MS		001DMS	
Sample Matrix	Water	Analysis Batch	874681	Run Date	04/02/25	Run Date	04/02/25
Result Units	ug/L	Prep Batch	454710	Run Time	09:00	Run Time	09:02
Prep Method	Method	Prep Date	04/01/25	Prep Amt	25 mL	Prep Amt	25 mL

Analyte	%R Limits	DF	Sample Result	Spike Added	MS Result	%R	Q	DMS Result	%R	Q	RPD	Q	RPD Limit
Mercury, Total	75 - 125	1	0.20U	1.00	1.06	106		0.96	96		10		20

RPD Relative Percent Difference **%R** %Recovery **Q** %R or RPD Flag **NC** Not Calculated **DO** Diluted Out

MS\D Matrix Spike \Duplicate **DF** Dilution Factor * %R or RPD Outside Limits **NS** Not Spiked **Amt** weight or volume

Form 7

Laboratory Control Sample

Mercury by EPA 7470A (CV)

Workorder

R2503062

Client

Olin Corporation

Project

Industrial Welding

04/10/2025

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Form 7 - Laboratory Control Sample

Client	Olin Corporation	Workorder	
Project	Industrial Welding	**R2503062**	

Mercury by EPA 7470A (CV)

RunID
R-CVAA-03-874681

R-CVAA-03_874681			R2503062-LCS		
Spike Matrix	Water	Analysis Batch 874681	Run Date	04/02/25	
Result Units	ug/L	Prep Batch 454710	Run Time	08:50	
Prep Method	Method	Prep Date 04/01/2025	Prep Amt	25 mL	

Analyte	%Recovery Limits	Spike Added	LCS Result	%R	Q
Mercury	80-120	1.00	1.02	102	