



Periodic Review Report

Review Period July 2023 –August 2024

Swivelier Company

33 Route 304, Nanuet, Rockland County, New York 10954

NYSDEC Site Nos. 3-44-036 & V00520

Submitted to:

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Submitted by:

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August 2024

Project 202530

Volume 1 of 1

A handwritten signature in black ink, appearing to read "Jacob M. Strauss", is positioned above a horizontal line.

Prepared by Jacob M. Strauss, PE
Senior Project Engineer

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Certification

I, Jacob M. Strauss, certify that I am currently a New York State Registered Professional Engineer. In accordance with the DER Technical Guidance for Site Remediation (DER-10) Section 1.5 Certification Requirement 1.5(b)5, for each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

(a) the institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by NYSDEC;

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

(c) nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control;

(d) access to the Site will continue to be provided to NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of this control.

By: EWMA Engineering Services LLC

NYS Certificate of Authorization No. 0016891



Jacob M. Strauss 8/7/2024

Jacob M. Strauss, NYSPE No. 097765

EWMA Project No. 202530

Note: It is a violation of Article 145 of New York State Education Law for any person, unless he is acting under the direction of a licensed professional engineer, to alter an item of this Periodic Review Report in any way. If an item is altered, the altering engineer shall affix to the item his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration.

1. Executive Summary

1.1 Containment Conditions and Remedial History

The Property, which housed the former Swivelier Company, is listed as a Class 2 site on the New York State Registry of Inactive Disposal Waste Sites. The Property is located at 33 Route 304 in an industrial/commercial area of Nanuet, Rockland County, New York. A 132,000 square-foot building is located on a six-acre parcel surrounded by paved parking lots. The Site is zoned commercial and industrial and is currently utilized for commercial and industrial uses.

The Swivelier Company operated in a portion of the building for the assembly, manufacture, warehousing and distribution of lighting fixtures from 1956 to 1997. Non-contact process water and cooling water, as well as wastewater from the building floor drain system, was discharged to a drainage ditch on the western portion of the property. In 1979, the Rockland County Department of Health received a complaint citing discolored water flowing in the ditch. Samples collected by the Spring Valley Water Company in 1980 from the outfall pipe and in the surface waters indicated total volatile organic compounds (VOC) of 14,425 parts per billion (ppb) and 8,962 ppb, respectively. In 1980, Swivelier eliminated the use of the VOC compounds TCE and methylene chloride (MCI) in their processes and directed the site process, process waters, and waste waters to the municipal sewer system rather than to the on-site drainage ditch.

In 1991, the Rockland County Department of Health (RCDH) collected groundwater samples from several businesses and residential wells in this area. TCE was detected at 5,400 ppb in a sample from the L.A. Woman nightclub, located 0.4 miles to the south of the Property. Several other wells in the vicinity of L.A. Woman also contained TCE, but at lower concentrations. The RCDH identified numerous potential sources, including Swivelier, for the TCE contamination in the L.A. Woman well. The New York State Department of Environmental Conservation (NYSDEC) listed the Property on the New York State Registry of Inactive Waste Sites in July 1991 as a Class 2 site.

The NYSDEC retained Camp Dresser & McKee (CDM) to perform a Remedial Investigation/Feasibility Study (RI/FS) at the Property. The RI/FS was completed in two separate phases in 1994 and 1995. The results of the RI/FS identified VOC contaminated soils in the drainage ditch (discharge area) and VOC contamination in the underlying bedrock aquifer.

A hot spot excavation and soil removal was performed at the source area (on-site drainage ditch) in June 1999 by CDM. Soils were excavated within and adjacent to the ditch to the zone of saturation, approximately 8-feet below ground surface (bgs). All soils were transported off-site and disposed of at a licensed waste handling facility.

Post excavation sample results of 1,100 parts per million (ppm) indicated that a small area of impacted soils approximately 10 by 10-feet by the former discharge pipe location remained in the subsurface soils below the water table. No further remediation activities were carried out at this location by CDM. S.F. Properties, LLC (S.F. Properties) entered into a Voluntary Cleanup Agreement (VCA) in April 2002 with the NYSDEC to remediate the site.

In-Situ Oxidation Technologies, Inc. (ISOTEC) in-situ chemox treatment processes were conducted in November 2002 for the field pilot study, and again in May 2005 for the full-scale treatment program, to remediate subsurface contamination via injection of peroxide and proprietary catalysts, thereby oxidizing contamination using Fenton's Reaction.

In accordance with the November 2004 RAWP, an SSDS was installed in March 2008 to address concerns regarding a potential source of vapor intrusion beneath the building. The results of the diagnostic field pilot test, conducted by EWMA on August 23, 2004, provided a basis to determine the locations and number of extraction points necessary to achieve adequate depressurization underneath the entire building. Upon instructions from the property representative, all SSDS installation activities were conducted within the empty warehouse portion of the building.

Long-term monitored natural attenuation (MNA) of groundwater within the overburden aquifers is currently being utilized, relying on natural attenuation processes to achieve applicable groundwater remediation standards.

This Periodic Review Report (PRR) is issued for the July 2023 through August 2024 review period.

1.2 Effectiveness of the Remedial Program

The impacted media are now either beneath the existing buildings or have been excavated to the groundwater table, a depth of approximately 8-feet bgs in the former drainage ditch (CDM Supplemental Investigation Report, July 2000). The remaining area of the drainage ditch and exposed soils onsite have been covered with either an asphalt parking lot, landscaping, or buildings. The storm water that flowed from the site through an open ditch has been diverted through underground storm sewers to the off-site surface water body. The

exposure pathways have been eliminated on-site by engineering controls, which removed the point of exposure from surficial contact. However, impacted subsurface soil remains on site and constitutes a potential point of exposure through vapor intrusion.

Impacted groundwater at the site can be found within the overlying unconsolidated sediments and within the underlying bedrock. The groundwater is found at depths of 8-feet or greater at the site. No wells, either potable or industrial exist at the site. No groundwater discharge points exist on the site. Groundwater, and dissolved contaminants associated with the groundwater, flows in the subsurface toward the south-southwest. The contamination appears to be within the unconsolidated sediments, which are not considered a major aquifer in the area, and within the deep underlying bedrock aquifer, which is utilized as a potable water source off-site. Therefore, there are no points of exposure related to the on-site groundwater, except through potential vapor intrusion.

The approved ROD included No Action, (i.e. natural attenuation for treatment of the groundwater contamination in the on-site overburden aquifers). Continued natural attenuation of the groundwater within the overburden aquifers is proposed based upon the current contamination concentrations.

1.3 Compliance Status

The Site is being managed in compliance with the NYSDEC approved SMP. EWMA conducted a site inspection on June 19, 2024 and confirmed that the SSDS remained fully operational and effective following repairs in September 2022.

1.4 Conclusions and Recommendations

During the review period from July 2023 to August 2024, the SMP has been implemented and the remedy, along with the institutional and engineering controls, continues to be protective of human health and the environment.

Other SMP Elements – Operation and monitoring information as specified in the SMP for this PRR period is detailed in this document.

Periodic Review Report Schedule – The next PRR will be prepared to cover the August 2024 to August 2025 reporting period.

Site Management Plan Implementation – Based on the continued need for institutional controls and engineering controls, it is recommended that the SMP remain in effect.

2. Site Overview

2.1 Description

The approximately six-acre Site contains a 132,000 square-foot building surrounded by paved parking lots. The Site is zoned commercial and industrial and is currently utilized for commercial and industrial uses. The Site is bordered by Demarest Mill Road to the north; Route 304 to the east; West Nyack Road to the south; and Teplitz Inc., an auto salvage facility to the west, **Figure 1**. Commercial enterprises, including a gas station and an automobile dealership, are located along the eastern side of Route 304. A bakery, delicatessen, and commercial buildings are located to the North across Demarest Road. An abandoned house is located on the southeast corner of Route 304 and Nyack Road, and an auto repair shop is located along Nyack Road directly adjacent to the Property. Apartment buildings are located to the south across Nyack Road. Directly adjacent to the Property on the west is Teplitz Salvage Yard. Further west of Teplitz along Nyack Road are additional automobile salvage/repair shops and trucking/shipping companies.

The Swivelier Company operated in a portion of the building for the assembly, manufacture, warehousing, and distribution of lighting fixtures from 1956 to 1997. Non-contact process water and cooling water, as well as wastewater from the building floor drain system, was discharged to a drainage ditch on the western portion of the property.

2.2 Chronology, Remedy Components, Remediation Goals, and Remedy Changes

A chronology of significant site compliance milestones is provided as follows:

In 1979, the Rockland County Department of Health received a complaint citing discolored water flowing in the ditch. Samples collected by the Spring Valley Water Company in 1980 from the outfall pipe and in the surface waters indicated total volatile organic compounds (VOC) of 14,425 parts per billion (ppb) and 8,962 ppb, respectively. In 1980, Swivelier eliminated the use of the VOC compounds TCE and methylene chloride (MCI) in their processes and directed the site process, process waters, and waste waters to the municipal sewer system rather than to the on-site drainage ditch.

In 1991, the Rockland County Department of Health (RCDH) collected groundwater samples from several businesses and residential wells in this area. TCE was detected at 5,400 ppb in a sample from the L.A. Woman nightclub, located 0.4 miles to the south of the Property. Several other wells in the vicinity of L.A. Woman also contained TCE, but at lower concentrations. The RCDH identified numerous potential sources, including Swivelier, for the TCE contamination in the L.A. Woman well. The New York State Department of Environmental Conservation (NYSDEC) listed the Property on the New York State Registry of Inactive Waste Sites in July 1991 as a Class 2 site.

The NYSDEC retained Camp Dresser & McKee (CDM) to perform a Remedial Investigation/Feasibility Study (RI/FS) at the Property. The RI/FS was completed in two separate phases in 1994 and 1995. The results of the RI/FS identified VOC contaminated soils in the drainage ditch (discharge area) and VOC contamination in the underlying bedrock aquifer.

In 1995 two concrete lined pits located in a retail store on the Property were identified as containing TCE and 1,2-DCE and the contents were subsequently removed. A soil gas survey was performed at the concrete lined pits and based on this survey the NYSDEC required no further action at this area. Soils in the drainage ditch located on the western portion of the Property were identified as a source area for the VOC contamination to the underlying bedrock aquifer. In addition, sediments carried to the drainage ditch located across Nyack Road were identified as being above the NYSDEC action levels. The on-site drainage ditch and the off-site drainage ditch were identified as environmental areas of concern. Groundwater within the shallow unconsolidated zone and the deeper bedrock aquifer were identified as areas of environmental concern. Groundwater in the shallow unconsolidated zone was identified as moving slowly south-southeast. Petroleum impacts to the shallow groundwater were attributed to the Teplitz auto salvage facility on the adjacent property to the southwest. A plume of contaminated groundwater was identified in the deeper bedrock aquifer and was noted to be moving in a south-southwest direction. NYSDEC concluded that this plume was not the cause of the VOC contamination discovered in the L.A. Woman well. No receptors of the groundwater contamination from the subject were identified in the vicinity.

In March 1996, the NYSDEC presented a selected remedial action for the Property in a ROD. The approved ROD included No Action, i.e. natural attenuation for treatment of the groundwater contamination in the on-site overburden aquifers. The drainage ditch is shallow pathway designed to transport with no known recreational uses. CDM completed a remediation of the sediments by excavating impacted sediments and constructing a temporary streambed in June 1999. Post excavation analysis indicated that the remaining sediments were below NY SCC.

A hot spot excavation and soil removal was performed at the source area (on-site drainage ditch) in June 1999 by CDM. Soils were excavated within and adjacent to the ditch to the zone of saturation, approximately 8-feet below ground surface (bgs). All soils were transported off-site and disposed of at a licensed waste handling facility. Post excavation sample results of 1,100 parts per million (ppm) indicated that a small area of impacted soils approximately 10 by 10-feet by the former discharge pipe location remained in the subsurface soils below the water table. No further remediation activities were carried out at this location by CDM.

Groundwater samples were collected in November 1999 by CDM. TCE was identified in MW-3S, 3I, 6I, 6R, 8DI, 9ID, and 9D at concentrations of 22, 18, 130, 200, 160, 68, and 13,300 ppb, respectively. Based upon the results of the November 1999 post-excavation well sampling, CDM performed a Supplemental Groundwater Investigation from April 19, 2000 to May 25, 2000. The supplemental investigation consisted of the installation of MW-10D and collection of groundwater samples from MW-

6I, 6R, 8I, 9I, 9D and 10D. TCE was identified in all samples with concentrations of 56, 25, 200, 33, 5,300 and 3,100 ppb, respectively.

In-Situ Oxidation Technologies, Inc. (ISOTEC) in-situ chemox treatment processes were conducted in November 2002 for the field pilot study, and again in May 2005 for the full-scale treatment program, to remediate subsurface contamination via injection of peroxide and proprietary catalysts, thereby oxidizing contamination using Fenton's Reaction.

In accordance with the November 2004 RAWP, an SSDS was installed in March 2008 to address concerns regarding a potential source of vapor intrusion beneath the building. The results of the diagnostic field pilot test, conducted by EWMA on August 23, 2004, provided a basis to determine the locations and number of extraction points necessary to achieve adequate depressurization underneath the entire building. Upon instructions from the property representative, all SSDS installation activities were conducted within the empty warehouse portion of the building.

The impacted media are now either beneath the existing buildings or have been excavated to the groundwater table, a depth of approximately 8-feet bgs in the former drainage ditch (CDM Supplemental Investigation Report, July 2000). The remaining area of the drainage ditch and exposed soils onsite have been covered with either an asphalt parking lot, landscaping, or buildings. The storm water that flowed from the site through an open ditch has been diverted through underground storm sewers to the off-site surface water body. However, impacted subsurface soil remains on site and constitutes a potential point of exposure through vapor intrusion, as discussed later.

Impacted groundwater at the site can be found within the overlying unconsolidated sediments and within the underlying bedrock. The groundwater is found at depths of 8-feet or greater at the site. No wells, either potable or industrial exist at the site. No groundwater discharge points on the site. Groundwater, and dissolved contaminants associated with the groundwater, flows in the subsurface toward the south-southwest in the overburden, and the east-northeast in the shallow bedrock. The contamination appears to be within the unconsolidated sediments, which are not considered a major aquifer in the area, and within the deep underlying bedrock aquifer, which is utilized as a potable water source off-site. Therefore, there are no points of exposure related to the on-site groundwater, except through potential vapor intrusion, as discussed later.

Long-term monitored natural attenuation (MNA) of groundwater within the overburden aquifers is currently being utilized, relying on natural attenuation processes to achieve applicable groundwater remediation standards.

Site activities have been documented in the following reports; Final Remediation Report prepared by CDM dated February 2000; a Supplemental Investigation Report prepared by CDM dated July 2000; five Voluntary Cleanup Program Remedial Action Workplan-Groundwater prepared by EWMA dated June 18, 2002, February 2003, July 2003, November 2004 and December 2004; an Environmental Status Update prepared by EWMA dated June 7, 2013; a Voluntary Cleanup Program Remedial Action Workplan

prepared by EWMA dated August 2013, a Voluntary Cleanup Program RAW Addendum prepared by EWMA dated November 25, 2013; two Voluntary Cleanup Program Revised RI Progress Report prepared by EWMA dated May 4, 2015 and August 16, 2015; a Voluntary Cleanup Program revised Supplemental RI Progress Report prepared by EWMA dated August 26, 2015; a Site Management Plan prepared by EWMA dated June 2018; Field Sampling Plan prepared by EWMA dated November 2018; Annual Inspection Report prepared by EWMA dated January 24, 2019; Periodic Review Report prepared by EWMA dated November 2022; and Periodic Review Report prepared by EWMA dated August 2023.

The key components of the remedy were excavation with end-point soil sampling, backfilling with certified clean fill, groundwater sampling and annual engineering inspections, engineering controls that include a cover system, a sub-slab depressurization system, and compliance with the SMP.

The goals of the remedy were:

1. Reducing, controlling, or eliminating the contamination present within the on-site soils and sediments;
2. Eliminating the threat to surface waters by remediating any contaminated sediments and soils on-site;
3. Eliminating the potential for direct human or animal contact with contaminated soils, sediments and groundwater on-site; and
4. Mitigating continuing impacts to contaminated groundwater.

In summary, during the July 2023 through August 2024 PRR period, the following deliverables were submitted and the following activities occurred:

- A site-wide inspection was conducted in June 2024 and the findings confirmed that IC/ECs, including the sub-slab vapor intrusion (VIC) system, are performing properly and remain effective.
- A site-wide inspection was conducted in June 2024 and the findings confirmed that IC/ECs, including the sub-slab vapor intrusion (VIC) system, continue to perform properly and remain effective.
- Sampling of monitoring wells MW-10D, 11D and 13D in June 2024, (Section 4.1.3); and
- This PRR was prepared for the July 2023 – August 2024 period.

Refer to **Figure 2** for the current monitoring well locations as of the date of this PRR.

The sub-slab vapor mitigation control system (installed beneath the building) was subjected to quality assurance testing and remains effective. The annual inspection results are provided in **Appendix 2**.

2.3 Remedy Performance, Effectiveness and Protectiveness

As of the date of this PRR submittal, the remedy has been performed as required and has been effective and protective in achieving the remedy goals as follows:

1. Reducing, controlling, or eliminating the contamination present within the on-site soils and sediments;
2. Eliminating the threat to surface waters by remediating any contaminated sediments and soils on-site;
3. Eliminating the potential for direct human or animal contact with contaminated soils, sediments and groundwater on-site; and
4. Mitigating continuing impacts to contaminated groundwater.

Supportive data is provided in the figures and appendices to this PRR for the purpose of demonstrating the remedy performance, effectiveness and protectiveness.

3. IC/EC Plan Compliance Report

3.1 IC/EC Requirements and Compliance

To address residual contaminated soil, groundwater and soil vapor beneath the Site, the SMP provided for several ECs and ICs to protect human health and the environment. ECs include a cover system and a Sub-Slab Depressurization System (SSDS). ICs include implementation, maintenance and monitoring of all ECs, compliance with the SMP, permitted uses of the property, limited disturbance of the remaining impacts in the subsurface, inspections, media monitoring, and reporting of data.

3.1.1 Cover System

Exposure to remaining contamination in groundwater at the site is prevented by asphalt pavement, concrete-covered sidewalks, and concrete building slabs. The cover system is a permanent EC designed to prevent exposure to soil contamination.

The cover system is inspected annually by a licensed professional engineer, including a Site walk, visual examination of cover integrity, and interviews with personnel familiar with Site operations. A summary of the annual inspection results is provided in **Appendix 2**. See Section 4.1.1 below, for a discussion of the recent inspection of the composite cover system.

3.1.2 Sub-Slab Depressurization System (SSDS)

In accordance with the November 2004 RAWP, an SSDS was installed in March 2008 to address concerns regarding a potential source of vapor intrusion beneath the building.

The results of the diagnostic field pilot test, conducted by EWMA on August 23, 2004, provided a basis to determine the locations and number of extraction points necessary to achieve adequate depressurization underneath the entire building. Upon instructions from the property representative, all SSDS installation activities were conducted within the empty warehouse portion of the building.

The following provides a summary of the SSDS design:

- Two (2) separate SSDSs are installed along the western and eastern portions of the building and connected to vacuum blower #1 and #2, respectively, which are located on the roof of the building;
- Each SSDS consists of a 4-inch PVC main header pipe installed along the ceiling in order to connect all extraction points to the header pipe, and extending to the outside of the building into the vacuum blower;

- A total of nine (9) extraction points were connected to the western SSDS and eight (8) extraction points were connected to the eastern SSDS, each via 2-inch PVC connecting pipes extending upwards from the extraction points along the walls and corner and along the ceiling to the 4-inch PVC main header pipe;
- Extraction point connector pipes and main header inlets to the vacuum blowers were equipped with ball valves and sampling ports in order to optimize the vacuum and flow through all points, and collect flow readings and air samples, as necessary;
- The vacuum blowers are 7.5 HP Regenerative Blowers capable of providing a total flow rate of 250 to 300 CFM.

Vapor intrusion controls beneath the subject building slab and above-slab mechanical portion of the system (piping, suction blowers, and valves) have been installed, and the SSDS is currently operational. See **Appendix 2** for a discussion of the recent inspection of the SSDS. Vapor intrusion controls will be integrated with all future building construction at the Site.

3.1.3 Institutional and Engineering Controls

- Cover System
- Sub-Slab Depressurization System

These ICs/ECs remain in place and are being implemented at the Site and annual testing was completed during this PRR period. Currently, the building is occupied and the VIC system is operating in accordance with the SMP.

3.2 IC/EC Certification

The required IC/EC Certifications are provided in **Appendix 1** of this PRR.

4. Monitoring Plan Compliance Report

4.1 Components of the Monitoring Plan

The components of the monitoring plan are set forth below. A summary of the monitoring efforts specific to each monitoring plan component is provided below, along with the location of the associated monitoring data within this PRR:

- *Cover System* – The cover was monitored visually for integrity during an annual inspection in June 2024 (see **Appendix 2** for annual inspection results);
- *Sub-Slab Depressurization System* – The Sub-Slab Depressurization System (SSDS) is currently operating. Monitoring is ongoing and inspections are conducted on an annual basis to ensure proper functionality (see **Appendix 2** for annual inspection results); the most recent inspection was conducted in June 2024.
- *Sampling of Monitoring Wells* – Groundwater monitoring wells associated with natural attenuation (MW-10D, 11D and 13D) were sampled in June 2024.

4.1.1 Cover System Monitoring

The quality and integrity of the cover system was inspected (monitored) annually and deemed intact and protective by the EWMA Certifying Engineer of Record.

4.1.2 Vapor Intrusion Control System Monitoring

The construction and effectiveness of the vapor intrusion control system installed beneath the building was inspected by qualified EWMA field technicians to ensure proper functionality. The system components and monitoring points have been inspected in June 2024, vacuum and air flow measurements confirm that the system is operating in conformance with the design requirements (see **Appendix 2 and Figure 3**), and the system has been certified.

4.1.3 Groundwater Monitoring

On June 18 and 19, 2024, EWMA collected ground water samples from on-site monitoring wells MW-10D, MW-11D, and MW-13D and analyzed for TCL VO + 15. **Figure 2** depicts the wells at the Site and **Table 1** illustrates the sample results. The ground water sampling activities were conducted in accordance with the ground water monitoring program approved by the NYSDEC.

The monitoring wells were purged utilizing a Grundfos Redi-Flo 2-inch diameter submersible pump equipped with a variable speed control box via three-volume purge rate to purge the monitoring wells. The Redi-Flow pump and electrical line was field decontaminated between each well in accordance with pump decontamination procedures. No sheen or free phase product was observed and no odors were detected

during the June 2024 ground water sampling event. The field sampling observations are summarized on the Purge Guide provided in **Appendix 4**.

As illustrated on **Table 1**, analytical results for MW-11D were all reported as non-detect or below the New York State Ambient Water Quality Standards and Guidance Values. MW-10D reported vinyl chloride, trans-1,2-dichloroethene, cis-1,2-dichloroethene, trichloroethene, tetrachloroethene, and 1,2-dichlorobenzene at concentrations exceeding the New York State Ambient Water Quality Standard (AWQS) for each compound. MW-13D reported vinyl chloride, trans-1,2-dichloroethene, cis-1,2-dichloroethene, trichloroethene, tetrachloroethene, 1,4-dichlorobenzene, and 1,2-dichlorobenzene at concentrations exceeding the AWQS for each compound. The laboratory analytical packages are provided in **Appendix 3**.

As illustrated on the Historic Ground Water Results Table (**Table 2**), historically, MW-10D, MW-11D, and MW-13D have had fluctuating chlorinated solvent concentrations. However, recent sampling events have shown an increasing trend in VOC concentrations in MW-10D and MW-13D. Current and historical groundwater contour maps show that groundwater flow in the -D wells is to the east/northeast, indicating that the increasing concentrations in MW-10D and MW-13D are the result of contamination migrating from an upgradient off-site source.

4.2 Summary of Monitoring Completed During the Reporting Period

The monitoring during the reporting period was completed as set forth above. The monitoring data is presented in the figures and appendices of this PRR.

4.3 Comparison with Remedial Objectives

Based on the monitoring data collected during the reporting period and presented in the figures and appendices of this PRR, the remedial objectives are being met. The cover system is effectively preventing exposure to residual contamination; and the VIC system is maintaining sub-slab de-pressurization and operating in conformance with the design and as required by NYSDOH and NYSDEC.

4.4 Monitoring Deficiencies

There are currently no known monitoring deficiencies. During the most recent site inspection in June 2024, it was confirmed that the SSDS remained functional and effective following repairs in September 2022.

4.5 Conclusions

All monitoring was performed in accordance with the NYSDEC approved SMP and pursuant to subsequent work plans and monitoring enhancements that have been approved by the NYSDEC.

5. Operation and Maintenance Plan (O&M) Compliance Report

5.1 Components of the O&M Plan

The components of the O&M Plan include inspections and completion of inspection forms.

5.1.1 *Summary of O&M Activities and Data Collected During the Reporting Period*

The inspection forms and records that were generated for the Site during the reporting period include the following:

- Annual Inspection of Cover System and VIC System (**Appendix 2**).

5.1.2 *O&M Deficiencies*

EWMA conducted a site inspection on June 19, 2024 and confirmed the SSDS remains functional and effective following repairs in September 2022. No new deficiencies were noted during this inspection.

5.2 Conclusions and Recommendations for Improvements

Project Review Report Schedule – The next PRR will be prepared to cover the July 2024 through August 2025 reporting period.

Site Management Plan Implementation – Based on the continued need for institutional controls and engineering controls, it is recommended that the SMP remain in effect.

6. Overall PRR Conclusions and Recommendations

6.1 Compliance with SMP

As of the date of this PRR, the remedy has been performed as required under the SMP and has been effective and protective in achieving the remedy goals as follows:

1. Reducing, controlling, or eliminating the contamination present within the on-site soils and sediments;
2. Eliminating the threat to surface waters by remediating any contaminated sediments and soils on-site;
3. Eliminating the potential for direct human or animal contact with contaminated soils, sediments and groundwater on-site; and
4. Mitigating continuing impacts to contaminated groundwater.

Supportive data is provided in the tables, figures and appendices to this PRR for the purpose of demonstrating the remedy performance, effectiveness and protectiveness.

6.2 Performance and Effectiveness of the Remedy

The performance and effectiveness of the remedy are in conformance with the project objectives.

6.3 Future PRR Submittals

The next PRR to be prepared and submitted will cover the period from July 2024 through August 2025.

Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Table 1 – June 2024 Groundwater Results Summary

August 2024



Table 1
June 2024 Groundwater Analytical Results Summary
Swivelier Company
33 Route 304, Nanuet, New York
EWMA Project No. 202530
NYSDEC Site Nos. 3-44-036 V00520

Sample #: Field ID: Lab ID: Date Sampled: Depth(ft):		TOGS - Table 1 Ambient Water Quality Standards And Guidance Values (ug/L)	MW-10D 02128-001 06/18/2024				MW-11D 02128-002 06/19/2024				MW-13D 02128-003 06/19/2024			
	CAS		Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Volatiles (ug/L)														
Dichlorodifluoromethane	75-71-8	5	ND		50.0	27.6	ND		1.00	0.552	ND		50.0	27.6
Chloromethane	74-87-3	5	ND		25.0	15.5	ND		0.500	0.309	ND		25.0	15.5
Vinyl chloride	75-01-4	2	44.8	D	25.0	17.6	ND		0.500	0.352	49.7	D	25.0	17.6
Bromomethane	74-83-9	5	ND		25.0	19.3	ND		0.500	0.386	ND		25.0	19.3
Chloroethane	75-00-3	5	ND		25.0	16.2	ND		0.500	0.324	ND		25.0	16.2
Trichlorofluoromethane	75-69-4	5	ND		50.0	25.2	ND		1.00	0.503	ND		50.0	25.2
1,1-Dichloroethene	75-35-4	0.07	ND		25.0	18.2	ND		0.500	0.363	ND		25.0	18.2
Acetone	67-64-1	NS	ND		50.0	50.0	ND		1.00	1.00	ND		50.0	50.0
Carbon disulfide	75-15-0	NS	ND		25.0	20.2	ND		0.500	0.403	ND		25.0	20.2
Methylene chloride	75-09-2	5	ND		50.0	25.0	ND		1.00	0.500	ND		50.0	25.0
trans-1,2-Dichloroethene	156-60-5	5	21.8	DJ	25.0	18.6	ND		0.500	0.372	24.7	DJ	25.0	18.6
Methyl tert-butyl ether (MTBE)	1634-04-4	NS	ND		25.0	12.3	ND		0.500	0.245	ND		25.0	12.3
1,1-Dichloroethane	75-34-3	5	ND		25.0	14.3	ND		0.500	0.285	ND		25.0	14.3
cis-1,2-Dichloroethene	156-59-2	5	7740	D	25.0	13.9	1.38		0.500	0.277	7700	D	25.0	13.9
2-Butanone (MEK)	78-93-3	NS	ND		50.0	40.1	ND		1.00	0.802	ND		50.0	40.1
Bromochloromethane	74-97-5	NS	ND		25.0	19.0	ND		0.500	0.379	ND		25.0	19.0
Chloroform	67-66-3	7	ND		25.0	14.3	ND		0.500	0.285	ND		25.0	14.3
1,1,1-Trichloroethane	71-55-6	5	ND		25.0	19.1	ND		0.500	0.381	ND		25.0	19.1
Carbon tetrachloride	56-23-5	0.4	ND		25.0	17.5	ND		0.500	0.349	ND		25.0	17.5
1,2-Dichloroethane (EDC)	107-06-2	0.6	ND		25.0	13.7	ND		0.500	0.273	ND		25.0	13.7
Benzene	71-43-2	NS	ND		25.0	13.5	ND		0.500	0.270	ND		25.0	13.5
Trichloroethene	79-01-6	5	12800	D	50.0	34.7	1.55		0.500	0.347	15000	D	50.0	34.7
1,2-Dichloropropane	78-87-5	1	ND		25.0	13.6	ND		0.500	0.272	ND		25.0	13.6
Bromodichloromethane	75-27-4	50	ND		25.0	12.9	ND		0.500	0.258	ND		25.0	12.9
cis-1,3-Dichloropropene	10061-01-5	NS	ND		25.0	13.2	ND		0.500	0.264	ND		25.0	13.2
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	ND		50.0	30.6	ND		1.00	0.611	ND		50.0	30.6
Toluene	108-88-3	NS	ND		25.0	15.1	ND		0.500	0.302	ND		25.0	15.1
trans-1,3-Dichloropropene	10061-02-6	NS	ND		25.0	16.5	ND		0.500	0.330	ND		25.0	16.5
1,1,2-Trichloroethane	79-00-5	1	ND		25.0	15.7	ND		0.500	0.313	ND		25.0	15.7
Tetrachloroethene	127-18-4	0.7	43.8	D	25.0	18.3	ND		0.500	0.365	43.2	D	25.0	18.3
2-Hexanone	591-78-6	NS	ND		50.0	40.9	ND		1.00	0.818	ND		50.0	40.9
Dibromochloromethane	124-48-1	50	ND		25.0	13.2	ND		0.500	0.263	ND		25.0	13.2
1,2-Dibromoethane (EDB)	106-93-4	NS	ND		25.0	14.5	ND		0.500	0.289	ND		25.0	14.5
Chlorobenzene	108-90-7	5	ND		25.0	15.2	ND		0.500	0.304	ND		25.0	15.2
Ethylbenzene	100-41-4	NS	ND		25.0	15.7	ND		0.500	0.313	ND		25.0	15.7
Total Xylenes	1330-20-7	NS	ND		50.0	17.3	ND		1.00	0.345	ND		50.0	17.3
Styrene	100-42-5	NS	ND		25.0	15.9	ND		0.500	0.317	ND		25.0	15.9
Bromoform	75-25-2	50	ND		25.0	16.4	ND		0.500	0.328	ND		25.0	16.4
Isopropylbenzene	98-82-8	NS	ND		25.0	16.6	ND		0.500	0.332	ND		25.0	16.6
1,1,2,2-Tetrachloroethane	79-34-5	0.2	ND		25.0	14.2	ND		0.500	0.284	ND		25.0	14.2
1,3-Dichlorobenzene	541-73-1	3	ND		25.0	19.3	ND		0.500	0.386	ND		25.0	19.3
1,4-Dichlorobenzene	106-46-7	3	ND		25.0	19.9	ND		0.500	0.397	29.2	D	25.0	19.9
1,2-Dichlorobenzene	95-50-1	3	66.6	D	25.0	17.7	ND		0.500	0.354	154	D	25.0	17.7
1,2-Dibromo-3-chloropropane	96-12-8	NS	ND		25.0	20.5	ND		0.500	0.410	ND		25.0	20.5
1,2,4-Trichlorobenzene	120-82-1	NS	ND		25.0	17.9	ND		0.500	0.358	ND		25.0	17.9
1,2,3-Trichlorobenzene	87-61-6	NS	ND		25.0	20.3	ND		0.500	0.406	ND		25.0	20.3
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	ND		50.0	26.9	ND		1.00	0.538	ND		50.0	26.9
Methyl acetate	79-20-9	NS	ND		25.0	17.3	ND		0.500	0.345	ND		25.0	17.3
Cyclohexane	110-82-7	NS	66.5	D	50.0	23.5	ND		1.00	0.469	ND		50.0	23.5
Methylcyclohexane	108-87-2	NS	ND		25.0	21.1	ND		0.500	0.421	ND		25.0	21.1
1,3-Dichloropropene (cis- and trans-)	542-75-6	NS	ND		25.0	13.2	ND		0.500	0.264	ND		25.0	13.2
TOTAL VO's:		NS	20800	DJ		NA	2.93			NA	23000	DJ		NA
TOTAL TIC's:		NS	ND			NA	ND			NA	ND			NA
TOTAL VO's & TIC's:		NS	20800	DJ		NA	2.93			NA	23000	DJ		NA

New York State Division of Water Technical and Operational Guidance Series (TOGS), Issued October 22, 1993, Reissued June 1998.

BOLD Conc Indicates a concentration that exceeds the applicable criteria.

BOLD RL Indicates RL that exceeds applicable criteria.
BOLD MDL Indicates MDL that exceeds applicable criteria.

NS = No Standard Available

ND = Analyzed for but Not Detected at the MDL

J = Indicates an estimated value either when the concentration in the sample is greater than MDL and less than RL, or for qualification of TICs

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

N = Presumptive evidence of a compound from the use of GC/MS library search.



Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Table 2 – Historical Groundwater Results Summary

August 2024



Historic Groundwater Results
Former Swivelier Site
Route 304, Nanuet NY
EWMA Project No. 202530

Well Information (ft.)	Sampling Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Acetone	Chloroethane	Chloroform	2-Butanone	Methyl tert-butyl ether (MTBE)	Benzene	Bromodichloromethane	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Toluene	1,1-Dichloroethene	TOTAL VO's:	TOTAL TIC's:	TOTAL VO's & TIC's:
TOGS 1.1.1 GW STANDARDS GA CLASS		5	5	5	5	2	50*	5	7	50*	NS	1	50*	3	3	5	5	NS	NS	NS
MW-10D	9/2/2005	ND	249	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	2.03	ND	ND	262	97	359
	12/21/2005	ND	14500	4390	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18,900	ND	18,900
	8/9/2006	ND	131	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.13	ND	ND	132	44.0	176
	3/14/2007	ND	32.6	10900	ND	73	23.4	ND	ND	ND	ND	ND	ND	12.9	95.7	ND	ND	11,100	NA	NA
	10/16/2007	ND	861	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	861	232	861
	5/5/2008	ND	330	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	330	58.0	388
	10/29/2008	ND	2920	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,920	875	3,800
	5/14/2009	ND	4260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,260	1,800	6,060
	11/10/2009	ND	5000	2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,010	ND	7,010
	4/29/2014	ND	3700	1720	9.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,430	NA	NA
	10/16/2015	ND	4420	1960	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,380	NA	NA
	5/18/2017	ND	24.6	7480	3760	29.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11,300	NA	NA
	11/21/2017	ND	7210	3620	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10,800	ND	10,800
	11/27/2018	ND	4950	2960	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	7910	NA	NA
	6/9/2022	ND	27.8	6260	2990	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9280	ND	9280
	7/26/2023	ND	11200	5970	48.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17200	ND	17200
	6/18/2024	ND	44.8	12800	7740	21.8	ND	ND	ND	ND	ND	ND	ND	ND	66.6	ND	ND	20800	ND	20800
MW-11D	11/19/2002	4.24	617	91	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.12	9.4	2.66	ND	635	91	726
	9/2/2005	ND	6.86	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	6.86	27.8	34.7
	12/21/2005	ND	10.9	13.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.5	6.8	31.3
	8/9/2006	ND	2.82	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.82	201	204
	3/14/2007	ND	8.72	ND	ND	ND	11.3	ND	ND	13.0	ND	ND	ND	ND	ND	ND	ND	33.0	NA	NA
	10/16/2007	ND	25.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25.0	99.4	124
	5/5/2008	ND	5.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.29	ND	5.29
	10/29/2008	ND	7.62	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.62	ND	7.62
	5/14/2009	ND	6.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.00	ND	6.00
	11/10/2009	ND	17.0	2.07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.1	ND	19.1
	4/29/2014	ND	3.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.37	NA	NA
	10/16/2015	ND	3.08	2.69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.77	NA	NA
	5/18/2017	ND	4.64	1.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.59	NA	NA
	11/21/2017	ND	1.84	1.72	ND	ND	ND	ND	ND	ND	0.575	ND	ND	ND	ND	ND	ND	4.14	ND	4.14
	11/28/2018	ND	7.79	1.58	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	9.37	NA	NA
	6/9/2022	ND	1.47	1.16	ND	ND	ND	ND	ND	ND	0.33	ND	ND	ND	ND	ND	ND	2.96	ND	2.96
	7/26/2023	ND	1.16	1.09	ND	ND	ND	ND	ND	ND	0.349	ND	ND	ND	ND	ND	ND	2.6	ND	2.6
	6/19/2024	ND	1.55	1.38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.93	ND	2.93
MW-12D	11/19/2002	ND	9.45	9.7	ND	ND	ND	ND	ND	ND	222	ND	ND	ND	0.35	ND	ND	9.8	232	242
	9/2/2005	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	23.1	23.1
	12/21/2005	ND	2.09	1.59	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.68	82.2	85.9
	8/9/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.1	21.1
	3/13/2007	ND	1.14	ND	ND	ND	8.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.19	NA	NA
	10/16/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/29/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/14/2009	ND	0.587	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.587	5.50	6.09
	11/21/2017	ND	3.90	3.33	ND	ND	ND	ND	ND	ND	0.733	ND	ND	ND	ND	ND	ND	7.69	ND	7.69

Historic Groundwater Results
Former Swivelier Site
Route 304, Nanuet NY
EWMA Project No. 202530

Well Information (ft.)	Sampling Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Acetone	Chloroethane	Chloroform	2-Butanone	Methyl tert-butyl ether (MTBE)	Benzene	Bromodichloromethane	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Toluene	1,1-Dichloroethene	TOTAL VO's:	TOTAL TIC's:	TOTAL VO's & TIC's:
TOGS 1.1.1 GW STANDARDS GA CLASS		5	5	5	5	2	50*	5	7	50*	NS	1	50*	3	3	5	5	NS	NS	NS
MW-13D	11/19/2002	ND	255	58.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.14	ND	ND	257	58.5	316
	9/2/2005	ND	39.4	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	39	5.8	45.2
	12/21/2005	ND	9.00	1.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.0	ND	11.0
	8/9/2006	ND	32.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	32.6	9.00	41.6
	3/13/2007	0.722	208	ND	1.75	ND	2.12	ND	ND	ND	ND	ND	ND	ND	1.57	ND	ND	214	NA	NA
	10/16/2007	0.827	130	ND	ND	0.637	ND	ND	ND	ND	ND	ND	ND	ND	1.99	ND	ND	133	86.2	219
	5/2/2008	ND	22.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22.0	10.6	32.6
	10/29/2008	ND	4120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4120	1130	5250
	5/14/2009	2	337	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	339	309	648
	11/10/2009	ND	1.72	24.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26.1	ND	26.1
	4/29/2014	ND	36.1	15.20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	51.3	NA	NA
	10/16/2015	ND	4300	1750	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6050	NA	NA
	5/18/2017	16.2	3910	1830	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5790	NA	NA
	11/20/2017	ND	1350	517	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1870	ND	1870
	11/29/2018	61	13000	5920	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	143	NA	ND	19100	NA	NA
	6/1/2022	42.5	9980	4550	ND	43.3	ND	ND	ND	ND	ND	ND	ND	ND	101	ND	ND	14700	ND	14700
	7/26/2023	34.5	8270	4080	ND	43.0	ND	ND	ND	ND	ND	ND	ND	ND	94.1	ND	ND	12500	ND	12500
	6/19/2024	43.2	15000	7700	24.7	49.7	ND	ND	ND	ND	ND	ND	ND	29.2	154	ND	ND	23000	ND	23000
MW-1R	9/2/2005	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/21/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/9/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	27.2	27.2
	3/13/2007	ND	0.770	ND	ND	ND	2.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.53	NA	NA
	11/22/2017	ND	0.531	ND	ND	ND	ND	ND	ND	ND	3.26	ND	ND	ND	ND	ND	ND	3.79	ND	3.79
MW-6I	9/2/2005	ND	54.7	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	54.7	ND	54.7
	12/21/2005	ND	24.5	153	ND	60.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	238	ND	238
	8/9/2006	ND	33.1	15.1	ND	15.1	ND	0.911	ND	ND	ND	ND	ND	ND	ND	ND	ND	49.1	65.4	115
	3/14/2007	ND	1.95	ND	ND	4.04	4.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.5	NA	NA
	11/21/2017	ND	17.2	170	ND	121	ND	ND	ND	ND	0.940	ND	ND	ND	ND	ND	0.546	310	ND	310
MW-6R	9/2/2005	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/21/2005	ND	83.6	22.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	106	58.5	165
	8/9/2006	ND	8.14	ND	ND	ND	ND	ND	0.929	ND	ND	ND	0.33	ND	ND	ND	ND	9.40	55.1	64.5
	3/13/2007	ND	6.54	ND	ND	ND	186	ND	0.776	6.88	ND	2.12	ND	ND	ND	ND	ND	202	NA	NA
	11/21/2017	ND	10.2	7.39	ND	ND	ND	ND	ND	ND	8.29	0.544	ND	ND	ND	1.09	ND	27.5	ND	27.5
MW-1N	11/22/2017	ND	ND	5.12	ND	ND	ND	ND	ND	ND	1.37	ND	ND	ND	ND	ND	ND	6.49	ND	6.49
	11/27/2018	ND	ND	3.45	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	3.45	NA	NA
MW-1S	11/22/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-1SE	11/22/2017	ND	0.719	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.719	ND	0.719
MW-2I	11/22/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.43	ND	ND	ND	ND	ND	ND	6.43	ND	6.43
MW-2N	11/22/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.504	ND	ND	ND	ND	ND	ND	0.504	39.4	39.9
	11/27/2018	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	NA	NA

Historic Groundwater Results
Former Swivelier Site
Route 304, Nanuet NY
EWMA Project No. 202530

Well Information (ft.)	Sampling Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Acetone	Chloroethane	Chloroform	2-Butanone	Methyl tert-butyl ether (MTBE)	Benzene	Bromodichloromethane	1,4-Dichlorobenzene	1,2-Dichlorobenzene	Toluene	1,1-Dichloroethene	TOTAL VO's:	TOTAL TIC's:	TOTAL VO's & TIC's:
TOGS 1.1.1 GW STANDARDS GA CLASS		5	5	5	5	2	50*	5	7	50*	NS	1	50*	3	3	5	5	NS	NS	NS
MW-2S	11/22/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3N	11/22/2017	ND	ND	9.93	ND	2.08	ND	ND	ND	ND	2.47	ND	ND	ND	ND	ND	1.39	15.9	131	147
	11/28/2018	ND	0.32J	7.89	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	9.4 J	NA	NA
MW-4I	11/22/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	66.6	ND	ND	ND	ND	ND	ND	66.6	14.7	81.3
MW-4S	11/21/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.7	ND	ND	ND	ND	ND	ND	13.7	ND	13.7
MW-7I	11/21/2017	ND	1.31	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.31	ND	1.31
MW-7SE	11/21/2017	ND	ND	4.50	ND	1.20	ND	ND	ND	ND	7.32	ND	ND	ND	ND	ND	ND	13.0	ND	13.0
MW-7SW	11/21/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	46.2	ND	ND	ND	ND	ND	ND	46.2	ND	46.2
	11/28/2018	ND	ND	ND	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	ND	NA	NA
MW-8DI	11/21/2017	ND	3780	1660	ND	17.9	ND	ND	ND	ND	90.8	ND	ND	ND	ND	ND	ND	5550	ND	5550
	11/28/2018	ND	143	68.1	0.514	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	0.554	212	NA	NA
MW-9D	11/21/2017	ND	84.2	6.79	ND	ND	15.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	107	ND	107
	11/28/2018	ND	1080	212	ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	NA	ND	1290	NA	NA
MW-9DI	11/21/2017	ND	82.9	1.37	ND	ND	ND	ND	ND	ND	58.4	ND	ND	ND	ND	ND	ND	143	ND	143
MW-9SI	11/21/2017	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.53	ND	ND	ND	ND	ND	ND	3.53	ND	3.53
TW-1	4/29/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TW-2	4/29/2014	ND	4.95	1.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.09	ND	ND
TW-3	4/29/2014	ND	3.48	4.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.81	ND	ND
TW-4	4/29/2014	ND	0.993	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.49	ND	ND
TW-5	4/29/2014	ND	15	5.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.2	ND	ND
TW-6	4/29/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TW-7	4/29/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TW-8	4/29/2014	ND	0.48	3.61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.09	ND	ND

ND = Not detected
NA = Not analyzed for

Periodic Review Report – Review Period July 2023 to August 2024

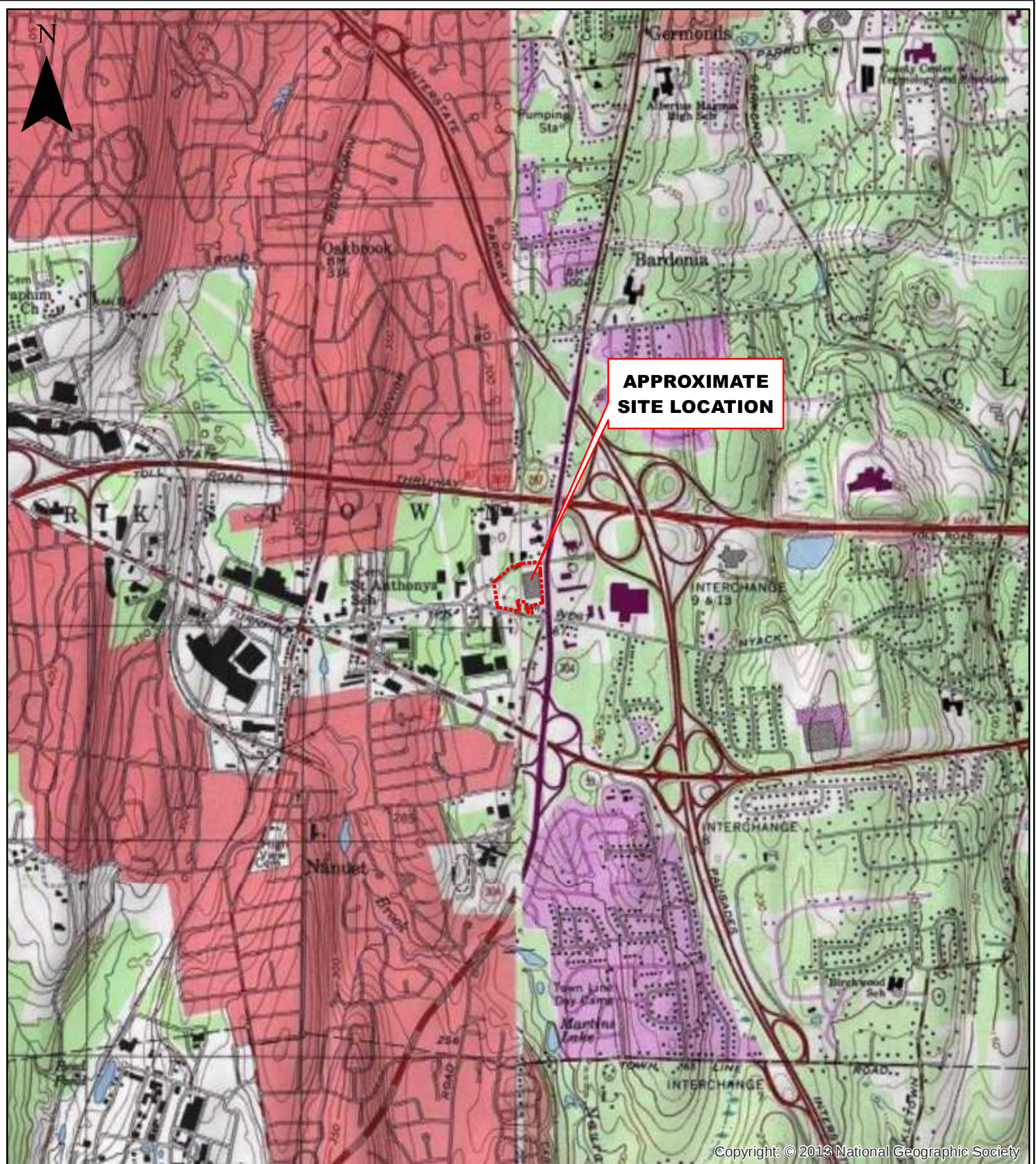
Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Figure 1 – Site Location Map

August 2024





NEW JERSEY
QUADRANGLE LOCATION

2,000 1,000 0 2,000 Feet



SOURCE: USGS PARK RIDGE, N.J.-N.Y. 7.5 MINUTE. QUADRANGLE, TOPOGRAPHIC
IMAGERY OBTAINED FROM ARCGIS ONLINE



100 MISTY LANE
P.O. BOX 5430
PARSIPPANY, NEW JERSEY

DATE:
1/29/18

PROJECT #
205548

DRAWN BY: RR
CHECKED BY: JS

Document Path: G:\Job Data\205000\205548\Drawings\205548F1 Site Location map.mxd

SITE LOCATION
FORMER SWIVELIER COMPANY SITE
33 ROUTE 304
VILLAGE OF NANUET, NEW YORK

Figure #

1

Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Figure 2 – Well Location Map

August 2024





MW-9DI
MW-9D
MW-9SI
ACTUAL LOCATION OF MW-9 CLUSTER IS
70' WEST OF MW-9D

MW-7I
MW-7SW

MW-7SE

WEST
NYACK
ROAD
CONCRETE CURB

SECT. 33, BLK. B, LOT 17
N/F
J.N.T. PROPERTIES CORP.

SECT. 33, BLK. B, LOT 16
N/F
JOHN & ROBERT MAIER

SECT. 33, BLK. B, LOT 19
N/F
SIMMON TOY PROPERTIES, LTD.
Teplitz

PROPERTY BOUNDARY
LANDSCAPED BUFFER AREA

MW-13D

MW-5S

MW-1S
MW-1R

MW-10D

MW-8DI

MW-12D

MW-3I
MW-3S

MW-6R

MW-6S

MW-11D/ESB-2

MW-6S

NYSDOT DRAINAGE BASEMENT

EXISTING MACADAM AREA

FENCE (TYP.)

1 STORY FRAME BUILDING

EXISTING MACADAM

MW-4I
MW-4S

EXISTING MACADAM

ROCKLAND GYMNASTICS

EMPTY

1 STORY BLOCK AND METAL
18,000 SQ. FT.
PHASE I - VERIZON

VERIZON

EMPTY

WEE PLAY

1 STORY BRICK BUILDING
102,500-50,000 SQ. FT.
BALANCE OF BUILDING

LAZY BOY

EMPTY

BASSET FURNITURE DIRECT

GRASS

STEPS TO GRADE

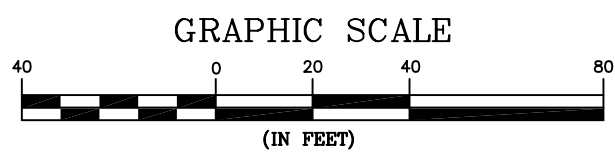
NEW STONE WALL

MW-2S
MW-2I

U.P. C.C.

METAL COVER

N. Y. S. HIGHWAY ROUTE 304



Environmental Waste Management Associates, LLC P.O. Box 5430 Parsippany, NJ 07054 Tel: (973) 560-1400 EWMA	SCALE: AS SHOWN	PROJECT# 202530
	DATE:	
	DRAWN BY:	
	CHECKED BY:	
WELL LOCATION MAP FORMER SWIVELIER COMPANY SITE ROUTE 304 VILLAGE OF NANUET, NEW YORK		FIGURE# 2

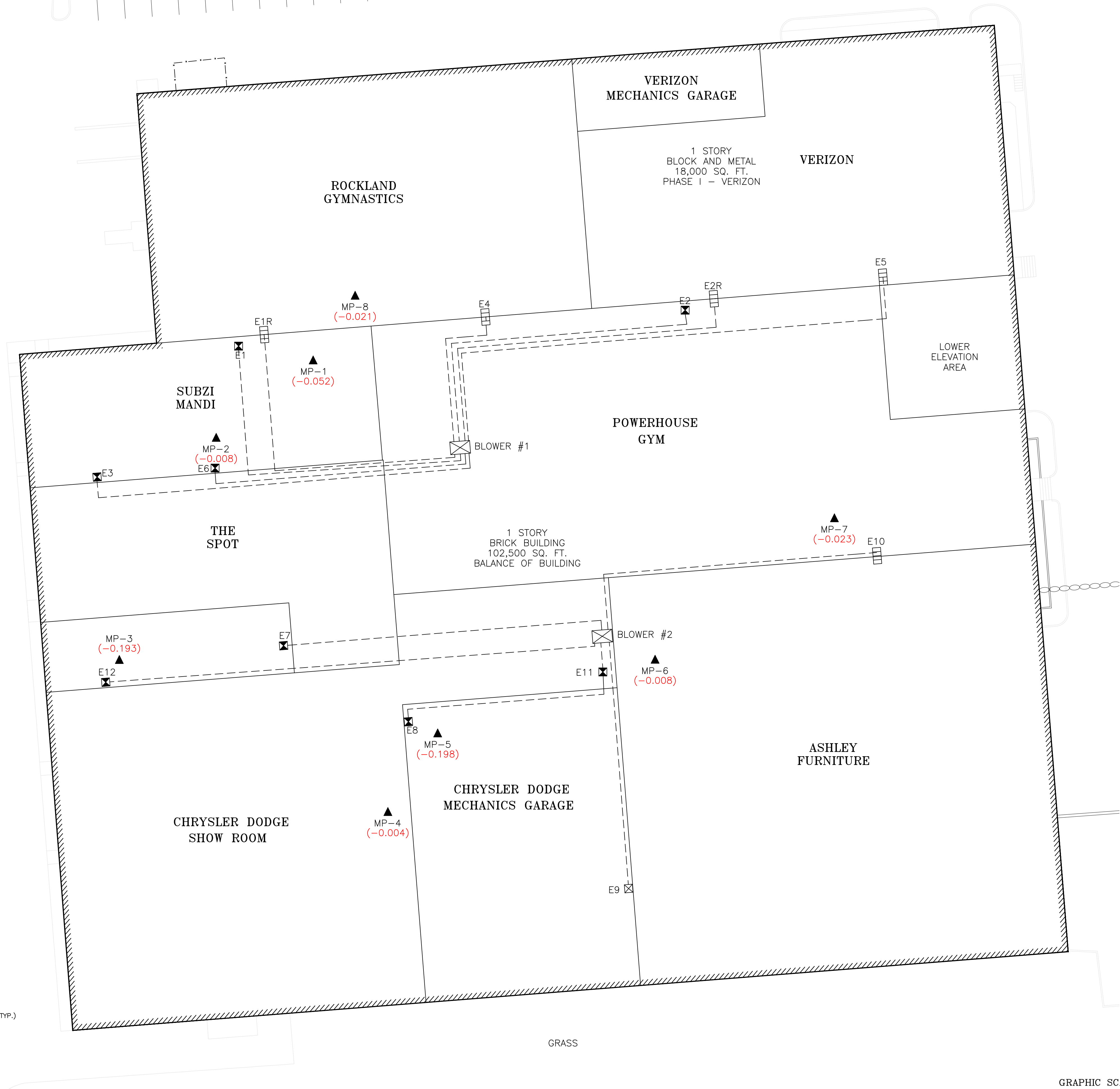
Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Figure 3 – Sub-Slab Depressurization System & Vacuum Readings June 2024

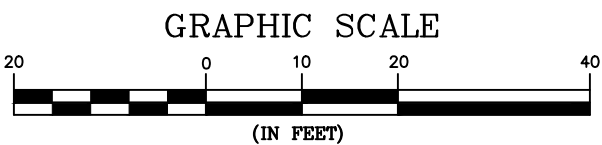
August 2024



LEGEND

- VERTICAL 4" PVC EXTRACTION POINT LOCATION
- SUB-SLAB MONITORING POINT LOCATION - INSTALLED SEPTEMBER 2022 (TYP.) WITH JUNE 19, 2024 VACUUM READING ("WC")
- LATERAL (3") 4" SLOTTED PVC EXTRACTION POINT LOCATION
- 2" PVC SCH.40 CONNECTOR PIPE ALONG THE CEILING
- VACUUM BLOWER LOCATION

NOTE: AS-BUILT PLAN HAS BEEN MAPPED TO THE BEST OF EWMA'S ABILITY BASED ON SITE VISITS PERFORMED BY EWMA IN MAY AND NOVEMBER 2017. DURING THESE SITE VISITS, LIMITED OR NO ACCESS WAS PERMITTED FOR SOME FACILITIES, AND THEREFORE NOT ALL POINTS WERE ABLE TO BE MAPPED. IT IS BELIEVED THAT THERE ARE A TOTAL OF 9 POINTS CONNECTED TO BLOWER #1, AND 8 POINTS CONNECTED TO BLOWER #2.



 100 Misty Lane P.O. Box 5430 Parsippany, NJ 07054	SCALE: AS SHOWN	PROJECT#
	DATE: 7/10/24	202530
SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) VACUUM READINGS - JUNE 2024 FORMER SWIVELIER COMPANY SITE ROUTE 304 VILLAGE OF NANUET, NEW YORK	DRAWN BY: CL/JS CHECKED BY: JS	FIGURE#
		3

Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Appendix 1 – IC/EC Certifications

August 2024





Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site No.	Site Details	Box 1
V00520		
Site Name Swivelier Company		
Site Address: 33 Route 304 Zip Code: 10954		
City/Town: Nanuet		
County: Rockland		
Site Acreage:		
Reporting Period: July 1, 2023 to August 1, 2024		
		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? Industrial	✓ ☐
7.	Are all ICs/ECs 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.

Signature of Owner, Remedial Party or Designated Representative

Date

Description of Institutional ControlsParcelOwner

S.F Properties LLC

Institutional Control

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Building Use Restriction
Surface Water Use Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

Commercial development, Land and GW restrictions Soil Management Plan under SMP

Description of Engineering ControlsParcelEngineering Control

Vapor Mitigation
Cover System
Fencing/Access Control
Monitoring Wells

Controlled access, SSDS operational in building, Monitoring well sampling, Cover system with asphalt pavement

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 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 complete.

YES NO

✓ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or 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.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. V00520

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 Jacob M. Strauss at EWMA, 800 Lanidex Plaza, Parsippany, New Jersey 07054,
print name print business address

am certifying as Designated Representative of Owner _____ (Owner or Remedial Party)

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



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

8/7/2024

Date

IC/EC CERTIFICATIONS

Box 7

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 Jacob M. Strauss at EWMA, 800 Lanidex Plaza, Parsippany, New Jersey 07054,
print name print business address

am certifying as a Professional Engineer for the Owner

(Owner or Remedial Party)


Signature of , for the Owner or Remedial Party,
Rendering Certification



8/7/2024
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

- I. Executive Summary: (1/2-page or less)
 - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
 - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
 - 1. progress made during the reporting period toward meeting the remedial objectives for the site
 - 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
 - C. Compliance
 - 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
 - 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
 - D. Recommendations
 - 1. recommend whether any changes to the SMP are needed
 - 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
 - 3. recommend whether the requirements for discontinuing site management have been met.
- II. Site Overview (one page or less)
 - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
 - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.
- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.
- IV. IC/EC Plan Compliance Report (if applicable)
 - A. IC/EC Requirements and Compliance
 - 1. Describe each control, its objective, and how performance of the control is evaluated.
 - 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
 - 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
 - 4. Conclusions and recommendations for changes.
 - B. IC/EC Certification
 - 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).
- V. Monitoring Plan Compliance Report (if applicable)
 - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
 - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
 - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
 - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
 - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.
- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
 - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
 - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
 - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

- D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
- E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

- A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
 - 1. whether all requirements of each plan were met during the reporting period
 - 2. any requirements not met
 - 3. proposed plans and a schedule for coming into full compliance.
- B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
- C. Future PRR Submittals
 - 1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
 - 2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Appendix 2 – Annual Inspection of Cover System and Vapor Intrusion Control System

August 2024



Provided as Appendix 2 to the July 2023 – August 2024 Periodic Review Report

August 7, 2024

Mr. Matthew Hubicki
Project Manager
NYSDEC
Division of Environmental Remediation
Remedial Bureau C
625 Broadway, 11th Floor
Albany, NY 12233-7014

Re: Annual Inspection Report for Vapor Mitigation System & Cover System

Swivelier Company
33 Route 304, Nanuet, Rockland County, New York 11101
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530

Dear Mr. Priore:

EWMA is submitting this Annual Inspection Report, prepared in accordance with NYSDEC and Site Management Plan (SMP) requirements, for the vapor mitigation system (VMS) and cover system at the Former Swivelier Company site (Property).

The VMS for the subject building includes sub-slab de-pressurization, and is fully operational on continuous duty. EWMA conducted initial site inspections on June 19, 2024 and confirmed that the SSDS remained fully operational following repairs in September 2022. Additionally, eight new permanent sub-slab monitoring points were installed on September 22 and 23, 2022 and detailed in EWMA's previous Annual Inspection Report.

The VMS is performing in compliance with SMP requirements, NYSDOH guidelines, and good vapor intrusion control practices. During the June 19, 2024 inspection, vacuum measurements in inches of water column (inch wc) were obtained at permanent sub-slab monitoring points as follows:

Vapor Mitigation System (VMS) Sub-Slab Vacuum Measurements		
Monitoring Point ID	Location	Vacuum (inch wc)
MP-1	Subzi Mandi	-0.054
MP-2	Subzi Mandi	-0.008
MP-3	Construction Hallway	-0.193
MP-4	Chrysler Dodge Showroom	-0.004

Appendix 2 – Periodic Review Report – July 2023 to August 2024
Annual Inspection Report for Vapor Mitigation System & Cover System
Swivelier Company
33 Route 304, Nanuet, Rockland County, New York 11101
NYSDEC Site Nos. 3-44-036 & V00520

Page 2

MP-5	Chrysler Dodge Maintenance Garage	-0.198
MP-6	Ashley Furniture Electrical Closet	-0.008
MP-7	Powerhouse Gym Break Room	-0.023
MP-8	Gymnastics Academy Utility Closet	-0.021

The cover system for the Property consists of asphalt pavement, concrete sidewalks, and concrete building slabs, and was found to be intact and functional during our annual inspection.

If you have any questions or require any additional information please feel free to contact the undersigned at our Parsippany, New Jersey office, (973) 560-1400, ext. 195.

Sincerely,
EWMA



Jacob Strauss, PE
Senior Project Engineer

Att.: Site Inspection Checklist

Cc: NYSDEC
NYSDOH
Client
Cathy Bryant, Director, EWMA

APPENDIX 2

FORMER SWIVELIER COMPANY

ANNUAL SITE INSPECTION REPORT/CHECKLIST

Date: June 19, 2024
Inspector: Jacob Strauss, EWMA, Sr. Project Engineer
Reason for Inspection: 2024 Annual Site Inspection Checklist

1. *Is the Site compliant with all Institutional Controls, including Site usage (yes/no)?* Yes.
If no, describe:

2. *Provide a general evaluation of Site conditions:*

The site was secure and in good condition. The subject building is approximately 32,000 square feet, consisting of multiple commercial and light industrial office tenants, and is surrounded by paved asphalt parking areas.

3. *Provide a general evaluation of the condition and effectiveness of composite cover systems:*
The cover system for the Property consists of asphalt pavement, concrete sidewalks, and concrete building slabs, and was found to be intact and functional during our annual inspection.

4. *Provide a general evaluation of the condition and effectiveness of Vapor Intrusion Controls:*
The vapor mitigation system (VMS) is performing in compliance with SMP requirements, NYSDOH guidelines, and good vapor intrusion control practices. See attached Annual Inspection Report for sub-slab vacuum measurements.

5. *Provide a general evaluation of the condition of monitoring wells:*
All monitoring wells located onsite are in good condition.

6. *Are Site management activities being conducted according to Site Management Plan (yes/no)?* Yes.
If no, describe:

7. *Is Site documentation as required by the Site Management Plan up to date (yes/no)?* Yes.
If no, describe:

8. *Are any changes to the monitoring program recommended (yes/no)?* No.
If yes, describe:

Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Appendix 3 – Laboratory Analytical Packages

August 2024





ANALYTICAL DATA REPORT

Environmental Waste Management Associates, LLC.
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054

Project Name: **SWIVELIER - 202530**
IAL Case Number: **E24-02128**

These data have been reviewed and accepted by:

A handwritten signature in black ink, appearing to read "Michael H. Leff". The signature is written in a cursive, flowing style.

Michael H. Leff, Ph.D.
Laboratory Director

This report shall not be reproduced, except in its entirety, without the written consent of Integrated Analytical Laboratories, LLC. The test results included in this report relate only to the samples analyzed. The results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.



Integrated Analytical Laboratories - Table of Contents

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Analytical Results.....	8
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LAST PAGE OF DOCUMENT.....	141

Sample Summary

IAL Case No.

E24-02128

Client EWMA - HQ

Project SWIVELIER - 202530

Received On 6/19/2024@17:19

<i>Lab ID</i>	<i>Client Sample ID</i>	<i>Depth Top/Bottom</i>	<i>Sampling Time</i>	<i>Matrix</i>	<i># of Container</i>
02128-001	MW-10D	n/a	6/18/2024@16:40	Aqueous	3
02128-002	MW-11D	n/a	6/19/2024@13:40	Aqueous	3
02128-003	MW-13D	n/a	6/19/2024@13:15	Aqueous	3
02128-004	DUP-1	n/a	6/19/2024@13:20	Aqueous	3
02128-005	FB-1-061824	n/a	6/18/2024@15:20	Aqueous	2
02128-006	FB-2-061924	n/a	6/19/2024@13:40	Aqueous	2
02128-007	TB-061824	n/a	6/18/2024	Aqueous	2

INTEGRATED ANALYTICAL LABORATORIES, LLC

DATA QUALIFIERS AND FLAGS

B	Indicates the analyte found in the associated method blank and in the sample due to potential lab contamination.
C	Indicates analyte is a common laboratory contaminant.
D	Indicates analyte was reported from diluted analysis.
E	Identifies a compound concentration that exceeds the upper level of the calibration range of the instrument
J	Indicates an estimated value either when the concentration in the sample is less than the RL or for qualification of TICs
J1	Indicates an estimated value when ICC or CCV did not meet the criteria.
M	Indicates matrix interference
N	Presumptive evidence of a compound from the use of GC/MS library search.
T	Sample analyzed outside of holding time
X	Indicates samples analyzed for total and dissolved metals differ at ≤20% RPD.
Y	Indicates DO depletion in the BOD blank is >0.20ppm
Z	Indicates internal standard failure. Sample results are either biased high or biased low.
\$	Value outside NJDEP DKQP Limits
*	Result outside of QC limits

PROJECT NOTES

- All results for soils, solids, and sludges are reported on a dry-weight basis except where noted
- All test results and QC are compliant with TNI or other applicable state agency requirements/guidance unless otherwise notated in the case narrative and/or project information page.
- The case narrative for this SDG should be consulted to determine any non-conformances.
- Any samples with 15-minute or "analyze immediately" holding times (e.g. pH, Dissolved Oxygen, Sulfite, etc.) which are analyzed in the laboratory are considered out of holding time.
- IAL is a NELAP/TNI certified laboratory (TNI ID# TNI01284). IAL retains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).
- Certification is not required to perform analyses in the following states: AL, CO, DE, GA, HI, ID, IN, KY, MD, MI, MS, MO, MT, NE, NM, SD and TN. IAL can perform all analyses, except Drinking Water, within its scope of capabilities in these states.

ACRONYMS AND ABBREVIATIONS

CFU	Colony Forming Unit	ND	Indicates analyte was analyzed for but not detected at MDL or RL (only if MDL is not used)
CCB	Continuing Calibration Blank	NTU	Nephelometric Turbidity Units
CCV	Continuing Calibration Verification	ppb	Parts per billion. Reported as µg/L or µg/kg
DF	Dilution Factor	ppm	Parts per million. Reported as mg/L, µg/mL or mg/kg
DL	Attached as a suffix to a diluted sample	QC	Quality Control
DUP	Duplicate	% Rec	Percent Recovery
ICB	Initial Calibration Blank	RL	Reporting Limit. The RL is typically determined by the concentration of the lowest standard in the calibration curve
ICC	Initial Calibration Curve	RPD	Relative Percent Difference
ICV	Initial Calibration Verification	RSD	Relative Standard Deviation
kg	kilogram	RT	Retention Time
L	Liter	SU	Standard Units
LCS	Laboratory Control Sample	TIC	Tentatively Identified Compound AKA Library Search Compounds
LCSD	Laboratory Control Sample Duplicate	TNI	The NELAC (National Environmental Laboratory Accreditation Council) Institute
MDL	Method Detection Limit as determined according to 40 CFR Part 136 Appendix B	TNTC	Too numerous to count
MF	Membrane Filter	*	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8270 SIM
mg	milligram (1000mg = 1g)	^	When attached to a compound name, indicates this analyte was analyzed by Method SW-846 8011 or EPA 504.1
µg	microgram (1000µg = 1mg)	<	Less than; In conjunction with a numerical value, indicates a concentration less than the RL or MDL.
ml	milliliter (1000ml = 1L)		
µl	microliter (1000µl = 1ml)		
µmhos	Conductivity units - resistance expressed in ohms		
MPN	Most Probable Number		
MS	Matrix Spike		
MSD	Matrix Spike Duplicate		
NA	Not applicable		
NC	Not calculated		

SAMPLE DELIVERY GROUP CASE NARRATIVE
(Conformance / Non-Conformance Summary)

SAMPLE DELIVERY GROUP CASE NARRATIVE

SDG#: E24-02128

Integrated Analytical Laboratories, LLC. received seven (7) samples** from EWMA - HQ (IAL SDG# **E24-02128**, Project: SWIVELIER - 202530) on June 19, 2024 for the analysis of :

(7) TCL VO + 15

**Number of samples listed above may be greater than what is listed on the chain of custody. Any samples that require in-house filtration or splitting will be counted as separate samples.

Samples were received in good condition with documentation in order.
Cooler temperature was acceptable at 4 ± 2 degree C.

Volatiles By SW 8260D	Batch: 240624-01,0625-02	Matrix: Aqueous
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- QC**
- Calibration curve met QC criteria.
 - Internal standards recovery met QC criteria.
 - Surrogate percent recovery met QC criteria.
 - Method blank met QC criteria.
 - LCS percent recovery met QC criteria. NJDEP DKQP criteria not met.
 - MS/MSD RPD met QC criteria.
 - MS/MSD percent recovery met QC criteria. NJDEP DKQP criteria not met.
- E24-02128**
- All samples were received within holding time.
 - All samples were analyzed within holding time.

Dilution Summary:

Sample ID	DF(s)	Dilution For
E24-02128-001	50;100	Target compound(s).
E24-02128-002	1	NA
E24-02128-003	50;100	Target compound(s).
E24-02128-004	50;100	Target compound(s).
E24-02128-005	1	NA
E24-02128-006	1	NA
E24-02128-007	1	NA

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:


Reviewed by

7/8/2024
Date

**DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE
SUMMARY QUESTIONNAIRE**

Laboratory Name: Integrated Analytical Laboratories

Client: Environmental Waste Management Associates, LLC.

Project Location: SWIVELIER - 202530

IAL Project #: E24-02128

IAL Sample ID(s): E24-02128-001 ~ -007

Sampling Date(s): 6/18/2024

List of DKQP Method Used:

TCL VO by 8260D

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information is provided in the case narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Data of Known Quality."

		YES	NO	N/A
1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	X		
1A	Were the method specified handling, preservation, and holding time requirements met?	X		
1B	EPH Method: Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)			X
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	X		
3	Were samples received at an appropriate temperature (4±2° C)?	X		
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?		X	
5A	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	X		
5B	Were these reporting limits met?	X		
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	X		
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?		X	

RESULTS SUMMARY REPORT

INTEGRATED ANALYTICAL LABORATORIES, LLC

SUMMARY REPORT

Client: Environmental Waste Management Associates, LLC.

Project: SWIVELIER - 202530

Lab Case No.: E24-02128

Lab ID:	02128-001	02128-002	02128-003	02128-004
Client ID:	MW-10D	MW-11D	MW-13D	DUP-1
Matrix:	Aqueous	Aqueous	Aqueous	Aqueous
Sampled Date	6/18/24	6/19/24	6/19/24	6/19/24
PARAMETER(Units)	Conc Q MDL	Conc Q MDL	Conc Q MDL	Conc Q MDL
Volatiles (Units)	<i>(ug/L)</i>	<i>(ug/L)</i>	<i>(ug/L)</i>	<i>(ug/L)</i>
Vinyl chloride	44.8 D 17.6	ND 0.352	49.7 D 17.6	58.8 D 17.6
trans-1,2-Dichloroethene	21.8 DJ 18.6	ND 0.372	24.7 DJ 18.6	ND 18.6
cis-1,2-Dichloroethene	7740 D 13.9	1.38 0.277	7700 D 13.9	8130 D 13.9
Trichloroethene	12800 D 34.7	1.55 0.347	15000 D 34.7	15000 D 34.7
Tetrachloroethene	43.8 D 18.3	ND 0.365	43.2 D 18.3	39.9 D 18.3
1,4-Dichlorobenzene	ND 19.9	ND 0.397	29.2 D 19.9	ND 19.9
1,2-Dichlorobenzene	66.6 D 17.7	ND 0.354	154 D 17.7	175 D 17.7
Cyclohexane	66.5 D 23.5	ND 0.469	ND 23.5	ND 23.5
TOTAL VO's:	20800 DJ	2.93	23000 DJ	23400 D
TOTAL TIC's:	ND	ND	ND	ND
TOTAL VO's & TIC's:	20800 DJ	2.93	23000 DJ	23400 D

Lab ID:	02128-005	02128-006	02128-007
Client ID:	FB-1-061824	FB-2-061924	TB-061824
Matrix:	Aqueous	Aqueous	Aqueous
Sampled Date	6/18/24	6/19/24	6/18/24
PARAMETER(Units)	Conc Q MDL	Conc Q MDL	Conc Q MDL
Volatiles (Units)	<i>(ug/L)</i>	<i>(ug/L)</i>	<i>(ug/L)</i>
TOTAL VO's:	ND	ND	ND
TOTAL TIC's:	ND	ND	ND
TOTAL VO's & TIC's:	ND	ND	ND

ND = Analyzed for but Not Detected at the MDL

D = The compound was reported from the Diluted analysis

All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.

J = Indicates an estimated value either when the concentration in the sample is greater than MDL and less than RL, or for qualification of TICs

ANALYTICAL RESULTS

VOLATILE ORGANICS

Lab ID: E24-02128-001
 Client ID: MW-10D
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9536.D 06/24/2024 18:18

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		50.0	27.6
Chloromethane	ND		25.0	15.5
Vinyl chloride	44.8	D	25.0	17.6
Bromomethane	ND		25.0	19.3
Chloroethane	ND		25.0	16.2
Trichlorofluoromethane	ND		50.0	25.2
1,1-Dichloroethene	ND		25.0	18.2
Acetone	ND		50.0	50.0
Carbon disulfide	ND		25.0	20.2
Methylene chloride	ND		50.0	25.0
trans-1,2-Dichloroethene	21.8	DJ	25.0	18.6
Methyl tert-butyl ether (MTBE)	ND		25.0	12.3
1,1-Dichloroethane	ND		25.0	14.3
cis-1,2-Dichloroethene	7740	D	25.0	13.9
2-Butanone (MEK)	ND		50.0	40.1
Bromochloromethane	ND		25.0	19.0
Chloroform	ND		25.0	14.3
1,1,1-Trichloroethane	ND		25.0	19.1
Carbon tetrachloride	ND		25.0	17.5
1,2-Dichloroethane (EDC)	ND		25.0	13.7
Benzene	ND		25.0	13.5
Trichloroethene	12900	E	25.0	17.4
1,2-Dichloropropane	ND		25.0	13.6
Bromodichloromethane	ND		25.0	12.9
cis-1,3-Dichloropropene	ND		25.0	13.2
4-Methyl-2-pentanone (MIBK)	ND		50.0	30.6

VOLATILE ORGANICS

Lab ID: E24-02128-001
Client ID: MW-10D
Date Received: 06/19/2024
Date Analyzed: 06/24/2024
Data file: E9536.D 06/24/2024 18:18

GC/MS Column: DB-624
Sample wt/vol: 0.1mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Toluene	ND		25.0	15.1
trans-1,3-Dichloropropene	ND		25.0	16.5
1,1,2-Trichloroethane	ND		25.0	15.7
Tetrachloroethene	43.8	D	25.0	18.3
2-Hexanone	ND		50.0	40.9
Dibromochloromethane	ND		25.0	13.2
1,2-Dibromoethane (EDB)	ND		25.0	14.5
Chlorobenzene	ND		25.0	15.2
Ethylbenzene	ND		25.0	15.7
Total Xylenes	ND		50.0	17.3
Styrene	ND		25.0	15.9
Bromoform	ND		25.0	16.4
Isopropylbenzene	ND		25.0	16.6
1,1,2,2-Tetrachloroethane	ND		25.0	14.2
1,3-Dichlorobenzene	ND		25.0	19.3
1,4-Dichlorobenzene	ND		25.0	19.9
1,2-Dichlorobenzene	66.6	D	25.0	17.7
1,2-Dibromo-3-chloropropane	ND		25.0	20.5
1,2,4-Trichlorobenzene	ND		25.0	17.9
1,2,3-Trichlorobenzene	ND		25.0	20.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	26.9
Methyl acetate	ND		25.0	17.3
Cyclohexane	66.5	D	50.0	23.5
Methylcyclohexane	ND		25.0	21.1
1,3-Dichloropropene (cis- and trans-)	ND		25.0	13.2
Total Target Compounds (51):	20900	DEJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-001
 Client ID: MW-10D
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Date File: E9536.D

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 50
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E24-02128-001DL
 Client ID: MW-10D
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Data file: E9565.D 06/25/2024 20:34

GC/MS Column: DB-624
 Sample wt/vol: 0.05mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		100	55.2
Chloromethane	ND		50.0	30.9
Vinyl chloride	ND		50.0	35.2
Bromomethane	ND		50.0	38.6
Chloroethane	ND		50.0	32.4
Trichlorofluoromethane	ND		100	50.3
1,1-Dichloroethene	ND		50.0	36.3
Acetone	ND		100	100
Carbon disulfide	ND		50.0	40.3
Methylene chloride	ND		100	50.0
trans-1,2-Dichloroethene	ND		50.0	37.2
Methyl tert-butyl ether (MTBE)	ND		50.0	24.5
1,1-Dichloroethane	ND		50.0	28.5
cis-1,2-Dichloroethene	7610	D	50.0	27.7
2-Butanone (MEK)	ND		100	80.2
Bromochloromethane	ND		50.0	37.9
Chloroform	ND		50.0	28.5
1,1,1-Trichloroethane	ND		50.0	38.1
Carbon tetrachloride	ND		50.0	34.9
1,2-Dichloroethane (EDC)	ND		50.0	27.3
Benzene	ND		50.0	27.0
Trichloroethene	12800	D	50.0	34.7
1,2-Dichloropropane	ND		50.0	27.2
Bromodichloromethane	ND		50.0	25.8
cis-1,3-Dichloropropene	ND		50.0	26.4
4-Methyl-2-pentanone (MIBK)	ND		100	61.1

VOLATILE ORGANICS

Lab ID: E24-02128-001DL
 Client ID: MW-10D
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Data file: E9565.D 06/25/2024 20:34

GC/MS Column: DB-624
 Sample wt/vol: 0.05mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		50.0	30.2
trans-1,3-Dichloropropene	ND		50.0	33.0
1,1,2-Trichloroethane	ND		50.0	31.3
Tetrachloroethene	ND		50.0	36.5
2-Hexanone	ND		100	81.8
Dibromochloromethane	ND		50.0	26.3
1,2-Dibromoethane (EDB)	ND		50.0	28.9
Chlorobenzene	ND		50.0	30.4
Ethylbenzene	ND		50.0	31.3
Total Xylenes	ND		100	34.5
Styrene	ND		50.0	31.7
Bromoform	ND		50.0	32.8
Isopropylbenzene	ND		50.0	33.2
1,1,2,2-Tetrachloroethane	ND		50.0	28.4
1,3-Dichlorobenzene	ND		50.0	38.6
1,4-Dichlorobenzene	ND		50.0	39.7
1,2-Dichlorobenzene	ND		50.0	35.4
1,2-Dibromo-3-chloropropane	ND		50.0	41.0
1,2,4-Trichlorobenzene	ND		50.0	35.8
1,2,3-Trichlorobenzene	ND		50.0	40.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	53.8
Methyl acetate	ND		50.0	34.5
Cyclohexane	ND		100	46.9
Methylcyclohexane	ND		50.0	42.1
1,3-Dichloropropene (cis- and trans-)	ND		50.0	26.4

Total Target Compounds (51): 20400 D

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS

Lab ID: E24-02128-002
 Client ID: MW-11D
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9535.D 06/24/2024 17:50

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.552
Chloromethane	ND		0.500	0.309
Vinyl chloride	ND		0.500	0.352
Bromomethane	ND		0.500	0.386
Chloroethane	ND		0.500	0.324
Trichlorofluoromethane	ND		1.00	0.503
1,1-Dichloroethene	ND		0.500	0.363
Acetone	ND		1.00	1.00
Carbon disulfide	ND		0.500	0.403
Methylene chloride	ND		1.00	0.500
trans-1,2-Dichloroethene	ND		0.500	0.372
Methyl tert-butyl ether (MTBE)	ND		0.500	0.245
1,1-Dichloroethane	ND		0.500	0.285
cis-1,2-Dichloroethene	1.38		0.500	0.277
2-Butanone (MEK)	ND		1.00	0.802
Bromochloromethane	ND		0.500	0.379
Chloroform	ND		0.500	0.285
1,1,1-Trichloroethane	ND		0.500	0.381
Carbon tetrachloride	ND		0.500	0.349
1,2-Dichloroethane (EDC)	ND		0.500	0.273
Benzene	ND		0.500	0.270
Trichloroethene	1.55		0.500	0.347
1,2-Dichloropropane	ND		0.500	0.272
Bromodichloromethane	ND		0.500	0.258
cis-1,3-Dichloropropene	ND		0.500	0.264
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.611

VOLATILE ORGANICS

Lab ID: E24-02128-002
Client ID: MW-11D
Date Received: 06/19/2024
Date Analyzed: 06/24/2024
Data file: E9535.D 06/24/2024 17:50

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.302
trans-1,3-Dichloropropene	ND		0.500	0.330
1,1,2-Trichloroethane	ND		0.500	0.313
Tetrachloroethene	ND		0.500	0.365
2-Hexanone	ND		1.00	0.818
Dibromochloromethane	ND		0.500	0.263
1,2-Dibromoethane (EDB)	ND		0.500	0.289
Chlorobenzene	ND		0.500	0.304
Ethylbenzene	ND		0.500	0.313
Total Xylenes	ND		1.00	0.345
Styrene	ND		0.500	0.317
Bromoform	ND		0.500	0.328
Isopropylbenzene	ND		0.500	0.332
1,1,2,2-Tetrachloroethane	ND		0.500	0.284
1,3-Dichlorobenzene	ND		0.500	0.386
1,4-Dichlorobenzene	ND		0.500	0.397
1,2-Dichlorobenzene	ND		0.500	0.354
1,2-Dibromo-3-chloropropane	ND		0.500	0.410
1,2,4-Trichlorobenzene	ND		0.500	0.358
1,2,3-Trichlorobenzene	ND		0.500	0.406
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.538
Methyl acetate	ND		0.500	0.345
Cyclohexane	ND		1.00	0.469
Methylcyclohexane	ND		0.500	0.421
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.264

Total Target Compounds (51): 2.93

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-002
 Client ID: MW-11D
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Date File: E9535.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 1
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E24-02128-003
 Client ID: MW-13D
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9537.D 06/24/2024 18:45

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		50.0	27.6
Chloromethane	ND		25.0	15.5
Vinyl chloride	49.7	D	25.0	17.6
Bromomethane	ND		25.0	19.3
Chloroethane	ND		25.0	16.2
Trichlorofluoromethane	ND		50.0	25.2
1,1-Dichloroethene	ND		25.0	18.2
Acetone	ND		50.0	50.0
Carbon disulfide	ND		25.0	20.2
Methylene chloride	ND		50.0	25.0
trans-1,2-Dichloroethene	24.7	DJ	25.0	18.6
Methyl tert-butyl ether (MTBE)	ND		25.0	12.3
1,1-Dichloroethane	ND		25.0	14.3
cis-1,2-Dichloroethene	7700	D	25.0	13.9
2-Butanone (MEK)	ND		50.0	40.1
Bromochloromethane	ND		25.0	19.0
Chloroform	ND		25.0	14.3
1,1,1-Trichloroethane	ND		25.0	19.1
Carbon tetrachloride	ND		25.0	17.5
1,2-Dichloroethane (EDC)	ND		25.0	13.7
Benzene	ND		25.0	13.5
Trichloroethene	14500	E	25.0	17.4
1,2-Dichloropropane	ND		25.0	13.6
Bromodichloromethane	ND		25.0	12.9
cis-1,3-Dichloropropene	ND		25.0	13.2
4-Methyl-2-pentanone (MIBK)	ND		50.0	30.6

VOLATILE ORGANICS

Lab ID: E24-02128-003
Client ID: MW-13D
Date Received: 06/19/2024
Date Analyzed: 06/24/2024
Data file: E9537.D 06/24/2024 18:45

GC/MS Column: DB-624
Sample wt/vol: 0.1mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Toluene	ND		25.0	15.1
trans-1,3-Dichloropropene	ND		25.0	16.5
1,1,2-Trichloroethane	ND		25.0	15.7
Tetrachloroethene	43.2	D	25.0	18.3
2-Hexanone	ND		50.0	40.9
Dibromochloromethane	ND		25.0	13.2
1,2-Dibromoethane (EDB)	ND		25.0	14.5
Chlorobenzene	ND		25.0	15.2
Ethylbenzene	ND		25.0	15.7
Total Xylenes	ND		50.0	17.3
Styrene	ND		25.0	15.9
Bromoform	ND		25.0	16.4
Isopropylbenzene	ND		25.0	16.6
1,1,2,2-Tetrachloroethane	ND		25.0	14.2
1,3-Dichlorobenzene	ND		25.0	19.3
1,4-Dichlorobenzene	29.2	D	25.0	19.9
1,2-Dichlorobenzene	154	D	25.0	17.7
1,2-Dibromo-3-chloropropane	ND		25.0	20.5
1,2,4-Trichlorobenzene	ND		25.0	17.9
1,2,3-Trichlorobenzene	ND		25.0	20.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	26.9
Methyl acetate	ND		25.0	17.3
Cyclohexane	ND		50.0	23.5
Methylcyclohexane	ND		25.0	21.1
1,3-Dichloropropene (cis- and trans-)	ND		25.0	13.2

Total Target Compounds (51): 22500 DEJ

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-003
 Client ID: MW-13D
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Date File: E9537.D

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 50
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E24-02128-003DL
 Client ID: MW-13D
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Data file: E9566.D 06/25/2024 21:02

GC/MS Column: DB-624
 Sample wt/vol: 0.05mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		100	55.2
Chloromethane	ND		50.0	30.9
Vinyl chloride	57.7	D	50.0	35.2
Bromomethane	ND		50.0	38.6
Chloroethane	ND		50.0	32.4
Trichlorofluoromethane	ND		100	50.3
1,1-Dichloroethene	ND		50.0	36.3
Acetone	ND		100	100
Carbon disulfide	ND		50.0	40.3
Methylene chloride	ND		100	50.0
trans-1,2-Dichloroethene	42.3	DJ	50.0	37.2
Methyl tert-butyl ether (MTBE)	ND		50.0	24.5
1,1-Dichloroethane	ND		50.0	28.5
cis-1,2-Dichloroethene	7800	D	50.0	27.7
2-Butanone (MEK)	ND		100	80.2
Bromochloromethane	ND		50.0	37.9
Chloroform	ND		50.0	28.5
1,1,1-Trichloroethane	ND		50.0	38.1
Carbon tetrachloride	ND		50.0	34.9
1,2-Dichloroethane (EDC)	ND		50.0	27.3
Benzene	ND		50.0	27.0
Trichloroethene	15000	D	50.0	34.7
1,2-Dichloropropane	ND		50.0	27.2
Bromodichloromethane	ND		50.0	25.8
cis-1,3-Dichloropropene	ND		50.0	26.4
4-Methyl-2-pentanone (MIBK)	ND		100	61.1

VOLATILE ORGANICS

Lab ID: E24-02128-003DL
Client ID: MW-13D
Date Received: 06/19/2024
Date Analyzed: 06/25/2024
Data file: E9566.D 06/25/2024 21:02

GC/MS Column: DB-624
Sample wt/vol: 0.05mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		50.0	30.2
trans-1,3-Dichloropropene	ND		50.0	33.0
1,1,2-Trichloroethane	ND		50.0	31.3
Tetrachloroethene	46.0	DJ	50.0	36.5
2-Hexanone	ND		100	81.8
Dibromochloromethane	ND		50.0	26.3
1,2-Dibromoethane (EDB)	ND		50.0	28.9
Chlorobenzene	ND		50.0	30.4
Ethylbenzene	ND		50.0	31.3
Total Xylenes	ND		100	34.5
Styrene	ND		50.0	31.7
Bromoform	ND		50.0	32.8
Isopropylbenzene	ND		50.0	33.2
1,1,2,2-Tetrachloroethane	ND		50.0	28.4
1,3-Dichlorobenzene	ND		50.0	38.6
1,4-Dichlorobenzene	ND		50.0	39.7
1,2-Dichlorobenzene	183	D	50.0	35.4
1,2-Dibromo-3-chloropropane	ND		50.0	41.0
1,2,4-Trichlorobenzene	ND		50.0	35.8
1,2,3-Trichlorobenzene	ND		50.0	40.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	53.8
Methyl acetate	ND		50.0	34.5
Cyclohexane	ND		100	46.9
Methylcyclohexane	ND		50.0	42.1
1,3-Dichloropropene (cis- and trans-)	ND		50.0	26.4
Total Target Compounds (51):	23100	DJ		

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS

Lab ID: E24-02128-004
 Client ID: DUP-1
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9538.D 06/24/2024 19:12

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		50.0	27.6
Chloromethane	ND		25.0	15.5
Vinyl chloride	58.8	D	25.0	17.6
Bromomethane	ND		25.0	19.3
Chloroethane	ND		25.0	16.2
Trichlorofluoromethane	ND		50.0	25.2
1,1-Dichloroethene	ND		25.0	18.2
Acetone	ND		50.0	50.0
Carbon disulfide	ND		25.0	20.2
Methylene chloride	ND		50.0	25.0
trans-1,2-Dichloroethene	ND		25.0	18.6
Methyl tert-butyl ether (MTBE)	ND		25.0	12.3
1,1-Dichloroethane	ND		25.0	14.3
cis-1,2-Dichloroethene	8130	D	25.0	13.9
2-Butanone (MEK)	ND		50.0	40.1
Bromochloromethane	ND		25.0	19.0
Chloroform	ND		25.0	14.3
1,1,1-Trichloroethane	ND		25.0	19.1
Carbon tetrachloride	ND		25.0	17.5
1,2-Dichloroethane (EDC)	ND		25.0	13.7
Benzene	ND		25.0	13.5
Trichloroethene	15400	E	25.0	17.4
1,2-Dichloropropane	ND		25.0	13.6
Bromodichloromethane	ND		25.0	12.9
cis-1,3-Dichloropropene	ND		25.0	13.2
4-Methyl-2-pentanone (MIBK)	ND		50.0	30.6

VOLATILE ORGANICS

Lab ID: E24-02128-004
 Client ID: DUP-1
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9538.D 06/24/2024 19:12

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 50

Compound	Concentration	Q	RL	MDL
Toluene	ND		25.0	15.1
trans-1,3-Dichloropropene	ND		25.0	16.5
1,1,2-Trichloroethane	ND		25.0	15.7
Tetrachloroethene	39.9	D	25.0	18.3
2-Hexanone	ND		50.0	40.9
Dibromochloromethane	ND		25.0	13.2
1,2-Dibromoethane (EDB)	ND		25.0	14.5
Chlorobenzene	ND		25.0	15.2
Ethylbenzene	ND		25.0	15.7
Total Xylenes	ND		50.0	17.3
Styrene	ND		25.0	15.9
Bromoform	ND		25.0	16.4
Isopropylbenzene	ND		25.0	16.6
1,1,2,2-Tetrachloroethane	ND		25.0	14.2
1,3-Dichlorobenzene	ND		25.0	19.3
1,4-Dichlorobenzene	ND		25.0	19.9
1,2-Dichlorobenzene	175	D	25.0	17.7
1,2-Dibromo-3-chloropropane	ND		25.0	20.5
1,2,4-Trichlorobenzene	ND		25.0	17.9
1,2,3-Trichlorobenzene	ND		25.0	20.3
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50.0	26.9
Methyl acetate	ND		25.0	17.3
Cyclohexane	ND		50.0	23.5
Methylcyclohexane	ND		25.0	21.1
1,3-Dichloropropene (cis- and trans-)	ND		25.0	13.2
Total Target Compounds (51):	23800	DE		

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-004
 Client ID: DUP-1
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Date File: E9538.D

GC/MS Column: DB-624
 Sample wt/vol: 0.1mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 50
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E24-02128-004DL
 Client ID: DUP-1
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Data file: E9567.D 06/25/2024 21:30

GC/MS Column: DB-624
 Sample wt/vol: 0.05mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 100

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		100	55.2
Chloromethane	ND		50.0	30.9
Vinyl chloride	54.1	D	50.0	35.2
Bromomethane	ND		50.0	38.6
Chloroethane	ND		50.0	32.4
Trichlorofluoromethane	ND		100	50.3
1,1-Dichloroethene	ND		50.0	36.3
Acetone	ND		100	100
Carbon disulfide	ND		50.0	40.3
Methylene chloride	ND		100	50.0
trans-1,2-Dichloroethene	ND		50.0	37.2
Methyl tert-butyl ether (MTBE)	ND		50.0	24.5
1,1-Dichloroethane	ND		50.0	28.5
cis-1,2-Dichloroethene	7800	D	50.0	27.7
2-Butanone (MEK)	ND		100	80.2
Bromochloromethane	ND		50.0	37.9
Chloroform	ND		50.0	28.5
1,1,1-Trichloroethane	ND		50.0	38.1
Carbon tetrachloride	ND		50.0	34.9
1,2-Dichloroethane (EDC)	ND		50.0	27.3
Benzene	ND		50.0	27.0
Trichloroethene	15000	D	50.0	34.7
1,2-Dichloropropane	ND		50.0	27.2
Bromodichloromethane	ND		50.0	25.8
cis-1,3-Dichloropropene	ND		50.0	26.4
4-Methyl-2-pentanone (MIBK)	ND		100	61.1

VOLATILE ORGANICS

Lab ID: E24-02128-004DL
Client ID: DUP-1
Date Received: 06/19/2024
Date Analyzed: 06/25/2024
Data file: E9567.D 06/25/2024 21:30

GC/MS Column: DB-624
Sample wt/vol: 0.05mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 100

Compound	Concentration	Q	RL	MDL
Toluene	ND		50.0	30.2
trans-1,3-Dichloropropene	ND		50.0	33.0
1,1,2-Trichloroethane	ND		50.0	31.3
Tetrachloroethene	44.0	DJ	50.0	36.5
2-Hexanone	ND		100	81.8
Dibromochloromethane	ND		50.0	26.3
1,2-Dibromoethane (EDB)	ND		50.0	28.9
Chlorobenzene	ND		50.0	30.4
Ethylbenzene	ND		50.0	31.3
Total Xylenes	ND		100	34.5
Styrene	ND		50.0	31.7
Bromoform	ND		50.0	32.8
Isopropylbenzene	ND		50.0	33.2
1,1,2,2-Tetrachloroethane	ND		50.0	28.4
1,3-Dichlorobenzene	ND		50.0	38.6
1,4-Dichlorobenzene	ND		50.0	39.7
1,2-Dichlorobenzene	156	D	50.0	35.4
1,2-Dibromo-3-chloropropane	ND		50.0	41.0
1,2,4-Trichlorobenzene	ND		50.0	35.8
1,2,3-Trichlorobenzene	ND		50.0	40.6
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	53.8
Methyl acetate	ND		50.0	34.5
Cyclohexane	ND		100	46.9
Methylcyclohexane	ND		50.0	42.1
1,3-Dichloropropene (cis- and trans-)	ND		50.0	26.4

Total Target Compounds (51): 23100 DJ

D --- Dilution Performed
J --- Value Less than RL & greater than MDL
E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
C --- Common laboratory contamination

VOLATILE ORGANICS

Lab ID: E24-02128-005
 Client ID: FB-1-061824
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9523.D 06/24/2024 12:21

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.552
Chloromethane	ND		0.500	0.309
Vinyl chloride	ND		0.500	0.352
Bromomethane	ND		0.500	0.386
Chloroethane	ND		0.500	0.324
Trichlorofluoromethane	ND		1.00	0.503
1,1-Dichloroethene	ND		0.500	0.363
Acetone	ND		1.00	1.00
Carbon disulfide	ND		0.500	0.403
Methylene chloride	ND		1.00	0.500
trans-1,2-Dichloroethene	ND		0.500	0.372
Methyl tert-butyl ether (MTBE)	ND		0.500	0.245
1,1-Dichloroethane	ND		0.500	0.285
cis-1,2-Dichloroethene	ND		0.500	0.277
2-Butanone (MEK)	ND		1.00	0.802
Bromochloromethane	ND		0.500	0.379
Chloroform	ND		0.500	0.285
1,1,1-Trichloroethane	ND		0.500	0.381
Carbon tetrachloride	ND		0.500	0.349
1,2-Dichloroethane (EDC)	ND		0.500	0.273
Benzene	ND		0.500	0.270
Trichloroethene	ND		0.500	0.347
1,2-Dichloropropane	ND		0.500	0.272
Bromodichloromethane	ND		0.500	0.258
cis-1,3-Dichloropropene	ND		0.500	0.264
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.611

VOLATILE ORGANICS

Lab ID: E24-02128-005
 Client ID: FB-1-061824
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9523.D 06/24/2024 12:21

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.302
trans-1,3-Dichloropropene	ND		0.500	0.330
1,1,2-Trichloroethane	ND		0.500	0.313
Tetrachloroethene	ND		0.500	0.365
2-Hexanone	ND		1.00	0.818
Dibromochloromethane	ND		0.500	0.263
1,2-Dibromoethane (EDB)	ND		0.500	0.289
Chlorobenzene	ND		0.500	0.304
Ethylbenzene	ND		0.500	0.313
Total Xylenes	ND		1.00	0.345
Styrene	ND		0.500	0.317
Bromoform	ND		0.500	0.328
Isopropylbenzene	ND		0.500	0.332
1,1,2,2-Tetrachloroethane	ND		0.500	0.284
1,3-Dichlorobenzene	ND		0.500	0.386
1,4-Dichlorobenzene	ND		0.500	0.397
1,2-Dichlorobenzene	ND		0.500	0.354
1,2-Dibromo-3-chloropropane	ND		0.500	0.410
1,2,4-Trichlorobenzene	ND		0.500	0.358
1,2,3-Trichlorobenzene	ND		0.500	0.406
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.538
Methyl acetate	ND		0.500	0.345
Cyclohexane	ND		1.00	0.469
Methylcyclohexane	ND		0.500	0.421
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.264

Total Target Compounds (51): 0

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-005
 Client ID: FB-1-061824
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Date File: E9523.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 1
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E24-02128-006
 Client ID: FB-2-061924
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9524.D 06/24/2024 12:49

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.552
Chloromethane	ND		0.500	0.309
Vinyl chloride	ND		0.500	0.352
Bromomethane	ND		0.500	0.386
Chloroethane	ND		0.500	0.324
Trichlorofluoromethane	ND		1.00	0.503
1,1-Dichloroethene	ND		0.500	0.363
Acetone	ND		1.00	1.00
Carbon disulfide	ND		0.500	0.403
Methylene chloride	ND		1.00	0.500
trans-1,2-Dichloroethene	ND		0.500	0.372
Methyl tert-butyl ether (MTBE)	ND		0.500	0.245
1,1-Dichloroethane	ND		0.500	0.285
cis-1,2-Dichloroethene	ND		0.500	0.277
2-Butanone (MEK)	ND		1.00	0.802
Bromochloromethane	ND		0.500	0.379
Chloroform	ND		0.500	0.285
1,1,1-Trichloroethane	ND		0.500	0.381
Carbon tetrachloride	ND		0.500	0.349
1,2-Dichloroethane (EDC)	ND		0.500	0.273
Benzene	ND		0.500	0.270
Trichloroethene	ND		0.500	0.347
1,2-Dichloropropane	ND		0.500	0.272
Bromodichloromethane	ND		0.500	0.258
cis-1,3-Dichloropropene	ND		0.500	0.264
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.611

VOLATILE ORGANICS

Lab ID: E24-02128-006
 Client ID: FB-2-061924
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Data file: E9524.D 06/24/2024 12:49

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.302
trans-1,3-Dichloropropene	ND		0.500	0.330
1,1,2-Trichloroethane	ND		0.500	0.313
Tetrachloroethene	ND		0.500	0.365
2-Hexanone	ND		1.00	0.818
Dibromochloromethane	ND		0.500	0.263
1,2-Dibromoethane (EDB)	ND		0.500	0.289
Chlorobenzene	ND		0.500	0.304
Ethylbenzene	ND		0.500	0.313
Total Xylenes	ND		1.00	0.345
Styrene	ND		0.500	0.317
Bromoform	ND		0.500	0.328
Isopropylbenzene	ND		0.500	0.332
1,1,2,2-Tetrachloroethane	ND		0.500	0.284
1,3-Dichlorobenzene	ND		0.500	0.386
1,4-Dichlorobenzene	ND		0.500	0.397
1,2-Dichlorobenzene	ND		0.500	0.354
1,2-Dibromo-3-chloropropane	ND		0.500	0.410
1,2,4-Trichlorobenzene	ND		0.500	0.358
1,2,3-Trichlorobenzene	ND		0.500	0.406
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.538
Methyl acetate	ND		0.500	0.345
Cyclohexane	ND		1.00	0.469
Methylcyclohexane	ND		0.500	0.421
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.264

Total Target Compounds (51): 0

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-006
 Client ID: FB-2-061924
 Date Received: 06/19/2024
 Date Analyzed: 06/24/2024
 Date File: E9524.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 1
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

Lab ID: E24-02128-007
 Client ID: TB-061824
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Data file: E9551.D 06/25/2024 14:09

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.552
Chloromethane	ND		0.500	0.309
Vinyl chloride	ND		0.500	0.352
Bromomethane	ND		0.500	0.386
Chloroethane	ND		0.500	0.324
Trichlorofluoromethane	ND		1.00	0.503
1,1-Dichloroethene	ND		0.500	0.363
Acetone	ND		1.00	1.00
Carbon disulfide	ND		0.500	0.403
Methylene chloride	ND		1.00	0.500
trans-1,2-Dichloroethene	ND		0.500	0.372
Methyl tert-butyl ether (MTBE)	ND		0.500	0.245
1,1-Dichloroethane	ND		0.500	0.285
cis-1,2-Dichloroethene	ND		0.500	0.277
2-Butanone (MEK)	ND		1.00	0.802
Bromochloromethane	ND		0.500	0.379
Chloroform	ND		0.500	0.285
1,1,1-Trichloroethane	ND		0.500	0.381
Carbon tetrachloride	ND		0.500	0.349
1,2-Dichloroethane (EDC)	ND		0.500	0.273
Benzene	ND		0.500	0.270
Trichloroethene	ND		0.500	0.347
1,2-Dichloropropane	ND		0.500	0.272
Bromodichloromethane	ND		0.500	0.258
cis-1,3-Dichloropropene	ND		0.500	0.264
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.611

VOLATILE ORGANICS

Lab ID: E24-02128-007
 Client ID: TB-061824
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Data file: E9551.D 06/25/2024 14:09

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.302
trans-1,3-Dichloropropene	ND		0.500	0.330
1,1,2-Trichloroethane	ND		0.500	0.313
Tetrachloroethene	ND		0.500	0.365
2-Hexanone	ND		1.00	0.818
Dibromochloromethane	ND		0.500	0.263
1,2-Dibromoethane (EDB)	ND		0.500	0.289
Chlorobenzene	ND		0.500	0.304
Ethylbenzene	ND		0.500	0.313
Total Xylenes	ND		1.00	0.345
Styrene	ND		0.500	0.317
Bromoform	ND		0.500	0.328
Isopropylbenzene	ND		0.500	0.332
1,1,2,2-Tetrachloroethane	ND		0.500	0.284
1,3-Dichlorobenzene	ND		0.500	0.386
1,4-Dichlorobenzene	ND		0.500	0.397
1,2-Dichlorobenzene	ND		0.500	0.354
1,2-Dibromo-3-chloropropane	ND		0.500	0.410
1,2,4-Trichlorobenzene	ND		0.500	0.358
1,2,3-Trichlorobenzene	ND		0.500	0.406
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.538
Methyl acetate	ND		0.500	0.345
Cyclohexane	ND		1.00	0.469
Methylcyclohexane	ND		0.500	0.421
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.264

Total Target Compounds (51): 0

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: E24-02128-007
 Client ID: TB-061824
 Date Received: 06/19/2024
 Date Analyzed: 06/25/2024
 Date File: E9551.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 1
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

D --- Dilution Performed

J --- Estimated concentration for TICs

N --- Presumptive evidence of a compound from the use of GC/MS NIST library search

VOLATILE ORGANICS

VOLATILE ORGANICS QC SUMMARY

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 06/24/2024

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA240624-01	AQUEOUS	E9520.D	99	101	100
E24-02091-005	AQUEOUS	E9521.D	104	101	99
E24-02091-004	AQUEOUS	E9522.D	103	101	100
E24-02128-005	AQUEOUS	E9523.D	104	102	100
E24-02128-006	AQUEOUS	E9524.D	106	102	102
E24-02124-006	AQUEOUS	E9525.D	110	101	97
E24-02124-005	AQUEOUS	E9526.D	109	101	98
E24-02091-001	AQUEOUS	E9527.D	109	101	100
E24-02091-001DUP	AQUEOUS	E9528.D	109	101	100
E24-02091-002	AQUEOUS	E9529.D	108	102	101
E24-02091-003	AQUEOUS	E9530.D	107	102	97
E24-02124-001	AQUEOUS	E9531.D	108	103	98
E24-02124-002	AQUEOUS	E9532.D	114	100	103
E24-02124-003	AQUEOUS	E9533.D	107	99	100
E24-02124-004	AQUEOUS	E9534.D	107	103	101
E24-02128-002	AQUEOUS	E9535.D	119	99	103
E24-02128-001	AQUEOUS	E9536.D	110	103	104
E24-02128-003	AQUEOUS	E9537.D	112	99	101
E24-02128-004	AQUEOUS	E9538.D	111	101	102
E24-02132-004	AQUEOUS	E9539.D	108	102	100
E24-02107-005DL	AQUEOUS	E9540.D	109	104	107
E24-02107-012	AQUEOUS	E9541.D	107	101	101
LCSA_240624-01	AQUEOUS	E9542.D	108	108	104
2124-004MS	AQUEOUS	E9543.D	104	102	107

	Concentration	DKQPs	Leachate Aqueous	Soil
SMC1 = 1,2-Dichloroethane-d4	50 ppb	70-130	70-131	51-148
SMC2 = Toluene-d8	50 ppb	70-130	70-130	53-149
SMC3 = Bromofluorobenzene	50 ppb	70-130	70-130	57-147

Column used to flag recovery values that did not meet criteria

* Values outside of QC limits

\$ Values outside of NJ DKQP limits

D Surrogate diluted out

M Matrix interference

FORM 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE SURROGATE PERCENT RECOVERY SUMMARY

Date Analyzed: 06/25/2024

Lab Sample ID	Matrix	File ID	SMC1 #	SMC2 #	SMC3 #
BLKA240625-01	AQUEOUS	E9550.D	103	101	101
E24-02128-007	AQUEOUS	E9551.D	105	101	100
E24-02133-010	AQUEOUS	E9552.D	106	101	102
E24-02133-008	AQUEOUS	E9553.D	107	100	103
E24-02148-011	AQUEOUS	E9554.D	105	101	101
E24-02148-010	AQUEOUS	E9555.D	103	101	101
E24-02148-009	AQUEOUS	E9556.D	108	100	102
E24-02148-001	AQUEOUS	E9557.D	106	103	101
E24-02148-001DUP	AQUEOUS	E9558.D	107	101	101
E24-02148-002	AQUEOUS	E9559.D	106	101	101
E24-02148-004	AQUEOUS	E9560.D	108	99	103
E24-02148-003	AQUEOUS	E9561.D	113	102	101
E24-02148-006	AQUEOUS	E9562.D	104	101	104
E24-02142-022	AQUEOUS	E9563.D	107	100	102
E24-02142-023	AQUEOUS	E9564.D	105	102	105
E24-02128-001DL	AQUEOUS	E9565.D	105	101	102
E24-02128-003DL	AQUEOUS	E9566.D	103	102	104
E24-02128-004DL	AQUEOUS	E9567.D	105	104	104
E24-02148-007	AQUEOUS	E9568.D	105	101	100
E24-02148-008	AQUEOUS	E9569.D	108	103	108
E24-02148-005	AQUEOUS	E9570.D	109	103	107
E24-02142-024	AQUEOUS	E9571.D	99	101	102
LCSA_240625-01	AQUEOUS	E9572.D	105	105	106
2148-004MS	AQUEOUS	E9573.D	100	105	106

Concentration DKQPs Leachate Aqueous Soil

SMC1 = 1,2-Dichloroethane-d4 50 ppb 70-130 70-131 51-148
 SMC2 = Toluene-d8 50 ppb 70-130 70-130 53-149
 SMC3 = Bromofluorobenzene 50 ppb 70-130 70-130 57-147

Column used to flag recovery values that did not meet criteria
 * Values outside of QC limits
 \$ Values outside of NJ DKQP limits
 D Surrogate diluted out
 M Matrix interference

FORM 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

8260

LCS ACCURACY REPORT

Lab ID: LCSA_240624-01
Date Received: 06/10/2024
Date Analyzed: 06/17/2024
LCS Data file: E9542.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	37.8	76		55-148
Chloromethane	50.0	50.8	102		46-136
Vinyl chloride	50.0	54.5	109		64-134
Bromomethane	50.0	53.4	107		62-142
Chloroethane	50.0	56.4	113		80-127
Trichlorofluoromethane	50.0	59.9	120		68-144
Acrolein	150	710.8	474	*\$	10-171
1,1-Dichloroethene	50.0	60.9	122		75-134
Acetone	100	137.5	138	\$	48-142
Carbon disulfide	50.0	53.6	107		64-134
Vinyl acetate	50.0	52.0	104		43-151
Methylene chloride	50.0	36.0	72		71-132
Acrylonitrile	150.0	321.4	214	\$	10-223
tert-Butyl alcohol (TBA)	100.0	123.2	123		64-131
trans-1,2-Dichloroethene	50.0	54.3	109		75-126
Methyl tert-butyl ether (MTBE)	50.0	56.9	114		69-133
1,1-Dichloroethane	50.0	57.5	115		79-125
Diisopropyl ether (DIPE)	50.0	60.8	122	*	79-120
cis-1,2-Dichloroethene	50.0	57.4	115		80-126
2,2-Dichloropropane	50.0	104.0	208	*\$	36-160
2-Butanone (MEK)	100	105.3	105		66-130
Bromochloromethane	50.0	56.8	114		66-132
Chloroform	50.0	55.5	111		75-139
1,1,1-Trichloroethane	50.0	57.9	116		68-151
Carbon tetrachloride	50.0	60.3	121		76-140
1,1-Dichloropropene	50.0	58.8	118		80-134
1,2-Dichloroethane (EDC)	50.0	56.5	113		72-139
Benzene	50.0	55.1	110		80-120
Trichloroethene	50.0	55.6	111		74-139
1,2-Dichloropropane	50.0	59.0	118		73-122
Dibromomethane	50.0	54.6	109		78-136
1,4-Dioxane	1500	0	0	*\$	52-136
Bromodichloromethane	50.0	55.3	111		74-141
2-Chloroethyl vinyl ether	100	119.9	120		73-122
cis-1,3-Dichloropropene	50.0	61.2	122		73-129
4-Methyl-2-pentanone (MIBK)	100	117.9	118		77-124
Toluene	50.0	57.5	115		78-129
trans-1,3-Dichloropropene	50.0	60.7	121		66-135
1,1,2-Trichloroethane	50.0	56.8	114		78-120
Tetrachloroethene	50.0	60.6	121		65-145
1,3-Dichloropropane	50.0	55.9	112		80-122

INTEGRATED ANALYTICAL LABORATORIES, LLC

LCS ACCURACY REPORT

Lab ID: LCSA_240624-01
 Date Received: 06/10/2024
 Date Analyzed: 06/17/2024
 LCS Data file: E9542.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	119.8	120		66-134
Dibromochloromethane	50.0	52.8	106		73-140
1,2-Dibromoethane (EDB)	50.0	54.5	109		73-137
Chlorobenzene	50.0	51.5	103		80-120
1,1,1,2-Tetrachloroethane	50.0	50.0	100		79-130
Ethylbenzene	50.0	55.7	111		80-124
m,p-Xylene	100.0	109.0	109		80-129
o-Xylene	50.0	55.1	110		80-128
Styrene	50.0	57.8	116		80-129
Bromoform	50.0	47.5	95		79-123
Isopropylbenzene	50.0	57.5	115		80-137
1,1,2,2-Tetrachloroethane	50.0	53.1	106		52-128
Bromobenzene	50.0	50.5	101		80-124
1,2,3-Trichloropropane	50.0	48.6	97		77-120
n-Propylbenzene	50.0	59.5	119		80-130
2-Chlorotoluene	50.0	56.6	113		76-136
1,3,5-Trimethylbenzene	50.0	56.0	112		76-140
4-Chlorotoluene	50.0	54.2	108		75-135
tert-Butylbenzene	50.0	57.1	114		78-142
1,2,4-Trimethylbenzene	50.0	56.9	114		74-143
sec-Butylbenzene	50.0	58.4	117		80-133
1,3-Dichlorobenzene	50.0	48.8	98		71-129
4-Isopropyltoluene	50.0	57.2	114		79-136
1,4-Dichlorobenzene	50.0	52.1	104		71-131
n-Butylbenzene	50.0	61.1	122		77-122
1,2-Dichlorobenzene	50.0	51.8	104		70-125
1,2-Dibromo-3-chloropropane	50.0	48.3	97		49-126
1,2,4-Trichlorobenzene	50.0	49.3	99		27-132
Hexachlorobutadiene	50.0	45.1	90		18-141
Naphthalene	50.0	51.7	103		38-140
1,2,3-Trichlorobenzene	50.0	47.8	96		47-131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	52.1	104		68-140
Methyl acetate	50.0	45.6	91		53-124
Cyclohexane	50.0	50.6	101		61-132
Methylcyclohexane	50.0	51.0	102		61-144

Column used to flag recovery and RPD values that did not meet criteria
 * Values outside of QC limits
 \$ Values outside of NJ DKQP limits

LCS ACCURACY REPORT

Lab ID: LCSA_240624-01
Date Received: 06/10/2024
Date Analyzed: 06/17/2024
LCS Data file: E9542.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#
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As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate	
	Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
* Values outside of QC limits
\$ Values outside of NJ DKQP limits
NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES, LLC

8260

LCS ACCURACY REPORT

Lab ID: LCSA_240625-01
Date Received: NA
Date Analyzed: 06/25/2024
LCS Data file: E9572.D

GC/MS Column: DB-624
Sample wt/vol: 5mL
Matrix-Units: Aqueous-µg/L
% Moisture: 100
Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
Dichlorodifluoromethane	50.0	34.3	69	\$	55-148
Chloromethane	50.0	46.7	93		46-136
Vinyl chloride	50.0	53.6	107		64-134
Bromomethane	50.0	53.3	107		62-142
Chloroethane	50.0	61.9	124		80-127
Trichlorofluoromethane	50.0	60.8	122		68-144
Acrolein	150	644.6	430	*\$	10-171
1,1-Dichloroethene	50.0	59.9	120		75-134
Acetone	100	135.0	135	\$	48-142
Carbon disulfide	50.0	54.1	108		64-134
Vinyl acetate	50.0	57.6	115		43-151
Methylene chloride	50.0	56.2	112		71-132
Acrylonitrile	150.0	274.2	183	\$	10-223
tert-Butyl alcohol (TBA)	100.0	116.7	117		64-131
trans-1,2-Dichloroethene	50.0	57.7	115		75-126
Methyl tert-butyl ether (MTBE)	50.0	59.0	118		69-133
1,1-Dichloroethane	50.0	59.8	120		79-125
Diisopropyl ether (DIPE)	50.0	63.5	127	*	79-120
cis-1,2-Dichloroethene	50.0	58.6	117		80-126
2,2-Dichloropropane	50.0	105.6	211	*\$	36-160
2-Butanone (MEK)	100	126.1	126		66-130
Bromochloromethane	50.0	60.6	121		66-132
Chloroform	50.0	55.9	112		75-139
1,1,1-Trichloroethane	50.0	59.8	120		68-151
Carbon tetrachloride	50.0	61.1	122		76-140
1,1-Dichloropropene	50.0	59.0	118		80-134
1,2-Dichloroethane (EDC)	50.0	58.1	116		72-139
Benzene	50.0	55.7	111		80-120
Trichloroethene	50.0	54.4	109		74-139
1,2-Dichloropropane	50.0	57.7	115		73-122
Dibromomethane	50.0	55.2	110		78-136
1,4-Dioxane	1500	0	0	*\$	52-136
Bromodichloromethane	50.0	57.2	114		74-141
2-Chloroethyl vinyl ether	100	121.6	122		73-122
cis-1,3-Dichloropropene	50.0	62.6	125		73-129
4-Methyl-2-pentanone (MIBK)	100	121.7	122		77-124
Toluene	50.0	59.2	118		78-129
trans-1,3-Dichloropropene	50.0	61.2	122		66-135
1,1,2-Trichloroethane	50.0	56.7	113		78-120
Tetrachloroethene	50.0	61.7	123		65-145
1,3-Dichloropropane	50.0	55.8	112		80-122

INTEGRATED ANALYTICAL LABORATORIES, LLC

LCS ACCURACY REPORT

Lab ID: LCSA_240625-01
 Date Received: NA
 Date Analyzed: 06/25/2024
 LCS Data file: E9572.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Conc. Add	Conc. LCS	%Rec. LCS	#	Limits
2-Hexanone	100	121.0	121		66-134
Dibromochloromethane	50.0	55.6	111		73-140
1,2-Dibromoethane (EDB)	50.0	55.8	112		73-137
Chlorobenzene	50.0	52.2	104		80-120
1,1,1,2-Tetrachloroethane	50.0	50.8	102		79-130
Ethylbenzene	50.0	56.3	113		80-124
m,p-Xylene	100.0	113.1	113		80-129
o-Xylene	50.0	56.5	113		80-128
Styrene	50.0	58.9	118		80-129
Bromoform	50.0	50.7	101		79-123
Isopropylbenzene	50.0	59.6	119		80-137
1,1,2,2-Tetrachloroethane	50.0	54.5	109		52-128
Bromobenzene	50.0	52.6	105		80-124
1,2,3-Trichloropropane	50.0	48.5	97		77-120
n-Propylbenzene	50.0	63.3	127		80-130
2-Chlorotoluene	50.0	59.0	118		76-136
1,3,5-Trimethylbenzene	50.0	59.0	118		76-140
4-Chlorotoluene	50.0	55.5	111		75-135
tert-Butylbenzene	50.0	61.7	123		78-142
1,2,4-Trimethylbenzene	50.0	60.6	121		74-143
sec-Butylbenzene	50.0	62.4	125		80-133
1,3-Dichlorobenzene	50.0	51.3	103		71-129
4-Isopropyltoluene	50.0	62.7	125		79-136
1,4-Dichlorobenzene	50.0	54.7	109		71-131
n-Butylbenzene	50.0	68.0	136	*\$	77-122
1,2-Dichlorobenzene	50.0	55.7	111		70-125
1,2-Dibromo-3-chloropropane	50.0	51.4	103		49-126
1,2,4-Trichlorobenzene	50.0	58.5	117		27-132
Hexachlorobutadiene	50.0	54.8	110		18-141
Naphthalene	50.0	58.8	118		38-140
1,2,3-Trichlorobenzene	50.0	55.5	111		47-131
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	51.5	103		68-140
Methyl acetate	50.0	50.3	101		53-124
Cyclohexane	50.0	51.1	102		61-132
Methylcyclohexane	50.0	50.8	102		61-144

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

\$ Values outside of NJ DKQP limits

INTEGRATED ANALYTICAL LABORATORIES, LLC

LCS ACCURACY REPORT

Lab ID: LCSA_240625-01
 Date Received: NA
 Date Analyzed: 06/25/2024
 LCS Data file: E9572.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Conc. Add	LCS	MS Conc.	%Rec	#
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As per SW-846 8260C, up to 10% of the compounds may be out , but must be within 40-160%
 As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
 Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
 1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
 Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate	
	Aqueous/Meoh	Soil/Sediment
LCS ACCURACY (%REC)	70-130	70-130

Column used to flag recovery values that did not meet criteria
 * Values outside of QC limits
 \$ Values outside of NJ DKQP limits
 NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES, LLC

8260

SAMPLE MS RESULTS SUMMARY

Lab ID: E24-02124-004
 Client ID: W-2
 Date Received: NA
 Date Analyzed: 06/24/2024
 Sample Data file: E9534.D
 Sample MS Data file: E9543.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Rec. Limits
Dichlorodifluoromethane	50.0	0.00	39.80	80		51-153
Chloromethane	50.0	0.00	47.00	94		61-146
Vinyl chloride	50.0	0.00	54.60	109		66-164
Bromomethane	50.0	0.00	49.30	99		56-159
Chloroethane	50.0	0.00	56.10	112		67-152
Trichlorofluoromethane	50.0	0.00	60.60	121		57-167
Acrolein	150.0	0.00	533.00	355	*\$	10-186
1,1-Dichloroethene	50.0	0.00	59.10	118		63-156
Acetone	100.0	0.00	106.90	107		39-168
Carbon disulfide	50.0	0.00	51.80	104		61-144
Vinyl acetate	50.0	0.00	42.40	85		31-152
Methylene chloride	50.0	0.00	51.70	103		66-133
Acrylonitrile	150.0	0.00	274.00	183	*\$	59-141
tert-Butyl alcohol (TBA)	100.0	0.00	114.40	114		61-137
trans-1,2-Dichloroethene	50.0	0.00	53.50	107		70-144
Methyl tert-butyl ether (MTBE)	50.0	0.00	53.30	107		70-133
1,1-Dichloroethane	50.0	0.00	55.10	110		69-148
Diisopropyl ether (DIPE)	50.0	0.00	57.30	115		69-145
cis-1,2-Dichloroethene	50.0	0.00	55.70	111		70-140
2,2-Dichloropropane	50.0	0.00	99.50	199	*\$	37-149
2-Butanone (MEK)	100.0	0.00	104.60	105		65-147
Bromochloromethane	50.0	0.00	55.10	110		70-136
Chloroform	50.0	0.00	52.60	105		70-143
1,1,1-Trichloroethane	50.0	0.00	55.90	112		70-158
Carbon tetrachloride	50.0	0.00	58.50	117		59-174
1,1-Dichloropropene	50.0	0.00	55.30	111		70-148
1,2-Dichloroethane (EDC)	50.0	0.00	53.30	107		70-141
Benzene	50.0	0.00	50.70	101		70-131
Trichloroethene	50.0	0.00	48.20	96		56-160
1,2-Dichloropropane	50.0	0.00	53.00	106		68-134
Dibromomethane	50.0	0.00	48.30	97		70-130
1,4-Dioxane	1500.0	0.00	0.00	0	*\$	67-132
Bromodichloromethane	50.0	0.00	51.10	102		70-135
2-Chloroethyl vinyl ether	100.0	0.00	0.00	0	\$	0-132
cis-1,3-Dichloropropene	50.0	0.00	57.30	115		70-131
4-Methyl-2-pentanone (MIBK)	100.0	0.00	107.10	107		70-130
Toluene	50.0	0.00	53.50	107		70-130
trans-1,3-Dichloropropene	50.0	0.00	56.00	112		70-130
1,1,2-Trichloroethane	50.0	0.00	51.10	102		70-130
Tetrachloroethene	50.0	0.00	54.30	109		70-133
1,3-Dichloropropane	50.0	0.00	51.80	104		70-130

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE MS RESULTS SUMMARY

Lab ID: E24-02124-004
 Client ID: W-2
 Date Received: NA
 Date Analyzed: 06/24/2024
 Sample Data file: E9534.D
 Sample MS Data file: E9543.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Conc.	Sample	Conc.	%Rec.	#	Rec. Limits
	Add		MS	MS		
2-Hexanone	100	0.00	106.80	107		68-144
Dibromochloromethane	50	0.00	48.40	97		70-140
1,2-Dibromoethane (EDB)	50	0.00	49.20	98		63-137
Chlorobenzene	50	0.00	49.10	98		70-130
1,1,1,2-Tetrachloroethane	50	0.00	47.90	96		68-132
Ethylbenzene	50	0.00	52.70	105		70-131
m,p-Xylene	100	0.00	105.00	105		70-136
o-Xylene	50	0.00	52.90	106		70-130
Styrene	50	0.00	54.30	109		70-139
Bromoform	50	0.00	46.10	92		65-138
Isopropylbenzene	50	0.00	55.60	111		70-133
1,1,2,2-Tetrachloroethane	50	0.00	54.20	108		34-147
Bromobenzene	50	0.00	48.30	97		70-132
1,2,3-Trichloropropane	50	0.00	45.30	91		63-130
n-Propylbenzene	50	0.00	57.20	114		70-130
2-Chlorotoluene	50	0.00	53.80	108		70-130
1,3,5-Trimethylbenzene	50	0.00	53.60	107		70-130
4-Chlorotoluene	50	0.00	52.00	104		70-130
tert-Butylbenzene	50	0.00	55.50	111		70-130
1,2,4-Trimethylbenzene	50	0.00	54.20	108		70-130
sec-Butylbenzene	50	0.00	56.10	112		70-130
1,3-Dichlorobenzene	50	0.00	45.90	92		70-130
4-Isopropyltoluene	50	0.00	56.40	113		70-130
1,4-Dichlorobenzene	50	0.00	48.90	98		70-130
n-Butylbenzene	50	0.00	58.30	117		70-130
1,2-Dichlorobenzene	50	0.00	49.20	98		59-132
1,2-Dibromo-3-chloropropane	50	0.00	48.90	98		63-130
1,2,4-Trichlorobenzene	50	0.00	44.50	89		70-130
Hexachlorobutadiene	50	0.00	44.20	88		52-137
Naphthalene	50	0.00	48.10	96		49-151
1,2,3-Trichlorobenzene	50	0.00	44.10	88		59-130
1,1,2-Trichloro-1,2,2-trifluoro	50	0.00	56.30	113		59-156
Methyl acetate	50	0.00	38.10	76		58-134
Cyclohexane	50	0.00	53.00	106		61-151
Methylcyclohexane	50	0.00	54.50	109		63-142

Leachate

Aqueous/Meoh Soil/Sediment

MS Recovery Limits (DKQP)

70-130

70-130

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

\$ Values outside of NJ DKQP limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE MS RESULTS SUMMARY

Lab ID: E24-02124-004

Client ID: W-2

Date Received: NA

Date Analyzed: 06/24/2024

Sample Data file: E9534.D

Sample MS Data file: E9543.D

GC/MS Column: DB-624

Sample wt/vol: 5mL

Matrix-Units: Aqueous-µg/L

% Moisture: 100

Dilution Factor: 1

Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Rec. Limits
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2-Chloroethyl vinyl ether has zero spike recovery in the MS. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%

As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:

Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane

1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone

Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate	
	Aqueous/Meoh	Soil/Sediment
MS Recovery Limits (DKQP)	70-130	70-130
#	Column used to flag recovery and RPD values that did not meet criteria	
*	Values outside of QC limits	
\$	Values outside of NJ DKQP limits	
NC	Not calculable	

INTEGRATED ANALYTICAL LABORATORIES, LLC

8260

SAMPLE MS RESULTS SUMMARY

Lab ID: E24-02148-004
 Client ID: MW-5
 Date Received: NA
 Date Analyzed: 06/26/2024
 Sample Data file: E9560.D
 Sample MS Data file: E9573.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Rec. Limits
Dichlorodifluoromethane	50.0	0.00	36.60	73		51-153
Chloromethane	50.0	0.00	49.10	98		61-146
Vinyl chloride	50.0	0.00	54.20	108		66-164
Bromomethane	50.0	0.00	50.80	102		56-159
Chloroethane	50.0	0.00	54.10	108		67-152
Trichlorofluoromethane	50.0	0.00	61.10	122		57-167
Acrolein	150.0	0.00	461.00	307	*\$	10-186
1,1-Dichloroethene	50.0	0.00	61.60	123		63-156
Acetone	100.0	0.00	111.40	111		39-168
Carbon disulfide	50.0	0.00	55.00	110		61-144
Vinyl acetate	50.0	0.00	46.50	93		31-152
Methylene chloride	50.0	0.00	55.30	111		66-133
Acrylonitrile	150.0	0.00	270.00	180	*\$	59-141
tert-Butyl alcohol (TBA)	100.0	92.40	204.80	112		61-137
trans-1,2-Dichloroethene	50.0	0.00	55.60	111		70-144
Methyl tert-butyl ether (MTBE)	50.0	83.30	134.30	102		70-133
1,1-Dichloroethane	50.0	0.00	58.30	117		69-148
Diisopropyl ether (DIPE)	50.0	0.00	60.90	122		69-145
cis-1,2-Dichloroethene	50.0	0.00	57.10	114		70-140
2,2-Dichloropropane	50.0	0.00	93.20	186	*\$	37-149
2-Butanone (MEK)	100.0	0.00	116.80	117		65-147
Bromochloromethane	50.0	0.00	56.90	114		70-136
Chloroform	50.0	0.00	53.90	108		70-143
1,1,1-Trichloroethane	50.0	0.00	57.10	114		70-158
Carbon tetrachloride	50.0	0.00	58.30	117		59-174
1,1-Dichloropropene	50.0	0.00	57.30	115		70-148
1,2-Dichloroethane (EDC)	50.0	0.00	55.20	110		70-141
Benzene	50.0	0.00	53.90	108		70-131
Trichloroethene	50.0	0.00	51.40	103		56-160
1,2-Dichloropropane	50.0	0.00	57.00	114		68-134
Dibromomethane	50.0	0.00	51.20	102		70-130
1,4-Dioxane	1500.0	0.00	0.00	0	*\$	67-132
Bromodichloromethane	50.0	0.00	55.30	111		70-135
2-Chloroethyl vinyl ether	100.0	0.00	0.00	0	\$	0-132
cis-1,3-Dichloropropene	50.0	0.00	57.50	115		70-131
4-Methyl-2-pentanone (MIBK)	100.0	0.00	115.70	116		70-130
Toluene	50.0	0.00	56.20	112		70-130
trans-1,3-Dichloropropene	50.0	0.00	58.20	116		70-130
1,1,2-Trichloroethane	50.0	0.00	55.30	111		70-130
Tetrachloroethene	50.0	0.00	58.30	117		70-133
1,3-Dichloropropane	50.0	0.00	54.40	109		70-130

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE MS RESULTS SUMMARY

Lab ID: E24-02148-004
 Client ID: MW-5
 Date Received: NA
 Date Analyzed: 06/26/2024
 Sample Data file: E9560.D
 Sample MS Data file: E9573.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Conc. Add	Sample	Conc. MS	%Rec. MS	#	Rec. Limits
2-Hexanone	100	0.00	120.40	120		68-144
Dibromochloromethane	50	0.00	52.50	105		70-140
1,2-Dibromoethane (EDB)	50	0.00	52.20	104		63-137
Chlorobenzene	50	0.00	49.90	100		70-130
1,1,1,2-Tetrachloroethane	50	0.00	49.40	99		68-132
Ethylbenzene	50	0.00	53.90	108		70-131
m,p-Xylene	100	0.00	108.40	108		70-136
o-Xylene	50	0.00	54.40	109		70-130
Styrene	50	0.00	57.30	115		70-139
Bromoform	50	0.00	48.20	96		65-138
Isopropylbenzene	50	0.00	56.30	113		70-133
1,1,2,2-Tetrachloroethane	50	0.00	55.30	111		34-147
Bromobenzene	50	0.00	49.30	99		70-132
1,2,3-Trichloropropane	50	0.00	46.60	93		63-130
n-Propylbenzene	50	0.00	59.00	118		70-130
2-Chlorotoluene	50	0.00	55.80	112		70-130
1,3,5-Trimethylbenzene	50	0.00	55.00	110		70-130
4-Chlorotoluene	50	0.00	52.50	105		70-130
tert-Butylbenzene	50	0.00	57.20	114		70-130
1,2,4-Trimethylbenzene	50	0.00	56.40	113		70-130
sec-Butylbenzene	50	0.00	58.10	116		70-130
1,3-Dichlorobenzene	50	0.00	47.60	95		70-130
4-Isopropyltoluene	50	0.00	58.70	117		70-130
1,4-Dichlorobenzene	50	0.00	50.80	102		70-130
n-Butylbenzene	50	0.00	60.30	121		70-130
1,2-Dichlorobenzene	50	0.00	51.00	102		59-132
1,2-Dibromo-3-chloropropane	50	0.00	48.80	98		63-130
1,2,4-Trichlorobenzene	50	0.00	47.00	94		70-130
Hexachlorobutadiene	50	0.00	48.00	96		52-137
Naphthalene	50	0.00	49.10	98		49-151
1,2,3-Trichlorobenzene	50	0.00	44.20	88		59-130
1,1,2-Trichloro-1,2,2-trifluoro	50	0.00	52.00	104		59-156
Methyl acetate	50	0.00	40.50	81		58-134
Cyclohexane	50	0.00	54.60	109		61-151
Methylcyclohexane	50	0.00	55.70	111		63-142

Leachate

Aqueous/McoH Soil/Sediment

MS Recovery Limits (DKQP)

70-130

70-130

Column used to flag recovery and RPD values that did not meet criteria

* Values outside of QC limits

\$ Values outside of NJ DKQP limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE MS RESULTS SUMMARY

Lab ID: E24-02148-004
 Client ID: MW-5
 Date Received: NA
 Date Analyzed: 06/26/2024
 Sample Data file: E9560.D
 Sample MS Data file: E9573.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Conc.	Sample	Conc.	%Rec.	#	Rec. Limits
	Add		MS	MS		

2-Chloroethyl vinyl ether has zero spike recovery in the MS. This is due to the HCL acid preservation used on the samples. It is a known phenomenon, that this compound decomposes in the presence of acid.

As per SW-846 8260C, up to 10% of the compounds may be out , but may be within 40-160%
 As per NJDEP DKQPs, only the following compounds may be in the 40-160% range:
 Acetone; Bromomethane; 2-Butanone (MEK); Carbon disulfide; Chloroethane; Chloromethane
 1,2-Dibromo-3-chloropropane; Dichlorodifluoromethane; 1,4-Dioxane; 2-Hexanone
 Naphthalene; 4-Methyl-2-pentanone (MIBK); Trichlorofluoromethane

	Leachate	
	Aqueous/Meoh	Soil/Sediment
MS Recovery Limits (DKQP)	70-130	70-130
#	Column used to flag recovery and RPD values that did not meet criteria	
*	Values outside of QC limits	
\$	Values outside of NJ DKQP limits	
NC	Not calculable	

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DUPLICATE RESULTS SUMMARY

Lab ID: E24-02091-001
 Client ID: MW-1RRR
 Date Received: 06/14/2024
 Date Analyzed: 06/24/2024
 Sample Data file: E9527.D
 Sample Dup Data file: E9528.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD	#	RPD Limits
Dichlorodifluoromethane	0.00	0.00	NC		30
Chloromethane	0.00	0.00	NC		30
Vinyl chloride	0.00	0.00	NC		30
Bromomethane	0.00	0.00	NC		30
Chloroethane	0.00	0.00	NC		30
Trichlorofluoromethane	0.00	0.00	NC		30
Acrolein	0.00	0.00	NC		30
1,1-Dichloroethene	0.00	0.00	NC		30
Acetone	0.00	0.00	NC		30
Carbon disulfide	0.00	0.00	NC		30
Vinyl acetate	0.00	0.00	NC		30
Methylene chloride	0.00	0.00	NC		30
Acrylonitrile	0.00	0.00	NC		30
tert-Butyl alcohol (TBA)	0.00	0.00	NC		30
trans-1,2-Dichloroethene	0.00	0.00	NC		30
Methyl tert-butyl ether (MTBE)	0.00	0.00	NC		30
1,1-Dichloroethane	0.00	0.00	NC		30
Diisopropyl ether (DIPE)	0.00	0.00	NC		30
cis-1,2-Dichloroethene	0.00	0.00	NC		30
2,2-Dichloropropane	0.00	0.00	NC		30
2-Butanone (MEK)	0.00	0.00	NC		30
Bromochloromethane	0.00	0.00	NC		30
Chloroform	0.00	0.00	NC		29
1,1,1-Trichloroethane	0.00	0.00	NC		29
Carbon tetrachloride	0.00	0.00	NC		30
1,1-Dichloropropene	0.00	0.00	NC		30
1,2-Dichloroethane (EDC)	0.00	0.00	NC		30
Benzene	0.00	0.00	NC		29
Trichloroethene	0.00	0.00	NC		27
1,2-Dichloropropane	0.00	0.00	NC		30
Dibromomethane	0.00	0.00	NC		30
1,4-Dioxane	0.00	0.00	NC		30
Bromodichloromethane	0.00	0.00	NC		30
2-Chloroethyl vinyl ether	0.00	0.00	NC		30
cis-1,3-Dichloropropene	0.00	0.00	NC		30
4-Methyl-2-pentanone (MIBK)	0.00	0.00	NC		30
Toluene	0.00	0.00	NC		27
trans-1,3-Dichloropropene	0.00	0.00	NC		30
1,1,2-Trichloroethane	0.00	0.00	NC		30
Tetrachloroethene	0.00	0.00	NC		25
1,3-Dichloropropane	0.00	0.00	NC		30

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DUPLICATE RESULTS SUMMARY

Lab ID: E24-02091-001
 Client ID: MW-1RRR
 Date Received: 06/14/2024
 Date Analyzed: 06/24/2024
 Sample Data file: E9527.D
 Sample Dup Data file: E9528.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD	#	RPD Limits
2-Hexanone	0.00	0.00	NC	30	
Dibromochloromethane	0.00	0.00	NC	30	
1,2-Dibromoethane (EDB)	0.00	0.00	NC	30	
Chlorobenzene	0.00	0.00	NC	29	
1,1,1,2-Tetrachloroethane	0.00	0.00	NC	30	
Ethylbenzene	0.00	0.00	NC	30	
m,p-Xylene	0.00	0.00	NC	30	
o-Xylene	0.00	0.00	NC	30	
Styrene	0.00	0.00	NC	30	
Bromoform	0.00	0.00	NC	30	
Isopropylbenzene	0.00	0.00	NC	29	
1,1,2,2-Tetrachloroethane	0.00	0.00	NC	30	
Bromobenzene	0.00	0.00	NC	30	
1,2,3-Trichloropropane	0.00	0.00	NC	30	
n-Propylbenzene	0.00	0.00	NC	30	
2-Chlorotoluene	0.00	0.00	NC	30	
1,3,5-Trimethylbenzene	0.00	0.00	NC	30	
4-Chlorotoluene	0.00	0.00	NC	30	
tert-Butylbenzene	0.00	0.00	NC	30	
1,2,4-Trimethylbenzene	0.00	0.00	NC	30	
sec-Butylbenzene	0.00	0.00	NC	30	
1,3-Dichlorobenzene	0.00	0.00	NC	30	
4-Isopropyltoluene	0.00	0.00	NC	30	
1,4-Dichlorobenzene	0.00	0.00	NC	32	
n-Butylbenzene	0.00	0.00	NC	30	
1,2-Dichlorobenzene	0.00	0.00	NC	32	
1,2-Dibromo-3-chloropropane	0.00	0.00	NC	30	
1,2,4-Trichlorobenzene	0.00	0.00	NC	30	
Hexachlorobutadiene	0.00	0.00	NC	30	
Naphthalene	0.00	0.00	NC	30	
1,2,3-Trichlorobenzene	0.00	0.00	NC	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.00	0.00	NC	30	
Methyl acetate	0.00	0.00	NC	30	
Cyclohexane	0.00	0.00	NC	29	
Methylcyclohexane	0.00	0.00	NC	29	

Column used to flag RPD values that did not meet criteria

* Values outside of QC limits

NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DUPLICATE RESULTS SUMMARY

Lab ID: E24-02148-001
 Client ID: MW-1
 Date Received: 06/21/2024
 Date Analyzed: 06/25/2024
 Sample Data file: E9557.D
 Sample Dup Data file: E9558.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD	#	RPD Limits
Dichlorodifluoromethane	0.00	0.00	NC		30
Chloromethane	0.00	0.00	NC		30
Vinyl chloride	0.00	0.00	NC		30
Bromomethane	0.00	0.00	NC		30
Chloroethane	0.00	0.00	NC		30
Trichlorofluoromethane	0.00	0.00	NC		30
Acrolein	0.00	0.00	NC		30
1,1-Dichloroethene	0.00	0.00	NC		30
Acetone	0.00	0.00	NC		30
Carbon disulfide	0.00	0.00	NC		30
Vinyl acetate	0.00	0.00	NC		30
Methylene chloride	0.00	0.00	NC		30
Acrylonitrile	0.00	0.00	NC		30
tert-Butyl alcohol (TBA)	0.00	0.00	NC		30
trans-1,2-Dichloroethene	0.00	0.00	NC		30
Methyl tert-butyl ether (MTBE)	0.00	0.00	NC		30
1,1-Dichloroethane	0.00	0.00	NC		30
Diisopropyl ether (DIPE)	0.00	0.00	NC		30
cis-1,2-Dichloroethene	0.00	0.00	NC		30
2,2-Dichloropropane	0.00	0.00	NC		30
2-Butanone (MEK)	0.00	0.00	NC		30
Bromochloromethane	0.00	0.00	NC		30
Chloroform	0.00	0.00	NC		29
1,1,1-Trichloroethane	0.00	0.00	NC		29
Carbon tetrachloride	0.00	0.00	NC		30
1,1-Dichloropropene	0.00	0.00	NC		30
1,2-Dichloroethane (EDC)	0.00	0.00	NC		30
Benzene	0.00	0.00	NC		29
Trichloroethene	0.00	0.00	NC		27
1,2-Dichloropropane	0.00	0.00	NC		30
Dibromomethane	0.00	0.00	NC		30
1,4-Dioxane	0.00	0.00	NC		30
Bromodichloromethane	0.00	0.00	NC		30
2-Chloroethyl vinyl ether	0.00	0.00	NC		30
cis-1,3-Dichloropropene	0.00	0.00	NC		30
4-Methyl-2-pentanone (MIBK)	0.00	0.00	NC		30
Toluene	0.00	0.00	NC		27
trans-1,3-Dichloropropene	0.00	0.00	NC		30
1,1,2-Trichloroethane	0.00	0.00	NC		30
Tetrachloroethene	0.00	0.00	NC		25
1,3-Dichloropropane	0.00	0.00	NC		30

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE DUPLICATE RESULTS SUMMARY

Lab ID: E24-02148-001
 Client ID: MW-1
 Date Received: 06/21/2024
 Date Analyzed: 06/25/2024
 Sample Data file: E9557.D
 Sample Dup Data file: E9558.D

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1
 Dilution Factor: 1

Compound	Sample Conc.	Sample Dup Conc.	% RPD	#	RPD Limits
2-Hexanone	0.00	0.00	NC		30
Dibromochloromethane	0.00	0.00	NC		30
1,2-Dibromoethane (EDB)	0.00	0.00	NC		30
Chlorobenzene	0.00	0.00	NC		29
1,1,1,2-Tetrachloroethane	0.00	0.00	NC		30
Ethylbenzene	0.00	0.00	NC		30
m,p-Xylene	0.00	0.00	NC		30
o-Xylene	0.00	0.00	NC		30
Styrene	0.00	0.00	NC		30
Bromoform	0.00	0.00	NC		30
Isopropylbenzene	0.00	0.00	NC		29
1,1,2,2-Tetrachloroethane	0.00	0.00	NC		30
Bromobenzene	0.00	0.00	NC		30
1,2,3-Trichloropropane	0.00	0.00	NC		30
n-Propylbenzene	0.00	0.00	NC		30
2-Chlorotoluene	0.00	0.00	NC		30
1,3,5-Trimethylbenzene	0.00	0.00	NC		30
4-Chlorotoluene	0.00	0.00	NC		30
tert-Butylbenzene	0.00	0.00	NC		30
1,2,4-Trimethylbenzene	0.00	0.00	NC		30
sec-Butylbenzene	0.00	0.00	NC		30
1,3-Dichlorobenzene	0.00	0.00	NC		30
4-Isopropyltoluene	0.00	0.00	NC		30
1,4-Dichlorobenzene	0.00	0.00	NC		32
n-Butylbenzene	0.00	0.00	NC		30
1,2-Dichlorobenzene	0.00	0.00	NC		32
1,2-Dibromo-3-chloropropane	0.00	0.00	NC		30
1,2,4-Trichlorobenzene	0.00	0.00	NC		30
Hexachlorobutadiene	0.00	0.00	NC		30
Naphthalene	0.00	0.00	NC		30
1,2,3-Trichlorobenzene	0.00	0.00	NC		30
1,1,2-Trichloro-1,2,2-trifluoroethane	0.00	0.00	NC		30
Methyl acetate	0.00	0.00	NC		30
Cyclohexane	0.00	0.00	NC		29
Methylcyclohexane	0.00	0.00	NC		29

Column used to flag RPD values that did not meet criteria
 * Values outside of QC limits
 NC Not calculable

INTEGRATED ANALYTICAL LABORATORIES, LLC**VOLATILE METHOD BLANK SUMMARY**Lab File ID: E9520.DInstrument ID: MSD_EDate Analyzed: 06/24/2024Time Analyzed: 10:58

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TB	E24-02091-005	06/24/2024	11:26
FB	E24-02091-004	06/24/2024	11:53
FB-1-061824	E24-02128-005	06/24/2024	12:21
FB-2-061924	E24-02128-006	06/24/2024	12:49
TB	E24-02124-006	06/24/2024	13:16
FB-1	E24-02124-005	06/24/2024	13:44
MW-1RRR	E24-02091-001	06/24/2024	14:11
MW-1RRR	E24-02091-001DUP	06/24/2024	14:38
MW-1RR	E24-02091-002	06/24/2024	15:06
MW-4RR	E24-02091-003	06/24/2024	15:33
MW-2	E24-02124-001	06/24/2024	16:00
W-4	E24-02124-002	06/24/2024	16:28
MW-1	E24-02124-003	06/24/2024	16:55
W-2	E24-02124-004	06/24/2024	17:23
MW-11D	E24-02128-002	06/24/2024	17:50
MW-10D	E24-02128-001	06/24/2024	18:18
MW-13D	E24-02128-003	06/24/2024	18:45
DUP-1	E24-02128-004	06/24/2024	19:12
MW-4/8.73	E24-02132-004	06/24/2024	19:40
MW-6	E24-02107-005DL	06/24/2024	20:07
MW-8D	E24-02107-012	06/24/2024	20:35
LCSA_50PPB	LCSA_240624-01	06/24/2024	21:02
2124-004MS	2124-004MS	06/24/2024	21:30

FORM 4

INTEGRATED ANALYTICAL LABORATORIES, LLC**VOLATILE METHOD BLANK SUMMARY**Lab File ID: E9550.DInstrument ID: MSD_EDate Analyzed: 06/25/2024Time Analyzed: 13:42

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS & MSD:

Client ID	Lab Sample ID	Date Analyzed	Time Analyzed
TB-061824	E24-02128-007	06/25/2024	14:09
TRIP_BLANK_	E24-02133-010	06/25/2024	14:37
FIELD_BLANK	E24-02133-008	06/25/2024	15:04
TRIP_BLANK	E24-02148-011	06/25/2024	15:32
FIELD_BLANK_	E24-02148-010	06/25/2024	15:59
FIELD_BLANK_	E24-02148-009	06/25/2024	16:27
MW-1	E24-02148-001	06/25/2024	16:54
MW-1	E24-02148-001DUP	06/25/2024	17:22
MW-2	E24-02148-002	06/25/2024	17:49
MW-5	E24-02148-004	06/25/2024	18:16
MW-3	E24-02148-003	06/25/2024	18:44
MW-7	E24-02148-006	06/25/2024	19:11
TW-1	E24-02142-022	06/25/2024	19:39
TW-2	E24-02142-023	06/25/2024	20:06
MW-10D	E24-02128-001DL	06/25/2024	20:34
MW-13D	E24-02128-003DL	06/25/2024	21:02
DUP-1	E24-02128-004DL	06/25/2024	21:30
MW-9	E24-02148-007	06/25/2024	21:57
MW-10	E24-02148-008	06/25/2024	22:25
MW-6	E24-02148-005	06/25/2024	22:52
TW-3	E24-02142-024	06/25/2024	23:20
LCSA_50PPB	LCSA_240625-01	06/25/2024	23:48
2148-004MS	2148-004MS	06/26/2024	0:16

FORM 4

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E9258.D BFB Injection Date: 06/16/2024

Inst ID: MSD_E BFB Injection Time: 15:56

m/z	Ion Abundance Criteria	%Relative Abundance		
95	50 - 200% of mass 174	100		
96	5.0 - 9.0% of mass 95	7.4		
173	Less than 2.0% of mass 174	2.4	(1.8)	1
174	50 - 200% of mass 95	74.6		
175	5.0 - 9.0% of mass 174	4.8	(6.5)	1
176	95.0 - 105.0% of mass 174	75.3	(101.0)	1
177	5.0 - 10.0% of mass 176	4.0	(5.3)	2
	1-Value is % mass 174	2-Value is % mass 176		

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
ICC240616-01	ICC100	E9266.D	06/16/2024	19:35
ICC240616-01	ICC00.5	E9259.D	06/16/2024	16:23
ICC240616-01	ICC001	E9260.D	06/16/2024	16:50
ICC240616-01	ICC005	E9261.D	06/16/2024	17:17
ICC240616-01	ICC020	E9262.D	06/16/2024	17:44
ICC240616-01	ICC150	E9263.D	06/16/2024	18:12
ICC240616-01	ICC200	E9264.D	06/16/2024	18:40
ICV240615-01	ICV100	E9267.D	06/16/2024	20:03
BLKA240616-01	BLKA240616-01	E9268.D	06/16/2024	20:30
FIELD	E24-02039-006	E9269.D	06/16/2024	20:57
TRIP	E24-02037-006	E9270.D	06/16/2024	21:25
FIELD	E24-02037-005	E9271.D	06/16/2024	21:52
MW-1	E24-02037-001	E9272.D	06/16/2024	22:19
MW-1	E24-02037-001DU	E9273.D	06/16/2024	22:47
MW-2	E24-02037-002	E9274.D	06/16/2024	23:14
MW-3	E24-02037-003	E9275.D	06/16/2024	23:42
MW-4	E24-02037-004	E9276.D	06/17/2024	0:10
MW-4	E24-02039-001	E9277.D	06/17/2024	0:37
MW-3	E24-02039-002	E9278.D	06/17/2024	1:04
MW-3D	E24-02039-003	E9279.D	06/17/2024	1:32

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E9258.D

BFB Injection Date : 06/16/202

Inst ID: MSD_E

BFB Injection Time: 15:56

m/z	Ion Abundance Criteria	%Relative Abundance
50		15.4
75		57.6
95	50 - 200% of mass 174	100.0
96	5.0 - 9.0% of mass 95	7.4
173	Less than 2.0% of mass 174	2.4 (1.8)1
174	50 - 200% of mass 95	74.6
175	5.0 - 9.0% of mass 174	4.8 (6.5)1
176	95.0 - 105.0% of mass 174	75.3 (101.0)1
177	5.0 - 10.0% of mass 176	4.0 (5.3)2
	1-Value is % mass 174	2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-5	E24-02039-004	E9280.D	06/17/2024	1:59
MW-5DD	E24-02039-005	E9281.D	06/17/2024	2:27
LCSA_50PPB	LCSA_240616-01	E9282.D	06/17/2024	2:54
2039-001MS	2039-001MS	E9283.D	06/17/2024	3:21

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E9517.D

BFB Injection Date: 06/24/2024

Inst ID: MSD_E

BFB Injection Time: 9:36

m/z	Ion Abundance Criteria	%Relative Abundance
95	50 - 200% of mass 174	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	2.2 (1.6)1
174	50 - 200% of mass 95	72.5
175	5.0 - 9.0% of mass 174	6.2 (8.6)1
176	95.0 - 105.0% of mass 174	72.7 (100.3)1
177	5.0 - 10.0% of mass 176	5.0 (6.9)2
	1-Value is % mass 174	2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV240624-01	CCV100	E9518.D	06/24/2024	10:04
BLKA240624-01	BLKA240624-01	E9520.D	06/24/2024	10:58
TB	E24-02091-005	E9521.D	06/24/2024	11:26
FB	E24-02091-004	E9522.D	06/24/2024	11:53
FB-1-061824	E24-02128-005	E9523.D	06/24/2024	12:21
FB-2-061924	E24-02128-006	E9524.D	06/24/2024	12:49
TB	E24-02124-006	E9525.D	06/24/2024	13:16
FB-1	E24-02124-005	E9526.D	06/24/2024	13:44
MW-1RRR	E24-02091-001	E9527.D	06/24/2024	14:11
MW-1RRR	E24-02091-001DU	E9528.D	06/24/2024	14:38
MW-1RR	E24-02091-002	E9529.D	06/24/2024	15:06
MW-4RR	E24-02091-003	E9530.D	06/24/2024	15:33
MW-2	E24-02124-001	E9531.D	06/24/2024	16:00
W-4	E24-02124-002	E9532.D	06/24/2024	16:28
MW-1	E24-02124-003	E9533.D	06/24/2024	16:55
W-2	E24-02124-004	E9534.D	06/24/2024	17:23
MW-11D	E24-02128-002	E9535.D	06/24/2024	17:50
MW-10D	E24-02128-001	E9536.D	06/24/2024	18:18
MW-13D	E24-02128-003	E9537.D	06/24/2024	18:45
DUP-1	E24-02128-004	E9538.D	06/24/2024	19:12

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E9517.D

BFB Injection Date : 06/24/202

Inst ID: MSD_E

BFB Injection Time: 9:36

m/z	Ion Abundance Criteria	%Relative Abundance		
50		17.8		
75		53.0		
95	50 - 200% of mass 174	100.0		
96	5.0 - 9.0% of mass 95	7.2		
173	Less than 2.0% of mass 174	2.2	(1.6)	1
174	50 - 200% of mass 95	72.5		
175	5.0 - 9.0% of mass 174	6.2	(8.6)	1
176	95.0 - 105.0% of mass 174	72.7	(100.3)	1
177	5.0 - 10.0% of mass 176	5.0	(6.9)	2
	1-Value is % mass 174	2-Value is % mass 176		

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-4/8.73	E24-02132-004	E9539.D	06/24/2024	19:40
MW-6	E24-02107-005DL	E9540.D	06/24/2024	20:07
MW-8D	E24-02107-012	E9541.D	06/24/2024	20:35
LCSA_50PPB	LCSA_240624-01	E9542.D	06/24/2024	21:02
2124-004MS	2124-004MS	E9543.D	06/24/2024	21:30

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E9547.D BFB Injection Date: 06/25/2024
 Inst ID: MSD_E BFB Injection Time: 12:20

m/z	Ion Abundance Criteria	%Relative Abundance
95	50 - 200% of mass 174	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5 (1.0)1
174	50 - 200% of mass 95	66.7
175	5.0 - 9.0% of mass 174	5.3 (8.0)1
176	95.0 - 105.0% of mass 174	65.2 (97.8)1
177	5.0 - 10.0% of mass 176	4.5 (6.9)2
	1-Value is % mass 174	2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
CCV240625-01	CCV100	E9548.D	06/25/2024	12:47
BLKA240625-01	BLKA240625-01	E9550.D	06/25/2024	13:42
TB-061824	E24-02128-007	E9551.D	06/25/2024	14:09
TRIP_BLANK-	E24-02133-010	E9552.D	06/25/2024	14:37
FIELD_BLANK	E24-02133-008	E9553.D	06/25/2024	15:04
TRIP_BLANK	E24-02148-011	E9554.D	06/25/2024	15:32
FIELD_BLANK_	E24-02148-010	E9555.D	06/25/2024	15:59
FIELD_BLANK_	E24-02148-009	E9556.D	06/25/2024	16:27
MW-1	E24-02148-001	E9557.D	06/25/2024	16:54
MW-1	E24-02148-001DL	E9558.D	06/25/2024	17:22
MW-2	E24-02148-002	E9559.D	06/25/2024	17:49
MW-5	E24-02148-004	E9560.D	06/25/2024	18:16
MW-3	E24-02148-003	E9561.D	06/25/2024	18:44
MW-7	E24-02148-006	E9562.D	06/25/2024	19:11
TW-1	E24-02142-022	E9563.D	06/25/2024	19:39
TW-2	E24-02142-023	E9564.D	06/25/2024	20:06
MW-10D	E24-02128-001DL	E9565.D	06/25/2024	20:34
MW-13D	E24-02128-003DL	E9566.D	06/25/2024	21:02
DUP-1	E24-02128-004DL	E9567.D	06/25/2024	21:30
MW-9	E24-02148-007	E9568.D	06/25/2024	21:57

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

Lab File ID: E9547.D

BFB Injection Date : 06/25/202

Inst ID: MSD_E

BFB Injection Time: 12:20

m/z	Ion Abundance Criteria	%Relative Abundance
50		19.7
75		37.0
95	50 - 200% of mass 174	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.5 (1.0)1
174	50 - 200% of mass 95	66.7
175	5.0 - 9.0% of mass 174	5.3 (8.0)1
176	95.0 - 105.0% of mass 174	65.2 (97.8)1
177	5.0 - 10.0% of mass 176	4.5 (6.9)2
	1-Value is % mass 174	2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

Client ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
MW-10	E24-02148-008	E9569.D	06/25/2024	22:25
MW-6	E24-02148-005	E9570.D	06/25/2024	22:52
TW-3	E24-02142-024	E9571.D	06/25/2024	23:20
LCSA_50PPB	LCSA_240625-01	E9572.D	06/25/2024	23:48
2148-004MS	2148-004MS	E9573.D	06/26/2024	0:16

INTEGRATED ANALYTICAL LABORATORIES, LLC

Response Factor Report MSD_E

Method Path : C:\MSDCHEM\1\METHODS\
 Method File : E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 Last Update : Mon Jun 17 09:14:40 2024
 Response Via : Initial Calibration

Calibration Files

0.5 =E9259.D 1.0 =E9260.D 5.0 =E9261.D
 20. =E9262.D 100 =E9266.D 150 =E9263.D 200 =E9264.D

	Compound	0.5	1.0	5.0	20.	100	150	200	Avg	%RSD
1) I	Pentafluorobenzene	-----ISTD-----								
2) T	Dichlorodifluorom		0.574	0.718	0.623	0.651	0.613	0.638	0.636	7.53
3) P	Chloromethane	0.505	0.461	0.547	0.497	0.538	0.551	0.583	0.526	7.79
4) C	Vinyl chloride	0.628	0.547	0.490	0.498	0.576	0.555	0.574	0.552	8.64
5) T	Bromomethane	0.459	0.290	0.361	0.327	0.354	0.371	0.383	0.364	14.44
6) T	Chloroethane	0.410	0.321	0.283	0.296	0.333	0.348	0.346	0.334	12.41
7) T	Trichlorofluorome		0.856	1.121	1.027	1.168	1.073	1.108	1.059	10.37
9) MC	1,1-Dichloroethen	0.420	0.463	0.511	0.461	0.531	0.507	0.530	0.489	8.56
10) T	Acetone	0.346	0.304	0.314	0.253	0.315	0.354	0.377	0.323	12.55
11) T	Carbon disulfide	4.652	3.084	3.145	2.891	3.279	3.252	3.366	3.381	17.19
12) T	Vinyl acetate	0.908	0.551	0.639	0.599	0.638	0.632	0.691	0.665	17.27
13) T	Methylene chlorid		0.706	0.667	0.595	0.643	0.655	0.659	0.654	5.51
14) T	Acrylonitrile	0.292	0.254	0.244	0.265	0.240	0.285	0.226	0.258	9.32
15) T	tert-Butyl alcoho		0.079	0.119	0.101	0.107	0.103	0.096	0.101	13.20
16) T	trans-1,2-Dichlor	0.727	0.510	0.559	0.530	0.561	0.560	0.571	0.574	12.32
17) T	Methyl tert-butyl	2.740	1.712	2.128	2.106	2.253	2.212	2.224	2.197	13.74
18) P	1,1-Dichloroethan	1.358	1.003	1.112	1.134	1.210	1.208	1.223	1.178	9.39
19) T	Diisopropyl ether	1.552	0.966	1.346	1.358	1.496	1.499	1.525	1.392	14.67
20) T	cis-1,2-Dichloroe	0.643	0.499	0.614	0.570	0.622	0.615	0.632	0.599	8.32
21) T	2,2-Dichloropropa	0.555	0.370	0.409	0.362	0.362	0.350	0.363	0.396	18.34
22) T	2-Butanone (MEK)	0.431	0.333	0.403	0.392	0.405	0.437	0.498	0.414	12.13
23) T	Bromochloromethan	0.185	0.279	0.242	0.241	0.256	0.259	0.259	0.246	12.06
25) C	Chloroform	1.549	1.520	1.390	1.234	1.341	1.345	1.352	1.390	7.90
26) T	1,1,1-Trichloroet	1.734	1.064	1.209	1.174	1.277	1.266	1.289	1.287	16.43
27) T	Carbon tetrachlor	1.121	0.831	1.018	0.926	1.075	1.006	1.050	1.004	9.71
28) T	1,1-Dichloroprope	1.277	0.845	0.861	0.864	0.959	0.942	0.962	0.959	15.53
29) T	1,2-Dichloroethan	1.504	1.238	1.223	1.156	1.190	1.210	1.201	1.246	9.36
30) S	1,2-Dichloroethan	0.811	0.840	0.863	0.856	0.803	0.829	0.790	0.828	3.32
31) I	1,4-Difluorobenzene	-----ISTD-----								
32) M	Benzene	2.236	1.537	1.693	1.567	1.709	1.749	1.744	1.748	13.21
33) M	Trichloroethene	0.535	0.442	0.470	0.431	0.483	0.483	0.478	0.474	7.04
34) C	1,2-Dichloropropa	0.499	0.273	0.369	0.349	0.397	0.407	0.408	0.386	17.79
35) T	Dibromomethane	0.351	0.289	0.303	0.265	0.287	0.294	0.292	0.297	8.87
37) T	Bromodichlorometh	0.702	0.614	0.642	0.624	0.682	0.701	0.703	0.667	5.88
38) T	2-Chloroethyl vin	0.290	0.213	0.274	0.282	0.329	0.340	0.340	0.296	15.50
39) T	cis-1,3-Dichlorop	0.702	0.488	0.537	0.559	0.651	0.684	0.683	0.615	13.87
40) T	4-Methyl-2-pentan	0.603	0.512	0.516	0.530	0.598	0.616	0.605	0.568	8.20
41) S	Toluene-d8	1.130	1.115	1.152	1.148	1.158	1.184	1.175	1.152	2.07
42) MC	Toluene	1.334	0.927	0.957	0.975	1.084	1.122	1.112	1.073	12.99
43) T	trans-1,3-Dichlor	0.755	0.508	0.550	0.574	0.674	0.698	0.711	0.638	14.66
44) T	1,1,2-Trichloroet	0.316	0.346	0.313	0.293	0.338	0.346	0.342	0.328	6.27
45) T	Tetrachloroethene	0.446	0.292	0.362	0.332	0.397	0.396	0.398	0.375	13.46
46) T	1,3-Dichloropropa	0.977	0.682	0.702	0.704	0.783	0.824	0.814	0.784	13.11
47) T	2-Hexanone	0.521	0.379	0.407	0.419	0.471	0.500	0.487	0.455	11.69
48) T	Dibromochlorometh	0.528	0.350	0.356	0.371	0.423	0.444	0.439	0.416	15.14
49) T	1,2-Dibromoethane	0.508	0.381	0.374	0.361	0.415	0.425	0.425	0.413	11.95
50) I	Chlorobenzene-d5	-----ISTD-----								
51) MP	Chlorobenzene	1.364	1.073	1.167	1.079	1.167	1.173	1.180	1.172	8.21
52) T	1,1,1,2-Tetrachlo	0.517	0.409	0.483	0.422	0.460	0.467	0.467	0.461	7.83
53) C	Ethylbenzene	2.727	1.907	2.113	2.218	2.426	2.465	2.455	2.330	11.61
54) T	m,p-Xylene	0.891	0.708	0.774	0.768	0.827	0.844	0.839	0.807	7.53

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55)	T	o-Xylene	0.858	0.602	0.767	0.782	0.826	0.847	0.841	0.789	11.30
56)	T	Styrene	1.227	0.942	1.114	1.183	1.367	1.407	1.427	1.238	14.26
57)	P	Bromoform	0.396	0.242	0.298	0.311	0.367	0.376	0.374	0.338	16.42
58)	T	Isopropylbenzene	2.092	1.658	1.926	1.943	2.197	2.177	2.184	2.025	9.75
59)	S	Bromofluorobenzen	0.622	0.640	0.652	0.665	0.657	0.669	0.655	0.651	2.41
60)	P	1,1,2,2-Tetrachlo	0.753	0.609	0.647	0.649	0.651	0.670	0.664	0.663	6.64
61)	T	Bromobenzene	0.645	0.451	0.456	0.434	0.487	0.493	0.495	0.495	14.26
62)	T	1,2,3-Trichloropr	1.245	0.871	0.833	0.764	0.803	0.809	0.790	0.874	19.15
63)	T	n-Propylbenzene	2.429	1.897	2.321	2.344	2.613	2.635	2.657	2.414	11.06
64)	T	2-Chlorotoluene	2.302	1.670	1.800	1.583	2.020	2.086	2.083	1.935	13.32
65)	T	1,3,5-Trimethylbe	1.875	1.630	1.765	1.823	1.953	2.007	2.004	1.865	7.41
66)	T	4-Chlorotoluene	2.011	1.490	1.614	1.583	1.719	1.742	1.734	1.699	9.78
67)	T	tert-Butylbenzene	1.249	1.189	1.362	1.402	1.543	1.535	1.561	1.406	10.60
68)	T	1,2,4-Trimethylbe	1.656	1.395	1.696	1.816	1.889	1.945	1.969	1.767	11.45
69)	T	sec-Butylbenzene	1.981	1.567	1.961	2.005	2.233	2.249	2.289	2.041	12.30
70)	T	1,3-Dichlorobenze	1.037	0.777	0.761	0.745	0.825	0.850	0.858	0.836	11.82
71)	T	4-Isopropyltoluen	1.443	0.966	1.424	1.441	1.610	1.662	1.667	1.459	16.61
72)	T	1,4-Dichlorobenze	1.037	0.683	0.700	0.707	0.771	0.792	0.795	0.784	15.43
73)	T	n-Butylbenzene	1.233	1.170	1.331	1.426	1.724	1.744	1.785	1.487	17.46
74)	T	1,2-Dichlorobenze	1.016	0.632	0.767	0.753	0.808	0.840	0.834	0.807	14.35
75)	T	1,2-Dibromo-3-chl	0.268	0.224	0.236	0.218	0.260	0.263	0.259	0.247	8.27
76)	T	1,2,4-Trichlorobe	0.531	0.404	0.411	0.433	0.545	0.558	0.567	0.493	14.81
77)	T	Hexachlorobutadie		0.281	0.278	0.266	0.298	0.307	0.290	0.287	5.19
78)	T	Naphthalene	1.807	1.192	1.261	1.515	1.869	1.897	1.884	1.632	18.81
79)	T	1,2,3-Trichlorobe	0.546	0.347	0.389	0.421	0.519	0.534	0.533	0.470	17.45
80)	T	1,1,2-Trichloro-1		0.383	0.418	0.364	0.427	0.360	0.381	0.389	7.14
81)	T	Methyl acetate	0.739	0.457	0.517	0.473	0.490	0.481	0.516	0.525	18.50
82)	T	Cyclohexane		0.798	0.673	0.699	0.755	0.656	0.678	0.710	7.76
83)	T	Methylcyclohexane	0.944	0.651	0.709	0.675	0.828	0.725	0.756	0.755	13.38

(#) = Out of Range ### Number of calibration levels exceeded format ###

E8240616.M Mon Jun 17 09:30:35 2024 1

INTEGRATED ANALYTICAL LABORATORIES, LLC

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-15\
 Data File : E9267.D
 Acq On : 16 Jun 2024 20:03
 Operator : Sylvia
 Sample : ICV240615-01, ICV100, A, 5mL, 100
 Misc : NA, NA, NA, 1
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 17 09:29:50 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	98	0.00
2 T	Dichlorodifluoromethane	0.636	0.518	18.6	78	0.00
3 P	Chloromethane	0.526	0.452	14.1	82	0.00
4 C	Vinyl chloride	0.552	0.472	14.5	80	0.01
5 T	Bromomethane	0.364	0.300	17.6	83	0.00
6 T	Chloroethane	0.334	0.316	5.4	93	0.00
7 T	Trichlorofluoromethane	1.059	1.056	0.3	88	0.00
9 MC	1,1-Dichloroethene	0.489	0.489	0.0	90	0.00
10 T	Acetone	0.323	0.387	-19.8	120	0.00
11 T	Carbon disulfide	3.381	2.930	13.3	87	0.01
12 T	Vinyl acetate	0.665	0.776	-16.7	119	0.00
13 T	Methylene chloride	0.654	0.627	4.1	96	-0.04
14 T	Acrylonitrile	0.258	0.256	0.8	104	-0.02
15 T	tert-Butyl alcohol (TBA)	0.101	0.107	-5.9	98	0.00
16 T	trans-1,2-Dichloroethene	0.574	0.555	3.3	97	0.00
17 T	Methyl tert-butyl ether (MT)	2.197	2.300	-4.7	100	0.00
18 P	1,1-Dichloroethane	1.178	1.220	-3.6	99	0.00
19 T	Diisopropyl ether (DIPE)	1.392	1.497	-7.5	98	0.00
20 T	cis-1,2-Dichloroethene	0.599	0.617	-3.0	97	0.00
22 T	2-Butanone (MEK)	0.414	0.444	-7.2	107	0.00
23 T	Bromochloromethane	0.246	0.259	-5.3	99	0.00
25 C	Chloroform	1.390	1.368	1.6	100	0.00
26 T	1,1,1-Trichloroethane	1.287	1.260	2.1	97	0.00
27 T	Carbon tetrachloride	1.004	1.029	-2.5	94	0.00
28 T	1,1-Dichloropropene	0.959	0.957	0.2	98	0.00
29 T	1,2-Dichloroethane (EDC)	1.246	1.270	-1.9	104	0.00
30 S	1,2-Dichloroethane-d4	0.828	0.818	1.2	100	0.00
31 I	1,4-Difluorobenzene	1.000	1.000	0.0	95	0.00
32 M	Benzene	1.748	1.779	-1.8	98	0.00
33 M	Trichloroethene	0.474	0.557	-17.5	109	-0.02
34 C	1,2-Dichloropropane	0.386	0.414	-7.3	99	0.00
35 T	Dibromomethane	0.297	0.300	-1.0	99	-0.02
37 T	Bromodichloromethane	0.667	0.700	-4.9	97	0.00
38 T	2-Chloroethyl vinyl ether	0.296	0.332	-12.2	95	0.00
39 T	cis-1,3-Dichloropropene	0.615	0.562	8.6	82	0.00
40 T	4-Methyl-2-pentanone (MIBK)	0.568	0.619	-9.0	98	0.00
41 S	Toluene-d8	1.152	1.156	-0.3	94	0.00
42 MC	Toluene	1.073	1.122	-4.6	98	0.00
43 T	trans-1,3-Dichloropropene	0.638	0.568	11.0	80	0.00
44 T	1,1,2-Trichloroethane	0.328	0.344	-4.9	97	0.00
45 T	Tetrachloroethene	0.375	0.395	-5.3	94	0.00
46 T	1,3-Dichloropropane	0.784	0.821	-4.7	99	0.00
47 T	2-Hexanone	0.455	0.491	-7.9	99	0.00
48 T	Dibromochloromethane	0.416	0.411	1.2	92	0.00
49 T	1,2-Dibromoethane (EDB)	0.413	0.421	-1.9	96	0.01

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50	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
51	MP	Chlorobenzene	1.172	1.189	-1.5	97	0.00
52	T	1,1,1,2-Tetrachloroethane	0.461	0.469	-1.7	97	0.00
53	C	Ethylbenzene	2.330	2.528	-8.5	100	0.00
54	T	m,p-Xylene	0.807	0.858	-6.3	99	0.00
55	T	o-Xylene	0.789	0.877	-11.2	101	0.00
56	T	Styrene	1.238	1.343	-8.5	94	0.00
57	P	Bromoform	0.338	0.334	1.2	87	0.00
58	T	Isopropylbenzene	2.025	2.303	-13.7	100	0.00
59	S	Bromofluorobenzene	0.651	0.656	-0.8	95	0.00
60	P	1,1,2,2-Tetrachloroethane	0.663	0.542	18.3	80	0.00
61	T	Bromobenzene	0.495	0.506	-2.2	99	0.00
62	T	1,2,3-Trichloropropane	0.874	0.835	4.5	99	0.00
63	T	n-Propylbenzene	2.414	2.764	-14.5	101	0.00
64	T	2-Chlorotoluene	1.935	2.135	-10.3	101	0.00
65	T	1,3,5-Trimethylbenzene	1.865	2.078	-11.4	102	0.00
66	T	4-Chlorotoluene	1.699	1.812	-6.7	101	0.00
67	T	tert-Butylbenzene	1.406	1.621	-15.3	100	0.00
68	T	1,2,4-Trimethylbenzene	1.767	1.995	-12.9	101	0.01
69	T	sec-Butylbenzene	2.041	2.334	-14.4	100	0.00
70	T	1,3-Dichlorobenzene	0.836	0.785	6.1	91	-0.01
71	T	4-Isopropyltoluene	1.459	1.674	-14.7	99	0.00
72	T	1,4-Dichlorobenzene	0.784	0.785	-0.1	97	-0.01
73	T	n-Butylbenzene	1.487	1.708	-14.9	95	0.00
74	T	1,2-Dichlorobenzene	0.807	0.851	-5.5	101	0.00
75	T	1,2-Dibromo-3-chloropropane	0.247	0.254	-2.8	93	0.01
76	T	1,2,4-Trichlorobenzene	0.493	0.512	-3.9	90	0.00
77	T	Hexachlorobutadiene	0.287	0.278	3.1	89	0.00
78	T	Naphthalene	1.632	1.764	-8.1	90	0.00
79	T	1,2,3-Trichlorobenzene	0.470	0.479	-1.9	88	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.389	0.391	-0.5	87	0.00
81	T	Methyl acetate	0.525	0.610	-16.2	119	0.00
82	T	Cyclohexane	0.710	0.727	-2.4	92	0.00
83	T	Methylcyclohexane	0.755	0.791	-4.8	91	0.00

(#) = Out of Range

E8240616.M Mon Jun 17 09:31:21 2024 1

INTEGRATED ANALYTICAL LABORATORIES, LLC

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9518.D
 Acq On : 24 Jun 2024 10:04
 Operator : Sylvia
 Sample : CCV240624-01,CCV100,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 25 12:06:00 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	128	0.00
2 T	Dichlorodifluoromethane	0.636	0.515	19.0	102	0.00
3 P	Chloromethane	0.526	0.496	5.7	118	0.00
4 C	Vinyl chloride	0.552	0.510	7.6	114	0.01
5 T	Bromomethane	0.364	0.357	1.9	130	0.00
6 T	Chloroethane	0.334	0.326	2.4	126	0.01
7 T	Trichlorofluoromethane	1.059	1.119	-5.7	123	0.00
9 MC	1,1-Dichloroethene	0.489	0.511	-4.5	124	0.03
10 T	Acetone	0.323	0.325	-0.6	132	0.00
11 T	Carbon disulfide	3.381	3.288	2.8	129	0.02
12 T	Vinyl acetate	0.665	0.682	-2.6	137	0.00
13 T	Methylene chloride	0.654	0.661	-1.1	132	0.01
14 T	Acrylonitrile	0.258	0.292	-13.2	156	-0.02
15 T	tert-Butyl alcohol (TBA)	0.101	0.111	-9.9	134	0.00
16 T	trans-1,2-Dichloroethene	0.574	0.557	3.0	127	0.00
17 T	Methyl tert-butyl ether (MT)	2.197	2.262	-3.0	129	0.00
18 P	1,1-Dichloroethane	1.178	1.199	-1.8	127	0.00
19 T	Diisopropyl ether (DIPE)	1.392	1.513	-8.7	130	0.00
20 T	cis-1,2-Dichloroethene	0.599	0.626	-4.5	129	0.00
22 T	2-Butanone (MEK)	0.414	0.441	-6.5	140	0.00
23 T	Bromochloromethane	0.246	0.254	-3.3	127	0.00
25 C	Chloroform	1.390	1.339	3.7	128	0.00
26 T	1,1,1-Trichloroethane	1.287	1.291	-0.3	130	0.00
27 T	Carbon tetrachloride	1.004	1.037	-3.3	124	0.00
28 T	1,1-Dichloropropene	0.959	0.976	-1.8	131	0.01
29 T	1,2-Dichloroethane (EDC)	1.246	1.239	0.6	134	0.00
30 S	1,2-Dichloroethane-d4	0.828	0.817	1.3	131	0.00
31 I	1,4-Difluorobenzene	1.000	1.000	0.0	125	0.00
32 M	Benzene	1.748	1.759	-0.6	128	0.00
33 M	Trichloroethene	0.474	0.457	3.6	118	-0.01
34 C	1,2-Dichloropropane	0.386	0.404	-4.7	127	0.00
35 T	Dibromomethane	0.297	0.297	0.0	129	-0.02
37 T	Bromodichloromethane	0.667	0.708	-6.1	129	0.00
38 T	2-Chloroethyl vinyl ether	0.296	0.339	-14.5	128	0.00
39 T	cis-1,3-Dichloropropene	0.615	0.690	-12.2	132	0.00
40 T	4-Methyl-2-pentanone (MIBK)	0.568	0.640	-12.7	134	0.00
41 S	Toluene-d8	1.152	1.180	-2.4	127	0.00
42 MC	Toluene	1.073	1.109	-3.4	128	0.00
43 T	trans-1,3-Dichloropropene	0.638	0.752	-17.9	139	0.00
44 T	1,1,2-Trichloroethane	0.328	0.351	-7.0	130	0.00
45 T	Tetrachloroethene	0.375	0.408	-8.8	128	0.00
46 T	1,3-Dichloropropane	0.784	0.822	-4.8	131	0.00
47 T	2-Hexanone	0.455	0.503	-10.5	133	0.00
48 T	Dibromochloromethane	0.416	0.433	-4.1	128	0.00
49 T	1,2-Dibromoethane (EDB)	0.413	0.427	-3.4	129	0.01

INTEGRATED ANALYTICAL LABORATORIES, LLC

50	I	Chlorobenzene-d5	1.000	1.000	0.0	130	0.00
51	MP	Chlorobenzene	1.172	1.179	-0.6	131	0.01
52	T	1,1,1,2-Tetrachloroethane	0.461	0.444	3.7	125	0.00
53	C	Ethylbenzene	2.330	2.472	-6.1	132	0.00
54	T	m,p-Xylene	0.807	0.848	-5.1	133	0.00
55	T	o-Xylene	0.789	0.831	-5.3	130	0.00
56	T	Styrene	1.238	1.426	-15.2	135	0.00
57	P	Bromoform	0.338	0.357	-5.6	126	0.01
58	T	Isopropylbenzene	2.025	2.144	-5.9	127	0.00
59	S	Bromofluorobenzene	0.651	0.678	-4.1	134	0.00
60	P	1,1,2,2-Tetrachloroethane	0.663	0.728	-9.8	145	0.00
61	T	Bromobenzene	0.495	0.496	-0.2	132	0.00
62	T	1,2,3-Trichloropropane	0.874	0.824	5.7	133	0.00
63	T	n-Propylbenzene	2.414	2.668	-10.5	132	0.00
64	T	2-Chlorotoluene	1.935	2.089	-8.0	134	0.00
65	T	1,3,5-Trimethylbenzene	1.865	1.906	-2.2	127	0.00
66	T	4-Chlorotoluene	1.699	1.738	-2.3	131	0.00
67	T	tert-Butylbenzene	1.406	1.408	-0.1	118	0.00
68	T	1,2,4-Trimethylbenzene	1.767	1.864	-5.5	128	0.01
69	T	sec-Butylbenzene	2.041	2.115	-3.6	123	0.00
70	T	1,3-Dichlorobenzene	0.836	0.796	4.8	125	0.00
71	T	4-Isopropyltoluene	1.459	1.532	-5.0	123	0.00
72	T	1,4-Dichlorobenzene	0.784	0.796	-1.5	134	0.00
73	T	n-Butylbenzene	1.487	1.743	-17.2	131	0.00
74	T	1,2-Dichlorobenzene	0.807	0.817	-1.2	131	0.00
75	T	1,2-Dibromo-3-chloropropane	0.247	0.258	-4.5	129	0.01
76	T	1,2,4-Trichlorobenzene	0.493	0.543	-10.1	129	0.00
77	T	Hexachlorobutadiene	0.287	0.283	1.4	123	0.00
78	T	Naphthalene	1.632	1.854	-13.6	129	0.00
79	T	1,2,3-Trichlorobenzene	0.470	0.504	-7.2	126	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.389	0.396	-1.8	120	0.00
81	T	Methyl acetate	0.525	0.519	1.1	137	0.00
82	T	Cyclohexane	0.710	0.708	0.3	122	0.01
83	T	Methylcyclohexane	0.755	0.806	-6.8	126	0.00

(#) = Out of Range

E8240616.M Tue Jun 25 12:06:21 2024 1

INTEGRATED ANALYTICAL LABORATORIES, LLC

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9548.D
 Acq On : 25 Jun 2024 12:47
 Operator : Sylvia
 Sample : CCV240625-01,CCV100,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 26 13:43:02 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Pentafluorobenzene	1.000	1.000	0.0	115	0.00
2 T	Dichlorodifluoromethane	0.636	0.550	13.5	97	0.00
3 P	Chloromethane	0.526	0.513	2.5	110	-0.02
4 C	Vinyl chloride	0.552	0.515	6.7	103	0.01
5 T	Bromomethane	0.364	0.377	-3.6	123	0.00
6 T	Chloroethane	0.334	0.341	-2.1	118	0.00
7 T	Trichlorofluoromethane	1.059	1.205	-13.8	119	0.00
9 MC	1,1-Dichloroethene	0.489	0.536	-9.6	116	0.02
10 T	Acetone	0.323	0.315	2.5	115	0.00
11 T	Carbon disulfide	3.381	3.422	-1.2	120	0.01
12 T	Vinyl acetate	0.665	0.739	-11.1	133	0.00
13 T	Methylene chloride	0.654	0.693	-6.0	124	0.00
14 T	Acrylonitrile	0.258	0.271	-5.0	130	-0.01
15 T	tert-Butyl alcohol (TBA)	0.101	0.108	-6.9	117	0.01
16 T	trans-1,2-Dichloroethene	0.574	0.616	-7.3	126	-0.01
17 T	Methyl tert-butyl ether (MT)	2.197	2.496	-13.6	128	0.00
18 P	1,1-Dichloroethane	1.178	1.318	-11.9	125	0.00
20 T	cis-1,2-Dichloroethene	0.599	0.675	-12.7	125	0.00
22 T	2-Butanone (MEK)	0.414	0.445	-7.5	127	0.00
23 T	Bromochloromethane	0.246	0.284	-15.4	128	0.00
25 C	Chloroform	1.390	1.486	-6.9	128	0.00
26 T	1,1,1-Trichloroethane	1.287	1.410	-9.6	127	0.00
27 T	Carbon tetrachloride	1.004	1.145	-14.0	123	0.00
28 T	1,1-Dichloropropene	0.959	1.057	-10.2	127	0.01
29 T	1,2-Dichloroethane (EDC)	1.246	1.377	-10.5	133	0.00
30 S	1,2-Dichloroethane-d4	0.828	0.882	-6.5	126	0.00
31 I	1,4-Difluorobenzene	1.000	1.000	0.0	120	0.00
32 M	Benzene	1.748	1.780	-1.8	125	0.00
33 M	Trichloroethene	0.474	0.470	0.8	117	-0.01
34 C	1,2-Dichloropropane	0.386	0.427	-10.6	129	0.00
35 T	Dibromomethane	0.297	0.304	-2.4	127	-0.02
37 T	Bromodichloromethane	0.667	0.735	-10.2	130	0.00
38 T	2-Chloroethyl vinyl ether	0.296	0.293	1.0	107	0.00
39 T	cis-1,3-Dichloropropene	0.615	0.681	-10.7	126	0.00
40 T	4-Methyl-2-pentanone (MIBK)	0.568	0.604	-6.3	122	0.00
41 S	Toluene-d8	1.152	1.178	-2.3	122	0.00
42 MC	Toluene	1.073	1.169	-8.9	130	0.00
43 T	trans-1,3-Dichloropropene	0.638	0.643	-0.8	115	0.00
44 T	1,1,2-Trichloroethane	0.328	0.358	-9.1	127	0.00
45 T	Tetrachloroethene	0.375	0.420	-12.0	127	0.00
46 T	1,3-Dichloropropane	0.784	0.859	-9.6	132	0.00
47 T	2-Hexanone	0.455	0.499	-9.7	127	0.00
48 T	Dibromochloromethane	0.416	0.459	-10.3	130	0.00
49 T	1,2-Dibromoethane (EDB)	0.413	0.449	-8.7	130	0.01

INTEGRATED ANALYTICAL LABORATORIES, LLC

50	I	Chlorobenzene-d5	1.000	1.000	0.0	131	0.00
51	MP	Chlorobenzene	1.172	1.170	0.2	131	0.01
52	T	1,1,1,2-Tetrachloroethane	0.461	0.459	0.4	131	0.00
53	C	Ethylbenzene	2.330	2.480	-6.4	134	0.00
54	T	m,p-Xylene	0.807	0.855	-5.9	135	0.00
55	T	o-Xylene	0.789	0.846	-7.2	134	0.00
56	T	Styrene	1.238	1.425	-15.1	137	0.00
57	P	Bromoform	0.338	0.359	-6.2	128	0.01
58	T	Isopropylbenzene	2.025	2.256	-11.4	135	0.00
59	S	Bromofluorobenzene	0.651	0.683	-4.9	136	0.00
60	P	1,1,2,2-Tetrachloroethane	0.663	0.734	-10.7	148	0.00
61	T	Bromobenzene	0.495	0.497	-0.4	134	0.00
62	T	1,2,3-Trichloropropane	0.874	0.822	5.9	134	0.00
63	T	n-Propylbenzene	2.414	2.809	-16.4	141	0.00
64	T	2-Chlorotoluene	1.935	2.208	-14.1	143	0.00
65	T	1,3,5-Trimethylbenzene	1.865	2.087	-11.9	140	0.00
66	T	4-Chlorotoluene	1.699	1.819	-7.1	139	0.00
67	T	tert-Butylbenzene	1.406	1.580	-12.4	134	0.00
68	T	1,2,4-Trimethylbenzene	1.767	2.025	-14.6	140	0.01
69	T	sec-Butylbenzene	2.041	2.354	-15.3	138	0.00
70	T	1,3-Dichlorobenzene	0.836	0.833	0.4	132	-0.01
71	T	4-Isopropyltoluene	1.459	1.716	-17.6	140	0.00
72	T	1,4-Dichlorobenzene	0.784	0.833	-6.2	141	-0.01
74	T	1,2-Dichlorobenzene	0.807	0.862	-6.8	140	0.00
75	T	1,2-Dibromo-3-chloropropane	0.247	0.265	-7.3	134	0.01
76	T	1,2,4-Trichlorobenzene	0.493	0.565	-14.6	136	0.00
77	T	Hexachlorobutadiene	0.287	0.291	-1.4	128	0.00
78	T	Naphthalene	1.632	1.900	-16.4	133	0.00
79	T	1,2,3-Trichlorobenzene	0.470	0.518	-10.2	131	0.00
80	T	1,1,2-Trichloro-1,2,2-trifl	0.389	0.389	0.0	119	0.00
81	T	Methyl acetate	0.525	0.499	5.0	133	0.00
82	T	Cyclohexane	0.710	0.674	5.1	117	0.00
83	T	Methylcyclohexane	0.755	0.787	-4.2	124	0.00

(#) = Out of Range

E8240616.M Wed Jun 26 13:43:07 2024 1

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E9266.D

Date Analyzed: 06/16/2024

Instrument ID: MSD_E

Time Analyzed: 19:35

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	110164	6.20	163631	7.02	143499	10.38
	UPPER LIMIT	220328	6.70	327262	7.52	286998	10.88
	LOWER LIMIT	55082	5.70	81815.5	6.52	71749.5	9.88
	LAB SAMPLE ID						
01	ICC00.5	105783	6.20	149786	7.02	129868	10.38
02	ICC001	102353	6.20	146326	7.02	123488	10.38
03	ICC005	102211	6.20	147947	7.02	126483	10.38
04	ICC020	103195	6.20	152826	7.02	130758	10.38
05	ICC150	108306	6.19	156681	7.02	142257	10.38
06	ICC200	111121	6.19	166063	7.02	148812	10.38
07	ICV100	107757	6.19	154788	7.02	137102	10.38
08	BLKA240616-01	102415	6.20	150118	7.02	123848	10.38
09	E24-02039-006	96879	6.20	144496	7.02	119307	10.38
10	E24-02037-006	98652	6.20	148853	7.02	121040	10.38
11	E24-02037-005	98020	6.19	147145	7.02	120704	10.38
12	E24-02037-001	104027	6.20	153396	7.02	124995	10.38
13	E24-02037-001DUP	96279	6.20	145750	7.02	119606	10.38
14	E24-02037-002	97491	6.20	146069	7.02	123258	10.38
15	E24-02037-003	96555	6.20	144196	7.02	116393	10.38
16	E24-02037-004	97149	6.20	143161	7.02	124029	10.38
17	E24-02039-001	96953	6.20	146117	7.02	122000	10.37
18	E24-02039-002	94400	6.20	139890	7.02	115784	10.37
19	E24-02039-003	97239	6.20	143654	7.02	123422	10.38
20	E24-02039-004	99048	6.19	144437	7.02	116456	10.37
21	E24-02039-005	97720	6.20	145505	7.02	123656	10.38
22	LCSA_240616-01	98106	6.20	145640	7.02	126393	10.38

IS1 = PENTAFLUOROBENZENE

IS2 = 1,4-DIFLUOROBENZENE

IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +200% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E9266.D

Date Analyzed: 06/16/2024

Instrument ID: MSD_E

Time Analyzed: 19:35

50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	110164	6.20	163631	7.02	143499	10.38
UPPER LIMIT	220328	6.70	327262	7.52	286998	10.88
LOWER LIMIT	55082	5.70	81815.5	6.52	71749.5	9.88
LAB SAMPLE ID						
23 2039-001MS	101534	6.20	152236	7.02	135276	10.38
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IS1 = PENTAFLUOROBENZENE

IS2 = 1,4-DIFLUOROBENZENE

IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +200% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E9518.D

Date Analyzed: 06/24/2024

Instrument ID: MSD_E

Time Analyzed: 10:04

	50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	141458	6.20	204210	7.02	186160	10.39
	UPPER LIMIT	282916	6.70	408420	7.52	372320	10.89
	LOWER LIMIT	70729	5.70	102105	6.52	93080	9.89
	LAB SAMPLE ID						
01	BLKA240624-01	130771	6.20	191571	7.02	175736	10.38
02	E24-02091-005	128002	6.20	185990	7.02	176948	10.38
03	E24-02091-004	125457	6.20	191156	7.02	173273	10.38
04	E24-02128-005	122584	6.20	186090	7.02	171222	10.38
05	E24-02128-006	121196	6.20	183140	7.02	169505	10.38
06	E24-02124-006	120805	6.20	183784	7.02	171851	10.38
07	E24-02124-005	120251	6.20	185463	7.02	167976	10.38
08	E24-02091-001	118094	6.20	179150	7.02	167676	10.38
09	E24-02091-001DUP	116954	6.20	179836	7.02	165446	10.38
10	E24-02091-002	117180	6.20	178826	7.02	165794	10.38
11	E24-02091-003	113985	6.20	174906	7.02	164439	10.38
12	E24-02124-001	120197	6.20	182935	7.02	172661	10.38
13	E24-02124-002	113371	6.20	177867	7.02	161341	10.38
14	E24-02124-003	115290	6.20	177899	7.02	164232	10.38
15	E24-02124-004	112164	6.20	172980	7.02	159743	10.38
16	E24-02128-002	112716	6.20	180715	7.02	162096	10.38
17	E24-02128-001	114731	6.20	174674	7.02	162735	10.38
18	E24-02128-003	116099	6.20	179569	7.02	162331	10.38
19	E24-02128-004	118480	6.20	179313	7.02	164922	10.38
20	E24-02132-004	114794	6.20	172669	7.02	162244	10.38
21	E24-02107-005DL	113967	6.20	178610	7.02	166670	10.38
22	E24-02107-012	126473	6.20	192773	7.02	183004	10.38

IS1 = PENTAFLUOROBENZENE

IS2 = 1,4-DIFLUOROBENZENE

IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +200% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E9518.D

Date Analyzed: 06/24/2024

Instrument ID: MSD_E

Time Analyzed: 10:04

50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	141458	6.20	204210	7.02	186160	10.39
UPPER LIMIT	282916	6.70	408420	7.52	372320	10.89
LOWER LIMIT	70729	5.70	102105	6.52	93080	9.89
LAB SAMPLE ID						
23 LCSA_240624-01	126644	6.20	190818	7.02	183132	10.38
24 2124-004MS	128585	6.20	198749	7.02	181633	10.38
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IS1 = PENTAFLUOROBENZENE

IS2 = 1,4-DIFLUOROBENZENE

IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +200% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E9548.D

Date Analyzed: 06/25/2024

Instrument ID: MSD_E

Time Analyzed: 12:47

50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	126877	6.20	196620	7.02	187958	10.38
UPPER LIMIT	253754	6.70	393240	7.52	375916	10.88
LOWER LIMIT	63438.5	5.70	98310	6.52	93979	9.88
LAB SAMPLE ID						
01 BLKA240625-01	120726	6.20	183779	7.02	174070	10.38
02 E24-02128-007	119729	6.20	181779	7.02	170427	10.38
03 E24-02133-010	119261	6.20	179268	7.02	166586	10.38
04 E24-02133-008	118642	6.20	183101	7.02	170137	10.38
05 E24-02148-011	119631	6.20	181213	7.02	167768	10.38
06 E24-02148-010	117734	6.19	179390	7.02	166102	10.38
07 E24-02148-009	113784	6.20	176067	7.02	163328	10.38
08 E24-02148-001	112081	6.20	168202	7.02	160037	10.38
09 E24-02148-001DUP	115333	6.20	174886	7.02	162067	10.38
10 E24-02148-002	114281	6.20	171703	7.02	165411	10.38
11 E24-02148-004	117674	6.20	179876	7.02	165503	10.38
12 E24-02148-003	111613	6.20	172366	7.02	166297	10.38
13 E24-02148-006	115574	6.20	175320	7.02	163263	10.38
14 E24-02142-022	115247	6.20	176569	7.02	162813	10.38
15 E24-02142-023	112007	6.20	171490	7.02	159495	10.38
16 E24-02128-001DL	112783	6.20	170587	7.02	163734	10.38
17 E24-02128-003DL	115535	6.20	171946	7.02	162193	10.38
18 E24-02128-004DL	114661	6.20	173239	7.02	162793	10.38
19 E24-02148-007	115973	6.20	175741	7.02	165810	10.38
20 E24-02148-008	114341	6.20	177159	7.02	167288	10.38
21 E24-02148-005	121126	6.20	185735	7.02	178233	10.38
22 E24-02142-024	123703	6.20	186365	7.02	177615	10.38

IS1 = PENTAFLUOROBENZENE

IS2 = 1,4-DIFLUOROBENZENE

IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +200% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E9548.D

Date Analyzed: 06/25/2024

Instrument ID: MSD_E

Time Analyzed: 12:47

50UG/L	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	126877	6.20	196620	7.02	187958	10.38
UPPER LIMIT	253754	6.70	393240	7.52	375916	10.88
LOWER LIMIT	63438.5	5.70	98310	6.52	93979	9.88
LAB SAMPLE ID						
23 LCSA_240625-01	126798	6.20	191339	7.02	184385	10.38
24 2148-004MS	129101	6.20	194599	7.02	188138	10.38
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						

IS1 = PENTAFLUOROBENZENE

IS2 = 1,4-DIFLUOROBENZENE

IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = +200% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk

* Values outside of QC limits.

VOLATILE ORGANICS SAMPLE DATA

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9536.D
 Acq On : 24 Jun 2024 18:18
 Operator : Sylvia
 Sample : MW-10D,E24-02128-001,A,0.1mL,100
 Misc : EWMA/SWIVELIER - 2,06/18/24,06/19/24,50
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 26 13:22:46 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	114731	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	174674	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	162735	50.00	UG	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	104790	55.19	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	110.38%
41) Toluene-d8	8.71	98	207848	51.65	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.30%
59) Bromofluorobenzene	11.78	95	109951	51.86	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.72%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl chloride	2.06	62	1134m	0.89	UG	
16) trans-1,2-Dichloroethene	4.41	96	573	0.44	UG	# 94
20) cis-1,2-Dichloroethene	5.59	96	212956	154.87	UG	# 99
33) Trichloroethene	7.32	95	428127	258.30	UG	# 100
40) 4-Methyl-2-pentanone (MIBK)	8.70	43	1062	0.53	UG	# 85
45) Tetrachloroethene	9.43	166	1146	0.88	UG	# 97
74) 1,2-Dichlorobenzene	13.69	146	3496	1.33	UG	# 100
82) Cyclohexane	6.20	56	3070	1.33	UG	# 55

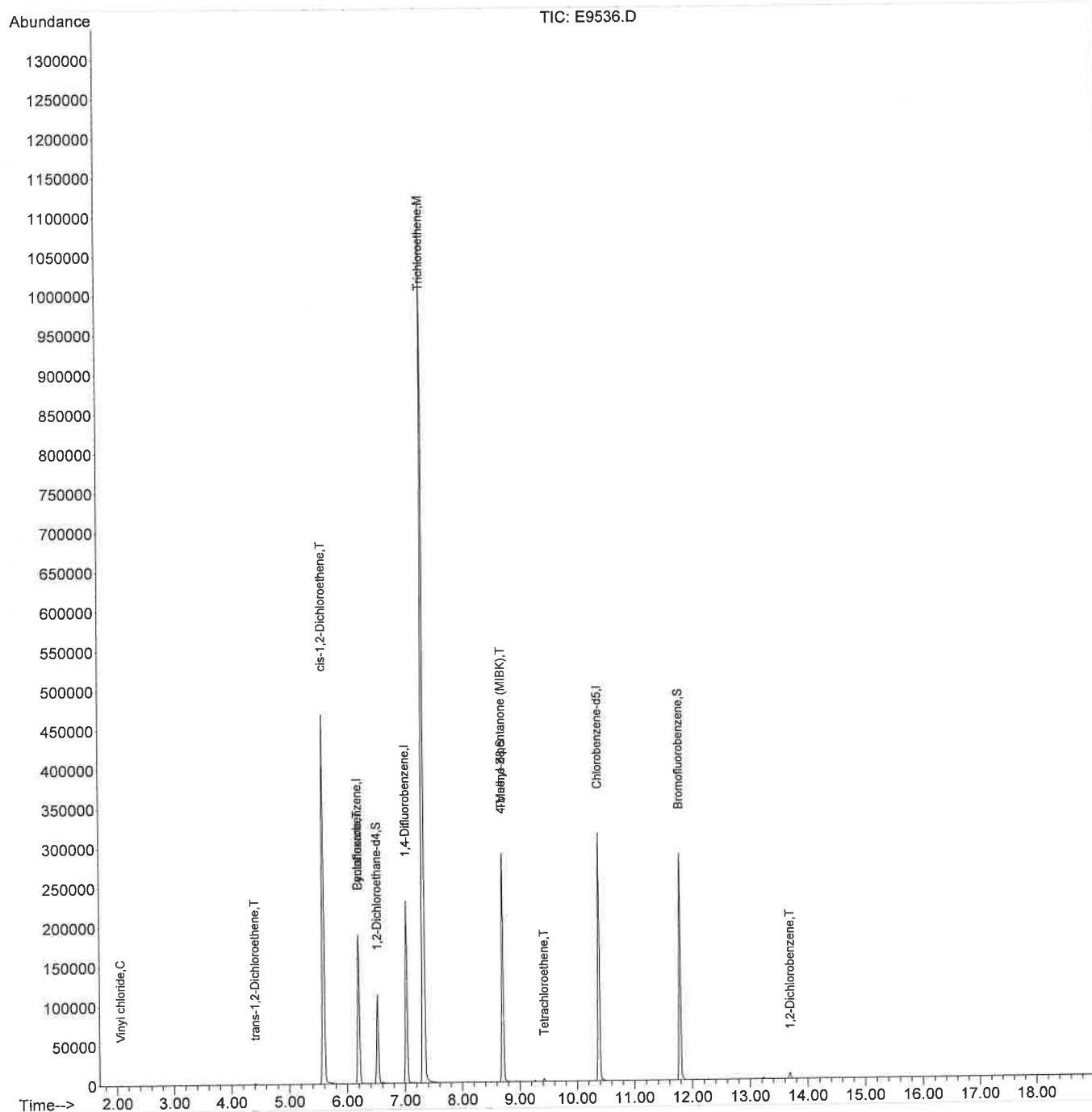
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9536.D
 Acq On : 24 Jun 2024 18:18
 Operator : Sylvia
 Sample : MW-10D, E24-02128-001, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER_2, 06/18/24, 06/19/24, 50
 ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 26 13:22:46 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Wed Jun 26 13:22:51 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9536.D
 Acq On : 24 Jun 2024 18:18
 Operator : Sylvia
 Sample : MW-10D, E24-02128-001, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/18/24, 06/19/24, 50
 ALS Vial : 20 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.588	727	744	762	rBV	468973	1002318	43.93%	16.362%
2	6.196	847	860	874	rBV	189348	404296	17.72%	6.600%
3	6.521	911	922	936	rBV	113413	237263	10.40%	3.873%
4	7.024	1006	1018	1040	rBV2	231413	476387	20.88%	7.777%
5	7.323	1062	1075	1107	rBV2	1115915	2281500	100.00%	37.244%
6	8.707	1325	1339	1358	rBV	290606	573896	25.15%	9.369%
7	10.380	1647	1658	1678	rBV	315161	605532	26.54%	9.885%
8	11.785	1916	1926	1946	rBB	287988	544552	23.87%	8.890%

Sum of corrected areas: 6125744

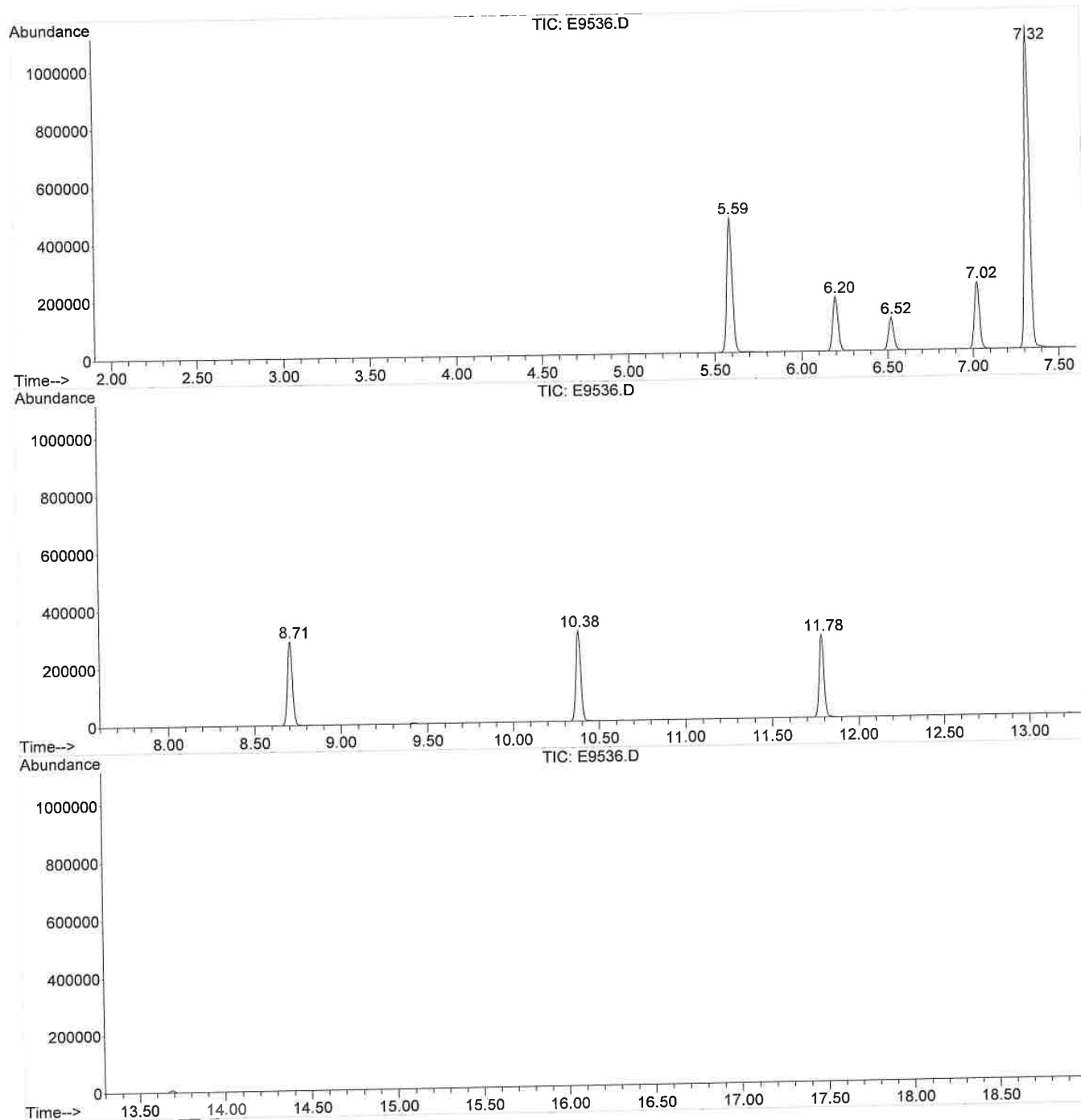
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9536.D
 Acq On : 24 Jun 2024 18:18
 Operator : Sylvia
 Sample : MW-10D, E24-02128-001, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/18/24, 06/19/24, 50
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
 TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9536.D
Acq On : 24 Jun 2024 18:188
Operator : Sylviaa
Sample : MW-10D, E24-02128-001, A, 0.1mL, 1000
Misc : EWMA/SWIVELIER - 2; 06/18/24, 06/19/24, 500
ALS Vial : 20 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9565.D
 Acq On : 25 Jun 2024 20:34
 Operator : Sylvia
 Sample : MW-10D,E24-02128-001DL,A,0.05mL,100
 Misc : EWMA/SWIVELIER - 2,06/18/24,06/19/24,100
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 26 09:08:08 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	112783	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	170587	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	163734	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	98355	52.69	UG	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	105.38%	
41) Toluene-d8	8.70	98	198668	50.55	UG	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	101.10%	
59) Bromofluorobenzene	11.78	95	108929	51.07	UG	0.00
Spiked Amount	50.000	Range 80 - 120	Recovery	=	102.14%	
Target Compounds						Qvalue
20) cis-1,2-Dichloroethene	5.59	96	102846	76.08	UG	# 98
33) Trichloroethene	7.32	95	207728	128.33	UG	# 100

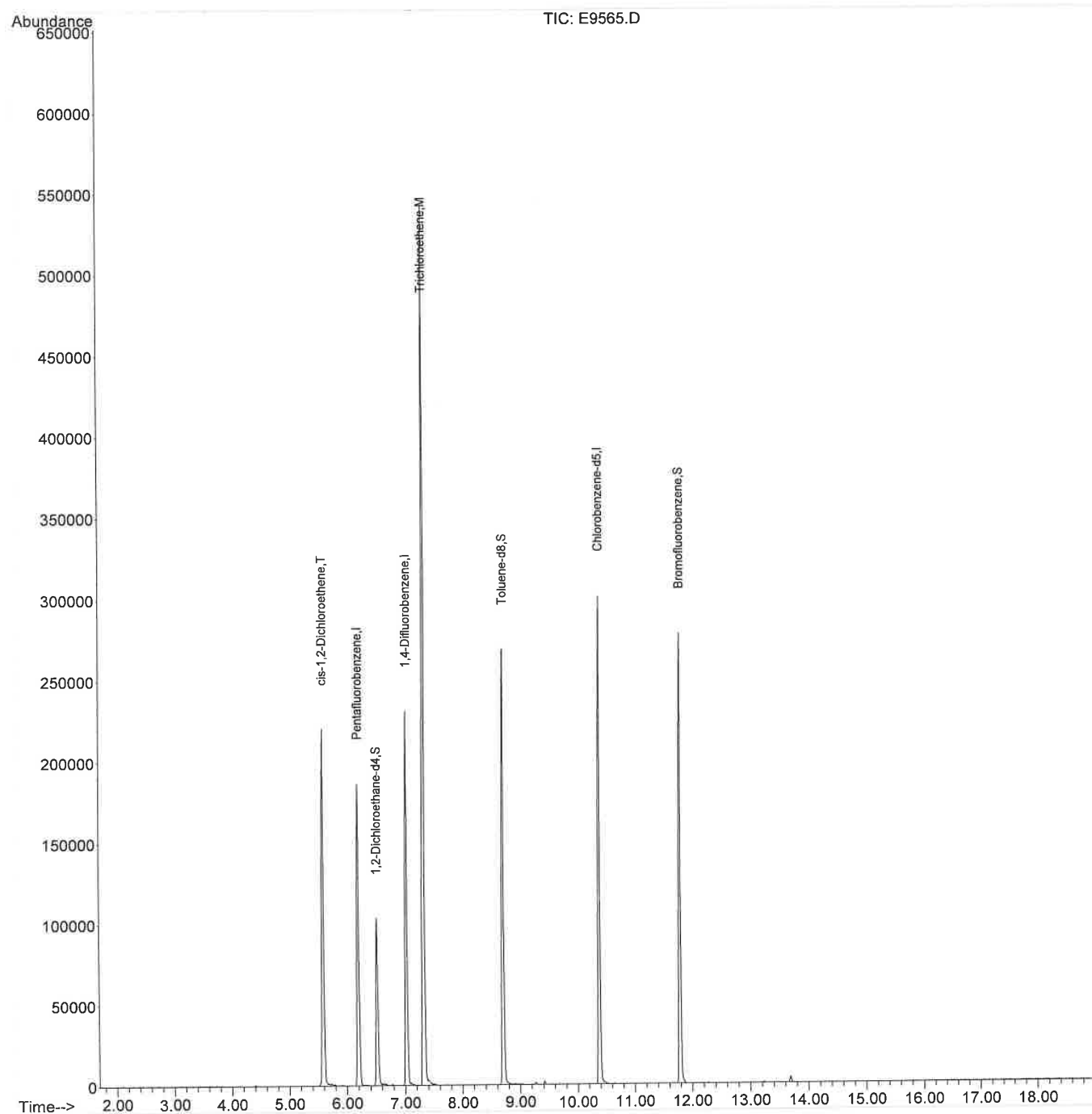
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
Data File : E9565.D
Acq On : 25 Jun 2024 20:34
Operator : Sylvia
Sample : MW-10D,E24-02128-001DL,A,0.05mL,100
Misc : EWMA/SWIVELIER - 2,06/18/24,06/19/24,100
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 26 09:08:08 2024
Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
QLast Update : Mon Jun 17 09:14:40 2024
Response via : Initial Calibration



E8240616.M Wed Jun 26 09:08:14 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9535.D
 Acq On : 24 Jun 2024 17:50
 Operator : Sylvia
 Sample : MW-11D, E24-02128-002, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 25 09:01:41 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	112716	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	180715	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	162096	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	111361	59.69	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	119.38%		
41) Toluene-d8	8.70	98	205724	49.42	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	98.84%		
59) Bromofluorobenzene	11.78	95	108611	51.43	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	102.86%		
Target Compounds						
20) cis-1,2-Dichloroethene	5.58	96	1857	1.37	UG	# 95
33) Trichloroethene	7.33	95	2652	1.55	UG	# 100

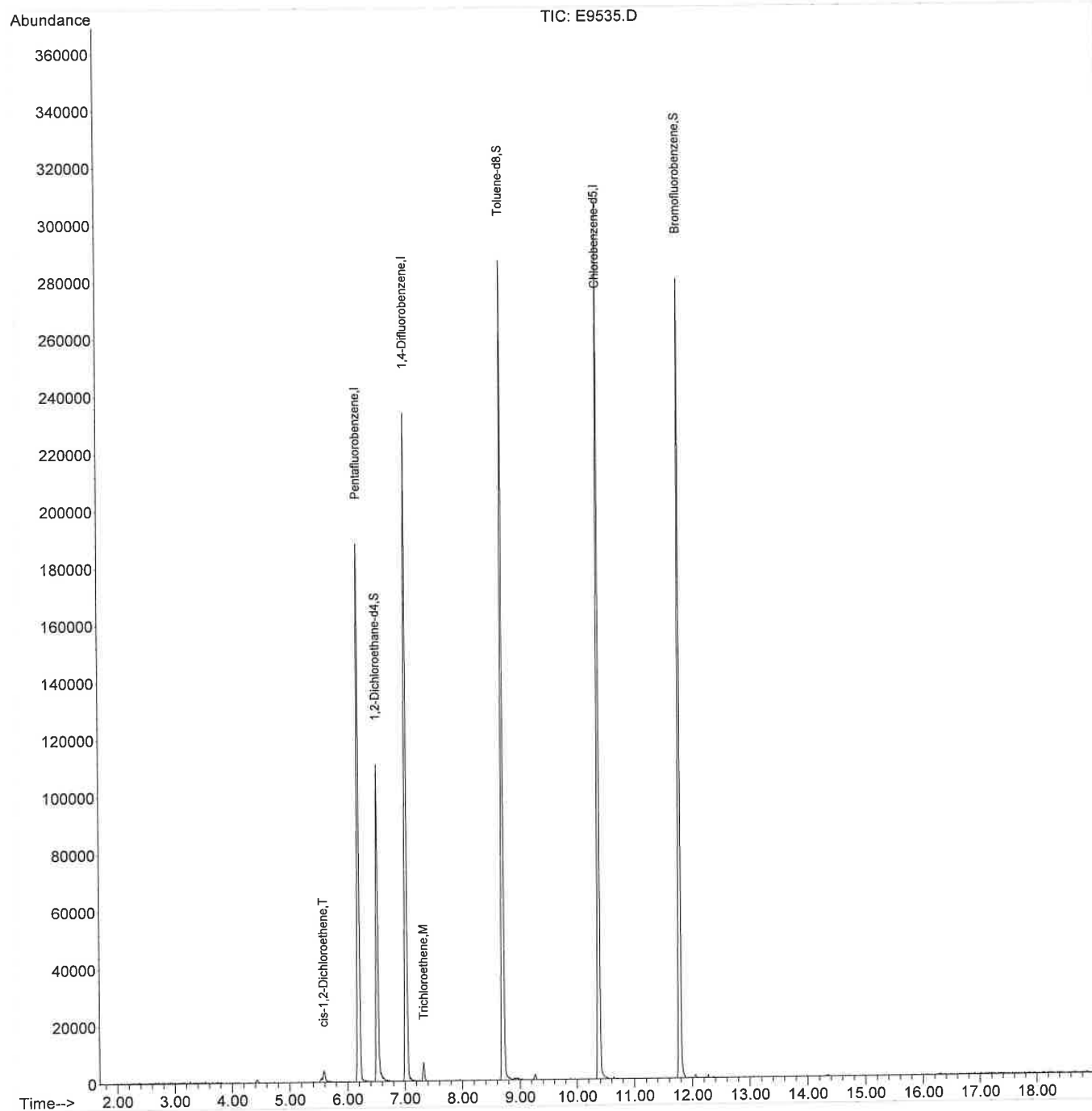
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9535.D
 Acq On : 24 Jun 2024 17:50
 Operator : Sylvia
 Sample : MW-11D, E24-02128-002, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 1
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 25 09:01:41 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Tue Jun 25 09:01:47 2024 1

Page: 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9535.D
 Acq On : 24 Jun 2024 17:50
 Operator : Sylvia
 Sample : MW-11D, E24-02128-002, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 1
 ALS Vial : 19 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.588	738	744	752	rVB4	3939	8836	1.48%	0.309%
2	6.196	849	860	879	rBV2	188507	403477	67.49%	14.131%
3	6.516	910	921	951	rBV	110949	246984	41.31%	8.650%
4	7.024	1007	1018	1035	rBV	233894	481931	80.61%	16.879%
5	7.323	1067	1075	1084	rBB4	6679	12812	2.14%	0.449%
6	8.702	1326	1338	1369	rBV2	287170	571084	95.53%	20.001%
7	10.380	1646	1658	1687	rBV	307689	597832	100.00%	20.938%
8	11.785	1915	1926	1947	rBB2	280310	532253	89.03%	18.641%

Sum of corrected areas: 2855209

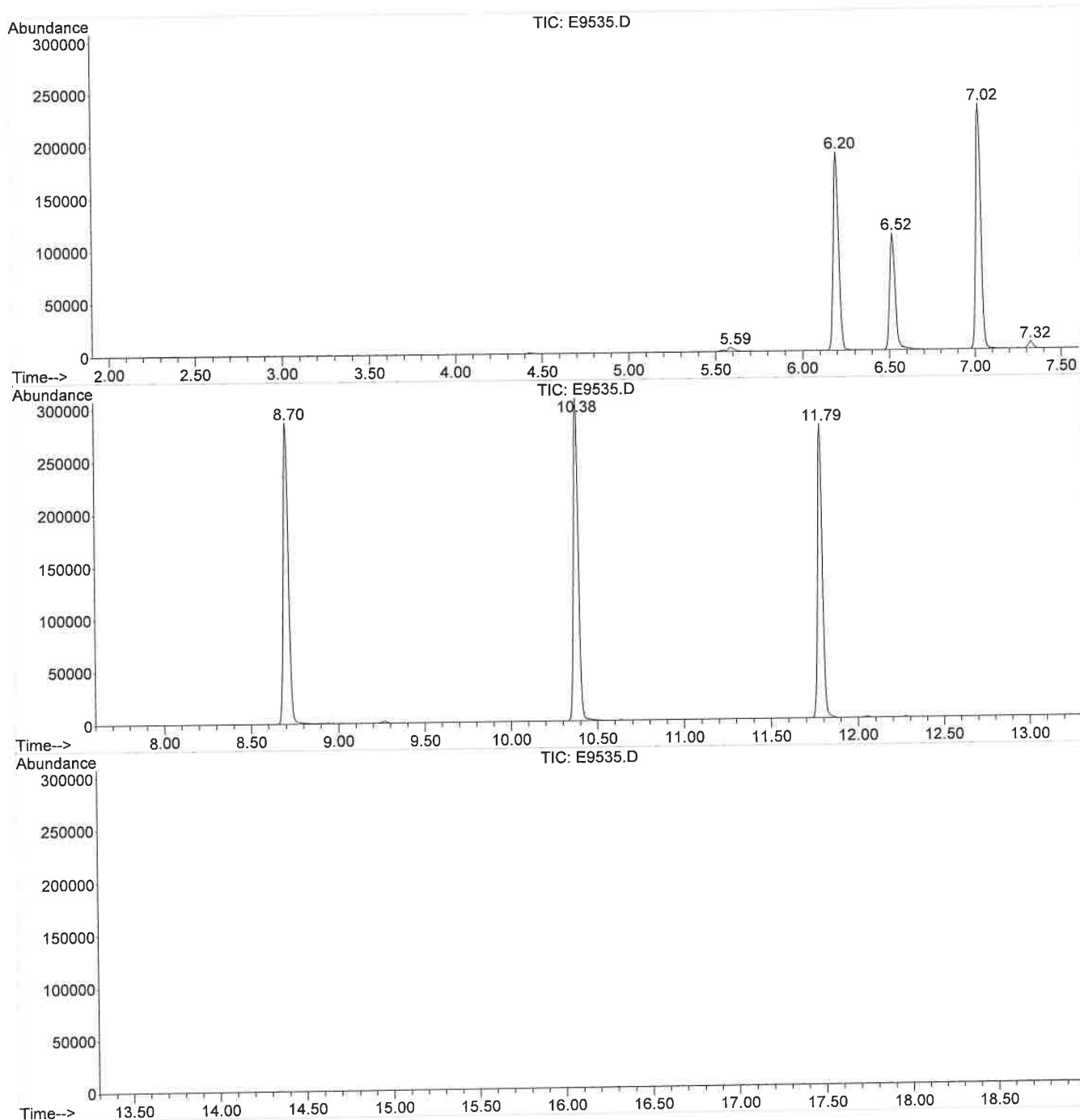
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9535.D
 Acq On : 24 Jun 2024 17:50
 Operator : Sylvia
 Sample : MW-11D, E24-02128-002, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 1
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
 TIC Integration Parameters: LSCINT.P



E8240616.M Tue Jun 25 09:01:58 2024 1

Page: 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9535.D
Acq On : 24 Jun 2024 17:500
Operator : Sylviaa
Sample : MW-11D, E24-02128-002; A, 5mL, 1000
Misc : EWMA/SWIVELIER - 2; 06/19/24, 06/19/24, 11
ALS Vial : 19 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--
					# RT Resp Conc

No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9537.D
 Acq On : 24 Jun 2024 18:45
 Operator : Sylvia
 Sample : MW-13D, E24-02128-003, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 26 13:24:24 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	116099	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	179569	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	162331	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	107629	56.01	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	112.02%		
41) Toluene-d8	8.71	98	205246	49.62	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	99.24%		
59) Bromofluorobenzene	11.78	95	107265	50.72	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.44%		
Target Compounds						
4) Vinyl chloride	2.08	62	1274m	0.99	UG	
16) trans-1,2-Dichloroethene	4.41	96	659	0.49	UG	# 95
20) cis-1,2-Dichloroethene	5.59	96	214410	154.09	UG	# 100
33) Trichloroethene	7.32	95	495241	290.65	UG	# 100
45) Tetrachloroethene	9.42	166	1163	0.86	UG	98
72) 1,4-Dichlorobenzene	13.23	146	1483	0.58	UG	97
74) 1,2-Dichlorobenzene	13.69	146	8084	3.09	UG	99

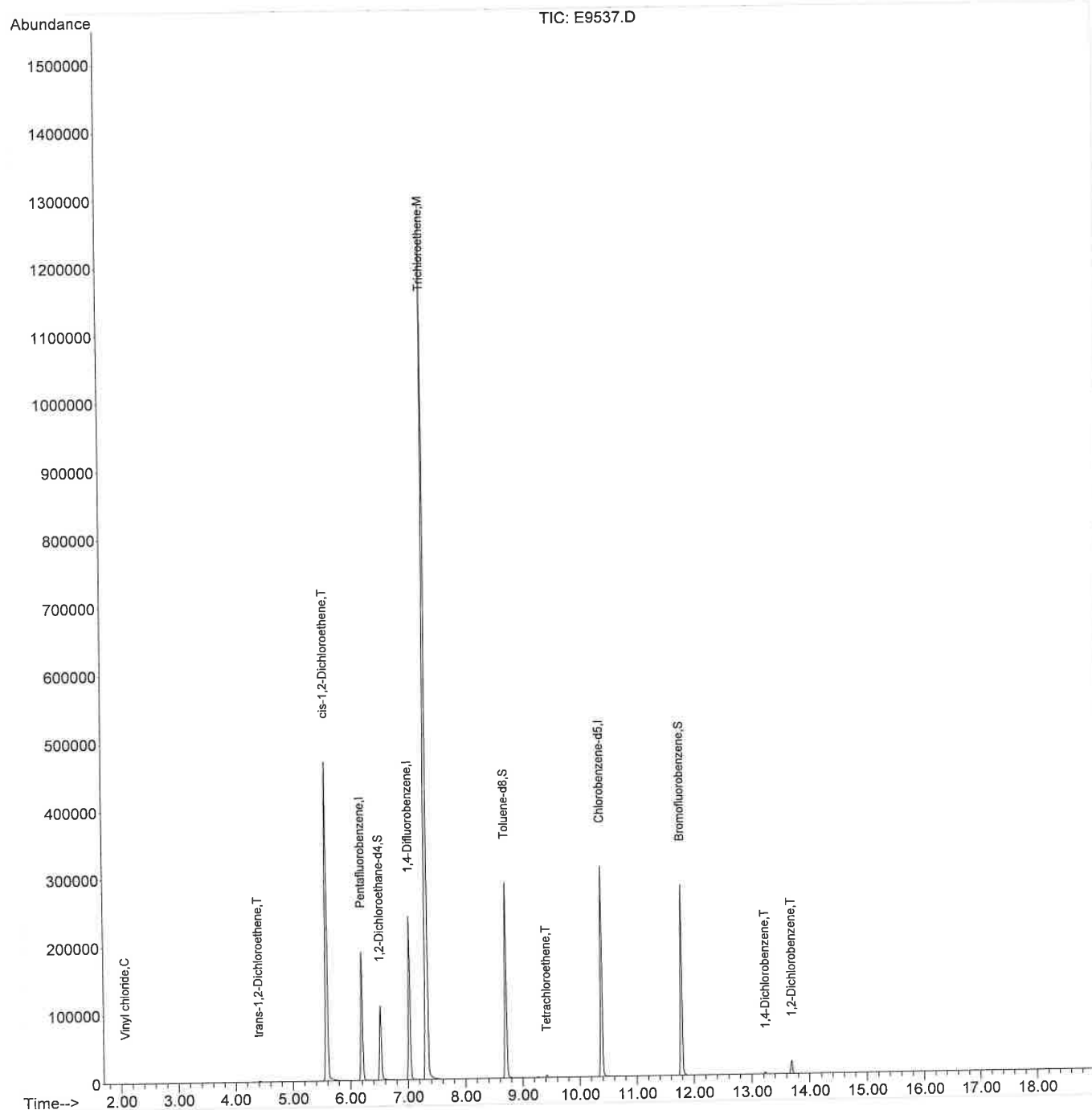
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9537.D
 Acq On : 24 Jun 2024 18:45
 Operator : Sylvia
 Sample : MW-13D, E24-02128-003, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 26 13:24:24 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Wed Jun 26 13:24:31 2024 1

Page: 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9537.D
 Acq On : 24 Jun 2024 18:45
 Operator : Sylvia
 Sample : MW-13D, E24-02128-003, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER_ - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.588	727	744	787	rBV	471305	1047177	40.18%	16.068%
2	6.196	845	860	877	rBV2	189833	404426	15.52%	6.206%
3	6.521	911	922	954	rBV	109833	243836	9.36%	3.741%
4	7.024	1006	1018	1035	rBV	241423	479147	18.39%	7.352%
5	7.323	1064	1075	1103	rBV2	1291536	2605937	100.00%	39.986%
6	8.707	1328	1339	1354	rBV	289005	569242	21.84%	8.735%
7	10.380	1645	1658	1676	rBV	310461	599614	23.01%	9.201%
8	11.785	1916	1926	1945	rBB	281635	529584	20.32%	8.126%
9	13.688	2281	2289	2298	rBB3	19435	38144	1.46%	0.585%

Sum of corrected areas: 6517107

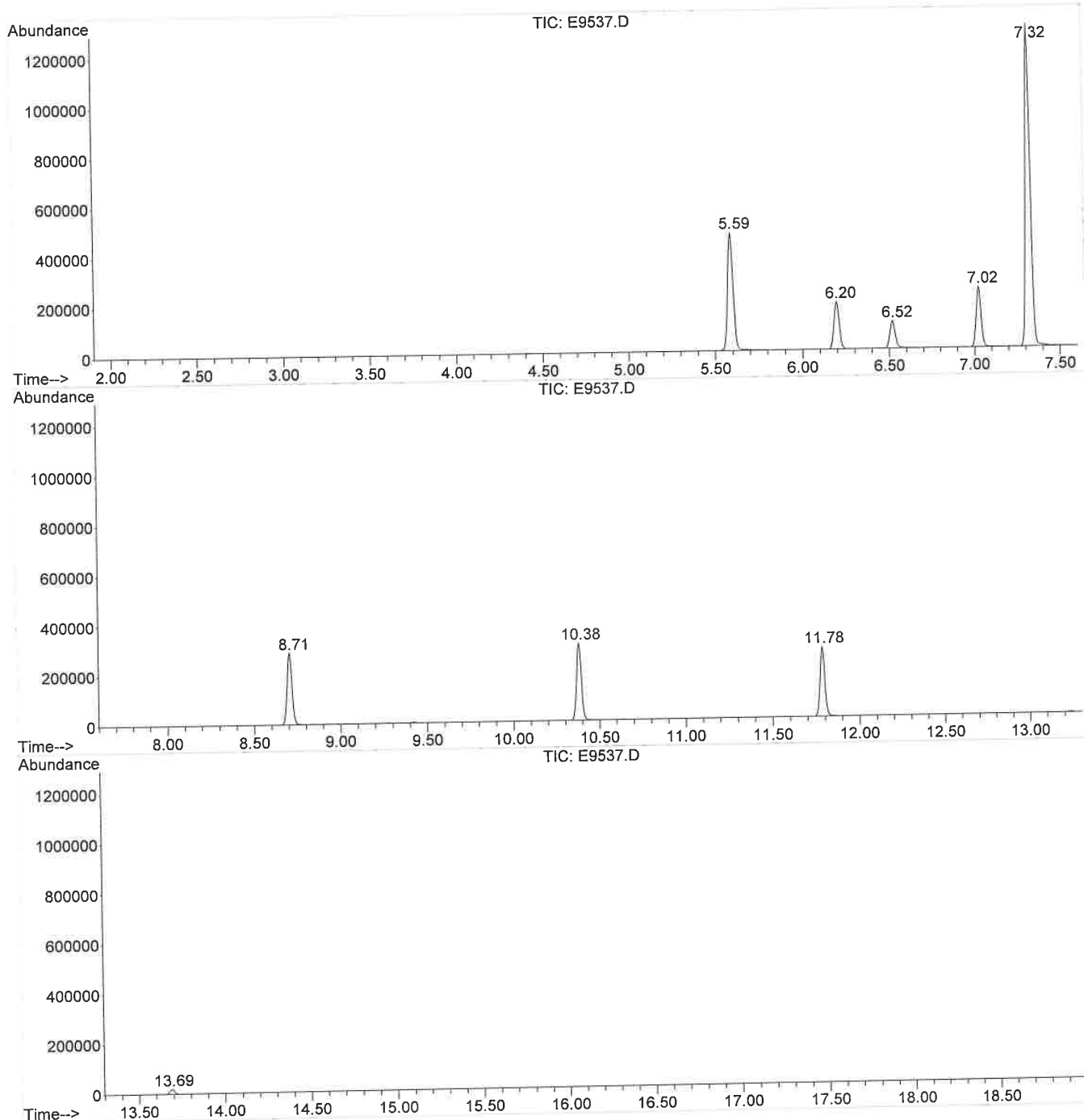
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9537.D
 Acq On : 24 Jun 2024 18:45
 Operator : Sylvia
 Sample : MW-13D, E24-02128-003, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
 TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9537.D
Acq On : 24 Jun 2024 18:455
Operator : Sylviaa
Sample : MW-13D,E24-02128-003;A,0.1mL,1000
Misc : EWMA/SWIVELIER - 2;06/19/24,06/19/24,500
ALS Vial : 21 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--		
					#	RT	Resp Conc

No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9566.D
 Acq On : 25 Jun 2024 21:02
 Operator : Sylvia
 Sample : MW-13D,E24-02128-003DL,A,0.05mL,100
 Misc : EWMA/SWIVELIER - 2,06/19/24,06/19/24,100
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 26 09:09:52 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	115535	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	171946	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	162193	50.00	UG	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
30) 1,2-Dichloroethane-d4		6.52	65	98046	51.27	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.54%	
41) Toluene-d8		8.71	98	201681	50.92	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.84%	
59) Bromofluorobenzene		11.78	95	109721	51.93	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.86%	

Target Compounds		R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl chloride		2.05	62	736m	0.58	UG	
16) trans-1,2-Dichloroethene		4.41	96	561m	0.42	UG	
20) cis-1,2-Dichloroethene		5.59	96	108008	78.00	UG	# 99
33) Trichloroethene		7.32	95	244112	149.62	UG	# 100
45) Tetrachloroethene		9.43	166	593m	0.46	UG	
74) 1,2-Dichlorobenzene		13.69	146	4798	1.83	UG	96

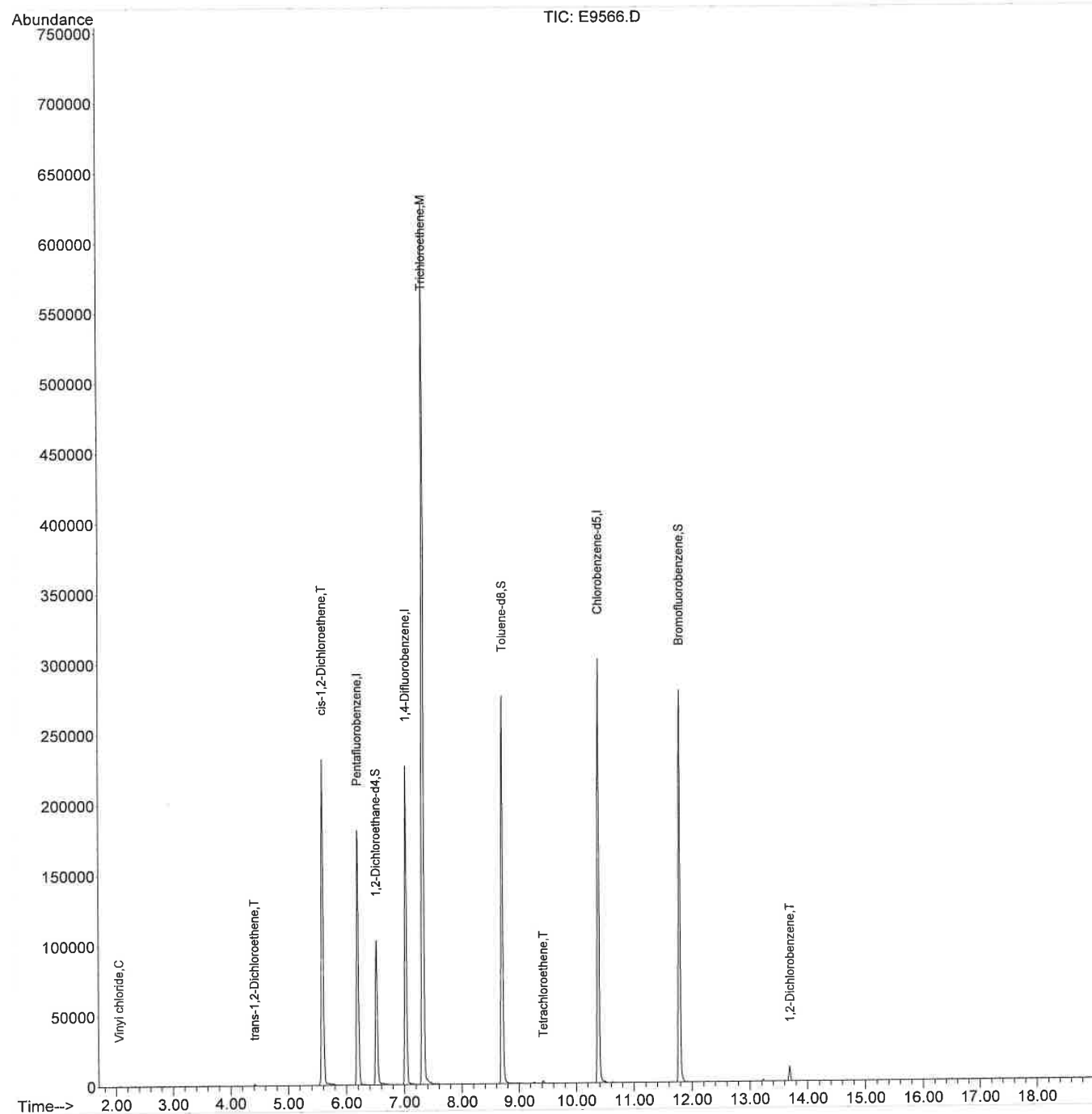
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9566.D
 Acq On : 25 Jun 2024 21:02
 Operator : Sylvia
 Sample : MW-13D,E24-02128-003DL,A,0.05mL,100
 Misc : EWMA/SWIVELIER - 2,06/19/24,06/19/24,100
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 26 09:09:52 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Wed Jun 26 09:10:19 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9538.D
 Acq On : 24 Jun 2024 19:12
 Operator : Sylvia
 Sample : DUP-1, E24-02128-004, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 25 09:19:26 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	118480	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	179313	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	164922	50.00	UG	0.00
System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	108926	55.55	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	111.10%		
41) Toluene-d8	8.71	98	208137	50.39	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	100.78%		
59) Bromofluorobenzene	11.78	95	109127	50.79	UG	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery =	101.58%		
Target Compounds						
4) Vinyl chloride	2.07	62	1539m	1.18	UG	
20) cis-1,2-Dichloroethene	5.59	96	230782	162.52	UG	# 99
33) Trichloroethene	7.32	95	523571	307.72	UG	# 100
45) Tetrachloroethene	9.42	166	1071	0.80	UG	98
74) 1,2-Dichlorobenzene	13.68	146	9320	3.50	UG	98

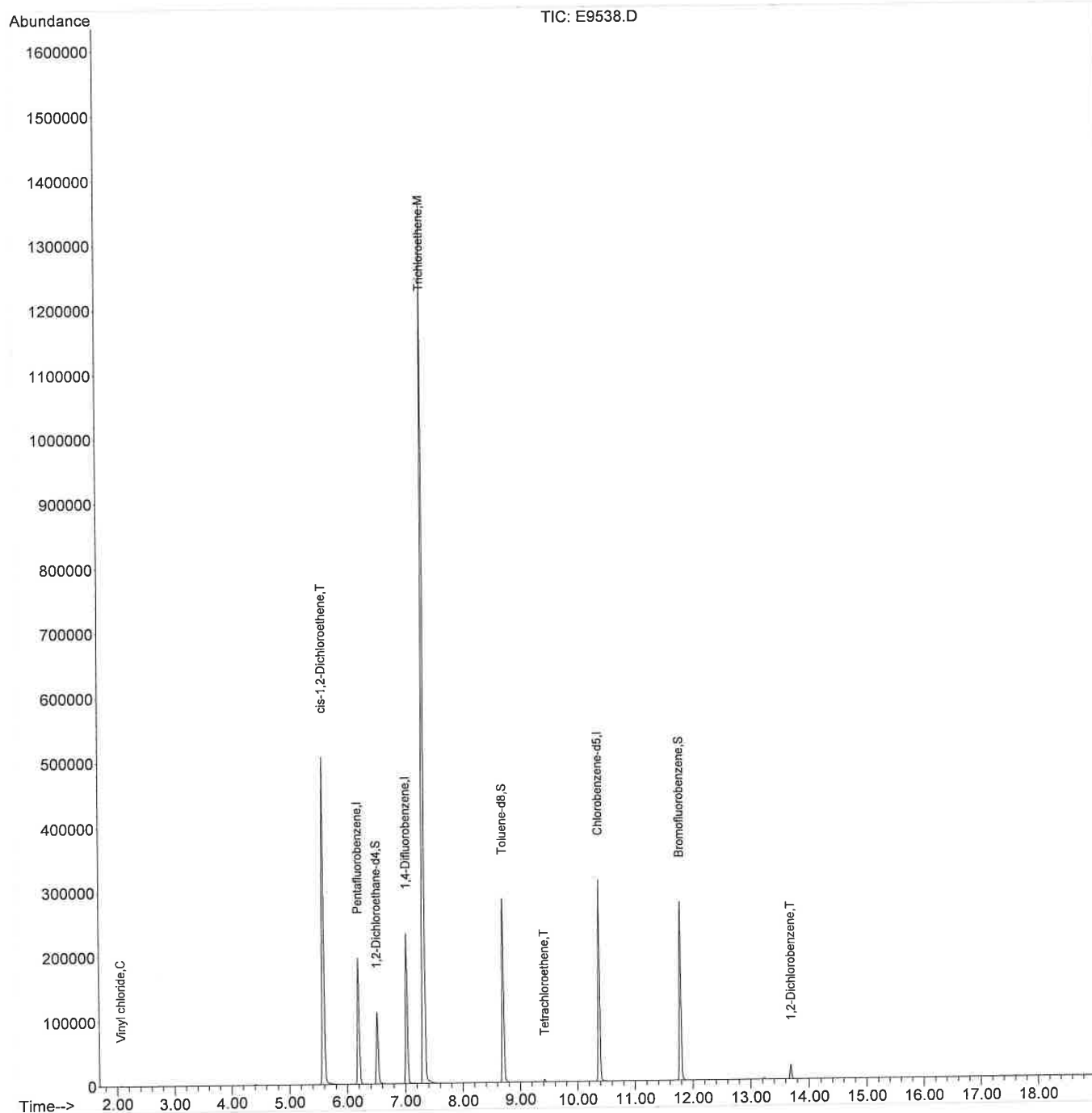
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9538.D
 Acq On : 24 Jun 2024 19:12
 Operator : Sylvia
 Sample : DUP-1, E24-02128-004, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 25 09:19:26 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Tue Jun 25 09:19:32 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9538.D
 Acq On : 24 Jun 2024 19:12
 Operator : Sylvia
 Sample : DUP-1, E24-02128-004, A, 0.1mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
 ALS Vial : 22 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.588	725	744	789	rBV	507910	1109931	39.96%	16.336%
2	6.196	849	860	873	rBV	196356	411096	14.80%	6.051%
3	6.516	911	921	948	rBV	110996	247534	8.91%	3.643%
4	7.024	1005	1018	1037	rBV	233538	485926	17.50%	7.152%
5	7.323	1062	1075	1112	rBV	1363439	2777267	100.00%	40.876%
6	8.702	1326	1338	1362	rBV	286224	578550	20.83%	8.515%
7	10.380	1647	1658	1678	rBV	313805	605394	21.80%	8.910%
8	11.785	1913	1926	1947	rBB2	278278	536576	19.32%	7.897%
9	13.688	2281	2289	2299	rBB2	22692	42032	1.51%	0.619%

Sum of corrected areas: 6794306

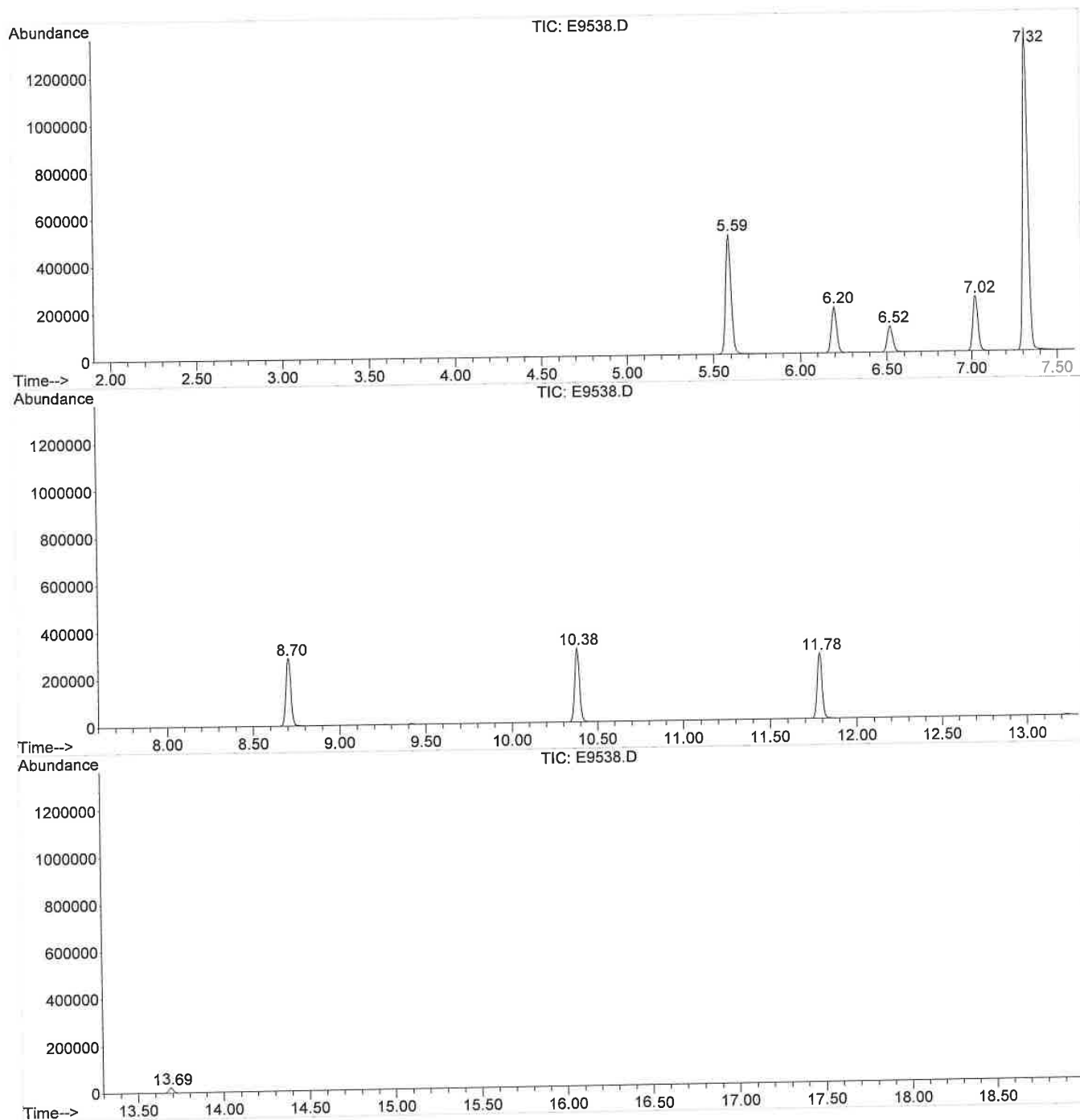
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9538.D
Acq On : 24 Jun 2024 19:12
Operator : Sylvia
Sample : DUP-1, E24-02128-004, A, 0.1mL, 100
Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 50
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



E8240616.M Tue Jun 25 09:19:42 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9538.D
Acq On : 24 Jun 2024 19:122
Operator : Sylviãã
Sample : DUP-1, E24-02128-004, A, 0.1mL, 1000
Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 500
ALS Vial : 22 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--		
					#	RT	Resp Conc

No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9567.D
 Acq On : 25 Jun 2024 21:30
 Operator : Sylvia
 Sample : DUP-1,E24-02128-004DL,A,0.05mL,100
 Misc : EWMA/SWIVELIER - 2,06/19/24,06/19/24,100
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 26 09:11:11 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	114661	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	173239	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	162793	50.00	UG	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	99260	52.31	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.62%
41) Toluene-d8	8.70	98	207115	51.90	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.80%
59) Bromofluorobenzene	11.78	95	110743	52.22	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	104.44%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl chloride	2.06	62	685m	0.54	UG	
20) cis-1,2-Dichloroethene	5.59	96	107198	78.00	UG	# 99
33) Trichloroethene	7.32	95	246939	150.22	UG	# 100
45) Tetrachloroethene	9.42	166	571m	0.44	UG	
74) 1,2-Dichlorobenzene	13.69	146	4089	1.56	UG	98

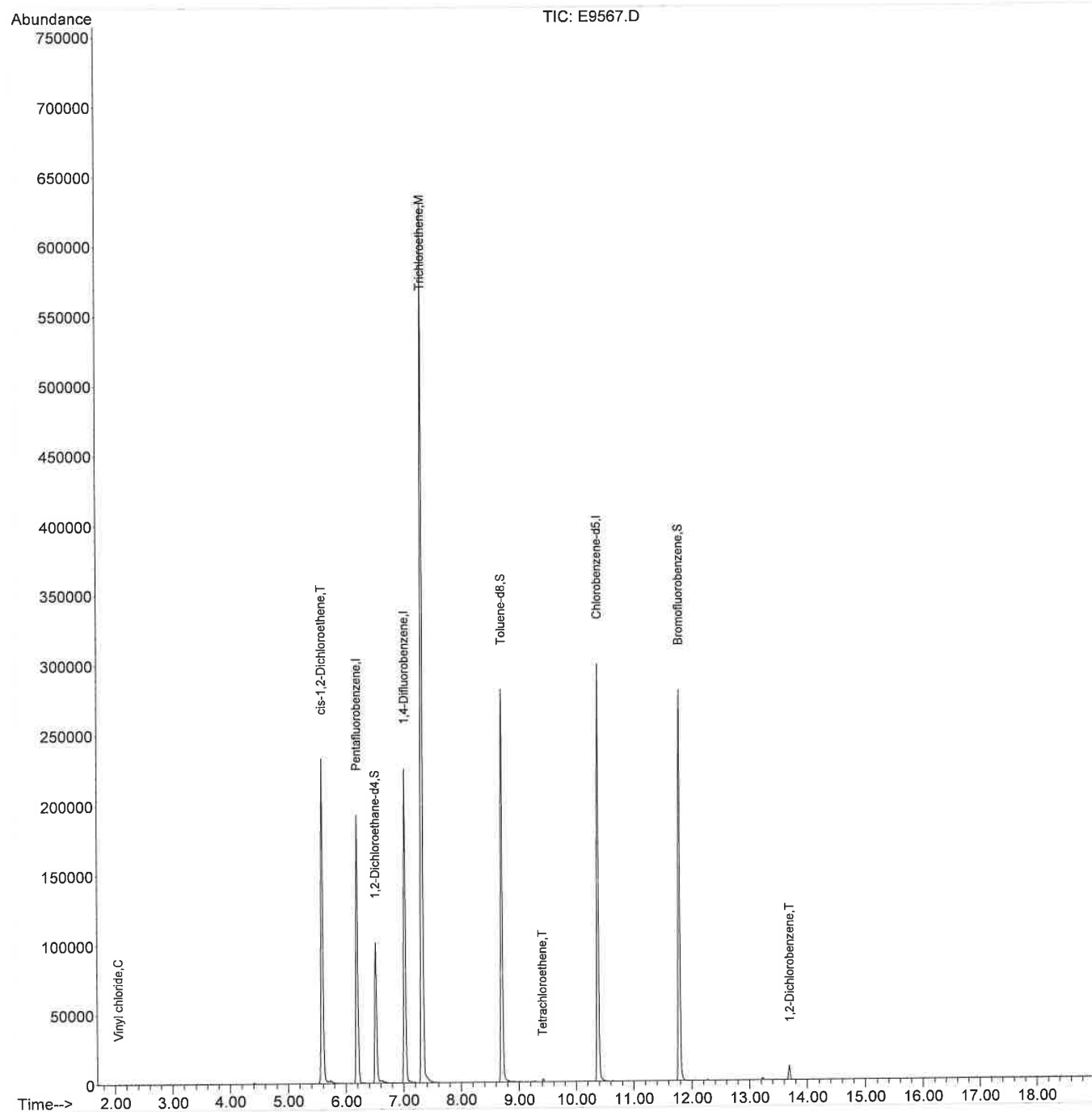
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9567.D
 Acq On : 25 Jun 2024 21:30
 Operator : Sylvia
 Sample : DUP-1, E24-02128-004DL, A, 0.05mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 100
 ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 26 09:11:11 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Wed Jun 26 09:11:16 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9523.D
 Acq On : 24 Jun 2024 12:21
 Operator : Sylvia
 Sample : FB-1-061824, E24-02128-005, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/18/24, 06/19/24, 1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 25 08:34:10 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	122584	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	186090	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	171222	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	105467	51.98	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	103.96%
41) Toluene-d8	8.71	98	219070	51.10	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.20%
59) Bromofluorobenzene	11.78	95	111995	50.21	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	100.42%

Target Compounds	Qvalue
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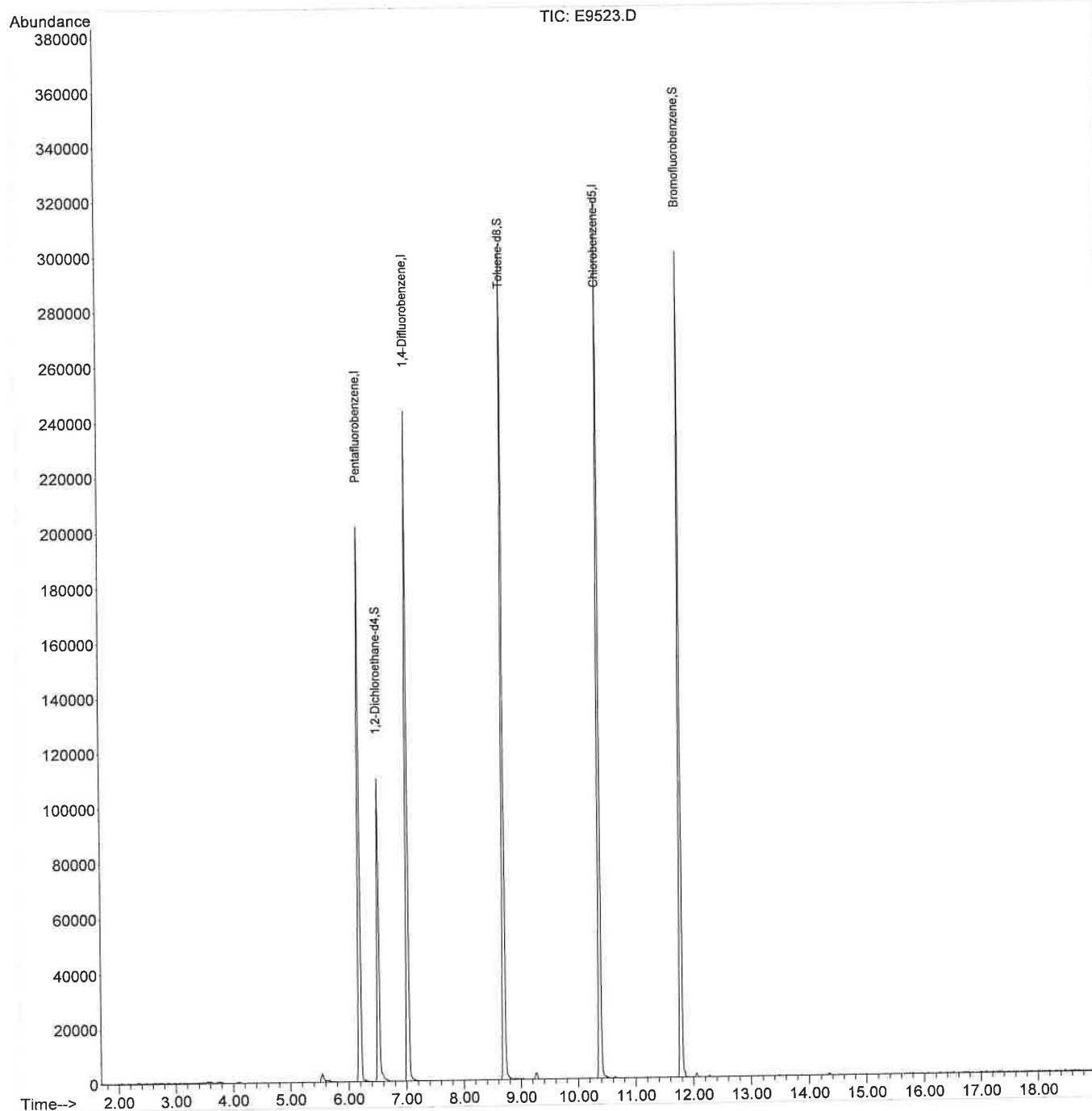
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9523.D
 Acq On : 24 Jun 2024 12:21
 Operator : Sylvia
 Sample : FB-1-061824, E24-02128-005, A, 5mL, 100
 Misc : EWMA/SWIVELIER_2, 06/18/24, 06/19/24, 1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 25 08:34:10 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Tue Jun 25 08:34:16 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9523.D
 Acq On : 24 Jun 2024 12:21
 Operator : Sylvia
 Sample : FB-1-061824,E24-02128-005,A,5mL,100
 Misc : EWMA/SWIVELIER - 2,06/18/24,06/19/24,1
 ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.540	726	735	747	rBV3	3195	9399	1.51%	0.318%
2	6.196	848	860	874	rBV	201759	429679	68.81%	14.536%
3	6.516	910	921	950	rBV	110371	248757	39.83%	8.415%
4	7.024	1006	1018	1040	rBV	243607	499342	79.96%	16.893%
5	8.707	1326	1339	1358	rBV	303848	597401	95.66%	20.210%
6	10.380	1645	1658	1686	rBB	319435	624487	100.00%	21.126%
7	11.785	1916	1926	1943	rVB	300406	546910	87.58%	18.502%

Sum of corrected areas: 2955975

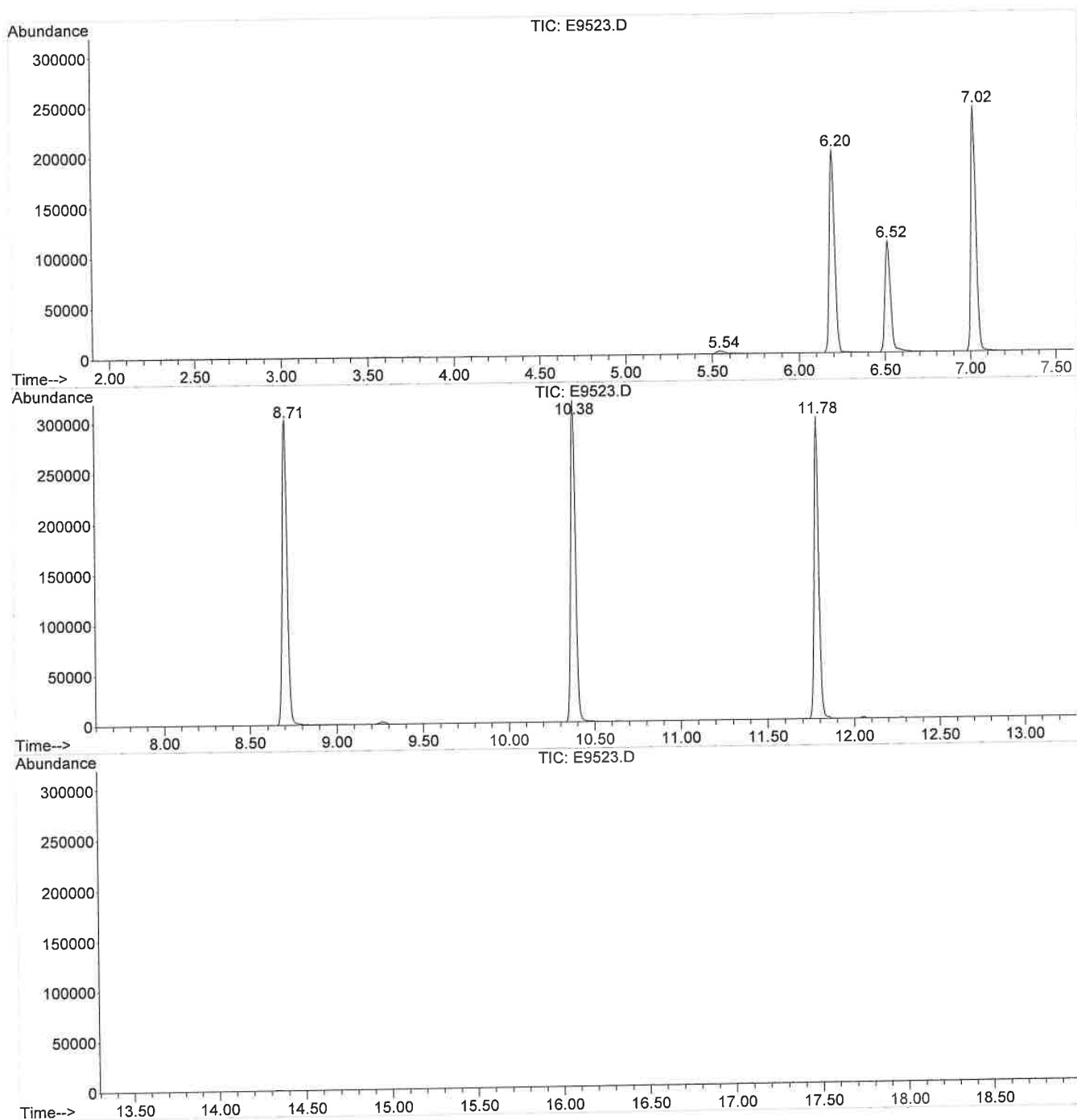
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9523.D
 Acq On : 24 Jun 2024 12:21
 Operator : Sylvia
 Sample : FB-1-061824, E24-02128-005, A, 5mL, 100
 Misc : EWMA/SWIVELIER_-2, 06/18/24, 06/19/24, 1
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
 TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9523.D
Acq On : 24 Jun 2024 12:211
Operator : Sylviaa
Sample : FB-1-061824, E24-02128-005, A, 5mL, 1000
Misc : EWMA/SWIVELIER - 2; 06/18/24, 06/19/24, 11
ALS Vial : 7 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9524.D
 Acq On : 24 Jun 2024 12:49
 Operator : Sylvia
 Sample : FB-2-061924, E24-02128-006, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/19/24, 06/19/24, 1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 25 08:35:17 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) Pentafluorobenzene	6.20	168	121196	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	183140	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	169505	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	106443	53.07	UG	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	106.14%	
41) Toluene-d8	8.71	98	215852	51.16	UG	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	102.32%	
59) Bromofluorobenzene	11.79	95	112280	50.84	UG	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	101.68%	

Target Compounds	Qvalue

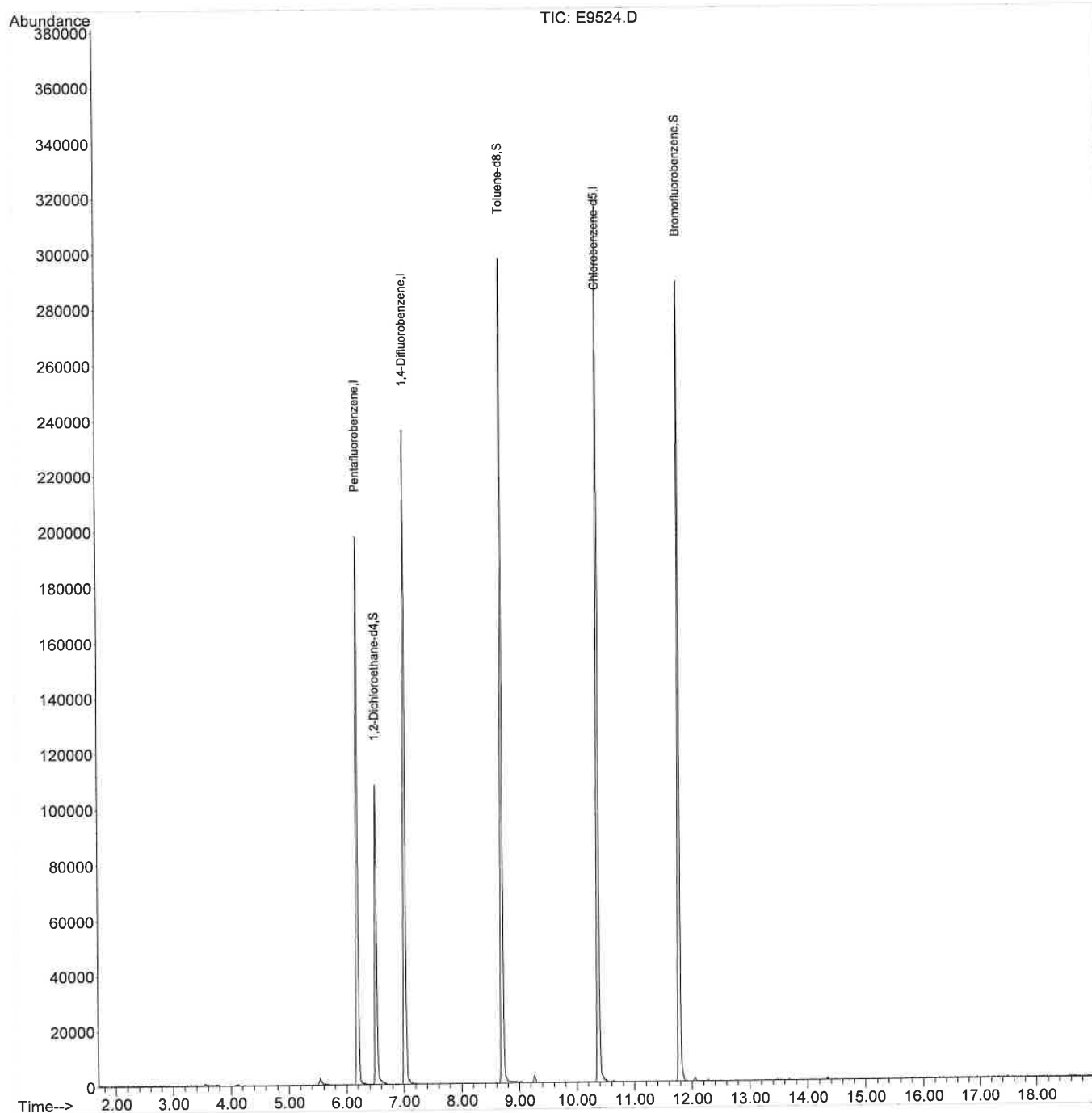
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9524.D
 Acq On : 24 Jun 2024 12:49
 Operator : Sylvia
 Sample : FB-2-061924,E24-02128-006,A,5mL,100
 Misc : EWMA/SWIVELIER_-2,06/19/24,06/19/24,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 25 08:35:17 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Tue Jun 25 08:35:23 2024 1

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INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9524.D
 Acq On : 24 Jun 2024 12:49
 Operator : Sylvia
 Sample : FB-2-061924,E24-02128-006,A,5mL,100
 Misc : EWMA/SWIVELIER_-2,06/19/24,06/19/24,1
 ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.541	724	735	745	rBV2	2420	6827	1.11%	0.233%
2	6.196	848	860	876	rBV2	198047	419681	68.12%	14.333%
3	6.516	909	921	954	rBV	108391	244892	39.75%	8.363%
4	7.024	1007	1018	1040	rBV	236248	494691	80.29%	16.894%
5	8.707	1327	1339	1363	rBV	298038	595979	96.73%	20.353%
6	10.380	1648	1658	1677	rBV	317786	616131	100.00%	21.042%
7	11.785	1914	1926	1946	rBB2	289263	549940	89.26%	18.781%

Sum of corrected areas: 2928141

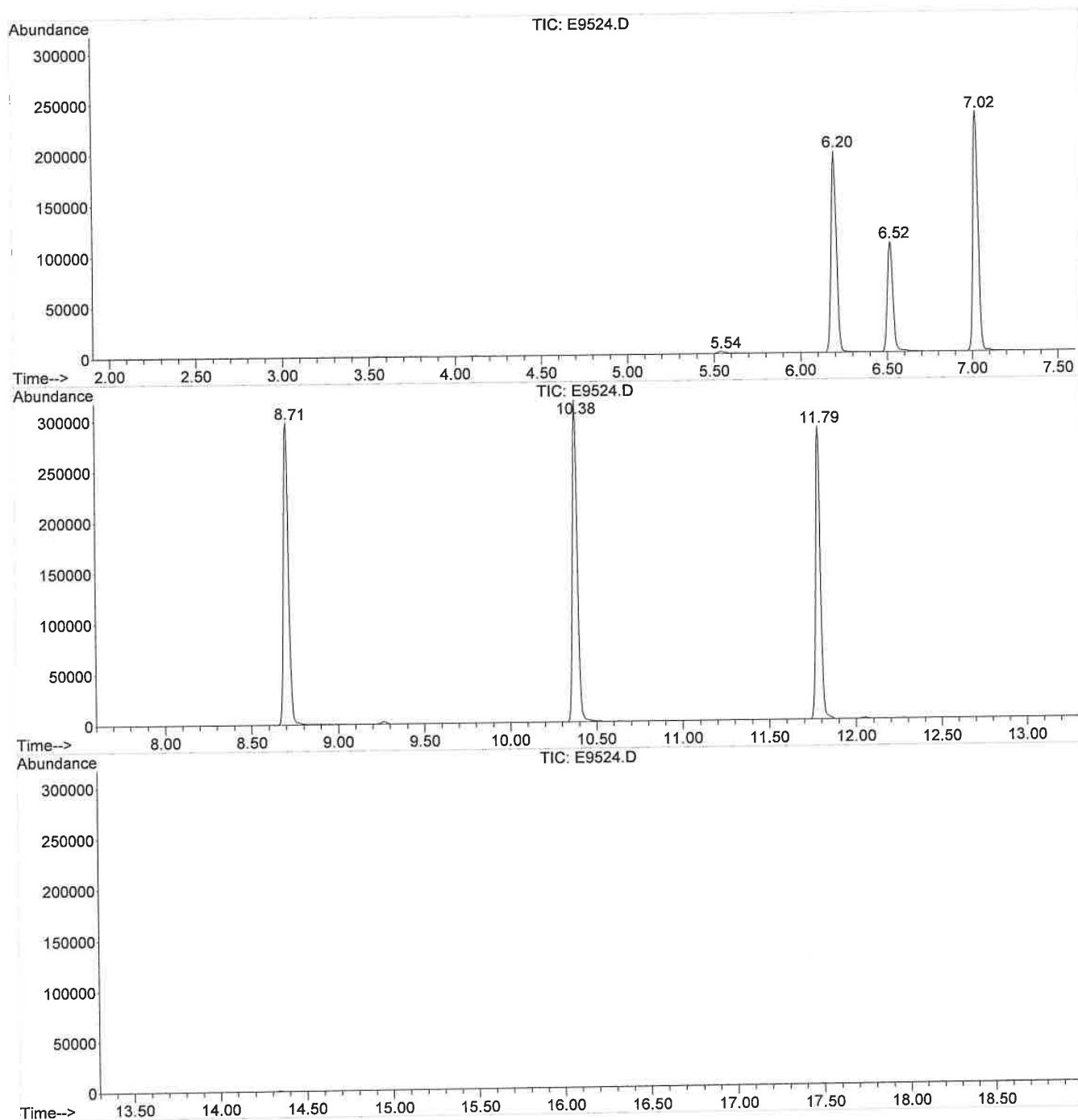
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9524.D
 Acq On : 24 Jun 2024 12:49
 Operator : Sylvia
 Sample : FB-2-061924, E24-02128-006, A, 5mL, 100
 Misc : EWMA/SWIVELIER_-2, 06/19/24, 06/19/24, 1
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
 TIC Integration Parameters: LSCINT.P



E8240616.M Tue Jun 25 08:35:37 2024 1

Page: 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9524.D
Acq On : 24 Jun 2024 12:499
Operator : Sylviaa
Sample : FB-2-061924, E24-02128-006, A, 5mL, 1000
Misc : EWMA/SWIVELIER - 2; 06/19/24, 06/19/24, 11
ALS Vial : 8 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9551.D
 Acq On : 25 Jun 2024 14:09
 Operator : Sylvia
 Sample : TB-061824,E24-02128-007,A,5mL,100
 Misc : EWMA/SWIVELIER - 2,06/18/24,06/19/24,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 26 08:28:29 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	119729	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	181779	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	170427	50.00	UG	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	104355	52.66	UG	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	105.32%	
41) Toluene-d8	8.70	98	212019	50.63	UG	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	101.26%	
59) Bromofluorobenzene	11.79	95	110853	49.93	UG	0.00
Spiked Amount 50.000	Range	80 - 120	Recovery	=	99.86%	

Target Compounds	Qvalue

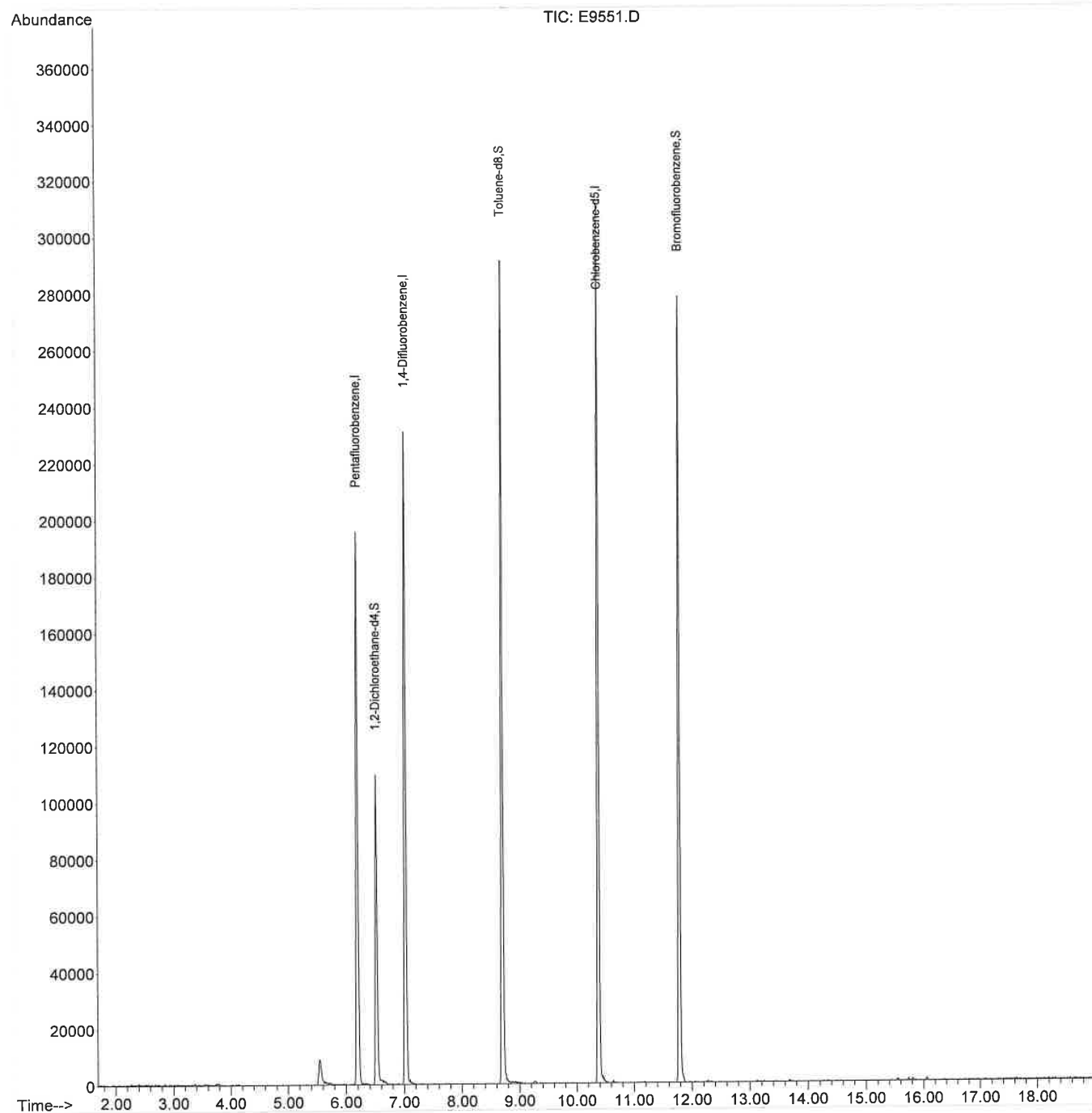
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9551.D
 Acq On : 25 Jun 2024 14:09
 Operator : Sylvia
 Sample : TB-061824,E24-02128-007,A,5mL,100
 Misc : EWMA/SWIVELIER_-2,06/18/24,06/19/24,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 26 08:28:29 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Wed Jun 26 08:29:19 2024 1

Page: 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9551.D
 Acq On : 25 Jun 2024 14:09
 Operator : Sylvia
 Sample : TB-061824, E24-02128-007, A, 5mL, 100
 Misc : EWMA/SWIVELIER - 2, 06/18/24, 06/19/24, 1
 ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.541	724	735	750	rBV	9154	29713	4.81%	1.017%
2	6.196	848	860	875	rBV	195911	419347	67.90%	14.347%
3	6.516	908	921	941	rBV	109883	238823	38.67%	8.171%
4	7.024	1006	1018	1031	rBV	231234	489869	79.32%	16.760%
5	8.707	1323	1339	1364	rBV	291569	583528	94.49%	19.964%
6	10.380	1644	1658	1692	rBB	312277	617567	100.00%	21.129%
7	11.785	1915	1926	1948	rBB2	278721	544000	88.09%	18.612%

Sum of corrected areas: 2922847

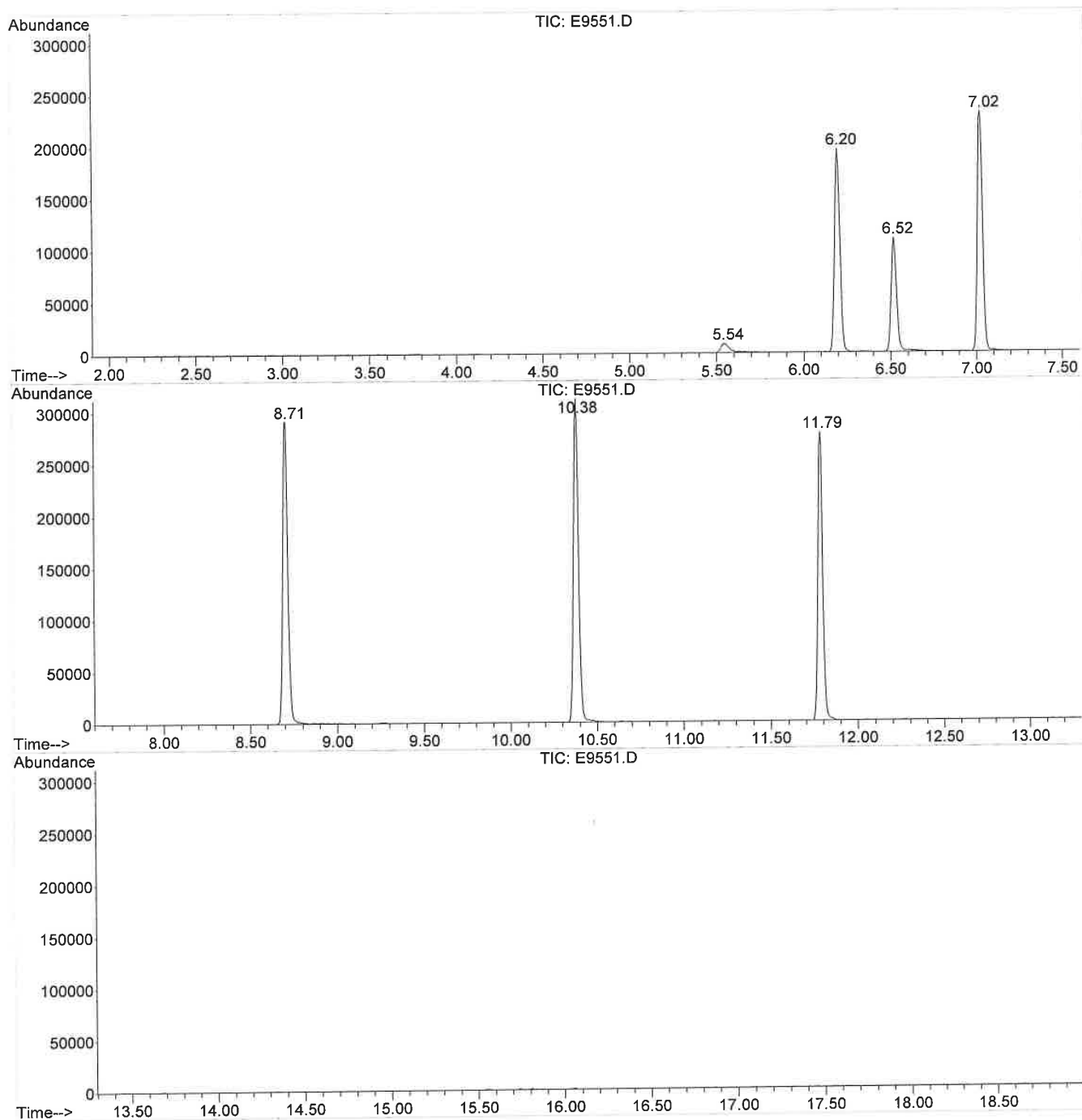
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
Data File : E9551.D
Acq On : 25 Jun 2024 14:09
Operator : Sylvia
Sample : TB-061824, E24-02128-007, A, 5mL, 100
Misc : EWMA/SWIVELIER - 2, 06/18/24, 06/19/24, 1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
Data File : E9551.D
Acq On : 25 Jun 2024 14:099
Operator : Sylviãã
Sample : TB-061824,E24-02128-007,A,5mL,1000
Misc : EWMA/SWIVELIER - 2;06/18/24,06/19/24,11
ALS Vial : 7 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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No Library Search Compounds Detected

VOLATILE ORGANICS

Lab ID: BLKA240624-01
 Client ID: BLKA240624-01
 Date Received: NA
 Date Analyzed: 06/24/2024
 Data file: E9520.D 06/24/2024 10:58

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.552
Chloromethane	ND		0.500	0.309
Vinyl chloride	ND		0.500	0.352
Bromomethane	ND		0.500	0.386
Chloroethane	ND		0.500	0.324
Trichlorofluoromethane	ND		1.00	0.503
1,1-Dichloroethene	ND		0.500	0.363
Acetone	ND		1.00	1.00
Carbon disulfide	ND		0.500	0.403
Methylene chloride	ND		1.00	0.500
trans-1,2-Dichloroethene	ND		0.500	0.372
Methyl tert-butyl ether (MTBE)	ND		0.500	0.245
1,1-Dichloroethane	ND		0.500	0.285
cis-1,2-Dichloroethene	ND		0.500	0.277
2-Butanone (MEK)	ND		1.00	0.802
Bromochloromethane	ND		0.500	0.379
Chloroform	ND		0.500	0.285
1,1,1-Trichloroethane	ND		0.500	0.381
Carbon tetrachloride	ND		0.500	0.349
1,2-Dichloroethane (EDC)	ND		0.500	0.273
Benzene	ND		0.500	0.270
Trichloroethene	ND		0.500	0.347
1,2-Dichloropropane	ND		0.500	0.272
Bromodichloromethane	ND		0.500	0.258
cis-1,3-Dichloropropene	ND		0.500	0.264
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.611

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANICS

Lab ID: BLKA240624-01
 Client ID: BLKA240624-01
 Date Received: NA
 Date Analyzed: 06/24/2024
 Data file: E9520.D 06/24/2024 10:58

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.302
trans-1,3-Dichloropropene	ND		0.500	0.330
1,1,2-Trichloroethane	ND		0.500	0.313
Tetrachloroethene	ND		0.500	0.365
2-Hexanone	ND		1.00	0.818
Dibromochloromethane	ND		0.500	0.263
1,2-Dibromoethane (EDB)	ND		0.500	0.289
Chlorobenzene	ND		0.500	0.304
Ethylbenzene	ND		0.500	0.313
Total Xylenes	ND		1.00	0.345
Styrene	ND		0.500	0.317
Bromoform	ND		0.500	0.328
Isopropylbenzene	ND		0.500	0.332
1,1,2,2-Tetrachloroethane	ND		0.500	0.284
1,3-Dichlorobenzene	ND		0.500	0.386
1,4-Dichlorobenzene	ND		0.500	0.397
1,2-Dichlorobenzene	ND		0.500	0.354
1,2-Dibromo-3-chloropropane	ND		0.500	0.410
1,2,4-Trichlorobenzene	ND		0.500	0.358
1,2,3-Trichlorobenzene	ND		0.500	0.406
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.538
Methyl acetate	ND		0.500	0.345
Cyclohexane	ND		1.00	0.469
Methylcyclohexane	ND		0.500	0.421
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.264

Total Target Compounds (51): 0

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA240624-01
 Client ID: BLKA240624-01
 Date Received: NA
 Date Analyzed: 06/24/2024
 Data file: E9520.D 06/24/2024 10:58

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 1
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANICS

Lab ID: BLKA240625-01
 Client ID: BLKA240625-01
 Date Received: NA
 Date Analyzed: 06/25/2024
 Data file: E9550.D 06/25/2024 13:42

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Dichlorodifluoromethane	ND		1.00	0.552
Chloromethane	ND		0.500	0.309
Vinyl chloride	ND		0.500	0.352
Bromomethane	ND		0.500	0.386
Chloroethane	ND		0.500	0.324
Trichlorofluoromethane	ND		1.00	0.503
1,1-Dichloroethene	ND		0.500	0.363
Acetone	ND		1.00	1.00
Carbon disulfide	ND		0.500	0.403
Methylene chloride	ND		1.00	0.500
tert-Butyl alcohol (TBA)	ND		2.00	1.16
trans-1,2-Dichloroethene	ND		0.500	0.372
Methyl tert-butyl ether (MTBE)	ND		0.500	0.245
1,1-Dichloroethane	ND		0.500	0.285
cis-1,2-Dichloroethene	ND		0.500	0.277
2-Butanone (MEK)	ND		1.00	0.802
Bromochloromethane	ND		0.500	0.379
Chloroform	ND		0.500	0.285
1,1,1-Trichloroethane	ND		0.500	0.381
Carbon tetrachloride	ND		0.500	0.349
1,2-Dichloroethane (EDC)	ND		0.500	0.273
Benzene	ND		0.500	0.270
Trichloroethene	ND		0.500	0.347
1,2-Dichloropropane	ND		0.500	0.272
Bromodichloromethane	ND		0.500	0.258
cis-1,3-Dichloropropene	ND		0.500	0.264
4-Methyl-2-pentanone (MIBK)	ND		1.00	0.611

INTEGRATED ANALYTICAL LABORATORIES, LLC

VOLATILE ORGANICS

Lab ID: BLKA240625-01
 Client ID: BLKA240625-01
 Date Received: NA
 Date Analyzed: 06/25/2024
 Data file: E9550.D 06/25/2024 13:42

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 % Moisture: 100
 Dilution Factor: 1

Compound	Concentration	Q	RL	MDL
Toluene	ND		0.500	0.302
trans-1,3-Dichloropropene	ND		0.500	0.330
1,1,2-Trichloroethane	ND		0.500	0.313
Tetrachloroethene	ND		0.500	0.365
2-Hexanone	ND		1.00	0.818
Dibromochloromethane	ND		0.500	0.263
1,2-Dibromoethane (EDB)	ND		0.500	0.289
Chlorobenzene	ND		0.500	0.304
Ethylbenzene	ND		0.500	0.313
Total Xylenes	ND		1.00	0.345
Styrene	ND		0.500	0.317
Bromoform	ND		0.500	0.328
Isopropylbenzene	ND		0.500	0.332
1,1,2,2-Tetrachloroethane	ND		0.500	0.284
1,3-Dichlorobenzene	ND		0.500	0.386
1,4-Dichlorobenzene	ND		0.500	0.397
1,2-Dichlorobenzene	ND		0.500	0.354
1,2-Dibromo-3-chloropropane	ND		0.500	0.410
1,2,4-Trichlorobenzene	ND		0.500	0.358
1,2,3-Trichlorobenzene	ND		0.500	0.406
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.00	0.538
Methyl acetate	ND		0.500	0.345
Cyclohexane	ND		1.00	0.469
Methylcyclohexane	ND		0.500	0.421
1,3-Dichloropropene (cis- and trans-)	ND		0.500	0.264

Total Target Compounds (52): 0

D --- Dilution Performed
 J --- Value Less than RL & greater than MDL
 E --- Exceeds upper level of Calibration curve

B --- Compound detected in Blank
 C --- Common laboratory contamination

VOLATILE ORGANICS
Tentatively Identified Compounds

Lab ID: BLKA240625-01
 Client ID: BLKA240625-01
 Date Received: NA
 Date Analyzed: 06/25/2024
 Data file: E9550.D 06/25/2024 13:42

GC/MS Column: DB-624
 Sample wt/vol: 5mL
 Matrix-Units: Aqueous-µg/L
 Dilution Factor: 1
 % Moisture: 100

CAS #	Compound	Estimated Concentration	Q	Retention Time
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No peaks detected

Total TICs = 0

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9520.D
 Acq On : 24 Jun 2024 10:58
 Operator : Sylvia
 Sample : BLKA240624-01,BLKA240624-01,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 25 12:00:24 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	130771	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	191571	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	175736	50.00	UG	0.00

System Monitoring Compounds

30) 1,2-Dichloroethane-d4	6.52	65	106630	49.27	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	98.54%
41) Toluene-d8	8.71	98	223477	50.64	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.28%
59) Bromofluorobenzene	11.78	95	114059	49.82	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	99.64%

Target Compounds	Qvalue

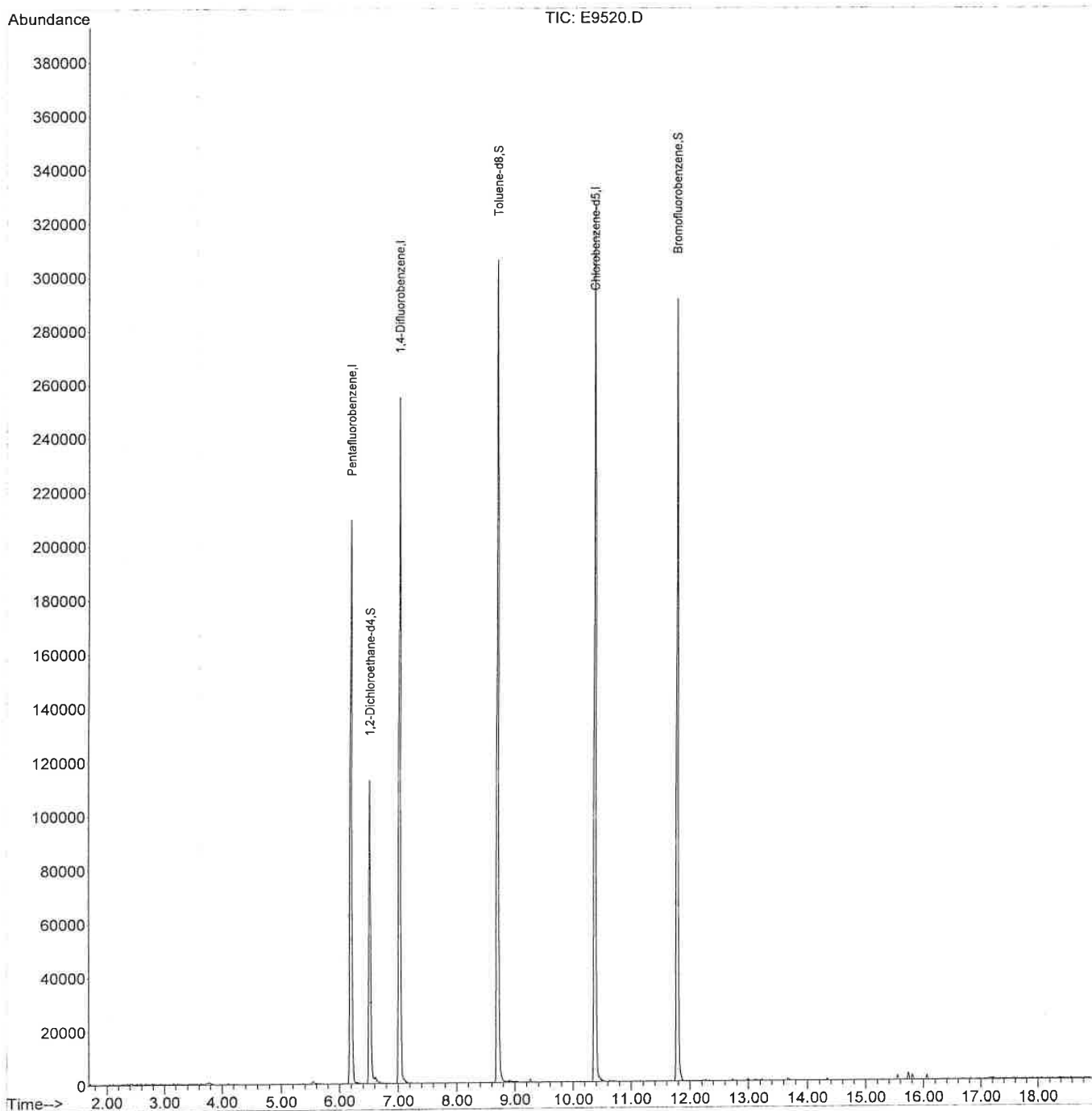
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9520.D
 Acq On : 24 Jun 2024 10:58
 Operator : Sylvia
 Sample : BLKA240624-01,BLKA240624-01,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 25 12:00:24 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9520.D
 Acq On : 24 Jun 2024 10:58
 Operator : Sylvia
 Sample : BLKA240624-01,BLKA240624-01,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: LSCINT.P

Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2

Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.196	846	860	882	rBV	209870	448035	70.44%	14.833%
2	6.516	908	921	938	rBV	113308	246991	38.83%	8.177%
3	7.024	1004	1018	1046	rBV	255468	515336	81.02%	17.061%
4	8.707	1328	1339	1367	rBV	306493	611741	96.18%	20.252%
5	10.380	1647	1658	1678	rBV	327556	636036	100.00%	21.056%
6	11.785	1915	1926	1948	rBB	292069	562478	88.43%	18.621%

Sum of corrected areas: 3020617

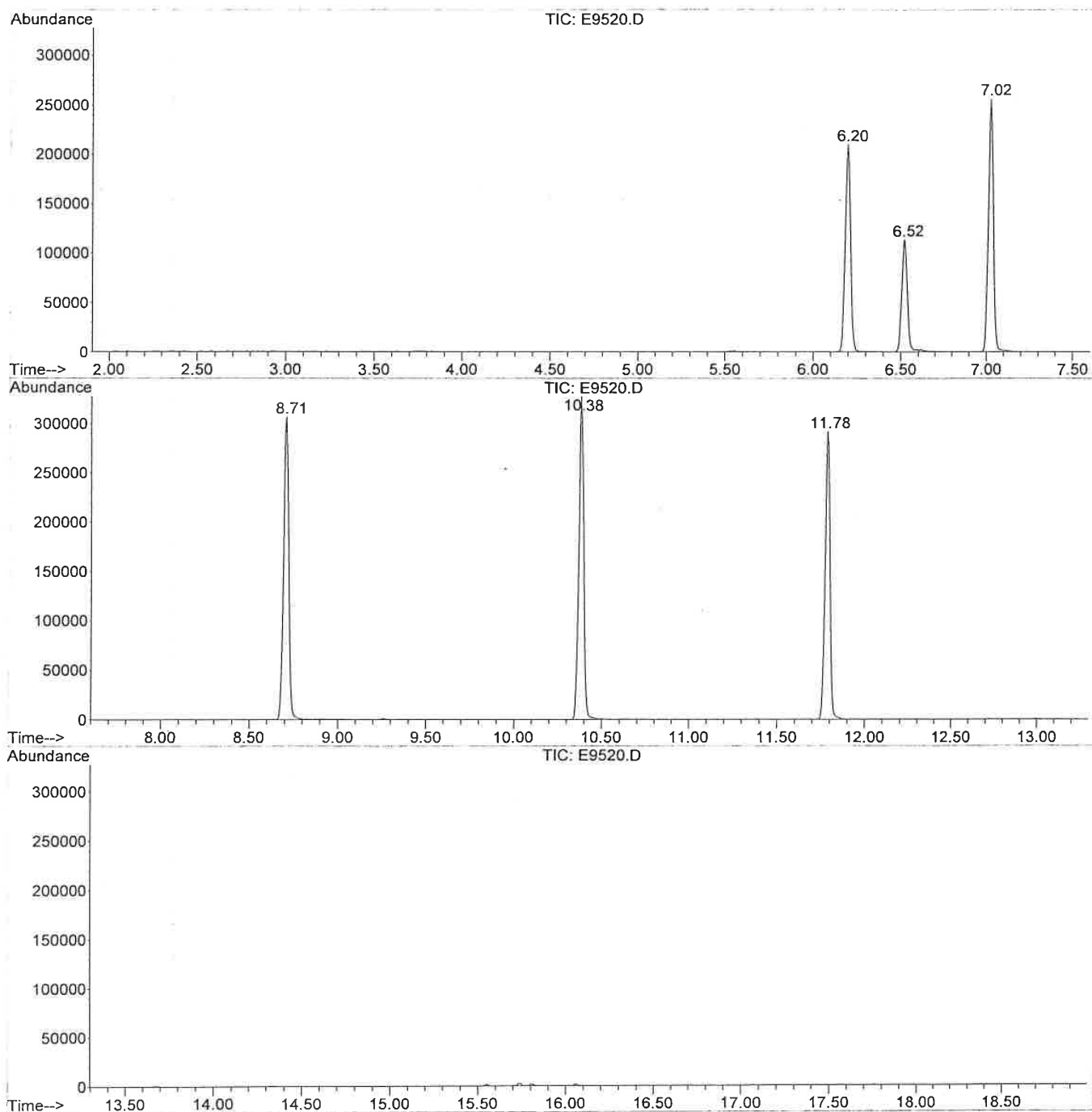
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
 Data File : E9520.D
 Acq On : 24 Jun 2024 10:58
 Operator : Sylvia
 Sample : BLKA240624-01,BLKA240624-01,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
 TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES, LLC

Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-24\
Data File : E9520.D
Acq On : 24 Jun 2024 10:588
Operator : Sylviaa
Sample : BLKA240624-01, BLKA240624-01, A, 5mL, 1000
Misc : NA, NA, NA, 11
ALS Vial : 4 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
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No Library Search Compounds Detected

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9550.D
 Acq On : 25 Jun 2024 13:42
 Operator : Sylvia
 Sample : BLKA240625-01, BLKA240625-01, A, 5mL, 100
 Misc : NA, NA, NA, 1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 26 08:08:28 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	6.20	168	120726	50.00	UG	0.00
31) 1,4-Difluorobenzene	7.02	114	183779	50.00	UG	0.00
50) Chlorobenzene-d5	10.38	117	174070	50.00	UG	0.00

System Monitoring Compounds						
30) 1,2-Dichloroethane-d4	6.52	65	102445	51.27	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	102.54%
41) Toluene-d8	8.70	98	214793	50.73	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.46%
59) Bromofluorobenzene	11.78	95	114530	50.50	UG	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	101.00%

Target Compounds	Qvalue

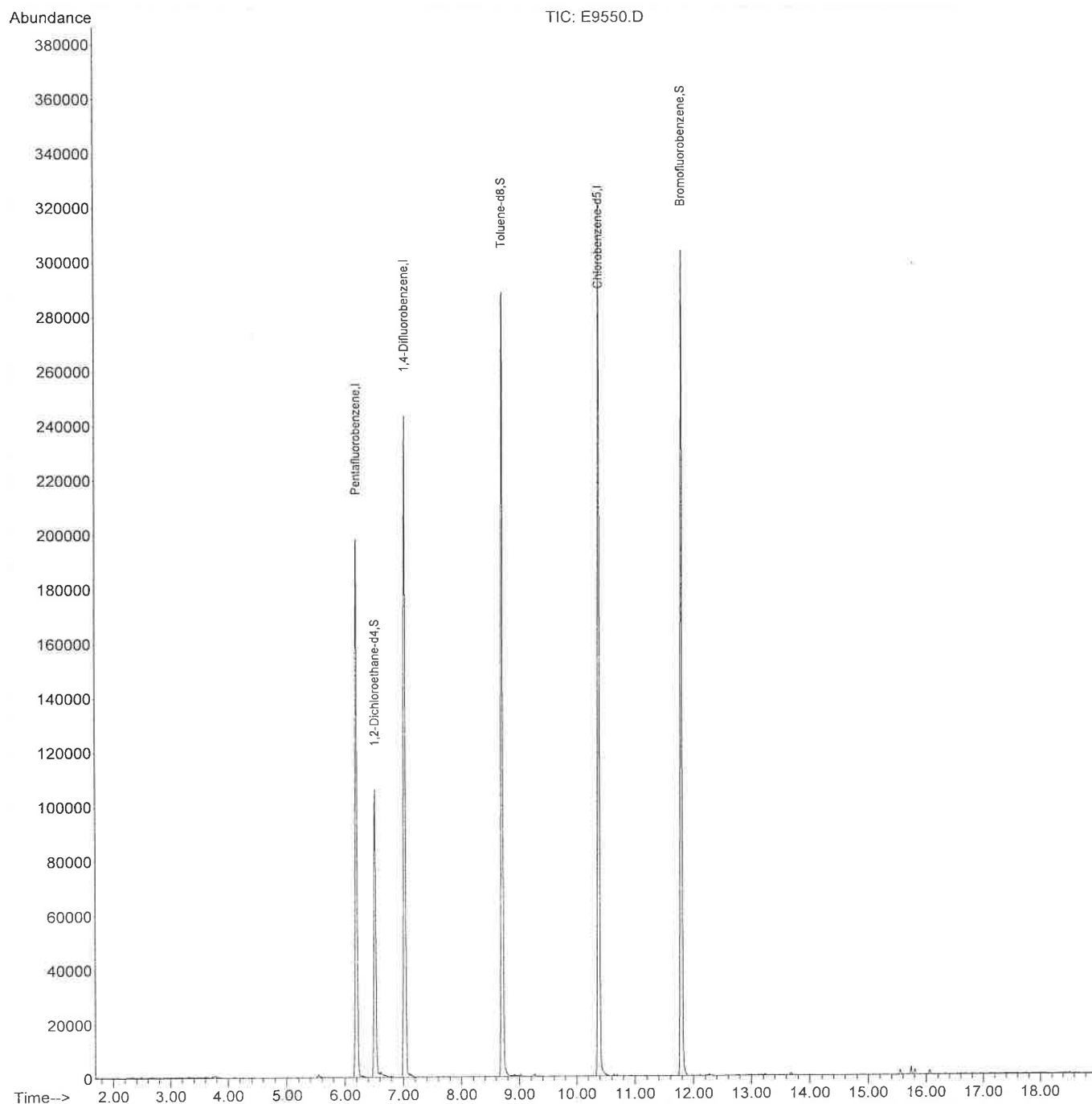
(#) = qualifier out of range (m) = manual integration (+) = signals summed

INTEGRATED ANALYTICAL LABORATORIES, LLC

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9550.D
 Acq On : 25 Jun 2024 13:42
 Operator : Sylvia
 Sample : BLKA240625-01,BLKA240625-01,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 26 08:08:28 2024
 Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D
 QLast Update : Mon Jun 17 09:14:40 2024
 Response via : Initial Calibration



E8240616.M Wed Jun 26 08:08:33 2024 1

Page: 2

INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
 Data File : E9550.D
 Acq On : 25 Jun 2024 13:42
 Operator : Sylvia
 Sample : BLKA240625-01,BLKA240625-01,A,5mL,100
 Misc : NA,NA,NA,1
 ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: LSCINT.P
 Integrator: RTE
 Smoothing : ON
 Sampling : 1
 Start Thrs: 0.07
 Stop Thrs : 0.2
 Filtering: 5
 Min Area: 1 % of largest Peak
 Max Peaks: 100
 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
 Peak separation: 10

Method : C:\MSDCHEM\1\METHODS\E8240616.M
 Title : VOLATILE ORGANICS BY EPA METHOD 8260D

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	6.196	847	860	880	rBV2	198546	422781	67.28%	14.447%
2	6.521	911	922	936	rBV	106204	234486	37.32%	8.013%
3	7.024	1004	1018	1036	rBV	243786	491971	78.29%	16.812%
4	8.707	1324	1339	1363	rBV	289156	586164	93.29%	20.030%
5	10.380	1648	1658	1689	rBB	322231	628357	100.00%	21.472%
6	11.785	1915	1926	1947	rBB	304229	562608	89.54%	19.225%

Sum of corrected areas: 2926367

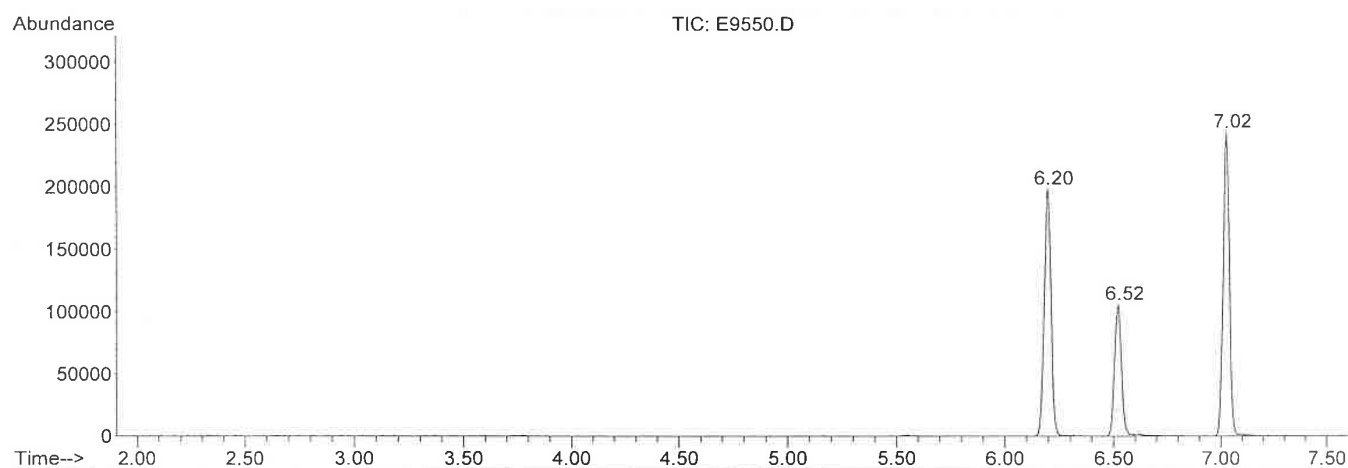
INTEGRATED ANALYTICAL LABORATORIES, LLC

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
Data File : E9550.D
Acq On : 25 Jun 2024 13:42
Operator : Sylvia
Sample : BLKA240625-01,BLKA240625-01,A,5mL,100
Misc : NA,NA,NA,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.M
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260D

TIC Library : C:\DATABASE\NIST05A.L
TIC Integration Parameters: LSCINT.P



INTEGRATED ANALYTICAL LABORATORIES, LLC
Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\DATA\E\24-06-25\
Data File : E9550.D
Acq On : 25 Jun 2024 13:422
Operator : Sylviäa
Sample : BLKA240625-01,BLKA240625-01,A,5mL,1000
Misc : NA,NA,NA,11
ALS Vial : 6 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\METHODS\E8240616.MM
Quant Title : VOLATILE ORGANICS BY EPA METHOD 8260DD

TIC Library : C:\DATABASE\NIST05A.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--			
					#	RT	Resp	Conc

No Library Search Compounds Detected

SAMPLE TRACKING



Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Web: www.ialonline.com

INTEGRATED ANALYTICAL LABORATORIES, LLC

Customer Information			Reporting Information			Deliverables			EDDS			Concentrations Expected:		
Company: EWMA			Check here if same as "Customer Information"			Rush TAT Charge			Surcharge may apply for regulatory			New York		
Address:			REPORT TO:			24 hr - 100%...			NJ, CT, PA			NJ SRP		
Telephone #: 973-560-1400			Address: SAME			48 hr - 75%...			Results Only (Level I)			Known Hazard:		
Project Manager: Cathy Bryant			Attn:			72 hr - 50%...			Reduced (Level II)			YES ☐ NO ☐		
Email Address(es): Cathy.Bryant@EWMA.com			INVOICE TO:			96 hr - 35%...			Regulatory/Full* (Level III)			Describe:		
Project Name: Swivelier			Address: SAME			5 day - 25%...			Regulatory/Full* (Level IV)			NO EDD REQ'D ☐		
Project Location (State): NY			Attn:			6-9 day - 10%...			Standard (10 business days) Verbal			Regulatory Requirement		
Bottle Order #: BO1063			PO # L-12809			Hard Copy: Standard 3 week			Other - call for price			New Jersey		
☐ "Report to" Invoice To" same as above			Quote # 506 # 202530			Petroleum Hydrocarbons - Selection is REQUIRED			TAT for PHC, if other than 2 weeks:			AWQS (TOGS Table 1)		
Sampled by: Maat Gover			Sample Matrix			DW - Drinking Water			Oil - Oil			GWQS		
COMPLETED BY IAL:			Field Sampling			WW - Waste Water			S - Soil			IGW		
Equipment Rental			SAMPLE INFORMATION			GW - Groundwater			SED - Sediment			SRS		
Client ID			Depth (ft only)			SW - Surface Water			SOL - Solid (specify)			Ecological		
MW-10D			6/18/24 16:40			LIQ - Liquid (specify)			SL - Sludge			DW		
MW-11D			6/19/24 13:40			M - Multiphasic			W - Wipe			SPLP		
MW-13D			6/19/24 13:15			Sampling			Date			Other States / Criteria		
DUP-1			6/18/24 15:21			Date			Time			Pennsylvania Act 2		
FB-1-061824			6/19/24 13:40			Date			Time			CT RCSA 22a-133k1-43		
FB-2-061924			6/18/24 8:00			Date			Time			TSCA PCBs		
TR-061824			6/19/24 8:00			Date			Time			OTHER Regulatory Requirements - specify in comments		
Samples previously analyzed by IAL?			Preservative Code:			Container Code:			Preservative (use code)			Container Type (use code)		
YES / NO			1 = None			A = Amber Glass			2			2		
			2 = HCl			B = Plastic			3			3		
			3 = HNO3			C = Vial			4			4		
			4 = NaOH			D = Glass			5			5		
			5 = NaOH			E = EnCore			6			6		
			6 = H2SO4			T = Terrace			7			7		
			7 = Other											
Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab ≥ 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).			Carrier (check one):			Special Instructions/OC Requirements & Comments:			FOR LAB USE ONLY			SDG #: 2128		
☐ IAL Courier												Cooler Temp: 5 °C		
☐ Client Courier												Date: 6/19/24 Time: 10:30		
☐ FedEx/UPS***												Date: 6/19/24 Time: 17:19		
***Tracking #:														
LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK														
Certification IDs: TNI (TNI07284), CT (PH-0689), NJ (14751), NY (11402), PA (68-00773).														
PAGE: 1 of 1														



PROJECT INFORMATION

E24-02128: SWIVELIER - 202530

To: Cathy Bryant
EWMA - HQ
Fax:
Email: Cathy.Bryant@ewma.com

Report To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Cathy Bryant

Bill To

EWMA - HQ
Lanidex Center
100 Misty Lane
Parsippany, NJ 07054
Attn: Cathy Bryant

Report Format	P.O. #	Received At Lab	PHC Due	Verbal Due	Hardcopy Due
Reduced	L-12809	Jun 19, 2024 @ 17:19	NA	Jul 08, 2024	Jul 15, 2024 *

* Any *Conditional* or *Hold* status will delay final hardcopy report sent date.

Diskette Req. NYSDEC

Criteria Requirement: NY TOGS Tbl1&Tbl5

Lab ID	Client Sample ID	Depth	Sampling Time	Matrix	Unit	Field pH/Temp
02128-001	MW-10D	NA	06/18/24@16:40	Aqueous	ug/L (ppb)	
02128-002	MW-11D	NA	06/19/24@13:40	Aqueous	ug/L (ppb)	
02128-003	MW-13D	NA	06/19/24@13:15	Aqueous	ug/L (ppb)	
02128-004	DUP-1	NA	06/19/24@13:20	Aqueous	ug/L (ppb)	
02128-005	FB-1-061824	NA	06/18/24@15:20	Aqueous	ug/L (ppb)	
02128-006	FB-2-061924	NA	06/19/24@13:40	Aqueous	ug/L (ppb)	
02128-007	TB-061824	NA	06/18/24	Aqueous	ug/L (ppb)	

* No Cert = IAL does not hold certification for this test/method

Sample #	Test	Status	Analytical Method	TAT	Holding Time Expires
001	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/2/2024
002	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/3/2024
003	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/3/2024
004	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/3/2024
005	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/2/2024
006	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/3/2024
007	TCL VO + 15	Analyze	8260D	STD/2 WKS	7/2/2024

Project Notes:

NOTE 2 taken by Mark on 06/21/2024 09:07
PER CATHY BRYAN, PLEASE PROVIDE NYSDEC EDD

273 Franklin Road
Randolph, NJ 07869
Phone: 973 361 4252
www.ialonline.com



IAL is a NELAP accredited lab (TN101284) and maintains certification in Connecticut (PH-0699), New Jersey (14751), New York (11402), and Pennsylvania (68-00773).

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 24**

02128

CLIENT:

EWMA

COOLER TEMPERATURE: 2° - 6°C: ☒

(See Chain of Custody)

Comments

COC: COMPLETE / INCOMPLETE

KEY

☒ = YES/NA

☒ = NO

VOA received: ☐ Encore

☐ IGW - Methanol

(check one) ☐ Terra Core

☐ No Preservative

☒ Bottles Intact

☒ no-Missing Bottles

☒ no-Extra Bottles

☒ Sufficient Sample Volume

☒ no-headspace/bubbles in VO's

☒ Labels intact/correct

☒ pH Check¹ (refer to Receipt pH Log)

☒ Correct bottles/preservative

☒ Sufficient Holding/Prep Time¹

☐ Multiphasic Sample

☐ Sample to be Subcontracted

☒ Chain of Custody is Clear

¹ All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY:

INITIAL **CRONK**

DATE **6/19/24**

CORRECTIVE ACTION REQUIRED:

YES

☐ (SEE BELOW)

NO

☒

If COC is **NOT** clear, **STOP** until you get client to authorize/clarify work.

CLIENT NOTIFIED:

YES ☐

Date/ Time:

NO ☐

PROJECT CONTACT:

SUBCONTRACTED LAB:

DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY:

INITIAL **KJ**

DATE **6/20/24**

Laboratory Custody Chronicle

IAL Case No.

E24-02128

Client EWMA - HQ

Project SWIVELIER - 202530

Received On 6/19/2024@17:19

Department: Volatiles

			<u>Prep. Date</u>	<u>Analyst</u>	<u>Analysis Date</u>	<u>Analyst</u>
TCL VO + 15	02128-001	Aqueous	n/a	n/a	6/24/24	Sylvia
"	-002	"	n/a	n/a	6/24/24	Sylvia
"	-003	"	n/a	n/a	6/24/24	Sylvia
"	-004	"	n/a	n/a	6/24/24	Sylvia
"	-005	"	n/a	n/a	6/24/24	Sylvia
"	-006	"	n/a	n/a	6/24/24	Sylvia
"	-007	"	n/a	n/a	6/24/24	Sylvia

NOTE: All soil, sediment, sludge, and solid samples are reported on a dry-weight basis.

Integrated Analytical Labs ~ 273 Franklin Road, Randolph, NJ 07869 ~ (973) 361-4252

LAST PAGE OF DOCUMENT

Periodic Review Report – Review Period July 2023 to August 2024

Property Known As:

**Swivelier Company
33 Route 304
Nanuet, Rockland County, New York 10954
NYSDEC Site Nos. 3-44-036 & V00520
EWMA Project No. 202530**

Appendix 4 – Purge Guides

August 2024





100 Misty Lane
Parsippany, NJ
(973) 560-1400

Job Name: Swivelier
Job Number: 202530
Personnel: Matt G

Weather: 80s, sunny
Date: 6/18 to 6/19/2024

WELL INFORMATION	MW-11D	MW-10D	MW-13D					
PID (ppm):	0.0	393.7	0.3					
Depth to Product (feet):	N/A	N/A	N/A					
Depth of Well (feet):	123.18	77.07	110.81					
Depth to Top of Screen (feet):								
Depth to Water (feet)	11.19	10.45	14.71					
Well Diameter (inches):	6	4	6					
Volume in Well (gal):	164.51	43.50	141.17	0.00	0.00	0.00	0.00	0.00
PRE - PURGE DATA								
Purge Start:	9:41	12:28	10:09					
Temperature (deg. C):	18.94	16.99	15.71					
pH:	9.13	7.36	7.34					
ORP (mV)	159	146	-44					
Specific Conductivity:	0.508	0.937	0.978					
Turbidity (NTU)	889	276	356					
Dissolved Oxygen (mg/l):	2.49	7.12	0.81					
Purge End:	13:21	14:39	13:06					
Elapsed Time:	3:40	2:11	2:57	0:00	0:00	0:00	0:00	0:00
POST-PURGE DATA								
Depth to Water (feet):	33.93	71.24	21.41					
Temperature (deg. C):	15.78	21.89	14.65					
pH:	8.14	7.30	7.26					
ORP (mV)	-78	82	15					
Specific Conductivity:	0.469	0.892	1.360					
Turbidity (NTU)	171	907	16.6					
Dissolved Oxygen (mg/l):	0.00	3.79	0.00					
Minimum Purge Vol. Req. (gal):	493.5	130.5	423.5	0.0	0.0	0.0	0.0	0.0
Rate of Purge: (gal/min)	2.25	1	2.5					
Actual Total Volume Purged (gal):	495	131	443	0.00	0.00	0.00	0.00	0.00
Purge Method:	Redi-Flow	Redi-Flow	Redi-Flow					
SAMPLE DATA								
Sample Time:	13:40	16:40	13:15					
Sample Method:	Redi-Flow	Redi-Flow	Redi-Flow					
Depth to Water (feet):	33.99	34.11	21.42					
Temperature (deg. C):	15.95	17.39	14.71					
pH:	8.12	7.34	7.26					
ORP (mV)	-84	36	16					
Specific Conductivity:	0.478	0.828	0.964					
Turbidity (NTU)	138	88.7	138					
Dissolved Oxygen (mg/l):	0.00	2.15	2.28					
Odor:	None	None	None					
Turbidity:	Slight	Clear	Clear					
Drawdown: (ft)	22.74	60.79	6.70	0.00	0.00	0.00	0.00	0.00

NOTES:

ND = Non-Detect
Dry - No water/Not enough water to purge
NA - No data collected