PERIODIC REVIEW REPORT (PRR)

(Reporting Period 3/1/2017 to 3/31/2018)

for

365 BOND STREET
Brooklyn, New York

Block 458, Lot 1
NYSDEC Site No. C224174

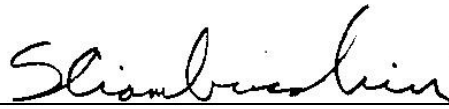
Prepared For:

LSG 365 Bond Street, LLC
c/o The Lightstone Group
460 Park Avenue, 13th Floor
New York, New York 10022

Prepared By:

Langan Engineering, Environmental, Surveying, and Landscape Architecture, D.P.C.
300 Kimball Drive
Parsippany, New Jersey 07054
NJ Certificate of Authorization No: 24GA27996400

Christopher McMahon
Associate



Steven A. Ciambruschini, P.G., L.E.P.
Principal / Vice President

April 2017
100287503

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1.0 INTRODUCTION

1.1 General

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) has prepared this Periodic Review Report for the 2017 reporting period in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP), dated September 2015. The 2017 reporting period includes 1 March 2017 to 31 March 2018. A periodic review of all institutional controls and engineering controls (IC/EC), and monitoring results is a requirement for fulfillment of the remedial action at 365 Bond Street (hereafter referred to as the site) under the New York State Brownfield Cleanup Program (NYSBCP), administered by the NYSDEC.

1.2 Site Background

The site is located in Brooklyn, County of Kings, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. A map showing the site location and boundaries of this 2.066-acre site is provided as Figure 1. The site has an industrial and manufacturing history which dates back over 100 years. Historical uses of the site have included an oil terminal with large above ground storage tanks, a building materials warehouse, a lumber company, paper products warehouse, an electric wire and cable company, a warehouse, a dry cleaner, a garage and an automotive repair shop with two 550-gallon underground gasoline tanks.

The former building was most recently used for office and warehouse space and the eastern portion of the lot was most recently used for the storage of tractor trailers and firewood. The former building was demolished in preparation for site remediation and redevelopment.

Langan and others conducted numerous subsurface investigations throughout the site between October 2004 and November 2014. These investigations were documented in the Remedial Investigation Report (RIR) dated September 2014, the Supplemental Remedial Investigation (SRI) Analytical Results Package Letter Report dated April 2014 (submitted to the United States Environmental Protection Agency [USEPA] and NYSDEC). Based on the results of the investigations:

- One hotspot area (Area of Concern [AOC]-4) was identified as soil impacted by residual petroleum contamination including the presence of light non-aqueous phase liquid (LNAPL) and characterized by the presence of petroleum related compounds benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX);

- Eight additional areas (Supplemental AOC-4, AOC-7, B-3, B-4, EPA-3, EPA-4, LSB-18, and LSB-19) were identified as soil impacted by LNAPL and anomalously high concentrations of semi-volatile organic compounds (SVOCs);

- Soil vapor was impacted by petroleum-related volatile organic compounds (VOCs) and/or chlorinated VOCs (CVOCs) at locations throughout the site.

To address these impacts a Track 4: Restricted Residential Use remediation was completed at the site in accordance with 6 NYCRR Part 375 Environmental Remediation Programs (2006), DER 10 (2010). Specifically, the following work plans and reports document the remedial measures for the Site:

- Interim Remedial Measures Work Plan (IRMWP) dated February 2014;

- AOC-4 Excavation Work Plan (EWP) dated April 2014;

- Comprehensive Supplemental Remedial Measures Plan (CSRMP) dated May 2014;

- Remedial Action Work Plan (RAWP) dated March 2015;

- NYSDEC Decision Document dated March 2015; and,

- Final Engineering Report (FER) and Construction Completion Report (CCR) dated September 2015.

The remedial measures under these plans were conducted in conjunction with development activities, implementation of the remedial activities commenced in February 2014, and they were completed in July 2015. Remedial measures that allowed for the completion of a Track 4 cleanup included, but were not limited to, the removal of 12,357 tons of petroleum-

impacted soil, installation of a sub-membrane piping network for a passive sub-membrane depressurization system (SMDS) beneath the first floor (at sidewalk grade) of the new building, construction of a composite cover system, and construction of a steel sheet pile bulkhead wall outboard of the historical bulkhead. See Section 2.2 for further information on the remedial program.

The site was redeveloped as a five- to twelve-story mixed-use commercial/ residential building with a partial basement, a waterfront esplanade and a pedestrian walkway. The new building foundation was constructed concurrently with implementation of the RAWP. Current features of the site redevelopment are shown on Figure 2.

The IRMWP and RAWP required implementation of engineering and institutional controls at the Site to prevent exposure to remaining contamination. Engineering controls (ECs) included the construction of a composite cover system, a steel sheet pile bulkhead wall, and a sub-membrane depressurization system. The Site Management Plan specifies four rounds of soil vapor monitoring (one month, three months, six months, and 12 months after system completion) in addition to annual composite cover system and site wide inspections to assess the effectiveness of the remedy. Institutional controls (ICs) included Groundwater Use Restriction, Soil Management Plan, Land Use Restriction, SMP, IC/EC Plan, and O&M Plan, as specified in the SMP and Environmental Easement (provided in Appendix A).

The Periodic Review Report – 2017 submitted to NYSDEC in March 2017 and finalized incorporating responses to NYSDEC comments in September 2017 was prepared for the 2016 reporting period and was accepted by the NYSDEC and New York State Department of Health (NYSDOH) in the NYSDEC letter received 7 September 2017 (provided in Appendix B).

1.3 Effectiveness of the Remedial Program

The remedial actions at the Site were implemented to remove gross contamination within the identified AOCs and eliminate potential human exposure with any remaining residual impacts present in soil, groundwater, and soil vapor via the IC/ECs. The IC/ECs for the 2017 reporting period continue to meet the remedial objectives for the site.

1.4 Compliance

All IC/ECs have remained fully in place at the site for the 2017 reporting period and remain effective. Construction of the permanent composite cover system, a steel sheet pile bulkhead wall, and sub-membrane depressurization system per the SMP occurred during following the FER reporting period, both prior to issuance of the Certificate of Completion (COC) and in the 2016 reporting period. Additional construction activities associated with the passive SMDS were completed during the 2017 reporting period; details regarding these activities are provided in Section 3.0 below.

1.5 Recommendations

We recommend the SMP be amended to document the completion of the permanent esplanade and the SMDS upon approval of this PRR by NYSDEC and NYSDOH. The amended SMP will include documentation of the additional construction activities completed following submission of the September 2015 SMP through the 2017 reporting period, revised descriptions of the engineering and institutional controls, revised site survey and as-built drawings, and revised inspection forms.

2.0 SITE OVERVIEW

2.1 Site Location

The site is located in Brooklyn, County of Kings, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. Lot 1 is an approximately 2.066-acre parcel bounded by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west.

2.2 Remedial Summary

Implementation of the remedial activities commenced in February 2014, and remedial activities were completed in July 2015. The components of the selected remedy included:

- Excavation and offsite disposal of one hotspot area (AOC-4) of soil impacted by residual petroleum contamination that resulted in a localized area of LNAPL characterized by the presence of petroleum related compounds BTEX in accordance with the IRMWP;

- Excavation and offsite disposal of additional areas (Supplemental AOC-4, B-3, B-4, EPA-3, EPA-4, LSB-18, and LSB-19) impacted by LNAPL and anomalously high concentrations of SVOCs as identified during the SRI and in accordance with the AOC-4 EWP and CSRMP;

- Excavation and offsite disposal of soils encountered that were saturated with free phase petroleum (within the vadose zone) outside of originally-specified AOCs (AOC-7), in addition to excess contaminated soils which were not suitable for onsite reuse that were generated or encountered during re-grading and foundation construction activities;

- Decommissioning of seven underground storage tanks (USTs) discovered during excavation associated with the site redevelopment, in accordance with all applicable federal, state and local regulations;

- Construction of ECs including a composite cover system, a steel sheet pile bulkhead wall, and a sub-membrane piping network for a passive SMDS beneath the at sidewalk-grade level portion of the new building;

- Completion of three SMDS inspections and soil vapor monitoring events (one month, three months, and six months after system completion) during the reporting period;

- Recording an environmental easement (provided in Appendix A) with ICs; and,

- Development of an SMP for implementation of the IC/ECs.

Historic fill material impacted by polycyclic aromatic hydrocarbons (PAHs) and metals at concentrations typical of historic urban fill, remains present at the site beneath the soil cover system. Groundwater at the site is impacted with low level concentrations of VOCs, SVOCs, pesticides, and metals in exceedance of the Groundwater Quality Standards (GQS). However, the exceedances were not associated with the former AOCs and are expected to naturally attenuate with time given the IRM, AOC-4 EWP and CSRMP excavation activities. Historical soil vapor analytical results revealed petroleum related and CVOCs. The most recent soil vapor monitoring report revealed minimum detections of petroleum related and CVOCs and no

compounds were detected in exceedance of applicable criteria or at levels requiring mitigation.

As-built drawings of the sub-membrane components of the passive SMDS were provided in the FER, CCR, and SMP.

Two ECs, the waterfront esplanade portion of the composite cover system and the passive SMDS, remained under-construction through the FER reporting period, and the issuance of the COC. The waterfront esplanade construction was completed during the 2016 Periodic Review Reporting period and as documented in the Periodic Review Report – 2017. Additional construction activities associated with the passive SMDS were completed during the 2017 reporting period, and are discussed below in Section 3.0.

The IC/ECs continue to be implemented at the site.

3.0 CONSTRUCTION ACTIVITIES

3.1 Passive SMDS

As of September 2015 when the draft SMP was submitted, the sub-membrane portions of the passive SMDS had been constructed beneath the footprint of the sidewalk-grade level portion of the building. These sub-membrane components consisted of trenches which allowed for the installation of screened PVC vapor collection piping that is surrounded by a minimum of six-inches of certified clean sand. With exception of pile cap locations, the remaining areas were covered with a minimum of four-inches of ¾-inch imported recycled concrete aggregate (RCA) to act as a vapor collection layer followed by the 15 mil Stego Wrap Vapor Barrier. As-built drawings of the sub-membrane portions of the passive SMDS were provided in the FER, CCR, and SMP.

During the construction of the building during the 2016 reporting period, 4-inch cast iron riser pipes connecting the sub-membrane components were installed. At riser V1, the riser pipe was installed to a discharge point on the sixth floor roof. At riser V2, the riser pipe was installed to a discharge point on the eighth floor roof. At riser V3, the riser pipe was installed to a discharge point on the seventh floor roof. At risers V4 and V5, the riser pipes were installed to a discharge point on the 12th floor roof. At riser V6, the riser pipe was installed to a discharge point on the ninth floor roof. Three sub-slab

soil vapor sampling ports were also constructed in the basement parking garage during the 2016 reporting period at locations V2, V3, and V5. The vapor points allow for the collection of sub-slab soil vapor samples which were collected in accordance with the frequency identified in the SMP.

During the 2017 reporting period, additional components of the sub-slab soil vapor sampling points were installed. In March 2017, ball valves for manual drainage were installed per the RAWP, FER, CCR, and SMP, and the above-grade piping were glued. In July 2017, lockable metal enclosures were installed at locations V2 and V3. A lockable metal enclosure could not be installed at the V5 location due to its proximity to an automobile lift.

In March 2017 roof-top components of the SMDS risers were also installed including sample ports, ball valves, and gooseneck fittings at the V1 through V6 discharge stacks. As such, passive SMDS construction has been completed and the system is operational.

Photographs documenting the installation of the above-grade components of the three sample ports and roof-top components of the six 4-inch cast iron riser pipes are provided in Appendix C.

Documentation of the as-built conditions will be provided in the amended SMP.

4.0 IC/EC PLAN COMPLIANCE REPORT

4.1 IC/EC Components

A summary of the IC/ECs implemented at the site per the RAWP, FER, CCR, and SMP are as follows:

- Maintenance of a composite cover system to prevent human exposure to residual contaminated soils remaining under the site;
- Installation of a passive SMDS to prevent vapor migration into the building;
- Periodic soil vapor sampling;

- An environmental easement with ICs to prevent future exposure to any contamination remaining at the site (a copy of the environmental easement is provided in Appendix A); and,

- A SMP for implementation of the IC/ECs.

Refer to Figures 3 and 4 as well as the as-built drawings provided in the FER, CCR, and SMP for the locations of the ECs.

4.2 Goal Status and Corrective Measures

No deviations of the IC/ECs have been observed during the 2017 reporting period with exception of the breach of the composite cover system that was identified in an unoccupied commercial space that was undergoing tenant improvement during the 13 and 14 February 2018 annual inspection. This breach will be discussed in further detail in Section 5.2.2 below. Corrective measures will be completed addressing repairs to the composite cover system in the Spring of 2018 and will be documented in the PRR for the next reporting period. As discussed in Section 3.1, passive SMDS construction has been completed and the system is operational. No corrective measures associated with the passive SMDS are required at this time.

4.3 Conclusions and Recommendations

No modifications to the IC/ECs are proposed at this time.

5.0 MONITORING PLAN COMPLIANCE REPORT

5.1 Monitoring Plan Components

The components of the Monitoring Plan are as follows:

- Periodic vapor mitigation system monitoring;

- Periodic sub-slab air monitoring;

- An annual composite cover system inspection; and,

- An annual site-wide inspection.

5.2 Summary of Monitoring Completed

5.2.1 Periodic Vapor Mitigation System Monitoring and Soil Vapor Sampling

Inspection of all system components and field screening of the soil vapor was conducted during the Year 1, Month 12 (April 2017) and Year 2 (February 2018) monitoring and sampling events. System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sub-slab soil vapor sample port (V2, V3 and V5). Soil vapor samples were also collected from the three sample ports during each of the sampling events.

All samples were analyzed for VOCs via the EPA TO-15 Method by York Analytical Laboratories (a NYSDOH Environmental Laboratory Approval Program [ELAP]-accredited laboratory) of Stratford, Connecticut during the Month 12 sampling event and by Alpha Analytical Laboratories (a NYSDOH ELAP-accredited laboratory) of Westborough, Massachusetts during the Year 2 sampling event. Soil Vapor Monitoring Reports were prepared documenting the concentrations of contaminants of concern in the soil vapor and are included as Appendix D.

5.2.2 Annual Composite Cover System Inspection

An annual visual inspection of the site composite cover system including the permanent waterfront esplanade was completed on 13 and 14 February 2018. For the permanent esplanade, inspections are conducted to confirm that the composite cover system has not been breached and that the demarcation layer has not been exposed. Conditions of the onsite subgrade parking area slab, foundation walls, first floor concrete slab, outdoor paving/sidewalks, and landscaped areas were inspected for quality and integrity.

An approximately 6-inch by 12-inch breach of the composite cover system, including the 15-mil Stego Wrap Vapor Barrier, was observed in the first floor concrete slab in order to access and connect to the sub-slab water utility as part of tenant improvement in an unoccupied commercial space in the northern portion of the building. This breach will be repaired as part of tenant fit-out construction activities in the Spring of 2018 and the repairs will be documented in the PRR for the

next reporting period. Other areas of the concrete slab in the vicinity of breach were observed to have been chipped away for placement of above-slab utilities; however, no additional composite cover system breaches were identified as the result of these construction activities that have removed only a portion of the concrete slab.

No other damages and/or breaches to the remaining portions of the composite cover system including; the subgrade parking area slab, foundation walls, outdoor paving/sidewalks or the esplanade area were identified during the annual inspection event. In addition, the visual inspection of the landscaped areas of the esplanade revealed that the demarcation layer had not been exposed in any area and appeared to be in good condition.

The detailed composite cover system inspection report is included in Appendix E.

5.2.3 Annual Site-Wide Inspection

An annual site-wide inspection was conducted on 13 and 14 February 2018 per the requirements of the SMP. No deviations or discrepancies were observed. The completed site-wide inspection form is included in Appendix E.

5.3 Comparisons with Remedial Objectives

Remedial action objectives (RAOs) were identified in the RAWP for the protection and public health and the environmental. Soil RAOs are being addressed via the presence of the composite cover system including the building slab and foundation walls and permanent esplanade. RAOs for soil vapor are being addressed via the presence of a vapor barrier beneath the building slab and on the exterior of the foundation walls and will continue to be addressed via a passive SMDS. RAOs for groundwater were addressed by the excavation of contamination sources during the remedial action and continue to be addressed via ICs preventing use of groundwater as a source for potable water.

As described in Section 5.2.3 above, a minimal breach of the composite cover system was observed in the northern portion of the first floor concrete slab that is associated with the construction of a vacant commercial space to

allow for the future operation of this area. This breach will be repaired in the Spring of 2018 as part of the tenant fit-out of this space and the repairs will be documented in the PRR for the next reporting period.

As described in the Year 1, Month 12 and Year 2 Soil Vapor Monitoring Reports (included in Appendix D), the vacuum being produced by the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. During the two soil vapor screening and sampling events completed during the 2017 reporting period, a vacuum condition has been observed at each of the three sample ports (V2, V3, and V5). In Year 1, Month 12 and Year 2, the sub-membrane soil vapor concentrations were detected below the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices A, B, and C thresholds requiring further mitigation. Based on these findings, continued operation of the passive SMDS is sufficient to mitigate any potential impacts to the building indoor air quality.

Soil vapor monitoring will continue annually in accordance with the SMP unless otherwise required by NYSDEC.

5.4 Monitoring Deficiencies

Monitoring activities for the 2017 reporting period fully complied with the SMP Monitoring Plan and NYSDEC's requests. Soil vapor sampling activities are described in the Soil Vapor Monitoring Reports included as Appendix D.

5.5 Conclusions and Recommendations

An amendment to the SMP is recommended to document the completion of the permanent esplanade and the SMDS following approval of this PRR by NYSDEC and NYSDOH.

6.0 O&M PLAN COMPLIANCE REPORT

6.1 O&M Plan Components

The components of the O&M Plan are as follows:

- Site composite cover system maintenance; and,
- Soil vapor mitigation system monitoring and equipment maintenance.

6.2 Completed O&M Activities

6.2.1 Site Composite Cover System Maintenance

Per the SMP, if cracking and/or other damage is observed over greater than 25 percent of the paved areas, the area will be repaved with asphalt or concrete to restore a thickness of at least four inches. The visual inspection of the subgrade parking area, first floor slabs, foundation walls, and outdoor paving/sidewalks revealed no areas where greater than 25 percent of the surface is cracked or damaged. However, a breach was observed in the unoccupied commercial space in the northern portion of the first floor concrete slab that will be repaired in the Spring of 2018. The repairs will be documented in the PRR for the next reporting period.

For the permanent esplanade landscaped areas, the visual inspection revealed that the cover has not been breached and that the demarcation layer has not been exposed.

No additional maintenance activities other than those discussed above are required at this time.

6.2.2 Passive SMDS Construction and Maintenance

The portions of the SMDS that were accessible for inspection during the Year 1, Month 12 and Year 2 events (i.e., the soil vapor sample ports and roof-top discharge stacks) appeared to be in good condition.

6.3 O&M Deficiencies

Overall, the site composite system and passive SMDS appeared to be in good condition, with exception of the breach observed in the commercial space in the northern portion of the first floor concrete slab. The breach will be repaired as part of tenant fit-out construction activities in the Spring of 2018 and the repairs will be documented in the PRR for the next reporting period. No additional maintenance is required at this time.

6.4 Conclusions and Recommendations

Recommendations are not proposed at this time.

7.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

7.1 SMP Compliance

Each component of the SMP, including the IC/EC Plan, Monitoring Plan, and O&M Plan, was in compliance for the 2017 reporting period.

7.2 Remedy Performance Evaluation

7.2.1 Composite Cover System

Conditions of the onsite building foundations, sidewalks and permanent esplanade landscaped areas were inspected for quality and integrity. The site-wide composite cover system was confirmed to be intact, except in the breached area observed in the unoccupied commercial space in the northern portion of the first floor slab. As noted above, repairs will be completed as part of tenant fit-out construction activities in the Spring of 2018 and will be documented in the PRR for the next reporting period. The site-wide composite cover system continues to be effective in protecting public health and the environment.

7.2.2 Passive SMDS

As discussed in Section 5.3, a vacuum condition has been observed at each of the three sample ports (V2, V3, and V5). During the Year 2 sampling event, the sub-membrane soil vapor concentrations were detected below the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices A, B, and C thresholds requiring further mitigation. Based on these findings, continued operation and maintenance of the passive SMDS was deemed sufficient in order to mitigate any potential impacts to the building interior indoor air quality and, system expansion as an active SMDS is not required at this time. Soil vapor monitoring will continue annually in accordance with the SMP unless otherwise required by NYSDEC.

7.2.3 IC Components

All ICs were maintained during the 2017 calendar year, and the environmental easement on the site remains in place.

7.3 Future Submittals

SMDS inspection and soil vapor sampling activities will be continued in February 2019 (Year 3) and annually thereafter during the heating season in accordance with the SMP unless otherwise required by NYSDEC.

Inspections/monitoring of the composite cover system will continue on an annual basis.

At the direction of NYSDEC, passive SMDS may be activated. If activation of the SMDS is implemented, operation and maintenance procedures will be provided in a revised SMP.

Following approval of this PRR by NYSDEC and NYSDOH, it is recommended that a revised SMP will be submitted to NYSDEC to document the completion of the permanent esplanade and the SMDS. Forms and other information generated during regular monitoring events and inspections will be submitted at the time of the annual Periodic Review Report, as specified in the Reporting Plan of the NYSDEC-approved SMP.

8.0 CERTIFICATION OF IC/ECS

8.1 IC/EC Certification Form

The completed IC/EC Certification Form is presented in Appendix F.

8.2 IC/EC Certification

I, Ronald Boyer, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the 365 Bond Street site (NYSDEC Site No. C224174).

I certify that the ICs/ECs are in place and effective and are performing as designed.

I certify that nothing has occurred that would impair the ability of the controls to protect the public health and environment and that nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.

I certify that all use restrictions, institutional controls, engineering controls, and all operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded. A Site Management Plan has been submitted by the applicant for the continual and proper operation, maintenance, and monitoring of all engineering controls employed at the site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by the Department.

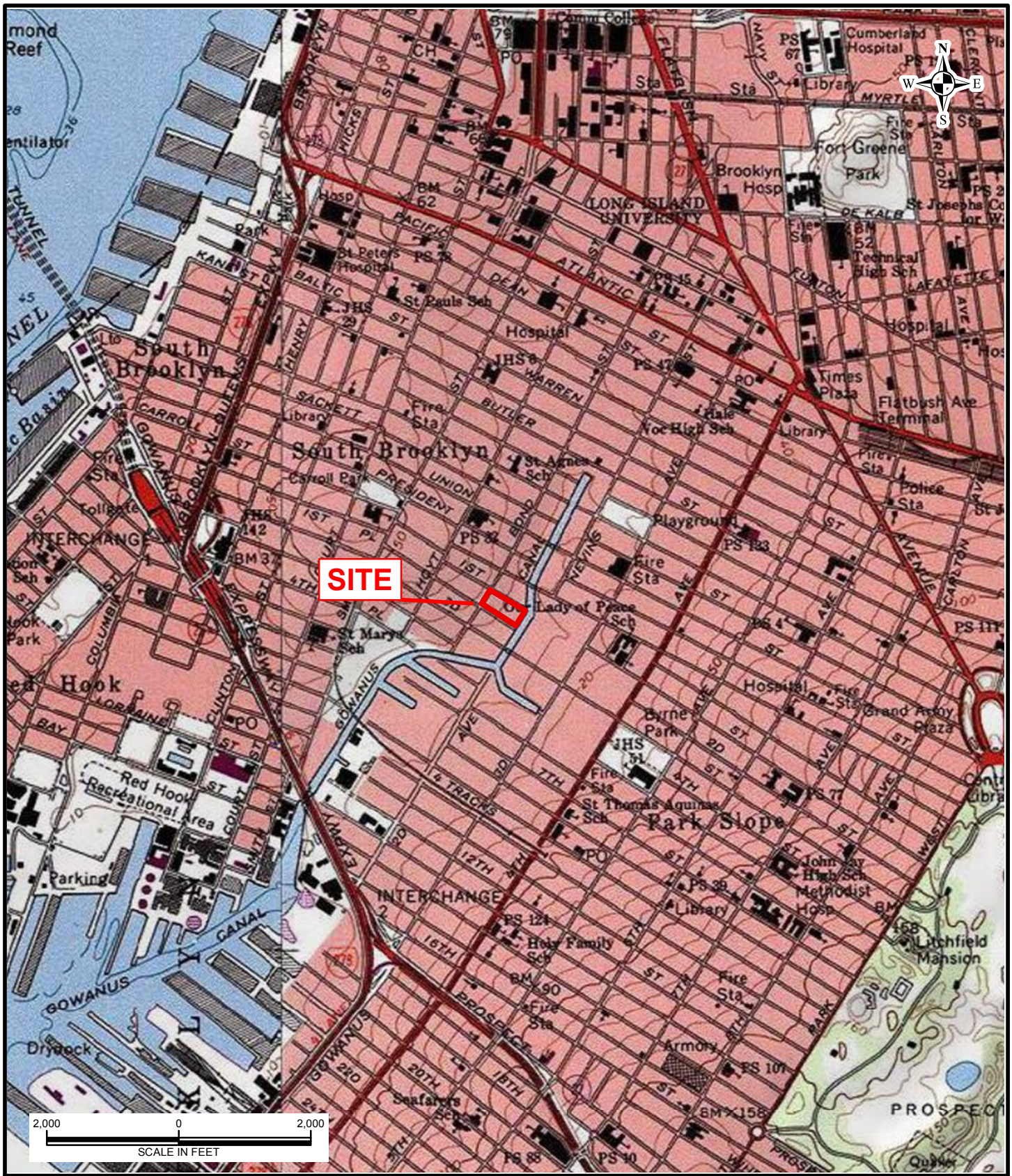
I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as a Class A misdemeanor, pursuant to Section 210.45 of the Penal Law.

085831-1 7/2/18

New York State Professional Engineer No. Date Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

FIGURES



LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

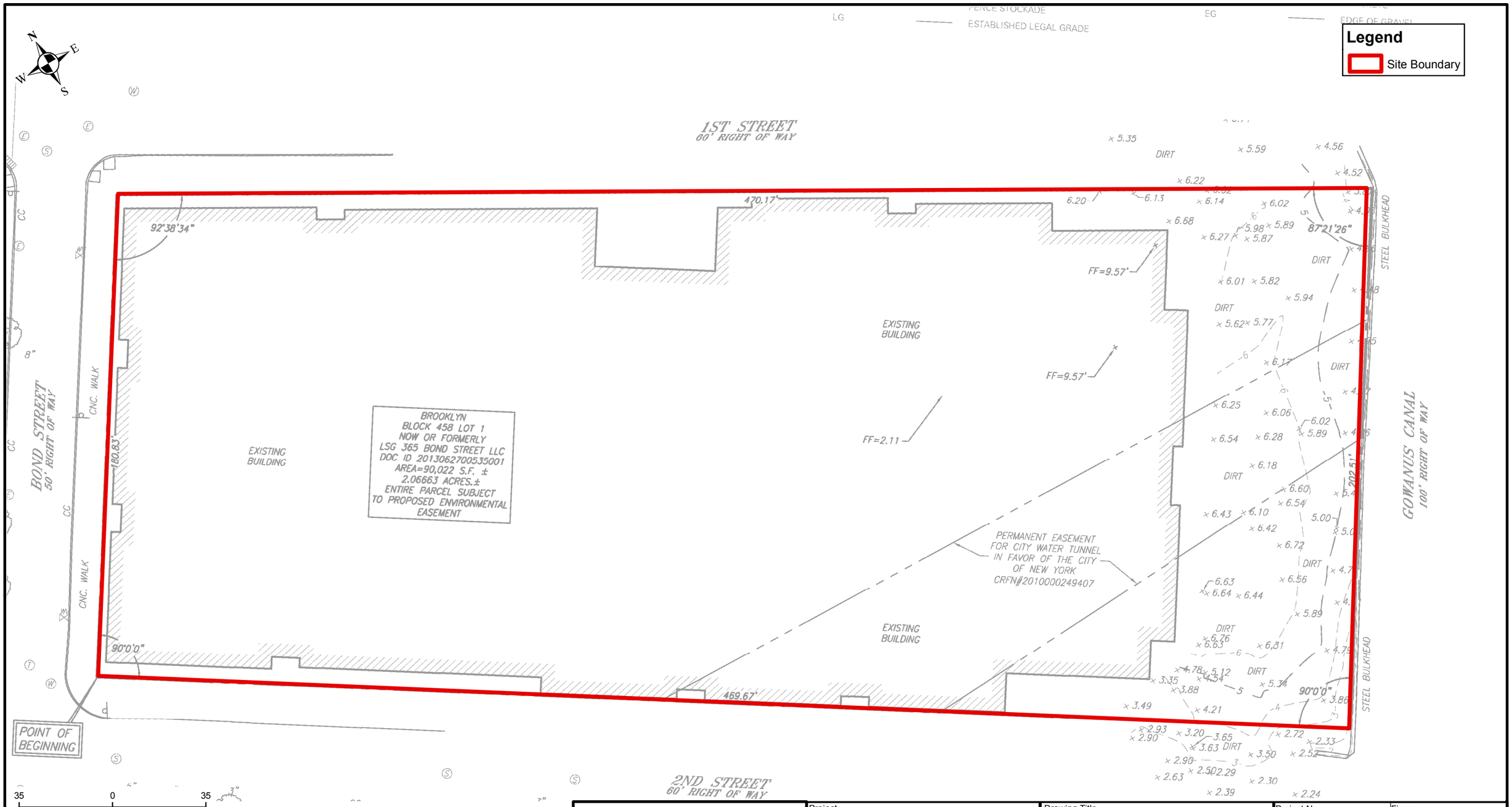
Project
365 BOND STREET DEVELOPMENT
BLOCK No. 458, LOT No. 1
BROOKLYN
KINGS COUNTY NEW YORK

Drawing Title
SITE LOCATION MAP

Project No.	100287503
Date	10/19/2012
Scale	1"=2000'
Drawn By	amf
Last Revised	3/12/2018
Figure	1

© 2013 Langan

Path: \\langan.com\data\PAR\data5\100287501\ArcGIS\ArcMap_Documents\2018-03 – 365 Bond St PRR\Figure 1 - Site Location Plan.mxd



Notes:
1. Site survey basemap from "CAP AS-BUILT," by Langan, dated 6 August 2015.
2. Final site survey will be provided in the forthcoming revised SMP.

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com

Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project	365 BOND STREET DEVELOPMENT BLOCK No. 458, LOT No. 1 BROOKLYN KINGS COUNTY NEW YORK
Drawing Title	SITE PLAN
Project No.	100287501
Date	1/27/2015
Scale	1"=35'
Drawn By	JR
Last Revised	3/12/2018
Figure	2

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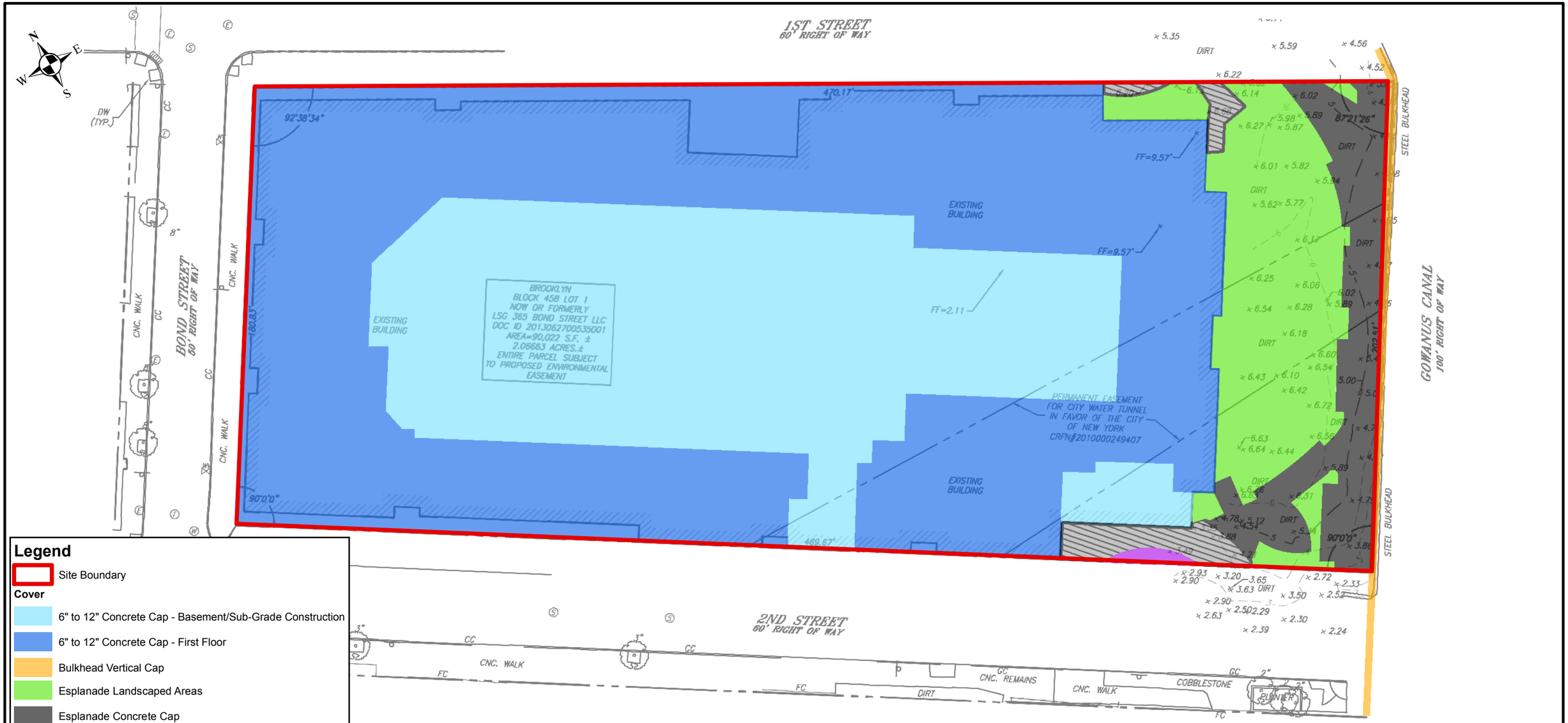
Path: \\langan.com\data\PAR\data5\100287501\ArcGIS\ArcMap_Documents\2018-03 – 365 Bond St PRR\Figure 2 - Site Plan.mxd



Notes:

1. 6" to 12" Concrete Cap – Basement is comprised of the 6" to 12" concrete slab underlain by Grace Vapor Barrier System.
2. 6" to 12" Concrete Cap – First Floor is comprised of the 6" to 12" concrete slab underlain by Stego 15-mil Vapor Barrier.
3. Bulkhead Vertical Cap is comprised of AZ38-700N double sheets, AZ19-700 double sheets, and manufactured sand material supplied by Tilcon New York, Inc.
4. Esplanade Landscaped Areas are comprised of at least 2 feet of clean fill topsoil underlain by a demarcation layer.
5. Esplanade Pavement is comprised of the approximate 12" concrete pavement and asphaltic block pavers.
6. Esplanade features were constructed during the 2016 PRR Reporting Period. These layers from "L-100.00 - SITE PLAN," by GHWA, dated 28 April 2014.
7. Site survey basemap from "CAP AS-BUILT," by Langan, dated 6 August 2015.
8. Final site survey will be provided in the forthcoming revised SMP.

40 0 40
SCALE IN FEET

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com

Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

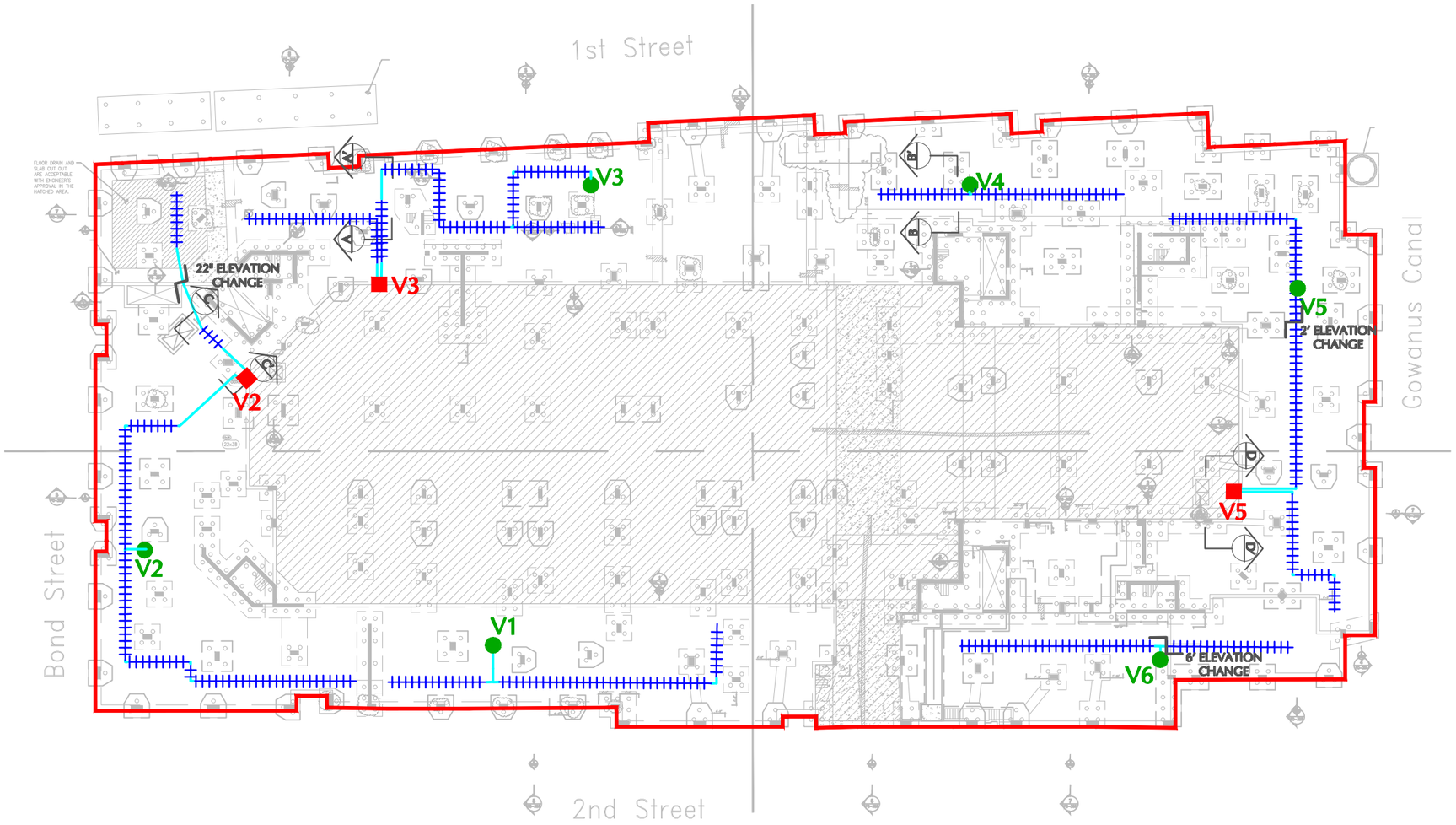
Project
365 BOND STREET DEVELOPMENT
BLOCK No. 458, LOT No. 1
BROOKLYN
KINGS COUNTY NEW YORK

Drawing Title
CURRENT COVER SYSTEM MAP (2/14/2018)

Project No.	100287501
Date	9/22/2015
Scale	1"=40'
Drawn By	JR
Last Revised	3/26/2018
Figure	3

© 2012 Langan

Path: \\langan.com\data\PAR\data5\100287501\ArcGIS\ArcMap_Documents\2018-03 – 365 Bond St PRR\Figure 3 - Current Cover System Map.mxd



40 0 10 25 40

SCALE IN FEET

LEGEND:

- BUILDING EXTERIOR
- SUBGRADE PARKING AREA
- INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
- INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
- V3 — INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
- INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

NOTES:

1. ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
2. THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
3. FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
4. SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
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Project
365 BOND STREET DEVELOPMENT
365 BOND STREET
BROOKLYN NEW YORK

Drawing Title
SMDS MANIFOLD LAYOUT

Project No. 100287501	Drawing No. 4
Date MARCH 12, 2018	
Scale AS SHOWN	
Drawn By JR	
Submission Date MARCH 26, 2018	

Filename: \\langan.com\data\PAR\data5\100287501\ArcGIS\ArcMap_Documents\2018-03 – 365 Bond St PRR\Figure 4 - 365 SSDS As-Built Layout_Rev.dwg Date: 3/27/2018 Time: 13:38 User: aruane Style Table: ---- Layout: ANSIB-BL

APPENDIX A

Environmental Easement

WRITTEN DESCRIPTION OF BLOCK 458 LOT 1 AND THE EASEMENT PERIMETER:

BEGINNING AT THE INTERSECTION OF THE NORTHERLY SIDE OF 2ND STREET AND THE EASTERLY SIDE OF BOND STREET;

THENCE EASTERLY ALONG THE NORTHERLY SIDE OF 2ND STREET A DISTANCE OF 469.67' TO A POINT ALONG THE GOWANUS CANAL;

THENCE TURNING AN INTERIOR ANGLE TO THE RIGHT OF 90°00'00" ALONG THE WESTERLY SIDE OF THE GOWANUS CANAL A DISTANCE OF 202.51'

THENCE TURNING AN INTERIOR ANGLE TO THE RIGHT OF 87°21'26" BOUNDED NORTHERLY BY THE SOUTHERLY SIDE OF 1ST STREET A DISTANCE OF 470.17' TO A POINT;

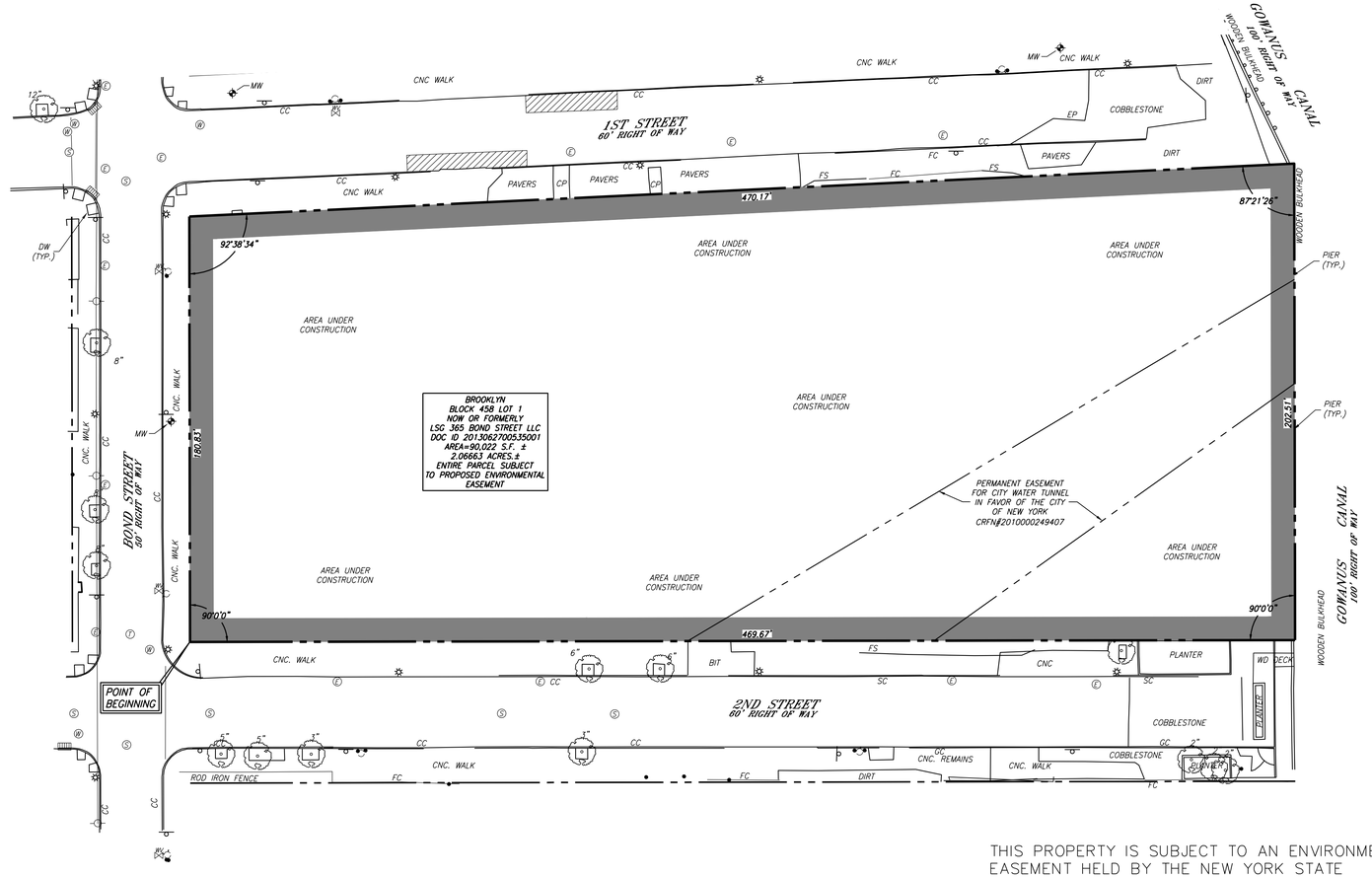
THENCE TURNING AN INTERIOR ANGLE TO THE RIGHT OF 92°38'34" ALONG THE EASTERLY SIDE OF BOND STREET A DISTANCE OF 180.83' TO THE POINT OF BEGINNING AND CREATING AN INTERIOR ANGLE OF 90°00'00" WITH THE FIRST DESCRIBED LINE.

CONTAINING APPROXIMATELY 90,022 SQUARE FEET (2.06663 ACRES).

LEGEND (NOT SHOWN TO SCALE)

	HYDRANT	G	GAS LINE
	STREET LIGHT	W	WATER LINE
	AREA LIGHT	E	ELECTRIC LINE
	SIGNAL POLE	T	TELEPHONE LINE
	POLE	S	COMBINED SEWER LINE
	ANCHOR POLE	D	DRAINAGE LINE
	MANHOLE (TYPE AS LABELED)		OVERHEAD WIRE
	WATER VALVE		GUIDE RAIL (TYPE AS NOTED)
	GAS VALVE		FENCE (TYPE AS NOTED)
	UNKNOWN VALVE		TREE LINE
	CATCH BASIN		EASEMENT LINE
×322.35	SPOT ELEVATION		PROPERTY LINE
	CLEAN OUT		RIGHT-OF-WAY LINE
	TREE	322	CONTOUR LINE
BM-1	BENCH MARK	EP	EDGE OF PAVEMENT
	SIGN	SWS	SINGLE WHITE STRIPE
	BOLLARD	DYS	DOUBLE YELLOW STRIPE
	SPAN POLE	BC	BITUMINOUS CURB
	TRANSFORMER	SC	STONE CURB
	MONITOR WELL	CC	CONCRETE CURB
WD	WOOD	GC	GRANITE CURB
CP	CONCRETE PAD	DW	DETECTABLE WARNING
FM	FENCE METAL	EW	EDGE OF WALK
FC	FENCE CHAIN LINK	BIT	BITUMINOUS
FS	FENCE STOCKADE	CNC	CONCRETE
LG	ESTABLISHED LEGAL GRADE	ENC	ENCROACHES
		CLR	CLEARS

NY EAST NAD 83



NOTES:

1. THIS SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:
   - A. SECTION MAP 23
   - B. CURRENT TAX MAPS
   - C. FOR BLOCK 458 LOT 1 – CHICAGO TITLE INSURANCE COMPANY TITLE NO. 3411-00259, EFFECTIVE DATE NOVEMBER 4, 2011.
   - D. SURVEY RELATED EXCEPTIONS:

     EXCEPTION 6 – ORDER FOR PERMANENT CITY WATER TUNNEL IN FAVOR OF THE CITY OF NEW YORK FOR CITY TUNNEL NO. 3 STAGE 2, CRFN 2010000249407. AS DEPICTED ON SURVEY
   - E. FOR BLOCK 452 LOT 1 – STEWART TITLE INSURANCE COMPANY TITLE NO. 901209, EFFECTIVE DATE NOVEMBER 22, 2011.

     SURVEY RELATED EXCEPTIONS:

     EXCEPTIONS 5-9. EASEMENTS AND RIGHTS FOR DRIVEWAY RIGHTS AND RIGHTS OF INGRESS AND EGRESS FOR AND AROUND THE EXISTING CONCRETE LOADING AREA LOCATED AT THE NORTHEAST CORNER OF BLOCK 452 LOT 1. REFERENCE DOCUMENTS AND LOCATIONS ARE DEPICTED ON THE SURVEY.
   - F. FOR BLOCK 452 LOT 15 – STEWART TITLE INSURANCE COMPANY TITLE NO. 901583, EFFECTIVE DATE JANUARY 10, 2012.

     NO SURVEY RELATED EXCEPTIONS:
   - G. MAP TITLED "CITY OF NEW YORK COUNTY OF KINGS, TAX BLOCK 452 & 458" SCALE 1"=20' DATED MAY 5, 2012 BY MONTROSE SURVEYING CO., LLP.
2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NEW YORK EAST STATE PLANE COORDINATE SYSTEM NAD 83 AS ESTABLISHED THROUGH GPS METHODS.
3. ELEVATIONS SHOWN ARE REFERENCED TO THE BROOKLYN HIGHWAY DATUM (BHD) WITH A CONVERSION OF +2.56' + BHD = NGVD 29. THIS CONVERSION WAS ESTABLISHED ON THE HALCROW PLANS WHICH HAVE BEEN SUBMITTED FOR PREVIOUS EPA/DEC SUBMISSIONS FOR THIS SITE.
4. ESTABLISHED LEGAL GRADES SHOWN PER FINAL SECTION MAP #23 DATED 8/10/95. ELEVATIONS PUBLISHED ON MAP #23 REFER TO THE BROOKLYN HIGHWAY DATUM AND ARE IN REFERENCE TO THE TOP OF CURB ELEVATION.
5. STREET NAMES AND AND R.O.W WIDTHS, BLOCK, AND LOT NUMBERS AS PER CURRENT TAX MAPS.
6. PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN, ENGINEERING, ENVIRONMENTAL, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C.. FIELD WORK COMPLETED DURING THE MONTHS OF DECEMBER 2012 AND JANUARY 2013.
7. OFFSETS (IF SHOWN) ARE FOR SURVEY REFERENCES ONLY AND ARE NOT TO BE USED IN CONSTRUCTION OF ANY TYPE.
8. AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP TITLED CITY OF NEW YORK, NEW YORK, BRONX, RICHMOND, NEW YORK, QUEENS, AND KING COUNTIES PANEL NUMBER 211 OF 457, MAP NUMBER 360497 PANEL 0211F, EFFECTIVE DATE SEPTEMBER 5, 2007. PORTIONS OF THE PROJECT AREA ARE WITHING THE DOTTED ZONE X, AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD AND PORTIONS OF THE PROJECT AREA ARE WITHIN ZONE AE, WITH A BASE FLOOD ELEVATION OF 10 (NGVD 29). THE DELINEATION OF THE ZONE X AND ZONE AE LINE IS DEPICTED ON THE SURVEY.
9. PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.
10. THE GOWANUS CANAL IS A WATER COURSE ON THE PROPERTY AS SHOWN ON THE SURVEY.
11. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF N.Y STATE EDUCATION LAW ARTICLE 145.
12. THIS SURVEY IS NOT VALID WITHOUT THE EMBOSSED OR INKED SEAL OF THE PROFESSIONAL.

30 0 15 30
SCALE IN FEET

10 0 10
SCALE IN METERS

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW. THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT DERWEB@DEC.NY.GOV.

Date	Description	No.
REVISIONS		

" I HEREBY STATE THAT THIS PLAN IS BASED ON A FIELD SURVEY MADE BY ME OR UNDER MY IMMEDIATE SUPERVISION IN ACCORDANCE WITH NYSPLS CODE OF PRACTICE FOR LAND SURVEYS, AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, AND IN MY PROFESSIONAL OPINION, CORRECTLY REPRESENTS THE CONDITIONS FOUND ON THE DATE OF THE FIELD SURVEY AT THE SUBJECT PROPERTY"

ANDREW G. IVES DATE
PROFESSIONAL LAND SURVEYOR
STATE LIC. No. 50794

LANGAN
555 Long Wharf Drive, New Haven, CT 06511
T: 203.562.5771 F: 203.789.6142 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

365 BOND ST.

BROOKLYN
KINGS COUNTY NEW YORK

EASEMENT MAP

100287503		Drawing No.
APRIL 28, 2015		EA201
1"=30'		
RLH	AGI	

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LANGAN 100287503

Filename: \\langan.com\data\NH\data5\100287503\Survey Data - 100287503\Civil 3D\Existing\100287503-V-EX301-DEC-365.dwg Date: 4/28/2015 Time: 15:13 User: aives Style Table: Langan.stb Layout: EA-201

NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument.The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.

2015070100881002002E1B22

RECORDING AND ENDORSEMENT COVER PAGE **PAGE 1 OF 10**

Document ID: 2015070100881002 Document Date: 06-01-2015 Preparation Date: 07-07-2015
Document Type: EASEMENT
Document Page Count: 9

PRESENTER:
MADISON TITLE AGENCY, LLC
(PICK-UP-SDS) AS AGENT FOR
1125 OCEAN AVENUE
LAKEWOOD, NJ 08701
212-808-9400
BAILAB@MADISONTITLE.COM

RETURN TO:
PAM HORN
460 PARK AVENUE, 13TH FLOOR
LIGHTSTONE GROUP
NEW YORK, NY 10022
MTANY-104769 NK

PROPERTY DATA

Borough	Block	Lot	Unit	Address
BROOKLYN	458	1	Entire Lot	365 BOND STREET

Property Type: APARTMENT BUILDING

CROSS REFERENCE DATA

CRFN_____ *or* DocumentID_____ *or* _____ Year_____ Reel____ Page_____ *or* File Number_____

PARTIES

GRANTOR/SELLER:
LSG 365 BOND STREET LLC
C/O LIGHTSTONE GROUP, LLC , 460 PARK AVENUE
NEW YORK, NY 10022

GRANTEE/BUYER:
PEOPLE OF STATE OF NEW YORK BY
COMMISSIONER, DEPT
625 BROADWAY
ALBANY, NY 11223

FEES AND TAXES

Mortgage :

Mortgage Amount:	$	0.00
Taxable Mortgage Amount:	$	0.00
Exemption:		
TAXES: County (Basic):	$	0.00
City (Additional):	$	0.00
Spec (Additional):	$	0.00
TASF:	$	0.00
MTA:	$	0.00
NYCTA:	$	0.00
Additional MRT:	$	0.00
TOTAL:	$	0.00
Recording Fee:	$	82.00
Affidavit Fee:	$	0.00

Filing Fee: $ 100.00
NYC Real Property Transfer Tax: $ 0.00
NYS Real Estate Transfer Tax: $ 0.00

RECORDED OR FILED IN THE OFFICE OF THE CITY REGISTER OF THE CITY OF NEW YORK
Recorded/Filed 07-09-2015 12:57
City Register File No.(CRFN): **2015000236154**

City Register Official Signature

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 1st day of June, 2015, between Owner(s) LSG 365 Bond Street LLC, having an office at c/o The Lightstone Group, LLC, 460 Park Avenue, County of New York, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 365 Bond Street in the City of New York, County of Kings and State of New York, known and designated on the tax map of the New York City Department of Finance as tax map parcel number: Block 458 Lot 1, being the same as that property conveyed to Grantor by deed dated June 20, 2013 and recorded in the City Register of the City of New York in Instrument No. 2013062700535001. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 2.066 +/- acres, and is hereinafter more fully described in the Land Title Survey dated April 28, 2015 prepared by Andrew G. Ives, Professional Land Surveyor for Langan Engineering and Environmental Services, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C224174-05-13, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation

pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

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

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her 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

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C224174
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

LSG 365 Bond Street LLC:

By: _____

Print Name: Joseph E. Tachman

Title: EVP and General Counsel Date: 5-12-2015

Grantor's Acknowledgment

STATE OF NEW ~~YORK~~ JERSEY)
) ss:
COUNTY OF OCEAN)

On the 12th day of May, in the year 20 15, before me, the undersigned, personally appeared Joseph E. Tachman, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of New ~~York~~ Jersey

MIRIAM ELLINSON
Notary Public, State of New Jersey
My Commission Expires
December 09 2015

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 1st day of June, in the year 2015, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Andrew Guglielmi
Notary Public - State of New York

ANDREW O. GUGLIELMI
Notary Public, State of New York
No. 02GU6177593
Qualified in Albany County
Commission Expires November 13, 2015

SCHEDULE "A" PROPERTY DESCRIPTION

ALL THAT CERTAIN plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at the intersection of the northerly side of 2nd Street and the easterly side of Bond Street;

THENCE easterly along the northerly side of 2nd Street a distance of 469.67' to a point along the Gowanus Canal;

THENCE turning an interior angle to the right of 90°00'00" along the westerly side of the Gowanus a distance of 202.51';

THENCE turning an interior angle to the right of 87°21'26" bounded northerly by the southerly side of 1st Street a distance of 470.17' to a point;

THENCE turning an interior angle to the right of 92°38'34" along the easterly side of Bond Street a distance of 180.83' to the point of beginning and creating an interior angle of 90°00'00" with the first described line.

Containing approximately 90,022 square feet (2.06663 Acres).

APPENDIX B

NYSDEC Correspondence

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B
625 Broadway, 12th Floor, Albany, NY 12233-7016
P: (518) 402-9767 | F: (518) 402-9773
www.dec.ny.gov

September 07, 2017

Mark Green c/o The Lightstone Group
LSG 365 Bond Street LLC
1985 Cedar Bridge Avenue, Suite 1
Lakewood, NJ 08701

Re: Site Management (SM) Periodic Review Report (PRR) Response Letter
365 Bond Street, Brooklyn
Kings County, Site No.: C224174

Dear Mr. Green:

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: November 6, 2015 to February 28, 2017.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 1 year. The next PRR, including the signed certification form, is due on March 31, 2018. You will receive a PRR reminder letter 75 days prior to the due date.

If you have any questions, or need additional forms, please contact me at 518-402-9649 or e-mail: john.grathwol@dec.ny.gov

Sincerely,

John Grathwol

John Grathwol
Project Manager

ec: D. Hettrick, DOH
J. Deming, DOH
J. O'Connell, RHWRE
J. Greco, DEC
C. McMahon, Langan Engineering, Environmental, Surveying and Landscape Architecture, D. P. C.

APPENDIX C

Construction Photographic Documentation

LANGAN

LANGAN

APPENDIX C
SMDS Photographic Log
365 Bond Street
Brooklyn, New York

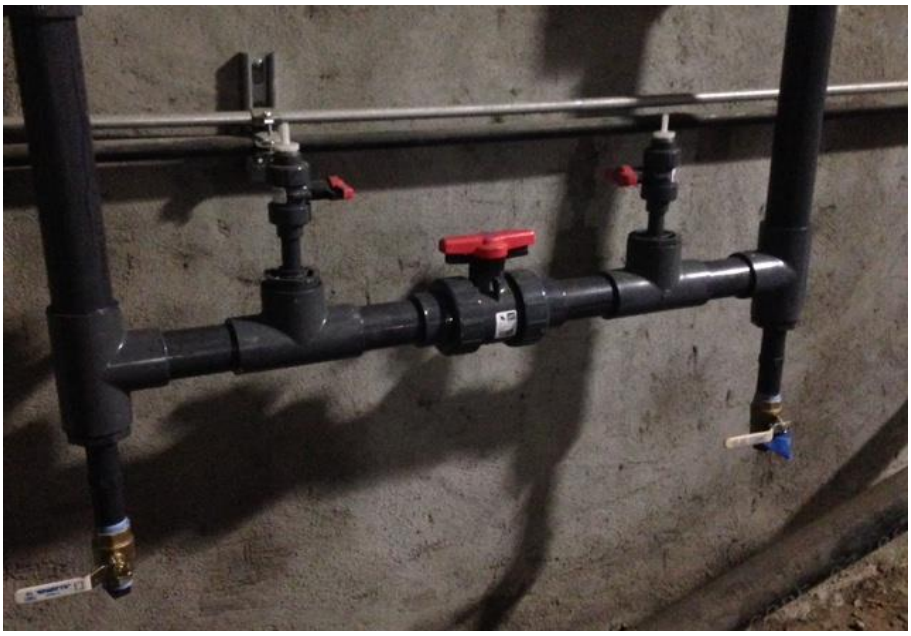


Photo 1: V2 sample port in subgrade parking area, facing north.19 April 2017.

Photo 2: Manual drainage at the V3 sample port in subgrade parking area, facing northeast. 19 April 2016.

Photo 3: V5 sample port in subgrade parking area, facing south. 19 April 2017.

Photo 4: V1 riser on the sixth floor rooftop, facing northeast. 19 April 2017.

Photo 5: V2 riser on the eighth floor rooftop, facing east. 19 April 2017.

Photo 6: V3 riser on the seventh floor rooftop, facing north. 19 April 2017.

Photo 7: V4 riser on the 12th floor rooftop, facing southeast. 19 April 2017.

Photo 8: V5 riser on the 12th floor rooftop, facing east. 19 April 2017.

Photo 9: V6 riser on the 9th floor rooftop, facing northwest. 19 April 2017.

Photo 10: Lockable metal enclosure at the V2 sample port in subgrade parking area, facing north. 27 August 2017.

Photo 11: Interior of lockable metal enclosure at the V2 sample port in subgrade parking area, facing north. 27 August 2017.

Photo 12: Lockable metal enclosure at the V3 sample port in subgrade parking area, facing north. 13 February 2018.

APPENDIX D

Soil Vapor Monitoring Reports

12 July 2017

John Grathwol
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Soil Vapor Monitoring Report – Month 12
365 Bond Street
Brooklyn, New York
BCP Site No. C224174
Langan Project No.: 100287503

Dear Mr. Grathwol:

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) has prepared this letter report to summarize periodic soil vapor sampling during the twelfth month of passive sub-membrane depressurization system (SMDS) operation at 365 Bond Street in Brooklyn, New York (the "site"). The soil vapor monitoring was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) dated September 2015, prepared by Langan.

Background

The site is located at 365 Bond Street in the City of Brooklyn, Kings County, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. The site is approximately 2.066 acres and is located on the city block bordered by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west. Site location is shown on Figure 1.

The site was remediated under the NYSDEC Brownfield Cleanup Program in accordance with a NYSDEC-approved Interim Remedial Measures Work Plan (IRM) and Remedial Action Work Plan (RAWP), as described in the September 2015 Final Engineering Report (FER) and Construction Completion Report (CCR). As part of the remediation, soil vapor mitigation measures included installation of a sub-membrane piping network for a passive SMDS and a vapor barrier membrane beneath the ground floor slab of the building. The SMDS as-built layout is shown on Figure 2. Details of the SMDS and soil vapor port installation were included in the CCR, and a signed and sealed as-built detail drawing was included as Figure 2 in Appendix P of the CCR. Following NYSDEC-approval of the September 2015 CCR and during the completion of the construction of the building superstructure, the system was finalized with six cast iron riser pipes to convey the collected vapor to the building roof. To date, all system components have been constructed.

The site was redeveloped as a five- to twelve-story mixed-use commercial/residential building with a partial basement which is operated as a parking garage. The foundation was constructed concurrently with implementation of the RAWP. The building has been completed and was opened for residential occupation in April 2016.. The building is being operated in accordance with the SMP which in part specifies that periodic soil vapor monitoring be completed to assess the effectiveness of the remedy. The SMP specifies that monitoring occur one, three, six, and twelve months after the completion of system construction and annually thereafter during the heating season unless otherwise required by NYSDEC to assess system effectiveness and determine if expansion to an active SMDS is warranted.

SMDS Inspection and Soil Vapor Sampling

On 20 April 2017, Langan conducted a visual inspection of the above-ground SMDS system components prior to collecting sub-membrane soil vapor samples. The results of the inspection confirmed that all system components that have been constructed to date are in good condition. The above grade 4-inch Schedule 80 PVC piping and fittings were recently glued at the soil vapor sample port locations (V2, V3, and V5); however, the sample port fittings themselves had not been glued to the above grade piping. Rooftop risers had also been completed with sample ports and goose neck fittings. Langan also completed field screening of the soil vapor using a RAE Systems photo-ionization detector (PID) capable of detecting volatile organic compound (VOC) in parts per billion (ppb). System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sample port. Current and previous field screening data are provided in Table 1. VOC readings detected with the PID at the sample ports ranged from 539 ppb to 1,058 ppb and vacuum measurements at the sample ports ranged from 0.009 inches water to 0.017 inches water. The field screening results indicate that VOCs are present in the soil vapor collection system and that a vacuum condition exists that are removing these vapors from beneath the membrane. A copy of the passive SMDS inspection checklist and field data is provided in Attachment A.

Following the inspection and field screening, three sub-membrane soil vapor samples were collected using Summa canisters that were connected to each sample port via an approximately 3-foot length of Teflon-lined polyethylene tubing. Quality assurance/quality control (QA/QC) included collection of a duplicate sample (at the V3 location) and an ambient air sample from the exterior of the building. All samples were collected in accordance with the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Samples were collected in laboratory-cleaned and certified evacuated 6-L stainless steel Summa canisters with flow control regulators supplied by the laboratory. The regulators were set to collect each sub-membrane soil vapor sample over a 2-hour sampling period (a flow-rate of <200-ml per minute) as per United States Environmental Protection Agency (USEPA) / Interstate Technology and Regulatory Council

(ITRC) soil vapor sampling guidance. Each sub-membrane soil vapor sample was numbered and recorded in a field log book. Samples were transferred to the laboratory immediately after field sampling was completed, and stored below a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis. All soil vapor and ambient air samples were submitted under chain of custody to York Analytical Laboratories, Inc. of Stratford, Connecticut (York) a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Soil vapor and ambient air samples were laboratory analyzed for VOCs via the USEPA TO-15 Method. A copy of the Summa canister log is provided in Attachment A.

Laboratory Analytical Results

The sub-membrane soil vapor analytical results were compared to the NYSDOH Matrices A, B, and C of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. A summary of the sub-membrane soil vapor analytical results from this sampling event is provided in Table 2 and shown on Figure 3. The complete laboratory report for the April 2017 sampling event is provided in Attachment B.

The following compounds are included in the decision matrices in the NYSDOH Final Guidance on Soil Vapor Intrusion dated October 2006 and appended in May 2007 and May 2017:

- Carbon tetrachloride
- 1,1,1-Trichloroethane (1,1,1-TCA)
- Cis-1,2-Dichloroethylene (cis-1,2-DCE)
- Methylene chloride
- Trichloroethylene (TCE)
- Tetrachloroethylene (PCE)
- 1,1-Dichloroethylene
- Vinyl Chloride

Concentrations of carbon tetrachloride, methylene chloride, 1,1,1-TCA, cis-1,2-DCE, TCE, 1,1-dichloroethylene, and vinyl chloride were not detected in any of the sub-membrane soil vapor samples collected.

As shown in Table 2, laboratory analytical results revealed low concentrations of NYSDOH Matrix VOCs in the sub-slab soil vapor. For the purposes of data evaluation, due to the presence of the SMDS, the vapor barrier, and the building foundation, it is reasonably anticipated that indoor air concentrations of VOCs originating from soil vapor do not exist inside

the building. Analytical results for PCE in sub-slab soil vapor were compared to the NYSDOH Vapor Intrusion Decision Matrix B. PCE was detected in soil vapor at all three sample locations ranging from 7.3 ug/m^3 (V3) to 9.1 ug/m^3 (V2). Therefore, as the concentrations of PCE detected in soil vapor were below the Matrix B soil vapor threshold of 100 ug/m^3 and are not expected to affect indoor air quality, no additional actions are needed to address human exposures.

Several other VOCs were detected in soil vapor samples. Total VOC concentrations in the soil vapor samples ranged from 425.1 ug/m^3 (V3) to 830.8 ug/m^3 (V5). Benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) were detected in soil vapor at concentrations of 16 ug/m^3 (V5) to 29.1 ug/m^3 (V3).

Based on the remediation completed to date, the source of these vapors is likely residual contamination in soil that is being addressed by operation of the SMDS.

Historical sub-slab soil vapor analytical results are shown on Table 3. Comparison of the Month 12 monitoring analytical results against the Months 1, 3, and 6 analytical results revealed an increase in concentrations of total VOCs in all three sampling locations and a decrease in concentrations of BTEX detected. Chlorinated VOCs were detected at concentrations requiring no further action when compared against the Matrix A, Matrix B, and Matrix C Vapor Intrusion thresholds during all four sampling events. Total VOC concentration increases at all three sampling locations in the Month 12 results are likely due to the completion of the construction of the system (including the gluing of PVC fittings that compromise the sampling ports) that occurred within 1-month prior to the collection of the samples.

Validation Overview

Data validation was completed for all sub-membrane soil vapor and ambient air results in accordance with the QAPP provided in the September 2015 SMP which included verification of sample results, verification of the identification of sample results, and recalculation of 10% of all sample results. Following data validation, a Data Usability Summary Report (DUSR) was prepared for all samples (and related QA/QC samples) collected during the monitoring event. The DUSR presents the results of the data validation, including a summary assessment of laboratory data packages, sample preservation and COC procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%. The DUSR is included in Attachment C. Associated raw data is provided as Attachment B.

Conclusions

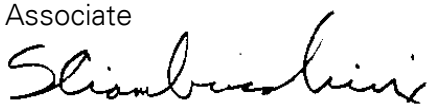
Based on the findings of this SMDS inspection and soil vapor monitoring event, the vacuum being produced in the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. A vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations for chlorinated VOCs were detected below the NYSDOH Vapor Intrusion Decision Matrix thresholds requiring further action.

Based on these findings, continued operation of the passive SMDS is sufficient in order to mitigate any potential impacts to the building interior indoor air quality and, system expansion as an active SMDS is not required at this time. The operation, maintenance, and monitoring (OM&M) protocols provided in the SMP for this passive SMDS will consist of continued monitoring of the system annually during the heating season unless otherwise required by NYSDEC.

Please call with any questions that you may have regarding this matter.

Sincerely,
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Christopher McMahon, CHMM
Associate



Steven A. Ciambruschini, P.G., L.E.P.
Principal / Vice President

SAC:kn

Enclosure(s): Table 1 – SMDS Screening Results
Table 2 – Summary of Sub-Slab Soil Vapor Analytical Results
Table 3 – Historical Sub-Slab Soil Vapor Analytical Results
Figure 1 – Site Location Map
Figure 2 – Sample Location Plan
Figure 3 – Sub-Slab Soil Vapor Analytical Results
Attachment A – Field Logs
Attachment B – Laboratory Analytical Results
Attachment C – Data Usability Summary Report (DUSR)

cc: Mark Green, Frank List, Scott Avram, Pam Horn – LSG 365 Bond Street, LLC
Amanda Forsburg, Jessica Friscia – Langan

TABLES

TABLE 1

FIELD SCREENING RESULTS

365 Bond Street

Brooklyn, New York

Parameter	PID	PID	PID	PID
Monitoring Event	Month 1	Month 3	Month 6	Month 12
Date	5/20/2016	7/20/2016	10/20/2016	4/20/2017
Units	ppb	ppb	ppb	ppb
Sample Port				
V2	329	239	373	1,058
V3	309	1,602	401	539
V5	257	0	363	717

Parameter	Vacuum	Vacuum	Vacuum	Vacuum
Monitoring Event	Month 1	Month 3	Month 6	Month 12
Date	5/20/2017	7/20/2017	10/20/2016	4/20/2017
Units	in. H2O	in. H2O	in. H2O	in. H2O
Sample Port				
V2	0.015	0.011	0.012	0.017
V3	0.005	0.006	0.009	0.011
V5	0.018	0.015	0.024	0.009

Notes:

ppb: parts per billion

in. H2O: inches of water

TABLE 2
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS
365 Bond Street
Brooklyn, New York

Sample ID Lab Sample ID Sample Date Units	CAS Number	NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1] ug/m3	816/V2 17D0833-02 4/20/2017 ug/m3	Q	817/V3 17D0833-03 4/20/2017 ug/m3	Q	818/DUP-1 (V3) 17D0833-04 4/20/2017 ug/m3	Q	819/V5 17D0833-05 4/20/2017 ug/m3	Q	815/OA-1 17D0833-01 4/20/2017 ug/m3	Q
Volatile Organic Compounds (VOCs)												
1,1-Dichloroethane	75-34-3	--	7.8	U	7.2	U	8	U	6.8	U	0.51	U
1,1-Dichloroethylene	75-35-4	6	*7.6*	*U*	*7.1*	*U*	*7.8*	*U*	*6.7*	*U*	0.5	U
1,1,1,2-Tetrachloroethane	630-20-6	--	13	U	12	U	14	U	12	U	0.87	U
1,1,1-Trichloroethane	71-55-6	100	10	U	9.8	U	11	U	9.2	U	0.69	U
1,1,2,2-Tetrachloroethane	79-34-5	--	13	U	12	U	14	U	12	U	0.87	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	--	15	U	14	U	15	U	13	U	0.97	U
1,1,2-Trichloroethane	79-00-5	--	10	U	9.8	U	11	U	9.2	U	0.69	U
1,2,4-Trichlorobenzene	120-82-1	--	14	U	13	U	15	U	12	U	0.94	U
1,2,4-Trimethylbenzene	95-63-6	--	9.5	U	8.8	U	9.7	U	8.3	U	0.81	D
1,2-Dibromoethane	106-93-4	--	15	U	14	U	15	U	13	U	0.97	U
1,2-Dichlorobenzene	95-50-1	--	12	U	11	U	12	U	10	U	0.76	U
1,2-Dichloroethane	107-06-2	--	7.8	U	7.2	U	8	U	6.8	U	0.51	U
1,2-Dichloropropane	78-87-5	--	8.9	U	8.3	U	9.1	U	7.8	U	0.58	U
1,2-Dichlorotetrafluoroethane	76-14-2	--	13	U	12	U	14	U	12	U	0.88	U
1,3,5-Trimethylbenzene	108-67-8	--	9.5	U	8.8	U	9.7	U	8.3	U	0.62	U
1,3-Dichlorobenzene	541-73-1	--	12	U	11	U	12	U	10	U	0.76	U
1,3-Dichloropropane	142-28-9	--	8.9	U	8.3	U	9.1	U	7.8	U	0.58	U
1,4-Dichlorobenzene	106-46-7	--	12	U	11	U	12	U	10	U	0.76	U
1,4-Dioxane	123-91-1	--	14	U	13	U	14	UJ	12	U	0.91	U
2-Butanone	78-93-3	--	81	D	87	D	79	D	280	D	1.1	D
2-Hexanone	591-78-6	--	16	U	15	U	16	U	14	U	1	U
4-Methyl-2-pentanone	108-10-1	--	7.9	U	7.3	U	8.1	U	6.9	U	0.52	U
Acetone	67-64-1	--	280	D	200	JD	340	JD	350	D	9.1	D
Acrylonitrile	107-13-1	--	4.2	U	3.9	U	4.3	U	3.6	U	0.27	U
Allyl Chloride (3-Chloropropene)	107-05-1	--	30	U	28	U	31	U	26	U	2	U
Benzene	71-43-2	--	6.1	U	9.1	D	6.9	D	5.4	U	1.7	D
Benzyl chloride	100-44-7	--	10	U	9.3	U	10	U	8.7	U	0.65	U
Bromodichloromethane	75-27-4	--	13	U	12	U	13	U	11	U	0.85	U
Bromoethene	593-60-2	--	8.4	U	7.8	U	8.6	U	7.3	U	0.55	U
Bromoform	75-25-2	--	20	U	18	U	20	U	17	U	1.3	U
Bromomethane	74-83-9	--	7.5	U	6.9	U	7.6	U	6.5	U	0.49	U
Carbon disulfide	75-15-0	--	49	D	5.6	U	55	D	5.2	U	0.39	U
Carbon tetrachloride	56-23-5	6	3	U	2.8	U	3.1	U	2.6	U	0.4	D
Chlorobenzene	108-90-7	--	8.9	U	8.2	U	9.1	U	7.7	U	0.58	U
Chloroethane	75-00-3	--	5.1	U	4.7	U	5.2	U	4.4	U	0.33	U
Chloroform	67-66-3	--	9.4	U	8.7	U	9.6	U	8.2	U	0.62	U
Chloromethane	74-87-3	--	7.2	D	4.4	D	5.7	D	3.5	U	1.5	D
cis-1,2-Dichloroethylene	156-59-2	6	*7.6*	*U*	*7.1*	*U*	*7.8*	*U*	*6.7*	*U*	0.5	U
cis-1,3-Dichloropropylene	10061-01-5	--	8.7	U	8.1	U	8.9	U	7.6	U	0.57	U
Cyclohexane	110-82-7	--	6.6	U	6.2	U	6.8	U	5.8	U	0.7	D
Dibromochloromethane	124-48-1	--	16	U	15	U	17	U	14	U	1.1	U
Dichlorodifluoromethane	75-71-8	--	9.5	U	8.8	U	9.7	U	8.3	U	2.1	D
Ethyl acetate	141-78-6	--	14	U	13	U	14	U	12	U	3.6	D
Ethyl Benzene	100-41-4	--	8.4	U	7.8	U	8.6	U	7.3	U	0.71	D
Hexachlorobutadiene	87-68-3	--	21	U	19	U	21	U	18	U	1.3	U
Isopropanol	67-63-0	--	54	D	35	D	71	D	49	D	3.3	D
Methyl Methacrylate	80-62-6	--	7.9	U	7.3	U	8.1	U	6.9	U	0.98	D
Methyl tert-butyl ether (MTBE)	1634-04-4	--	6.9	U	6.4	U	7.1	U	6.1	U	0.45	U
Methylene chloride	75-09-2	100	13	U	12	U	14	U	12	U	11	D
n-Heptane	142-82-5	--	7.9	U	7.3	U	8.1	U	6.9	U	1.3	D
n-Hexane	110-54-3	--	6.8	U	6.3	D	6.9	U	5.9	U	2.4	D
o-Xylene	95-47-6	--	8.4	U	7.8	U	8.5	U	7.3	U	0.82	D
p- & m- Xylenes	179601-23-1	--	17	U	16	U	17	U	15	U	2.6	D
p-Ethyltoluene	622-96-8	--	9.5	U	8.8	U	9.7	U	8.3	U	0.87	D
Propylene	115-07-1	--	3.3	U	20	D	20	D	7.8	D	2.2	D
Styrene	100-42-5	--	8.2	U	7.6	U	8.4	U	7.2	U	0.54	U
Tetrachloroethylene	127-18-4	100	9.1	D	7.3	D	8	JD	8	D	2.1	D
Tetrahydrofuran	109-99-9	--	37	D	36	D	31	D	120	D	0.74	U
Toluene	108-88-3	--	17	D	20	D	21	D	16	D	5.4	D
trans-1,2-Dichloroethylene	156-60-5	--	7.6	U	7.1	U	7.8	U	6.7	U	0.5	U
trans-1,3-Dichloropropylene	10061-02-6	--	8.7	U	8.1	U	8.9	U	7.6	U	0.57	U
Trichloroethylene	79-01-6	6	2.6	U	2.4	U	2.6	U	2.3	U	0.17	U
Trichlorofluoromethane (Freon 11)	75-69-4	--	11	U	10	U	11	U	9.4	U	1.5	D
Vinyl acetate	108-05-4	--	6.8	U	6.3	U	6.9	U	5.9	U	0.44	U
Vinyl Chloride	75-01-4	6	4.9	U	4.6	U	5	U	4.3	U	0.32	U
Total VOCs [2]		--	534.3		425.1		637.6		830.8		65.09	

Notes:
1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, amended May 2017
2. Total VOC concentration is calculated from results of compounds detected above the LOD (Limit of Detection).
ug/m3: microgram per cubic meter
Italicized results indicate the Reporting Limit (RL) is greater than or equal to the most stringent criteria.
Exceedances of regulatory criteria are highlighted and **bold**.
--- : No criteria identified
NA - Compound not analyzed

Q is the Qualifier Column with definitions as follows:
J: analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the LOQ (Limit of Quantitation)
D: result is from an analysis that required a dilution

TABLE 3
HISTORICAL SOIL VAPOR ANALYTICAL RESULTS
365 Bond Street
Brooklyn, New York

Sample ID			0762/V2		0763/DUP-1 (V2)		0778/V2		794/V2		816/V2		0764/V3		0779/V3		0780/DUP-1 (V3)		795/V3		796/DUP-1 (V3)		817/V3		818/DUP-1 (V3)		0765/V5		0781/V5		797/V5		819/V5	
Lab Sample ID			16E0895-02		16E0895-03		16G0744-02		16J0713-02		17D0833-02		16E0895-04		16G0744-03		16G0744-04		16J0713-03		16J0713-04		17D0833-03		17D0833-04		16E0895-05		16G0744-05		16J0713-05		17D0833-05	
Monitoring Event			Month 1		Month 1		Month 3		Month 6		Month 12		Month 1		Month 3		Month 3		Month 6		Month 6		Month 12		Month 12		Month 1		Month 3		Month 6		Month 12	
Sample Date			5/20/2016		5/20/2016		7/20/2016		10/20/2016		4/20/2017		5/20/2016		7/20/2016		7/20/2016		10/20/2016		10/20/2016		4/20/2017		4/20/2017		5/20/2016		7/20/2016		10/20/2016		4/20/2017	
Units	**CAS Number**	**NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1]** ug/m^3	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q
Volatile Organic Compounds (VOCs)																																		
1,1-Dichloroethane	75-34-3	—	0.85	U	1	U	0.46	U	0.42	U	7.8	U	0.84	U	0.42	U	0.46	U	0.46	U	0.45	U	7.2	U	8	U	0.78	U	0.45	U	0.54	U	6.8	U
1,1-Dichloroethylene	75-35-4	6	0.84	U	1	U	0.45	U	0.4	U	*7.6*	*U*	0.83	U	0.42	U	0.45	U	0.4	U	0.4	U	*7.1*	*U*	*7.8*	*U*	0.76	U	0.44	U	0.4	U	*6.7*	U
1,1,1,2-Tetrachloroethane	630-20-6	—	1.4	U	1.8	U	0.78	U	0.69	U	13	U	1.4	U	0.72	U	0.79	U	0.69	U	0.69	U	12	U	14	U	1.3	U	0.76	U	0.69	U	12	U
1,1,1-Trichloroethane	71-55-6	100	1.2	U	1.4	U	0.62	U	0.55	U	10	U	1.1	U	0.57	U	0.62	U	0.55	U	0.55	U	9.8	U	11	U	1	U	0.61	U	0.55	U	9.2	U
1,1,2,2-Tetrachloroethane	79-34-5	—	1.4	U	1.8	U	0.78	U	0.69	U	13	U	1.4	U	0.72	U	0.79	U	0.69	U	0.69	U	12	U	14	U	1.3	U	0.76	U	0.69	U	12	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	—	1.6	U	2	U	0.87	U	0.77	U	15	U	1.6	U	0.8	U	0.88	U	0.77	U	0.77	U	14	U	15	U	1.5	U	0.85	U	0.77	U	13	U
1,1,2-Trichloroethane	79-00-5	—	1.2	U	1.4	U	0.62	U	0.55	U	10	U	1.1	U	0.57	U	0.62	U	0.55	U	0.55	U	9.8	U	11	U	1	U	0.61	U	0.55	U	9.2	U
1,2,4-Trichlorobenzene	120-82-1	—	1.6	U	1.9	U	0.84	U	0.74	U	14	U	1.5	U	0.78	U	0.85	U	0.74	U	0.74	U	13	U	15	U	1.4	U	0.82	U	0.74	U	12	U
1,2,4-Trimethylbenzene	95-63-6	—	6.9	J	2.4	J	2.4	D	0.49	U	9.5	U	2.8	D	5.6	D	4.9	D	0.49	U	0.49	U	8.8	U	9.7	U	1.9	D	5.4	D	0.69		8.3	U
1,2-Dibromoethane	106-93-4	—	1.6	U	2	U	0.87	U	0.77	U	15	U	1.6	U	0.81	U	0.88	U	0.77	U	0.77	U	14	U	15	U	1.5	U	0.85	U	0.77	U	13	U
1,2-Dichlorobenzene	95-50-1	—	1.3	U	1.5	U	0.68	U	0.6	U	12	U	1.3	U	0.63	U	0.69	U	0.6	U	0.6	U	11	U	12	U	1.2	U	0.67	U	0.6	U	10	U
1,2-Dichloroethane	107-06-2	—	0.85	U	1	U	0.46	U	0.4	U	7.8	U	0.84	U	0.42	U	0.46	U	0.4	U	0.4	U	7.2	U	8	U	0.78	U	0.45	U	0.4	U	6.8	U
1,2-Dichloropropane	78-87-5	—	0.97	U	1.2	U	0.52	U	0.46	U	8.9	U	0.96	U	0.49	U	0.53	U	0.46	U	0.46	U	8.3	U	9.1	U	0.89	U	0.51	U	0.46	U	7.8	U
1,2-Dichlorotetrafluoroethane	76-14-2	—	1.5	U	1.8	U	0.79	U	0.7	U	13	U	1.5	U	0.73	U	0.8	U	0.7	U	0.7	U	12	U	14	U	1.3	U	0.78	U	0.7	U	12	U
1,3,5-Trimethylbenzene	108-67-8	—	2.1	D	1.3	U	0.61	D	0.49	U	9.5	U	1	U	0.72	D	0.96	D	0.49	U	0.49	U	8.8	U	9.7	U	0.94	U	0.55	U	0.49	U	8.3	U
1,3-Dichlorobenzene	541-73-1	—	1.3	U	1.5	U	0.68	U	0.6	U	12	U	1.3	U	0.63	U	0.69	U	0.6	U	0.6	U	11	U	12	U	1.2	U	0.67	U	0.6	U	10	U
1,3-Dichloropropane	142-28-9	—	0.97	U	1.2	U	0.52	U	0.46	U	8.9	U	0.96	U	0.49	U	0.53	U	0.46	U	0.46	U	8.3	U	9.1	U	0.89	U	0.51	U	0.46	U	7.8	U
1,4-Dichlorobenzene	106-46-7	—	1.3	U	1.5	U	0.68	U	0.6	U	12	U	1.3	U	0.63	U	0.69	U	0.6	U	0.6	U	11	U	12	U	1.2	U	0.67	U	0.6	U	10	U
1,4-Dioxane	123-91-1	—	1.5	U	1.9	U	0.82	U	0.72	UJ	14	U	1.5	U	0.76	U	0.82	U	0.72	UJ	0.72	UJ	13	U	14	UJ	1.4	U	0.8	U	0.72	UJ	12	U
2-Butanone	78-93-3	—	7.1	D	6.7	D	3.9	D	0.38		81	D	10	D	10	D	9	D	0.29	U	0.29	U	87	D	79	D	15	D	7.6	D	0.35		280	D
2-Hexanone	591-78-6	—	1.7	U	2.1	U	0.93	UJ	0.82	U	16	U	1.7	U	1.3	J	1.2	J	0.82	U	0.82	U	15	U	16	U	1.6	U	1.1	D	0.82	U	14	U
4-Methyl-2-pentanone	108-10-1	—	0.86	U	1.1	U	0.46	U	0.41	U	7.9	U	0.85	U	0.43	U	0.47	U	0.41	U	0.41	U	7.3	U	8.1	U	0.78	U	0.46	U	0.41	U	6.9	U
Acetone	67-64-1	—	48	D	58	D	14	D	2.4		280	D	61	D	47	D	42	D	1.9		1.1		200	JD	340	JD	73	D	41	D	1.8		350	D
Acrylonitrile	107-13-1	—	0.46	U	0.56	U	0.25	U	0.22	U	4.2	U	0.45	U	0.23	U	0.25	U	0.22	U	0.22	U	3.9	U	4.3	U	0.42	U	0.24	U	0.22	U	3.6	U
Allyl Chloride (3-Chloropropene)	107-05-1	—	3.3	U	4	U	1.8	U	1.6	U	30	U	3.3	U	1.6	U	1.8	U	1.6	U	1.6	U	28	U	31	U	3	U	1.7	U	1.6	U	26	U
Benzene	71-43-2	—	9.4	D	6.4	D	0.98	D	0.32	U	6.1	U	4.1	D	4.4	D	4.5	D	0.45		0.32		9.1	D	6.9	D	1.5	D	1.5	D	2.3		5.4	U
Benzyl chloride	100-44-7	—	1.1	U	1.3	U	0.59	U	0.52	UJ	10	U	1.1	U	0.54	U	0.59	U	0.52	UJ	0.52	UJ	9.3	U	10	U	0.99	U	0.58	U	0.52	UJ	8.7	U
Bromodichloromethane	75-27-4	—	1.4	U	1.7	U	0.76	U	0.67	U	13	U	1.4	U	0.7	U	0.77	U	0.67	U	0.67	U	12	U	13	U	1.3	U	0.74	U	0.67	U	11	U
Bromoethene	593-60-2	—	0.92	U	1.1	U	0.5	U	0.44	U	8.4	U	0.91	U	0.46	U	0.5	U	0.44	U	0.44	U	7.8	U	8.6	U	0.84	U	0.49	U	0.44	U	7.3	U
Bromoform	75-25-2	—	2.2	U	2.7	U	1.2	U	1	U	20	U	2.2	U	1.1	U	1.2	U	1	U	1	U	18	U	20	U	2	U	1.1	U	1	U	17	U
Bromomethane	74-83-9	—	0.82	U	1	U	0.44	U	0.39	U	7.5	U	0.81	U	0.41	U	0.44	U	0.39	U	0.39	U	6.9	U	7.6	U	0.74	U	0.43	U	0.39	U	6.5	U
Carbon disulfide	75-15-0	—	0.66	U	0.8	U	0.53	D	0.31	U	49	D	0.65	D	0.88	D	0.82	D	0.31	U	0.31	U	5.6	U	55	D	0.6	U	0.35	D	0.31	U	5.2	U
Carbon tetrachloride	56-23-5	6	0.33	U	0.4	U	0.18	U	0.16	U	3	U	0.33	U	0.17	U	0.18	U	0.16	U	0.16	U	2.8	U	3.1	U	0.3	U	0.17	U	0.16	U	2.6	U
Chlorobenzene	108-90-7	—	0.97	U	1.2	U	0.52	U	0.46	U	8.9	U	0.96	U	0.48	U	0.53	U	0.46	U	0.46	U	8.2	U	9.1	U	0.88	U	0.51	U	0.46	U	7.7	U
Chloroethane	75-00-3	—	0.56	U	0.68	U	0.3	U	0.26	U	5.1	U	0.55	U	0.28	U	0.3	U	0.26	U	0.26	U	4.7	U	5.2	U	0.51	U	0.29	U	0.26	U	4.4	U
Chloroform	67-66-3	—	1	U	1.3	U	0.55	U	0.73		9.4	U	1	U	0.51	U	0.56	U	0.49	U	0.49	U	8.7	U	9.6	U	2	D	2.3	D	0.49	U	8.2	U
Chloromethane	74-87-3	—	2	D	2	D	5.6	D	0.41		7.2	D	2.9	D	2.3	D	2.2	D	0.21	U	0.23		4.4	D	5.7	D	2.3	D	5	D	0.21	U	3.5	U
cis-1,2-Dichloroethylene	156-59-2	6	0.84	U	1	U	0.81	D	0.4	U	*7.6*	*U*	0.83	U	0.42	U	0.45	U	0.4	U	0.4	U	*7.1*	*U*	*7.8*	*U*	1.7	D	0.57	D	0.4	U	*6.7*	U
cis-1,3-Dichloropropylene	10061-01-5	—	0.96	U	1.2	U	0.51	U	0.45	U	8.7	U	0.95	U	0.48	U	0.52	U	0.45	U	0.45	U	8.1	U	8.9	U	0.87	U	0.5	U	0.45	U	7.6	U
Cyclohexane	110-82-7	—	1.8	D	1.6	D	0.47	D	0.34	U	6.6	U	1.7	D	1.4	D	1.5	D	0.34	U	0.34	U	6.2	U	6.8	U	1.1	D	0.61	D	0.34	U	5.8	U
Dibromochloromethane	124-48-1	—	1.8	U	2.2	U	0.97	U	0.85	U	16	U	1.8	U	0.89	U	0.97	U	0.85	U	0.85	U	15	U	17	U	1.6	U	0.95	U	0.85	U	14	U
Dichlorodifluoromethane	75-71-8	—	2.7	D	2.8	D	1.1	D	0.49	U	9.5	U	2.9	D	1.1	D	0.85	D	0.49	U	0.49	U	8.8	U	9.7	U	3.3	D	1.3	D	0.49	U	8.3	U
Ethyl acetate	141-78-6	—	1.5	U	1.9	U	0.82	U	0.72	U	14	U	1.5	U	0.76	U	0.82	U	0.72	U	0.72	U	13	U	14	U	1.4	U	0.8	U	0.72	U	12	U
Ethyl Benzene	100-41-4	—	6.3	J	3	J	2.5	D	0.43	U	8.4	U	3.1	D	4.5	D	5.4	D	0.43	U	0.43	U	7.8	U	8.6	U	3.4	D	3.9	D	1.2		7.3	U
Hexachlorobutadiene	87-68-3	—	2.2	U	2.7	U	1.2	U	1.1	U	21	U	2.2	U	1.1	U	1.2	U	1.1	U	1.1	U	19	U	21	U	2	U	1.2	U	1.1	U	18	U
Isopropanol	67-63-0	—	1	U	1.3	U	0.56	U	0.49	U	54	D	1	U	11	D	8.3	D	0.81		1.3		35	D	71	D	0.94	U	6.4	D	0.49	U	49	D
Methyl Methacrylate	80-62-6	—	0.86	U	1.1	U	0.46	U	0.41	U	7.9	U	0.85	U	0.43	U	0.47	U	0.41	U	0.41	U	7.3	U	8.1	U	0.78	U	0.45	U	0.41	U	6.9	U
Methyl tert-butyl ether (MTBE)	1634-04-4	—	0.76	U	0.93	U	0.41	U	0.36	U	6.9	U	0.75	U	0.38	U	0.41	U	0.36	U	0.36	U	6.4	U	7.1	U	0.69	U	0.4	U	0.36	U	6.1	U
Methylene chloride	75-09-2	100	5.4	J	30	J	0.79	U	0.69	U	13	U	2	D	1.8	D	1.1	D	7.6	J	0.69	UJ	12	U	14	U	3.9	D	0.77	U	0.69	U	12	U

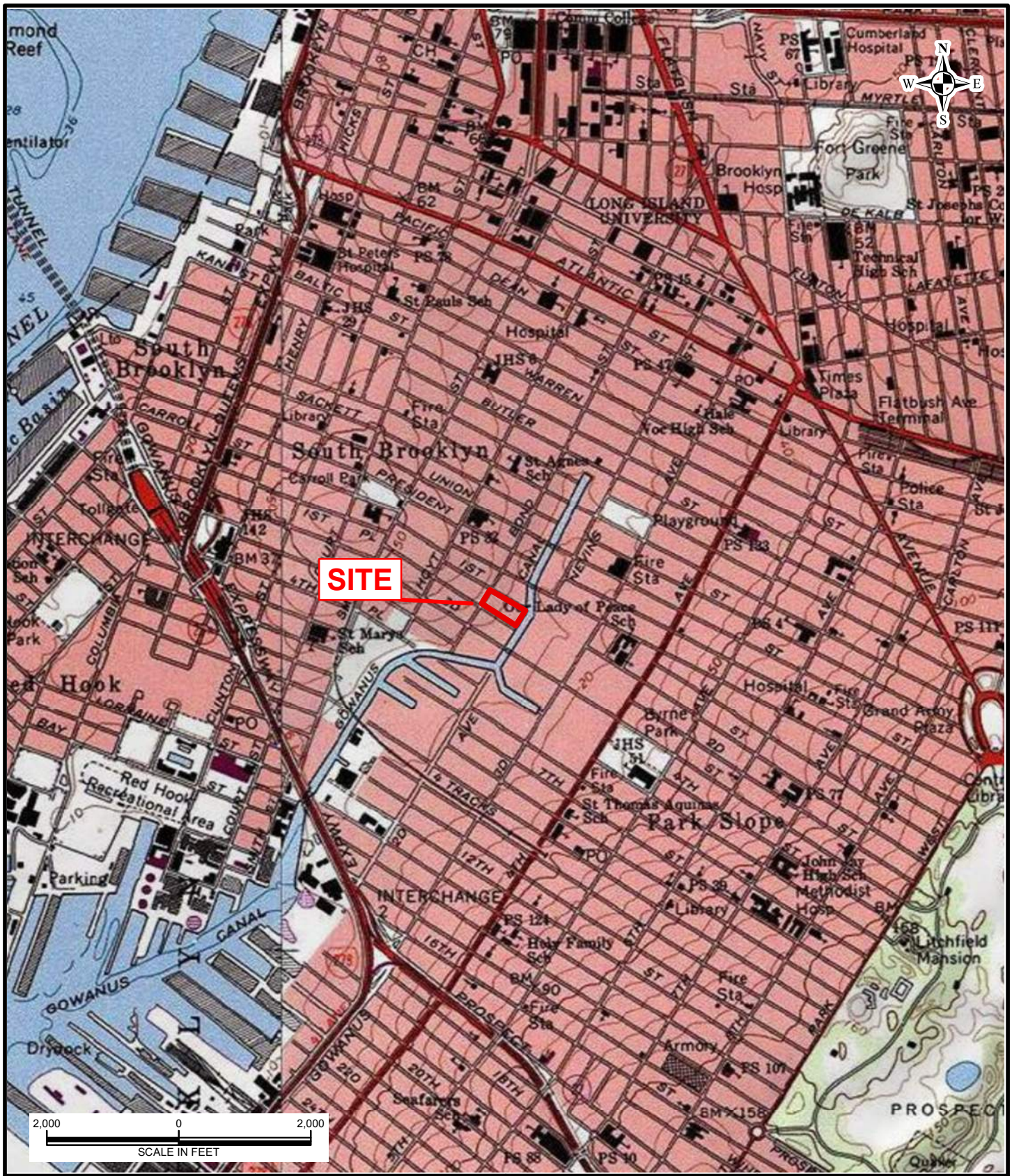
TABLE 3
HISTORICAL SOIL VAPOR ANALYTICAL RESULTS
365 Bond Street
Brooklyn, New York

Sample ID		NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1]	0762/V2		0763/DUP-1 (V2)		0778/V2		794/V2		816/V2		0764/V3		0779/V3		0780/DUP-1 (V3)		795/V3		796/DUP-1 (V3)		817/V3		818/DUP-1 (V3)		0765/V5		0781/V5		797/V5		819/V5	
Lab Sample ID			16E0895-02		16E0895-03		16G0744-02		16J0713-02		17D0833-02		16E0895-04		16G0744-03		16G0744-04		16J0713-03		16J0713-04		17D0833-03		17D0833-04		16E0895-05		16G0744-05		16J0713-05		17D0833-05	
Monitoring Event			Month 1		Month 1		Month 3		Month 6		Month 12		Month 1		Month 3		Month 3		Month 6		Month 6		Month 12		Month 12		Month 1		Month 3		Month 6		Month 12	
Sample Date			5/20/2016		5/20/2016		7/20/2016		10/20/2016		4/20/2017		5/20/2016		7/20/2016		7/20/2016		10/20/2016		10/20/2016		4/20/2017		4/20/2017		5/20/2016		7/20/2016		10/20/2016		4/20/2017	
Units	**CAS Number**	ug/m^3	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q
Volatile Organic Compounds (VOCs)																																		
n-Heptane	142-82-5	—	3.9	D	3	D	1.1	D	0.41	U	7.9	U	2.9	D	2.7	D	2.9	D	0.41	U	0.41	U	7.3	U	8.1	U	1.9	D	1.6	D	0.57		6.9	U
n-Hexane	110-54-3	—	18	J	55	J	1.7	D	0.35	U	6.8	U	19	D	6.4	D	5.2	D	6.5	J	0.53	J	6.3	D	6.9	U	18	D	2.6	D	0.7		5.9	U
o-Xylene	95-47-6	—	8.9	J	4.6	J	2.8	D	0.43	U	8.4	U	5	D	0.64	D	0.5	U	0.43		0.43		7.8	U	8.5	U	4.7	D	0.48	U	1.3		7.3	U
p- & m- Xylenes	179601-23-1	—	24	J	12	J	10	D	0.87	U	17	U	13	D	17	D	22	D	1.2		1.3		16	U	17	U	14	D	14	D	4.1		15	U
p-Ethyltoluene	622-96-8	—	6.4	J	2	J	1.8	D	0.49	U	9.5	U	2	D	2.4	D	2.9	D	0.49	U	0.49	U	8.8	U	9.7	U	1.3	D	2.1	D	0.88		8.3	U
Propylene	115-07-1	—	7.7	D	6.6	D	0.2	U	0.17	U	3.3	U	4.9	D	3.5	D	3.4	D	0.17	U	0.17	U	20	D	20	D	9.4	D	3.3	D	3.4		7.8	D
Styrene	100-42-5	—	0.9	U	1.1	U	1.1	D	0.43	U	8.2	U	0.89	U	0.45	U	0.49	U	0.43	U	0.43	U	7.6	U	8.4	U	0.82	U	0.47	U	0.43	U	7.2	U
Tetrachloroethylene	127-18-4	100	1.6	J	0.44	UJ	3.6	D	0.2		9.1	D	2.5	D	0.78	D	0.93	D	0.17	U	0.17	U	7.3	D	8	JD	3	D	1.7	D	0.17	U	8	D
Tetrahydrofuran	109-99-9	—	29	D	26	D	37	D	0.65		37	D	43	D	26	D	26	D	0.59	U	0.59	U	36	D	31	D	38	D	13	D	0.59	U	120	D
Toluene	108-88-3	—	32	J	19	J	11	D	0.6		17	D	16	D	23	D	26	D	2.1		2.1		20	D	21	D	10	D	19	D	7.2		16	D
trans-1,2-Dichloroethylene	156-60-5	—	0.84	U	1	U	0.58	D	0.4	U	7.6	U	0.83	U	0.75	D	0.77	D	0.4	U	0.4	U	7.1	U	7.8	U	0.76	U	0.57	D	0.4	U	6.7	U
trans-1,3-Dichloropropylene	10061-02-6	—	0.96	U	1.2	U	0.51	U	0.45	U	8.7	U	0.95	U	0.48	U	0.52	U	0.45	U	0.45	U	8.1	U	8.9	U	0.87	U	0.5	U	0.45	U	7.6	U
Trichloroethylene	79-01-6	6	0.28	U	0.35	U	1.2	D	0.13	U	2.6	U	0.28	U	0.79	D	1.1	D	0.13	U	0.13	U	2.4	U	2.6	U	0.26	U	1.5	D	0.13	U	2.3	U
Trichlorofluoromethane (Freon 11)	75-69-4	—	3.6	D	5.5	D	2	D	0.56	U	11	U	3.6	D	1.8	D	2.1	D	0.56	U	0.56	U	10	U	11	U	9.7	D	5.5	D	0.56	U	9.4	U
Vinyl acetate	108-05-4	—	0.74	U	0.91	U	0.4	UJ	0.35	U	6.8	U	0.73	U	0.37	UJ	0.4	UJ	0.35	U	0.35	U	6.3	U	6.9	U	0.67	U	0.39	UJ	0.35	U	5.9	U
Vinyl Chloride	75-01-4	6	0.54	U	0.66	U	0.29	U	0.26	U	4.9	U	0.53	U	0.27	U	0.29	U	0.26	U	0.26	U	4.6	U	5	U	0.49	U	0.28	U	0.26	U	4.3	U
Total VOCS[2]	—	—	226.8		246.6		106.78		5.37		534.3		203.05		177.76		176.03		20.99		7.31		425.1		637.6		219.1		141.9		24.49		747.9	

Notes:
1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, amended May 2017
2. Total VOC concentration is calculated from results of compounds detected above the LOD (Limit of Detection).
ug/m^3: microgram per cubic meter
Exceedances of regulatory criteria are highlighted and **bold**.
— : No criteria identified
NA - Compound not analyzed

Q is the Qualifier Column with definitions as follows:
J: analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the LOQ (Limit of Quantitation)
D: result is from an analysis that required a dilution

FIGURES



LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

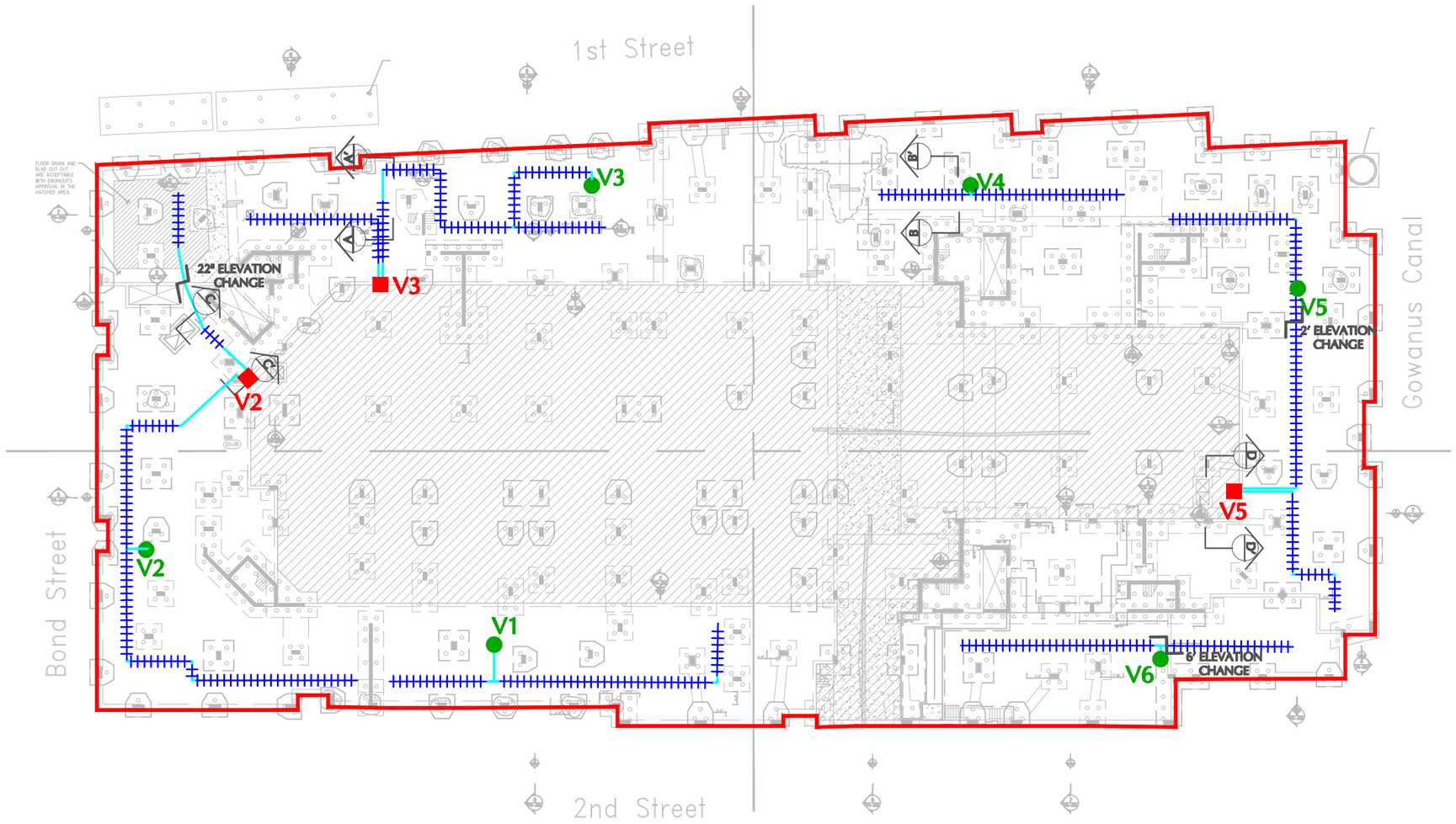
Project
365 BOND STREET DEVELOPMENT
BLOCK No. 458, LOT No. 1
BROOKLYN
KINGS COUNTY NEW YORK

Drawing Title
SITE LOCATION MAP

Project No.	100287503
Date	10/19/2012
Scale	1"=2000'
Drawn By	amf
Last Revised	3/12/2018
Figure	1

© 2013 Langan

Path: \\langan.com\data\PAR\data5\100287501\ArcGIS\ArcMap_Documents\2017-04 - 365 Bond St SVMR\Figure 1 - Site Location Plan.mxd



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SCALE IN FEET

LEGEND:

- BUILDING EXTERIOR
- SUBGRADE PARKING AREA
- INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
- INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
- V3 — INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
- INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

NOTES:

1. ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
2. THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
3. FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
4. SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

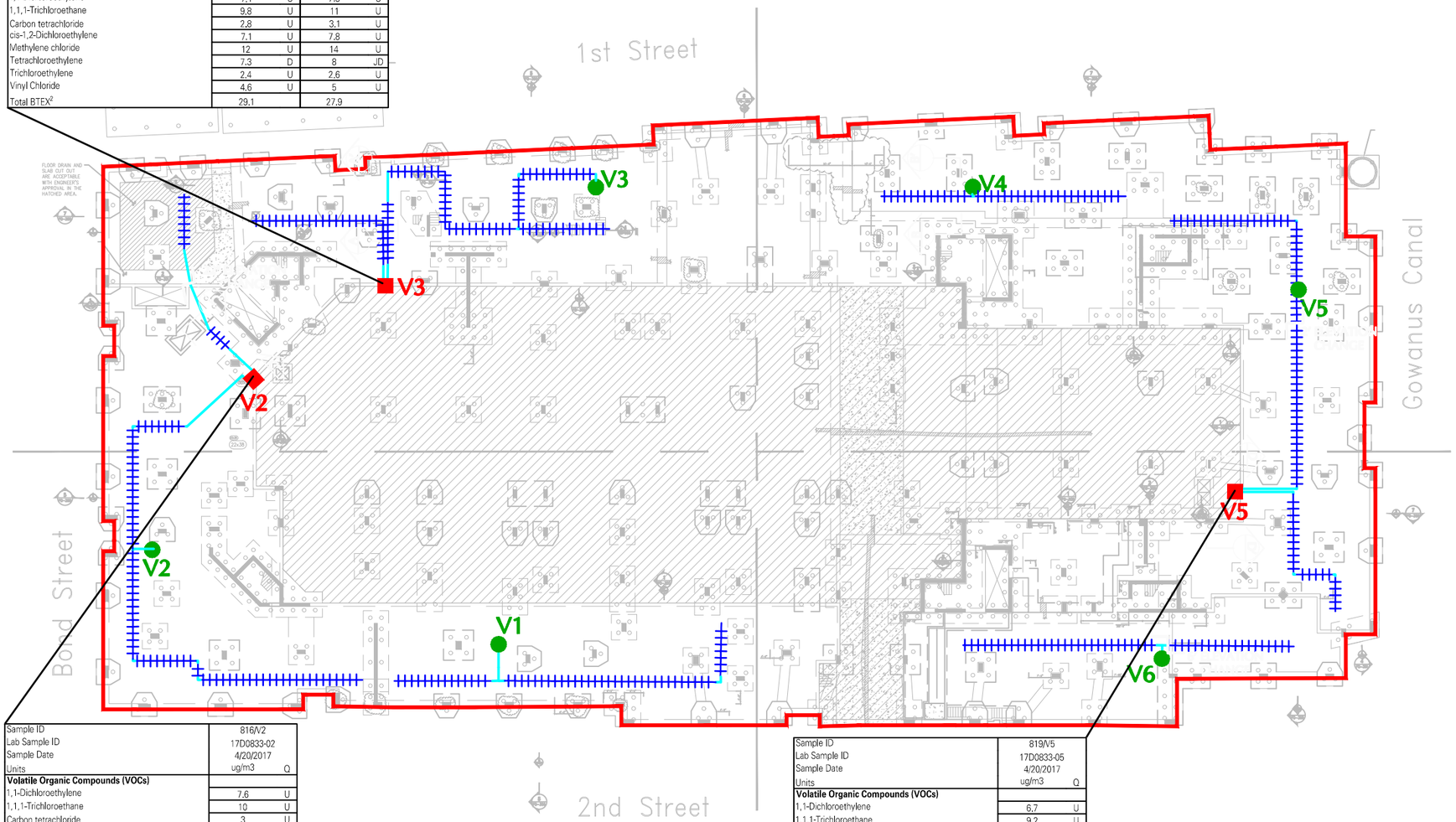
Project
365 BOND STREET DEVELOPMENT
365 BOND STREET
BROOKLYN NEW YORK

Drawing Title
SAMPLE LOCATION PLAN

Project No. 100287501	Drawing No. 2
Date JANUARY 27, 2015	
Scale AS SHOWN	
Drawn By MA	
Submission Date MARCH 26, 2018	

Filename: \\langan.com\data\PAR\data5\100287501\Cadd Data - 100287501\SheetFiles\Figures\Environmental\2017-04 - 365 Bond St SVMR\Figure 2 - 365 SSDS As-Built Layout_Rev.dwg Date: 3/26/2018 Time: 17:09 User: aruane Style Table: ---- Layout: ANSIB-BL

Sample ID	817/V3		818/DUP-1 (V3)	
Lab Sample ID	17D0833-03		17D0833-04	
Sample Date	4/20/2017		4/20/2017	
Units	ug/m3	Q	ug/m3	Q
Volatile Organic Compounds (VOCs)				
1,1-Dichloroethylene	7.1	U	7.8	U
1,1,1-Trichloroethane	9.8	U	11	U
Carbon tetrachloride	2.8	U	3.1	U
cis-1,2-Dichloroethylene	7.1	U	7.8	U
Methylene chloride	12	U	14	U
Tetrachloroethylene	7.3	D	8	JD
Trichloroethylene	2.4	U	2.6	U
Vinyl Chloride	4.6	U	5	U
Total BTEX[2]	29.1		27.9	



Sample ID	816/V2	
Lab Sample ID	17D0833-02	
Sample Date	4/20/2017	
Units	ug/m3	Q
Volatile Organic Compounds (VOCs)		
1,1-Dichloroethylene	7.6	U
1,1,1-Trichloroethane	10	U
Carbon tetrachloride	3	U
cis-1,2-Dichloroethylene	7.6	U
Methylene chloride	13	U
Tetrachloroethylene	9.1	D
Trichloroethylene	2.6	U
Vinyl Chloride	4.9	U
Total BTEX[2]	17	

Sample ID	819/V5	
Lab Sample ID	17D0833-05	
Sample Date	4/20/2017	
Units	ug/m3	Q
Volatile Organic Compounds (VOCs)		
1,1-Dichloroethylene	6.7	U
1,1,1-Trichloroethane	9.2	U
Carbon tetrachloride	2.6	U
cis-1,2-Dichloroethylene	6.7	U
Methylene chloride	12	U
Tetrachloroethylene	8	D
Trichloroethylene	2.3	U
Vinyl Chloride	4.3	U
Total BTEX[2]	16	

Notes:
1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, amended May 2017.
2. Total BTEX concentration is the calculation from BTEX results above the LOD (Limit of Detection).
J: analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
D: result is from an analysis that required a dilution

Soil Vapor Screening Criteria	NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1]
	ug/m3
Volatile Organic Compounds (VOCs)	
1,1-Dichloroethylene	6
1,1,1-Trichloroethane	100
Carbon tetrachloride	6
cis-1,2-Dichloroethylene	6
Methylene chloride	100
Tetrachloroethylene	100
Trichloroethylene	6
Vinyl Chloride	6
Total BTEX[2]	–

LEGEND:

- BUILDING EXTERIOR
- SUBGRADE PARKING AREA
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4. SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

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SCALE IN FEET

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300 Kimball Drive
Parsippany, NJ 07054
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A
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Collectively known as Langan

Project
365 BOND STREET DEVELOPMENT
365 BOND STREET
BROOKLYN NEW YORK

Drawing Title
SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS

Project No.	Drawing No.
100287501	3
Date: JANUARY 27, 2015	
Scale: AS SHOWN	
Drawn By: MA	
Last Revised: MARCH 26, 2018	

Filename: \\langan.com\data\PAR\data5\100287501\Cadd Data - 100287501\SheetFiles\Figures\Environmental\2017-04 - 365 Bond St SVMR\Figure 3 - Sub-Slab Soil Vapor Analytical Results.dwg Date: 3/26/2018 Time: 12:36 User: aruane Style Table: ---- Layout: ANSIB-BL

ATTACHMENT A

Field Logs

PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Allyson Kritzer Date: 4/20/2017 Weather Conditions: Rain, Cloudy

Reason for Inspection (i.e., routine, severe condition, etc.): 12-month sampling event

When was the last rain event? 4/20/2017 AM

Current Temperature: 55-60°F Current Barometric Pressure: 30.25 in

Valve Manifolds		
Location	PID (~~ppm~~) (ppb)	Vacuum (in. H2O)
V2	1058	0.017
V3	539	0.011
V5	717	0.009

Comments
Design deviates from as-built drawings - sample ports not given, lockable metal enclosure not installed. Manual drainage valve installed but remaining fittings have been

Riser Pipes Exhaust		
Location	PID (~~ppm~~) (ppb)	Air Flow (CFM)
V1	1466	0.12
V2	1009	2.59
V3	0	1.55
V4	1092	2.8
V5	1672	0.78
V6	578	2.23

Comments
Design deviates from as-built drawings - no lockable metal enclosure, not to specified height of 15 feet, no accompanying ball valve for sample port. Sample port w/ cap installed, valve installed, goose neck installed

Inspection Comments
Installations for V2 riser occurred on the riser on right side of window Langan had been sampling from left side riser as previously indicated. Langan needs Pace as-built drawings for confirmation.

Emergency Contact Information		
Name	Title	Phone Number
Bruce Barron	365 Bond Street Building Management	718-705-8413 (office)
Steven Ciambruschini	Langan Qualified Environmental Professional	973-560-4900 (office) 973-560-4982 (direct)
Christopher McMahon	Langan Project Manager	973-560-4900 (office) 973-560-4861 (direct)
Tim Pokraka	Lighstone Representative	718-564-6531 (direct)
John Grathwol	NYSDEC Case Manager	518-402-9767 (office)

SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 365 Bond Street, Brooklyn, New York
Samplers: Allison Kitzer
Date: 4/20/2017

Sample #	816/V2	817/V3	819/V5	818/DUP-1	815/OA-1		
Location	V2	V3	V5	DUP-1	Ambient-1		
Summa Canister ID	Y79	22078	22081	18310	23991		
Flow Controller ID	Y22	Y23	7416	3350	3540		
PID Test of SSDS Air (ppb)	1058	539	717	539	—		
Pressure Gauge - before sampling (in Hg)	29.73	28.75	28.48	29.09	29.62		
Sample Time (Start)	0807	0856	0905	0856	0745		
Sample Time (Stop)	1027	1107	1130	1103	1252		
Total Sample Time (min)	2hr 20min	2hr 10min	2hr 25min	2hr 7min	5hr 7min		
Pressure Gauge - after sampling (in Hg)	4.44	2.37	0.06	4.95	8.95		
Sample Volume	6L	6L	6L	6L	6L		
Canister Pressure Went to Ambient Pressure?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO
Associated Ambient Air Sample Number	Ambient-1	Ambient-1	Ambient-1	Ambient-1	N/A	N/A	N/A
Weather 24 hours before and during sampling	Cloudy, Rain 55-60°F						
General Comments	Ambient air background = 0 ppm						

ATTACHMENT B

Laboratory Analytical Report

LANGAN

Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive
Parsipanny NJ, 07054
Attention: Amanda Forsburg

Report Date: 05/09/2017
Client Project ID: 100287503 365 Bond St.
York Project (SDG) No.: 17D0833

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Report Date: 05/09/2017
Client Project ID: 100287503 365 Bond St.
York Project (SDG) No.: 17D0833

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive
Parsipanny NJ, 07054
Attention: Amanda Forsburg

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on April 20, 2017 and listed below. The project was identified as your project: **100287503 365 Bond St.**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
17D0833-01	815/OA-1	Outdoor Ambient Air	04/20/2017	04/20/2017
17D0833-02	816/V2	Soil Vapor	04/20/2017	04/20/2017
17D0833-03	817/V3	Soil Vapor	04/20/2017	04/20/2017
17D0833-04	818/DUP-1	Soil Vapor	04/20/2017	04/20/2017
17D0833-05	819/V5	Soil Vapor	04/20/2017	04/20/2017

General Notes for York Project (SDG) No.: 17D0833

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
9. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:

Date: 05/09/2017

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: 815/OA-1 **York Sample ID:** 17D0833-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Outdoor Ambient Ai	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.87	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.69	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.87	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.97	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.69	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.51	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.50	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.94	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-63-6	**1,2,4-Trimethylbenzene**	**0.81**		ug/m³	0.62	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.97	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.76	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.51	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.58	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.88	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.62	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m³	0.84	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.76	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.58	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.76	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m³	0.91	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-93-3	**2-Butanone**	**1.1**		ug/m³	0.37	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m³	1.0	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m³	2.0	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 815/OA-1 **York Sample ID:** 17D0833-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Outdoor Ambient Ai	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.52	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-64-1	**Acetone**	**9.1**		ug/m³	0.60	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	0.27	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
71-43-2	**Benzene**	**1.7**		ug/m³	0.40	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	0.65	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	0.85	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	1.3	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	0.49	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	0.39	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
56-23-5	**Carbon tetrachloride**	**0.40**		ug/m³	0.20	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	0.58	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	0.33	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	0.62	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-87-3	**Chloromethane**	**1.5**		ug/m³	0.26	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.50	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.57	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-82-7	**Cyclohexane**	**0.70**		ug/m³	0.43	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	1.1	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-71-8	**Dichlorodifluoromethane**	**2.1**		ug/m³	0.62	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
141-78-6	*** Ethyl acetate**	**3.6**		ug/m³	0.91	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
100-41-4	**Ethyl Benzene**	**0.71**		ug/m³	0.55	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.3	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-63-0	**Isopropanol**	**3.3**		ug/m³	0.62	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
80-62-6	**Methyl Methacrylate**	**0.98**		ug/m³	0.52	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 815/OA-1 **York Sample ID:** 17D0833-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	)utdoor Ambient Ai	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.45	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-09-2	**Methylene chloride**	**11**		ug/m³	0.88	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-82-5	**n-Heptane**	**1.3**		ug/m³	0.52	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-54-3	**n-Hexane**	**2.4**		ug/m³	0.44	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-47-6	**o-Xylene**	**0.82**		ug/m³	0.55	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
179601-23-1	**p- & m- Xylenes**	**2.6**		ug/m³	1.1	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
622-96-8	*** p-Ethyltoluene**	**0.87**		ug/m³	0.62	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
115-07-1	*** Propylene**	**2.2**		ug/m³	0.22	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
100-42-5	Styrene	ND		ug/m³	0.54	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**2.1**		ug/m³	0.21	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.74	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:				
108-88-3	**Toluene**	**5.4**		ug/m³	0.48	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.50	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.57	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	0.17	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.5**		ug/m³	0.71	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	0.44	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	0.55	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	0.32	1.262	EPA TO-15	04/20/2017 16:45	04/20/2017 21:19	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*93.8 %*	*72-118*

Sample Information

Client Sample ID: 816/V2 **York Sample ID:** 17D0833-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	13	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	10	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	13	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	15	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	10	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m³	7.8	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m³	7.6	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	14	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	9.5	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m³	15	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	12	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m³	7.8	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m³	8.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	13	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	9.5	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m³	13	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	12	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	8.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	12	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m³	14	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-93-3	**2-Butanone**	**81**		ug/m³	5.7	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m³	16	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m³	30	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	7.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 816/V2 **York Sample ID:** 17D0833-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**280**		ug/m³	9.1	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	4.2	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	6.1	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	10	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	13	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	20	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	7.5	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-15-0	**Carbon disulfide**	**49**		ug/m³	6.0	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	3.0	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	8.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	5.1	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	9.4	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-87-3	**Chloromethane**	**7.2**		ug/m³	4.0	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	7.6	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	8.7	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	6.6	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	16	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-71-8	Dichlorodifluoromethane	ND		ug/m³	9.5	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	14	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
100-41-4	Ethyl Benzene	ND		ug/m³	8.4	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	21	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-63-0	**Isopropanol**	**54**		ug/m³	9.5	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
80-62-6	Methyl Methacrylate	ND		ug/m³	7.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: **816/V2** **York Sample ID:** **17D0833-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/m³	13	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	7.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	6.8	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-47-6	o-Xylene	ND		ug/m³	8.4	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
179601-23-1	p- & m- Xylenes	ND		ug/m³	17	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	9.5	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
115-07-1	* Propylene	ND		ug/m³	3.3	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
100-42-5	Styrene	ND		ug/m³	8.2	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**9.1**		ug/m³	3.3	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
109-99-9	*** Tetrahydrofuran**	**37**		ug/m³	11	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:				
108-88-3	**Toluene**	**17**		ug/m³	7.3	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	7.6	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	8.7	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	2.6	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	11	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	6.8	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	8.4	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	4.9	19.24	EPA TO-15	04/20/2017 16:45	04/20/2017 22:21	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*72.9 %*	*72-118*

Sample Information

Client Sample ID: **817/V3** **York Sample ID:** **17D0833-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Sample Information

Client Sample ID: 817/V3 **York Sample ID:** 17D0833-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	12	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	14	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m³	7.2	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m³	7.1	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	13	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m³	14	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	11	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m³	7.2	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m³	8.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	12	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m³	12	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	11	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	8.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	11	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m³	13	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-93-3	**2-Butanone**	**87**		ug/m³	5.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m³	15	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m³	28	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	7.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 817/V3 **York Sample ID:** 17D0833-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**200**		ug/m³	8.5	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	3.9	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
71-43-2	**Benzene**	**9.1**		ug/m³	5.7	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	9.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	12	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	18	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	6.9	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	5.6	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	2.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	8.2	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	4.7	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	8.7	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-87-3	**Chloromethane**	**4.4**		ug/m³	3.7	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	7.1	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	8.1	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	6.2	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	15	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	13	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
100-41-4	Ethyl Benzene	ND		ug/m³	7.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	19	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-63-0	**Isopropanol**	**35**		ug/m³	8.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
80-62-6	Methyl Methacrylate	ND		ug/m³	7.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.4	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: **817/V3** **York Sample ID:** **17D0833-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/m³	12	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	7.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-54-3	**n-Hexane**	**6.3**		ug/m³	6.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-47-6	o-Xylene	ND		ug/m³	7.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
179601-23-1	p- & m- Xylenes	ND		ug/m³	16	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
115-07-1	*** Propylene**	**20**		ug/m³	3.1	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
100-42-5	Styrene	ND		ug/m³	7.6	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**7.3**		ug/m³	3.0	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
109-99-9	*** Tetrahydrofuran**	**36**		ug/m³	11	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:				
108-88-3	**Toluene**	**20**		ug/m³	6.7	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	7.1	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	8.1	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	2.4	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	10	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	6.3	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	7.8	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	4.6	17.87	EPA TO-15	04/20/2017 16:45	04/20/2017 23:22	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*76.6 %*	*72-118*

Sample Information

Client Sample ID: **818/DUP-1** **York Sample ID:** **17D0833-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Sample Information

Client Sample ID: 818/DUP-1 **York Sample ID:** 17D0833-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	14	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	11	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	14	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	15	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	11	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m³	8.0	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m³	7.8	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	15	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	9.7	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m³	15	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	12	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m³	8.0	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m³	9.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	14	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	9.7	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m³	13	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	12	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	9.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	12	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m³	14	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-93-3	**2-Butanone**	**79**		ug/m³	5.8	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m³	16	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m³	31	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	8.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 818/DUP-1 **York Sample ID:** 17D0833-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**340**		ug/m³	9.4	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	4.3	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
71-43-2	**Benzene**	**6.9**		ug/m³	6.3	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	10	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	13	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	20	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	7.6	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-15-0	**Carbon disulfide**	**55**		ug/m³	6.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	3.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	9.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	5.2	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	9.6	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-87-3	**Chloromethane**	**5.7**		ug/m³	4.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	7.8	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	8.9	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	6.8	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	17	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-71-8	Dichlorodifluoromethane	ND		ug/m³	9.7	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	14	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
100-41-4	Ethyl Benzene	ND		ug/m³	8.6	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	21	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-63-0	**Isopropanol**	**71**		ug/m³	9.7	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
80-62-6	Methyl Methacrylate	ND		ug/m³	8.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	7.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: **818/DUP-1** **York Sample ID:** **17D0833-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/m³	14	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	8.1	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	6.9	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-47-6	o-Xylene	ND		ug/m³	8.5	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
179601-23-1	p- & m- Xylenes	ND		ug/m³	17	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	9.7	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
115-07-1	*** Propylene**	**20**		ug/m³	3.4	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
100-42-5	Styrene	ND		ug/m³	8.4	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**8.0**		ug/m³	3.3	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
109-99-9	*** Tetrahydrofuran**	**31**		ug/m³	12	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:				
108-88-3	**Toluene**	**21**		ug/m³	7.4	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	7.8	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	8.9	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	2.6	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	11	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	6.9	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	8.6	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	5.0	19.69	EPA TO-15	04/21/2017 19:18	04/21/2017 19:18	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*74.4 %*	*72-118*

Sample Information

Client Sample ID: **819/V5** **York Sample ID:** **17D0833-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Sample Information

Client Sample ID: 819/V5 **York Sample ID:** 17D0833-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	9.2	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	13	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	9.2	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m³	6.8	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m³	6.7	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	8.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m³	13	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	10	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m³	6.8	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m³	7.8	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	8.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m³	11	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	10	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	7.8	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	10	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
78-93-3	**2-Butanone**	**280**		ug/m³	5.0	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m³	14	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m³	26	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	6.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 819/V5 **York Sample ID:** 17D0833-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	**Acetone**	**350**		ug/m³	8.0	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
107-13-1	Acrylonitrile	ND		ug/m³	3.6	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
71-43-2	Benzene	ND		ug/m³	5.4	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
100-44-7	Benzyl chloride	ND		ug/m³	8.7	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-27-4	Bromodichloromethane	ND		ug/m³	11	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-25-2	Bromoform	ND		ug/m³	17	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-83-9	Bromomethane	ND		ug/m³	6.5	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-15-0	Carbon disulfide	ND		ug/m³	5.2	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
56-23-5	Carbon tetrachloride	ND		ug/m³	2.6	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-90-7	Chlorobenzene	ND		ug/m³	7.7	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-00-3	Chloroethane	ND		ug/m³	4.4	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-66-3	Chloroform	ND		ug/m³	8.2	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
74-87-3	Chloromethane	ND		ug/m³	3.5	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	6.7	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	7.6	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-82-7	Cyclohexane	ND		ug/m³	5.8	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
124-48-1	Dibromochloromethane	ND		ug/m³	14	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-71-8	Dichlorodifluoromethane	ND		ug/m³	8.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
141-78-6	* Ethyl acetate	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
100-41-4	Ethyl Benzene	ND		ug/m³	7.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
87-68-3	Hexachlorobutadiene	ND		ug/m³	18	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
67-63-0	**Isopropanol**	**49**		ug/m³	8.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
80-62-6	Methyl Methacrylate	ND		ug/m³	6.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	6.1	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

Sample Information

Client Sample ID: 819/V5 **York Sample ID:** 17D0833-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
17D0833	100287503 365 Bond St.	Soil Vapor	April 20, 2017 3:00 pm	04/20/2017

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/m³	12	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
142-82-5	n-Heptane	ND		ug/m³	6.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
110-54-3	n-Hexane	ND		ug/m³	5.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
95-47-6	o-Xylene	ND		ug/m³	7.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
179601-23-1	p- & m- Xylenes	ND		ug/m³	15	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	ND		ug/m³	8.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
115-07-1	*** Propylene**	**7.8**		ug/m³	2.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
100-42-5	Styrene	ND		ug/m³	7.2	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
127-18-4	**Tetrachloroethylene**	**8.0**		ug/m³	2.8	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
109-99-9	*** Tetrahydrofuran**	**120**		ug/m³	9.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:				
108-88-3	**Toluene**	**16**		ug/m³	6.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	6.7	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	7.6	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m³	2.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	ND		ug/m³	9.4	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m³	5.9	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m³	7.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m³	4.3	16.8	EPA TO-15	04/20/2017 16:45	04/21/2017 01:25	LDS
						Certifications:	NELAC-NY10854-Queens,NJDEP-Queens			

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*82.9 %*	*72-118*

Case Narrative

Client:Langan Engineering & Environmental Services (NJ)
Client Project ID: 100287503 365 Bond St.
Prepared for: Amanda Forsburg

Introduction

This Case Narrative applies only to the samples submitted to our laboratory on **04/20/2017 17:53** as detailed on the chain-of-custody form.

The 5 sample(s) were received intact. Chain-of-custody was maintained from receipt through analysis in the laboratory.

Methodology

All preparation and analyses were conducted according to the appropriate EPA methods detailed in the report.

Sample and Analysis Qualifiers

No problems encountered.

QC Sample Non-Conformances

Any QC sample non-conformances (CCV,LCS, DUP, MS) are detailed in the data package and in the attached tables.

No other problems were encountered during analysis.

York Project/SDG no.: 17D0833 Statement

We certify that these data are in compliance with SOP requirements both technically and for completeness for other than the conditions stated above. Release of the data contained in the hard copy report and any electronic deliverables has been authorized by the Laboratory Manager as verified by the signature on this laboratory report.

Approved by: *Ben Gulizia*
Laboratory Director

Date: May 9, 2017

York Analytical Laboratories, Inc.

Formulae Used for Sample Calculations

VOLATILE ORGANICS

1. Volatiles in Air-ppbv

Cx (ppbv) = Compound concentration, ppbv (parts per billion by volume)

$$Cx = \frac{(Ax)(Cis)(DF)}{(Ais)(RRF)}$$

2. Volatiles in Air-ug/m3

Cx (ug/m3)= Compound concentration in ug/m3

$$Cx\ (ug/m3) = \frac{(ppbv \times Molecular\ wt.)}{(24.040)}$$

3. Volatile Organics (water and soil), ug/L or ug/kG

Soils/Waters

$$Cx = \frac{(Ax)(IS)(DF)}{(Ais)(RRF)(V)(\%solids)}$$

Medium Level Soils

$$Cx = \frac{(Ax)(IS)(VT)(1000)(DF)}{(Ais)(RRF)(VA)(V)(\%solids)}$$

4. Semi-Volatiles (waters and soils)

$$Cx = \frac{(Ax)(IS)(VE)(DF)}{(Ais)(RRF)(Volume\ injected,\ uL)(V)(\%solids)}$$

5. Pesticides/PCB (waters and soils), DRO, CTETPH

$$Cx = \frac{(Ax)(VE)(DF)}{(CF)(Volume\ injected,\ uL)(V)(\%solids)}$$

WHERE:

Cx = concentration of analyte as ug/L or ug/kG
Ax = Area of the characteristic ion for the compound to be measured, counts.
Ais = Area of the characteristic ion for the specific internal standard, counts.
IS = Concentration of the internal standard spiking mixture, ng
RRF= Mean relative response factor from the initial calibration.
DF = Dilution factor calculated as described in section 2. If no dilution is performed, DF= 1
V= Volume for liquids in ml, weight for soils/solids in grams.
VA= volume of MeOH aliquot for medium level soils
VE= final volume of concentrated extract
VT= volume of MeOH for volatiles medium level soils
CF= calibration factor for external calibration used in GC pest/pcb
Cis = Concentration of the internal standard spiking mixture, ppbv

DATA QUALITY ASSESSMENT WORKSHEETS

Laboratory:	York Analytical Laboratories, Inc.	Client:	Langan Engineering & Environmental Services (
Project:	100287503 365 Bond St.	Lab Project No:	17D0833
Laboratory Sample ID(s):	17D0833-01 - 17D0833-05	Sampling Date(s):	04/20/2017
Review Date(s):	12/30/1899 - 05/09/2017	Laboratory Reviewer(s):	RQB

QC Sample Nonconformances

Batch ID: BD71102 **Affected Samples:** **See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BD71102-BS1	1,2-Dichlorotetrafluoroethane - 76-14-2	13.3 ppbv	LCS	133	70-130	High Bias				
BD71102-DUP1	Chloromethane - 74-87-3	5.3 ppbv	Duplicate (818/DUP-1)		-		63.4	25	Non-dir.	

Batch ID: Y7D2619 **Affected Samples:** **See Batch Summary**

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y7D2619-CCV1	1,4-Dioxane - 123-91-1	6.48 ppbv	Calibration Check	64.8	70-130	Low Bias				
Y7D2619-CCV1	Tetrachloroethylene - 127-18-4	6.19 ppbv	Calibration Check	61.9	70-130	Low Bias				

Batch ID: BD71102 **General Method:** Volatile Organic Compounds in Air by GC/MS

YORK Sample ID	Client Sample ID
17D0833-04	818/DUP-1
BD71102-BLK1	Blank
BD71102-BS1	LCS
BD71102-DUP1	Duplicate

No Sample Nonconformances Found

Notes: Other RCP nonconformances, if any, are detailed in the Data Quality Assessment worksheets.

For multiple surrogate analyses such as semi-volatiles, volatiles, etc, single surrogate excursions do not necessarily indicate a bias in the sample. Samples with multiple surrogate excursions may exhibit a bias in the results.

Definitions:
LCS - Laboratory Control Sample
LCS dup - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
BS - Blank Spike also called LCS
BSD - Blank Spike Duplicate also called LCS dup
SRM - Standard Reference Material
DUP - Duplicate

Analytical Batch Summary

Batch ID: BD70982 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
17D0833-01	815/OA-1	04/20/17
17D0833-02	816/V2	04/20/17
17D0833-03	817/V3	04/20/17
17D0833-05	819/V5	04/20/17
BD70982-BLK1	Blank	04/20/17
BD70982-BS1	LCS	04/20/17

Batch ID: BD71102 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
17D0833-04	818/DUP-1	04/21/17
BD71102-BLK1	Blank	04/21/17
BD71102-BS1	LCS	04/21/17
BD71102-DUP1	Duplicate	04/21/17

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70982 - EPA TO15 PREP											
Blank (BD70982-BLK1)											
Prepared & Analyzed: 04/20/2017											
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.40	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.40	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

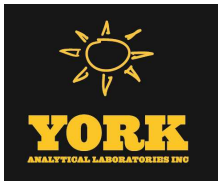
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70982 - EPA TO15 PREP											
Blank (BD70982-BLK1)									Prepared & Analyzed: 04/20/2017		
n-Hexane	ND	0.35	ug/m³								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.26	"								
Surrogate: p-Bromofluorobenzene	*9.31*		*ppbv*	*10.0*		*93.1*	*72-118*				
LCS (BD70982-BS1)									Prepared & Analyzed: 04/20/2017		
1,1,1,2-Tetrachloroethane	10.6		ppbv	10.0		106	70-130				
1,1,1-Trichloroethane	10.6		"	10.0		106	70-130				
1,1,2,2-Tetrachloroethane	10.9		"	10.0		109	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0		110	70-130				
1,1,2-Trichloroethane	10.2		"	10.0		102	70-130				
1,1-Dichloroethane	10.4		"	10.0		104	70-130				
1,1-Dichloroethylene	10.2		"	10.0		102	70-130				
1,2,4-Trichlorobenzene	9.92		"	10.0		99.2	70-130				
1,2,4-Trimethylbenzene	10.6		"	10.0		106	70-130				
1,2-Dibromoethane	10.3		"	10.0		103	70-130				
1,2-Dichlorobenzene	10.4		"	10.0		104	70-130				
1,2-Dichloroethane	10.1		"	10.0		101	70-130				
1,2-Dichloropropane	10.0		"	10.0		100	70-130				
1,2-Dichlorotetrafluoroethane	12.3		"	10.0		123	70-130				
1,3,5-Trimethylbenzene	10.5		"	10.0		105	70-130				
1,3-Butadiene	11.5		"	10.0		115	70-130				
1,3-Dichlorobenzene	10.2		"	10.0		102	70-130				
1,3-Dichloropropane	10.0		"	10.0		100	70-130				
1,4-Dichlorobenzene	9.97		"	10.0		99.7	70-130				
1,4-Dioxane	8.40		"	10.0		84.0	70-130				
2-Butanone	9.50		"	10.0		95.0	70-130				
2-Hexanone	8.67		"	10.0		86.7	70-130				
3-Chloropropene	10.5		"	10.0		105	70-130				
4-Methyl-2-pentanone	9.44		"	10.0		94.4	70-130				
Acetone	8.56		"	10.0		85.6	70-130				
Acrylonitrile	10.9		"	10.0		109	70-130				
Benzene	10.1		"	10.0		101	70-130				
Benzyl chloride	10.6		"	10.0		106	70-130				
Bromodichloromethane	10.3		"	10.0		103	70-130				
Bromoform	11.0		"	10.0		110	70-130				
Bromomethane	10.7		"	10.0		107	70-130				
Carbon disulfide	11.3		"	10.0		113	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD70982 - EPA TO15 PREP											
LCS (BD70982-BS1)								Prepared & Analyzed: 04/20/2017			
Carbon tetrachloride	10.8		ppbv	10.0		108	70-130				
Chlorobenzene	10.4		"	10.0		104	70-130				
Chloroethane	11.2		"	10.0		112	70-130				
Chloroform	10.4		"	10.0		104	70-130				
Chloromethane	11.2		"	10.0		112	70-130				
cis-1,2-Dichloroethylene	11.0		"	10.0		110	70-130				
cis-1,3-Dichloropropylene	11.4		"	10.0		114	70-130				
Cyclohexane	10.2		"	10.0		102	70-130				
Dibromochloromethane	10.3		"	10.0		103	70-130				
Dichlorodifluoromethane	11.6		"	10.0		116	70-130				
Ethyl acetate	10.6		"	10.0		106	70-130				
Ethyl Benzene	10.5		"	10.0		105	70-130				
Hexachlorobutadiene	10.9		"	10.0		109	70-130				
Isopropanol	11.0		"	10.0		110	70-130				
Methyl Methacrylate	10.3		"	10.0		103	70-130				
Methyl tert-butyl ether (MTBE)	10.0		"	10.0		100	70-130				
Methylene chloride	10.2		"	10.0		102	70-130				
n-Heptane	10.1		"	10.0		101	70-130				
n-Hexane	10.5		"	10.0		105	70-130				
o-Xylene	10.5		"	10.0		105	70-130				
p- & m- Xylenes	20.9		"	20.0		105	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	11.3		"	10.0		113	70-130				
Styrene	10.6		"	10.0		106	70-130				
Tetrachloroethylene	7.99		"	10.0		79.9	70-130				
Tetrahydrofuran	9.98		"	10.0		99.8	70-130				
Toluene	9.99		"	10.0		99.9	70-130				
trans-1,2-Dichloroethylene	10.8		"	10.0		108	70-130				
trans-1,3-Dichloropropylene	11.4		"	10.0		114	70-130				
Trichloroethylene	10.4		"	10.0		104	70-130				
Trichlorofluoromethane (Freon 11)	11.0		"	10.0		110	70-130				
Vinyl acetate	12.1		"	10.0		121	70-130				
Vinyl bromide	11.6		"	10.0		116	70-130				
Vinyl Chloride	11.7		"	10.0		117	70-130				
Surrogate: p-Bromofluorobenzene	*10.1*		*"*	*10.0*		*101*	*72-118*				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD71102 - EPA TO15 PREP											
Blank (BD71102-BLK1)											Prepared & Analyzed: 04/21/2017
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.40	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.40	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

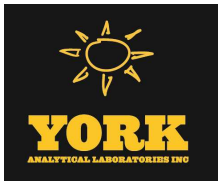
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD71102 - EPA TO15 PREP											
Blank (BD71102-BLK1)								Prepared & Analyzed: 04/21/2017			
o-Xylene	ND	0.43	ug/m³								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.26	"								
Surrogate: p-Bromofluorobenzene	*9.33*		*ppbv*	*10.0*		*93.3*	*72-118*				
LCS (BD71102-BS1)								Prepared & Analyzed: 04/21/2017			
1,1,1,2-Tetrachloroethane	11.1		ppbv	10.0		111	70-130				
1,1,1-Trichloroethane	10.6		"	10.0		106	70-130				
1,1,2,2-Tetrachloroethane	11.7		"	10.0		117	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.8		"	10.0		108	70-130				
1,1,2-Trichloroethane	10.7		"	10.0		107	70-130				
1,1-Dichloroethane	10.4		"	10.0		104	70-130				
1,1-Dichloroethylene	10.2		"	10.0		102	70-130				
1,2,4-Trichlorobenzene	10.7		"	10.0		107	70-130				
1,2,4-Trimethylbenzene	11.5		"	10.0		115	70-130				
1,2-Dibromoethane	10.8		"	10.0		108	70-130				
1,2-Dichlorobenzene	11.2		"	10.0		112	70-130				
1,2-Dichloroethane	10.2		"	10.0		102	70-130				
1,2-Dichloropropane	10.6		"	10.0		106	70-130				
1,2-Dichlorotetrafluoroethane	13.3		"	10.0		133	70-130	High Bias			
1,3,5-Trimethylbenzene	11.3		"	10.0		113	70-130				
1,3-Butadiene	12.6		"	10.0		126	70-130				
1,3-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,3-Dichloropropane	10.5		"	10.0		105	70-130				
1,4-Dichlorobenzene	10.6		"	10.0		106	70-130				
1,4-Dioxane	8.78		"	10.0		87.8	70-130				
2-Butanone	9.79		"	10.0		97.9	70-130				
2-Hexanone	9.77		"	10.0		97.7	70-130				
3-Chloropropene	10.4		"	10.0		104	70-130				
4-Methyl-2-pentanone	10.4		"	10.0		104	70-130				
Acetone	8.84		"	10.0		88.4	70-130				
Acrylonitrile	10.9		"	10.0		109	70-130				
Benzene	9.93		"	10.0		99.3	70-130				
Benzyl chloride	11.5		"	10.0		115	70-130				
Bromodichloromethane	11.0		"	10.0		110	70-130				
Bromoform	11.6		"	10.0		116	70-130				
Bromomethane	10.6		"	10.0		106	70-130				
Carbon disulfide	11.3		"	10.0		113	70-130				
Carbon tetrachloride	10.8		"	10.0		108	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD71102 - EPA TO15 PREP											
LCS (BD71102-BS1)								Prepared & Analyzed: 04/21/2017			
Chlorobenzene	10.9		ppbv	10.0		109	70-130				
Chloroethane	11.1		"	10.0		111	70-130				
Chloroform	10.4		"	10.0		104	70-130				
Chloromethane	11.8		"	10.0		118	70-130				
cis-1,2-Dichloroethylene	10.8		"	10.0		108	70-130				
cis-1,3-Dichloropropylene	12.1		"	10.0		121	70-130				
Cyclohexane	10.0		"	10.0		100	70-130				
Dibromochloromethane	10.9		"	10.0		109	70-130				
Dichlorodifluoromethane	12.6		"	10.0		126	70-130				
Ethyl acetate	10.9		"	10.0		109	70-130				
Ethyl Benzene	11.1		"	10.0		111	70-130				
Hexachlorobutadiene	11.7		"	10.0		117	70-130				
Isopropanol	11.3		"	10.0		113	70-130				
Methyl Methacrylate	10.8		"	10.0		108	70-130				
Methyl tert-butyl ether (MTBE)	9.88		"	10.0		98.8	70-130				
Methylene chloride	10.3		"	10.0		103	70-130				
n-Heptane	10.4		"	10.0		104	70-130				
n-Hexane	10.2		"	10.0		102	70-130				
o-Xylene	11.3		"	10.0		113	70-130				
p- & m- Xylenes	22.5		"	20.0		113	70-130				
p-Ethyltoluene	12.0		"	10.0		120	70-130				
Propylene	12.4		"	10.0		124	70-130				
Styrene	11.3		"	10.0		113	70-130				
Tetrachloroethylene	8.07		"	10.0		80.7	70-130				
Tetrahydrofuran	10.2		"	10.0		102	70-130				
Toluene	10.4		"	10.0		104	70-130				
trans-1,2-Dichloroethylene	10.6		"	10.0		106	70-130				
trans-1,3-Dichloropropylene	12.1		"	10.0		121	70-130				
Trichloroethylene	10.7		"	10.0		107	70-130				
Trichlorofluoromethane (Freon 11)	11.2		"	10.0		112	70-130				
Vinyl acetate	12.6		"	10.0		126	70-130				
Vinyl bromide	11.2		"	10.0		112	70-130				
Vinyl Chloride	12.5		"	10.0		125	70-130				
Surrogate: p-Bromofluorobenzene	*10.3*		*"*	*10.0*		*103*	*72-118*				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD71102 - EPA TO15 PREP											
Duplicate (BD71102-DUP1)	*Source sample: 17D0833-04 (818/DUP-1)								Prepared & Analyzed: 04/21/2017		
1,1,1,2-Tetrachloroethane	ND	14	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	11	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	14	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	15	"		ND					25	
1,1,2-Trichloroethane	ND	11	"		ND					25	
1,1-Dichloroethane	ND	8.0	"		ND					25	
1,1-Dichloroethylene	ND	7.8	"		ND					25	
1,2,4-Trichlorobenzene	ND	15	"		ND					25	
1,2,4-Trimethylbenzene	ND	9.7	"		ND					25	
1,2-Dibromoethane	ND	15	"		ND					25	
1,2-Dichlorobenzene	ND	12	"		ND					25	
1,2-Dichloroethane	ND	8.0	"		ND					25	
1,2-Dichloropropane	ND	9.1	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	14	"		ND					25	
1,3,5-Trimethylbenzene	ND	9.7	"		ND					25	
1,3-Butadiene	ND	13	"		ND					25	
1,3-Dichlorobenzene	ND	12	"		ND					25	
1,3-Dichloropropane	ND	9.1	"		ND					25	
1,4-Dichlorobenzene	ND	12	"		ND					25	
1,4-Dioxane	ND	14	"		ND					25	
2-Butanone	81	5.8	"		79				2.18	25	
2-Hexanone	ND	16	"		ND					25	
3-Chloropropene	ND	31	"		ND					25	
4-Methyl-2-pentanone	ND	8.1	"		ND					25	
Acetone	350	9.4	"		340				1.49	25	
Acrylonitrile	ND	4.3	"		ND					25	
Benzene	6.9	6.3	"		6.9				0.00	25	
Benzyl chloride	ND	10	"		ND					25	
Bromodichloromethane	ND	13	"		ND					25	
Bromoform	ND	20	"		ND					25	
Bromomethane	ND	7.6	"		ND					25	
Carbon disulfide	59	6.1	"		55				6.45	25	
Carbon tetrachloride	ND	3.1	"		ND					25	
Chlorobenzene	ND	9.1	"		ND					25	
Chloroethane	ND	5.2	"		ND					25	
Chloroform	ND	9.6	"		ND					25	
Chloromethane	11	4.1	"		5.7				63.4	25	Non-dir.
cis-1,2-Dichloroethylene	ND	7.8	"		ND					25	
cis-1,3-Dichloropropylene	ND	8.9	"		ND					25	
Cyclohexane	ND	6.8	"		ND					25	
Dibromochloromethane	ND	17	"		ND					25	
Dichlorodifluoromethane	ND	9.7	"		ND					25	
Ethyl acetate	ND	14	"		ND					25	
Ethyl Benzene	ND	8.6	"		ND					25	
Hexachlorobutadiene	ND	21	"		ND					25	
Isopropanol	72	9.7	"		71				1.36	25	
Methyl Methacrylate	ND	8.1	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	7.1	"		ND					25	
Methylene chloride	ND	14	"		ND					25	
n-Heptane	ND	8.1	"		ND					25	
n-Hexane	ND	6.9	"		ND					25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BD71102 - EPA TO15 PREP											
Duplicate (BD71102-DUP1)	*Source sample: 17D0833-04 (818/DUP-1)							Prepared & Analyzed: 04/21/2017			
o-Xylene	ND	8.5	ug/m³		ND					25	
p- & m- Xylenes	ND	17	"		ND					25	
p-Ethyltoluene	ND	9.7	"		ND					25	
Propylene	22	3.4	"		20				6.45	25	
Styrene	ND	8.4	"		ND					25	
Tetrachloroethylene	9.3	3.3	"		8.0				15.4	25	
Tetrahydrofuran	31	12	"		31				1.87	25	
Toluene	21	7.4	"		21				0.00	25	
trans-1,2-Dichloroethylene	ND	7.8	"		ND					25	
trans-1,3-Dichloropropylene	ND	8.9	"		ND					25	
Trichloroethylene	ND	2.6	"		ND					25	
Trichlorofluoromethane (Freon 11)	ND	11	"		ND					25	
Vinyl acetate	ND	6.9	"		ND					25	
Vinyl bromide	ND	8.6	"		ND					25	
Vinyl Chloride	ND	5.0	"		ND					25	
Surrogate: p-Bromofluorobenzene	*8.09*		*ppbv*	*10.0*		*80.9*	*72-118*				

Notes and Definitions

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
CCV-A	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to dectected analytes only.

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*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

Laboratory Chain-of-Custody Record

York Project (SDG) No.: 17D0833

Samples Received: 04/20/2017 17:53 **By:** Larry D Singh **Logged In:** 04/21/2017 10:14 **By:** Joseph C. Eigenberg

Sample Conditions:

- [X] Custody Seals
- [X] Containers Intact
- [X] COC/Labels Agree
- [X] Preservation Confirmed
- [X] Cooler Temperature Confirmed
- [ ] COC Complete
- [X] Chain of Custody Form Received
- [X] Appropriate Sample Volumes Received
- [X] Appropriate Sample Containers Submitted
- [X] Samples Submitted within Holding Times
- [ ] Corrective Action Form Required

Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
17D0833-01	EPA TO15 PREP	04/20/2017 16:45	04/20/2017 16:45	Larry D Singh
17D0833-02	EPA TO15 PREP	04/20/2017 16:45	04/20/2017 16:45	Larry D Singh
17D0833-03	EPA TO15 PREP	04/20/2017 16:45	04/20/2017 16:45	Larry D Singh
17D0833-04	EPA TO15 PREP	04/21/2017 19:18	04/21/2017 19:18	Larry D Singh
17D0833-05	EPA TO15 PREP	04/20/2017 16:45	04/20/2017 16:45	Larry D Singh

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
17D0833-01	Volatile Organics, EPA TO15 Full List	04/20/2017 16:45	04/20/2017 21:19	Larry D Singh
17D0833-02	Volatile Organics, EPA TO15 Full List	04/20/2017 16:45	04/20/2017 22:21	Larry D Singh
17D0833-03	Volatile Organics, EPA TO15 Full List	04/20/2017 16:45	04/20/2017 23:22	Larry D Singh
17D0833-04	Volatile Organics, EPA TO15 Full List	04/21/2017 19:18	04/21/2017 19:18	Larry D Singh
17D0833-05	Volatile Organics, EPA TO15 Full List	04/20/2017 16:45	04/21/2017 1:25	Larry D Singh

Field Chain-of-Custody Record - AIR

Page____ of ____

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

York Project No. 1710833

YORK ANALYTICAL LABORATORIES INC

YOUR Information	Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type/Deliverables
Company: Langan	Company:	Company:	305 Bond St	RUSH - Same Day ☐	Summary Report ____
Address: 300 Kimball Dr Parsippany NJ	Address:	Address:	Purchase Order No.	RUSH - Next Day ☐	Summary w/ QA Summary ____
Phone No. 973 560 4900	Phone No. same	Phone No. same	100287503	RUSH - Two Day ☐	CT RCP Package ____
Contact Person: Amanda Forsburg	Attention:	Attention:	Samples from: CT__ NY X NJ__	RUSH - Three Day ☐	NY ASP A Package ____
E-Mail Address: aforsburg@langan.com	E-Mail Address:	E-Mail Address:		RUSH - Four Day ☐	NY ASP B/CLP Pkg X
				Standard(5-7 Days) X	NJDEP Reduced ____
					Electronic Deliverables:
					EDD (Specify Type) ____
					Standard Excel ____
					Regulatory Comparison Excel ____

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Samples Collected/Authorized By (Signature)

Tom Wardamasky

Name (printed)

Air Matrix Codes

AI - INDOOR Ambient Air
AO- OUTDOOR Amb. Air
AE- Vapor Extraction Well/ Process Gas/Effluent
AS- SOIL Vapor/Sub-Slab

Additional Notes:

Please enter the following Field Data

Detection Limits Required

≤ 1 ug/m³ ____
NYSDEC VI Limits X
(VI =vapor instrusion)
NJDEP low level ____
Routine Survey ____
Other ____

Special Instructions

Sample Identification	Date Sampled	AIR Matrix	Canister Vacuum Before Sampling (in. Hg)	Canister Vacuum After Sampling (in. Hg)	Canister ID	Flow Cont.ID	ANALYSES REQUESTED	Sampling Media
815 / OA-1	4-20-17	AO	29.62	8.95	23941	3540	VOCs by EPA method TO-15	6 Liter canister X Tedlar Bag
816 / V2	4-20-17	AS	29.73	4.44	479	422		6 Liter canister X Tedlar Bag
817 / V3	4-20-17	AS	28.75	2.37	22078	423		6 Liter canister X Tedlar Bag
818 / Dup-1	4-20-17	AS	29.09	4.95	18310	3350		6 Liter canister X Tedlar Bag
819 / V5	4-20-17	AS	28.48	0.06	22081	7416		6 Liter canister X Tedlar Bag
								6 Liter canister ____ Tedlar Bag
								6 Liter canister ____ Tedlar Bag
								6 Liter canister ____ Tedlar Bag
								6 Liter canister ____ Tedlar Bag
								6 Liter canister ____ Tedlar Bag

Comments

Samples Relinquished By — Date/Time: 4-20-17 12:53

Samples Relinquished By — Date/Time: 4/20/17 5:53 pm

Samples Received By — Date/Time: 04/20/17 12:53

Samples Received in LAB by — Date/Time: 4-20-17 1753

York Analytical Laboratories, Inc.
SDG: 17D0833
CLASS: AIR
METHOD: EPA TO-15

DATA PACKAGE COVER PAGE

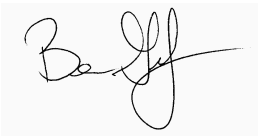
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Client Sample Id:	Lab Sample Id:
815/OA-1	17D0833-01
816/V2	17D0833-02
817/V3	17D0833-03
818/DUP-1	17D0833-04
819/V5	17D0833-05

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the project narrative. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the

Signature:  Name: Benjamin Gulizia

Date: 5/9/2017 Title: Laboratory Director

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7D2128	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Surrogate Compound	Spike Level ppbv	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (Y7D2128-CCV1)			Lab File ID: TQ202102.D		Analyzed: 04/20/17 09:55			
p-Bromofluorobenzene	10.0	101	70 - 130	21.364	21.364	0.0000	+/-1.00	
LCS (BD70982-BS1)			Lab File ID: TQ202103.D		Analyzed: 04/20/17 10:57			
p-Bromofluorobenzene	10.0	101	72 - 118	21.364	21.364	0.0000	+/-1.00	
Blank (BD70982-BLK1)			Lab File ID: TQ202104.D		Analyzed: 04/20/17 12:03			
p-Bromofluorobenzene	10.0	93.1	72 - 118	21.364	21.364	0.0000	+/-1.00	
815/OA-1 (17D0833-01)			Lab File ID: TQ202112.D		Analyzed: 04/20/17 21:19			
p-Bromofluorobenzene	10.0	93.8	72 - 118	21.364	21.364	0.0000	+/-1.00	
816/V2 (17D0833-02)			Lab File ID: TQ202113.D		Analyzed: 04/20/17 22:21			
p-Bromofluorobenzene	10.0	72.9	72 - 118	21.364	21.364	0.0000	+/-1.00	
817/V3 (17D0833-03)			Lab File ID: TQ202114.D		Analyzed: 04/20/17 23:22			
p-Bromofluorobenzene	10.0	76.6	72 - 118	21.364	21.364	0.0000	+/-1.00	
819/V5 (17D0833-05)			Lab File ID: TQ202116.D		Analyzed: 04/21/17 01:25			
p-Bromofluorobenzene	10.0	82.9	72 - 118	21.364	21.364	0.0000	+/-1.00	

FORM II **SURROGATE STANDARD RECOVERY AND RT SUMMARY**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7D2619	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Surrogate Compound	Spike Level ppbv	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Calibration Check (Y7D2619-CCV1)			Lab File ID: TQ202124.D		Analyzed: 04/21/17 16:08			
p-Bromofluorobenzene	10.0	81.2	70 - 130	21.364	21.364	0.0000	+/-1.00	
LCS (BD71102-BS1)			Lab File ID: TQ202125.D		Analyzed: 04/21/17 17:11			
p-Bromofluorobenzene	10.0	103	72 - 118	21.364	21.364	0.0000	+/-1.00	
Blank (BD71102-BLK1)			Lab File ID: TQ202126.D		Analyzed: 04/21/17 18:16			
p-Bromofluorobenzene	10.0	93.3	72 - 118	21.364	21.364	0.0000	+/-1.00	
818/DUP-1 (17D0833-04)			Lab File ID: TQ202127.D		Analyzed: 04/21/17 19:18			
p-Bromofluorobenzene	10.0	74.4	72 - 118	21.364	21.364	0.0000	+/-1.00	
Duplicate (BD71102-DUP1)			Lab File ID: TQ202128.D		Analyzed: 04/21/17 20:19			
p-Bromofluorobenzene	10.0	80.9	72 - 118	21.364	21.364	0.0000	+/-1.00	

DUPLICATES

818/DUP-1

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Matrix: Air
Laboratory ID: BD71102-DUP1
Batch: BD71102
Lab Source ID: 17D0833-04
Preparation: EPA TO15 PREP
Initial/Final: 400 mL / 400 mL
Source Sample Name: 818/DUP-1
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/m³)	C	DUPLICATE CONCENTRATION (ug/m³)	C	RPD %	Q	METHOD
1,1,1,2-Tetrachloroethane	25	ND		ND				EPA TO-15
1,1,1-Trichloroethane	25	ND		ND				EPA TO-15
1,1,2,2-Tetrachloroethane	25	ND		ND				EPA TO-15
1,1,2-Trichloro-1,2,2-trifluoroethane (F	25	ND		ND				EPA TO-15
1,1,2-Trichloroethane	25	ND		ND				EPA TO-15
1,1-Dichloroethane	25	ND		ND				EPA TO-15
1,1-Dichloroethylene	25	ND		ND				EPA TO-15
1,2,4-Trichlorobenzene	25	ND		ND				EPA TO-15
1,2,4-Trimethylbenzene	25	ND		ND				EPA TO-15
1,2-Dibromoethane	25	ND		ND				EPA TO-15
1,2-Dichlorobenzene	25	ND		ND				EPA TO-15
1,2-Dichloroethane	25	ND		ND				EPA TO-15
1,2-Dichloropropane	25	ND		ND				EPA TO-15
1,2-Dichlorotetrafluoroethane	25	ND		ND				EPA TO-15
1,3,5-Trimethylbenzene	25	ND		ND				EPA TO-15
1,3-Butadiene	25	ND		ND				EPA TO-15
1,3-Dichlorobenzene	25	ND		ND				EPA TO-15
1,3-Dichloropropane	25	ND		ND				EPA TO-15
1,4-Dichlorobenzene	25	ND		ND				EPA TO-15
1,4-Difluorobenzene		10.0		10				EPA TO-15
1,4-Dioxane	25	ND		ND				EPA TO-15
2-Butanone	25	79.0		81		2.18		EPA TO-15
2-Hexanone	25	ND		ND				EPA TO-15
3-Chloropropene	25	ND		ND				EPA TO-15
4-Methyl-2-pentanone	25	ND		ND				EPA TO-15
Acetone	25	344		350		1.49		EPA TO-15
Acrylonitrile	25	ND		ND				EPA TO-15
Benzene	25	6.92		6.9		0.00		EPA TO-15

DUPLICATES

818/DUP-1

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Matrix: Air
Laboratory ID: BD71102-DUP1
Batch: BD71102
Lab Source ID: 17D0833-04
Preparation: EPA TO15 PREP
Initial/Final: 400 mL / 400 mL
Source Sample Name: 818/DUP-1
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ug/m³)	C	DUPLICATE CONCENTRATION (ug/m³)	C	RPD %	Q	METHOD
Benzyl chloride	25	ND		ND				EPA TO-15
Bromochloromethane		10.0		10				EPA TO-15
Bromodichloromethane	25	ND		ND				EPA TO-15
Bromoform	25	ND		ND				EPA TO-15
Bromomethane	25	ND		ND				EPA TO-15
Carbon disulfide	25	55.2		59		6.45		EPA TO-15
Carbon tetrachloride	25	ND		ND				EPA TO-15
Chlorobenzene	25	ND		ND				EPA TO-15
Chloroethane	25	ND		ND				EPA TO-15
Chloroform	25	ND		ND				EPA TO-15
Chloromethane	25	5.69		11		63.4	*	EPA TO-15
cis-1,2-Dichloroethylene	25	ND		ND				EPA TO-15
cis-1,3-Dichloropropylene	25	ND		ND				EPA TO-15
Cyclohexane	25	ND		ND				EPA TO-15
d5-Chlorobenzene		10.0		10				EPA TO-15
Dibromochloromethane	25	ND		ND				EPA TO-15
Dichlorodifluoromethane	25	ND		ND				EPA TO-15
Ethyl acetate	25	ND		ND				EPA TO-15
Ethyl Benzene	25	ND		ND				EPA TO-15
Hexachlorobutadiene	25	ND		ND				EPA TO-15
Isopropanol	25	70.7		72		1.36		EPA TO-15
Methyl Methacrylate	25	ND		ND				EPA TO-15
Methyl tert-butyl ether (MTBE)	25	ND		ND				EPA TO-15
Methylene chloride	25	ND		ND				EPA TO-15
n-Heptane	25	ND		ND				EPA TO-15
n-Hexane	25	ND		ND				EPA TO-15
o-Xylene	25	ND		ND				EPA TO-15
p- & m- Xylenes	25	ND		ND				EPA TO-15

DUPLICATES

818/DUP-1

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Matrix: Air
Laboratory ID: BD71102-DUP1
Batch: BD71102
Lab Source ID: 17D0833-04
Preparation: EPA TO15 PREP
Initial/Final: 400 mL / 400 mL
Source Sample Name: 818/DUP-1
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (ppbv)	C	DUPLICATE CONCENTRATION (ppbv)	C	RPD %	Q	METHOD
p-Bromofluorobenzene		7.44		8.09				EPA TO-15
p-Ethyltoluene	25	ND		ND				EPA TO-15
Propylene	25	20.3		22		6.45		EPA TO-15
Styrene	25	ND		ND				EPA TO-15
Tetrachloroethylene	25	8.01		9.3		15.4		EPA TO-15
Tetrahydrofuran	25	30.8		31		1.87		EPA TO-15
Toluene	25	20.8		21		0.00		EPA TO-15
trans-1,2-Dichloroethylene	25	ND		ND				EPA TO-15
trans-1,3-Dichloropropylene	25	ND		ND				EPA TO-15
Trichloroethylene	25	ND		ND				EPA TO-15
Trichlorofluoromethane (Freon 11)	25	ND		ND				EPA TO-15
Vinyl acetate	25	ND		ND				EPA TO-15
Vinyl bromide	25	ND		ND				EPA TO-15
Vinyl Chloride	25	ND		ND				EPA TO-15

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202128.D
Acq On : 21 Apr 2017 8:19 pm
Sample : BD71102-DUP1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-DUP1
Misc : QBTO2042117A DUP 0833-04 10X
ALS Vial : 16 Sample Multiplier: 19.69

Quant Time: Apr 26 13:43:55 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

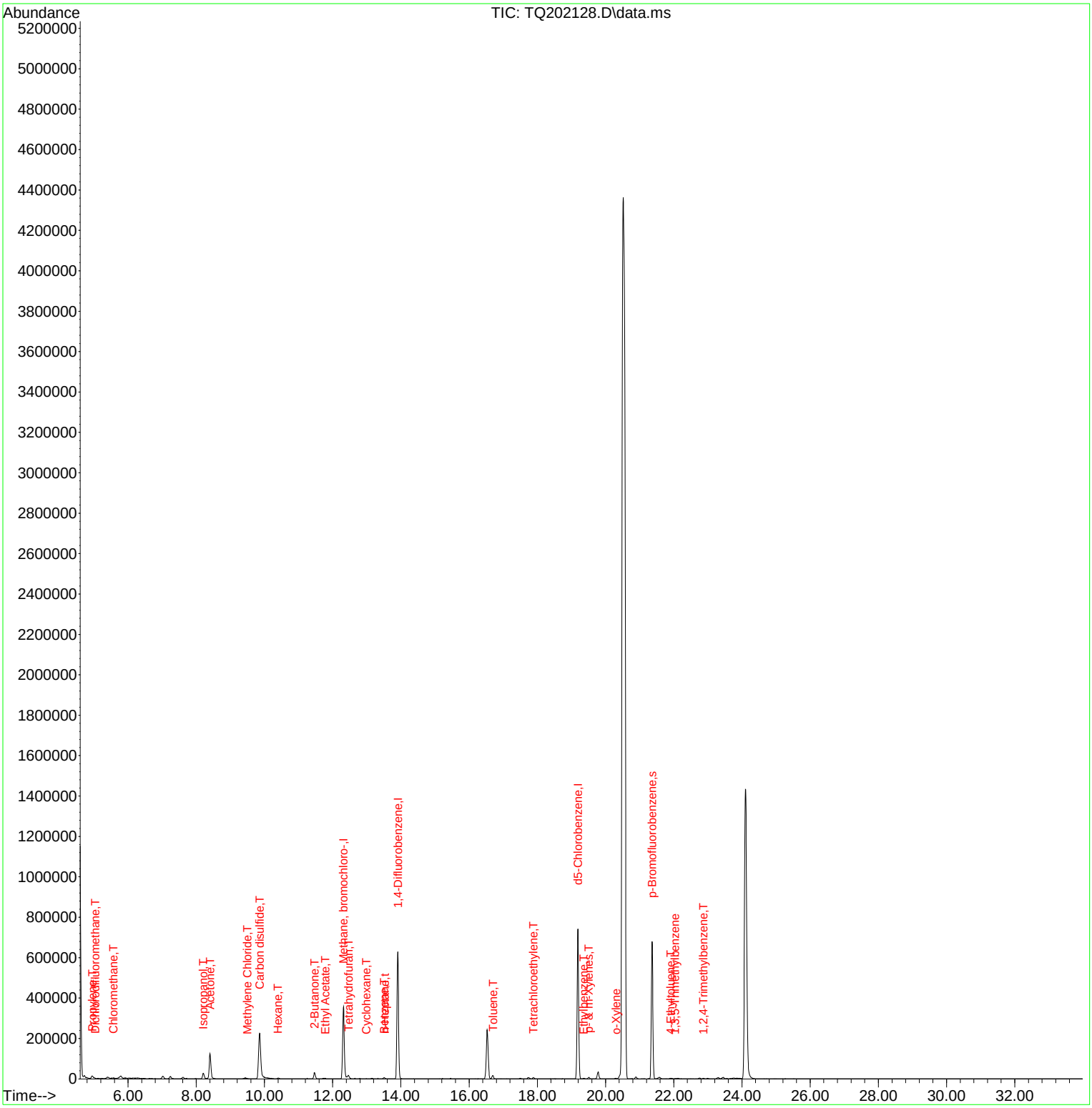
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.311	49	301566	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.908	114	942969	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.187	117	811072	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	448134	8.09	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 80.90%				
Target Compounds							Qvalue
2) Propylene	4.952	42	7277	0.64	ppbv		96
3) Dichlorodifluoromethane	5.032	85	1487	0.03	ppbv	#	50
5) Chloromethane	5.568	50	2954	0.27	ppbv		87
12) Isopropanol	8.202	45	60667	1.48	ppbv		100
14) Acetone	8.403	43	276344	7.46	ppbv		95
18) Methylene Chloride	9.494	49	1561	0.06	ppbv	#	91
20) Carbon disulfide	9.854	76	51541	0.96	ppbv	#	75
23) Hexane	10.390	57	3219	0.09	ppbv		96
26) 2-Butanone	11.469	43	67682	1.39	ppbv		98
27) Ethyl Acetate	11.780	43	4868	0.10	ppbv	#	28
30) Tetrahydrofuran	12.469	42	13959	0.54	ppbv		94
32) Cyclohexane	12.981	56	767	0.02	ppbv	#	23
35) Benzene	13.505	78	7513	0.11	ppbv	#	45
36) n-Heptane	13.530	43	1084	0.03	ppbv	#	94
45) Toluene	16.700	91	23206	0.28	ppbv		98
50) Tetrachloroethylene	17.883	166	3551	0.07	ppbv		96
56) Ethylbenzene	19.358	91	3410	0.04	ppbv		92
57) p- & m-Xylenes	19.504	91	7625	0.11	ppbv		98
58) o-Xylene	20.303	91	2644	0.03	ppbv		100
65) 4-Ethyltoluene	21.906	105	5903	0.06	ppbv	#	84
66) 1,3,5-Trimethylbenzene	22.034	105	2012	0.02	ppbv	#	88
68) 1,2,4-Trimethylbenzene	22.869	105	4232	0.05	ppbv	#	89

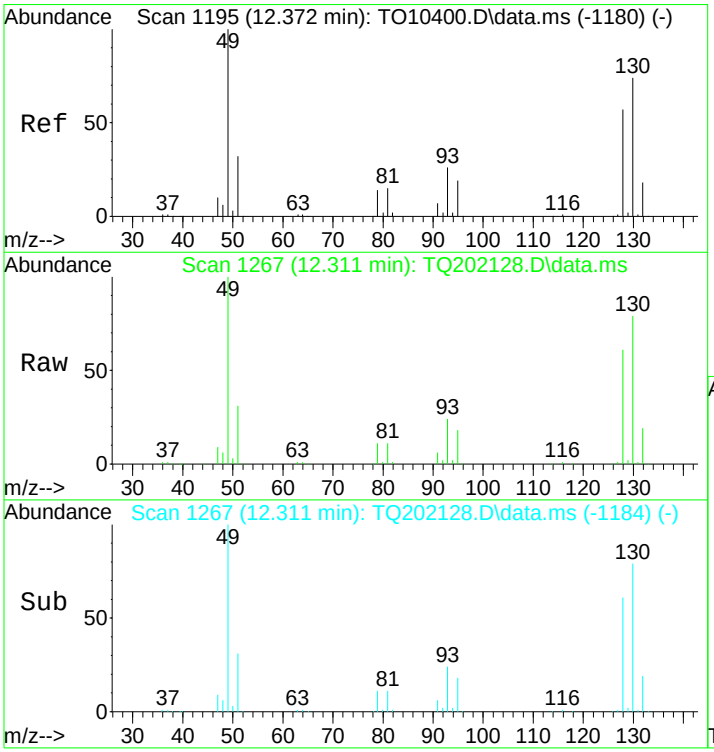
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202128.D
Acq On : 21 Apr 2017 8:19 pm
Sample : BD71102-DUP1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-DUP1
Misc : QBTO2042117A DUP 0833-04 10X
ALS Vial : 16 Sample Multiplier: 19.69

Quant Time: Apr 26 13:43:55 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

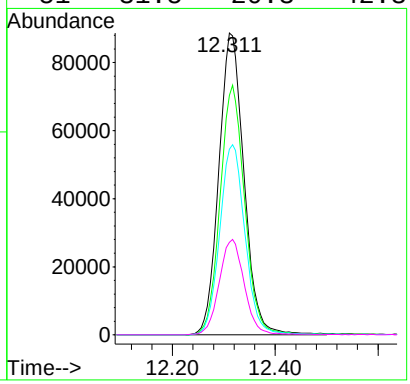


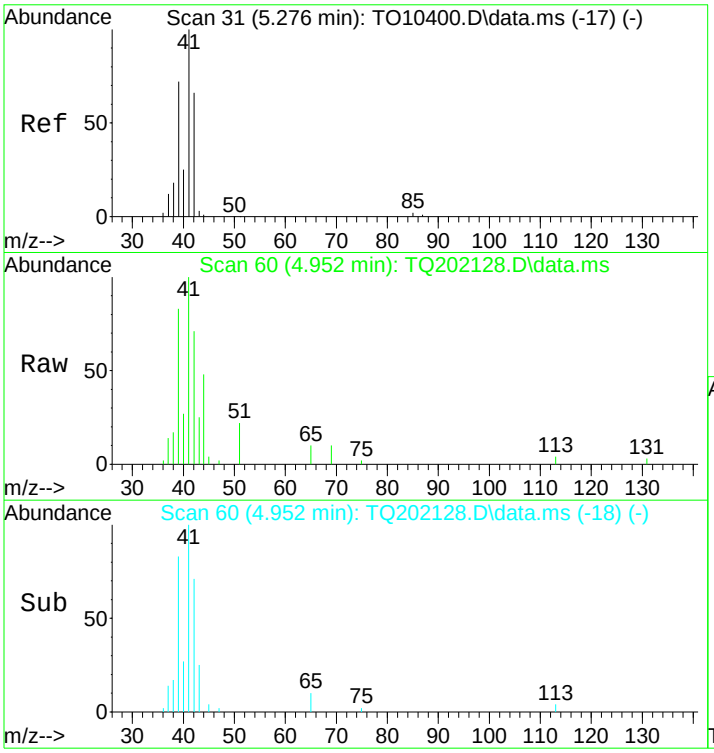


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.311 min Scan# 1267
Delta R.T. 0.007 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 49 Resp: 301566

Ion	Ratio	Lower	Upper
49	100		
130	80.8	48.1	99.9
128	63.3	38.3	79.5
51	31.5	20.3	42.3

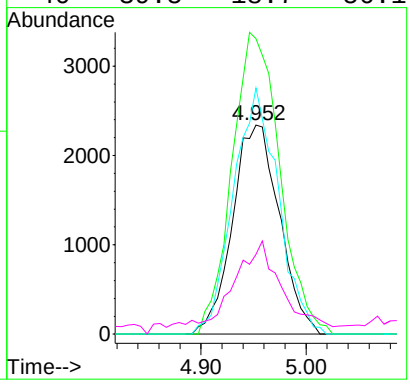


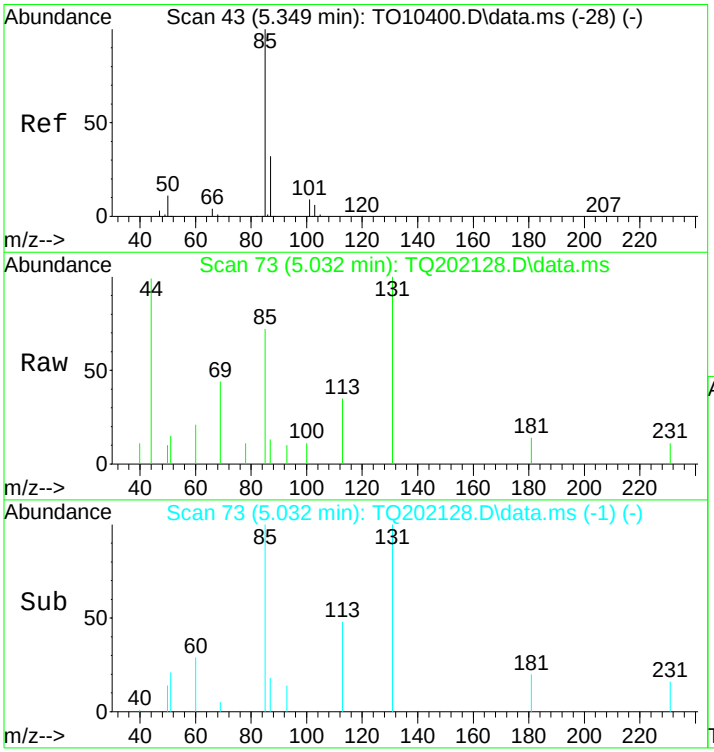


#2
Propylene
Concen: 0.64 ppbv
RT: 4.952 min Scan# 60
Delta R.T. 0.009 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 42 Resp: 7277

Ion	Ratio	Lower	Upper
42	100		
41	146.7	90.7	211.7
39	112.4	54.1	162.3
40	39.5	18.7	56.1

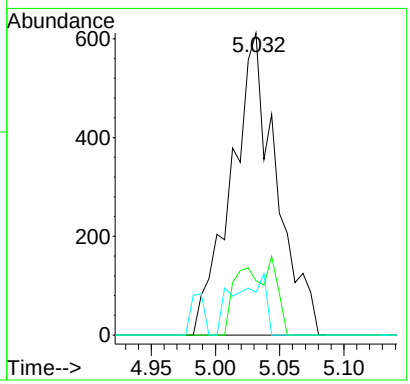


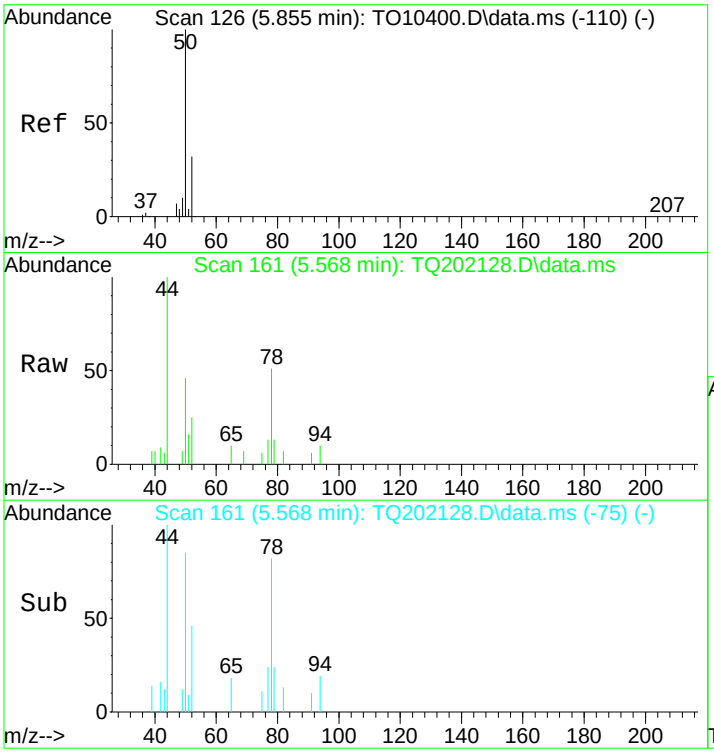


#3
Dichlorodifluoromethane
Concen: 0.03 ppbv
RT: 5.032 min Scan# 73
Delta R.T. 0.012 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 85 Resp: 1487

Ion	Ratio	Lower	Upper
85	100		
87	0.0	20.9	43.5#
50	0.0	7.2	15.0#

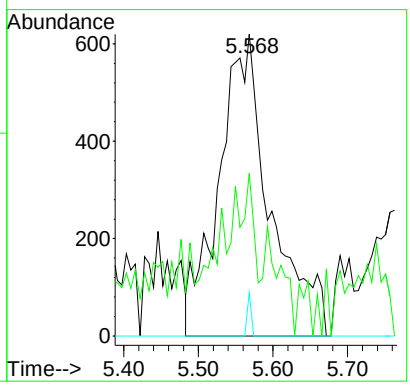


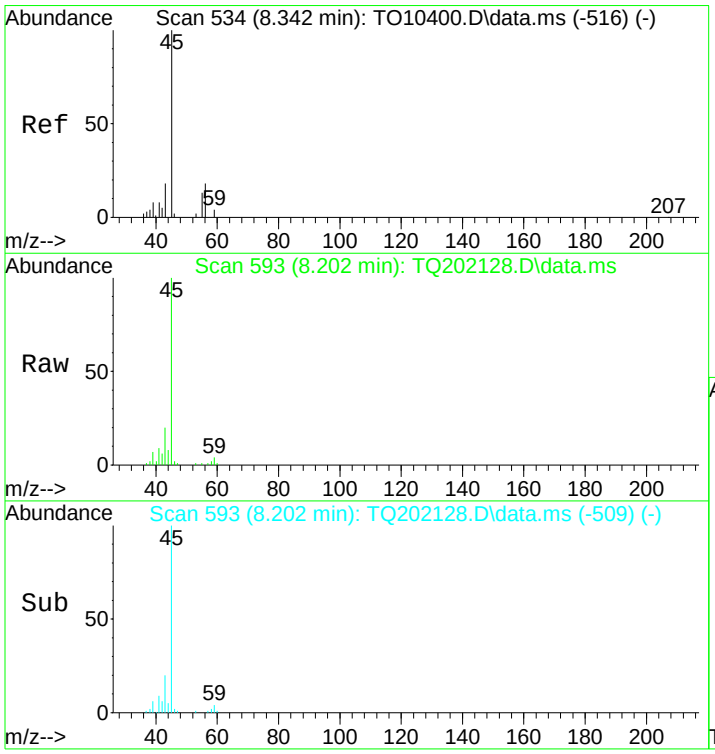


#5
Chloromethane
Concen: 0.27 ppbv
RT: 5.568 min Scan# 161
Delta R.T. 0.027 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 50 Resp: 2954

Ion	Ratio	Lower	Upper
50	100		
52	39.7	0.0	65.2
49	14.4	0.0	19.6

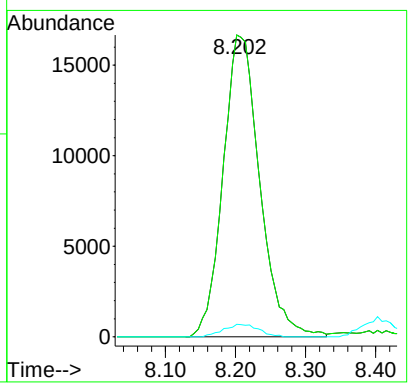


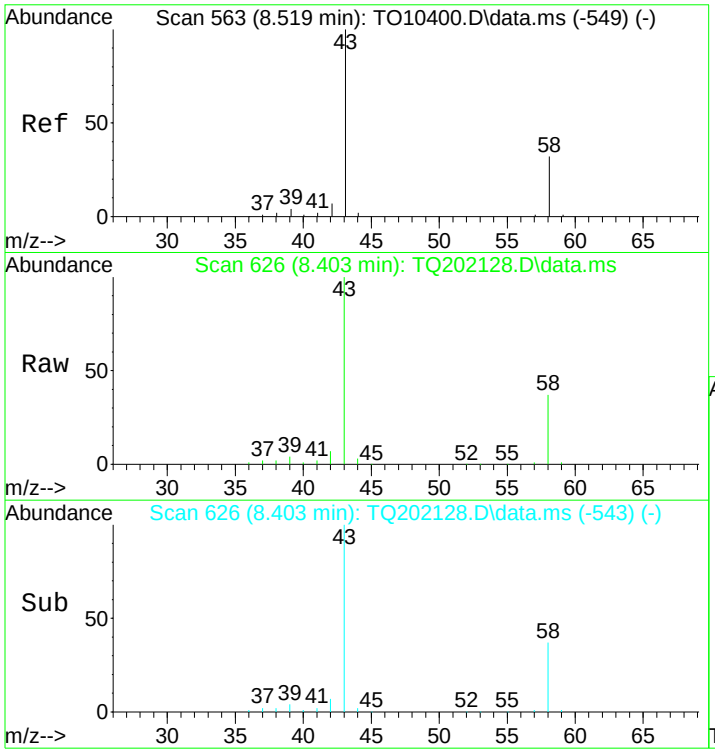


#12
Isopropanol
Concen: 1.48 ppbv
RT: 8.202 min Scan# 593
Delta R.T. 0.010 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 45 Resp: 60667

Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	4.0	0.0	10.0

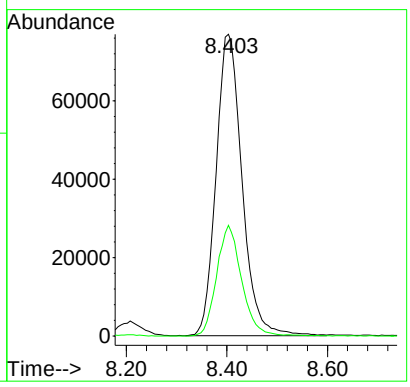


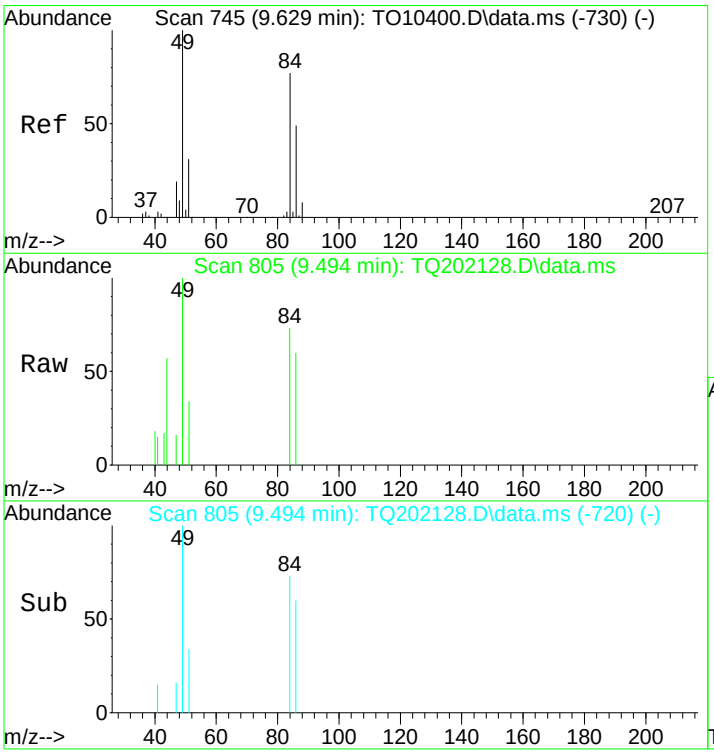


#14
Acetone
Concen: 7.46 ppbv
RT: 8.403 min Scan# 626
Delta R.T. 0.005 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 43 Resp: 276344

Ion	Ratio	Lower	Upper
43	100		
58	35.1	20.9	43.3

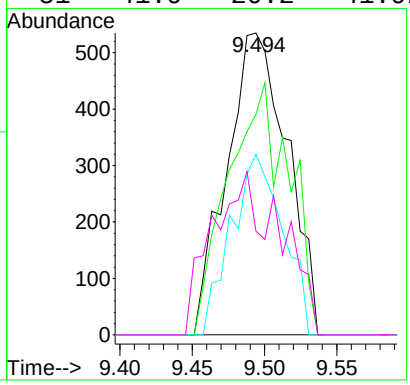


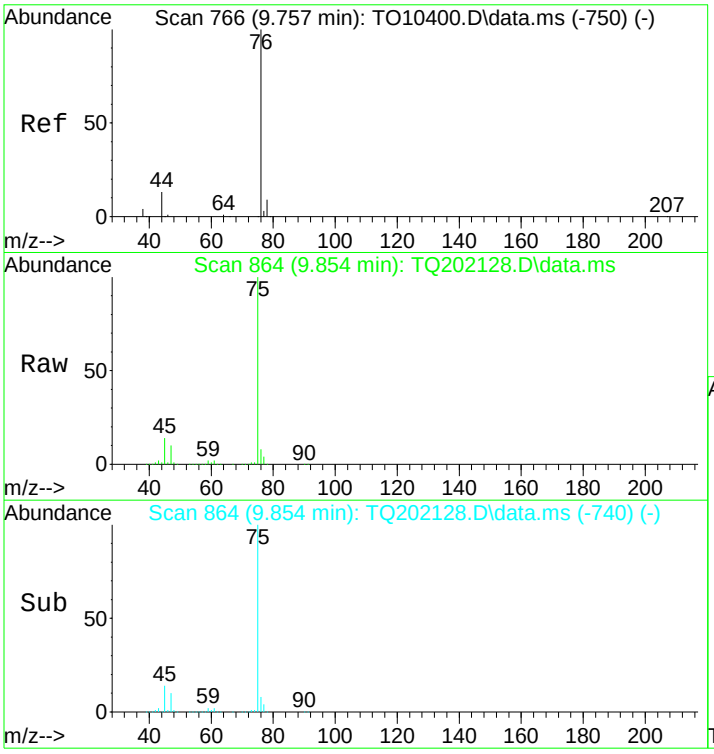


#18
Methylene Chloride
Concen: 0.06 ppbv
RT: 9.494 min Scan# 805
Delta R.T. 0.016 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 49 Resp: 1561

Ion	Ratio	Lower	Upper
49	100		
84	84.0	49.9	103.5
86	50.9	31.8	66.0
51	41.9	20.2	41.9#

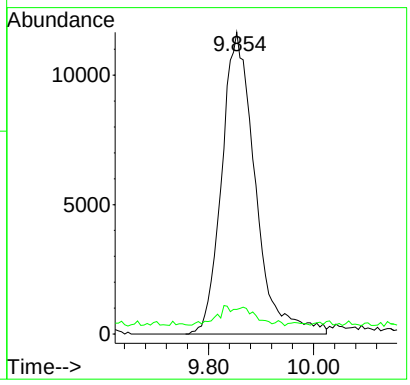


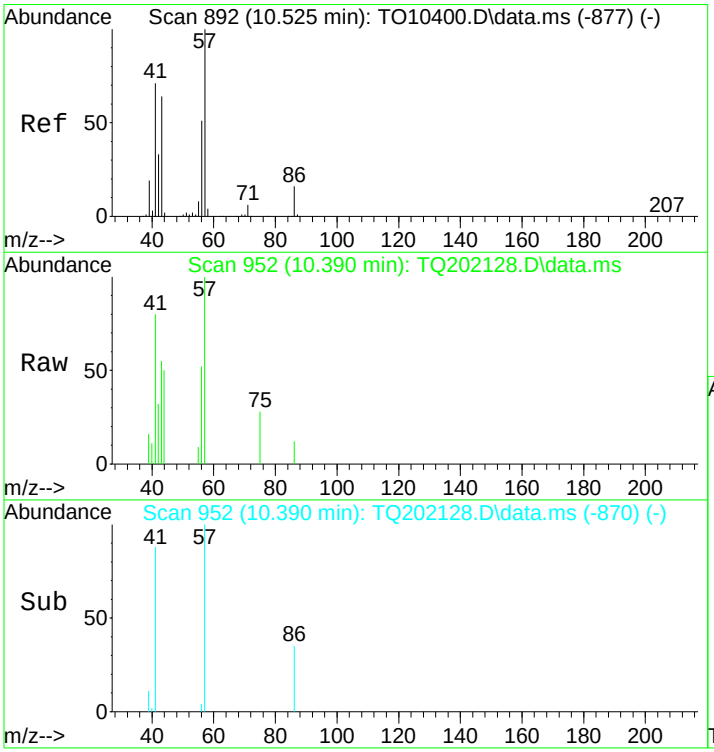


#20
Carbon disulfide
Concen: 0.96 ppbv
RT: 9.854 min Scan# 864
Delta R.T. 0.258 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 76 Resp: 51541

Ion	Ratio	Lower	Upper
76	100		
44	2.9	8.3	17.3#

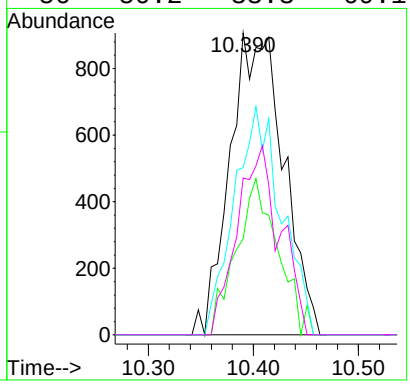


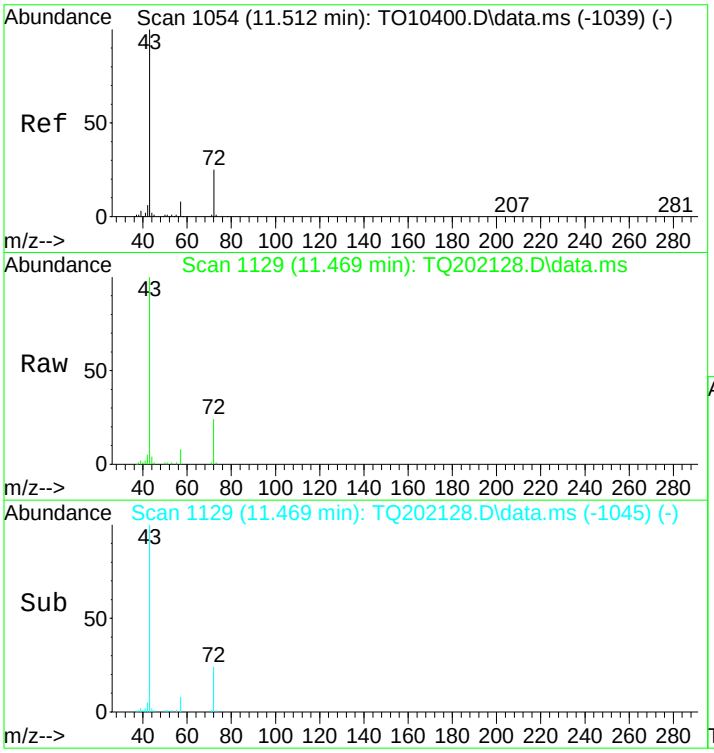


#23
Hexane
Concen: 0.09 ppbv
RT: 10.390 min Scan# 952
Delta R.T. -0.002 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 57 Resp: 3219

Ion	Ratio	Lower	Upper
57	100		
42	40.2	21.6	45.0
43	66.9	42.0	87.2
56	50.2	33.3	69.1

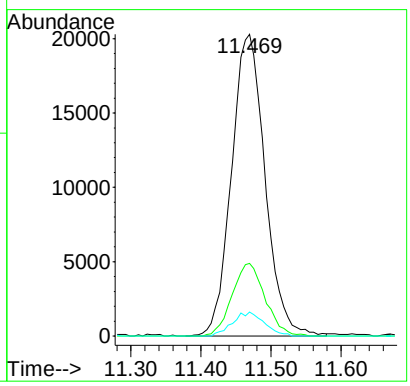


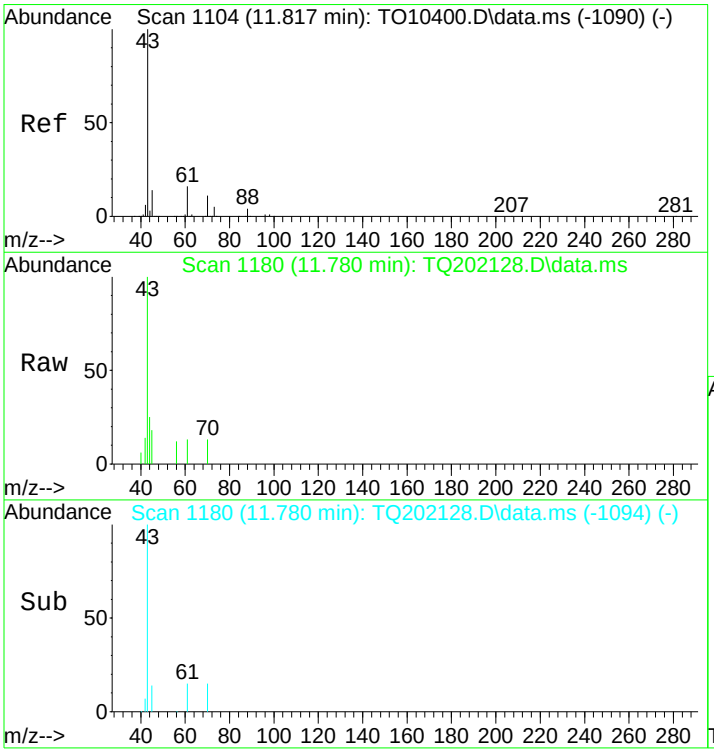


#26
2-Butanone
Concen: 1.39 ppbv
RT: 11.469 min Scan# 1129
Delta R.T. 0.015 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 43 Resp: 67682

Ion	Ratio	Lower	Upper
43	100		
72	23.7	16.1	33.5
57	7.6	4.9	10.3

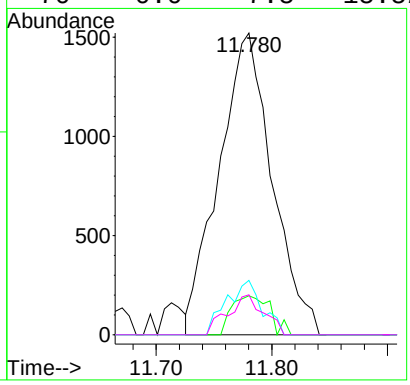


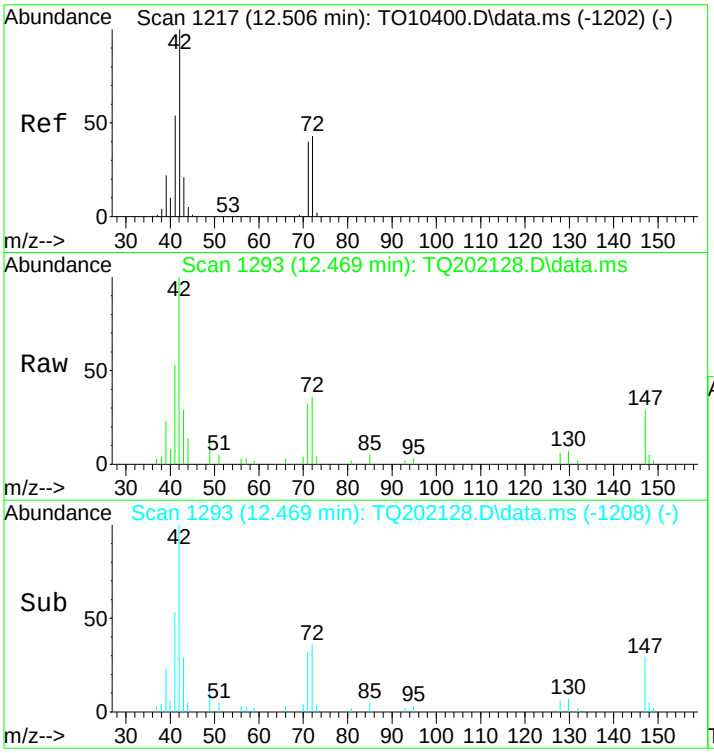


#27
Ethyl Acetate
Concen: 0.10 ppbv
RT: 11.780 min Scan# 1180
Delta R.T. 0.022 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 43 Resp: 4868

Ion	Ratio	Lower	Upper
43	100		
61	0.0	51.4	106.8#
45	12.1	9.4	19.6
70	0.0	7.5	15.5#

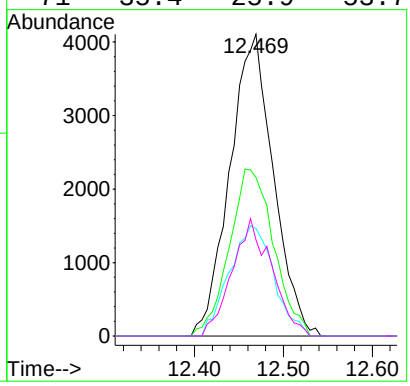


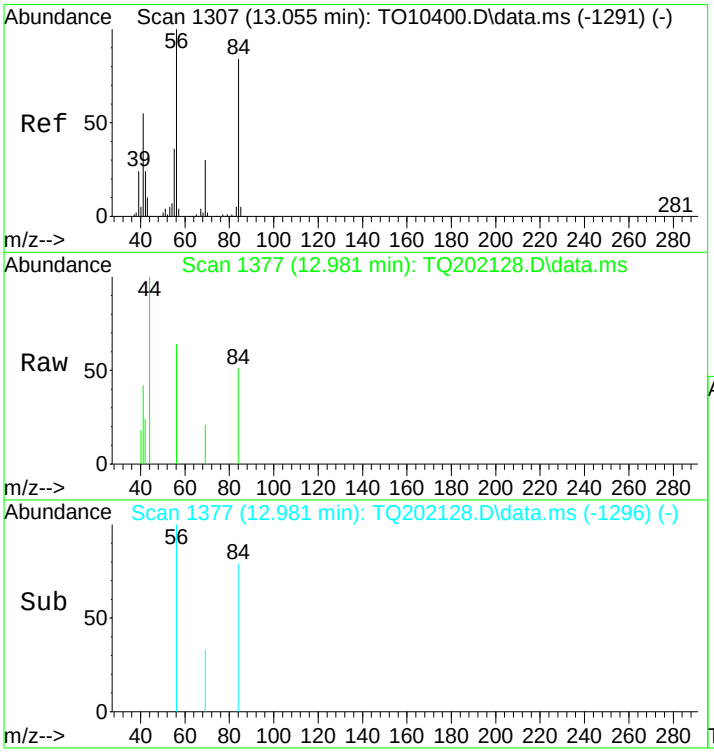


#30
Tetrahydrofuran
Concen: 0.54 ppbv
RT: 12.469 min Scan# 1293
Delta R.T. 0.020 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 42 Resp: 13959

Ion	Ratio	Lower	Upper
42	100		
41	56.3	35.2	73.0
72	37.3	27.2	56.6
71	35.4	25.9	53.7

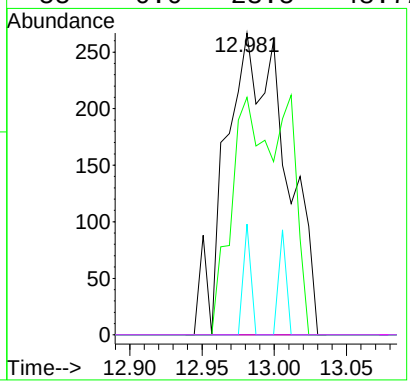


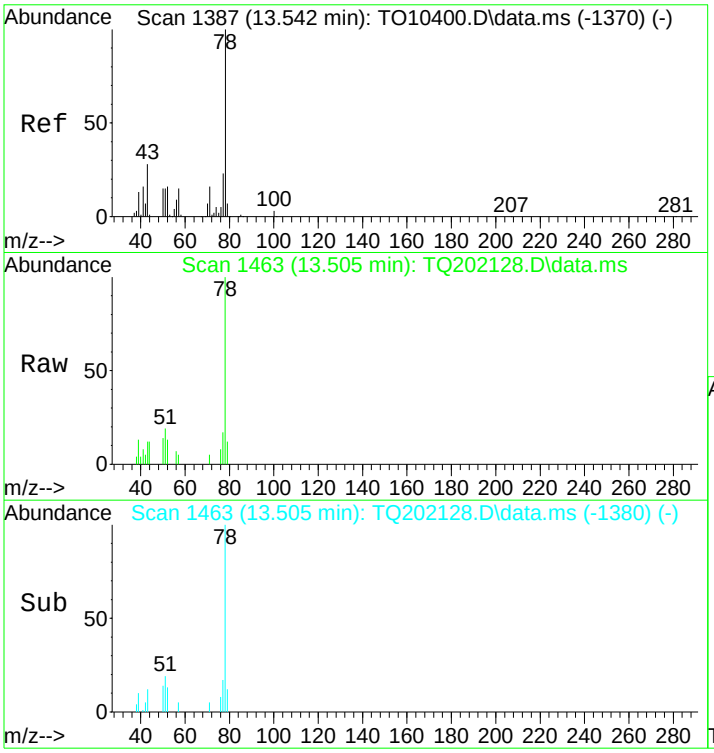


#32
Cyclohexane
Concen: 0.02 ppbv
RT: 12.981 min Scan# 1377
Delta R.T. -0.006 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 56 Resp: 767

Ion	Ratio	Lower	Upper
56	100		
84	0.0	54.1	112.3#
42	0.0	15.3	31.7#
55	0.0	23.5	48.7#

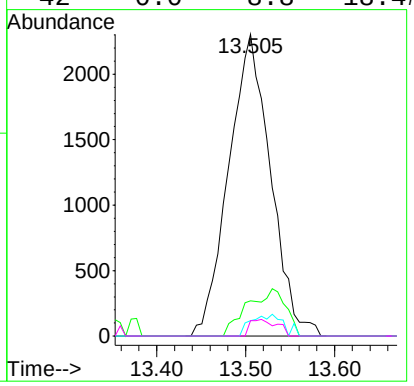


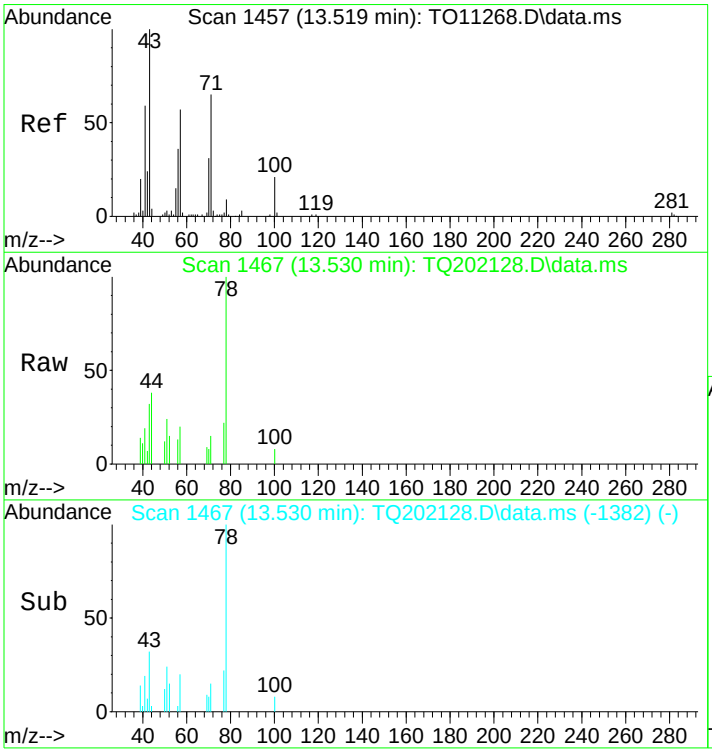


#35
Benzene
Concen: 0.11 ppbv
RT: 13.505 min Scan# 1463
Delta R.T. 0.008 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 78 Resp: 7513

Ion	Ratio	Lower	Upper
78	100		
43	14.4	37.5	77.9#
71	0.0	22.0	45.8#
42	0.0	8.8	18.4#

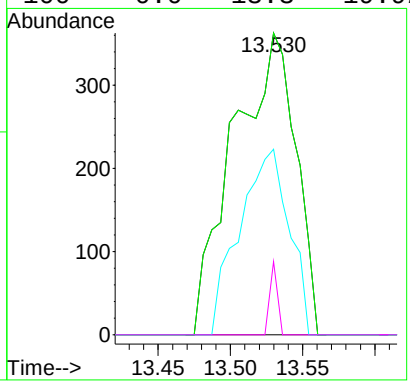


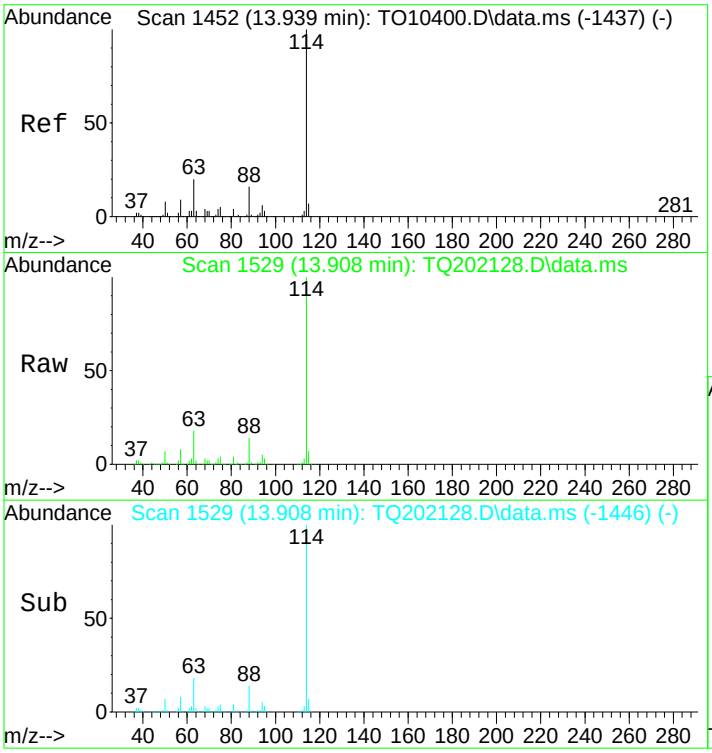


#36
n-Heptane
Concen: 0.03 ppbv
RT: 13.530 min Scan# 1467
Delta R.T. 0.015 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 43 Resp: 1084

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	49.2	42.6	64.0
100	0.0	13.3	19.9#

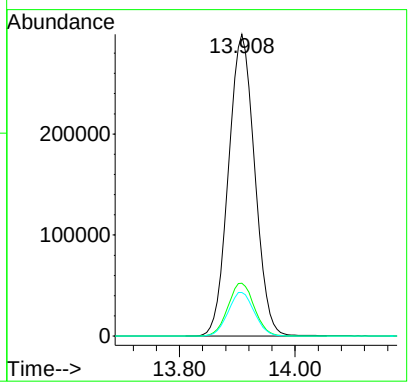


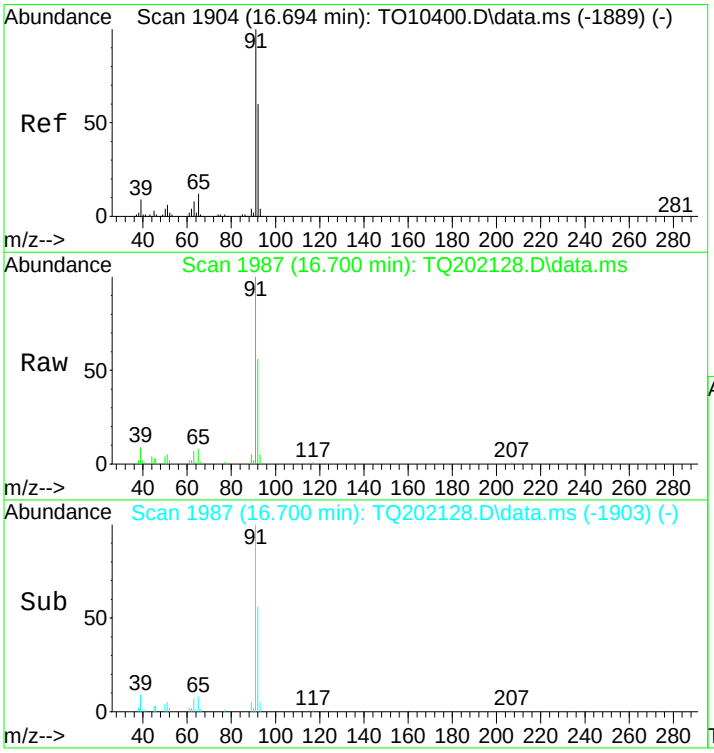


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.908 min Scan# 1529
Delta R.T. 0.005 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion:114 Resp: 942969

Ion	Ratio	Lower	Upper
114	100		
63	17.6	12.9	26.9
88	14.5	10.7	22.3

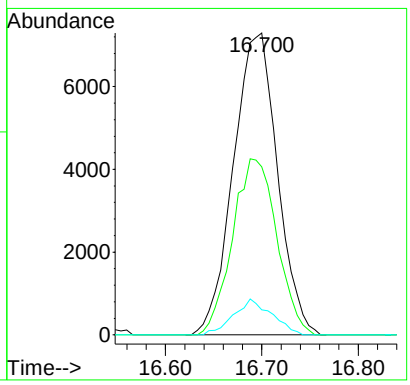


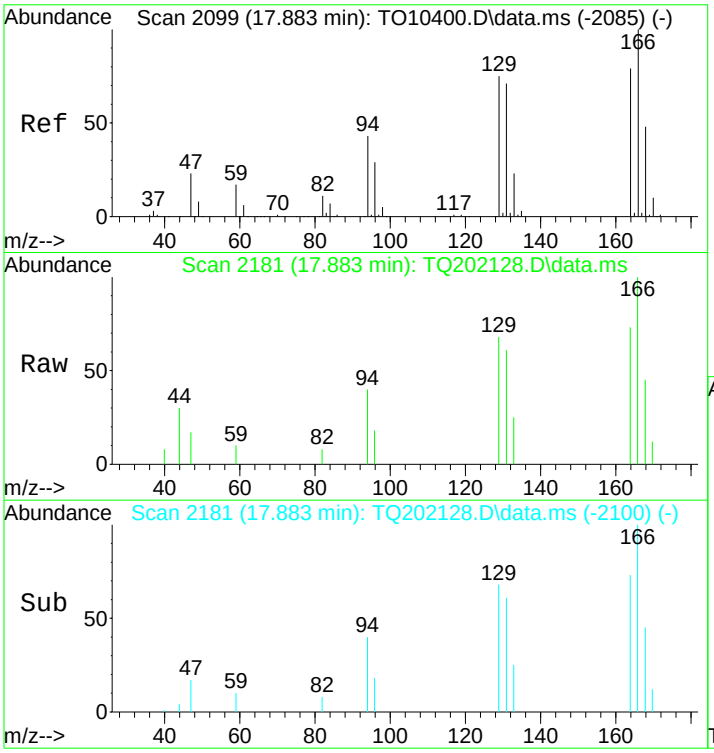


#45
Toluene
Concen: 0.28 ppbv
RT: 16.700 min Scan# 1987
Delta R.T. 0.012 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 91 Resp: 23206

Ion	Ratio	Lower	Upper
91	100		
92	58.5	38.7	80.3
65	10.3	7.5	15.5

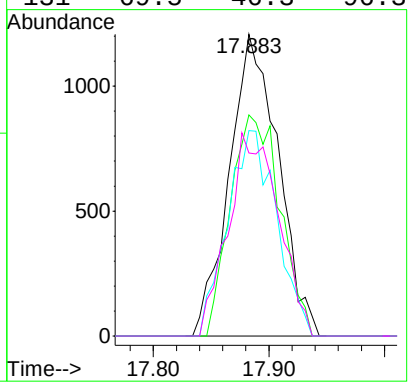


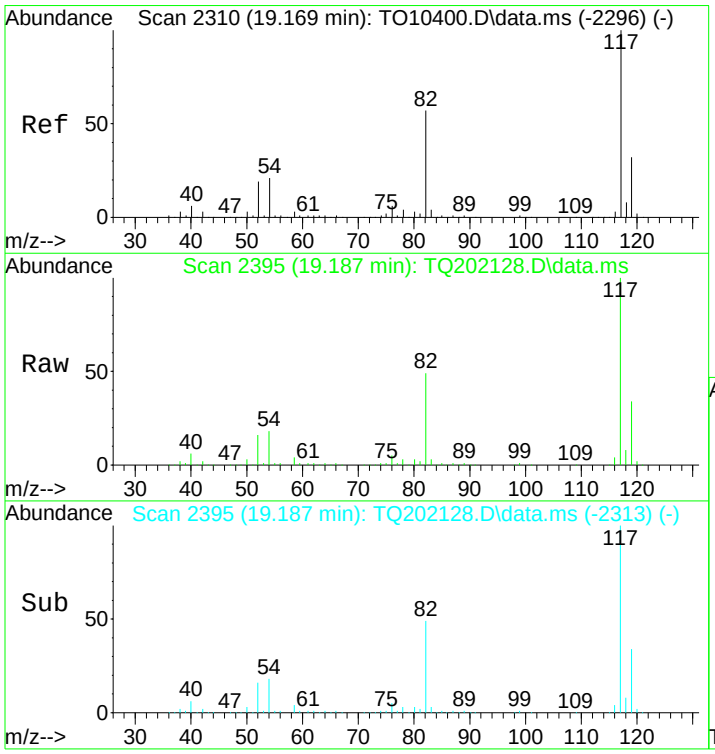


#50
Tetrachloroethylene
Concen: 0.07 ppbv
RT: 17.883 min Scan# 2181
Delta R.T. -0.004 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion:166 Resp: 3551

Ion	Ratio	Lower	Upper
166	100		
164	74.7	51.0	106.0
129	68.4	48.1	99.9
131	69.5	46.3	96.3

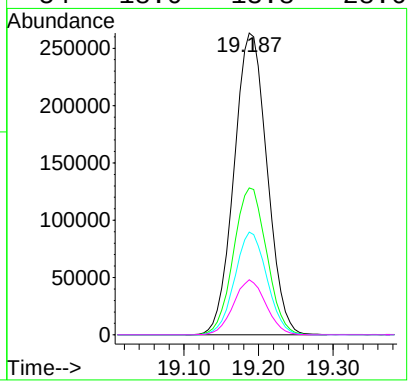


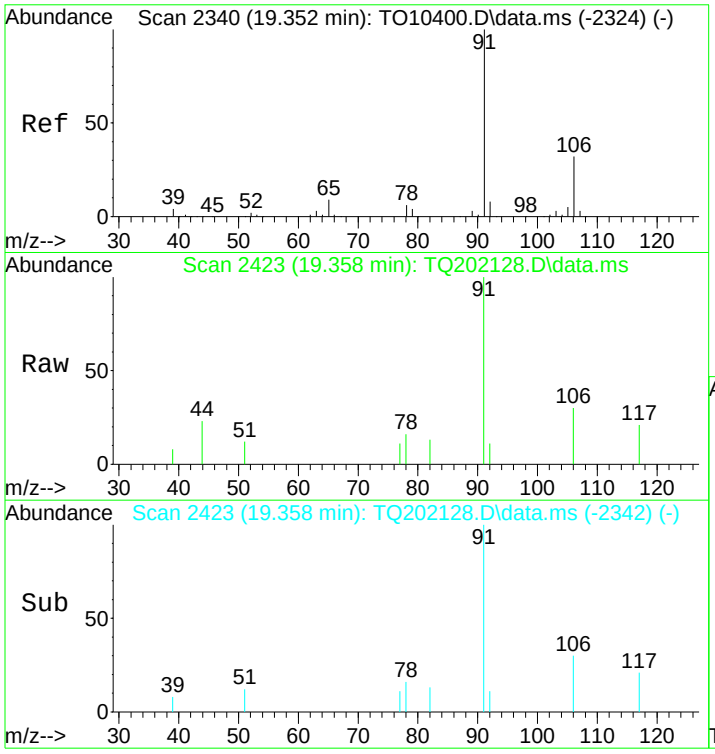


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.187 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion:117 Resp: 811072

Ion	Ratio	Lower	Upper
117	100		
82	48.9	37.1	77.1
119	33.2	22.1	45.9
54	18.0	13.8	28.6

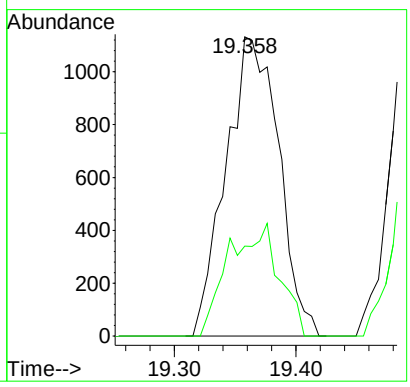


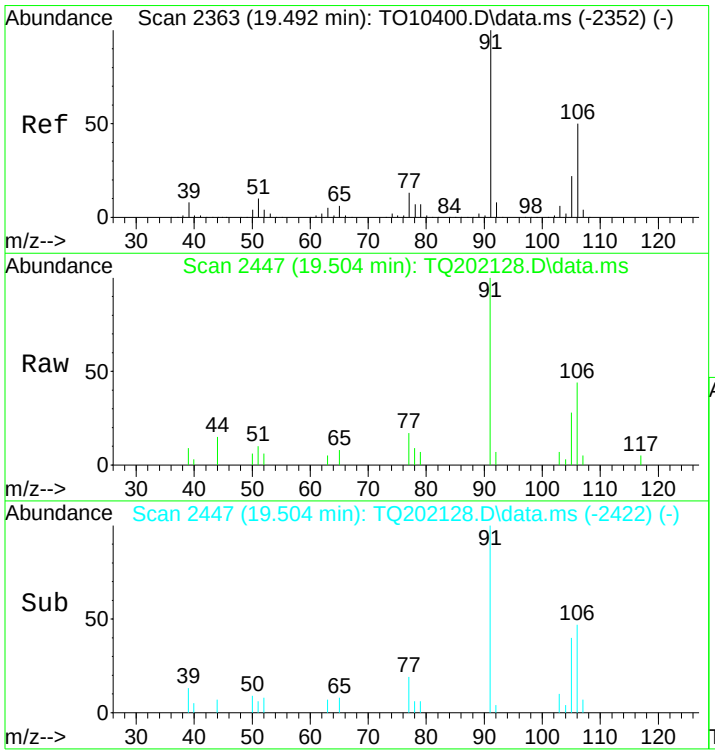


#56
Ethylbenzene
Concen: 0.04 ppbv
RT: 19.358 min Scan# 2423
Delta R.T. -0.003 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 91 Resp: 3410

Ion	Ratio	Lower	Upper
91	100		
106	36.0	20.5	42.7

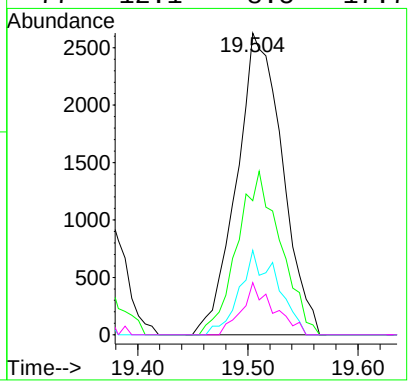


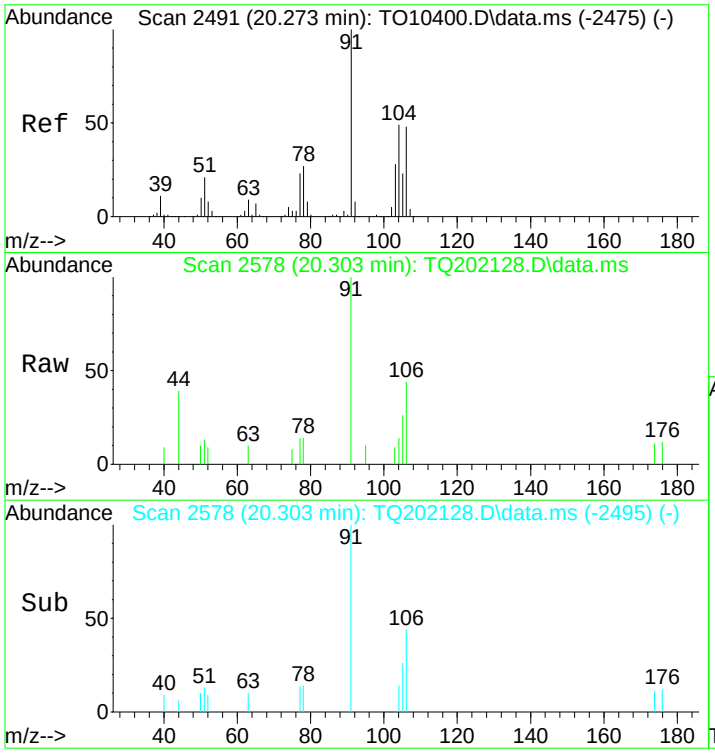


#57
p- & m-Xylenes
Concen: 0.11 ppbv
RT: 19.504 min Scan# 2447
Delta R.T. -0.005 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 91 Resp: 7625

Ion	Ratio	Lower	Upper
91	100		
106	51.4	32.6	67.8
105	23.1	14.5	30.1
77	12.1	8.5	17.7

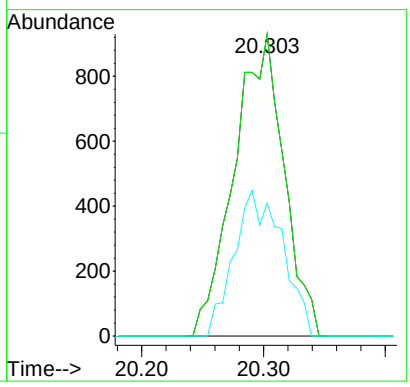


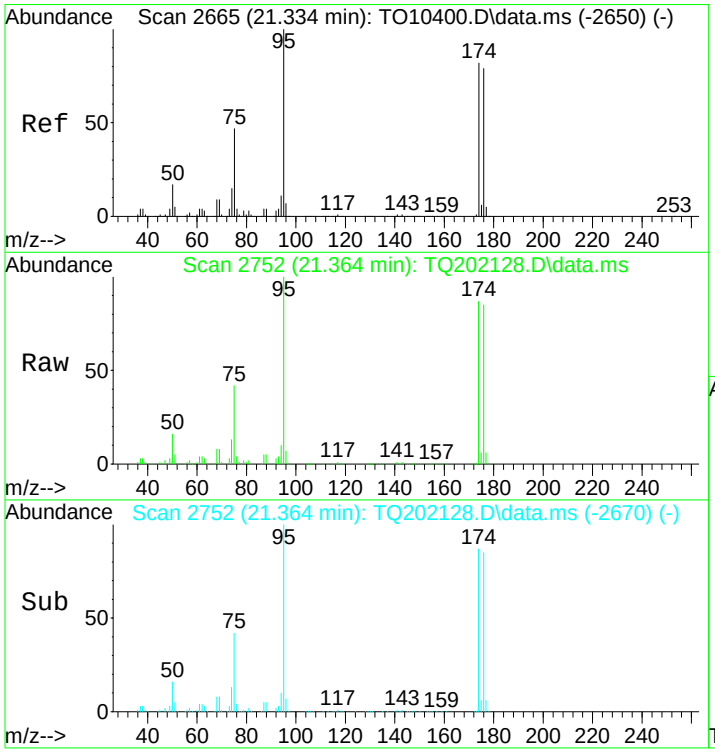


#58
o-Xylene
Concen: 0.03 ppbv
RT: 20.303 min Scan# 2578
Delta R.T. 0.008 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 91 Resp: 2644

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	46.7	38.2	57.2

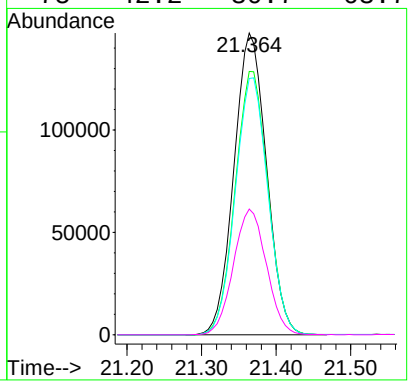


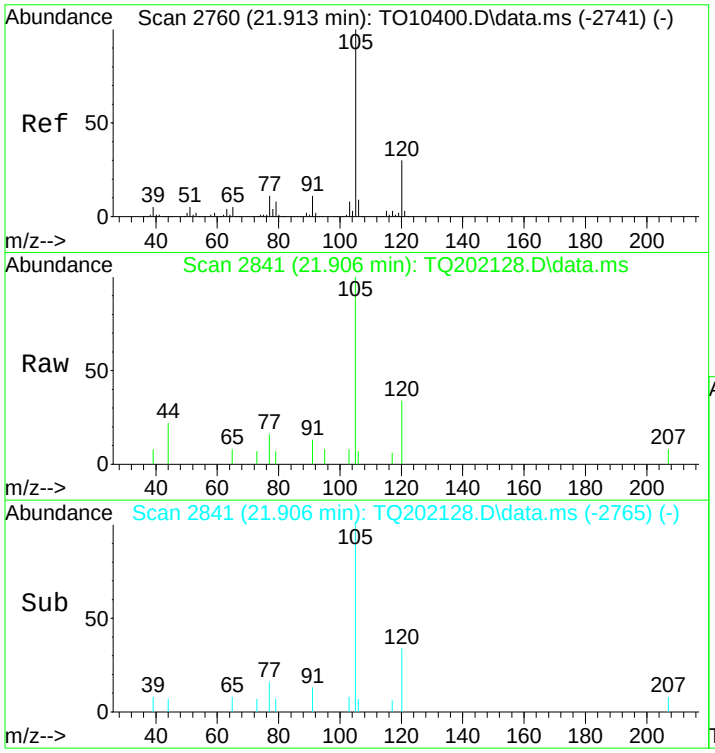


#64
p-Bromofluorobenzene
Concen: 8.09 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. -0.000 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion: 95 Resp: 448134

Ion	Ratio	Lower	Upper
95	100		
174	87.8	53.2	110.6
176	85.5	51.6	107.2
75	42.2	30.7	63.7

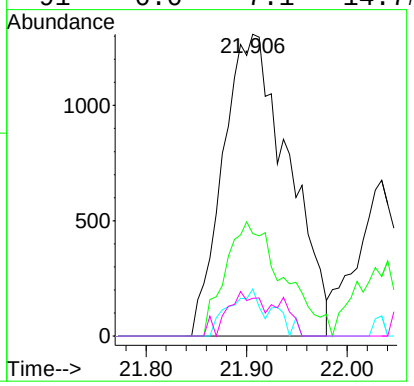


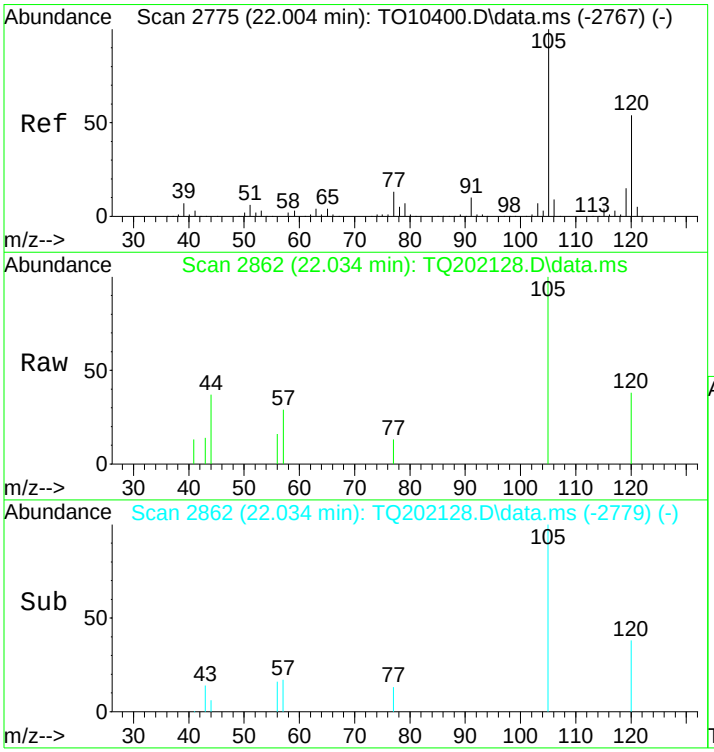


#65
4-Ethyltoluene
Concen: 0.06 ppbv
RT: 21.906 min Scan# 2841
Delta R.T. -0.037 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion:105 Resp: 5903

Ion	Ratio	Lower	Upper
105	100		
120	33.6	19.6	40.8
77	0.0	7.3	15.3#
91	0.0	7.1	14.7#

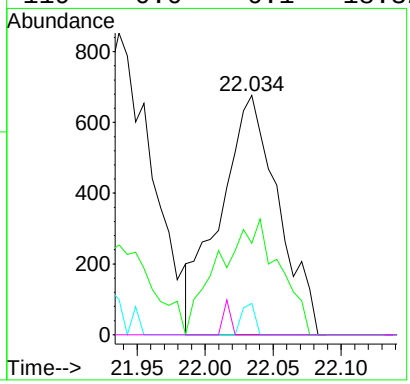


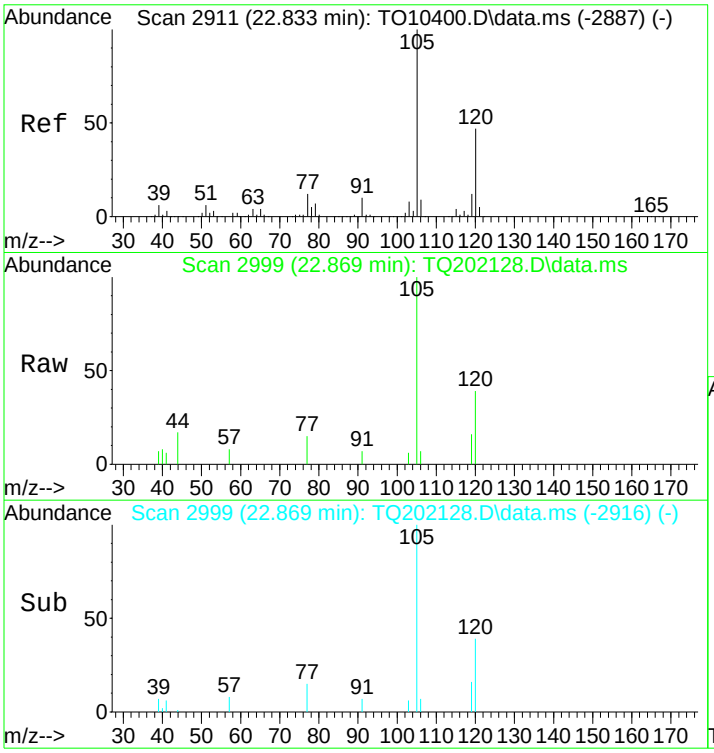


#66
1,3,5-Trimethylbenzene
Concen: 0.02 ppbv
RT: 22.034 min Scan# 2862
Delta R.T. 0.007 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion:105 Resp: 2012

Ion	Ratio	Lower	Upper
105	100		
120	49.9	39.2	58.8
77	0.0	10.1	15.1#
119	0.0	6.1	18.3#

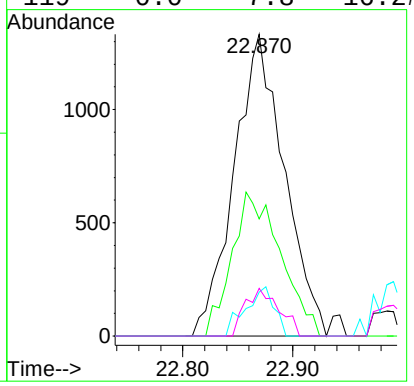




#68
1,2,4-Trimethylbenzene
Concen: 0.05 ppbv
RT: 22.869 min Scan# 2999
Delta R.T. 0.004 min
Lab File: TQ202128.D
Acq: 21 Apr 2017 8:19 pm

Tgt Ion:105 Resp: 4232

Ion	Ratio	Lower	Upper
105	100		
120	46.3	30.2	62.6
77	0.0	8.1	16.9#
119	0.0	7.8	16.2#



FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Matrix:	Air		
Batch:	BD70982	Laboratory ID:	BD70982-BS1
Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	10.0	10.6	106	70 - 130
1,1,1-Trichloroethane	10.0	10.6	106	70 - 130
1,1,2,2-Tetrachloroethane	10.0	10.9	109	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	11.0	110	70 - 130
1,1,2-Trichloroethane	10.0	10.2	102	70 - 130
1,1-Dichloroethane	10.0	10.4	104	70 - 130
1,1-Dichloroethylene	10.0	10.2	102	70 - 130
1,2,4-Trichlorobenzene	10.0	9.92	99.2	70 - 130
1,2,4-Trimethylbenzene	10.0	10.6	106	70 - 130
1,2-Dibromoethane	10.0	10.3	103	70 - 130
1,2-Dichlorobenzene	10.0	10.4	104	70 - 130
1,2-Dichloroethane	10.0	10.1	101	70 - 130
1,2-Dichloropropane	10.0	10.0	100	70 - 130
1,2-Dichlorotetrafluoroethane	10.0	12.3	123	70 - 130
1,3,5-Trimethylbenzene	10.0	10.5	105	70 - 130
1,3-Butadiene	10.0	11.5	115	70 - 130
1,3-Dichlorobenzene	10.0	10.2	102	70 - 130
1,3-Dichloropropane	10.0	10.0	100	70 - 130
1,4-Dichlorobenzene	10.0	9.97	99.7	70 - 130
1,4-Dioxane	10.0	8.40	84.0	70 - 130
2-Butanone	10.0	9.50	95.0	70 - 130
2-Hexanone	10.0	8.67	86.7	70 - 130
3-Chloropropene	10.0	10.5	105	70 - 130
4-Methyl-2-pentanone	10.0	9.44	94.4	70 - 130
Acetone	10.0	8.56	85.6	70 - 130
Acrylonitrile	10.0	10.9	109	70 - 130
Benzene	10.0	10.1	101	70 - 130
Benzyl chloride	10.0	10.6	106	70 - 130
Bromodichloromethane	10.0	10.3	103	70 - 130
Bromoform	10.0	11.0	110	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Air

Batch: BD70982 Laboratory ID: BD70982-BS1

Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
Bromomethane	10.0	10.7	107	70 - 130
Carbon disulfide	10.0	11.3	113	70 - 130
Carbon tetrachloride	10.0	10.8	108	70 - 130
Chlorobenzene	10.0	10.4	104	70 - 130
Chloroethane	10.0	11.2	112	70 - 130
Chloroform	10.0	10.4	104	70 - 130
Chloromethane	10.0	11.2	112	70 - 130
cis-1,2-Dichloroethylene	10.0	11.0	110	70 - 130
cis-1,3-Dichloropropylene	10.0	11.4	114	70 - 130
Cyclohexane	10.0	10.2	102	70 - 130
Dibromochloromethane	10.0	10.3	103	70 - 130
Dichlorodifluoromethane	10.0	11.6	116	70 - 130
Ethyl acetate	10.0	10.6	106	70 - 130
Ethyl Benzene	10.0	10.5	105	70 - 130
Hexachlorobutadiene	10.0	10.9	109	70 - 130
Isopropanol	10.0	11.0	110	70 - 130
Methyl Methacrylate	10.0	10.3	103	70 - 130
Methyl tert-butyl ether (MTBE)	10.0	10.0	100	70 - 130
Methylene chloride	10.0	10.2	102	70 - 130
n-Heptane	10.0	10.1	101	70 - 130
n-Hexane	10.0	10.5	105	70 - 130
o-Xylene	10.0	10.5	105	70 - 130
p- & m- Xylenes	20.0	20.9	105	70 - 130
p-Ethyltoluene	10.0	11.3	113	70 - 130
Propylene	10.0	11.3	113	70 - 130
Styrene	10.0	10.6	106	70 - 130
Tetrachloroethylene	10.0	7.99	79.9	70 - 130
Tetrahydrofuran	10.0	9.98	99.8	70 - 130
Toluene	10.0	9.99	99.9	70 - 130
trans-1,2-Dichloroethylene	10.0	10.8	108	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Matrix:	Air		
Batch:	BD70982	Laboratory ID:	BD70982-BS1
Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
trans-1,3-Dichloropropylene	10.0	11.4	114	70 - 130
Trichloroethylene	10.0	10.4	104	70 - 130
Trichlorofluoromethane (Freon 11)	10.0	11.0	110	70 - 130
Vinyl acetate	10.0	12.1	121	70 - 130
Vinyl bromide	10.0	11.6	116	70 - 130
Vinyl Chloride	10.0	11.7	117	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Matrix:	Air		
Batch:	BD71102	Laboratory ID:	BD71102-BS1
Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	10.0	11.1	111	70 - 130
1,1,1-Trichloroethane	10.0	10.6	106	70 - 130
1,1,2,2-Tetrachloroethane	10.0	11.7	117	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	10.8	108	70 - 130
1,1,2-Trichloroethane	10.0	10.7	107	70 - 130
1,1-Dichloroethane	10.0	10.4	104	70 - 130
1,1-Dichloroethylene	10.0	10.2	102	70 - 130
1,2,4-Trichlorobenzene	10.0	10.7	107	70 - 130
1,2,4-Trimethylbenzene	10.0	11.5	115	70 - 130
1,2-Dibromoethane	10.0	10.8	108	70 - 130
1,2-Dichlorobenzene	10.0	11.2	112	70 - 130
1,2-Dichloroethane	10.0	10.2	102	70 - 130
1,2-Dichloropropane	10.0	10.6	106	70 - 130
1,2-Dichlorotetrafluoroethane	10.0	13.3	133 *	70 - 130
1,3,5-Trimethylbenzene	10.0	11.3	113	70 - 130
1,3-Butadiene	10.0	12.6	126	70 - 130
1,3-Dichlorobenzene	10.0	10.8	108	70 - 130
1,3-Dichloropropane	10.0	10.5	105	70 - 130
1,4-Dichlorobenzene	10.0	10.6	106	70 - 130
1,4-Dioxane	10.0	8.78	87.8	70 - 130
2-Butanone	10.0	9.79	97.9	70 - 130
2-Hexanone	10.0	9.77	97.7	70 - 130
3-Chloropropene	10.0	10.4	104	70 - 130
4-Methyl-2-pentanone	10.0	10.4	104	70 - 130
Acetone	10.0	8.84	88.4	70 - 130
Acrylonitrile	10.0	10.9	109	70 - 130
Benzene	10.0	9.93	99.3	70 - 130
Benzyl chloride	10.0	11.5	115	70 - 130
Bromodichloromethane	10.0	11.0	110	70 - 130
Bromoform	10.0	11.6	116	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Matrix:	Air		
Batch:	BD71102	Laboratory ID:	BD71102-BS1
Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
Bromomethane	10.0	10.6	106	70 - 130
Carbon disulfide	10.0	11.3	113	70 - 130
Carbon tetrachloride	10.0	10.8	108	70 - 130
Chlorobenzene	10.0	10.9	109	70 - 130
Chloroethane	10.0	11.1	111	70 - 130
Chloroform	10.0	10.4	104	70 - 130
Chloromethane	10.0	11.8	118	70 - 130
cis-1,2-Dichloroethylene	10.0	10.8	108	70 - 130
cis-1,3-Dichloropropylene	10.0	12.1	121	70 - 130
Cyclohexane	10.0	10.0	100	70 - 130
Dibromochloromethane	10.0	10.9	109	70 - 130
Dichlorodifluoromethane	10.0	12.6	126	70 - 130
Ethyl acetate	10.0	10.9	109	70 - 130
Ethyl Benzene	10.0	11.1	111	70 - 130
Hexachlorobutadiene	10.0	11.7	117	70 - 130
Isopropanol	10.0	11.3	113	70 - 130
Methyl Methacrylate	10.0	10.8	108	70 - 130
Methyl tert-butyl ether (MTBE)	10.0	9.88	98.8	70 - 130
Methylene chloride	10.0	10.3	103	70 - 130
n-Heptane	10.0	10.4	104	70 - 130
n-Hexane	10.0	10.2	102	70 - 130
o-Xylene	10.0	11.3	113	70 - 130
p- & m- Xylenes	20.0	22.5	113	70 - 130
p-Ethyltoluene	10.0	12.0	120	70 - 130
Propylene	10.0	12.4	124	70 - 130
Styrene	10.0	11.3	113	70 - 130
Tetrachloroethylene	10.0	8.07	80.7	70 - 130
Tetrahydrofuran	10.0	10.2	102	70 - 130
Toluene	10.0	10.4	104	70 - 130
trans-1,2-Dichloroethylene	10.0	10.6	106	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Matrix: Air
Batch: BD71102
Laboratory ID: BD71102-BS1
Preparation: EPA TO15 PREP
Initial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
trans-1,3-Dichloropropylene	10.0	12.1	121	70 - 130
Trichloroethylene	10.0	10.7	107	70 - 130
Trichlorofluoromethane (Freon 11)	10.0	11.2	112	70 - 130
Vinyl acetate	10.0	12.6	126	70 - 130
Vinyl bromide	10.0	11.2	112	70 - 130
Vinyl Chloride	10.0	12.5	125	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM IV **PREPARATION BATCH SUMMARY**

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Batch: BD70982 Batch Matrix: Air Preparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
815/OA-1	17D0833-01	TQ202112.D	04/20/17 16:45	
816/V2	17D0833-02	TQ202113.D	04/20/17 16:45	
817/V3	17D0833-03	TQ202114.D	04/20/17 16:45	
819/V5	17D0833-05	TQ202116.D	04/20/17 16:45	
Blank	BD70982-BLK1	TQ202104.D	04/20/17 12:03	
LCS	BD70982-BS1	TQ202103.D	04/20/17 10:57	

FORM IV **PREPARATION BATCH SUMMARY**

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Batch: BD71102 Batch Matrix: Air Preparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
818/DUP-1	17D0833-04	TQ202127.D	04/21/17 19:18	From BD70982 by LDS on 04/24/2017
Blank	BD71102-BLK1	TQ202126.D	04/21/17 18:16	
LCS	BD71102-BS1	TQ202125.D	04/21/17 17:11	
818/DUP-1	BD71102-DUP1	TQ202128.D	04/21/17 20:19	

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD70982-BLK1	File ID:	TQ202104.D
Prepared:	04/20/17 12:03	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/20/17 12:03	Instrument:	TO15_AIR2		
Batch:	BD70982	Sequence:	Y7D2128	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.40	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD70982-BLK1	File ID:	TQ202104.D
Prepared:	04/20/17 12:03	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/20/17 12:03	Instrument:	TO15_AIR2		
Batch:	BD70982	Sequence:	Y7D2128	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.40	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.17	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD70982-BLK1	File ID:	TQ202104.D
Prepared:	04/20/17 12:03	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/20/17 12:03	Instrument:	TO15_AIR2		
Batch:	BD70982	Sequence:	Y7D2128	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.26	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	9.31	93.1	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	1356329	13.902	999125	13.908	
Bromochloromethane	410600	12.311	304065	12.317	
d5-Chlorobenzene	1187211	19.188	880527	19.188	

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD71102-BLK1	File ID:	TQ202126.D
Prepared:	04/21/17 18:16	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/21/17 18:16	Instrument:	TO15_AIR2		
Batch:	BD71102	Sequence:	Y7D2619	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.40	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD71102-BLK1	File ID:	TQ202126.D
Prepared:	04/21/17 18:16	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/21/17 18:16	Instrument:	TO15_AIR2		
Batch:	BD71102	Sequence:	Y7D2619	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.40	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.17	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD71102-BLK1	File ID:	TQ202126.D
Prepared:	04/21/17 18:16	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/21/17 18:16	Instrument:	TO15_AIR2		
Batch:	BD71102	Sequence:	Y7D2619	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.26	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	9.33	93.3	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
1,4-Difluorobenzene	1203861	13.902	1024780	13.902	
Bromochloromethane	379100	12.311	280575	12.305	
d5-Chlorobenzene	1050678	19.188	906236	19.188	

FORM V **MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Lab File ID:	TQ201573.D	Injection Date:	02/23/17
Instrument ID:	TO15_AIR2	Injection Time:	15:27
Sequence:	Y7B2304	Lab Sample ID:	Y7B2304-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	15.8	PASS
75	30 - 66% of 95	42.1	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	7.08	PASS
173	Less than 2% of 174	0.514	PASS
174	50 - 120% of 95	90.4	PASS
175	4 - 9% of 174	7.46	PASS
176	93 - 101% of 174	98.1	PASS
177	5 - 9% of 176	7.08	PASS

FORM V **MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Lab File ID:	TQ202101.D	Injection Date:	04/20/17
Instrument ID:	TO15_AIR2	Injection Time:	08:52
Sequence:	Y7D2128	Lab Sample ID:	Y7D2128-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	15.5	PASS
75	30 - 66% of 95	41.7	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	7.11	PASS
173	Less than 2% of 174	0.507	PASS
174	50 - 120% of 95	89	PASS
175	4 - 9% of 174	7.35	PASS
176	93 - 101% of 174	97.3	PASS
177	5 - 9% of 176	6.89	PASS

FORM V **MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Lab File ID:	TQ202123.D	Injection Date:	04/21/17
Instrument ID:	TO15_AIR2	Injection Time:	15:05
Sequence:	Y7D2619	Lab Sample ID:	Y7D2619-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	16.9	PASS
75	30 - 66% of 95	43.7	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.93	PASS
173	Less than 2% of 174	0.54	PASS
174	50 - 120% of 95	85.9	PASS
175	4 - 9% of 174	7.11	PASS
176	93 - 101% of 174	97.7	PASS
177	5 - 9% of 176	6.7	PASS

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7B2304	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	Y7B2304-TUN1	TQ201573.D	02/23/17 15:27
Cal Standard	Y7B2304-CAL1	TQ201574.D	02/23/17 16:15
Cal Standard	Y7B2304-CAL2	TQ201575.D	02/23/17 17:03
Cal Standard	Y7B2304-CAL3	TQ201576.D	02/23/17 17:52
Cal Standard	Y7B2304-CAL4	TQ201577.D	02/23/17 18:42
Cal Standard	Y7B2304-CAL5	TQ201578.D	02/23/17 19:34
Cal Standard	Y7B2304-CAL6	TQ201579.D	02/23/17 20:22
Cal Standard	Y7B2304-CAL7	TQ201580.D	02/23/17 21:11
Cal Standard	Y7B2304-CAL8	TQ201581.D	02/23/17 22:02
Cal Standard	Y7B2304-CAL9	TQ201582.D	02/23/17 22:54
Cal Standard	Y7B2304-CALA	TQ201583.D	02/23/17 23:50
Secondary Cal Check	Y7B2304-SCV1	TQ201585.D	02/24/17 01:32

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7D2128	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	Y7D2128-TUN1	TQ202101.D	04/20/17 08:52
Calibration Check	Y7D2128-CCV1	TQ202102.D	04/20/17 09:55
LCS	BD70982-BS1	TQ202103.D	04/20/17 10:57
Blank	BD70982-BLK1	TQ202104.D	04/20/17 12:03
815/OA-1	17D0833-01	TQ202112.D	04/20/17 21:19
816/V2	17D0833-02	TQ202113.D	04/20/17 22:21
817/V3	17D0833-03	TQ202114.D	04/20/17 23:22
819/V5	17D0833-05	TQ202116.D	04/21/17 01:25

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7D2619	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	Y7D2619-TUN1	TQ202123.D	04/21/17 15:05
Calibration Check	Y7D2619-CCV1	TQ202124.D	04/21/17 16:08
LCS	BD71102-BS1	TQ202125.D	04/21/17 17:11
Blank	BD71102-BLK1	TQ202126.D	04/21/17 18:16
818/DUP-1	17D0833-04	TQ202127.D	04/21/17 19:18
818/DUP-1	BD71102-DUP1	TQ202128.D	04/21/17 20:19

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**
EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7B2304	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (Y7B2304-CAL1)			Lab File ID: TQ201574.D			Analyzed: 02/23/17 16:15			
Bromochloromethane	424292	12.305	378416	12.305	112	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1388332	13.902	1209169	13.902	115	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1258819	19.188	1093273	19.188	115	60 - 140	0.0000	+/-0.50	
Cal Standard (Y7B2304-CAL2)			Lab File ID: TQ201575.D			Analyzed: 02/23/17 17:03			
Bromochloromethane	424126	12.305	378416	12.305	112	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1375054	13.902	1209169	13.902	114	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1225452	19.188	1093273	19.188	112	60 - 140	0.0000	+/-0.50	
Cal Standard (Y7B2304-CAL3)			Lab File ID: TQ201576.D			Analyzed: 02/23/17 17:52			
Bromochloromethane	432291	12.305	378416	12.305	114	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1374328	13.902	1209169	13.902	114	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1237922	19.187	1093273	19.188	113	60 - 140	-0.0010	+/-0.50	
Cal Standard (Y7B2304-CAL4)			Lab File ID: TQ201577.D			Analyzed: 02/23/17 18:42			
Bromochloromethane	406535	12.299	378416	12.305	107	60 - 140	-0.0060	+/-0.50	
1,4-Difluorobenzene	1292254	13.902	1209169	13.902	107	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1170087	19.188	1093273	19.188	107	60 - 140	0.0000	+/-0.50	
Cal Standard (Y7B2304-CAL5)			Lab File ID: TQ201578.D			Analyzed: 02/23/17 19:34			
Bromochloromethane	398396	12.305	378416	12.305	105	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1265977	13.902	1209169	13.902	105	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1155605	19.188	1093273	19.188	106	60 - 140	0.0000	+/-0.50	
Cal Standard (Y7B2304-CAL6)			Lab File ID: TQ201579.D			Analyzed: 02/23/17 20:22			
Bromochloromethane	379645	12.311	378416	12.305	100	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1211630	13.902	1209169	13.902	100	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1104650	19.188	1093273	19.188	101	60 - 140	0.0000	+/-0.50	
Cal Standard (Y7B2304-CAL7)			Lab File ID: TQ201580.D			Analyzed: 02/23/17 21:11			
Bromochloromethane	378416	12.305	378416	12.305	100	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1209169	13.902	1209169	13.902	100	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1093273	19.188	1093273	19.188	100	60 - 140	0.0000	+/-0.50	
Cal Standard (Y7B2304-CAL8)			Lab File ID: TQ201581.D			Analyzed: 02/23/17 22:02			
Bromochloromethane	379486	12.317	378416	12.305	100	60 - 140	0.0120	+/-0.50	
1,4-Difluorobenzene	1248754	13.908	1209169	13.902	103	60 - 140	0.0060	+/-0.50	
d5-Chlorobenzene	1113789	19.194	1093273	19.188	102	60 - 140	0.0060	+/-0.50	
Cal Standard (Y7B2304-CAL9)			Lab File ID: TQ201582.D			Analyzed: 02/23/17 22:54			
Bromochloromethane	382666	12.311	378416	12.305	101	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1281274	13.902	1209169	13.902	106	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1131082	19.188	1093273	19.188	103	60 - 140	0.0000	+/-0.50	

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**
EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7B2304	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (Y7B2304-CALA)			Lab File ID: TQ201583.D			Analyzed: 02/23/17 23:50			
Bromochloromethane	379820	12.311	378416	12.305	100	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1292091	13.908	1209169	13.902	107	60 - 140	0.0060	+/-0.50	
d5-Chlorobenzene	1133269	19.188	1093273	19.188	104	60 - 140	0.0000	+/-0.50	
Secondary Cal Check (Y7B2304-SCV1)			Lab File ID: TQ201585.D			Analyzed: 02/24/17 01:32			
Bromochloromethane	390048	12.305	378416	12.305	103	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1307564	13.902	1209169	13.902	108	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1161243	19.188	1093273	19.188	106	60 - 140	0.0000	+/-0.50	

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**
EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7D2128	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (Y7D2128-CCV1)			Lab File ID: TQ202102.D			Analyzed: 04/20/17 09:55			
Bromochloromethane	304065	12.317				60 - 140		+/-0.50	
1,4-Difluorobenzene	999125	13.908				60 - 140		+/-0.50	
d5-Chlorobenzene	880527	19.188				60 - 140		+/-0.50	
LCS (BD70982-BS1)			Lab File ID: TQ202103.D			Analyzed: 04/20/17 10:57			
Bromochloromethane	322402	12.311	304065	12.317	106	60 - 140	-0.0060	+/-0.50	
1,4-Difluorobenzene	1074184	13.908	999125	13.908	108	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	934396	19.188	880527	19.188	106	60 - 140	0.0000	+/-0.50	
Blank (BD70982-BLK1)			Lab File ID: TQ202104.D			Analyzed: 04/20/17 12:03			
Bromochloromethane	410600	12.311	304065	12.317	135	60 - 140	-0.0060	+/-0.50	
1,4-Difluorobenzene	1356329	13.902	999125	13.908	136	60 - 140	-0.0060	+/-0.50	
d5-Chlorobenzene	1187211	19.188	880527	19.188	135	60 - 140	0.0000	+/-0.50	
815/OA-1 (17D0833-01)			Lab File ID: TQ202112.D			Analyzed: 04/20/17 21:19			
Bromochloromethane	381182	12.323	304065	12.317	125	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1249821	13.914	999125	13.908	125	60 - 140	0.0060	+/-0.50	
d5-Chlorobenzene	1109381	19.187	880527	19.188	126	60 - 140	-0.0010	+/-0.50	
816/V2 (17D0833-02)			Lab File ID: TQ202113.D			Analyzed: 04/20/17 22:21			
Bromochloromethane	366148	12.317	304065	12.317	120	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	1195864	13.908	999125	13.908	120	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1028066	19.188	880527	19.188	117	60 - 140	0.0000	+/-0.50	
817/V3 (17D0833-03)			Lab File ID: TQ202114.D			Analyzed: 04/20/17 23:22			
Bromochloromethane	339179	12.323	304065	12.317	112	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1106594	13.908	999125	13.908	111	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	962510	19.187	880527	19.188	109	60 - 140	-0.0010	+/-0.50	
819/V5 (17D0833-05)			Lab File ID: TQ202116.D			Analyzed: 04/21/17 01:25			
Bromochloromethane	267095	12.317	304065	12.317	88	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	836213	13.908	999125	13.908	84	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	722215	19.188	880527	19.188	82	60 - 140	0.0000	+/-0.50	

FORM VIII **INTERNAL STANDARD AREA AND RT SUMMARY**
EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Sequence:	Y7D2619	Instrument:	TO15_AIR2
Matrix:	Air	Calibration:	YB70013

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (Y7D2619-CCV1)			Lab File ID: TQ202124.D			Analyzed: 04/21/17 16:08			
Bromochloromethane	280575	12.305				60 - 140		+/-0.50	
1,4-Difluorobenzene	1024780	13.902				60 - 140		+/-0.50	
d5-Chlorobenzene	906236	19.188				60 - 140		+/-0.50	
LCS (BD71102-BS1)			Lab File ID: TQ202125.D			Analyzed: 04/21/17 17:11			
Bromochloromethane	282844	12.305	280575	12.305	101	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene	889115	13.902	1024780	13.902	87	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	775784	19.188	906236	19.188	86	60 - 140	0.0000	+/-0.50	
Blank (BD71102-BLK1)			Lab File ID: TQ202126.D			Analyzed: 04/21/17 18:16			
Bromochloromethane	379100	12.311	280575	12.305	135	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1203861	13.902	1024780	13.902	117	60 - 140	0.0000	+/-0.50	
d5-Chlorobenzene	1050678	19.188	906236	19.188	116	60 - 140	0.0000	+/-0.50	
818/DUP-1 (17D0833-04)			Lab File ID: TQ202127.D			Analyzed: 04/21/17 19:18			
Bromochloromethane	337119	12.311	280575	12.305	120	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	1079636	13.908	1024780	13.902	105	60 - 140	0.0060	+/-0.50	
d5-Chlorobenzene	933348	19.188	906236	19.188	103	60 - 140	0.0000	+/-0.50	
Duplicate (BD71102-DUP1)			Lab File ID: TQ202128.D			Analyzed: 04/21/17 20:19			
Bromochloromethane	301566	12.311	280575	12.305	107	60 - 140	0.0060	+/-0.50	
1,4-Difluorobenzene	942969	13.908	1024780	13.902	92	60 - 140	0.0060	+/-0.50	
d5-Chlorobenzene	811072	19.187	906236	19.188	89	60 - 140	-0.0010	+/-0.50	

HOLDING TIME SUMMARY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
815/OA-1	04/20/17 15:00	04/20/17 17:53	04/20/17 16:45	0.07	30.00	04/20/17 21:19	0.26	30.00	
816/V2	04/20/17 15:00	04/20/17 17:53	04/20/17 16:45	0.07	30.00	04/20/17 22:21	0.31	30.00	
817/V3	04/20/17 15:00	04/20/17 17:53	04/20/17 16:45	0.07	30.00	04/20/17 23:22	0.35	30.00	
818/DUP-1	04/20/17 15:00	04/20/17 17:53	04/21/17 19:18	1.18	30.00	04/21/17 19:18	1.18	30.00	
819/V5	04/20/17 15:00	04/20/17 17:53	04/20/17 16:45	0.07	30.00	04/21/17 01:25	0.43	30.00	

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. **SDG:** 17D0833

Client: Langan Engineering & Environmental Services (NJ) **Project:** 100287503 365 Bond St.

Matrix: Air **Instrument:** TO15_AIR2

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.7	0.7	ug/m³
1,1,1-Trichloroethane	0.55	0.55	ug/m³
1,1,2,2-Tetrachloroethane	0.7	0.7	ug/m³
1,1,2-Trichloro-1,2,2-trifluoroethane (Fr	0.78	0.78	ug/m³
1,1,2-Trichloroethane	0.55	0.55	ug/m³
1,1-Dichloroethane	0.41	0.41	ug/m³
1,1-Dichloroethylene	0.4	0.4	ug/m³
1,2,4-Trichlorobenzene	0.75	0.75	ug/m³
1,2,4-Trimethylbenzene	0.5	0.5	ug/m³
1,2-Dibromoethane	0.78	0.78	ug/m³
1,2-Dichlorobenzene	0.61	0.61	ug/m³
1,2-Dichloroethane	0.41	0.41	ug/m³
1,2-Dichloropropane	0.47	0.47	ug/m³
1,2-Dichlorotetrafluoroethane	0.71	0.71	ug/m³
1,3,5-Trimethylbenzene	0.5	0.5	ug/m³
1,3-Butadiene	0.68	0.68	ug/m³
1,3-Dichlorobenzene	0.61	0.61	ug/m³
1,3-Dichloropropane	0.47	0.47	ug/m³
1,4-Dichlorobenzene	0.61	0.61	ug/m³
1,4-Dioxane	0.73	0.73	ug/m³
2-Butanone	0.3	0.3	ug/m³
2-Hexanone	0.83	0.83	ug/m³
3-Chloropropene	1.6	1.6	ug/m³
4-Methyl-2-pentanone	0.42	0.42	ug/m³
Acetone	0.48	0.48	ug/m³
Acrylonitrile	0.22	0.22	ug/m³
Benzene	0.32	0.32	ug/m³
Benzyl chloride	0.53	0.53	ug/m³
Bromodichloromethane	0.68	0.68	ug/m³
Bromoform	1.1	1.1	ug/m³
Bromomethane	0.39	0.39	ug/m³
Carbon disulfide	0.32	0.32	ug/m³
Carbon tetrachloride	0.16	0.16	ug/m³
Chlorobenzene	0.47	0.47	ug/m³
Chloroethane	0.27	0.27	ug/m³
Chloroform	0.5	0.5	ug/m³
Chloromethane	0.21	0.21	ug/m³

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. **SDG:** 17D0833

Client: Langan Engineering & Environmental Services (NJ) **Project:** 100287503 365 Bond St.

Matrix: Air **Instrument:** TO15_AIR2

Analyte	LOD	LOQ	Units
cis-1,2-Dichloroethylene	0.4	0.4	ug/m³
cis-1,3-Dichloropropylene	0.46	0.46	ug/m³
Cyclohexane	0.35	0.35	ug/m³
Dibromochloromethane	0.87	0.87	ug/m³
Dichlorodifluoromethane	0.5	0.5	ug/m³
Ethyl acetate	0.73	0.73	ug/m³
Ethyl Benzene	0.44	0.44	ug/m³
Hexachlorobutadiene	1.1	1.1	ug/m³
Isopropanol	0.5	0.5	ug/m³
Methyl Methacrylate	0.42	0.42	ug/m³
Methyl tert-butyl ether (MTBE)	0.37	0.37	ug/m³
Methylene chloride	0.71	0.71	ug/m³
n-Heptane	0.42	0.42	ug/m³
n-Hexane	0.36	0.36	ug/m³
o-Xylene	0.44	0.44	ug/m³
p- & m- Xylenes	0.88	0.88	ug/m³
p-Ethyltoluene	0.5	0.5	ug/m³
Propylene	0.18	0.18	ug/m³
Styrene	0.43	0.43	ug/m³
Tetrachloroethylene	0.17	0.17	ug/m³
Tetrahydrofuran	0.6	0.6	ug/m³
Toluene	0.38	0.38	ug/m³
trans-1,2-Dichloroethylene	0.4	0.4	ug/m³
trans-1,3-Dichloropropylene	0.46	0.46	ug/m³
Trichloroethylene	0.14	0.14	ug/m³
Trichlorofluoromethane (Freon 11)	0.57	0.57	ug/m³
Vinyl acetate	0.36	0.36	ug/m³
Vinyl bromide	0.44	0.44	ug/m³
Vinyl Chloride	0.26	0.26	ug/m³

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

815/OA-1

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Outdoor Ambient Air Laboratory ID: 17D0833-01 File ID: TQ202112.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/20/17 21:19

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1.26	0.87	U
71-55-6	1,1,1-Trichloroethane	1.26	0.69	U
79-34-5	1,1,2,2-Tetrachloroethane	1.26	0.87	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.26	0.97	U
79-00-5	1,1,2-Trichloroethane	1.26	0.69	U
75-34-3	1,1-Dichloroethane	1.26	0.51	U
75-35-4	1,1-Dichloroethylene	1.26	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1.26	0.94	U
95-63-6	1,2,4-Trimethylbenzene	1.26	0.81	D
106-93-4	1,2-Dibromoethane	1.26	0.97	U
95-50-1	1,2-Dichlorobenzene	1.26	0.76	U
107-06-2	1,2-Dichloroethane	1.26	0.51	U
78-87-5	1,2-Dichloropropane	1.26	0.58	U
76-14-2	1,2-Dichlorotetrafluoroethane	1.26	0.88	U
108-67-8	1,3,5-Trimethylbenzene	1.26	0.62	U
106-99-0	1,3-Butadiene	1.26	0.84	U
541-73-1	1,3-Dichlorobenzene	1.26	0.76	U
142-28-9	1,3-Dichloropropane	1.26	0.58	U
106-46-7	1,4-Dichlorobenzene	1.26	0.76	U
123-91-1	1,4-Dioxane	1.26	0.91	U
78-93-3	2-Butanone	1.26	1.1	D
591-78-6	2-Hexanone	1.26	1.0	U
107-05-1	3-Chloropropene	1.26	2.0	U
108-10-1	4-Methyl-2-pentanone	1.26	0.52	U
67-64-1	Acetone	1.26	9.1	D
107-13-1	Acrylonitrile	1.26	0.27	U
71-43-2	Benzene	1.26	1.7	D
100-44-7	Benzyl chloride	1.26	0.65	U
75-27-4	Bromodichloromethane	1.26	0.85	U
75-25-2	Bromoform	1.26	1.3	U
74-83-9	Bromomethane	1.26	0.49	U
75-15-0	Carbon disulfide	1.26	0.39	U
56-23-5	Carbon tetrachloride	1.26	0.40	D
108-90-7	Chlorobenzene	1.26	0.58	U
75-00-3	Chloroethane	1.26	0.33	U
67-66-3	Chloroform	1.26	0.62	U
74-87-3	Chloromethane	1.26	1.5	D
156-59-2	cis-1,2-Dichloroethylene	1.26	0.50	U
10061-01-5	cis-1,3-Dichloropropylene	1.26	0.57	U
110-82-7	Cyclohexane	1.26	0.70	D

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

815/OA-1

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Outdoor Ambient Air Laboratory ID: 17D0833-01 File ID: TQ202112.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/20/17 21:19

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
124-48-1	Dibromochloromethane	1.26	1.1	U
75-71-8	Dichlorodifluoromethane	1.26	2.1	D
141-78-6	Ethyl acetate	1.26	3.6	D
100-41-4	Ethyl Benzene	1.26	0.71	D
87-68-3	Hexachlorobutadiene	1.26	1.3	U
67-63-0	Isopropanol	1.26	3.3	D
80-62-6	Methyl Methacrylate	1.26	0.98	D
1634-04-4	Methyl tert-butyl ether (MTBE)	1.26	0.45	U
75-09-2	Methylene chloride	1.26	11	D
142-82-5	n-Heptane	1.26	1.3	D
110-54-3	n-Hexane	1.26	2.4	D
95-47-6	o-Xylene	1.26	0.82	D
179601-23-1	p- & m- Xylenes	1.26	2.6	D
622-96-8	p-Ethyltoluene	1.26	0.87	D
115-07-1	Propylene	1.26	2.2	D
100-42-5	Styrene	1.26	0.54	U
127-18-4	Tetrachloroethylene	1.26	2.1	D
109-99-9	Tetrahydrofuran	1.26	0.74	U
108-88-3	Toluene	1.26	5.4	D
156-60-5	trans-1,2-Dichloroethylene	1.26	0.50	U
10061-02-6	trans-1,3-Dichloropropylene	1.26	0.57	U
79-01-6	Trichloroethylene	1.26	0.17	U
75-69-4	Trichlorofluoromethane (Freon 11)	1.26	1.5	D
108-05-4	Vinyl acetate	1.26	0.44	U
593-60-2	Vinyl bromide	1.26	0.55	U
75-01-4	Vinyl Chloride	1.26	0.32	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	9.38	93.8	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	381182	12.323	304065	12.317	
1,4-Difluorobenzene	1249821	13.914	999125	13.908	
d5-Chlorobenzene	1109381	19.187	880527	19.188	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202112.D
Acq On : 20 Apr 2017 9:19 pm
Sample : 17D0833-01 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-01
Misc : QBTO2042017A 0833-01 1X
ALS Vial : 12 Sample Multiplier: 1.262

Quant Time: Apr 26 11:40:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

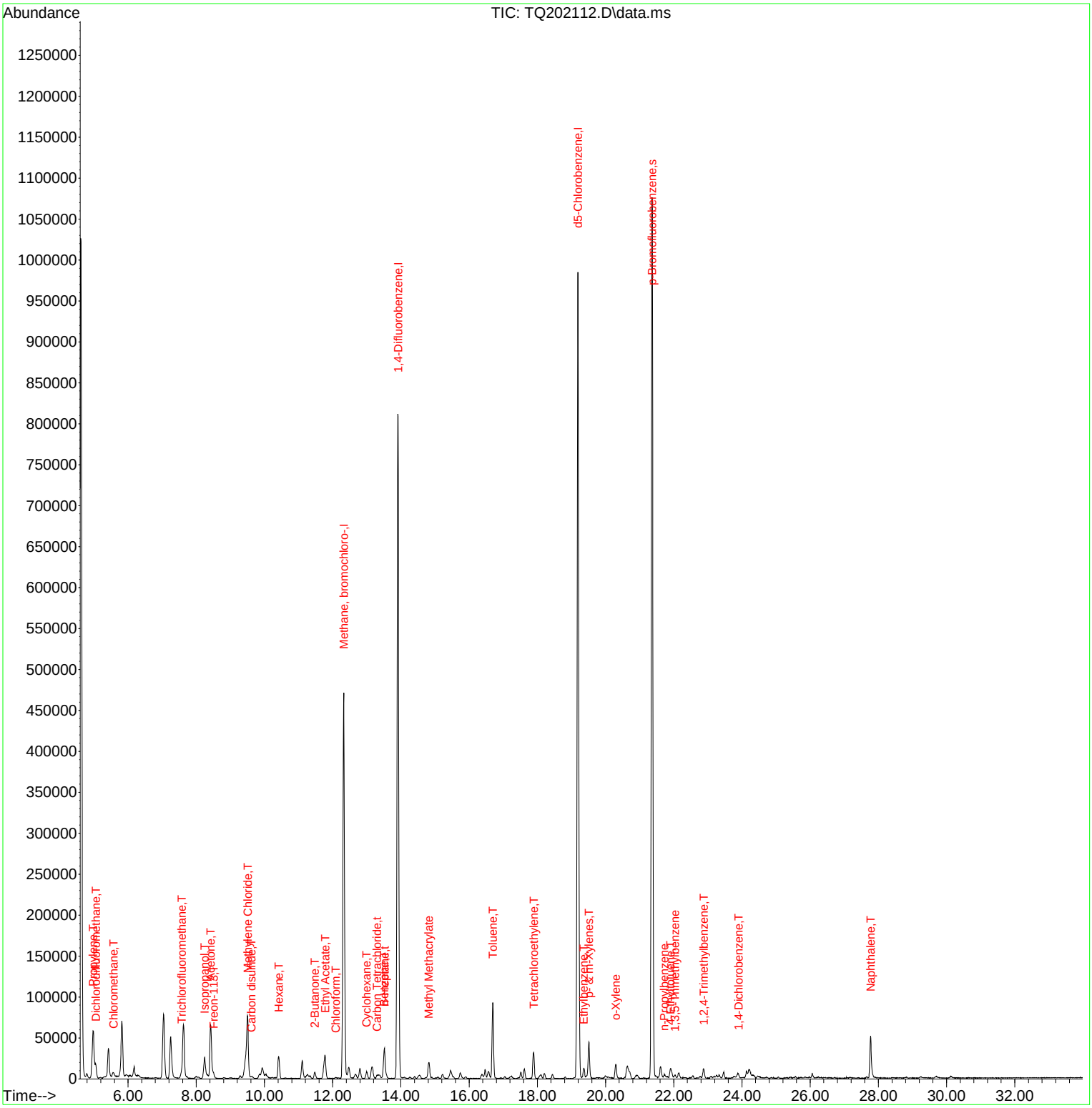
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.323	49	381182	10.00	ppbv		0.02
37) 1,4-Difluorobenzene	13.914	114	1249821	10.00	ppbv		0.01
53) d5-Chlorobenzene	19.187	117	1109381	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	710956	9.38	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.80%				
Target Compounds							Qvalue
2) Propylene	4.971	42	14810	1.03	ppbv	#	53
3) Dichlorodifluoromethane	5.062	85	20504	0.34	ppbv		99
5) Chloromethane	5.574	50	7974	0.57	ppbv		99
11) Trichlorofluoromethane	7.574	101	12774	0.21	ppbv	#	96
12) Isopropanol	8.244	45	57240	1.05	ppbv		100
14) Acetone	8.421	43	141483	3.02	ppbv		88
15) Freon-113	8.507	101	3164m	0.06	ppbv		
18) Methylene Chloride	9.506	49	79938	2.56	ppbv		96
20) Carbon disulfide	9.616	76	5379	0.08	ppbv	#	68
23) Hexane	10.415	57	23865	0.54	ppbv		98
26) 2-Butanone	11.476	43	18590	0.30	ppbv		96
27) Ethyl Acetate	11.780	43	48268	0.79	ppbv	#	45
29) Chloroform	12.085	83	2263	0.04	ppbv	#	77
32) Cyclohexane	12.994	56	7266	0.16	ppbv		99
33) Carbon Tetrachloride	13.298	117	2842	0.05	ppbv		94
35) Benzene	13.506	78	35297	0.42	ppbv	#	73
36) n-Heptane	13.524	43	11898	0.25	ppbv	#	76
40) Methyl Methacrylate	14.816	69	5286	0.19	ppbv	#	73
45) Toluene	16.694	91	121959	1.13	ppbv		99
50) Tetrachloroethylene	17.895	166	18300	0.25	ppbv		98
56) Ethylbenzene	19.358	91	16404	0.13	ppbv		97
57) p- & m-Xylenes	19.511	91	44047	0.48	ppbv		96
58) o-Xylene	20.297	91	15497	0.15	ppbv		99
61) n-Propylbenzene	21.717	91	4859	0.03	ppbv		98
65) 4-Ethyltoluene	21.900	105	19774	0.14	ppbv		99
66) 1,3,5-Trimethylbenzene	22.034	105	4583	0.04	ppbv	#	90
68) 1,2,4-Trimethylbenzene	22.882	105	15804	0.13	ppbv		98
72) 1,4-Dichlorobenzene	23.900	146	3060	0.03	ppbv		97
78) Naphthalene	27.771	128	89556	0.45	ppbv		99

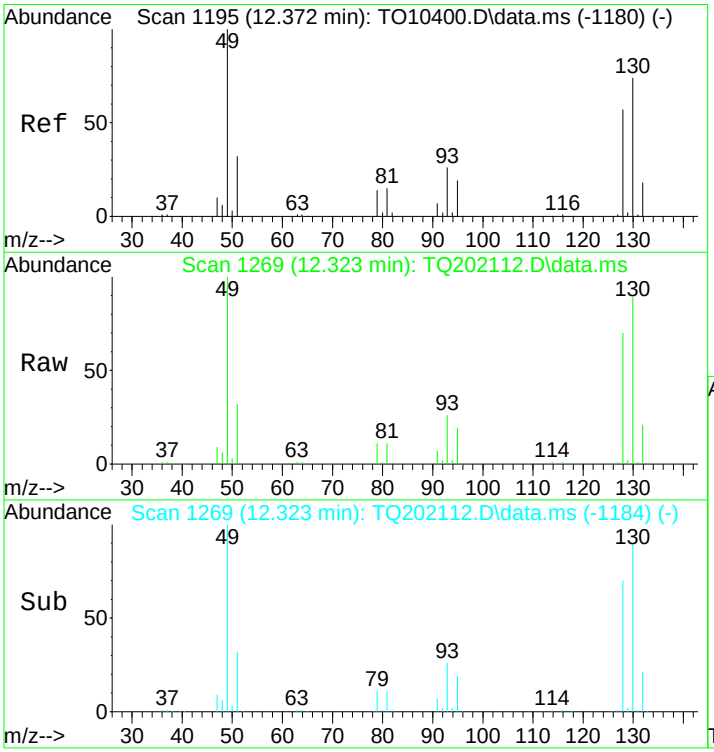
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202112.D
Acq On : 20 Apr 2017 9:19 pm
Sample : 17D0833-01 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-01
Misc : QBTO2042017A 0833-01 1X
ALS Vial : 12 Sample Multiplier: 1.262

Quant Time: Apr 26 11:40:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

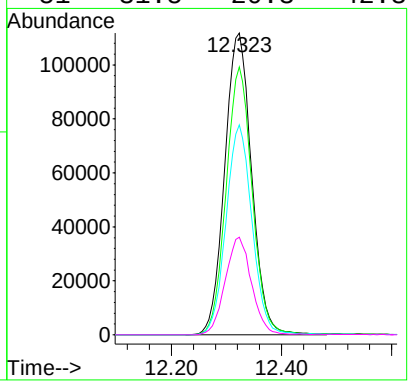


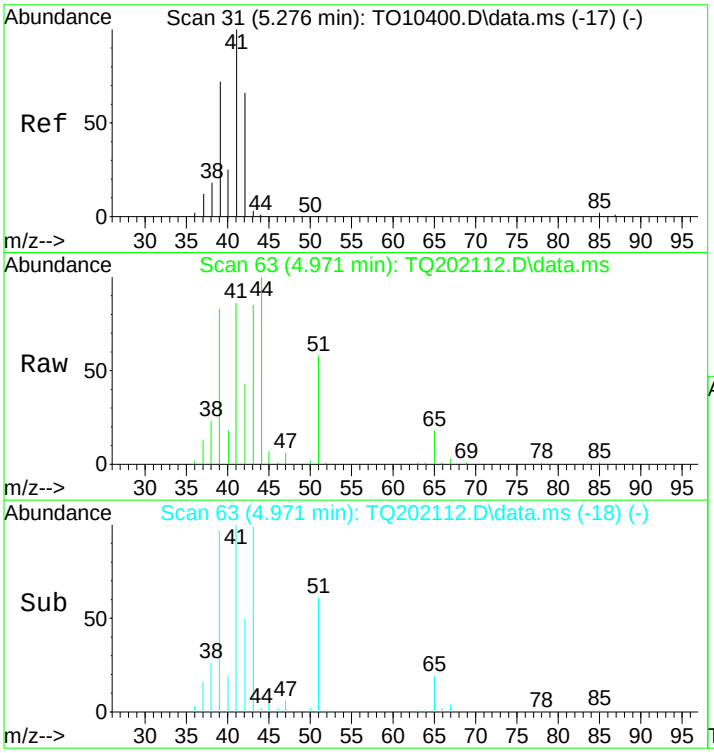


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.323 min Scan# 1269
Delta R.T. 0.019 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 49 Resp: 381182

Ion	Ratio	Lower	Upper
49	100		
130	86.1	48.1	99.9
128	67.0	38.3	79.5
51	31.5	20.3	42.3

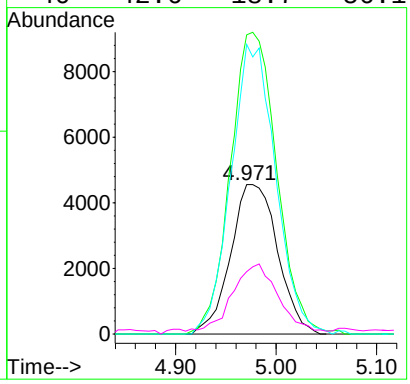


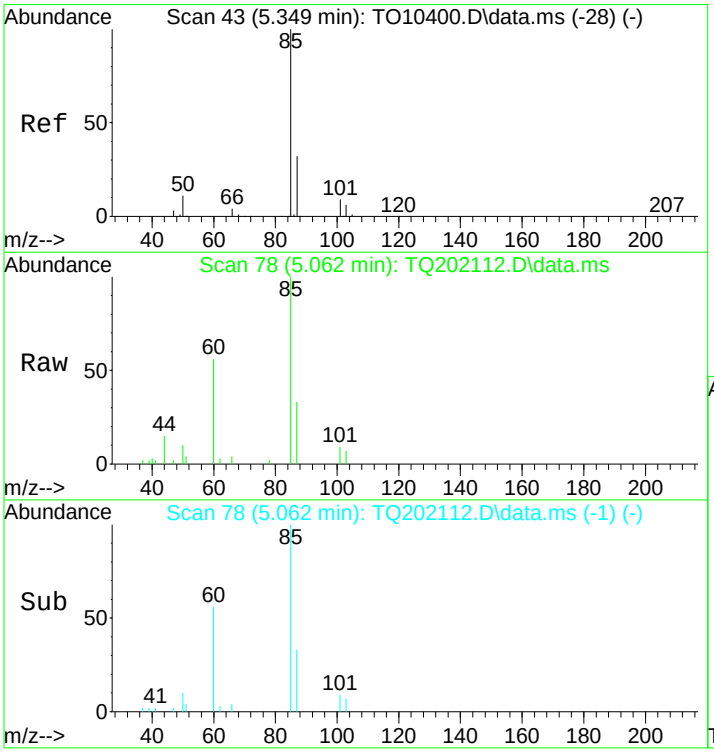


#2
Propylene
Concen: 1.03 ppbv
RT: 4.971 min Scan# 63
Delta R.T. 0.027 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 42 Resp: 14810

Ion	Ratio	Lower	Upper
42	100		
41	198.8	90.7	211.7
39	184.4	54.1	162.3#
40	42.6	18.7	56.1

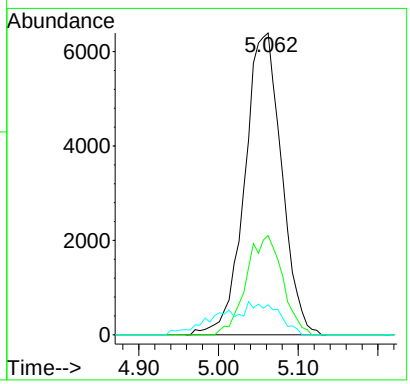


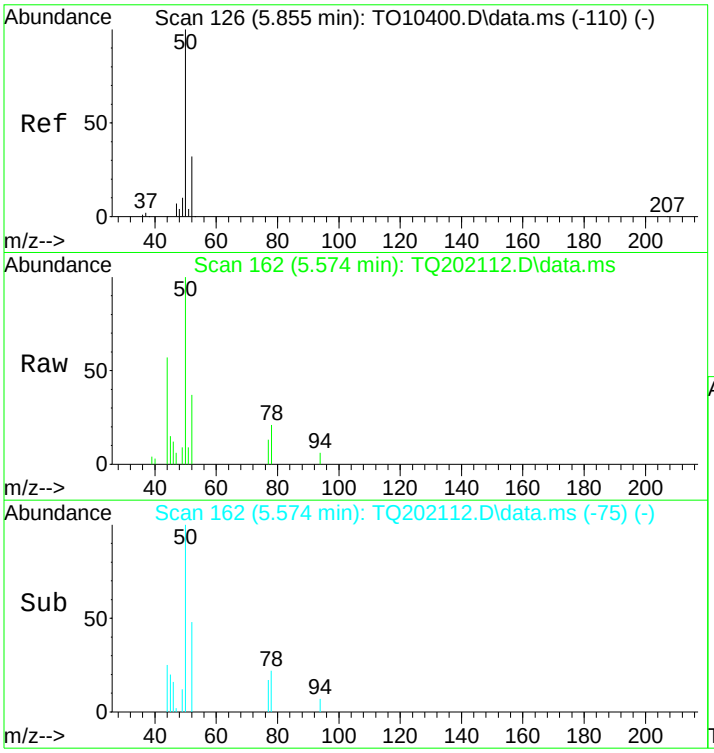


#3
Dichlorodifluoromethane
Concen: 0.34 ppbv
RT: 5.062 min Scan# 78
Delta R.T. 0.042 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 85 Resp: 20504

Ion	Ratio	Lower	Upper
85	100		
87	32.3	20.9	43.5
50	10.5	7.2	15.0

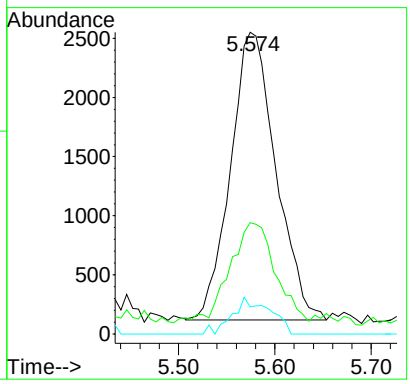


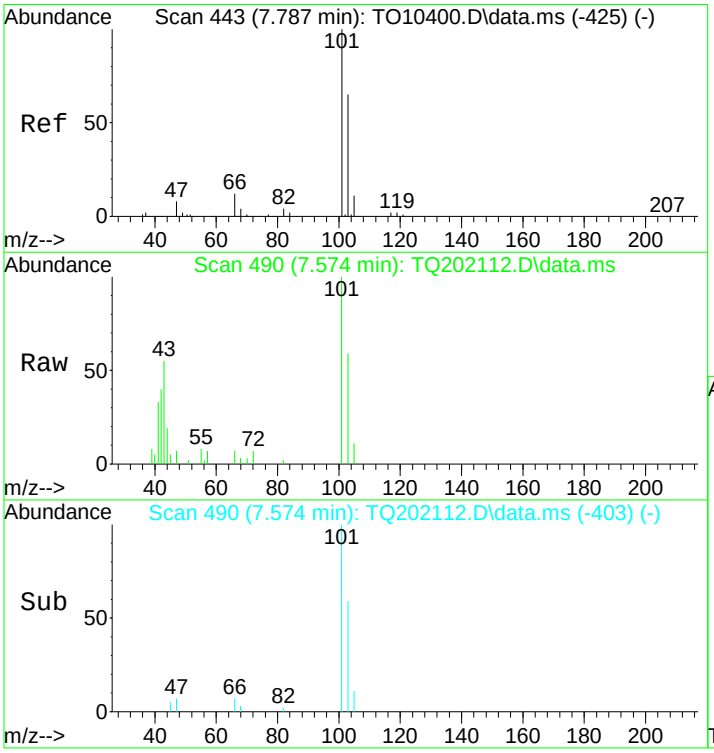


#5
Chloromethane
Concen: 0.57 ppbv
RT: 5.574 min Scan# 162
Delta R.T. 0.033 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 50 Resp: 7974

Ion	Ratio	Lower	Upper
50	100		
52	33.0	0.0	65.2
49	9.4	0.0	19.6

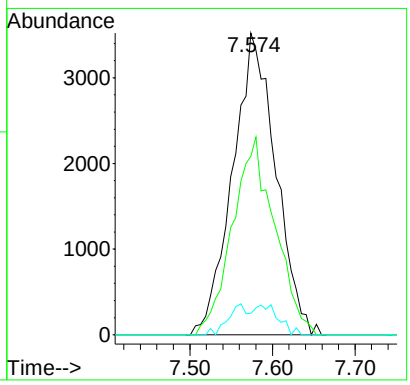


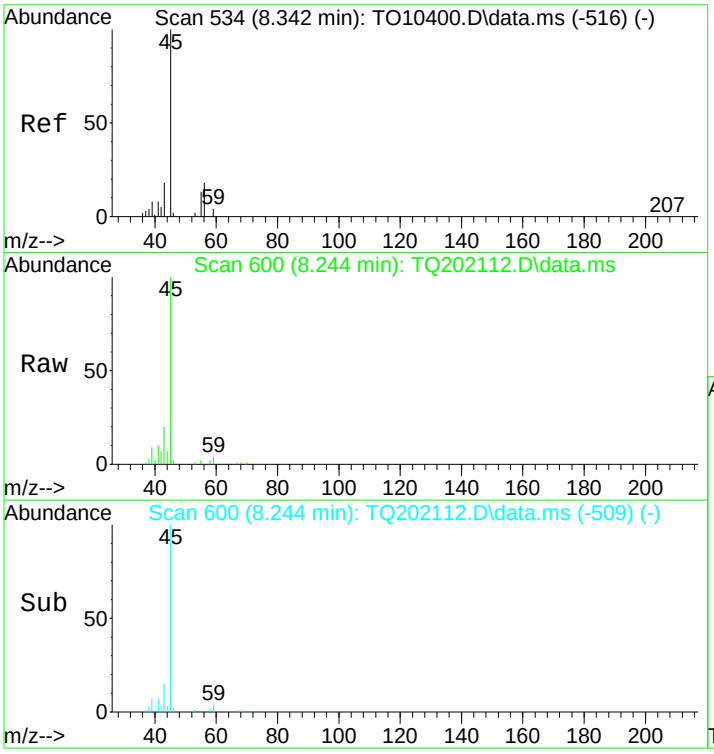


#11
Trichlorofluoromethane
Concen: 0.21 ppbv
RT: 7.574 min Scan# 490
Delta R.T. 0.031 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:101 Resp: 12774

Ion	Ratio	Lower	Upper
101	100		
103	64.3	42.3	87.8
66	4.3	7.8	16.2#

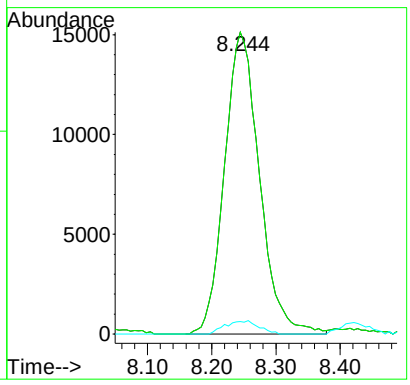


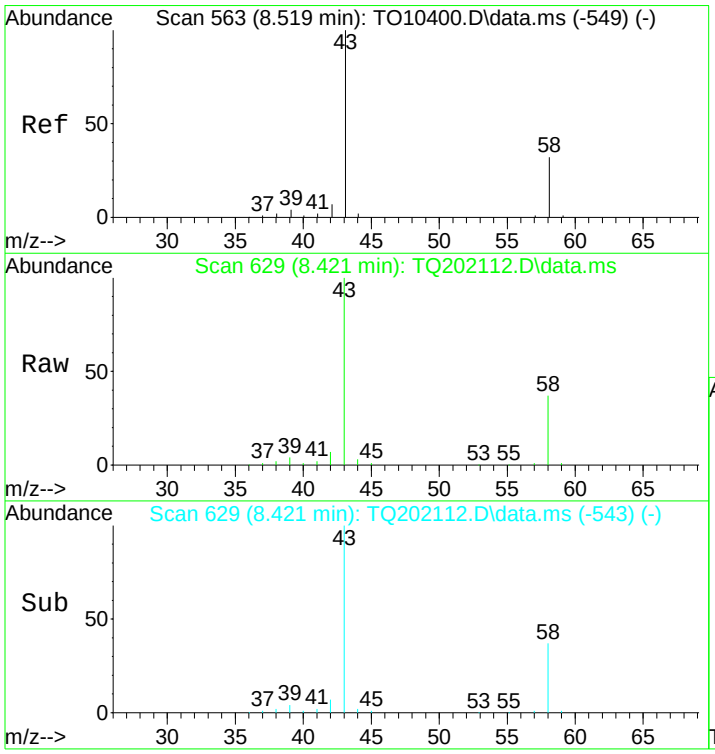


#12
Isopropanol
Concen: 1.05 ppbv
RT: 8.244 min Scan# 600
Delta R.T. 0.052 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 45 Resp: 57240

Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	4.2	0.0	10.0

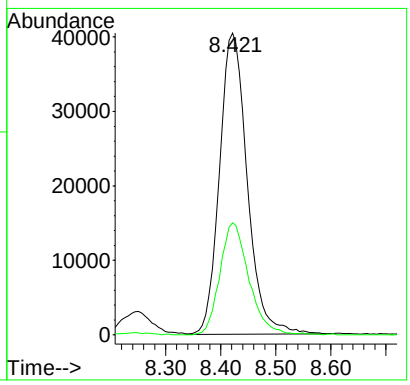


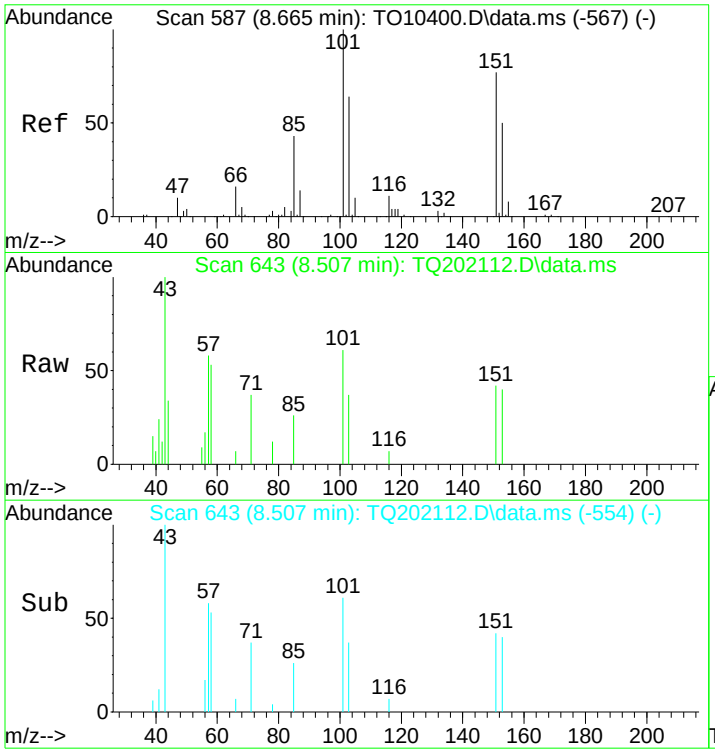


#14
Acetone
Concen: 3.02 ppbv
RT: 8.421 min Scan# 629
Delta R.T. 0.023 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 43 Resp: 141483

Ion	Ratio	Lower	Upper
43	100		
58	38.8	20.9	43.3

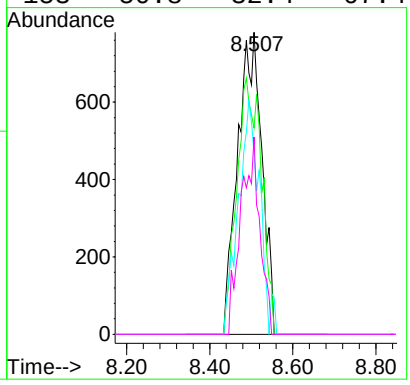


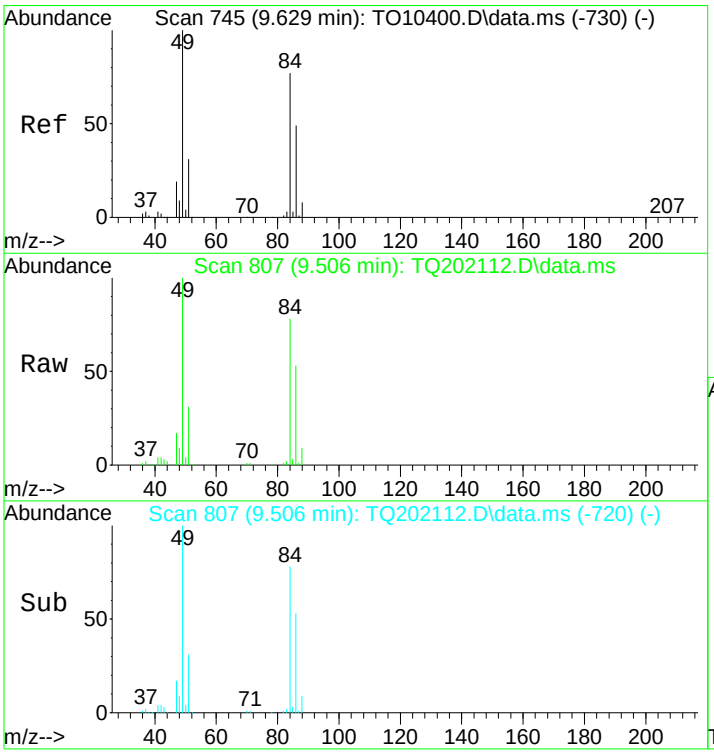


#15
Freon-113
Concen: 0.06 ppbv m
RT: 8.507 min Scan# 643
Delta R.T. 0.040 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:101 Resp: 3164

Ion	Ratio	Lower	Upper
101	100		
151	86.3	50.5	104.9
103	65.8	42.0	87.2
153	50.8	32.4	67.4

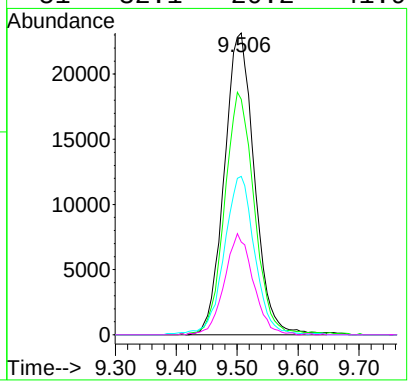


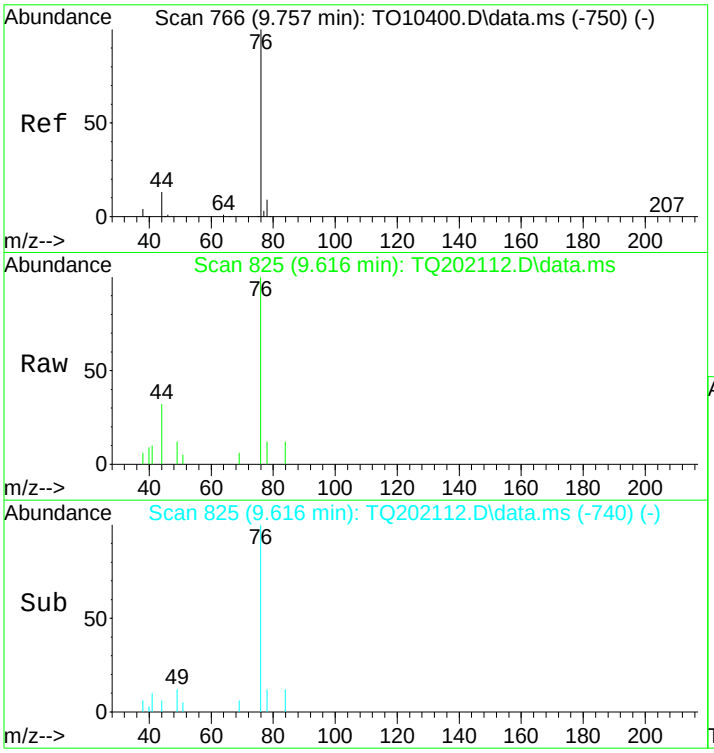


#18
Methylene Chloride
Concen: 2.56 ppbv
RT: 9.506 min Scan# 807
Delta R.T. 0.029 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 49 Resp: 79938

Ion	Ratio	Lower	Upper
49	100		
84	78.8	49.9	103.5
86	53.2	31.8	66.0
51	32.1	20.2	41.9

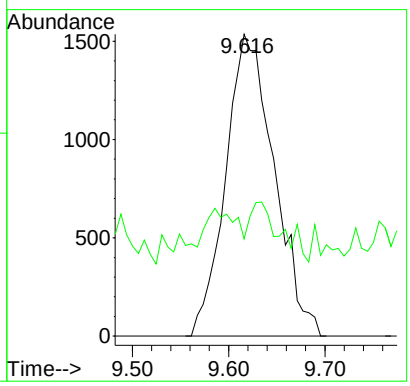


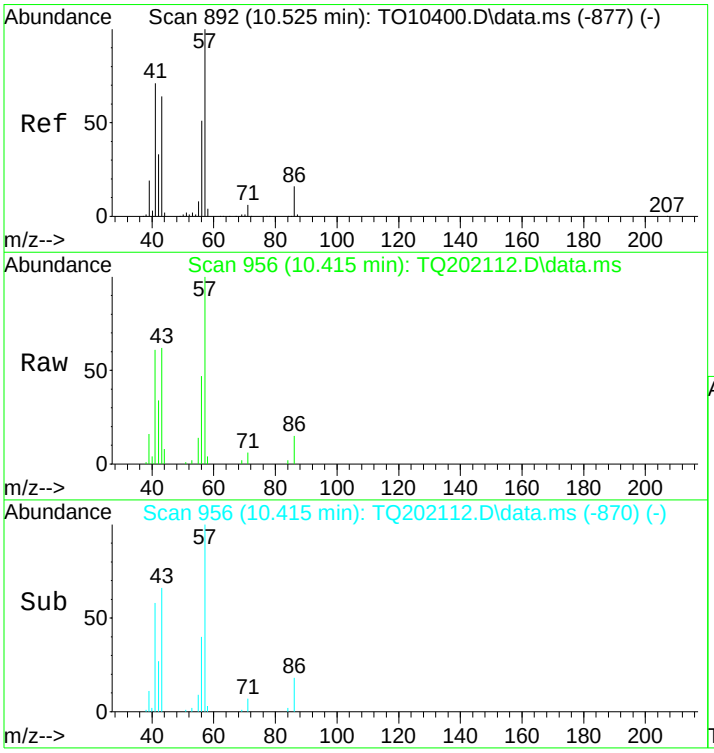


#20
Carbon disulfide
Concen: 0.08 ppbv
RT: 9.616 min Scan# 825
Delta R.T. 0.021 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 76 Resp: 5379

Ion	Ratio	Lower	Upper
76	100		
44	0.0	8.3	17.3#

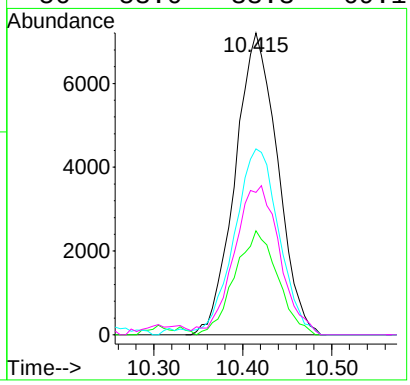


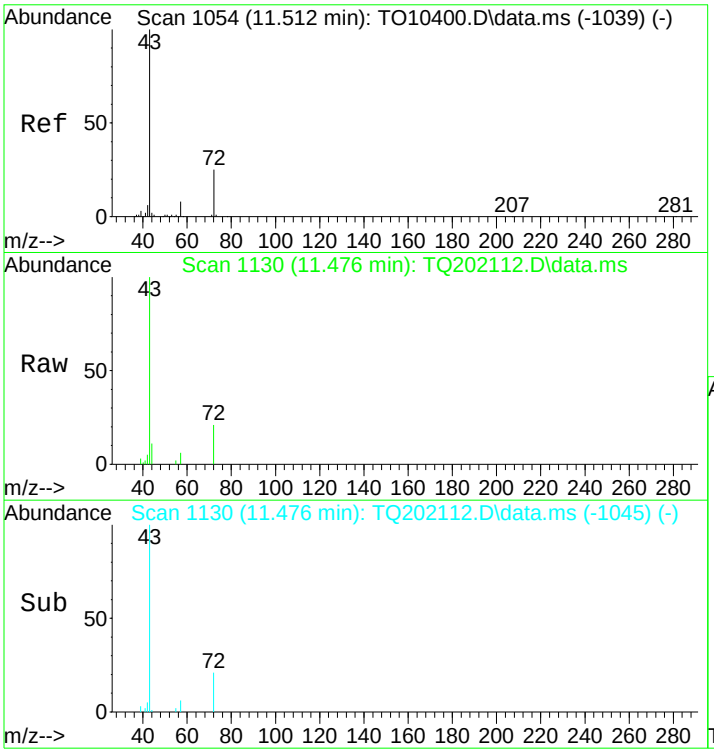


#23
Hexane
Concen: 0.54 ppbv
RT: 10.415 min Scan# 956
Delta R.T. 0.022 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 57 Resp: 23865

Ion	Ratio	Lower	Upper
57	100		
42	34.8	21.6	45.0
43	64.7	42.0	87.2
56	53.0	33.3	69.1

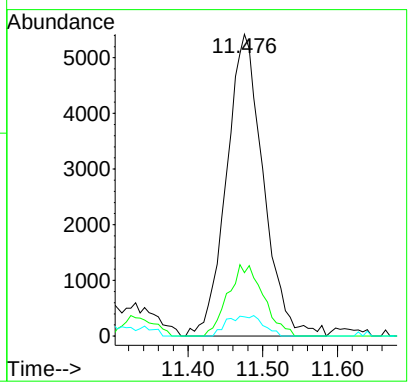


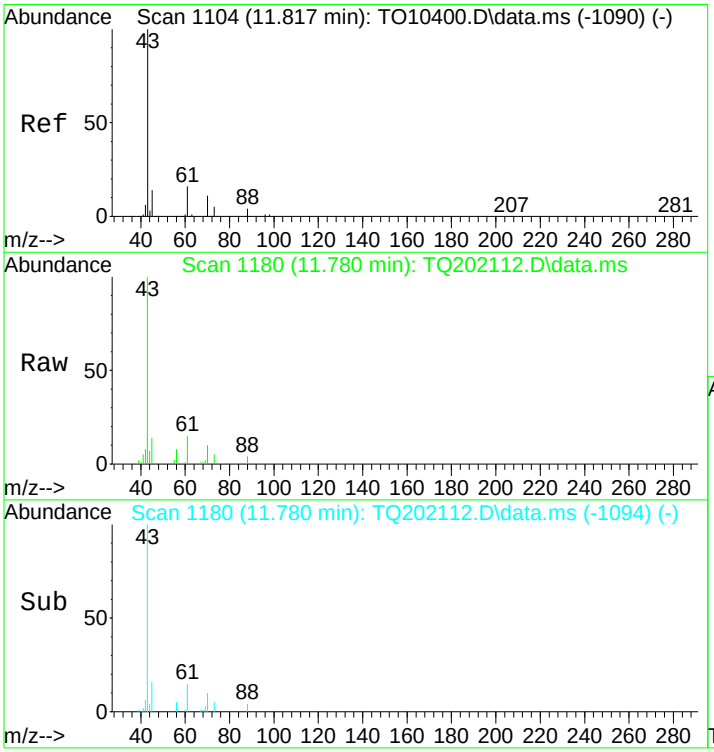


#26
2-Butanone
Concen: 0.30 ppbv
RT: 11.476 min Scan# 1130
Delta R.T. 0.021 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 43 Resp: 18590

Ion	Ratio	Lower	Upper
43	100		
72	22.8	16.1	33.5
57	6.6	4.9	10.3

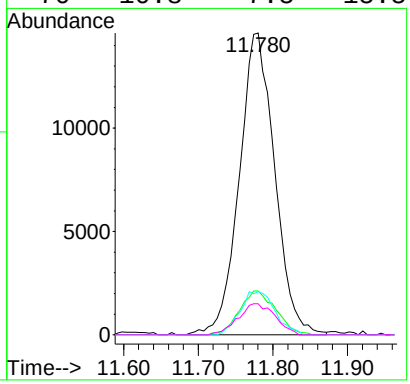


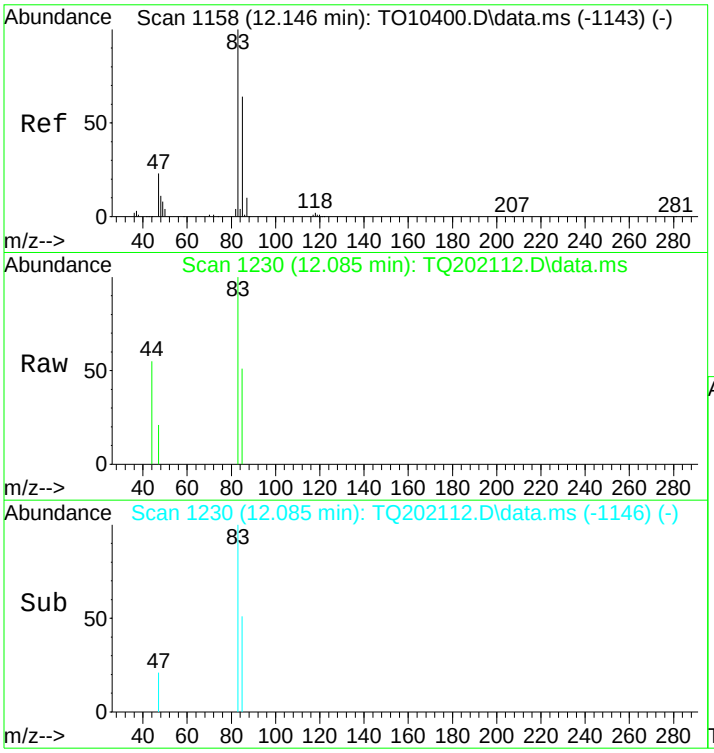


#27
Ethyl Acetate
Concen: 0.79 ppbv
RT: 11.780 min Scan# 1180
Delta R.T. 0.022 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 43 Resp: 48268

Ion	Ratio	Lower	Upper
43	100		
61	15.0	51.4	106.8#
45	14.2	9.4	19.6
70	10.8	7.5	15.5

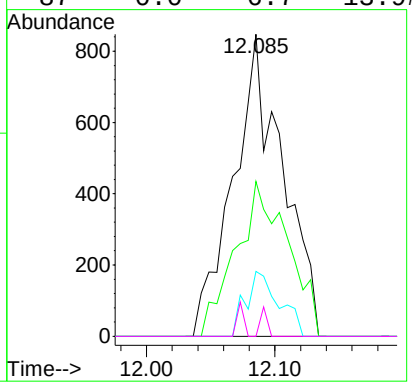


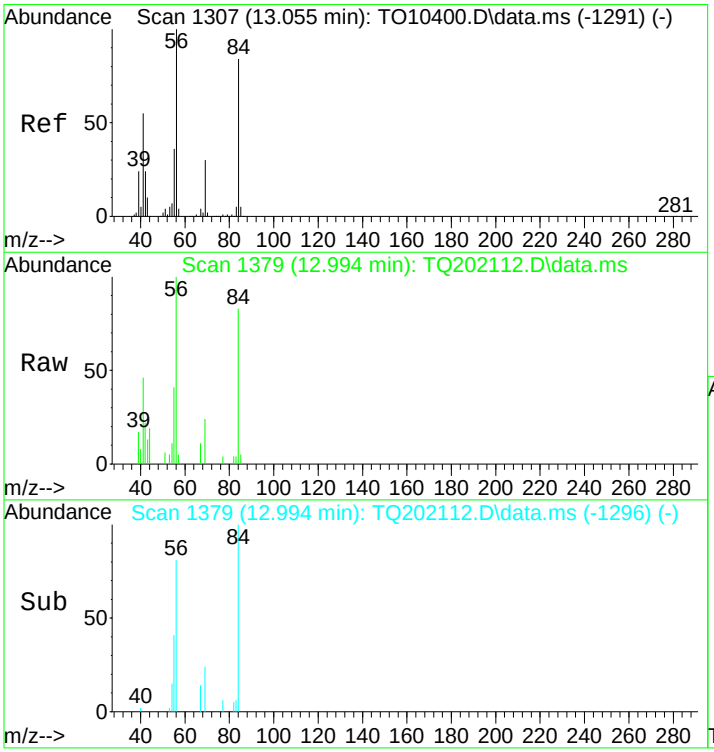


#29
Chloroform
Concen: 0.04 ppbv
RT: 12.085 min Scan# 1230
Delta R.T. 0.014 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 83 Resp: 2263

Ion	Ratio	Lower	Upper
83	100		
85	54.2	41.7	86.7
47	0.0	15.1	31.5#
87	0.0	6.7	13.9#

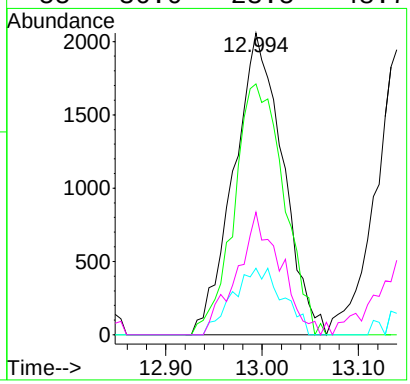


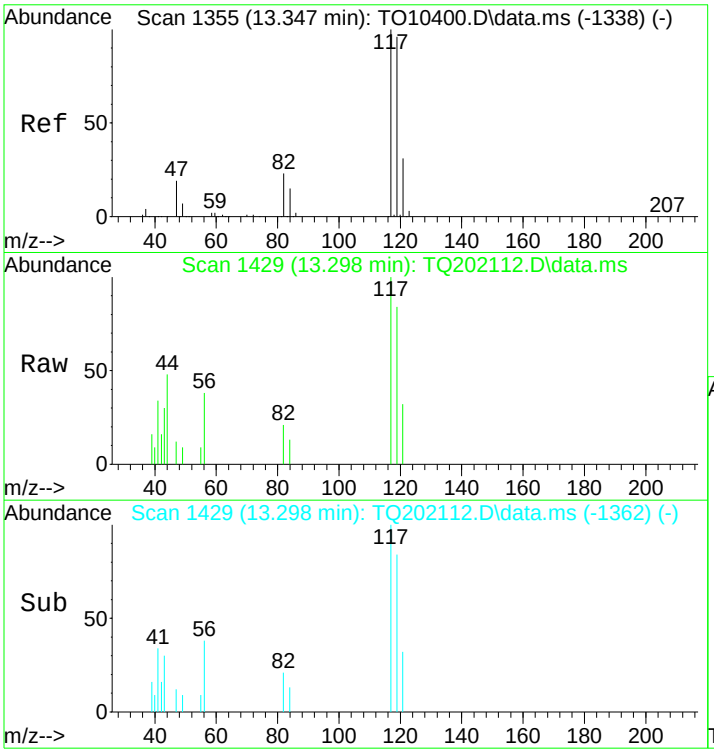


#32
Cyclohexane
Concen: 0.16 ppbv
RT: 12.994 min Scan# 1379
Delta R.T. 0.006 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 56 Resp: 7266

Ion	Ratio	Lower	Upper
56	100		
84	84.7	54.1	112.3
42	22.7	15.3	31.7
55	36.0	23.5	48.7

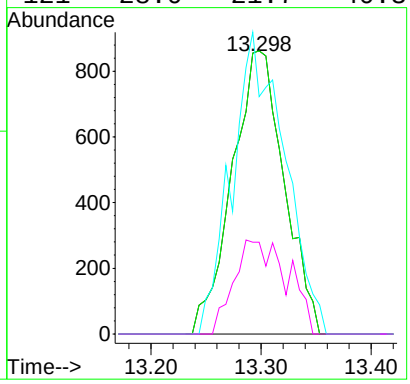


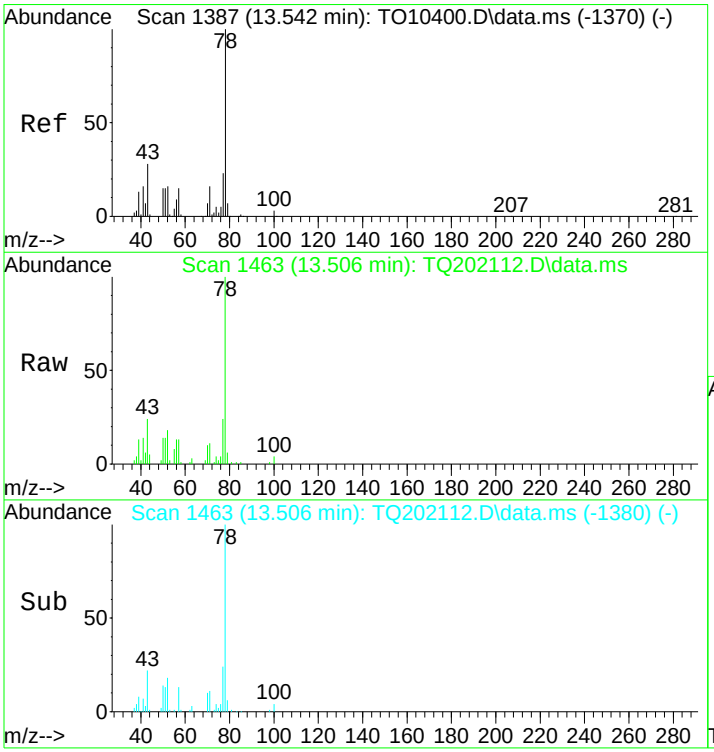


#33
Carbon Tetrachloride
Concen: 0.05 ppbv
RT: 13.298 min Scan# 1429
Delta R.T. 0.009 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:117 Resp: 2842

Ion	Ratio	Lower	Upper
117	100		
117	100.0	80.0	120.0
119	107.3	76.9	115.3
121	28.0	21.7	40.3

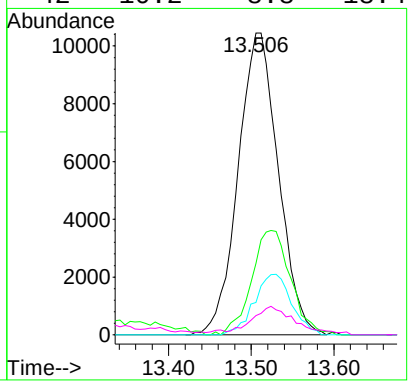


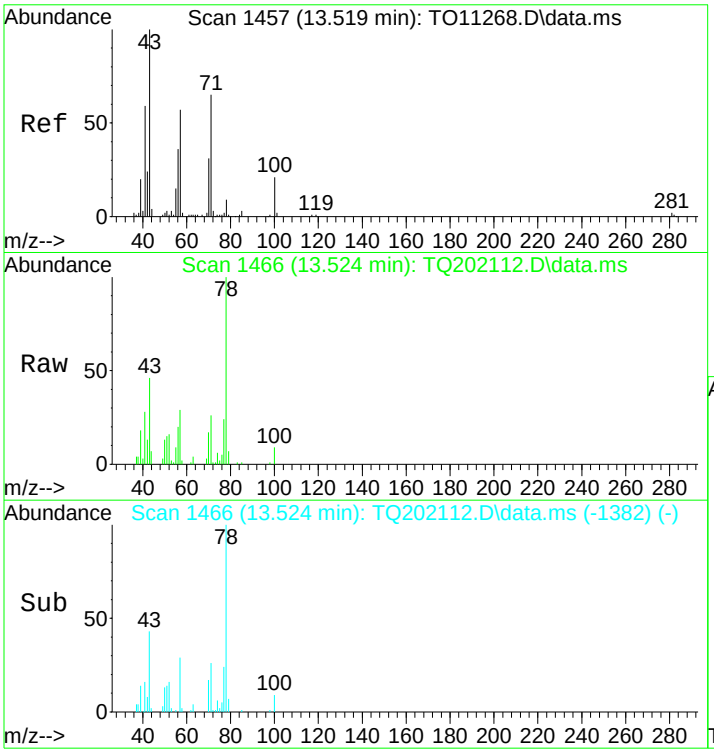


#35
Benzene
Concen: 0.42 ppbv
RT: 13.506 min Scan# 1463
Delta R.T. 0.008 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 78 Resp: 35297

Ion	Ratio	Lower	Upper
78	100		
43	33.7	37.5	77.9#
71	18.7	22.0	45.8#
42	10.2	8.8	18.4

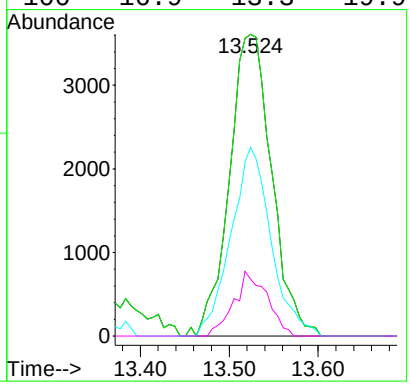


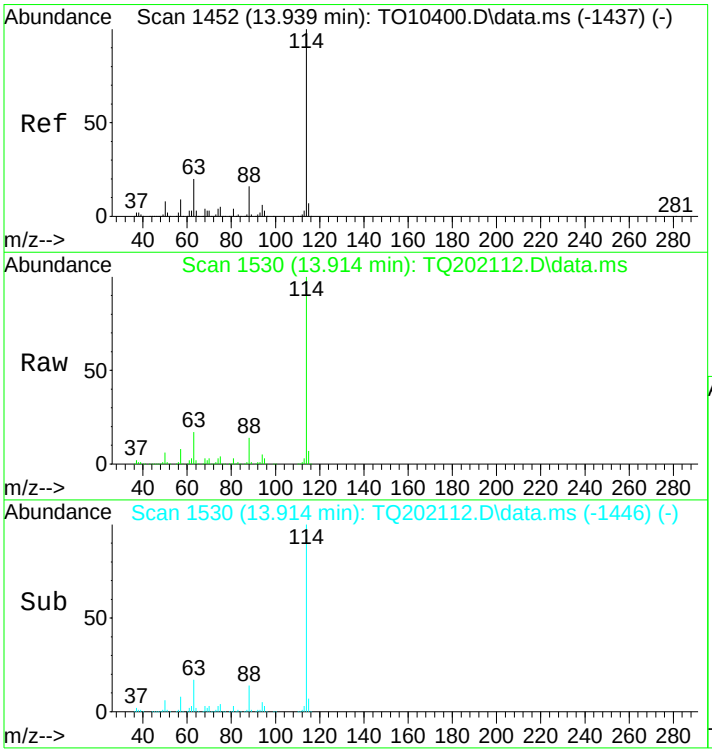


#36
n-Heptane
Concen: 0.25 ppbv
RT: 13.524 min Scan# 1466
Delta R.T. 0.009 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 43 Resp: 11898

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	0.0	42.6	64.0#
100	16.9	13.3	19.9

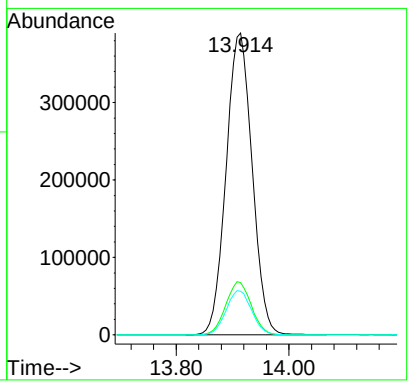


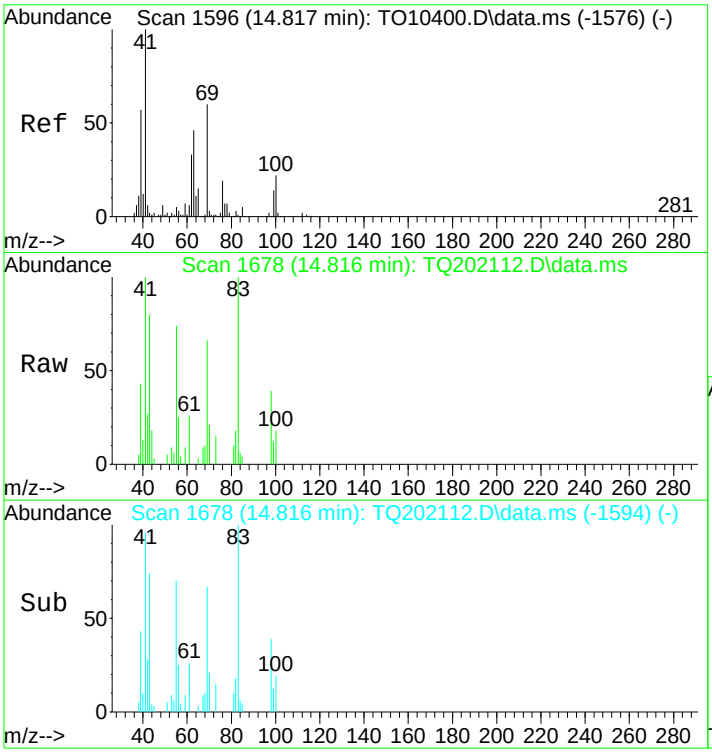


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.914 min Scan# 1530
Delta R.T. 0.012 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:114 Resp: 1249821

Ion	Ratio	Lower	Upper
114	100		
63	17.2	12.9	26.9
88	14.3	10.7	22.3

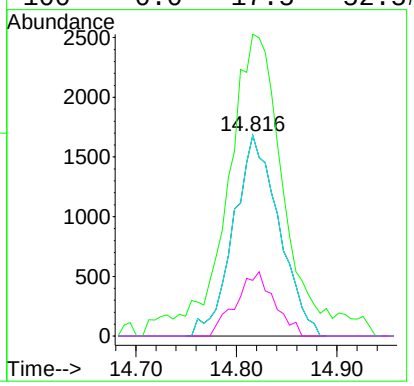


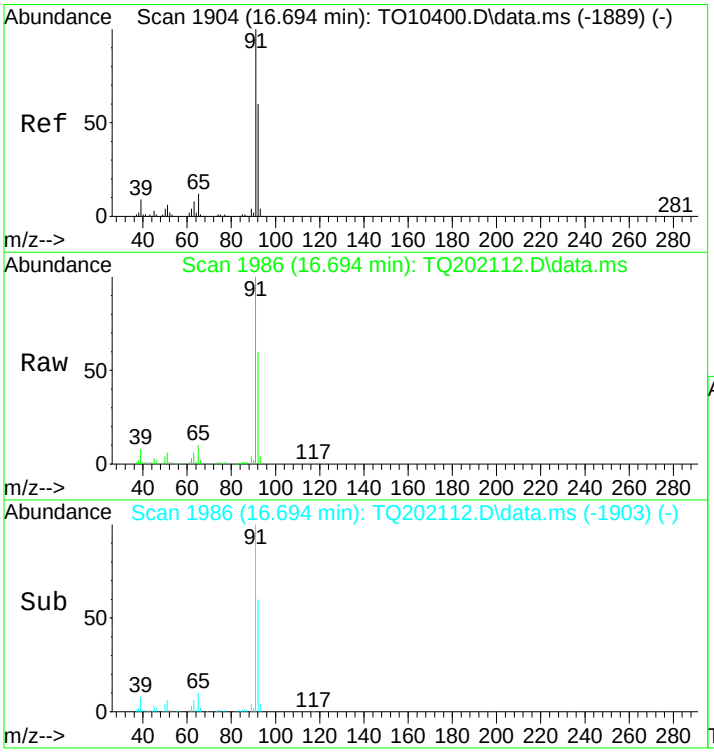


#40
Methyl Methacrylate
Concen: 0.19 ppbv
RT: 14.816 min Scan# 1678
Delta R.T. 0.012 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 69 Resp: 5286

Ion	Ratio	Lower	Upper
69	100		
41	185.1	70.0	210.0
69	100.0	50.0	150.0
100	0.0	17.5	52.5#

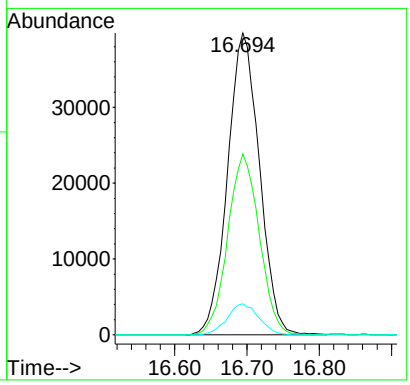


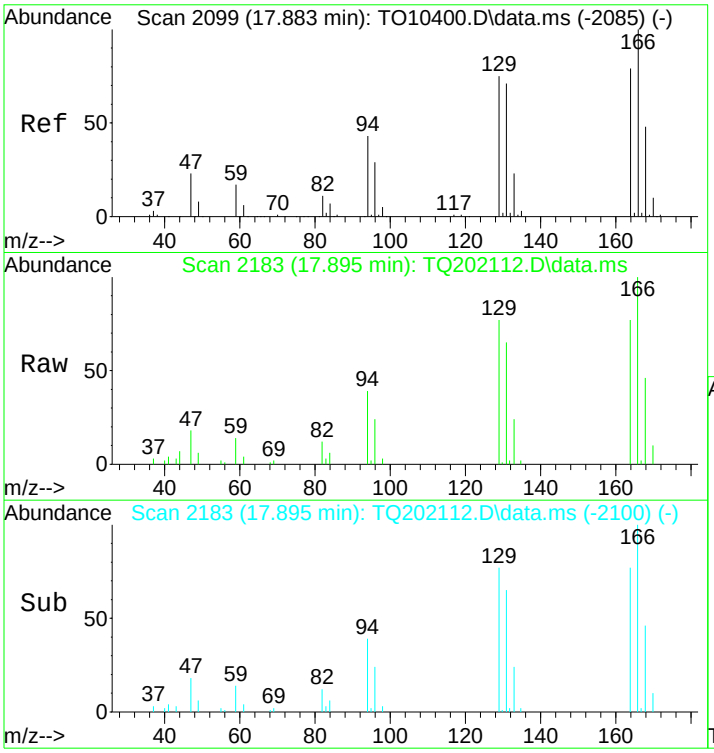


#45
Toluene
Concen: 1.13 ppbv
RT: 16.694 min Scan# 1986
Delta R.T. 0.006 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 91 Resp: 121959

Ion	Ratio	Lower	Upper
91	100		
92	59.3	38.7	80.3
65	10.2	7.5	15.5

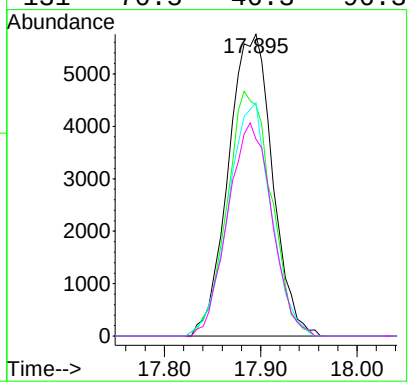


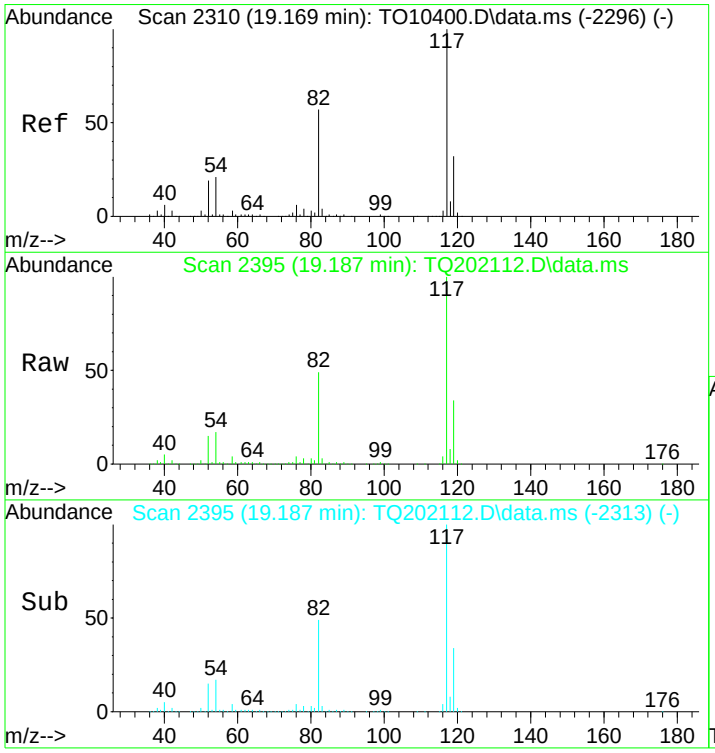


#50
Tetrachloroethylene
Concen: 0.25 ppbv
RT: 17.895 min Scan# 2183
Delta R.T. 0.009 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:166 Resp: 18300

Ion	Ratio	Lower	Upper
166	100		
164	81.2	51.0	106.0
129	75.0	48.1	99.9
131	70.5	46.3	96.3

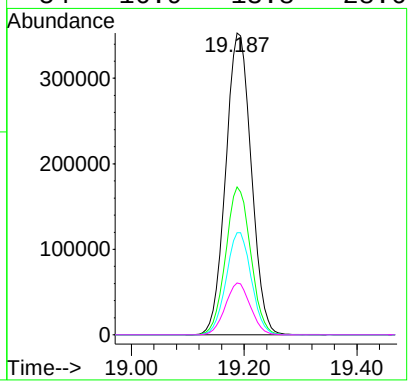


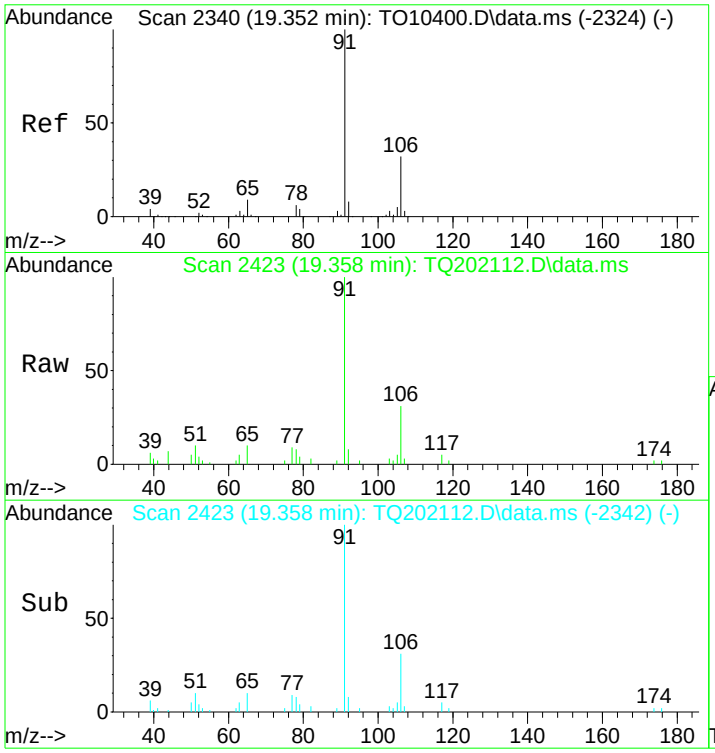


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.187 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:117 Resp: 1109381

Ion	Ratio	Lower	Upper
117	100		
82	48.1	37.1	77.1
119	33.4	22.1	45.9
54	16.9	13.8	28.6

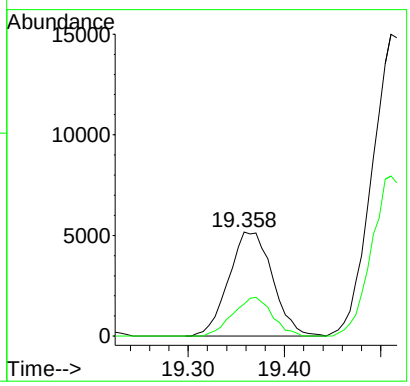


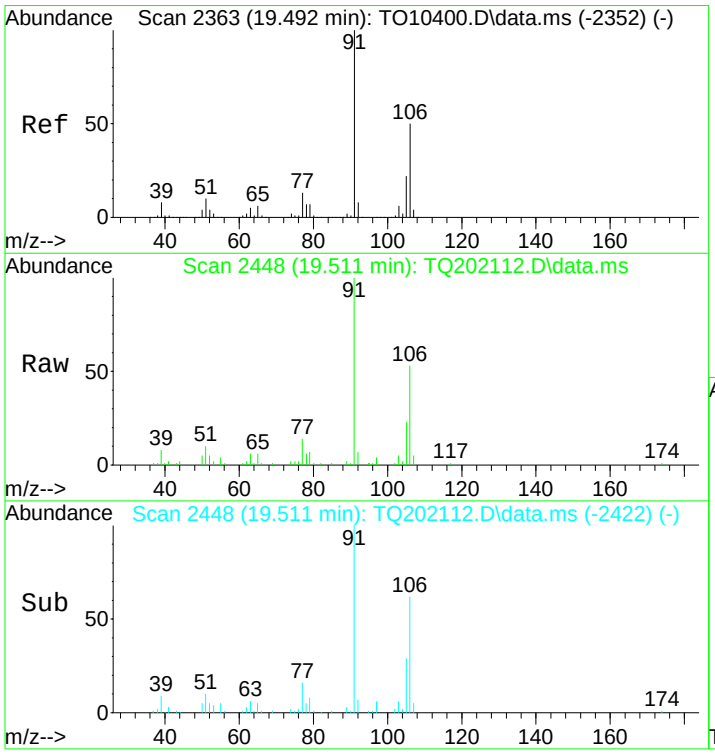


#56
Ethylbenzene
Concen: 0.13 ppbv
RT: 19.358 min Scan# 2423
Delta R.T. -0.003 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 91 Resp: 16404

Ion	Ratio	Lower	Upper
91	100		
106	33.3	20.5	42.7

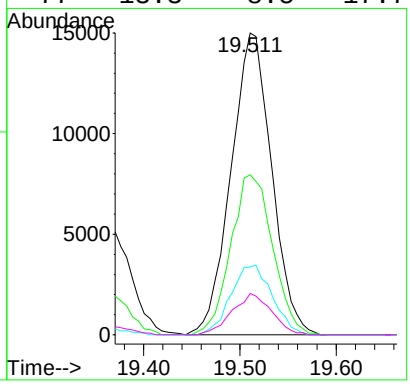


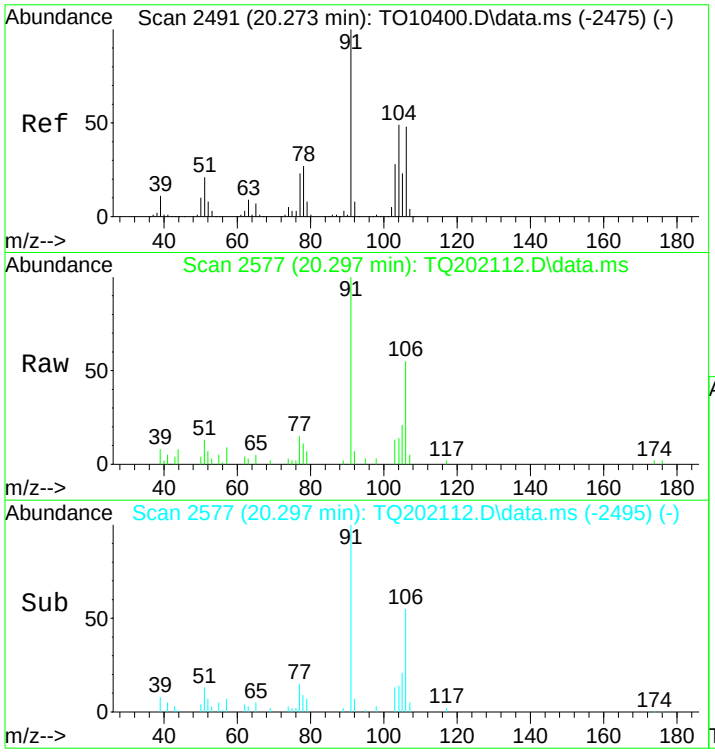


#57
p- & m-Xylenes
Concen: 0.48 ppbv
RT: 19.511 min Scan# 2448
Delta R.T. 0.001 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 91 Resp: 44047

Ion	Ratio	Lower	Upper
91	100		
106	54.5	32.6	67.8
105	23.5	14.5	30.1
77	13.3	8.5	17.7

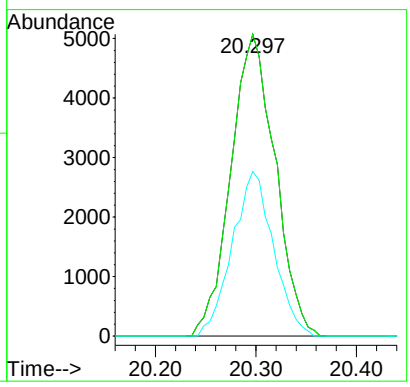


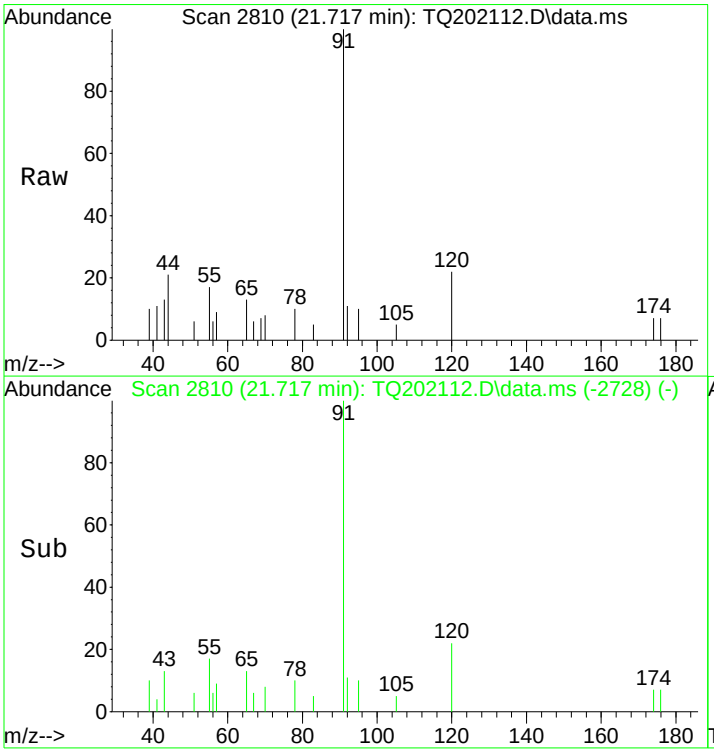


#58
o-Xylene
Concen: 0.15 ppbv
RT: 20.297 min Scan# 2577
Delta R.T. 0.002 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 91 Resp: 15497

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	50.7	38.2	57.2

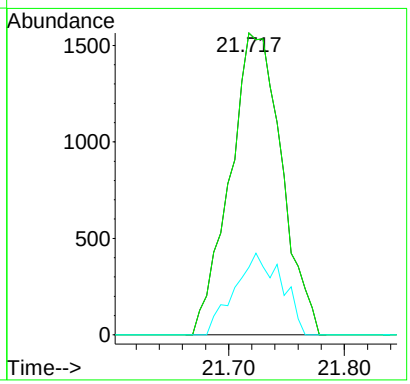


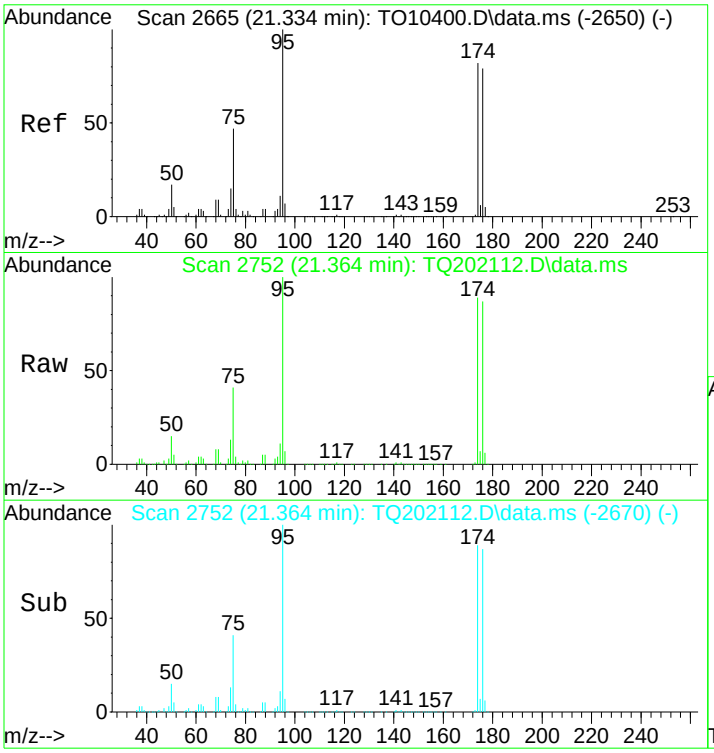


#61
n-Propylbenzene
Concen: 0.03 ppbv
RT: 21.717 min Scan# 2810
Delta R.T. -0.002 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 91 Resp: 4859

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
120	24.6	10.0	30.0

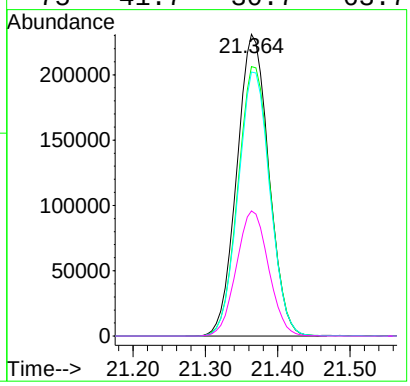


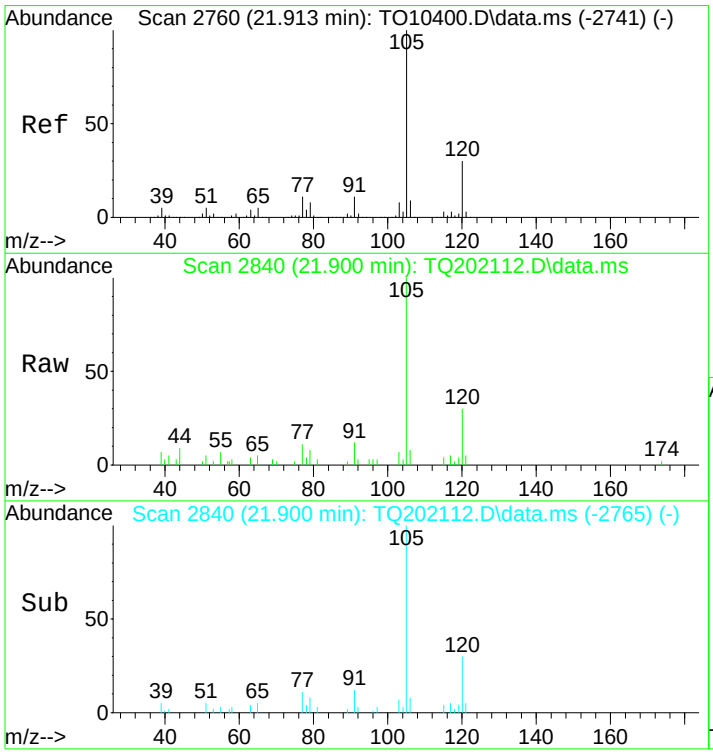


#64
p-Bromofluorobenzene
Concen: 9.38 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. -0.000 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion: 95 Resp: 710956

Ion	Ratio	Lower	Upper
95	100		
174	89.7	53.2	110.6
176	87.2	51.6	107.2
75	41.7	30.7	63.7

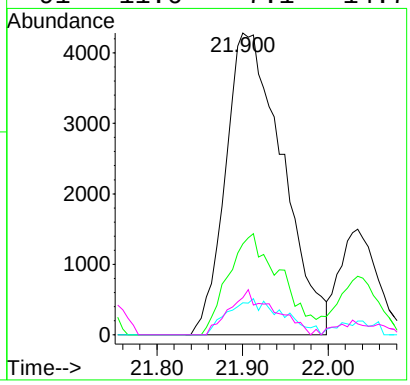


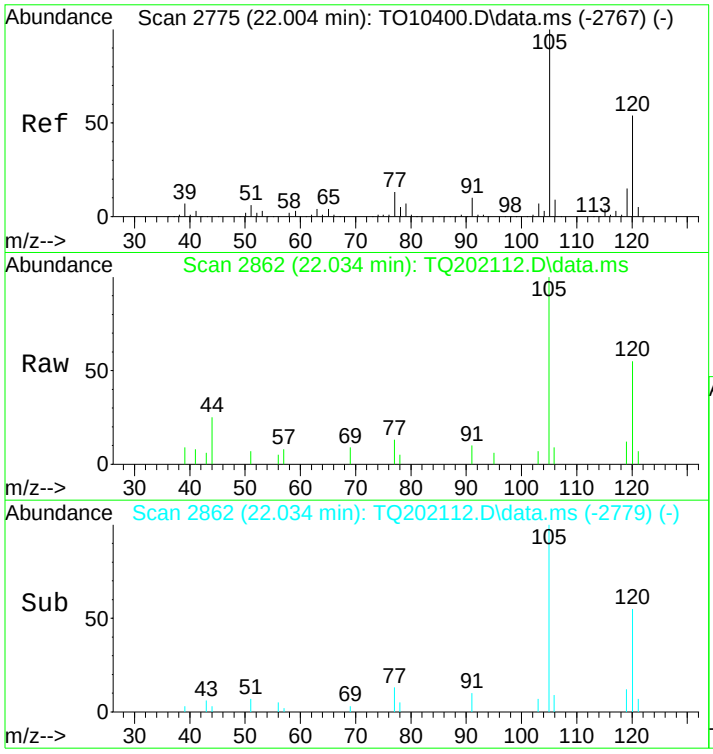


#65
4-Ethyltoluene
Concen: 0.14 ppbv
RT: 21.900 min Scan# 2840
Delta R.T. -0.043 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:105 Resp: 19774

Ion	Ratio	Lower	Upper
105	100		
120	30.9	19.6	40.8
77	11.4	7.3	15.3
91	11.6	7.1	14.7

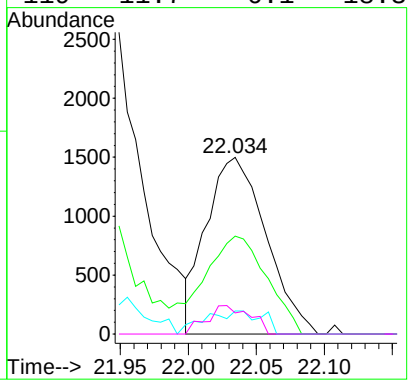


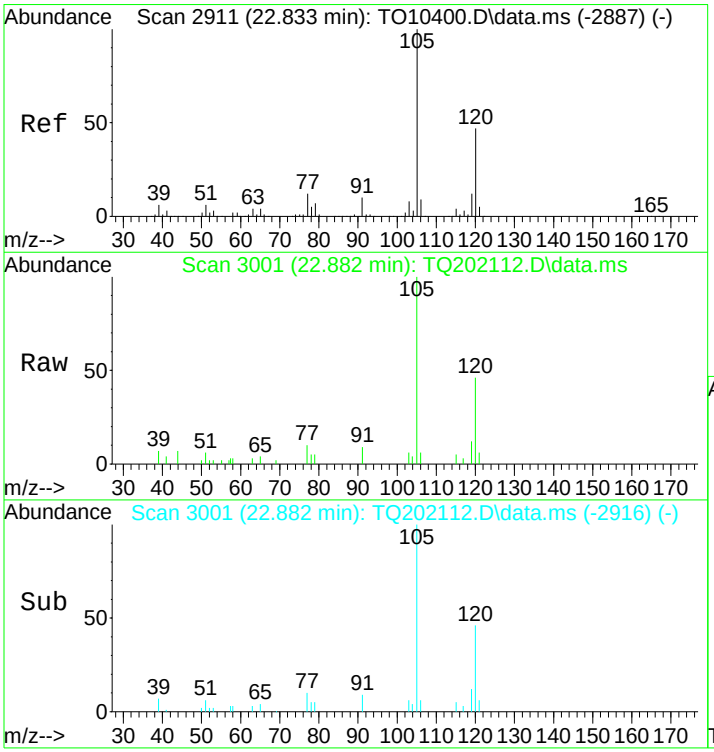


#66
1,3,5-Trimethylbenzene
Concen: 0.04 ppbv
RT: 22.034 min Scan# 2862
Delta R.T. 0.007 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:105 Resp: 4583

Ion	Ratio	Lower	Upper
105	100		
120	59.2	39.2	58.8#
77	12.7	10.1	15.1
119	11.7	6.1	18.3

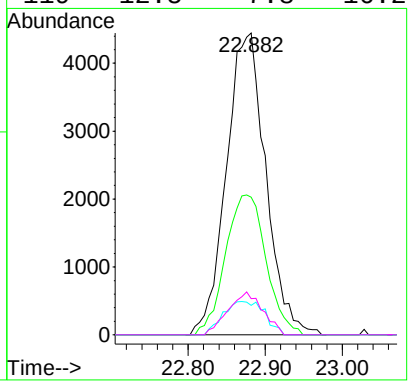


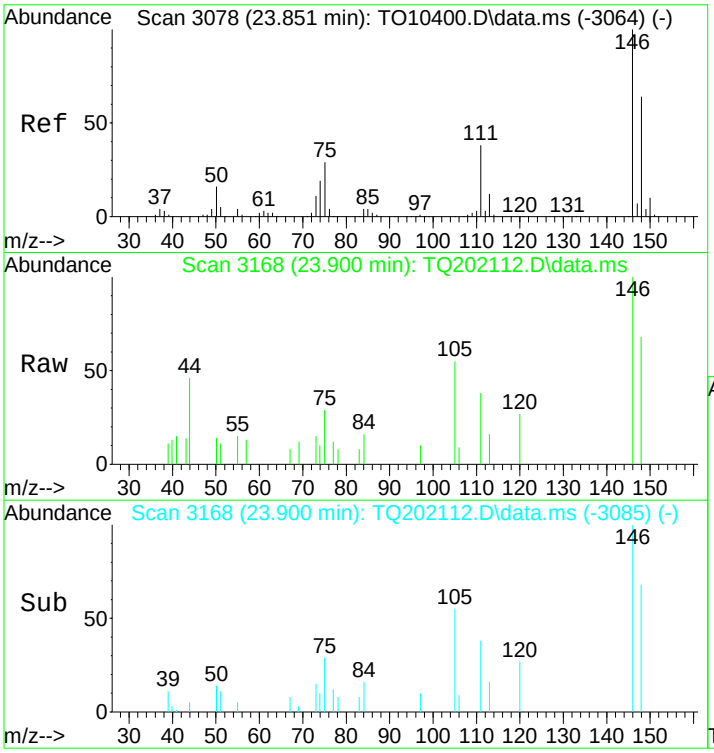


#68
1,2,4-Trimethylbenzene
Concen: 0.13 ppbv
RT: 22.882 min Scan# 3001
Delta R.T. 0.016 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:105 Resp: 15804

Ion	Ratio	Lower	Upper
105	100		
120	47.7	30.2	62.6
77	11.7	8.1	16.9
119	12.5	7.8	16.2

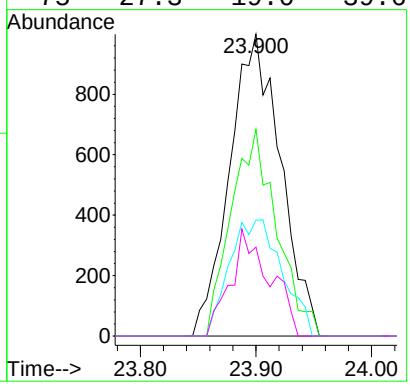


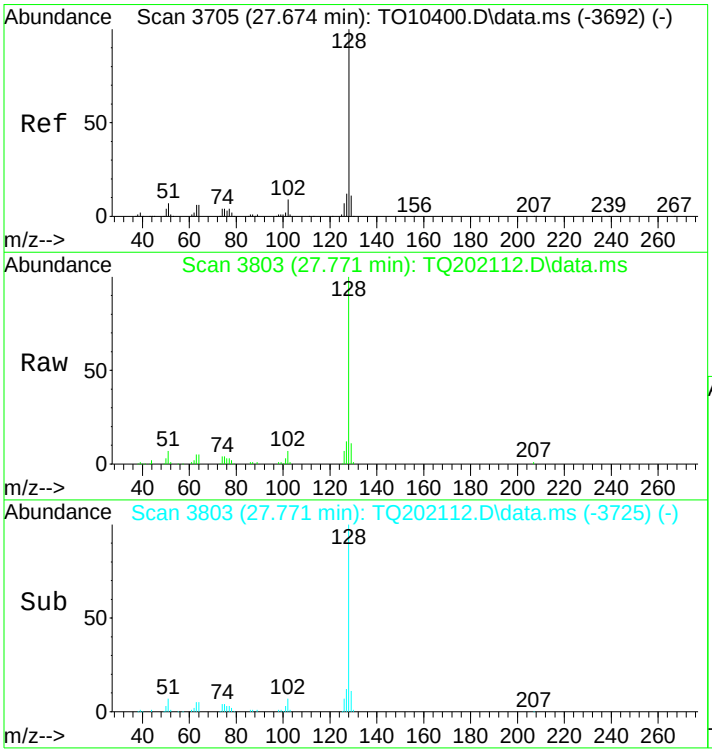


#72
1,4-Dichlorobenzene
Concen: 0.03 ppbv
RT: 23.900 min Scan# 3168
Delta R.T. 0.008 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:146 Resp: 3060

Ion	Ratio	Lower	Upper
146	100		
148	61.4	41.6	86.4
111	39.7	24.8	51.6
75	27.3	19.0	39.6

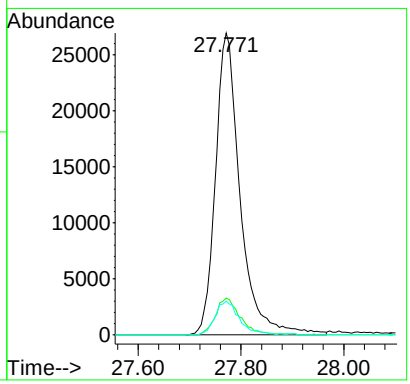




#78
Naphthalene
Concen: 0.45 ppbv
RT: 27.771 min Scan# 3803
Delta R.T. -0.022 min
Lab File: TQ202112.D
Acq: 20 Apr 2017 9:19 pm

Tgt Ion:128 Resp: 89556

Ion	Ratio	Lower	Upper
128	100		
127	12.0	8.1	16.9
129	11.0	7.1	14.7



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

816/V2

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-02 File ID: TQ202113.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/20/17 22:21

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	19.2	13	U
71-55-6	1,1,1-Trichloroethane	19.2	10	U
79-34-5	1,1,2,2-Tetrachloroethane	19.2	13	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	19.2	15	U
79-00-5	1,1,2-Trichloroethane	19.2	10	U
75-34-3	1,1-Dichloroethane	19.2	7.8	U
75-35-4	1,1-Dichloroethylene	19.2	7.6	U
120-82-1	1,2,4-Trichlorobenzene	19.2	14	U
95-63-6	1,2,4-Trimethylbenzene	19.2	9.5	U
106-93-4	1,2-Dibromoethane	19.2	15	U
95-50-1	1,2-Dichlorobenzene	19.2	12	U
107-06-2	1,2-Dichloroethane	19.2	7.8	U
78-87-5	1,2-Dichloropropane	19.2	8.9	U
76-14-2	1,2-Dichlorotetrafluoroethane	19.2	13	U
108-67-8	1,3,5-Trimethylbenzene	19.2	9.5	U
106-99-0	1,3-Butadiene	19.2	13	U
541-73-1	1,3-Dichlorobenzene	19.2	12	U
142-28-9	1,3-Dichloropropane	19.2	8.9	U
106-46-7	1,4-Dichlorobenzene	19.2	12	U
123-91-1	1,4-Dioxane	19.2	14	U
78-93-3	2-Butanone	19.2	81	D
591-78-6	2-Hexanone	19.2	16	U
107-05-1	3-Chloropropene	19.2	30	U
108-10-1	4-Methyl-2-pentanone	19.2	7.9	U
67-64-1	Acetone	19.2	280	D
107-13-1	Acrylonitrile	19.2	4.2	U
71-43-2	Benzene	19.2	6.1	U
100-44-7	Benzyl chloride	19.2	10	U
75-27-4	Bromodichloromethane	19.2	13	U
75-25-2	Bromoform	19.2	20	U
74-83-9	Bromomethane	19.2	7.5	U
75-15-0	Carbon disulfide	19.2	49	D
56-23-5	Carbon tetrachloride	19.2	3.0	U
108-90-7	Chlorobenzene	19.2	8.9	U
75-00-3	Chloroethane	19.2	5.1	U
67-66-3	Chloroform	19.2	9.4	U
74-87-3	Chloromethane	19.2	7.2	D
156-59-2	cis-1,2-Dichloroethylene	19.2	7.6	U
10061-01-5	cis-1,3-Dichloropropylene	19.2	8.7	U
110-82-7	Cyclohexane	19.2	6.6	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

816/V2

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-02 File ID: TQ202113.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/20/17 22:21

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
124-48-1	Dibromochloromethane	19.2	16	U
75-71-8	Dichlorodifluoromethane	19.2	9.5	U
141-78-6	Ethyl acetate	19.2	14	U
100-41-4	Ethyl Benzene	19.2	8.4	U
87-68-3	Hexachlorobutadiene	19.2	21	U
67-63-0	Isopropanol	19.2	54	D
80-62-6	Methyl Methacrylate	19.2	7.9	U
1634-04-4	Methyl tert-butyl ether (MTBE)	19.2	6.9	U
75-09-2	Methylene chloride	19.2	13	U
142-82-5	n-Heptane	19.2	7.9	U
110-54-3	n-Hexane	19.2	6.8	U
95-47-6	o-Xylene	19.2	8.4	U
179601-23-1	p- & m- Xylenes	19.2	17	U
622-96-8	p-Ethyltoluene	19.2	9.5	U
115-07-1	Propylene	19.2	3.3	U
100-42-5	Styrene	19.2	8.2	U
127-18-4	Tetrachloroethylene	19.2	9.1	D
109-99-9	Tetrahydrofuran	19.2	37	D
108-88-3	Toluene	19.2	17	D
156-60-5	trans-1,2-Dichloroethylene	19.2	7.6	U
10061-02-6	trans-1,3-Dichloropropylene	19.2	8.7	U
79-01-6	Trichloroethylene	19.2	2.6	U
75-69-4	Trichlorofluoromethane (Freon 11)	19.2	11	U
108-05-4	Vinyl acetate	19.2	6.8	U
593-60-2	Vinyl bromide	19.2	8.4	U
75-01-4	Vinyl Chloride	19.2	4.9	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	7.29	72.9	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	366148	12.317	304065	12.317	
1,4-Difluorobenzene	1195864	13.908	999125	13.908	
d5-Chlorobenzene	1028066	19.188	880527	19.188	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202113.D
Acq On : 20 Apr 2017 10:21 pm
Sample : 17D0833-02 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-02
Misc : QBTO2042017A 0833-02 10X
ALS Vial : 13 Sample Multiplier: 19.24

Quant Time: Apr 26 11:49:29 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

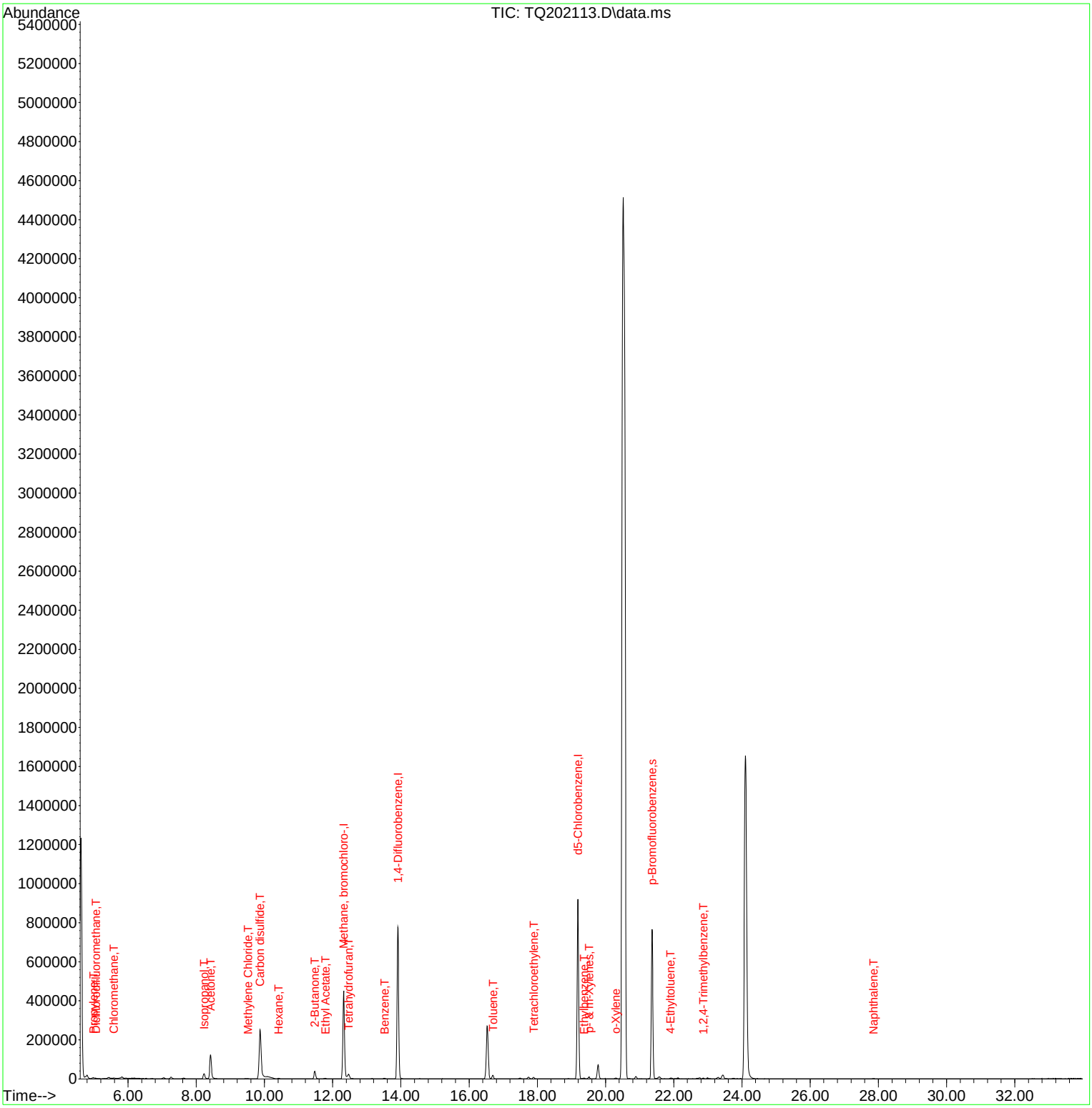
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.317	49	366148	10.00	ppbv		0.01
37) 1,4-Difluorobenzene	13.908	114	1195864	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1028066	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	512015	7.29	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 72.90%				
Target Compounds							Qvalue
2) Propylene	4.983	42	1307	0.09	ppbv	#	54
3) Dichlorodifluoromethane	5.050	85	1848	0.03	ppbv	#	50
5) Chloromethane	5.580	50	2431	0.18	ppbv		94
12) Isopropanol	8.226	45	59011	1.14	ppbv		100
14) Acetone	8.421	43	274924	6.11	ppbv		93
18) Methylene Chloride	9.513	49	1378	0.05	ppbv	#	86
20) Carbon disulfide	9.866	76	53471	0.82	ppbv	#	82
23) Hexane	10.409	57	1797	0.04	ppbv		91
26) 2-Butanone	11.476	43	84588	1.43	ppbv		100
27) Ethyl Acetate	11.787	43	5301	0.09	ppbv	#	39
30) Tetrahydrofuran	12.469	42	20566	0.65	ppbv		100
35) Benzene	13.518	78	4100	0.05	ppbv	#	34
45) Toluene	16.700	91	24342	0.23	ppbv		97
50) Tetrachloroethylene	17.895	166	4492	0.07	ppbv		97
56) Ethylbenzene	19.370	91	4342	0.04	ppbv	#	75
57) p- & m-Xylenes	19.517	91	9297	0.11	ppbv		94
58) o-Xylene	20.297	91	3603	0.04	ppbv		100
65) 4-Ethyltoluene	21.900	105	6555	0.05	ppbv	#	91
68) 1,2,4-Trimethylbenzene	22.870	105	5462	0.05	ppbv		85
78) Naphthalene	27.857	128	4325	0.02	ppbv	#	70

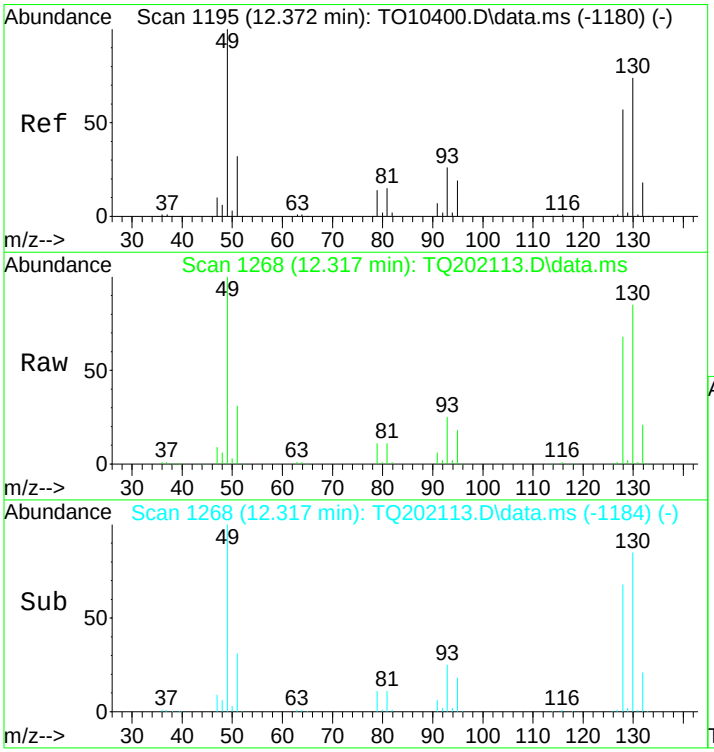
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202113.D
Acq On : 20 Apr 2017 10:21 pm
Sample : 17D0833-02 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-02
Misc : QBTO2042017A 0833-02 10X
ALS Vial : 13 Sample Multiplier: 19.24

Quant Time: Apr 26 11:49:29 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

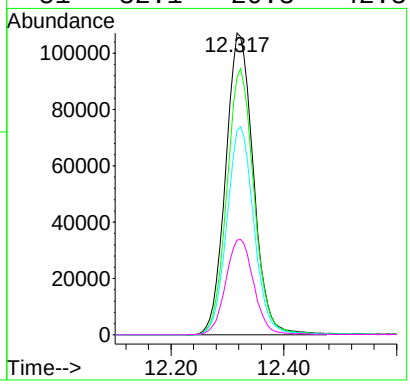


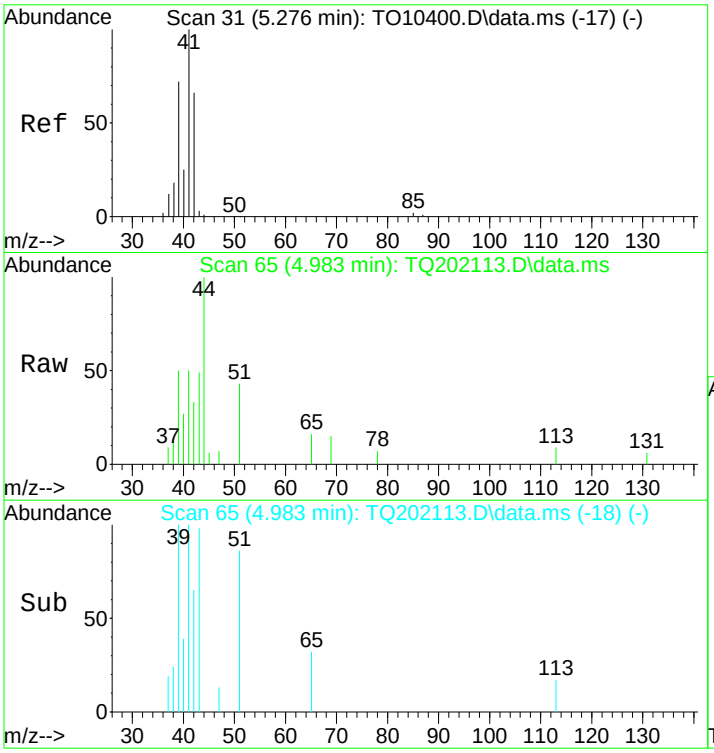


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.317 min Scan# 1268
Delta R.T. 0.013 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 49 Resp: 366148

Ion	Ratio	Lower	Upper
49	100		
130	86.4	48.1	99.9
128	67.4	38.3	79.5
51	32.1	20.3	42.3

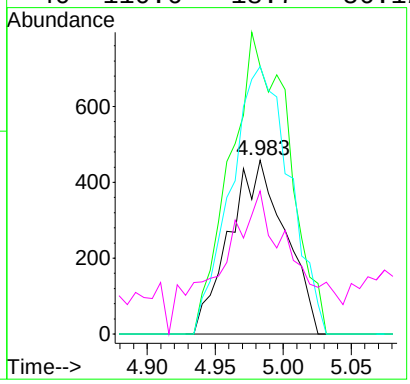


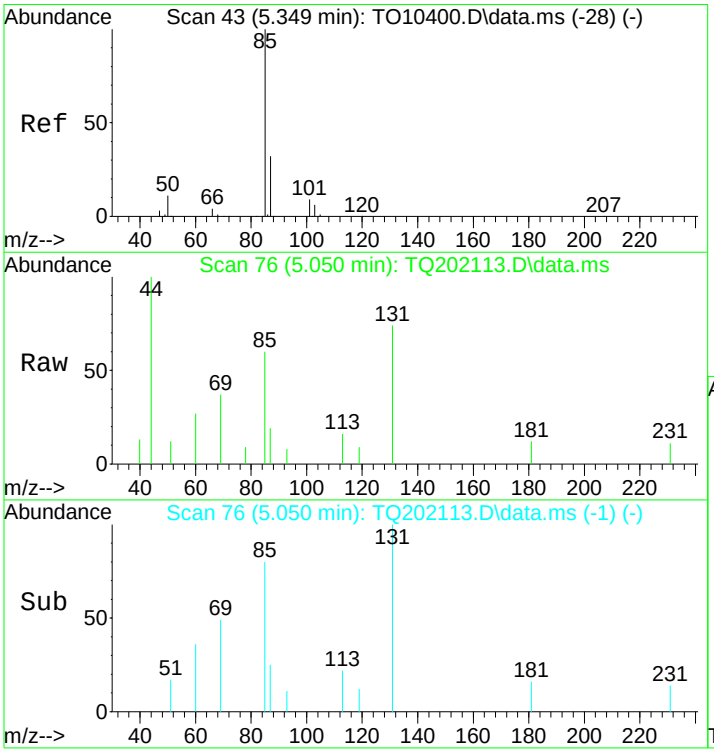


#2
Propylene
Concen: 0.09 ppbv
RT: 4.983 min Scan# 65
Delta R.T. 0.039 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 42 Resp: 1307

Ion	Ratio	Lower	Upper
42	100		
41	181.6	90.7	211.7
39	162.2	54.1	162.3
40	110.6	18.7	56.1#

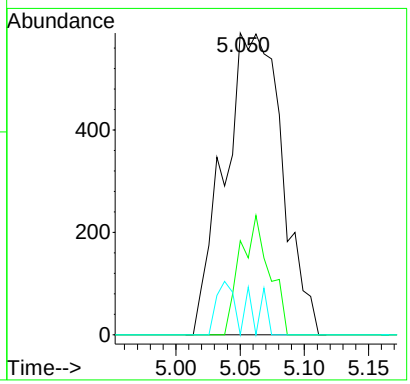


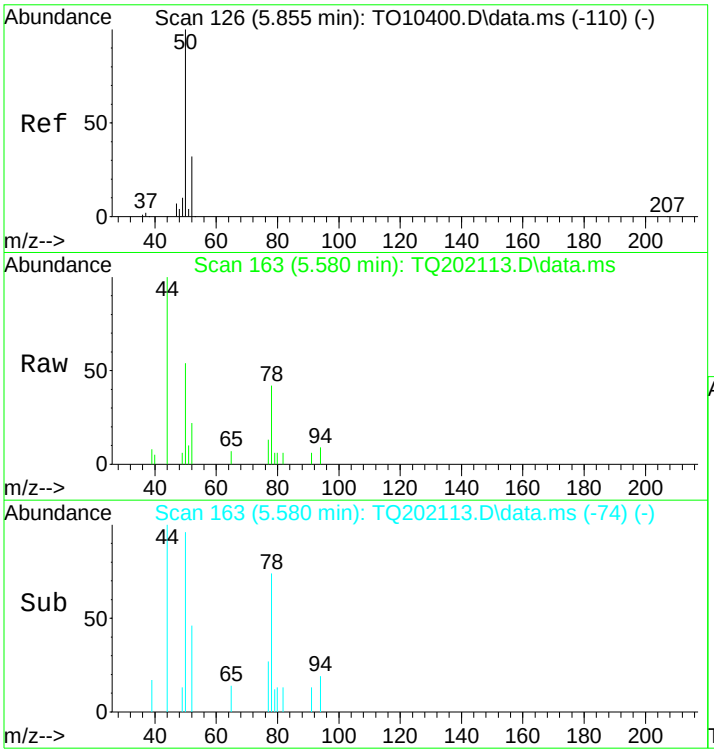


#3
Dichlorodifluoromethane
Concen: 0.03 ppbv
RT: 5.050 min Scan# 76
Delta R.T. 0.030 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 85 Resp: 1848

Ion	Ratio	Lower	Upper
85	100		
87	0.0	20.9	43.5#
50	0.0	7.2	15.0#

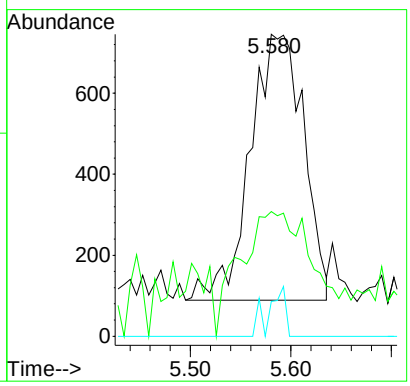


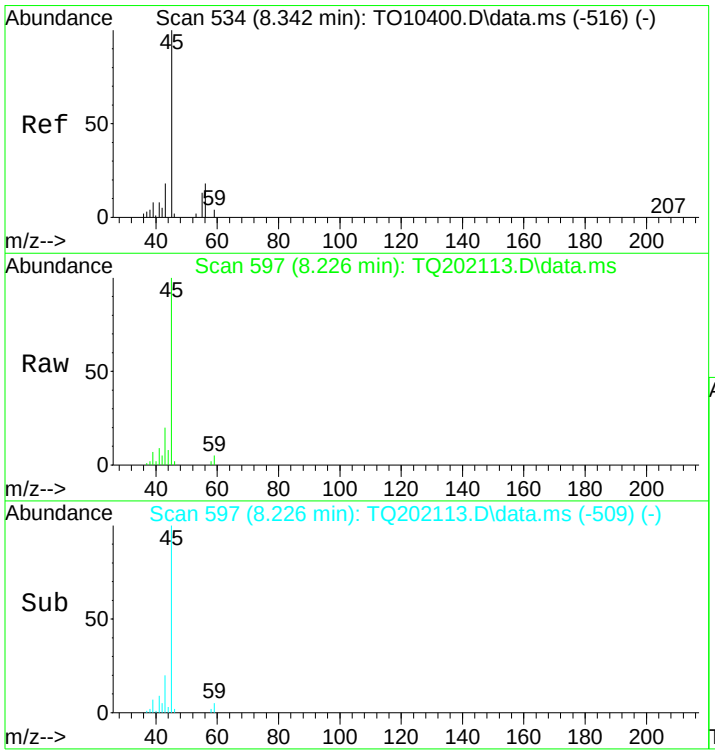


#5
Chloromethane
Concen: 0.18 ppbv
RT: 5.580 min Scan# 163
Delta R.T. 0.040 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 50 Resp: 2431

Ion	Ratio	Lower	Upper
50	100		
52	30.0	0.0	65.2
49	13.1	0.0	19.6

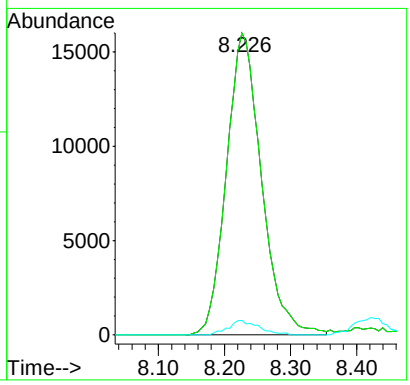


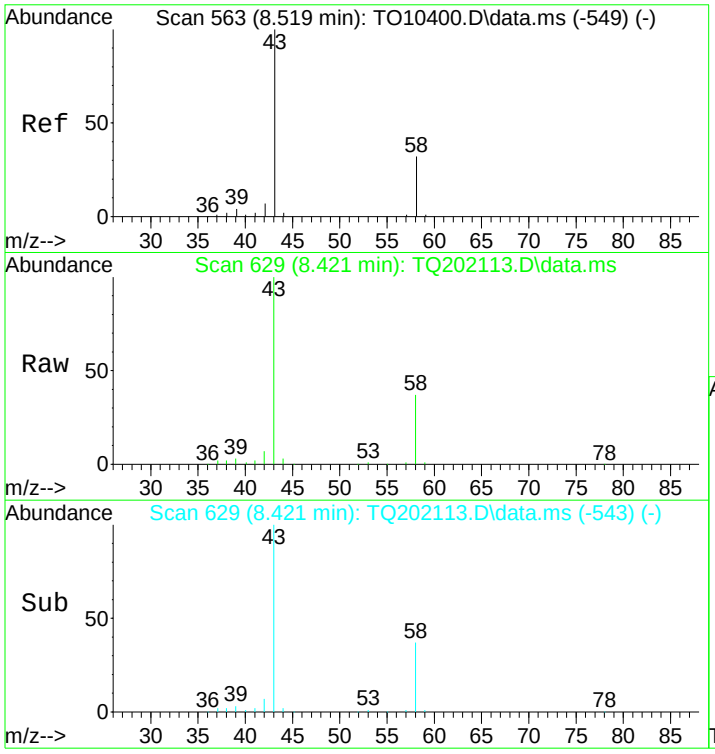


#12
Isopropanol
Concen: 1.14 ppbv
RT: 8.226 min Scan# 597
Delta R.T. 0.034 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 45 Resp: 59011

Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	4.2	0.0	10.0

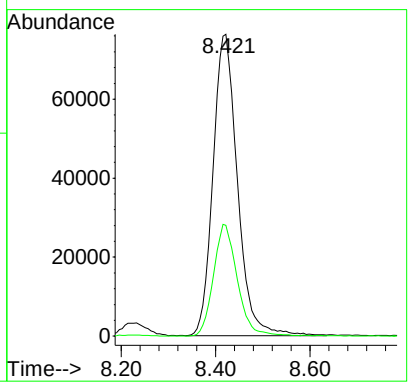


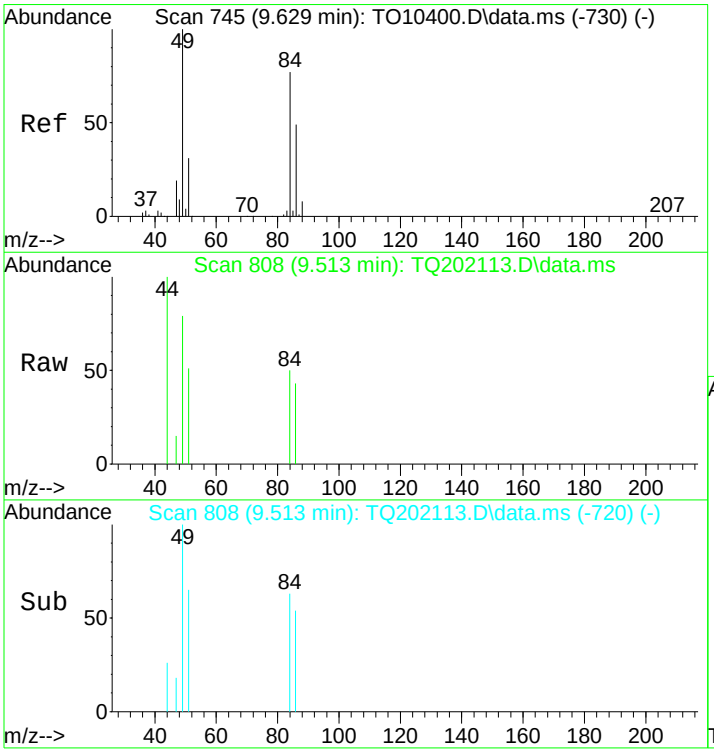


#14
Acetone
Concen: 6.11 ppbv
RT: 8.421 min Scan# 629
Delta R.T. 0.023 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 43 Resp: 274924

Ion	Ratio	Lower	Upper
43	100		
58	36.1	20.9	43.3

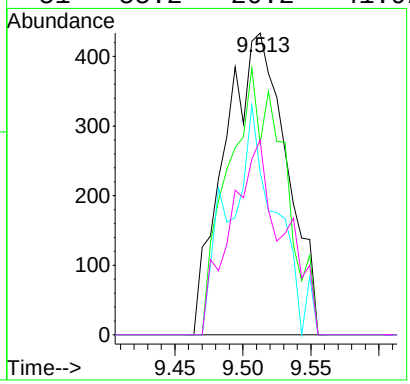


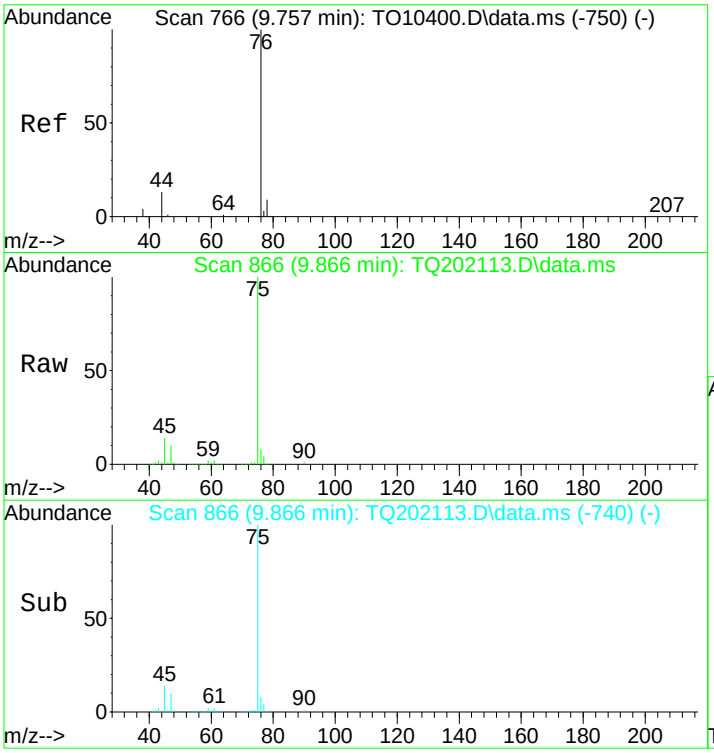


#18
Methylene Chloride
Concen: 0.05 ppbv
RT: 9.513 min Scan# 808
Delta R.T. 0.035 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 49 Resp: 1378

Ion	Ratio	Lower	Upper
49	100		
84	79.7	49.9	103.5
86	56.9	31.8	66.0
51	55.2	20.2	41.9#

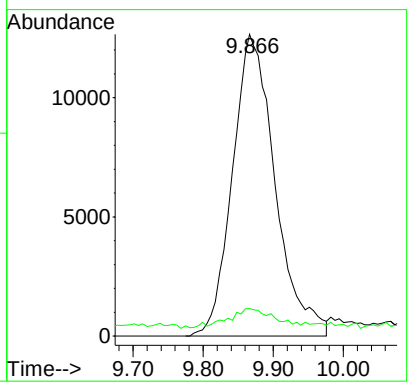


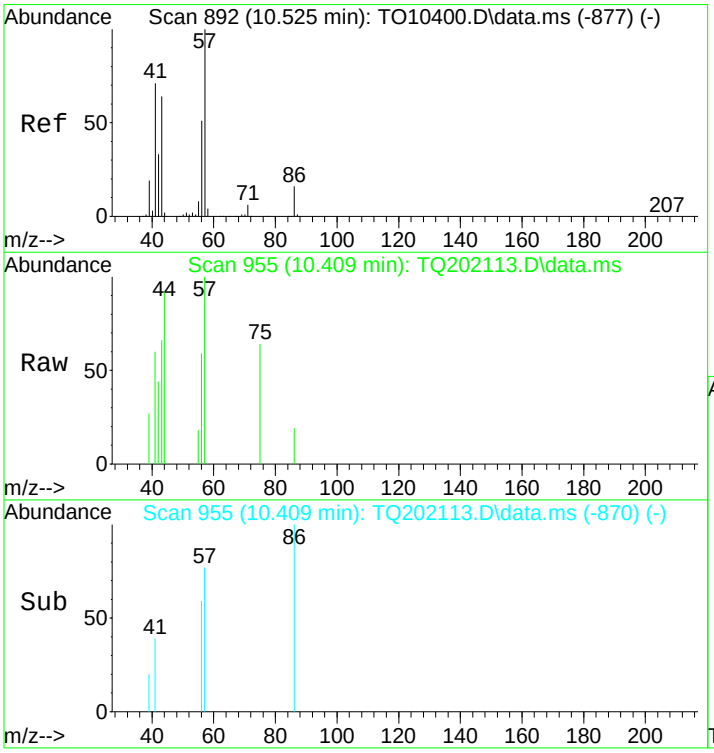


#20
Carbon disulfide
Concen: 0.82 ppbv
RT: 9.866 min Scan# 866
Delta R.T. 0.271 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 76 Resp: 53471

Ion	Ratio	Lower	Upper
76	100		
44	5.5	8.3	17.3#

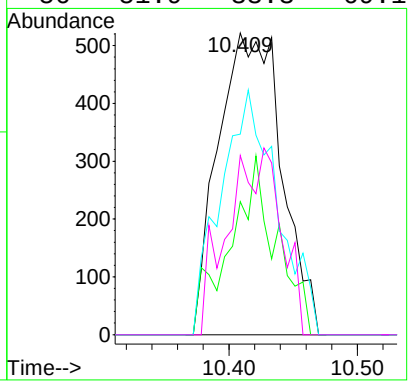


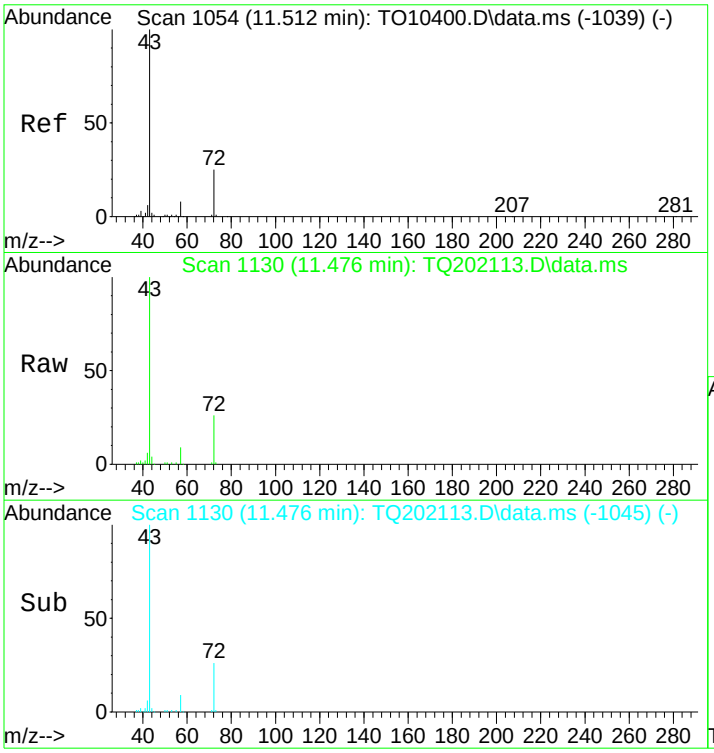


#23
Hexane
Concen: 0.04 ppbv
RT: 10.409 min Scan# 955
Delta R.T. 0.016 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 57 Resp: 1797

Ion	Ratio	Lower	Upper
57	100		
42	43.1	21.6	45.0
43	72.6	42.0	87.2
56	51.9	33.3	69.1

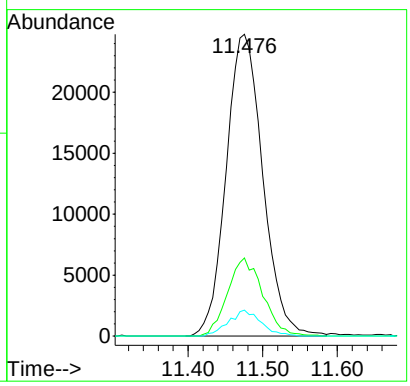


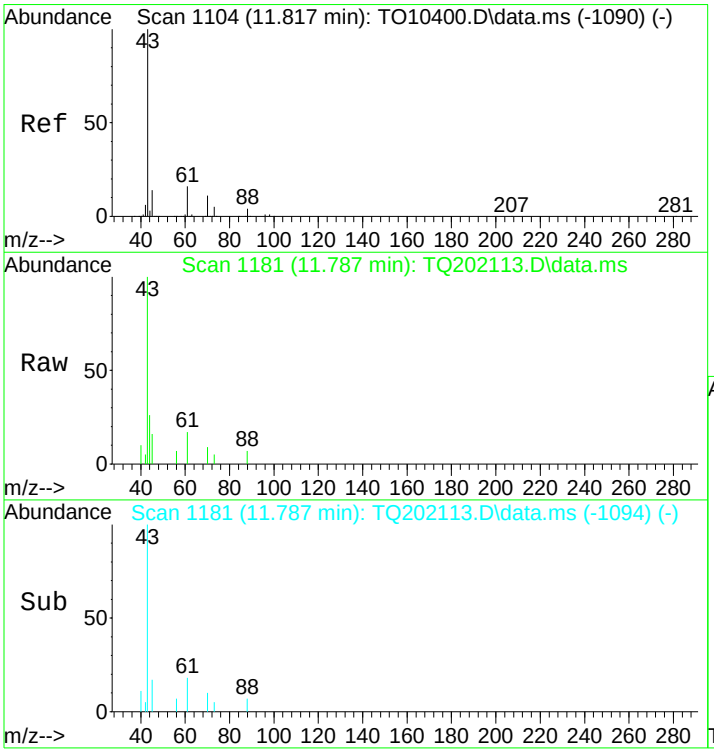


#26
2-Butanone
Concen: 1.43 ppbv
RT: 11.476 min Scan# 1130
Delta R.T. 0.021 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 43 Resp: 84588

Ion	Ratio	Lower	Upper
43	100		
72	24.8	16.1	33.5
57	7.6	4.9	10.3

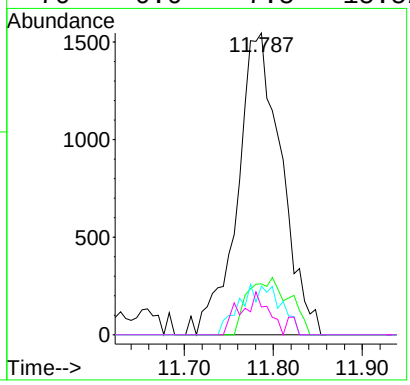


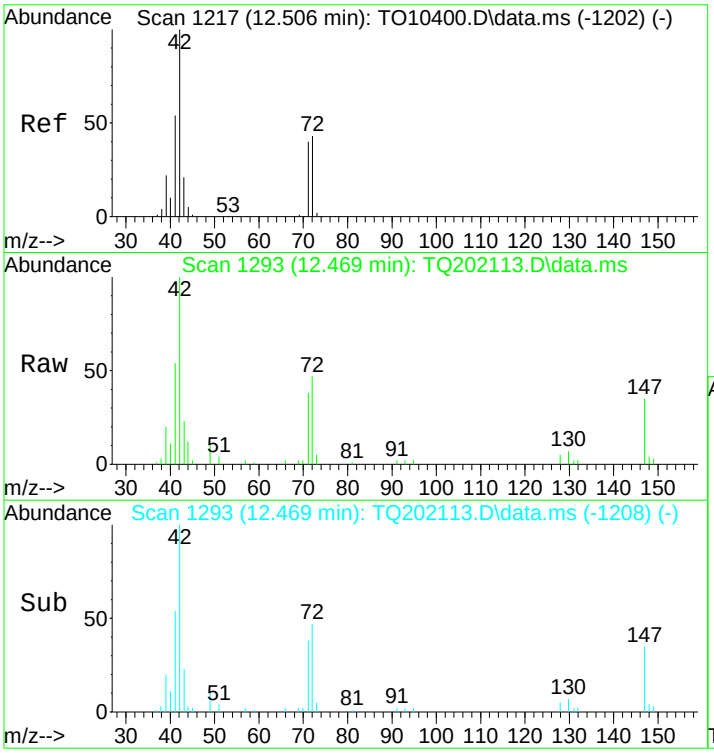


#27
Ethyl Acetate
Concen: 0.09 ppbv
RT: 11.787 min Scan# 1181
Delta R.T. 0.028 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 43 Resp: 5301

Ion	Ratio	Lower	Upper
43	100		
61	18.0	51.4	106.8#
45	0.0	9.4	19.6#
70	0.0	7.5	15.5#

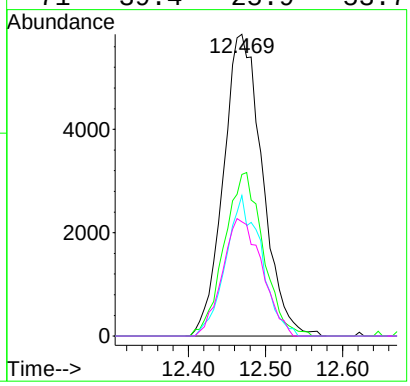


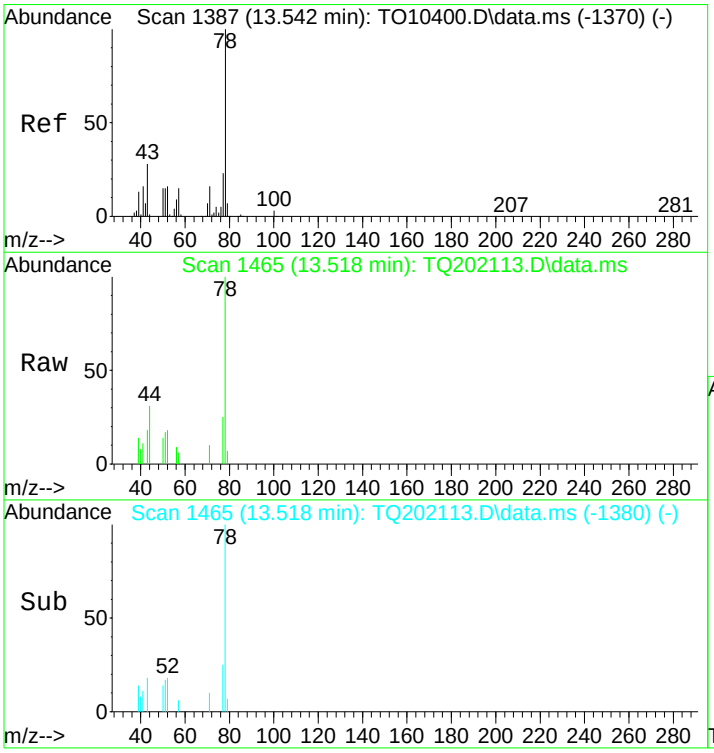


#30
Tetrahydrofuran
Concen: 0.65 ppbv
RT: 12.469 min Scan# 1293
Delta R.T. 0.020 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 42 Resp: 20566

Ion	Ratio	Lower	Upper
42	100		
41	54.0	35.2	73.0
72	42.3	27.2	56.6
71	39.4	25.9	53.7

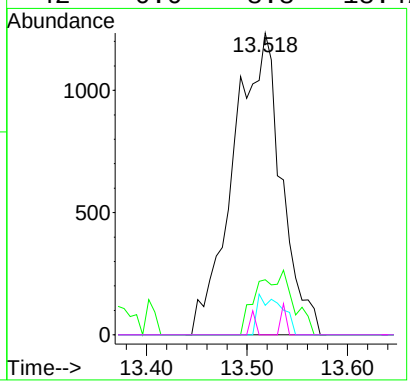


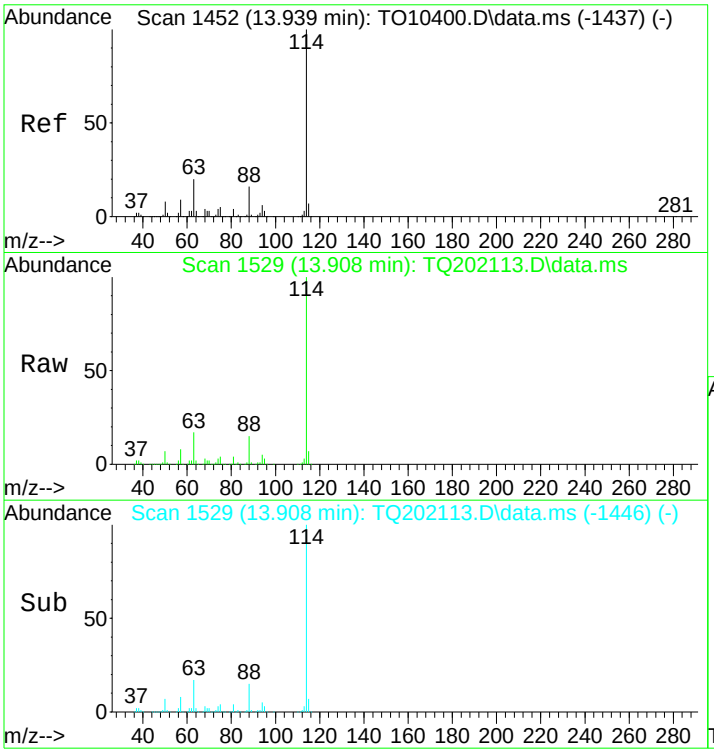


#35
Benzene
Concen: 0.05 ppbv
RT: 13.518 min Scan# 1465
Delta R.T. 0.020 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 78 Resp: 4100

Ion	Ratio	Lower	Upper
78	100		
43	0.0	37.5	77.9#
71	0.0	22.0	45.8#
42	0.0	8.8	18.4#

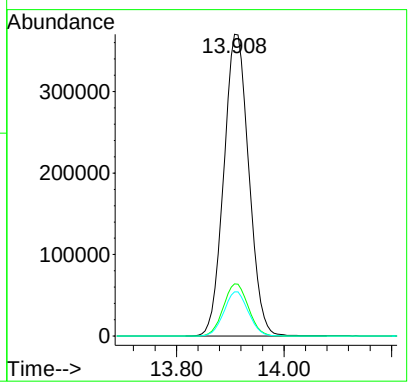


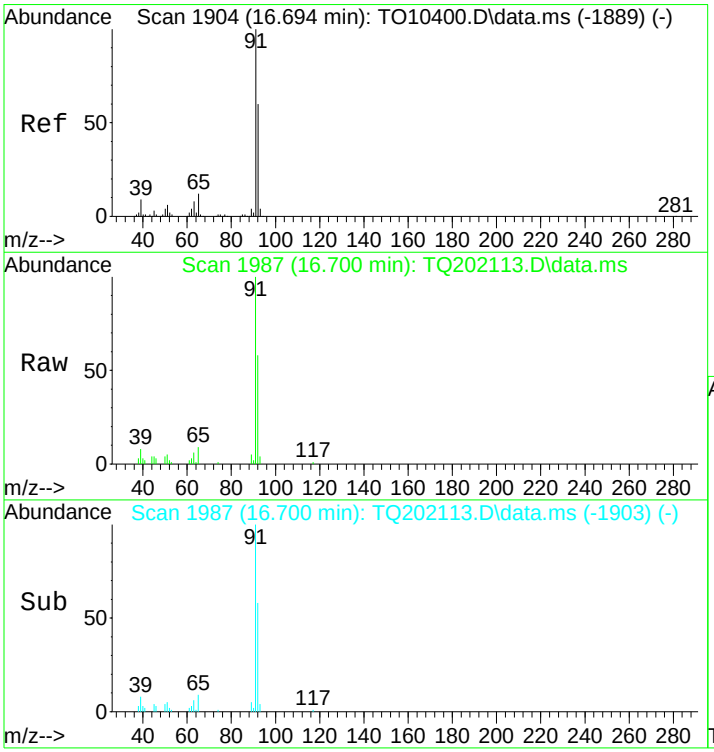


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.908 min Scan# 1529
Delta R.T. 0.006 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion:114 Resp: 1195864

Ion	Ratio	Lower	Upper
114	100		
63	17.3	12.9	26.9
88	14.4	10.7	22.3

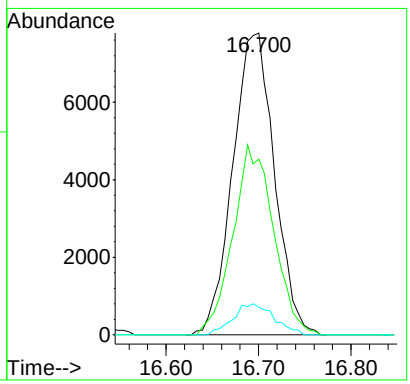


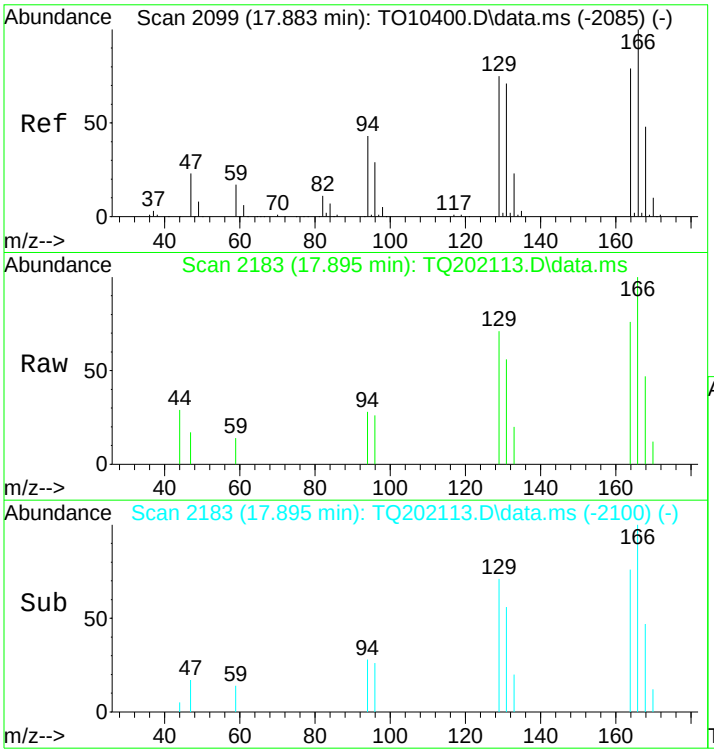


#45
Toluene
Concen: 0.23 ppbv
RT: 16.700 min Scan# 1987
Delta R.T. 0.012 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 91 Resp: 24342

Ion	Ratio	Lower	Upper
91	100		
92	61.3	38.7	80.3
65	10.1	7.5	15.5

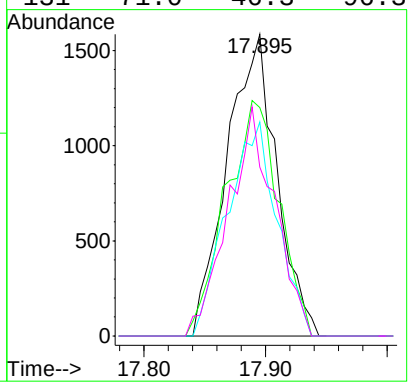


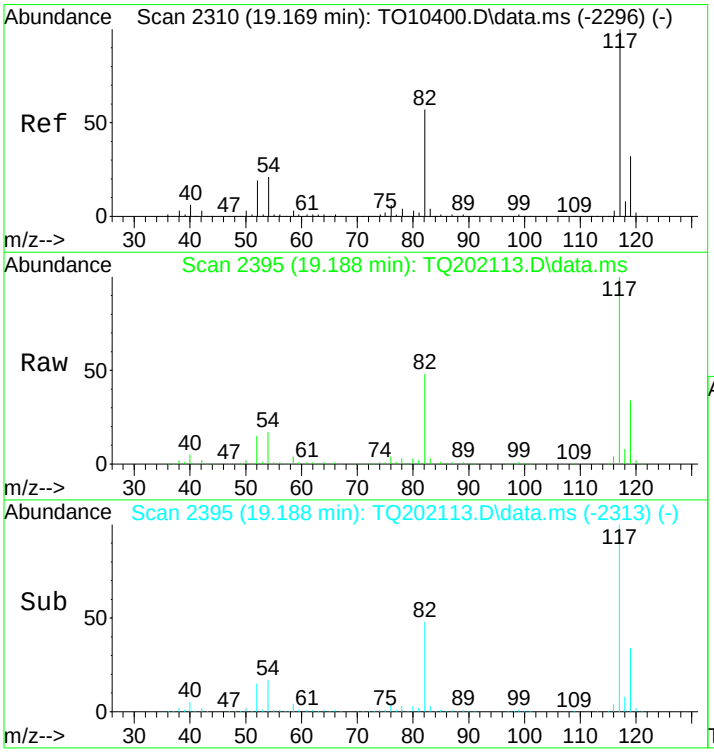


#50
Tetrachloroethylene
Concen: 0.07 ppbv
RT: 17.895 min Scan# 2183
Delta R.T. 0.009 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion:166 Resp: 4492

Ion	Ratio	Lower	Upper
166	100		
164	83.3	51.0	106.0
129	71.3	48.1	99.9
131	71.0	46.3	96.3

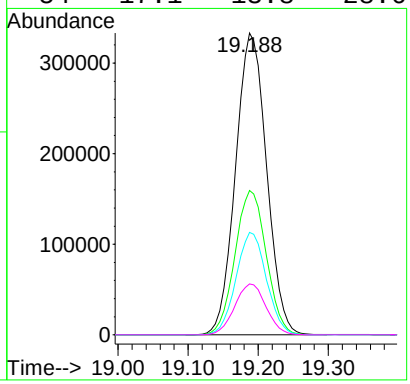


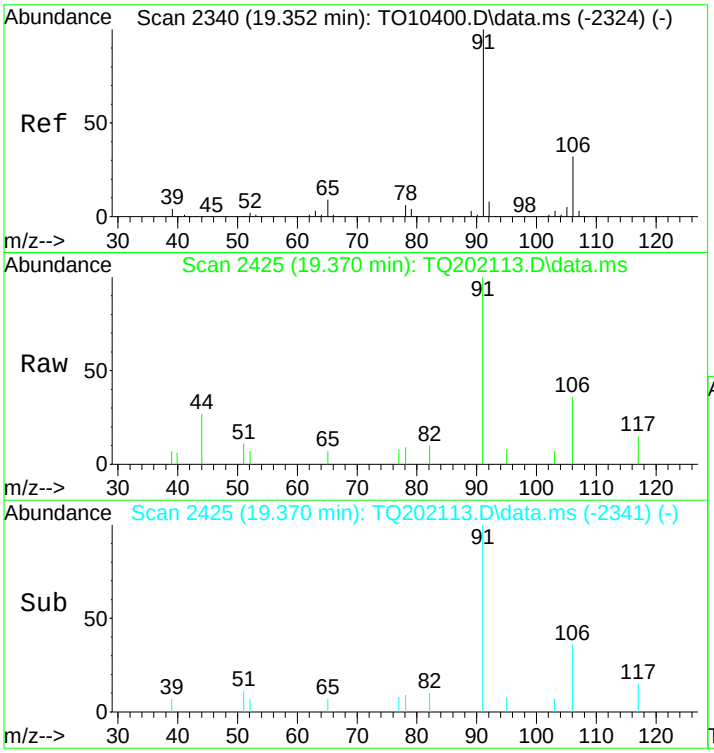


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.188 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion:117 Resp: 1028066

Ion	Ratio	Lower	Upper
117	100		
82	48.3	37.1	77.1
119	33.4	22.1	45.9
54	17.1	13.8	28.6

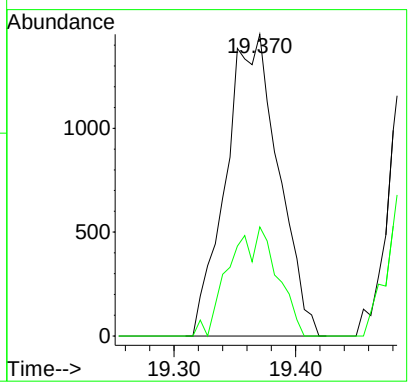


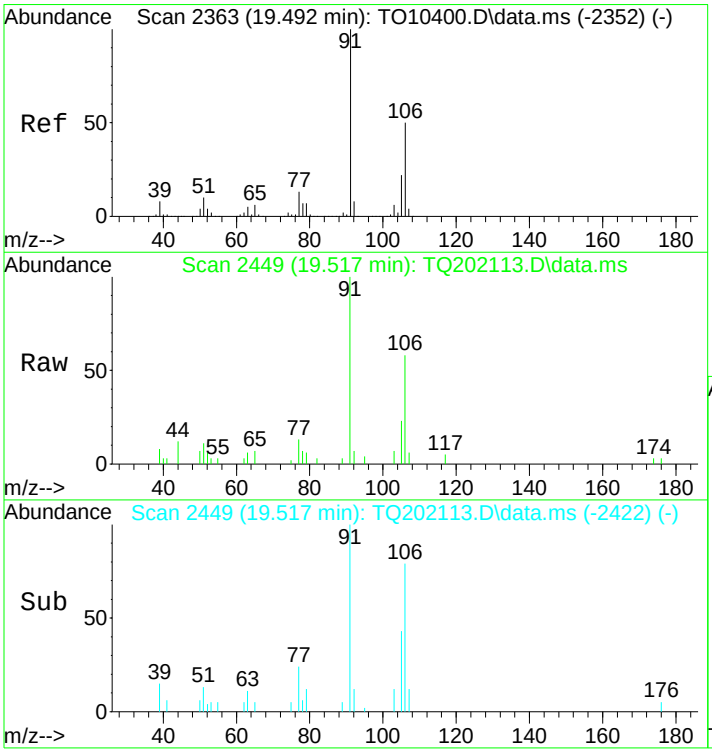


#56
Ethylbenzene
Concen: 0.04 ppbv
RT: 19.370 min Scan# 2425
Delta R.T. 0.009 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 91 Resp: 4342

Ion	Ratio	Lower	Upper
91	100		
106	17.9	20.5	42.7#

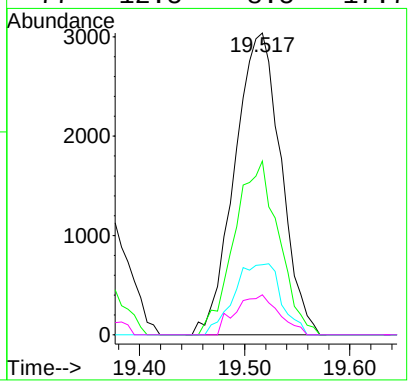


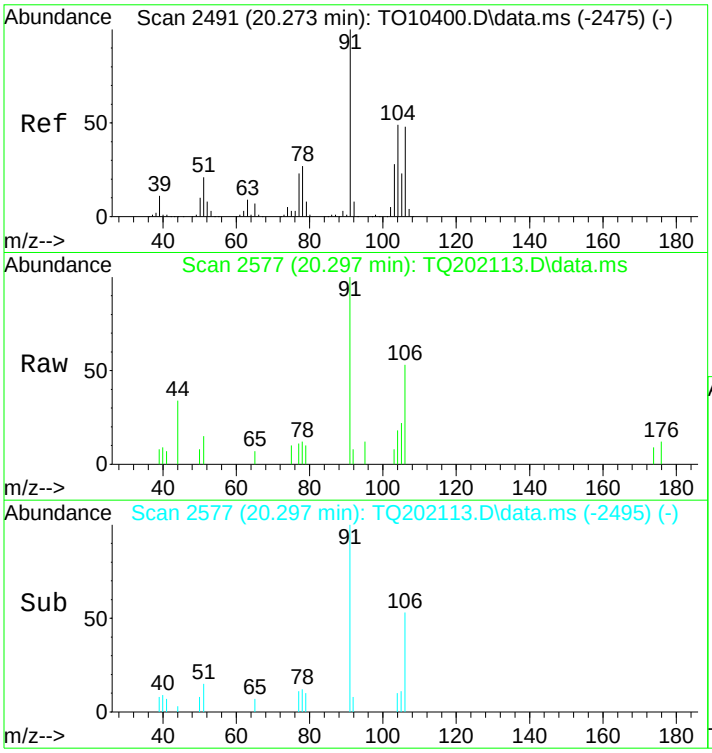


#57
p- & m-Xylenes
Concen: 0.11 ppbv
RT: 19.517 min Scan# 2449
Delta R.T. 0.007 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 91 Resp: 9297

Ion	Ratio	Lower	Upper
91	100		
106	55.4	32.6	67.8
105	24.0	14.5	30.1
77	12.5	8.5	17.7

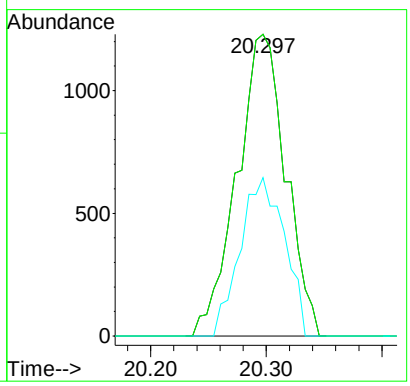


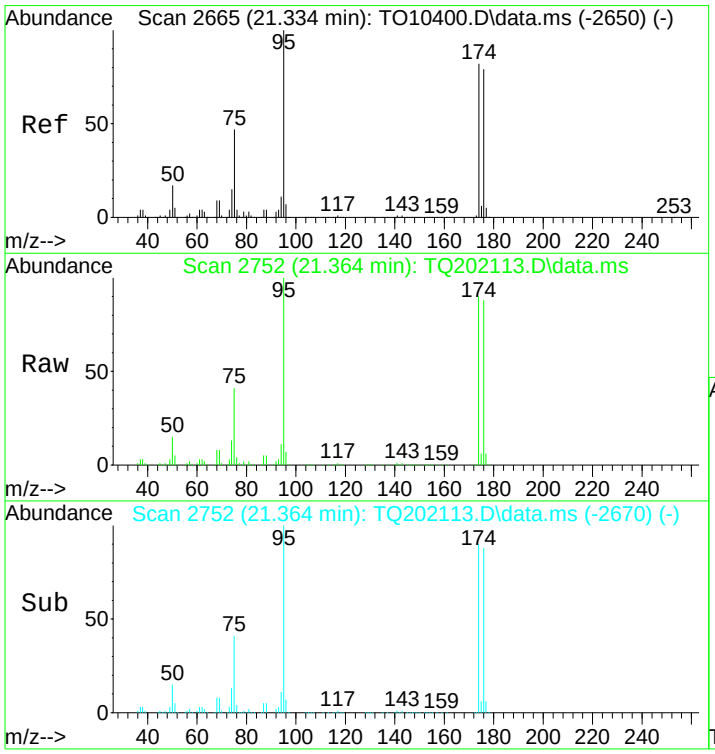


#58
o-Xylene
Concen: 0.04 ppbv
RT: 20.297 min Scan# 2577
Delta R.T. 0.003 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 91 Resp: 3603

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	47.7	38.2	57.2

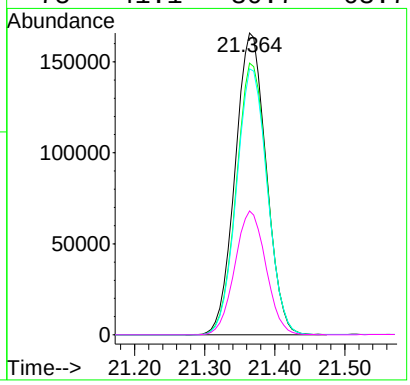


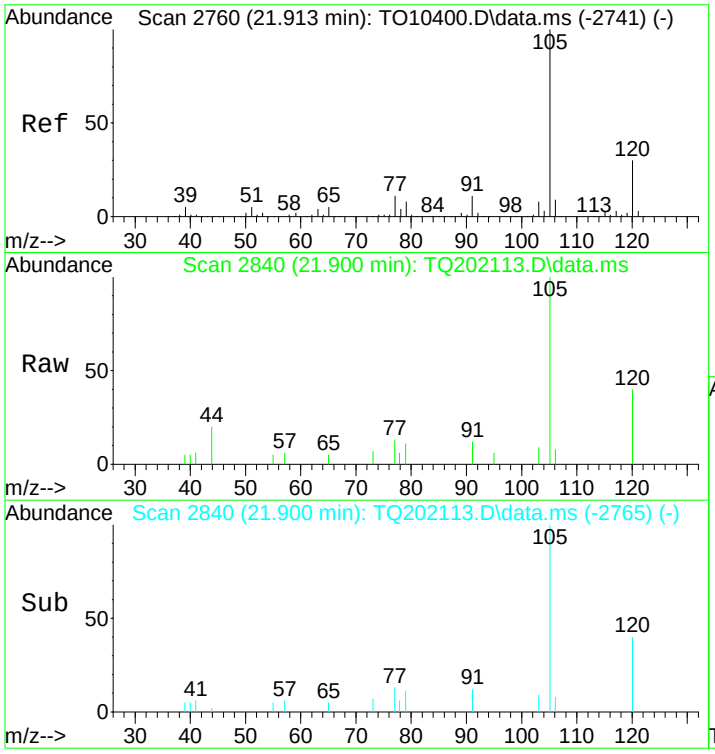


#64
p-Bromofluorobenzene
Concen: 7.29 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. 0.000 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion: 95 Resp: 512015

Ion	Ratio	Lower	Upper
95	100		
174	89.8	53.2	110.6
176	87.5	51.6	107.2
75	41.1	30.7	63.7

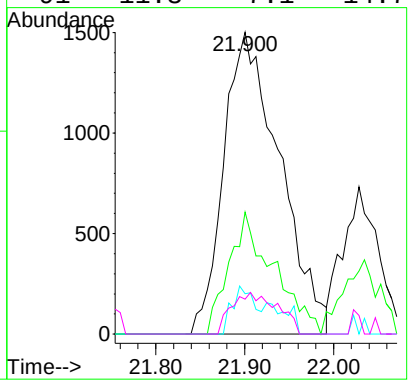


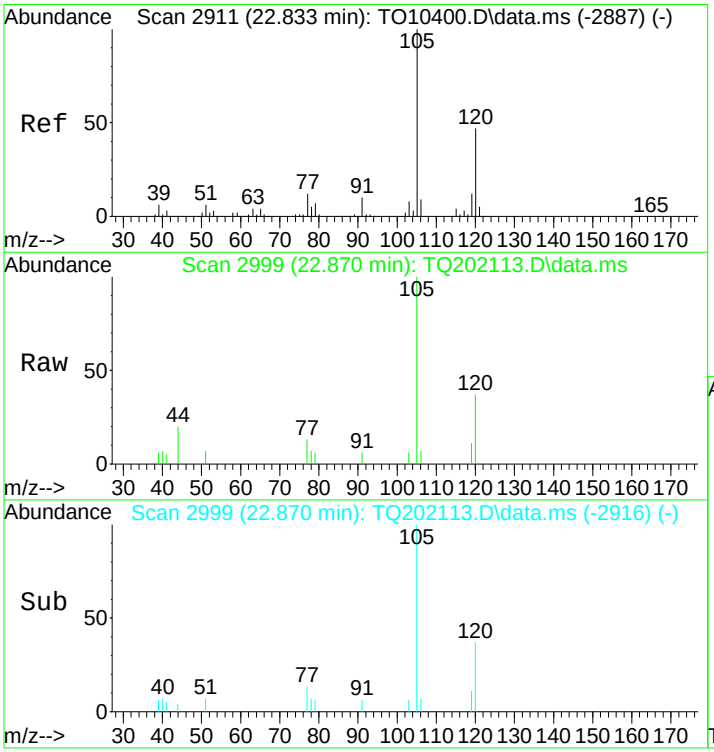


#65
4-Ethyltoluene
Concen: 0.05 ppbv
RT: 21.900 min Scan# 2840
Delta R.T. -0.043 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion:105 Resp: 6555

Ion	Ratio	Lower	Upper
105	100		
120	32.1	19.6	40.8
77	0.0	7.3	15.3#
91	11.3	7.1	14.7

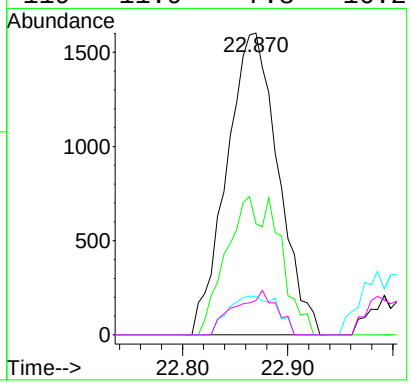


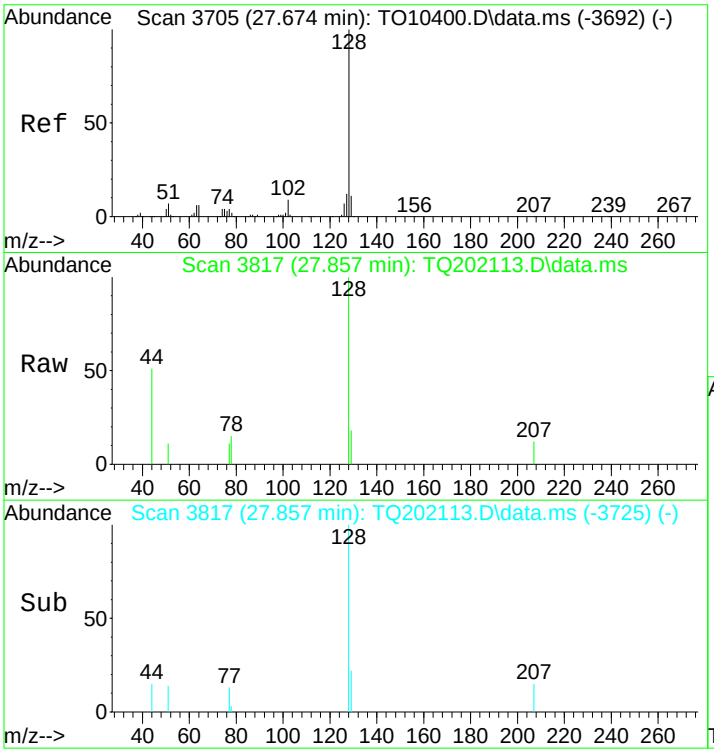


#68
1,2,4-Trimethylbenzene
Concen: 0.05 ppbv
RT: 22.870 min Scan# 2999
Delta R.T. 0.004 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion:105 Resp: 5462

Ion	Ratio	Lower	Upper
105	100		
120	31.1	30.2	62.6
77	12.4	8.1	16.9
119	11.9	7.8	16.2

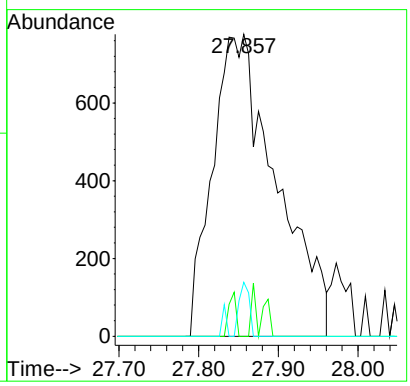




#78
Naphthalene
Concen: 0.02 ppbv
RT: 27.857 min Scan# 3817
Delta R.T. 0.063 min
Lab File: TQ202113.D
Acq: 20 Apr 2017 10:21 pm

Tgt Ion:128 Resp: 4325

Ion	Ratio	Lower	Upper
128	100		
127	0.0	8.1	16.9#
129	0.0	7.1	14.7#



FORM I **ORGANIC ANALYSIS DATA SHEET**

EPA TO-15

817/V3

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-03 File ID: TQ202114.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/20/17 23:22

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	17.9	12	U
71-55-6	1,1,1-Trichloroethane	17.9	9.8	U
79-34-5	1,1,2,2-Tetrachloroethane	17.9	12	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	17.9	14	U
79-00-5	1,1,2-Trichloroethane	17.9	9.8	U
75-34-3	1,1-Dichloroethane	17.9	7.2	U
75-35-4	1,1-Dichloroethylene	17.9	7.1	U
120-82-1	1,2,4-Trichlorobenzene	17.9	13	U
95-63-6	1,2,4-Trimethylbenzene	17.9	8.8	U
106-93-4	1,2-Dibromoethane	17.9	14	U
95-50-1	1,2-Dichlorobenzene	17.9	11	U
107-06-2	1,2-Dichloroethane	17.9	7.2	U
78-87-5	1,2-Dichloropropane	17.9	8.3	U
76-14-2	1,2-Dichlorotetrafluoroethane	17.9	12	U
108-67-8	1,3,5-Trimethylbenzene	17.9	8.8	U
106-99-0	1,3-Butadiene	17.9	12	U
541-73-1	1,3-Dichlorobenzene	17.9	11	U
142-28-9	1,3-Dichloropropane	17.9	8.3	U
106-46-7	1,4-Dichlorobenzene	17.9	11	U
123-91-1	1,4-Dioxane	17.9	13	U
78-93-3	2-Butanone	17.9	87	D
591-78-6	2-Hexanone	17.9	15	U
107-05-1	3-Chloropropene	17.9	28	U
108-10-1	4-Methyl-2-pentanone	17.9	7.3	U
67-64-1	Acetone	17.9	200	D
107-13-1	Acrylonitrile	17.9	3.9	U
71-43-2	Benzene	17.9	9.1	D
100-44-7	Benzyl chloride	17.9	9.3	U
75-27-4	Bromodichloromethane	17.9	12	U
75-25-2	Bromoform	17.9	18	U
74-83-9	Bromomethane	17.9	6.9	U
75-15-0	Carbon disulfide	17.9	5.6	U
56-23-5	Carbon tetrachloride	17.9	2.8	U
108-90-7	Chlorobenzene	17.9	8.2	U
75-00-3	Chloroethane	17.9	4.7	U
67-66-3	Chloroform	17.9	8.7	U
74-87-3	Chloromethane	17.9	4.4	D
156-59-2	cis-1,2-Dichloroethylene	17.9	7.1	U
10061-01-5	cis-1,3-Dichloropropylene	17.9	8.1	U
110-82-7	Cyclohexane	17.9	6.2	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

817/V3

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-03 File ID: TQ202114.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/20/17 23:22

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
124-48-1	Dibromochloromethane	17.9	15	U
75-71-8	Dichlorodifluoromethane	17.9	8.8	U
141-78-6	Ethyl acetate	17.9	13	U
100-41-4	Ethyl Benzene	17.9	7.8	U
87-68-3	Hexachlorobutadiene	17.9	19	U
67-63-0	Isopropanol	17.9	35	D
80-62-6	Methyl Methacrylate	17.9	7.3	U
1634-04-4	Methyl tert-butyl ether (MTBE)	17.9	6.4	U
75-09-2	Methylene chloride	17.9	12	U
142-82-5	n-Heptane	17.9	7.3	U
110-54-3	n-Hexane	17.9	6.3	D
95-47-6	o-Xylene	17.9	7.8	U
179601-23-1	p- & m- Xylenes	17.9	16	U
622-96-8	p-Ethyltoluene	17.9	8.8	U
115-07-1	Propylene	17.9	20	D
100-42-5	Styrene	17.9	7.6	U
127-18-4	Tetrachloroethylene	17.9	7.3	D
109-99-9	Tetrahydrofuran	17.9	36	D
108-88-3	Toluene	17.9	20	D
156-60-5	trans-1,2-Dichloroethylene	17.9	7.1	U
10061-02-6	trans-1,3-Dichloropropylene	17.9	8.1	U
79-01-6	Trichloroethylene	17.9	2.4	U
75-69-4	Trichlorofluoromethane (Freon 11)	17.9	10	U
108-05-4	Vinyl acetate	17.9	6.3	U
593-60-2	Vinyl bromide	17.9	7.8	U
75-01-4	Vinyl Chloride	17.9	4.6	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	7.66	76.6	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	339179	12.323	304065	12.317	
1,4-Difluorobenzene	1106594	13.908	999125	13.908	
d5-Chlorobenzene	962510	19.187	880527	19.188	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202114.D
Acq On : 20 Apr 2017 11:22 pm
Sample : 17D0833-03 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-03
Misc : QBTO2042017A 0833-03 10X
ALS Vial : 14 Sample Multiplier: 17.87

Quant Time: Apr 26 11:55:17 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

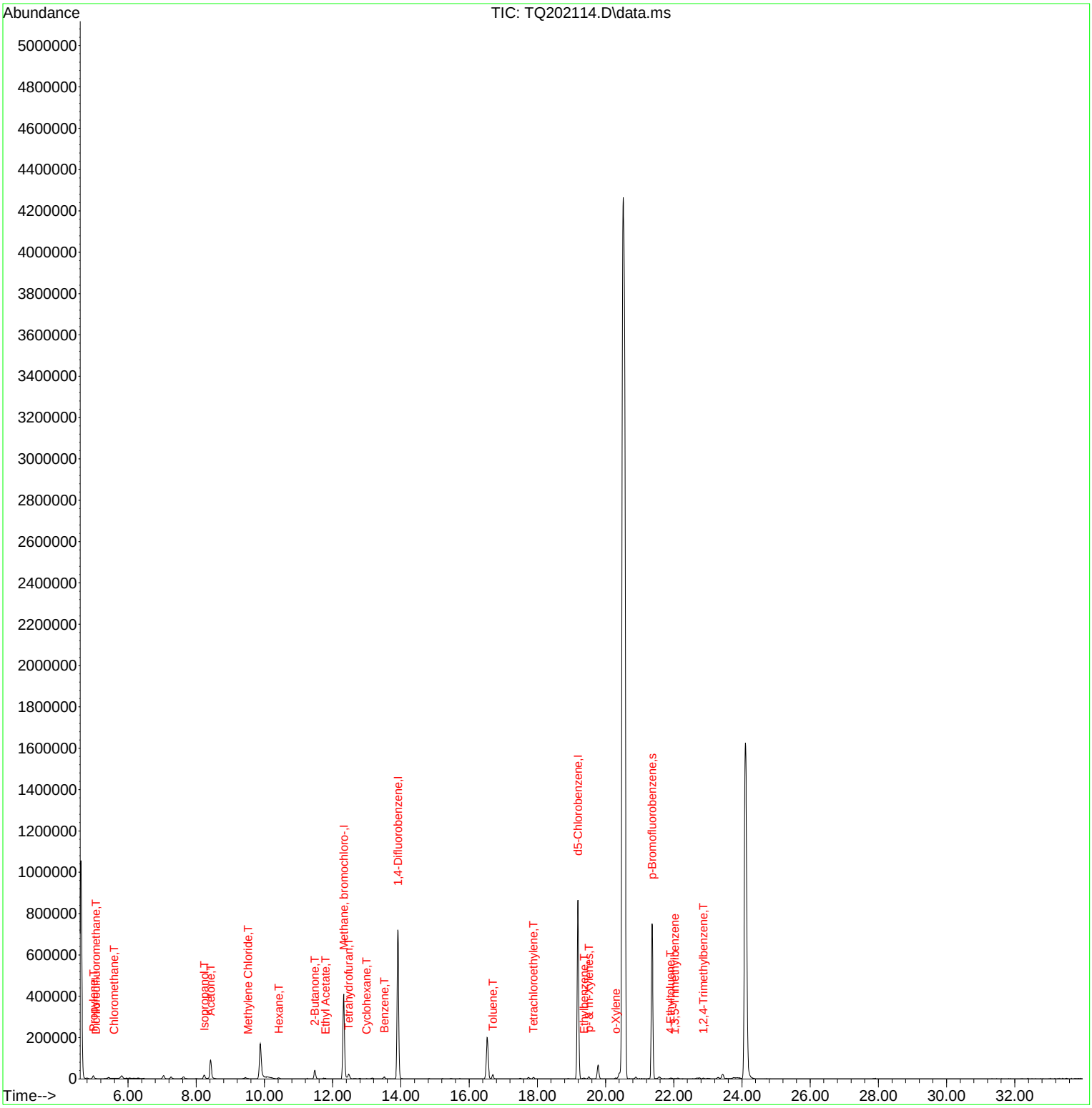
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.323	49	339179	10.00	ppbv		0.02
37) 1,4-Difluorobenzene	13.908	114	1106594	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.187	117	962510	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	504061	7.66	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 76.60%				
Target Compounds							Qvalue
2) Propylene	4.983	42	8278	0.65	ppbv		92
3) Dichlorodifluoromethane	5.056	85	1550	0.03	ppbv	#	92
5) Chloromethane	5.593	50	1466	0.12	ppbv		88
12) Isopropanol	8.232	45	40725	0.80	ppbv		100
14) Acetone	8.421	43	200948	4.82	ppbv		92
18) Methylene Chloride	9.513	49	945	0.03	ppbv	#	61
23) Hexane	10.415	57	4019	0.10	ppbv		97
26) 2-Butanone	11.476	43	90560	1.66	ppbv		99
27) Ethyl Acetate	11.786	43	3857	0.07	ppbv	#	24
30) Tetrahydrofuran	12.469	42	20038	0.69	ppbv		99
32) Cyclohexane	12.994	56	1166	0.03	ppbv	#	73
35) Benzene	13.512	78	11800	0.16	ppbv	#	47
45) Toluene	16.694	91	27703	0.29	ppbv		98
50) Tetrachloroethylene	17.883	166	4077	0.06	ppbv		98
56) Ethylbenzene	19.370	91	4828	0.04	ppbv	#	73
57) p- & m-Xylenes	19.511	91	10578	0.13	ppbv		96
58) o-Xylene	20.297	91	3801	0.04	ppbv		99
65) 4-Ethyltoluene	21.900	105	7144	0.06	ppbv	#	74
66) 1,3,5-Trimethylbenzene	22.028	105	2333	0.02	ppbv	#	88
68) 1,2,4-Trimethylbenzene	22.870	105	5814	0.05	ppbv	#	91

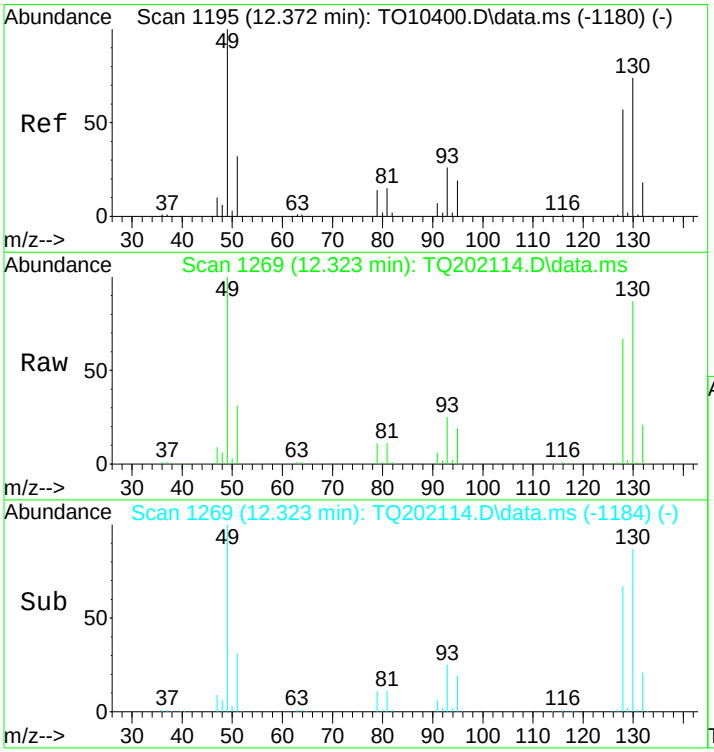
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202114.D
Acq On : 20 Apr 2017 11:22 pm
Sample : 17D0833-03 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-03
Misc : QBTO2042017A 0833-03 10X
ALS Vial : 14 Sample Multiplier: 17.87

Quant Time: Apr 26 11:55:17 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

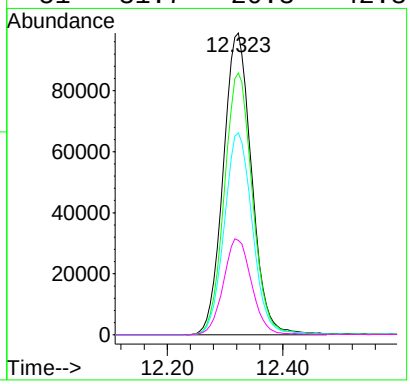


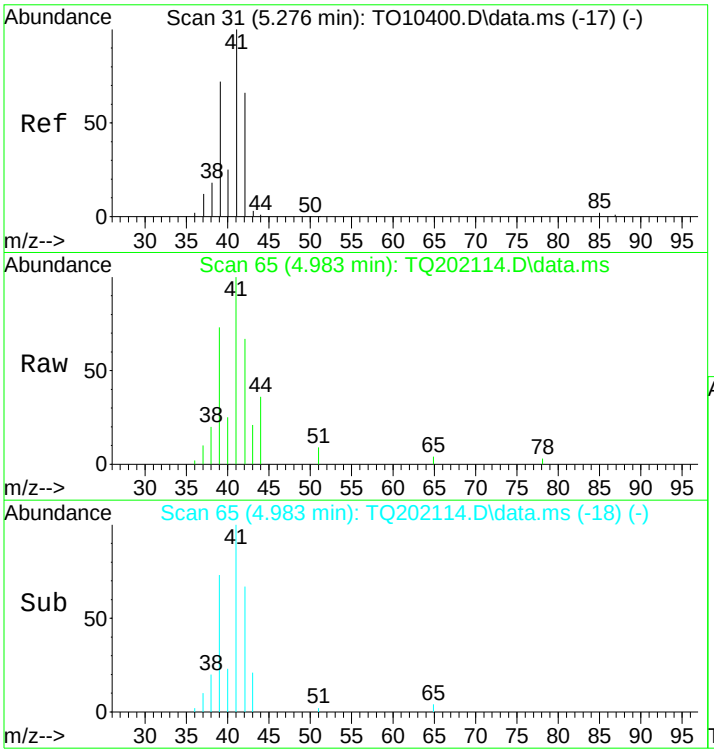


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.323 min Scan# 1269
Delta R.T. 0.019 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 49 Resp: 339179

Ion	Ratio	Lower	Upper
49	100		
130	85.8	48.1	99.9
128	66.3	38.3	79.5
51	31.7	20.3	42.3

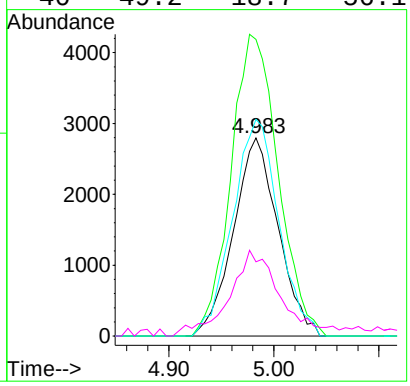


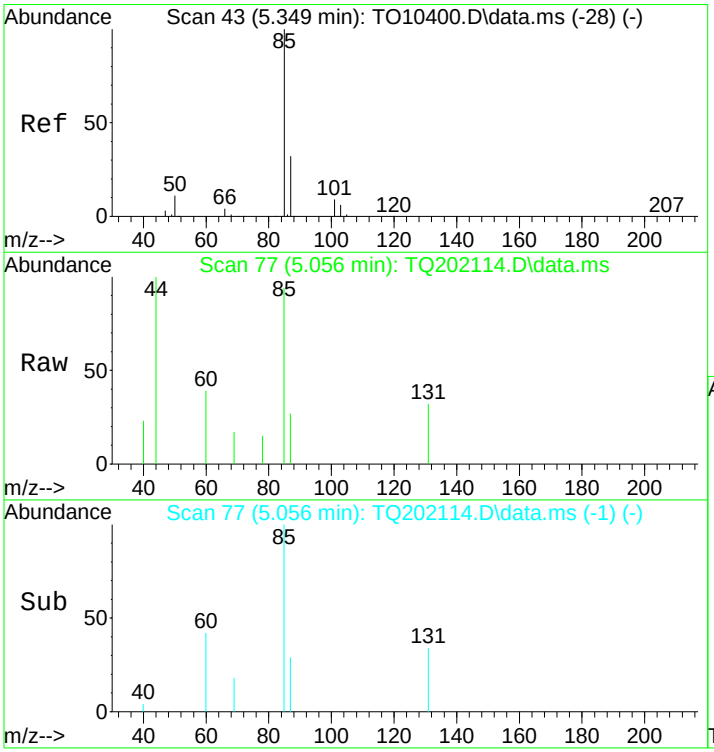


#2
Propylene
Concen: 0.65 ppbv
RT: 4.983 min Scan# 65
Delta R.T. 0.039 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 42 Resp: 8278

Ion	Ratio	Lower	Upper
42	100		
41	160.6	90.7	211.7
39	112.9	54.1	162.3
40	49.2	18.7	56.1

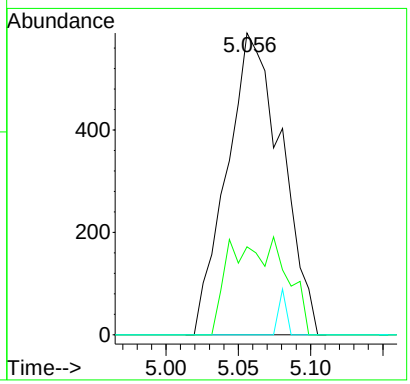


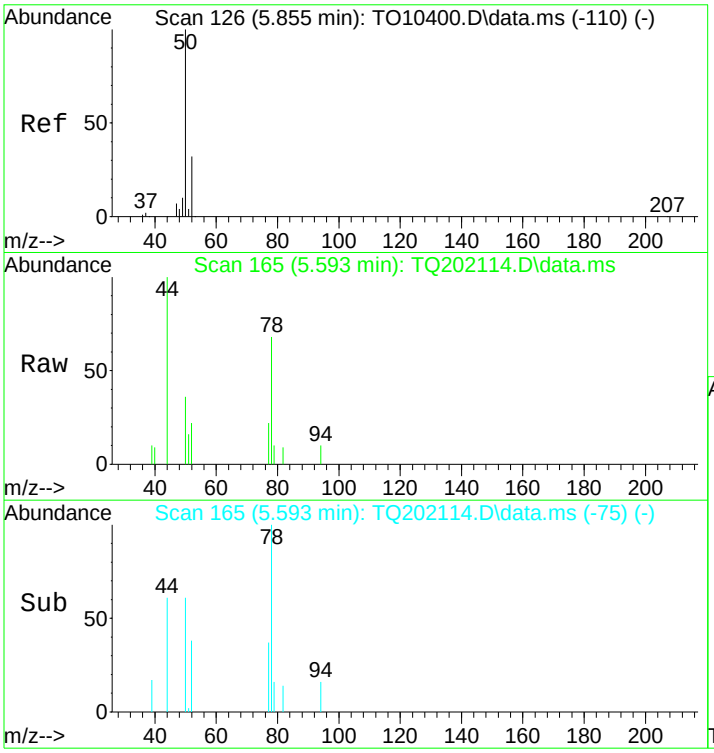


#3
Dichlorodifluoromethane
Concen: 0.03 ppbv
RT: 5.056 min Scan# 77
Delta R.T. 0.036 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 85 Resp: 1550

Ion	Ratio	Lower	Upper
85	100		
87	32.9	20.9	43.5
50	0.0	7.2	15.0#

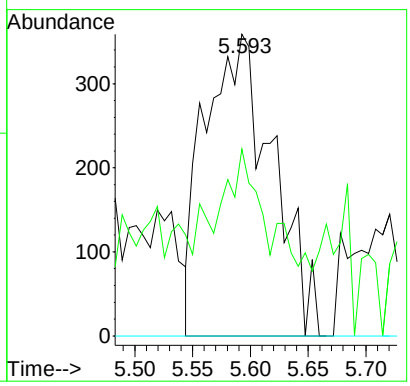


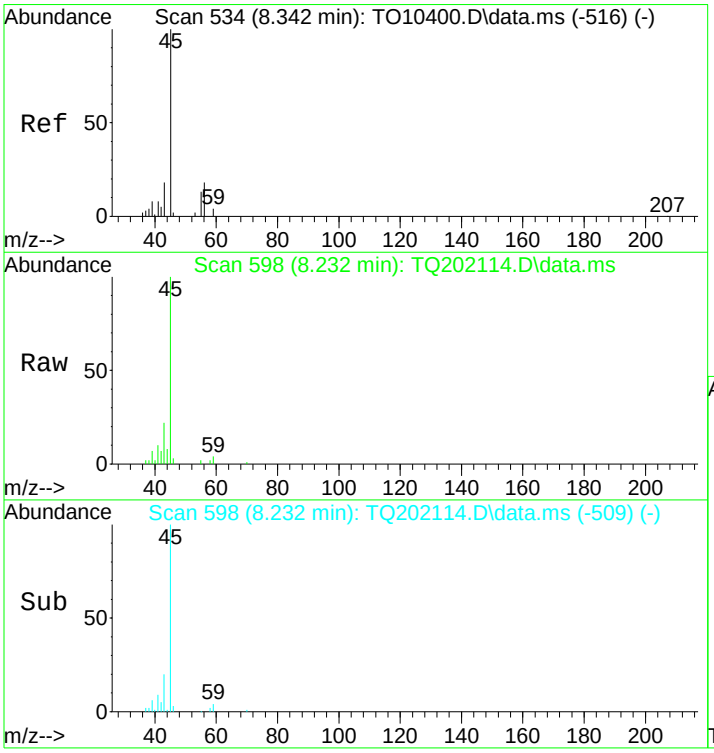


#5
Chloromethane
Concen: 0.12 ppbv
RT: 5.593 min Scan# 165
Delta R.T. 0.052 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 50 Resp: 1466

Ion	Ratio	Lower	Upper
50	100		
52	28.4	0.0	65.2
49	0.0	0.0	19.6

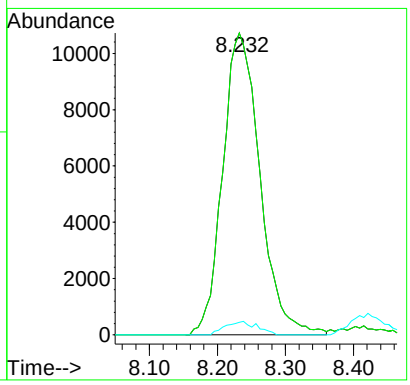


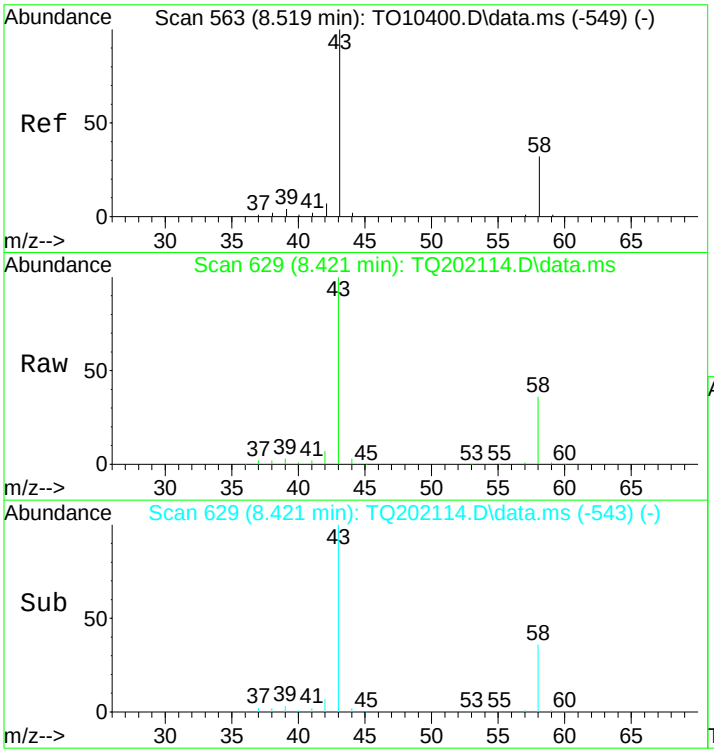


#12
Isopropanol
Concen: 0.80 ppbv
RT: 8.232 min Scan# 598
Delta R.T. 0.040 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 45 Resp: 40725

Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	3.9	0.0	10.0

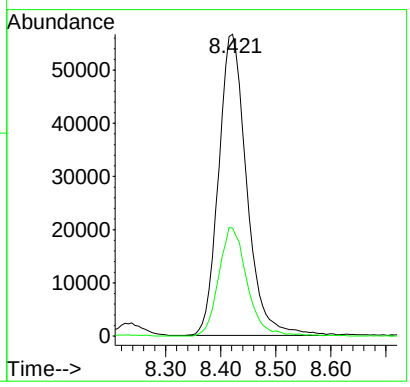


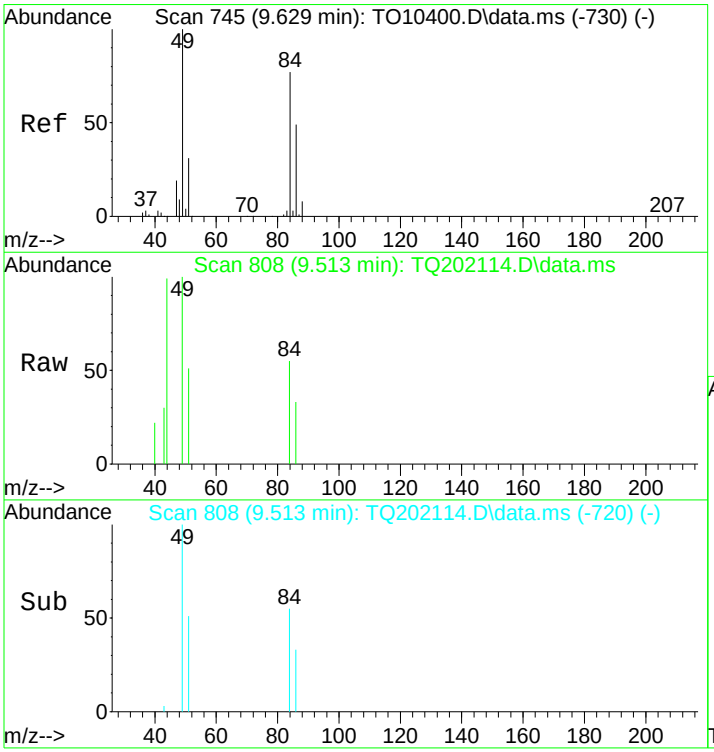


#14
Acetone
Concen: 4.82 ppbv
RT: 8.421 min Scan# 629
Delta R.T. 0.023 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 43 Resp: 200948

Ion	Ratio	Lower	Upper
43	100		
58	36.4	20.9	43.3

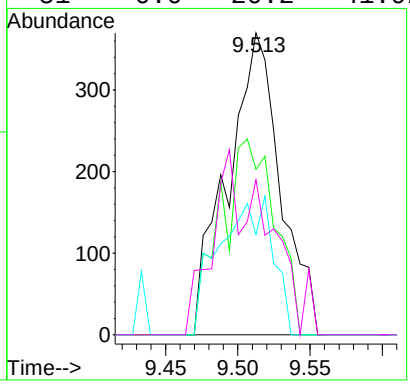


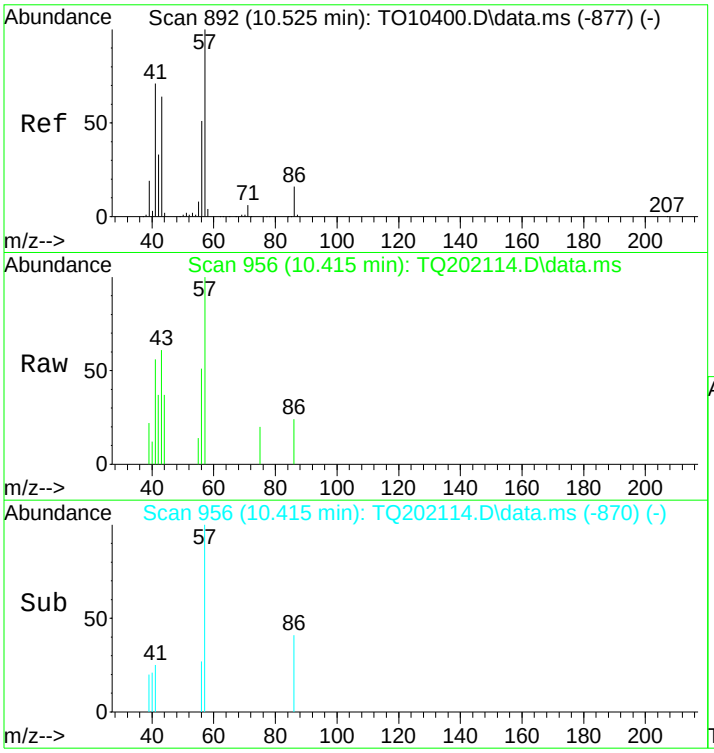


#18
Methylene Chloride
Concen: 0.03 ppbv
RT: 9.513 min Scan# 808
Delta R.T. 0.035 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 49 Resp: 945

Ion	Ratio	Lower	Upper
49	100		
84	66.6	49.9	103.5
86	0.0	31.8	66.0#
51	0.0	20.2	41.9#

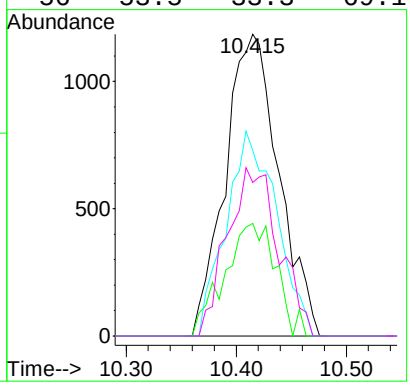


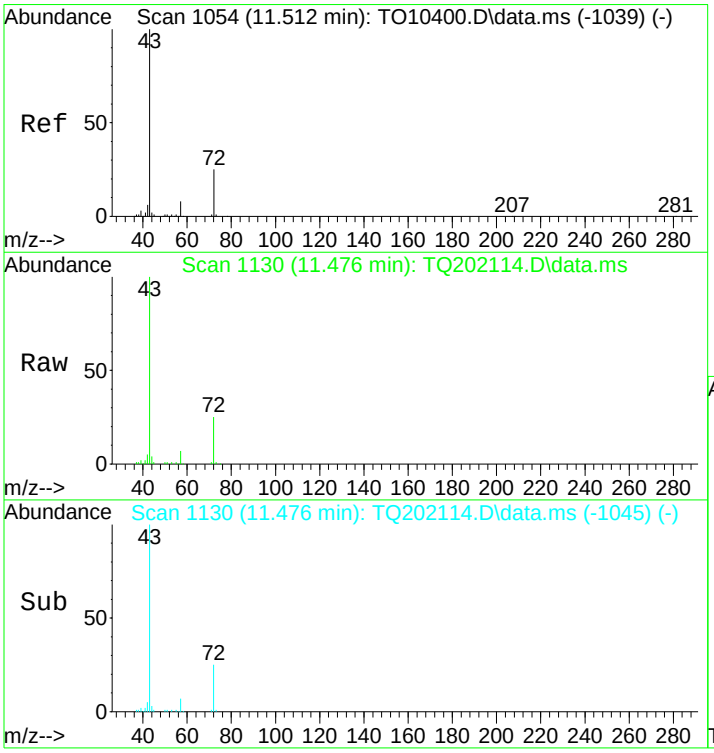


#23
Hexane
Concen: 0.10 ppbv
RT: 10.415 min Scan# 956
Delta R.T. 0.022 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 57 Resp: 4019

Ion	Ratio	Lower	Upper
57	100		
42	35.9	21.6	45.0
43	63.8	42.0	87.2
56	53.5	33.3	69.1

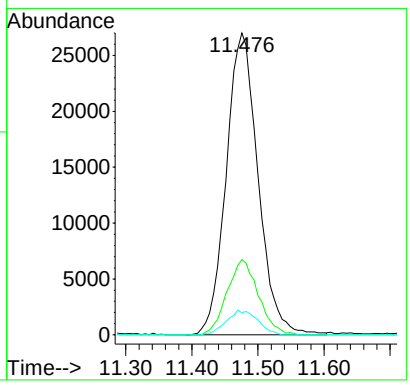


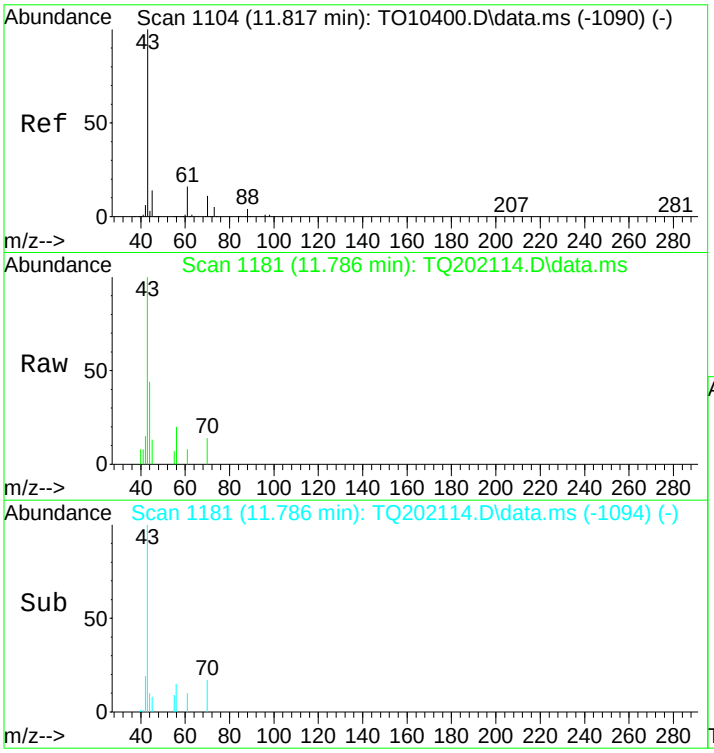


#26
2-Butanone
Concen: 1.66 ppbv
RT: 11.476 min Scan# 1130
Delta R.T. 0.021 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 43 Resp: 90560

Ion	Ratio	Lower	Upper
43	100		
72	24.4	16.1	33.5
57	8.0	4.9	10.3

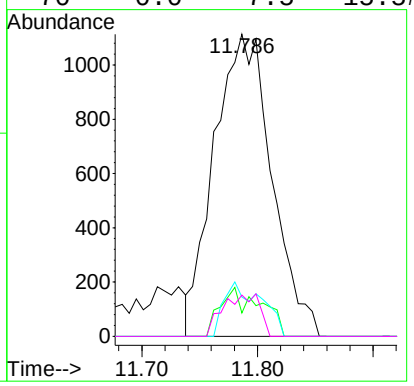


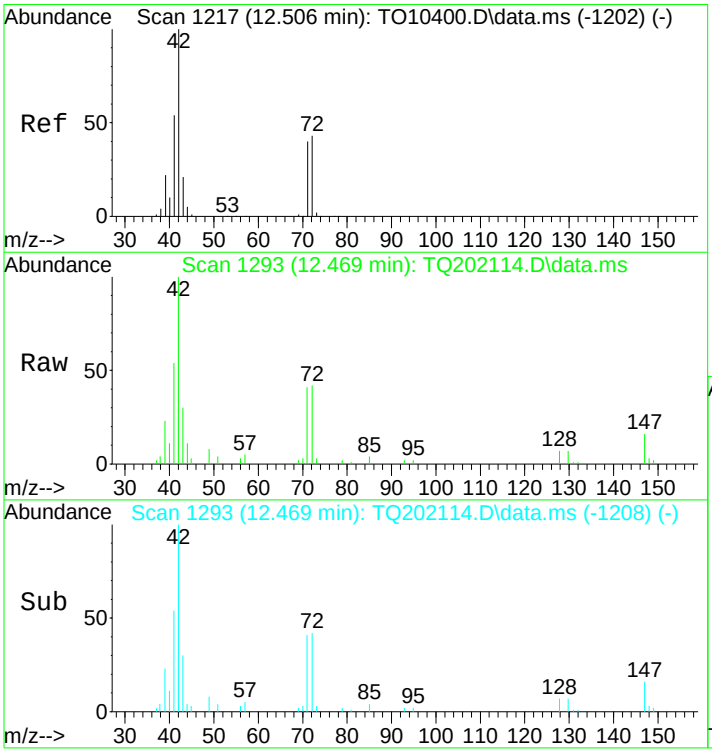


#27
Ethyl Acetate
Concen: 0.07 ppbv
RT: 11.786 min Scan# 1181
Delta R.T. 0.028 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 43 Resp: 3857

Ion	Ratio	Lower	Upper
43	100		
61	0.0	51.4	106.8#
45	0.0	9.4	19.6#
70	0.0	7.5	15.5#

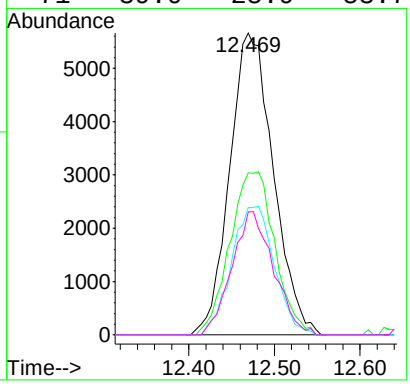


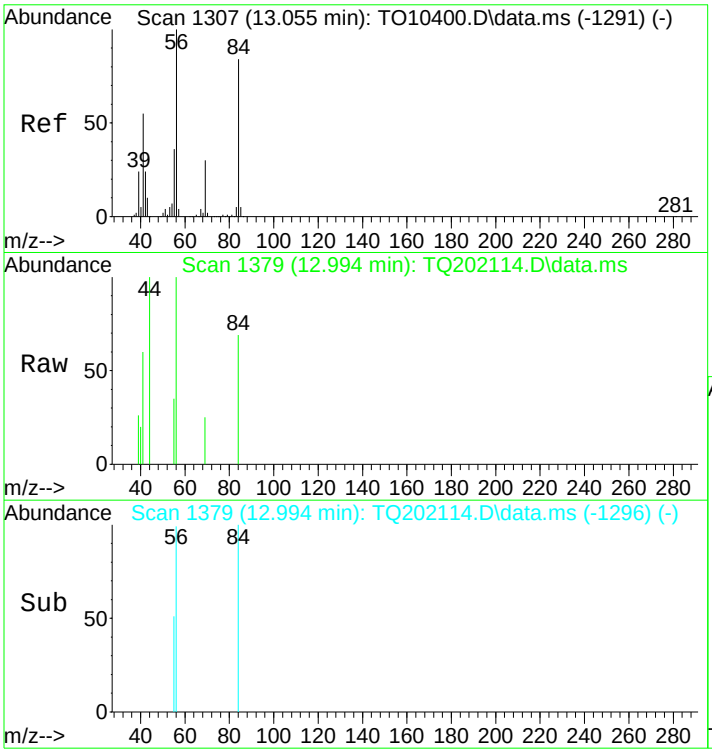


#30
Tetrahydrofuran
Concen: 0.69 ppbv
RT: 12.469 min Scan# 1293
Delta R.T. 0.020 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 42 Resp: 20038

Ion	Ratio	Lower	Upper
42	100		
41	55.6	35.2	73.0
72	41.8	27.2	56.6
71	39.0	25.9	53.7

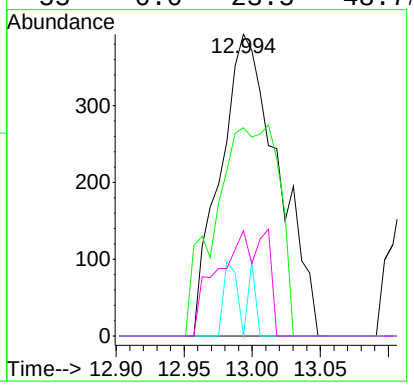


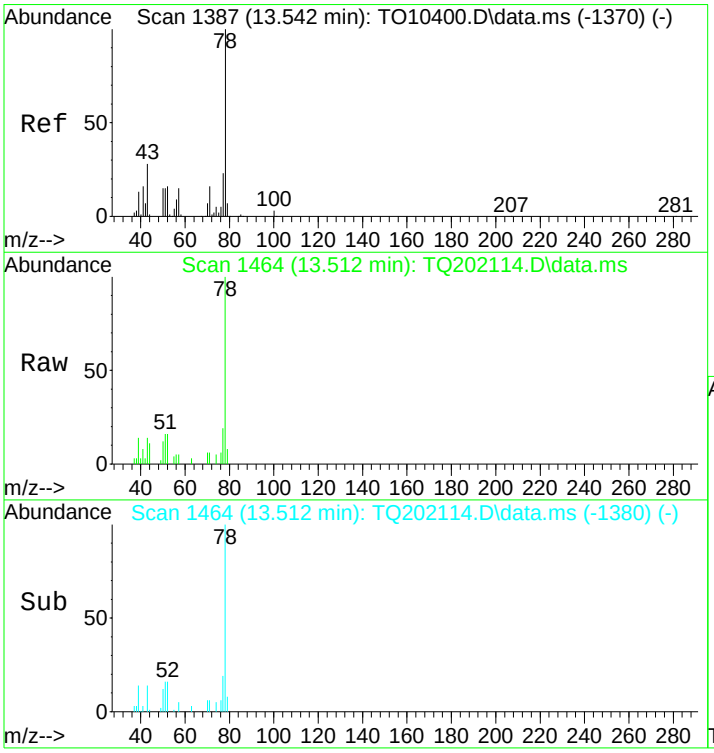


#32
Cyclohexane
Concen: 0.03 ppbv
RT: 12.994 min Scan# 1379
Delta R.T. 0.006 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 56 Resp: 1166

Ion	Ratio	Lower	Upper
56	100		
84	77.2	54.1	112.3
42	0.0	15.3	31.7#
55	0.0	23.5	48.7#

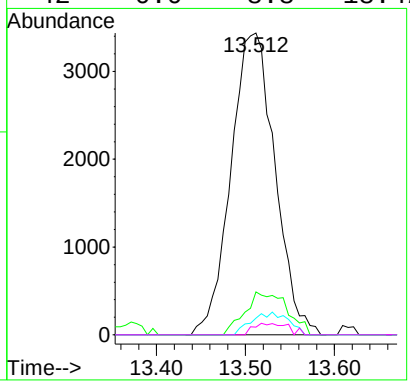


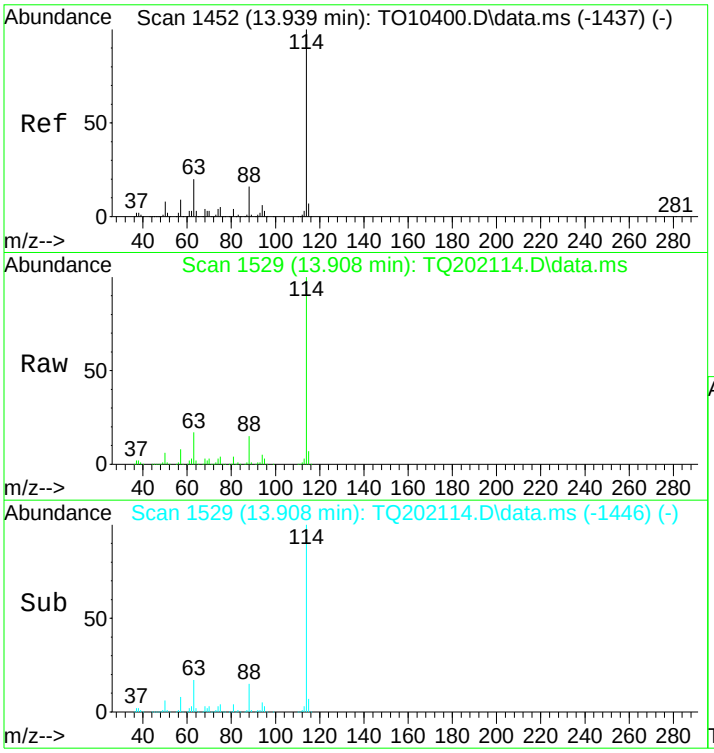


#35
Benzene
Concen: 0.16 ppbv
RT: 13.512 min Scan# 1464
Delta R.T. 0.014 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 78 Resp: 11800

Ion	Ratio	Lower	Upper
78	100		
43	13.5	37.5	77.9#
71	6.2	22.0	45.8#
42	0.0	8.8	18.4#

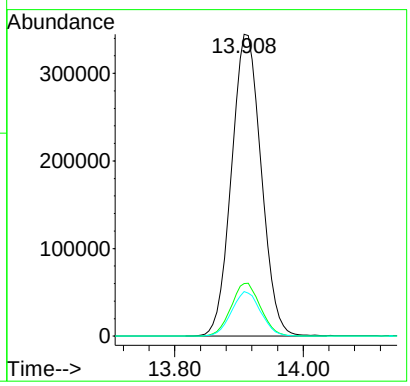


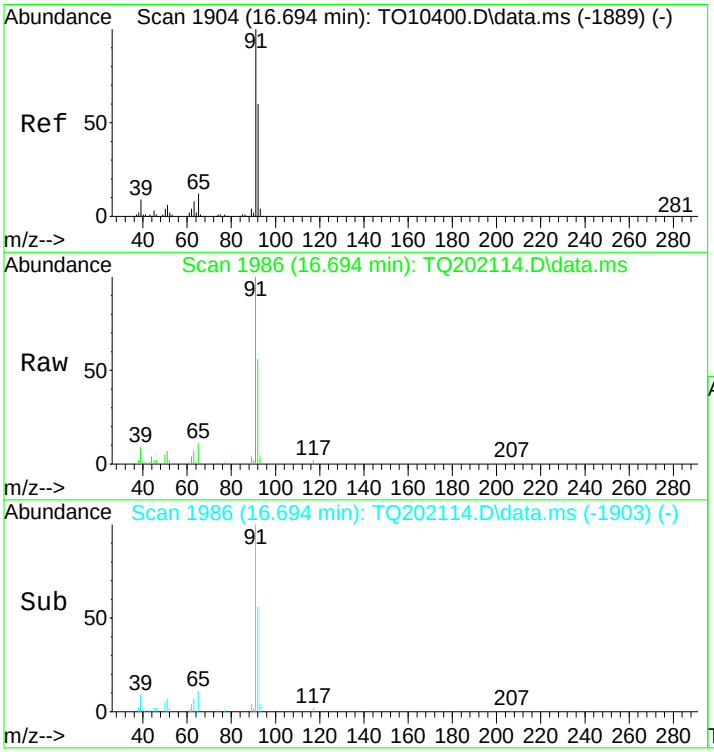


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.908 min Scan# 1529
Delta R.T. 0.006 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion:114 Resp: 1106594

Ion	Ratio	Lower	Upper
114	100		
63	17.4	12.9	26.9
88	14.4	10.7	22.3

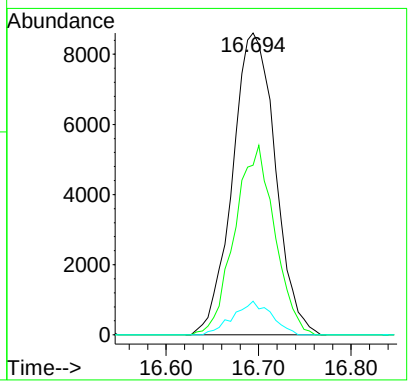


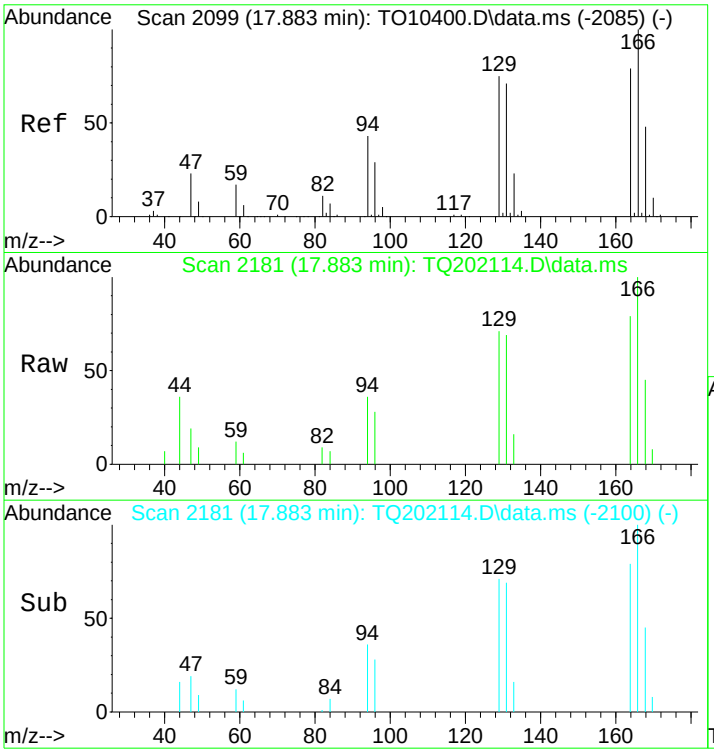


#45
Toluene
Concen: 0.29 ppbv
RT: 16.694 min Scan# 1986
Delta R.T. 0.006 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 91 Resp: 27703

Ion	Ratio	Lower	Upper
91	100		
92	58.4	38.7	80.3
65	10.0	7.5	15.5

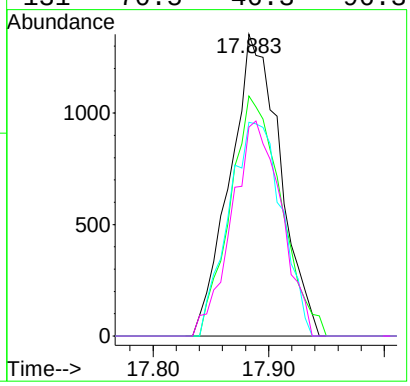


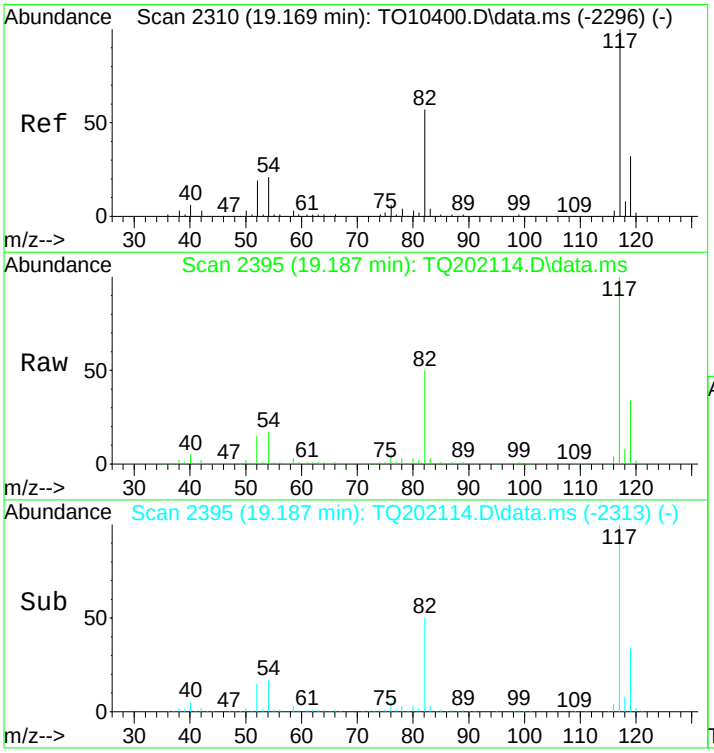


#50
Tetrachloroethylene
Concen: 0.06 ppbv
RT: 17.883 min Scan# 2181
Delta R.T. -0.004 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion:166 Resp: 4077

Ion	Ratio	Lower	Upper
166	100		
164	80.8	51.0	106.0
129	75.0	48.1	99.9
131	70.5	46.3	96.3

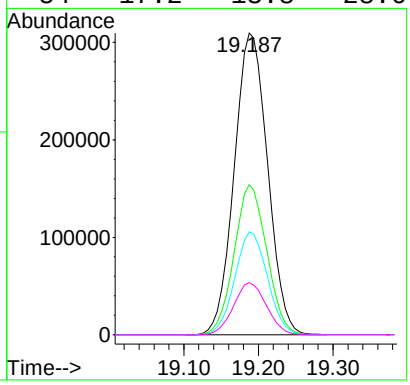


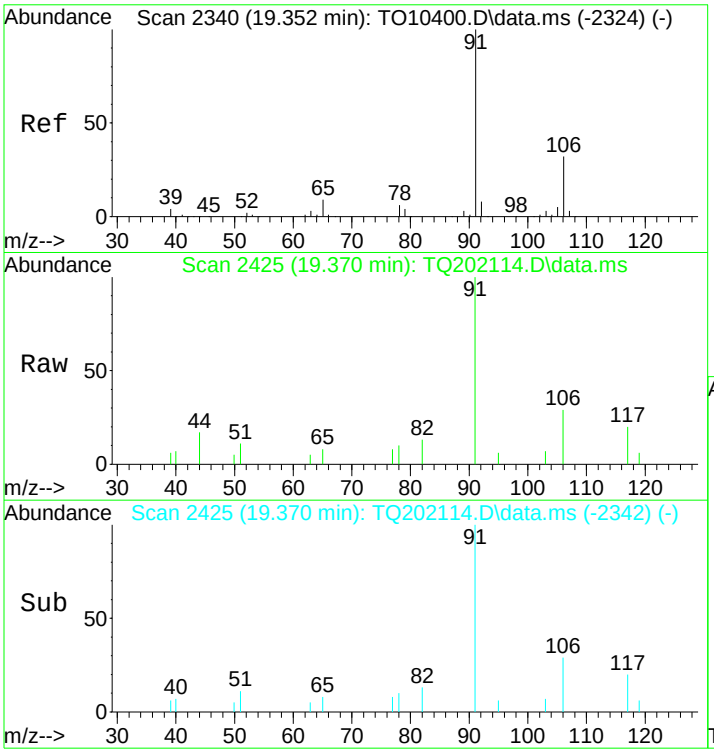


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.187 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion:117 Resp: 962510

Ion	Ratio	Lower	Upper
117	100		
82	48.6	37.1	77.1
119	33.4	22.1	45.9
54	17.2	13.8	28.6

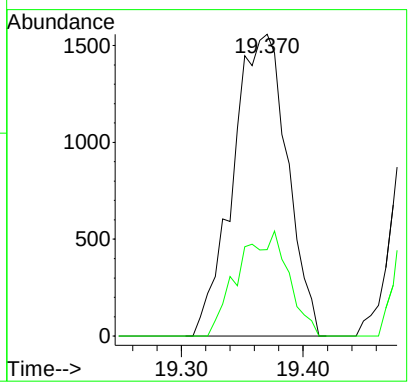


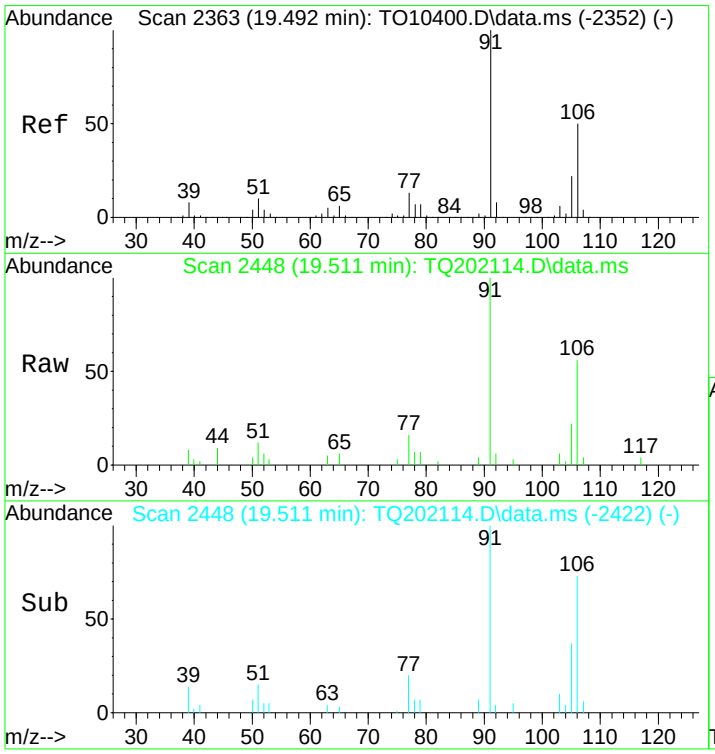


#56
Ethylbenzene
Concen: 0.04 ppbv
RT: 19.370 min Scan# 2425
Delta R.T. 0.009 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 91 Resp: 4828

Ion	Ratio	Lower	Upper
91	100		
106	16.6	20.5	42.7#

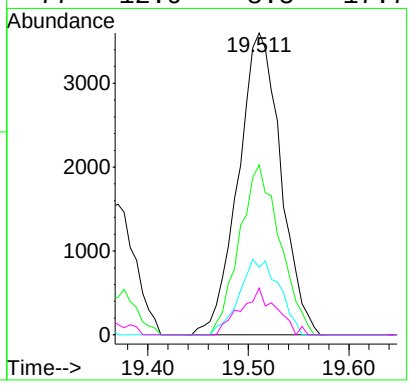


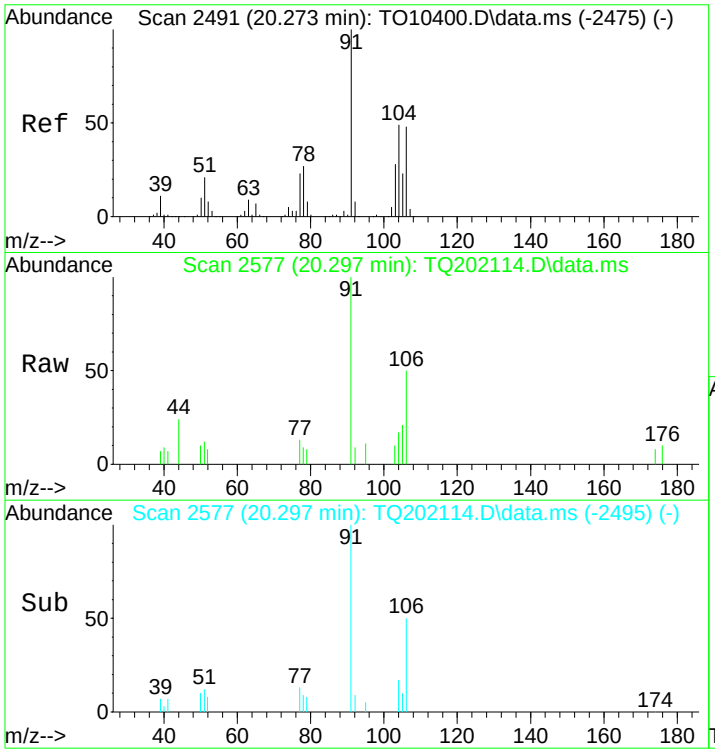


#57
p- & m-Xylenes
Concen: 0.13 ppbv
RT: 19.511 min Scan# 2448
Delta R.T. 0.001 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 91 Resp: 10578

Ion	Ratio	Lower	Upper
91	100		
106	53.5	32.6	67.8
105	23.5	14.5	30.1
77	12.9	8.5	17.7

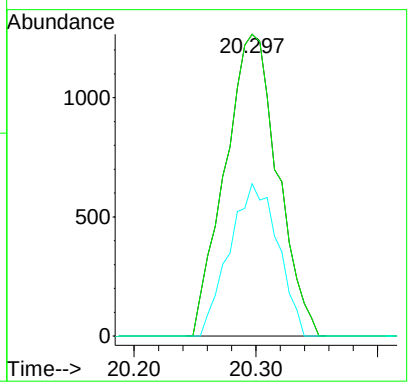


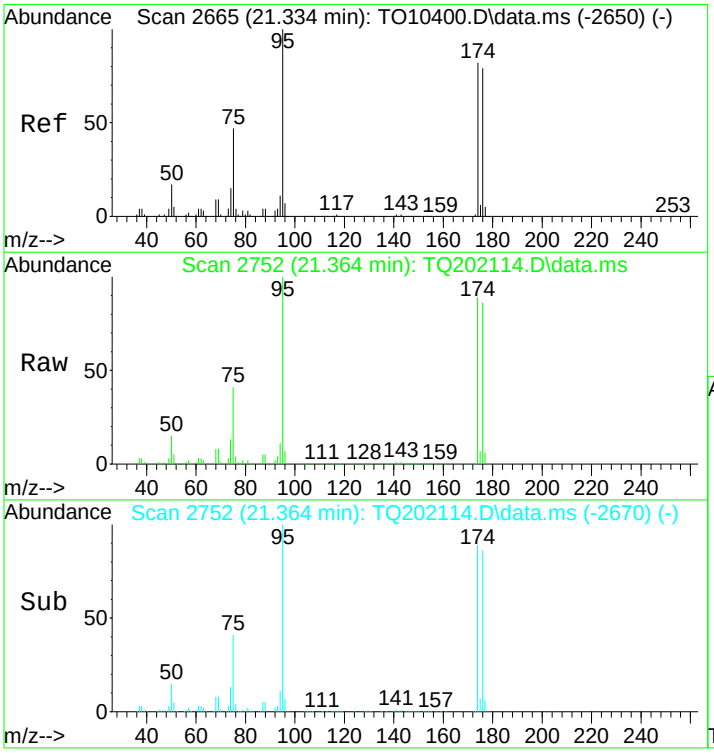


#58
o-Xylene
Concen: 0.04 ppbv
RT: 20.297 min Scan# 2577
Delta R.T. 0.002 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 91 Resp: 3801

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	46.4	38.2	57.2

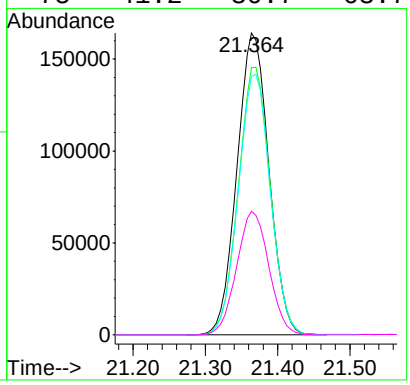


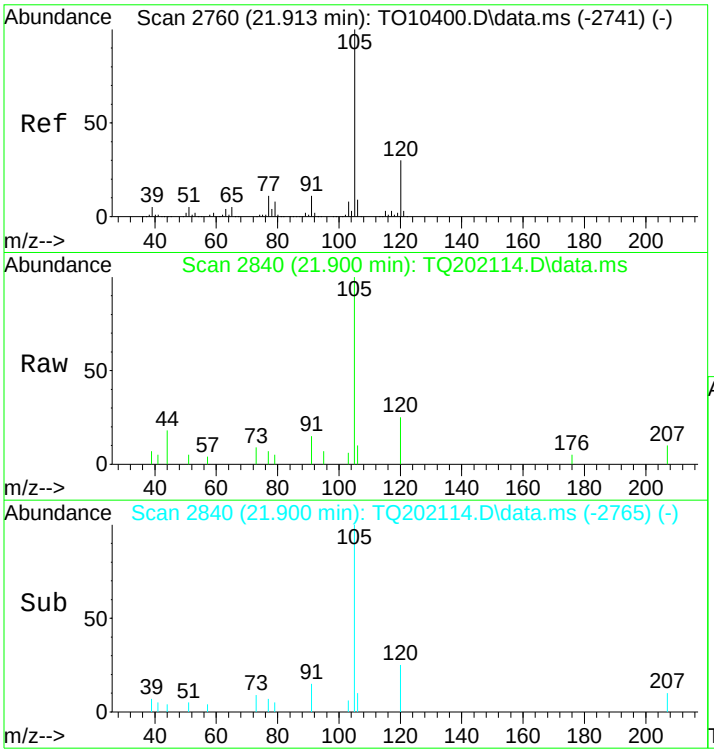


#64
p-Bromofluorobenzene
Concen: 7.66 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. -0.000 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion: 95 Resp: 504061

Ion	Ratio	Lower	Upper
95	100		
174	89.1	53.2	110.6
176	86.8	51.6	107.2
75	41.2	30.7	63.7

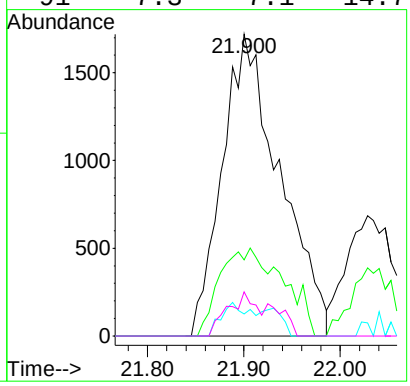


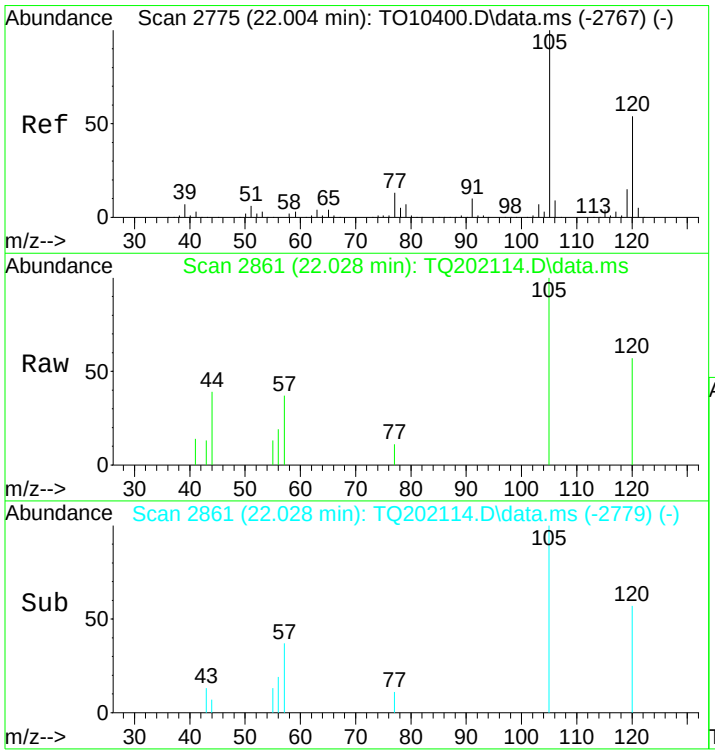


#65
4-Ethyltoluene
Concen: 0.06 ppbv
RT: 21.900 min Scan# 2840
Delta R.T. -0.043 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion:105 Resp: 7144

Ion	Ratio	Lower	Upper
105	100		
120	13.5	19.6	40.8#
77	0.0	7.3	15.3#
91	7.3	7.1	14.7

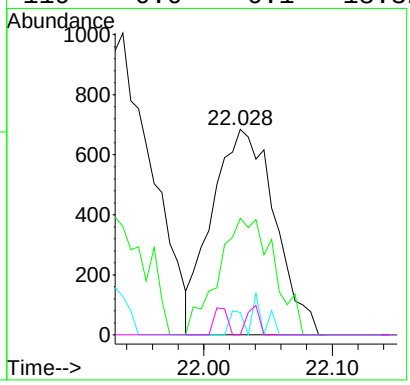


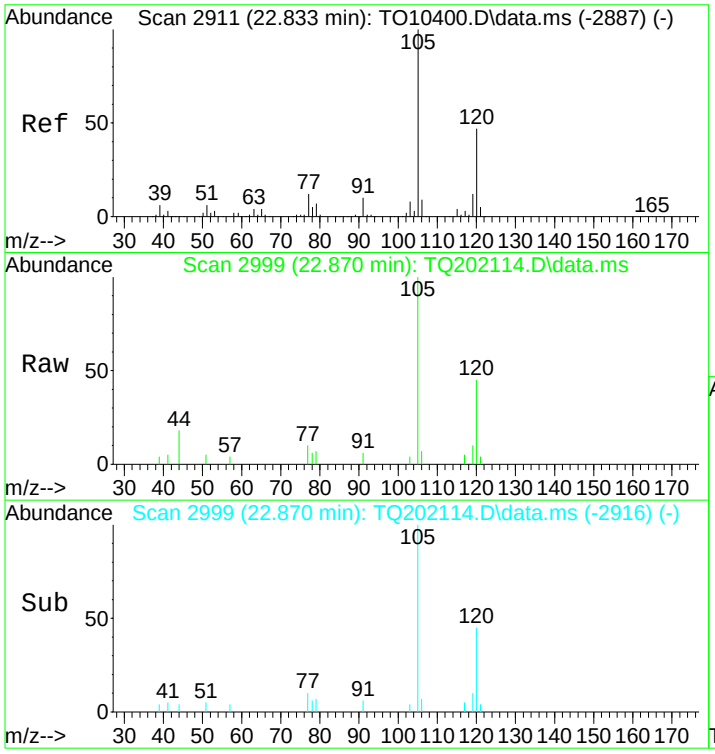


#66
1,3,5-Trimethylbenzene
Concen: 0.02 ppbv
RT: 22.028 min Scan# 2861
Delta R.T. 0.001 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion:105 Resp: 2333

Ion	Ratio	Lower	Upper
105	100		
120	50.2	39.2	58.8
77	0.0	10.1	15.1#
119	0.0	6.1	18.3#

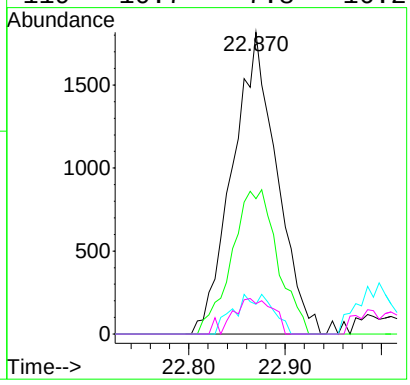




#68
1,2,4-Trimethylbenzene
Concen: 0.05 ppbv
RT: 22.870 min Scan# 2999
Delta R.T. 0.004 min
Lab File: TQ202114.D
Acq: 20 Apr 2017 11:22 pm

Tgt Ion:105 Resp: 5814

Ion	Ratio	Lower	Upper
105	100		
120	49.3	30.2	62.6
77	0.0	8.1	16.9#
119	10.7	7.8	16.2



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

818/DUP-1

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-04 File ID: TQ202127.D

Sampled: 04/20/17 15:00 Prepared: 04/21/17 19:18 Analyzed: 04/21/17 19:18

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD71102 Sequence: Y7D2619 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	19.7	14	U
71-55-6	1,1,1-Trichloroethane	19.7	11	U
79-34-5	1,1,2,2-Tetrachloroethane	19.7	14	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	19.7	15	U
79-00-5	1,1,2-Trichloroethane	19.7	11	U
75-34-3	1,1-Dichloroethane	19.7	8.0	U
75-35-4	1,1-Dichloroethylene	19.7	7.8	U
120-82-1	1,2,4-Trichlorobenzene	19.7	15	U
95-63-6	1,2,4-Trimethylbenzene	19.7	9.7	U
106-93-4	1,2-Dibromoethane	19.7	15	U
95-50-1	1,2-Dichlorobenzene	19.7	12	U
107-06-2	1,2-Dichloroethane	19.7	8.0	U
78-87-5	1,2-Dichloropropane	19.7	9.1	U
76-14-2	1,2-Dichlorotetrafluoroethane	19.7	14	U
108-67-8	1,3,5-Trimethylbenzene	19.7	9.7	U
106-99-0	1,3-Butadiene	19.7	13	U
541-73-1	1,3-Dichlorobenzene	19.7	12	U
142-28-9	1,3-Dichloropropane	19.7	9.1	U
106-46-7	1,4-Dichlorobenzene	19.7	12	U
123-91-1	1,4-Dioxane	19.7	14	U
78-93-3	2-Butanone	19.7	79	D
591-78-6	2-Hexanone	19.7	16	U
107-05-1	3-Chloropropene	19.7	31	U
108-10-1	4-Methyl-2-pentanone	19.7	8.1	U
67-64-1	Acetone	19.7	340	D
107-13-1	Acrylonitrile	19.7	4.3	U
71-43-2	Benzene	19.7	6.9	D
100-44-7	Benzyl chloride	19.7	10	U
75-27-4	Bromodichloromethane	19.7	13	U
75-25-2	Bromoform	19.7	20	U
74-83-9	Bromomethane	19.7	7.6	U
75-15-0	Carbon disulfide	19.7	55	D
56-23-5	Carbon tetrachloride	19.7	3.1	U
108-90-7	Chlorobenzene	19.7	9.1	U
75-00-3	Chloroethane	19.7	5.2	U
67-66-3	Chloroform	19.7	9.6	U
74-87-3	Chloromethane	19.7	5.7	D
156-59-2	cis-1,2-Dichloroethylene	19.7	7.8	U
10061-01-5	cis-1,3-Dichloropropylene	19.7	8.9	U
110-82-7	Cyclohexane	19.7	6.8	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

818/DUP-1

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-04 File ID: TQ202127.D

Sampled: 04/20/17 15:00 Prepared: 04/21/17 19:18 Analyzed: 04/21/17 19:18

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD71102 Sequence: Y7D2619 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
124-48-1	Dibromochloromethane	19.7	17	U
75-71-8	Dichlorodifluoromethane	19.7	9.7	U
141-78-6	Ethyl acetate	19.7	14	U
100-41-4	Ethyl Benzene	19.7	8.6	U
87-68-3	Hexachlorobutadiene	19.7	21	U
67-63-0	Isopropanol	19.7	71	D
80-62-6	Methyl Methacrylate	19.7	8.1	U
1634-04-4	Methyl tert-butyl ether (MTBE)	19.7	7.1	U
75-09-2	Methylene chloride	19.7	14	U
142-82-5	n-Heptane	19.7	8.1	U
110-54-3	n-Hexane	19.7	6.9	U
95-47-6	o-Xylene	19.7	8.5	U
179601-23-1	p- & m- Xylenes	19.7	17	U
622-96-8	p-Ethyltoluene	19.7	9.7	U
115-07-1	Propylene	19.7	20	D
100-42-5	Styrene	19.7	8.4	U
127-18-4	Tetrachloroethylene	19.7	8.0	D
109-99-9	Tetrahydrofuran	19.7	31	D
108-88-3	Toluene	19.7	21	D
156-60-5	trans-1,2-Dichloroethylene	19.7	7.8	U
10061-02-6	trans-1,3-Dichloropropylene	19.7	8.9	U
79-01-6	Trichloroethylene	19.7	2.6	U
75-69-4	Trichlorofluoromethane (Freon 11)	19.7	11	U
108-05-4	Vinyl acetate	19.7	6.9	U
593-60-2	Vinyl bromide	19.7	8.6	U
75-01-4	Vinyl Chloride	19.7	5.0	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	7.44	74.4	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	337119	12.311	280575	12.305	
1,4-Difluorobenzene	1079636	13.908	1024780	13.902	
d5-Chlorobenzene	933348	19.188	906236	19.188	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202127.D
Acq On : 21 Apr 2017 7:18 pm
Sample : 17D0833-04 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-04
Misc : QBTO2042117A 0833-04 10X
ALS Vial : 15 Sample Multiplier: 19.69

Quant Time: Apr 26 13:40:31 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

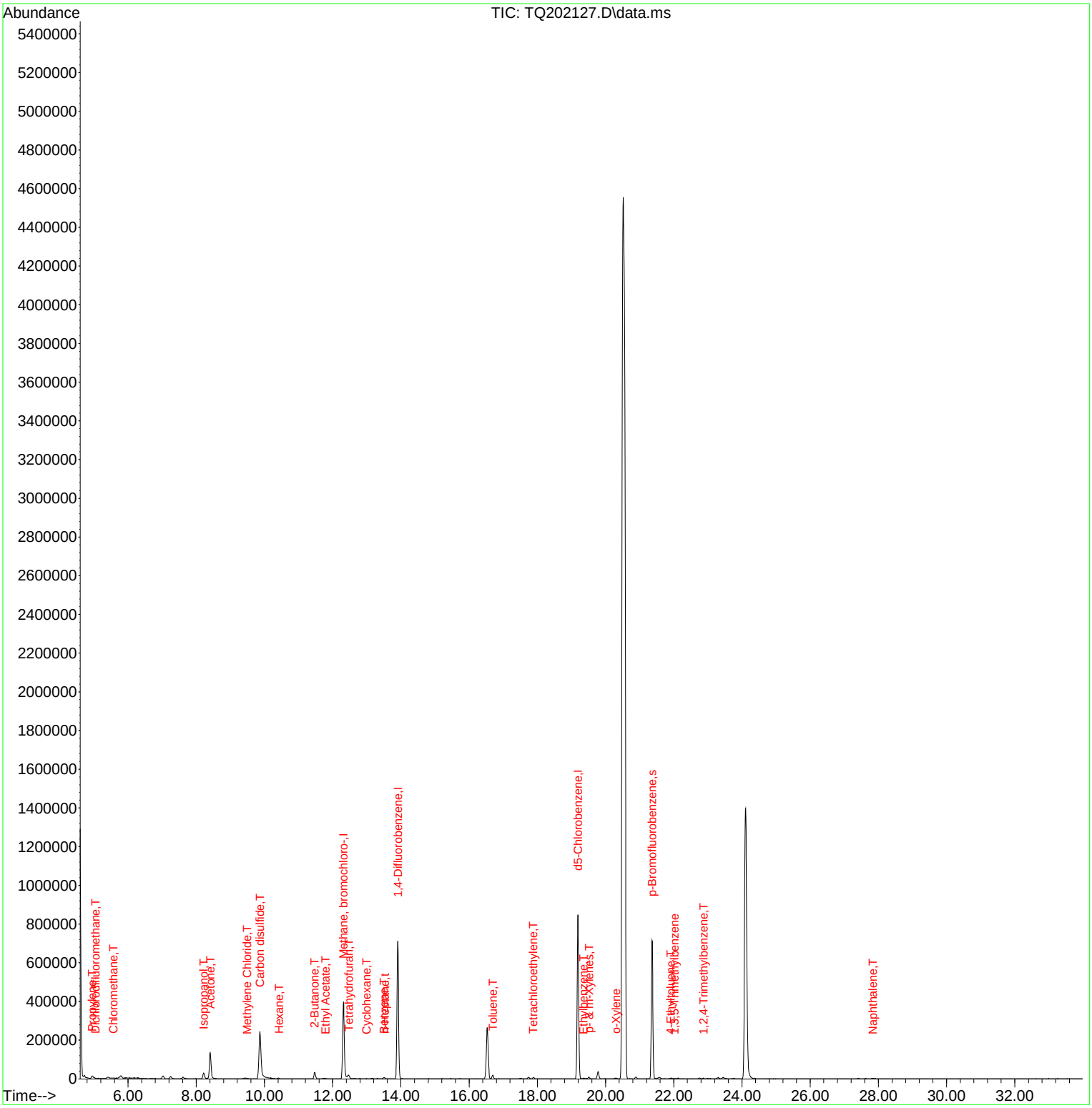
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.311	49	337119	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.908	114	1079636	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	933348	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	474303	7.44	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 74.40%				
Target Compounds							Qvalue
2) Propylene	4.947	42	7563	0.60	ppbv		96
3) Dichlorodifluoromethane	5.038	85	1526	0.03	ppbv	#	50
5) Chloromethane	5.568	50	1748	0.14	ppbv		93
12) Isopropanol	8.214	45	67343	1.46	ppbv		100
14) Acetone	8.409	43	304320	7.35	ppbv		94
18) Methylene Chloride	9.488	49	1888	0.07	ppbv	#	91
20) Carbon disulfide	9.866	76	53890	0.90	ppbv	#	77
23) Hexane	10.421	57	3355	0.09	ppbv		93
26) 2-Butanone	11.470	43	73669	1.36	ppbv		98
27) Ethyl Acetate	11.787	43	5761	0.11	ppbv	#	39
30) Tetrahydrofuran	12.476	42	15199	0.53	ppbv		97
32) Cyclohexane	12.994	56	826	0.02	ppbv	#	65
35) Benzene	13.500	78	8432	0.11	ppbv	#	45
36) n-Heptane	13.530	43	1237	0.03	ppbv	#	95
45) Toluene	16.694	91	25789	0.28	ppbv		99
50) Tetrachloroethylene	17.877	166	3942	0.06	ppbv		98
56) Ethylbenzene	19.352	91	3964	0.04	ppbv		100
57) p- & m-Xylenes	19.517	91	8636	0.11	ppbv		98
58) o-Xylene	20.303	91	3224	0.04	ppbv		99
65) 4-Ethyltoluene	21.907	105	6520	0.05	ppbv		96
66) 1,3,5-Trimethylbenzene	22.022	105	2459	0.03	ppbv	#	86
68) 1,2,4-Trimethylbenzene	22.876	105	5031	0.05	ppbv	#	91
78) Naphthalene	27.832	128	9247	0.06	ppbv	#	78

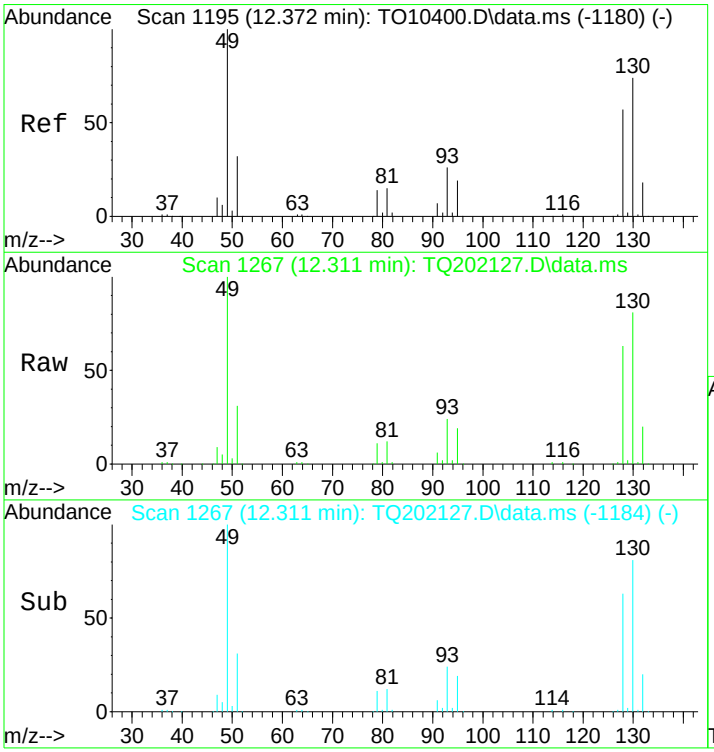
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202127.D
Acq On : 21 Apr 2017 7:18 pm
Sample : 17D0833-04 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-04
Misc : QBTO2042117A 0833-04 10X
ALS Vial : 15 Sample Multiplier: 19.69

Quant Time: Apr 26 13:40:31 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

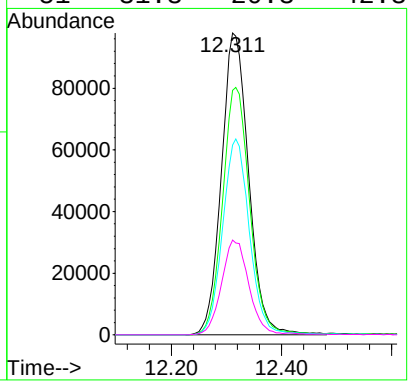


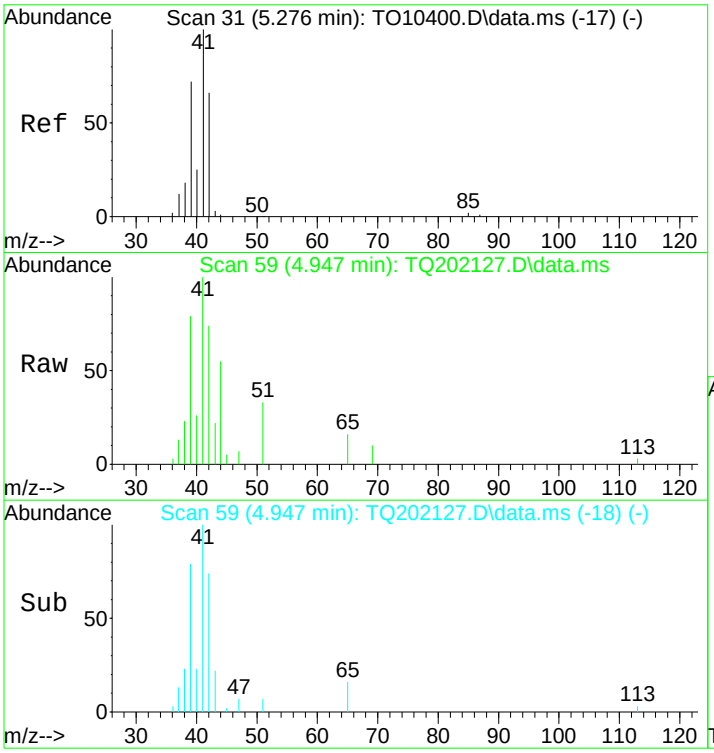


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.311 min Scan# 1267
Delta R.T. 0.007 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 49 Resp: 337119

Ion	Ratio	Lower	Upper
49	100		
130	81.7	48.1	99.9
128	63.9	38.3	79.5
51	31.3	20.3	42.3

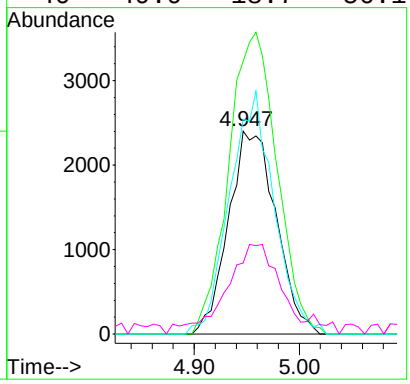


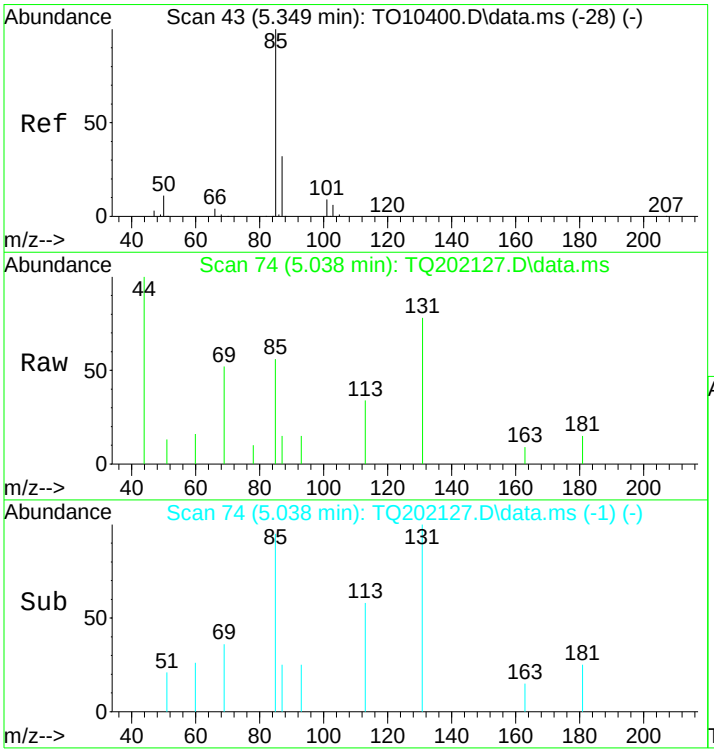


#2
Propylene
Concen: 0.60 ppbv
RT: 4.947 min Scan# 59
Delta R.T. 0.003 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 42 Resp: 7563

Ion	Ratio	Lower	Upper
42	100		
41	151.1	90.7	211.7
39	111.3	54.1	162.3
40	49.9	18.7	56.1

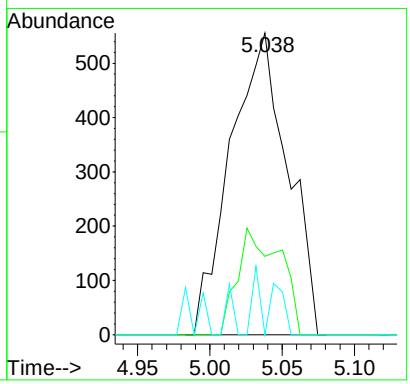


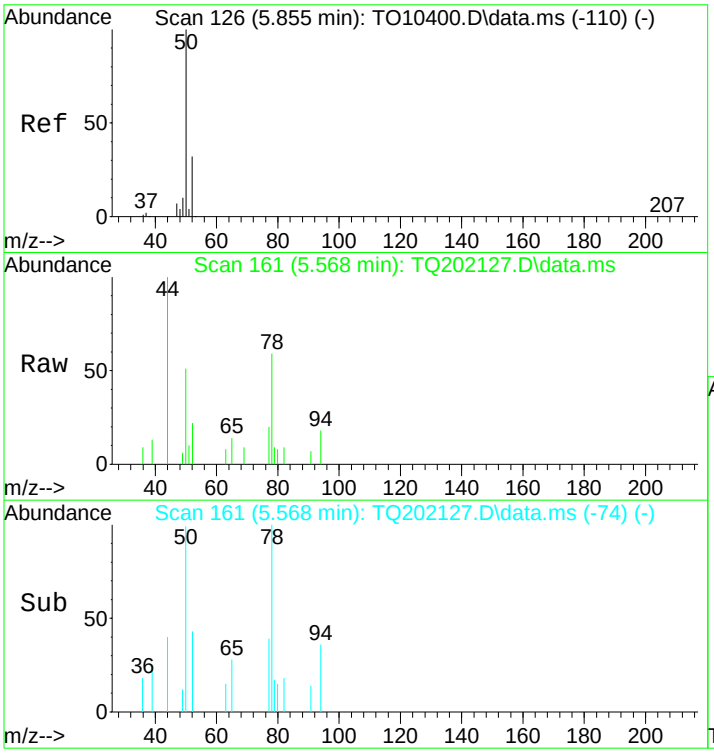


#3
Dichlorodifluoromethane
Concen: 0.03 ppbv
RT: 5.038 min Scan# 74
Delta R.T. 0.018 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 85 Resp: 1526

Ion	Ratio	Lower	Upper
85	100		
87	0.0	20.9	43.5#
50	0.0	7.2	15.0#

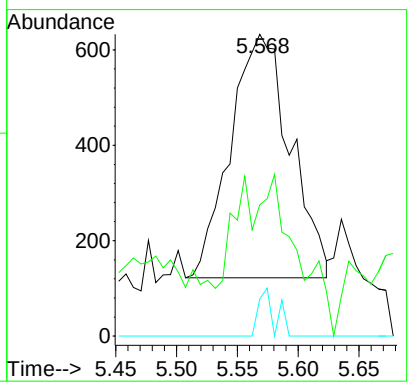


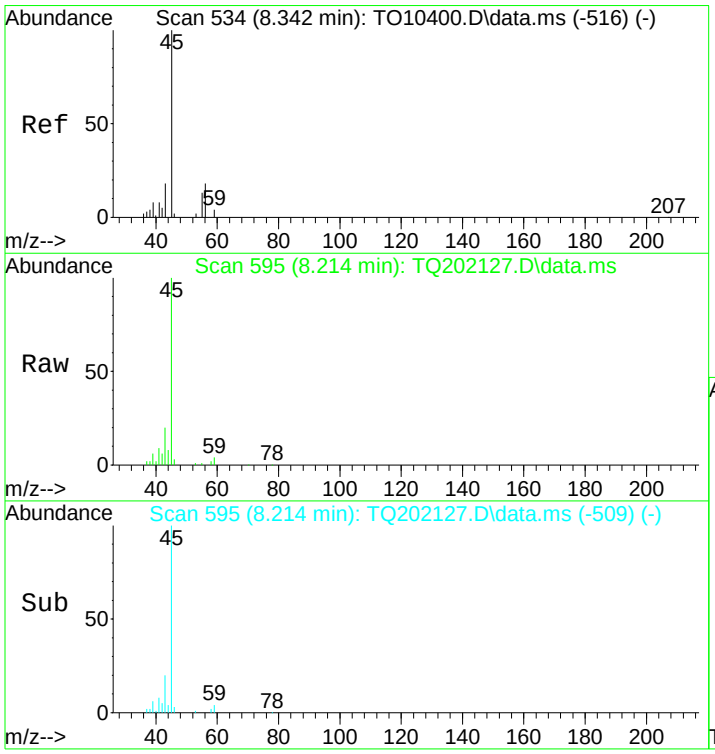


#5
Chloromethane
Concen: 0.14 ppbv
RT: 5.568 min Scan# 161
Delta R.T. 0.027 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 50 Resp: 1748

Ion	Ratio	Lower	Upper
50	100		
52	35.2	0.0	65.2
49	15.3	0.0	19.6

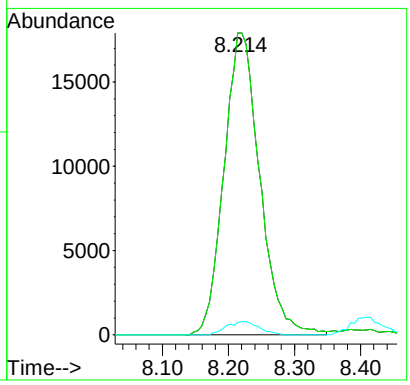


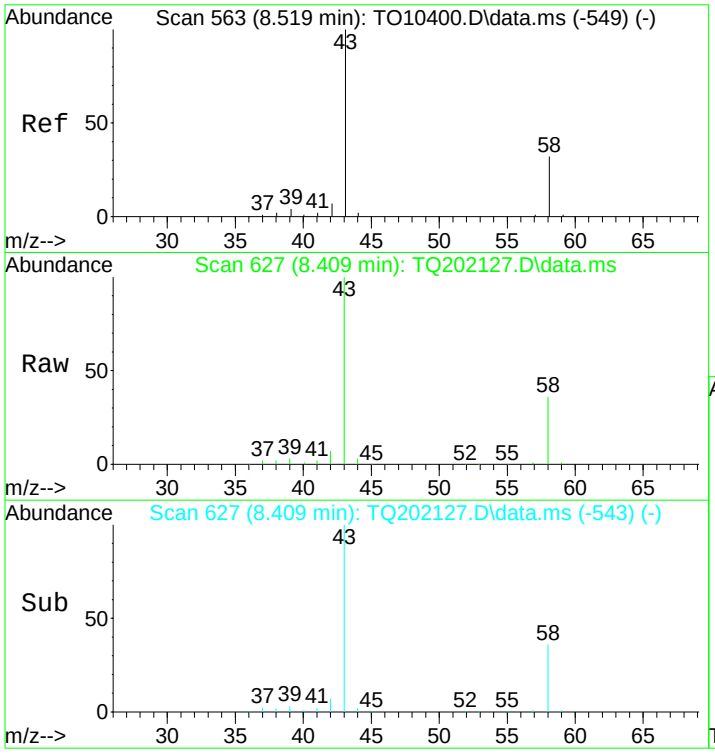


#12
Isopropanol
Concen: 1.46 ppbv
RT: 8.214 min Scan# 595
Delta R.T. 0.022 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 45 Resp: 67343

Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	4.0	0.0	10.0

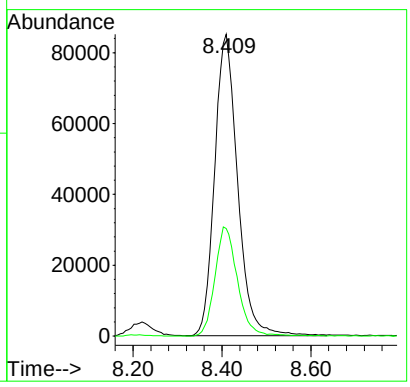


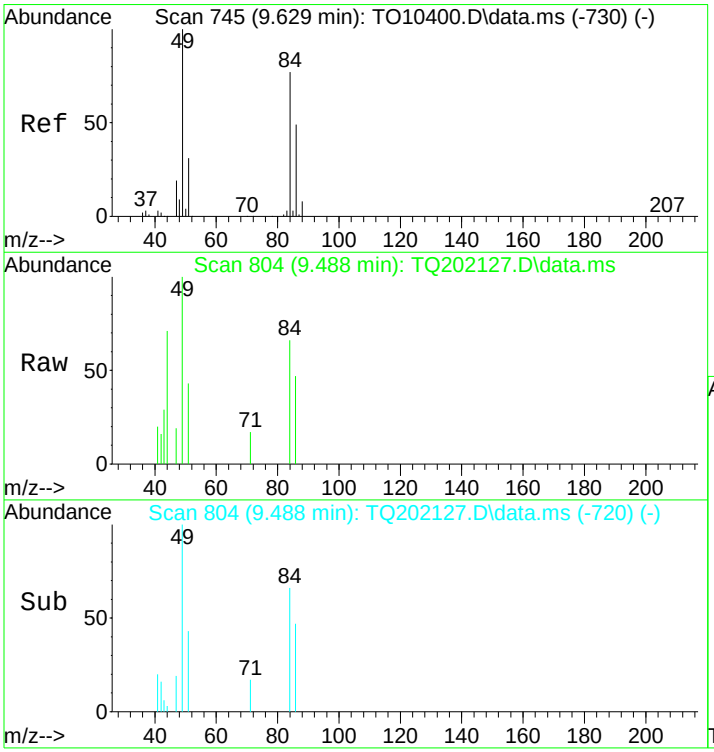


#14
Acetone
Concen: 7.35 ppbv
RT: 8.409 min Scan# 627
Delta R.T. 0.011 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 43 Resp: 304320

Ion	Ratio	Lower	Upper
43	100		
58	35.5	20.9	43.3

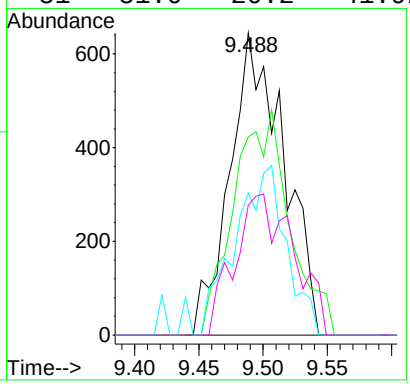


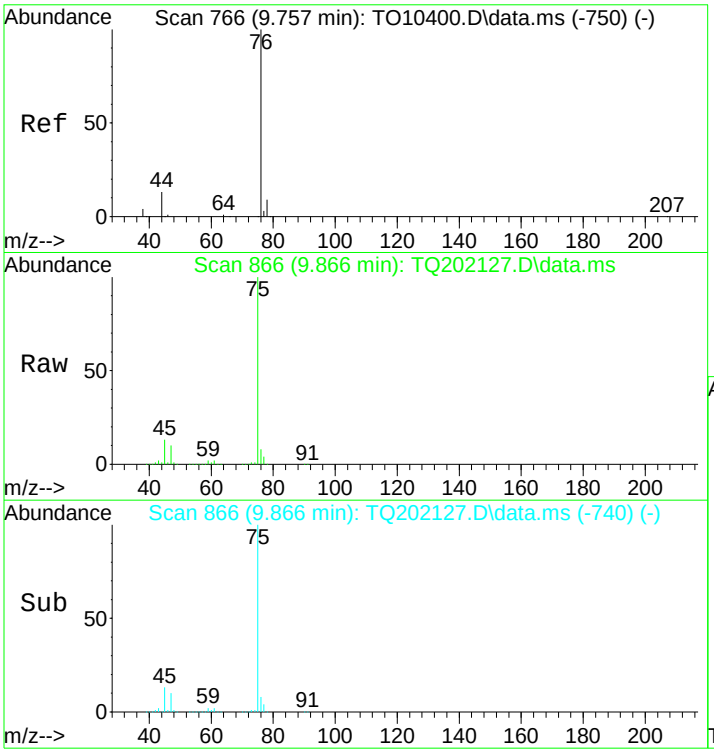


#18
Methylene Chloride
Concen: 0.07 ppbv
RT: 9.488 min Scan# 804
Delta R.T. 0.010 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 49 Resp: 1888

Ion	Ratio	Lower	Upper
49	100		
84	76.9	49.9	103.5
86	53.0	31.8	66.0
51	51.0	20.2	41.9#

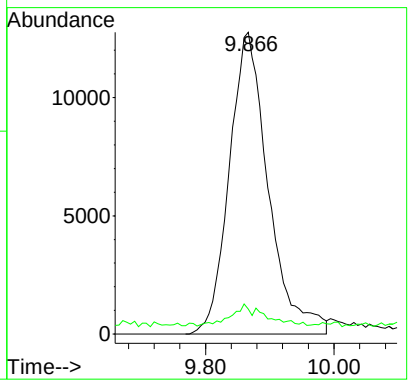


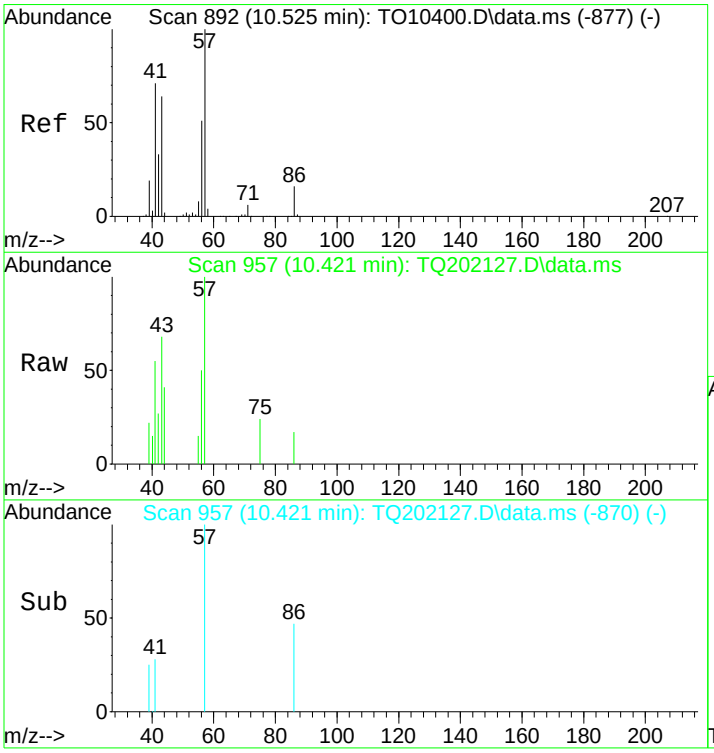


#20
Carbon disulfide
Concen: 0.90 ppbv
RT: 9.866 min Scan# 866
Delta R.T. 0.271 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 76 Resp: 53890

Ion	Ratio	Lower	Upper
76	100		
44	3.7	8.3	17.3#

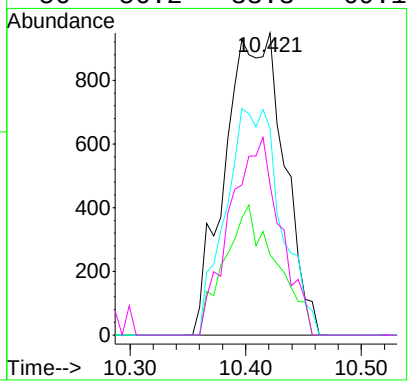


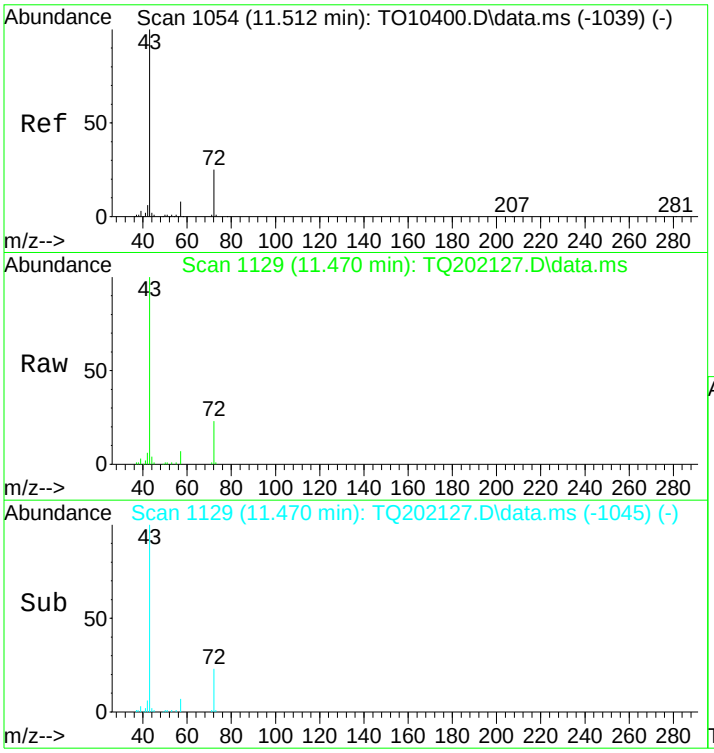


#23
Hexane
Concen: 0.09 ppbv
RT: 10.421 min Scan# 957
Delta R.T. 0.028 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 57 Resp: 3355

Ion	Ratio	Lower	Upper
57	100		
42	37.6	21.6	45.0
43	70.5	42.0	87.2
56	56.2	33.3	69.1

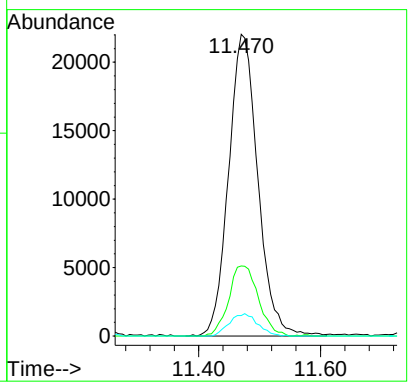


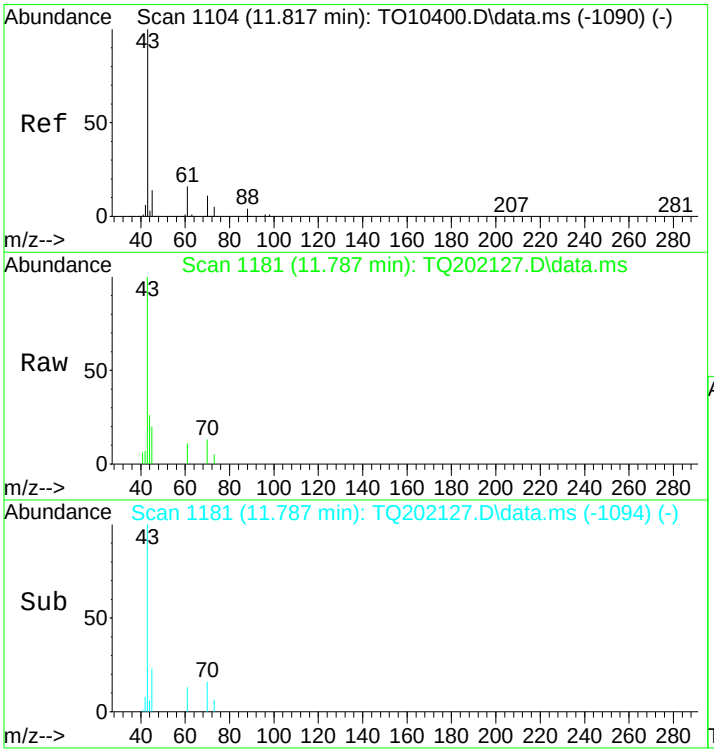


#26
2-Butanone
Concen: 1.36 ppbv
RT: 11.470 min Scan# 1129
Delta R.T. 0.015 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 43 Resp: 73669

Ion	Ratio	Lower	Upper
43	100		
72	23.5	16.1	33.5
57	7.3	4.9	10.3

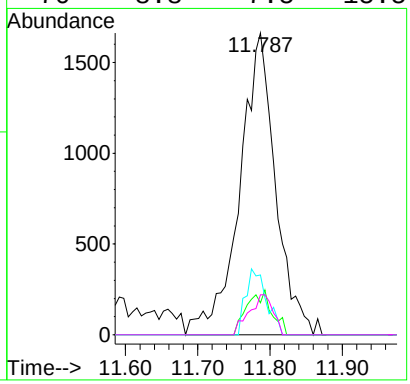


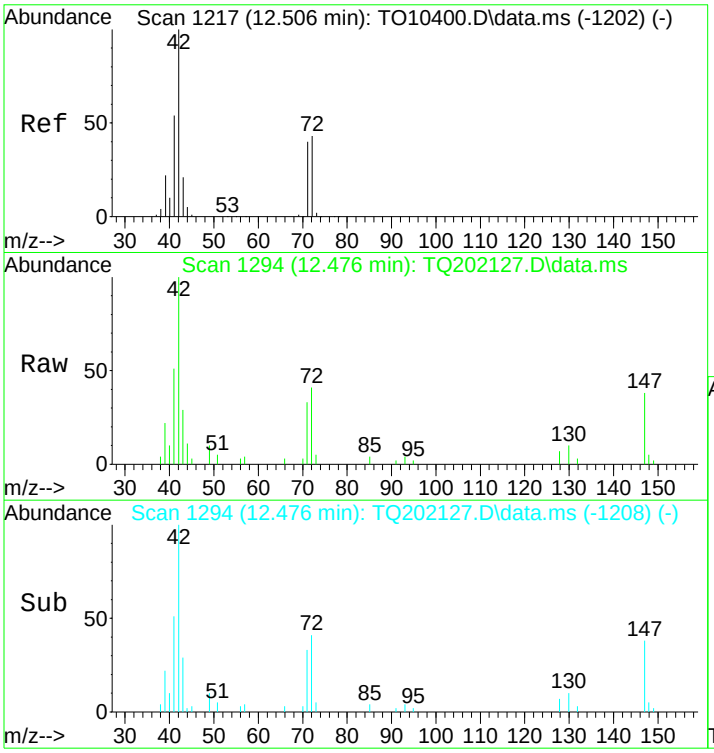


#27
Ethyl Acetate
Concen: 0.11 ppbv
RT: 11.787 min Scan# 1181
Delta R.T. 0.028 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 43 Resp: 5761

Ion	Ratio	Lower	Upper
43	100		
61	10.2	51.4	106.8#
45	12.6	9.4	19.6
70	8.8	7.5	15.5

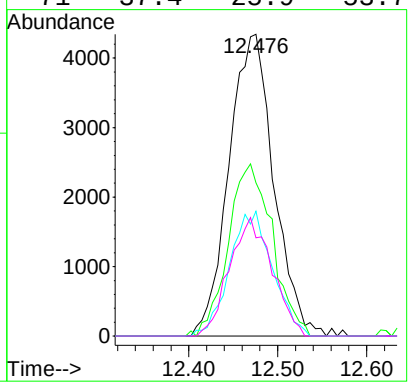


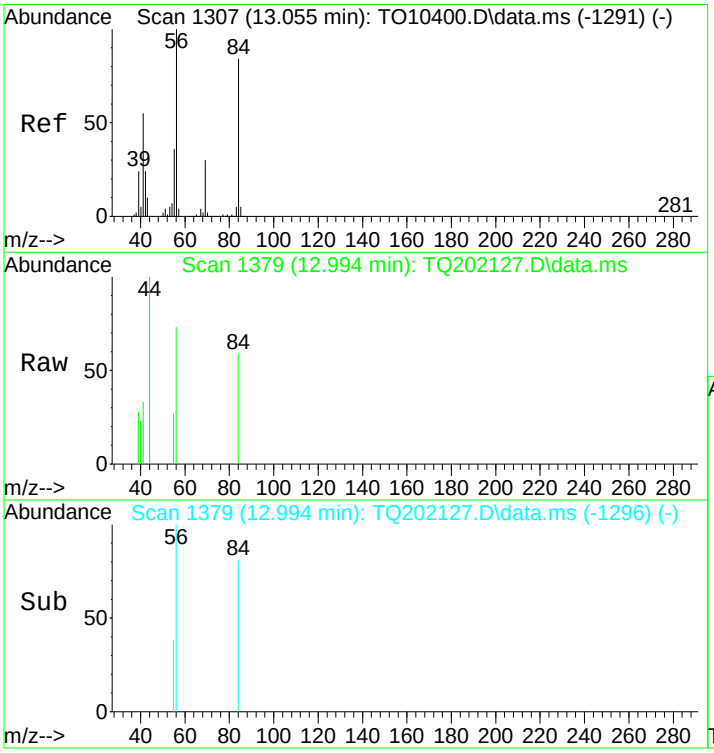


#30
Tetrahydrofuran
Concen: 0.53 ppbv
RT: 12.476 min Scan# 1294
Delta R.T. 0.026 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 42 Resp: 15199

Ion	Ratio	Lower	Upper
42	100		
41	56.0	35.2	73.0
72	39.6	27.2	56.6
71	37.4	25.9	53.7

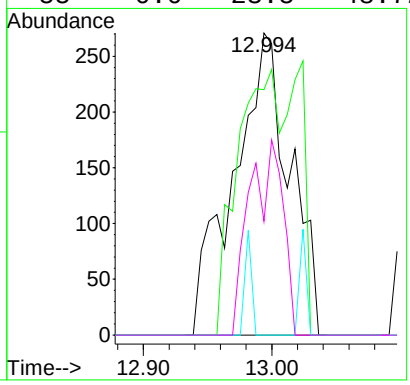


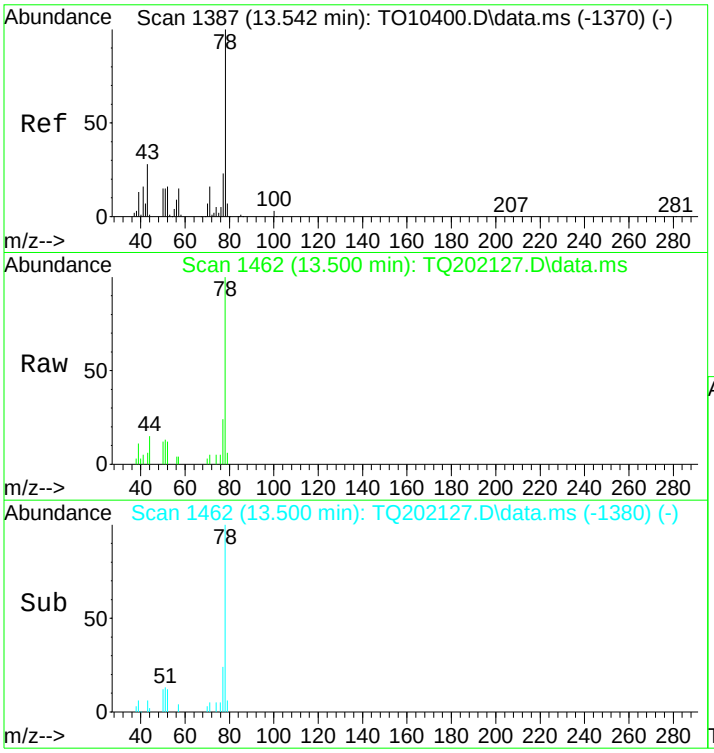


#32
Cyclohexane
Concen: 0.02 ppbv
RT: 12.994 min Scan# 1379
Delta R.T. 0.006 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 56 Resp: 826

Ion	Ratio	Lower	Upper
56	100		
84	65.6	54.1	112.3
42	0.0	15.3	31.7#
55	0.0	23.5	48.7#

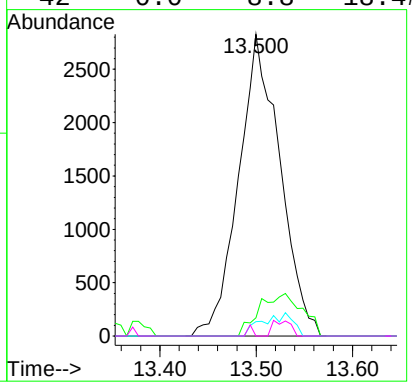


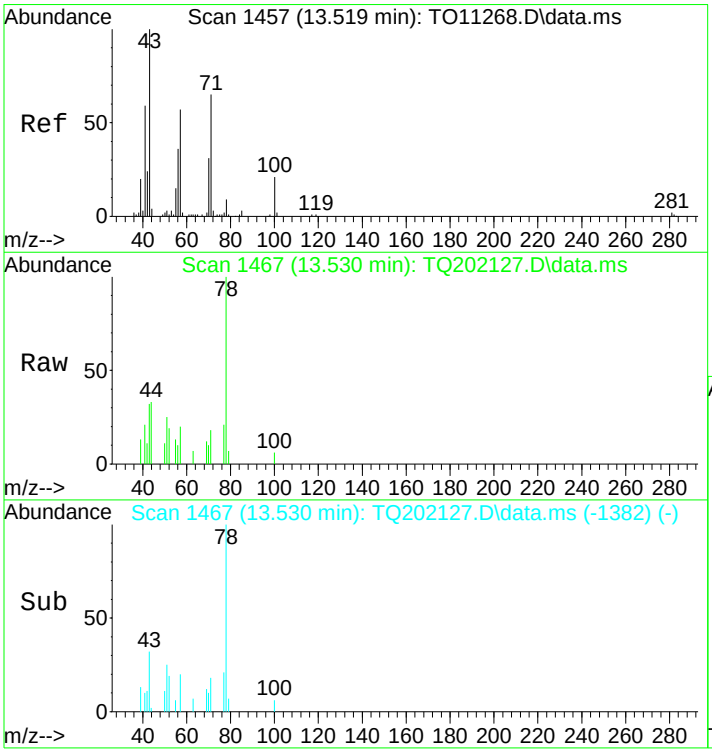


#35
Benzene
Concen: 0.11 ppbv
RT: 13.500 min Scan# 1462
Delta R.T. 0.002 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 78 Resp: 8432

Ion	Ratio	Lower	Upper
78	100		
43	14.7	37.5	77.9#
71	0.0	22.0	45.8#
42	0.0	8.8	18.4#

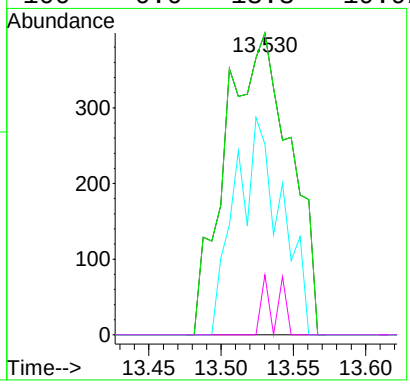


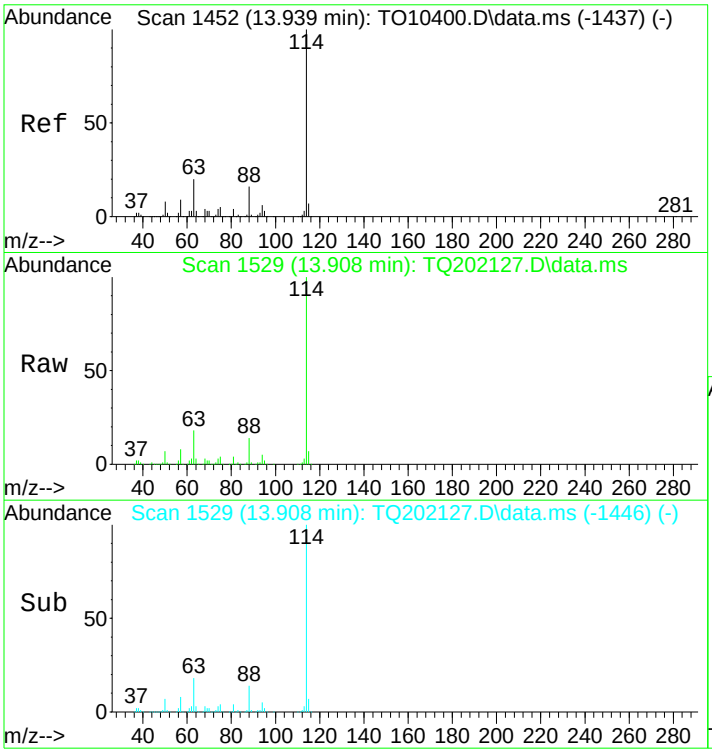


#36
n-Heptane
Concen: 0.03 ppbv
RT: 13.530 min Scan# 1467
Delta R.T. 0.016 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 43 Resp: 1237

Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	51.3	42.6	64.0
100	0.0	13.3	19.9#

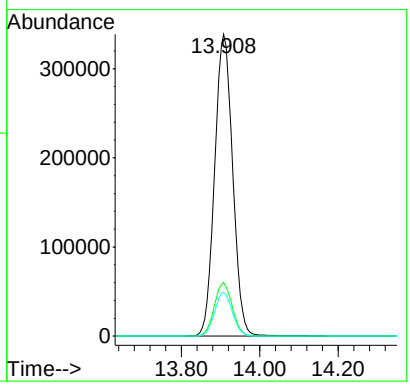


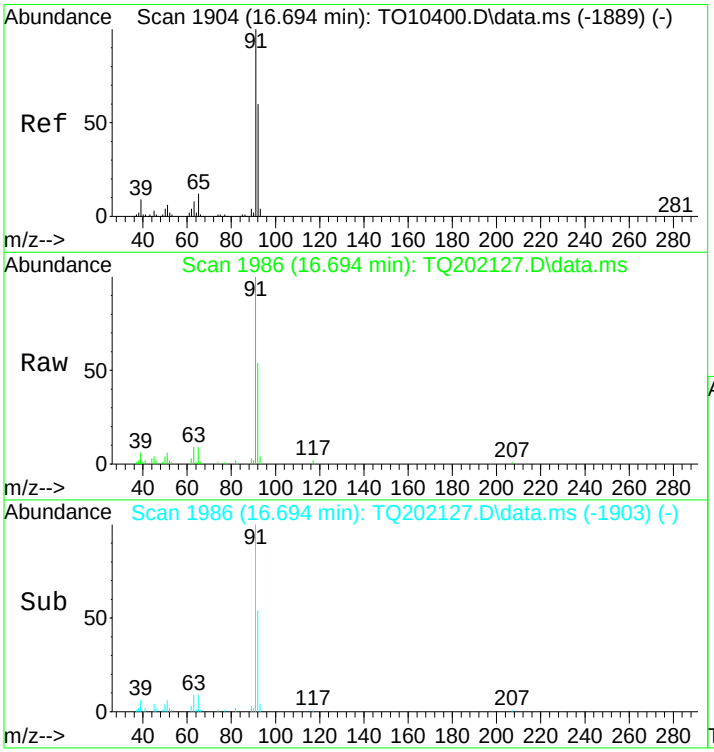


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.908 min Scan# 1529
Delta R.T. 0.006 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:114 Resp: 1079636

Ion	Ratio	Lower	Upper
114	100		
63	17.6	12.9	26.9
88	14.3	10.7	22.3

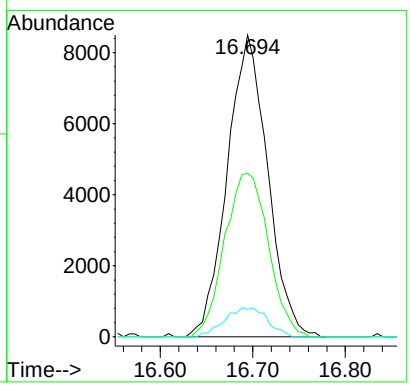


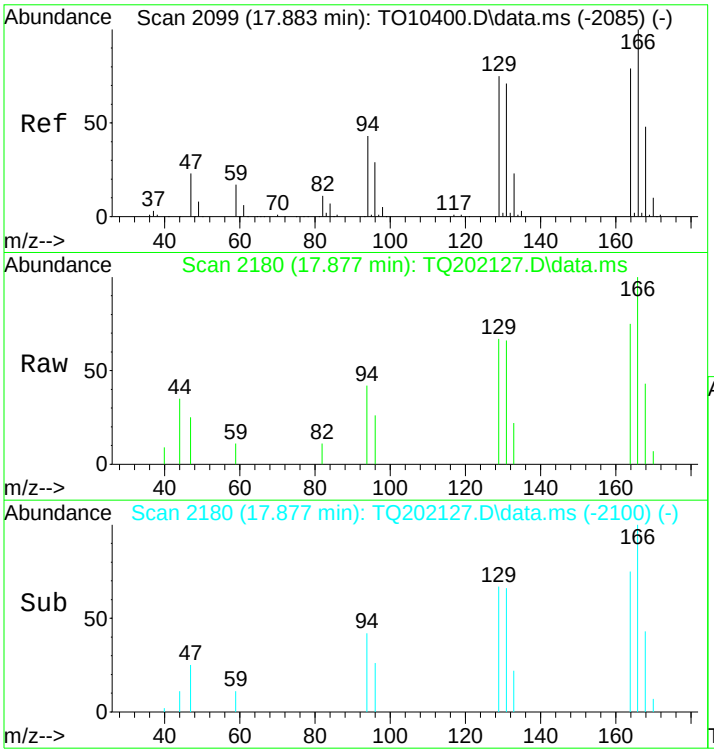


#45
Toluene
Concen: 0.28 ppbv
RT: 16.694 min Scan# 1986
Delta R.T. 0.006 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 91 Resp: 25789

Ion	Ratio	Lower	Upper
91	100		
92	58.8	38.7	80.3
65	10.2	7.5	15.5

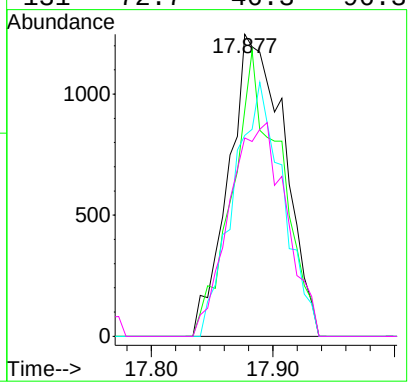


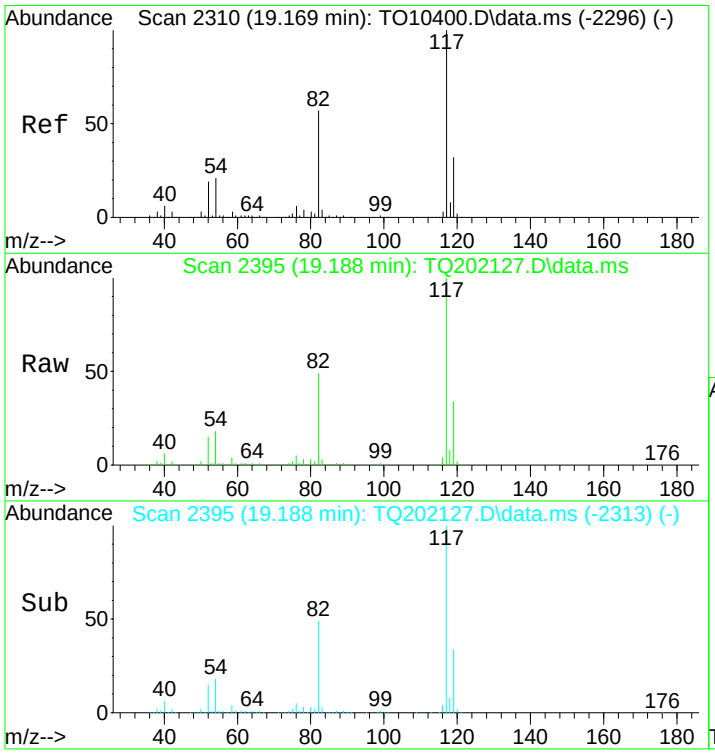


#50
Tetrachloroethylene
Concen: 0.06 ppbv
RT: 17.877 min Scan# 2180
Delta R.T. -0.010 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:166 Resp: 3942

Ion	Ratio	Lower	Upper
166	100		
164	81.6	51.0	106.0
129	74.7	48.1	99.9
131	72.7	46.3	96.3

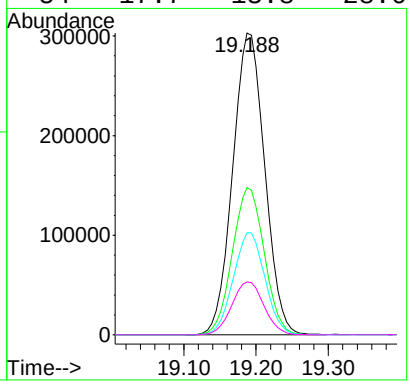


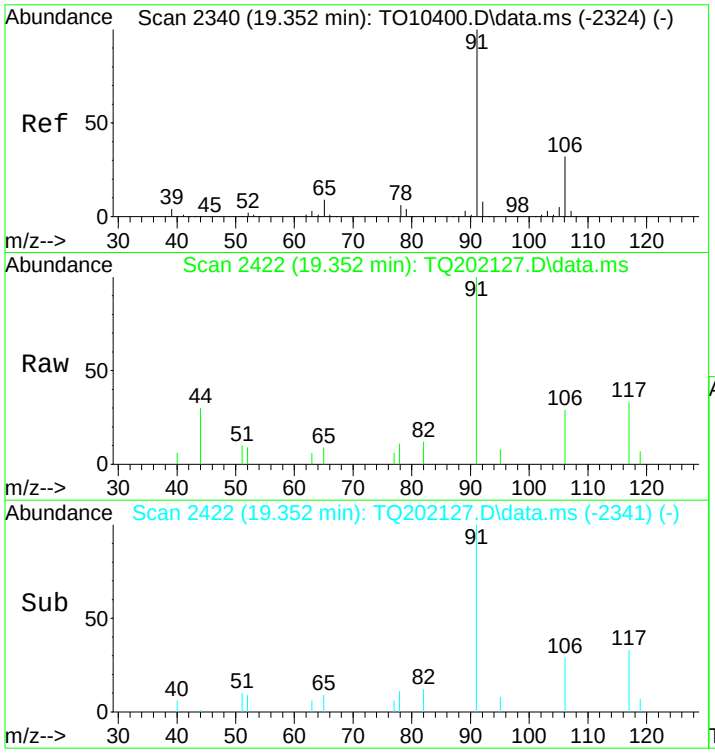


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.188 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:117 Resp: 933348

Ion	Ratio	Lower	Upper
117	100		
82	48.7	37.1	77.1
119	33.4	22.1	45.9
54	17.7	13.8	28.6

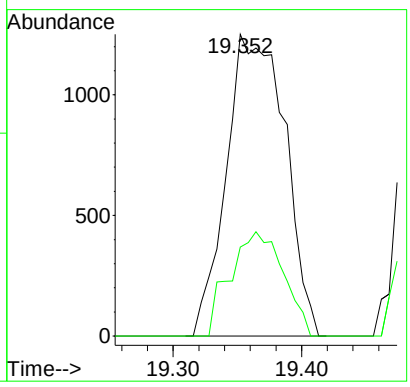


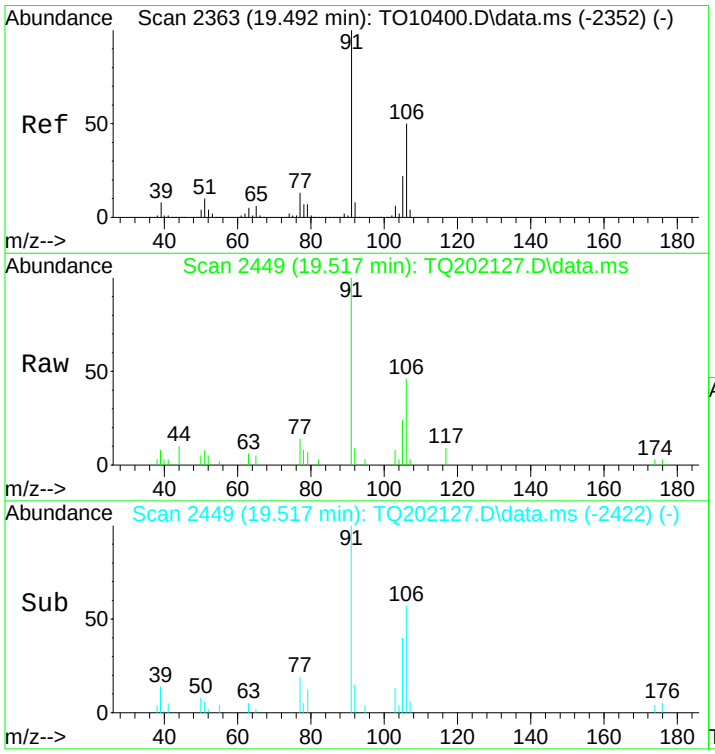


#56
Ethylbenzene
Concen: 0.04 ppbv
RT: 19.352 min Scan# 2422
Delta R.T. -0.009 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 91 Resp: 3964

Ion	Ratio	Lower	Upper
91	100		
106	31.6	20.5	42.7

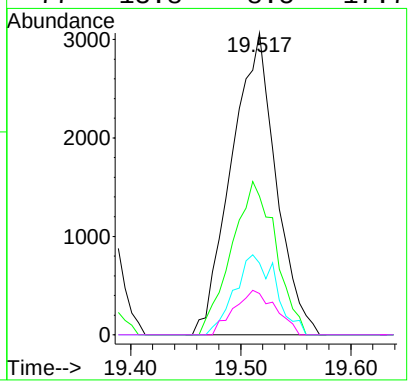


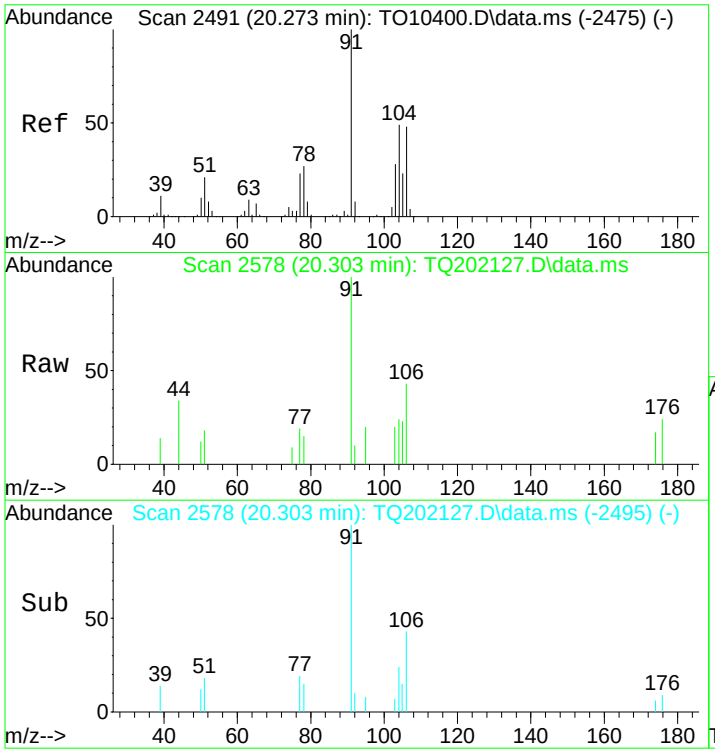


#57
p- & m-Xylenes
Concen: 0.11 ppbv
RT: 19.517 min Scan# 2449
Delta R.T. 0.007 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 91 Resp: 8636

Ion	Ratio	Lower	Upper
91	100		
106	50.4	32.6	67.8
105	24.7	14.5	30.1
77	13.8	8.5	17.7

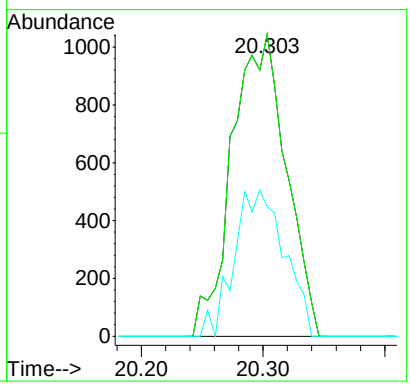


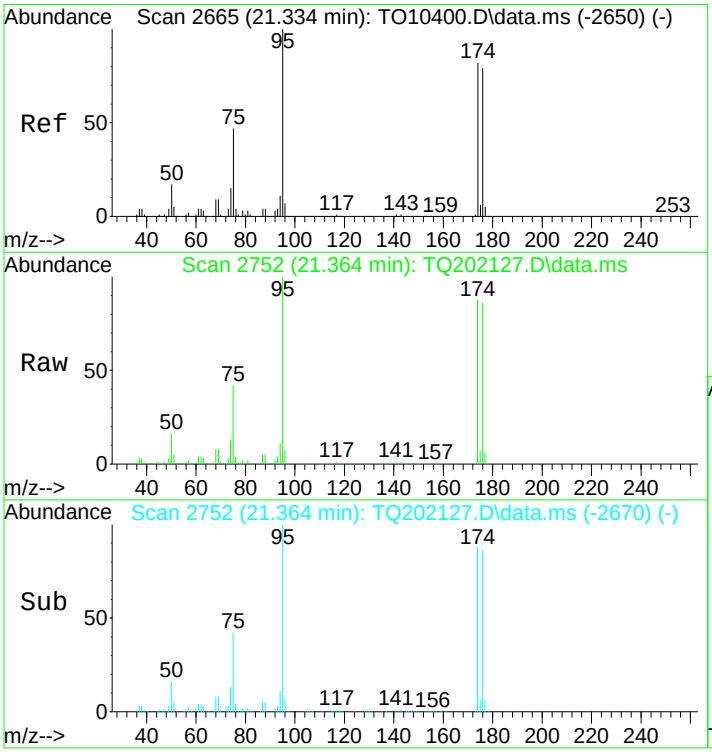


#58
o-Xylene
Concen: 0.04 ppbv
RT: 20.303 min Scan# 2578
Delta R.T. 0.009 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 91 Resp: 3224

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	45.1	38.2	57.2

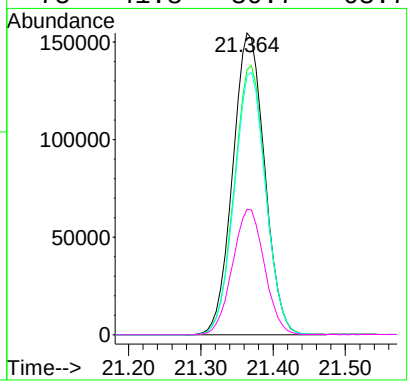


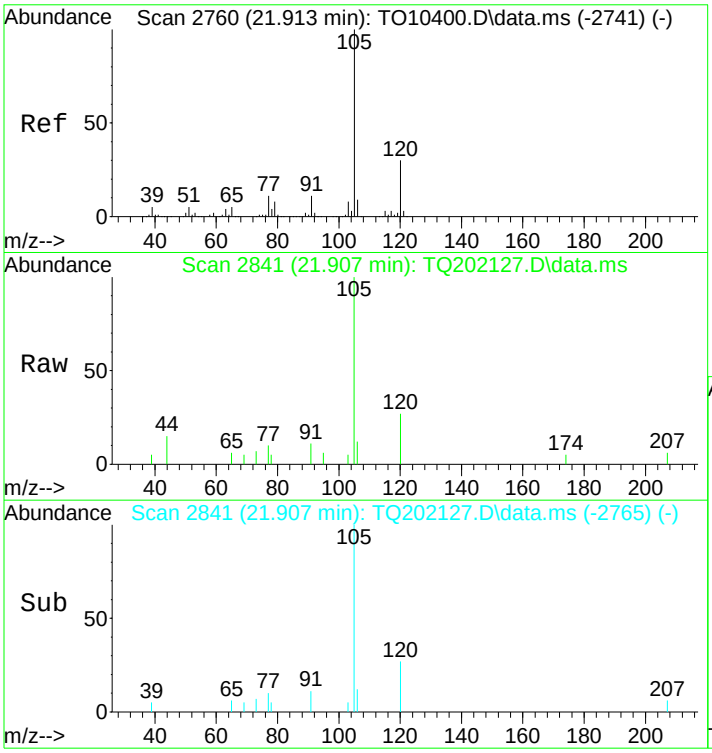


#64
p-Bromofluorobenzene
Concen: 7.44 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. 0.000 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion: 95 Resp: 474303

Ion	Ratio	Lower	Upper
95	100		
174	88.4	53.2	110.6
176	85.8	51.6	107.2
75	41.8	30.7	63.7

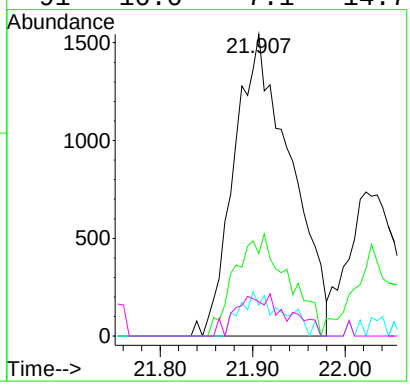


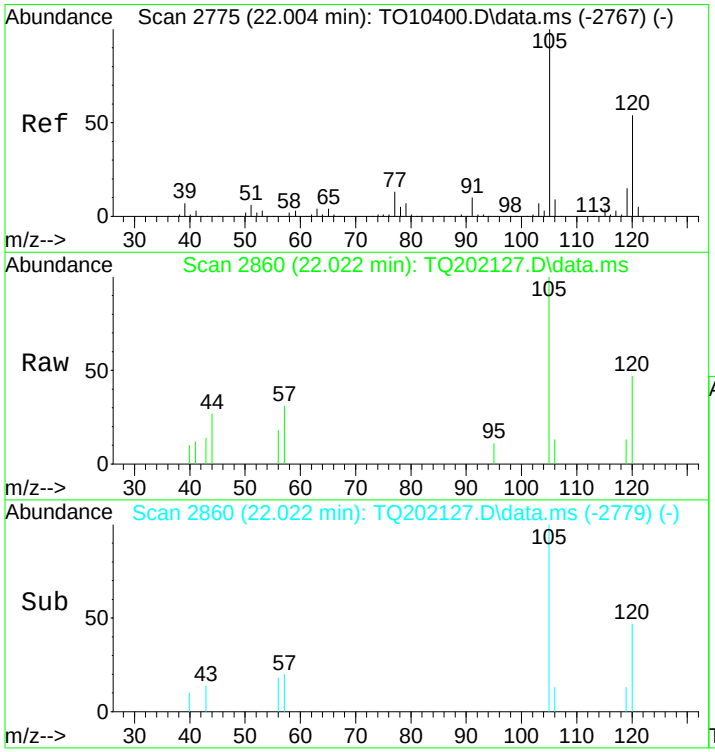


#65
4-Ethyltoluene
Concen: 0.05 ppbv
RT: 21.907 min Scan# 2841
Delta R.T. -0.036 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:105 Resp: 6520

Ion	Ratio	Lower	Upper
105	100		
120	31.9	19.6	40.8
77	9.0	7.3	15.3
91	10.0	7.1	14.7

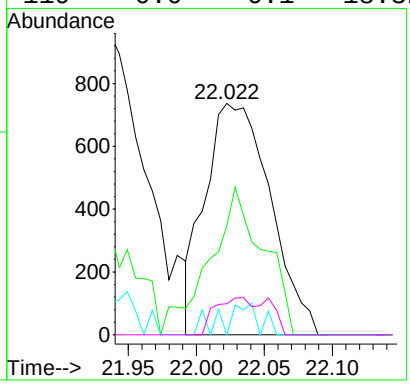


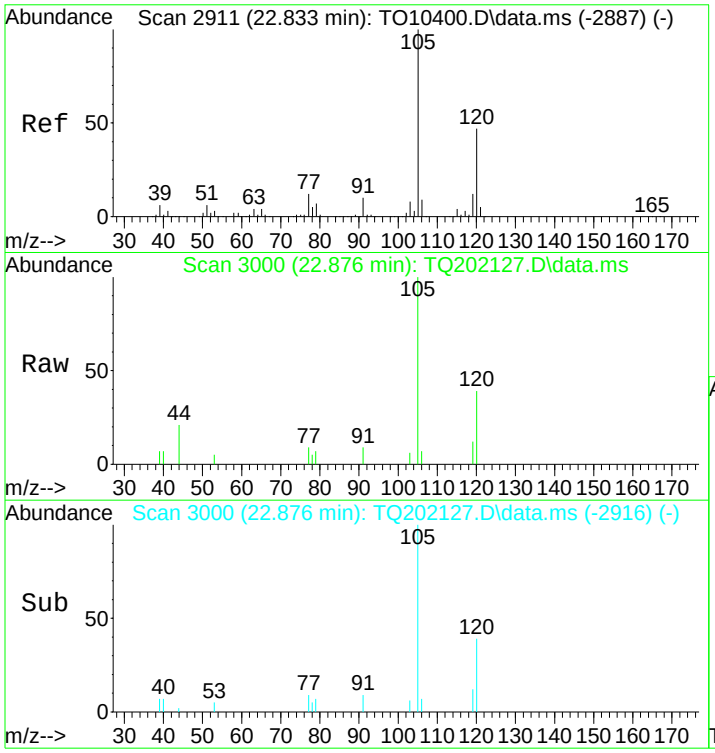


#66
1,3,5-Trimethylbenzene
Concen: 0.03 ppbv
RT: 22.022 min Scan# 2860
Delta R.T. -0.005 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:105 Resp: 2459

Ion	Ratio	Lower	Upper
105	100		
120	52.5	39.2	58.8
77	0.0	10.1	15.1#
119	0.0	6.1	18.3#

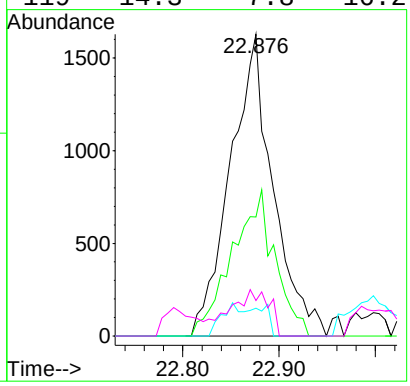


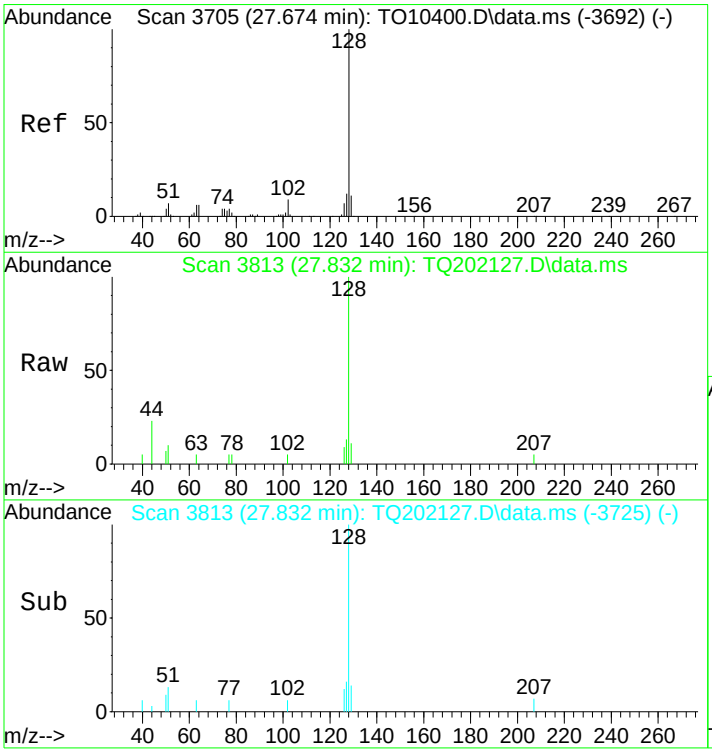


#68
1,2,4-Trimethylbenzene
Concen: 0.05 ppbv
RT: 22.876 min Scan# 3000
Delta R.T. 0.010 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:105 Resp: 5031

Ion	Ratio	Lower	Upper
105	100		
120	48.4	30.2	62.6
77	0.0	8.1	16.9#
119	14.3	7.8	16.2

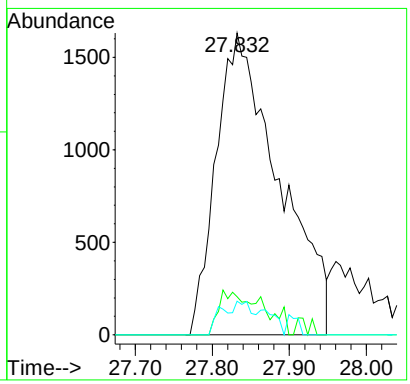




#78
Naphthalene
Concen: 0.06 ppbv
RT: 27.832 min Scan# 3813
Delta R.T. 0.039 min
Lab File: TQ202127.D
Acq: 21 Apr 2017 7:18 pm

Tgt Ion:128 Resp: 9247

Ion	Ratio	Lower	Upper
128	100		
127	6.4	8.1	16.9#
129	0.0	7.1	14.7#



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

819/V5

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-05 File ID: TQ202116.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/21/17 01:25

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	16.8	12	U
71-55-6	1,1,1-Trichloroethane	16.8	9.2	U
79-34-5	1,1,2,2-Tetrachloroethane	16.8	12	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	16.8	13	U
79-00-5	1,1,2-Trichloroethane	16.8	9.2	U
75-34-3	1,1-Dichloroethane	16.8	6.8	U
75-35-4	1,1-Dichloroethylene	16.8	6.7	U
120-82-1	1,2,4-Trichlorobenzene	16.8	12	U
95-63-6	1,2,4-Trimethylbenzene	16.8	8.3	U
106-93-4	1,2-Dibromoethane	16.8	13	U
95-50-1	1,2-Dichlorobenzene	16.8	10	U
107-06-2	1,2-Dichloroethane	16.8	6.8	U
78-87-5	1,2-Dichloropropane	16.8	7.8	U
76-14-2	1,2-Dichlorotetrafluoroethane	16.8	12	U
108-67-8	1,3,5-Trimethylbenzene	16.8	8.3	U
106-99-0	1,3-Butadiene	16.8	11	U
541-73-1	1,3-Dichlorobenzene	16.8	10	U
142-28-9	1,3-Dichloropropane	16.8	7.8	U
106-46-7	1,4-Dichlorobenzene	16.8	10	U
123-91-1	1,4-Dioxane	16.8	12	U
78-93-3	2-Butanone	16.8	280	D
591-78-6	2-Hexanone	16.8	14	U
107-05-1	3-Chloropropene	16.8	26	U
108-10-1	4-Methyl-2-pentanone	16.8	6.9	U
67-64-1	Acetone	16.8	350	D
107-13-1	Acrylonitrile	16.8	3.6	U
71-43-2	Benzene	16.8	5.4	U
100-44-7	Benzyl chloride	16.8	8.7	U
75-27-4	Bromodichloromethane	16.8	11	U
75-25-2	Bromoform	16.8	17	U
74-83-9	Bromomethane	16.8	6.5	U
75-15-0	Carbon disulfide	16.8	5.2	U
56-23-5	Carbon tetrachloride	16.8	2.6	U
108-90-7	Chlorobenzene	16.8	7.7	U
75-00-3	Chloroethane	16.8	4.4	U
67-66-3	Chloroform	16.8	8.2	U
74-87-3	Chloromethane	16.8	3.5	U
156-59-2	cis-1,2-Dichloroethylene	16.8	6.7	U
10061-01-5	cis-1,3-Dichloropropylene	16.8	7.6	U
110-82-7	Cyclohexane	16.8	5.8	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

819/V5

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Matrix: Soil Vapor Laboratory ID: 17D0833-05 File ID: TQ202116.D

Sampled: 04/20/17 15:00 Prepared: 04/20/17 16:45 Analyzed: 04/21/17 01:25

Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

Batch: BD70982 Sequence: Y7D2128 Calibration: YB70013 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m³)	Q
124-48-1	Dibromochloromethane	16.8	14	U
75-71-8	Dichlorodifluoromethane	16.8	8.3	U
141-78-6	Ethyl acetate	16.8	12	U
100-41-4	Ethyl Benzene	16.8	7.3	U
87-68-3	Hexachlorobutadiene	16.8	18	U
67-63-0	Isopropanol	16.8	49	D
80-62-6	Methyl Methacrylate	16.8	6.9	U
1634-04-4	Methyl tert-butyl ether (MTBE)	16.8	6.1	U
75-09-2	Methylene chloride	16.8	12	U
142-82-5	n-Heptane	16.8	6.9	U
110-54-3	n-Hexane	16.8	5.9	U
95-47-6	o-Xylene	16.8	7.3	U
179601-23-1	p- & m- Xylenes	16.8	15	U
622-96-8	p-Ethyltoluene	16.8	8.3	U
115-07-1	Propylene	16.8	7.8	D
100-42-5	Styrene	16.8	7.2	U
127-18-4	Tetrachloroethylene	16.8	8.0	D
109-99-9	Tetrahydrofuran	16.8	120	D
108-88-3	Toluene	16.8	16	D
156-60-5	trans-1,2-Dichloroethylene	16.8	6.7	U
10061-02-6	trans-1,3-Dichloropropylene	16.8	7.6	U
79-01-6	Trichloroethylene	16.8	2.3	U
75-69-4	Trichlorofluoromethane (Freon 11)	16.8	9.4	U
108-05-4	Vinyl acetate	16.8	5.9	U
593-60-2	Vinyl bromide	16.8	7.3	U
75-01-4	Vinyl Chloride	16.8	4.3	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	8.29	82.9	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	267095	12.317	304065	12.317	
1,4-Difluorobenzene	836213	13.908	999125	13.908	
d5-Chlorobenzene	722215	19.188	880527	19.188	

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202116.D
Acq On : 21 Apr 2017 1:25 am
Sample : 17D0833-05 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-05
Misc : QBTO2042017A 0833-05 10X
ALS Vial : 16 Sample Multiplier: 16.8

Quant Time: Apr 26 12:10:31 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

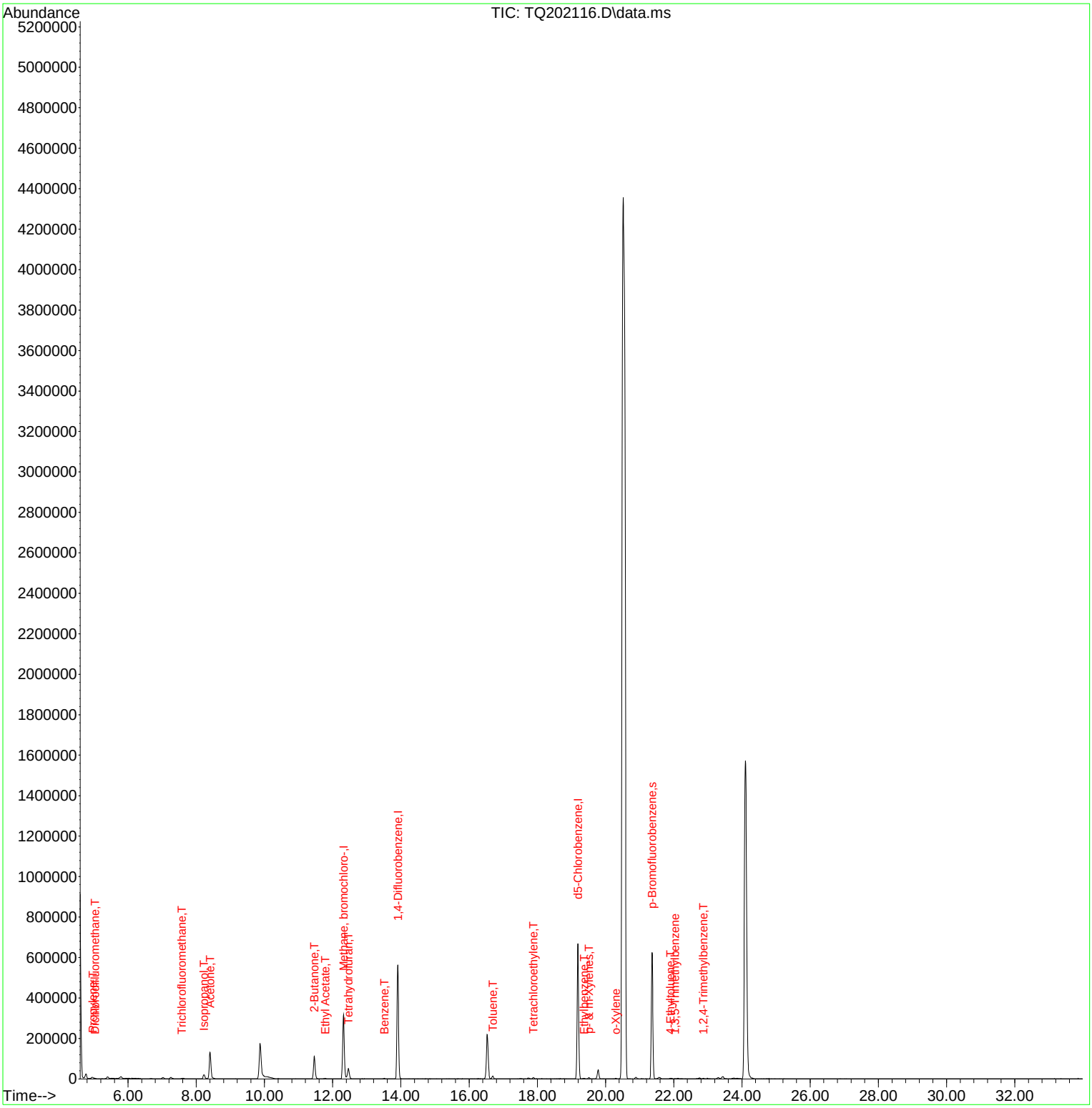
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.317	49	267095	10.00	ppbv		0.01
37) 1,4-Difluorobenzene	13.908	114	836213	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	722215	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	408923	8.29	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.90%				
Target Compounds							Qvalue
2) Propylene	4.965	42	2719	0.27	ppbv	#	75
3) Dichlorodifluoromethane	5.026	85	1670	0.04	ppbv	#	50
11) Trichlorofluoromethane	7.568	101	2072	0.05	ppbv	#	89
12) Isopropanol	8.220	45	44274	1.18	ppbv		100
14) Acetone	8.403	43	289994	8.84	ppbv		95
26) 2-Butanone	11.463	43	245648	5.71	ppbv		98
27) Ethyl Acetate	11.780	43	4707	0.11	ppbv	#	46
30) Tetrahydrofuran	12.463	42	54024	2.36	ppbv		96
35) Benzene	13.512	78	2705	0.05	ppbv	#	34
45) Toluene	16.694	91	18975	0.26	ppbv		97
50) Tetrachloroethylene	17.883	166	3501	0.07	ppbv		95
56) Ethylbenzene	19.370	91	3090	0.04	ppbv		96
57) p- & m-Xylenes	19.511	91	6746	0.11	ppbv		96
58) o-Xylene	20.297	91	2366	0.03	ppbv	#	90
65) 4-Ethyltoluene	21.900	105	5963	0.06	ppbv	#	90
66) 1,3,5-Trimethylbenzene	22.035	105	1757	0.02	ppbv	#	86
68) 1,2,4-Trimethylbenzene	22.870	105	4272	0.05	ppbv	#	88

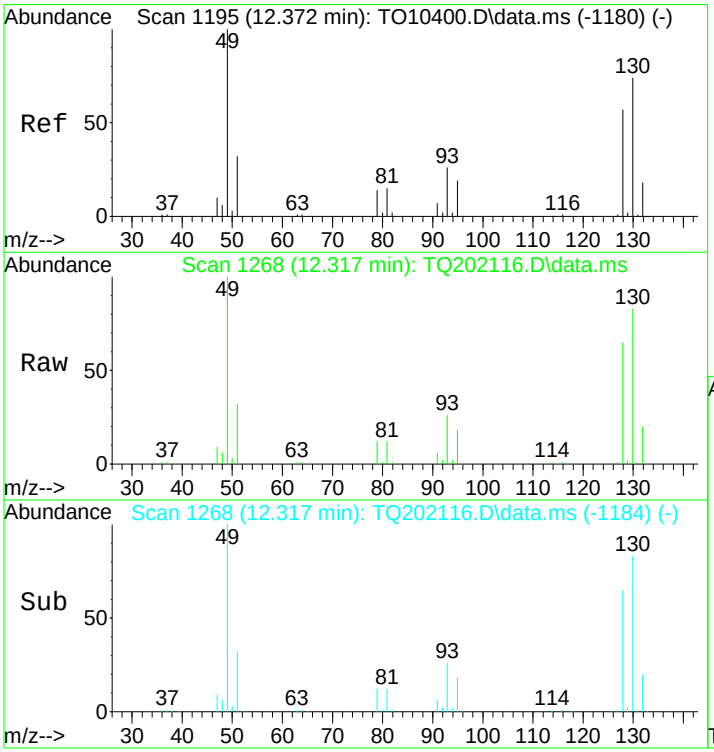
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202116.D
Acq On : 21 Apr 2017 1:25 am
Sample : 17D0833-05 Inst : TO15_AIR2
Operator : LDS
Sample : 17D0833-05
Misc : QBTO2042017A 0833-05 10X
ALS Vial : 16 Sample Multiplier: 16.8

Quant Time: Apr 26 12:10:31 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

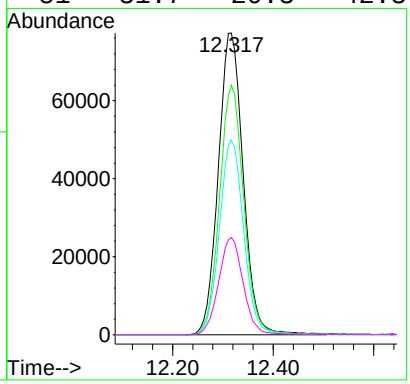


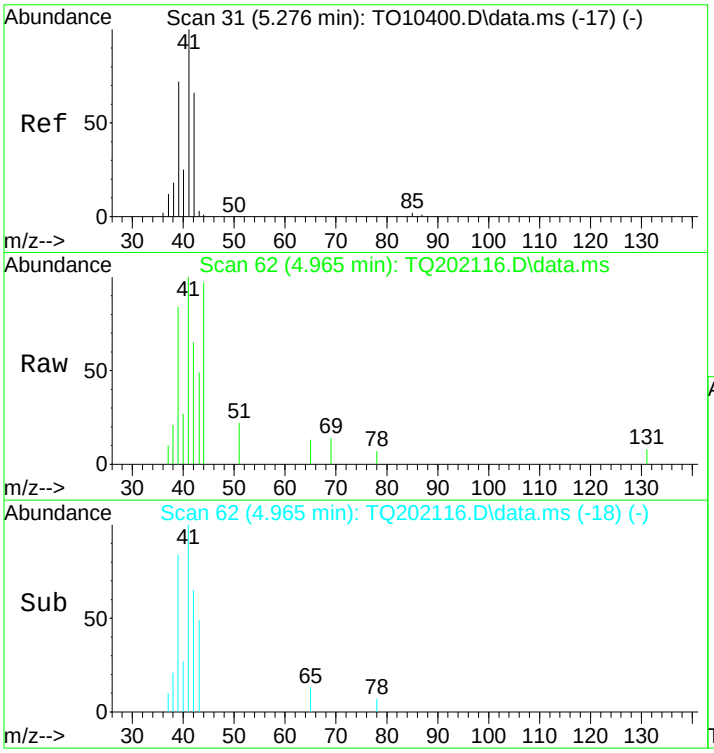


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.317 min Scan# 1268
Delta R.T. 0.013 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 49 Resp: 267095

Ion	Ratio	Lower	Upper
49	100		
130	80.5	48.1	99.9
128	63.2	38.3	79.5
51	31.7	20.3	42.3

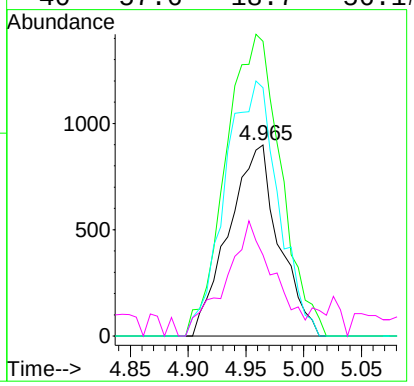


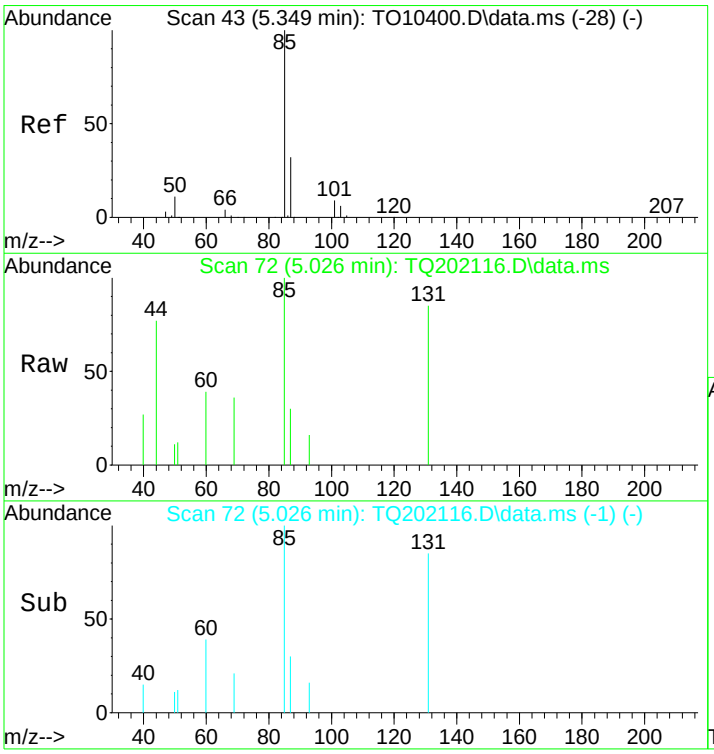


#2
Propylene
Concen: 0.27 ppbv
RT: 4.965 min Scan# 62
Delta R.T. 0.021 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 42 Resp: 2719

Ion	Ratio	Lower	Upper
42	100		
41	173.2	90.7	211.7
39	141.6	54.1	162.3
40	57.6	18.7	56.1#

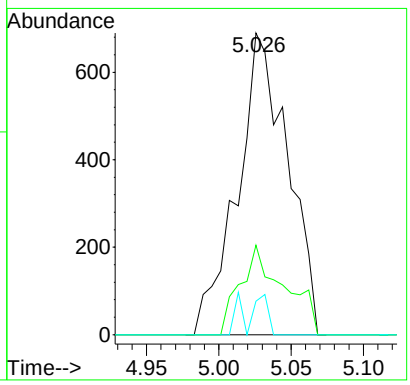


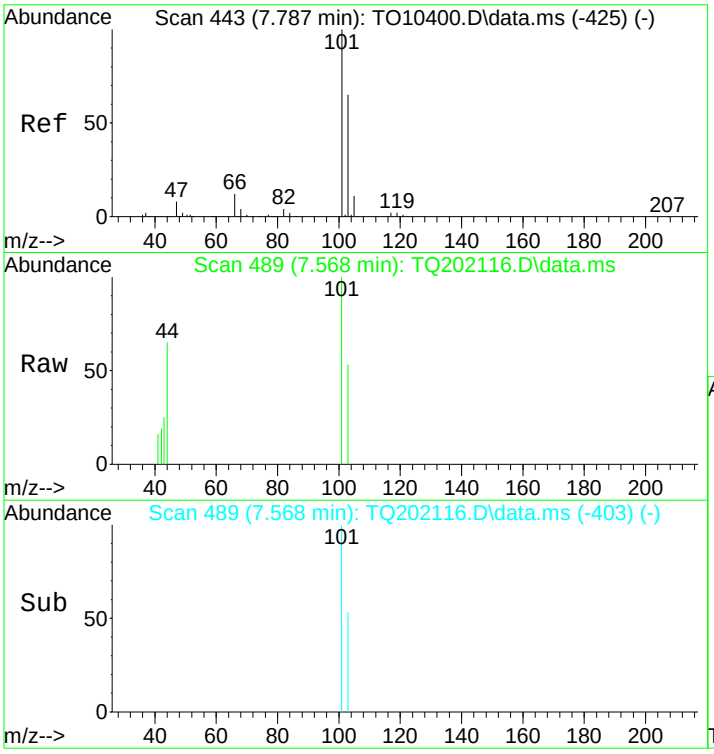


#3
Dichlorodifluoromethane
Concen: 0.04 ppbv
RT: 5.026 min Scan# 72
Delta R.T. 0.006 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 85 Resp: 1670

Ion	Ratio	Lower	Upper
85	100		
87	0.0	20.9	43.5#
50	0.0	7.2	15.0#

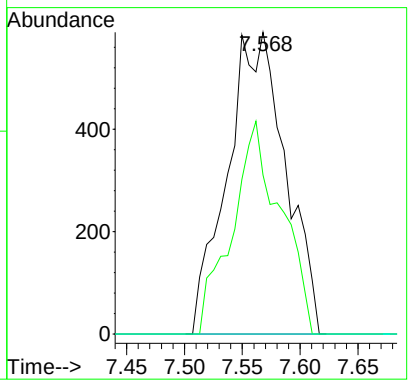


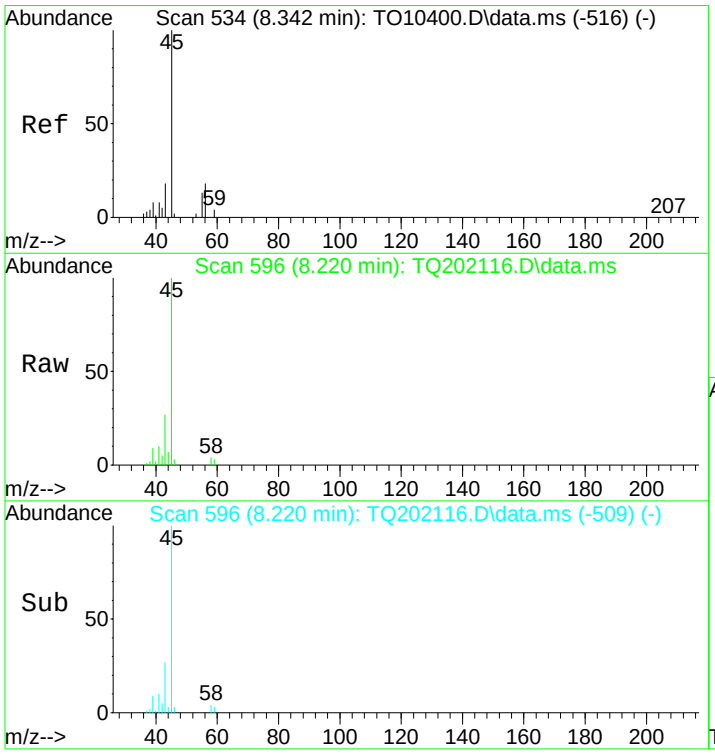


#11
Trichlorofluoromethane
Concen: 0.05 ppbv
RT: 7.568 min Scan# 489
Delta R.T. 0.025 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:101 Resp: 2072

Ion	Ratio	Lower	Upper
101	100		
103	59.0	42.3	87.8
66	0.0	7.8	16.2#

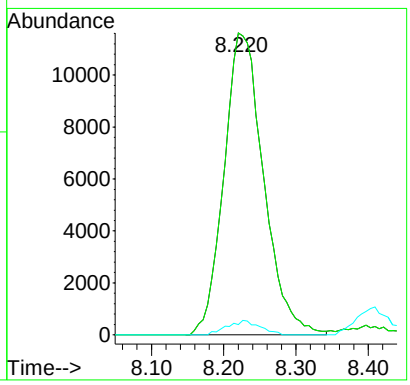


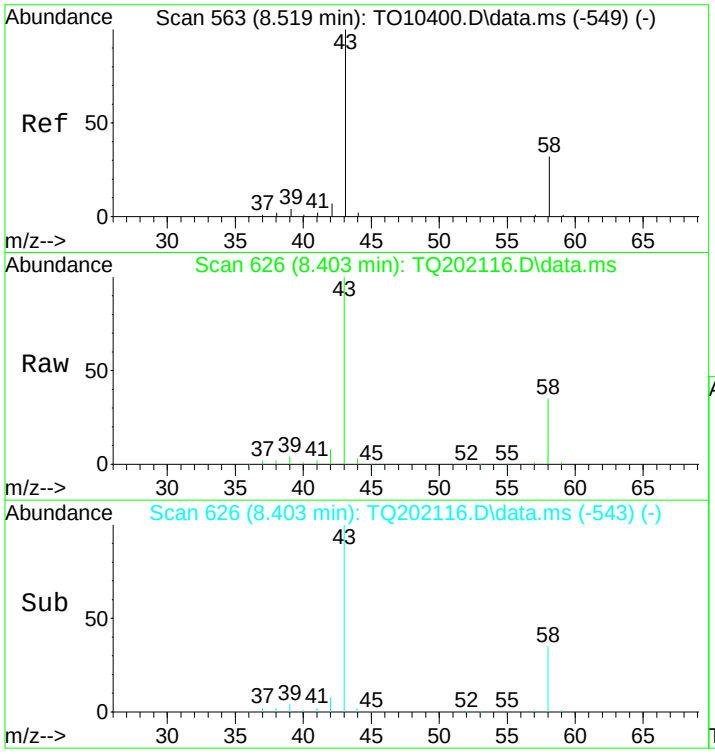


#12
Isopropanol
Concen: 1.18 ppbv
RT: 8.220 min Scan# 596
Delta R.T. 0.028 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 45 Resp: 44274

Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	3.9	0.0	10.0

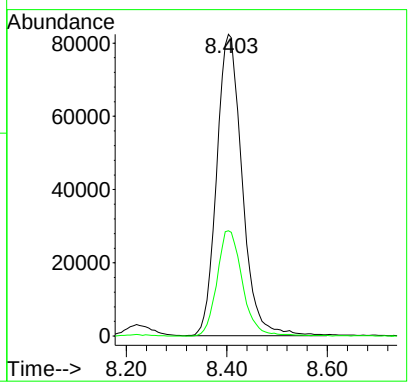


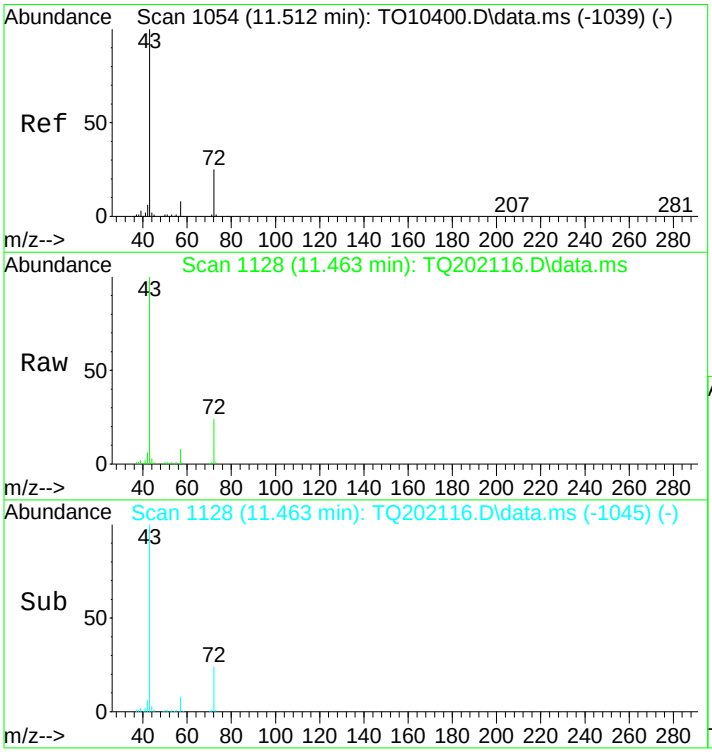


#14
Acetone
Concen: 8.84 ppbv
RT: 8.403 min Scan# 626
Delta R.T. 0.005 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 43 Resp: 289994

Ion	Ratio	Lower	Upper
43	100		
58	34.9	20.9	43.3

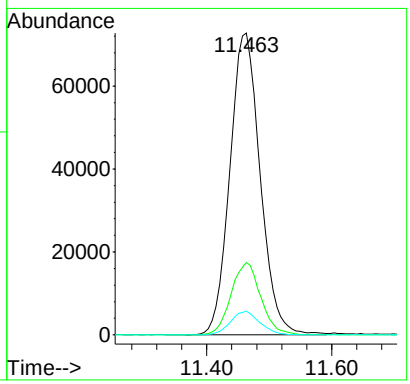


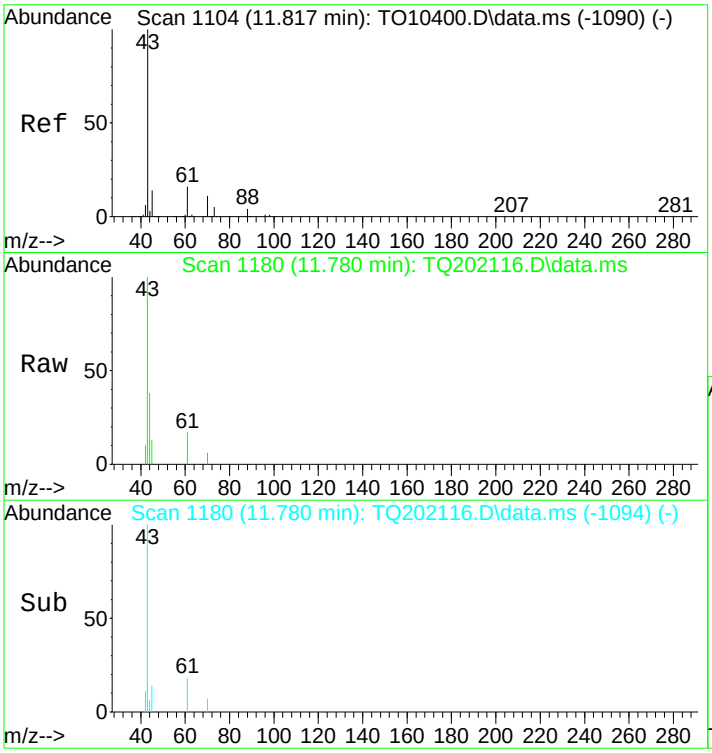


#26
2-Butanone
Concen: 5.71 ppbv
RT: 11.463 min Scan# 1128
Delta R.T. 0.009 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 43 Resp: 245648

Ion	Ratio	Lower	Upper
43	100		
72	23.4	16.1	33.5
57	7.6	4.9	10.3

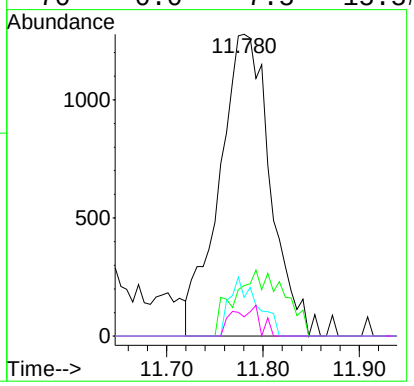


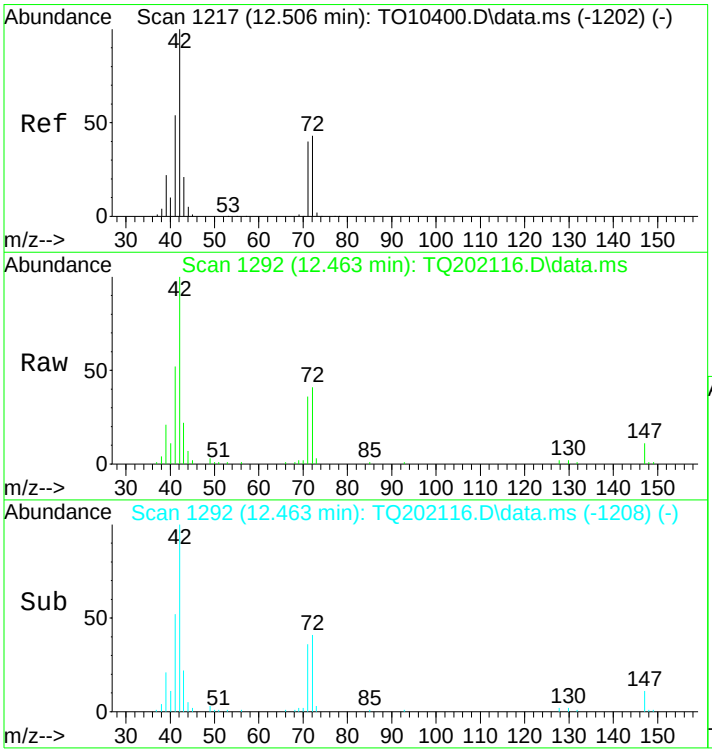


#27
Ethyl Acetate
Concen: 0.11 ppbv
RT: 11.780 min Scan# 1180
Delta R.T. 0.022 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 43 Resp: 4707

Ion	Ratio	Lower	Upper
43	100		
61	21.5	51.4	106.8#
45	10.7	9.4	19.6
70	0.0	7.5	15.5#

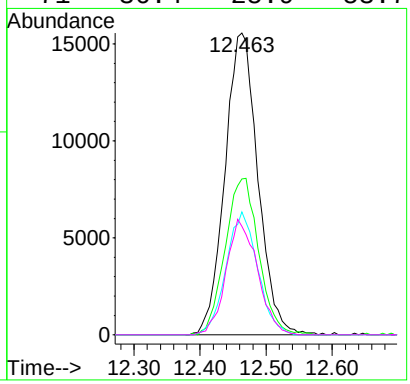


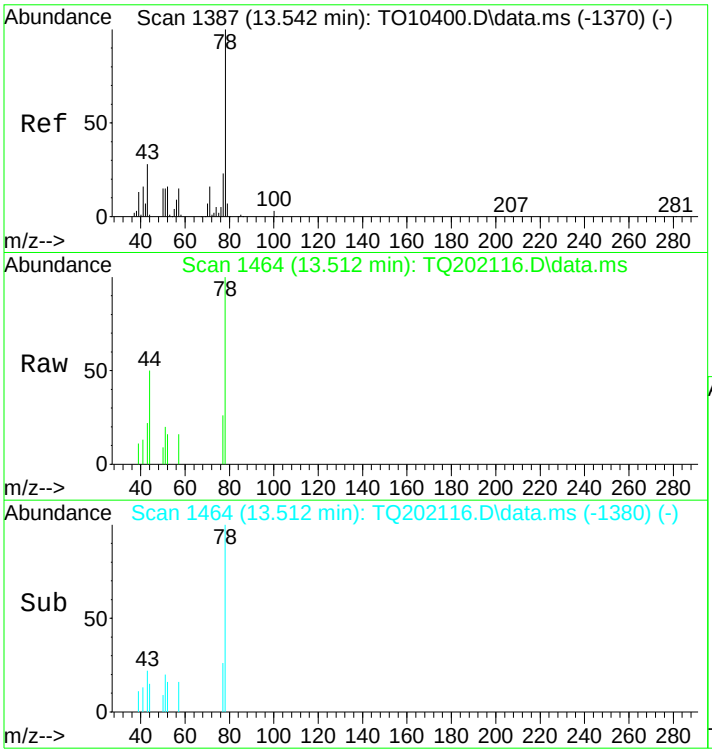


#30
Tetrahydrofuran
Concen: 2.36 ppbv
RT: 12.463 min Scan# 1292
Delta R.T. 0.014 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 42 Resp: 54024

Ion	Ratio	Lower	Upper
42	100		
41	52.8	35.2	73.0
72	38.9	27.2	56.6
71	36.4	25.9	53.7

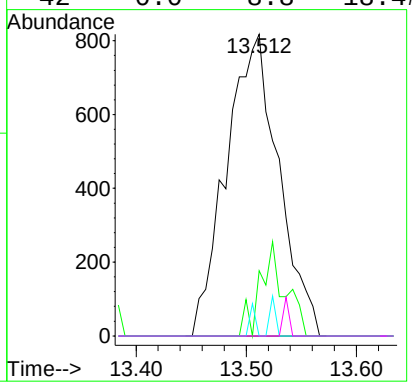


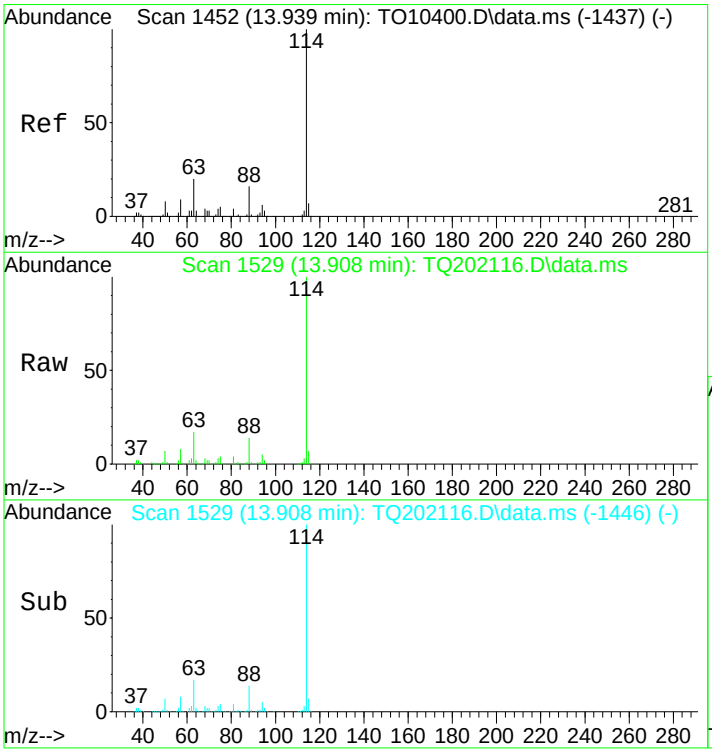


#35
Benzene
Concen: 0.05 ppbv
RT: 13.512 min Scan# 1464
Delta R.T. 0.014 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 78 Resp: 2705

Ion	Ratio	Lower	Upper
78	100		
43	0.0	37.5	77.9#
71	0.0	22.0	45.8#
42	0.0	8.8	18.4#

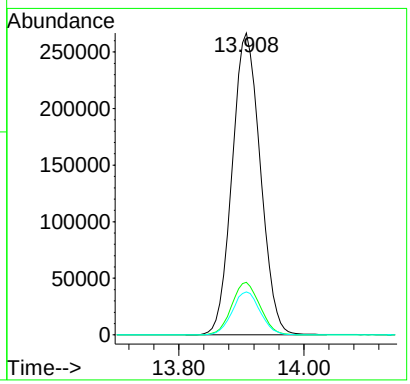


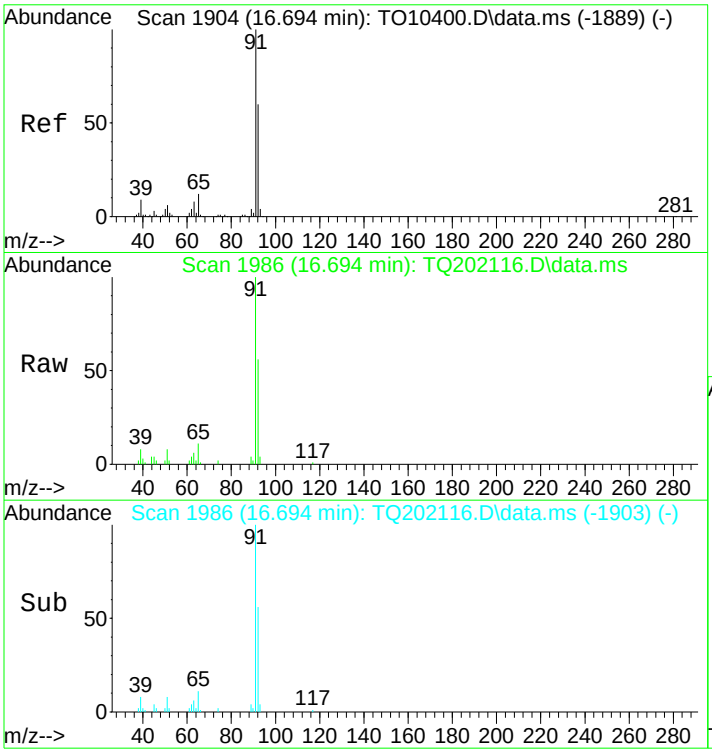


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.908 min Scan# 1529
Delta R.T. 0.006 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:114 Resp: 836213

Ion	Ratio	Lower	Upper
114	100		
63	17.4	12.9	26.9
88	14.1	10.7	22.3

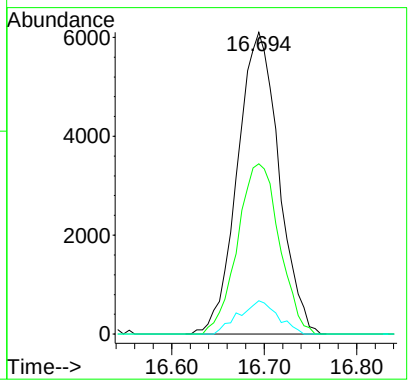


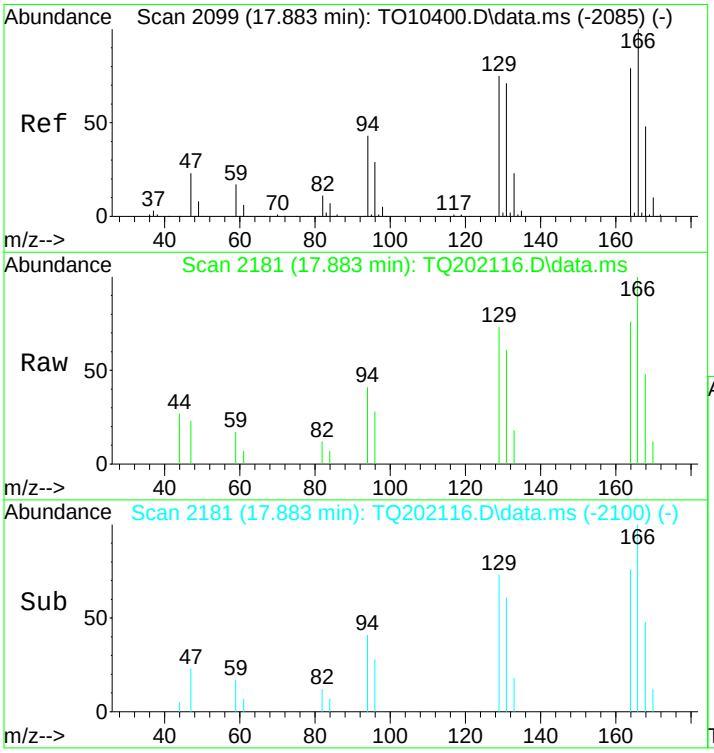


#45
Toluene
Concen: 0.26 ppbv
RT: 16.694 min Scan# 1986
Delta R.T. 0.006 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 91 Resp: 18975

Ion	Ratio	Lower	Upper
91	100		
92	57.1	38.7	80.3
65	10.4	7.5	15.5

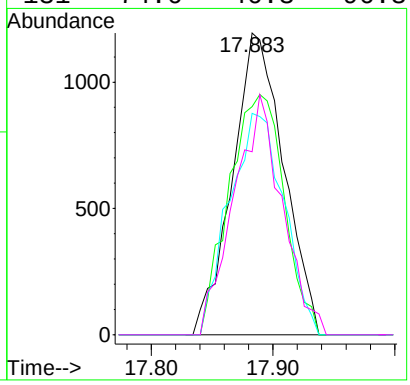


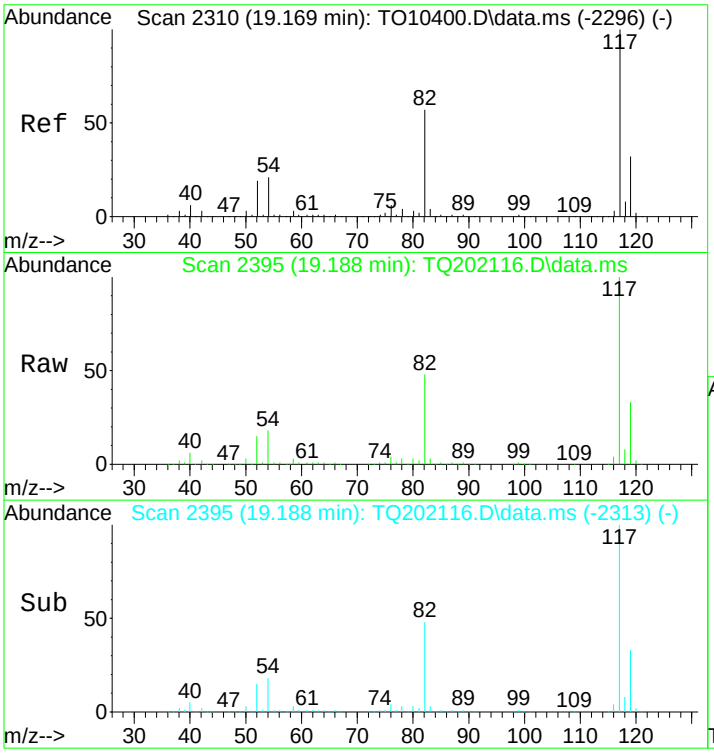


#50
Tetrachloroethylene
Concen: 0.07 ppbv
RT: 17.883 min Scan# 2181
Delta R.T. -0.004 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:166 Resp: 3501

Ion	Ratio	Lower	Upper
166	100		
164	85.3	51.0	106.0
129	77.7	48.1	99.9
131	74.6	46.3	96.3

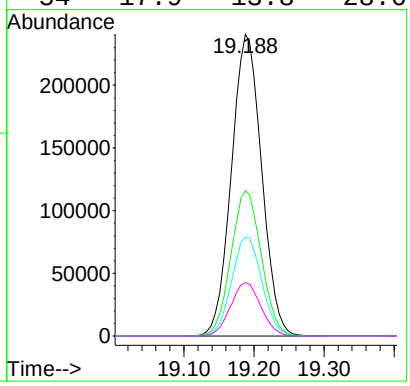


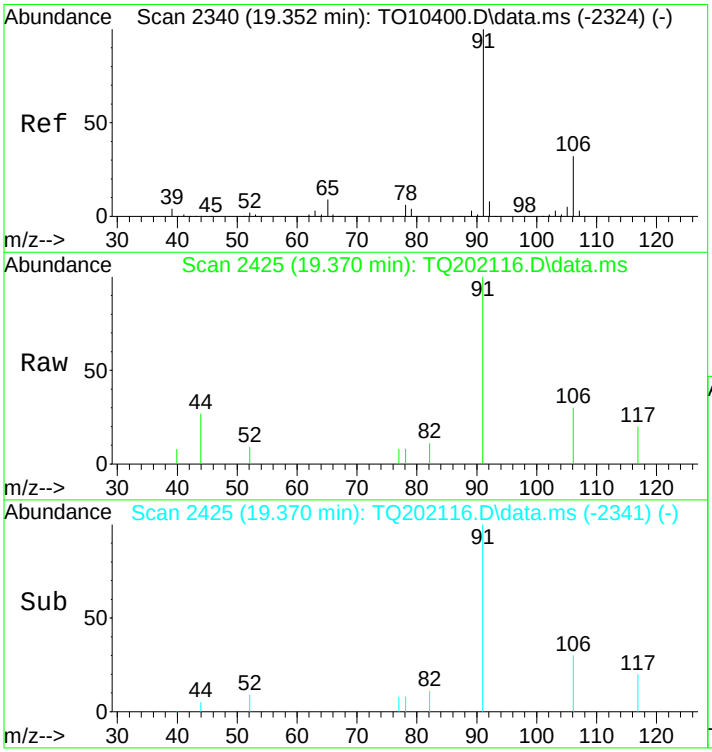


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.188 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:117 Resp: 722215

Ion	Ratio	Lower	Upper
117	100		
82	48.4	37.1	77.1
119	32.9	22.1	45.9
54	17.9	13.8	28.6

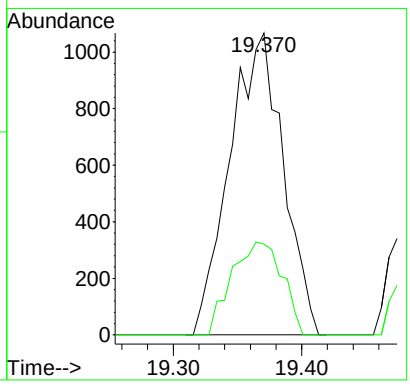


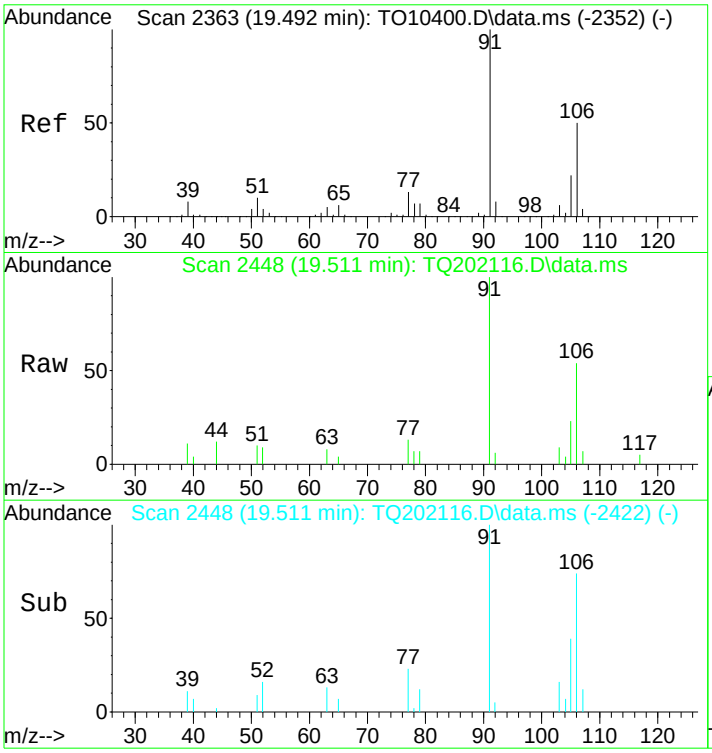


#56
Ethylbenzene
Concen: 0.04 ppbv
RT: 19.370 min Scan# 2425
Delta R.T. 0.009 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 91 Resp: 3090

Ion	Ratio	Lower	Upper
91	100		
106	29.1	20.5	42.7

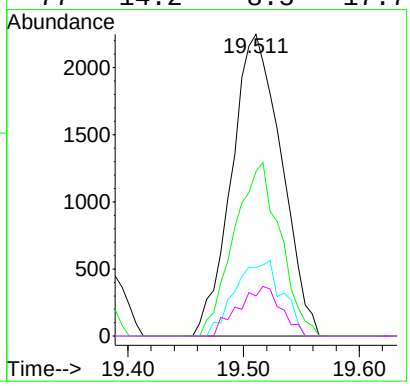


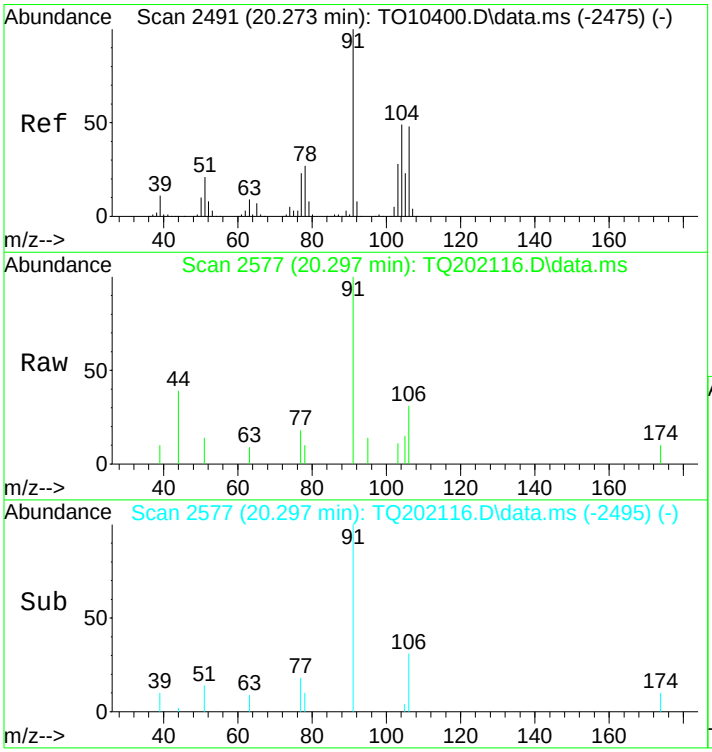


#57
p- & m-Xylenes
Concen: 0.11 ppbv
RT: 19.511 min Scan# 2448
Delta R.T. 0.001 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 91 Resp: 6746

Ion	Ratio	Lower	Upper
91	100		
106	53.5	32.6	67.8
105	23.6	14.5	30.1
77	14.2	8.5	17.7

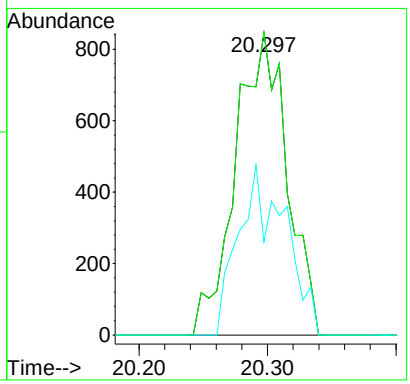


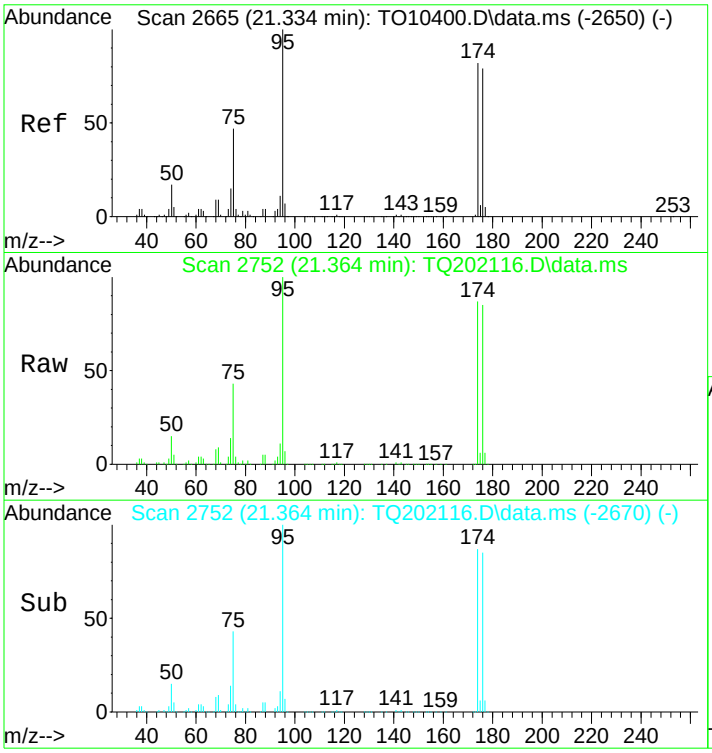


#58
o-Xylene
Concen: 0.03 ppbv
RT: 20.297 min Scan# 2577
Delta R.T. 0.003 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 91 Resp: 2366

Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	27.3	38.2	57.2#

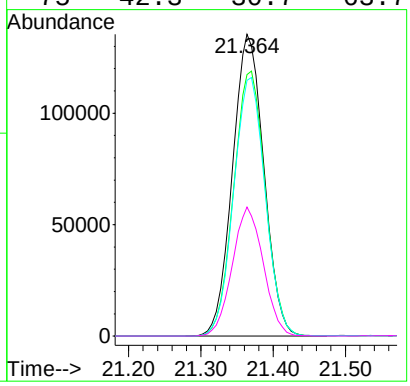


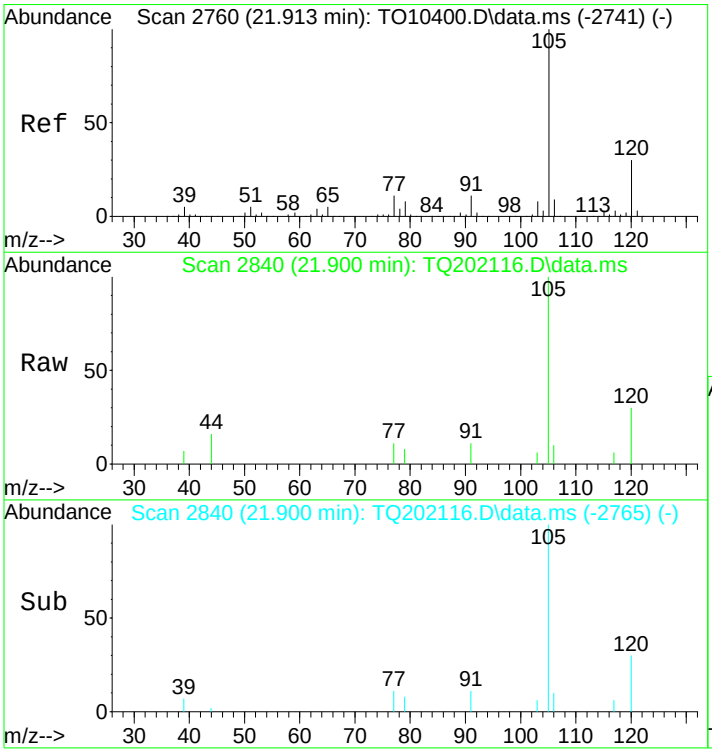


#64
p-Bromofluorobenzene
Concen: 8.29 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. 0.000 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion: 95 Resp: 408923

Ion	Ratio	Lower	Upper
95	100		
174	88.4	53.2	110.6
176	86.1	51.6	107.2
75	42.3	30.7	63.7

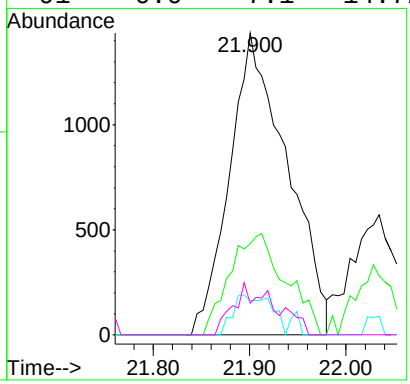


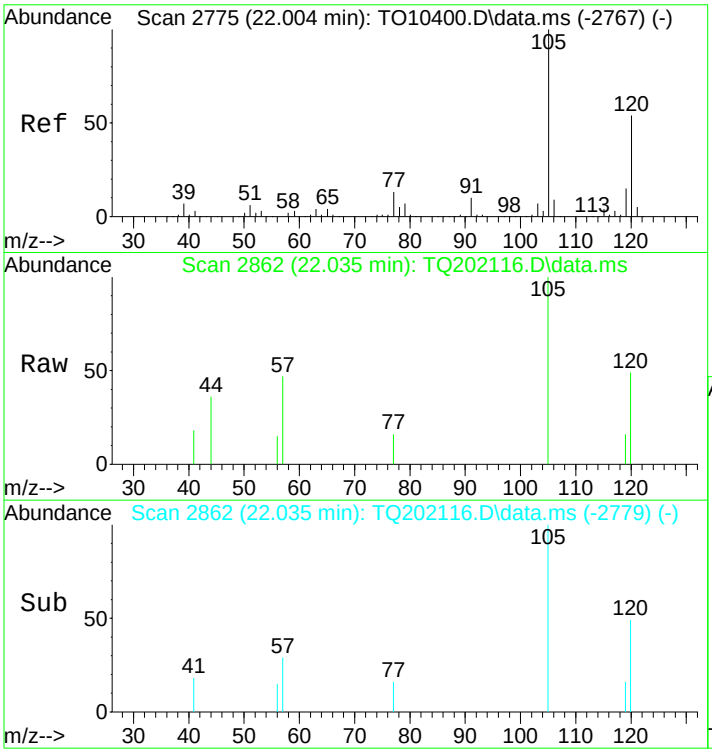


#65
4-Ethyltoluene
Concen: 0.06 ppbv
RT: 21.900 min Scan# 2840
Delta R.T. -0.043 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:105 Resp: 5963

Ion	Ratio	Lower	Upper
105	100		
120	32.6	19.6	40.8
77	8.8	7.3	15.3
91	0.0	7.1	14.7#

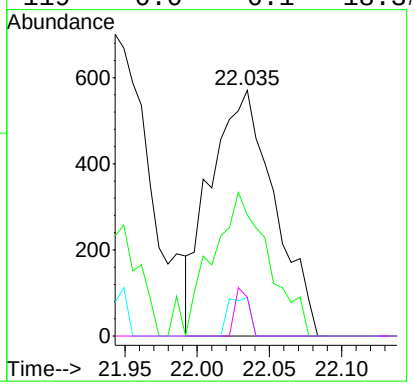


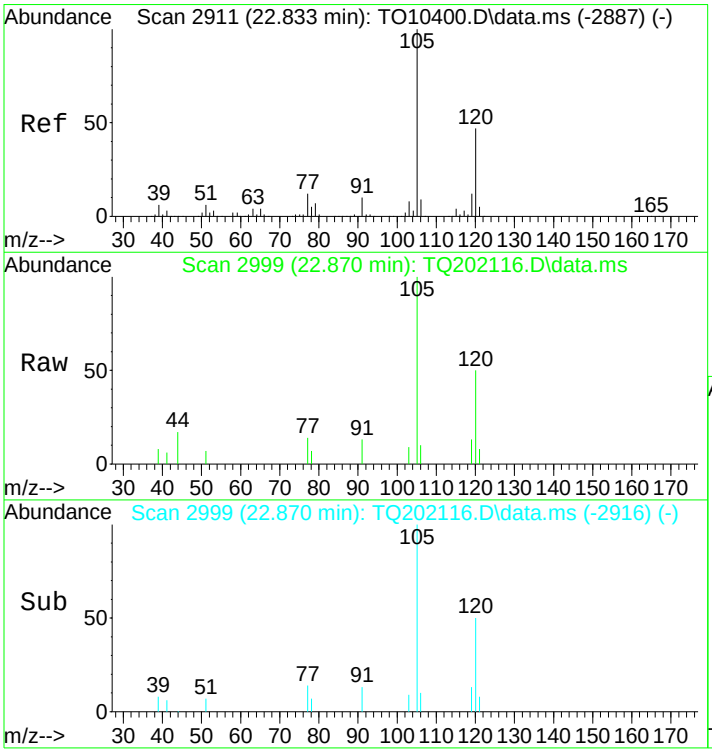


#66
1,3,5-Trimethylbenzene
Concen: 0.02 ppbv
RT: 22.035 min Scan# 2862
Delta R.T. 0.007 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:105 Resp: 1757

Ion	Ratio	Lower	Upper
105	100		
120	52.6	39.2	58.8
77	0.0	10.1	15.1#
119	0.0	6.1	18.3#

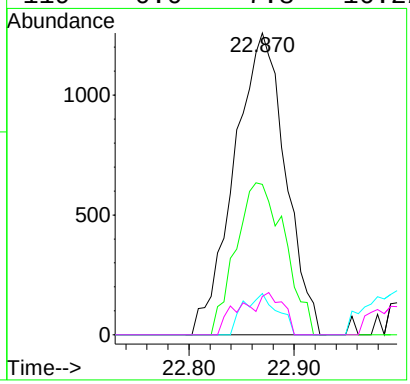




#68
1,2,4-Trimethylbenzene
Concen: 0.05 ppbv
RT: 22.870 min Scan# 2999
Delta R.T. 0.004 min
Lab File: TQ202116.D
Acq: 21 Apr 2017 1:25 am

Tgt Ion:105 Resp: 4272

Ion	Ratio	Lower	Upper
105	100		
120	48.1	30.2	62.6
77	0.0	8.1	16.9#
119	0.0	7.8	16.2#



FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Calibration: YB70013
Instrument: TO15_AIR2
Matrix: Air
Calibration Date: 02/23/17 13:41

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
1,1,1,2-Tetrachloroethane	0.025		0.05		0.1	0.3652896	0.2	0.3774078	0.5	0.3753705	3	0.4495119
1,1,1-Trichloroethane	0.025		0.05		0.1	1.328272	0.2	1.306899	0.5	1.282292	3	1.504844
1,1,2,2-Tetrachloroethane	0.025		0.05		0.1	0.6480214	0.2	0.643841	0.5	0.6625966	3	0.7481706
1,1,2-Trichloro-1,2,2-trifluoroethan	0.025		0.05		0.1	1.476089	0.2	1.530127	0.5	1.467786	3	1.604666
1,1,2-Trichloroethane	0.025		0.05		0.1	0.300656	0.2	0.3006762	0.5	0.2943339	3	0.3268517
1,1-Dichloroethane	0.025		0.05		0.1	1.344002	0.2	1.264467	0.5	1.271951	3	1.391748
1,1-Dichloroethylene	0.025		0.05		0.1	1.096715	0.2	1.117001	0.5	1.09469	3	1.132971
1,2,4-Trichlorobenzene	0.025		0.05		0.1	0.5299203	0.2	0.5314989	0.5	0.6222195	3	0.6366541
1,2,4-Trimethylbenzene	0.025		0.05		0.1	1.029709	0.2	1.093978	0.5	1.14643	3	1.278432
1,2-Dibromoethane	0.025		0.05		0.1	0.456514	0.2	0.4660075	0.5	0.4638473	3	0.510706
1,2-Dichlorobenzene	0.025		0.05		0.1	0.7831673	0.2	0.7966502	0.5	0.8360469	3	0.8952881
1,2-Dichloroethane	0.025		0.05		0.1	0.8304591	0.2	0.893281	0.5	0.858342	3	0.9219139
1,2-Dichloropropane	0.025		0.05		0.1	0.2606365	0.2	0.2617133	0.5	0.2572085	3	0.2883499
1,2-Dichlorotetrafluoroethane	0.025		0.05		0.1	1.646345	0.2	1.720024	0.5	1.583952	3	1.749345
1,3,5-Trimethylbenzene	0.025		0.05		0.1	1.017108	0.2	1.048555	0.5	1.07381	3	1.197658
1,3-Butadiene	0.025		0.05		0.1	0.4173115	0.2	0.3777043	0.5	0.3416199	3	0.3713206
1,3-Dichlorobenzene	0.025		0.05		0.1	0.8288083	0.2	0.9003604	0.5	0.9185492	3	0.9297545
1,3-Dichloropropane	0.025		0.05		0.1	0.4194777	0.2	0.4294047	0.5	0.4204026	3	0.4605036
1,4-Dichlorobenzene	0.025		0.05		0.1	0.8401983	0.2	0.9368107	0.5	0.9767351	3	0.9237164
1,4-Dioxane	0.025		0.05		0.1	0.2030811	0.2	0.1883531	0.5	0.187223	3	0.1915354
2-Butanone	0.025		0.05		0.1	1.855694	0.2	1.808331	0.5	1.738471	3	1.648321
2-Hexanone	0.025		0.05		0.1	0.5004628	0.2	0.5111998	0.5	0.533343	3	0.5757781
3-Chloropropene	0.025		0.05		0.1	0.7955289	0.2	0.8082945	0.5	0.8133616	3	0.9313262
4-Methyl-2-pentanone	0.025		0.05		0.1	0.4969702	0.2	0.5060925	0.5	0.520515	3	0.6226818
Acetone	0.025		0.05		0.1	1.699087	0.2	1.697886	0.5	1.528529	3	1.099009
Acrolein	0.025		0.05		0.1	0.3645692	0.2	0.3479405	0.5	0.321439	3	0.2819388
Acrylonitrile	0.025		0.05		0.1	0.573225	0.2	0.5685857	0.5	0.5701362	3	0.5840544
Benzene	0.025		0.05		0.1	2.501787	0.2	2.371137	0.5	2.319652	3	2.443537
Benzyl chloride	0.025		0.05		0.1	0.6413167	0.2	0.7268263	0.5	0.9165242	3	1.039406
Bromodichloromethane	0.025		0.05		0.1	0.4238435	0.2	0.4314167	0.5	0.4393129	3	0.4972888
Bromoform	0.025		0.05		0.1	0.4337915	0.2	0.4577865	0.5	0.4833659	3	0.6246654

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Calibration: YB70013
Instrument: TO15_AIR2
Matrix: Air
Calibration Date: 02/23/17 13:41

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
Bromomethane	0.025		0.05		0.1	0.7108637	0.2	0.7340081	0.5	0.6559805	3	0.6938763
Carbon disulfide	0.025		0.05		0.1	1.855232	0.2	1.818786	0.5	1.813171	3	1.968699
Carbon tetrachloride	0.025	1.399979	0.05	1.372705	0.1	1.310691	0.2	1.450306	0.5	1.437464	3	1.633456
Chlorobenzene	0.025		0.05		0.1	0.8227497	0.2	0.8012225	0.5	0.7898374	3	0.8492524
Chloroethane	0.025		0.05		0.1	0.343056	0.2	0.355074	0.5	0.3492505	3	0.3789505
Chloroform	0.025		0.05		0.1	1.466373	0.2	1.472075	0.5	1.404482	3	1.518383
Chloromethane	0.025		0.05		0.1	0.4265645	0.2	0.3971368	0.5	0.359592	3	0.3915851
cis-1,2-Dichloroethylene	0.025		0.05		0.1	1.199192	0.2	1.212073	0.5	1.176769	3	1.258553
cis-1,3-Dichloropropylene	0.025		0.05		0.1	0.2860307	0.2	0.3036942	0.5	0.340022	3	0.4314656
Cyclohexane	0.025		0.05		0.1	1.20752	0.2	1.236425	0.5	1.168686	3	1.302418
Dibromochloromethane	0.025		0.05		0.1	0.4757962	0.2	0.4791628	0.5	0.4835633	3	0.5887111
Dichlorodifluoromethane	0.025		0.05		0.1	1.590595	0.2	1.627658	0.5	1.494342	3	1.662869
Ethyl acetate	0.025		0.05		0.1	1.652359	0.2	1.710308	0.5	1.64841	3	1.728852
Ethyl Benzene	0.025		0.05		0.1	1.193128	0.2	1.194783	0.5	1.149493	3	1.268109
Hexachlorobutadiene	0.025		0.05		0.1	0.5363827	0.2	0.4812463	0.5	0.470576	3	0.5426274
Isopropanol	0.025		0.05		0.1	2.11848	0.2	2.118145	0.5	2.055342	3	1.288326
Isopropylbenzene	0.025		0.05		0.1	1.387325	0.2	1.428697	0.5	1.401828	3	1.571357
Methyl Methacrylate	0.025		0.05		0.1	0.2065737	0.2	0.2055323	0.5	0.2150592	3	0.2551577
Methyl tert-butyl ether (MTBE)	0.025		0.05		0.1	1.825622	0.2	1.860602	0.5	1.795751	3	2.049889
Methylene chloride	0.025		0.05		0.1	0.8808881	0.2	0.9129595	0.5	0.8555307	3	0.8830706
Naphthalene	0.025		0.05		0.1	1.867484	0.2	2.009252	0.5	2.829998	3	1.580808
n-Butylbenzene	0.025		0.05		0.1	1.03391	0.2	1.196449	0.5	1.261798	3	1.451374
n-Heptane	0.025		0.05		0.1	1.32619	0.2	1.369501	0.5	1.347704	3	1.470453
n-Hexane	0.025		0.05		0.1	1.170277	0.2	1.197068	0.5	1.1471	3	1.259756
n-Propylbenzene	0.025		0.05		0.1	1.450818	0.2	1.520827	0.5	1.560983	3	1.763301
o-Xylene	0.025		0.05		0.1	0.9475557	0.2	0.932452	0.5	0.9245374	3	1.060128
p- & m- Xylenes	0.05		0.1		0.2	0.9202922	0.4	0.9245039	1	0.8973741	6	0.9740476
p-Bromofluorobenzene	10	0.6626004	10	0.6700222	10	0.6671503	10	0.6745524	10	0.672382	10	0.6824922
p-Ethyltoluene	0.025		0.05		0.1	1.176326	0.2	1.26935	0.5	1.33762	3	1.530847
p-Isopropyltoluene	0.025		0.05		0.1	1.30606	0.2	1.366351	0.5	1.396411	3	1.632116
Propylene	0.025		0.05		0.1	0.3742849	0.2	0.3631914	0.5	0.3531662	3	0.3818919

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.
SDG: 17D0833
Client: Langan Engineering & Environmental Services (NJ)
Project: 100287503 365 Bond St.
Calibration: YB70013
Instrument: TO15_AIR2
Matrix: Air
Calibration Date: 02/23/17 13:41

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
sec-Butylbenzene	0.025		0.05		0.1	1.675792	0.2	1.698378	0.5	1.695302	3	1.959809
Styrene	0.025		0.05		0.1	0.7132921	0.2	0.7334925	0.5	0.7516582	3	0.8791653
tert-Butylbenzene	0.025		0.05		0.1	1.150557	0.2	1.240292	0.5	1.249285	3	1.47113
Tetrachloroethylene	0.025		0.05		0.1	0.8952011	0.2	0.7277981	0.5	0.6334238	3	0.5063069
Tetrahydrofuran	0.025		0.05		0.1	0.8640013	0.2	0.8707737	0.5	0.8470467	3	0.9288678
Toluene	0.025		0.05		0.1	0.9320919	0.2	0.9313185	0.5	0.9102219	3	0.9724696
trans-1,2-Dichloroethylene	0.025		0.05		0.1	0.8987002	0.2	0.946167	0.5	0.9398187	3	1.01961
trans-1,3-Dichloropropylene	0.025		0.05		0.1	0.1945678	0.2	0.2168304	0.5	0.2533537	3	0.3575541
Trichloroethylene	0.025	0.2973352	0.05	0.3276962	0.1	0.2973817	0.2	0.2908097	0.5	0.2961191	3	0.3244362
Trichlorofluoromethane (Freon 11)	0.025		0.05		0.1	1.596841	0.2	1.673657	0.5	1.607596	3	1.760671
Vinyl acetate	0.025		0.05		0.1	1.061553	0.2	1.059687	0.5	1.004327	3	1.64199
Vinyl bromide	0.025		0.05		0.1	0.6500251	0.2	0.6418882	0.5	0.6338919	3	0.7195055
Vinyl Chloride	0.025		0.05	0.5719998	0.1	0.5278852	0.2	0.5093042	0.5	0.4759084	3	0.5122593

FORM VI INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Calibration: YB70013 Instrument: TO15_AIR2

Matrix: Air Calibration Date: 02/23/17 13:41

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
1,1,1,2-Tetrachloroethane	10	0.4393916	20	0.4509463	30	0.4399289	50	0.4210954				
1,1,1-Trichloroethane	10	1.420178	20	1.415847	30	1.379299	50	1.357705				
1,1,2,2-Tetrachloroethane	10	0.6977351	20	0.6837278	30	0.6460905	50	0.587757				
1,1,2-Trichloro-1,2,2-trifluoroethan	10	1.482894	20	1.432137	30	1.388421	50	1.352892				
1,1,2-Trichloroethane	10	0.3091297	20	0.3028763	30	0.2910338	50	0.2699246				
1,1-Dichloroethane	10	1.267885	20	1.226525	30	1.168599	50	1.128869				
1,1-Dichloroethylene	10	1.027031	20	0.9796765	30	0.9479781	50	0.9239577				
1,2,4-Trichlorobenzene	10	0.7532903	20	0.8063893	30	0.7645579	50	0.6683008				
1,2,4-Trimethylbenzene	10	1.197119	20	1.155861	30	1.080156	50	0.9408216				
1,2-Dibromoethane	10	0.4830251	20	0.4799736	30	0.4640485	50	0.4436345				
1,2-Dichlorobenzene	10	0.8808495	20	0.8904945	30	0.8513919	50	0.7595754				
1,2-Dichloroethane	10	0.8278191	20	0.8069626	30	0.7720066	50	0.7476715				
1,2-Dichloropropane	10	0.2671231	20	0.2583247	30	0.2434556	50	0.2263252				
1,2-Dichlorotetrafluoroethane	10	1.626157	20	1.439104	30	1.379367	50	1.225188				
1,3,5-Trimethylbenzene	10	1.112946	20	1.099428	30	1.016832	50	0.8633435				
1,3-Butadiene	10	0.3466476	20	0.3242992	30	0.3214108	50	0.305699				
1,3-Dichlorobenzene	10	0.9052039	20	0.9120489	30	0.8677166	50	0.7804528				
1,3-Dichloropropane	10	0.4268436	20	0.4177844	30	0.3960792	50	0.377879				
1,4-Dichlorobenzene	10	0.9046194	20	0.9177546	30	0.8716073	50	0.7781303				
1,4-Dioxane	10	0.182097	20	0.1840719	30	0.1791077	50	0.1809818				
2-Butanone	10	1.519719	20	1.492633	30	1.438699	50	1.383714				
2-Hexanone	10	0.5221255	20	0.4831752	30	0.4290698	50	0.3484592				
3-Chloropropene	10	0.9067217	20	0.894925	30	0.8720564	50	0.8574209				
4-Methyl-2-pentanone	10	0.5729456	20	0.5488971	30	0.5035493	50	0.4585271				
Acetone	10	1.007996	20	0.9709937	30	0.9226314	50	0.9034685				
Acrolein	10	0.2690769	20	0.2720482	30	0.2688445	50	0.271527				
Acrylonitrile	10	0.5424031	20	0.5393466	30	0.5226359	50	0.5139234				
Benzene	10	2.211001	20	2.130527	30	2.00911	50	1.818424				
Benzyl chloride	10	1.075055	20	1.065278	30	0.994042	50	0.8491536				
Bromodichloromethane	10	0.4676733	20	0.448626	30	0.4248909	50	0.3993812				
Bromoform	10	0.6432428	20	0.6670972	30	0.6457239	50	0.5988829				

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Calibration: YB70013 Instrument: TO15_AIR2

Matrix: Air Calibration Date: 02/23/17 13:41

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
Bromomethane	10	0.6822254	20	0.6662301	30	0.6771075	50	0.677344				
Carbon disulfide	10	1.799786	20	1.732558	30	1.668203	50	1.595575				
Carbon tetrachloride	10	1.550685	20	1.556602	30	1.501935	50	1.47206				
Chlorobenzene	10	0.8135452	20	0.8048966	30	0.7661292	50	0.7057165				
Chloroethane	10	0.3740196	20	0.3632479	30	0.3685782	50	0.3643084				
Chloroform	10	1.393823	20	1.361297	30	1.31596	50	1.284351				
Chloromethane	10	0.3634624	20	0.3417794	30	0.3427584	50	0.3272297				
cis-1,2-Dichloroethylene	10	1.126194	20	0.9151681	30	0.8846296	50	0.870645				
cis-1,3-Dichloropropylene	10	0.4174263	20	0.4088491	30	0.3883255	50	0.3717614				
Cyclohexane	10	1.184466	20	1.157261	30	1.108166	50	1.070946				
Dibromochloromethane	10	0.5665354	20	0.5640587	30	0.5425452	50	0.5080117				
Dichlorodifluoromethane	10	1.655134	20	1.508266	30	1.563622	50	1.474067				
Ethyl acetate	10	1.609168	20	1.567589	30	1.497659	50	1.417719				
Ethyl Benzene	10	1.162737	20	1.096901	30	1.006783	50	0.8779628				
Hexachlorobutadiene	10	0.5570987	20	0.553454	30	0.5063476	50	0.4215936				
Isopropanol	10	1.206128	20	1.191634	30	1.16775	50	1.143434				
Isopropylbenzene	10	1.433028	20	1.342155	30	1.213162	50	1.022932				
Methyl Methacrylate	10	0.2424607	20	0.2391051	30	0.2265511	50	0.2125186				
Methyl tert-butyl ether (MTBE)	10	1.878232	20	1.836003	30	1.776118	50	1.724549				
Methylene chloride	10	0.8030765	20	0.7667845	30	0.7403445	50	0.716274				
Naphthalene	10	1.715186	20	1.658633	30	1.477663	50	1.195383				
n-Butylbenzene	10	1.399123	20	1.301949	30	1.168013	50	0.954932				
n-Heptane	10	1.295159	20	1.224621	30	1.106536	50	0.9360781				
n-Hexane	10	1.16813	20	1.138378	30	1.092727	50	1.065856				
n-Propylbenzene	10	1.615022	20	1.508956	30	1.352348	50	1.130016				
o-Xylene	10	1.019652	20	0.9795069	30	0.8938913	50	0.7657291				
p- & m- Xylenes	20	0.8890049	40	0.7994645	60	0.69198	100	0.5512417				
p-Bromofluorobenzene	10	0.6947057	10	0.7074958	10	0.6990059	10	0.7030396				
p-Ethyltoluene	10	1.437306	20	1.376359	30	1.262849	50	1.101155				
p-Isopropyltoluene	10	1.570301	20	1.49635	30	1.348062	50	1.105006				
Propylene	10	0.3877664	20	0.3626115	30	0.3915286	50	0.3952846				

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 17D0833

Client: Langan Engineering & Environmental Services (NJ) Project: 100287503 365 Bond St.

Calibration: YB70013 Instrument: TO15_AIR2

Matrix: Air Calibration Date: 02/23/17 13:41

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
sec-Butylbenzene	10	1.837726	20	1.714891	30	1.545426	50	1.262745				
Styrene	10	0.869437	20	0.850935	30	0.7881041	50	0.6750491				
tert-Butylbenzene	10	1.43035	20	1.423582	30	1.345133	50	1.1901				
Tetrachloroethylene	10	0.4723624	20	0.4716233	30	0.4575246	50	0.4362139				
Tetrahydrofuran	10	0.8598209	20	0.8544795	30	0.8294274	50	0.8115881				
Toluene	10	0.8861234	20	0.8355016	30	0.7725607	50	0.6967591				
trans-1,2-Dichloroethylene	10	0.9347041	20	0.9139296	30	0.8883709	50	0.866492				
trans-1,3-Dichloropropylene	10	0.3663987	20	0.3596565	30	0.3429061	50	0.327624				
Trichloroethylene	10	0.3072259	20	0.3078977	30	0.295612	50	0.2874671				
Trichlorofluoromethane (Freon 11)	10	1.647393	20	1.57749	30	1.527651	50	1.461968				
Vinyl acetate	10	1.765134	20	1.828341	30	1.756611	50	1.657478				
Vinyl bromide	10	0.7026183	20	0.7023566	30	0.7129638	50	0.7149439				
Vinyl Chloride	10	0.4847813	20	0.4639881	30	0.4612595	50	0.4470002				

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Calibration:	YB70013	Instrument:	TO15_AIR2
Matrix:	Air	Calibration Date:	02/23/17 13:41

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,1,2-Tetrachloroethane	0.4148677	8.734385	19.3095	4.869503E-03			30	
1,1,1-Trichloroethane	1.374417	5.239429	12.82075	3.127599E-02			30	
1,1,2,2-Tetrachloroethane	0.6647425	7.057108	21.129	2.138112E-02			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113	1.466877	5.385351	8.4655	7.275754E-02			30	
1,1,2-Trichloroethane	0.2994353	5.396787	17.148	0.0228322			30	
1,1-Dichloroethane	1.258006	6.803458	10.781	0.0521521			30	
1,1-Dichloroethylene	1.040003	7.838667	8.69675	6.663654E-02			30	
1,2,4-Trichlorobenzene	0.6641039	15.73172	27.363	8.547828E-02			30	
1,2,4-Trimethylbenzene	1.115313	9.304208	22.8655	1.033622E-02			30	
1,2-Dibromoethane	0.4709696	4.310382	18.4605	1.272156E-02			30	
1,2-Dichlorobenzene	0.836683	6.212034	24.59725	1.006838E-02			30	
1,2-Dichloroethane	0.832307	7.019049	13.375	4.130297E-02			30	
1,2-Dichloropropane	0.2578921	6.93731	14.7725	2.412837E-02			30	
1,2-Dichlorotetrafluoroethane	1.546185	11.76617	5.30825	0.199887			30	
1,3,5-Trimethylbenzene	1.05371	9.193456	22.02837	0.0231054			30	
1,3-Butadiene	0.3507516	10.37525	5.91525	0.1823648			30	
1,3-Dichlorobenzene	0.8803618	5.873881	23.70425	1.587884E-02			30	
1,3-Dichloropropane	0.4185469	5.78978	17.57425	2.132584E-02			30	
1,4-Dichlorobenzene	0.8936965	6.956932	23.894	2.395249E-02			30	
1,4-Dioxane	0.1870564	4.102083	15.11575	8.908594E-02			30	
2-Butanone	1.610698	11.0101	11.4375	0.1818374			30	
2-Hexanone	0.4879517	14.40552	17.173	9.280507E-02			30	
3-Chloropropene	0.8599544	5.838681	9.3255	7.349823E-02			30	
4-Methyl-2-pentanone	0.5287723	9.680091	15.69813	0.1106506			30	
Acetone	1.2287	28.57151	8.37325	0.3877438			30	
Acrolein	0.299673	13.08998	8.25375	0.3385006			30	
Acrylonitrile	0.5517888	4.668907	9.61775	0.1938098			30	
Benzene	2.225647	10.40935	13.49838	4.082029E-02			30	
Benzyl chloride	0.9134502	17.77586	24.04625	4.385273E-03			30	
Bromodichloromethane	0.4415542	6.802946	15.1375	0.0169803			30	
Bromoform	0.5693195	16.66285	20.876	7.930145E-03			30	
Bromomethane	0.6872045	3.662258	6.7555	0.1321229			30	

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Calibration:	YB70013	Instrument:	TO15_AIR2
Matrix:	Air	Calibration Date:	02/23/17 13:41

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Carbon disulfide	1.781501	6.47028	9.59725	8.428176E-02			30	
Carbon tetrachloride	1.468588	6.536231	13.2873	3.963602E-02			30	
Chlorobenzene	0.7941687	5.430572	19.258	2.356816E-02			30	
Chloroethane	0.3620606	3.384828	6.94375	0.145866			30	
Chloroform	1.402093	5.754779	12.07525	5.282411E-02			30	
Chloromethane	0.3687635	9.114869	5.538	0.1831086			30	
cis-1,2-Dichloroethylene	1.080403	15.01433	11.79825	4.579054E-02			30	
cis-1,3-Dichloropropylene	0.3684468	14.58058	16.0345	1.292512E-02			30	
Cyclohexane	1.179486	6.13416	12.98788	2.356652E-02			30	
Dibromochloromethane	0.5260481	8.542753	18.08775	2.302001E-02			30	
Dichlorodifluoromethane	1.572069	4.709261	5.01975	0.2259104			30	
Ethyl acetate	1.604008	6.604654	11.74475	0.1398526			30	
Ethyl Benzene	1.118737	11.07679	19.36263	9.976361E-03			30	
Hexachlorobutadiene	0.5086658	9.417402	27.62275	2.474808E-02			30	
Isopropanol	1.536155	30.3979	8.164	0.4467526		0.9999728	0.99	
Isopropylbenzene	1.350061	12.26488	20.95175	1.039679E-02			30	
Methyl Methacrylate	0.2253698	8.19501	14.79725	5.107711E-02			30	
Methyl tert-butyl ether (MTBE)	1.843346	5.245278	9.92875	0.2483464			30	
Methylene chloride	0.8198661	8.964356	9.47825	7.507648E-02		0.999884	0.99	
Naphthalene	1.791801	27.12366	27.76825	0.1274346			30	
n-Butylbenzene	1.220944	13.92098	24.34138	9.912323E-02			30	
n-Heptane	1.25953	13.39721	13.5135	2.788274E-02			30	
n-Hexane	1.154911	5.206786	10.39313	5.446501E-02			30	
n-Propylbenzene	1.487784	12.61826	21.71875	7.260184E-03			30	
o-Xylene	0.9404316	9.441274	20.29325	0.0133878			30	
p- & m- Xylenes	0.8309886	17.23194	19.51025	0.0123679			30	
p-Bromofluorobenzene	0.6833447	2.396574	21.364	1.394013E-02			30	
p-Ethyltoluene	1.311477	10.60824	21.94225	1.256864E-02			30	
p-Isopropyltoluene	1.402582	11.80175	23.531	1.898429E-02			30	
Propylene	0.3762157	4.085191	4.940375	0.259924			30	
sec-Butylbenzene	1.673759	12.30402	23.26075	0.0202878			30	
Styrene	0.7826417	9.815006	20.31525	1.892908E-02			30	

FORM VI **INITIAL CALIBRATION DATA (Continued)**

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Calibration:	YB70013	Instrument:	TO15_AIR2
Matrix:	Air	Calibration Date:	02/23/17 13:41

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
tert-Butylbenzene	1.312554	9.236036	22.7915	5.20361E-03			30	
Tetrachloroethylene	0.5750568	28.52039	17.88525	2.723808E-02			30	
Tetrahydrofuran	0.8582507	4.018665	12.433	0.150809			30	
Toluene	0.8671308	10.73222	16.68875	2.535247E-02			30	
trans-1,2-Dichloroethylene	0.9259741	5.046354	10.098	6.416158E-02			30	
trans-1,3-Dichloropropylene	0.3023614	23.0661	16.856	2.340806E-02			30	
Trichloroethylene	0.3031981	4.487778	14.5384	2.842189E-02			30	
Trichlorofluoromethane (Freon 11)	1.606658	5.665234	7.544375	0.1030345			30	
Vinyl acetate	1.47189	24.55515	10.7585	0.1424281			30	
Vinyl bromide	0.6847742	5.2868	7.42025	0.1230422			30	
Vinyl Chloride	0.4949318	7.950116	5.824222	0.1849226			30	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201574.D
Acq On : 23 Feb 2017 4:15 pm
Sample : SEQ-CAL1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL1
Misc : QBTO2022317A 0.025 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:20:13 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Thu Feb 23 11:34:56 2017
Response via : Initial Calibration

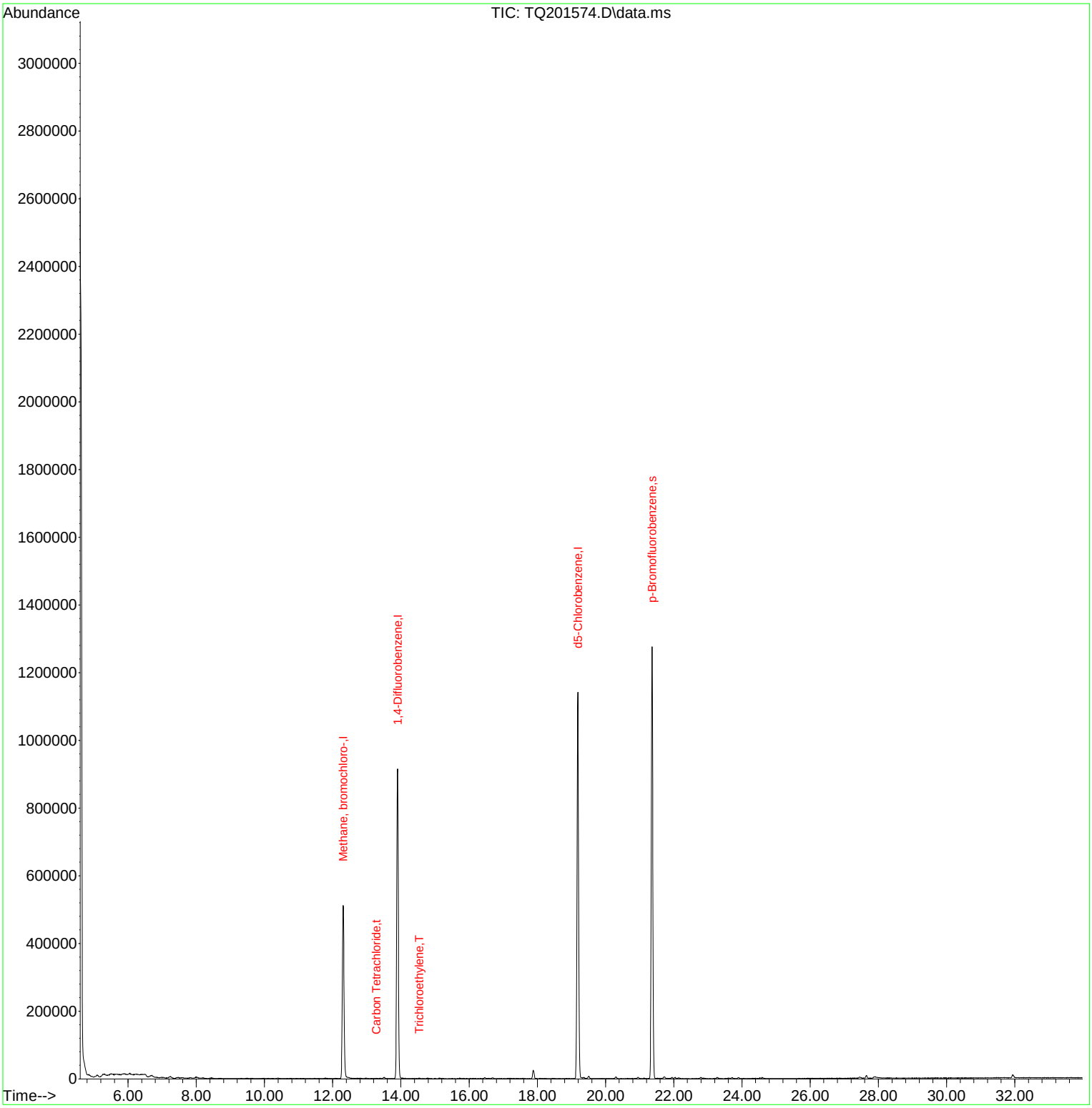
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.305	49	424292	10.00	ppbv	0.00
37) 1,4-Difluorobenzene	13.902	114	1388332	10.00	ppbv	0.00
53) d5-Chlorobenzene	19.188	117	1258819	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	21.364	95	834094	9.52	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.20%			
Target Compounds						Qvalue
33) Carbon Tetrachloride	13.280	117	1485	0.02	ppbv	# 91
38) Trichloroethylene	14.536	95	1032	0.02	ppbv	# 71

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201574.D
Acq On : 23 Feb 2017 4:15 pm
Sample : SEQ-CAL1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL1
Misc : QBTO2022317A 0.025 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:20:13 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Thu Feb 23 11:34:56 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201575.D
Acq On : 23 Feb 2017 5:03 pm
Sample : SEQ-CAL2 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL2
Misc : QBTO2022317A 0.05 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:21:38 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Thu Feb 23 11:34:56 2017
Response via : Initial Calibration

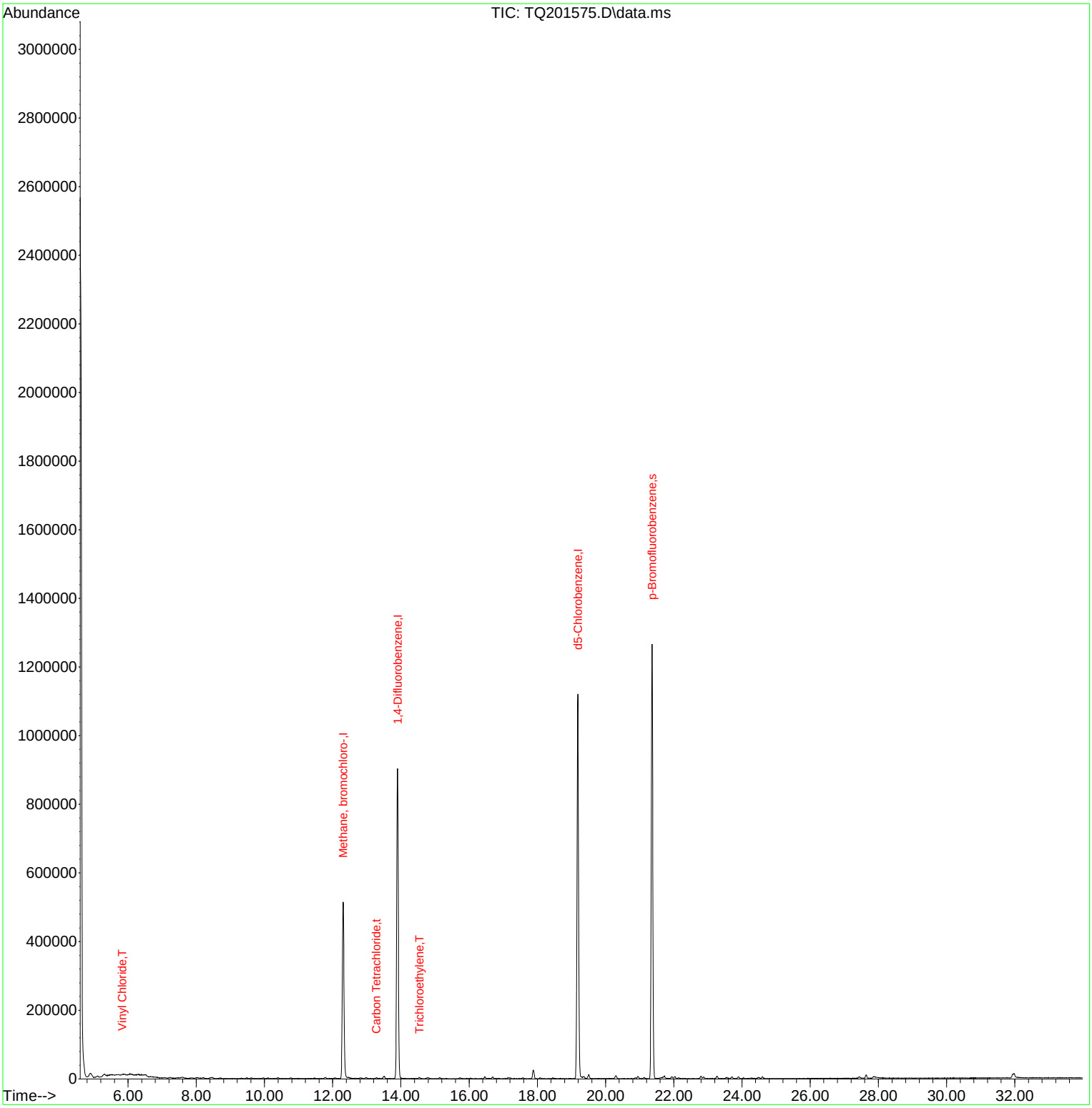
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.305	49	424126	10.00	ppbv	0.00
37) 1,4-Difluorobenzene	13.902	114	1375054	10.00	ppbv	0.00
53) d5-Chlorobenzene	19.188	117	1225452	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	21.364	95	821080	9.63	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.30%			
Target Compounds						Qvalue
6) Vinyl Chloride	5.824	62	1213	0.05	ppbv	# 43
33) Carbon Tetrachloride	13.280	117	2911	0.04	ppbv	98
38) Trichloroethylene	14.542	95	2253	0.05	ppbv	# 80

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201575.D
Acq On : 23 Feb 2017 5:03 pm
Sample : SEQ-CAL2 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL2
Misc : QBTO2022317A 0.05 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:21:38 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Thu Feb 23 11:34:56 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201576.D
Acq On : 23 Feb 2017 5:52 pm
Sample : SEQ-CAL3 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL3
Misc : QBTO2022317A 0.10 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 27 13:16:40 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:22:06 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.305	49	432291	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1374328	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.187	117	1237922	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	825880	9.63	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.30%				
Target Compounds							Qvalue
2) Propylene	4.946	42	1618	0.10	ppbv	#	86
3) Dichlorodifluoromethane	5.013	85	6876	0.08	ppbv		97
4) 1,2-Dichlorotetrafluor...	5.312	85	7117	0.09	ppbv	#	80
5) Chloromethane	5.544	50	1844	0.10	ppbv	#	70
6) Vinyl Chloride	5.830	62	2282	0.09	ppbv		98
7) 1,3-Butadiene	5.922	54	1804	0.11	ppbv	#	66
8) Bromomethane	6.757	94	3073	0.10	ppbv	#	83
9) Chloroethane	6.952	64	1483	0.09	ppbv	#	49
10) Vinyl Bromide	7.428	106	2810	0.09	ppbv		100
11) Trichlorofluoromethane	7.543	101	6903	0.09	ppbv		97
12) Isopropanol	8.214	45	9158m	0.13	ppbv		
13) Acrolein	8.293	56	1576m	0.11	ppbv		
14) Acetone	8.421	43	7345	0.13	ppbv		94
15) Freon-113	8.470	101	6381	0.10	ppbv		94
16) 1,1-Dichloroethylene	8.696	61	4741	0.10	ppbv		94
17) 3-Chloropropene	9.330	41	3439	0.09	ppbv	#	82
18) Methylene Chloride	9.476	49	3808	0.10	ppbv	#	93
19) Acrylonitrile	9.647	53	2478	0.10	ppbv	#	96
20) Carbon disulfide	9.604	76	8020	0.10	ppbv		89
21) Methyl-tert-Butyl Ethe...	9.970	73	7892	0.09	ppbv	#	96
22) trans-1,2-Dichloroethy...	10.092	61	3885	0.09	ppbv		92
23) Hexane	10.397	57	5059	0.10	ppbv		97
24) Vinyl Acetate	10.781	43	4589	0.07	ppbv	#	98
25) 1,1-Dichloroethane	10.781	63	5810	0.10	ppbv	#	59
26) 2-Butanone	11.469	43	8022	0.11	ppbv	#	89
27) Ethyl Acetate	11.768	43	7143	0.10	ppbv	#	92
28) cis-1,2-Dichloroethylene	11.793	61	5184	0.11	ppbv		93
29) Chloroform	12.067	83	6339	0.10	ppbv	#	95
30) Tetrahydrofuran	12.457	42	3735	0.10	ppbv		95
31) 1,1,1-Trichlorethane	12.817	97	5742	0.09	ppbv	#	40
32) Cyclohexane	12.987	56	5220	0.10	ppbv		97
33) Carbon Tetrachloride	13.286	117	5666	0.09	ppbv	#	58
34) 1,2-Dichloroethane	13.384	62	3590	0.10	ppbv	#	98
35) Benzene	13.500	78	10815	0.11	ppbv		94
36) n-Heptane	13.512	43	5733	0.10	ppbv		99
38) Trichloroethylene	14.536	95	4087	0.09	ppbv		91
39) 1,2-Dichloropropane	14.768	63	3582	0.10	ppbv	#	91
40) Methyl Methacrylate	14.810	69	2839	0.09	ppbv		77
41) 1,4-Dioxane	15.139	88	2791	0.10	ppbv	#	100
42) Bromodichloromethane	15.139	83	5825	0.09	ppbv	#	96
43) Methyl Isobutyl Ketone	15.725	43	6830	0.09	ppbv	#	96
44) cis-1,3-Dichloropropene	16.042	75	3931	0.07	ppbv		96
45) Toluene	16.688	91	12810	0.10	ppbv		99
46) trans-1,3-Dichloropropene	16.865	75	2674	0.06	ppbv	#	84
47) 1,1,2-Trichlorethane	17.145	97	4132	0.10	ppbv		95
48) 2-Hexanone	17.200	43	6878	0.10	ppbv		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201576.D
Acq On : 23 Feb 2017 5:52 pm
Sample : SEQ-CAL3 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL3
Misc : QBTO2022317A 0.10 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 27 13:16:40 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:22:06 2017
Response via : Initial Calibration

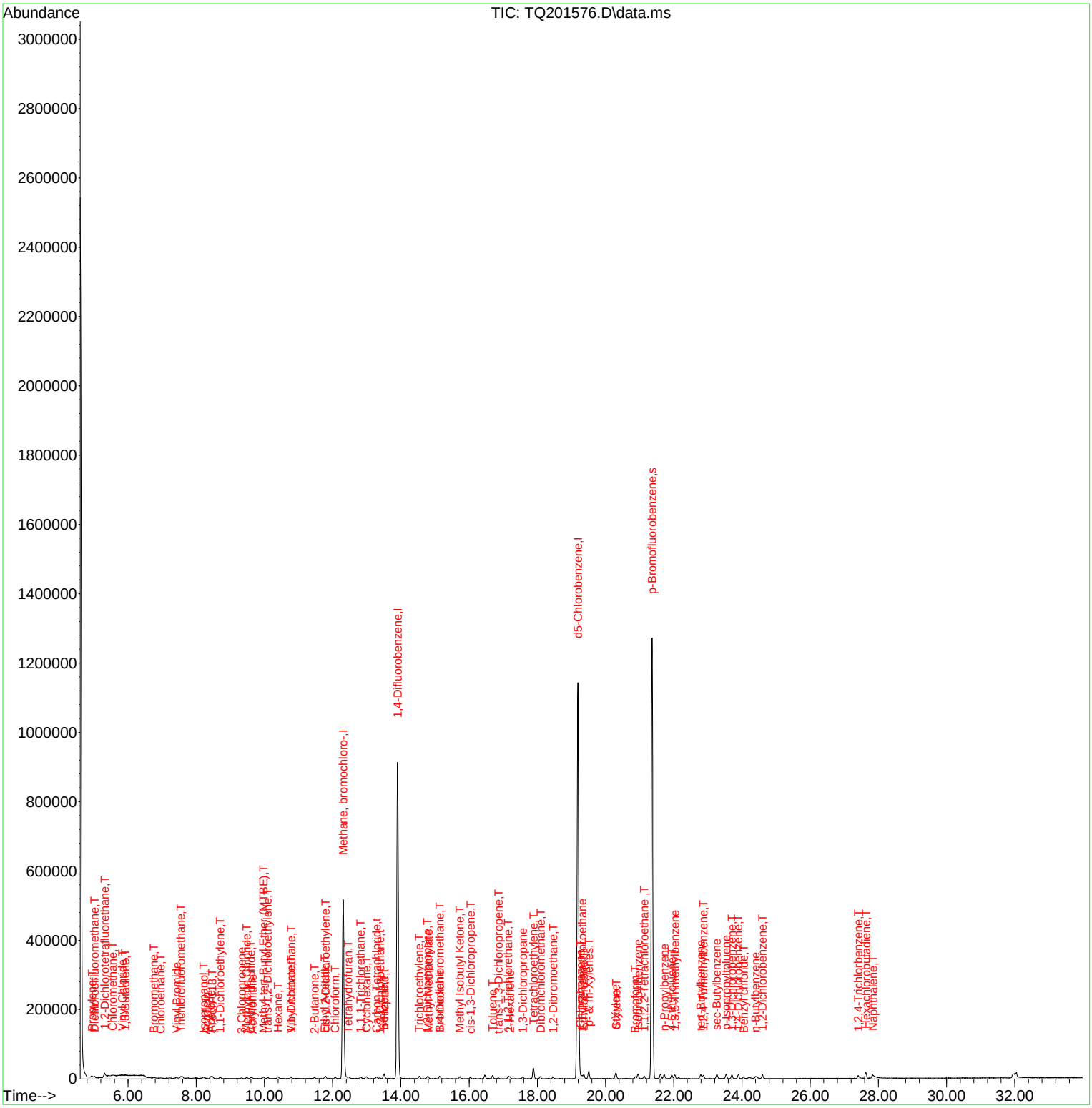
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	5765	0.10	ppbv		96
50) Tetrachloroethylene	17.889	166	12303m	0.13	ppbv		
51) Dibromchloromethane	18.096	129	6539	0.09	ppbv		96
52) 1,2-Dibromoethane	18.462	107	6274	0.10	ppbv		99
54) Chlorobenzene	19.255	112	10185	0.10	ppbv	#	100
55) 1,1,1,2-Tetrachloroethane	19.309	131	4522	0.08	ppbv	#	90
56) Ethylbenzene	19.358	91	14770	0.10	ppbv		98
57) p- & m-Xylenes	19.511	91	22785	0.22	ppbv		96
58) o-Xylene	20.291	91	11730	0.10	ppbv		99
59) Styrene	20.309	104	8830	0.09	ppbv	#	100
60) Bromoform	20.870	173	5370	0.07	ppbv	#	92
61) n-Propylbenzene	21.724	91	17960	0.10	ppbv		98
62) Isopropylbenzene	20.955	105	17174	0.10	ppbv		97
63) 1,1,2,2-Tetrachloroeth...	21.132	83	8022	0.09	ppbv		96
65) 4-Ethyltoluene	21.943	105	14562	0.09	ppbv		98
66) 1,3,5-Trimethylbenzene	22.034	105	12591	0.09	ppbv		93
67) tert-Butylbenzene	22.790	119	14243	0.09	ppbv	#	89
68) 1,2,4-Trimethylbenzene	22.870	105	12747	0.09	ppbv	#	91
69) sec-Butylbenzene	23.260	105	20745	0.10	ppbv	#	94
70) p-Isopropyltoluene	23.540	119	16168	0.09	ppbv	#	79
71) 1,3-Dichlorobenzene	23.705	146	10260	0.09	ppbv		94
72) 1,4-Dichlorobenzene	23.888	146	10401	0.09	ppbv		96
73) Benzyl chloride	24.052	91	7939	0.07	ppbv	#	93
74) n-Butylbenzene	24.400	91	12799	0.08	ppbv		97
75) 1,2-Dichlorobenzene	24.601	146	9695	0.09	ppbv		95
76) 1,2,4-Trichlorbenzene	27.411	180	6560	0.08	ppbv		90
77) Hexachlorobutadiene	27.637	225	6640	0.10	ppbv		95
78) Naphthalene	27.838	128	23118m	0.09	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201576.D
Acq On : 23 Feb 2017 5:52 pm
Sample : SEQ-CAL3 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL3
Misc : QBTO2022317A 0.10 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 27 13:16:40 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:22:06 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201577.D
Acq On : 23 Feb 2017 6:42 pm
Sample : SEQ-CAL4 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL4
Misc : QBTO2022317A 0.2 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 27 13:13:18 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:23:35 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.299	49	406535	10.00	ppbv		-0.01
37) 1,4-Difluorobenzene	13.902	114	1292254	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1170087	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	789285	9.74	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.40%				
Target Compounds							Qvalue
2) Propylene	4.934	42	2953	0.20	ppbv		95
3) Dichlorodifluoromethane	5.020	85	13234	0.17	ppbv		98
4) 1,2-Dichlorotetrafluor...	5.300	85	13985	0.20	ppbv	#	78
5) Chloromethane	5.532	50	3229	0.20	ppbv		93
6) Vinyl Chloride	5.818	62	4141	0.19	ppbv		95
7) 1,3-Butadiene	5.916	54	3071	0.20	ppbv	#	71
8) Bromomethane	6.751	94	5968	0.21	ppbv		89
9) Chloroethane	6.940	64	2887	0.18	ppbv	#	91
10) Vinyl Bromide	7.415	106	5219	0.18	ppbv		99
11) Trichlorofluoromethane	7.537	101	13608	0.20	ppbv		99
12) Isopropanol	8.196	45	17222	0.26	ppbv	#	99
13) Acrolein	8.275	56	2829	0.22	ppbv	#	1
14) Acetone	8.403	43	13805	0.27	ppbv		94
15) Freon-113	8.464	101	12441	0.20	ppbv		95
16) 1,1-Dichloroethylene	8.696	61	9082	0.21	ppbv		94
17) 3-Chloropropene	9.318	41	6572	0.18	ppbv	#	85
18) Methylene Chloride	9.470	49	7423	0.22	ppbv		95
19) Acrylonitrile	9.628	53	4623	0.20	ppbv	#	94
20) Carbon disulfide	9.586	76	14788	0.20	ppbv	#	82
21) Methyl-tert-Butyl Ethe...	9.945	73	15128	0.20	ppbv		99
22) trans-1,2-Dichloroethy...	10.092	61	7693	0.20	ppbv		91
23) Hexane	10.390	57	9733	0.20	ppbv		98
24) Vinyl Acetate	10.768	43	8616	0.14	ppbv		100
25) 1,1-Dichloroethane	10.775	63	10281	0.20	ppbv	#	62
26) 2-Butanone	11.457	43	14703	0.22	ppbv		98
27) Ethyl Acetate	11.762	43	13906	0.21	ppbv		92
28) cis-1,2-Dichloroethylene	11.793	61	9855	0.22	ppbv		97
29) Chloroform	12.067	83	11969	0.21	ppbv	#	98
30) Tetrahydrofuran	12.451	42	7080	0.20	ppbv		96
31) 1,1,1-Trichlorethane	12.817	97	10626	0.19	ppbv		99
32) Cyclohexane	12.988	56	10053	0.21	ppbv	#	95
33) Carbon Tetrachloride	13.286	117	11792	0.20	ppbv		99
34) 1,2-Dichloroethane	13.372	62	7263	0.21	ppbv		99
35) Benzene	13.487	78	19279	0.21	ppbv		99
36) n-Heptane	13.512	43	11135	0.22	ppbv		99
38) Trichloroethylene	14.530	95	7516	0.19	ppbv		88
39) 1,2-Dichloropropane	14.774	63	6764	0.20	ppbv		94
40) Methyl Methacrylate	14.798	69	5312	0.18	ppbv	#	40
41) 1,4-Dioxane	15.121	88	4868	0.19	ppbv	#	100
42) Bromodichloromethane	15.133	83	11150	0.19	ppbv		99
43) Methyl Isobutyl Ketone	15.719	43	13080	0.18	ppbv		98
44) cis-1,3-Dichloropropene	16.030	75	7849	0.16	ppbv		94
45) Toluene	16.688	91	24070	0.21	ppbv		98
46) trans-1,3-Dichloropropene	16.859	75	5604	0.14	ppbv		97
47) 1,1,2-Trichlorethane	17.151	97	7771	0.20	ppbv		95
48) 2-Hexanone	17.194	43	13212	0.20	ppbv		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201577.D
Acq On : 23 Feb 2017 6:42 pm
Sample : SEQ-CAL4 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL4
Misc : QBTO2022317A 0.2 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 27 13:13:18 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:23:35 2017
Response via : Initial Calibration

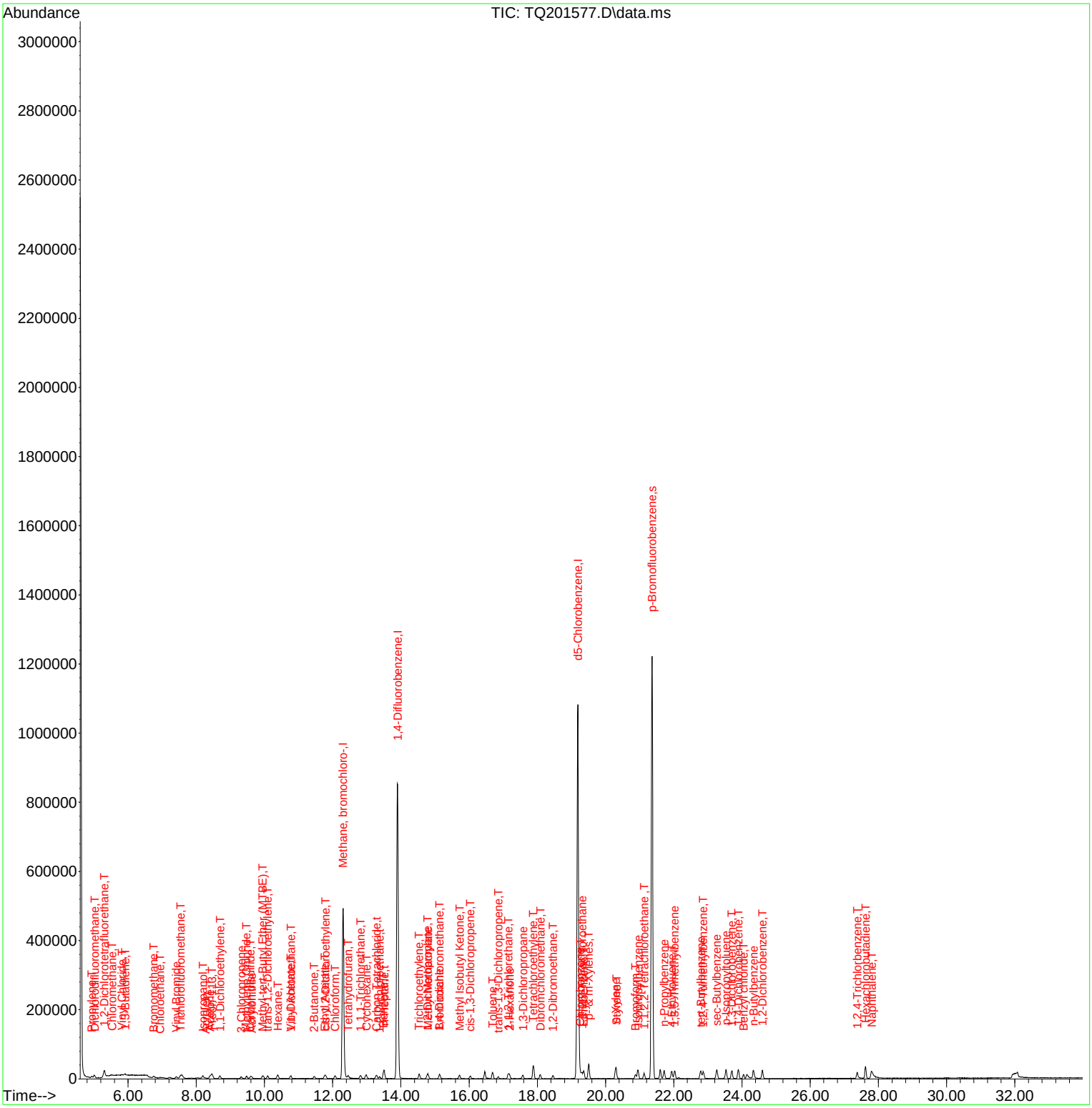
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.578	76	11098	0.20	ppbv		96
50) Tetrachloroethylene	17.877	166	18810m	0.22	ppbv		
51) Dibromchloromethane	18.090	129	12384	0.18	ppbv		98
52) 1,2-Dibromoethane	18.456	107	12044	0.20	ppbv		97
54) Chlorobenzene	19.261	112	18750	0.20	ppbv	#	86
55) 1,1,1,2-Tetrachloroethane	19.309	131	8832	0.18	ppbv		94
56) Ethylbenzene	19.358	91	27960	0.21	ppbv		99
57) p- & m-Xylenes	19.505	91	43270	0.44	ppbv		96
58) o-Xylene	20.297	91	21821	0.20	ppbv		98
59) Styrene	20.315	104	17165	0.18	ppbv	#	100
60) Bromoform	20.876	173	10713	0.16	ppbv		98
61) n-Propylbenzene	21.718	91	35590	0.20	ppbv		98
62) Isopropylbenzene	20.955	105	33434	0.21	ppbv		97
63) 1,1,2,2-Tetrachloroeth...	21.132	83	15067	0.19	ppbv		97
65) 4-Ethyltoluene	21.943	105	29705	0.19	ppbv		98
66) 1,3,5-Trimethylbenzene	22.022	105	24538	0.20	ppbv	#	89
67) tert-Butylbenzene	22.797	119	29025	0.19	ppbv		95
68) 1,2,4-Trimethylbenzene	22.864	105	25601	0.19	ppbv	#	92
69) sec-Butylbenzene	23.260	105	39745	0.20	ppbv		98
70) p-Isopropyltoluene	23.534	119	31975	0.19	ppbv	#	79
71) 1,3-Dichlorobenzene	23.699	146	21070	0.20	ppbv		97
72) 1,4-Dichlorobenzene	23.894	146	21923	0.21	ppbv		97
73) Benzyl chloride	24.046	91	17009	0.16	ppbv		97
74) n-Butylbenzene	24.339	91	27999	0.20	ppbv		99
75) 1,2-Dichlorobenzene	24.601	146	18643	0.19	ppbv		96
76) 1,2,4-Trichlorbenzene	27.387	180	12438	0.16	ppbv		96
77) Hexachlorobutadiene	27.625	225	11262	0.19	ppbv		98
78) Naphthalene	27.808	128	47020m	0.20	ppbv		

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201577.D
Acq On : 23 Feb 2017 6:42 pm
Sample : SEQ-CAL4 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL4
Misc : QBTO2022317A 0.2 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 27 13:13:18 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:23:35 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201578.D
Acq On : 23 Feb 2017 7:34 pm
Sample : SEQ-CAL5 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL5
Misc : QBTO2022317A 0.5 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:24:59 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:24:36 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.305	49	398396	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1265977	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1155605	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	777008	9.72	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.20%				
Target Compounds							Qvalue
2) Propylene	4.947	42	7035	0.51	ppbv		96
3) Dichlorodifluoromethane	5.026	85	29767	0.41	ppbv		98
4) 1,2-Dichlorotetrafluor...	5.306	85	31552	0.47	ppbv	#	77
5) Chloromethane	5.544	50	7163	0.45	ppbv		96
6) Vinyl Chloride	5.824	62	9480	0.45	ppbv		98
7) 1,3-Butadiene	5.916	54	6805	0.46	ppbv		93
8) Bromomethane	6.763	94	13067	0.46	ppbv		96
9) Chloroethane	6.946	64	6957	0.45	ppbv	#	95
10) Vinyl Bromide	7.422	106	12627	0.44	ppbv		99
11) Trichlorofluoromethane	7.544	101	32023	0.49	ppbv		99
12) Isopropanol	8.190	45	40942	0.64	ppbv		100
13) Acrolein	8.269	56	6403	0.51	ppbv	#	88
14) Acetone	8.391	43	30448	0.61	ppbv		93
15) Freon-113	8.464	101	29238	0.49	ppbv		96
16) 1,1-Dichloroethylene	8.696	61	21806	0.51	ppbv		94
17) 3-Chloropropene	9.330	41	16202	0.45	ppbv	#	86
18) Methylene Chloride	9.482	49	17042	0.51	ppbv		96
19) Acrylonitrile	9.629	53	11357	0.50	ppbv	#	96
20) Carbon disulfide	9.592	76	36118	0.50	ppbv		90
21) Methyl-tert-Butyl Ethe...	9.946	73	35771	0.47	ppbv		97
22) trans-1,2-Dichloroethy...	10.098	61	18721	0.49	ppbv		94
23) Hexane	10.391	57	22850	0.49	ppbv		99
24) Vinyl Acetate	10.769	43	20006	0.33	ppbv		100
25) 1,1-Dichloroethane	10.781	63	25337	0.50	ppbv	#	59
26) 2-Butanone	11.451	43	34630	0.53	ppbv		99
27) Ethyl Acetate	11.756	43	32836	0.51	ppbv		93
28) cis-1,2-Dichloroethylene	11.799	61	23441	0.53	ppbv		95
29) Chloroform	12.073	83	27977	0.49	ppbv		98
30) Tetrahydrofuran	12.451	42	16873	0.49	ppbv		99
31) 1,1,1-Trichlorethane	12.817	97	25543	0.46	ppbv		99
32) Cyclohexane	12.988	56	23280	0.49	ppbv		99
33) Carbon Tetrachloride	13.292	117	28634	0.49	ppbv		99
34) 1,2-Dichloroethane	13.366	62	17098	0.50	ppbv	#	99
35) Benzene	13.500	78	46207	0.52	ppbv		99
36) n-Heptane	13.518	43	26846	0.53	ppbv		99
38) Trichloroethylene	14.542	95	18744	0.48	ppbv		90
39) 1,2-Dichloropropane	14.774	63	16281	0.49	ppbv		97
40) Methyl Methacrylate	14.804	69	13613	0.46	ppbv		77
41) 1,4-Dioxane	15.127	88	11851	0.48	ppbv	#	100
42) Bromodichloromethane	15.134	83	27808	0.49	ppbv		99
43) Methyl Isobutyl Ketone	15.707	43	32948	0.48	ppbv		97
44) cis-1,3-Dichloropropene	16.036	75	21523	0.45	ppbv		98
45) Toluene	16.688	91	57616	0.52	ppbv		99
46) trans-1,3-Dichloropropene	16.859	75	16037	0.40	ppbv		97
47) 1,1,2-Trichlorethane	17.151	97	18631	0.48	ppbv		97
48) 2-Hexanone	17.176	43	33760	0.53	ppbv		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201578.D
Acq On : 23 Feb 2017 7:34 pm
Sample : SEQ-CAL5 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL5
Misc : QBTO2022317A 0.5 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:24:59 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:24:36 2017
Response via : Initial Calibration

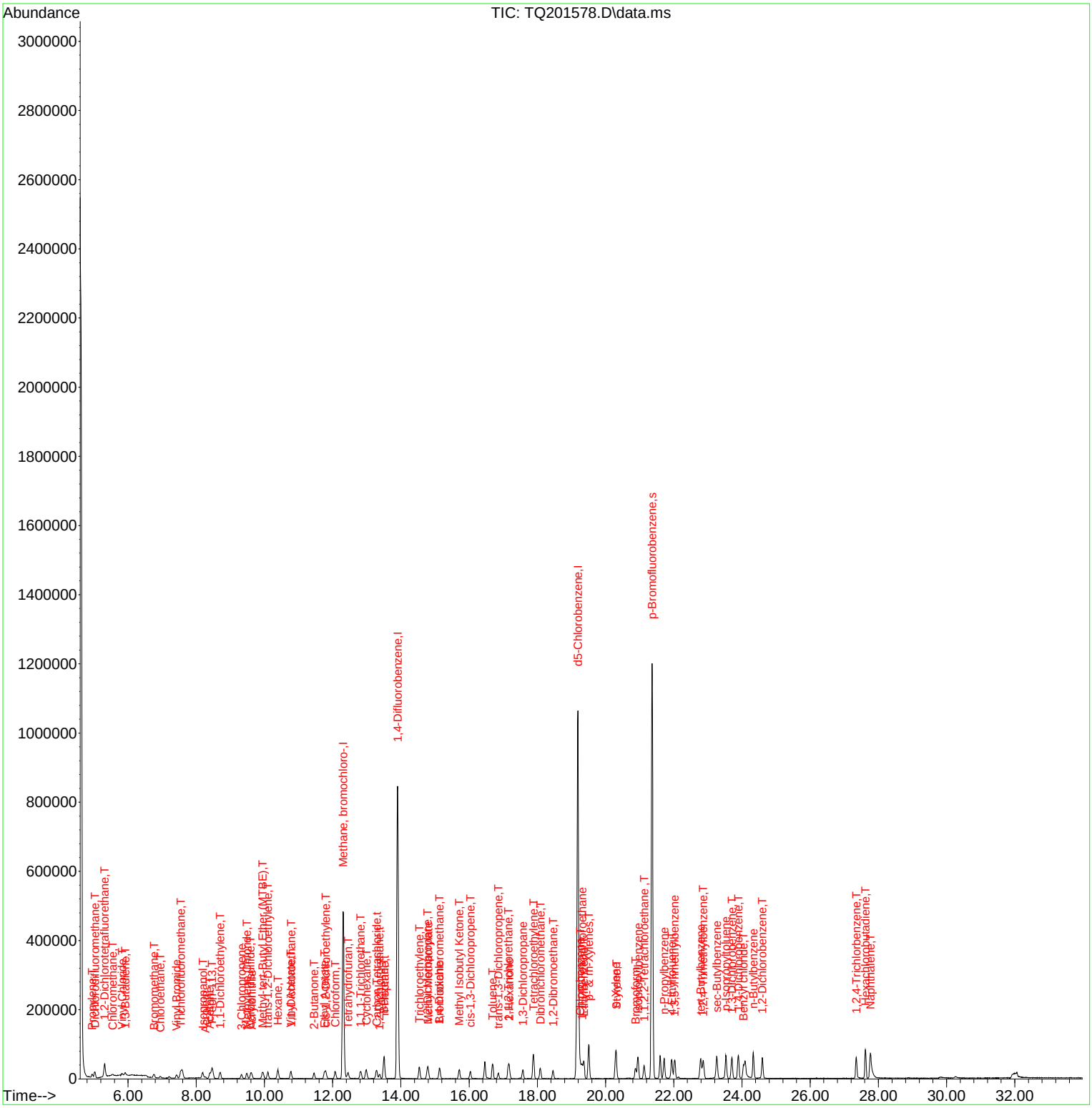
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	26611	0.49	ppbv		98
50) Tetrachloroethylene	17.889	166	40095	0.49	ppbv		99
51) Dibromchloromethane	18.090	129	30609	0.45	ppbv		99
52) 1,2-Dibromoethane	18.462	107	29361	0.49	ppbv		96
54) Chlorobenzene	19.255	112	45637	0.49	ppbv	#	100
55) 1,1,1,2-Tetrachloroethane	19.310	131	21689	0.44	ppbv		94
56) Ethylbenzene	19.364	91	66418	0.51	ppbv		96
57) p- & m-Xylenes	19.511	91	103701	1.09	ppbv		95
58) o-Xylene	20.297	91	53420	0.49	ppbv		98
59) Styrene	20.315	104	43431	0.48	ppbv	#	100
60) Bromoform	20.882	173	27929	0.41	ppbv		98
61) n-Propylbenzene	21.718	91	90194	0.53	ppbv		98
62) Isopropylbenzene	20.956	105	80998	0.52	ppbv		97
63) 1,1,2,2-Tetrachloroeth...	21.132	83	38285	0.49	ppbv		99
65) 4-Ethyltoluene	21.943	105	77288	0.51	ppbv		97
66) 1,3,5-Trimethylbenzene	22.022	105	62045	0.51	ppbv		97
67) tert-Butylbenzene	22.791	119	72184	0.47	ppbv		95
68) 1,2,4-Trimethylbenzene	22.864	105	66241	0.52	ppbv	#	91
69) sec-Butylbenzene	23.266	105	97955	0.51	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	80685	0.50	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	53074	0.52	ppbv		97
72) 1,4-Dichlorobenzene	23.894	146	56436	0.55	ppbv		96
73) Benzyl chloride	24.040	91	52957	0.49	ppbv		96
74) n-Butylbenzene	24.333	91	72907	0.52	ppbv		98
75) 1,2-Dichlorobenzene	24.595	146	48307	0.50	ppbv		97
76) 1,2,4-Trichlorbenzene	27.351	180	35952	0.47	ppbv		97
77) Hexachlorobutadiene	27.619	225	27190	0.46	ppbv		98
78) Naphthalene	27.765	128	175504	0.77	ppbv		100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201578.D
Acq On : 23 Feb 2017 7:34 pm
Sample : SEQ-CAL5 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL5
Misc : QBTO2022317A 0.5 ppbv CAL
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 24 08:24:59 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:24:36 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201579.D
Acq On : 23 Feb 2017 8:22 pm
Sample : SEQ-CAL6 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL6
Misc : QBTO2022317A 3.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:25:58 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:25:47 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.311	49	379645	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1211630	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1104650	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	753915	9.87	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.70%				
Target Compounds							Qvalue
2) Propylene	4.953	42	43495	3.47	ppbv		96
3) Dichlorodifluoromethane	5.032	85	189390	2.81	ppbv		99
4) 1,2-Dichlorotetrafluor...	5.324	85	199239	3.21	ppbv		80
5) Chloromethane	5.550	50	44599	3.04	ppbv		96
6) Vinyl Chloride	5.837	62	58343	2.96	ppbv		100
7) 1,3-Butadiene	5.928	54	42291	3.03	ppbv		98
8) Bromomethane	6.763	94	79028	2.95	ppbv		100
9) Chloroethane	6.952	64	43160	3.00	ppbv		99
10) Vinyl Bromide	7.428	106	81947	3.04	ppbv		100
11) Trichlorofluoromethane	7.556	101	200529	3.23	ppbv		99
12) Isopropanol	8.184	45	146732	2.44	ppbv		100
13) Acrolein	8.275	56	32111	2.74	ppbv	#	56
14) Acetone	8.391	43	125170	2.64	ppbv		96
15) Freon-113	8.470	101	182761	3.23	ppbv		95
16) 1,1-Dichloroethylene	8.702	61	129038	3.20	ppbv		94
17) 3-Chloropropene	9.330	41	106072	3.14	ppbv	#	87
18) Methylene Chloride	9.488	49	100576	3.18	ppbv		98
19) Acrylonitrile	9.628	53	66520	3.10	ppbv		96
20) Carbon disulfide	9.604	76	224222	3.28	ppbv		99
21) Methyl-tert-Butyl Ethe...	9.939	73	233469	3.28	ppbv		98
22) trans-1,2-Dichloroethy...	10.104	61	116127	3.24	ppbv		95
23) Hexane	10.397	57	143478	3.23	ppbv		99
24) Vinyl Acetate	10.768	43	187012	3.28	ppbv		100
25) 1,1-Dichloroethane	10.781	63	158511	3.27	ppbv		84
26) 2-Butanone	11.445	43	187733	3.03	ppbv		100
27) Ethyl Acetate	11.750	43	196905	3.21	ppbv		96
28) cis-1,2-Dichloroethylene	11.805	61	143341	3.44	ppbv		95
29) Chloroform	12.079	83	172934	3.22	ppbv		99
30) Tetrahydrofuran	12.439	42	105792	3.21	ppbv		98
31) 1,1,1-Trichlorethane	12.823	97	171392	3.26	ppbv		99
32) Cyclohexane	12.988	56	148337	3.28	ppbv		99
33) Carbon Tetrachloride	13.292	117	186040	3.32	ppbv		100
34) 1,2-Dichloroethane	13.378	62	105000	3.27	ppbv	#	99
35) Benzene	13.500	78	278303	3.30	ppbv		97
36) n-Heptane	13.512	43	167475	3.52	ppbv		99
38) Trichloroethylene	14.542	95	117929	3.15	ppbv		90
39) 1,2-Dichloropropane	14.774	63	104812	3.28	ppbv		100
40) Methyl Methacrylate	14.798	69	92747	3.33	ppbv	#	40
41) 1,4-Dioxane	15.121	88	69621	2.97	ppbv	#	100
42) Bromodichloromethane	15.140	83	180759	3.32	ppbv		98
43) Methyl Isobutyl Ketone	15.700	43	226338	3.48	ppbv		97
44) cis-1,3-Dichloropropene	16.036	75	156833	3.45	ppbv		98
45) Toluene	16.694	91	353482	3.39	ppbv		99
46) trans-1,3-Dichloropropene	16.853	75	129967	3.46	ppbv		97
47) 1,1,2-Trichlorethane	17.151	97	118807	3.24	ppbv		95
48) 2-Hexanone	17.170	43	209289	3.49	ppbv		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201579.D
Acq On : 23 Feb 2017 8:22 pm
Sample : SEQ-CAL6 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL6
Misc : QBTO2022317A 3.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:25:58 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:25:47 2017
Response via : Initial Calibration

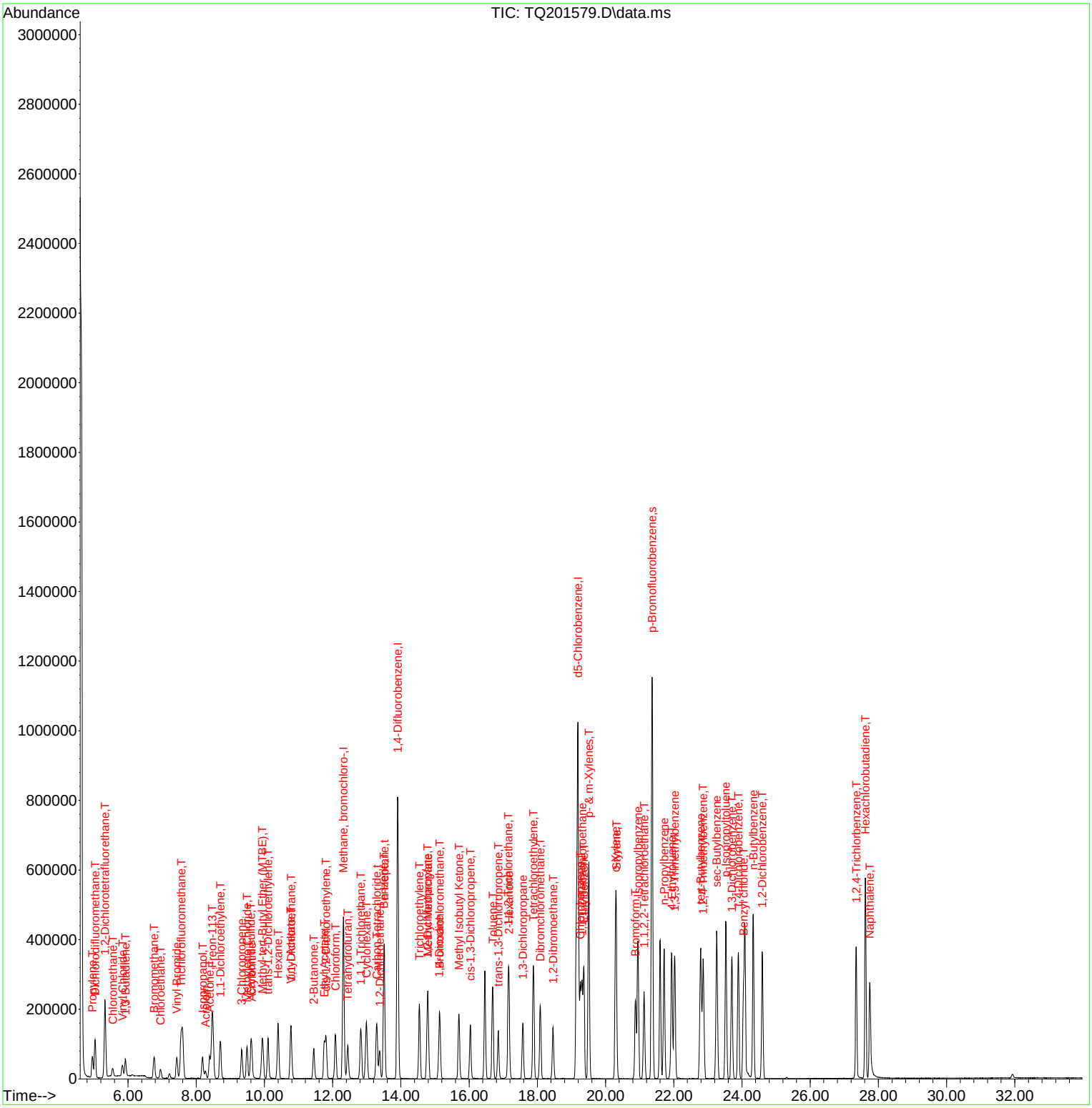
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	167388	3.25	ppbv	#	72
50) Tetrachloroethylene	17.883	166	184037	2.39	ppbv		100
51) Dibromchloromethane	18.084	129	213990	3.34	ppbv		99
52) 1,2-Dibromoethane	18.462	107	185636	3.23	ppbv		98
54) Chlorobenzene	19.255	112	281438	3.20	ppbv	#	100
55) 1,1,1,2-Tetrachloroethane	19.309	131	148966	3.19	ppbv		92
56) Ethylbenzene	19.364	91	420245	3.42	ppbv		95
57) p- & m-Xylenes	19.511	91	645589	7.15	ppbv		94
58) o-Xylene	20.291	91	351321	3.40	ppbv		98
59) Styrene	20.315	104	291351	3.37	ppbv	#	100
60) Bromoform	20.876	173	207011	3.24	ppbv		99
61) n-Propylbenzene	21.718	91	584349	3.62	ppbv		98
62) Isopropylbenzene	20.949	105	520740	3.55	ppbv		97
63) 1,1,2,2-Tetrachloroeth...	21.126	83	247940	3.34	ppbv		99
65) 4-Ethyltoluene	21.943	105	507315	3.56	ppbv		97
66) 1,3,5-Trimethylbenzene	22.028	105	396898	3.42	ppbv		93
67) tert-Butylbenzene	22.791	119	487525	3.38	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	423666	3.48	ppbv	#	90
69) sec-Butylbenzene	23.260	105	649471	3.59	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	540875	3.56	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	308116	3.18	ppbv		97
72) 1,4-Dichlorobenzene	23.894	146	306115	3.12	ppbv		97
73) Benzyl chloride	24.046	91	344454	3.40	ppbv		94
74) n-Butylbenzene	24.333	91	480978	3.63	ppbv		98
75) 1,2-Dichlorobenzene	24.595	146	296694	3.23	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	210984	2.93	ppbv		98
77) Hexachlorobutadiene	27.619	225	179824	3.19	ppbv		99
78) Naphthalene	27.747	128	523872	2.44	ppbv		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201579.D
Acq On : 23 Feb 2017 8:22 pm
Sample : SEQ-CAL6 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL6
Misc : QBTO2022317A 3.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:25:58 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:25:47 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201580.D
Acq On : 23 Feb 2017 9:11 pm
Sample : SEQ-CAL7 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL7
Misc : QBTO2022317A 10.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:27:33 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:26:49 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.305	49	378416	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1209169	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1093273	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	759503	10.06	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.60%				
Target Compounds							Qvalue
2) Propylene	4.922	42	146737	12.44	ppbv		96
3) Dichlorodifluoromethane	5.008	85	626329	9.72	ppbv		99
4) 1,2-Dichlorotetrafluor...	5.300	85	615364	10.24	ppbv	#	78
5) Chloromethane	5.526	50	137540	9.54	ppbv		99
6) Vinyl Chloride	5.812	62	183449	9.52	ppbv		99
7) 1,3-Butadiene	5.898	54	131177	9.57	ppbv		99
8) Bromomethane	6.745	94	258165	9.76	ppbv		99
9) Chloroethane	6.928	64	141535	10.06	ppbv		99
10) Vinyl Bromide	7.410	106	265882	10.05	ppbv		100
11) Trichlorofluoromethane	7.538	101	623400	10.20	ppbv		98
12) Isopropanol	8.141	45	456418	7.70	ppbv		100
13) Acrolein	8.233	56	101823	8.81	ppbv	#	85
14) Acetone	8.348	43	381442	8.13	ppbv		95
15) Freon-113	8.458	101	561151	10.06	ppbv		94
16) 1,1-Dichloroethylene	8.690	61	388645	9.75	ppbv		94
17) 3-Chloropropene	9.318	41	343118	10.34	ppbv	#	86
18) Methylene Chloride	9.470	49	303897	9.72	ppbv		99
19) Acrylonitrile	9.604	53	205254	9.71	ppbv		97
20) Carbon disulfide	9.592	76	681068	10.11	ppbv		99
21) Methyl-tert-Butyl Ethe...	9.909	73	710753	10.12	ppbv		97
22) trans-1,2-Dichloroethy...	10.092	61	353707	10.01	ppbv		93
23) Hexane	10.385	57	442039	10.05	ppbv		99
24) Vinyl Acetate	10.744	43	667955	11.95	ppbv		100
25) 1,1-Dichloroethane	10.775	63	479788	10.04	ppbv		97
26) 2-Butanone	11.421	43	575086	9.41	ppbv		99
27) Ethyl Acetate	11.732	43	608935	10.06	ppbv		95
28) cis-1,2-Dichloroethylene	11.793	61	426170	10.35	ppbv		92
29) Chloroform	12.073	83	527445	9.95	ppbv		99
30) Tetrahydrofuran	12.421	42	325370	9.98	ppbv		99
31) 1,1,1-Trichlorethane	12.817	97	537418	10.34	ppbv		99
32) Cyclohexane	12.982	56	448221	9.99	ppbv		98
33) Carbon Tetrachloride	13.286	117	586804	10.56	ppbv		100
34) 1,2-Dichloroethane	13.372	62	313260	9.87	ppbv		100
35) Benzene	13.494	78	836678	10.02	ppbv		99
36) n-Heptane	13.506	43	490109	10.32	ppbv	#	98
38) Trichloroethylene	14.536	95	371488	10.05	ppbv		88
39) 1,2-Dichloropropane	14.774	63	322997	10.25	ppbv		99
40) Methyl Methacrylate	14.786	69	293176	10.67	ppbv	#	40
41) 1,4-Dioxane	15.103	88	220186	9.54	ppbv	#	100
42) Bromodichloromethane	15.134	83	565496	10.55	ppbv		99
43) Methyl Isobutyl Ketone	15.682	43	692788	10.79	ppbv		95
44) cis-1,3-Dichloropropene	16.030	75	504739	11.26	ppbv		97
45) Toluene	16.688	91	1071473	10.36	ppbv		97
46) trans-1,3-Dichloropropene	16.853	75	443038	12.02	ppbv		97
47) 1,1,2-Trichlorethane	17.145	97	373790	10.32	ppbv		94
48) 2-Hexanone	17.158	43	631338	10.66	ppbv		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201580.D
Acq On : 23 Feb 2017 9:11 pm
Sample : SEQ-CAL7 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL7
Misc : QBTO2022317A 10.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:27:33 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:26:49 2017
Response via : Initial Calibration

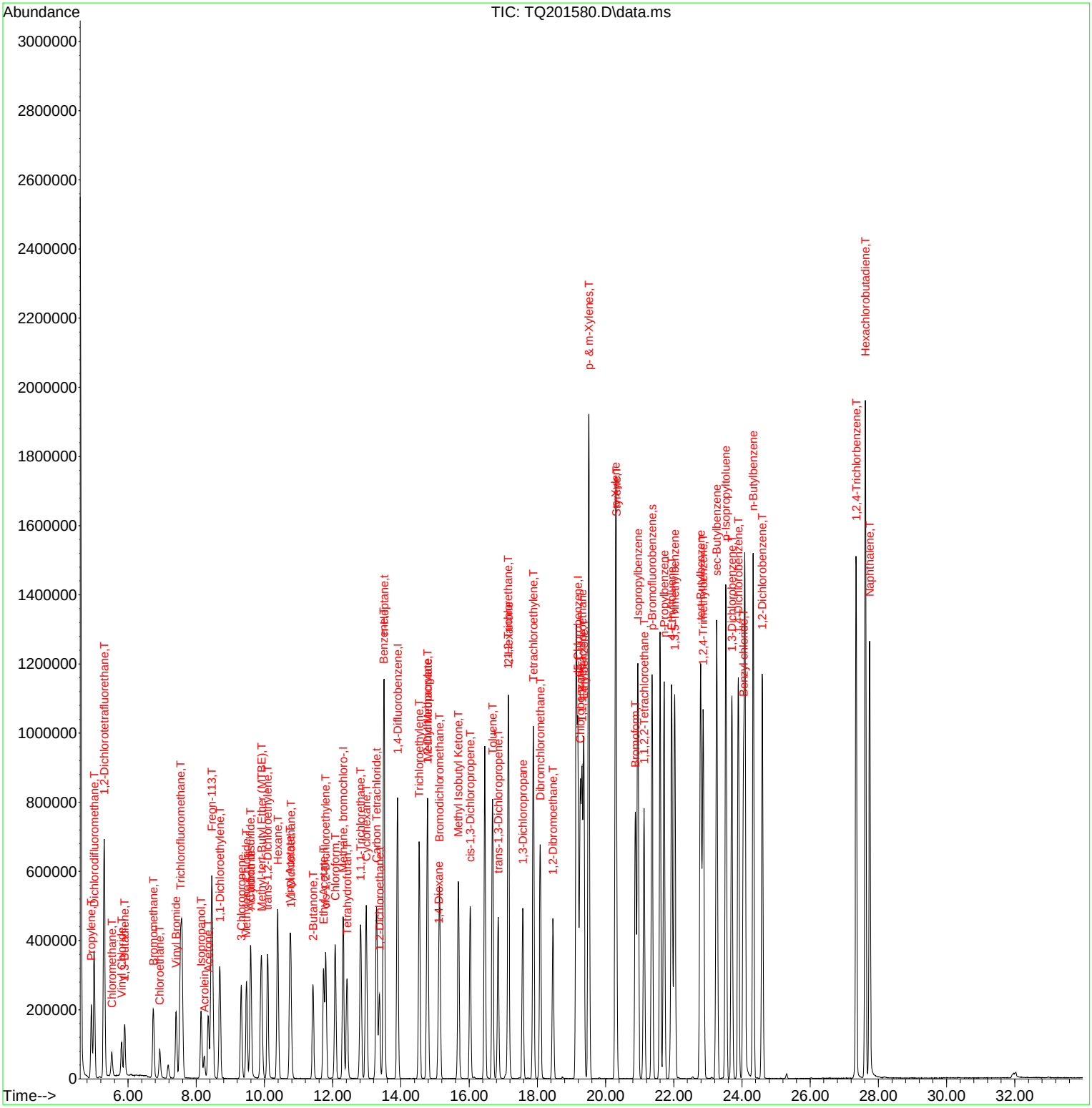
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	516126	10.16	ppbv	#	72
50) Tetrachloroethylene	17.883	166	571166	7.48	ppbv		99
51) Dibromchloromethane	18.084	129	685037	10.80	ppbv		98
52) 1,2-Dibromoethane	18.456	107	584059	10.26	ppbv		97
54) Chlorobenzene	19.255	112	889427	10.28	ppbv	#	99
55) 1,1,1,2-Tetrachloroethane	19.310	131	480375	10.49	ppbv		92
56) Ethylbenzene	19.365	91	1271189	10.50	ppbv		92
57) p- & m-Xylenes	19.511	91	1943850	21.84	ppbv		90
58) o-Xylene	20.291	91	1114758	10.97	ppbv		97
59) Styrene	20.316	104	950532	11.18	ppbv	#	100
60) Bromoform	20.876	173	703240	11.26	ppbv		98
61) n-Propylbenzene	21.718	91	1765660	11.07	ppbv		97
62) Isopropylbenzene	20.950	105	1566691	10.81	ppbv	#	96
63) 1,1,2,2-Tetrachloroeth...	21.126	83	762815	10.48	ppbv		99
65) 4-Ethyltoluene	21.937	105	1571368	11.15	ppbv		96
66) 1,3,5-Trimethylbenzene	22.029	105	1216754	10.63	ppbv		91
67) tert-Butylbenzene	22.791	119	1563763	11.01	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	1308778	10.86	ppbv	#	88
69) sec-Butylbenzene	23.260	105	2009136	11.24	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	1716768	11.45	ppbv	#	90
71) 1,3-Dichlorobenzene	23.705	146	989635	10.36	ppbv		96
72) 1,4-Dichlorobenzene	23.894	146	988996	10.21	ppbv		96
73) Benzyl chloride	24.047	91	1175329	11.84	ppbv		92
74) n-Butylbenzene	24.327	91	1529623	11.71	ppbv		96
75) 1,2-Dichlorobenzene	24.595	146	963009	10.64	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	823552	11.61	ppbv		97
77) Hexachlorobutadiene	27.619	225	609061	10.98	ppbv		99
78) Naphthalene	27.747	128	1875167	8.87	ppbv		98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201580.D
Acq On : 23 Feb 2017 9:11 pm
Sample : SEQ-CAL7 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL7
Misc : QBTO2022317A 10.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:27:33 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:26:49 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201581.D
Acq On : 23 Feb 2017 10:02 pm
Sample : SEQ-CAL8 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL8
Misc : QBTO2022317A 20.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:28:41 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:28:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.317	49	379486	10.00	ppbv		0.01
37) 1,4-Difluorobenzene	13.908	114	1248754	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.194	117	1113789	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	788001	10.27	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.70%				
Target Compounds							Qvalue
2) Propylene	4.959	42	275212	24.46	ppbv		96
3) Dichlorodifluoromethane	5.038	85	1144732	18.20	ppbv		97
4) 1,2-Dichlorotetrafluor...	5.324	85	1092240	18.37	ppbv	#	77
5) Chloromethane	5.550	50	259401	18.16	ppbv		99
6) Vinyl Chloride	5.843	62	352154	18.43	ppbv		100
7) 1,3-Butadiene	5.928	54	246134	18.12	ppbv		99
8) Bromomethane	6.769	94	505650	19.19	ppbv		100
9) Chloroethane	6.958	64	275695	19.72	ppbv		99
10) Vinyl Bromide	7.434	106	533069	20.30	ppbv		100
11) Trichlorofluoromethane	7.556	101	1197271	19.64	ppbv		98
12) Isopropanol	8.147	45	904417	15.31	ppbv		100
13) Acrolein	8.245	56	206477	17.94	ppbv	#	56
14) Acetone	8.360	43	736957	15.72	ppbv		94
15) Freon-113	8.476	101	1086952	19.52	ppbv		93
16) 1,1-Dichloroethylene	8.708	61	743547	18.71	ppbv		92
17) 3-Chloropropene	9.336	41	679223	20.59	ppbv	#	86
18) Methylene Chloride	9.488	49	581968	18.61	ppbv		98
19) Acrylonitrile	9.616	53	409349	19.40	ppbv		97
20) Carbon disulfide	9.610	76	1314963	19.55	ppbv		98
21) Methyl-tert-Butyl Ethe...	9.915	73	1393475	19.90	ppbv		97
22) trans-1,2-Dichloroethy...	10.110	61	693647	19.68	ppbv		92
23) Hexane	10.403	57	863997	19.64	ppbv		98
24) Vinyl Acetate	10.756	43	1387660	24.99	ppbv	#	100
25) 1,1-Dichloroethane	10.793	63	930898	19.49	ppbv		97
26) 2-Butanone	11.427	43	1132867	18.57	ppbv		98
27) Ethyl Acetate	11.738	43	1189756	19.66	ppbv	#	45
28) cis-1,2-Dichloroethylene	11.805	61	694587	16.92	ppbv	#	74
29) Chloroform	12.085	83	1033186	19.50	ppbv		98
30) Tetrahydrofuran	12.421	42	648526	19.91	ppbv		98
31) 1,1,1-Trichlorethane	12.829	97	1074588	20.70	ppbv		98
32) Cyclohexane	12.994	56	878329	19.58	ppbv		97
33) Carbon Tetrachloride	13.292	117	1181417	21.27	ppbv		99
34) 1,2-Dichloroethane	13.378	62	612462	19.32	ppbv	#	85
35) Benzene	13.506	78	1617010	19.34	ppbv		99
36) n-Heptane	13.518	43	929453	19.53	ppbv	#	75
38) Trichloroethylene	14.542	95	768977	20.26	ppbv		87
39) 1,2-Dichloropropane	14.774	63	645168	19.92	ppbv		97
40) Methyl Methacrylate	14.798	69	597167	21.13	ppbv	#	81
41) 1,4-Dioxane	15.109	88	459721	19.44	ppbv	#	100
42) Bromodichloromethane	15.140	83	1120447	20.34	ppbv		98
43) Methyl Isobutyl Ketone	15.688	43	1370875	20.80	ppbv		93
44) cis-1,3-Dichloropropene	16.036	75	1021104	22.17	ppbv		96
45) Toluene	16.688	91	2086672	19.55	ppbv		95
46) trans-1,3-Dichloropropene	16.853	75	898245	23.75	ppbv		96
47) 1,1,2-Trichlorethane	17.151	97	756436	20.27	ppbv		93
48) 2-Hexanone	17.164	43	1206734	19.82	ppbv	#	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201581.D
Acq On : 23 Feb 2017 10:02 pm
Sample : SEQ-CAL8 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL8
Misc : QBTO2022317A 20.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:28:41 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:28:29 2017
Response via : Initial Calibration

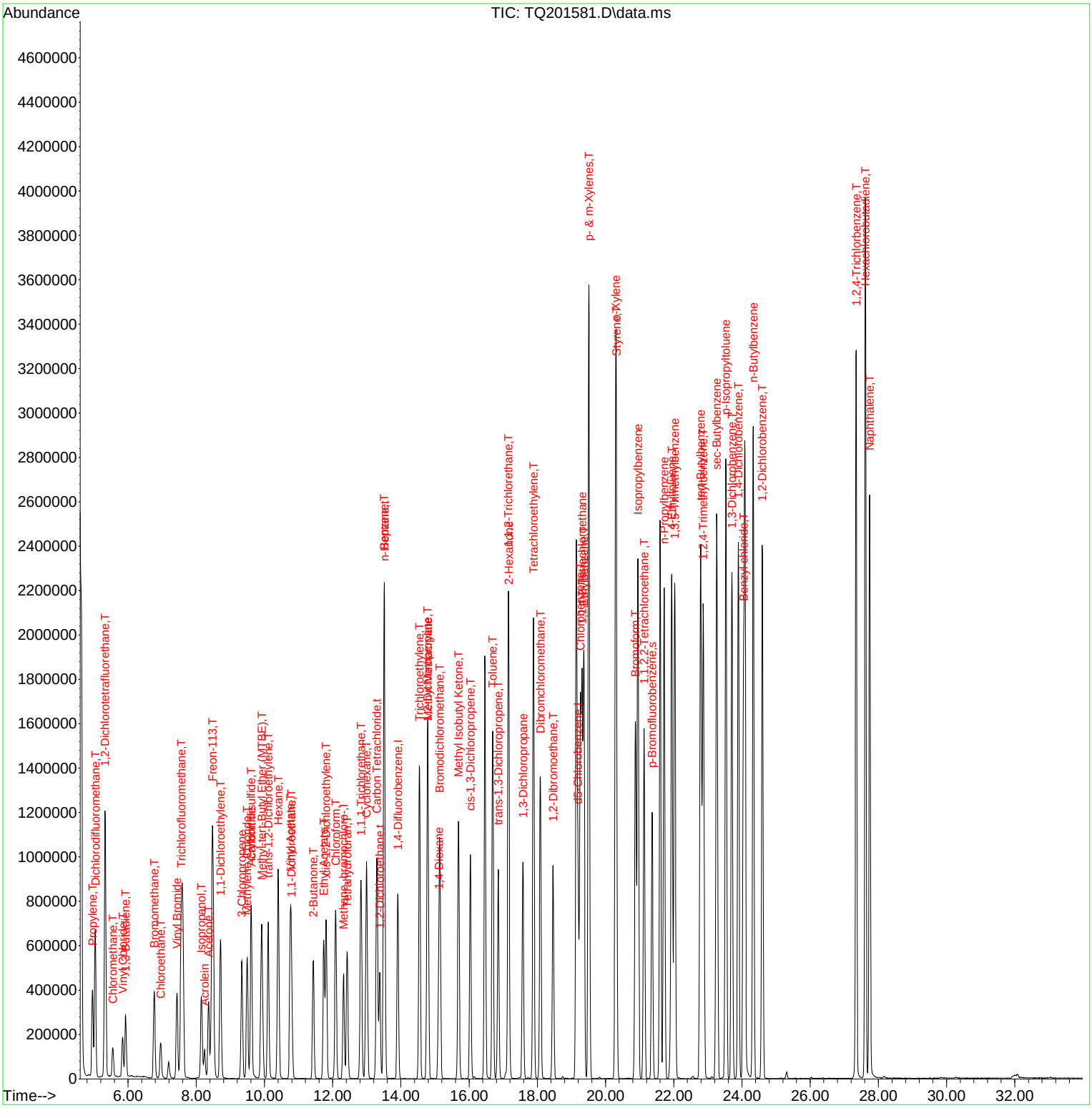
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.578	76	1043420	19.96	ppbv	#	72
50) Tetrachloroethylene	17.889	166	1177883	14.96	ppbv		99
51) Dibromchloromethane	18.090	129	1408741	21.59	ppbv		97
52) 1,2-Dibromoethane	18.462	107	1198738	20.47	ppbv		97
54) Chlorobenzene	19.261	112	1792970	20.40	ppbv	#	99
55) 1,1,1,2-Tetrachloroethane	19.309	131	1004518	21.64	ppbv		93
56) Ethylbenzene	19.364	91	2443433	19.84	ppbv		88
57) p- & m-Xylenes	19.511	91	3561739	39.26	ppbv		85
58) o-Xylene	20.297	91	2181928	21.12	ppbv	#	95
59) Styrene	20.315	104	1895524	21.96	ppbv	#	100
60) Bromoform	20.876	173	1486011	23.54	ppbv		97
61) n-Propylbenzene	21.718	91	3361317	20.72	ppbv	#	96
62) Isopropylbenzene	20.949	105	2989756	20.27	ppbv	#	95
63) 1,1,2,2-Tetrachloroeth...	21.132	83	1523057	20.65	ppbv		97
65) 4-Ethyltoluene	21.943	105	3065946	21.37	ppbv		93
66) 1,3,5-Trimethylbenzene	22.028	105	2449062	21.16	ppbv		89
67) tert-Butylbenzene	22.790	119	3171141	22.00	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	2574770	21.02	ppbv	#	85
69) sec-Butylbenzene	23.260	105	3820053	20.98	ppbv	#	93
70) p-Isopropyltoluene	23.528	119	3333237	21.85	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	2031660	20.97	ppbv		96
72) 1,4-Dichlorobenzene	23.894	146	2044370	20.81	ppbv		95
73) Benzyl chloride	24.046	91	2372990	23.64	ppbv	#	89
74) n-Butylbenzene	24.333	91	2900193	21.80	ppbv		94
75) 1,2-Dichlorobenzene	24.595	146	1983646	21.60	ppbv		95
76) 1,2,4-Trichlorbenzene	27.351	180	1796295	24.87	ppbv		96
77) Hexachlorobutadiene	27.619	225	1232862	21.86	ppbv		98
78) Naphthalene	27.747	128	3694734	17.15	ppbv		93

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201581.D
Acq On : 23 Feb 2017 10:02 pm
Sample : SEQ-CAL8 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL8
Misc : QBTO2022317A 20.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:28:41 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:28:29 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201582.D
Acq On : 23 Feb 2017 10:54 pm
Sample : SEQ-CAL9 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL9
Misc : QBTO2022317A 30.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:30:04 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:29:32 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.311	49	382666	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1281274	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1131082	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	790633	10.17	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.70%				
Target Compounds							Qvalue
2) Propylene	4.928	42	449474	34.50	ppbv		96
3) Dichlorodifluoromethane	5.007	85	1795035	29.20	ppbv		96
4) 1,2-Dichlorotetrafluor...	5.300	85	1583510	26.81	ppbv	#	77
5) Chloromethane	5.526	50	393486	27.75	ppbv		98
6) Vinyl Chloride	5.812	62	529525	27.83	ppbv		99
7) 1,3-Butadiene	5.904	54	368979	27.31	ppbv		100
8) Bromomethane	6.745	94	777318	29.56	ppbv		99
9) Chloroethane	6.934	64	423127	30.37	ppbv		99
10) Vinyl Bromide	7.409	106	818481	31.23	ppbv		100
11) Trichlorofluoromethane	7.537	101	1753740	28.70	ppbv		97
12) Isopropanol	8.123	45	1340575	22.65	ppbv		100
13) Acrolein	8.220	56	308633	26.79	ppbv	#	56
14) Acetone	8.336	43	1059179	22.54	ppbv		91
15) Freon-113	8.458	101	1593905	28.49	ppbv		91
16) 1,1-Dichloroethylene	8.690	61	1088277	27.33	ppbv		90
17) 3-Chloropropene	9.318	41	1001119	30.32	ppbv	#	85
18) Methylene Chloride	9.476	49	849914	27.08	ppbv		97
19) Acrylonitrile	9.598	53	599985	28.35	ppbv	#	59
20) Carbon disulfide	9.592	76	1915094	28.33	ppbv		98
21) Methyl-tert-Butyl Ethe...	9.903	73	2038980	29.03	ppbv		96
22) trans-1,2-Dichloroethy...	10.098	61	1019848	28.83	ppbv		90
23) Hexane	10.391	57	1254448	28.41	ppbv		98
24) Vinyl Acetate	10.738	43	2016586	36.16	ppbv	#	99
25) 1,1-Dichloroethane	10.781	63	1341549	27.95	ppbv		96
26) 2-Butanone	11.415	43	1651624	26.96	ppbv		96
27) Ethyl Acetate	11.726	43	1719309	28.25	ppbv	#	45
28) cis-1,2-Dichloroethylene	11.799	61	1015553	24.64	ppbv	#	74
29) Chloroform	12.079	83	1510720	28.36	ppbv		98
30) Tetrahydrofuran	12.415	42	952181	29.11	ppbv		98
31) 1,1,1-Trichlorethane	12.823	97	1583432	30.34	ppbv		97
32) Cyclohexane	12.988	56	1272172	28.22	ppbv		96
33) Carbon Tetrachloride	13.286	117	1724218	30.84	ppbv		99
34) 1,2-Dichloroethane	13.372	62	886262	27.85	ppbv	#	99
35) Benzene	13.500	78	2306454	27.36	ppbv		96
36) n-Heptane	13.512	43	1270301	26.48	ppbv	#	95
38) Trichloroethylene	14.536	95	1136280	29.29	ppbv		85
39) 1,2-Dichloropropane	14.768	63	935800	28.29	ppbv		97
40) Methyl Methacrylate	14.792	69	870822	30.19	ppbv	#	39
41) 1,4-Dioxane	15.103	88	688458	28.60	ppbv	#	100
42) Bromodichloromethane	15.140	83	1633205	29.01	ppbv		98
43) Methyl Isobutyl Ketone	15.682	43	1935554	28.72	ppbv		91
44) cis-1,3-Dichloropropene	16.030	75	1492654	31.75	ppbv		95
45) Toluene	16.688	91	2969586	27.11	ppbv		94
46) trans-1,3-Dichloropropene	16.853	75	1318070	34.16	ppbv		94
47) 1,1,2-Trichlorethane	17.145	97	1118682	29.33	ppbv		91
48) 2-Hexanone	17.158	43	1649268	26.46	ppbv	#	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201582.D
Acq On : 23 Feb 2017 10:54 pm
Sample : SEQ-CAL9 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL9
Misc : QBTO2022317A 30.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:30:04 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:29:32 2017
Response via : Initial Calibration

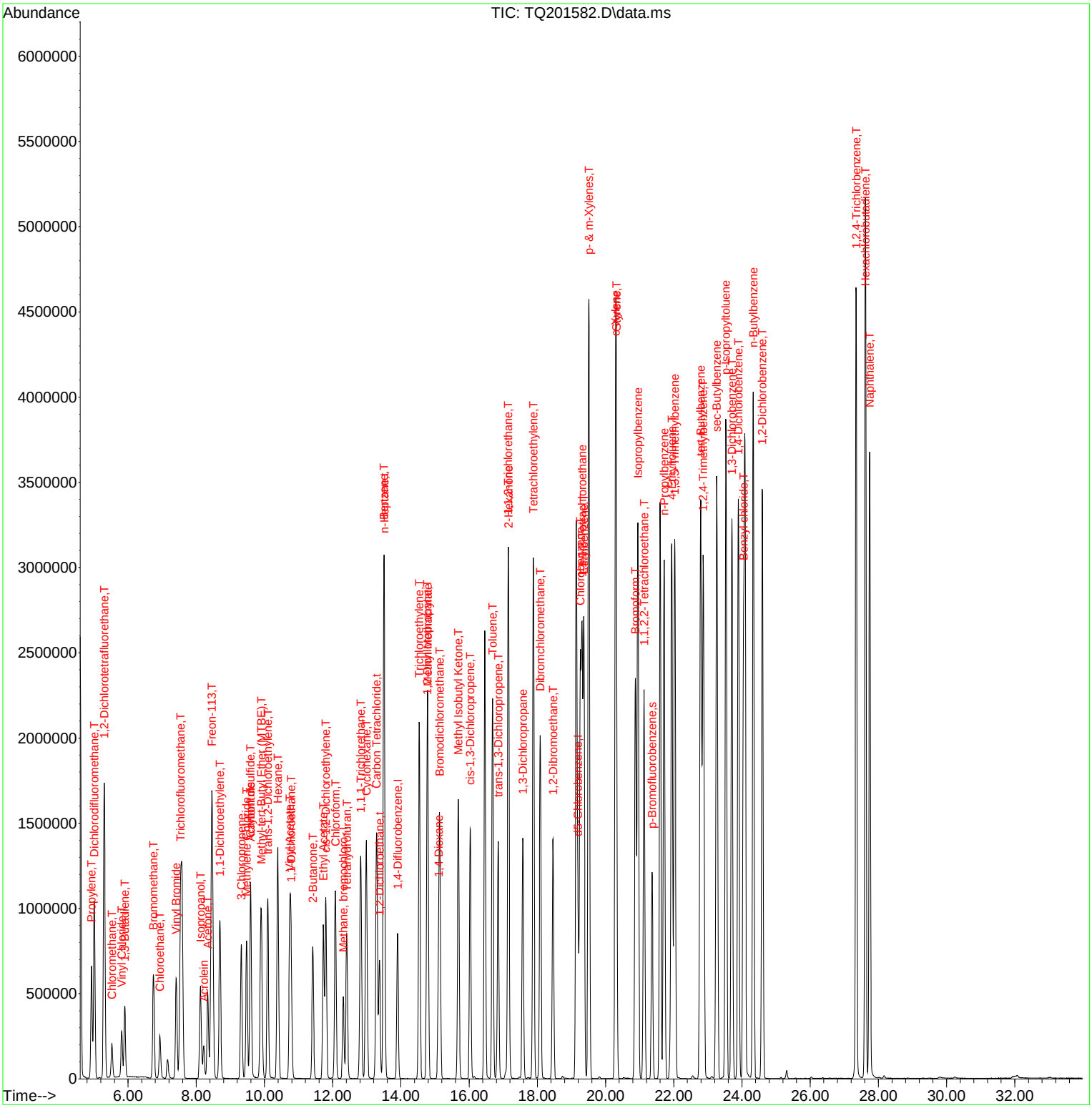
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	1522458	28.51	ppbv	#	71
50) Tetrachloroethylene	17.883	166	1758643	21.81	ppbv		99
51) Dibromchloromethane	18.084	129	2085447	31.24	ppbv		96
52) 1,2-Dibromoethane	18.462	107	1783720	29.81	ppbv		97
54) Chlorobenzene	19.261	112	2599665	29.20	ppbv	#	86
55) 1,1,1,2-Tetrachloroethane	19.310	131	1492787	31.83	ppbv		93
56) Ethylbenzene	19.364	91	3416261	27.32	ppbv		84
57) p- & m-Xylenes	19.511	91	4696117	50.76	ppbv	#	81
58) o-Xylene	20.291	91	3033193	28.88	ppbv	#	94
59) Styrene	20.315	104	2674231	30.52	ppbv	#	100
60) Bromoform	20.876	173	2191100	34.32	ppbv		95
61) n-Propylbenzene	21.718	91	4588850	27.76	ppbv	#	95
62) Isopropylbenzene	20.950	105	4116556	27.40	ppbv	#	94
63) 1,1,2,2-Tetrachloroeth...	21.126	83	2192344	29.33	ppbv		97
65) 4-Ethyltoluene	21.943	105	4285159	29.41	ppbv		90
66) 1,3,5-Trimethylbenzene	22.029	105	3450361	29.29	ppbv	#	86
67) tert-Butylbenzene	22.791	119	4564367	31.16	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	3665236	29.44	ppbv	#	84
69) sec-Butylbenzene	23.260	105	5244011	28.26	ppbv	#	92
70) p-Isopropyltoluene	23.528	119	4574306	29.39	ppbv	#	88
71) 1,3-Dichlorobenzene	23.705	146	2944376	29.93	ppbv		95
72) 1,4-Dichlorobenzene	23.894	146	2957578	29.64	ppbv		95
73) Benzyl chloride	24.046	91	3373029	33.12	ppbv	#	86
74) n-Butylbenzene	24.333	91	3963356	29.22	ppbv	#	92
75) 1,2-Dichlorobenzene	24.595	146	2888982	30.95	ppbv		95
76) 1,2,4-Trichlorbenzene	27.351	180	2594333	35.19	ppbv		95
77) Hexachlorobutadiene	27.619	225	1718162	30.03	ppbv		97
78) Naphthalene	27.747	128	5014075	22.79	ppbv	#	89

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201582.D
Acq On : 23 Feb 2017 10:54 pm
Sample : SEQ-CAL9 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CAL9
Misc : QBTO2022317A 30.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:30:04 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:29:32 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201583.D
Acq On : 23 Feb 2017 11:50 pm
Sample : SEQ-CALA Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CALA
Misc : QBTO2022317A 50.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:31:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:30:59 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.311	49	379820	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.908	114	1292091	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1133269	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	796733	10.26	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.60%				
Target Compounds							Qvalue
2) Propylene	4.934	42	750685	59.73	ppbv		94
3) Dichlorodifluoromethane	5.014	85	2799400	46.36	ppbv		94
4) 1,2-Dichlorotetrafluor...	5.300	85	2326755	39.67	ppbv	#	75
5) Chloromethane	5.532	50	621442	44.32	ppbv		96
6) Vinyl Chloride	5.818	62	848898	45.16	ppbv		99
7) 1,3-Butadiene	5.910	54	580553	43.51	ppbv		100
8) Bromomethane	6.751	94	1286344	49.42	ppbv		99
9) Chloroethane	6.940	64	691858	50.26	ppbv		98
10) Vinyl Bromide	7.416	106	1357750	52.36	ppbv		100
11) Trichlorofluoromethane	7.544	101	2776424	45.78	ppbv		95
12) Isopropanol	8.117	45	2171495	37.02	ppbv		100
13) Acrolein	8.220	56	515657	45.30	ppbv	#	56
14) Acetone	8.336	43	1715777	36.90	ppbv		91
15) Freon-113	8.464	101	2569278	46.33	ppbv		88
16) 1,1-Dichloroethylene	8.696	61	1754688	44.54	ppbv		87
17) 3-Chloropropene	9.324	41	1628328	49.93	ppbv	#	84
18) Methylene Chloride	9.476	49	1360276	43.77	ppbv		94
19) Acrylonitrile	9.592	53	975992	46.65	ppbv	#	59
20) Carbon disulfide	9.598	76	3030157	45.11	ppbv		98
21) Methyl-tert-Butyl Ethe...	9.903	73	3275091	47.05	ppbv		96
22) trans-1,2-Dichloroethy...	10.098	61	1645555	46.97	ppbv		87
23) Hexane	10.391	57	2024168	46.32	ppbv		97
24) Vinyl Acetate	10.744	43	3147717	56.86	ppbv	#	99
25) 1,1-Dichloroethane	10.781	63	2143836	45.08	ppbv		98
26) 2-Butanone	11.415	43	2627811	43.22	ppbv		93
27) Ethyl Acetate	11.726	43	2692390	44.51	ppbv	#	45
28) cis-1,2-Dichloroethylene	11.799	61	1653442	40.44	ppbv	#	71
29) Chloroform	12.079	83	2439111	46.13	ppbv		96
30) Tetrahydrofuran	12.409	42	1541287	47.50	ppbv		96
31) 1,1,1-Trichlorethane	12.823	97	2578418	49.78	ppbv		96
32) Cyclohexane	12.988	56	2033834	45.55	ppbv		95
33) Carbon Tetrachloride	13.293	117	2795589	50.40	ppbv		99
34) 1,2-Dichloroethane	13.378	62	1419903	45.06	ppbv	#	98
35) Benzene	13.500	78	3453369	41.18	ppbv		93
36) n-Heptane	13.518	43	1777706	37.32	ppbv	#	92
38) Trichloroethylene	14.542	95	1857168	47.59	ppbv		82
39) 1,2-Dichloropropane	14.774	63	1462164	43.97	ppbv		96
40) Methyl Methacrylate	14.792	69	1372967	47.31	ppbv	#	39
41) 1,4-Dioxane	15.103	88	1169225	48.46	ppbv	#	100
42) Bromodichloromethane	15.140	83	2580184	45.48	ppbv		96
43) Methyl Isobutyl Ketone	15.682	43	2962294	43.61	ppbv		87
44) cis-1,3-Dichloropropene	16.036	75	2401748	50.75	ppbv		92
45) Toluene	16.688	91	4501381	40.59	ppbv		89
46) trans-1,3-Dichloropropene	16.853	75	2116600	54.50	ppbv	#	92
47) 1,1,2-Trichlorethane	17.145	97	1743836	45.32	ppbv		90
48) 2-Hexanone	17.164	43	2251205	35.83	ppbv	#	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201583.D
Acq On : 23 Feb 2017 11:50 pm
Sample : SEQ-CALA Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CALA
Misc : QBTO2022317A 50.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:31:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:30:59 2017
Response via : Initial Calibration

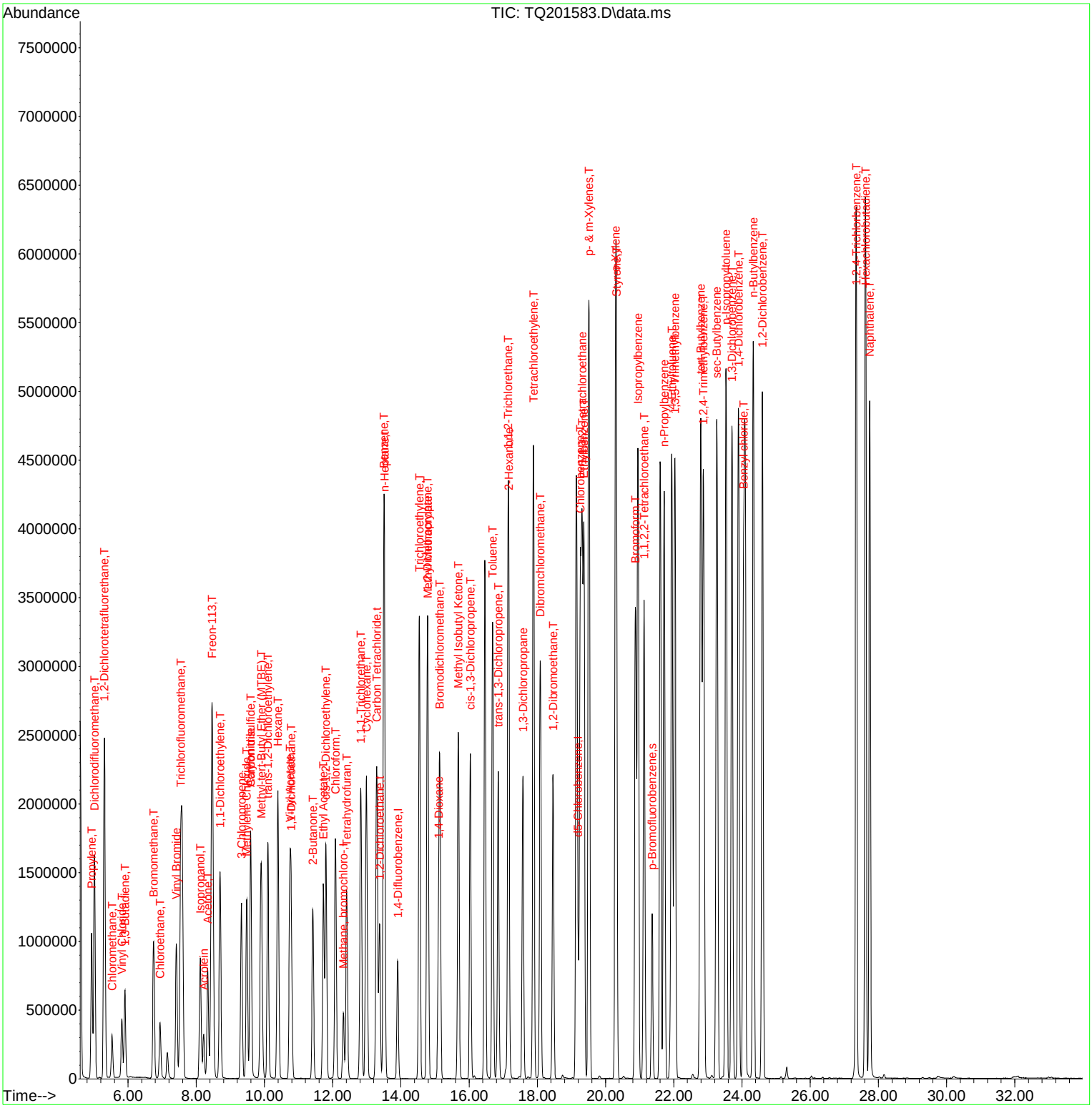
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.578	76	2441270	45.39	ppbv	#	71
50) Tetrachloroethylene	17.889	166	2818140	34.64	ppbv		99
51) Dibromchloromethane	18.084	129	3281987	48.68	ppbv		94
52) 1,2-Dibromoethane	18.462	107	2866081	47.47	ppbv		96
54) Chlorobenzene	19.261	112	3998833	44.79	ppbv	#	97
55) 1,1,1,2-Tetrachloroethane	19.310	131	2386072	50.95	ppbv		94
56) Ethylbenzene	19.364	91	4974840	39.60	ppbv	#	76
57) p- & m-Xylenes	19.511	91	6247051	66.96	ppbv	#	77
58) o-Xylene	20.291	91	4338885	41.07	ppbv	#	93
59) Styrene	20.322	104	3825061	43.46	ppbv	#	100
60) Bromoform	20.876	173	3393477	53.04	ppbv		93
61) n-Propylbenzene	21.718	91	6403058	38.41	ppbv	#	93
62) Isopropylbenzene	20.950	105	5796283	38.28	ppbv	#	93
63) 1,1,2,2-Tetrachloroeth...	21.126	83	3330434	44.47	ppbv		95
65) 4-Ethyltoluene	21.943	105	6239526	42.53	ppbv	#	86
66) 1,3,5-Trimethylbenzene	22.035	105	4892002	41.26	ppbv	#	80
67) tert-Butylbenzene	22.791	119	6743515	45.79	ppbv	#	78
68) 1,2,4-Trimethylbenzene	22.870	105	5331020	42.58	ppbv	#	79
69) sec-Butylbenzene	23.260	105	7155146	38.18	ppbv	#	92
70) p-Isopropyltoluene	23.534	119	6261343	39.85	ppbv	#	87
71) 1,3-Dichlorobenzene	23.705	146	4422315	44.75	ppbv		93
72) 1,4-Dichlorobenzene	23.900	146	4409155	43.96	ppbv		93
73) Benzyl chloride	24.047	91	4811597	46.98	ppbv	#	79
74) n-Butylbenzene	24.333	91	5410974	39.53	ppbv	#	89
75) 1,2-Dichlorobenzene	24.601	146	4304016	45.84	ppbv		93
76) 1,2,4-Trichlorbenzene	27.351	180	3786823	50.93	ppbv		94
77) Hexachlorobutadiene	27.625	225	2388895	41.63	ppbv		96
78) Naphthalene	27.747	128	6773454	30.51	ppbv	#	81

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201583.D
Acq On : 23 Feb 2017 11:50 pm
Sample : SEQ-CALA Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CALA
Misc : QBTO2022317A 50.0 ppbv CAL
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 24 08:31:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Fri Feb 24 08:30:59 2017
Response via : Initial Calibration



SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. **SDG:** 17D0833

Client: Langan Engineering & Environmental Services (NJ) **Project:** 100287503 365 Bond St.

Calibration: YB70013 **Laboratory ID:** Y7B2304-SCV1

Sequence: Y7B2304 **Standard ID:** Y17B161

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
1,1,1,2-Tetrachloroethane	10.0	10.6	6.1	30.00
1,1,1-Trichloroethane	10.0	11.2	11.6	30.00
1,1,2,2-Tetrachloroethane	10.0	10.7	6.9	30.00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	10.8	7.9	30.00
1,1,2-Trichloroethane	10.0	10.5	5.2	30.00
1,1-Dichloroethane	10.0	10.8	7.5	30.00
1,1-Dichloroethylene	10.0	10.3	3.0	30.00
1,2,4-Trichlorobenzene	10.0	11.1	10.8	30.00
1,2,4-Trimethylbenzene	10.0	10.7	7.2	30.00
1,2-Dibromoethane	10.0	10.6	6.2	30.00
1,2-Dichlorobenzene	10.0	10.7	7.1	30.00
1,2-Dichloroethane	10.0	10.6	6.3	30.00
1,2-Dichloropropane	10.0	10.4	3.6	30.00
1,2-Dichlorotetrafluoroethane	10.0	11.0	9.9	30.00
1,3,5-Trimethylbenzene	10.0	10.6	6.3	30.00
1,3-Butadiene	10.0	9.96	-0.4	30.00
1,3-Dichlorobenzene	10.0	10.6	5.9	30.00
1,3-Dichloropropane	10.0	10.4	3.7	30.00
1,4-Dichlorobenzene	10.0	10.5	5.0	30.00
1,4-Dioxane	10.0	8.85	-11.5	30.00
2-Butanone	10.0	9.74	-2.6	30.00
2-Hexanone	10.0	9.27	-7.3	30.00
3-Chloropropene	10.0	10.8	8.3	30.00
4-Methyl-2-pentanone	10.0	9.80	-2.0	30.00
Acetone	10.0	8.69	-13.1	30.00
Acrylonitrile	10.0	10.9	9.0	30.00
Benzene	10.0	10.5	4.7	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. **SDG:** 17D0833

Client: Langan Engineering & Environmental Services (NJ) **Project:** 100287503 365 Bond St.

Calibration: YB70013 **Laboratory ID:** Y7B2304-SCV1

Sequence: Y7B2304 **Standard ID:** Y17B161

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
Benzyl chloride	10.0	12.0	20.2	30.00
Bromodichloromethane	10.0	10.6	6.3	30.00
Bromoform	10.0	11.5	14.9	30.00
Bromomethane	10.0	10.1	0.9	30.00
Carbon disulfide	10.0	11.4	13.5	30.00
Carbon tetrachloride	10.0	11.2	12.5	30.00
Chlorobenzene	10.0	10.4	4.4	30.00
Chloroethane	10.0	10.8	8.1	30.00
Chloroform	10.0	10.5	5.4	30.00
Chloromethane	10.0	9.71	-2.9	30.00
cis-1,2-Dichloroethylene	10.0	11.1	11.2	30.00
cis-1,3-Dichloropropylene	10.0	12.2	22.3	30.00
Cyclohexane	10.0	10.5	5.1	30.00
Dibromochloromethane	10.0	10.8	7.9	30.00
Dichlorodifluoromethane	10.0	11.0	10.4	30.00
Ethyl acetate	10.0	10.9	8.6	30.00
Ethyl Benzene	10.0	10.3	3.1	30.00
Hexachlorobutadiene	10.0	10.9	9.0	30.00
Isopropanol	10.0	10.7	6.8	30.00
Methyl Methacrylate	10.0	10.7	7.0	30.00
Methyl tert-butyl ether (MTBE)	10.0	11.0	10.0	30.00
Methylene chloride	10.0	10.1	1.1	30.00
n-Heptane	10.0	10.6	6.0	30.00
n-Hexane	10.0	10.6	5.6	30.00
o-Xylene	10.0	10.8	7.5	30.00
p- & m- Xylenes	20.0	21.0	5.0	30.00
p-Ethyltoluene	10.0	11.4	13.5	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. **SDG:** 17D0833

Client: Langan Engineering & Environmental Services (NJ) **Project:** 100287503 365 Bond St.

Calibration: YB70013 **Laboratory ID:** Y7B2304-SCV1

Sequence: Y7B2304 **Standard ID:** Y17B161

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
Propylene	10.0	10.5	4.8	30.00
Styrene	10.0	11.0	10.0	30.00
Tetrachloroethylene	10.0	8.44	-15.6	30.00
Tetrahydrofuran	10.0	10.2	2.3	30.00
Toluene	10.0	10.3	2.9	30.00
trans-1,2-Dichloroethylene	10.0	11.1	10.8	30.00
trans-1,3-Dichloropropylene	10.0	12.5	24.7	30.00
Trichloroethylene	10.0	10.7	6.9	30.00
Trichlorofluoromethane (Freon 11)	10.0	10.7	7.2	30.00
Vinyl acetate	10.0	12.9	29.2	30.00
Vinyl bromide	10.0	11.2	11.7	30.00
Vinyl Chloride	10.0	10.1	1.2	30.00
p-Bromofluorobenzene	10.0	10.1	0.7	30.00

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201585.D
Acq On : 24 Feb 2017 1:32 am
Sample : SEQ-SCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-SCV1
Misc : QBTO2022317A ICV @ 10 ppbv
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 27 13:25:33 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.305	49	390048	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1307564	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	1161243	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	798790	10.07	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.70%				
Target Compounds							Qvalue
2) Propylene	4.922	42	153831	10.48	ppbv		96
3) Dichlorodifluoromethane	5.001	85	677082	11.04	ppbv		98
4) 1,2-Dichlorotetrafluor...	5.288	85	662848	10.99	ppbv	#	79
5) Chloromethane	5.519	50	139701	9.71	ppbv		98
6) Vinyl Chloride	5.806	62	195321	10.12	ppbv		99
7) 1,3-Butadiene	5.897	54	136247	9.96	ppbv		99
8) Bromomethane	6.739	94	270546	10.09	ppbv		99
9) Chloroethane	6.922	64	152696	10.81	ppbv		99
10) Vinyl Bromide	7.403	106	298438	11.17	ppbv		100
11) Trichlorofluoromethane	7.531	101	672012	10.72	ppbv		98
12) Isopropanol	8.141	45	503522	10.68	ppbv		100
13) Acrolein	8.232	56	117015	10.01	ppbv	#	56
14) Acetone	8.354	43	416308	8.69	ppbv		95
15) Freon-113	8.452	101	617339	10.79	ppbv		94
16) 1,1-Dichloroethylene	8.684	61	417844	10.30	ppbv		92
17) 3-Chloropropene	9.311	41	363330	10.83	ppbv	#	85
18) Methylene Chloride	9.470	49	323427	10.11	ppbv		98
19) Acrylonitrile	9.604	53	234637	10.90	ppbv	#	59
20) Carbon disulfide	9.586	76	788621	11.35	ppbv		98
21) Methyl-tert-Butyl Ethe...	9.909	73	791172	11.00	ppbv		97
22) trans-1,2-Dichloroethy...	10.092	61	400312	11.08	ppbv		93
23) Hexane	10.384	57	475865	10.56	ppbv		98
24) Vinyl Acetate	10.744	43	741479	12.92	ppbv	#	100
25) 1,1-Dichloroethane	10.775	63	527385	10.75	ppbv		98
26) 2-Butanone	11.421	43	612183	9.74	ppbv		98
27) Ethyl Acetate	11.732	43	679357	10.86	ppbv		93
28) cis-1,2-Dichloroethylene	11.793	61	468683	11.12	ppbv		92
29) Chloroform	12.073	83	576212	10.54	ppbv		98
30) Tetrahydrofuran	12.421	42	342456	10.23	ppbv		98
31) 1,1,1-Trichlorethane	12.817	97	598257	11.16	ppbv		98
32) Cyclohexane	12.981	56	483382	10.51	ppbv		96
33) Carbon Tetrachloride	13.286	117	644167	11.25	ppbv		99
34) 1,2-Dichloroethane	13.372	62	345246	10.63	ppbv	#	100
35) Benzene	13.494	78	908742	10.47	ppbv		99
36) n-Heptane	13.506	43	520644	10.60	ppbv	#	97
38) Trichloroethylene	14.536	95	423612	10.69	ppbv		88
39) 1,2-Dichloropropane	14.768	63	349353	10.36	ppbv		99
40) Methyl Methacrylate	14.792	69	315174	10.70	ppbv	#	40
41) 1,4-Dioxane	15.103	88	216492	8.85	ppbv	#	100
42) Bromodichloromethane	15.133	83	613907	10.63	ppbv		99
43) Methyl Isobutyl Ketone	15.682	43	677292	9.80	ppbv		94
44) cis-1,3-Dichloropropene	16.030	75	589272	12.23	ppbv		96
45) Toluene	16.688	91	1166761	10.29	ppbv		97
46) trans-1,3-Dichloropropene	16.853	75	492892	12.47	ppbv		97
47) 1,1,2-Trichlorethane	17.145	97	411761	10.52	ppbv		93
48) 2-Hexanone	17.157	43	591625	9.27	ppbv		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201585.D
Acq On : 24 Feb 2017 1:32 am
Sample : SEQ-SCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-SCV1
Misc : QBTO2022317A ICV @ 10 ppbv
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 27 13:25:33 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

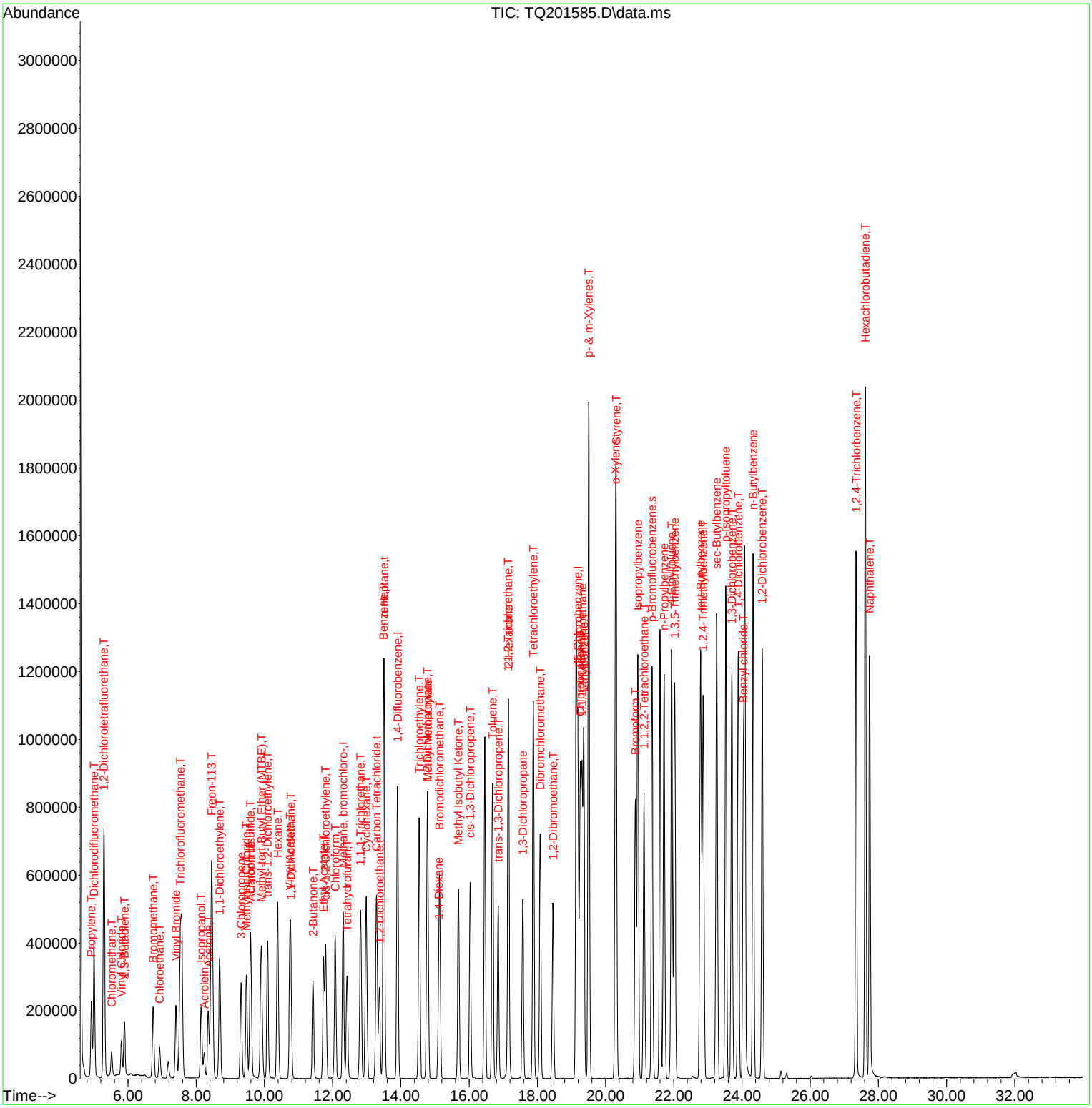
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	567365	10.37	ppbv	#	72
50) Tetrachloroethylene	17.883	166	634711	8.44	ppbv		99
51) Dibromchloromethane	18.084	129	741870	10.79	ppbv		98
52) 1,2-Dibromoethane	18.462	107	654047	10.62	ppbv		97
54) Chlorobenzene	19.261	112	962583	10.44	ppbv	#	86
55) 1,1,1,2-Tetrachloroethane	19.310	131	511236	10.61	ppbv		93
56) Ethylbenzene	19.364	91	1339630	10.31	ppbv		92
57) p- & m-Xylenes	19.505	91	2027711	21.01	ppbv		90
58) o-Xylene	20.291	91	1174232	10.75	ppbv		96
59) Styrene	20.309	104	999628	11.00	ppbv	#	100
60) Bromoform	20.876	173	759710	11.49	ppbv		98
61) n-Propylbenzene	21.718	91	1848607	10.70	ppbv		97
62) Isopropylbenzene	20.949	105	1639670	10.46	ppbv	#	96
63) 1,1,2,2-Tetrachloroeth...	21.126	83	825104	10.69	ppbv		99
65) 4-Ethyltoluene	21.937	105	1728502	11.35	ppbv		95
66) 1,3,5-Trimethylbenzene	22.028	105	1301023	10.63	ppbv		90
67) tert-Butylbenzene	22.791	119	1664378	10.92	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	1388714	10.72	ppbv	#	87
69) sec-Butylbenzene	23.260	105	2097654	10.79	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	1757736	10.79	ppbv	#	90
71) 1,3-Dichlorobenzene	23.705	146	1082863	10.59	ppbv		96
72) 1,4-Dichlorobenzene	23.894	146	1089416	10.50	ppbv		96
73) Benzyl chloride	24.040	91	1274746	12.02	ppbv		92
74) n-Butylbenzene	24.327	91	1550181	10.93	ppbv		96
75) 1,2-Dichlorobenzene	24.595	146	1040746	10.71	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	854728	11.08	ppbv		97
77) Hexachlorobutadiene	27.619	225	643922	10.90	ppbv		99
78) Naphthalene	27.747	128	1887004	9.07	ppbv		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\022317\
Data File : TQ201585.D
Acq On : 24 Feb 2017 1:32 am
Sample : SEQ-SCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-SCV1
Misc : QBTO2022317A ICV @ 10 ppbv
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 27 13:25:33 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Instrument ID:	TO15_AIR2	Calibration:	YB70013
Lab File ID:	TQ202102.D	Calibration Date:	02/23/17 13:41
Sequence:	Y7D2128	Injection Date:	04/20/17
Lab Sample ID:	Y7D2128-CCV1	Injection Time:	09:55

		CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1,1,2-Tetrachloroethane	A	10.0	10.7	0.4148677	0.4451118		7.3	30
1,1,1-Trichloroethane	A	10.0	10.7	1.374417	1.470018		7.0	30
1,1,2,2-Tetrachloroethane	A	10.0	11.1	0.6647425	0.7364022		10.8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	A	10.0	11.2	1.466877	1.635923		11.5	30
1,1,2-Trichloroethane	A	10.0	10.5	0.2994353	0.3133812		4.7	30
1,1-Dichloroethane	A	10.0	10.5	1.258006	1.325927		5.4	30
1,1-Dichloroethylene	A	10.0	10.4	1.040003	1.081285		4.0	30
1,2,4-Trichlorobenzene	A	10.0	10.1	0.6641039	0.6713843		1.1	30
1,2,4-Trimethylbenzene	A	10.0	10.9	1.115313	1.213512		8.8	30
1,2-Dibromoethane	A	10.0	10.6	0.4709696	0.4974262		5.6	30
1,2-Dichlorobenzene	A	10.0	10.7	0.836683	0.8962905		7.1	30
1,2-Dichloroethane	A	10.0	10.2	0.832307	0.8490421		2.0	30
1,2-Dichloropropane	A	10.0	10.2	0.2578921	0.2638969		2.3	30
1,2-Dichlorotetrafluoroethane	A	10.0	12.5	1.546185	1.938148		25.4	30
1,3,5-Trimethylbenzene	A	10.0	10.8	1.05371	1.139197		8.1	30
1,3-Butadiene	A	10.0	12.1	0.3507516	0.4232713		20.7	30
1,3-Dichlorobenzene	A	10.0	10.4	0.8803618	0.9193029		4.4	30
1,3-Dichloropropane	A	10.0	10.2	0.4185469	0.4266643		1.9	30
1,4-Dichlorobenzene	A	10.0	10.2	0.8936965	0.9076678		1.6	30
1,4-Dioxane	A	10.0	8.62	0.1870564	0.1612341		-13.8	30
2-Butanone	A	10.0	9.69	1.610698	1.561344		-3.1	30
2-Hexanone	A	10.0	9.14	0.4879517	0.4457791		-8.6	30
3-Chloropropene	A	10.0	10.4	0.8599544	0.894983		4.1	30
4-Methyl-2-pentanone	A	10.0	9.77	0.5287723	0.516608		-2.3	30
Acetone	A	10.0	8.79	1.2287	1.079779		-12.1	30
Acrylonitrile	A	10.0	10.9	0.5517888	0.602289		9.2	30
Benzene	A	10.0	10.2	2.225647	2.273636		2.2	30
Benzyl chloride	A	10.0	10.8	0.9134502	0.9902047		8.4	30
Bromodichloromethane	A	10.0	10.6	0.4415542	0.4678304		6.0	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Instrument ID:	TO15_AIR2	Calibration:	YB70013
Lab File ID:	TQ202102.D	Calibration Date:	02/23/17 13:41
Sequence:	Y7D2128	Injection Date:	04/20/17
Lab Sample ID:	Y7D2128-CCV1	Injection Time:	09:55

		CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Bromoform	A	10.0	11.2	0.5693195	0.6403779		12.5	30
Bromomethane	A	10.0	10.8	0.6872045	0.7392959		7.6	30
Carbon disulfide	A	10.0	11.5	1.781501	2.04205		14.6	30
Carbon tetrachloride	A	10.0	11.0	1.468588	1.607433		9.5	30
Chlorobenzene	A	10.0	10.5	0.7941687	0.8322982		4.8	30
Chloroethane	A	10.0	11.4	0.3620606	0.4112443		13.6	30
Chloroform	A	10.0	10.5	1.402093	1.476408		5.3	30
Chloromethane	A	10.0	12.8	0.3687635	0.4734481		28.4	30
cis-1,2-Dichloroethylene	A	10.0	9.22	1.080403	0.996504		-7.8	30
cis-1,3-Dichloropropylene	A	10.0	11.7	0.3684468	0.4321681		17.3	30
Cyclohexane	A	10.0	10.3	1.179486	1.216927		3.2	30
Dibromochloromethane	A	10.0	10.7	0.5260481	0.5615874		6.8	30
Dichlorodifluoromethane	A	10.0	11.9	1.572069	1.87726		19.4	30
Ethyl acetate	A	10.0	10.7	1.604008	1.713798		6.8	30
Ethyl Benzene	A	10.0	10.7	1.118737	1.197586		7.0	30
Hexachlorobutadiene	A	10.0	10.8	0.5086658	0.5520126		8.5	30
Isopropanol	Q	10.0	11.0	1.536155	1.325835		9.8	30
Methyl Methacrylate	A	10.0	10.5	0.2253698	0.2368392		5.1	30
Methyl tert-butyl ether (MTBE)	A	10.0	10.0	1.843346	1.844681		0.07	30
Methylene chloride	Q	10.0	10.3	0.8198661	0.8445201		3.0	30
n-Heptane	A	10.0	10.4	1.25953	1.305944		3.7	30
n-Hexane	A	10.0	10.6	1.154911	1.220292		5.7	30
o-Xylene	A	10.0	10.8	0.9404316	1.018601		8.3	30
p- & m- Xylenes	A	20.0	21.5	0.8309886	0.8931015		7.5	30
p-Ethyltoluene	A	10.0	11.6	1.311477	1.515097		15.5	30
Propylene	A	10.0	11.6	0.3762157	0.4354562		15.7	30
Styrene	A	10.0	10.8	0.7826417	0.8428646		7.7	30
Tetrachloroethylene	A	10.0	8.17	0.5750568	0.4696439		-18.3	30
Tetrahydrofuran	A	10.0	10.1	0.8582507	0.8691036		1.3	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Instrument ID:	TO15_AIR2	Calibration:	YB70013
Lab File ID:	TQ202102.D	Calibration Date:	02/23/17 13:41
Sequence:	Y7D2128	Injection Date:	04/20/17
Lab Sample ID:	Y7D2128-CCV1	Injection Time:	09:55

		CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Toluene	A	10.0	10.2	0.8671308	0.8878198		2.4	30
trans-1,2-Dichloroethylene	A	10.0	10.8	0.9259741	0.9987733		7.9	30
trans-1,3-Dichloropropylene	A	10.0	11.6	0.3023614	0.3521882		16.5	30
Trichloroethylene	A	10.0	10.6	0.3031981	0.3221138		6.2	30
Trichlorofluoromethane (Freon 11)	A	10.0	11.3	1.606658	1.81374		12.9	30
Vinyl acetate	A	10.0	12.2	1.47189	1.791505		21.7	30
Vinyl bromide	A	10.0	11.6	0.6847742	0.7933929		15.9	30
Vinyl Chloride	A	10.0	11.9	0.4949318	0.5908145		19.4	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202102.D
Acq On : 20 Apr 2017 9:55 am
Sample : SEQ-CCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CCV1
Misc : QBTO2042017A CCV
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 12:03:43 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.317	49	304065	10.00	ppbv		0.01
37) 1,4-Difluorobenzene	13.908	114	999125	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	880527	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	609019	10.12	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.20%				
Target Compounds							Qvalue
2) Propylene	4.959	42	132407	11.57	ppbv		96
3) Dichlorodifluoromethane	5.032	85	570809	11.94	ppbv		98
4) 1,2-Dichlorotetrafluor...	5.331	85	589323	12.54	ppbv		86
5) Chloromethane	5.556	50	143959	12.84	ppbv		98
6) Vinyl Chloride	5.843	62	179646	11.94	ppbv		100
7) 1,3-Butadiene	5.934	54	128702	12.07	ppbv		99
8) Bromomethane	6.775	94	224794	10.76	ppbv		100
9) Chloroethane	6.958	64	125045	11.36	ppbv		98
10) Vinyl Bromide	7.434	106	241243	11.59	ppbv		100
11) Trichlorofluoromethane	7.562	101	551495	11.29	ppbv		98
12) Isopropanol	8.159	45	403140	10.98	ppbv		100
13) Acrolein	8.251	56	87804	9.64	ppbv	#	56
14) Acetone	8.360	43	328323	8.79	ppbv		93
15) Freon-113	8.482	101	497427	11.15	ppbv		95
16) 1,1-Dichloroethylene	8.708	61	328781	10.40	ppbv		91
17) 3-Chloropropene	9.336	41	272133	10.41	ppbv	#	83
18) Methylene Chloride	9.488	49	256789	10.30	ppbv		97
19) Acrylonitrile	9.622	53	183135	10.92	ppbv		98
20) Carbon disulfide	9.610	76	620916	11.46	ppbv		96
21) Methyl-tert-Butyl Ethe...	9.915	73	560903	10.01	ppbv		96
22) trans-1,2-Dichloroethy...	10.110	61	303692	10.79	ppbv		91
23) Hexane	10.403	57	371048	10.57	ppbv		98
24) Vinyl Acetate	10.756	43	544734	12.17	ppbv		100
25) 1,1-Dichloroethane	10.787	63	403168	10.54	ppbv		94
26) 2-Butanone	11.427	43	474750	9.69	ppbv		100
27) Ethyl Acetate	11.738	43	521106	10.68	ppbv	#	42
28) cis-1,2-Dichloroethylene	11.805	61	303002	9.22	ppbv	#	77
29) Chloroform	12.085	83	448924	10.53	ppbv		98
30) Tetrahydrofuran	12.427	42	264264	10.13	ppbv		98
31) 1,1,1-Trichlorethane	12.829	97	446981	10.70	ppbv		98
32) Cyclohexane	12.994	56	370025	10.32	ppbv		97
33) Carbon Tetrachloride	13.292	117	488764	10.95	ppbv		100
34) 1,2-Dichloroethane	13.378	62	258164	10.20	ppbv	#	99
35) Benzene	13.506	78	691333	10.22	ppbv		99
36) n-Heptane	13.512	43	397092	10.37	ppbv	#	98
38) Trichloroethylene	14.542	95	321832	10.62	ppbv		89
39) 1,2-Dichloropropane	14.774	63	263666	10.23	ppbv		99
40) Methyl Methacrylate	14.798	69	236632	10.51	ppbv	#	40
41) 1,4-Dioxane	15.109	88	161093	8.62	ppbv	#	100
42) Bromodichloromethane	15.140	83	467421	10.60	ppbv		98
43) Methyl Isobutyl Ketone	15.694	43	516156	9.77	ppbv		95
44) cis-1,3-Dichloropropene	16.036	75	431790	11.73	ppbv		97
45) Toluene	16.688	91	887043	10.24	ppbv		98
46) trans-1,3-Dichloropropene	16.853	75	351880	11.65	ppbv		97
47) 1,1,2-Trichlorethane	17.151	97	313107	10.47	ppbv		94
48) 2-Hexanone	17.164	43	445389	9.14	ppbv		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202102.D
Acq On : 20 Apr 2017 9:55 am
Sample : SEQ-CCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CCV1
Misc : QBTO2042017A CCV
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 12:03:43 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

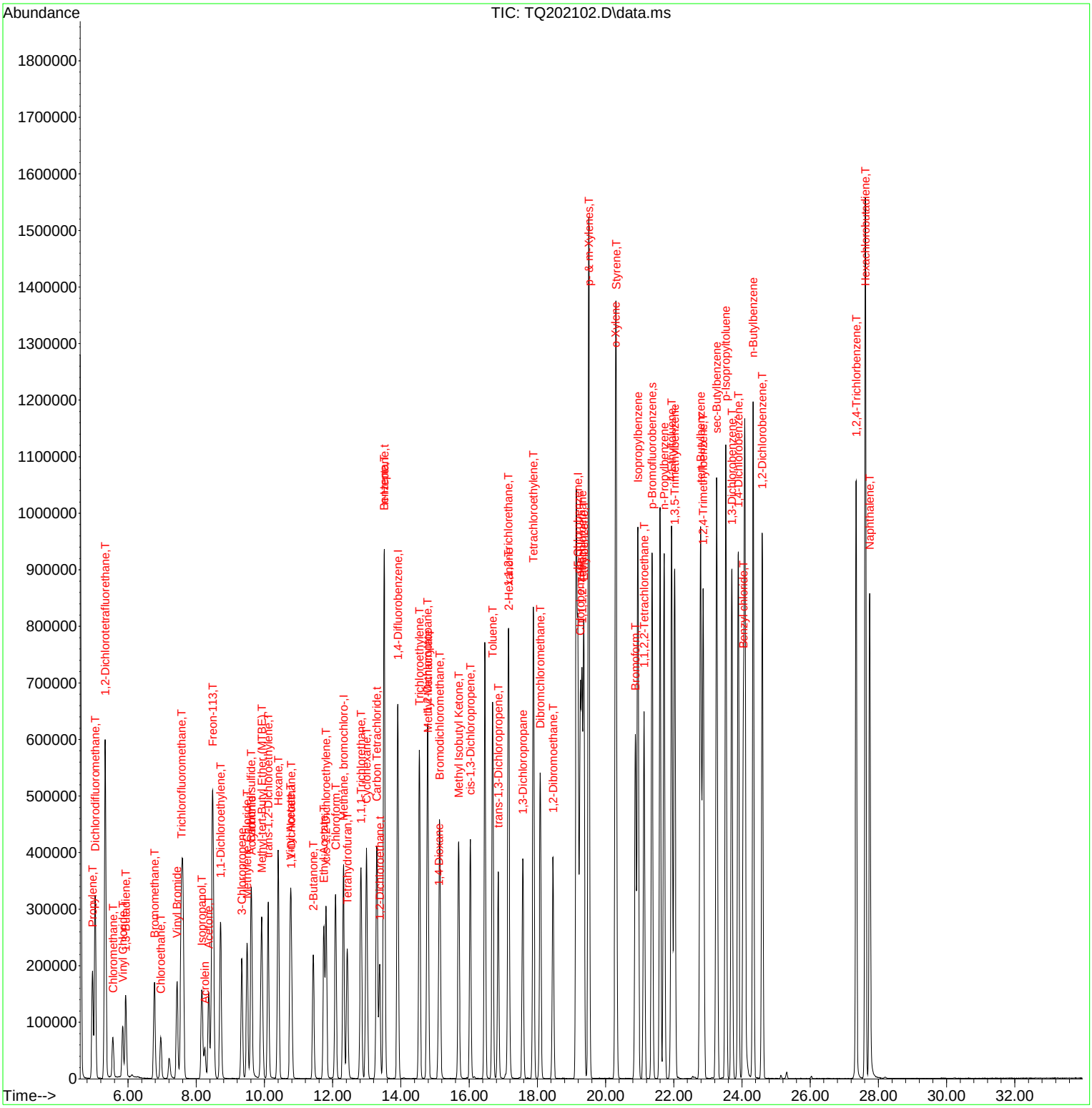
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	426291	10.19	ppbv		95
50) Tetrachloroethylene	17.883	166	469233	8.17	ppbv		99
51) Dibromchloromethane	18.084	129	561096	10.68	ppbv		98
52) 1,2-Dibromoethane	18.462	107	496991	10.56	ppbv		97
54) Chlorobenzene	19.261	112	732861	10.48	ppbv	#	86
55) 1,1,1,2-Tetrachloroethane	19.310	131	391933	10.73	ppbv		93
56) Ethylbenzene	19.364	91	1054507	10.70	ppbv		93
57) p- & m-Xylenes	19.511	91	1572800	21.49	ppbv		91
58) o-Xylene	20.291	91	896906	10.83	ppbv		97
59) Styrene	20.309	104	742165	10.77	ppbv	#	100
60) Bromoform	20.876	173	563870	11.25	ppbv		99
61) n-Propylbenzene	21.718	91	1455272	11.11	ppbv		97
62) Isopropylbenzene	20.949	105	1280687	10.77	ppbv		96
63) 1,1,2,2-Tetrachloroeth...	21.132	83	648422	11.08	ppbv		98
65) 4-Ethyltoluene	21.937	105	1334084	11.55	ppbv		96
66) 1,3,5-Trimethylbenzene	22.029	105	1003094	10.81	ppbv		91
67) tert-Butylbenzene	22.784	119	1278428	11.06	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	1068530	10.88	ppbv	#	88
69) sec-Butylbenzene	23.260	105	1635122	11.09	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	1366235	11.06	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	809471	10.44	ppbv		96
72) 1,4-Dichlorobenzene	23.894	146	799226	10.16	ppbv		96
73) Benzyl chloride	24.040	91	871902	10.84	ppbv		92
74) n-Butylbenzene	24.327	91	1219284	11.34	ppbv		96
75) 1,2-Dichlorobenzene	24.595	146	789208	10.71	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	591172	10.11	ppbv		97
77) Hexachlorobutadiene	27.619	225	486062	10.85	ppbv		99
78) Naphthalene	27.747	128	1321449	8.38	ppbv		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202102.D
Acq On : 20 Apr 2017 9:55 am
Sample : SEQ-CCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CCV1
Misc : QBTO2042017A CCV
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 20 12:03:43 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Instrument ID:	TO15_AIR2	Calibration:	YB70013
Lab File ID:	TQ202124.D	Calibration Date:	02/23/17 13:41
Sequence:	Y7D2619	Injection Date:	04/21/17
Lab Sample ID:	Y7D2619-CCV1	Injection Time:	16:08

		CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
1,1,1,2-Tetrachloroethane	A	10.0	8.55	0.4148677	0.3546063		-14.5	30	
1,1,1-Trichloroethane	A	10.0	9.40	1.374417	1.291868		-6.0	30	
1,1,2,2-Tetrachloroethane	A	10.0	9.14	0.6647425	0.6077799		-8.6	30	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	10.0	9.49	1.466877	1.392316		-5.1	30	
1,1,2-Trichloroethane	A	10.0	8.28	0.2994353	0.2480796		-17.2	30	
1,1-Dichloroethane	A	10.0	9.25	1.258006	1.163397		-7.5	30	
1,1-Dichloroethylene	A	10.0	9.01	1.040003	0.9371291		-9.9	30	
1,2,4-Trichlorobenzene	A	10.0	8.22	0.6641039	0.545625		-17.8	30	
1,2,4-Trimethylbenzene	A	10.0	9.10	1.115313	1.01518		-9.0	30	
1,2-Dibromoethane	A	10.0	8.29	0.4709696	0.3905872		-17.1	30	
1,2-Dichlorobenzene	A	10.0	8.87	0.836683	0.741905		-11.3	30	
1,2-Dichloroethane	A	10.0	9.11	0.832307	0.7586029		-8.9	30	
1,2-Dichloropropane	A	10.0	8.03	0.2578921	0.2070337		-19.7	30	
1,2-Dichlorotetrafluoroethane	A	10.0	11.6	1.546185	1.794579		16.1	30	
1,3,5-Trimethylbenzene	A	10.0	8.98	1.05371	0.9465956		-10.2	30	
1,3-Butadiene	A	10.0	11.2	0.3507516	0.3926722		12.0	30	
1,3-Dichlorobenzene	A	10.0	8.56	0.8803618	0.7537297		-14.4	30	
1,3-Dichloropropane	A	10.0	8.12	0.4185469	0.3397676		-18.8	30	
1,4-Dichlorobenzene	A	10.0	8.37	0.8936965	0.7481947		-16.3	30	
1,4-Dioxane	A	10.0	6.48	0.1870564	0.1212299		-35.2	30	*
2-Butanone	A	10.0	8.57	1.610698	1.379652		-14.3	30	
2-Hexanone	A	10.0	7.64	0.4879517	0.3728488		-23.6	30	
3-Chloropropene	A	10.0	9.21	0.8599544	0.7920235		-7.9	30	
4-Methyl-2-pentanone	A	10.0	7.95	0.5287723	0.4203214		-20.5	30	
Acetone	A	10.0	7.96	1.2287	0.9774606		-20.4	30	
Acrylonitrile	A	10.0	9.55	0.5517888	0.5269001		-4.5	30	
Benzene	A	10.0	8.77	2.225647	1.950794		-12.3	30	
Benzyl chloride	A	10.0	9.24	0.9134502	0.8438221		-7.6	30	
Bromodichloromethane	A	10.0	8.51	0.4415542	0.3759685		-14.9	30	

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Instrument ID:	TO15_AIR2	Calibration:	YB70013
Lab File ID:	TQ202124.D	Calibration Date:	02/23/17 13:41
Sequence:	Y7D2619	Injection Date:	04/21/17
Lab Sample ID:	Y7D2619-CCV1	Injection Time:	16:08

		CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Bromoform	A	10.0	8.93	0.5693195	0.5085872		-10.7	30	
Bromomethane	A	10.0	8.96	0.6872045	0.6154825		-10.4	30	
Carbon disulfide	A	10.0	9.79	1.781501	1.744607		-2.1	30	
Carbon tetrachloride	A	10.0	9.62	1.468588	1.412424		-3.8	30	
Chlorobenzene	A	10.0	8.31	0.7941687	0.6598392		-16.9	30	
Chloroethane	A	10.0	9.64	0.3620606	0.3489121		-3.6	30	
Chloroform	A	10.0	9.12	1.402093	1.278956		-8.8	30	
Chloromethane	A	10.0	12.1	0.3687635	0.4462051		21.0	30	
cis-1,2-Dichloroethylene	A	10.0	9.52	1.080403	1.028288		-4.8	30	
cis-1,3-Dichloropropylene	A	10.0	9.14	0.3684468	0.3367933		-8.6	30	
Cyclohexane	A	10.0	8.84	1.179486	1.042263		-11.6	30	
Dibromochloromethane	A	10.0	8.46	0.5260481	0.4450799		-15.4	30	
Dichlorodifluoromethane	A	10.0	10.9	1.572069	1.712006		8.9	30	
Ethyl acetate	A	10.0	9.64	1.604008	1.546774		-3.6	30	
Ethyl Benzene	A	10.0	8.59	1.118737	0.9612717		-14.1	30	
Hexachlorobutadiene	A	10.0	9.10	0.5086658	0.4627878		-9.0	30	
Isopropanol	Q	10.0	9.70	1.536155	1.175625		-3.0	30	
Methyl Methacrylate	A	10.0	8.11	0.2253698	0.1828578		-18.9	30	
Methyl tert-butyl ether (MTBE)	A	10.0	8.42	1.843346	1.552416		-15.8	30	
Methylene chloride	Q	10.0	9.32	0.8198661	0.7643482		-6.8	30	
n-Heptane	A	10.0	9.38	1.25953	1.181153		-6.2	30	
n-Hexane	A	10.0	8.96	1.154911	1.035039		-10.4	30	
o-Xylene	A	10.0	8.78	0.9404316	0.8256094		-12.2	30	
p- & m- Xylenes	A	20.0	17.6	0.8309886	0.7310921		-12.0	30	
p-Ethyltoluene	A	10.0	9.47	1.311477	1.242266		-5.3	30	
Propylene	A	10.0	10.7	0.3762157	0.4014542		6.7	30	
Styrene	A	10.0	8.71	0.7826417	0.6818213		-12.9	30	
Tetrachloroethylene	A	10.0	6.19	0.5750568	0.3562462		-38.1	30	*
Tetrahydrofuran	A	10.0	8.96	0.8582507	0.7691847		-10.4	30	

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.	SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)	Project:	100287503 365 Bond St.
Instrument ID:	TO15_AIR2	Calibration:	YB70013
Lab File ID:	TQ202124.D	Calibration Date:	02/23/17 13:41
Sequence:	Y7D2619	Injection Date:	04/21/17
Lab Sample ID:	Y7D2619-CCV1	Injection Time:	16:08

		CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Toluene	A	10.0	7.99	0.8671308	0.6928433		-20.1	30
trans-1,2-Dichloroethylene	A	10.0	9.32	0.9259741	0.8629671		-6.8	30
trans-1,3-Dichloropropylene	A	10.0	9.35	0.3023614	0.2827221		-6.5	30
Trichloroethylene	A	10.0	8.09	0.3031981	0.245277		-19.1	30
Trichlorofluoromethane (Freon 11)	A	10.0	10.0	1.606658	1.611045		0.3	30
Vinyl acetate	A	10.0	11.1	1.47189	1.632505		10.9	30
Vinyl bromide	A	10.0	9.50	0.6847742	0.65076		-5.0	30
Vinyl Chloride	A	10.0	11.1	0.4949318	0.5493861		11.0	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202124.D
Acq On : 21 Apr 2017 4:08 pm
Sample : SEQ-CCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CCV1
Misc : QBTO2042117A CCV
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 11:04:02 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.305	49	280575m	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	1024780m	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	906236m	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	502682m	8.12	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 81.20%				
Target Compounds							Qvalue
2) Propylene	4.928	42	112638	10.67	ppbv		97
3) Dichlorodifluoromethane	5.008	85	480346	10.89	ppbv		99
4) 1,2-Dichlorotetrafluor...	5.300	85	503514	11.61	ppbv		91
5) Chloromethane	5.526	50	125194	12.10	ppbv		99
6) Vinyl Chloride	5.812	62	154144	11.10	ppbv		99
7) 1,3-Butadiene	5.904	54	110174	11.20	ppbv		98
8) Bromomethane	6.751	94	172689	8.96	ppbv		100
9) Chloroethane	6.940	64	97896	9.64	ppbv		99
10) Vinyl Bromide	7.416	106	182587	9.50	ppbv		99
11) Trichlorofluoromethane	7.544	101	452019	10.03	ppbv		99
12) Isopropanol	8.153	45	329851	9.70	ppbv		100
13) Acrolein	8.239	56	68234	8.12	ppbv	#	86
14) Acetone	8.354	43	274251	7.96	ppbv		95
15) Freon-113	8.464	101	390649	9.49	ppbv		97
16) 1,1-Dichloroethylene	8.690	61	262935	9.01	ppbv		94
17) 3-Chloropropene	9.318	41	222222	9.21	ppbv	#	85
18) Methylene Chloride	9.476	49	214457	9.32	ppbv		97
19) Acrylonitrile	9.616	53	147835	9.55	ppbv		96
20) Carbon disulfide	9.592	76	489493	9.79	ppbv		100
21) Methyl-tert-Butyl Ethe...	9.903	73	435569	8.42	ppbv		97
22) trans-1,2-Dichloroethy...	10.098	61	242127	9.32	ppbv		93
23) Hexane	10.391	57	290406	8.96	ppbv		99
24) Vinyl Acetate	10.744	43	458040	11.09	ppbv		100
25) 1,1-Dichloroethane	10.781	63	326420	9.25	ppbv		97
26) 2-Butanone	11.427	43	387096	8.57	ppbv		98
27) Ethyl Acetate	11.732	43	433986	9.64	ppbv		90
28) cis-1,2-Dichloroethylene	11.799	61	288512	9.52	ppbv		94
29) Chloroform	12.079	83	358843	9.12	ppbv		98
30) Tetrahydrofuran	12.421	42	215814	8.96	ppbv		96
31) 1,1,1-Trichlorethane	12.823	97	362466	9.40	ppbv		99
32) Cyclohexane	12.988	56	292433	8.84	ppbv		99
33) Carbon Tetrachloride	13.286	117	396291	9.62	ppbv		100
34) 1,2-Dichloroethane	13.372	62	212845	9.11	ppbv		100
35) Benzene	13.500	78	547344	8.77	ppbv		97
36) n-Heptane	13.512	43	331402	9.38	ppbv		99
38) Trichloroethylene	14.542	95	251355	8.09	ppbv		91
39) 1,2-Dichloropropane	14.774	63	212164	8.03	ppbv		99
40) Methyl Methacrylate	14.792	69	187389	8.11	ppbv	#	40
41) 1,4-Dioxane	15.109	88	124234	6.48	ppbv	#	100
42) Bromodichloromethane	15.140	83	385285	8.51	ppbv		98
43) Methyl Isobutyl Ketone	15.688	43	430737	7.95	ppbv		97
44) cis-1,3-Dichloropropene	16.036	75	345139	9.14	ppbv		98
45) Toluene	16.688	91	710012	7.99	ppbv		99
46) trans-1,3-Dichloropropene	16.853	75	289728	9.35	ppbv		97
47) 1,1,2-Trichlorethane	17.145	97	254227	8.28	ppbv		95
48) 2-Hexanone	17.164	43	382088	7.64	ppbv		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202124.D
Acq On : 21 Apr 2017 4:08 pm
Sample : SEQ-CCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CCV1
Misc : QBTO2042117A CCV
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 24 11:04:02 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

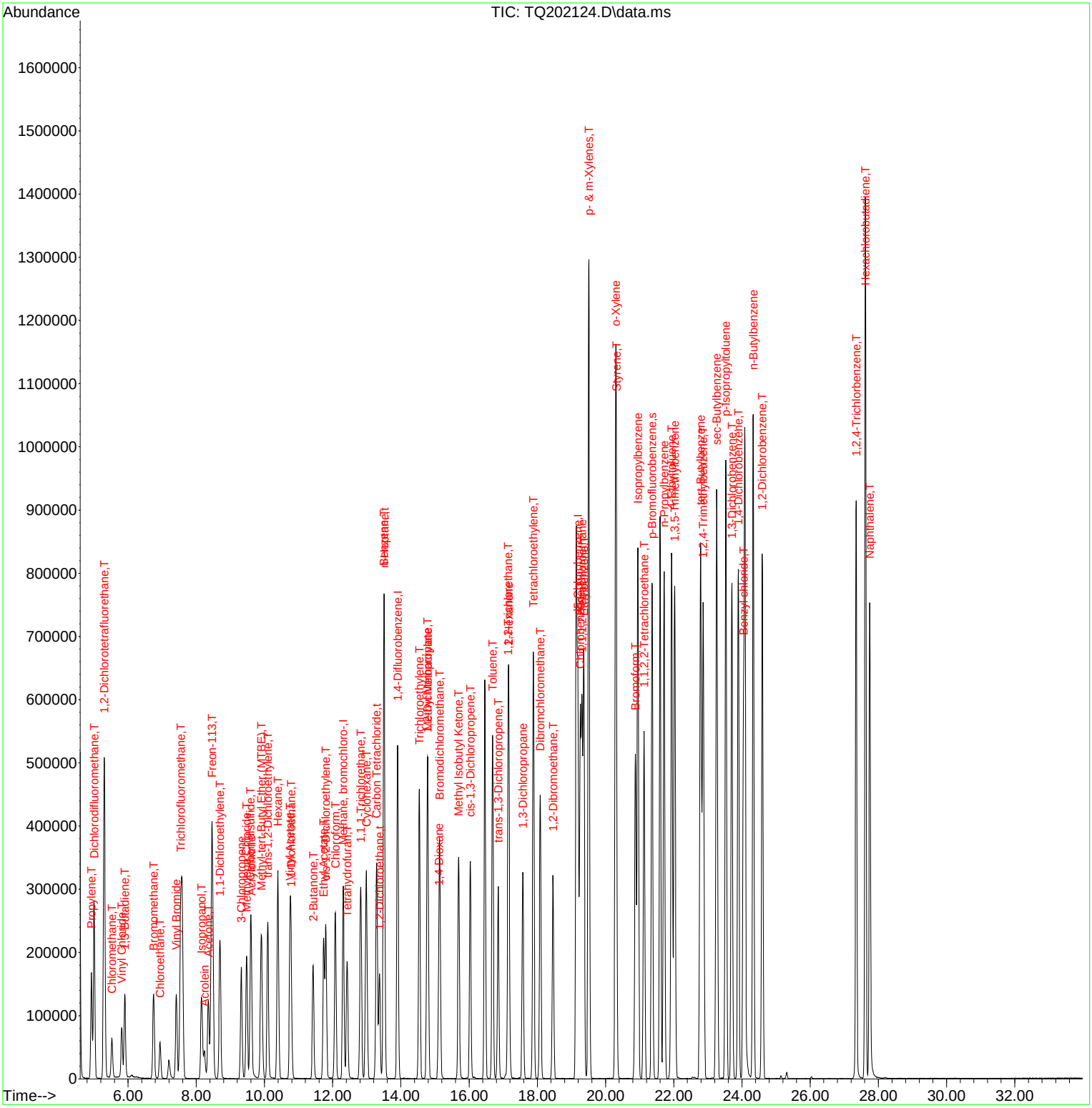
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	348187	8.12	ppbv	#	72
50) Tetrachloroethylene	17.883	166	365074	6.19	ppbv		98
51) Dibromchloromethane	18.084	129	456109	8.46	ppbv		99
52) 1,2-Dibromoethane	18.462	107	400266	8.29	ppbv		97
54) Chlorobenzene	19.255	112	597970	8.31	ppbv	#	86
55) 1,1,1,2-Tetrachloroethane	19.310	131	321357	8.55	ppbv		92
56) Ethylbenzene	19.365	91	871139	8.59	ppbv		95
57) p- & m-Xylenes	19.511	91	1325084	17.60	ppbv		93
58) o-Xylene	20.297	91	748197	8.78	ppbv		97
59) Styrene	20.316	104	617891	8.71	ppbv	#	100
60) Bromoform	20.876	173	460900	8.93	ppbv		99
61) n-Propylbenzene	21.718	91	1242574	9.22	ppbv		98
62) Isopropylbenzene	20.950	105	1072109	8.76	ppbv		97
63) 1,1,2,2-Tetrachloroeth...	21.126	83	550792	9.14	ppbv		98
65) 4-Ethyltoluene	21.937	105	1125786	9.47	ppbv		97
66) 1,3,5-Trimethylbenzene	22.029	105	857839	8.98	ppbv		92
67) tert-Butylbenzene	22.791	119	1079913	9.08	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	919993	9.10	ppbv	#	89
69) sec-Butylbenzene	23.260	105	1407528	9.28	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	1170638	9.21	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	683057	8.56	ppbv		97
72) 1,4-Dichlorobenzene	23.894	146	678041	8.37	ppbv		97
73) Benzyl chloride	24.047	91	764702	9.24	ppbv		93
74) n-Butylbenzene	24.333	91	1074499	9.71	ppbv		97
75) 1,2-Dichlorobenzene	24.595	146	672341	8.87	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	494465	8.22	ppbv		97
77) Hexachlorobutadiene	27.619	225	419395	9.10	ppbv		98
78) Naphthalene	27.747	128	1137847	7.01	ppbv		99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202124.D
Acq On : 21 Apr 2017 4:08 pm
Sample : SEQ-CCV1 Inst : TO15_AIR2
Operator : LDS
Sample : SEQ-CCV1
Misc : QBTO2042117A CCV
ALS Vial : 2 Sample Multiplier: 1

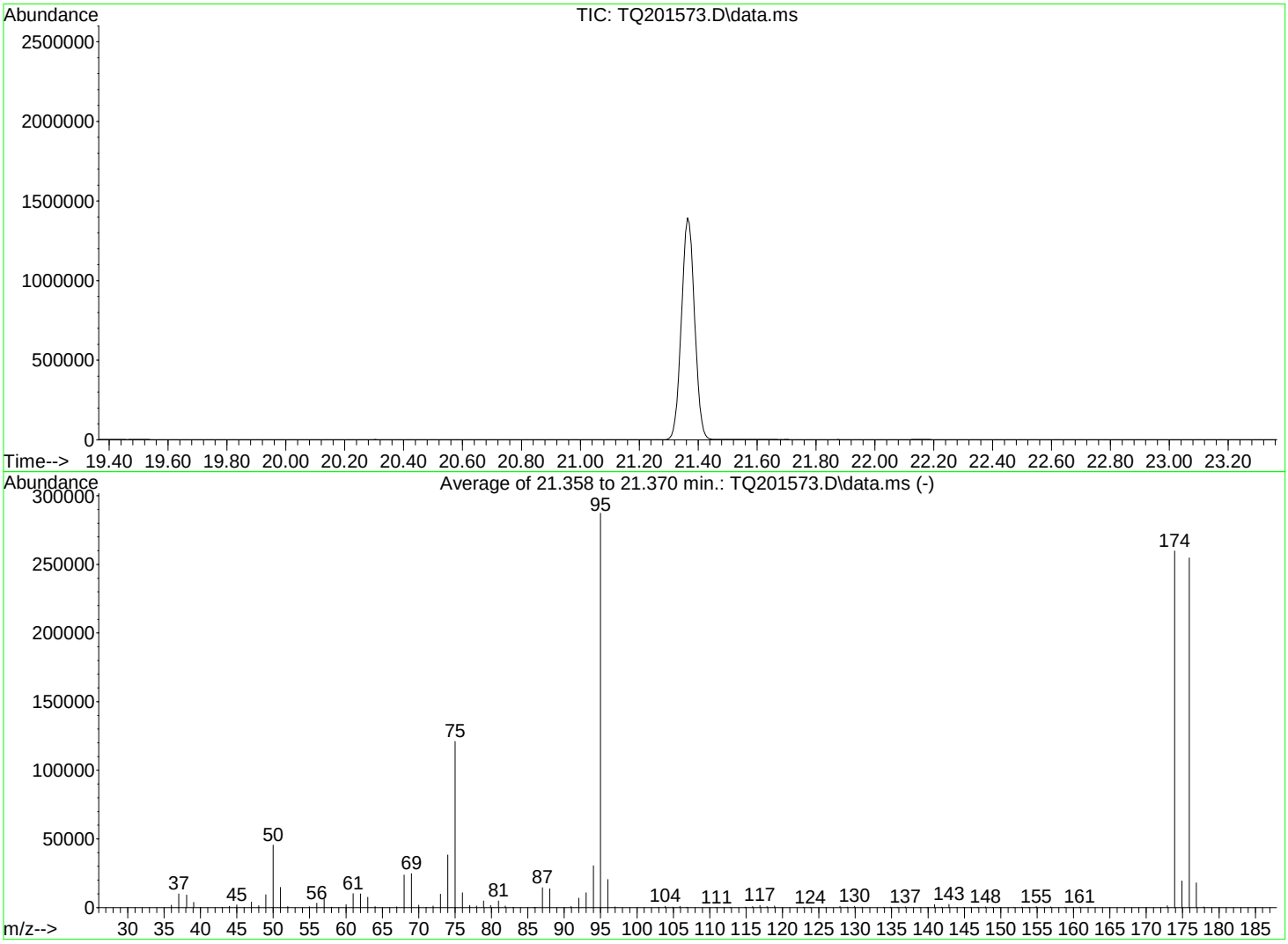
Quant Time: Apr 24 11:04:02 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\022317\
Data File : TQ201573.D
Acq On : 23 Feb 2017 3:27 pm
Operator : LDS
Sample : SEQ-TUN1
InstName : TO15_AIR2
Misc : QBTO2022317A TUNE
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\AIR-2-0007.M
Title : TO15 VOC Analysis
Last Update : Mon Feb 27 13:18:29 2017



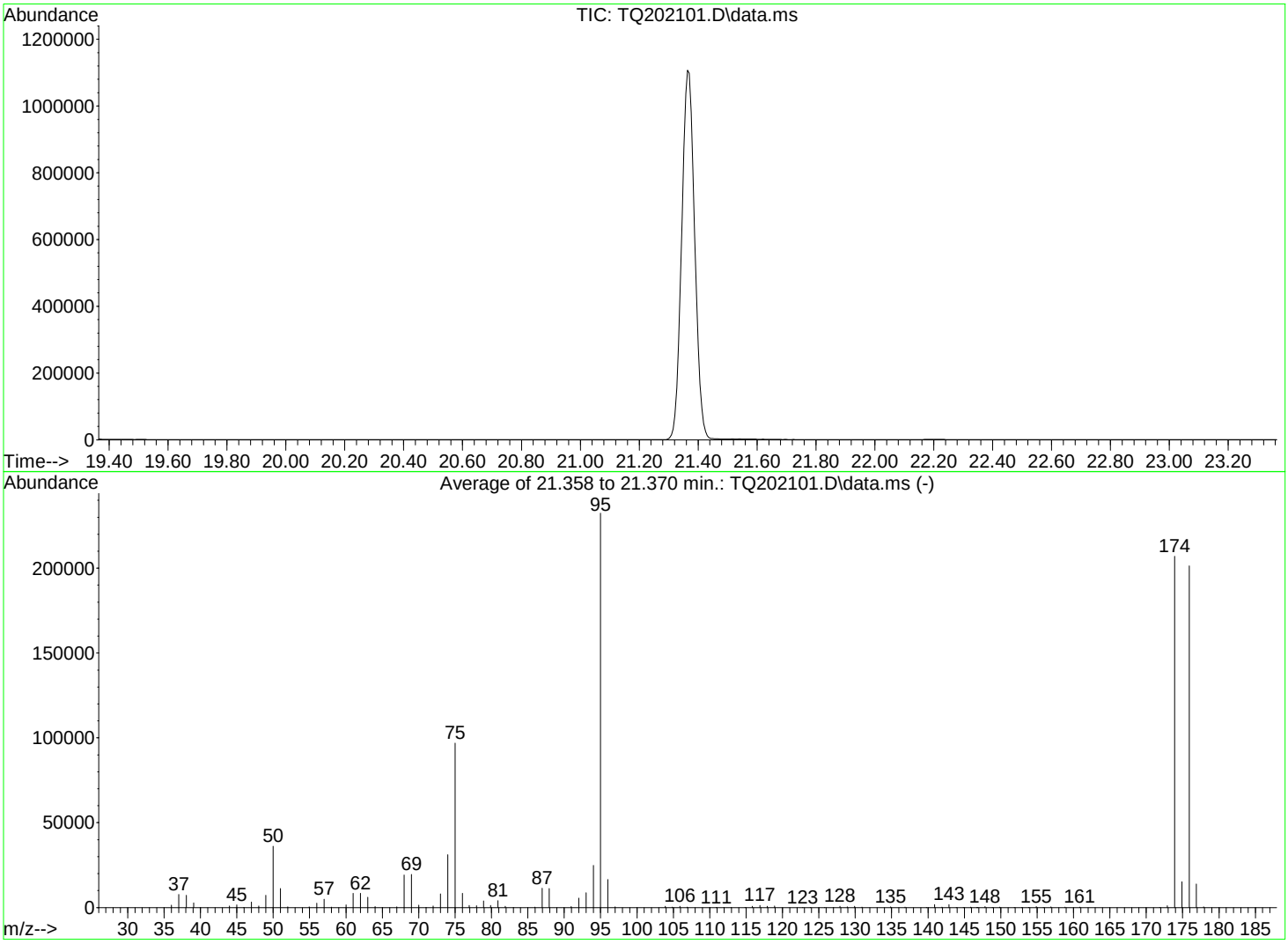
Spectrum Information: Average of 21.358 to 21.370 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.8	45483	PASS
75	95	30	66	42.1	121008	PASS
95	95	100	100	100.0	287424	PASS
96	95	5	9	7.1	20360	PASS
173	174	0.00	2	0.5	1335	PASS
174	95	50	120	90.4	259733	PASS
175	174	4	9	7.5	19368	PASS
176	174	93	101	98.1	254699	PASS
177	176	5	9	7.1	18032	PASS

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202101.D
Acq On : 20 Apr 2017 8:52 am
Operator : LDS
Sample : SEQ-TUN1
InstName : TO15_AIR2
Misc : QBTO2042017A TUNE
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\AIR-2-0007.M
Title : TO15 VOC Analysis
Last Update : Mon Feb 27 13:18:29 2017



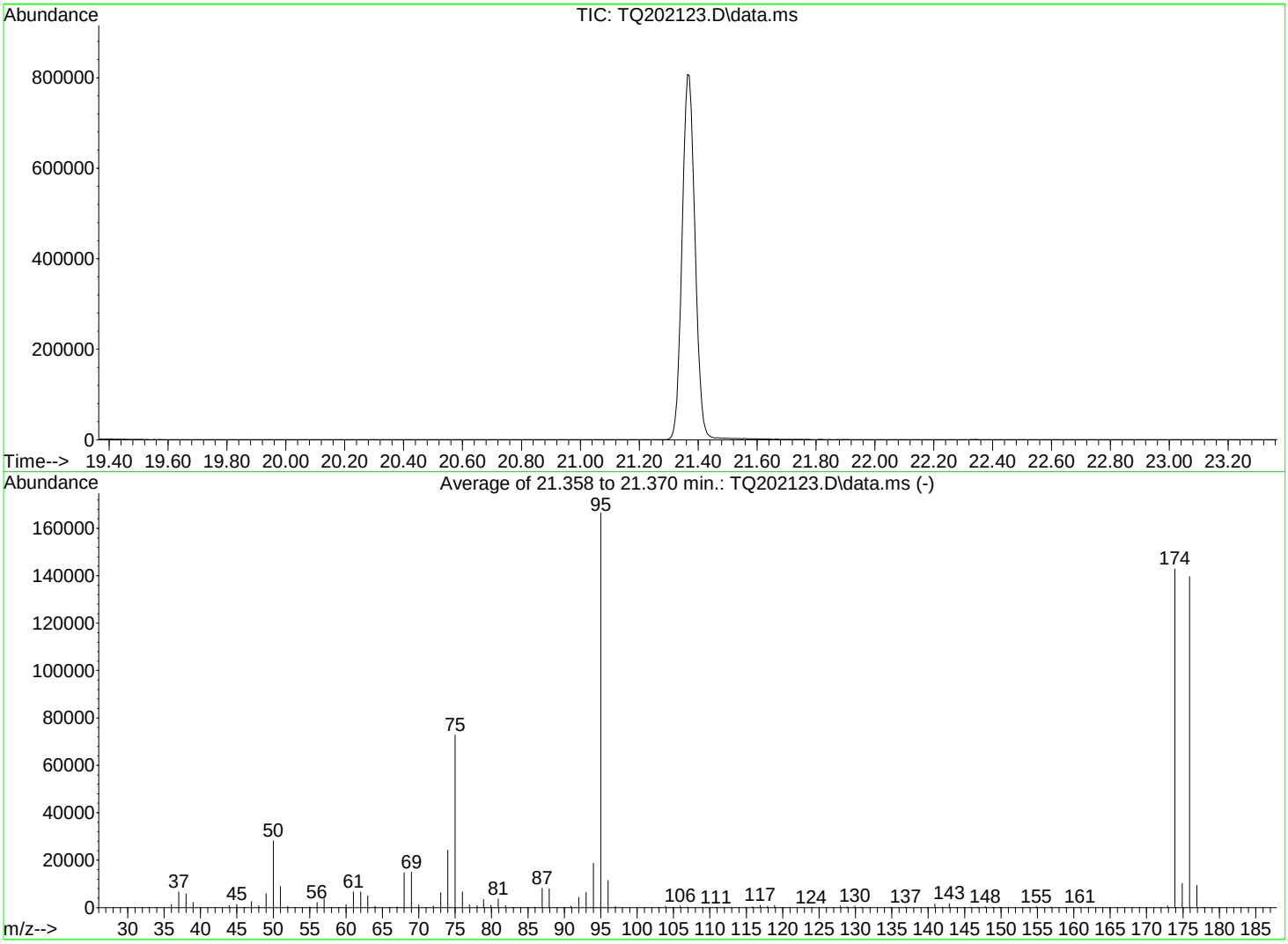
AutoFind: Scans 2751, 2752, 2753; Background Corrected with Scan 2736

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.5	36067	PASS
75	95	30	66	41.7	96947	PASS
95	95	100	100	100.0	232512	PASS
96	95	5	9	7.1	16527	PASS
173	174	0.00	2	0.5	1050	PASS
174	95	50	120	89.0	207019	PASS
175	174	4	9	7.4	15216	PASS
176	174	93	101	97.3	201365	PASS
177	176	5	9	6.9	13875	PASS

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202123.D
Acq On : 21 Apr 2017 3:05 pm
Operator : LDS
Sample : SEQ-TUN1
InstName : TO15_AIR2
Misc : QBTO2042117A TUNE
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\methods\AIR-2-0007.M
Title : TO15 VOC Analysis
Last Update : Mon Feb 27 13:18:29 2017



AutoFind: Scans 2751, 2752, 2753; Background Corrected with Scan 2738

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.9	28101	PASS
75	95	30	66	43.7	72827	PASS
95	95	100	100	100.0	166464	PASS
96	95	5	9	6.9	11543	PASS
173	174	0.00	2	0.5	772	PASS
174	95	50	120	85.9	142912	PASS
175	174	4	9	7.1	10160	PASS
176	174	93	101	97.7	139664	PASS
177	176	5	9	6.7	9361	PASS

METHOD BLANK RAW DATA

SDG: 17D0833
CLASS: AIR
METHOD: EPA TO-15

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD70982-BLK1	File ID:	TQ202104.D
Prepared:	04/20/17 12:03	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/20/17 12:03	Instrument:	TO15_AIR2		
Batch:	BD70982	Sequence:	Y7D2128	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.40	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD70982-BLK1	File ID:	TQ202104.D
Prepared:	04/20/17 12:03	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/20/17 12:03	Instrument:	TO15_AIR2		
Batch:	BD70982	Sequence:	Y7D2128	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.40	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.17	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD70982-BLK1	File ID:	TQ202104.D
Prepared:	04/20/17 12:03	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/20/17 12:03	Instrument:	TO15_AIR2		
Batch:	BD70982	Sequence:	Y7D2128	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.26	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	9.31	93.1	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	410600	12.311	304065	12.317	
1,4-Difluorobenzene	1356329	13.902	999125	13.908	
d5-Chlorobenzene	1187211	19.188	880527	19.188	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202104.D
Acq On : 20 Apr 2017 12:03 pm
Sample : BD70982-BLK1 Inst : TO15_AIR2
Operator : LDS
Sample : BD70982-BLK1
Misc : QBTO2042017A MBLK
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 13:17:35 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

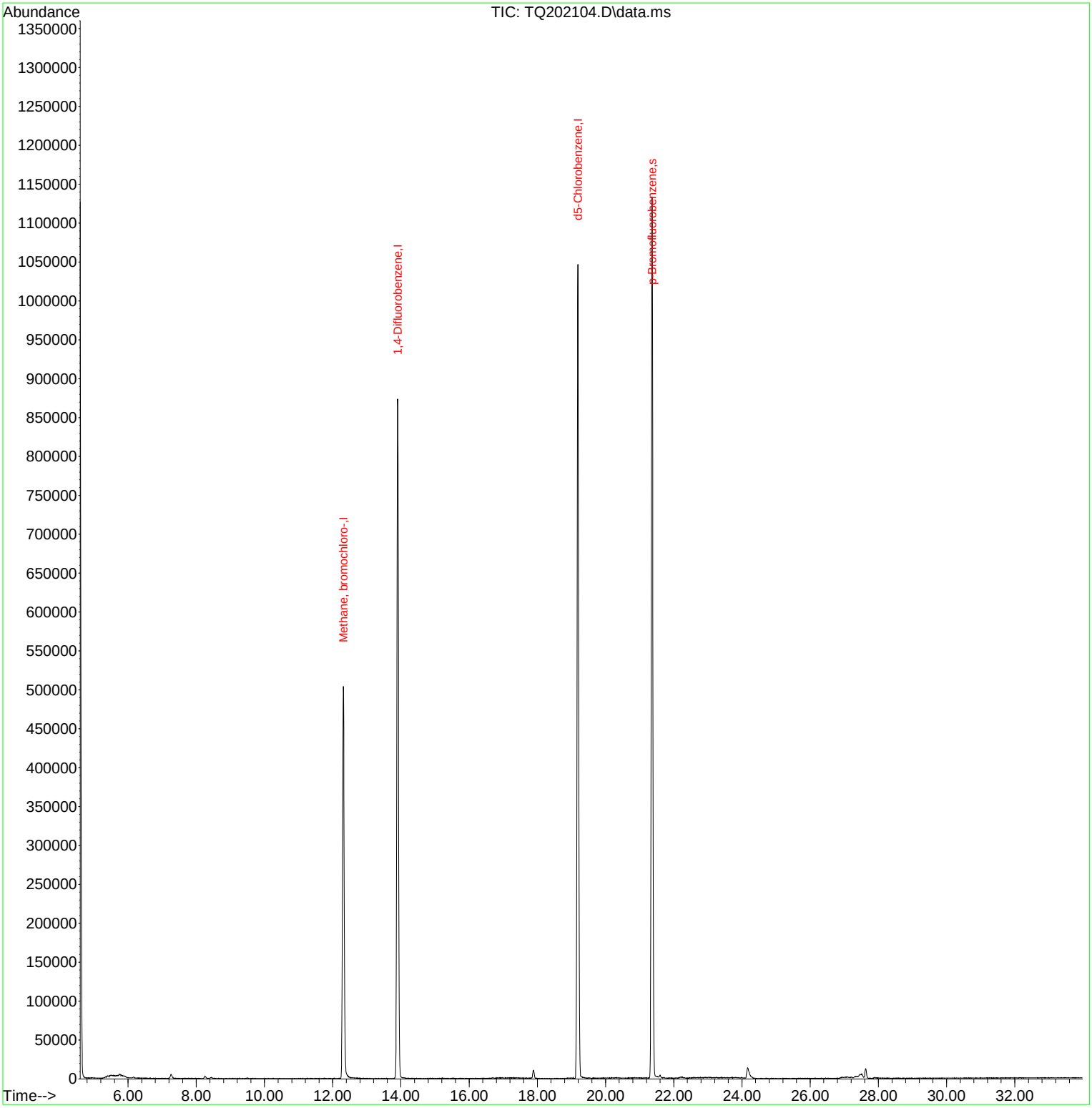
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.311	49	410600	10.00	ppbv	0.00
37) 1,4-Difluorobenzene	13.902	114	1356329	10.00	ppbv	0.00
53) d5-Chlorobenzene	19.188	117	1187211	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	21.364	95	755083	9.31	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.10%			
Target Compounds						Qvalue

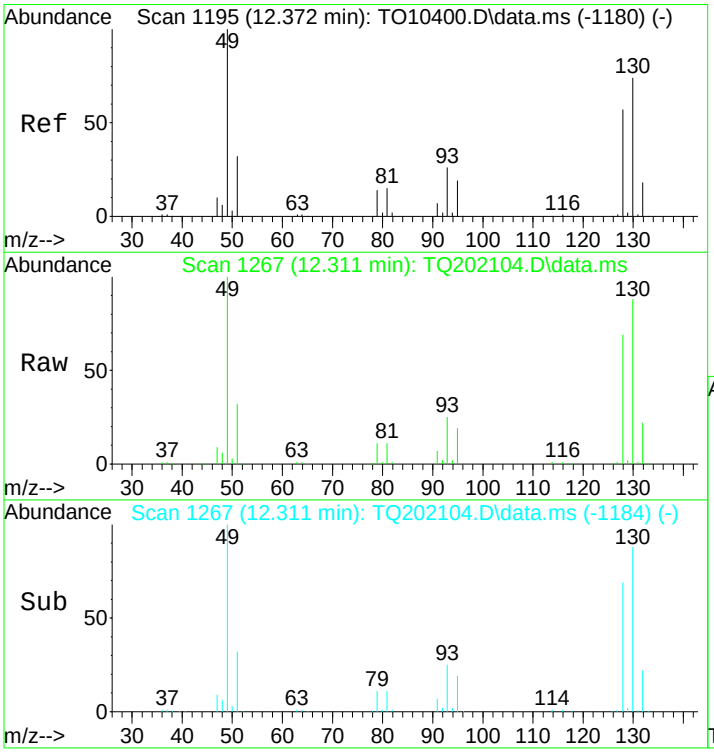
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202104.D
Acq On : 20 Apr 2017 12:03 pm
Sample : BD70982-BLK1 Inst : TO15_AIR2
Operator : LDS
Sample : BD70982-BLK1
Misc : QBTO2042017A MBLK
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 21 13:17:35 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

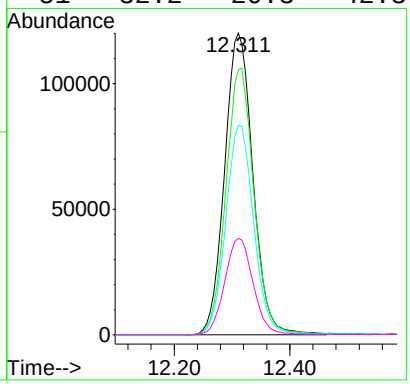


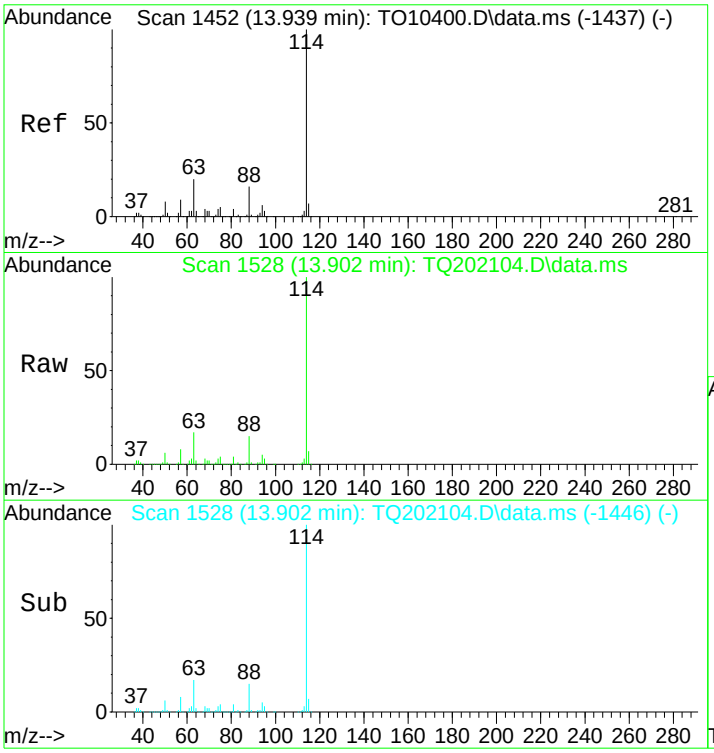


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.311 min Scan# 1267
Delta R.T. 0.007 min
Lab File: TQ202104.D
Acq: 20 Apr 2017 12:03 pm

Tgt Ion: 49 Resp: 410600

Ion	Ratio	Lower	Upper
49	100		
130	87.6	48.1	99.9
128	68.9	38.3	79.5
51	32.2	20.3	42.3

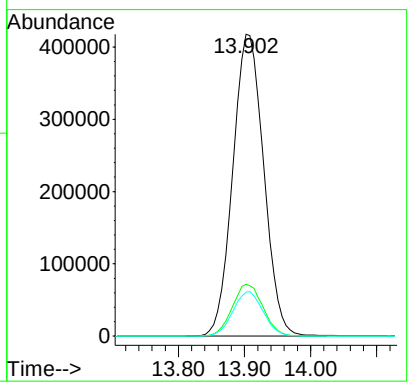


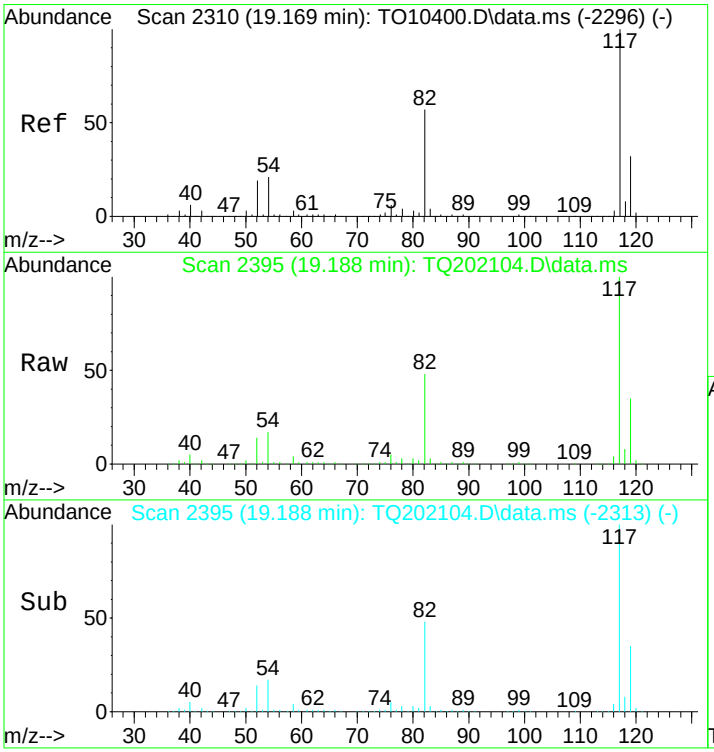


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.902 min Scan# 1528
Delta R.T. -0.000 min
Lab File: TQ202104.D
Acq: 20 Apr 2017 12:03 pm

Tgt Ion:114 Resp: 1356329

Ion	Ratio	Lower	Upper
114	100		
63	17.1	12.9	26.9
88	14.5	10.7	22.3

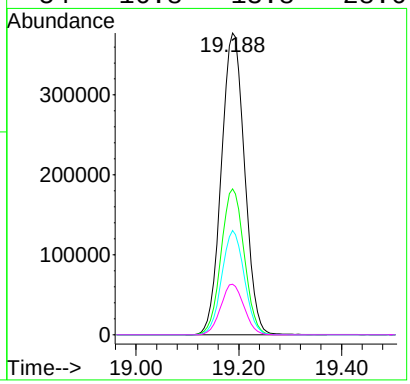


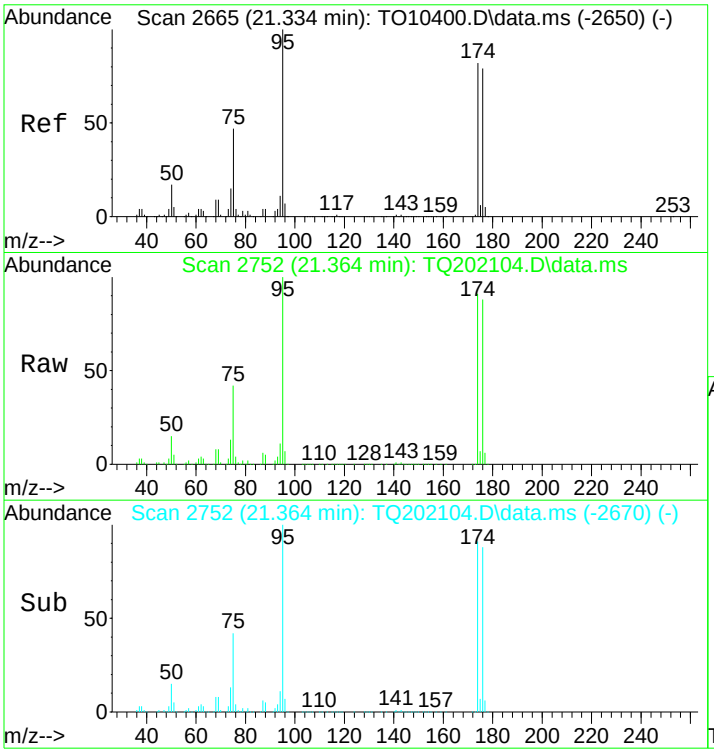


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.188 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202104.D
Acq: 20 Apr 2017 12:03 pm

Tgt Ion:117 Resp: 1187211

Ion	Ratio	Lower	Upper
117	100		
82	48.0	37.1	77.1
119	33.6	22.1	45.9
54	16.8	13.8	28.6

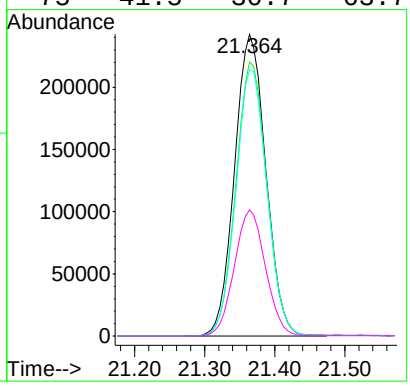




#64
p-Bromofluorobenzene
Concen: 9.31 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. 0.000 min
Lab File: TQ202104.D
Acq: 20 Apr 2017 12:03 pm

Tgt Ion: 95 Resp: 755083

Ion	Ratio	Lower	Upper
95	100		
174	90.0	53.2	110.6
176	87.8	51.6	107.2
75	41.5	30.7	63.7



METHOD BLANK RAW DATA

SDG: 17D0833
CLASS: AIR
METHOD: EPA TO-15

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD71102-BLK1	File ID:	TQ202126.D
Prepared:	04/21/17 18:16	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/21/17 18:16	Instrument:	TO15_AIR2		
Batch:	BD71102	Sequence:	Y7D2619	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.40	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD71102-BLK1	File ID:	TQ202126.D
Prepared:	04/21/17 18:16	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/21/17 18:16	Instrument:	TO15_AIR2		
Batch:	BD71102	Sequence:	Y7D2619	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.40	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.17	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	York Analytical Laboratories, Inc.			SDG:	17D0833
Client:	Langan Engineering & Environmental Services (NJ)			Project:	100287503 365 Bond St.
Matrix:	Air	Laboratory ID:	BD71102-BLK1	File ID:	TQ202126.D
Prepared:	04/21/17 18:16	Preparation:	EPA TO15 PREP	Initial/Final:	400 mL / 400 mL
Analyzed:	04/21/17 18:16	Instrument:	TO15_AIR2		
Batch:	BD71102	Sequence:	Y7D2619	Calibration:	YB70013

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.26	U

SYSTEM MONITORING COMPOUND	ADDED (ppbv)	CONC (ppbv)	% REC	QC LIMITS	Q
p-Bromofluorobenzene	10.0	9.33	93.3	72 - 118	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	379100	12.311	280575	12.305	
1,4-Difluorobenzene	1203861	13.902	1024780	13.902	
d5-Chlorobenzene	1050678	19.188	906236	19.188	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202126.D
Acq On : 21 Apr 2017 6:16 pm
Sample : BD71102-BLK1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-BLK1
Misc : QBTO2042117A MBLK
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 26 13:23:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

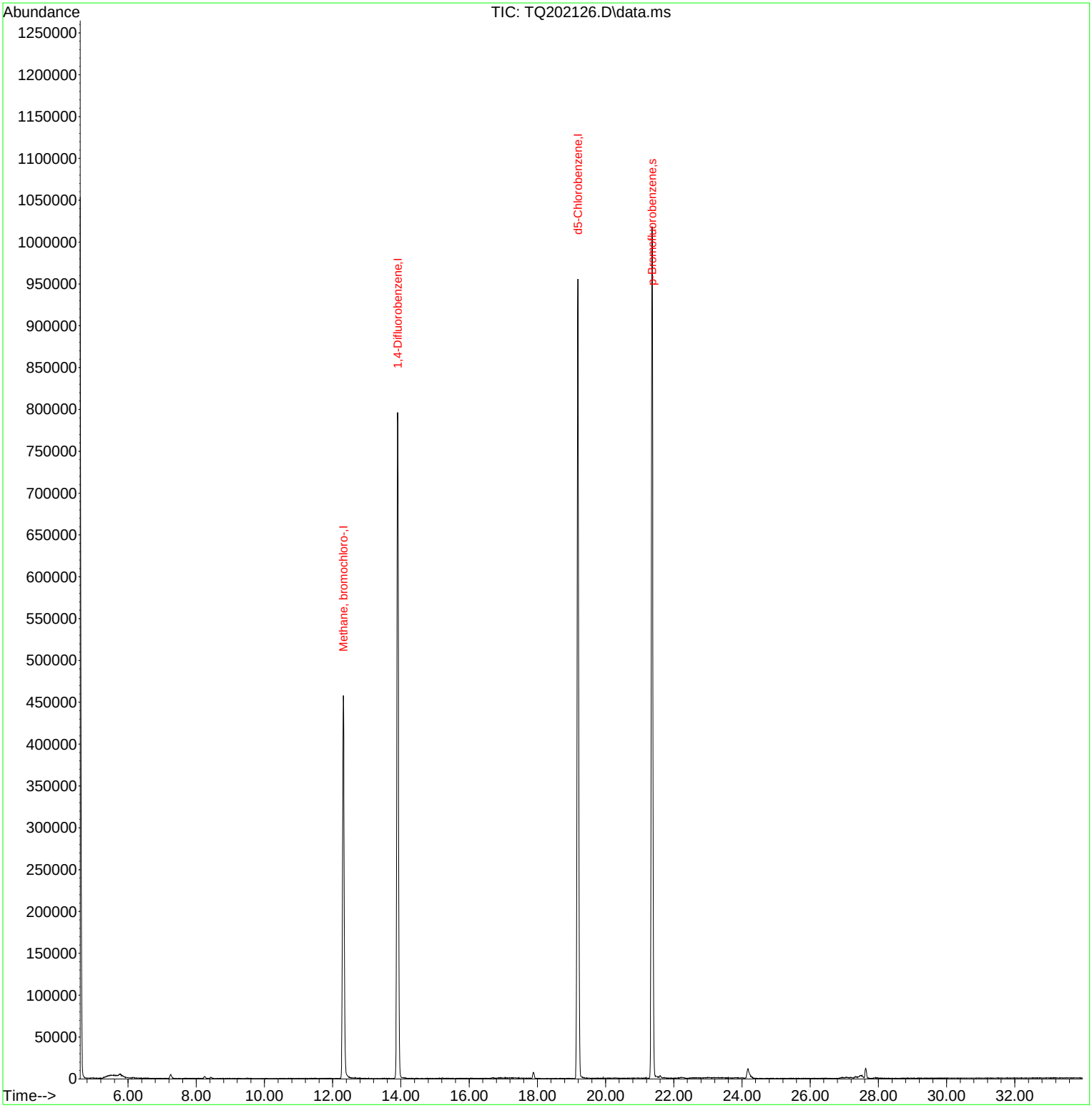
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.311	49	379100	10.00	ppbv	0.00
37) 1,4-Difluorobenzene	13.902	114	1203861	10.00	ppbv	0.00
53) d5-Chlorobenzene	19.188	117	1050678	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	21.364	95	669902	9.33	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 93.30%			
Target Compounds						Qvalue

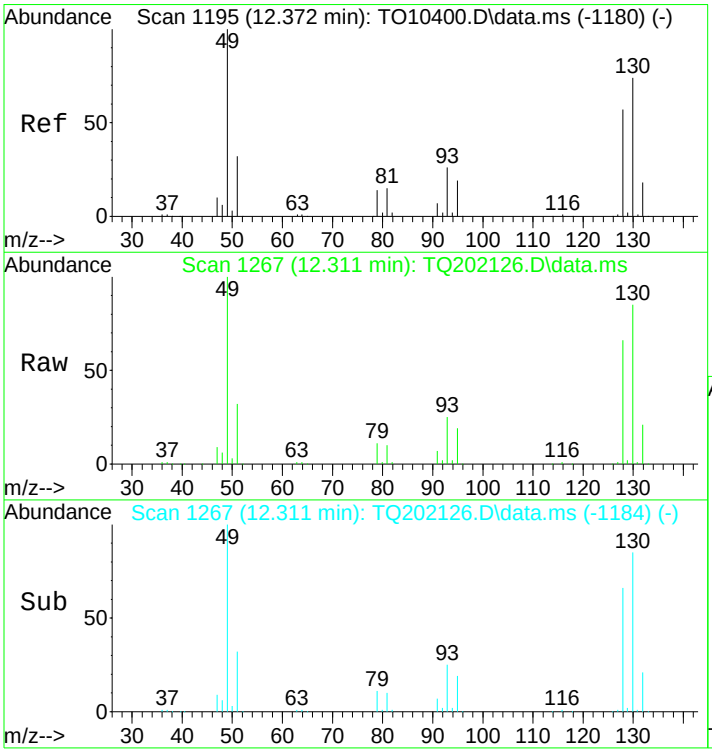
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202126.D
Acq On : 21 Apr 2017 6:16 pm
Sample : BD71102-BLK1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-BLK1
Misc : QBTO2042117A MBLK
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Apr 26 13:23:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

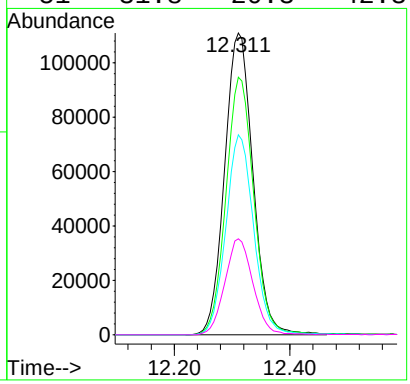


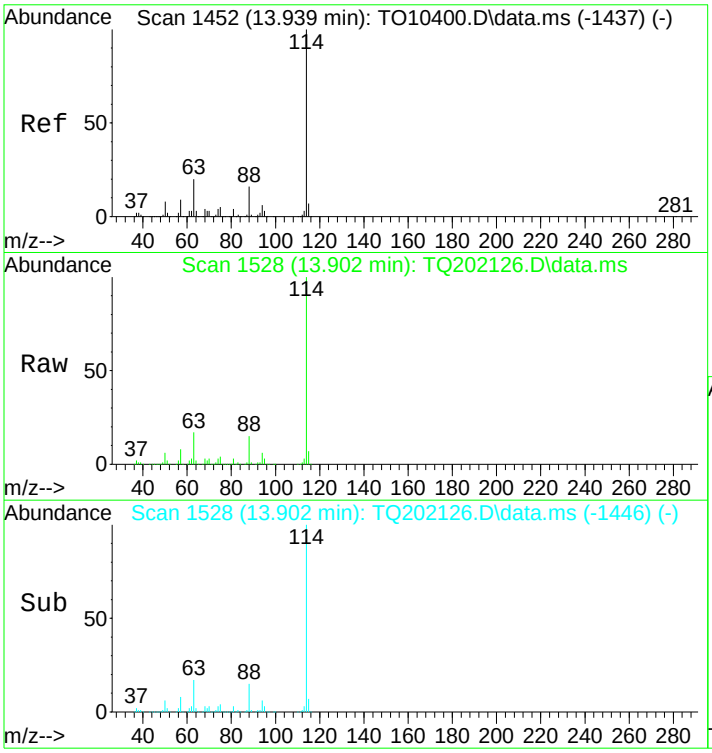


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.311 min Scan# 1267
Delta R.T. 0.007 min
Lab File: TQ202126.D
Acq: 21 Apr 2017 6:16 pm

Tgt Ion: 49 Resp: 379100

Ion	Ratio	Lower	Upper
49	100		
130	84.2	48.1	99.9
128	65.1	38.3	79.5
51	31.8	20.3	42.3

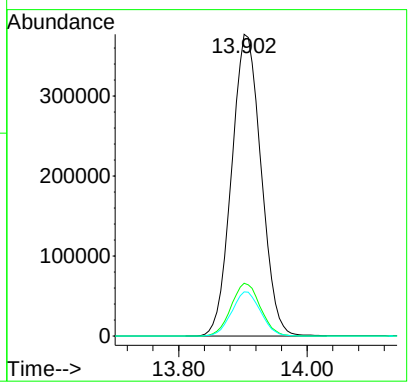


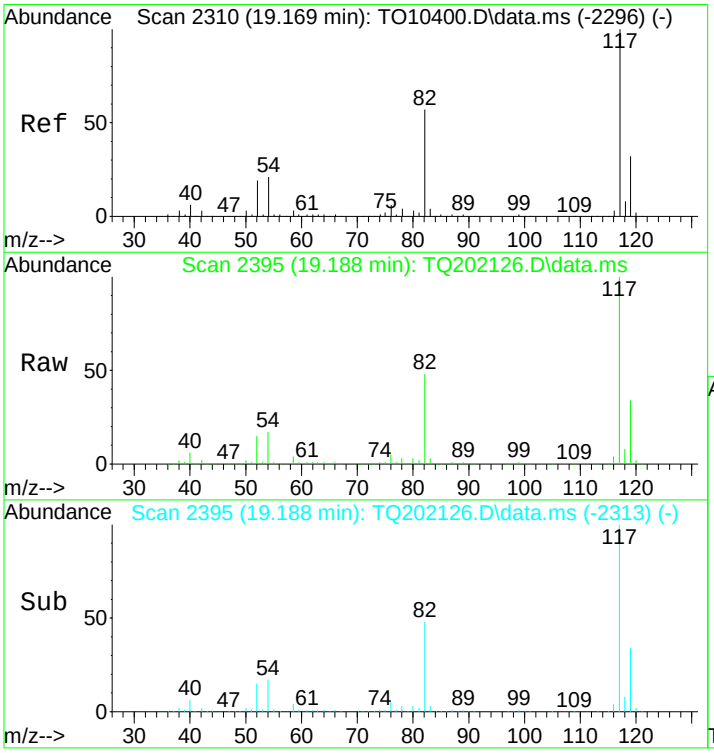


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.902 min Scan# 1528
Delta R.T. -0.000 min
Lab File: TQ202126.D
Acq: 21 Apr 2017 6:16 pm

Tgt Ion:114 Resp: 1203861

Ion	Ratio	Lower	Upper
114	100		
63	17.4	12.9	26.9
88	14.4	10.7	22.3

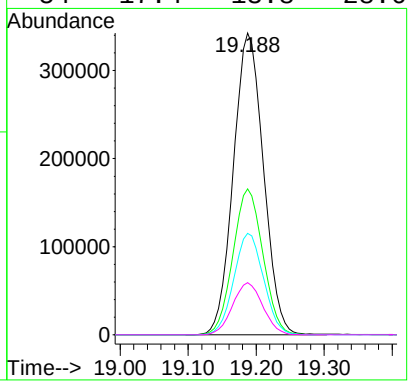


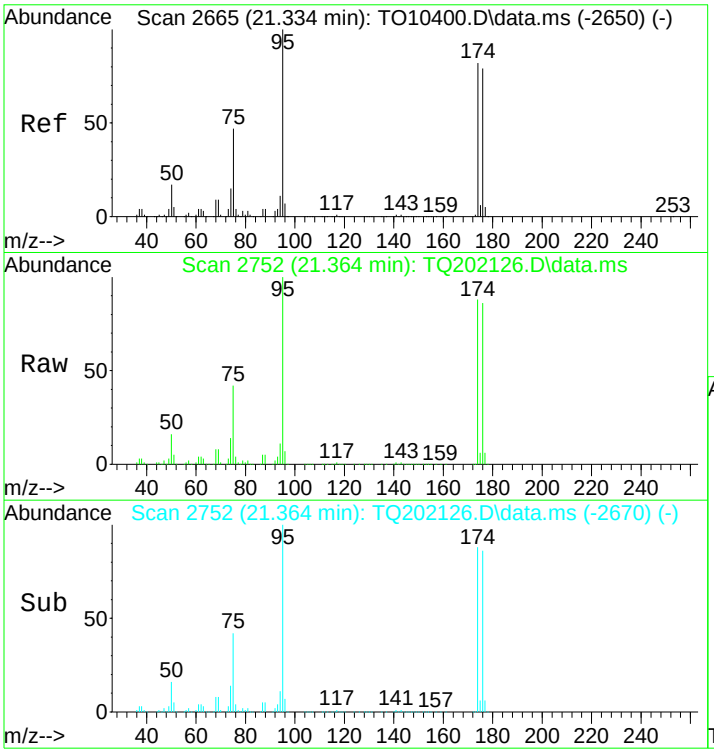


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.188 min Scan# 2395
Delta R.T. -0.000 min
Lab File: TQ202126.D
Acq: 21 Apr 2017 6:16 pm

Tgt Ion:117 Resp: 1050678

Ion	Ratio	Lower	Upper
117	100		
82	48.2	37.1	77.1
119	33.2	22.1	45.9
54	17.4	13.8	28.6

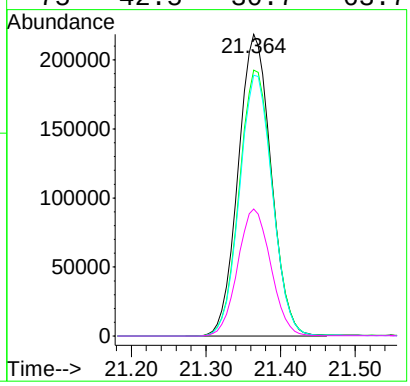




#64
p-Bromofluorobenzene
Concen: 9.33 ppbv
RT: 21.364 min Scan# 2752
Delta R.T. -0.000 min
Lab File: TQ202126.D
Acq: 21 Apr 2017 6:16 pm

Tgt Ion: 95 Resp: 669902

Ion	Ratio	Lower	Upper
95	100		
174	89.0	53.2	110.6
176	86.7	51.6	107.2
75	42.5	30.7	63.7



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202103.D
Acq On : 20 Apr 2017 10:57 am
Sample : BD70982-BS1 Inst : TO15_AIR2
Operator : LDS
Sample : BD70982-BS1
Misc : QBTO2042017A LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 12:03:59 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.311	49	322402	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.908	114	1074184	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	934396	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	642047	10.06	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.60%				
Target Compounds							Qvalue
2) Propylene	4.952	42	137578	11.34	ppbv		95
3) Dichlorodifluoromethane	5.032	85	590612	11.65	ppbv		98
4) 1,2-Dichlorotetrafluor...	5.324	85	613138	12.30	ppbv		87
5) Chloromethane	5.550	50	133804	11.25	ppbv		98
6) Vinyl Chloride	5.836	62	186532	11.69	ppbv		99
7) 1,3-Butadiene	5.928	54	130347	11.53	ppbv		100
8) Bromomethane	6.769	94	236663	10.68	ppbv		99
9) Chloroethane	6.958	64	130959	11.22	ppbv		98
10) Vinyl Bromide	7.434	106	255483	11.57	ppbv		100
11) Trichlorofluoromethane	7.562	101	571526	11.03	ppbv		98
12) Isopropanol	8.165	45	426698	10.96	ppbv		100
13) Acrolein	8.257	56	92008	9.52	ppbv	#	56
14) Acetone	8.360	43	339271	8.56	ppbv		93
15) Freon-113	8.476	101	518602	10.97	ppbv		95
16) 1,1-Dichloroethylene	8.708	61	340907	10.17	ppbv		90
17) 3-Chloropropene	9.330	41	289962	10.46	ppbv	#	83
18) Methylene Chloride	9.488	49	270309	10.23	ppbv		97
19) Acrylonitrile	9.616	53	193915	10.90	ppbv	#	63
20) Carbon disulfide	9.604	76	649455	11.31	ppbv		97
21) Methyl-tert-Butyl Ethe...	9.915	73	595723	10.02	ppbv		96
22) trans-1,2-Dichloroethy...	10.104	61	321411	10.77	ppbv		90
23) Hexane	10.403	57	390518	10.49	ppbv		97
24) Vinyl Acetate	10.750	43	576276	12.14	ppbv	#	100
25) 1,1-Dichloroethane	10.787	63	421777	10.40	ppbv		95
26) 2-Butanone	11.427	43	493462	9.50	ppbv		99
27) Ethyl Acetate	11.738	43	547207	10.58	ppbv		94
28) cis-1,2-Dichloroethylene	11.805	61	383790	11.02	ppbv		92
29) Chloroform	12.085	83	470762	10.41	ppbv		98
30) Tetrahydrofuran	12.427	42	276126	9.98	ppbv		97
31) 1,1,1-Trichlorethane	12.829	97	469817	10.60	ppbv		98
32) Cyclohexane	12.994	56	387595	10.19	ppbv		97
33) Carbon Tetrachloride	13.292	117	513567	10.85	ppbv		100
34) 1,2-Dichloroethane	13.378	62	270297	10.07	ppbv	#	99
35) Benzene	13.500	78	724183	10.09	ppbv		99
36) n-Heptane	13.512	43	410634	10.11	ppbv	#	97
38) Trichloroethylene	14.542	95	338134	10.38	ppbv		88
39) 1,2-Dichloropropane	14.774	63	276995	10.00	ppbv		99
40) Methyl Methacrylate	14.798	69	249802	10.32	ppbv	#	40
41) 1,4-Dioxane	15.109	88	168838	8.40	ppbv	#	100
42) Bromodichloromethane	15.140	83	489724	10.32	ppbv		98
43) Methyl Isobutyl Ketone	15.694	43	535927	9.44	ppbv		95
44) cis-1,3-Dichloropropene	16.036	75	452469	11.43	ppbv		97
45) Toluene	16.688	91	930939	9.99	ppbv		98
46) trans-1,3-Dichloropropene	16.853	75	370773	11.42	ppbv		96
47) 1,1,2-Trichlorethane	17.151	97	326582	10.15	ppbv		94
48) 2-Hexanone	17.164	43	454543	8.67	ppbv		97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202103.D
Acq On : 20 Apr 2017 10:57 am
Sample : BD70982-BS1 Inst : TO15_AIR2
Operator : LDS
Sample : BD70982-BS1
Misc : QBTO2042017A LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 12:03:59 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

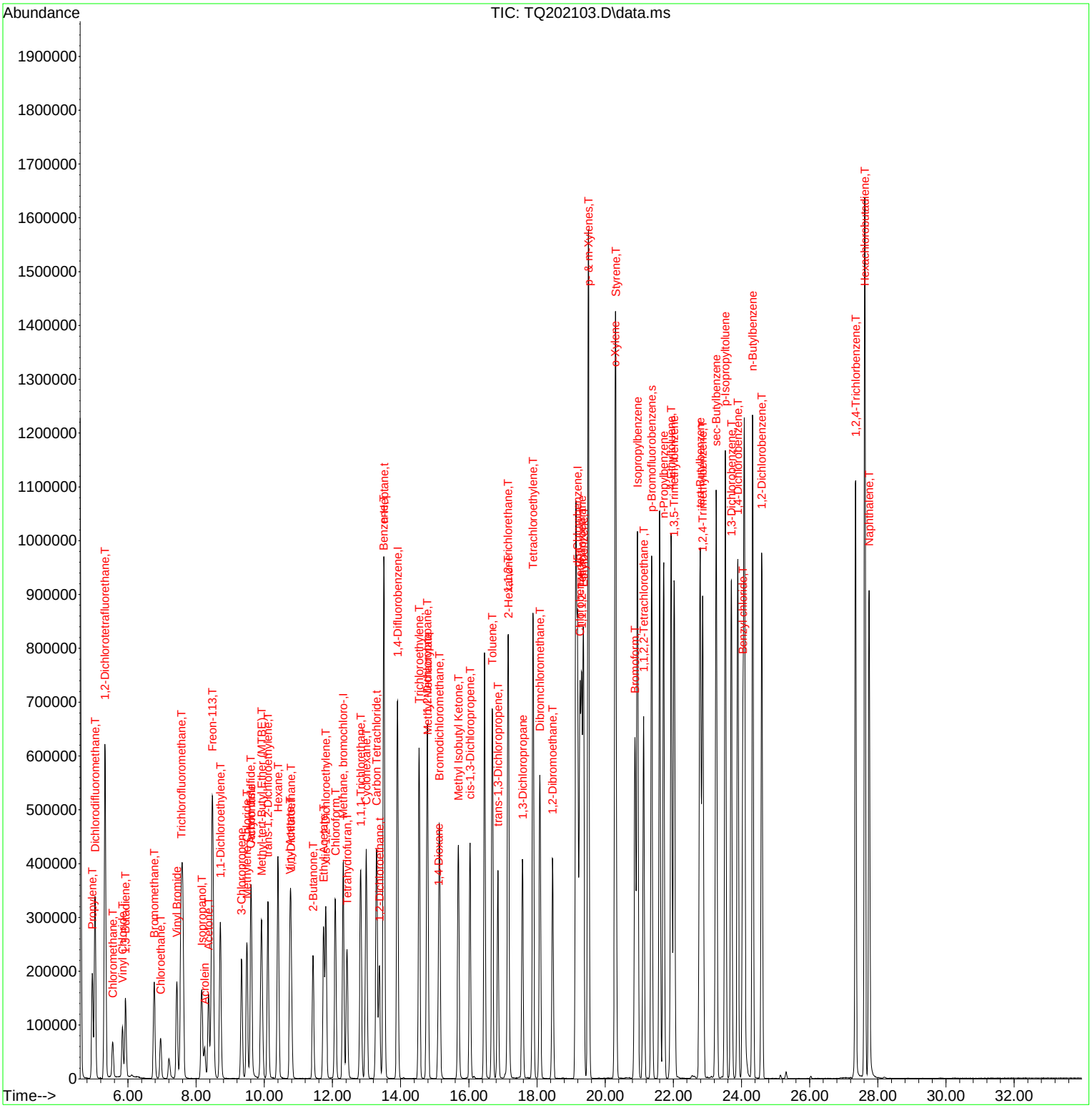
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.578	76	450441	10.02	ppbv		95
50) Tetrachloroethylene	17.883	166	493738	7.99	ppbv		100
51) Dibromchloromethane	18.084	129	583831	10.33	ppbv		98
52) 1,2-Dibromoethane	18.456	107	520526	10.29	ppbv		96
54) Chlorobenzene	19.261	112	769650	10.37	ppbv	#	100
55) 1,1,1,2-Tetrachloroethane	19.309	131	409740	10.57	ppbv		93
56) Ethylbenzene	19.364	91	1099126	10.51	ppbv		93
57) p- & m-Xylenes	19.511	91	1625890	20.94	ppbv		91
58) o-Xylene	20.291	91	926501	10.54	ppbv		97
59) Styrene	20.309	104	773943	10.58	ppbv	#	100
60) Bromoform	20.876	173	585974	11.02	ppbv		98
61) n-Propylbenzene	21.718	91	1509773	10.86	ppbv		97
62) Isopropylbenzene	20.949	105	1333609	10.57	ppbv	#	96
63) 1,1,2,2-Tetrachloroeth...	21.126	83	675503	10.88	ppbv		98
65) 4-Ethyltoluene	21.937	105	1383007	11.29	ppbv		96
66) 1,3,5-Trimethylbenzene	22.022	105	1037651	10.54	ppbv		91
67) tert-Butylbenzene	22.784	119	1320010	10.76	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	1105909	10.61	ppbv	#	88
69) sec-Butylbenzene	23.260	105	1690477	10.81	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	1416545	10.81	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	835303	10.15	ppbv		96
72) 1,4-Dichlorobenzene	23.894	146	832179	9.97	ppbv		96
73) Benzyl chloride	24.040	91	906408	10.62	ppbv		92
74) n-Butylbenzene	24.327	91	1255796	11.01	ppbv		97
75) 1,2-Dichlorobenzene	24.595	146	813102	10.40	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	615672	9.92	ppbv		97
77) Hexachlorobutadiene	27.619	225	516267	10.86	ppbv		99
78) Naphthalene	27.747	128	1395986	8.34	ppbv		98

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042017\
Data File : TQ202103.D
Acq On : 20 Apr 2017 10:57 am
Sample : BD70982-BS1 Inst : TO15_AIR2
Operator : LDS
Sample : BD70982-BS1
Misc : QBTO2042017A LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 20 12:03:59 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202125.D
Acq On : 21 Apr 2017 5:11 pm
Sample : BD71102-BS1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-BS1
Misc : QBTO2042117A LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 24 10:56:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Methane, bromochloro-	12.305	49	282844	10.00	ppbv		0.00
37) 1,4-Difluorobenzene	13.902	114	889115	10.00	ppbv		0.00
53) d5-Chlorobenzene	19.188	117	775784	10.00	ppbv		0.00
System Monitoring Compounds							
64) p-Bromofluorobenzene	21.364	95	543946	10.26	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.60%				
Target Compounds							Qvalue
2) Propylene	4.928	42	131406	12.35	ppbv		96
3) Dichlorodifluoromethane	5.008	85	561495	12.63	ppbv		98
4) 1,2-Dichlorotetrafluor...	5.300	85	580613	13.28	ppbv		89
5) Chloromethane	5.526	50	122842	11.78	ppbv		99
6) Vinyl Chloride	5.812	62	174632	12.47	ppbv		100
7) 1,3-Butadiene	5.904	54	124801	12.58	ppbv		100
8) Bromomethane	6.745	94	205592	10.58	ppbv		100
9) Chloroethane	6.934	64	113459	11.08	ppbv		99
10) Vinyl Bromide	7.410	106	217335	11.22	ppbv		100
11) Trichlorofluoromethane	7.538	101	507926	11.18	ppbv		98
12) Isopropanol	8.153	45	385810	11.31	ppbv		100
13) Acrolein	8.239	56	80690	9.52	ppbv	#	86
14) Acetone	8.348	43	307206	8.84	ppbv		94
15) Freon-113	8.458	101	448765	10.82	ppbv		97
16) 1,1-Dichloroethylene	8.690	61	299620	10.19	ppbv		92
17) 3-Chloropropene	9.318	41	252767	10.39	ppbv	#	84
18) Methylene Chloride	9.476	49	239214	10.32	ppbv		99
19) Acrylonitrile	9.610	53	170342	10.91	ppbv		97
20) Carbon disulfide	9.592	76	567446	11.26	ppbv		97
21) Methyl-tert-Butyl Ethe...	9.909	73	515065	9.88	ppbv		97
22) trans-1,2-Dichloroethy...	10.092	61	278261	10.62	ppbv		92
23) Hexane	10.391	57	332749	10.19	ppbv		99
24) Vinyl Acetate	10.744	43	525986	12.63	ppbv		100
25) 1,1-Dichloroethane	10.775	63	369249	10.38	ppbv		99
26) 2-Butanone	11.427	43	446012	9.79	ppbv		99
27) Ethyl Acetate	11.732	43	495291	10.92	ppbv		91
28) cis-1,2-Dichloroethylene	11.799	61	329419	10.78	ppbv		93
29) Chloroform	12.079	83	411399	10.37	ppbv		98
30) Tetrahydrofuran	12.427	42	247285	10.19	ppbv		97
31) 1,1,1-Trichlorethane	12.817	97	412775	10.62	ppbv		98
32) Cyclohexane	12.988	56	335002	10.04	ppbv		98
33) Carbon Tetrachloride	13.286	117	446792	10.76	ppbv		100
34) 1,2-Dichloroethane	13.372	62	239420	10.17	ppbv	#	100
35) Benzene	13.500	78	625412	9.93	ppbv		98
36) n-Heptane	13.512	43	371330	10.42	ppbv		98
38) Trichloroethylene	14.542	95	287955	10.68	ppbv		89
39) 1,2-Dichloropropane	14.774	63	242580	10.58	ppbv		99
40) Methyl Methacrylate	14.792	69	217149	10.84	ppbv	#	40
41) 1,4-Dioxane	15.109	88	146042	8.78	ppbv	#	100
42) Bromodichloromethane	15.140	83	432341	11.01	ppbv		99
43) Methyl Isobutyl Ketone	15.694	43	488416	10.39	ppbv		96
44) cis-1,3-Dichloropropene	16.036	75	396007	12.09	ppbv		98
45) Toluene	16.688	91	797866	10.35	ppbv		98
46) trans-1,3-Dichloropropene	16.853	75	324897	12.09	ppbv		97
47) 1,1,2-Trichlorethane	17.145	97	285233	10.71	ppbv		95
48) 2-Hexanone	17.164	43	423906	9.77	ppbv		98

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202125.D
Acq On : 21 Apr 2017 5:11 pm
Sample : BD71102-BS1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-BS1
Misc : QBTO2042117A LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 24 10:56:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration

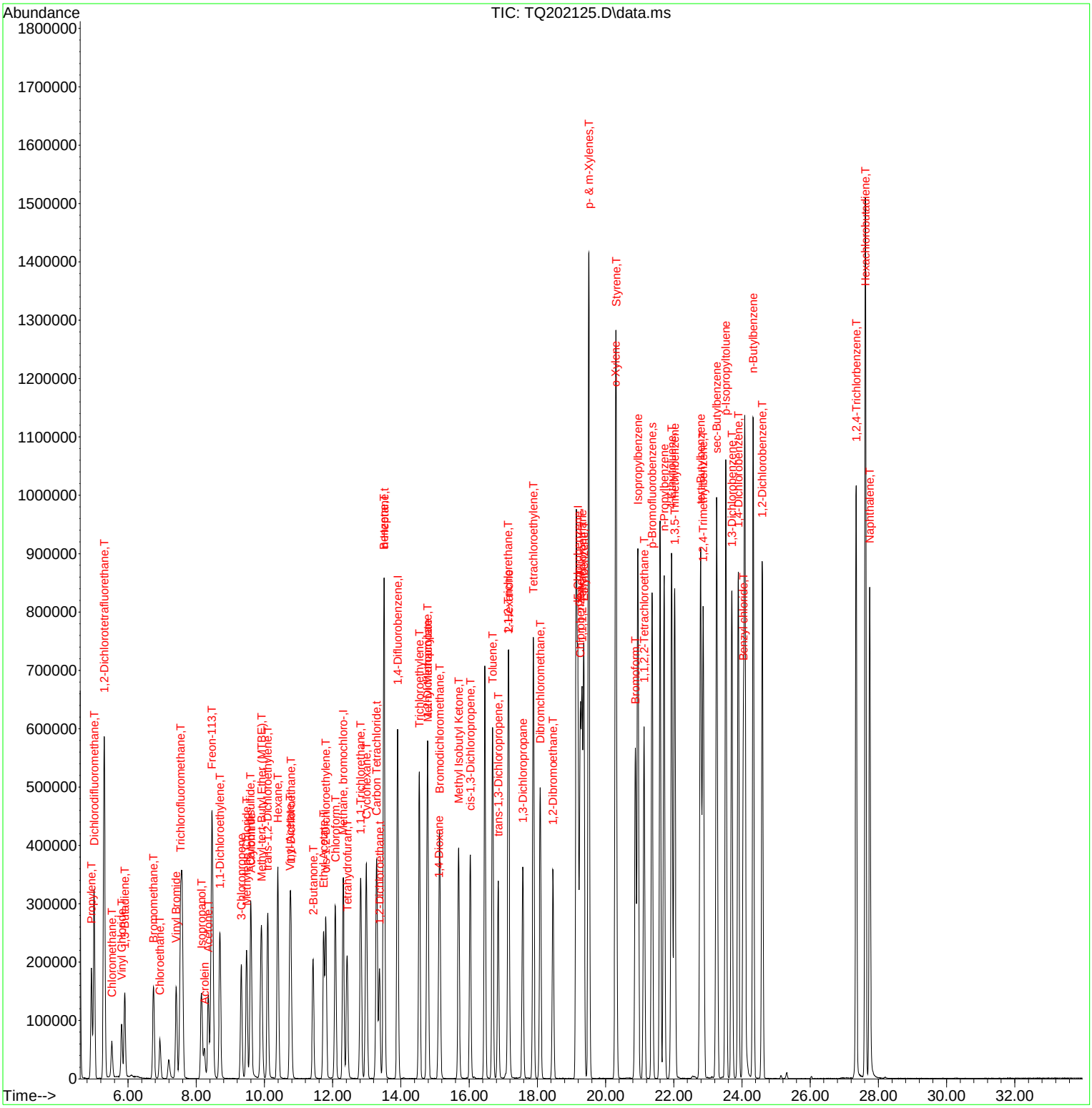
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49) 1,3-Dichloropropane	17.572	76	389625	10.47	ppbv	#	72
50) Tetrachloroethylene	17.883	166	412365	8.07	ppbv		99
51) Dibromchloromethane	18.084	129	510366	10.91	ppbv		98
52) 1,2-Dibromoethane	18.456	107	452265	10.80	ppbv		97
54) Chlorobenzene	19.261	112	669321	10.86	ppbv	#	100
55) 1,1,1,2-Tetrachloroethane	19.310	131	358454	11.14	ppbv		92
56) Ethylbenzene	19.365	91	964998	11.12	ppbv		94
57) p- & m-Xylenes	19.511	91	1452709	22.53	ppbv		92
58) o-Xylene	20.291	91	827331	11.34	ppbv		97
59) Styrene	20.309	104	685384	11.29	ppbv	#	100
60) Bromoform	20.876	173	511659	11.58	ppbv		99
61) n-Propylbenzene	21.718	91	1351338	11.71	ppbv		98
62) Isopropylbenzene	20.950	105	1179611	11.26	ppbv		97
63) 1,1,2,2-Tetrachloroeth...	21.132	83	602984	11.69	ppbv		98
65) 4-Ethyltoluene	21.937	105	1224168	12.03	ppbv		96
66) 1,3,5-Trimethylbenzene	22.029	105	925292	11.32	ppbv		92
67) tert-Butylbenzene	22.785	119	1168504	11.48	ppbv	#	79
68) 1,2,4-Trimethylbenzene	22.864	105	994097	11.49	ppbv	#	88
69) sec-Butylbenzene	23.260	105	1518706	11.70	ppbv	#	94
70) p-Isopropyltoluene	23.528	119	1271648	11.69	ppbv	#	89
71) 1,3-Dichlorobenzene	23.705	146	740404	10.84	ppbv		96
72) 1,4-Dichlorobenzene	23.894	146	733943	10.59	ppbv		96
73) Benzyl chloride	24.040	91	815790	11.51	ppbv		93
74) n-Butylbenzene	24.327	91	1158588	12.23	ppbv		97
75) 1,2-Dichlorobenzene	24.595	146	725160	11.17	ppbv		96
76) 1,2,4-Trichlorbenzene	27.351	180	551393	10.70	ppbv		97
77) Hexachlorobutadiene	27.619	225	463297	11.74	ppbv		98
78) Naphthalene	27.747	128	1269966	9.14	ppbv		99

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\042117\
Data File : TQ202125.D
Acq On : 21 Apr 2017 5:11 pm
Sample : BD71102-BS1 Inst : TO15_AIR2
Operator : LDS
Sample : BD71102-BS1
Misc : QBTO2042117A LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 24 10:56:11 2017
Quant Method : C:\msdchem\1\methods\AIR-2-0007.M
Quant Title : TO15 VOC Analysis
DataAcq Meth:AIRACQ.M
QLast Update : Mon Feb 27 13:18:29 2017
Response via : Initial Calibration



BENCHSHEETS

SDG: 17D0833

CLASS: AIR

METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR : BD70982

Preparation Date: 04/18/2017 08:30

York Analytical Laboratories, Inc.

Printed: 5/9/2017 6:17:30PM

Matrix: Air **Preparation: EPA TO15 PREP** **Surrogate used: Y17B145 100 ul**

Lab Number	Analysis	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments
17D0577-01RE1 A	Volatile Organics, EPA TO15 Full List	400	400				From BD70783 by LDS on (
17D0657-01 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0657-02 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0657-03 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0657-04 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0657-05 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0711-01 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0711-02 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0833-01 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0833-02 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0833-03 A	Volatile Organics, EPA TO15 Full List	400	400				
17D0833-05 A	Volatile Organics, EPA TO15 Full List	400	400				
BD70982-BLK1	QC	400	400				
BD70982-BS1	QC	400	400	Y17B161		400	
BD70982-DUP1	QC	400	400		17D0657-02		

Preparations Performed by **LDS** **Date:** **04/20/2017 16:45**

BENCHSHEETS

SDG: 17D0833

CLASS: AIR

METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR : BD71102

Preparation Date: 04/21/2017 19:18

York Analytical Laboratories, Inc.

Printed: 5/9/2017 6:30:16PM

Matrix: Air **Preparation: EPA TO15 PREP** **Surrogate used: Y17B145 100 ul**

Lab Number	Analysis	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	Comments
17D0833-04 A	Volatile Organics, EPA TO15 Full List	400	400				From BD70982 by LDS on (
BD71102-BLK1	QC	400	400				
BD71102-BS1	QC	400	400	Y17B161		400	
BD71102-DUP1	QC	400	400		17D0833-04		

From BD70982 on 04/24/2017 by LDS

Preparations Performed by **LDS** **Date:** **04/21/2017 20:19**

SUMMA Canister Cleaning/Preparation Log

Date of Cleaning	Analyst Initials	Canister Number	Lot Number	Temperature of Cleaning Oven (60 °C)	Canister Cleaning System (1 or 2)	Number of cleaning cycles (4 or 6) *	Leak check Date (>24 hours)	Analyst Initials	GC/MS file name and date for canister certification
4-13-17	JN	479	QBS 041317A	60	2	4		DS	TO22925
		478							
		15525							
		23998							
		16696							
		476							
		22078							
		18310							
		450							
		23799							
		23991							
		22081							
		22080							
		23196							
		23197							
		18308							
		22079							
		16156							
		467							
		23797							

* 6 or more cleaning cycles are required for canisters that contain high concentration of VOAs

DO# 1037654 DO# 1037581

Quantitation Report (QT Reviewed)

Data Path : D:\041717\
Data File : TO22925.D
Acq On : 18 Apr 2017 5:56 pm
Operator : LDS
Sample : QBS041317A
Misc : QBTO041717A BATCH CERT CAN#Y79
ALS Vial : 2 Sample Multiplier: 1
InstName : 5975C

Quant Time: Apr 20 10:32:19 2017
Quant Method : C:\msdchem\1\methods\AIR91.M
Quant Title : TO15 VOC Analysis
QLast Update : Thu Oct 27 08:54:39 2016
Response via : Initial Calibration

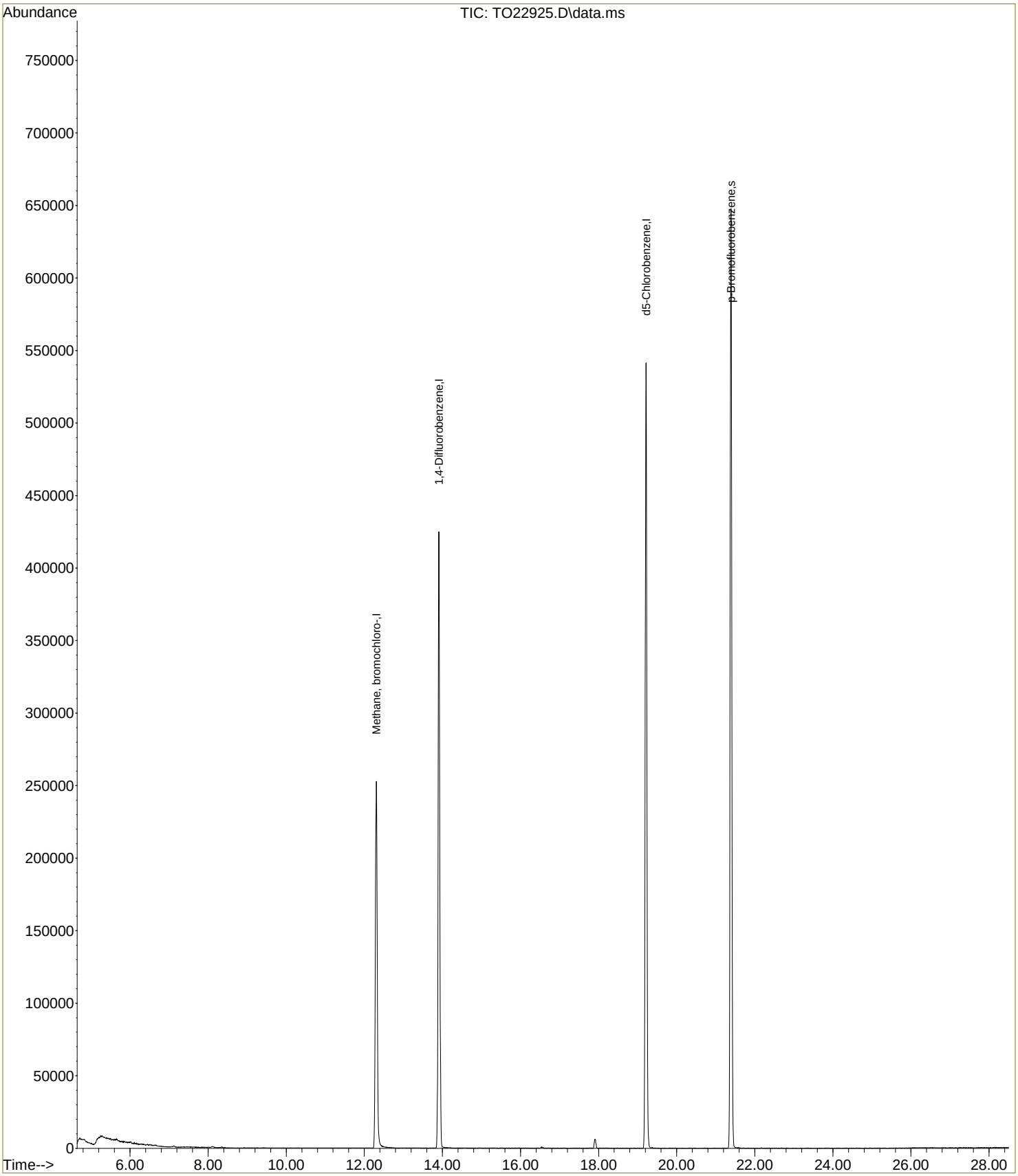
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.306	49	202862	10.00	ppbv	0.00
37) 1,4-Difluorobenzene	13.909	114	539229	10.00	ppbv	-0.01
53) d5-Chlorobenzene	19.213	117	497139	10.00	ppbv	-0.01
System Monitoring Compounds						
64) p-Bromofluorobenzene	21.390	95	355566	9.05	ppbv	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.50%			
Target Compounds						Qvalue

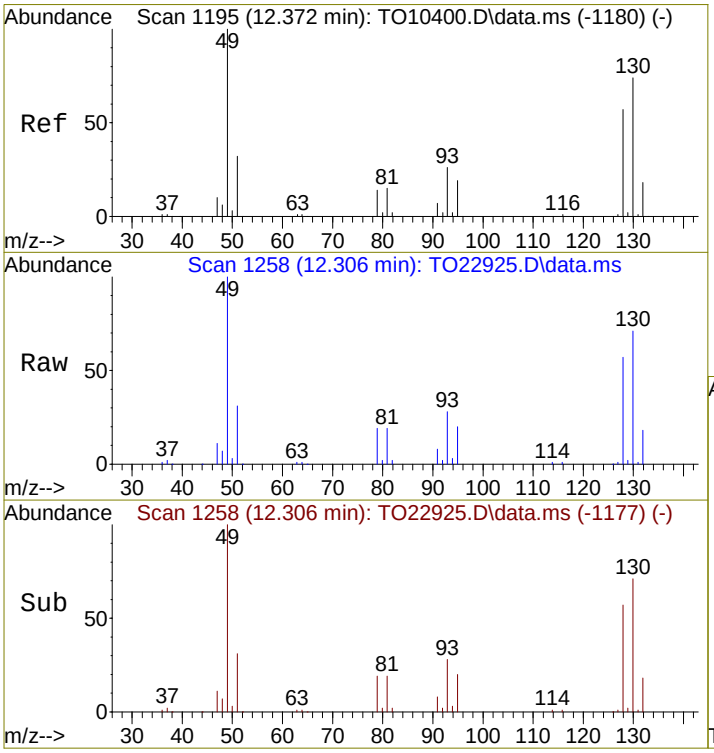
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\041717\
Data File : TO22925.D
Acq On : 18 Apr 2017 5:56 pm
Operator : LDS
Sample : QBS041317A
Misc : QBTO041717A BATCH CERT CAN#Y79
ALS Vial : 2 Sample Multiplier: 1
InstName : 5975C

Quant Time: Apr 20 10:32:19 2017
Quant Method : C:\msdchem\1\methods\AIR91.M
Quant Title : TO15 VOC Analysis
QLast Update : Thu Oct 27 08:54:39 2016
Response via : Initial Calibration

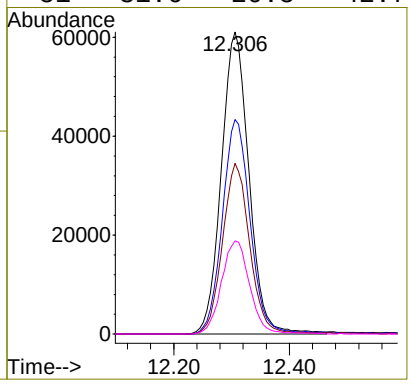


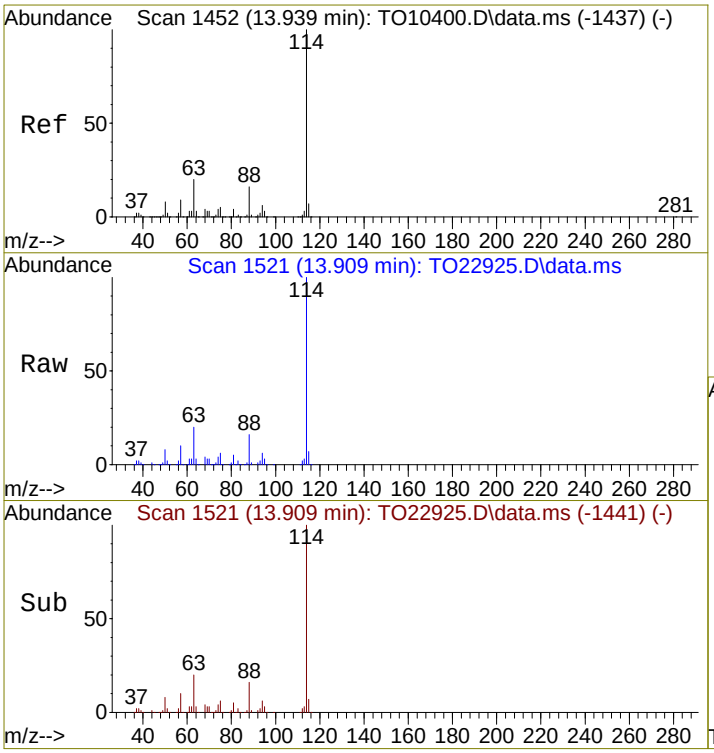


#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.306 min Scan# 1258
Delta R.T. -0.008 min
Lab File: TO22925.D
Acq: 18 Apr 2017 5:56 pm

Tgt Ion: 49 Resp: 202862

Ion	Ratio	Lower	Upper
49	100		
130	71.4	48.5	100.7
128	55.3	37.6	78.0
51	31.6	20.5	42.7

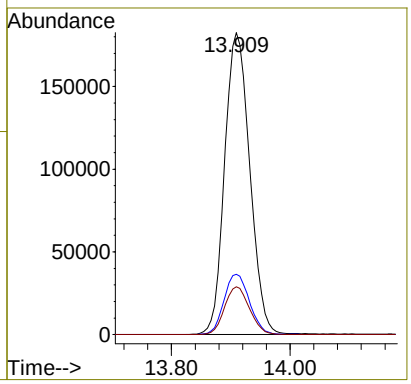


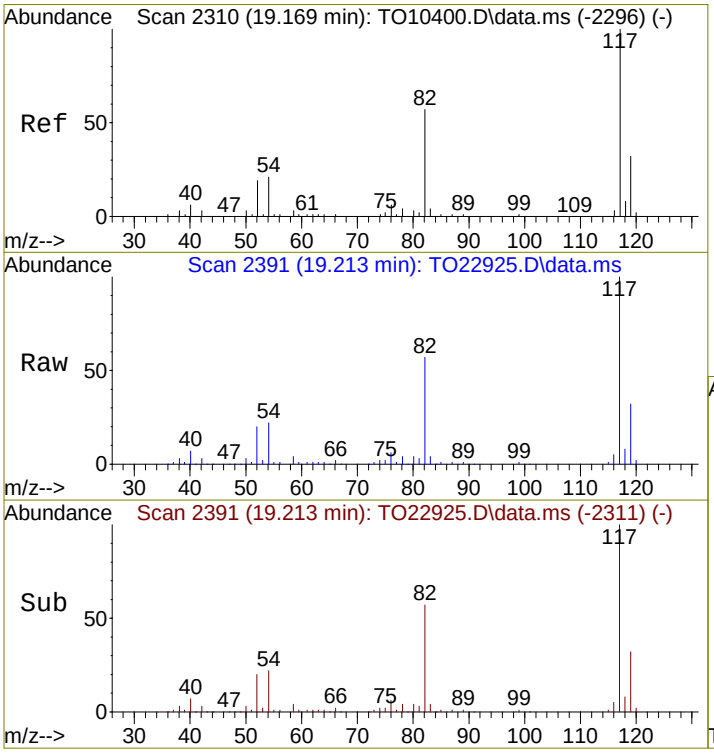


#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.909 min Scan# 1521
Delta R.T. -0.012 min
Lab File: TO22925.D
Acq: 18 Apr 2017 5:56 pm

Tgt Ion:114 Resp: 539229

Ion	Ratio	Lower	Upper
114	100		
63	20.2	13.3	27.5
88	15.6	10.4	21.6

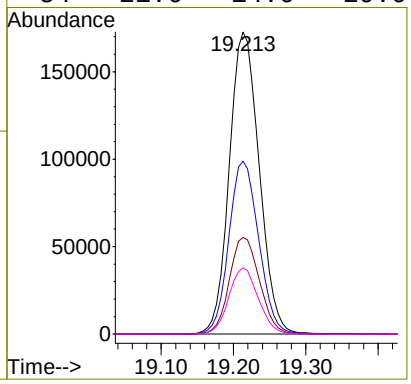


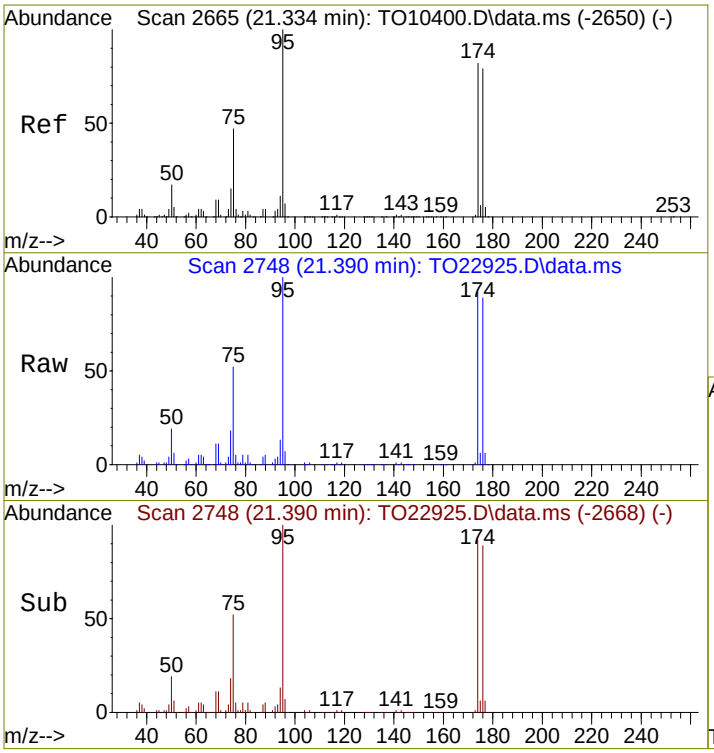


#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.213 min Scan# 2391
Delta R.T. -0.014 min
Lab File: TO22925.D
Acq: 18 Apr 2017 5:56 pm

Tgt Ion:117 Resp: 497139

Ion	Ratio	Lower	Upper
117	100		
82	57.0	36.7	76.1
119	32.2	20.9	43.5
54	21.6	14.0	29.0

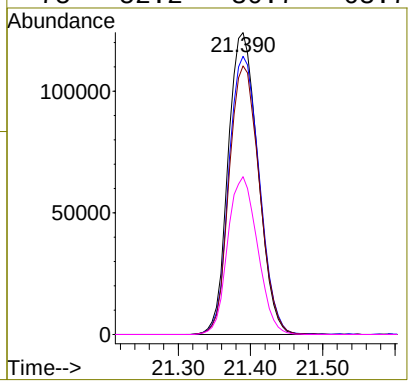




#64
p-Bromofluorobenzene
Concen: 9.05 ppbv
RT: 21.390 min Scan# 2748
Delta R.T. -0.012 min
Lab File: TO22925.D
Acq: 18 Apr 2017 5:56 pm

Tgt Ion: 95 Resp: 355566

Ion	Ratio	Lower	Upper
95	100		
174	94.2	53.2	110.6
176	90.0	51.6	107.2
75	52.2	30.7	63.7



TO14A/TO15 Summa Canister Injection Log

Batch ID	Sample ID	Final Canister Press./Vac. In field Reported by Client	Canister Pressure/Vacuum Before Analysis (psig or in. Hg vac)	Add'tl Press.for Analysis Final pressure(psig)	Pressurization Dil. Factor	ALS Inlet No.	Sample Vol. Used (ml)	Total Dilution Factor	COMMENTS	ISTD Vol. (ml)	Date	Analyst
BD 70982	TO-15 852											
	1700527-01 BS1	5	-3.5	10	1.931	4	1/5x 8ml/100ml	772.4	400x	40	4-20-17	VI
	1700657-01	-7	-6.3	10	2.127	5	40	21.27		40		
	-03	-6	-5.0	10	2.016	6	40	20.16		40		
	-02	-8	-9.1	10	2.411	7	750	1,286	DW	40		
	-04	-2	-7.3	10	2.220	8	750	1,184		40		
	-05	-10	-8.4	10	2.333	9	750	1,244		40		
	1700833-01		-8.7	10	2.366	10	750	1,262	23551	40		
	-02		-3.8	10	1.924	11	40	19.24	479	40		
	-03		-1.8	10	1.787	12	40	17.87	22078	40		
	-04		-4.4	10	1.969	13	40	19.69	-IS 18310	40		
	-05		0.0	10	1.680	14	40	16.80	22081	40		
	1700711-01	-7	-6.1	10	2.109	15	40	21.09		40		
	-02	-5	-5.6	10	2.066	16	40	20.66		40		
										40		
										40		
										40		
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										40		
										40		

York Analytical Laboratories, Inc.

TO14A/TO15 Summa Canister Injection Log

Batch ID	Sample ID	Final Canister Press./Vac. In field Reported by Client	Canister Pressure/Vacuum Before Analysis (psig or in. Hg vac)	Add'tl Press.for Analysis Final pressure(psig)	Pressurization Dil. Factor	ALS Inlet No.	Sample Vol. Used (ml)	Total Dilution Factor	COMMENTS	ISTD Vol. (ml)	Date	Analyst
B071162	1705 1710083304		-4.4	10	1.969	13	40		DUP	40	4-21-17	VD
										40		
										40		
										40		
										40		
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										40		

York Analytical Laboratories, Inc.

Air Sampling Media Request e-Form

Date of Request: 4/13/2017

Date Media Needed to Log-In: **4/19/2017**
Requested By: Lidya
Order No.: **1037581**

Order Completed on: 4-18-17
Completed By: VC

Client: **Langan-NJ** Date of Request: 4/13/2017 Date to Client: 4/20/2017
Client Project ID: 365 Bond St BRK Client Contact Person: Tori Wardamasky

Delivery Method (x): X York Courier ☐ Client Pickup
Address for Drop Off: **365 Bond St Brooklyn**

Special instructions/Additional Info: **Digital FCs**
(5) cans with FCs, 1 grab (or extra can)

Type of Samples Expected (x): *Ambient Air* *SV* *Other*

Type of Media Needed	Quantity	Digital Gauge (x)	Indiv. Cert. (x)	Comments
Summa Canisters- 6 Liter	6			
Summa Canisters- 3 Liter				
Tedlar Bag,1 L				
Flow controller, grab				
Flow controller, 1 hour				
Flow controller, 2 hour		4		
Flow controller, 4 hour				
Flow controller, 6 hour		1		
Flow controller, 8 hour				
Flow controller, 12 hour				
Flow controller, 24 hour				

Assets Provided under this Request

Summa Canister IDs	Indiv. Cert (x).	Flow Cont. ID	
23991		3540	– 6 hr
479		422	
18310		3350	2 hr
22081		7416	
22078		423	

ATTACHMENT C

Data Usability Summary Report

LANGAN

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Jessica Friscia, Senior Staff Engineer

From: Emily Strake, Langan Senior Project Chemist/Risk Assessor

Date: June 7th, 2017

Re: Data Usability Summary Report
For 365 Bond Street
Brooklyn, New York
Soil Vapor Samples Collected April 2017
Langan Project No.: 100287503

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of four soil vapor samples and one outdoor ambient air sample collected on April 20th, 2017 by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. ("Langan") at 365 Bond Street located in Brooklyn, New York ("the Site"). The samples were analyzed by York Analytical Laboratories (NYSDOH ELAP registration # 10854) for volatile organic compounds (VOCs) by the following analytical method:

- VOCs by USEPA Method TO-15

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
17D0833	17D0833-01	815/OA-1	4/20/17	VOCs
17D0833	17D0833-02	816/V2	4/20/17	VOCs
17D0833	17D0833-03	817/V3	4/20/17	VOCs
17D0833	17D0833-04	818/DUP-1	4/20/17	VOCs
17D0833	17D0833-05	819/V5	4/20/17	VOCs

VALIDATION OVERVIEW

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of VOCs in Air Contained in Canisters by Method TO-15" (June 2014, Revision 6) and the USEPA Contract Laboratory Program "National Functional Guidelines for Superfund Organic Methods Data Review" (USEPA-540-R-014-002, August 2014).

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, laboratory duplicates, field duplicates, system monitoring compounds, internal standard area counts, clean canister certifications, target compound identification and quantification, chromatograms and overall system performance.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- **R –** The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently

valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

Client Sample ID	*Analysis*	*Analyte*	*CAS #*	*Validator Qualifier*
817/V3	VOCs	Acetone	67-64-1	J
818/DUP-1	VOCs	Acetone	67-64-1	J
818/DUP-1	VOCs	1,4-Dioxane	123-91-1	UJ
818/DUP-1	VOCs	Tetrachloroethylene	127-18-4	J

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA Method TO-15:

- The field duplicate and parent sample 817/V3 results exhibited a relative percent difference that met greater than the upper control limit (i.e. 25%) for acetone (51.9%). The associated results in the parent and the duplicate samples are qualified as "J" based on potential indeterminate bias.
- The continuing calibration verification (CCV) analyzed for batch Y7D2619 exhibited percent differences (%Ds) greater than the control limit for 1,4-dioxane (64.8%) and tetrachloroethylene (61.9%). The associated results in sample 818/DUP-1 are qualified as "J" or "UJ" based on potential indeterminate bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by USEPA Method TO-15:

- The LCS for batch BD71102 exhibited a percent recovery greater than the upper control limit (i.e. 130%) for 1,2-dichlorotetrafluoroethane (133%). The associated result is a non-detection; no qualification is necessary.
- The laboratory duplicate for parent sample 818/DUP-1 exhibited an RPD greater than the upper control limit (i.e. 25%) for chloromethane (63.4%). This result is less than five times the reporting limit for this compound; no qualification is necessary.

COMMENTS:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All sample hold times were met and the data packages met ASP Category B requirements.

The field duplicate and parent sample 817/V3 results exhibited a relative percent difference that met greater than the upper control limit for acetone (51.9%). See the minor deficiencies section for the resulting qualifiers.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Emily Strake
Senior Project Chemist/Risk Assessor

7 March 2018

John Grathwol
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Soil Vapor Monitoring Report – Year 2
365 Bond Street
Brooklyn, New York
BCP Site No. C224174
Langan Project No.: 100287503

Dear Mr. Grathwol:

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) has prepared this letter report to summarize periodic soil vapor sampling during the second year of passive sub-membrane depressurization system (SMDS) operation at 365 Bond Street in Brooklyn, New York (the "site"). The soil vapor monitoring was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) dated September 2015, prepared by Langan.

Background

The site is located at 365 Bond Street in the City of Brooklyn, Kings County, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. The site is approximately 2.066 acres and is located on the city block bordered by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west. Site location is shown on Figure 1.

The site was remediated under the NYSDEC Brownfield Cleanup Program in accordance with a NYSDEC-approved Interim Remedial Measures Work Plan (IRM) and Remedial Action Work Plan (RAWP), as described in the September 2015 Final Engineering Report (FER) and Construction Completion Report (CCR). As part of the remediation, soil vapor mitigation measures included installation of a sub-membrane piping network for a passive SMDS and a vapor barrier membrane beneath the ground floor slab of the building. The SMDS as-built layout is shown on Figure 2. Details of the SMDS and soil vapor port installation were included in the CCR, and a signed and sealed as-built detail drawing was included as Figure 2 in Appendix P of the CCR. Following NYSDEC-approval of the September 2015 CCR and during the completion of the construction of the building superstructure, the system was finalized with six cast iron riser pipes to convey the collected vapor to the building roof. To date, all system components have been constructed.

The site was redeveloped as a five- to twelve-story mixed-use commercial/residential building with a partial basement. The foundation was constructed concurrently with implementation of the RAWP. The building has been completed and was opened for residential occupation in

April 2016. The building is being operated in accordance with the SMP which in part specifies that periodic soil vapor monitoring be completed to assess the effectiveness of the remedy. The SMP specifies that monitoring occur one, three, six, and twelve months after the completion of system construction and annually thereafter during the heating season unless otherwise required by NYSDEC to assess system effectiveness and determine if expansion to an active SMDS is warranted.

SMDS Inspection and Soil Vapor Sampling

On 13 February 2018, Langan conducted a visual inspection of the above-ground SMDS system components prior to collecting sub-membrane soil vapor samples. The results of the inspection confirmed that all system components that have been constructed to date are in good condition. Langan also completed field screening of the soil vapor using a RAE Systems photo-ionization detector (PID) capable of detecting volatile organic compound (VOC) in parts per billion (ppb). System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sample port (V2, V3 and V5). Current and previous field screening data are provided in Table 1. VOC readings detected with the PID at the sample ports ranged from 637 ppb to 658 ppb and vacuum measurements at the sample ports ranged from 0.021 inches water to 0.064 inches water. The field screening results indicate that VOCs are present in the soil vapor collection system and that a vacuum condition exists that is removing these vapors from beneath the membrane. A copy of the passive SMDS inspection checklist and field data is provided in Attachment A.

Following the inspection and field screening, three sub-membrane soil vapor samples were collected using Summa canisters that were connected to each sample port via an approximately 3-foot length of Teflon-lined polyethylene tubing. Quality assurance/quality control (QA/QC) included collection of a duplicate sample (at the V3 location) and an ambient air sample from the exterior of the building. All samples were collected in accordance with the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Samples were collected in laboratory-cleaned and certified evacuated 6-L stainless steel Summa canisters with flow control regulators supplied by the laboratory. The regulators were set to collect each sub-membrane soil vapor sample over a 2-hour sampling period (a flow-rate of <200-ml per minute) as per United States Environmental Protection Agency (USEPA) / Interstate Technology and Regulatory Council (ITRC) soil vapor sampling guidance. Each sub-membrane soil vapor sample was numbered and recorded in a field log book. Samples were transferred to the laboratory immediately after field sampling was completed, and stored below a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis. All soil vapor and ambient air samples were submitted under chain of custody to Alpha Analytical Laboratories of Westborough, Massachusetts (Alpha) a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Soil vapor and ambient air samples were laboratory analyzed for VOCs via the USEPA TO-15 Method. A copy of the Summa canister log is provided in Attachment A.

Laboratory Analytical Results

The sub-membrane soil vapor analytical results were compared to the NYSDOH Matrices A, B, and C of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. A summary of the sub-membrane soil vapor analytical results from this sampling event is provided in Table 2 and shown on Figure 3. The complete laboratory report for the February 2018 sampling event is provided in Attachment B.

The following compounds are included in the decision matrices in the NYSDOH Final Guidance on Soil Vapor Intrusion dated October 2006 and appended in May 2007 and May 2017:

- Carbon tetrachloride
- 1,1,1-Trichloroethane (1,1,1-TCA)
- Cis-1,2-Dichloroethylene (cis-1,2-DCE)
- Methylene chloride
- Trichloroethylene (TCE)
- Tetrachloroethylene (PCE)
- 1,1-Dichloroethylene
- Vinyl Chloride

Concentrations of carbon tetrachloride, methylene chloride, 1,1,1-TCA, TCE, 1,1-dichloroethylene, and vinyl chloride were not detected in any of the sub-membrane soil vapor samples collected.

As shown in Table 2, laboratory analytical results revealed low concentrations of NYSDOH Matrix VOCs in the sub-slab soil vapor. For the purposes of data evaluation, due to the presence of the SMDS, the vapor barrier, and the building foundation, it is reasonably anticipated that indoor air concentrations of VOCs originating from soil vapor do not exist inside the building.

Analytical results for cis-1,2-DCE in sub-slab soil vapor were compared to the NYSDOH Vapor Intrusion Decision Matrix A. Cis-1,2-DCE was not detected in soil vapor at V2 or V3 but was detected at a concentration of 2.12 ug/m^3 at sample location V5. Therefore, as the concentrations detected in soil vapor were below the Matrix A soil vapor threshold of 6 ug/m^3 and are not expected to affect indoor air quality, no additional actions are needed to address human exposures. Analytical results for PCE in sub-slab soil vapor were compared to the NYSDOH Vapor Intrusion Decision Matrix B. PCE was not detected in soil vapor at V2 or V3 but was detected at a concentration of 2.55 ug/m^3 at sample location V5. Therefore, as the concentrations of PCE detected in soil vapor were below the Matrix B soil vapor threshold of 100 ug/m^3 and are not expected to affect indoor air quality, no additional actions are needed to address human exposures.

Several other VOCs were detected in soil vapor samples. Total VOC concentrations in the soil vapor samples ranged from 62.76 ug/m^3 (V2) to 103.76 ug/m^3 (V3). Benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) were detected in soil vapor at concentrations of 14.48 ug/m^3 (V5) to 24.55 ug/m^3 (V3).

Based on the remediation completed to date, the source of these vapors is likely residual contamination in soil that is being addressed by operation of the SMDS.

Historical sub-slab soil vapor analytical results are shown on Table 3. Comparison of the Year 2 monitoring analytical results against the analytical results from the four sampling events completed in Year 1 generally revealed a decrease in concentrations of total VOCs and BTEX in all three sampling locations. As indicated in the Year 1, Month 12 Soil Vapor Monitoring Report, elevated concentrations of total VOCs in Month 12 were likely due to the recent completion of the construction of the system (including the gluing of PVC fittings that compromise the sampling ports) that occurred within 1-month prior to the collection of the samples. Based on the significant decrease in concentrations of total VOCs in all three sampling locations from the Year 1, Month 12 sampling event to the Year 2 sampling event, this assumption appears to have been accurate. Chlorinated VOCs were detected at concentrations requiring no further action when compared against the Matrix A, Matrix B, and Matrix C Vapor Intrusion thresholds during all five sampling events.

Validation Overview

Data validation was completed for all sub-membrane soil vapor and ambient air results in accordance with the QAPP provided in the September 2015 SMP which included verification of sample results, verification of the identification of sample results, and recalculation of 10% of all sample results. Following data validation, a Data Usability Summary Report (DUSR) was prepared for all samples (and related QA/QC samples) collected during the monitoring event. The DUSR presents the results of the data validation, including a summary assessment of laboratory data packages, sample preservation and COC procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%. The DUSR is included in Attachment C. Associated raw data is provided as Attachment B.

Conclusions

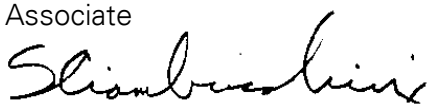
Based on the findings of this SMDS inspection and soil vapor monitoring event, the vacuum being produced in the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. A vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations for chlorinated VOCs were detected below the NYSDOH Vapor Intrusion Decision Matrix thresholds requiring further action.

Based on these findings, continued operation of the passive SMDS is sufficient in order to mitigate any potential impacts to the building interior indoor air quality and, system expansion as an active SMDS is not required at this time. The operation, maintenance, and monitoring (OM&M) protocols provided in the SMP for this passive SMDS will consist of continued monitoring of the system annually during the heating season unless otherwise required by NYSDEC.

Please call with any questions that you may have regarding this matter.

Sincerely,
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.

Christopher McMahon, CHMM
Associate



Steven A. Ciambruschini, P.G., L.E.P.
Principal / Vice President

SAC:kn
Enclosure(s): Table 1 – SMDS Screening Results
Table 2 – Summary of Sub-Slab Soil Vapor Analytical Results
Table 3 – Historical Sub-Slab Soil Vapor Analytical Results
Figure 1 – Site Location Map
Figure 2 – Sample Location Plan
Figure 3 – Sub-Slab Soil Vapor Analytical Results
Attachment A – Field Logs
Attachment B – Laboratory Analytical Results
Attachment C – Data Usability Summary Report (DUSR)

cc: Mark Green, Frank List, Scott Avram, Pam Horn – LSG 365 Bond Street, LLC
Amanda Forsburg, Jessica Friscia – Langan

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TABLES

TABLE 1

FIELD SCREENING RESULTS

365 Bond Street

Brooklyn, New York

Parameter	PID	PID	PID	PID	PID
Monitoring Event	Year 1, Month 1	Year 1, Month 3	Year 1, Month 6	Year 1, Month 12	Year 2
Date	5/20/2016	7/20/2016	10/20/2016	4/20/2017	2/13/2018
Units	ppb	ppb	ppb	ppb	ppb
Sample Port					
V2	329	239	373	1,058	637
V3	309	1,602	401	539	658
V5	257	0	363	717	640

Parameter	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum
Monitoring Event	Month 1	Month 3	Month 6	Month 12	Year 2
Date	5/20/2017	7/20/2017	10/20/2016	4/20/2017	2/13/2018
Units	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O
Sample Port					
V2	0.015	0.011	0.012	0.017	0.064
V3	0.005	0.006	0.009	0.011	0.029
V5	0.018	0.015	0.024	0.009	0.021

Notes:

ppb: parts per billion

in. H2O: inches of water

TABLE 2
SUMMARY OF SOIL VAPOR ANALYTICAL RESULTS
365 Bond Street
Brooklyn, New York

Sample ID Lab Sample ID Sample Date Units	CAS Number	NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1] ug/m^3	861/V2 L1805020-02 2/13/2018 ug/m^3	Q	862/V3 L1805020-03 2/13/2018 ug/m^3	Q	863/DUP-1 L1805020-04 2/13/2018 ug/m^3	Q	864/V5 L1805020-05 2/13/2018 ug/m^3	Q	865/AMBIENT-1 L1805020-06 2/13/2018 ug/m^3	Q
Volatile Organic Compounds (VOCs)												
1,1-Dichloroethane	75-34-3	--	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,1-Dichloroethylene	75-35-4	6	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
1,1,1-Trichloroethane	71-55-6	100	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
1,1,2,2-Tetrachloroethane	79-34-5	--	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	--	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U
1,1,2-Trichloroethane	79-00-5	--	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
1,2,4-Trichlorobenzene	120-82-1	--	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U
1,2,4-Trimethylbenzene	95-63-6	--	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U
1,2-Dibromoethane	106-93-4	--	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U
1,2-Dichlorobenzene	95-50-1	--	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	107-06-2	--	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,2-Dichloropropane	78-87-5	--	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U
1,2-Dichlorotetrafluoroethane	76-14-2	--	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
1,3,5-Trimethylbenzene	108-67-8	--	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U
1,3-Butadiene	106-99-0	--	0.442	U	0.515		0.518		0.442	U	0.442	U
1,3-Dichlorobenzene	541-73-1	--	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	106-46-7	--	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dioxane	123-91-1	--	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
2-Butanone	78-93-3	--	2.75		3.45		3.75		4.07		1.47	U
2-Hexanone	591-78-6	--	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U
4-Methyl-2-pentanone	108-10-1	--	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U
Acetone	67-64-1	--	19.7		20.3		20.8		25.2		12.7	
Allyl Chloride (3-Chloropropene)	107-05-1	--	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U
Benzene	71-43-2	--	1.08		2.82		2.74		1.47		0.907	
Benzyl chloride	100-44-7	--	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U
Bromodichloromethane	75-27-4	--	1.34	U	1.34	U	1.34	U	1.34	U	1.34	U
Bromoethene	593-60-2	--	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U
Bromoform	75-25-2	--	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U
Bromomethane	74-83-9	--	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U
Carbon disulfide	75-15-0	--	0.623	U	0.623	U	0.623	U	0.623	U	0.623	U
Carbon tetrachloride	56-23-5	6	1.26	U	1.26	U	1.26	U	1.26	U	1.26	U
Chlorobenzene	108-90-7	--	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U
Chloroethane	75-00-3	--	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U
Chloroform	67-66-3	--	0.977	U	0.977	U	0.977	U	1.15		0.977	U
Chloromethane	74-87-3	--	1.9		1.53		1.62		3.76		0.919	
cis-1,2-Dichloroethylene	156-59-2	6	0.793	U	0.793	U	0.793	U	2.12		0.793	U
cis-1,3-Dichloropropylene	10061-01-5	--	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Cyclohexane	110-82-7	--	0.688	U	0.702		0.688	U	0.688	U	0.688	U
Dibromochloromethane	124-48-1	--	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Dichlorodifluoromethane	75-71-8	--	2.11		2.09		2.05		2.15		2.16	
Ethyl acetate	141-78-6	--	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Ethyl Alcohol	64-17-5	--	11.9		37.1		37.1		23		14.3	
Ethyl Benzene	100-41-4	--	0.869	U	1.03		1.01		0.869	U	0.869	U
Hexachlorobutadiene	87-68-3	--	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U
Isooctane	540-84-1	--	0.934	U	2.41		2.38		1.35		0.934	U
Isopropanol	67-63-0	--	2.56		5.41		5.26		6.44		1.97	
Methyl tert-butyl ether (MTBE)	1634-04-4	--	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
Methylene chloride	75-09-2	100	1.74	U	1.74	U	1.98		1.74	U	1.99	
n-Heptane	142-82-5	--	0.82	U	1.2		1.26		0.82	U	0.82	U
n-Hexane	110-54-3	--	0.705	U	2.07		2.05		1.02		0.705	U
o-Xylene	95-47-6	--	0.999		1.13		1.12		0.869	U	0.869	U
p- & m- Xylenes	179601-23-1	--	2.78		3.57		3.34		2.71		1.74	U
p-Ethyltoluene	622-96-8	--	0.983	U	0.983	U	0.983	U	0.983	U	0.983	U
Styrene	100-42-5	--	0.852	U	0.852	U	0.852	U	0.852	U	0.852	U
Tetrachloroethylene	127-18-4	100	1.36	U	1.36	U	1.36	U	2.55		1.36	U
Tetrahydrofuran	109-99-9	--	1.48		2.43		2.5		2.87		1.47	U
Toluene	108-88-3	--	15.5		16		14.8		10.3		1.93	
trans-1,2-Dichloroethylene	156-60-5	--	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
trans-1,3-Dichloropropylene	10061-02-6	--	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Trichloroethylene	79-01-6	6	1.07	U	1.07	U	1.07	U	1.07	U	1.07	U
Trichlorofluoromethane (Freon 11)	75-69-4	--	1.12	U	1.12	U	1.12		2.21		1.12	U
Vinyl Chloride	75-01-4	6	0.511	U	0.511	U	0.511	U	0.511	U	0.511	U
Tert-Butyl Alcohol	75-65-0	--	1.52	U	1.52	U	1.52	U	1.52	U	2.38	
Total VOCs [2]		--	62.76		103.76		105.40		92.37		39.26	

Notes:
1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, amended May 2017
2. Total VOC concentration is calculated from results of compounds detected above the Method Detection Limit (MDL).
ug/m^3: microgram per cubic meter
Italicized results indicate the Reporting Limit (RL) is greater than or equal to the most stringent criteria.
Exceedances of regulatory criteria are highlighted and **bold**.
--- : No criteria identified
NA - Compound not analyzed

Q is the Qualifier Column with definitions as follows:
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL.

TABLE 3
HISTORICAL SOIL VAPOR ANALYTICAL RESULTS
365 Bond Street
Brooklyn, New York

Sample ID			0762/V2		0763/DUP-1 (V2)		0778/V2		794/V2		816/V2		861/V2		0764/V3		0779/V3		0780/DUP-1 (V3)		795/V3		796/DUP-1 (V3)		817/V3		818/DUP-1 (V3)		862/V3		863/DUP-1	
Lab Sample ID			16E0895-02		16E0895-03		16G0744-02		16J0713-02		17D0833-02		L1805020-02		16E0895-04		16G0744-03		16G0744-04		16J0713-03		16J0713-04		17D0833-03		17D0833-04		L1805020-03		L1805020-04	
Monitoring Event			Month 1		Month 1		Month 3		Month 6		Month 12		Year 2		Month 1		Month 3		Month 3		Month 6		Month 6		Month 12		Month 12		Year 2		Year 2	
Sample Date			5/20/2016		5/20/2016		7/20/2016		10/20/2016		4/20/2017		2/13/2018		5/20/2016		7/20/2016		7/20/2016		10/20/2016		10/20/2016		4/20/2017		4/20/2017		2/13/2018		2/13/2018	
Units	CAS Number	NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1] ug/m^3	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q	ug/m^3	Q
Volatile Organic Compounds (VOCs)																																
1,1-Dichloroethane	75-34-3	---	0.85	U	1	U	0.46	U	0.42	U	7.8	U	0.809	U	0.84	U	0.42	U	0.46	U	0.46	U	0.45	U	7.2	U	8	U	0.809	U	0.809	U
1,1-Dichloroethylene	75-35-4	6	0.84	U	1	U	0.45	U	0.4	U	*7.6*	*U*	0.793	U	0.83	U	0.42	U	0.45	U	0.4	U	0.4	U	*7.1*	*U*	*7.8*	*U*	0.793	U	0.793	U
1,1,1,2-Tetrachloroethane	630-20-6	---	1.4	U	1.8	U	0.78	U	0.69	U	13	U	NA		1.4	U	0.72	U	0.79	U	0.69	U	0.69	U	12	U	14	U	NA		NA	
1,1,1-Trichloroethane	71-55-6	100	1.2	U	1.4	U	0.62	U	0.55	U	10	U	1.09	U	1.1	U	0.57	U	0.62	U	0.55	U	0.55	U	9.8	U	11	U	1.09	U	1.09	U
1,1,2,2-Tetrachloroethane	79-34-5	---	1.4	U	1.8	U	0.78	U	0.69	U	13	U	1.37	U	1.4	U	0.72	U	0.79	U	0.69	U	0.69	U	12	U	14	U	1.37	U	1.37	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	---	1.6	U	2	U	0.87	U	0.77	U	15	U	1.53	U	1.6	U	0.8	U	0.88	U	0.77	U	0.77	U	14	U	15	U	1.53	U	1.53	U
1,1,2-Trichloroethane	79-00-5	---	1.2	U	1.4	U	0.62	U	0.55	U	10	U	1.09	U	1.1	U	0.57	U	0.62	U	0.55	U	0.55	U	9.8	U	11	U	1.09	U	1.09	U
1,2,4-Trichlorobenzene	120-82-1	---	1.6	U	1.9	U	0.84	U	0.74	U	14	U	1.48	U	1.5	U	0.78	U	0.85	U	0.74	U	0.74	U	13	U	15	U	1.48	U	1.48	U
1,2,4-Trimethylbenzene	95-63-6	---	6.9	J	2.4	J	2.4	D	0.49	U	9.5	U	0.983	U	2.8	D	5.6	D	4.9	D	0.49	U	0.49	U	8.8	U	9.7	U	0.983	U	0.983	U
1,2-Dibromoethane	106-93-4	---	1.6	U	2	U	0.87	U	0.77	U	15	U	1.54	U	1.6	U	0.81	U	0.88	U	0.77	U	0.77	U	14	U	15	U	1.54	U	1.54	U
1,2-Dichlorobenzene	95-50-1	---	1.3	U	1.5	U	0.68	U	0.6	U	12	U	1.2	U	1.3	U	0.63	U	0.69	U	0.6	U	0.6	U	11	U	12	U	1.2	U	1.2	U
1,2-Dichloroethane	107-06-2	---	0.85	U	1	U	0.46	U	0.4	U	7.8	U	0.809	U	0.84	U	0.42	U	0.46	U	0.4	U	0.4	U	7.2	U	8	U	0.809	U	0.809	U
1,2-Dichloropropane	78-87-5	---	0.97	U	1.2	U	0.52	U	0.46	U	8.9	U	0.924	U	0.96	U	0.49	U	0.53	U	0.46	U	0.46	U	8.3	U	9.1	U	0.924	U	0.924	U
1,2-Dichlorotetrafluoroethane	76-14-2	---	1.5	U	1.8	U	0.79	U	0.7	U	13	U	1.4	U	1.5	U	0.73	U	0.8	U	0.7	U	0.7	U	12	U	14	U	1.4	U	1.4	U
1,3,5-Trimethylbenzene	108-67-8	---	2.1	D	1.3	U	0.61	D	0.49	U	9.5	U	0.983	U	1	U	0.72	D	0.96	D	0.49	U	0.49	U	8.8	U	9.7	U	0.983	U	0.983	U
1,3-Butadiene	106-99-0	---	NA		NA		NA		NA		NA		0.442	U	NA		NA		NA		NA		NA		NA		NA		0.515		0.518	
1,3-Dichlorobenzene	541-73-1	---	1.3	U	1.5	U	0.68	U	0.6	U	12	U	1.2	U	1.3	U	0.63	U	0.69	U	0.6	U	0.6	U	11	U	12	U	1.2	U	1.2	U
1,3-Dichloropropane	142-28-9	---	0.97	U	1.2	U	0.52	U	0.46	U	8.9	U	NA		0.96	U	0.49	U	0.53	U	0.46	U	0.46	U	8.3	U	9.1	U	NA		NA	
1,4-Dichlorobenzene	106-46-7	---	1.3	U	1.5	U	0.68	U	0.6	U	12	U	1.2	U	1.3	U	0.63	U	0.69	U	0.6	U	0.6	U	11	U	12	U	1.2	U	1.2	U
1,4-Dioxane	123-91-1	---	1.5	U	1.9	U	0.82	U	0.72	UJ	14	U	0.721	U	1.5	U	0.76	U	0.82	U	0.72	UJ	0.72	UJ	13	U	14	UJ	0.721	U	0.721	U
2-Butanone	78-93-3	---	7.1	D	6.7	D	3.9	D	0.38		81	D	2.75		10	D	10	D	9	D	0.29	U	0.29	U	87	D	79	D	3.45		3.75	
2-Hexanone	591-78-6	---	1.7	U	2.1	U	0.93	UJ	0.82	U	16	U	0.82	U	1.7	U	1.3	J	1.2	J	0.82	U	0.82	U	15	U	16	U	0.82	U	0.82	U
4-Methyl-2-pentanone	108-10-1	---	0.86	U	1.1	U	0.46	U	0.41	U	7.9	U	2.05	U	0.85	U	0.43	U	0.47	U	0.41	U	0.41	U	7.3	U	8.1	U	2.05	U	2.05	U
Acetone	67-64-1	---	48	D	58	D	14	D	2.4		280	D	19.7		61	D	47	D	42	D	1.9		1.1		200	JD	340	JD	20.3		20.8	
Acrylonitrile	107-13-1	---	0.46	U	0.56	U	0.25	U	0.22	U	4.2	U	NA		0.45	U	0.23	U	0.25	U	0.22	U	0.22	U	3.9	U	4.3	U	NA		NA	
Allyl Chloride (3-Chloropropene)	107-05-1	---	3.3	U	4	U	1.8	U	1.6	U	30	U	0.626	U	3.3	U	1.6	U	1.8	U	1.6	U	1.6	U	28	U	31	U	0.626	U	0.626	U
Benzene	71-43-2	---	9.4	D	6.4	D	0.98	D	0.32	U	6.1	U	1.08		4.1	D	4.4	D	4.5	D	0.45		0.32		9.1	D	6.9	D	2.82		2.74	
Benzyl chloride	100-44-7	---	1.1	U	1.3	U	0.59	U	0.52	UJ	10	U	1.04	U	1.1	U	0.54	U	0.59	U	0.52	UJ	0.52	UJ	9.3	U	10	U	1.04	U	1.04	U
Bromodichloromethane	75-27-4	---	1.4	U	1.7	U	0.76	U	0.67	U	13	U	1.34	U	1.4	U	0.7	U	0.77	U	0.67	U	0.67	U	12	U	13	U	1.34	U	1.34	U
Bromoethene	593-60-2	---	0.92	U	1.1	U	0.5	U	0.44	U	8.4	U	0.874	U	0.91	U	0.46	U	0.5	U	0.44	U	0.44	U	7.8	U	8.6	U	0.874	U	0.874	U
Bromoform	75-25-2	---	2.2	U	2.7	U	1.2	U	1	U	20	U	2.07	U	2.2	U	1.1	U	1.2	U	1	U	1	U	18	U	20	U	2.07	U	2.07	U
Bromomethane	74-83-9	---	0.82	U	1	U	0.44	U	0.39	U	7.5	U	0.777	U	0.81	U	0.41	U	0.44	U	0.39	U	0.39	U	6.9	U	7.6	U	0.777	U	0.777	U
Carbon disulfide	75-15-0	---	0.66	U	0.8	U	0.53	D	0.31	U	49	D	0.623	U	0.65	D	0.88	D	0.82	D	0.31	U	0.31	U	5.6	U	55	D	0.623	U	0.623	U
Carbon tetrachloride	56-23-5	6	0.33	U	0.4	U	0.18	U	0.16	U	3	U	1.26	U	0.33	U	0.17	U	0.18	U	0.16	U	0.16	U	2.8	U	3.1	U	1.26	U	1.26	U
Chlorobenzene	108-90-7	---	0.97	U	1.2	U	0.52	U	0.46	U	8.9	U	0.921	U	0.96	U	0.48	U	0.53	U	0.46	U	0.46	U	8.2	U	9.1	U	0.921	U	0.921	U
Chloroethane	75-00-3	---	0.56	U	0.68	U	0.3	U	0.26	U	5.1	U	0.528	U	0.55	U	0.28	U	0.3	U	0.26	U	0.26	U	4.7	U	5.2	U	0.528	U	0.528	U
Chloroform	67-66-3	---	1	U	1.3	U	0.55	U	0.73		9.4	U	0.977	U	1	U	0.51	U	0.56	U	0.49	U	0.49	U	8.7	U	9.6	U	0.977	U	0.977	U
Chloromethane	74-87-3	---	2	D	2	D	5.6	D	0.41		7.2	D	1.9		2.9	D	2.3	D	2.2	D	0.21	U	0.23		4.4	D	5.7	D	1.53		1.62	
cis-1,2-Dichloroethylene	156-59-2	6	0.84	U	1	U	0.81	D	0.4	U	*7.6*	*U*	0.793	U	0.83	U	0.42	U	0.45	U	0.4	U	0.4	U	*7.1*	*U*	*7.8*	*U*	0.793	U	0.793	U
cis-1,3-Dichloropropylene	10061-01-5	---	0.96	U	1.2	U	0.51	U	0.45	U	8.7	U	0.908	U	0.95	U	0.48	U	0.52	U	0.45	U	0.45	U	8.1	U	8.9	U	0.908	U	0.908	U
Cyclohexane	110-82-7	---	1.8	D	1.6	D	0.47	D	0.34	U	6.6	U	0.688	U	1.7	D	1.4	D	1.5	D	0.34	U	0.34	U	6.2	U	6.8	U	0.702		0.688	U
Dibromochloromethane	124-48-1	---	1.8	U	2.2	U	0.97	U	0.85	U	16	U	1.7	U	1.8	U	0.89	U	0.97	U	0.85	U	0.85	U	15	U	17	U	1.7	U	1.7	U
Dichlorodifluoromethane	75-71-8	---	2.7	D	2.8	D	1.1	D	0.49	U	9.5	U	2.11		2.9	D	1.1	D	0.85	D	0.49	U	0.49	U	8.8	U	9.7	U	2.09		2.05	
Ethyl acetate	141-78-6	---	1.5	U	1.9	U	0.82	U	0.72	U	14	U	1.8	U	1.5	U	0.76	U	0.82	U	0.72	U	0.72	U	13	U	14	U	1.8	U	1.8	U
Ethyl Benzene	100-41-4	---	6.3	J	3	J	2.5	D	0.43	U	8.4	U	0.869	U	3.1	D	4.5	D	5.4	D	0.43	U	0.43	U	7.8	U	8.6	U	1.03		1.01	
Hexachlorobutadiene	87-68-3	---	2.2	U	2.7	U	1.2	U	1.1	U	21	U	2.13	U	2.2	U	1.1	U	1.2	U	1.1	U	1.1	U	19	U	21	U	2.13	U	2.13	U
Isopropanol	67-63-0	---	1	U	1.3	U	0.56	U	0.49	U	54	D	2.56		1	U	11	D	8.3	D	0.81		1.3		35	D	71	D	5.41		5.26	
Methyl Methacrylate	80-62-6	---	0.86	U	1.1	U	0.46	U	0.41	U	7.9	U	NA		0.85	U	0.43	U	0.47	U	0.41	U	0.41	U	7.3	U	8.1	U	NA		NA	
Methyl tert-butyl ether (MTBE)	1634-04-4	---	0.76	U	0.93	U	0.41	U	0.36	U	6.9	U	0.721	U	0.75	U	0.38	U	0.41	U	0.36	U	0.36	U	6.4	U	7.1	U	0.721	U	0.721	U
Methylene chloride	75-09-2	100	5.4	J	30	J	0.79	U	0.69	U	13	U	1.74	U	2	D	1.8	D	1.1	D	7.6	J	0.69	UJ	12	U	14	U	1.74	U	1.98	
n-Heptane	142-82-5	---	3.9	D	3	D	1.1	D	0.41	U	7.9	U	0.82	U	2.9	D	2.7	D	2.9	D	0.41	U	0.41	U	7.3	U	8.1	U	1.2		1.26	
n-Hexane	110-54-3	---	18	J	55	J	1.7	D	0.35	U	6.8	U	0.705	U	19	D	6.4	D	5.2	D	6.5	J	0.53	J	6.3	D	6.9	U	2.07		2.05	
o-Xylene	95-47-6	---	8.9	J	4.6	J	2.8	D	0.43	U	8.4	U	0.999		5	D	0.64	D	0.5	U	0.43		0.43		7.8	U	8.5	U	1.13		1.12	
p- & m- Xylenes	179601-23-1	---	24	J	12	J	10	D	0.87	U	17	U	2.78		13	D	17	D	22	D	1.2		1.3		16	U	17	U	3.57		3.34	
p-Ethyltoluene	622-96-8	---	6.4	J	2	J	1.8	D	0.49	U	9.5	U	0.983	U	2	D	2.4	D	2.9	D	0.49	U	0.49	U	8.8	U	9.7	U	0.983	U	0.983	U
Propylene	115-07-1	---	7.7	D	6.6	D	0.2	U	0.17	U	3.3	U	NA		4.9	D	3.5	D	3.4	D	0.17	U	0.17	U	20	D	20	D	NA		NA	
Styrene	100-42-5	---	0.9	U	1.1	U	1.1	D	0.43	U	8.2	U	0.852	U	0.89	U	0.45	U	0.49	U	0.43	U	0.43	U	7.6	U	8.4	U	0.852	U	0.852	U
Tetrachloroethylene	127-18-4	100	1.6	J	0.44	UJ	3.6	D	0.2		9.1	D	1.36	U	2.5	D	0.78	D	0.93	D	0.17	U	0.17	U	7.3	D	8	JD	1.36	U	1.36	U
Tetrahydrofuran	109-99-9	---	29	D	26	D	37	D	0.65		37	D	1.48		43	D	26	D	26	D	0.59	U	0.59	U	36	D	31	D	2.43		2.5	
Toluene	108-88-3	---	32	J	19	J	11	D	0.6		17	D	15.5		16	D	23	D	26	D	2.1		2.1		20	D	21	D	16		14.8	
trans-1,2-Dichloroethylene	156-60-5	---	0.84	U	1	U	0.58	D	0.4	U	7.6	U	0.793	U	0.83	U	0.75	D	0.77	D	0.4	U	0.4	U	7.1	U	7.8	U	0.793	U	0.793	U
trans-1,3-Dichloropropylene	10061-02-6	---	0.96	U	1.2	U	0.51	U	0.45	U	8.7	U	0.908	U	0.95	U	0.48	U	0.52	U	0.45	U	0.45	U	8.1	U	8.9	U	0.908	U	0.908	U
Trichloroethylene	79-01-6	6	0.28	U	0.35	U	1.2	D	0.13	U	2.6	U	1.07	U	0.28	U	0.79	D	1.1	D	0.13	U	0.13	U	2.4	U	2.6	U	1.07	U	1.07	U
Trichlorofluoromethane (Freon 11)	75-69-4	---	3.6	D	5.5	D	2	D	0.56	U	11	U	1.12	U	3.6	D	1.8	D	2.1	D	0.56	U	0.56	U	10	U	11	U	1.12	U	1.12	
Vinyl acetate	108-05-4	---	0.74	U	0.91	U	0.4	UJ	0.35	U	6.8	U	NA		0.73	U	0.37	UJ	0.4	UJ	0.35	U	0.35	U	6.3	U	6.9	U	NA		NA	
Vinyl Chloride	75-01-4	6	0.54	U	0.66	U	0.29	U	0.26	U	4.9	U	0.511	U	0.53	U	0.27	U	0.29	U	0.26	U	0.26	U	4.6	U	5	U	0.511	U	0.511	U
Tert-Butyl Alcohol	75-65-0	–	NA		NA		NA		NA		NA		1.52	U	NA		NA		NA		NA		NA		NA		NA		1.52	U	1.52	U
Total VOCS[2]	---	---	226.8		246.6		106.78		5.37		534.3		62.76		203.05		177.76		176.03		20.99		7.31		425.1		637.6		103.76		105.40	

Notes:

1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, amended May 2017

2. Total VOC concentration is calculated from results of compounds detected above the LOD (Limit of Detection) or Method Detection Limit (MDL).

ug/m^3: microgram per cubic meter

Exceedances of regulatory criteria are highlighted and **bold**.

--- : No criteria identified

NA - Compound not analyzed

Q is the Qualifier Column with definitions as follows:

J: analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data

U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the LOQ (Limit

TABLE 3
HISTORICAL SOIL VAPOR ANALYTICAL RESULTS
365 Bond Street
Brooklyn, New York

Sample ID Lab Sample ID Monitoring Event Sample Date Units	CAS Number	**NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1]** ug/m^3	0765/V5 16E0895-05 Month 1 5/20/2016 ug/m^3	Q	0781/V5 16G0744-05 Month 3 7/20/2016 ug/m^3	Q	797/V5 16J0713-05 Month 6 10/20/2016 ug/m^3	Q	819/V5 17D0833-05 Month 12 4/20/2017 ug/m^3	Q	864/V5 L1805020-05 Year 2 2/13/2018 ug/m^3	Q
Volatile Organic Compounds (VOCs)												
1,1-Dichloroethane	75-34-3	---	0.78	U	0.45	U	0.54	U	6.8	U	0.809	U
1,1-Dichloroethylene	75-35-4	6	0.76	U	0.44	U	0.4	U	*6.7*	U	0.793	U
1,1,1,2-Tetrachloroethane	630-20-6	---	1.3	U	0.76	U	0.69	U	12	U	NA	
1,1,1-Trichloroethane	71-55-6	100	1	U	0.61	U	0.55	U	9.2	U	1.09	U
1,1,2,2-Tetrachloroethane	79-34-5	---	1.3	U	0.76	U	0.69	U	12	U	1.37	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	---	1.5	U	0.85	U	0.77	U	13	U	1.53	U
1,1,2-Trichloroethane	79-00-5	---	1	U	0.61	U	0.55	U	9.2	U	1.09	U
1,2,4-Trichlorobenzene	120-82-1	---	1.4	U	0.82	U	0.74	U	12	U	1.48	U
1,2,4-Trimethylbenzene	95-63-6	---	1.9	D	5.4	D	0.69		8.3	U	0.983	U
1,2-Dibromoethane	106-93-4	---	1.5	U	0.85	U	0.77	U	13	U	1.54	U
1,2-Dichlorobenzene	95-50-1	---	1.2	U	0.67	U	0.6	U	10	U	1.2	U
1,2-Dichloroethane	107-06-2	---	0.78	U	0.45	U	0.4	U	6.8	U	0.809	U
1,2-Dichloropropane	78-87-5	---	0.89	U	0.51	U	0.46	U	7.8	U	0.924	U
1,2-Dichlorotetrafluoroethane	76-14-2	---	1.3	U	0.78	U	0.7	U	12	U	1.4	U
1,3,5-Trimethylbenzene	108-67-8	---	0.94	U	0.55	U	0.49	U	8.3	U	0.983	U
1,3-Butadiene	106-99-0	---	NA		NA		NA		NA		0.442	U
1,3-Dichlorobenzene	541-73-1	---	1.2	U	0.67	U	0.6	U	10	U	1.2	U
1,3-Dichloropropane	142-28-9	---	0.89	U	0.51	U	0.46	U	7.8	U	NA	
1,4-Dichlorobenzene	106-46-7	---	1.2	U	0.67	U	0.6	U	10	U	1.2	U
1,4-Dioxane	123-91-1	---	1.4	U	0.8	U	0.72	UJ	12	U	0.721	U
2-Butanone	78-93-3	---	15	D	7.6	D	0.35		280	D	4.07	0
2-Hexanone	591-78-6	---	1.6	U	1.1	D	0.82	U	14	U	0.82	U
4-Methyl-2-pentanone	108-10-1	---	0.78	U	0.46	U	0.41	U	6.9	U	2.05	U
Acetone	67-64-1	---	73	D	41	D	1.8		350	D	25.2	
Acrylonitrile	107-13-1	---	0.42	U	0.24	U	0.22	U	3.6	U	NA	
Allyl Chloride (3-Chloropropene)	107-05-1	---	3	U	1.7	U	1.6	U	26	U	0.626	U
Benzene	71-43-2	---	1.5	D	1.5	D	2.3		5.4	U	1.47	
Benzyl chloride	100-44-7	---	0.99	U	0.58	U	0.52	UJ	8.7	U	1.04	U
Bromodichloromethane	75-27-4	---	1.3	U	0.74	U	0.67	U	11	U	1.34	U
Bromoethene	593-60-2	---	0.84	U	0.49	U	0.44	U	7.3	U	0.874	U
Bromoform	75-25-2	---	2	U	1.1	U	1	U	17	U	2.07	U
Bromomethane	74-83-9	---	0.74	U	0.43	U	0.39	U	6.5	U	0.777	U
Carbon disulfide	75-15-0	---	0.6	U	0.35	D	0.31	U	5.2	U	0.623	U
Carbon tetrachloride	56-23-5	6	0.3	U	0.17	U	0.16	U	2.6	U	1.26	U
Chlorobenzene	108-90-7	---	0.88	U	0.51	U	0.46	U	7.7	U	0.921	U
Chloroethane	75-00-3	---	0.51	U	0.29	U	0.26	U	4.4	U	0.528	U
Chloroform	67-66-3	---	2	D	2.3	D	0.49	U	8.2	U	1.15	
Chloromethane	74-87-3	---	2.3	D	5	D	0.21	U	3.5	U	3.76	
cis-1,2-Dichloroethylene	156-59-2	6	1.7	D	0.57	D	0.4	U	*6.7*	U	2.12	
cis-1,3-Dichloropropylene	10061-01-5	---	0.87	U	0.5	U	0.45	U	7.6	U	0.908	U
Cyclohexane	110-82-7	---	1.1	D	0.61	D	0.34	U	5.8	U	0.688	U
Dibromochloromethane	124-48-1	---	1.6	U	0.95	U	0.85	U	14	U	1.7	U
Dichlorodifluoromethane	75-71-8	---	3.3	D	1.3	D	0.49	U	8.3	U	2.15	
Ethyl acetate	141-78-6	---	1.4	U	0.8	U	0.72	U	12	U	1.8	U
Ethyl Benzene	100-41-4	---	3.4	D	3.9	D	1.2		7.3	U	0.869	U
Hexachlorobutadiene	87-68-3	---	2	U	1.2	U	1.1	U	18	U	2.13	U
Isopropanol	67-63-0	---	0.94	U	6.4	D	0.49	U	49	D	6.44	
Methyl Methacrylate	80-62-6	---	0.78	U	0.45	U	0.41	U	6.9	U	NA	
Methyl tert-butyl ether (MTBE)	1634-04-4	---	0.69	U	0.4	U	0.36	U	6.1	U	0.721	U
Methylene chloride	75-09-2	100	3.9	D	0.77	U	0.69	U	12	U	1.74	U
n-Heptane	142-82-5	---	1.9	D	1.6	D	0.57		6.9	U	0.82	U
n-Hexane	110-54-3	---	18	D	2.6	D	0.7		5.9	U	1.02	
o-Xylene	95-47-6	---	4.7	D	0.48	U	1.3		7.3	U	0.869	U
p- & m- Xylenes	179601-23-1	---	14	D	14	D	4.1		15	U	2.71	
p-Ethyltoluene	622-96-8	---	1.3	D	2.1	D	0.88		8.3	U	0.983	U
Propylene	115-07-1	---	9.4	D	3.3	D	3.4		7.8	D	NA	
Styrene	100-42-5	---	0.82	U	0.47	U	0.43	U	7.2	U	0.852	U
Tetrachloroethylene	127-18-4	100	3	D	1.7	D	0.17	U	8	D	2.55	
Tetrahydrofuran	109-99-9	---	38	D	13	D	0.59	U	120	D	2.87	
Toluene	108-88-3	---	10	D	19	D	7.2		16	D	10.3	
trans-1,2-Dichloroethylene	156-60-5	---	0.76	U	0.57	D	0.4	U	6.7	U	0.793	U
trans-1,3-Dichloropropylene	10061-02-6	---	0.87	U	0.5	U	0.45	U	7.6	U	0.908	U
Trichloroethylene	79-01-6	6	0.26	U	1.5	D	0.13	U	2.3	U	1.07	U
Trichlorofluoromethane (Freon 11)	75-69-4	---	9.7	D	5.5	D	0.56	U	9.4	U	2.21	
Vinyl acetate	108-05-4	---	0.67	U	0.39	UJ	0.35	U	5.9	U	NA	
Vinyl Chloride	75-01-4	6	0.49	U	0.28	U	0.26	U	4.3	U	0.511	U
Tert-Butyl Alcohol	75-65-0	--	NA		NA		NA		NA		1.52	U
Total VOCS[2]	---	---	219.1		141.9		24.49		747.9		92.37	

Notes:

1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, amended May 2017

2. Total VOC concentration is calculated from results of compounds detected above the LOD (Limit of Detection) or Method Detection Limit (MDL).

ug/m^3: microgram per cubic meter

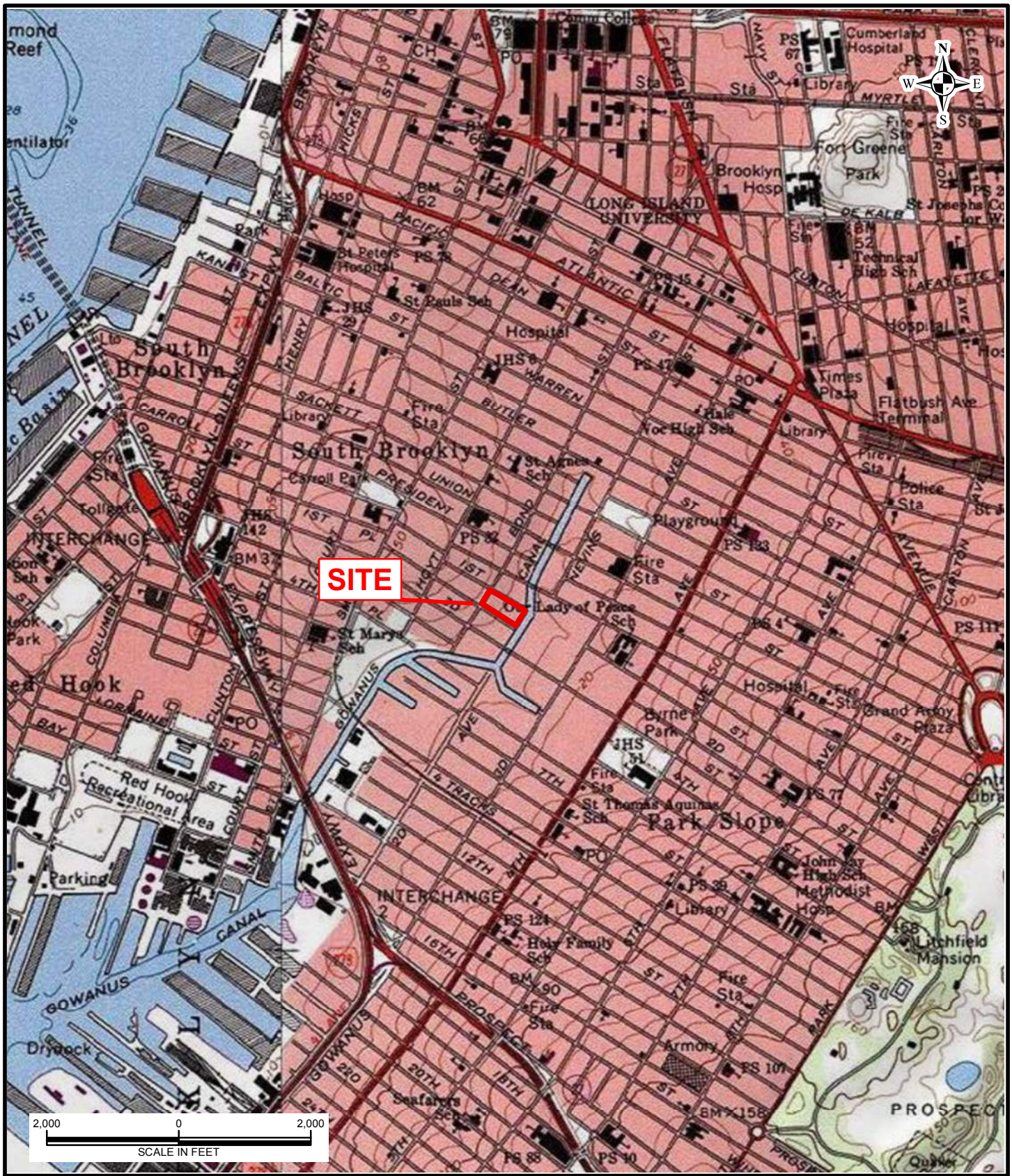
Exceedances of regulatory criteria are highlighted and **bold**.

--- : No criteria identified

NA - Compound not analyzed

Q is the Qualifier Column with definitions as follows:
J: analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data
U: The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the LOQ (Limit

FIGURES



LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan
NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project
365 BOND STREET DEVELOPMENT
BLOCK No. 458, LOT No. 1
BROOKLYN
KINGS COUNTY NEW YORK

Drawing Title
SITE LOCATION MAP

Project No.	100287503
Date	10/19/2012
Scale	1"=2000'
Drawn By	amf
Last Revised	3/12/2018
Figure	1

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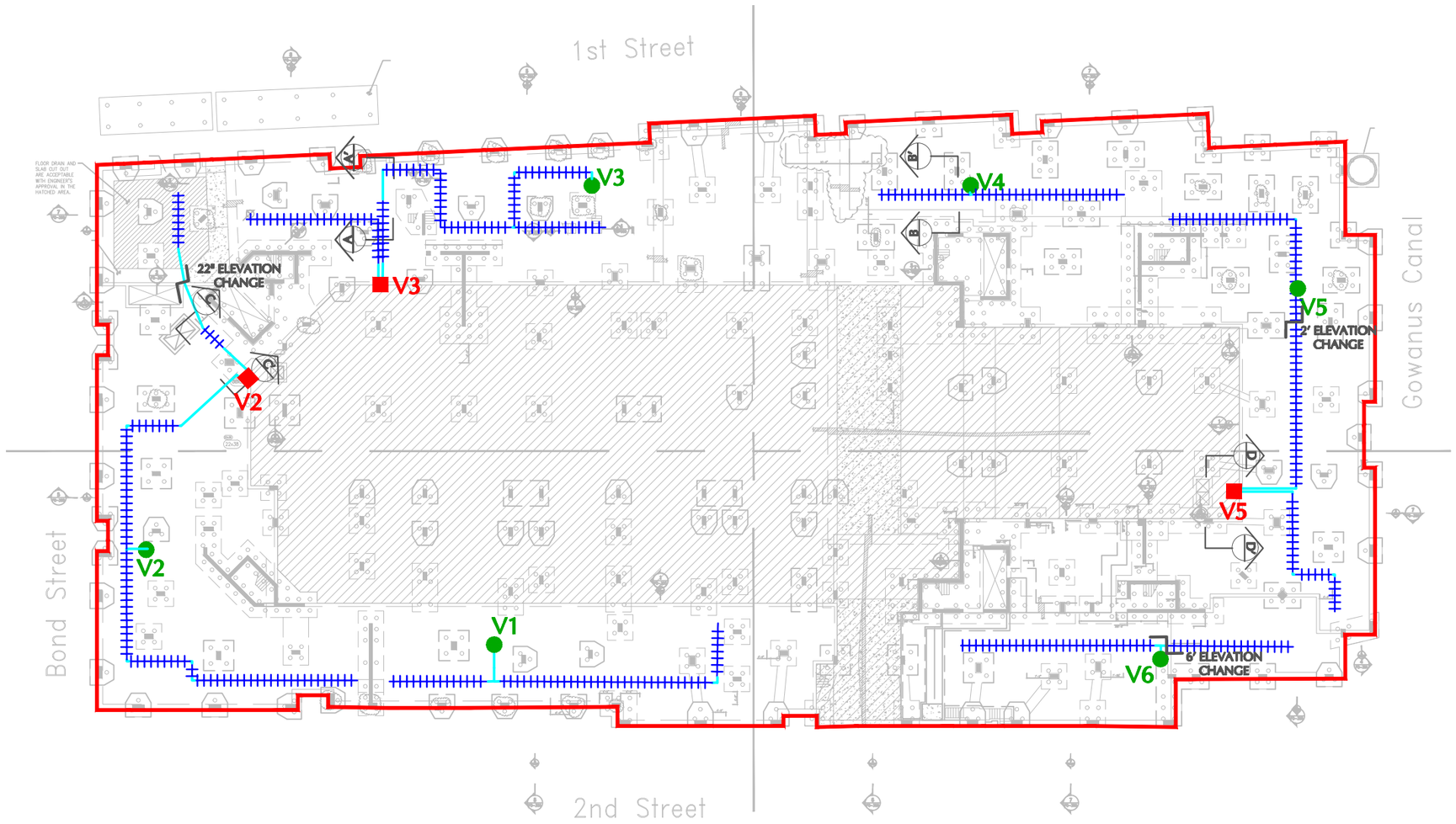
Path: \\langan.com\data\PAR\data5\100287501\ArcGIS\ArcMap_Documents\2018-03 – 365 Bond St SVMR\Figure 1 - Site Location Plan.mxd



40 0 10 25 40

SCALE IN FEET

LEGEND:

- BUILDING EXTERIOR
- SUBGRADE PARKING AREA
- INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
- INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
- V3 — INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
- INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

NOTES:

1. ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
2. THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
3. FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
4. SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
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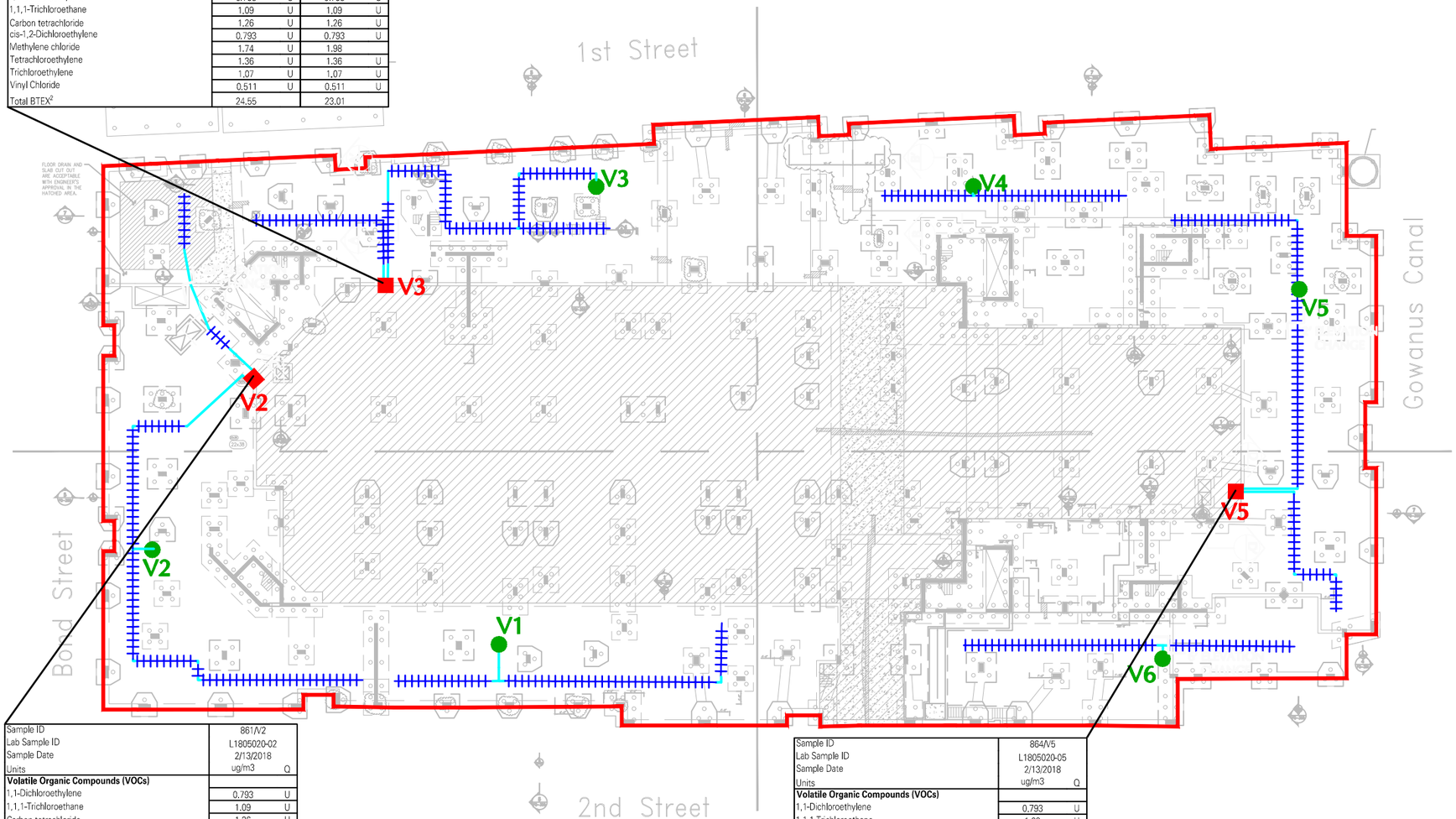
Project
365 BOND STREET DEVELOPMENT
365 BOND STREET
BROOKLYN NEW YORK

Drawing Title
SAMPLE LOCATION PLAN

Project No. 100287501	Drawing No. 2
Date MARCH 12, 2018	
Scale AS SHOWN	
Drawn By JR	
Submission Date MARCH 26, 2018	

Filename: \\langan.com\data\PAR\data5\100287501\Cadd Data - 100287501\SheetFiles\Figures\Environmental\2018-03 – 365 Bond St SVMR\Figure 2 - 365 SSDS As-Built Layout_Rev.dwg Date: 3/26/2018 Time: 12:43 User: aruane Style Table: ---- Layout: ANSIB-BL

Sample ID	862/V3		863/DUP-1	
Lab Sample ID	L1805020-03		L1805020-04	
Sample Date	2/13/2018		2/13/2018	
Units	ug/m3	Q	ug/m3	Q
Volatile Organic Compounds (VOCs)				
1,1-Dichloroethylene	0.793	U	0.793	U
1,1,1-Trichloroethane	1.09	U	1.09	U
Carbon tetrachloride	1.26	U	1.26	U
cis-1,2-Dichloroethylene	0.793	U	0.793	U
Methylene chloride	1.74	U	1.98	
Tetrachloroethylene	1.36	U	1.36	U
Trichloroethylene	1.07	U	1.07	U
Vinyl Chloride	0.511	U	0.511	U
Total BTEX[2]	24.55		23.01	



Sample ID	861/V2	
Lab Sample ID	L1805020-02	
Sample Date	2/13/2018	
Units	ug/m3	Q
Volatile Organic Compounds (VOCs)		
1,1-Dichloroethylene	0.793	U
1,1,1-Trichloroethane	1.09	U
Carbon tetrachloride	1.26	U
cis-1,2-Dichloroethylene	0.793	U
Methylene chloride	1.74	U
Tetrachloroethylene	1.36	U
Trichloroethylene	1.07	U
Vinyl Chloride	0.511	U
Total BTEX[2]	20.359	

Sample ID	864/V5	
Lab Sample ID	L1805020-05	
Sample Date	2/13/2018	
Units	ug/m3	Q
Volatile Organic Compounds (VOCs)		
1,1-Dichloroethylene	0.793	U
1,1,1-Trichloroethane	1.09	U
Carbon tetrachloride	1.26	U
cis-1,2-Dichloroethylene	2.12	
Methylene chloride	1.74	U
Tetrachloroethylene	2.55	
Trichloroethylene	1.07	U
Vinyl Chloride	0.511	U
Total BTEX[2]	14.48	

LEGEND:

- BUILDING EXTERIOR
- SUBGRADE PARKING AREA
- INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
- INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
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NOTES:

1. ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
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3. FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
4. SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

40 0 10 25 40
SCALE IN FEET

Notes:
1: New York State Department of Health Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, amended May 2017.
2. Total BTEX concentration is the calculation from BTEX results above the Method Detection Limit (MDL).

Soil Vapor Screening Criteria	NYSDOH Decision Matrices Soil Vapor Concentration Threshold [1]
	ug/m3
Volatile Organic Compounds (VOCs)	
1,1-Dichloroethylene	6
1,1,1-Trichloroethane	100
Carbon tetrachloride	6
cis-1,2-Dichloroethylene	6
Methylene chloride	100
Tetrachloroethylene	100
Trichloroethylene	6
Vinyl Chloride	6
Total BTEX[2]	–

LANGAN
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
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Project
365 BOND STREET DEVELOPMENT
365 BOND STREET
BROOKLYN **NEW YORK**

Drawing Title
SUMMARY OF SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS

Project No. 100287501	Drawing No. 3
Date MARCH 12, 2018	
Scale AS SHOWN	
Drawn By JR	
Last Revised MARCH 26, 2018	

Filename: \\langan.com\data\PAR\data5\100287501\Cadd Data - 100287501\SheetFiles\Figures\Environmental\2018-03 – 365 Bond St SVMR\Figure 3 - Sub-Slab Soil Vapor Analytical Results.dwg Date: 3/26/2018 Time: 12:43 User: aruane Style Table: ---- Layout: ANSIB-BL

ATTACHMENT A

Field Logs

PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Allyson Kritzer Date: 2/13/2018 Weather Conditions: Clear

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection/Periodic Review Report

When was the last rain event? Drizzle on 2/12/2018

Current Temperature: 45°F - 55°F Current Barometric Pressure: 30.73in

Valve Manifolds		
Location	PID (ppm)	Vacuum (in. H2O)
V2	1637 ppb	0.064
V3	1658 ppb	0.029
V5	1640 ppb	0.021

Comments
V5 does not have enclosure installed. V2 and V3 enclosures do not have a lock

Riser Pipes Exhaust		
Location	PID (ppm)	Air Flow (CFM)
V1	56 ppb	1.95
V2	38 ppb	2.01
V3	0 ppb	1.67
V4	323 ppb	2.17
V5	0 ppb	2.77
V6	3 ppb	1.20

Comments

Inspection Comments
V2 and V3 enclosures have been installed since the 4/2017 inspection. No other changes have been made.

Emergency Contact Information		
Name	Title	Phone Number
Bruce Barron	365 Bond Street Building Management	718-705-8413 (office)
Steven Ciambruschini	Langan Qualified Environmental Professional	973-560-4900 (office) 973-560-4982 (direct)
Christopher McMahon	Langan Project Manager	973-560-4900 (office) 973-560-4861 (direct)
Tim Pokraka	Lightstone Representative	718-564-6531 (direct)
John Grathwol	NYSDEC Case Manager	518-402-9767 (office)

SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 365 Bond Street, Brooklyn, New York

Samplers: Allison Kritzer

Date: 2/13/2018

Sample #	861	862	864	863	865		
Location	V2	V3	V5	DUP-1	Ambient-1		
Summa Canister ID	2127	1895	988	2256	1806		
Flow Controller ID	0781	0721	0346	0711e	07164		
PID Test of SSDS Air	637 PPb	658 PPb	640 PPb	658 PPb	0 PPb		
Pressure Gauge - before sampling	-30.51	-30.86	-30.98	-30.82	-31.12		
Sample Time (Start)	1214	1235	1255	1235	0907		
Sample Time (Stop)	1425	1438	1458	1438	1505		
Total Sample Time (min)	131	123	123	123	358		
Pressure Gauge - after sampling	-5.49	-5.88	-5.89	-6.36	-7.06		
Sample Volume	6L	6L	6L	6L	6L		
Canister Pressure Went to Ambient Pressure?	YES / (NO)	YES / (NO)	YES / (NO)	YES / (NO)	YES / (NO)	YES / NO	YES / NO
Associated Ambient Air Sample Number	Ambient-1	Ambient-1	Ambient-1	Ambient-1	N/A	N/A	N/A
Weather 24 hours before and during sampling	45°F-65°F, Partly Cloudy, Drizzle						
General Comments	Ambient-1 placed on middle of 1st Street/365 Bond Street Sidewalk. Ambient-1 brought into lobby by building management from ~1315 to ~1415 Background ambient air = 0.0 ppm						

DUP-1 - parent sample is 862/V3

ATTACHMENT B

Laboratory Analytical Report

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Alpha Analytical

Laboratory Code: 11148

SDG Number: L1805020

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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Project Name: 365 BOND STREET
Project Number: 100287501

Lab Number: L1805020
Report Date: 02/21/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1805020-02	861/V2	SOIL_VAPOR	BROOKLYN, NY	02/13/18 14:25	02/13/18
L1805020-03	862/V3	SOIL_VAPOR	BROOKLYN, NY	02/13/18 14:38	02/13/18
L1805020-04	863/DUP-1	SOIL_VAPOR	BROOKLYN, NY	02/13/18 14:38	02/13/18
L1805020-05	864/V5	SOIL_VAPOR	BROOKLYN, NY	02/13/18 14:58	02/13/18
L1805020-06	865/AMBIENT-1	SOIL_VAPOR	BROOKLYN, NY	02/13/18 15:05	02/13/18
L1805020-07	UNUSED CAN#2442	SOIL_VAPOR	BROOKLYN, NY		02/13/18
L1805020-08	UNUSED CAN#901	SOIL_VAPOR	BROOKLYN, NY		02/13/18
L1805020-09	UNUSED CAN#595	SOIL_VAPOR	BROOKLYN, NY		02/13/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on February 13, 2018. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated 853/V1 has been removed from this job at the request of the client.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J Anderson Report Date: 02/21/18

Title: Technical Director/Representative

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 5975MSD (or equivalent)	Columns (length x ID x df):
Trap: Supelco K Trap (VOACARB 3000)	RTX-VMS 20m x 0.18mm x 1um
Concentrator: EST Encon (or equivalent)	RTX-VMS 30m x 0.25mm x 1.4um
Autosampler: EST Centurion (or equivalent)	RTX-502.2 40m x 0.18mm x 1um
Purge time: 11 min	

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)	Column Type: Restek RTX 502.2
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 105 Meters
Concentrator: EST Encon (or equivalent)	df: 3.00 um
Autosampler: EST Centurion (or equivalent)	ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD	Column Type: DB-VRX
Trap: Supelco K Trap (VOACARB 3000)	Column Length: 60 Meters
Concentrator: Tekmar Velocity / EST Encon	df: 1.40 um
Autosampler: Varian Archon / EST Centurion	ID: 0.25 mm
Purge time: 11 min	Desorb: 1 min

Volatile Organics in Air Instruments

Volatile Organics in Air:
Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE

Concentrator: Entech 7100A or 7200	Column Type: Restek RTX-1
Autosampler: Entech 7016CA or 7016D	Column Length: 60 Meters
	df: 1.00 um
	ID: 0.52 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material
Trap 2: Tenax: manufacturer-Entech: 20 cm packing material

Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 ul
Column Type: Restek RXI-5SILMS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 ul
Column Type: Restek RTX-5MS	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Herbicides

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-1701	df: 0.25
Column B: Restek RTX-5	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

EPH

Instrument: Agilent 6890N w/FID	Injection Volume: 1uL
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	

Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (ECD):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Sample Delivery Group Summary

Alpha Job Number : L1805020

Received : 13-FEB-2018
Reviewer : Christopher Collins

Account Name : Langan Engineering & Environmental
Project Number : 100287501
Project Name : 365 BOND STREET

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Absent/			

Condition Information

All samples on COC received?	**YES**
Extra samples received?	**NO**
Are there any sample container discrepancies?	**NO**
Are there any discrepancies between sample labels & COC?	**NO**
Are samples in appropriate containers for requested analysis?	**YES**
Are samples properly preserved for requested analysis?	**YES**
Are samples within holding time for requested analysis?	**YES**
All sampling equipment returned?	**YES**

Volatile Organics/VPH

Reagent Water Vials Frozen by Client?	**NA**

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 21 2018, 03:09 pm

Login Number: L1805020
Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100287501
Received: 13FEB18 Due Date: 20FEB18

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-02	861/V2	11	S0	13FEB18 14:25	1-Can-6

All LANGAN-NJ jobs - include REPORTQC ASP-B Package Due Date: 02/21/18

ASP-B,CAN-RENT,FLOW-RENT,TO15-LL

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-03	862/V3	11	S0	13FEB18 14:38	1-Can-6

All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,FLOW-RENT,TO15-LL

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-04	863/DUP-1	11	S0	13FEB18 14:38	1-Can-6

All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,FLOW-RENT,TO15-LL

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-05	864/V5	11	S0	13FEB18 14:58	1-Can-6

All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,FLOW-RENT,TO15-LL

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-06	865/AMBIENT-1	11	S0	13FEB18 15:05	1-Can-6

All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,FLOW-RENT,TO15-LL

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-07	UNUSED CAN#2442	11	S0		1-Can-6

All LANGAN-NJ jobs - include REPORTQC All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,CLEAN-FEE,FLOW-RENT

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Feb 21 2018, 03:09 pm

Login Number: L1805020

Account: LANGAN-NJ Langan Engineering & EnvironmentalProject: 100287501

Received: 13FEB18 Due Date: 20FEB18

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-08	UNUSED CAN#901	11	S0		1-Can-6

All LANGAN-NJ jobs - include REPORTQC All LANGAN-NJ jobs - include REPORTQC All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,CLEAN-FEE,FLOW-RENT

Sample #	Client ID	Mat	PR	Collected	Container
L1805020-09	UNUSED CAN#595	11	S0		1-Can-6

All LANGAN-NJ jobs - include REPORTQC All LANGAN-NJ jobs - include REPORTQC All LANGAN-NJ jobs - include REPORTQC Package Due Date: 02/21/18

CAN-RENT,CLEAN-FEE,FLOW-RENT

Logged By: Chris Anderson

AIR ANALYSIS

PAGE ____ OF ____

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 2/14/18

ALPHA Job #: L1805020

Client Information

Client: LANGAN attn Jess Friscia
Address: 300 Kimball Drive Floor 4
Parsippany NJ 07054
Phone: 973-560-4900
Fax: ——
Email: jfriscia@langan.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 365 Bond Street
Project Location: Brooklyn NY
Project #: 100287501
Project Manager: Ben Rao
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☒ Additional Deliverables:
FULL T1 + EQUIS
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments: can 2442 and can 595 were filled, but went ambient. do not analyze. 1 spare summa not used.

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subject Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
05020-01	853/V1	2/13/18	0935	1128	-30.53	-6.81	SV	AK	6L	905	0232	X					
02	861/V2	2/13/18	1214	1425 1438	-30.51	-5.49	SV	AK	6L	2127	0781	X					
03	862/V3	2/13/18	1235	1438	-30.86	-5.88	SV	AK	6L	1895	0721	X					
04	863/DUP-1	2/13/18	1235	1438	-30.82	-6.36	SV	AK	6L	2256	0716	X					
05	864/V5	2/13/18	1255	1458	-30.98	-5.89	SV	AK	6L	988	0346	X					
06	865/Ambient-1	2/13/18	0907	1505	-31.12	-7.06	AA	AK	6L	1806	0764	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: Summa 6L 6

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
AK	2/13/18 1632	AK	2/13 1632
2/13 1374		2/13	
2/14/18 0555		AAL	2/14/18 555

Form No: 101-02 Rev: (25-Sep-15)

Supporting Documentation

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1805020-02	861/V2	0781	Flow 2	02/13/18	259305		-	-	-	Pass	40.0	39.1	2
L1805020-02	861/V2	2127	6.0L Can	02/13/18	259305	L1804542-02	Pass	-30.0	-3.7	-	-	-	-
L1805020-03	862/V3	0721	Flow 3	02/13/18	259305		-	-	-	Pass	40.0	34.4	15
L1805020-03	862/V3	1895	6.0L Can	02/13/18	259305	L1804542-02	Pass	-30.0	-4.1	-	-	-	-
L1805020-04	863/DUP-1	0716	Flow 3	02/13/18	259305		-	-	-	Pass	40.0	51.6	25
L1805020-04	863/DUP-1	2256	6.0L Can	02/13/18	259305	L1804542-02	Pass	-29.9	-4.4	-	-	-	-
L1805020-05	864/V5	0346	Flow 2	02/13/18	259305		-	-	-	Pass	40.0	39.6	1
L1805020-05	864/V5	988	6.0L Can	02/13/18	259305	L1804358-02	Pass	-30.0	-4.1	-	-	-	-
L1805020-06	865/AMBIENT-1	0764	Flow 5	02/13/18	259305		-	-	-	Pass	13.3	12.3	8
L1805020-06	865/AMBIENT-1	1806	6.0L Can	02/13/18	259305	L1804542-02	Pass	-30.0	-4.2	-	-	-	-

Air Canister Certification Results

Lab ID: L1804156-02
Client ID: CAN 1634 SHELF 57
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/07/18 17:35
Analyst: MB

Date Collected: 02/06/18 16:00
Date Received: 02/07/18
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1

Air Canister Certification Results

Lab ID: L1804156-02 Date Collected: 02/06/18 16:00
Client ID: CAN 1634 SHELF 57 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Air Canister Certification Results

Lab ID: L1804156-02 Date Collected: 02/06/18 16:00
Client ID: CAN 1634 SHELF 57 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1

Air Canister Certification Results

Lab ID: L1804156-02 Date Collected: 02/06/18 16:00
Client ID: CAN 1634 SHELF 57 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804156
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804156-02	Date Collected:	02/06/18 16:00
Client ID:	CAN 1634 SHELF 57	Date Received:	02/07/18
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	93		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	92		60-140

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804156
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804156-02	Date Collected:	02/06/18 16:00
Client ID:	CAN 1634 SHELF 57	Date Received:	02/07/18
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	02/07/18 17:35		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Air Canister Certification Results

Lab ID: L1804156-02 Date Collected: 02/06/18 16:00
Client ID: CAN 1634 SHELF 57 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Air Canister Certification Results

Lab ID: L1804156-02 Date Collected: 02/06/18 16:00
Client ID: CAN 1634 SHELF 57 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	93		60-140

Air Canister Certification Results

Lab ID: L1804156-03
Client ID: CAN 978 SHELF 58
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/07/18 18:07
Analyst: MB

Date Collected: 02/06/18 16:00
Date Received: 02/07/18
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1

Air Canister Certification Results

Lab ID: L1804156-03 Date Collected: 02/06/18 16:00
Client ID: CAN 978 SHELF 58 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Air Canister Certification Results

Lab ID: L1804156-03 Date Collected: 02/06/18 16:00
Client ID: CAN 978 SHELF 58 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1

Air Canister Certification Results

Lab ID: L1804156-03 Date Collected: 02/06/18 16:00
Client ID: CAN 978 SHELF 58 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Air Canister Certification Results

Lab ID: L1804156-03 Date Collected: 02/06/18 16:00
Client ID: CAN 978 SHELF 58 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804156
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804156-03	Date Collected:	02/06/18 16:00
Client ID:	CAN 978 SHELF 58	Date Received:	02/07/18
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	02/07/18 18:07		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Air Canister Certification Results

Lab ID: L1804156-03 Date Collected: 02/06/18 16:00
Client ID: CAN 978 SHELF 58 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Air Canister Certification Results

Lab ID: L1804156-03 Date Collected: 02/06/18 16:00
Client ID: CAN 978 SHELF 58 Date Received: 02/07/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804358
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804358-02	Date Collected:	02/07/18 16:00
Client ID:	CAN 2289 SHELF 47	Date Received:	02/08/18
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	02/08/18 15:06		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1

Air Canister Certification Results

Lab ID: L1804358-02 Date Collected: 02/07/18 16:00
Client ID: CAN 2289 SHELF 47 Date Received: 02/08/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1

Air Canister Certification Results

Lab ID: L1804358-02 Date Collected: 02/07/18 16:00
Client ID: CAN 2289 SHELF 47 Date Received: 02/08/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804358
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804358-02	Date Collected:	02/07/18 16:00
Client ID:	CAN 2289 SHELF 47	Date Received:	02/08/18
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Air Canister Certification Results

Lab ID: L1804358-02 Date Collected: 02/07/18 16:00
Client ID: CAN 2289 SHELF 47 Date Received: 02/08/18
Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	91		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140

Air Canister Certification Results

Lab ID: L1804358-02
Client ID: CAN 2289 SHELF 47
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/08/18 15:06
Analyst: MB

Date Collected: 02/07/18 16:00
Date Received: 02/08/18
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Air Canister Certification Results

Lab ID: L1804358-02 Date Collected: 02/07/18 16:00
Client ID: CAN 2289 SHELF 47 Date Received: 02/08/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Air Canister Certification Results

Lab ID: L1804358-02 Date Collected: 02/07/18 16:00
Client ID: CAN 2289 SHELF 47 Date Received: 02/08/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804542
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804542-02	Date Collected:	02/08/18 16:00
Client ID:	CAN 2257 SHELF 52	Date Received:	02/09/18
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	02/09/18 17:06		
Analyst:	GJ		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Air Canister Certification Results

Lab ID: L1804542-02 Date Collected: 02/08/18 16:00
Client ID: CAN 2257 SHELF 52 Date Received: 02/09/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Air Canister Certification Results

Lab ID: L1804542-02 Date Collected: 02/08/18 16:00
Client ID: CAN 2257 SHELF 52 Date Received: 02/09/18
Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name:	BATCH CANISTER CERTIFICATION	**Lab Number:**	L1804542
Project Number:	CANISTER QC BAT	**Report Date:**	02/21/18

Air Canister Certification Results

Lab ID:	L1804542-02	Date Collected:	02/08/18 16:00
Client ID:	CAN 2257 SHELF 52	Date Received:	02/09/18
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Air Canister Certification Results

Lab ID: L1804542-02 Date Collected: 02/08/18 16:00
Client ID: CAN 2257 SHELF 52 Date Received: 02/09/18
Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air								

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	92		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	94		60-140

Air Canister Certification Results

Lab ID: L1804542-02
Client ID: CAN 2257 SHELF 52
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/09/18 17:06
Analyst: RY

Date Collected: 02/08/18 16:00
Date Received: 02/09/18
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Air Canister Certification Results

Lab ID: L1804542-02 Date Collected: 02/08/18 16:00
Client ID: CAN 2257 SHELF 52 Date Received: 02/09/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Air Canister Certification Results

Lab ID: L1804542-02 Date Collected: 02/08/18 16:00
Client ID: CAN 2257 SHELF 52 Date Received: 02/09/18
Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Organics

Volatile Organics in Air
TO-15 Low Level

Volatiles QC Summary

Lab Duplicates
Form 3

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Client Sample ID	: NA	Matrix	: SOIL_VAPOR
Lab Sample ID	: NA	Analysis Date	: 02/20/18 20:31
Lab File ID	: R155910	DUP File ID	: r155911
Dup Sample ID	: WG1090771-5	DUP Analysis Date	: 02/20/18 21:12

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
Dichlorodifluoromethane	0.439	0.425	3	25
Chloromethane	0.443	0.463	4	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	NC	25
Vinyl chloride	ND	ND	NC	25
1,3-Butadiene	ND	ND	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethyl Alcohol	7.01	7.01	0	25
Vinyl bromide	ND	ND	NC	25
Acetone	29.2	29.3	0	25
Trichlorofluoromethane	0.200	ND	NC	25
iso-Propyl Alcohol	1.11	1.12	1	25
1,1-Dichloroethene	ND	ND	NC	25
tert-Butyl Alcohol	ND	ND	NC	25
Methylene chloride	ND	ND	NC	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	ND	ND	NC	25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	ND	ND	NC	25
cis-1,2-Dichloroethene	ND	ND	NC	25
Ethyl Acetate	ND	ND	NC	25
Chloroform	ND	ND	NC	25
Tetrahydrofuran	ND	ND	NC	25
1,2-Dichloroethane	ND	ND	NC	25

Lab Duplicates
Form 3

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Client Sample ID	: NA	Matrix	: SOIL_VAPOR
Lab Sample ID	: NA	Analysis Date	: 02/20/18 20:31
Lab File ID	: R155910	DUP File ID	: r155911
Dup Sample ID	: WG1090771-5	DUP Analysis Date	: 02/20/18 21:12

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
n-Hexane	ND	ND	NC	25
1,1,1-Trichloroethane	ND	ND	NC	25
Benzene	0.334	0.336	1	25
Carbon tetrachloride	ND	ND	NC	25
Cyclohexane	ND	ND	NC	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	ND	ND	NC	25
1,4-Dioxane	ND	ND	NC	25
Trichloroethene	ND	ND	NC	25
2,2,4-Trimethylpentane	ND	ND	NC	25
Heptane	ND	ND	NC	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	ND	ND	NC	25
trans-1,3-Dichloropropene	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	1.72	1.75	2	25
2-Hexanone	ND	ND	NC	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Tetrachloroethene	ND	ND	NC	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	ND	ND	NC	25
p/m-Xylene	ND	ND	NC	25
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	NC	25
o-Xylene	ND	ND	NC	25

Lab Duplicates
Form 3

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Client Sample ID	: NA	Matrix	: SOIL_VAPOR
Lab Sample ID	: NA	Analysis Date	: 02/20/18 20:31
Lab File ID	: R155910	DUP File ID	: r155911
Dup Sample ID	: WG1090771-5	DUP Analysis Date	: 02/20/18 21:12

Parameter	Sample Concentration (ppbV)	Duplicate Concentration (ppbV)	RPD	RPD Limit
4-Ethyltoluene	ND	ND	NC	25
1,3,5-Trimethylbenzene	ND	ND	NC	25
1,2,4-Trimethylbenzene	ND	ND	NC	25
Benzyl chloride	ND	ND	NC	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25

Laboratory Control Sample
Form 3

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Matrix	: AIR		
LCS Sample ID	: WG1090771-3	**Analysis Date** : 02/20/18 12:43	**File ID** : r155900
LCSD Sample ID	:	**Analysis Date** :	**File ID** :

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R	RPD	Recovery Limits	RPD Limit
Chlorodifluoromethane	10	8.48	85				-	70-130	-
Propylene	10	10.6	106				-	70-130	-
Propane	10	8.09	81				-	70-130	-
Dichlorodifluoromethane	10	9.08	91				-	70-130	-
Chloromethane	10	8.84	88				-	70-130	-
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10	8.99	90				-	70-130	-
Methanol	50	42.7	85				-	70-130	-
Vinyl chloride	10	9.12	91				-	70-130	-
1,3-Butadiene	10	9.93	99				-	70-130	-
Butane	10	8.86	89				-	70-130	-
Bromomethane	10	8.97	90				-	70-130	-
Chloroethane	10	8.88	89				-	70-130	-
Ethyl Alcohol	50	43.6	87				-	70-130	-
Dichlorofluoromethane	10	8.44	84				-	70-130	-
Vinyl bromide	10	9.24	92				-	70-130	-
Acrolein	10	8.42	84				-	70-130	-
Acetone	50	51.0	102				-	70-130	-
Acetonitrile	10	8.45	84				-	70-130	-
Trichlorofluoromethane	10	9.02	90				-	70-130	-
iso-Propyl Alcohol	25	22.2	89				-	70-130	-
Acrylonitrile	10	8.82	88				-	70-130	-
Pentane	10	7.97	80				-	70-130	-
Ethyl ether	10	7.24	72				-	70-130	-
1,1-Dichloroethene	10	9.27	93				-	70-130	-
tert-Butyl Alcohol	10	8.72	87				-	70-130	-
Methylene chloride	10	9.09	91				-	70-130	-

Laboratory Control Sample
Form 3

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Matrix	: AIR		
LCS Sample ID	: WG1090771-3 **Analysis Date :** 02/20/18 12:43	**File ID**	: r155900
LCSD Sample ID	: **Analysis Date :**	**File ID**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R	RPD	Recovery Limits	RPD Limit
3-Chloropropene	10	10.2	102				-	70-130	-
Carbon disulfide	10	8.93	89				-	70-130	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	8.98	90				-	70-130	-
trans-1,2-Dichloroethene	10	9.61	96				-	70-130	-
1,1-Dichloroethane	10	9.05	90				-	70-130	-
Methyl tert butyl ether	10	9.83	98				-	70-130	-
Vinyl acetate	10	10.8	108				-	70-130	-
2-Butanone	10	9.93	99				-	70-130	-
cis-1,2-Dichloroethene	10	9.65	96				-	70-130	-
Ethyl Acetate	10	10.1	101				-	70-130	-
Chloroform	10	9.64	96				-	70-130	-
Tetrahydrofuran	10	9.93	99				-	70-130	-
2,2-Dichloropropane	10	8.97	90				-	70-130	-
1,2-Dichloroethane	10	9.50	95				-	70-130	-
n-Hexane	10	9.95	100				-	70-130	-
Isopropyl Ether	10	8.59	86				-	70-130	-
Ethyl-Tert-Butyl-Ether	10	8.63	86				-	70-130	-
1,1,1-Trichloroethane	10	9.69	97				-	70-130	-
1,1-Dichloropropene	10	9.45	94				-	70-130	-
Benzene	10	9.30	93				-	70-130	-
Carbon tetrachloride	10	9.84	98				-	70-130	-
Cyclohexane	10	10.3	103				-	70-130	-
Tertiary-Amyl Methyl Ether	10	8.86	89				-	70-130	-
Dibromomethane	10	9.10	91				-	70-130	-
1,2-Dichloropropane	10	9.30	93				-	70-130	-
Bromodichloromethane	10	10.6	106				-	70-130	-

Laboratory Control Sample
Form 3

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Matrix	: AIR		
LCS Sample ID	: WG1090771-3 **Analysis Date :** 02/20/18 12:43	**File ID**	: r155900
LCSD Sample ID	: **Analysis Date :**	**File ID**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R	RPD	Recovery Limits	RPD Limit
1,4-Dioxane	10	10.2	102				-	70-130	-
Trichloroethene	10	9.58	96				-	70-130	-
2,2,4-Trimethylpentane	10	10.4	104				-	70-130	-
Methyl Methacrylate	10	11.8	118				-	70-130	-
Heptane	10	10.1	101				-	70-130	-
cis-1,3-Dichloropropene	10	10.3	103				-	70-130	-
4-Methyl-2-pentanone	10	10.5	105				-	70-130	-
trans-1,3-Dichloropropene	10	8.97	90				-	70-130	-
1,1,2-Trichloroethane	10	9.92	99				-	70-130	-
Toluene	10	9.05	90				-	70-130	-
1,3-Dichloropropane	10	8.97	90				-	70-130	-
2-Hexanone	10	10.2	102				-	70-130	-
Dibromochloromethane	10	10.6	106				-	70-130	-
1,2-Dibromoethane	10	9.70	97				-	70-130	-
Butyl Acetate	10	9.36	94				-	70-130	-
Octane	10	8.69	87				-	70-130	-
Tetrachloroethene	10	9.24	92				-	70-130	-
1,1,1,2-Tetrachloroethane	10	9.09	91				-	70-130	-
Chlorobenzene	10	9.08	91				-	70-130	-
Ethylbenzene	10	9.31	93				-	70-130	-
p/m-Xylene	20	18.3	92				-	70-130	-
Bromoform	10	10.6	106				-	70-130	-
Styrene	10	9.48	95				-	70-130	-
1,1,2,2-Tetrachloroethane	10	9.49	95				-	70-130	-
o-Xylene	10	9.28	93				-	70-130	-
1,2,3-Trichloropropane	10	9.15	92				-	70-130	-
Nonane (C9)	10	8.60	86				-	70-130	-
Isopropylbenzene	10	9.36	94				-	70-130	-

Laboratory Control Sample
Form 3

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Matrix	: AIR		
LCS Sample ID	: WG1090771-3	**Analysis Date** : 02/20/18 12:43	**File ID** : r155900
LCSD Sample ID	:	**Analysis Date** :	**File ID** :

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ppbV)	Found (ppbV)	%R	True (ppbV)	Found (ppbV)	%R	RPD	Recovery Limits	RPD Limit
Bromobenzene	10	9.02	90				-	70-130	-
o-Chlorotoluene	10	8.79	88				-	70-130	-
n-Propylbenzene	10	8.79	88				-	70-130	-
p-Chlorotoluene	10	9.04	90				-	70-130	-
4-Ethyltoluene	10	9.88	99				-	70-130	-
1,3,5-Trimethylbenzene	10	9.40	94				-	70-130	-
tert-Butylbenzene	10	8.91	89				-	70-130	-
1,2,4-Trimethylbenzene	10	9.18	92				-	70-130	-
Decane (C10)	10	8.93	89				-	70-130	-
Benzyl chloride	10	10.6	106				-	70-130	-
1,3-Dichlorobenzene	10	9.49	95				-	70-130	-
1,4-Dichlorobenzene	10	9.43	94				-	70-130	-
sec-Butylbenzene	10	8.80	88				-	70-130	-
p-Isopropyltoluene	10	8.22	82				-	70-130	-
1,2-Dichlorobenzene	10	9.20	92				-	70-130	-
n-Butylbenzene	10	9.30	93				-	70-130	-
1,2-Dibromo-3-chloropropane	10	9.76	98				-	70-130	-
Undecane	10	9.50	95				-	70-130	-
Dodecane (C12)	10	10.7	107				-	70-130	-
1,2,4-Trichlorobenzene	10	9.76	98				-	70-130	-
Naphthalene	10	9.50	95				-	70-130	-
1,2,3-Trichlorobenzene	10	9.57	96				-	70-130	-
Hexachlorobutadiene	10	9.37	94				-	70-130	-

Method Blank Summary
Form 4

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Lab Sample ID	: WG1090771-4	**Lab File ID**	: r155902
Instrument ID	: AIRLAB15		
Matrix	: SOIL_VAPOR	**Analysis Date**	: 02/20/18 14:30

Client Sample No.	Lab Sample ID	Analysis Date
WG1090771-3LCS	WG1090771-3	02/20/18 12:43
865/AMBIENT-1	L1805020-06	02/20/18 19:51
853/V1DUP	WG1090771-5	02/20/18 21:12
861/V2	L1805020-02	02/20/18 21:52
862/V3	L1805020-03	02/20/18 22:32
863/DUP-1	L1805020-04	02/20/18 23:13
864/V5	L1805020-05	02/20/18 23:53

Instrument Performance Check
Bromofluorobenzene (BFB)
Form 5

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Instrument ID	: AIRLAB15	**Analysis Date**	: 02/15/18 16:30
Tune Standard	: WG1089951-1	**Tune File ID**	: r155807_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	44.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.3 (.4)1
174	50.0 - 120.0% of mass 95	57.5
175	4.0 - 9.0% of mass 174	3.9 (6.8)1
176	93.0 - 101% of mass 174	55.5 (96.6)1
177	5.0 - 9.0% of mass 176	3.7 (6.7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.2	R1048099-1	R155811	02/15/18 19:06
STD0.5	R1048099-2	R155812	02/15/18 19:45
STD1.0	R1048099-3	R155813	02/15/18 20:26
STD5.0	R1048099-4	R155814	02/15/18 21:06
STD010	R1048099-5	R155815	02/15/18 21:47
STD050	R1048099-6	R155816	02/15/18 22:26
STD100	R1048099-7	R155817	02/15/18 23:07
STD020	R1048099-8	R155819	02/16/18 07:41
ICV Quant	R1048099-9	R155821	02/16/18 10:23

Instrument Performance Check
Bromofluorobenzene (BFB)
Form 5

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805833
Project Name	: 363 BOND STREET	**Project Number**	: 100287501
Instrument ID	: AIRLAB15	**Analysis Date**	: 02/20/18 11:02
Tune Standard	: WG1090771-1	**Tune File ID**	: r155898_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	44.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.3 (.5)1
174	50.0 - 120.0% of mass 95	57.8
175	4.0 - 9.0% of mass 174	4 (6.9)1
176	93.0 - 101% of mass 174	53.9 (93.2)1
177	5.0 - 9.0% of mass 176	3.8 (7)2

1-Value is % of mass 174 2-Value is % of mass 176

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1090771-2CCAL	WG1090771-2	R155899	02/20/18 11:43
WG1090771-3LCS	WG1090771-3	R155900	02/20/18 12:43
WG1090771-4BLANK	WG1090771-4	R155902	02/20/18 14:30
865/AMBIENT-1	L1805833-02	R155909	02/20/18 19:51
853/V1	L1805833-01	R155910	02/20/18 20:31
WG1090771-5DUP	WG1090771-5	R155911	02/20/18 21:12

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		R155913	02/20/18 22:32
863/DUP-1	L1805020-04	R155914	02/20/18 23:13
864/V5	L1805020-05	R155915	02/20/18 23:53

Internal Standard Area and RT Summary
Form 8

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Instrument ID	: AIRLAB15	**Analysis Date**	: 02/20/18 11:43
Sample No	: WG1090771-2	**Lab File ID**	: R155899

	Bromochloromethane		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
WG1090771-2	147251	8.91	262067	11.15	67836	15.88
Upper Limit	206151	9.24	366894	11.48	94970	16.21
Lower Limit	88351	8.58	157240	10.82	40702	15.55
Sample ID						
WG1090771-3 LCS	145211	8.91	260482	11.15	67814	15.88
WG1090771-4 BLANK	141733	8.91	255835	11.15	65306	15.89
865/AMBIENT-1	143447	8.91	251374	11.15	64214	15.88
853/V1 DUP	149878	8.91	263745	11.15	67431	15.88
861/V2	154922	8.91	274952	11.15	70734	15.88
862/V3	159601	8.91	286211	11.16	72059	15.88
863/DUP-1	168192	8.91	300287	11.15	74962	15.88
864/V5	168640	8.91	306291	11.15	75215	15.88

Area Upper Limit = +40% of internal standard area
Area Lower Limit = - 40% of internal standard area

RT Upper Limit = +0.33 minutes of internal standard RT
RT Lower Limit = -0.33 minutes of internal standard RT

* Values outside of QC limits

Date Created: 08/16/17
Created By: Jason Hebert
File: PM3922-1
Page: 1

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,1,1-Trichloroethane	71-55-6	0.2	0.057	ppbV	70-130			25	25			
1,1,2,2-Tetrachloroethane	79-34-5	0.2	0.0548	ppbV	70-130			25	25			
1,1,2-Trichloroethane	79-00-5	0.2	0.0667	ppbV	70-130			25	25			
1,1-Dichloroethane	75-34-3	0.2	0.0771	ppbV	70-130			25	25			
1,1-Dichloroethene	75-35-4	0.2	0.0566	ppbV	70-130			25	25			
1,2,3-Trimethylbenzene	526-73-8	0.2	0.0751	ppbV	70-130			25	25			
1,2,4-Trichlorobenzene	120-82-1	0.2	0.0611	ppbV	70-130			25	25			
1,2,4-Trimethylbenzene	95-63-6	0.2	0.0694	ppbV	70-130			25	25			
1,2,4,5-Tetramethylbenzene	95-93-2	0.2	0.0795	ppbV	70-130			25	25			
1,2-Dibromoethane	106-93-4	0.2	0.0779	ppbV	70-130			25	25			
1,2-Dichlorobenzene	95-50-1	0.2	0.0614	ppbV	70-130			25	25			
1,2-Dichloroethane	107-06-2	0.2	0.0552	ppbV	70-130			25	25			
1,2-Dichloropropane	78-87-5	0.2	0.0697	ppbV	70-130			25	25			
1,3,5-Trimethylbenzene	108-67-8	0.2	0.0584	ppbV	70-130			25	25			
1,3-Butadiene	106-99-0	0.2	0.0799	ppbV	70-130			25	25			
1,3-Dichlorobenzene	541-73-1	0.2	0.0637	ppbV	70-130			25	25			
1,4-Dichlorobenzene	106-46-7	0.2	0.0418	ppbV	70-130			25	25			
1,4-Dioxane	123-91-1	0.2	0.078	ppbV	70-130			25	25			
2,2,4-Trimethylpentane	540-84-1	0.2	0.0659	ppbV	70-130			25	25			
2-Butanone	78-93-3	0.5	0.0522	ppbV	70-130			25	25			
2-Hexanone	591-78-6	0.2	0.0604	ppbV	70-130			25	25			
2-Methylthiophene	554-14-3	0.2	0.0789	ppbV	70-130			25	25			
3-Methylthiophene	616-44-4	0.2	0.0669	ppbV	70-130			25	25			
3-Chloropropene	107-05-1	0.2	0.0812	ppbV	70-130			25	25			
2-Ethylthiophene	872-55-9	0.2	0.0571	ppbV	70-130			25	25			
4-Ethyltoluene	622-96-8	0.2	0.0776	ppbV	70-130			25	25			
Acetone	67-64-1	1	0.165	ppbV	70-130			25	25			
Benzene	71-43-2	0.2	0.0537	ppbV	70-130			25	25			
Benzyl chloride	100-44-7	0.2	0.0645	ppbV	70-130			25	25			
Benzothiophene	95-15-8	0.5	0.0468	ppbV	70-130			25	25			
Bromodichloromethane	75-27-4	0.2	0.0656	ppbV	70-130			25	25			
Bromoform	75-25-2	0.2	0.0523	ppbV	70-130			25	25			
Bromomethane	74-83-9	0.2	0.0696	ppbV	70-130			25	25			
Carbon disulfide	75-15-0	0.2	0.0345	ppbV	70-130			25	25			
Carbon tetrachloride	56-23-5	0.2	0.0471	ppbV	70-130			25	25			
Chlorobenzene	108-90-7	0.2	0.0789	ppbV	70-130			25	25			
Chloroethane	75-00-3	0.2	0.0767	ppbV	70-130			25	25			
Chloroform	67-66-3	0.2	0.0452	ppbV	70-130			25	25			
Chloromethane	74-87-3	0.2	0.0958	ppbV	70-130			25	25			
cis-1,2-Dichloroethene	156-59-2	0.2	0.0587	ppbV	70-130			25	25			
cis-1,3-Dichloropropene	10061-01-5	0.2	0.0745	ppbV	70-130			25	25			
Cyclohexane	110-82-7	0.2	0.0656	ppbV	70-130			25	25			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Dibromochloromethane	124-48-1	0.2	0.0747	ppbV	70-130			25	25			
Dichlorodifluoromethane	75-71-8	0.2	0.0466	ppbV	70-130			25	25			
Ethyl Alcohol	GCDAI06	5	0.542	ppbV	70-130			25	25			
Ethyl Acetate	141-78-6	0.5	0.131	ppbV	70-130			25	25			
Ethylbenzene	100-41-4	0.2	0.0555	ppbV	70-130			25	25			
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	0.2	0.0511	ppbV	70-130			25	25			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	76-14-2	0.2	0.0419	ppbV	70-130			25	25			
Hexachlorobutadiene	87-68-3	0.2	0.0732	ppbV	70-130			25	25			
iso-Propyl Alcohol	67-63-0	0.5	0.084	ppbV	70-130			25	25			
Methylene chloride	75-09-2	0.5	0.0622	ppbV	70-130			25	25			
4-Methyl-2-pentanone	108-10-1	0.5	0.0607	ppbV	70-130			25	25			
Methyl tert butyl ether	1634-04-4	0.2	0.0452	ppbV	70-130			25	25			
Methyl Methacrylate	80-62-6	0.5	0.147	ppbV	70-130			25	25			
p/m-Xylene	179601-23-1	0.4	0.139	ppbV	70-130			25	25			
o-Xylene	95-47-6	0.2	0.0631	ppbV	70-130			25	25			
Xylene (Total)	1330-20-7	0.2	0.0631	ppbV	70-130			25	25			
Heptane	142-82-5	0.2	0.0553	ppbV	70-130			25	25			
n-Heptane	142-82-5	0.2	0.0553	ppbV	70-130			25	25			
n-Hexane	110-54-3	0.2	0.0518	ppbV	70-130			25	25			
Propylene	115-07-1	0.5	0.0929	ppbV	70-130			25	25			
Styrene	100-42-5	0.2	0.0799	ppbV	70-130			25	25			
Tetrachloroethene	127-18-4	0.2	0.0758	ppbV	70-130			25	25			
Thiophene	110-02-1	0.2	0.0528	ppbV	70-130			25	25			
Tetrahydrofuran	109-99-9	0.5	0.0608	ppbV	70-130			25	25			
Toluene	108-88-3	0.2	0.0628	ppbV	70-130			25	25			
trans-1,2-Dichloroethene	156-60-5	0.2	0.074	ppbV	70-130			25	25			
1,2-Dichloroethene (total)	540-59-0	0.2	0.0587	ppbV	70-130			25	25			
trans-1,3-Dichloropropene	10061-02-6	0.2	0.0693	ppbV	70-130			25	25			
1,3-Dichloropropene, Total	542-75-6	0.2	0.0693	ppbV	70-130			25	25			
Trichloroethene	79-01-6	0.2	0.071	ppbV	70-130			25	25			
Trichlorofluoromethane	75-69-4	0.2	0.0416	ppbV	70-130			25	25			
Vinyl acetate	108-05-4	1	0.0567	ppbV	70-130			25	25			
Vinyl bromide	593-60-2	0.2	0.0699	ppbV	70-130			25	25			
Vinyl chloride	75-01-4	0.2	0.0394	ppbV	70-130			25	25			
Naphthalene	91-20-3	0.2	0.0425	ppbV	70-130			25	25			
Total HC As Hexane	NONE	10	0.0518	ppbV	70-130			25	25			
Total VOCs As Toluene	NONE	10	0.0628	ppbV	70-130			25	25			
Propane	74-98-6	0.5	0.114	ppbV	70-130			25	25			
Acrylonitrile	107-13-1	0.5	0.079	ppbV	70-130			25	25			
Acrolein	107-02-8	0.5	0.114	ppbV	70-130			25	25			
1,1,1,2-Tetrachloroethane	630-20-6	0.2	0.0547	ppbV	70-130			25	25			
Isopropylbenzene	98-82-8	0.2	0.043	ppbV	70-130			25	25			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatile Organics in Air: TO-15 (AIR)

Holding Time: 30 days
Container/Sample Preservation: 1 - Canister - 2.7 Liter

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,2,3-Trichloropropane	96-18-4	0.2	0.0767	ppbV	70-130			25	25			
Acetonitrile	75-05-8	0.2	0.0761	ppbV	70-130			25	25			
Bromobenzene	108-86-1	0.2	0.079	ppbV	70-130			25	25			
Chlorodifluoromethane	75-45-6	0.2	0.0626	ppbV	70-130			25	25			
Dichlorofluoromethane	75-43-4	0.2	0.0572	ppbV	70-130			25	25			
Dibromomethane	74-95-3	0.2	0.0476	ppbV	70-130			25	25			
Pentane	109-66-0	0.2	0.0475	ppbV	70-130			25	25			
Octane	111-65-9	0.2	0.0421	ppbV	70-130			25	25			
Tertiary-Amyl Methyl Ether	994-05-8	0.2	0.0795	ppbV	70-130			25	25			
o-Chlorotoluene	95-49-8	0.2	0.0487	ppbV	70-130			25	25			
p-Chlorotoluene	106-43-4	0.2	0.0764	ppbV	70-130			25	25			
2,2-Dichloropropane	594-20-7	0.2	0.0581	ppbV	70-130			25	25			
1,1-Dichloropropene	563-58-6	0.2	0.0715	ppbV	70-130			25	25			
Isopropyl Ether	108-20-3	0.2	0.0656	ppbV	70-130			25	25			
Ethyl-Tert-Butyl-Ether	637-92-3	0.2	0.0515	ppbV	70-130			25	25			
1,2,3-Trichlorobenzene	87-61-6	0.2	0.0431	ppbV	70-130			25	25			
Ethyl ether	60-29-7	0.2	0.0591	ppbV	70-130			25	25			
n-Butylbenzene	104-51-8	0.2	0.0639	ppbV	70-130			25	25			
sec-Butylbenzene	135-98-8	0.2	0.0731	ppbV	70-130			25	25			
tert-Butylbenzene	98-06-6	0.2	0.0402	ppbV	70-130			25	25			
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.0744	ppbV	70-130			25	25			
p-Isopropyltoluene	99-87-6	0.2	0.0608	ppbV	70-130			25	25			
n-Propylbenzene	103-65-1	0.2	0.0559	ppbV	70-130			25	25			
1,3-Dichloropropane	142-28-9	0.2	0.0776	ppbV	70-130			25	25			
Methanol	67-56-1	5	0.736	ppbV	70-130			25	25			
Acetaldehyde	75-07-0	2.5	0.547	ppbV	70-130			25	25			
Butane	106-97-8	0.2	0.0442	ppbV	70-130			25	25			
Nonane (C9)	111-84-2	0.2	0.0644	ppbV	70-130			25	25			
Decane (C10)	124-18-5	0.2	0.0484	ppbV	70-130			25	25			
Undecane	1120-21-4	0.2	0.0528	ppbV	70-130			25	25			
Indane	496-11-7	0.2	0.0795	ppbV	70-130			25	25			
Indene	95-13-6	0.2	0.0608	ppbV	70-130			25	25			
1-Methylnaphthalene	90-12-0	1	0.286	ppbV	70-130			25	25			
Dodecane (C12)	112-40-3	0.2	0.0564	ppbV	70-130			25	25			
Butyl Acetate	123-86-4	0.5	0.114	ppbV	70-130			25	25			
tert-Butyl Alcohol	75-65-0	0.5	0.0599	ppbV	70-130			25	25			
2-Methylnaphthalene	91-57-6	1	0.0273	ppbV	70-130			25	25			
1,2-Dichloroethane-d4	*17060-07-0*									*70-130*		
Toluene-d8	*2037-26-5*									*70-130*		
Bromofluorobenzene	*460-00-4*									*70-130*		

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.

Volatiles Sample Data

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-02	Date Collected	: 02/13/18 14:25
Client ID	: 861/V2	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 21:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155912	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.426	0.200	--	2.11	0.989	--	
74-87-3	Chloromethane	0.922	0.200	--	1.90	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	6.32	5.00	--	11.9	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	8.28	1.00	--	19.7	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	1.04	0.500	--	2.56	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	0.931	0.500	--	2.75	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	0.501	0.500	--	1.48	1.47	--	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-02	Date Collected	: 02/13/18 14:25
Client ID	: 861/V2	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 21:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155912	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.339	0.200	--	1.08	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	4.11	0.200	--	15.5	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	0.641	0.400	--	2.78	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.230	0.200	--	0.999	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Lab ID	: L1805020-02	**Date Collected**	: 02/13/18 14:25
Client ID	: 861/V2	**Date Received**	: 02/13/18
Sample Location	: BROOKLYN, NY	**Date Analyzed**	: 02/20/18 21:52
Sample Matrix	: SOIL_VAPOR	**Dilution Factor**	: 1
Analytical Method	: 48,TO-15	**Analyst**	: RY
Lab File ID	: R155912	**Instrument ID**	: AIRLAB15
Sample Amount	: 250 ml	**GC Column**	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-03	Date Collected	: 02/13/18 14:38
Client ID	: 862/V3	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 22:32
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155913	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.423	0.200	--	2.09	0.989	--	
74-87-3	Chloromethane	0.741	0.200	--	1.53	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	0.233	0.200	--	0.515	0.442	--	
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	19.7	5.00	--	37.1	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	8.56	1.00	--	20.3	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	2.20	0.500	--	5.41	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.17	0.500	--	3.45	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	0.823	0.500	--	2.43	1.47	--	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.588	0.200	--	2.07	0.705	--	

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-03	Date Collected	: 02/13/18 14:38
Client ID	: 862/V3	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 22:32
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155913	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.884	0.200	--	2.82	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	0.204	0.200	--	0.702	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.517	0.200	--	2.41	0.934	--	
142-82-5	Heptane	0.292	0.200	--	1.20	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	4.25	0.200	--	16.0	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.237	0.200	--	1.03	0.869	--	
179601-23-1	p/m-Xylene	0.822	0.400	--	3.57	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.260	0.200	--	1.13	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Lab ID	: L1805020-03	**Date Collected**	: 02/13/18 14:38
Client ID	: 862/V3	**Date Received**	: 02/13/18
Sample Location	: BROOKLYN, NY	**Date Analyzed**	: 02/20/18 22:32
Sample Matrix	: SOIL_VAPOR	**Dilution Factor**	: 1
Analytical Method	: 48,TO-15	**Analyst**	: RY
Lab File ID	: R155913	**Instrument ID**	: AIRLAB15
Sample Amount	: 250 ml	**GC Column**	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-04	Date Collected	: 02/13/18 14:38
Client ID	: 863/DUP-1	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 23:13
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155914	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.415	0.200	--	2.05	0.989	--	
74-87-3	Chloromethane	0.785	0.200	--	1.62	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	0.234	0.200	--	0.518	0.442	--	
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	19.7	5.00	--	37.1	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	8.75	1.00	--	20.8	2.38	--	
75-69-4	Trichlorofluoromethane	0.200	0.200	--	1.12	1.12	--	
67-63-0	iso-Propyl Alcohol	2.14	0.500	--	5.26	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	0.569	0.500	--	1.98	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.27	0.500	--	3.75	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	0.849	0.500	--	2.50	1.47	--	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.583	0.200	--	2.05	0.705	--	

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-04	Date Collected	: 02/13/18 14:38
Client ID	: 863/DUP-1	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 23:13
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155914	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.859	0.200	--	2.74	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.510	0.200	--	2.38	0.934	--	
142-82-5	Heptane	0.308	0.200	--	1.26	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	3.94	0.200	--	14.8	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	0.232	0.200	--	1.01	0.869	--	
179601-23-1	p/m-Xylene	0.769	0.400	--	3.34	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	0.257	0.200	--	1.12	0.869	--	
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Lab ID	: L1805020-04	**Date Collected**	: 02/13/18 14:38
Client ID	: 863/DUP-1	**Date Received**	: 02/13/18
Sample Location	: BROOKLYN, NY	**Date Analyzed**	: 02/20/18 23:13
Sample Matrix	: SOIL_VAPOR	**Dilution Factor**	: 1
Analytical Method	: 48,TO-15	**Analyst**	: RY
Lab File ID	: R155914	**Instrument ID**	: AIRLAB15
Sample Amount	: 250 ml	**GC Column**	: RTX-1

		ppbV			ug/m3			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-05	Date Collected	: 02/13/18 14:58
Client ID	: 864/V5	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 23:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155915	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.435	0.200	--	2.15	0.989	--	
74-87-3	Chloromethane	1.82	0.200	--	3.76	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	12.2	5.00	--	23.0	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	10.6	1.00	--	25.2	2.38	--	
75-69-4	Trichlorofluoromethane	0.393	0.200	--	2.21	1.12	--	
67-63-0	iso-Propyl Alcohol	2.62	0.500	--	6.44	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	1.38	0.500	--	4.07	1.47	--	
156-59-2	cis-1,2-Dichloroethene	0.534	0.200	--	2.12	0.793	--	
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	0.235	0.200	--	1.15	0.977	--	
109-99-9	Tetrahydrofuran	0.974	0.500	--	2.87	1.47	--	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.290	0.200	--	1.02	0.705	--	

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-05	Date Collected	: 02/13/18 14:58
Client ID	: 864/V5	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 23:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155915	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.460	0.200	--	1.47	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.289	0.200	--	1.35	0.934	--	
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	2.73	0.200	--	10.3	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	0.376	0.200	--	2.55	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	0.625	0.400	--	2.71	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-05	Date Collected	: 02/13/18 14:58
Client ID	: 864/V5	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 23:53
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155915	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-06	Date Collected	: 02/13/18 15:05
Client ID	: 865/AMBIENT-1	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 19:51
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155909	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.436	0.200	--	2.16	0.989	--	
74-87-3	Chloromethane	0.445	0.200	--	0.919	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	7.57	5.00	--	14.3	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	5.36	1.00	--	12.7	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	0.801	0.500	--	1.97	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	0.786	0.500	--	2.38	1.52	--	
75-09-2	Methylene chloride	0.574	0.500	--	1.99	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: L1805020-06	Date Collected	: 02/13/18 15:05
Client ID	: 865/AMBIENT-1	Date Received	: 02/13/18
Sample Location	: BROOKLYN, NY	Date Analyzed	: 02/20/18 19:51
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155909	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.284	0.200	--	0.907	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.511	0.200	--	1.93	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Lab ID	: L1805020-06	**Date Collected**	: 02/13/18 15:05
Client ID	: 865/AMBIENT-1	**Date Received**	: 02/13/18
Sample Location	: BROOKLYN, NY	**Date Analyzed**	: 02/20/18 19:51
Sample Matrix	: SOIL_VAPOR	**Dilution Factor**	: 1
Analytical Method	: 48,TO-15	**Analyst**	: RY
Lab File ID	: R155909	**Instrument ID**	: AIRLAB15
Sample Amount	: 250 ml	**GC Column**	: RTX-1

		ppbV			ug/m3			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-4	Date Collected	: NA
Client ID	: WG1090771-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/20/18 14:30
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155902	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	ND	5.00	--	ND	9.42	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-4	Date Collected	: NA
Client ID	: WG1090771-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/20/18 14:30
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155902	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Isopropyl Ether	ND	0.200	--	ND	0.836	--	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-4	Date Collected	: NA
Client ID	: WG1090771-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/20/18 14:30
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155902	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl Acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane (C9)	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	o-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	p-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-4	Date Collected	: NA
Client ID	: WG1090771-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 02/20/18 14:30
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155902	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane (C10)	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane (C12)	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Tentatively Identified Compounds
Volatile Organics

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020
Project Name	: 365 BOND STREET	**Project Number**	: 100287501
Lab ID	: WG1090771-4	**Date Collected**	: NA
Client ID	: WG1090771-4BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 02/20/18 14:30
Sample Matrix	: SOIL_VAPOR	**Dilution Factor**	: 1
Analytical Method	: 48,TO-15	**Analyst**	: RY
Lab File ID	: r155902	**Instrument ID**	: AIRLAB15
Sample Amount	: 250 ml	**GC Column**	: RTX-1

Number TICS found: 0 **Concentration Units:**

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-5	Date Collected	: 02/13/18 11:28
Client ID	: 853/V1DUP	Date Received	: 02/13/18
Sample Location	:	Date Analyzed	: 02/20/18 21:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155911	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.425	0.200	--	2.10	0.989	--	
74-87-3	Chloromethane	0.463	0.200	--	0.956	0.413	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	7.01	5.00	--	13.2	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	29.3	1.00	--	69.6	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	1.12	0.500	--	2.75	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-5	Date Collected	: 02/13/18 11:28
Client ID	: 853/V1DUP	Date Received	: 02/13/18
Sample Location	:	Date Analyzed	: 02/20/18 21:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155911	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	0.336	0.200	--	1.07	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	1.75	0.200	--	6.59	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U

Form 1
Volatile Organics

Client	: Langan Engineering & Environmental	Lab Number	: L1805020
Project Name	: 365 BOND STREET	Project Number	: 100287501
Lab ID	: WG1090771-5	Date Collected	: 02/13/18 11:28
Client ID	: 853/V1DUP	Date Received	: 02/13/18
Sample Location	:	Date Analyzed	: 02/20/18 21:12
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R155911	Instrument ID	: AIRLAB15
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155909.D
Acq On : 20 Feb 2018 7:51 PM
Operator : AIRLAB15:RY
Sample : L1805020-06,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:29:06 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	143447	10.000	ppbV	-0.07
Standard Area = 147251			Recovery =	97.42%		
43) 1,4-difluorobenzene	11.15	114	251374	10.000	ppbV	-0.07
Standard Area = 262067			Recovery =	95.92%		
67) chlorobenzene-D5	15.88	54	64214	10.000	ppbV	-0.05
Standard Area = 67836			Recovery =	94.66%		
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	3.84	85	7269	0.436	ppbV	100
6) chloromethane	4.00	50	5297	0.445	ppbV	95
7) Freon-114	4.10		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	4.36		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	4.95	31	79577	7.569	ppbV	99
17) vinyl bromide	5.36		0	N.D.		
19) acetone	5.47	43	87488	5.362	ppbV #	97
21) trichlorofluoromethane	5.65	101	2445	0.180	ppbV	92
22) isopropyl alcohol	5.75	45	17405	0.801	ppbV #	97
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	6.42	59	15296	0.786	ppbV #	89
28) methylene chloride	6.49	49	8481	0.574	ppbV	100
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	6.79		0	N.D.		
31) Freon 113	6.79		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	8.24	43	6379	0.235	ppbV #	96
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	9.03		0	N.D.		
39) chloroform	9.07		0	N.D.		
40) Tetrahydrofuran	9.58		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	8.97	57	3301	0.175	ppbV #	29
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155909.D
Acq On : 20 Feb 2018 7:51 PM
Operator : AIRLAB15:RY
Sample : L1805020-06,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:29:06 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) benzene	10.73	78	8499	0.284	ppbV		96
52) carbon tetrachloride	10.89		0	N.D.			
53) cyclohexane	11.04	56	1178	0.061	ppbV		96
56) 1,2-dichloropropane	0.00		0	N.D.			
57) bromodichloromethane	0.00		0	N.D.			
58) 1,4-dioxane	0.00		0	N.D.			
59) trichloroethene	0.00		0	N.D.			
60) 2,2,4-trimethylpentane	12.01	57	5793	0.096	ppbV	#	89
62) heptane	12.32	43	1896	0.070	ppbV	#	93
63) cis-1,3-dichloropropene	0.00		0	N.D.			
64) 4-methyl-2-pentanone	13.04		0	N.D.			
65) trans-1,3-dichloropropene	0.00		0	N.D.			
66) 1,1,2-trichloroethane	0.00		0	N.D.			
68) toluene	14.13	91	16596	0.511	ppbV		98
72) 2-hexanone	0.00		0	N.D.	d		
74) dibromochloromethane	0.00		0	N.D.			
75) 1,2-dibromoethane	0.00		0	N.D.			
78) tetrachloroethene	15.29	166	1022	0.098	ppbV		91
80) chlorobenzene	0.00		0	N.D.			
81) ethylbenzene	16.27	91	2502	0.062	ppbV		100
83) m+p-xylene	16.42	91	6737	0.207	ppbV		98
84) bromoform	0.00		0	N.D.			
85) styrene	16.75		0	N.D.			
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.			
87) o-xylene	16.84	91	2387	0.072	ppbV		91
96) 4-ethyl toluene	17.90		0	N.D.			
97) 1,3,5-trimethylbenzene	17.97		0	N.D.			
99) 1,2,4-trimethylbenzene	18.32	105	2690	0.074	ppbV	#	48
101) Benzyl Chloride	0.00		0	N.D.			
102) 1,3-dichlorobenzene	0.00		0	N.D.			
103) 1,4-dichlorobenzene	0.00		0	N.D.			
107) 1,2-dichlorobenzene	0.00		0	N.D.			
115) 1,2,4-trichlorobenzene	0.00		0	N.D.			
119) hexachlorobutadiene	0.00		0	N.D.			

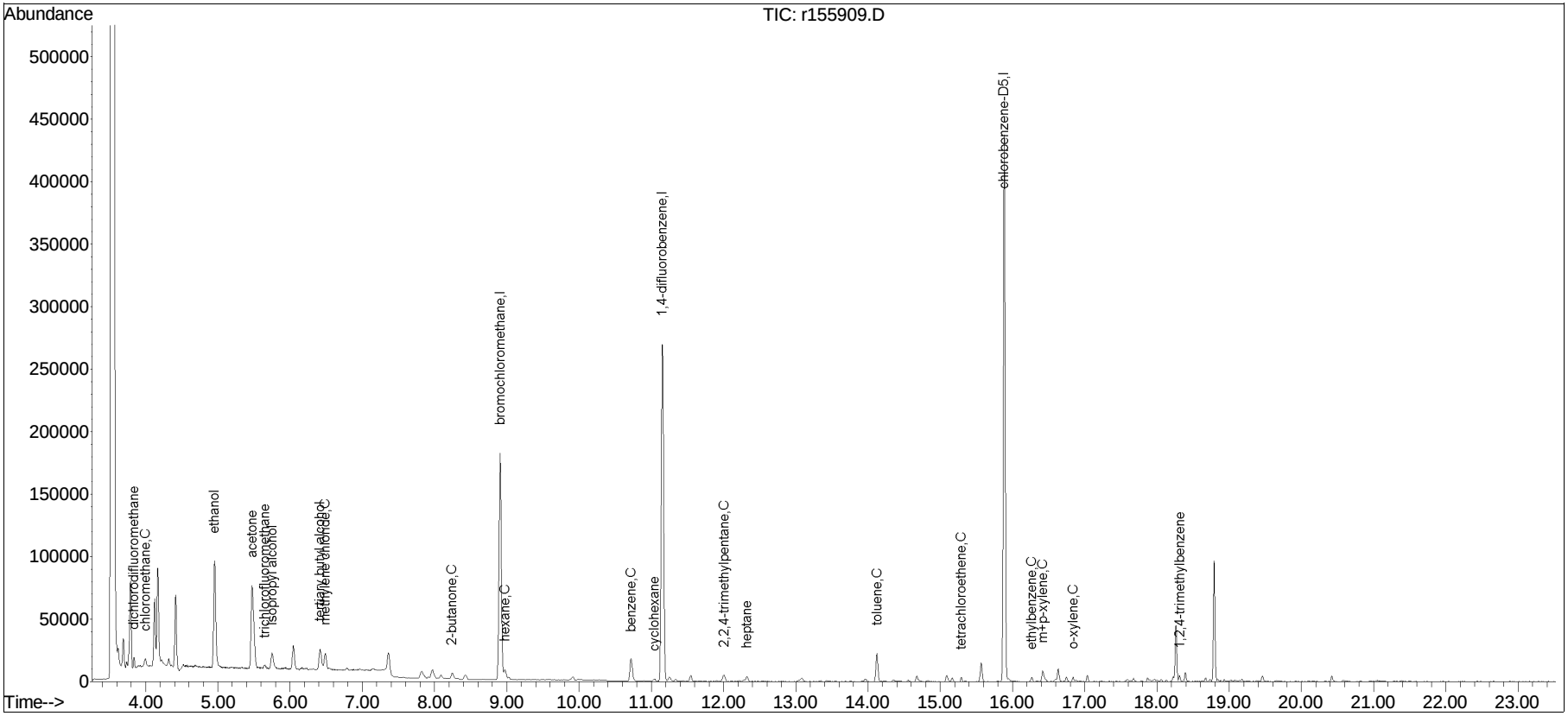
(#) = qualifier out of range (m) = manual integration (+) = signals summed

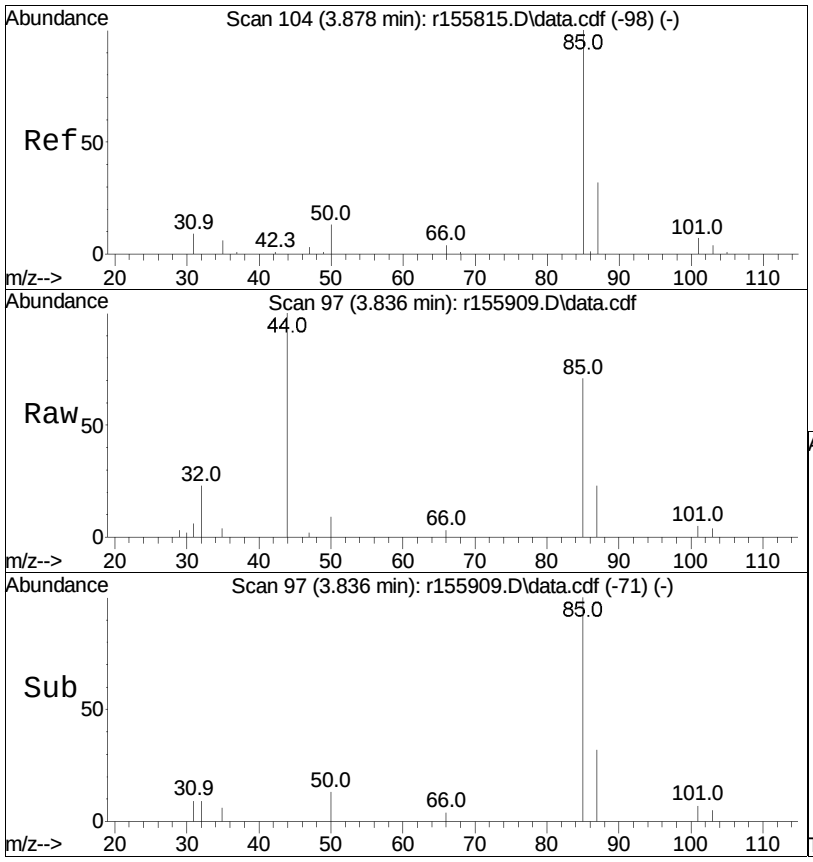
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155909.D
Acq On : 20 Feb 2018 7:51 PM
Operator : AIRLAB15:RY
Sample : L1805020-06,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:29:06 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : TO15-NY - .s\Data\Airlab15\2018\180220T\r155899.D

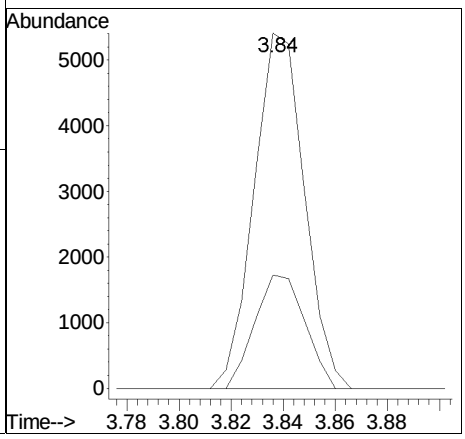


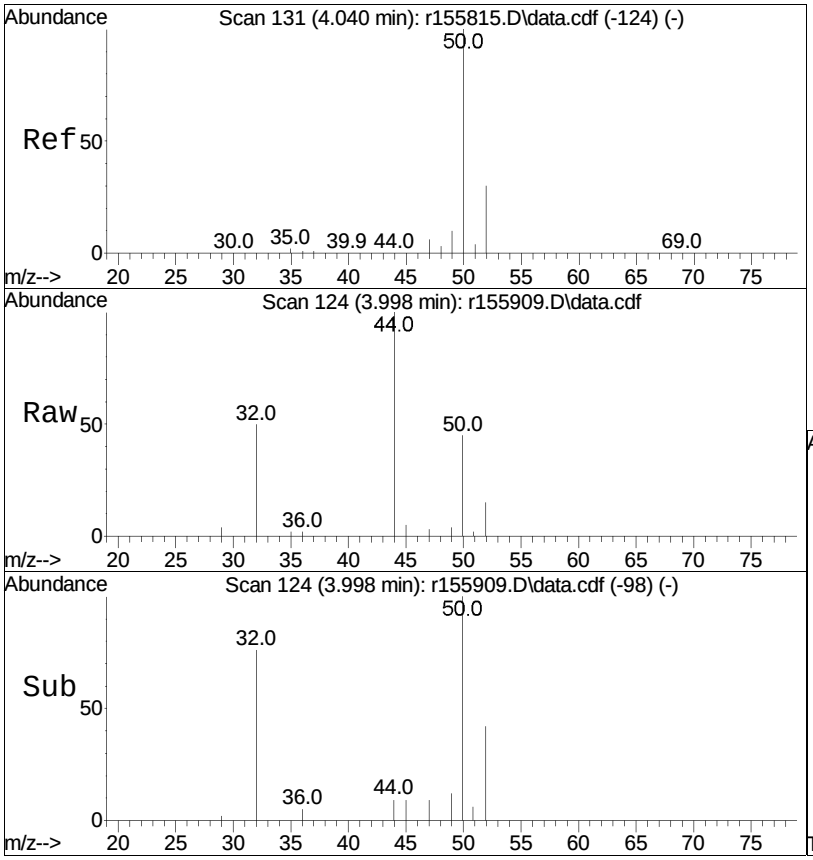


#5
dichlorodifluoromethane
Concen: 0.44 ppbV
RT: 3.84 min Scan# 97
Delta R.T. -0.042 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 85 Resp: 7269

Ion	Ratio	Lower	Upper
85	100		
87	31.9	25.6	38.4

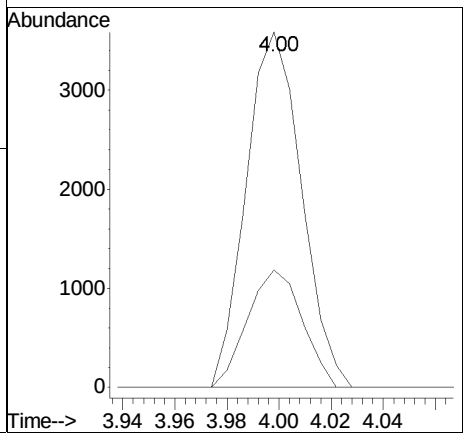


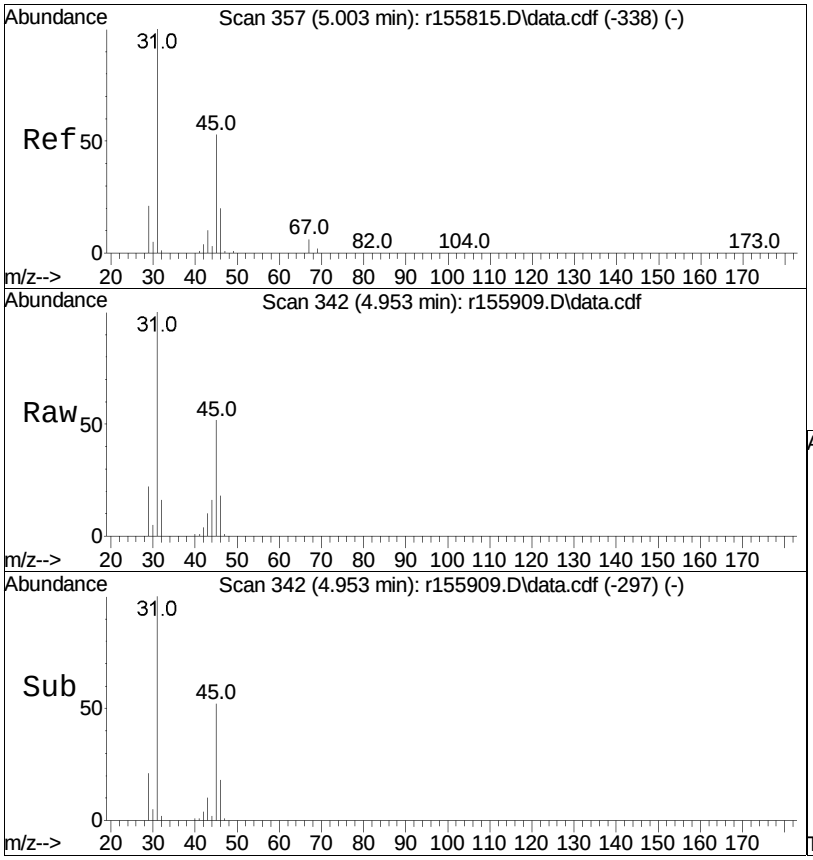


#6
chloromethane
Concen: 0.44 ppbV
RT: 4.00 min Scan# 124
Delta R.T. -0.042 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 50 Resp: 5297

Ion	Ratio	Lower	Upper
50	100		
52	33.1	24.1	36.1

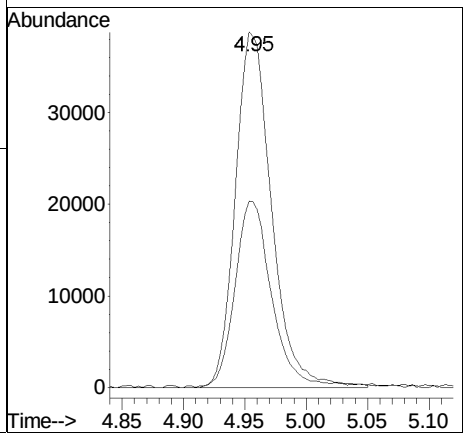


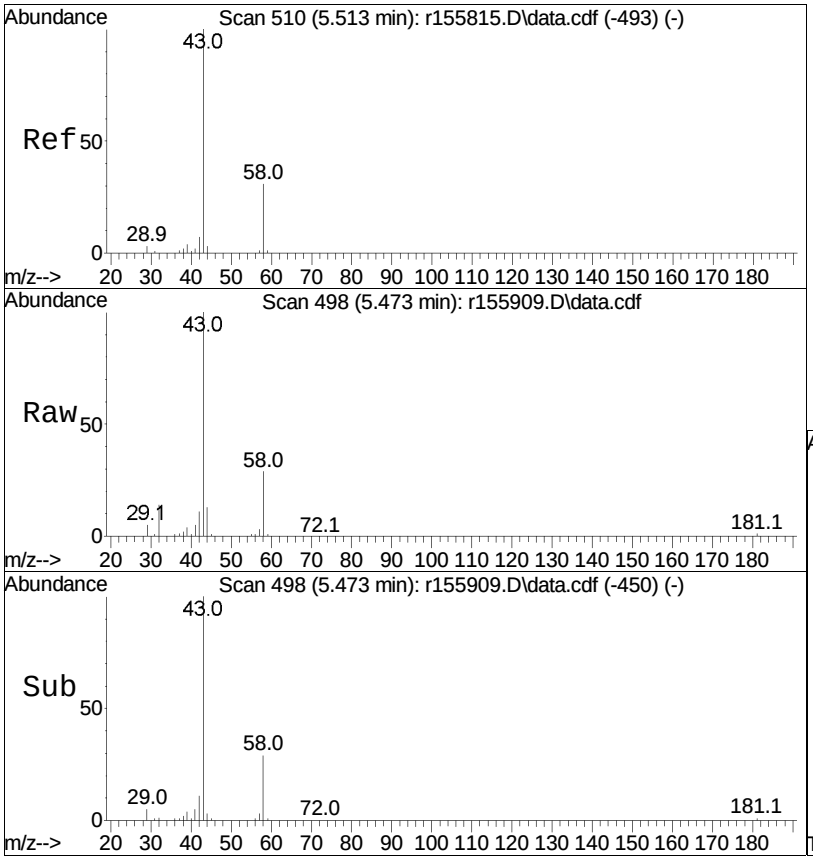


#15
ethanol
Concen: 7.57 ppbV
RT: 4.95 min Scan# 342
Delta R.T. -0.050 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 31 Resp: 79577

Ion	Ratio	Lower	Upper
31	100		
45	52.4	42.6	63.8

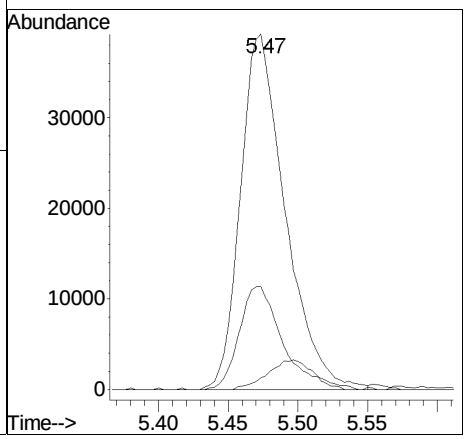


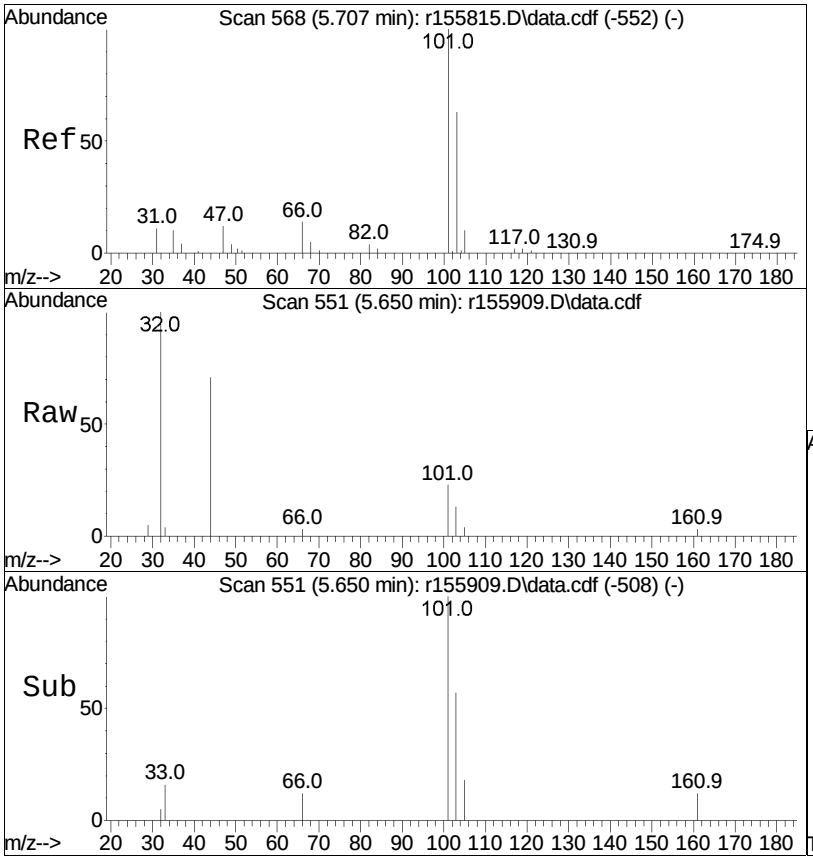


#19
acetone
Concen: 5.36 ppbV
RT: 5.47 min Scan# 498
Delta R.T. -0.040 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 43 Resp: 87488

Ion	Ratio	Lower	Upper
43	100		
58	28.9	24.5	36.7
57	3.3	0.6	0.8#

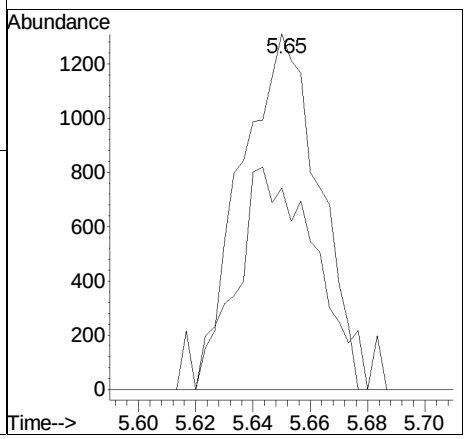


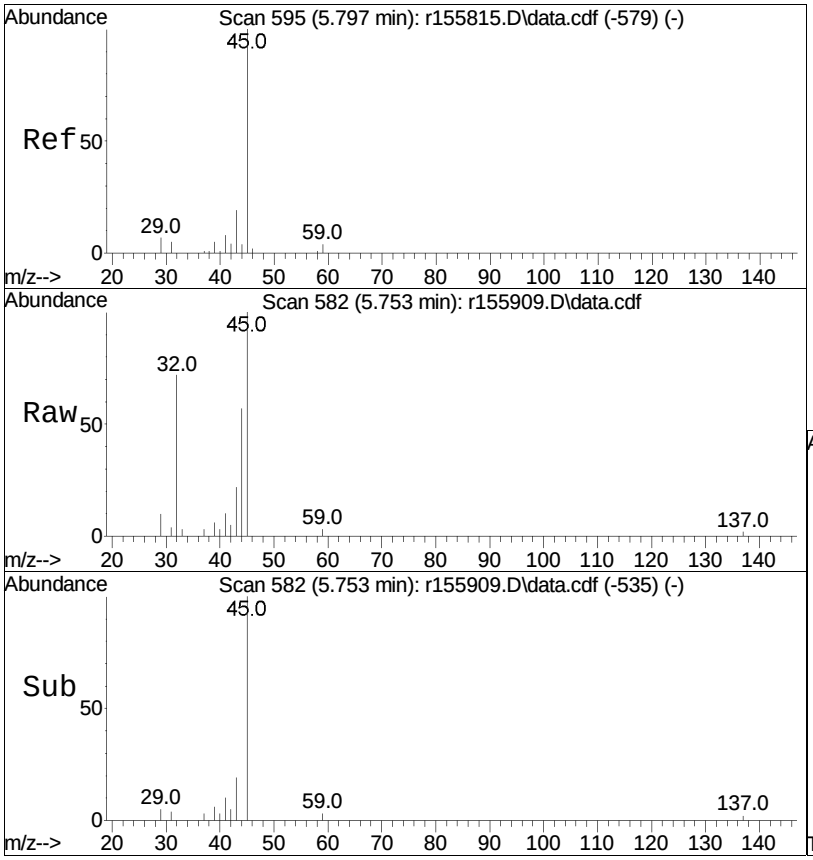


#21
trichlorofluoromethane
Concen: 0.18 ppbV
RT: 5.65 min Scan# 551
Delta R.T. -0.057 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion:101 Resp: 2445

Ion	Ratio	Lower	Upper
101	100		
103	56.7	50.2	75.4

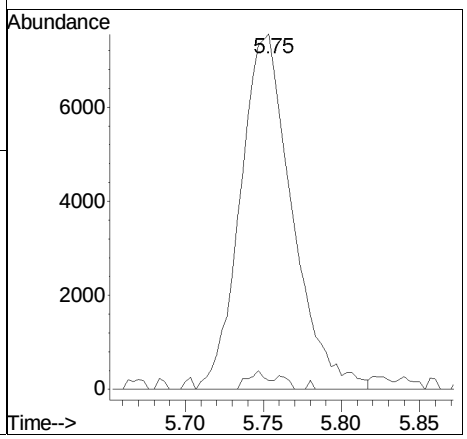


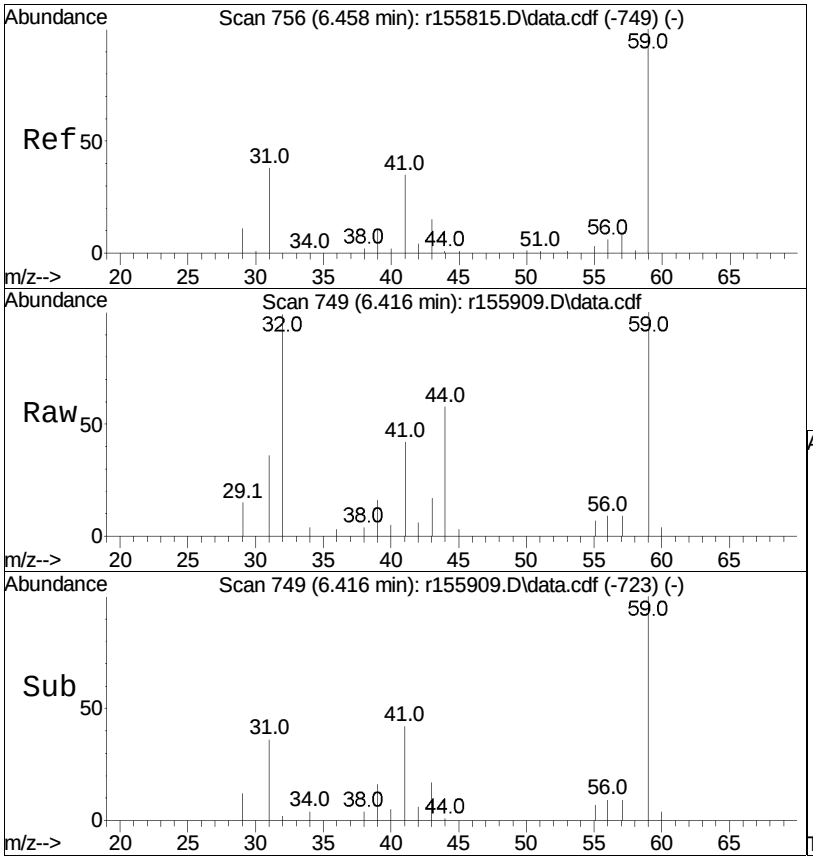


#22
isopropyl alcohol
Concen: 0.80 ppbV
RT: 5.75 min Scan# 582
Delta R.T. -0.043 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 45 Resp: 17405

Ion	Ratio	Lower	Upper
45	100		
59	2.5	2.8	4.2#

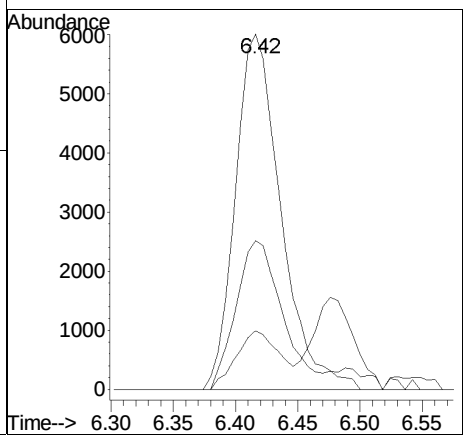


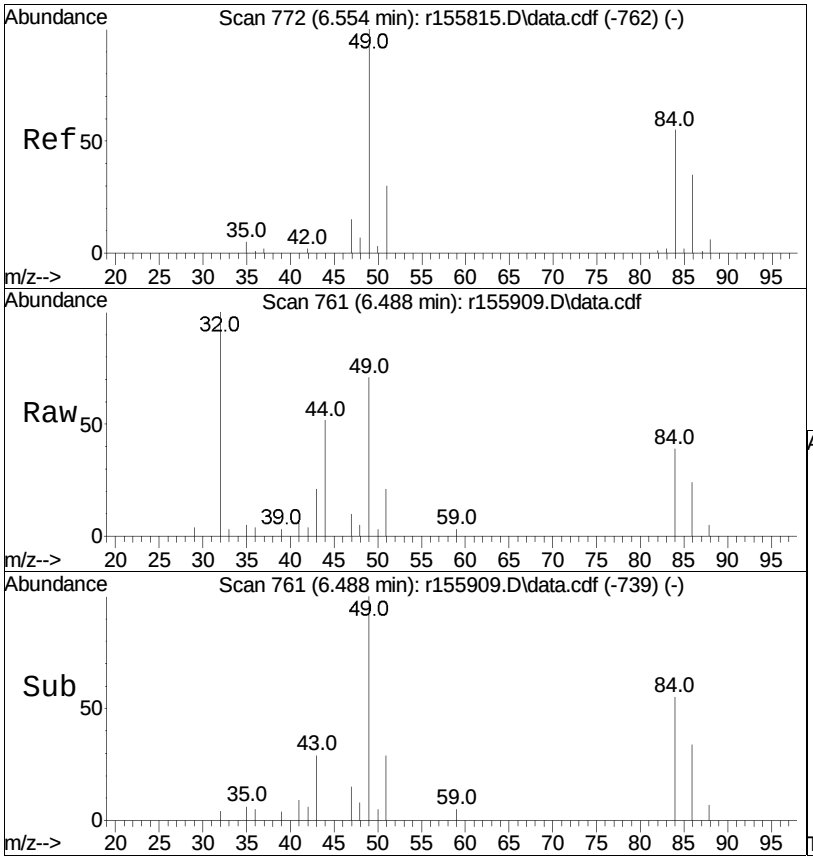


#27
tertiary butyl alcohol
Concen: 0.79 ppbV
RT: 6.42 min Scan# 749
Delta R.T. -0.042 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 59 Resp: 15296

Ion	Ratio	Lower	Upper
59	100		
41	41.9	27.1	40.7#
43	16.5	11.8	17.8

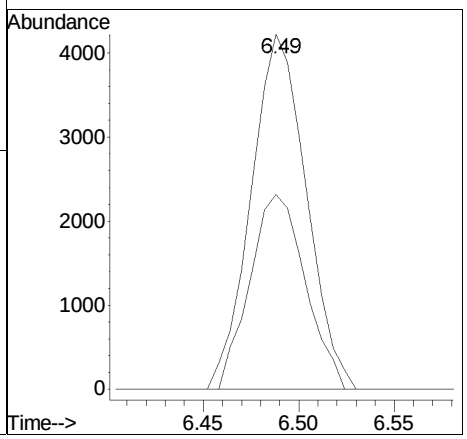


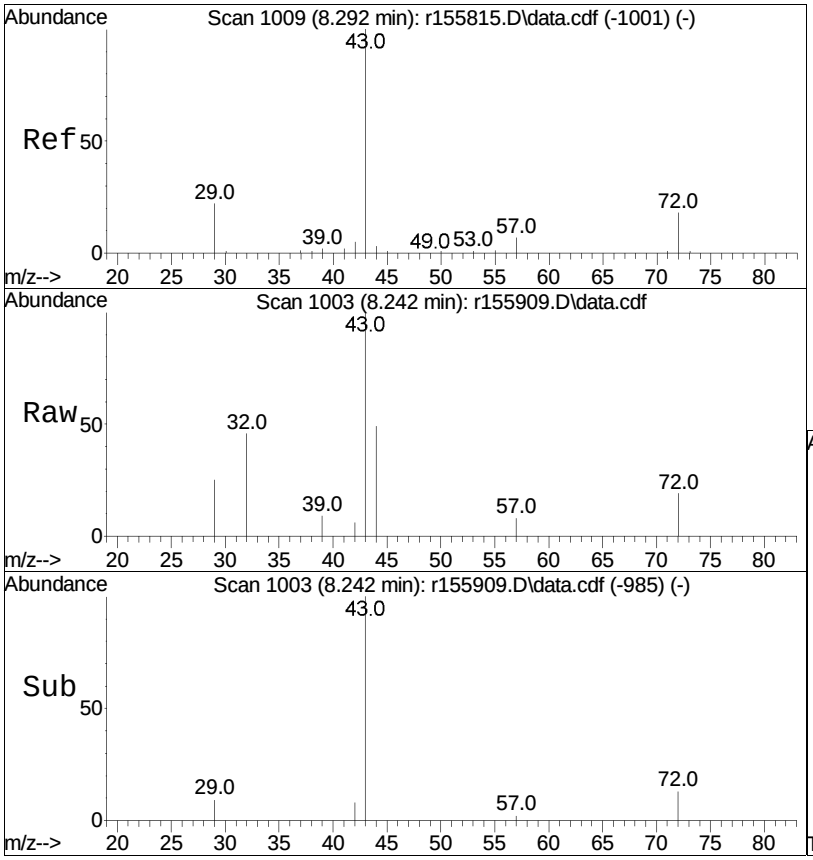


#28
methylene chloride
Concen: 0.57 ppbV
RT: 6.49 min Scan# 761
Delta R.T. -0.066 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 49 Resp: 8481

Ion	Ratio	Lower	Upper
49	100		
84	54.8	44.2	66.2

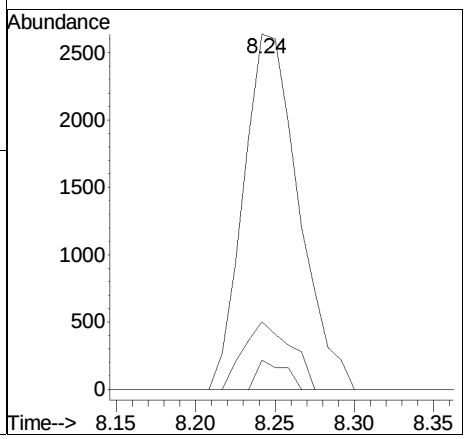


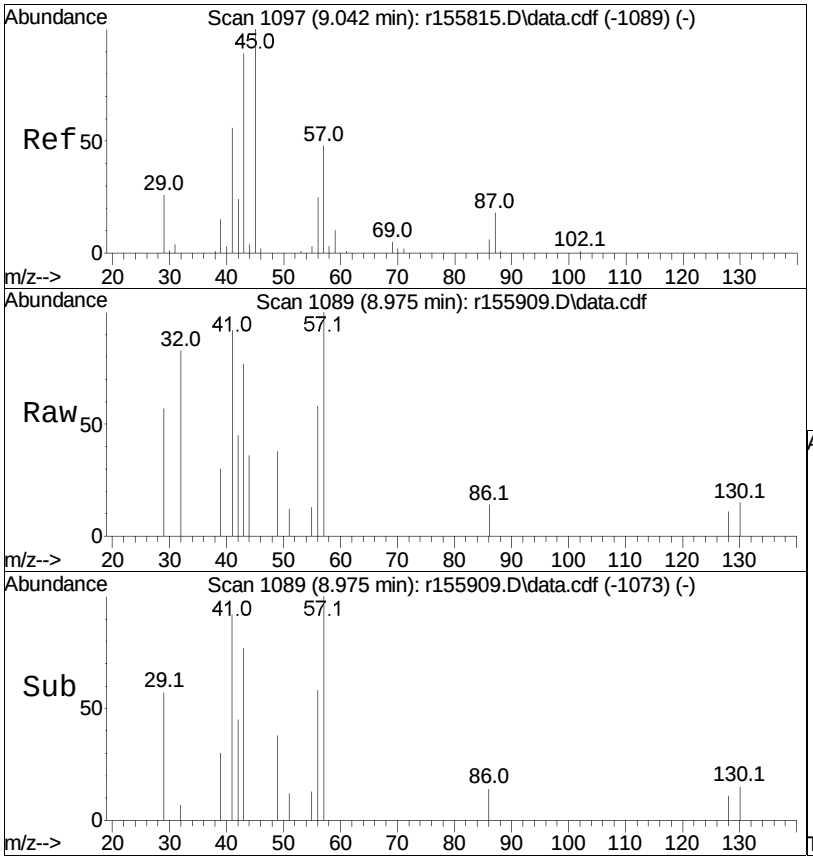


#36
2-butanone
Concen: 0.23 ppbV
RT: 8.24 min Scan# 1003
Delta R.T. -0.050 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 43 Resp: 6379

Ion	Ratio	Lower	Upper
43	100		
72	19.1	14.2	21.2
57	8.2	5.2	7.8#

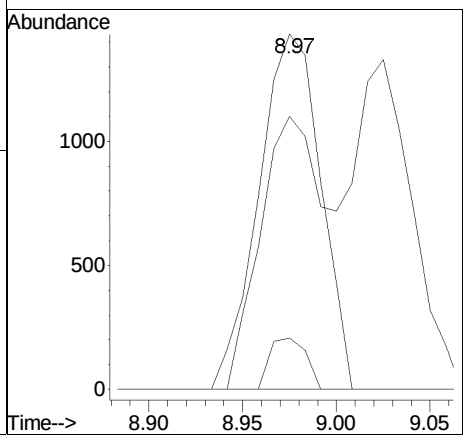


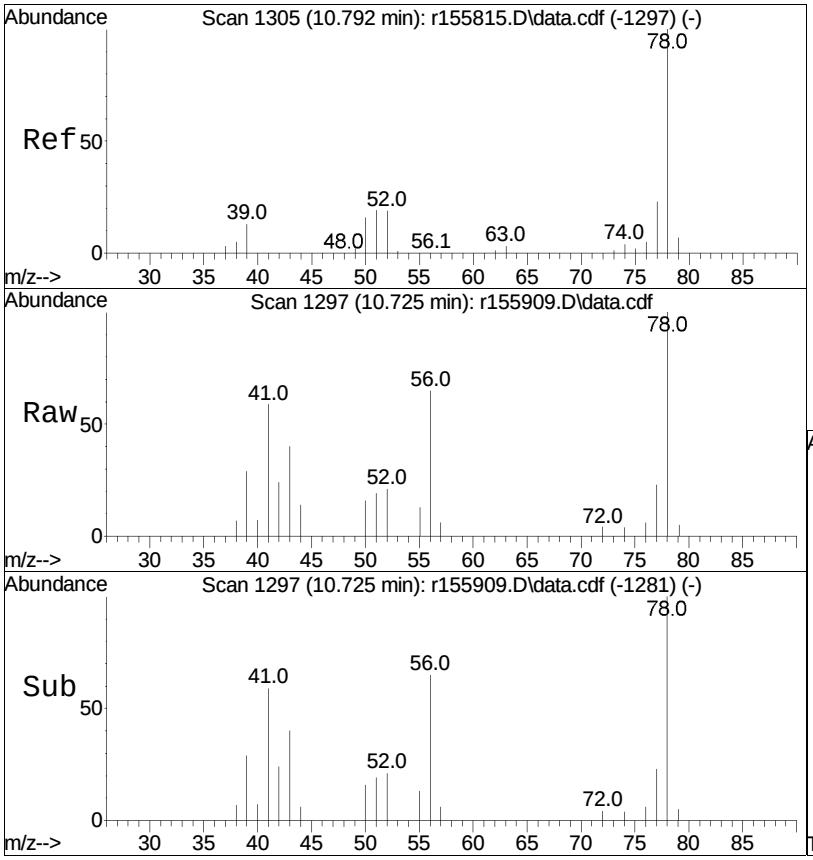


#44
hexane
Concen: 0.18 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 57 Resp: 3301

Ion	Ratio	Lower	Upper
57	100		
43	76.8	149.0	223.6#
86	14.4	9.9	14.9

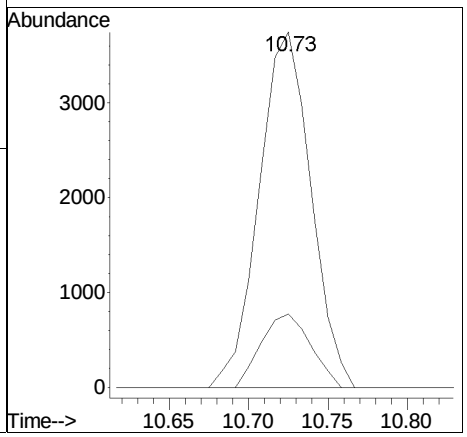


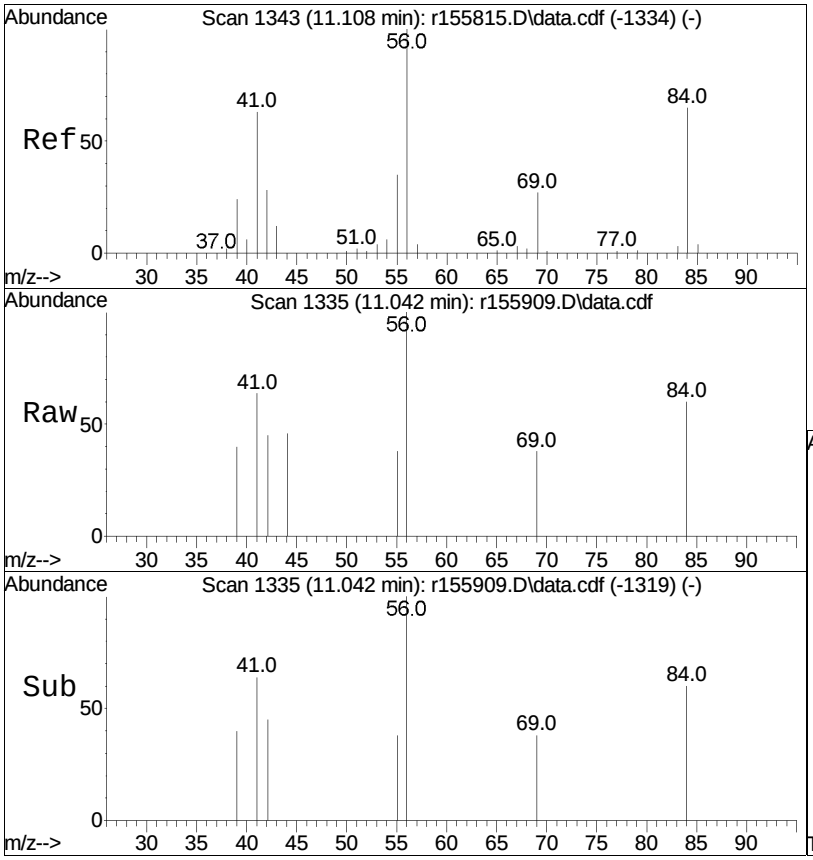


#50
benzene
Concen: 0.28 ppbV
RT: 10.73 min Scan# 1297
Delta R.T. -0.067 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 78 Resp: 8499

Ion	Ratio	Lower	Upper
78	100		
52	20.7	15.2	22.8

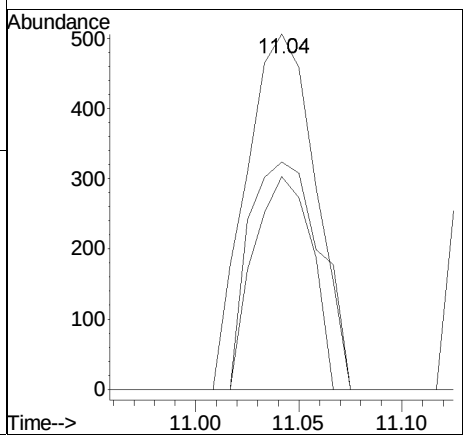


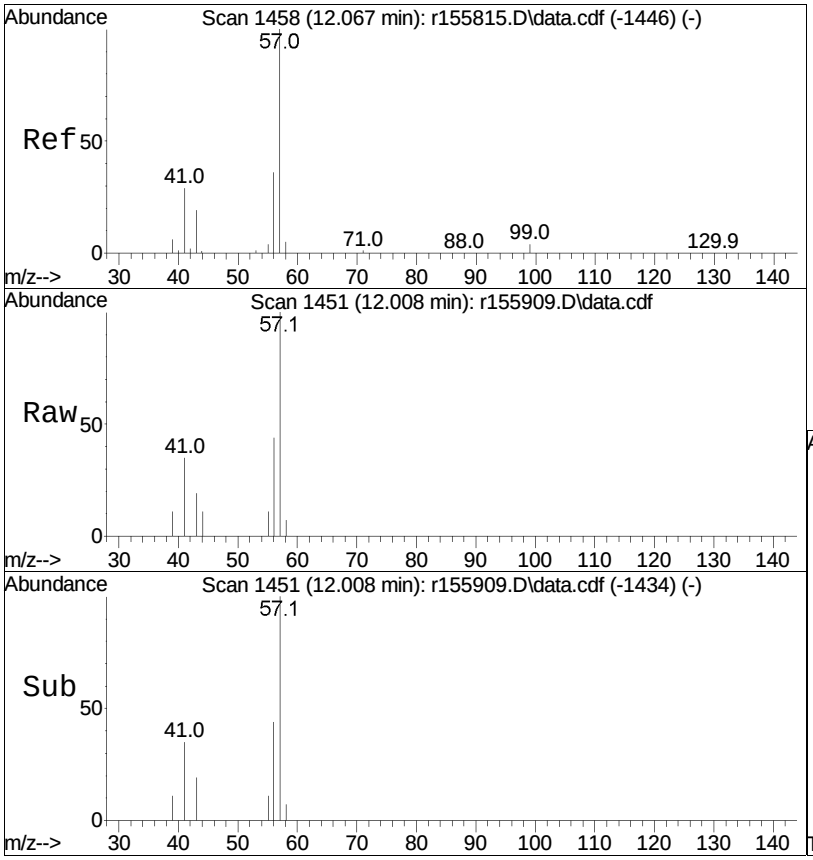


#53
cyclohexane
Concen: 0.06 ppbV
RT: 11.04 min Scan# 1335
Delta R.T. -0.067 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 56 Resp: 1178

Ion	Ratio	Lower	Upper
56	100		
84	59.9	52.1	78.1
41	64.0	50.6	75.8

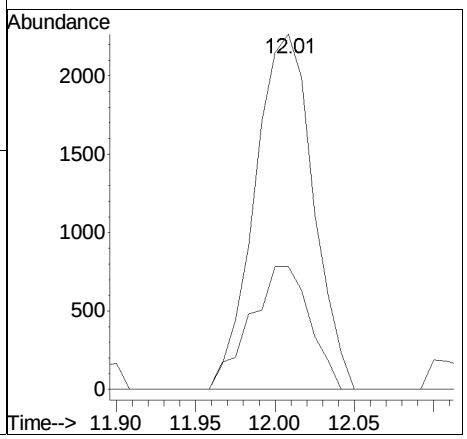


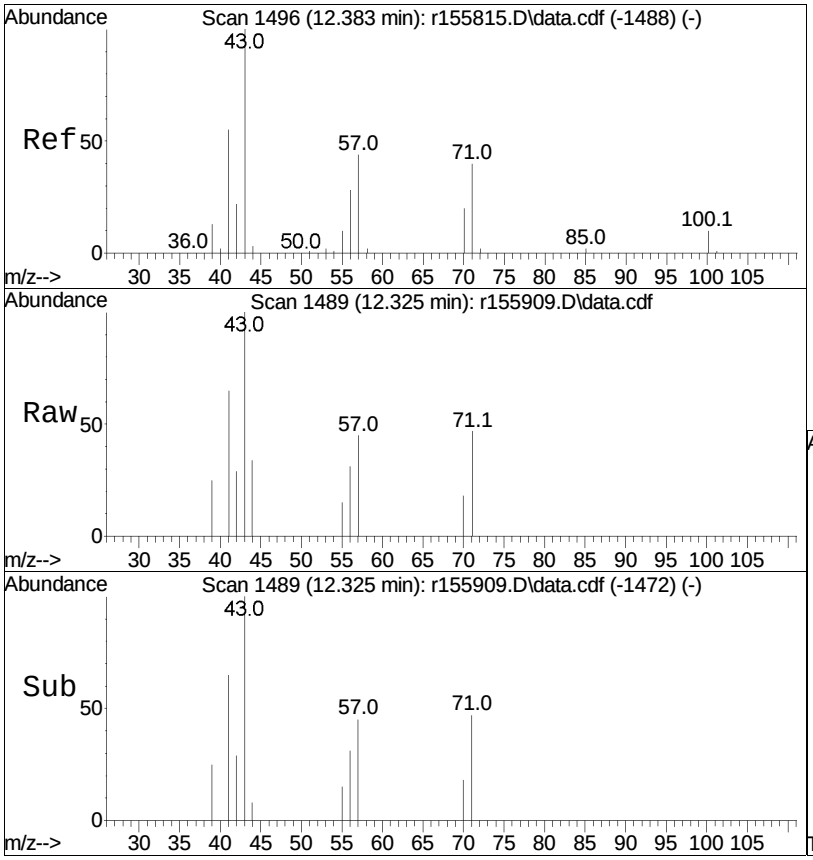


#60
2,2,4-trimethylpentane
Concen: 0.10 ppbV
RT: 12.01 min Scan# 1451
Delta R.T. -0.058 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 57 Resp: 5793

Ion	Ratio	Lower	Upper
57	100		
99	0.0	3.0	4.4#
41	34.6	23.1	34.7

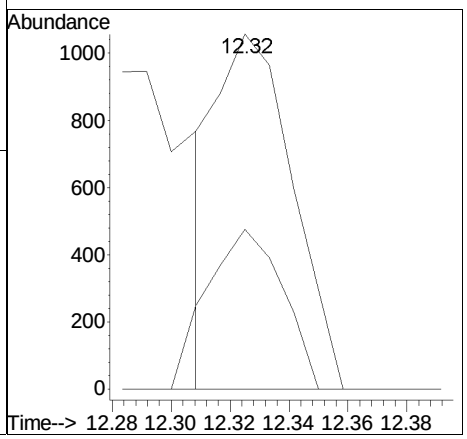


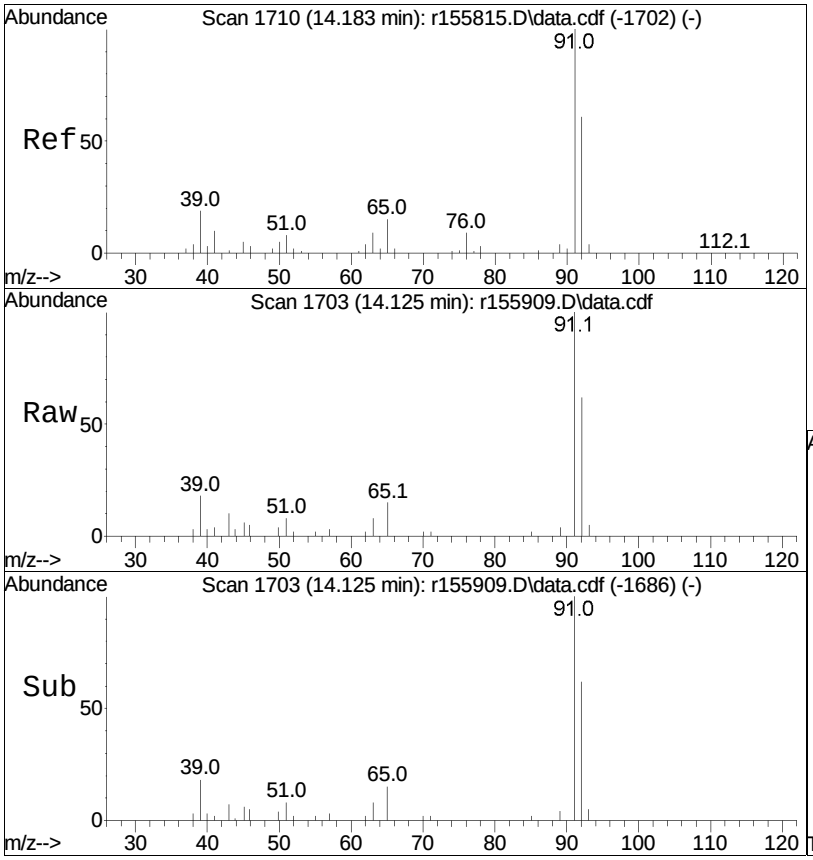


#62
heptane
Concen: 0.07 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 43 Resp: 1896

Ion	Ratio	Lower	Upper
43	100		
57	45.0	35.1	52.7
100	0.0	8.1	12.1#

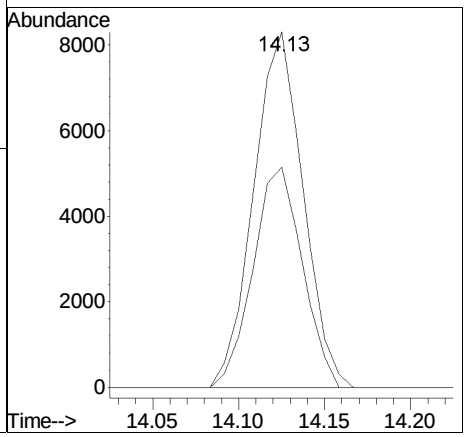


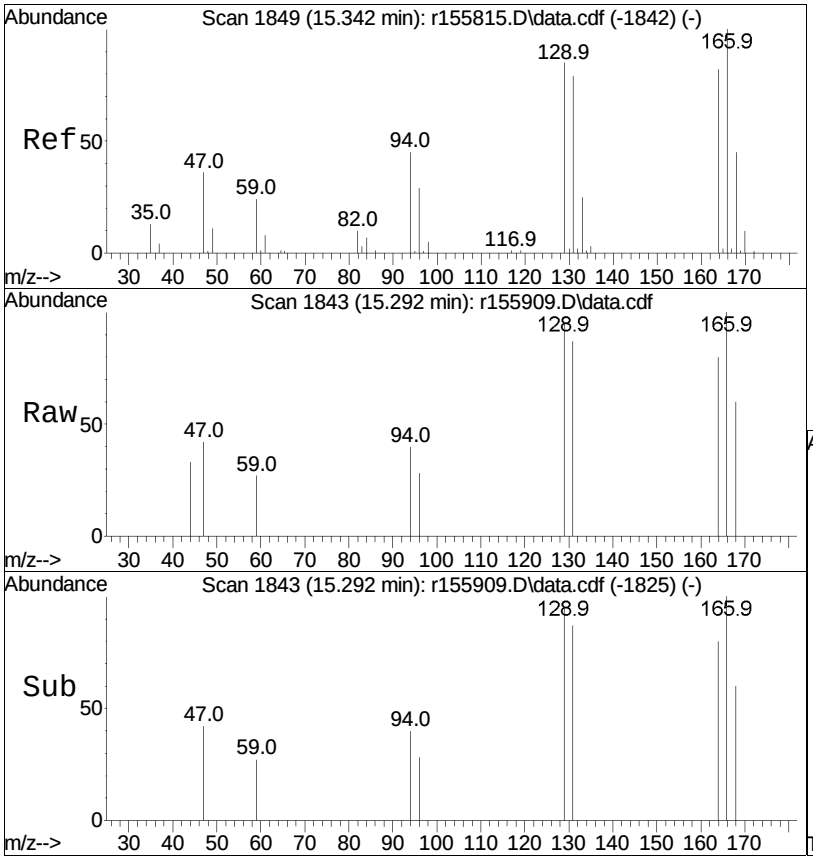


#68
toluene
Concen: 0.51 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 91 Resp: 16596

Ion	Ratio	Lower	Upper
91	100		
92	62.0	48.6	72.8

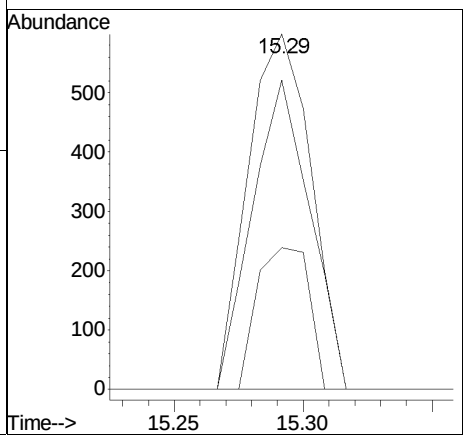


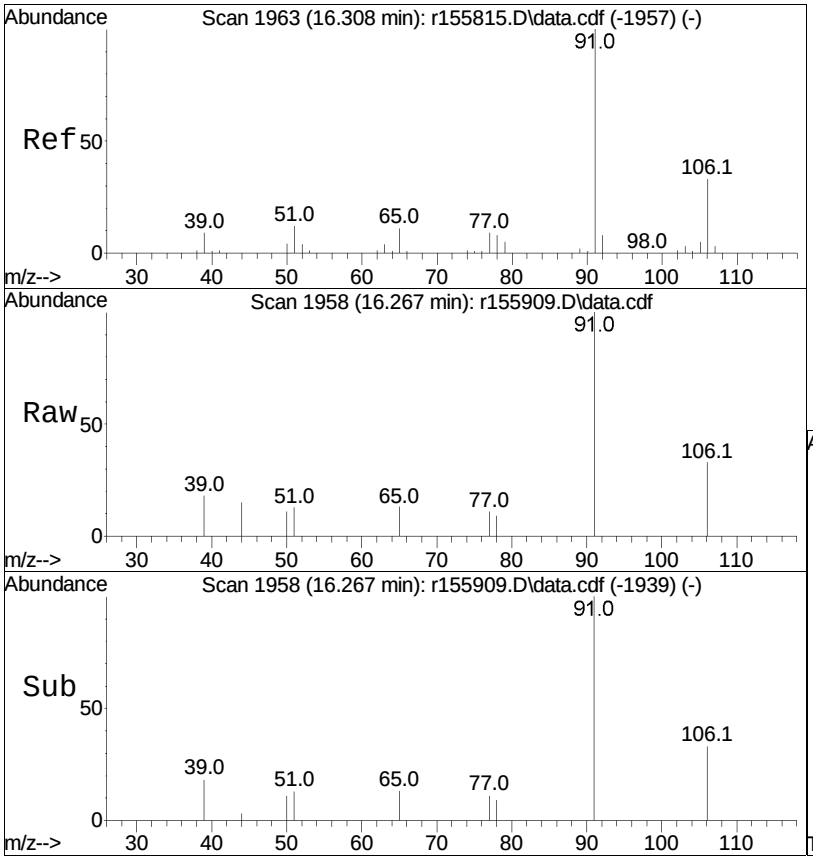


#78
tetrachloroethene
Concen: 0.10 ppbV
RT: 15.29 min Scan# 1843
Delta R.T. -0.050 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion:166 Resp: 1022

Ion	Ratio	Lower	Upper
166	100		
131	87.0	62.9	94.3
94	39.9	35.9	53.9

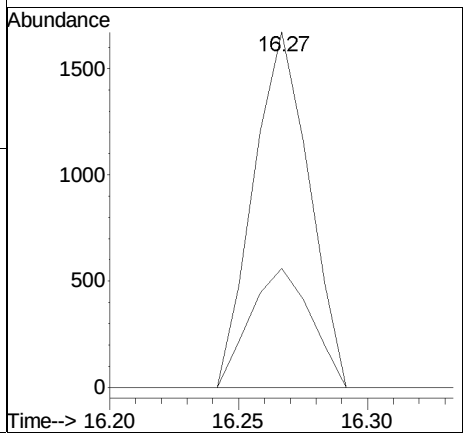


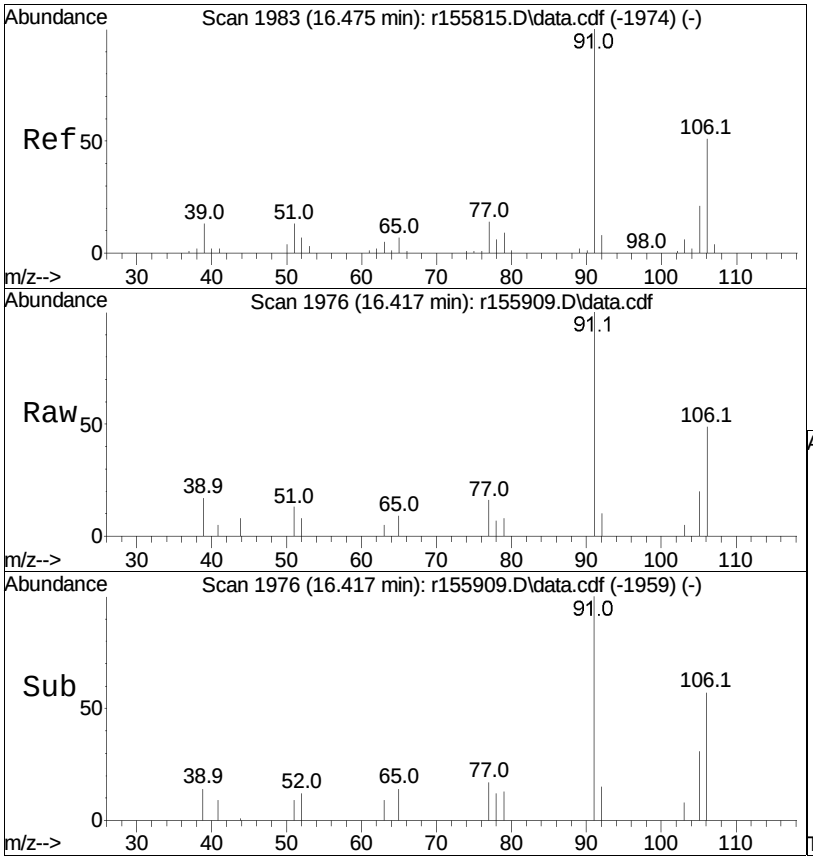


#81
ethylbenzene
Concen: 0.06 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 91 Resp: 2502

Ion	Ratio	Lower	Upper
91	100		
106	33.5	26.8	40.2

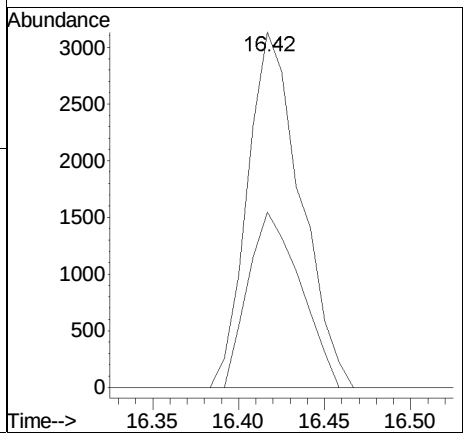


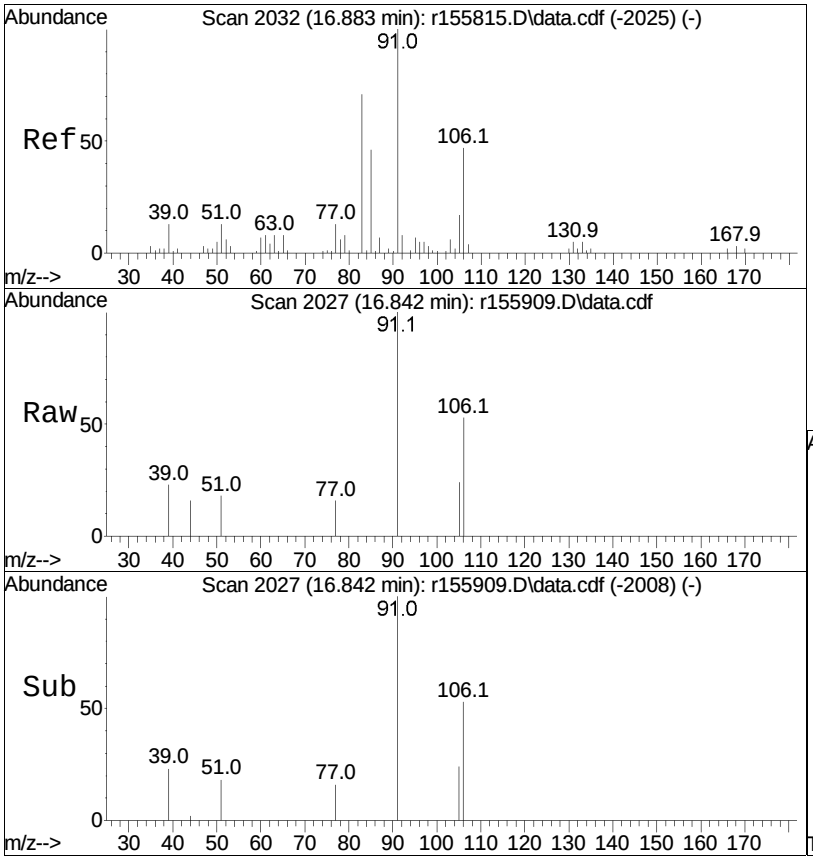


#83
m+p-xylene
Concen: 0.21 ppbV
RT: 16.42 min Scan# 1976
Delta R.T. -0.058 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 91 Resp: 6737

Ion	Ratio	Lower	Upper
91	100		
106	49.3	40.4	60.6

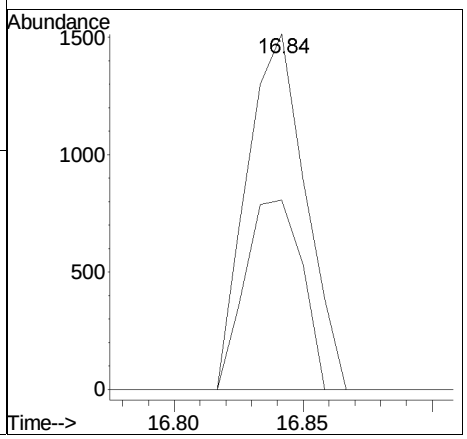


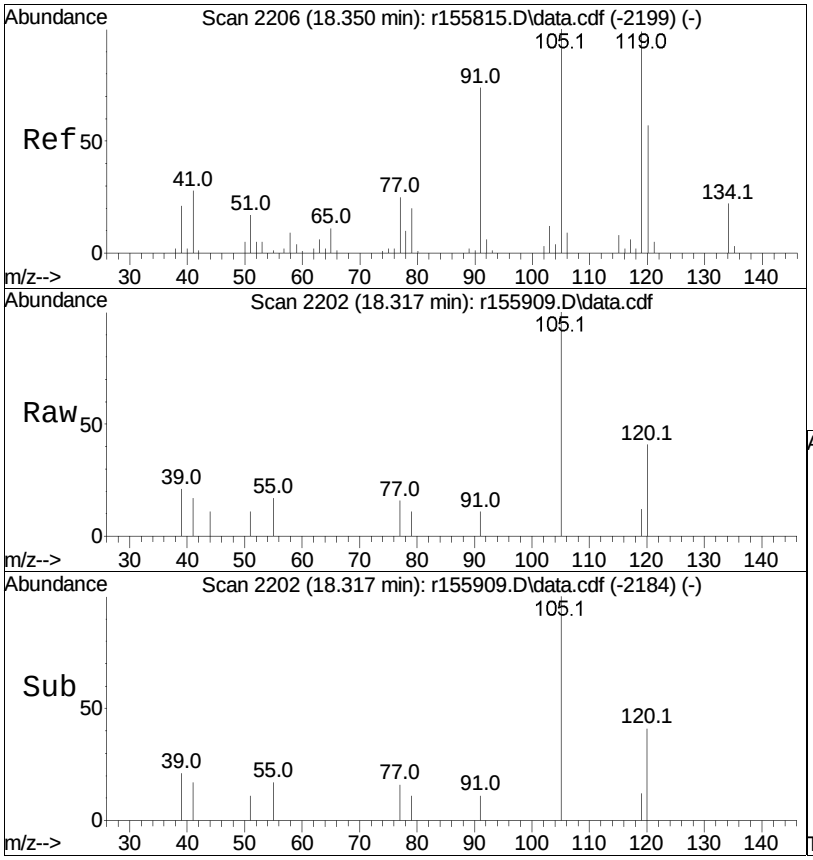


#87
o-xylene
Concen: 0.07 ppbV
RT: 16.84 min Scan# 2027
Delta R.T. -0.042 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion: 91 Resp: 2387

Ion	Ratio	Lower	Upper
91	100		
106	53.3	38.0	57.0

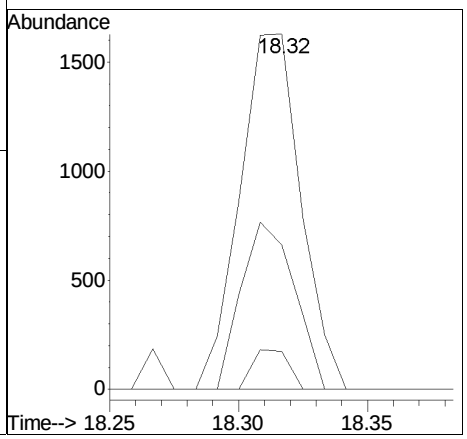




#99
1,2,4-trimethylbenzene
Concen: 0.07 ppbV
RT: 18.32 min Scan# 2202
Delta R.T. -0.033 min
Lab File: r155909.D
Acq: 20 Feb 2018 7:51 PM

Tgt Ion:105 Resp: 2690

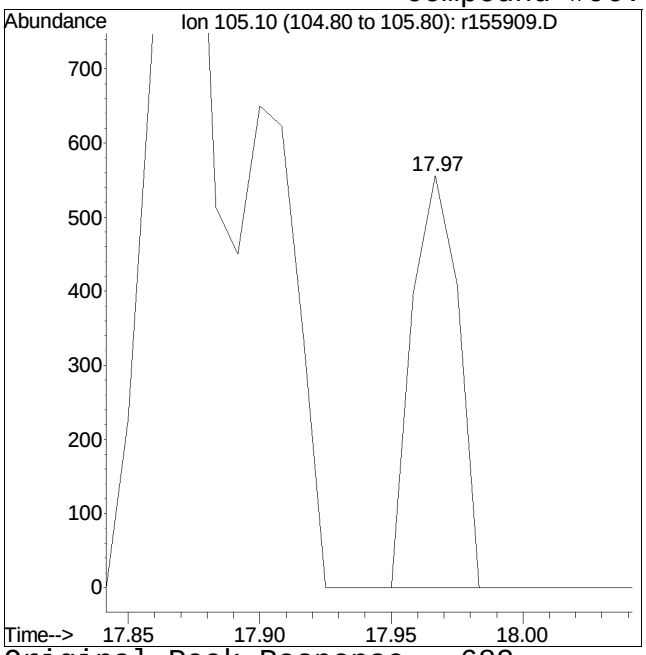
Ion	Ratio	Lower	Upper
105	100		
120	40.7	45.9	68.9#
91	10.7	59.2	88.8#



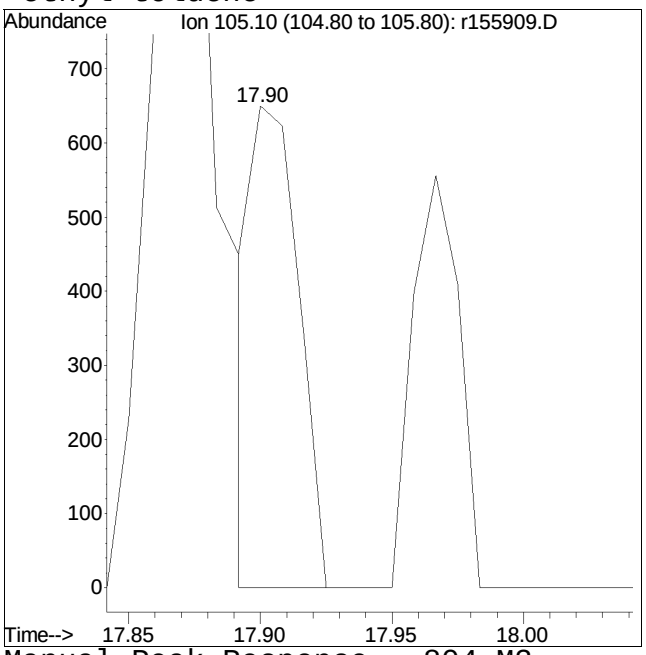
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155909.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 7:51 PM Instrument :
Sample : L1805020-06,3,250,250 Quant Date : 2/21/2018 6:40 am

Compound #96: 4-ethyl toluene



Original Peak Response = 682



Manual Peak Response = 804 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155912.D
Acq On : 20 Feb 2018 9:52 PM
Operator : AIRLAB15:RY
Sample : L1805020-02,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:35:17 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	154922	10.000	ppbV	-0.07
Standard Area = 147251			Recovery = 105.21%			
43) 1,4-difluorobenzene	11.15	114	274952	10.000	ppbV	-0.07
Standard Area = 262067			Recovery = 104.92%			
67) chlorobenzene-D5	15.88	54	70734	10.000	ppbV	-0.05
Standard Area = 67836			Recovery = 104.27%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	3.84	85	7665	0.426	ppbV	95
6) chloromethane	4.00	50	11863	0.922	ppbV	96
7) Freon-114	0.00		0	N.D.	d	
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	4.36		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	4.98		0	N.D.		
15) ethanol	4.95	31	71745	6.318	ppbV	99
17) vinyl bromide	0.00		0	N.D.		
19) acetone	5.46	43	145944M6	8.283	ppbV	
21) trichlorofluoromethane	5.65	101	2716	0.185	ppbV	95
22) isopropyl alcohol	5.75	45	24498	1.043	ppbV	99
26) 1,1-dichloroethene	6.52		0	N.D.		
27) tertiary butyl alcohol	6.41	59	2064	0.098	ppbV #	66
28) methylene chloride	6.49	49	4358	0.273	ppbV	96
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	6.79	76	2203	0.071	ppbV #	1
31) Freon 113	6.79	101	900	0.052	ppbV #	66
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	7.82		0	N.D.		
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	8.23	43	27319	0.931	ppbV	99
37) cis-1,2-dichloroethene	8.72		0	N.D.		
38) Ethyl Acetate	9.01	61	419	0.103	ppbV #	39
39) chloroform	9.06		0	N.D.		
40) Tetrahydrofuran	9.54	42	9205	0.501	ppbV	98
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	8.97	57	3954	0.192	ppbV #	27
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155912.D
Acq On : 20 Feb 2018 9:52 PM
Operator : AIRLAB15:RY
Sample : L1805020-02,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:35:17 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	10.73	78	11096	0.339	ppbV	99
52) carbon tetrachloride	10.90	117	569	0.051	ppbV #	85
53) cyclohexane	11.03	56	1462	0.069	ppbV	97
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	11.97		0	N.D.		
60) 2,2,4-trimethylpentane	12.01	57	10929	0.165	ppbV #	89
62) heptane	12.32	43	3551	0.120	ppbV #	88
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	13.03	43	7642	0.223	ppbV	97
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	14.13	91	147123	4.112	ppbV	99
72) 2-hexanone	0.00		0	N.D.	d	
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
78) tetrachloroethene	15.29	166	1503	0.131	ppbV	97
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	16.27	91	8323	0.188	ppbV	98
83) m+p-xylene	16.42	91	22967	0.641	ppbV	96
84) bromoform	0.00		0	N.D.		
85) styrene	16.74	104	1468	0.055	ppbV #	66
86) 1,1,2,2-tetrachloroethane	16.88		0	N.D.		
87) o-xylene	16.84	91	8405	0.230	ppbV	96
96) 4-ethyl toluene	17.91	105	2371M3	0.052	ppbV	
97) 1,3,5-trimethylbenzene	17.97	105	2405	0.061	ppbV	93
99) 1,2,4-trimethylbenzene	18.32		0	N.D.		
101) Benzyl Chloride	18.50		0	N.D.		
102) 1,3-dichlorobenzene	18.51		0	N.D.		
103) 1,4-dichlorobenzene	18.51		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	0.00		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

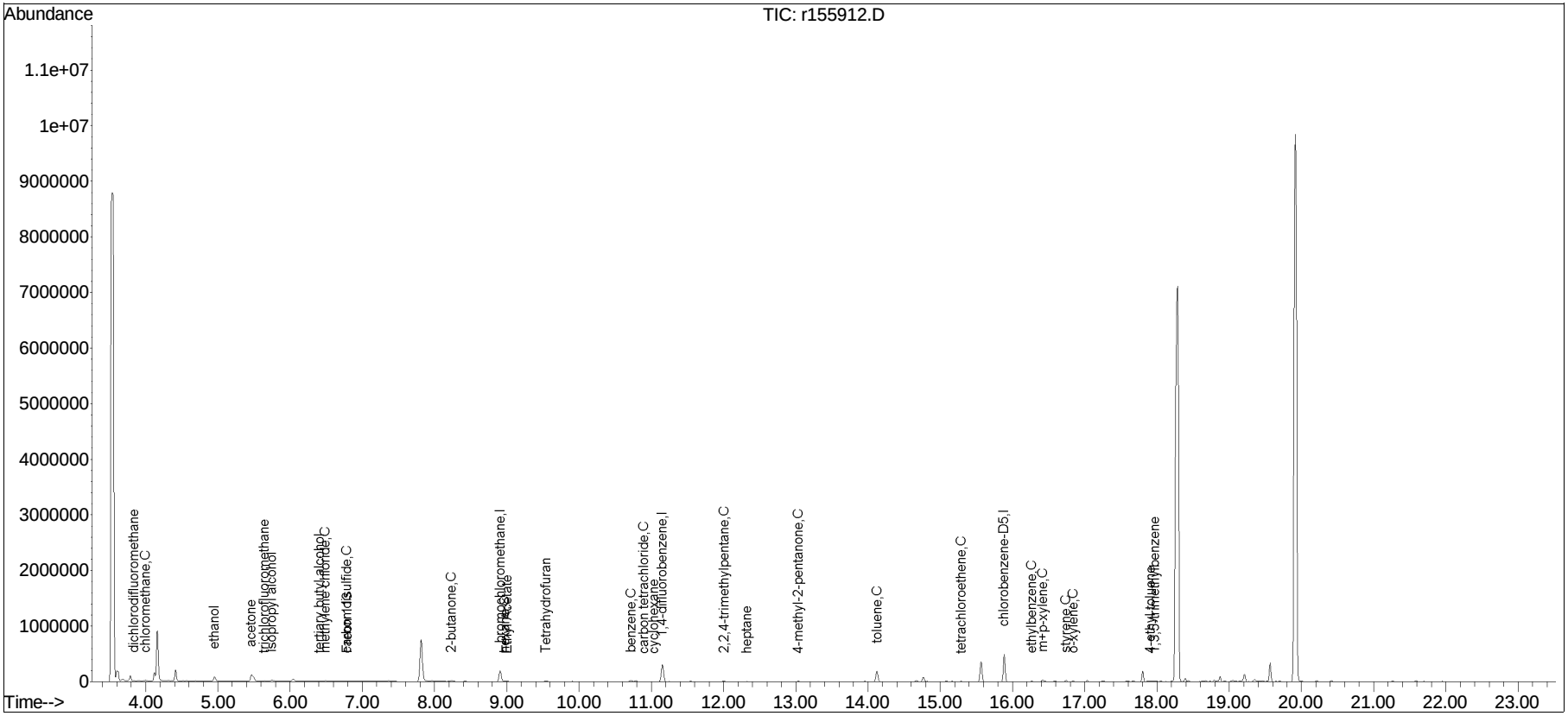
(#) = qualifier out of range (m) = manual integration (+) = signals summed

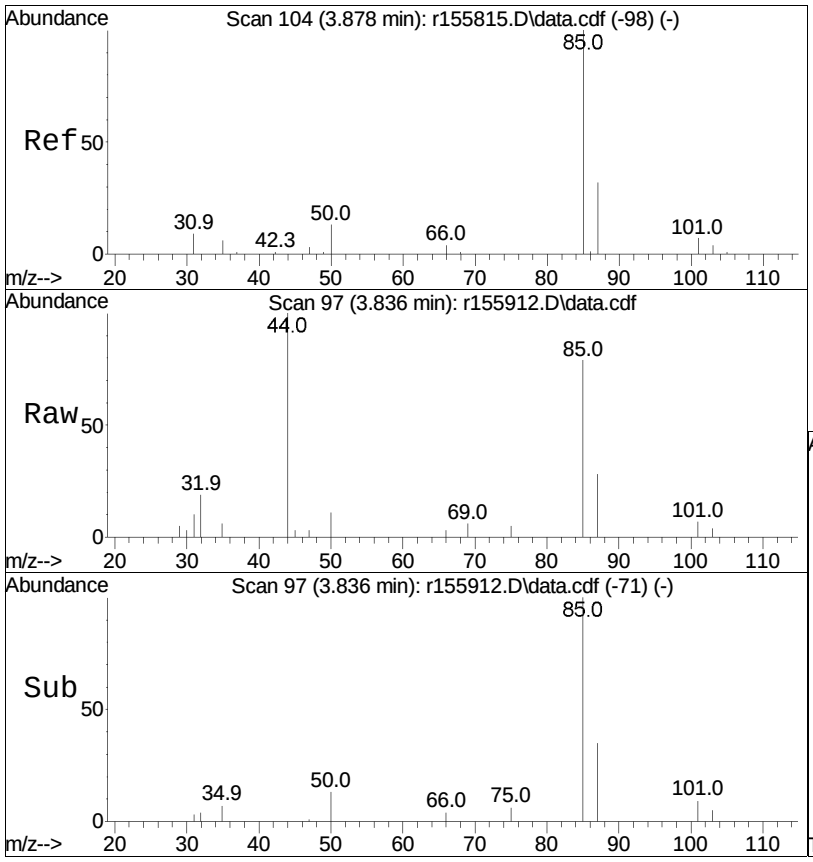
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155912.D
Acq On : 20 Feb 2018 9:52 PM
Operator : AIRLAB15:RY
Sample : L1805020-02,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:35:17 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : TO15-NY - .s\Data\Airlab15\2018\180220T\r155899.D

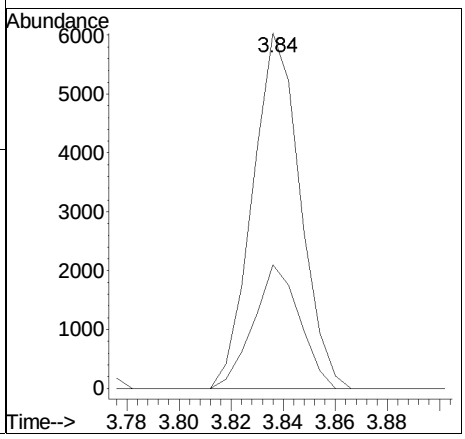


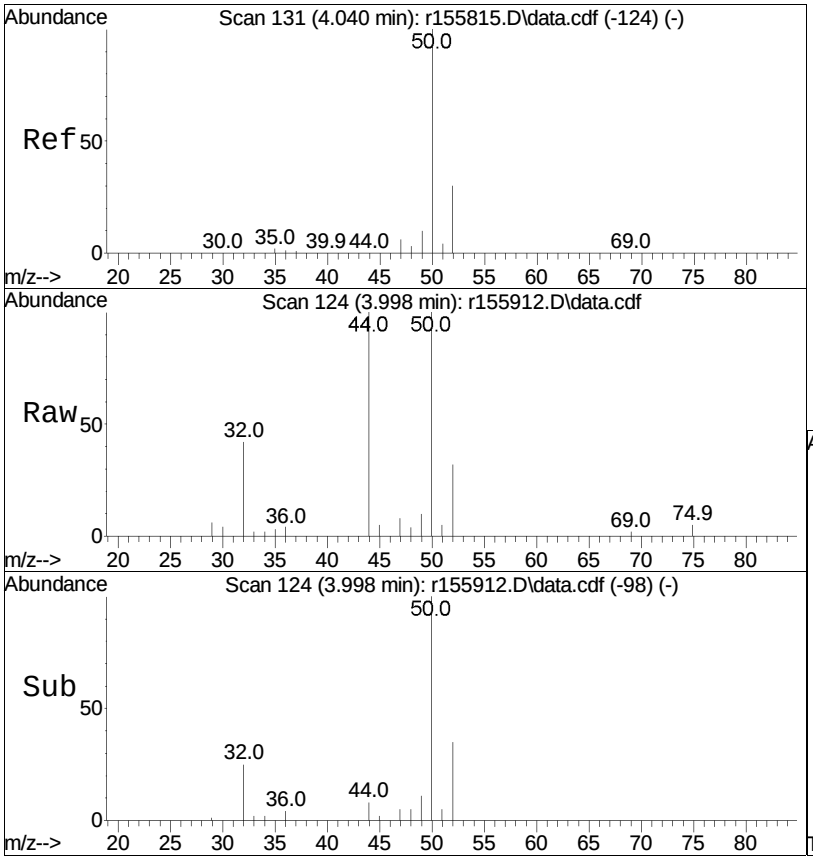


#5
dichlorodifluoromethane
Concen: 0.43 ppbV
RT: 3.84 min Scan# 97
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 85 Resp: 7665

Ion	Ratio	Lower	Upper
85	100		
87	34.8	25.6	38.4

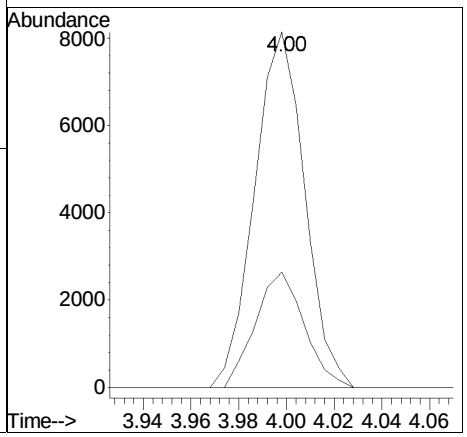


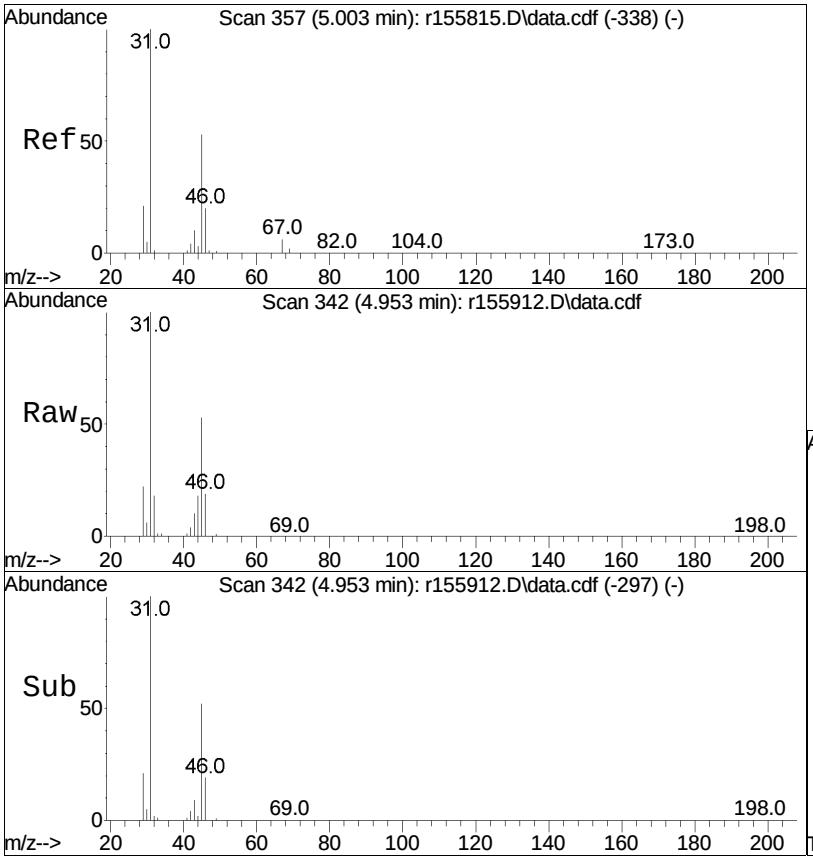


#6
chloromethane
Concen: 0.92 ppbV
RT: 4.00 min Scan# 124
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 50 Resp: 11863

Ion	Ratio	Lower	Upper
50	100		
52	32.4	24.1	36.1

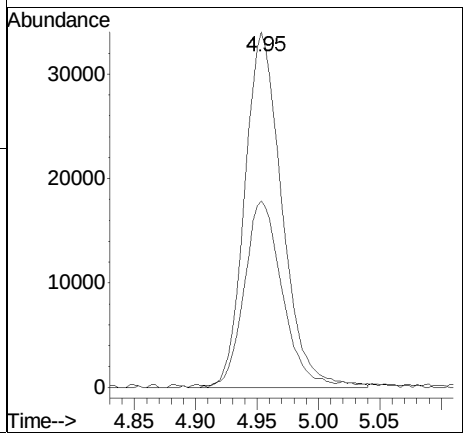


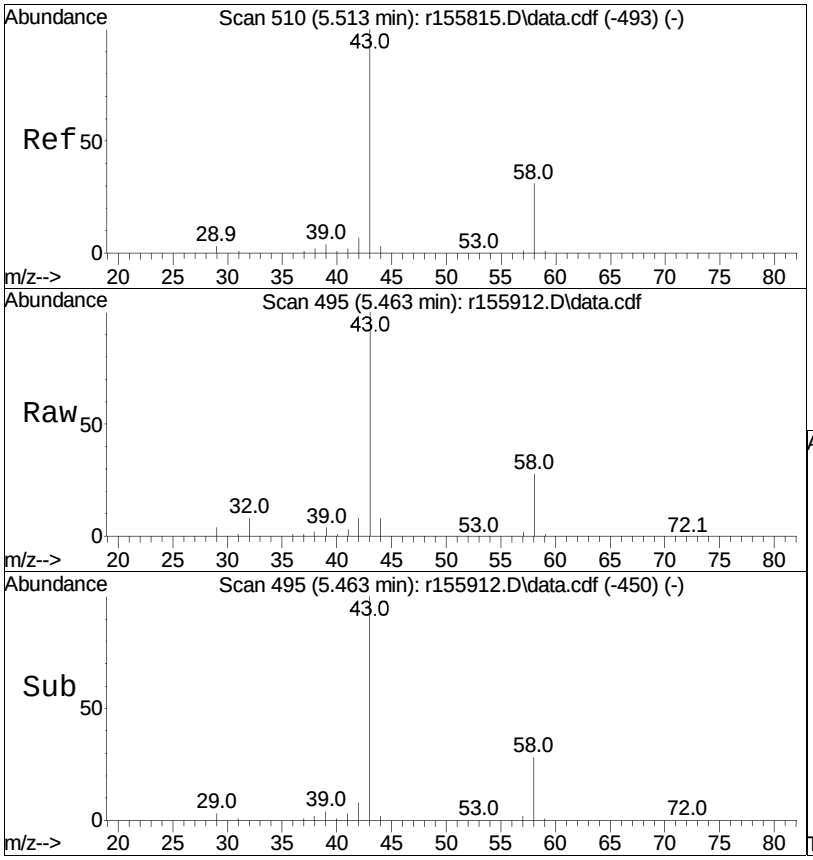


#15
ethanol
Concen: 6.32 ppbV
RT: 4.95 min Scan# 342
Delta R.T. -0.050 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 31 Resp: 71745

Ion	Ratio	Lower	Upper
31	100		
45	52.5	42.6	63.8

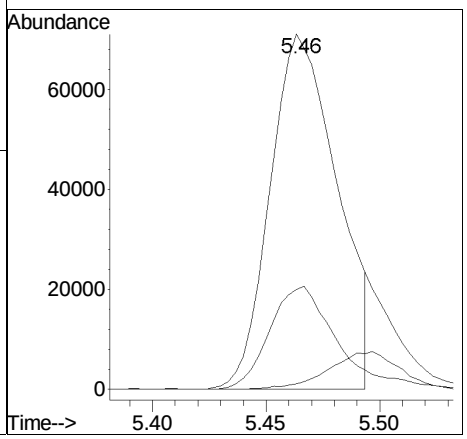


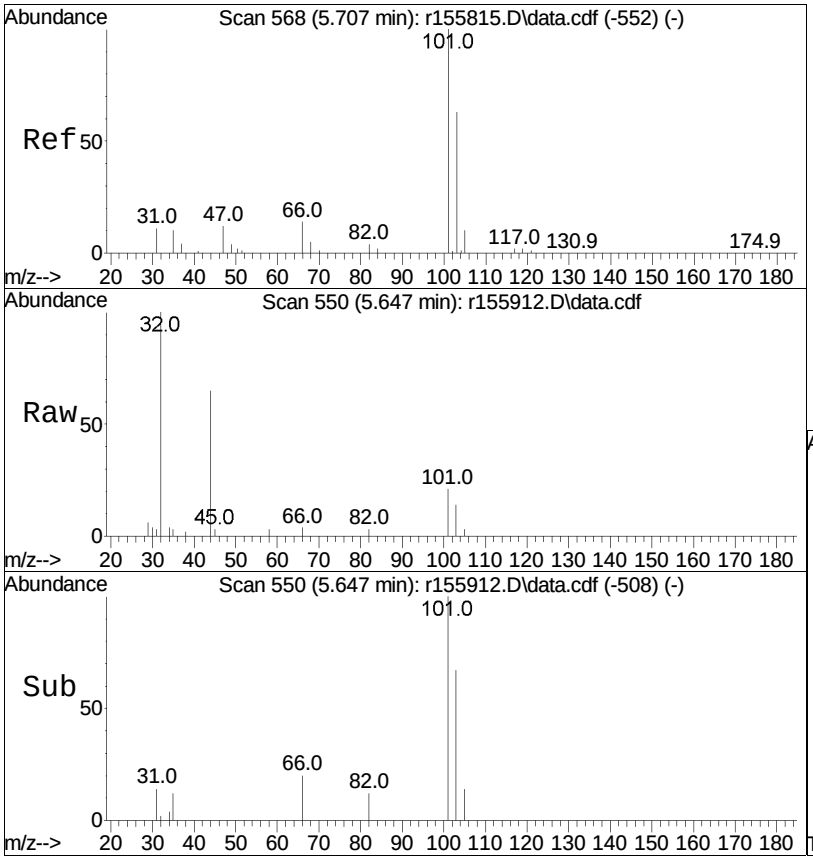


#19
acetone
Concen: 8.28 ppbV m
RT: 5.46 min Scan# 495
Delta R.T. -0.050 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 43 Resp: 145944

Ion	Ratio	Lower	Upper
43	100		
58	28.1	24.5	36.7
57	1.6	0.6	0.8#

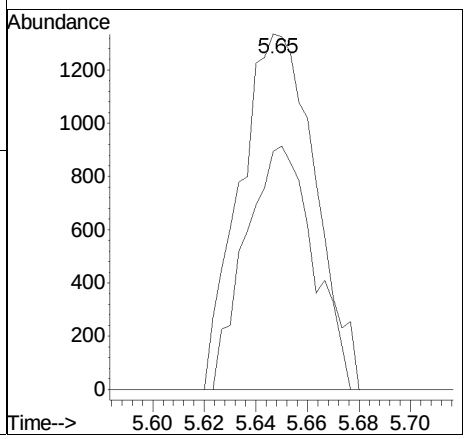


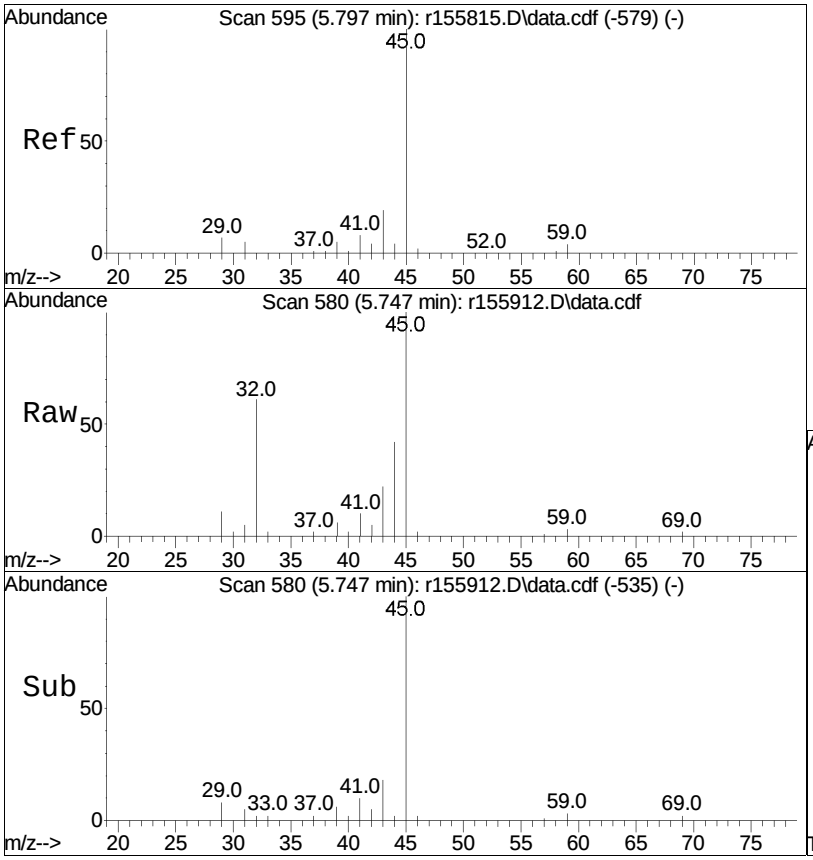


#21
trichlorofluoromethane
Concen: 0.19 ppbV
RT: 5.65 min Scan# 550
Delta R.T. -0.060 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:101 Resp: 2716

Ion	Ratio	Lower	Upper
101	100		
103	67.0	50.2	75.4

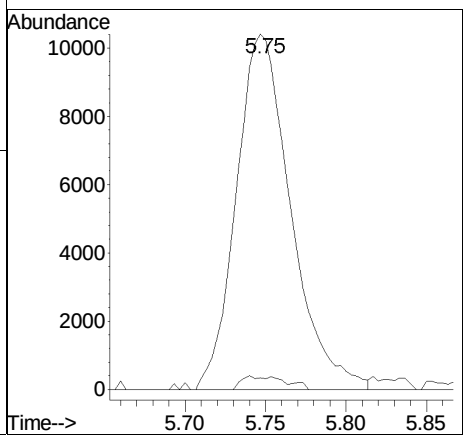


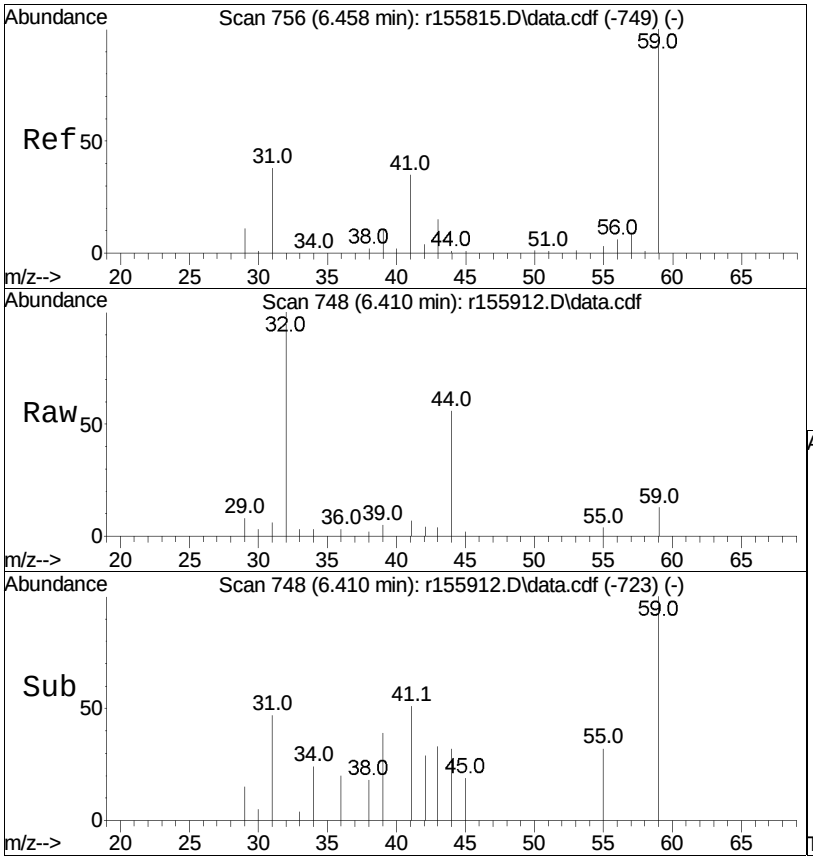


#22
isopropyl alcohol
Concen: 1.04 ppbV
RT: 5.75 min Scan# 580
Delta R.T. -0.050 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 45 Resp: 24498

Ion	Ratio	Lower	Upper
45	100		
59	3.3	2.8	4.2

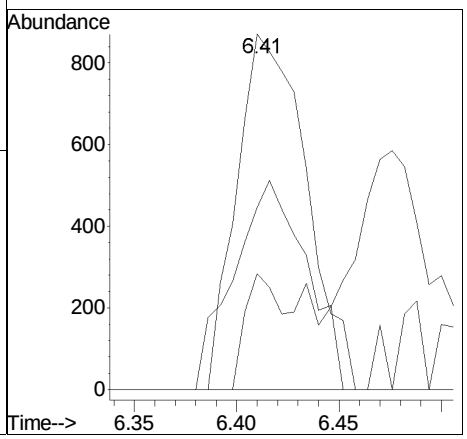


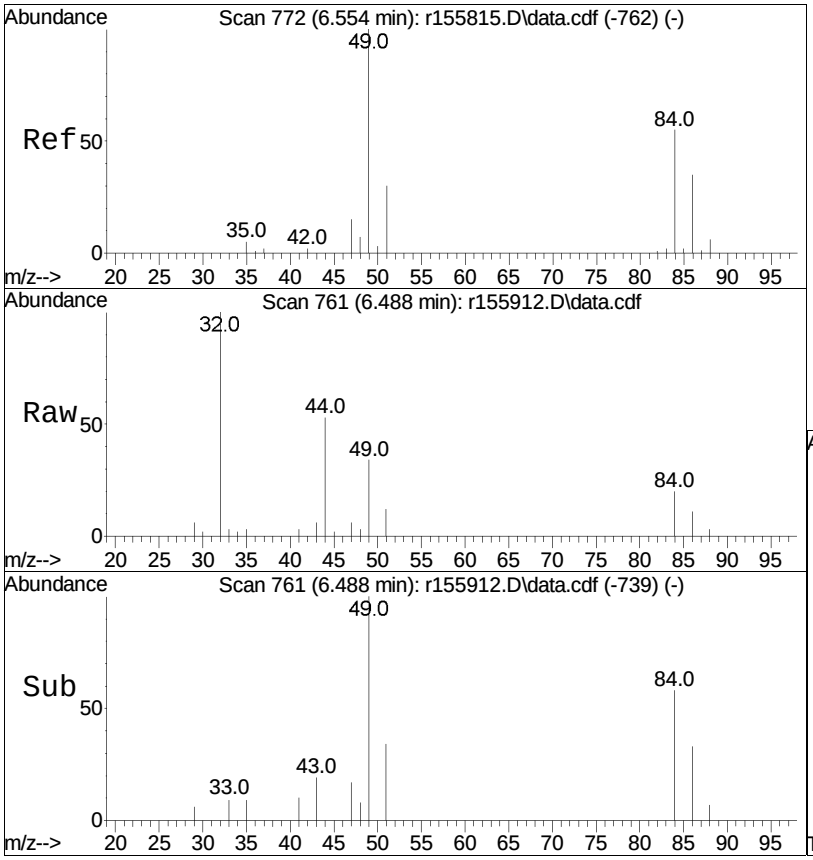


#27
tertiary butyl alcohol
Concen: 0.10 ppbV
RT: 6.41 min Scan# 748
Delta R.T. -0.048 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 59 Resp: 2064

Ion	Ratio	Lower	Upper
59	100		
41	51.2	27.1	40.7#
43	32.6	11.8	17.8#

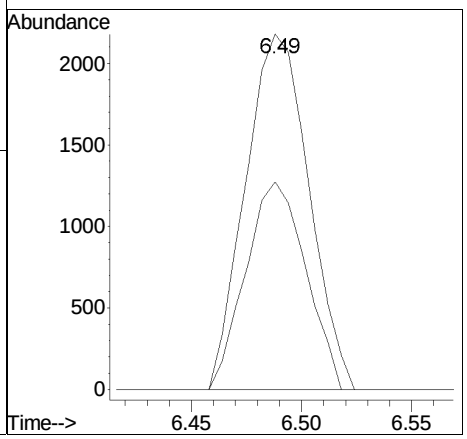


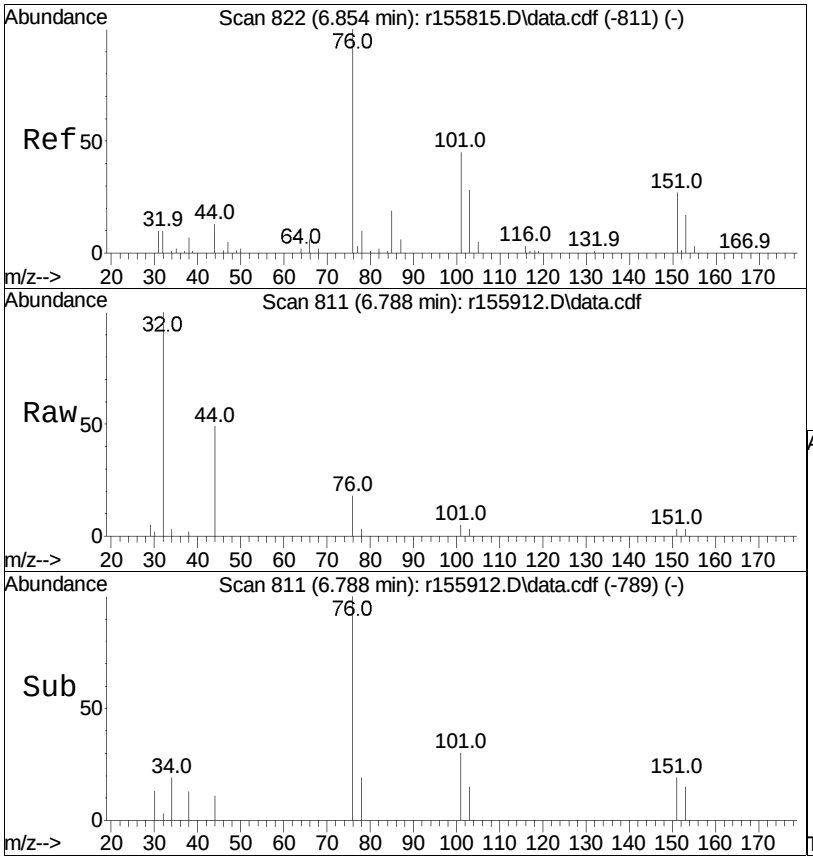


#28
methylene chloride
Concen: 0.27 ppbV
RT: 6.49 min Scan# 761
Delta R.T. -0.066 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 49 Resp: 4358

Ion	Ratio	Lower	Upper
49	100		
84	58.4	44.2	66.2

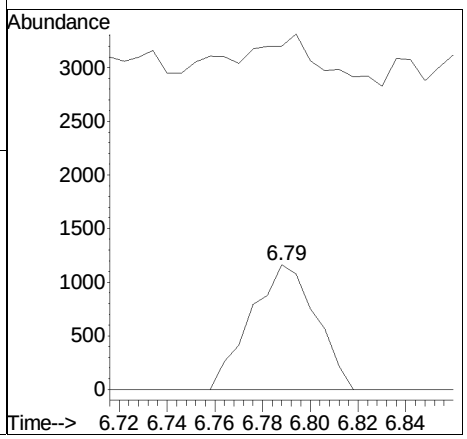


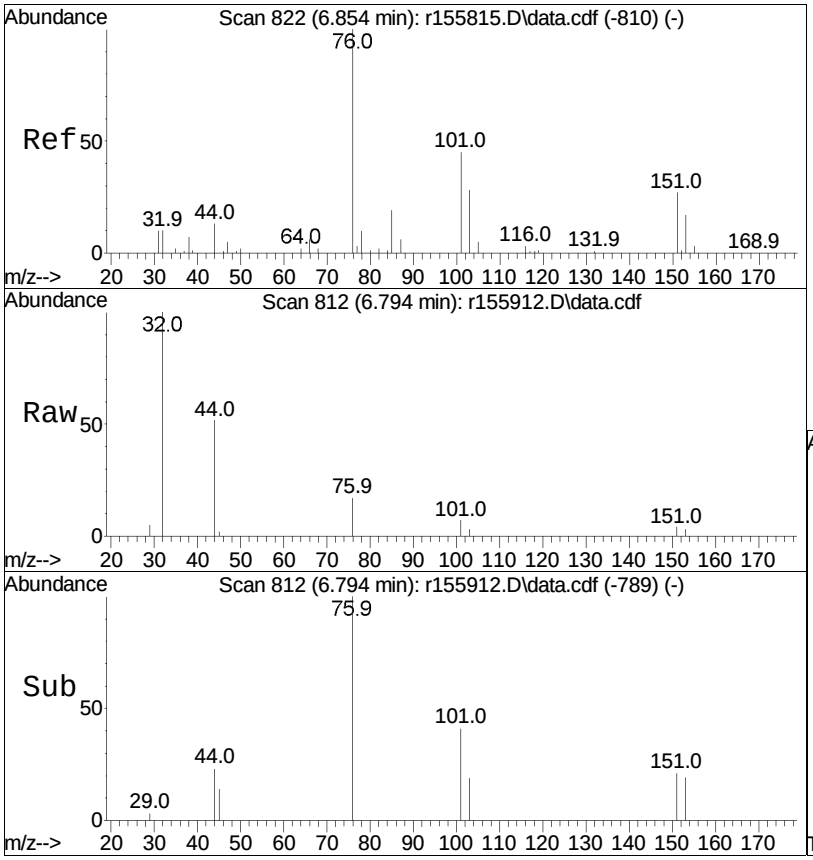


#30
carbon disulfide
Concen: 0.07 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 76 Resp: 2203

Ion	Ratio	Lower	Upper
76	100		
44	275.2	11.6	17.4#

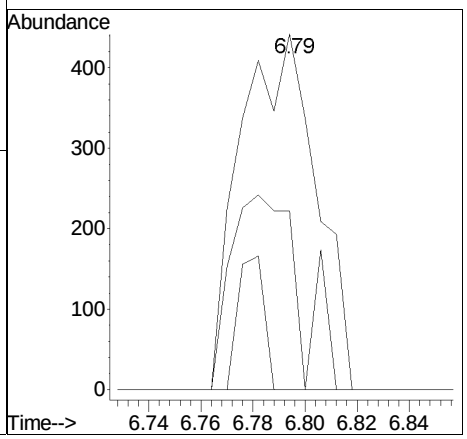


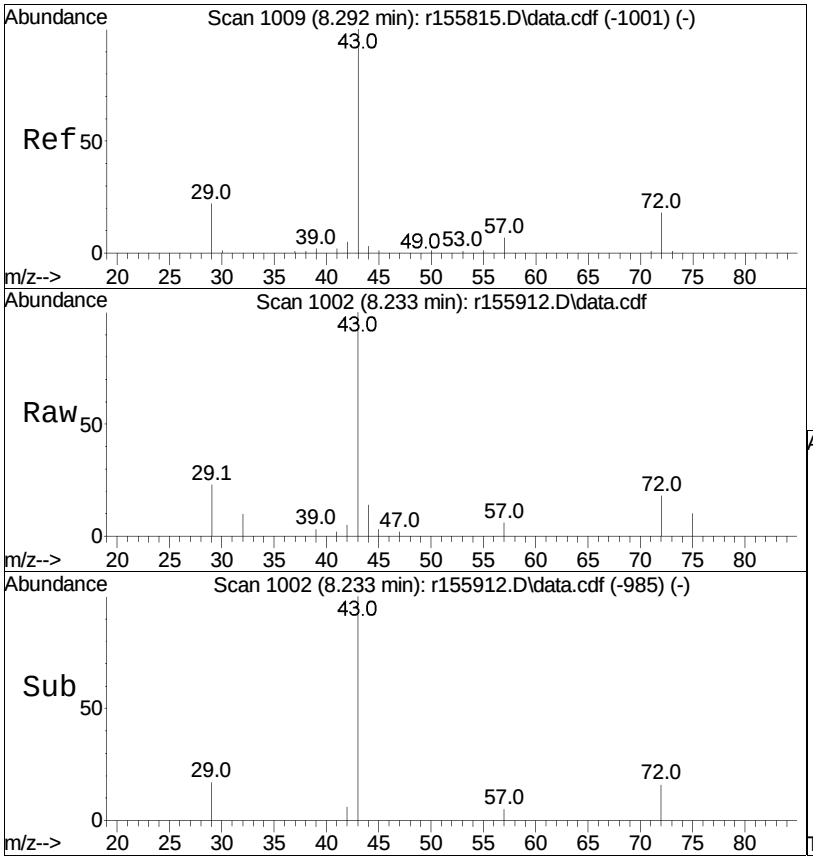


#31
Freon 113
Concen: 0.05 ppbV
RT: 6.79 min Scan# 812
Delta R.T. -0.060 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:101 Resp: 900

Ion	Ratio	Lower	Upper
101	100		
85	0.0	32.9	49.3#
151	50.2	47.3	70.9

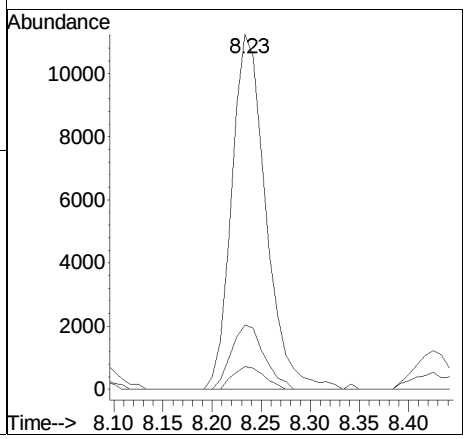


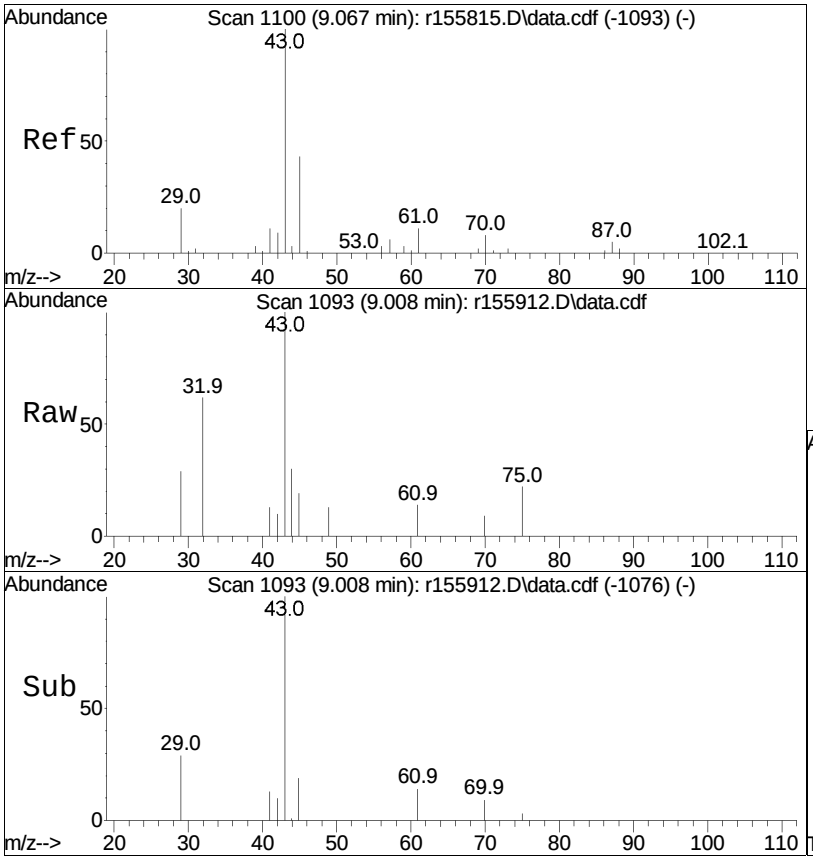


#36
2-butanone
Concen: 0.93 ppbV
RT: 8.23 min Scan# 1002
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 43 Resp: 27319

Ion	Ratio	Lower	Upper
43	100		
72	18.1	14.2	21.2
57	6.5	5.2	7.8

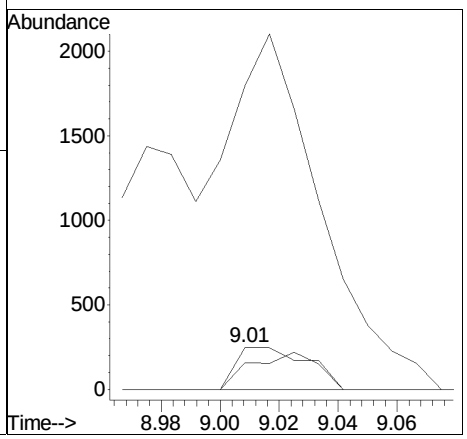


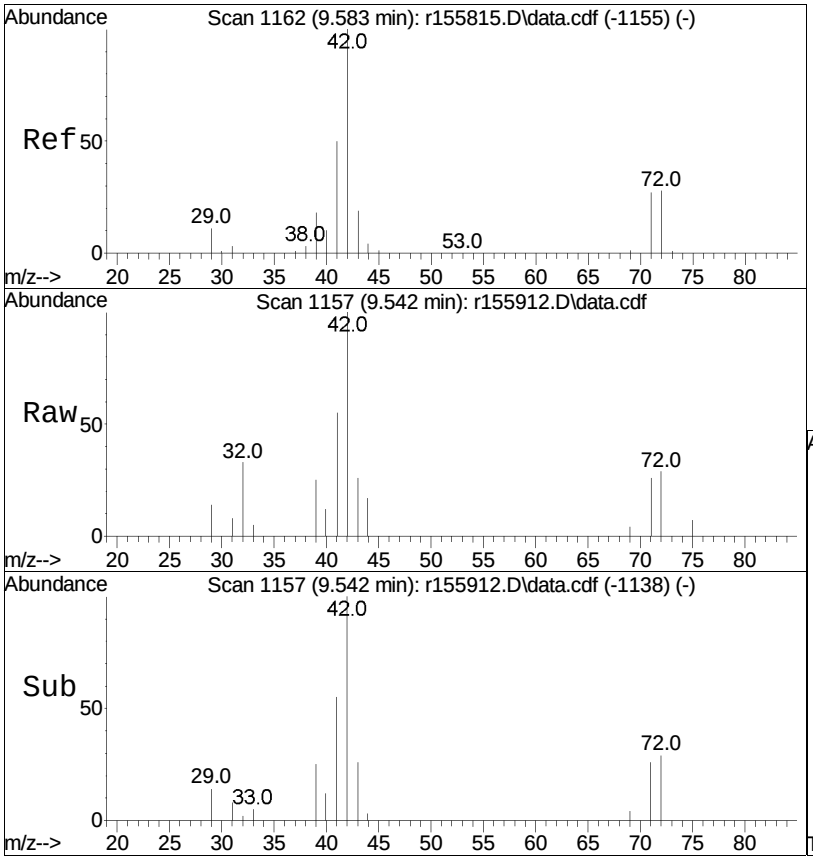


#38
Ethyl Acetate
Concen: 0.10 ppbV
RT: 9.01 min Scan# 1093
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 61 Resp: 419

Ion	Ratio	Lower	Upper
61	100		
70	64.0	63.0	94.6
43	726.7	812.2	1218.4#

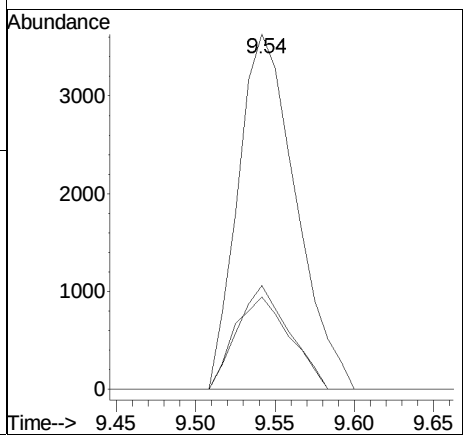


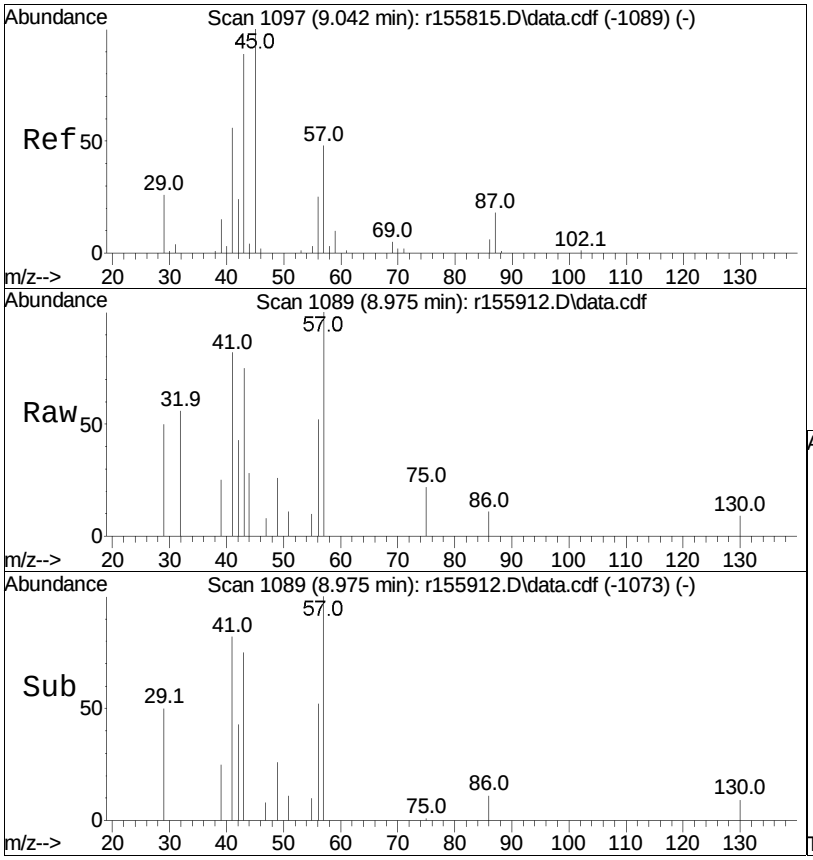


#40
Tetrahydrofuran
Concen: 0.50 ppbV
RT: 9.54 min Scan# 1157
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 42 Resp: 9205

Ion	Ratio	Lower	Upper
42	100		
71	26.0	21.4	32.0
72	29.2	22.6	33.8

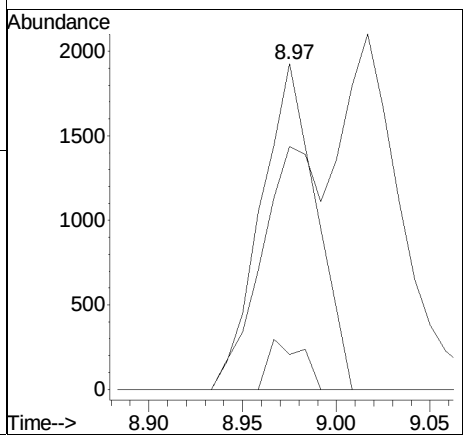


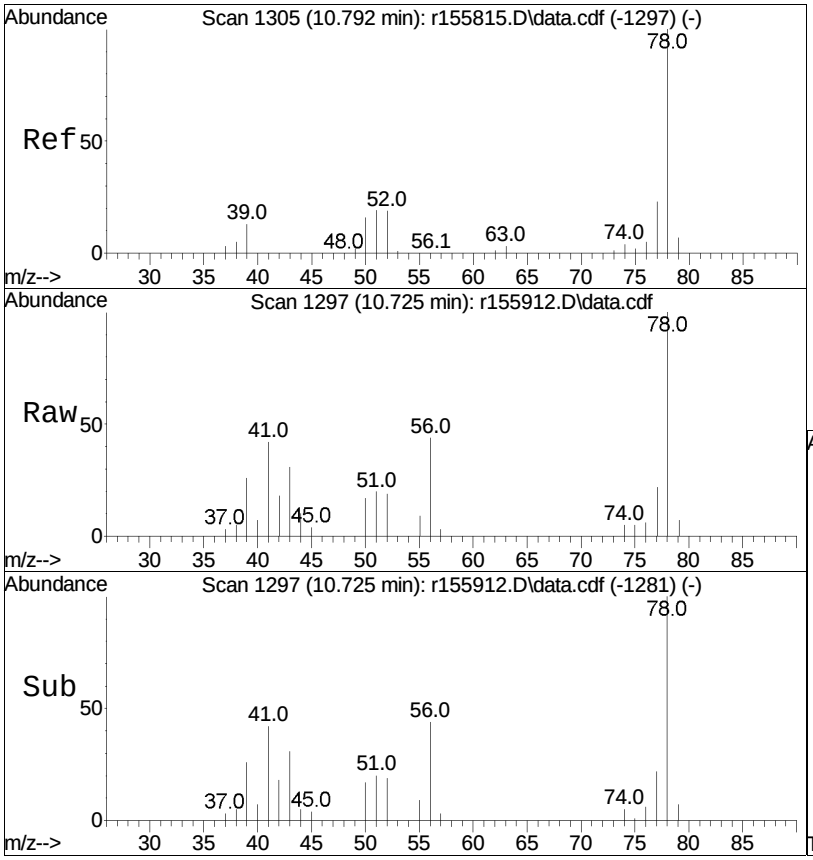


#44
hexane
Concen: 0.19 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 57 Resp: 3954

Ion	Ratio	Lower	Upper
57	100		
43	74.5	149.0	223.6#
86	10.7	9.9	14.9

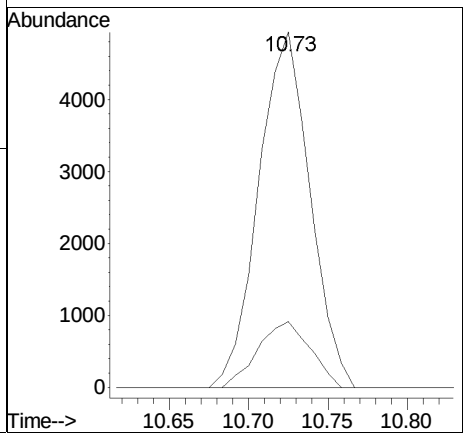


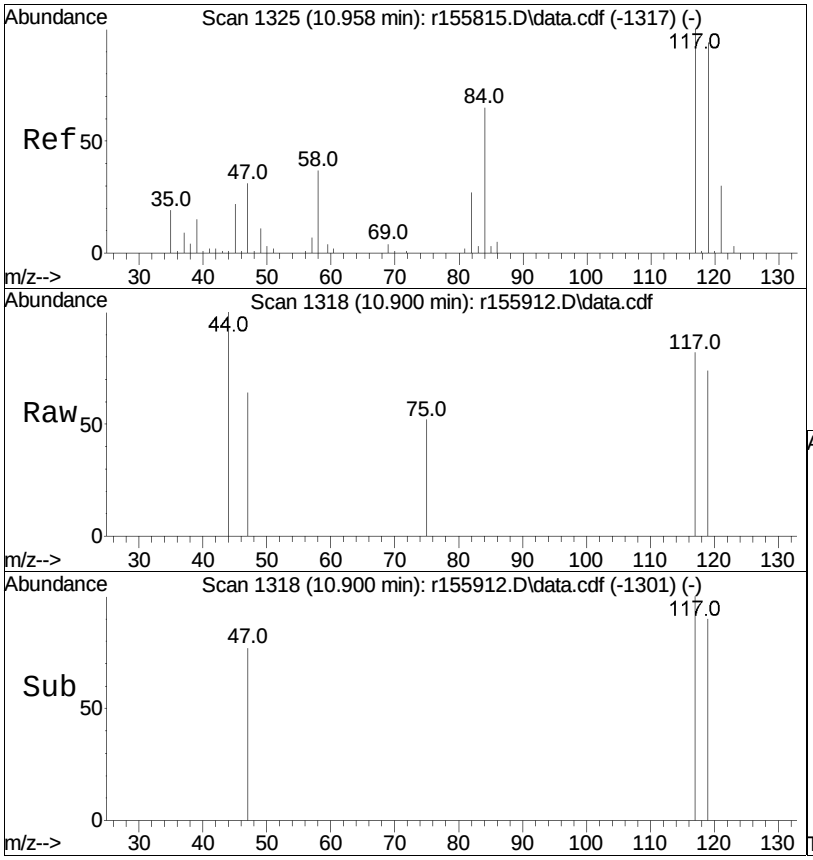


#50
benzene
Concen: 0.34 ppbV
RT: 10.73 min Scan# 1297
Delta R.T. -0.067 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 78 Resp: 11096

Ion	Ratio	Lower	Upper
78	100		
52	18.5	15.2	22.8

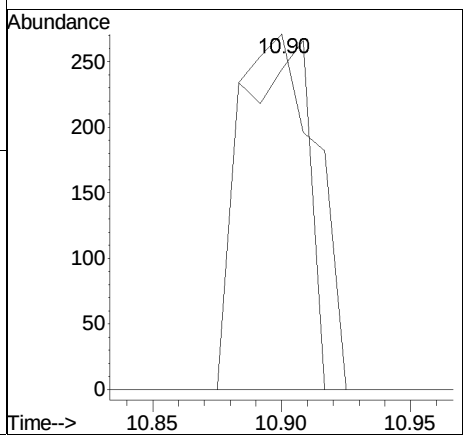


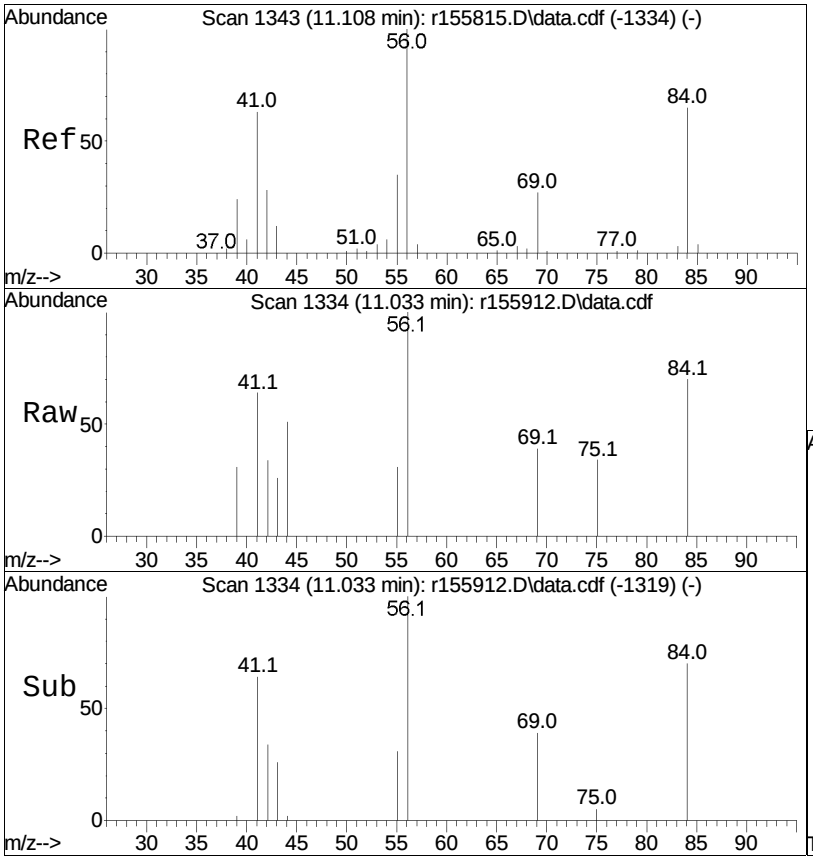


#52
carbon tetrachloride
Concen: 0.05 ppbV
RT: 10.90 min Scan# 1318
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:117 Resp: 569

Ion	Ratio	Lower	Upper
117	100		
119	90.0	75.1	112.7
82	0.0	21.4	32.2#

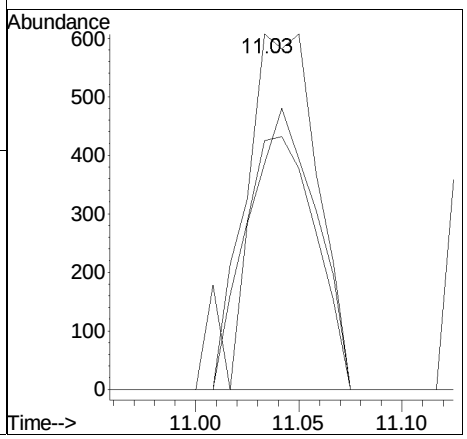


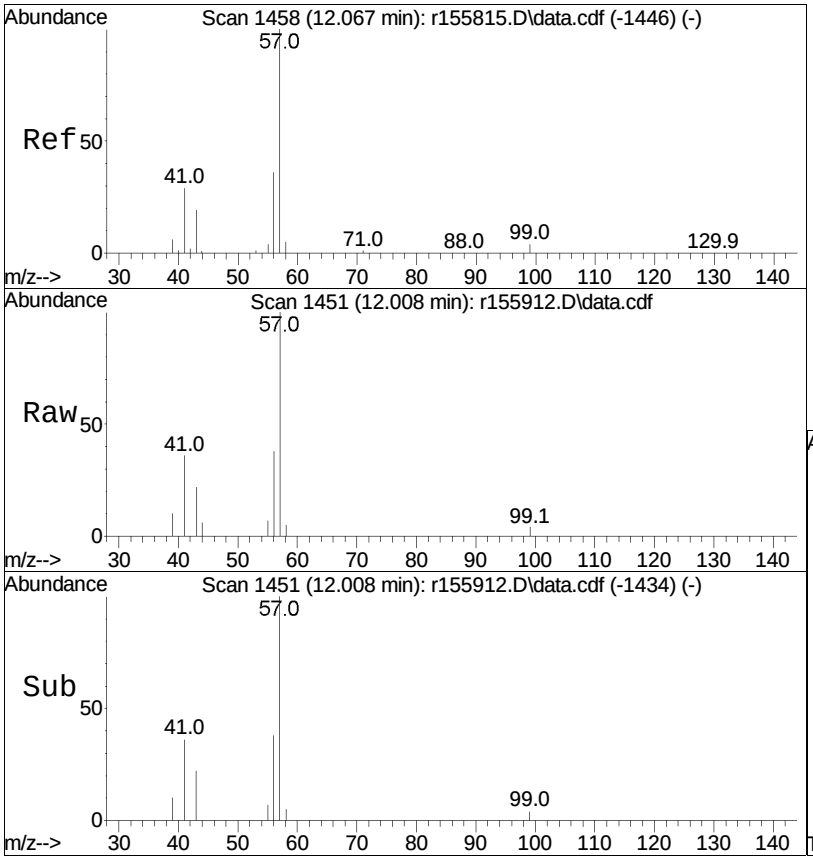


#53
cyclohexane
Concen: 0.07 ppbV
RT: 11.03 min Scan# 1334
Delta R.T. -0.075 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 56 Resp: 1462

Ion	Ratio	Lower	Upper
56	100		
84	70.0	52.1	78.1
41	63.6	50.6	75.8

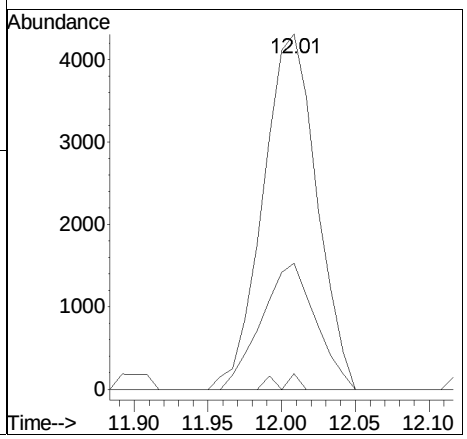


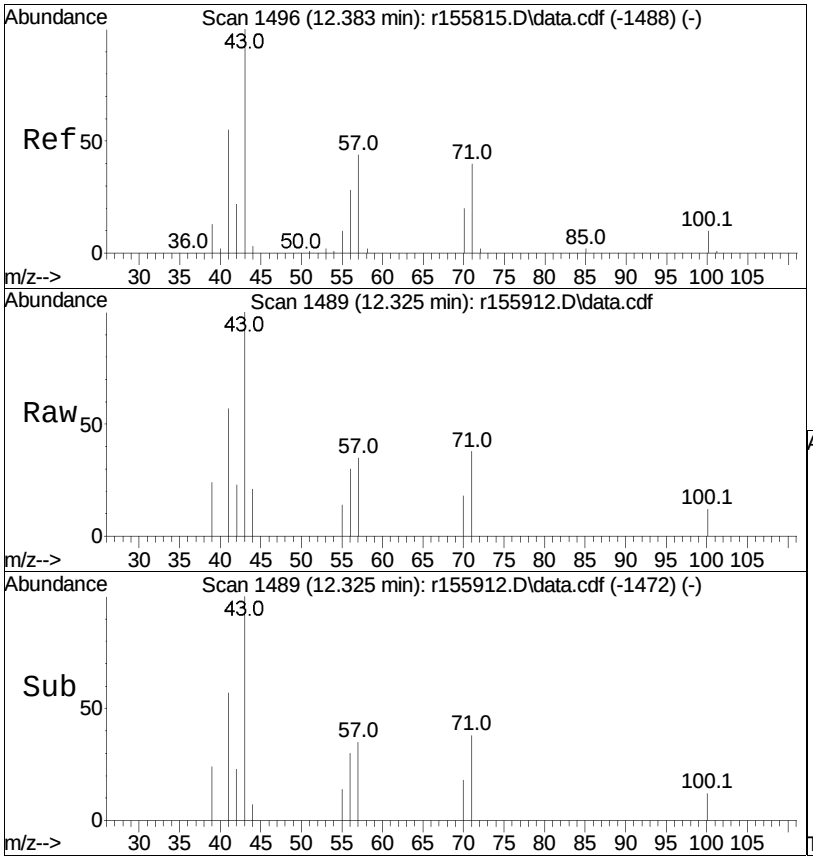


#60
2,2,4-trimethylpentane
Concen: 0.17 ppbV
RT: 12.01 min Scan# 1451
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 57 Resp: 10929

Ion	Ratio	Lower	Upper
57	100		
99	4.4	3.0	4.4
41	35.5	23.1	34.7#

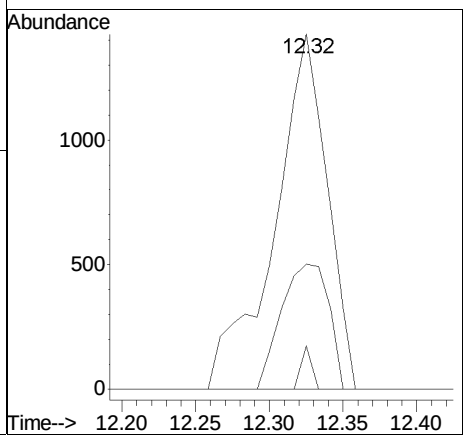


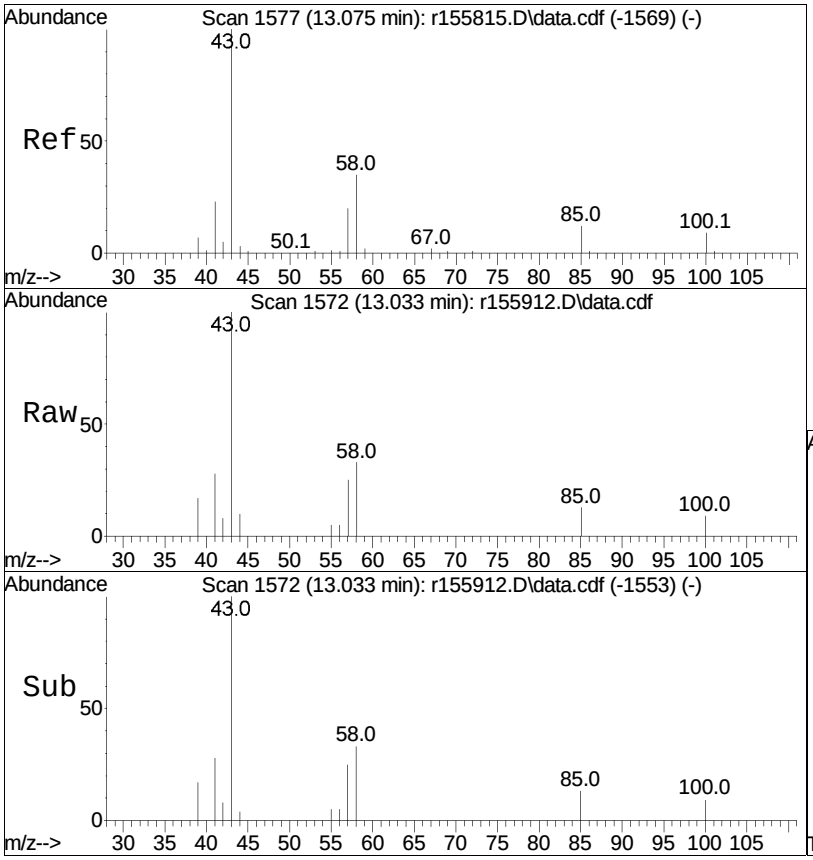


#62
heptane
Concen: 0.12 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 43 Resp: 3551

Ion	Ratio	Lower	Upper
43	100		
57	35.2	35.1	52.7
100	12.2	8.1	12.1#

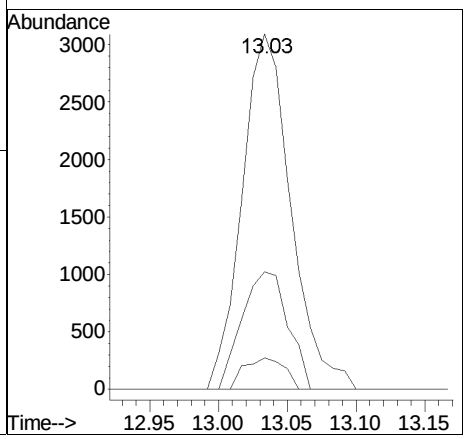


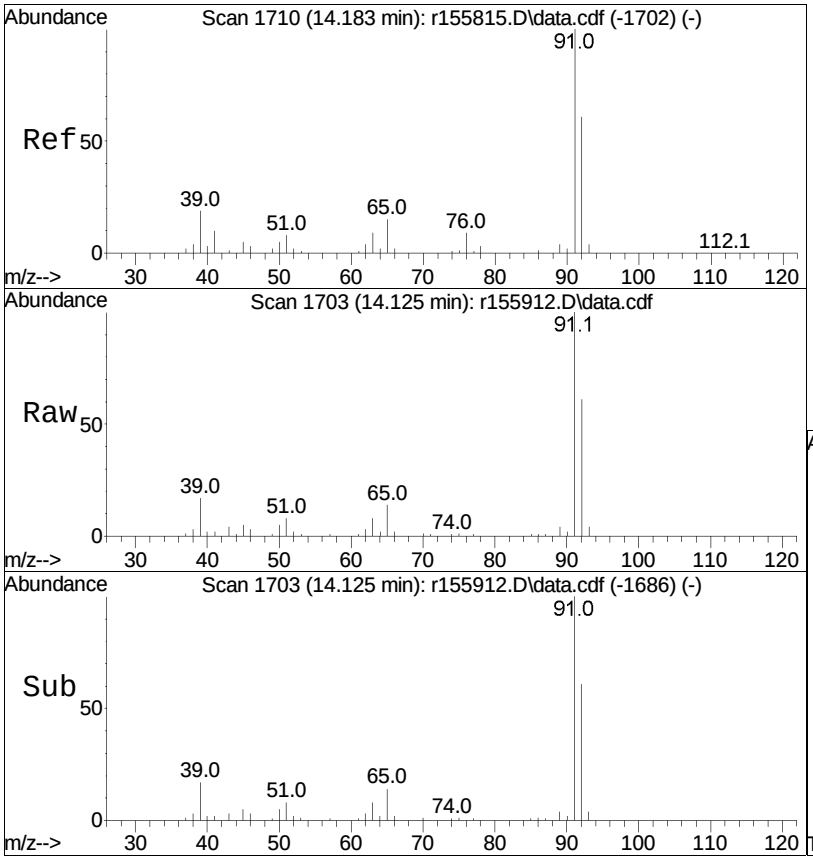


#64
4-methyl-2-pentanone
Concen: 0.22 ppbV
RT: 13.03 min Scan# 1572
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 43 Resp: 7642

Ion	Ratio	Lower	Upper
43	100		
58	33.1	28.1	42.1
100	8.9	7.0	10.4

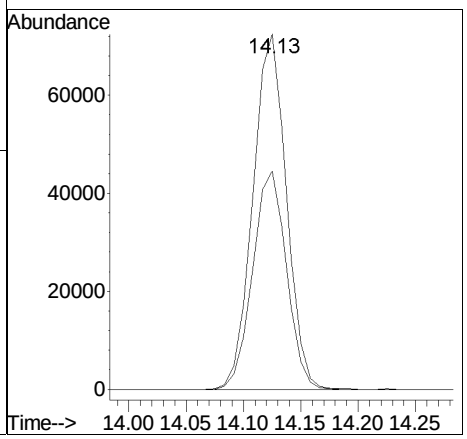


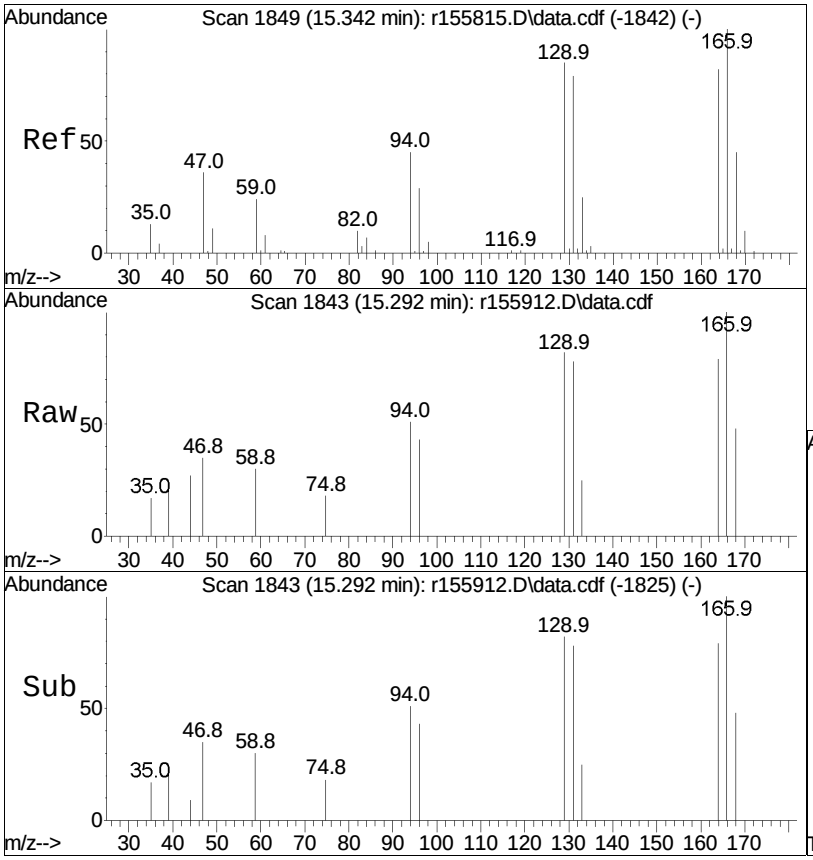


#68
toluene
Concen: 4.11 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 91 Resp: 147123

Ion	Ratio	Lower	Upper
91	100		
92	61.5	48.6	72.8

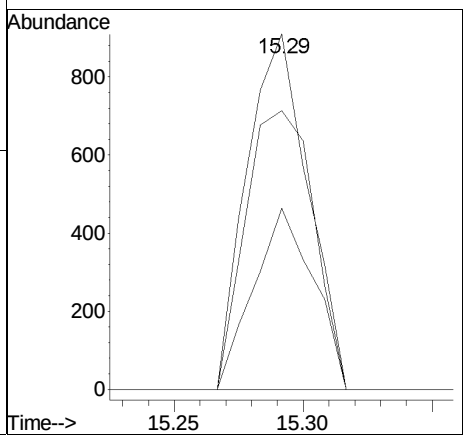


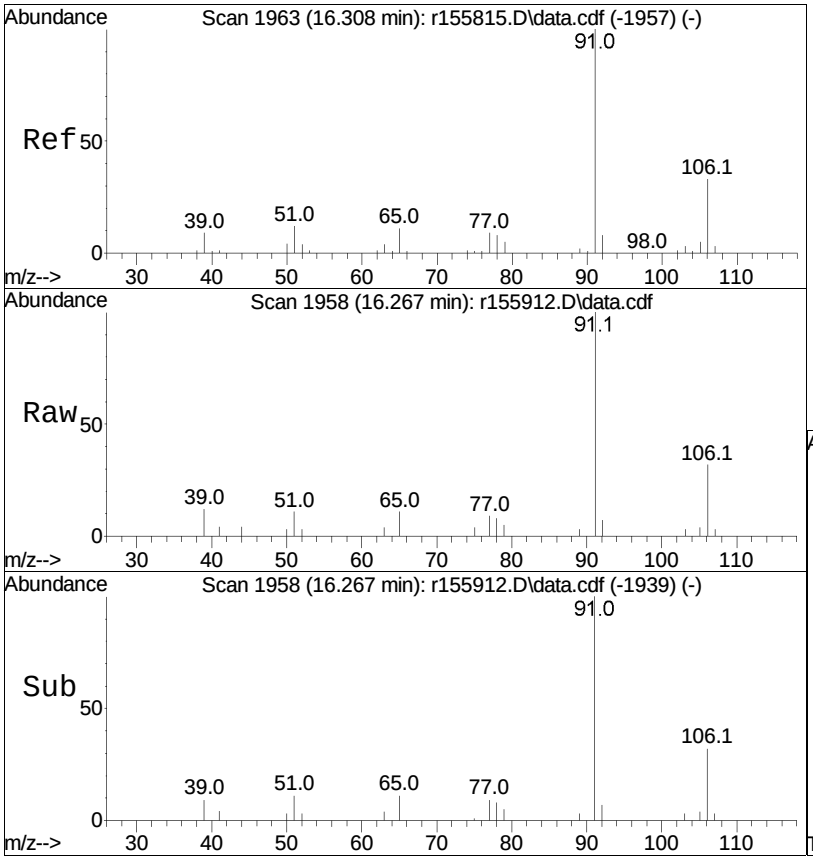


#78
tetrachloroethene
Concen: 0.13 ppbV
RT: 15.29 min Scan# 1843
Delta R.T. -0.050 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:166 Resp: 1503

Ion	Ratio	Lower	Upper
166	100		
131	78.5	62.9	94.3
94	51.0	35.9	53.9

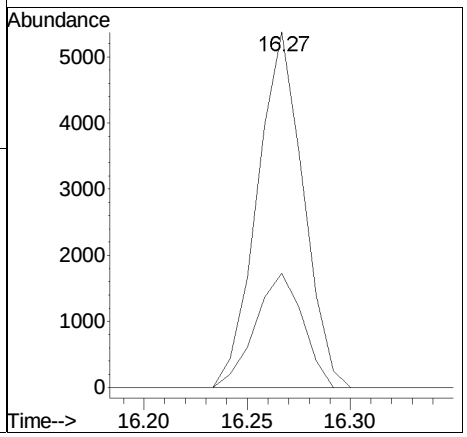


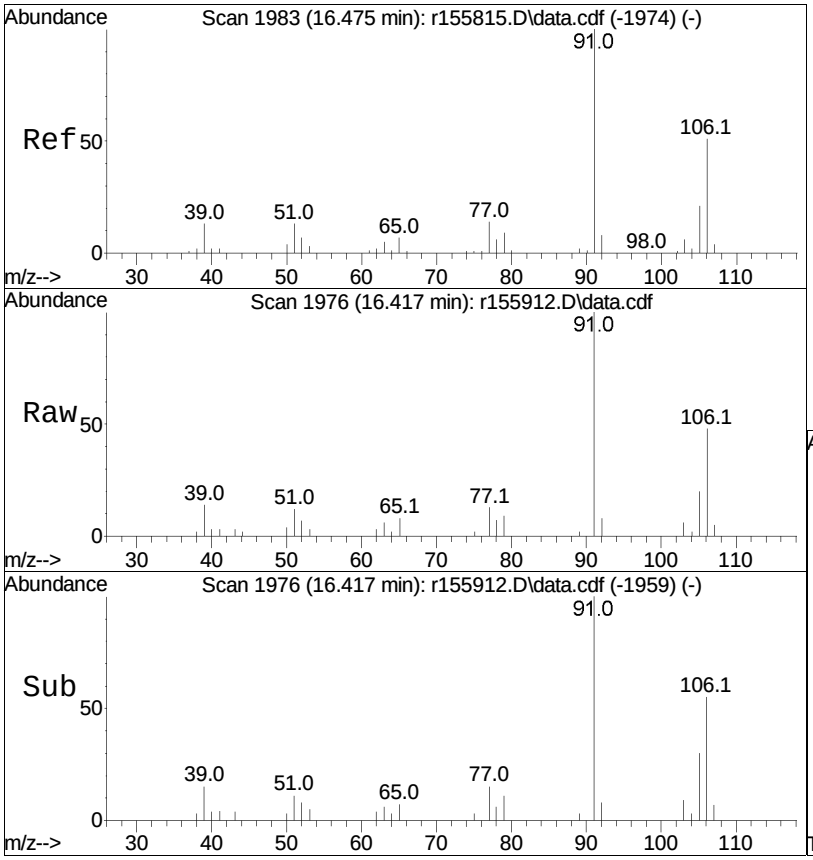


#81
ethylbenzene
Concen: 0.19 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 91 Resp: 8323

Ion	Ratio	Lower	Upper
91	100		
106	32.1	26.8	40.2

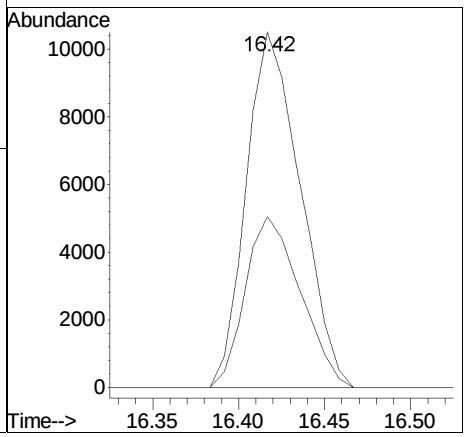


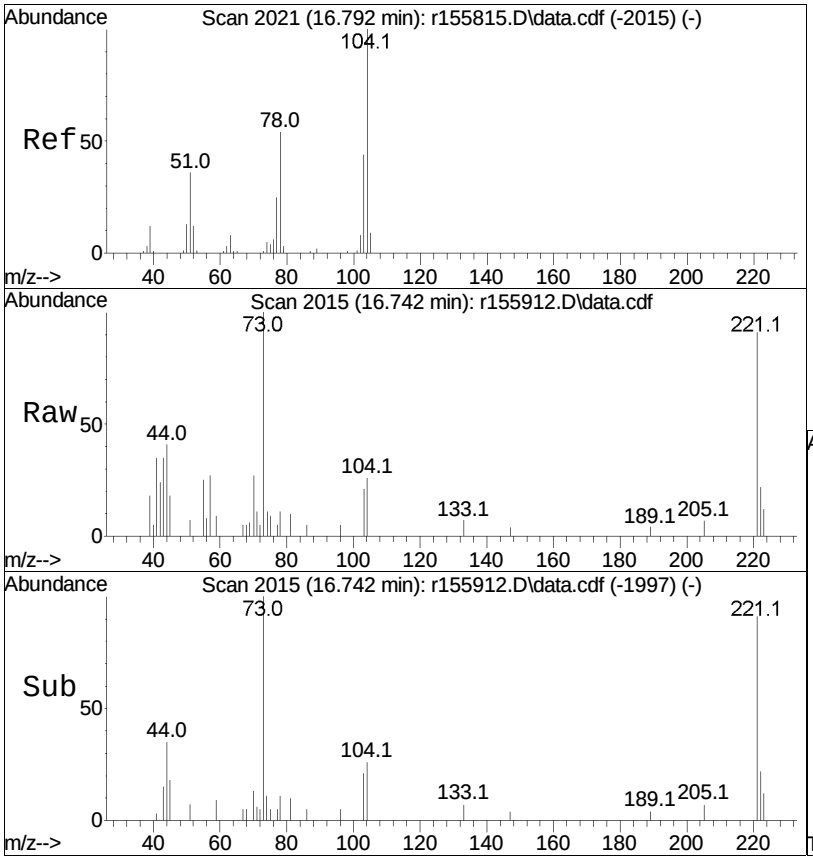


#83
m+p-xylene
Concen: 0.64 ppbV
RT: 16.42 min Scan# 1976
Delta R.T. -0.058 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 91 Resp: 22967

Ion	Ratio	Lower	Upper
91	100		
106	48.1	40.4	60.6

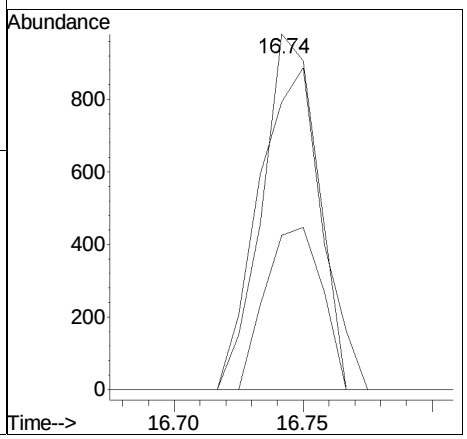


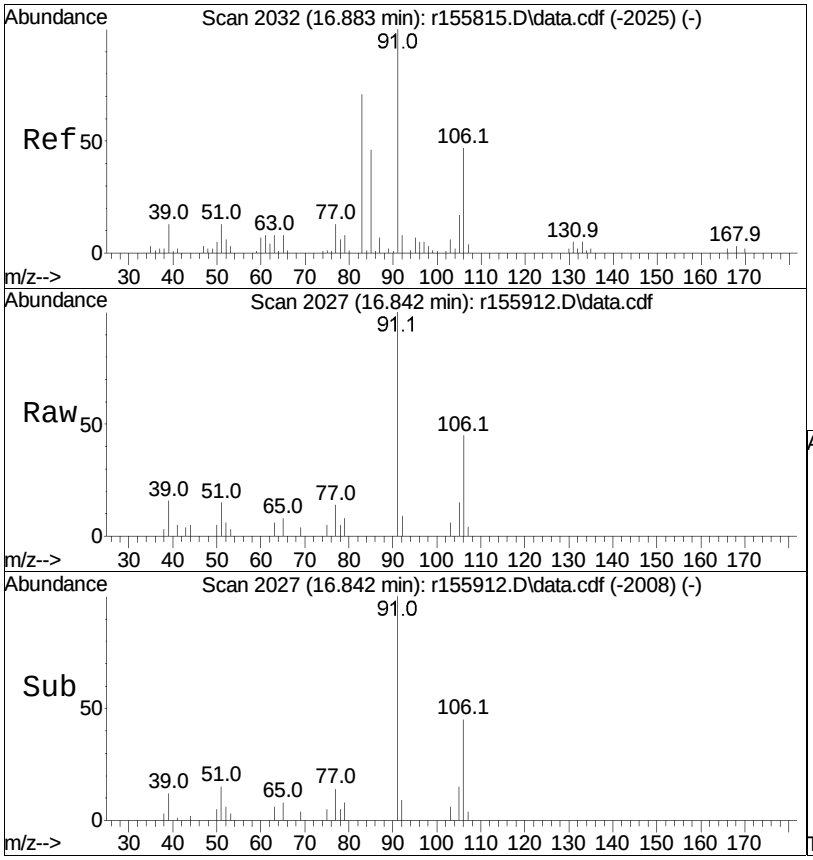


#85
styrene
Concen: 0.06 ppbV
RT: 16.74 min Scan# 2015
Delta R.T. -0.050 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:104 Resp: 1468

Ion	Ratio	Lower	Upper
104	100		
103	80.9	35.2	52.8#
78	43.4	43.0	64.6

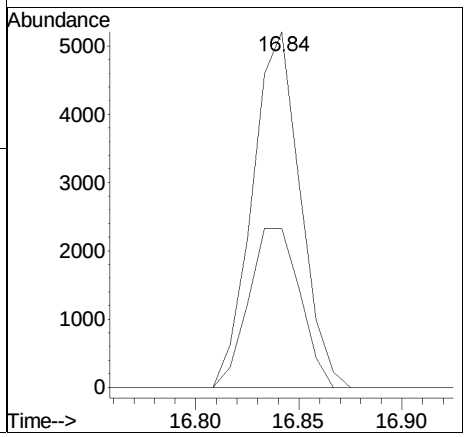


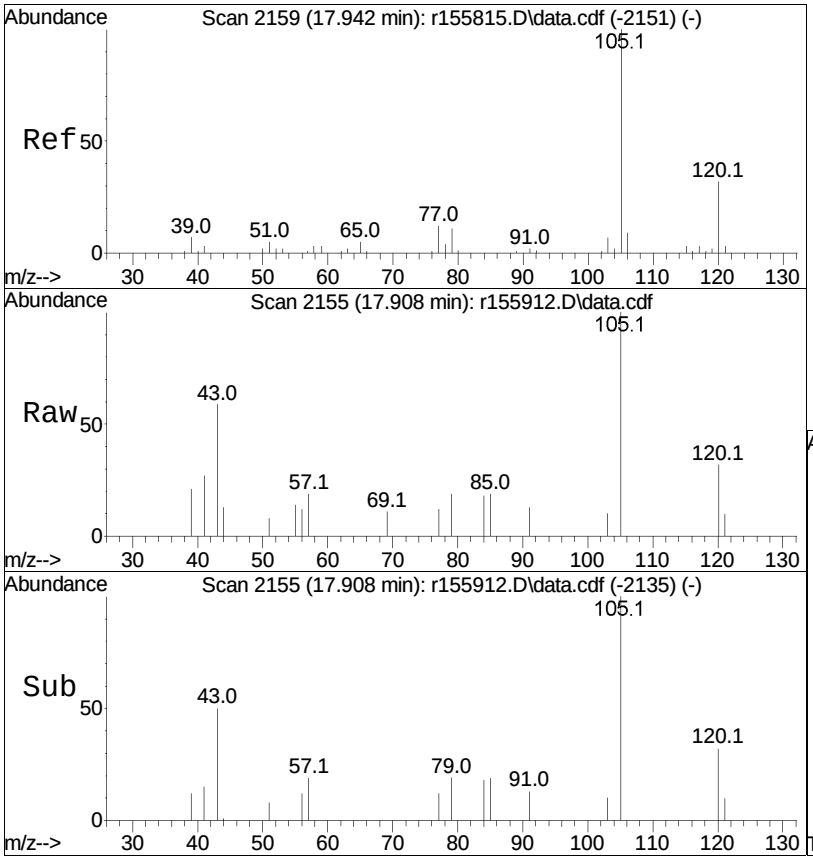


#87
o-xylene
Concen: 0.23 ppbV
RT: 16.84 min Scan# 2027
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion: 91 Resp: 8405

Ion	Ratio	Lower	Upper
91	100		
106	44.7	38.0	57.0

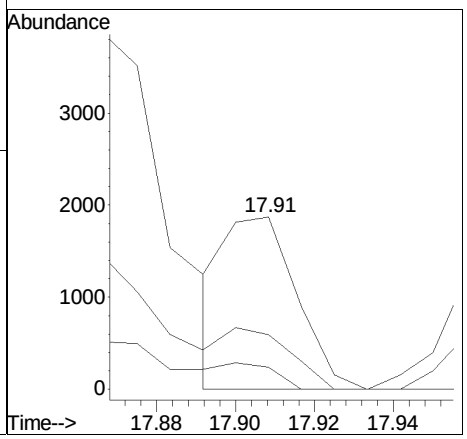


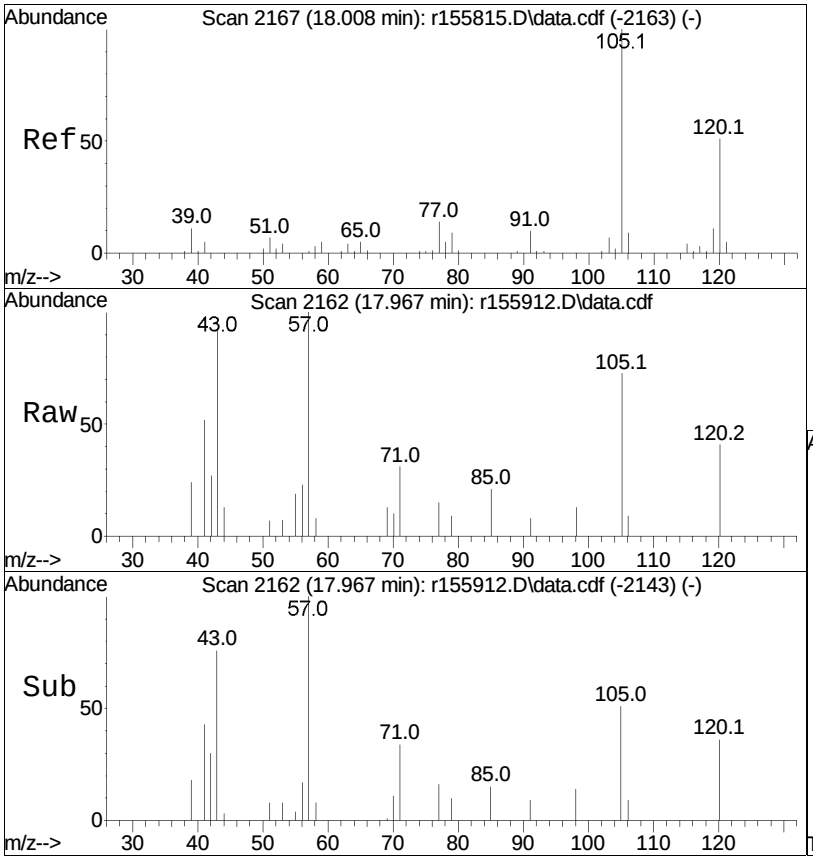


#96
4-ethyl toluene
Concen: 0.05 ppbV m
RT: 17.91 min Scan# 2155
Delta R.T. -0.033 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:105 Resp: 2371

Ion	Ratio	Lower	Upper
105	100		
120	31.7	25.3	37.9
91	12.9	8.5	12.7#

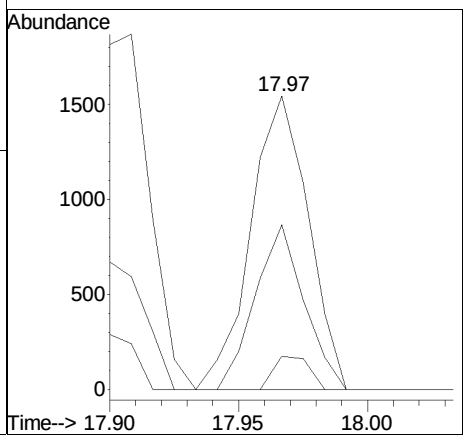




#97
1,3,5-trimethylbenzene
Concen: 0.06 ppbV
RT: 17.97 min Scan# 2162
Delta R.T. -0.042 min
Lab File: r155912.D
Acq: 20 Feb 2018 9:52 PM

Tgt Ion:105 Resp: 2405

Ion	Ratio	Lower	Upper
105	100		
120	56.1	40.8	61.2
91	11.3	8.0	12.0

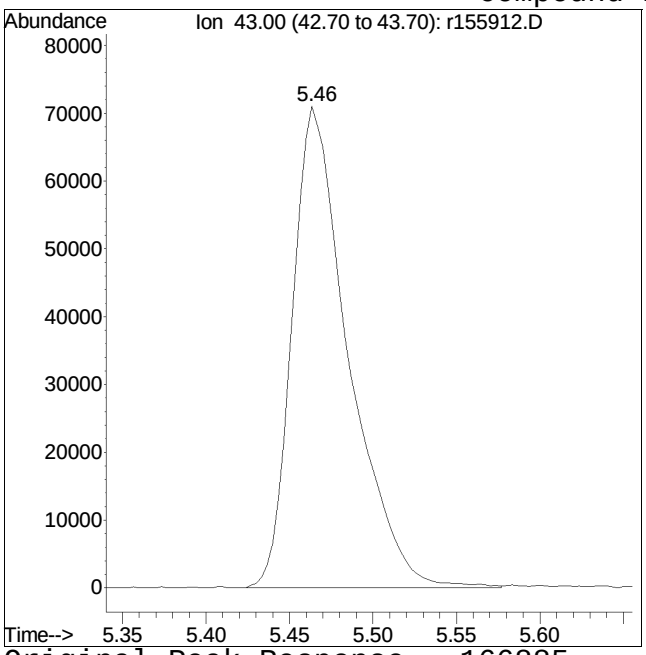


Manual Integration/Negative Proof Report

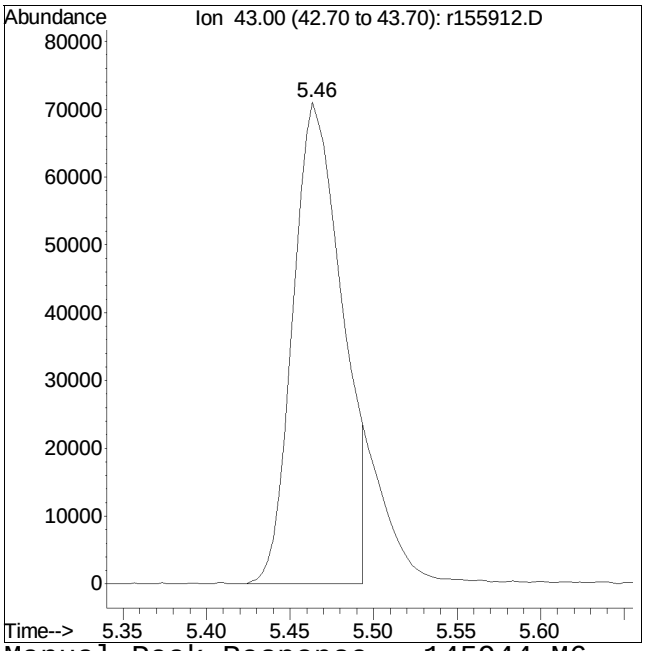
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155912.D
Date Inj'd : 2/20/2018 9:52 PM
Sample : L1805020-02,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/21/2018 6:41 am

Compound #19: acetone



Original Peak Response = 166885



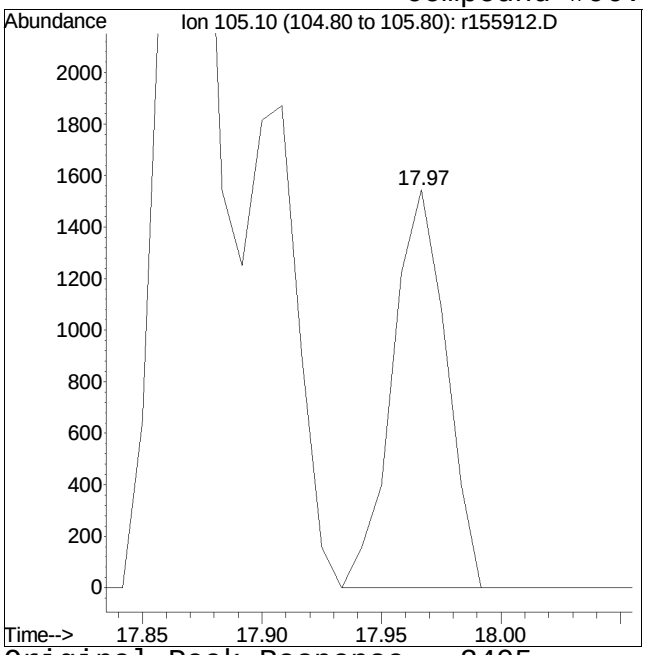
Manual Peak Response = 145944 M6

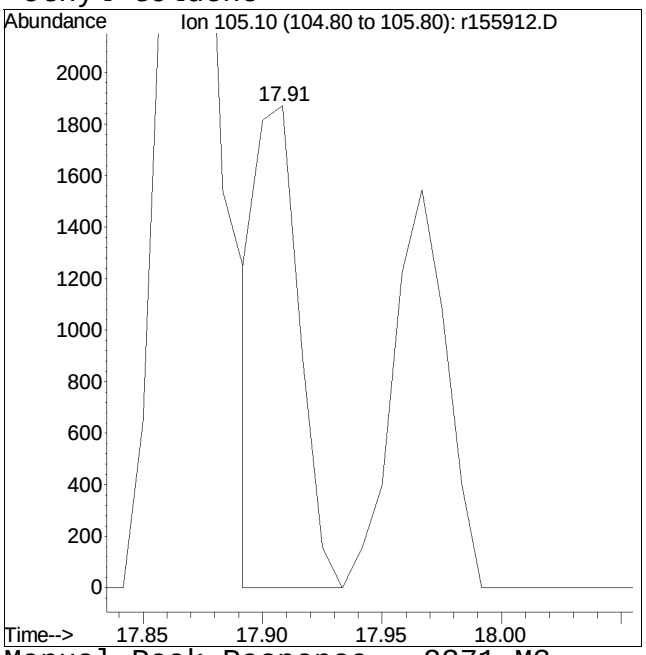
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155912.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 9:52 PM Instrument :
Sample : L1805020-02,3,250,250 Quant Date : 2/21/2018 6:41 am

Compound #96: 4-ethyl toluene





Original Peak Response = 2405 Manual Peak Response = 2371 M3

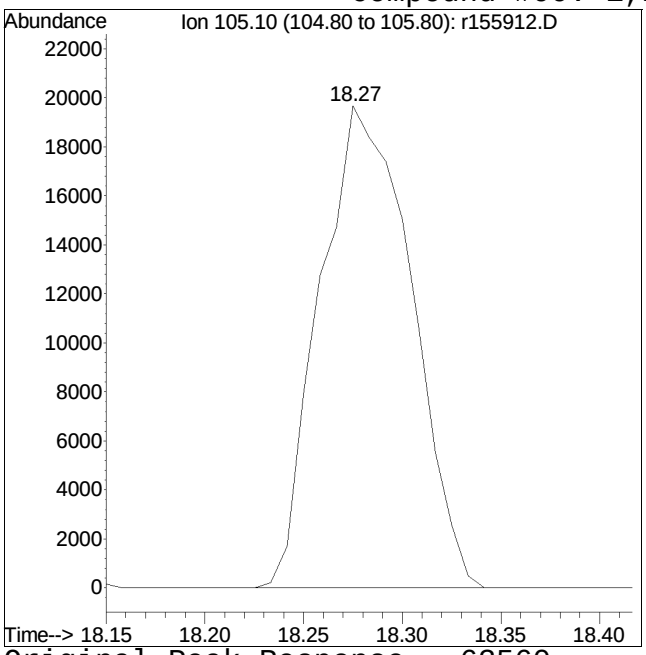
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

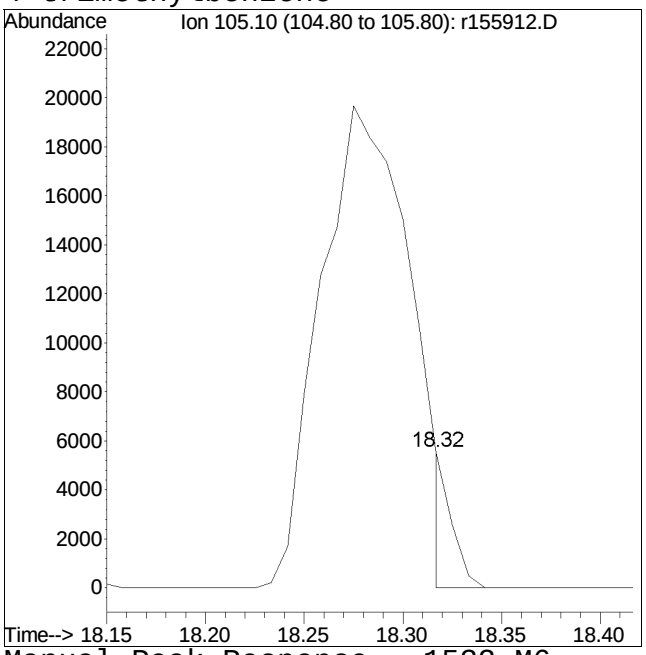
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155912.D
Date Inj'd : 2/20/2018 9:52 PM
Sample : L1805020-02,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/21/2018 6:41 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 63560



Manual Peak Response = 1532 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155913.D
Acq On : 20 Feb 2018 10:32 PM
Operator : AIRLAB15:RY
Sample : L1805020-03,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:37:11 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	159601	10.000	ppbV	-0.07
Standard Area = 147251			Recovery = 108.39%			
43) 1,4-difluorobenzene	11.16	114	286211	10.000	ppbV	-0.06
Standard Area = 262067			Recovery = 109.21%			
67) chlorobenzene-D5	15.88	54	72059	10.000	ppbV	-0.05
Standard Area = 67836			Recovery = 106.23%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	3.84	85	7849	0.423	ppbV	97
6) chloromethane	4.00	50	9815	0.741	ppbV	97
7) Freon-114	4.10		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	4.36	54	2561	0.233	ppbV	94
13) bromomethane	4.65		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	4.95	31	230198	19.679	ppbV	99
17) vinyl bromide	0.00		0	N.D.		
19) acetone	5.46	43	155287M6	8.555	ppbV	
21) trichlorofluoromethane	5.65	101	2952	0.195	ppbV	99
22) isopropyl alcohol	5.74	45	53189	2.199	ppbV	99
26) 1,1-dichloroethene	0.00		0	N.D.	d	
27) tertiary butyl alcohol	6.42	59	3861	0.178	ppbV #	56
28) methylene chloride	6.48	49	4185	0.255	ppbV	91
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	6.79	76	1911	0.059	ppbV #	1
31) Freon 113	6.79	101	1043	0.058	ppbV #	82
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.	d	
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	8.23	43	35392	1.171	ppbV	99
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	9.02	61	757	0.181	ppbV #	43
39) chloroform	0.00		0	N.D.	d	
40) Tetrahydrofuran	9.53	42	15566	0.823	ppbV	97
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	8.97	57	12615	0.588	ppbV #	33
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155913.D
Acq On : 20 Feb 2018 10:32 PM
Operator : AIRLAB15:RY
Sample : L1805020-03,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:37:11 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	10.72	78	30102	0.884	ppbV	99
52) carbon tetrachloride	10.89	117	643	0.056	ppbV #	85
53) cyclohexane	11.04	56	4511	0.204	ppbV	97
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	12.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	12.00	57	35558	0.517	ppbV	95
62) heptane	12.32	43	9042	0.292	ppbV	98
63) cis-1,3-dichloropropene	0.00		0	N.D.	d	
64) 4-methyl-2-pentanone	13.03	43	10691	0.300	ppbV	99
65) trans-1,3-dichloropropene	0.00		0	N.D.	d	
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	14.13	91	154993	4.252	ppbV	99
72) 2-hexanone	0.00		0	N.D.	d	
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.	d	
78) tetrachloroethene	15.28	166	888	0.076	ppbV	94
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	16.27	91	10713	0.237	ppbV	99
83) m+p-xylene	16.42	91	30023	0.822	ppbV	96
84) bromoform	0.00		0	N.D.		
85) styrene	0.00		0	N.D.	d	
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.	d	
87) o-xylene	16.83	91	9659	0.260	ppbV	99
96) 4-ethyl toluene	17.90	105	3111M3	0.067	ppbV	
97) 1,3,5-trimethylbenzene	17.97	105	3101	0.077	ppbV #	95
99) 1,2,4-trimethylbenzene	0.00		0	N.D.	d	
101) Benzyl Chloride	0.00		0	N.D.	d	
102) 1,3-dichlorobenzene	0.00		0	N.D.		
103) 1,4-dichlorobenzene	0.00		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	0.00		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

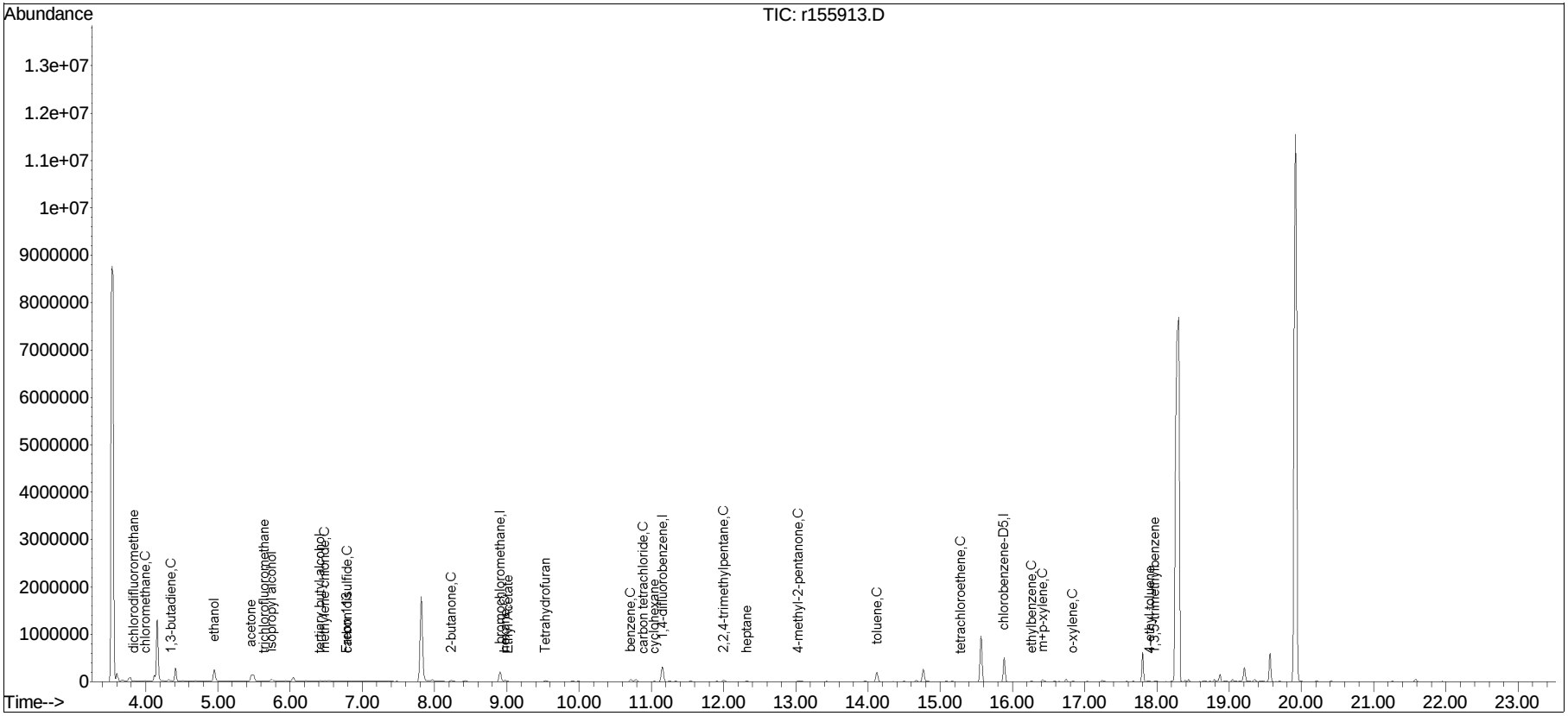
(#) = qualifier out of range (m) = manual integration (+) = signals summed

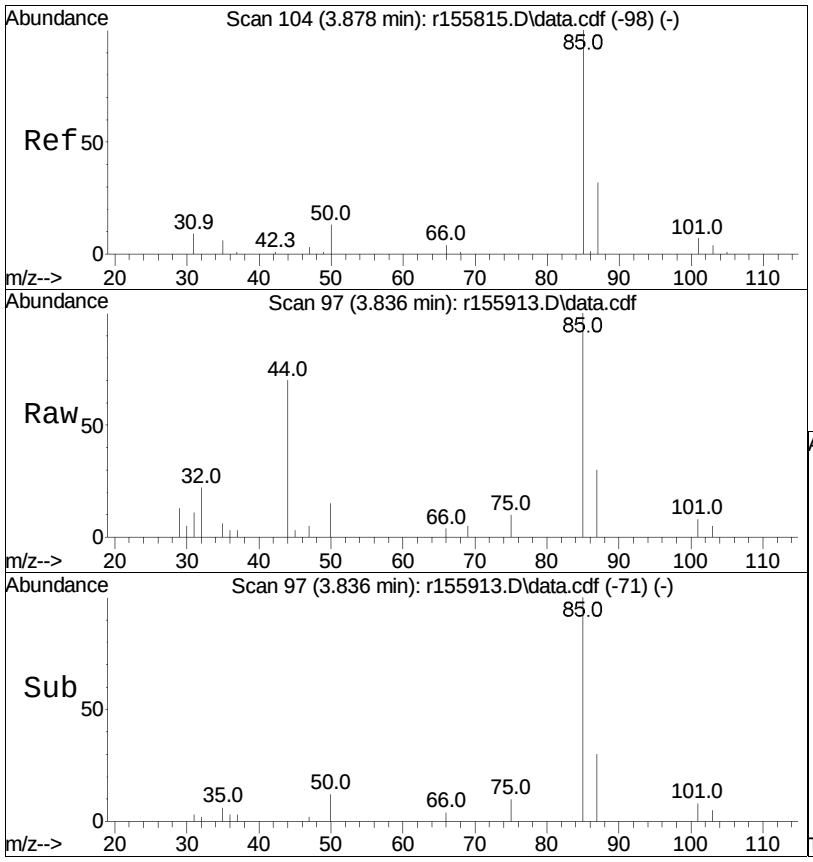
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155913.D
Acq On : 20 Feb 2018 10:32 PM
Operator : AIRLAB15:RY
Sample : L1805020-03,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:37:11 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : TO15-NY - .s\Data\Airlab15\2018\180220T\r155899.D

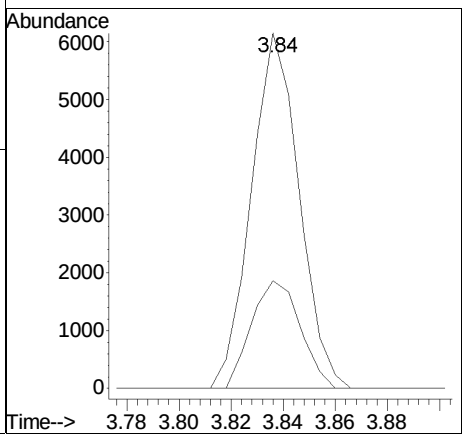


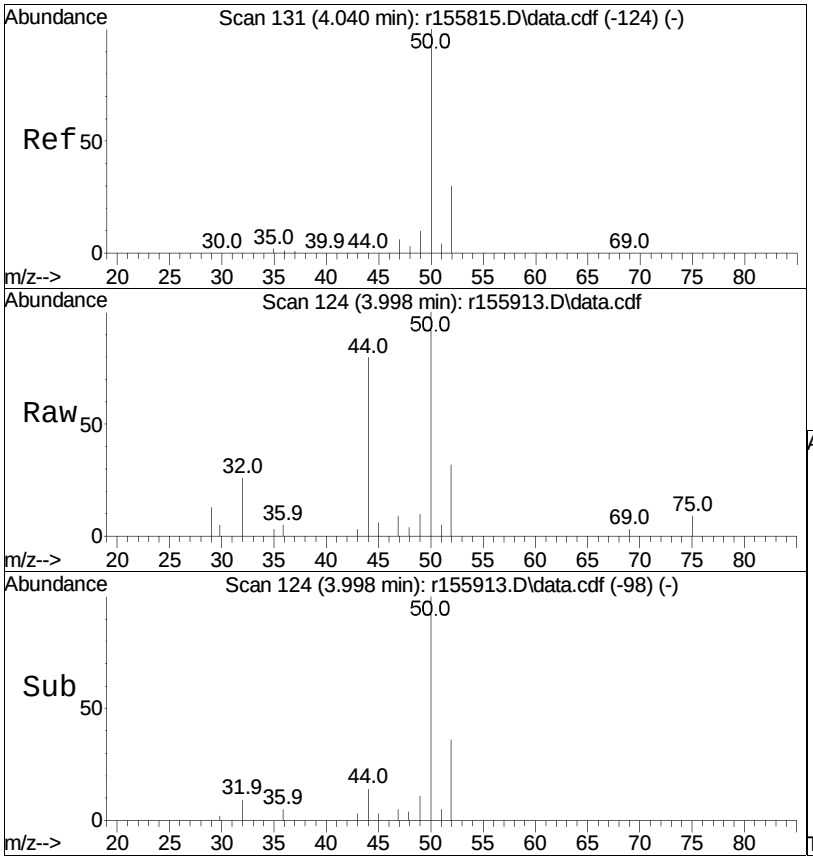


#5
dichlorodifluoromethane
Concen: 0.42 ppbV
RT: 3.84 min Scan# 97
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 85 Resp: 7849

Ion	Ratio	Lower	Upper
85	100		
87	30.3	25.6	38.4

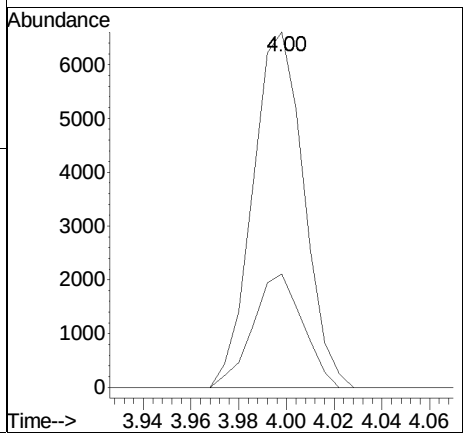


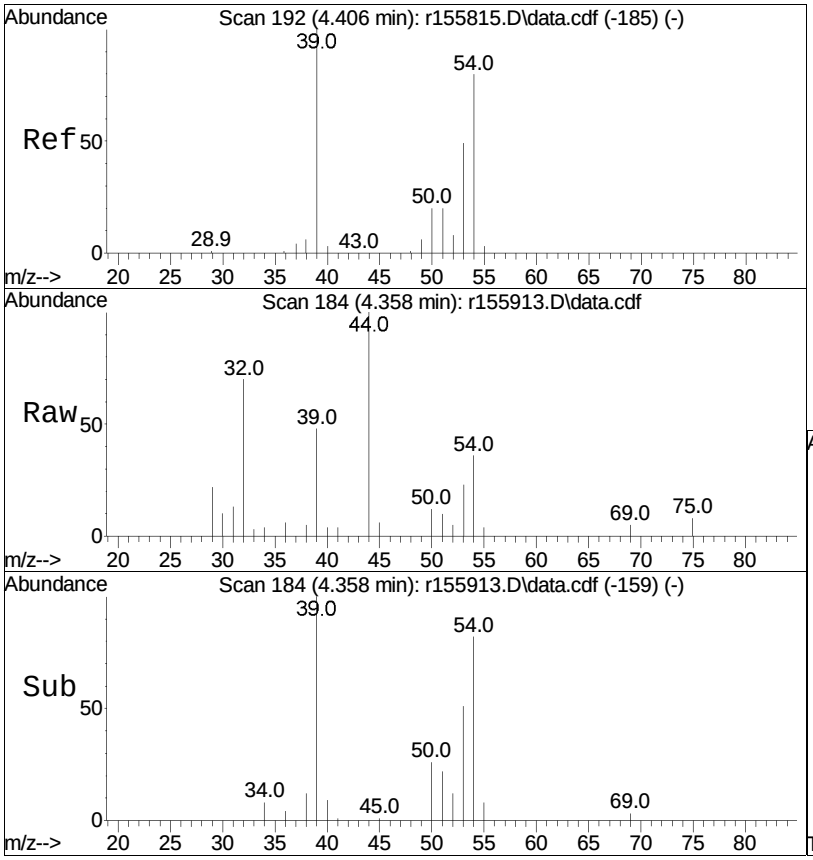


#6
chloromethane
Concen: 0.74 ppbV
RT: 4.00 min Scan# 124
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 50 Resp: 9815

Ion	Ratio	Lower	Upper
50	100		
52	31.9	24.1	36.1

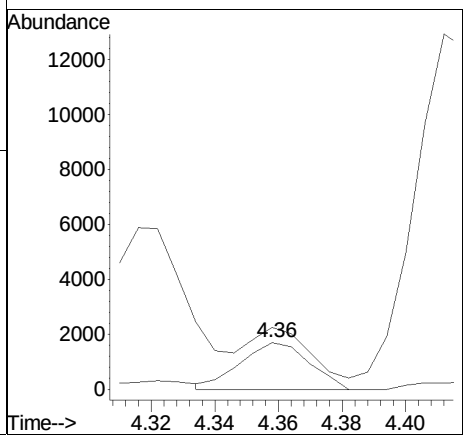


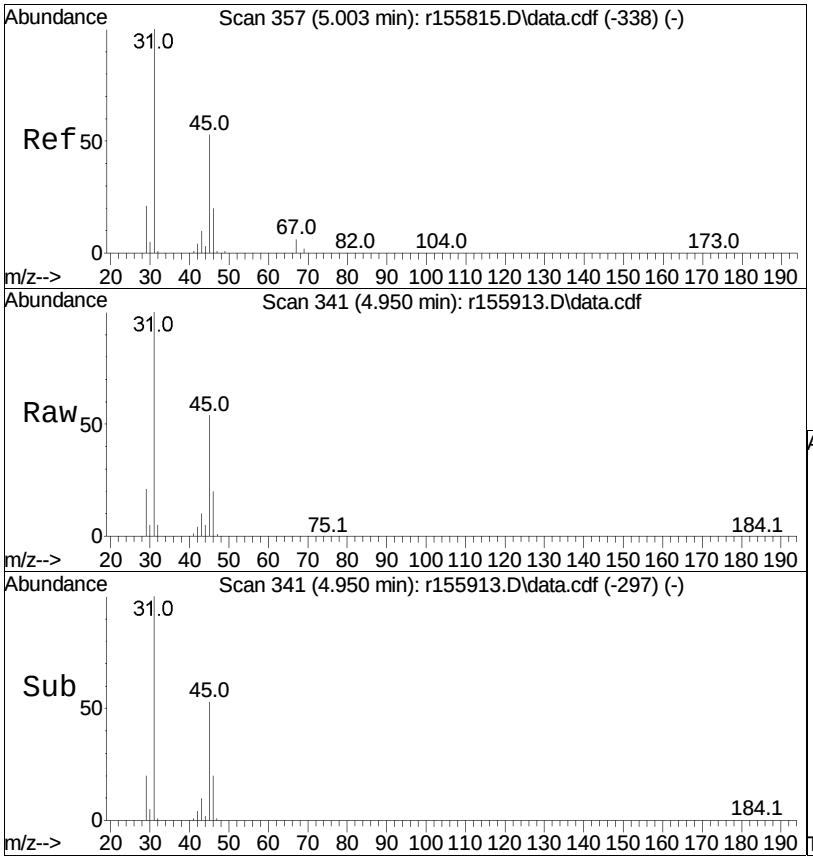


#10
1,3-butadiene
Concen: 0.23 ppbV
RT: 4.36 min Scan# 184
Delta R.T. -0.048 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 54 Resp: 2561

Ion	Ratio	Lower	Upper
54	100		
39	132.6	100.8	151.2

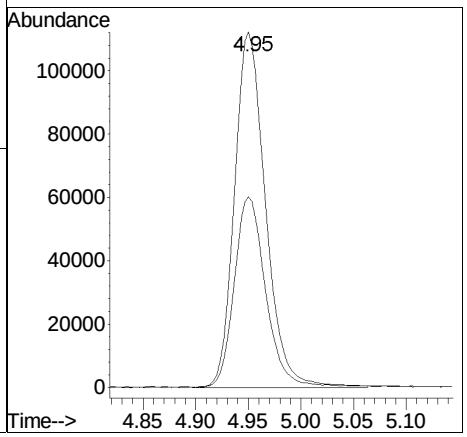


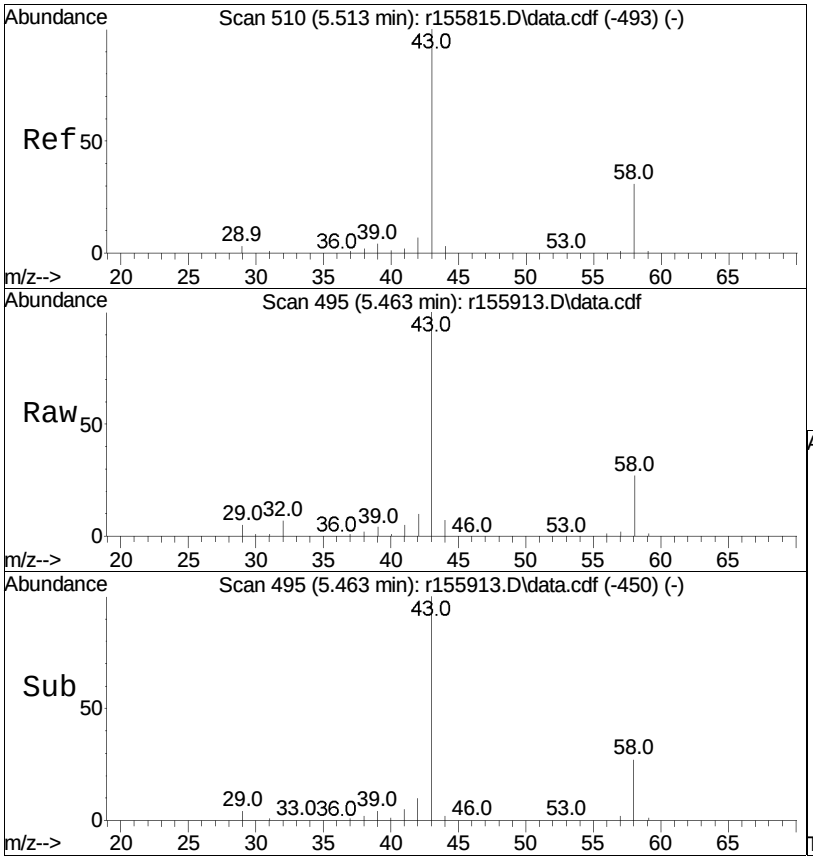


#15
ethanol
Concen: 19.68 ppbV
RT: 4.95 min Scan# 341
Delta R.T. -0.053 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 31 Resp: 230198

Ion	Ratio	Lower	Upper
31	100		
45	53.6	42.6	63.8

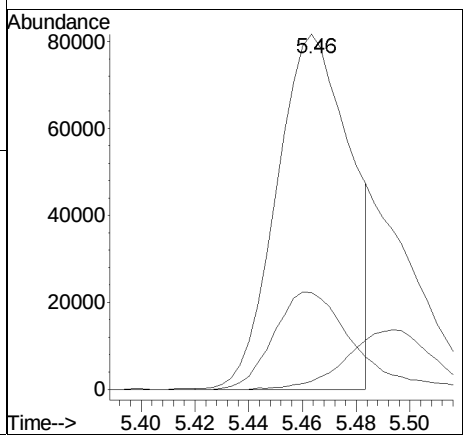


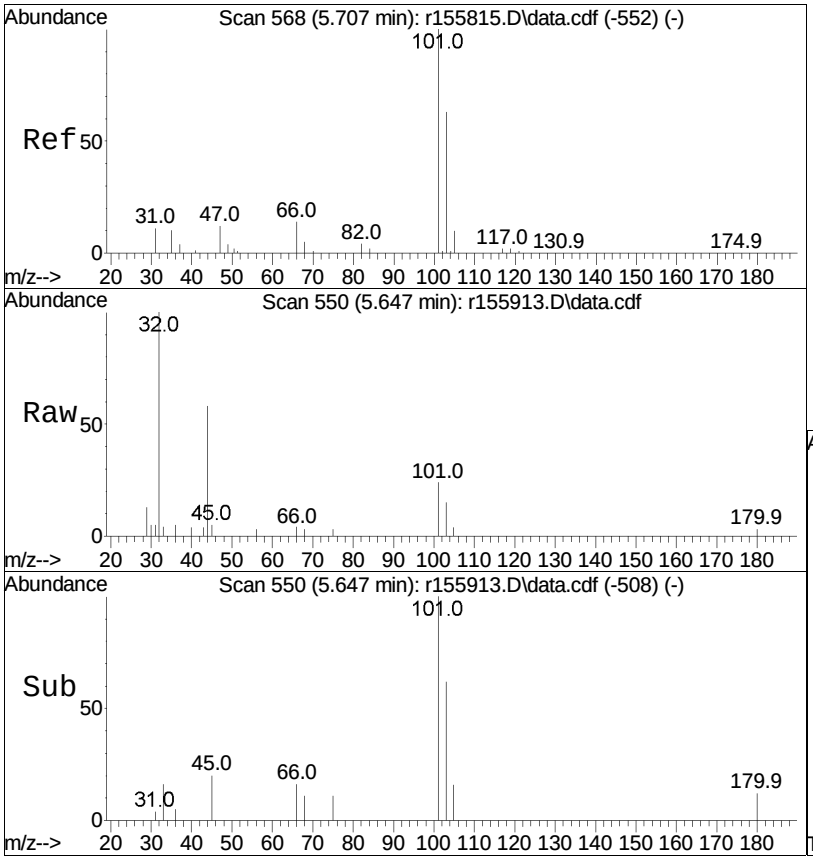


#19
acetone
Concen: 8.55 ppbV m
RT: 5.46 min Scan# 495
Delta R.T. -0.050 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 43 Resp: 155287

Ion	Ratio	Lower	Upper
43	100		
58	27.2	24.5	36.7
57	2.3	0.6	0.8#

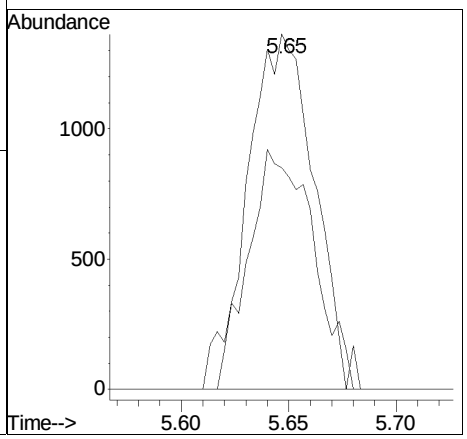


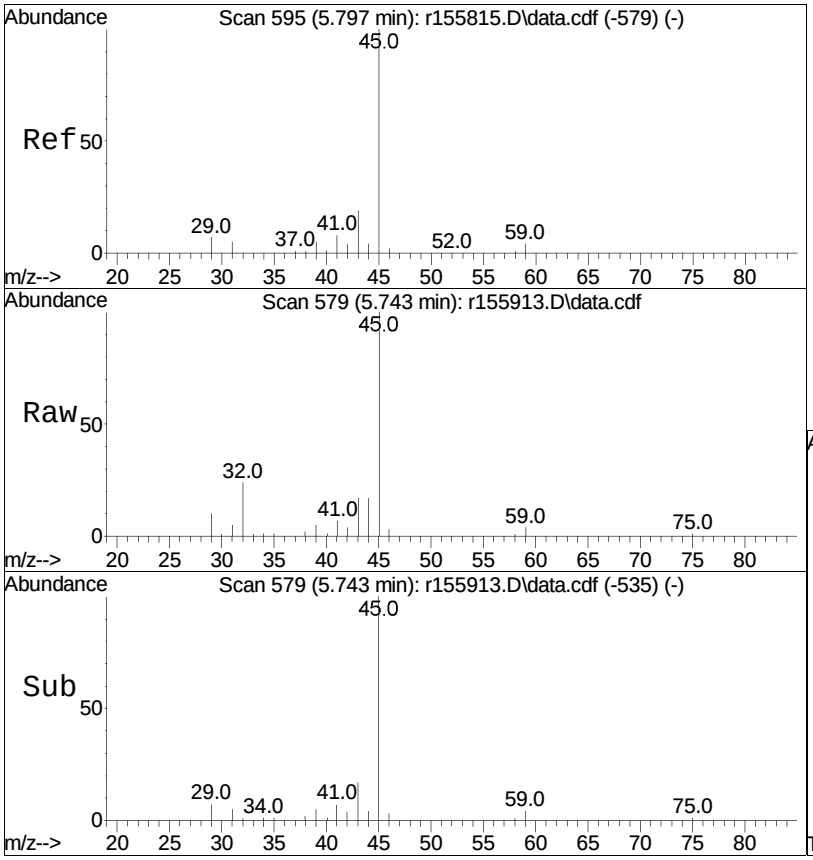


#21
trichlorofluoromethane
Concen: 0.20 ppbV
RT: 5.65 min Scan# 550
Delta R.T. -0.060 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion:101 Resp: 2952

Ion	Ratio	Lower	Upper
101	100		
103	62.4	50.2	75.4

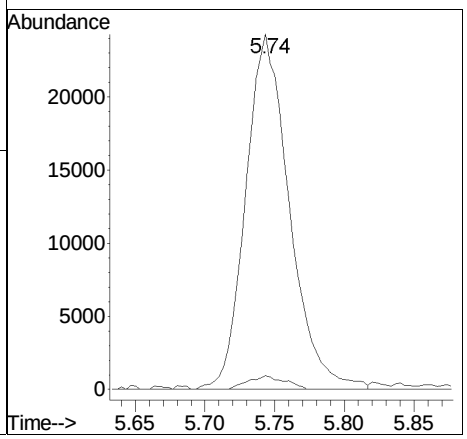


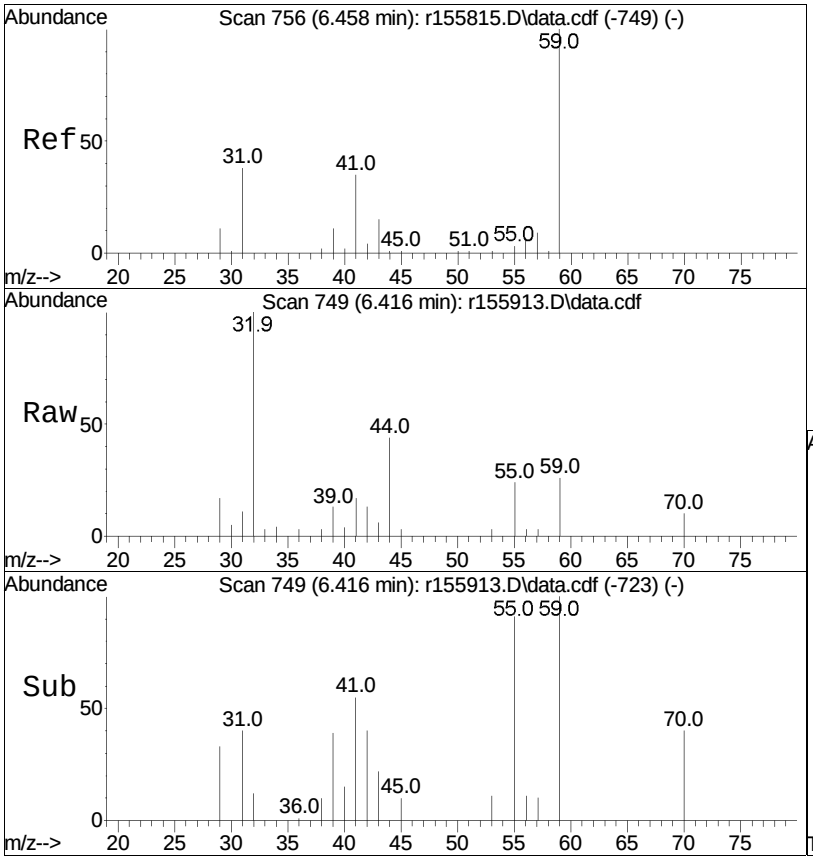


#22
isopropyl alcohol
Concen: 2.20 ppbV
RT: 5.74 min Scan# 579
Delta R.T. -0.053 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 45 Resp: 53189

Ion	Ratio	Lower	Upper
45	100		
59	3.9	2.8	4.2

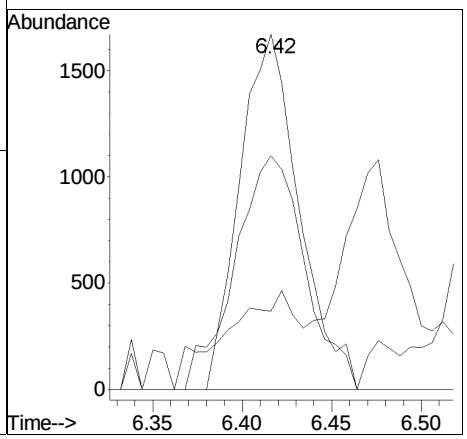


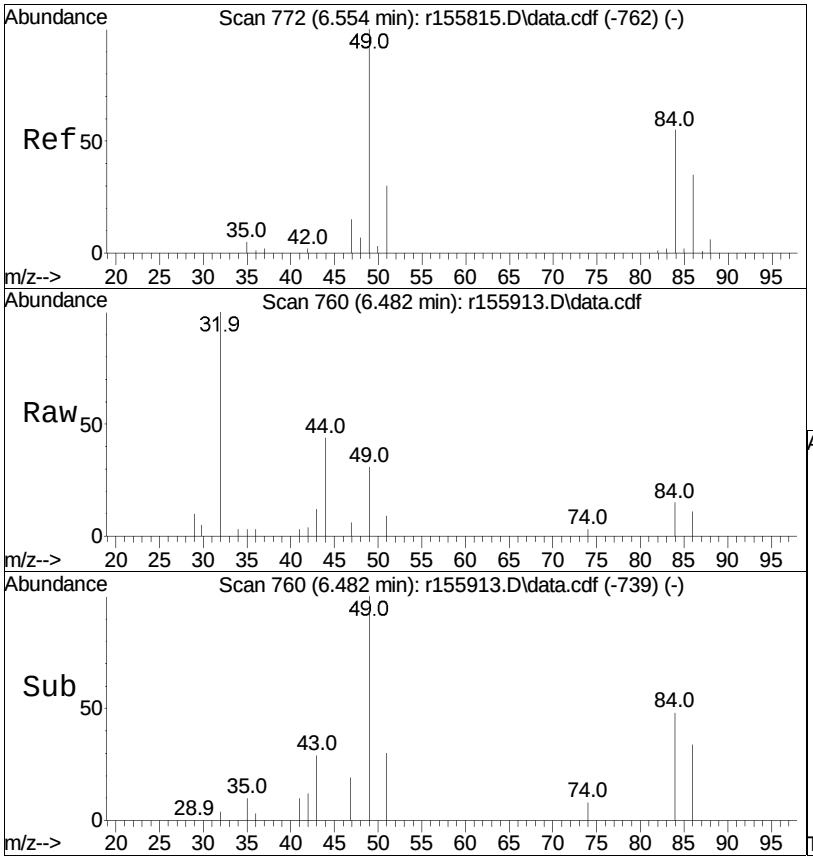


#27
tertiary butyl alcohol
Concen: 0.18 ppbV
RT: 6.42 min Scan# 749
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 59 Resp: 3861

Ion	Ratio	Lower	Upper
59	100		
41	65.7	27.1	40.7#
43	22.1	11.8	17.8#

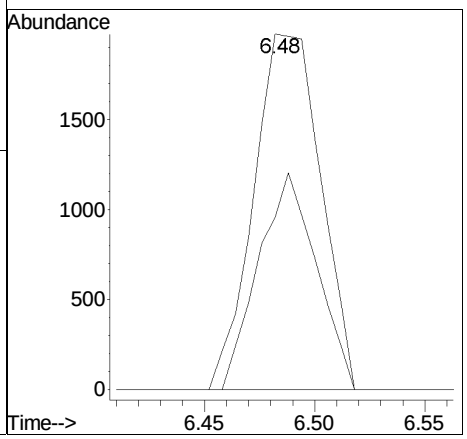


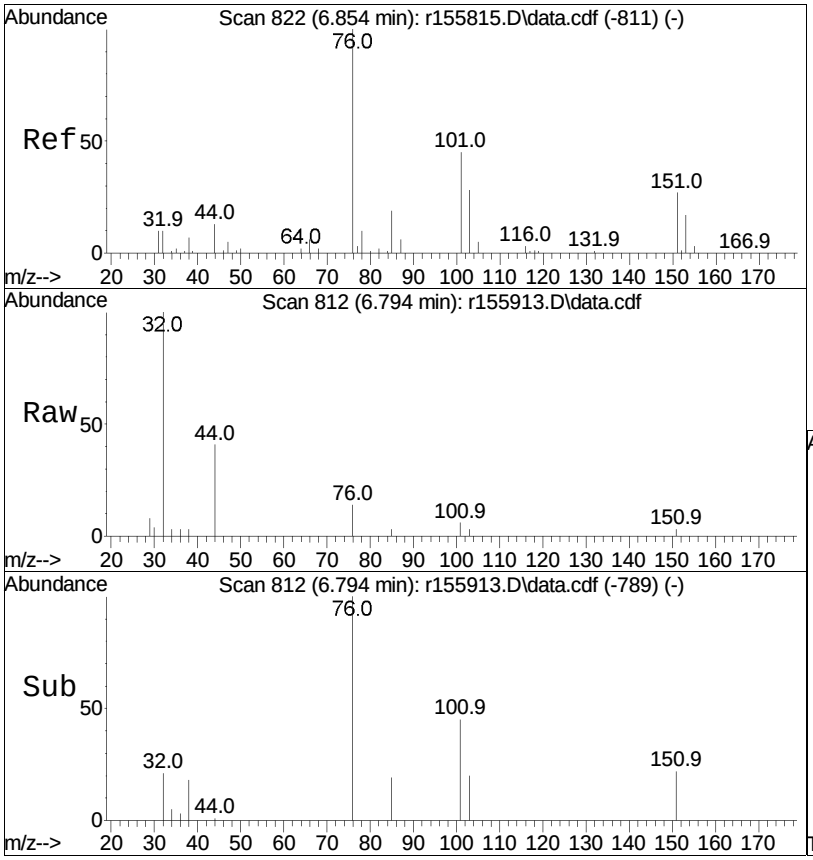


#28
methylene chloride
Concen: 0.25 ppbV
RT: 6.48 min Scan# 760
Delta R.T. -0.072 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 49 Resp: 4185

Ion	Ratio	Lower	Upper
49	100		
84	48.4	44.2	66.2

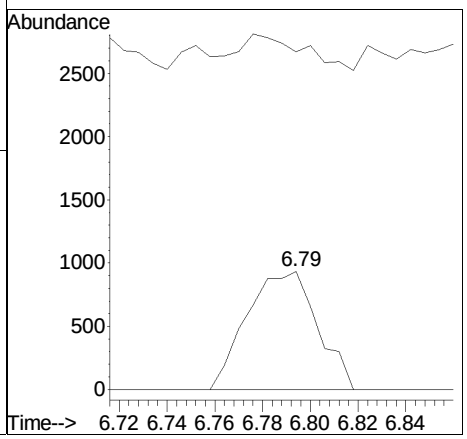


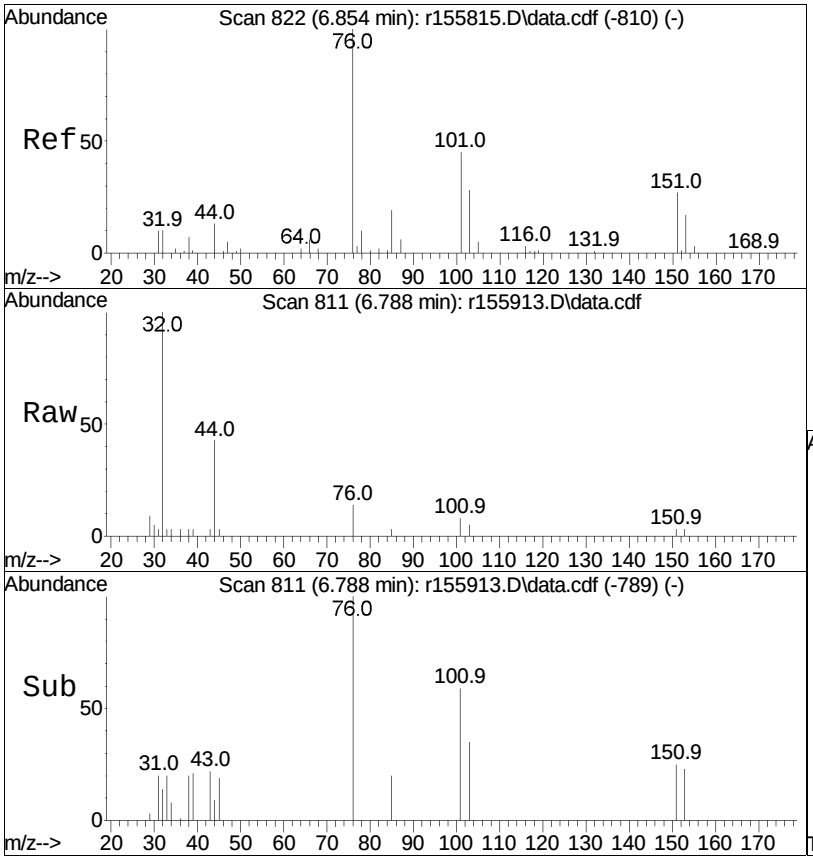


#30
carbon disulfide
Concen: 0.06 ppbV
RT: 6.79 min Scan# 812
Delta R.T. -0.060 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 76 Resp: 1911

Ion	Ratio	Lower	Upper
76	100		
44	286.3	11.6	17.4#

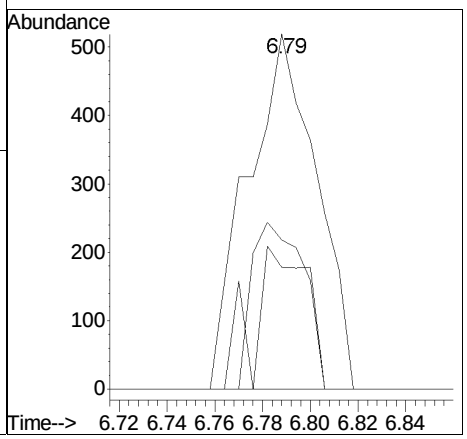


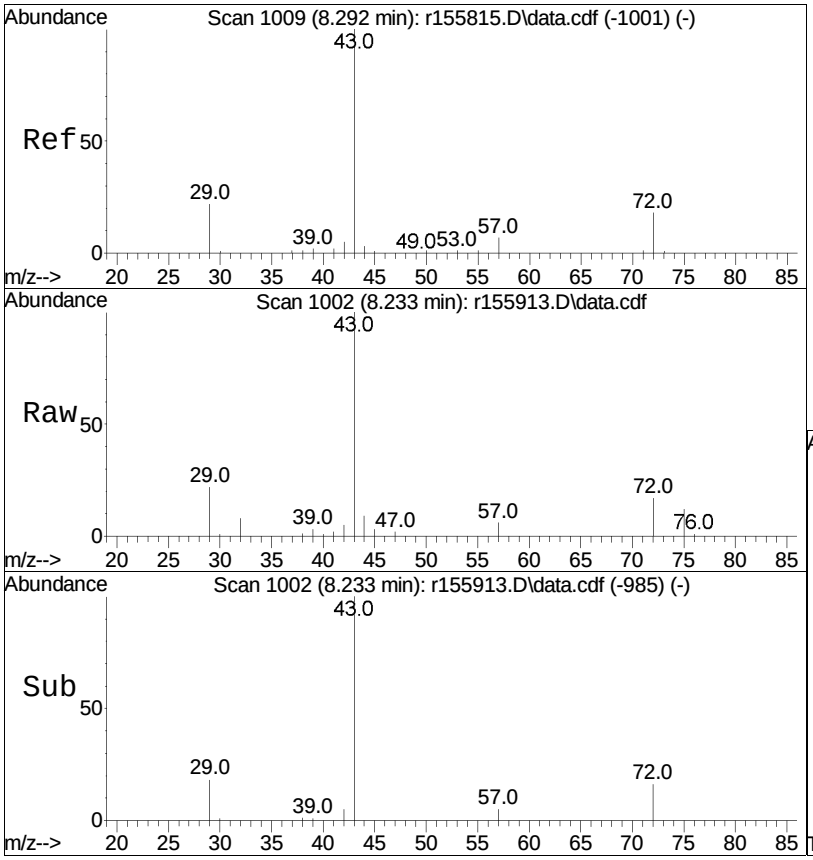


#31
Freon 113
Concen: 0.06 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion:101 Resp: 1043

Ion	Ratio	Lower	Upper
101	100		
85	34.3	32.9	49.3
151	42.0	47.3	70.9#

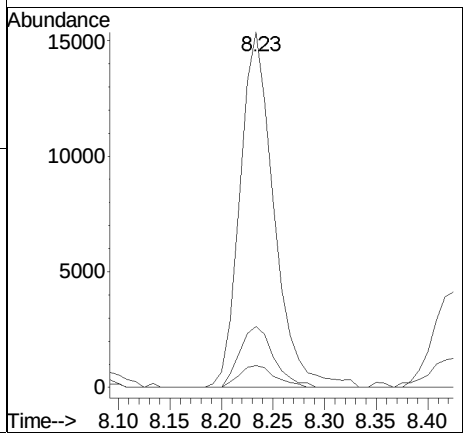


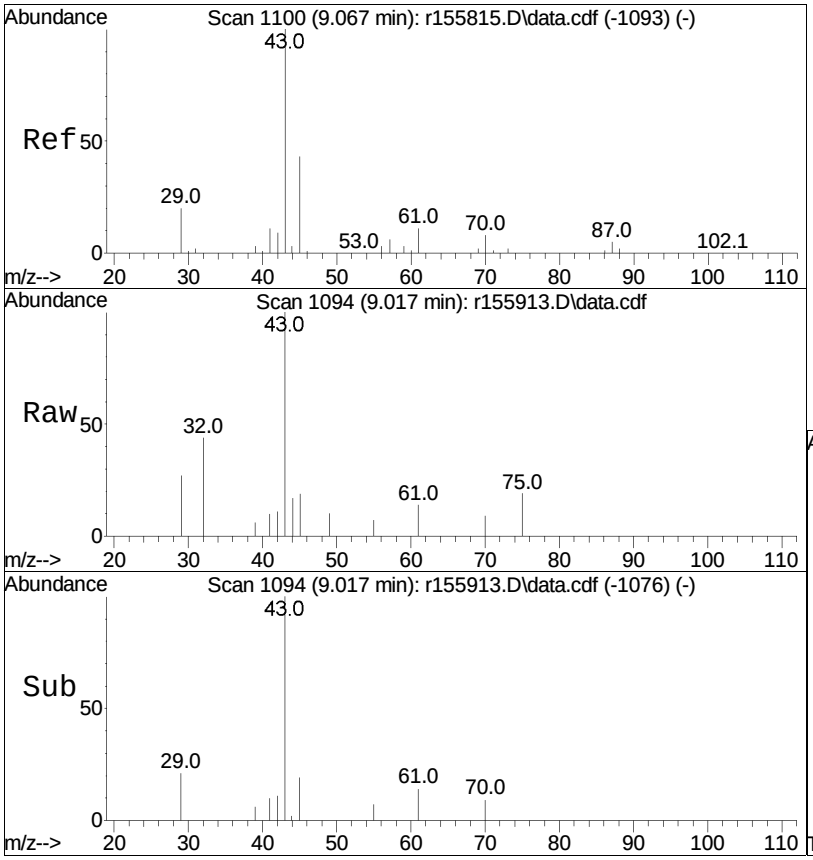


#36
2-butanone
Concen: 1.17 ppbV
RT: 8.23 min Scan# 1002
Delta R.T. -0.058 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 43 Resp: 35392

Ion	Ratio	Lower	Upper
43	100		
72	17.1	14.2	21.2
57	6.2	5.2	7.8

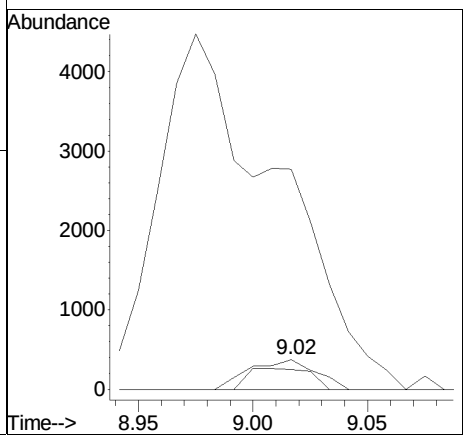


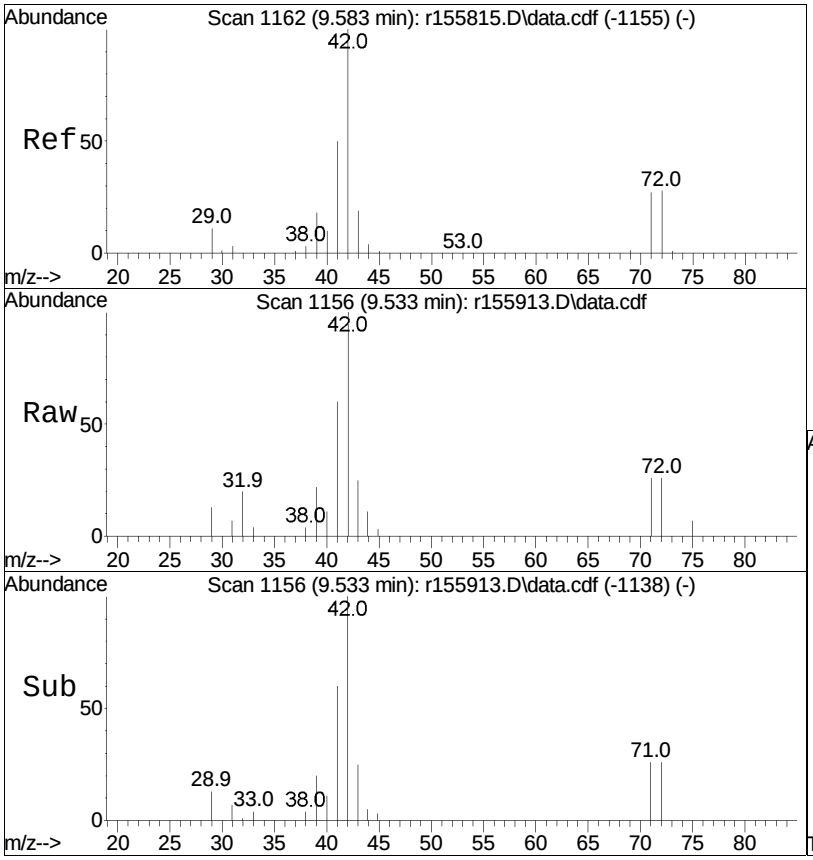


#38
Ethyl Acetate
Concen: 0.18 ppbV
RT: 9.02 min Scan# 1094
Delta R.T. -0.050 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 61 Resp: 757

Ion	Ratio	Lower	Upper
61	100		
70	66.8	63.0	94.6
43	740.6	812.2	1218.4#

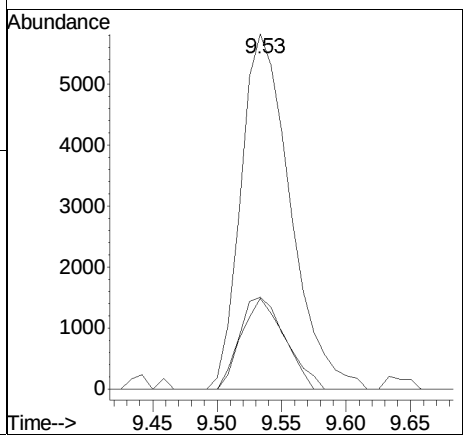


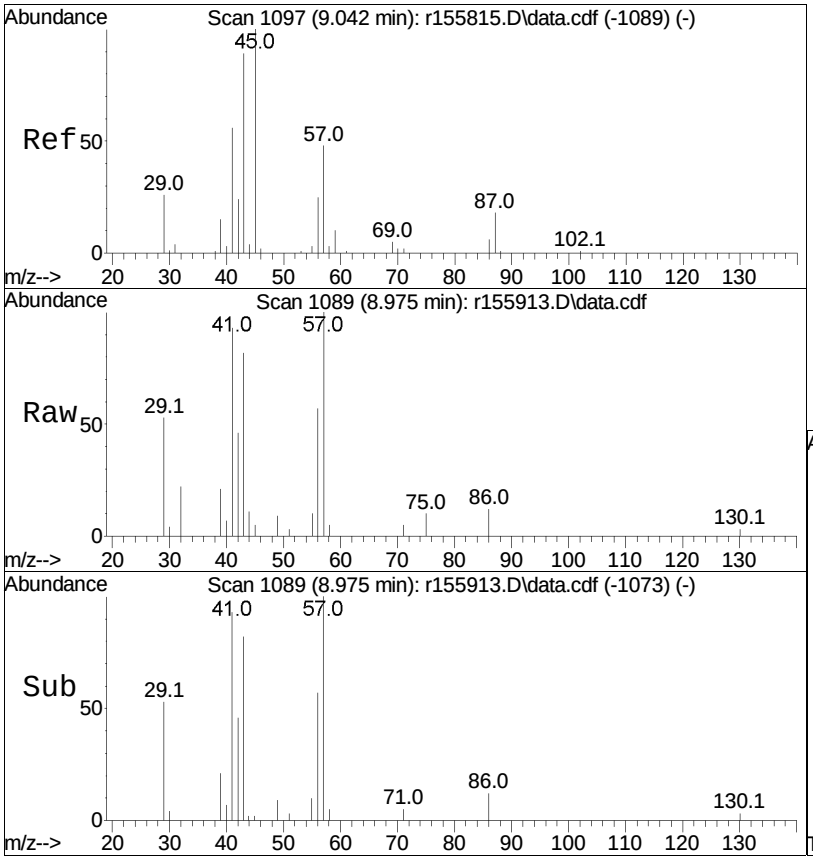


#40
Tetrahydrofuran
Concen: 0.82 ppbV
RT: 9.53 min Scan# 1156
Delta R.T. -0.050 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 42 Resp: 15566

Ion	Ratio	Lower	Upper
42	100		
71	25.6	21.4	32.0
72	26.0	22.6	33.8

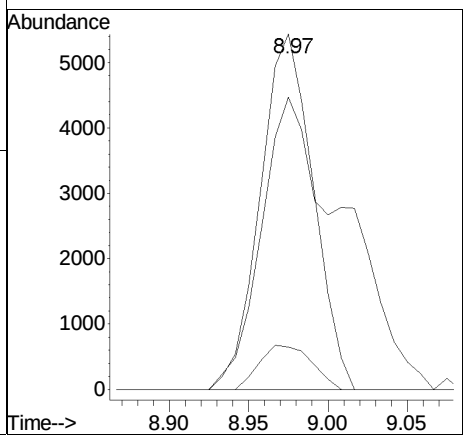


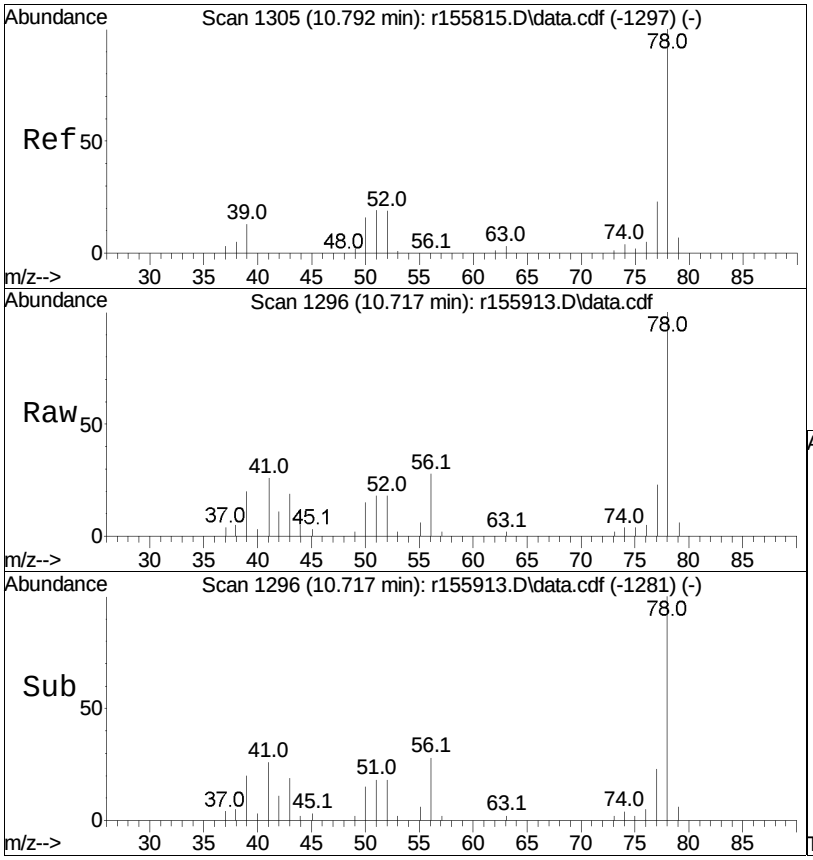


#44
hexane
Concen: 0.59 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 57 Resp: 12615

Ion	Ratio	Lower	Upper
57	100		
43	82.3	149.0	223.6#
86	11.9	9.9	14.9

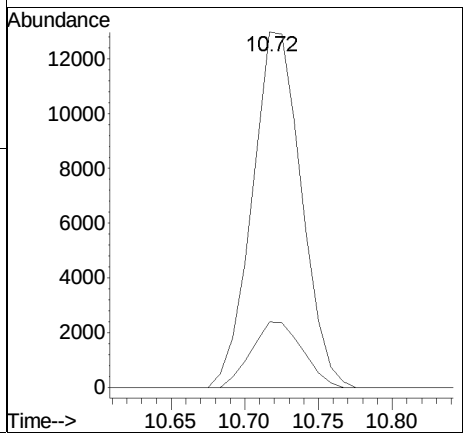


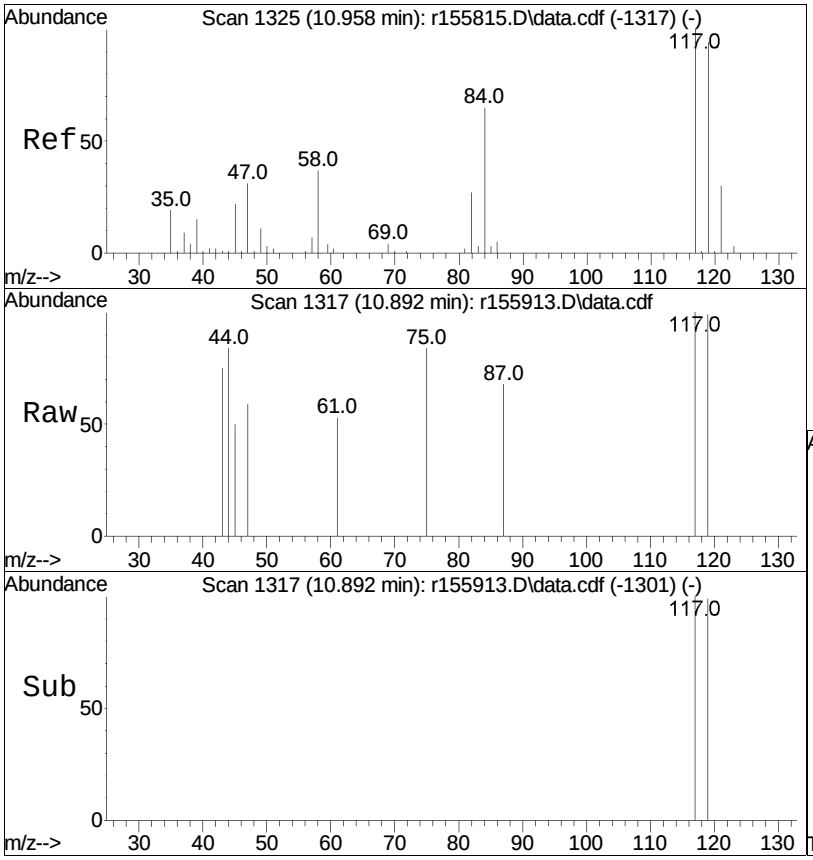


#50
benzene
Concen: 0.88 ppbV
RT: 10.72 min Scan# 1296
Delta R.T. -0.075 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 78 Resp: 30102

Ion	Ratio	Lower	Upper
78	100		
52	18.4	15.2	22.8

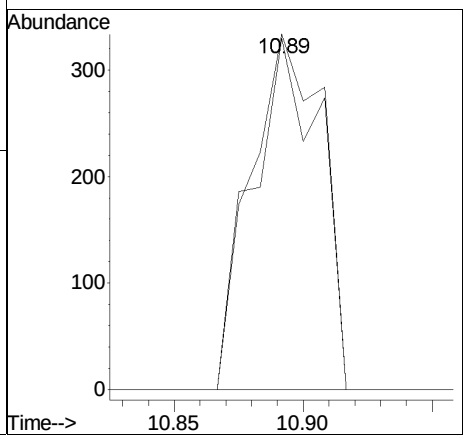


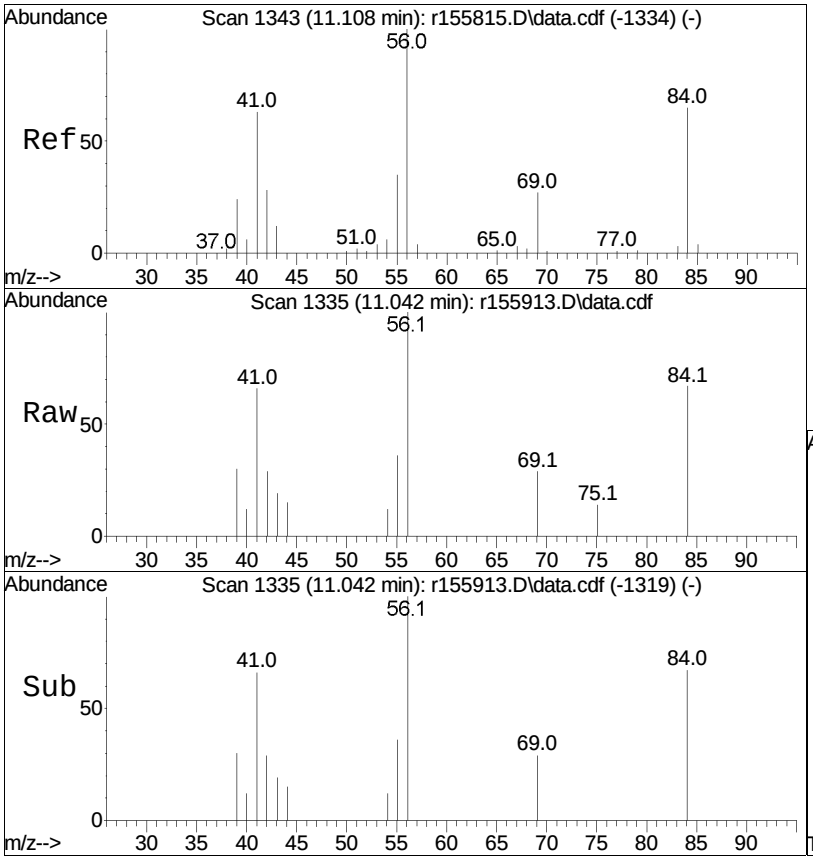


#52
carbon tetrachloride
Concen: 0.06 ppbV
RT: 10.89 min Scan# 1317
Delta R.T. -0.067 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion:117 Resp: 643

Ion	Ratio	Lower	Upper
117	100		
119	98.8	75.1	112.7
82	0.0	21.4	32.2#

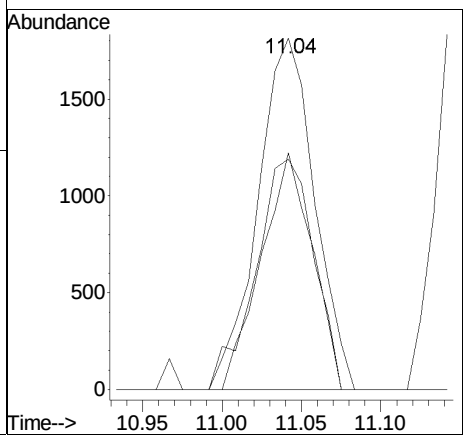


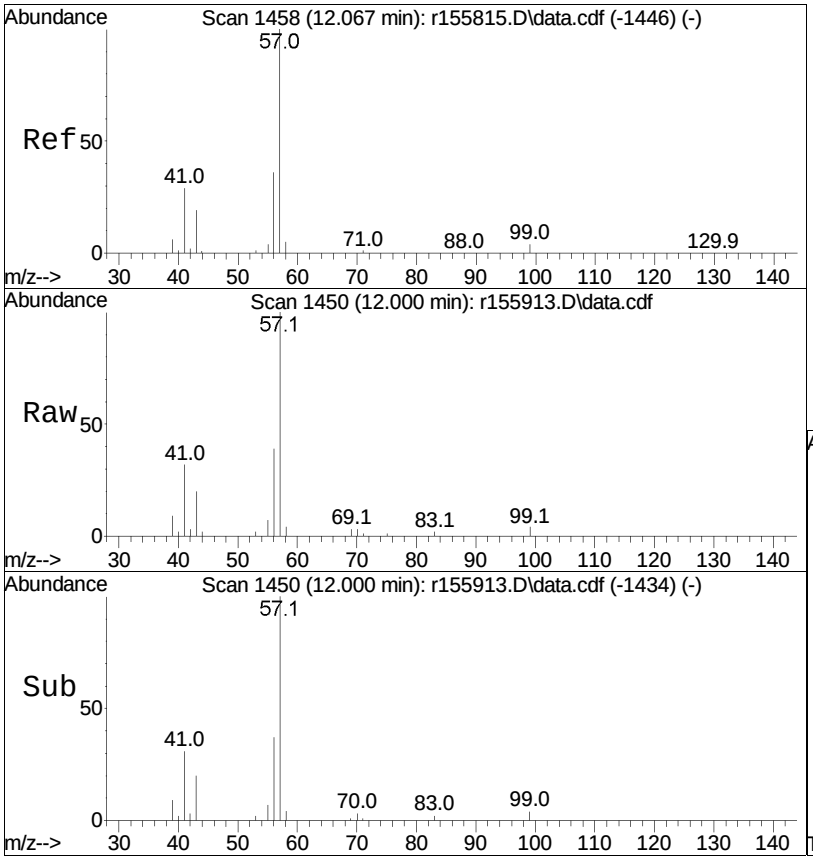


#53
cyclohexane
Concen: 0.20 ppbV
RT: 11.04 min Scan# 1335
Delta R.T. -0.067 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 56 Resp: 4511

Ion	Ratio	Lower	Upper
56	100		
84	67.3	52.1	78.1
41	65.6	50.6	75.8

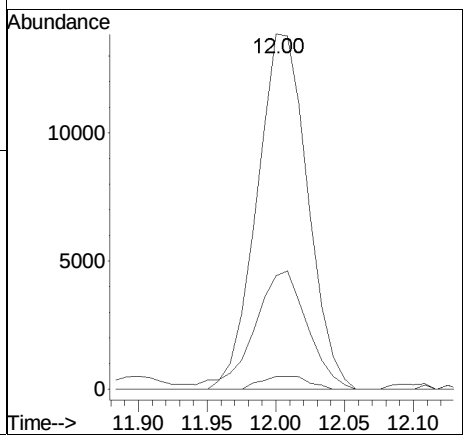


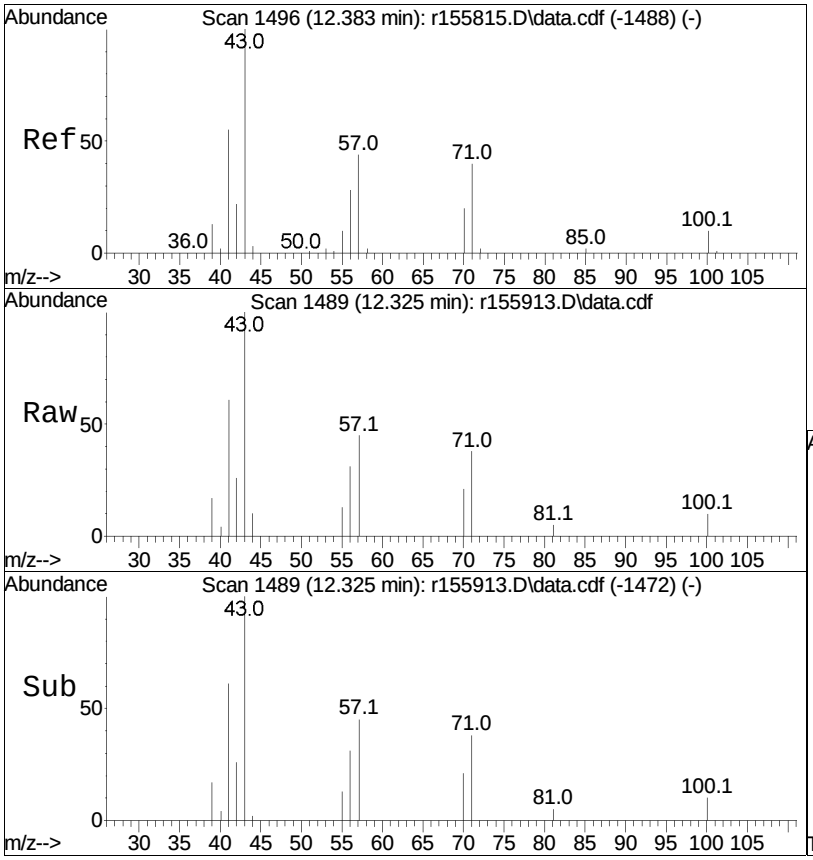


#60
2,2,4-trimethylpentane
Concen: 0.52 ppbV
RT: 12.00 min Scan# 1450
Delta R.T. -0.067 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 57 Resp: 35558

Ion	Ratio	Lower	Upper
57	100		
99	3.7	3.0	4.4
41	32.0	23.1	34.7

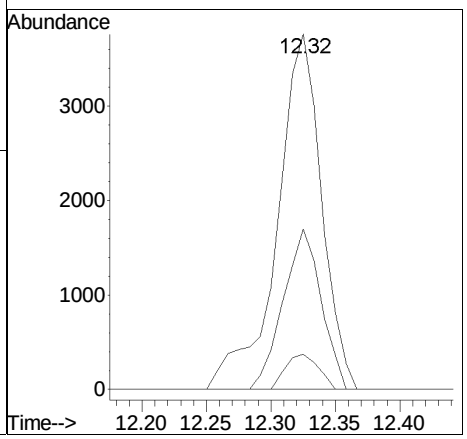


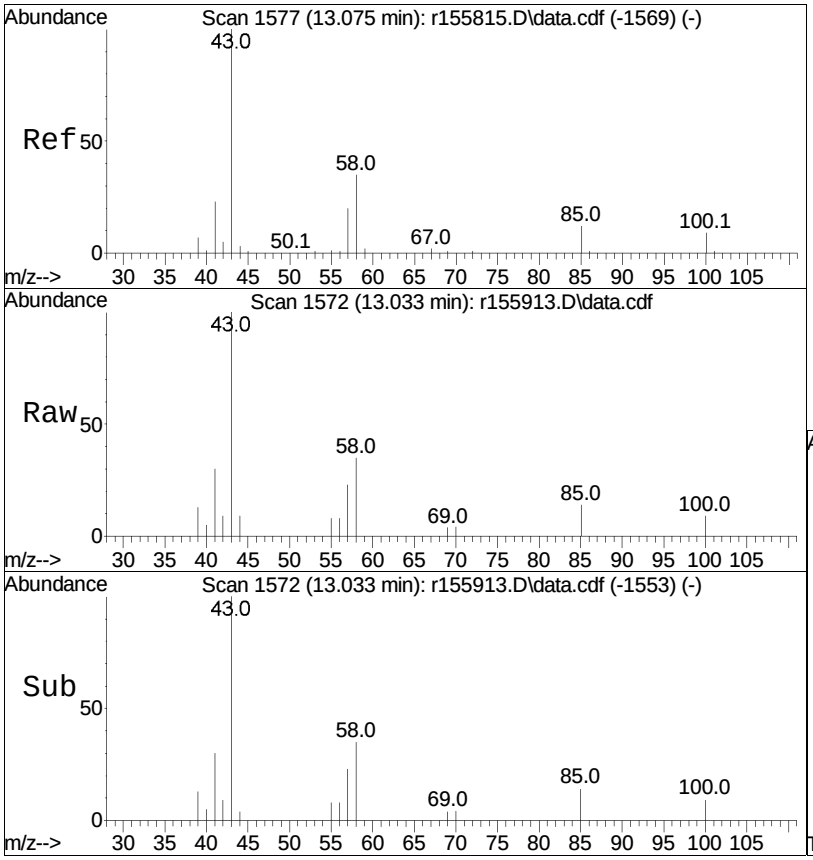


#62
heptane
Concen: 0.29 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 43 Resp: 9042

Ion	Ratio	Lower	Upper
43	100		
57	45.1	35.1	52.7
100	9.9	8.1	12.1

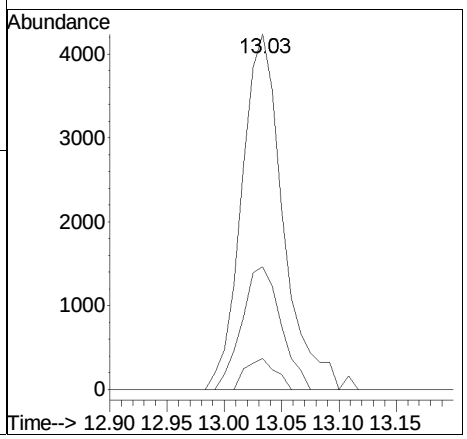


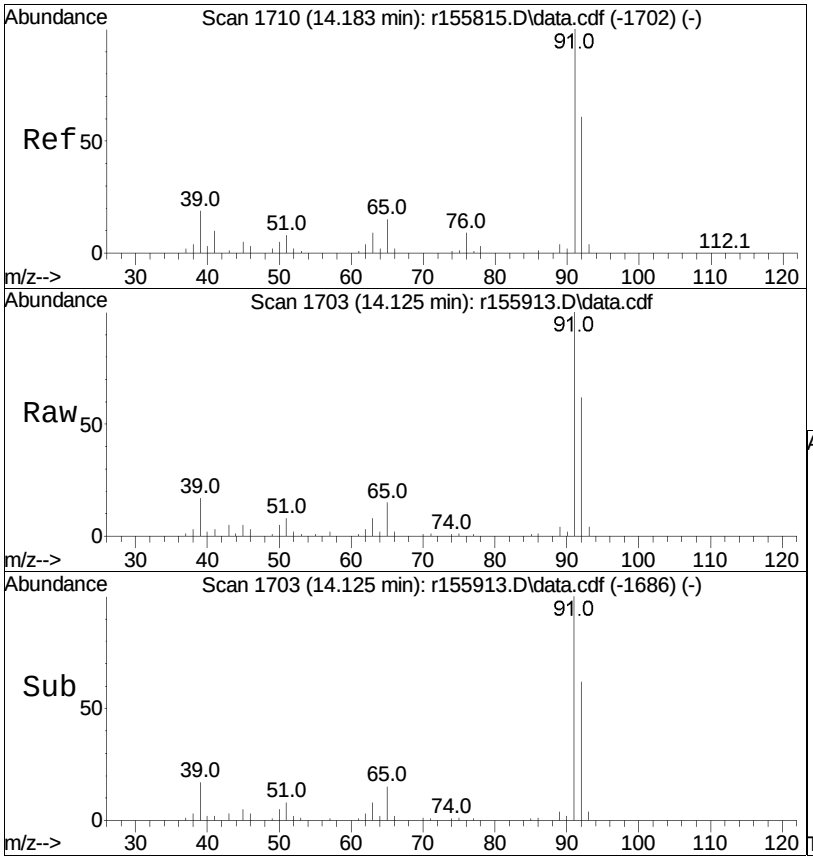


#64
4-methyl-2-pentanone
Concen: 0.30 ppbV
RT: 13.03 min Scan# 1572
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 43 Resp: 10691

Ion	Ratio	Lower	Upper
43	100		
58	34.5	28.1	42.1
100	8.7	7.0	10.4

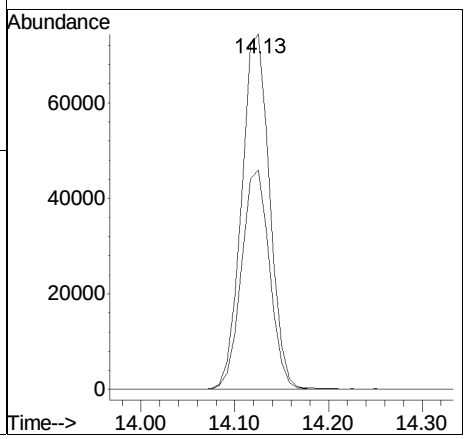


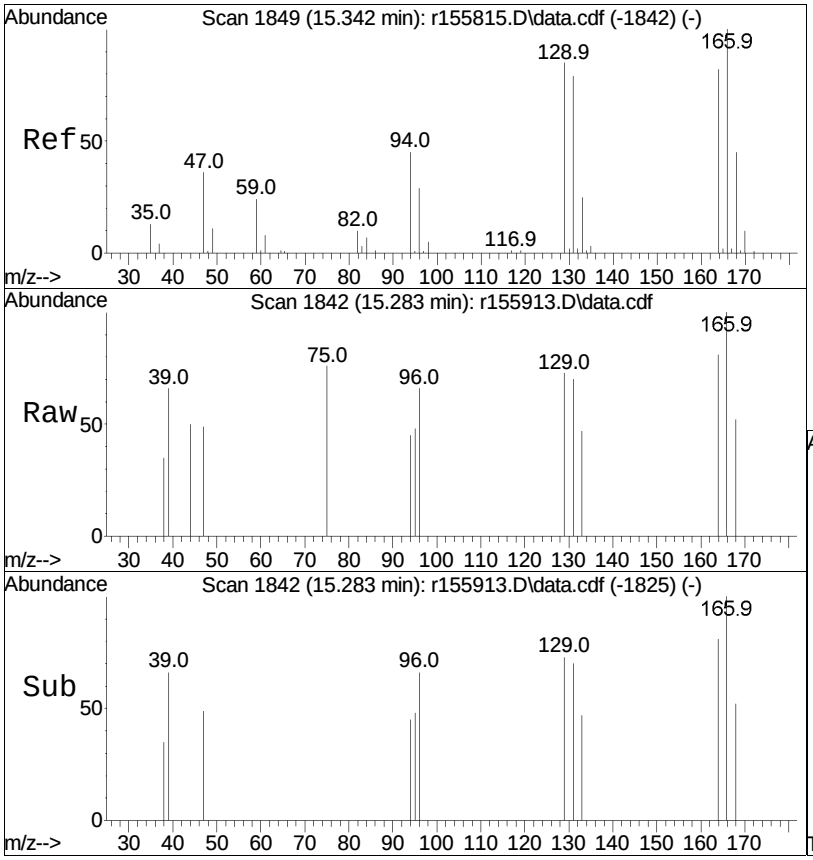


#68
toluene
Concen: 4.25 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 91 Resp: 154993

Ion	Ratio	Lower	Upper
91	100		
92	61.8	48.6	72.8

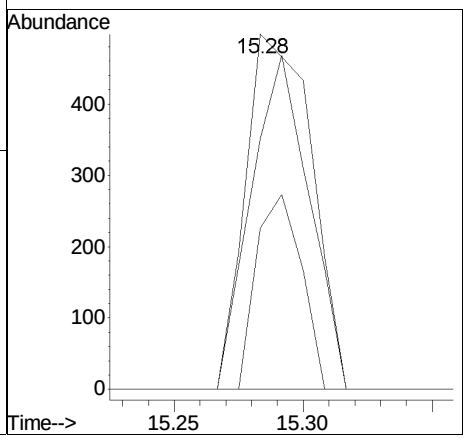


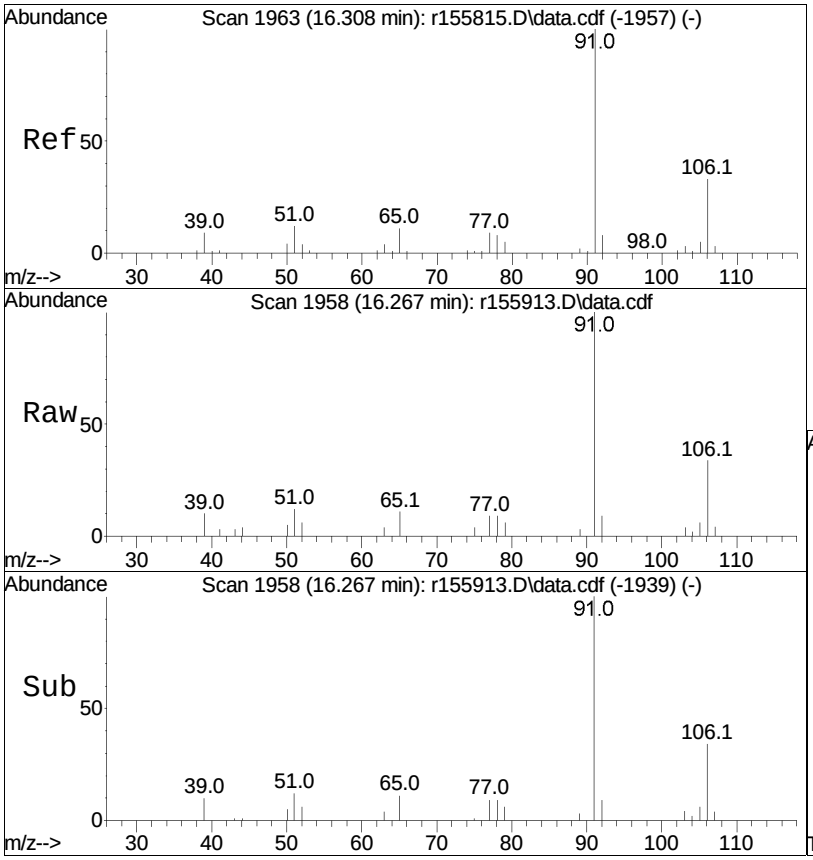


#78
tetrachloroethene
Concen: 0.08 ppbV
RT: 15.28 min Scan# 1842
Delta R.T. -0.058 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion:166 Resp: 888

Ion	Ratio	Lower	Upper
166	100		
131	70.5	62.9	94.3
94	45.4	35.9	53.9

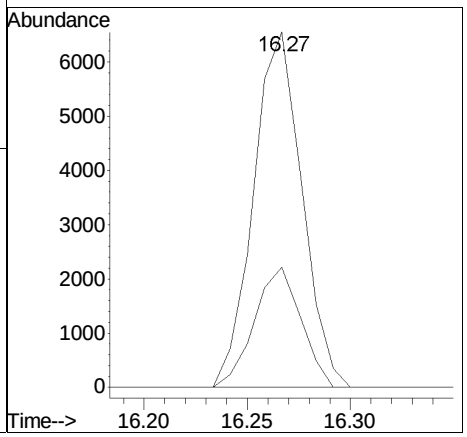


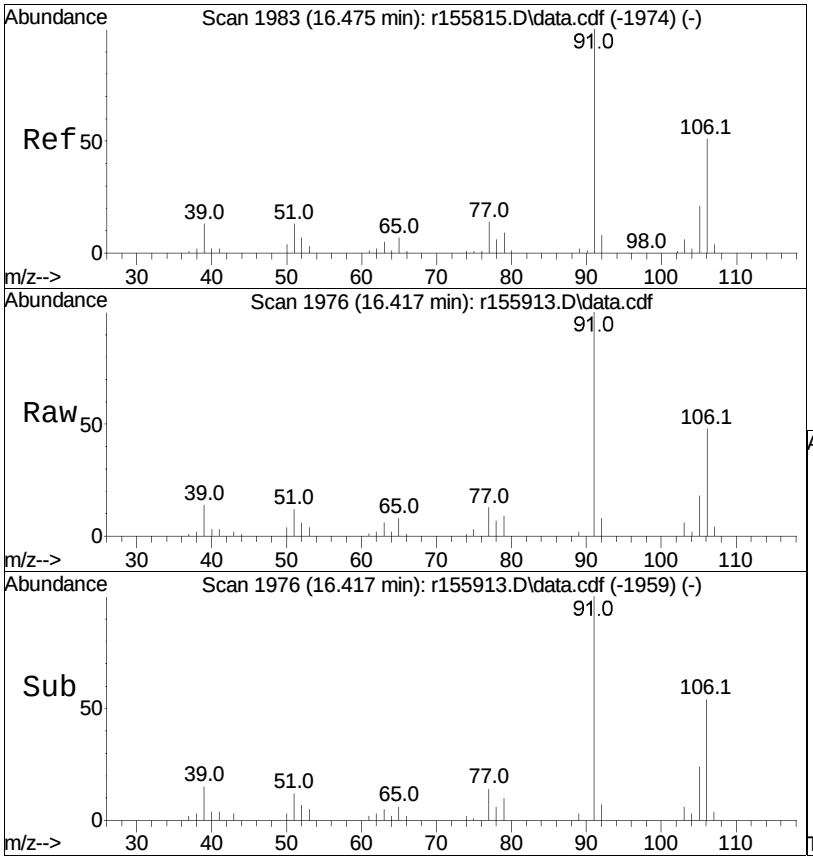


#81
ethylbenzene
Concen: 0.24 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 91 Resp: 10713

Ion	Ratio	Lower	Upper
91	100		
106	33.8	26.8	40.2

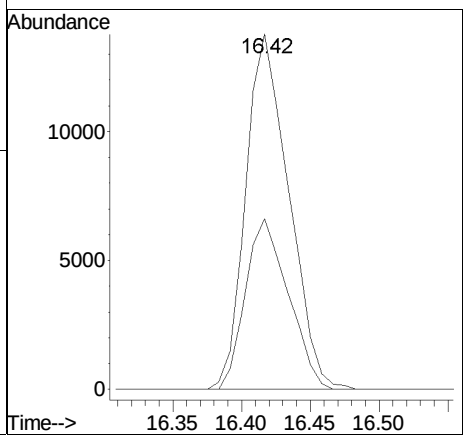


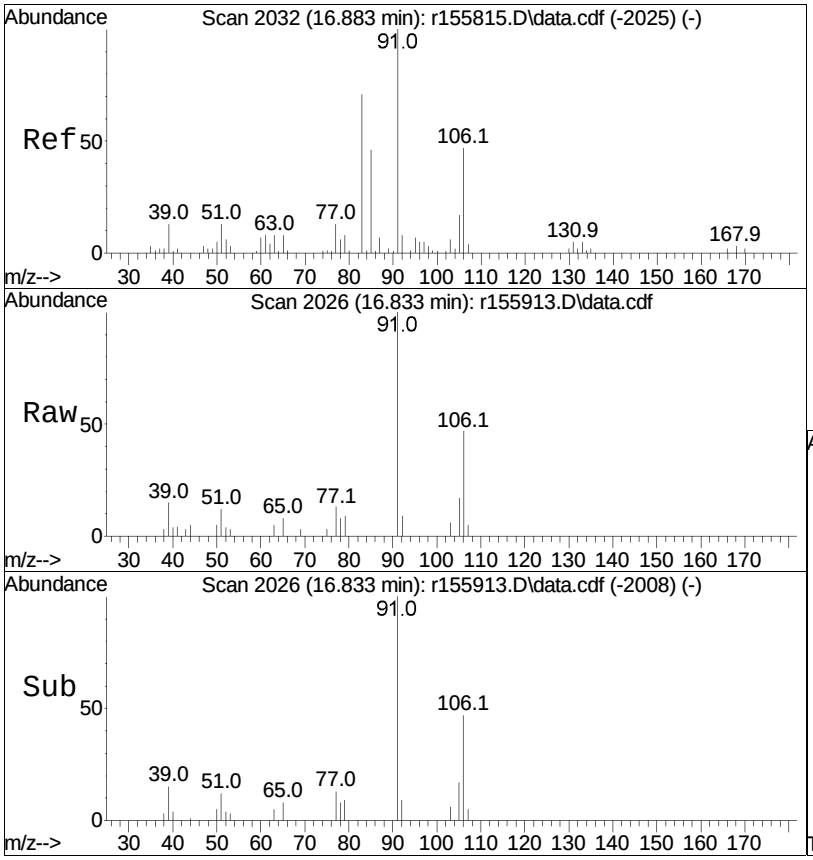


#83
m+p-xylene
Concen: 0.82 ppbV
RT: 16.42 min Scan# 1976
Delta R.T. -0.058 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 91 Resp: 30023

Ion	Ratio	Lower	Upper
91	100		
106	48.0	40.4	60.6

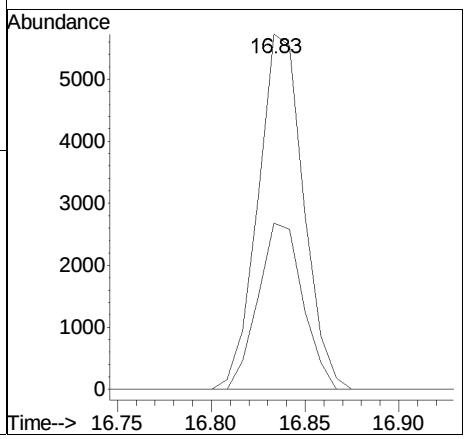


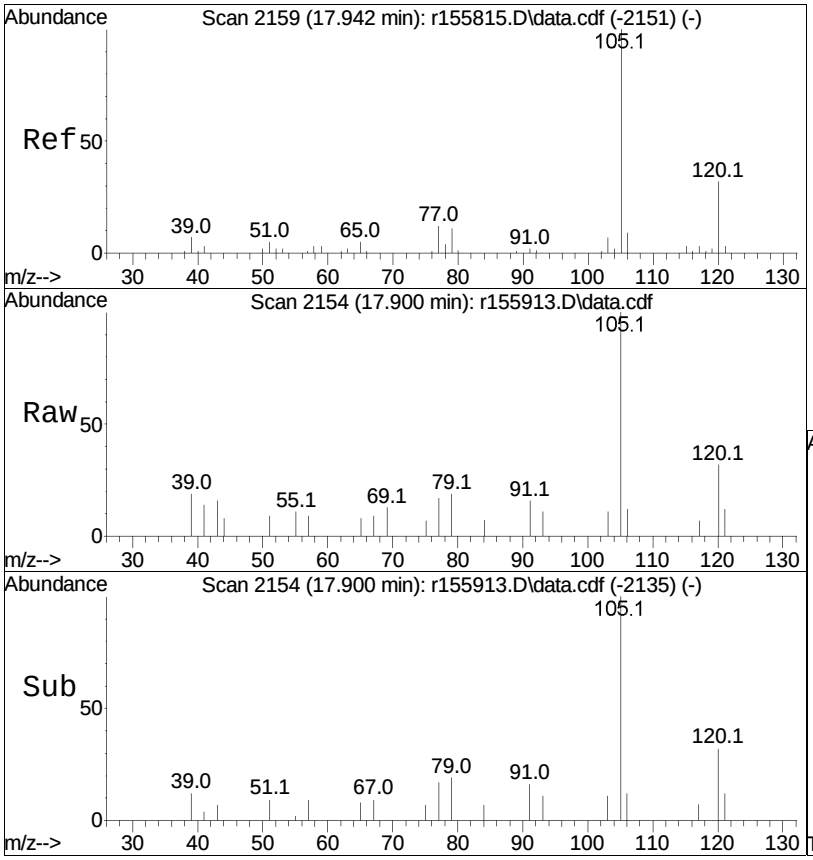


#87
o-xylene
Concen: 0.26 ppbV
RT: 16.83 min Scan# 2026
Delta R.T. -0.050 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion: 91 Resp: 9659

Ion	Ratio	Lower	Upper
91	100		
106	46.8	38.0	57.0

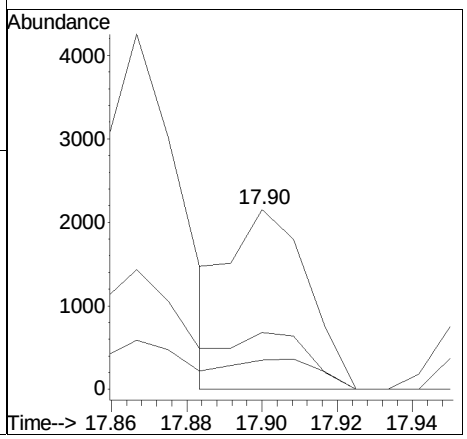


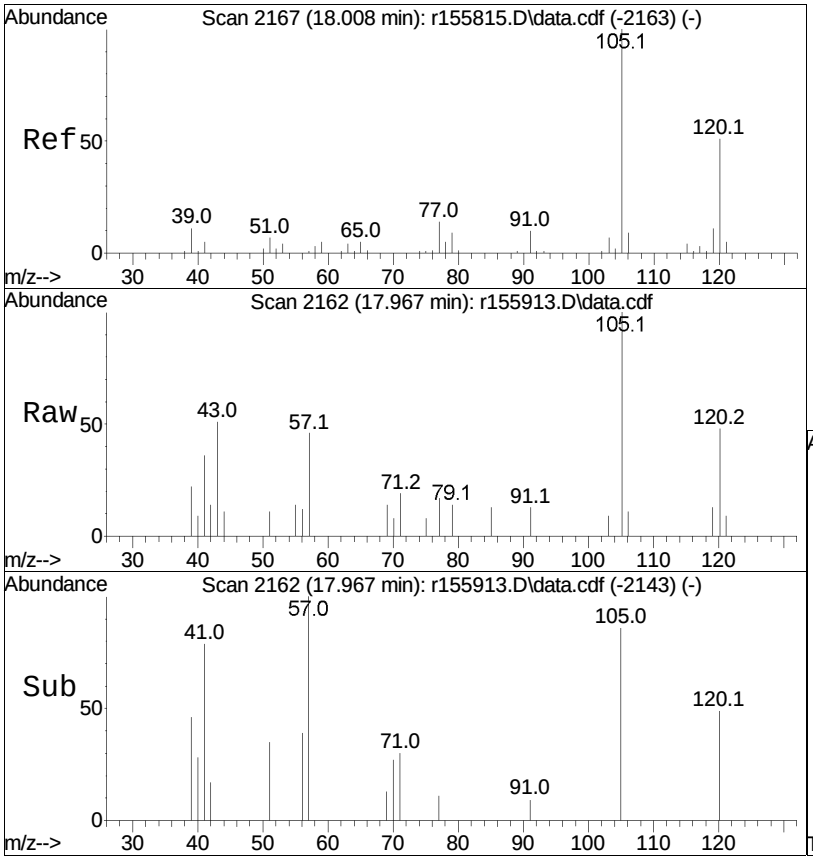


#96
4-ethyl toluene
Concen: 0.07 ppbV m
RT: 17.90 min Scan# 2154
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion:105 Resp: 3111

Ion	Ratio	Lower	Upper
105	100		
120	31.6	25.3	37.9
91	16.3	8.5	12.7#

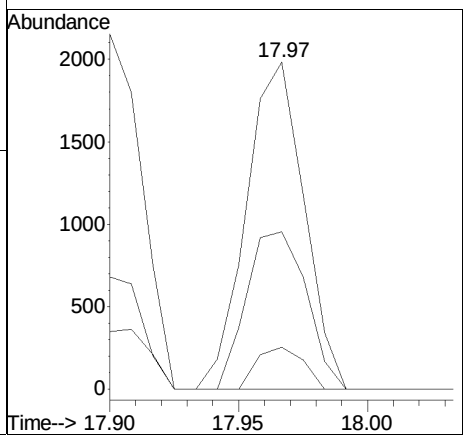




#97
1,3,5-trimethylbenzene
Concen: 0.08 ppbV
RT: 17.97 min Scan# 2162
Delta R.T. -0.042 min
Lab File: r155913.D
Acq: 20 Feb 2018 10:32 PM

Tgt Ion:105 Resp: 3101

Ion	Ratio	Lower	Upper
105	100		
120	48.2	40.8	61.2
91	12.9	8.0	12.0#

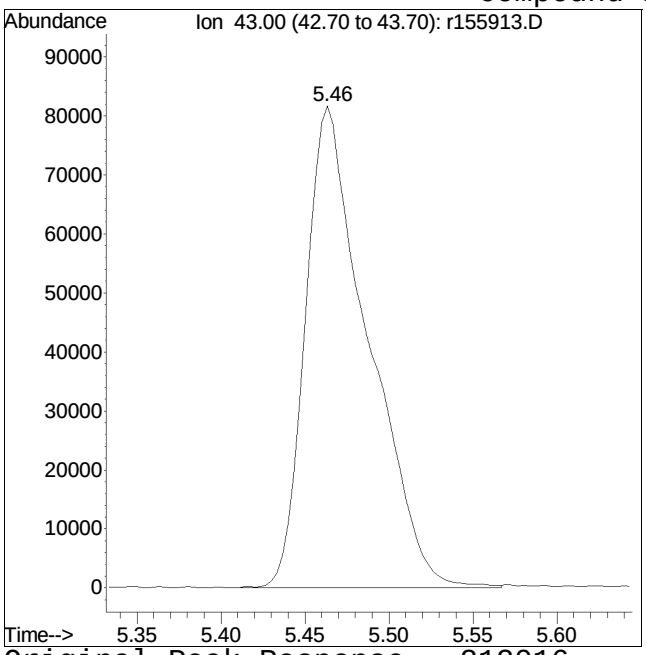


Manual Integration/Negative Proof Report

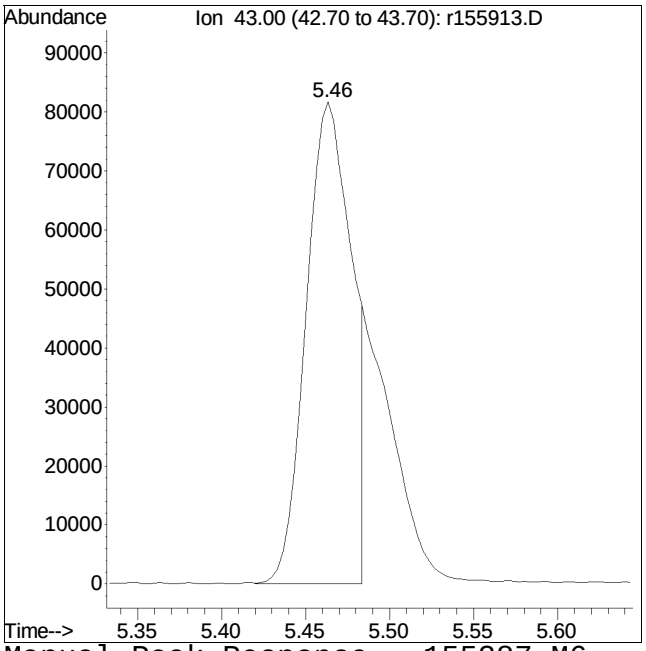
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155913.D
Date Inj'd : 2/20/2018 10:32 PM
Sample : L1805020-03,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/21/2018 6:41 am

Compound #19: acetone



Original Peak Response = 212016



Manual Peak Response = 155287 M6

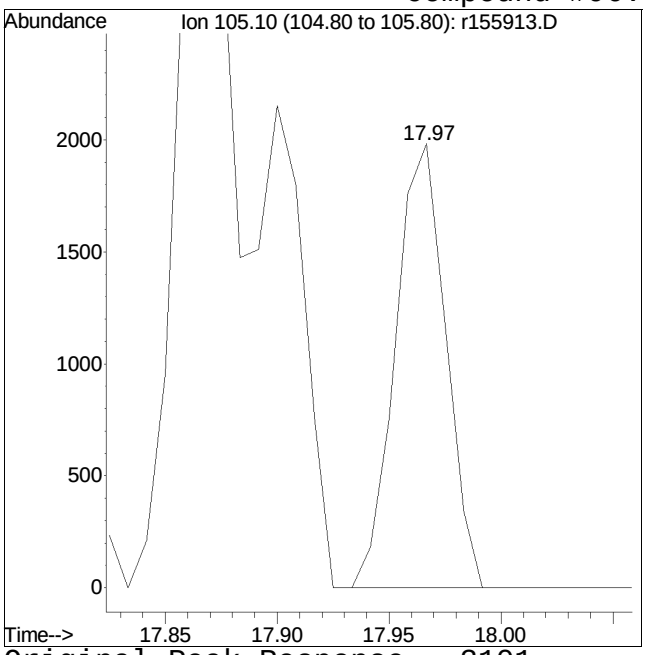
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

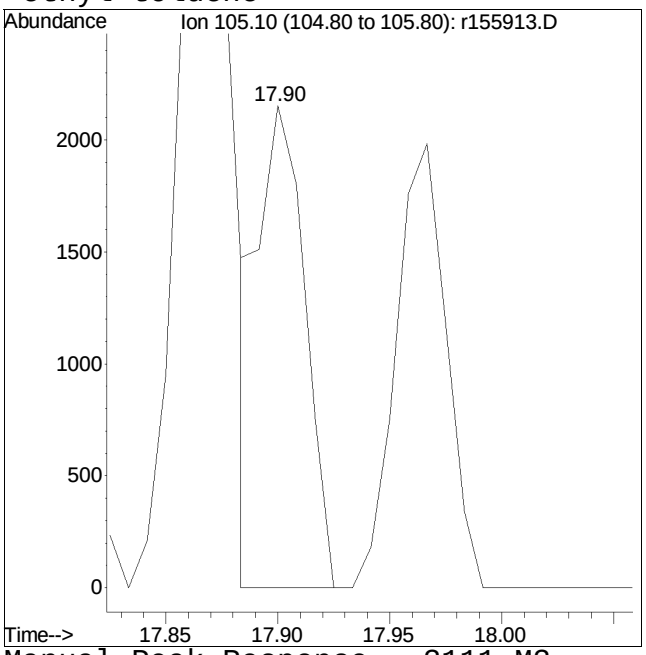
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\
Data File : r155913.D
Date Inj'd : 2/20/2018 10:32 PM
Sample : L1805020-03,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/21/2018 6:41 am

Compound #96: 4-ethyl toluene





Original Peak Response = 3101 Manual Peak Response = 3111 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155914.D
Acq On : 20 Feb 2018 11:13 PM
Operator : AIRLAB15:RY
Sample : L1805020-04,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:38:55 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	168192	10.000	ppbV	-0.07
Standard Area = 147251			Recovery = 114.22%			
43) 1,4-difluorobenzene	11.15	114	300287	10.000	ppbV	-0.07
Standard Area = 262067			Recovery = 114.58%			
67) chlorobenzene-D5	15.88	54	74962	10.000	ppbV	-0.05
Standard Area = 67836			Recovery = 110.50%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	3.84	85	8113	0.415	ppbV	98
6) chloromethane	4.00	50	10963	0.785	ppbV	99
7) Freon-114	4.10		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	4.36	54	2711	0.234	ppbV	98
13) bromomethane	0.00		0	N.D.	d	
14) chloroethane	4.78		0	N.D.		
15) ethanol	4.95	31	242997	19.712	ppbV	99
17) vinyl bromide	0.00		0	N.D.		
19) acetone	5.46	43	167424M6	8.752	ppbV	
21) trichlorofluoromethane	5.65	101	3192	0.200	ppbV	93
22) isopropyl alcohol	5.74	45	54526	2.139	ppbV	100
26) 1,1-dichloroethene	0.00		0	N.D.	d	
27) tertiary butyl alcohol	6.41	59	4158	0.182	ppbV #	49
28) methylene chloride	6.49	49	9860	0.569	ppbV	96
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	6.79	76	2034	0.060	ppbV #	1
31) Freon 113	6.78	101	1034	0.055	ppbV #	92
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.	d	
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	8.23	43	40330	1.267	ppbV	99
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	9.02	61	848	0.193	ppbV #	29
39) chloroform	9.07		0	N.D.		
40) Tetrahydrofuran	9.53	42	16912	0.849	ppbV	95
42) 1,2-dichloroethane	9.91		0	N.D.		
44) hexane	8.97	57	13130	0.583	ppbV #	33
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155914.D
Acq On : 20 Feb 2018 11:13 PM
Operator : AIRLAB15:RY
Sample : L1805020-04,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:38:55 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	10.73	78	30668	0.859	ppbV	100
52) carbon tetrachloride	10.89	117	836	0.069	ppbV #	78
53) cyclohexane	11.04	56	4510	0.194	ppbV	92
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.	d	
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	12.01	57	36758	0.510	ppbV	97
62) heptane	12.32	43	9996	0.308	ppbV	95
63) cis-1,3-dichloropropene	0.00		0	N.D.	d	
64) 4-methyl-2-pentanone	13.03	43	12242	0.327	ppbV	92
65) trans-1,3-dichloropropene	13.64		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	14.13	91	149369	3.939	ppbV	98
72) 2-hexanone	0.00		0	N.D.	d	
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.	d	
78) tetrachloroethene	15.29	166	780	0.064	ppbV	97
80) chlorobenzene	0.00		0	N.D.	d	
81) ethylbenzene	16.27	91	10900	0.232	ppbV	98
83) m+p-xylene	16.42	91	29214	0.769	ppbV	100
84) bromoform	0.00		0	N.D.		
85) styrene	0.00		0	N.D.	d	
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	16.83	91	9918	0.257	ppbV	98
96) 4-ethyl toluene	17.90	105	3044M3	0.063	ppbV	
97) 1,3,5-trimethylbenzene	17.97	105	3012	0.072	ppbV #	93
99) 1,2,4-trimethylbenzene	0.00		0	N.D.	d	
101) Benzyl Chloride	0.00		0	N.D.	d	
102) 1,3-dichlorobenzene	0.00		0	N.D.		
103) 1,4-dichlorobenzene	0.00		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	0.00		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

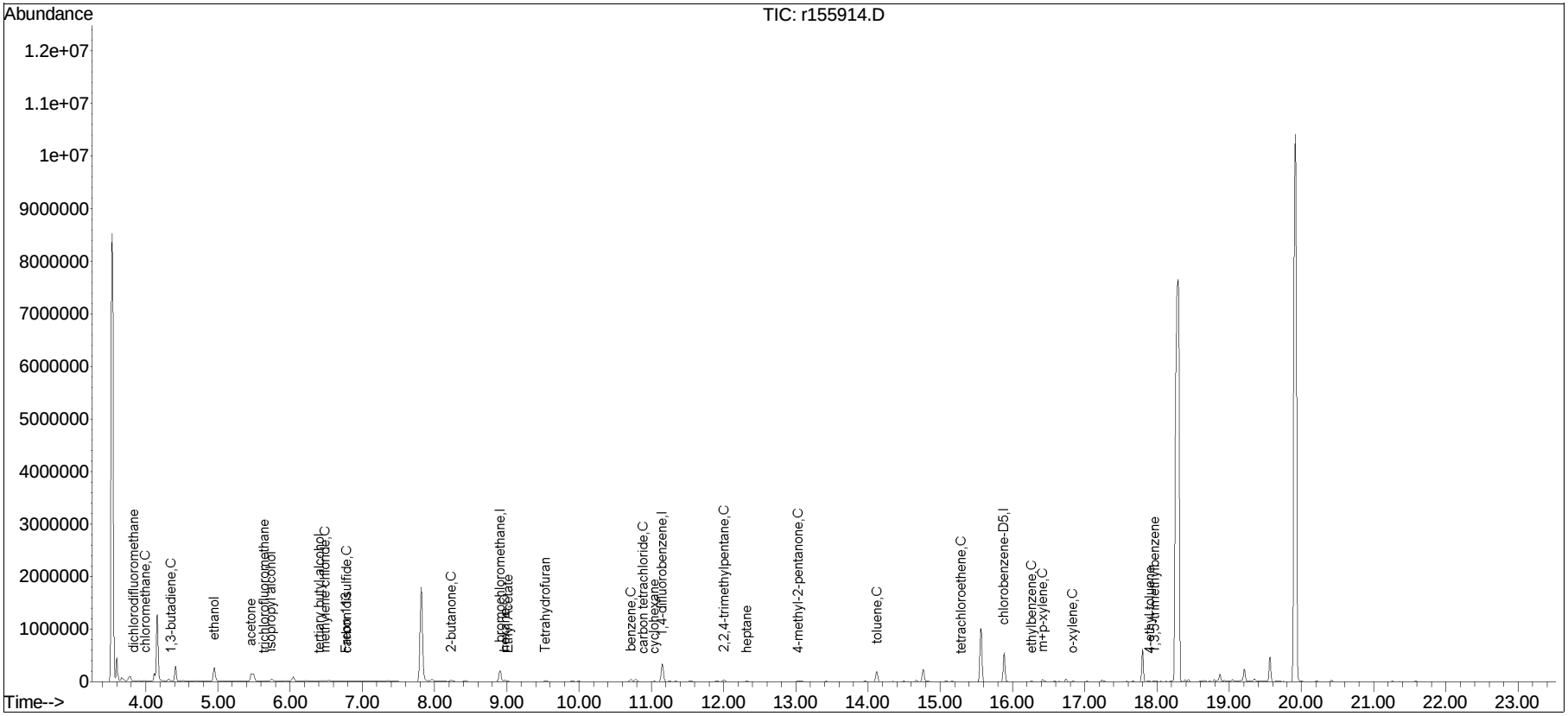
(#) = qualifier out of range (m) = manual integration (+) = signals summed

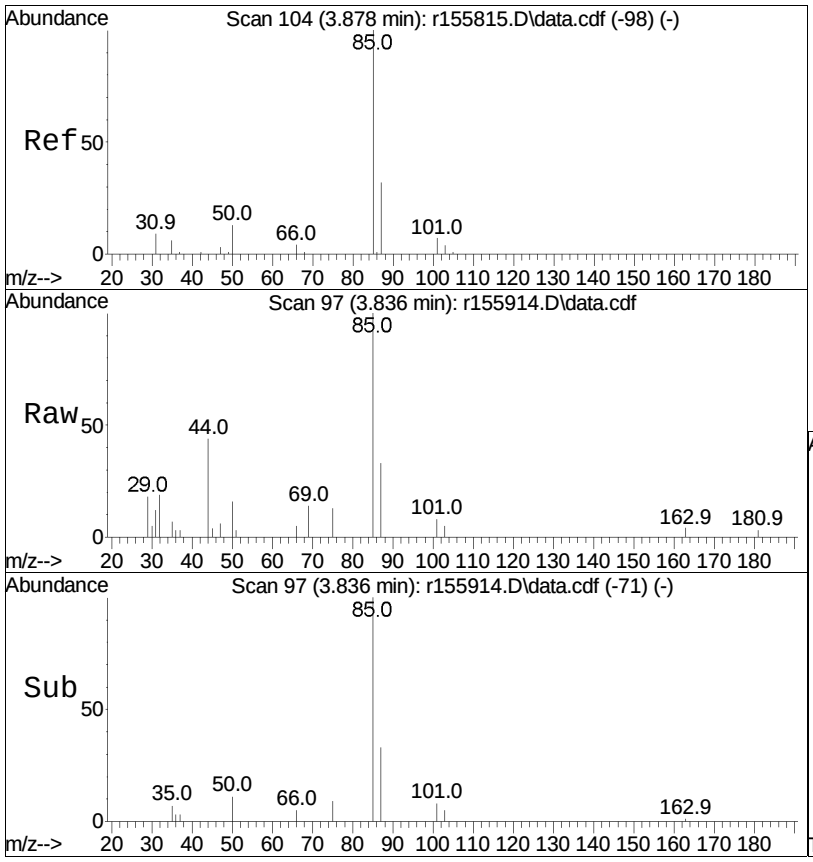
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155914.D
Acq On : 20 Feb 2018 11:13 PM
Operator : AIRLAB15:RY
Sample : L1805020-04,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:38:55 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : TO15-NY - .s\Data\Airlab15\2018\180220T\r155899.D

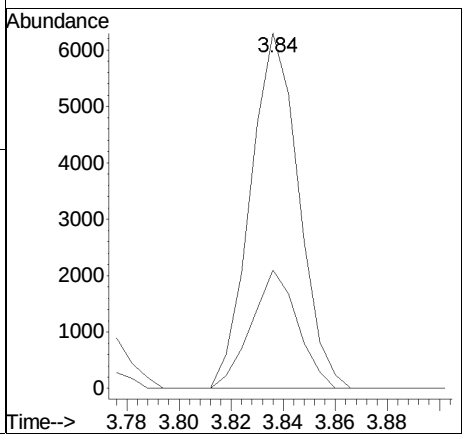


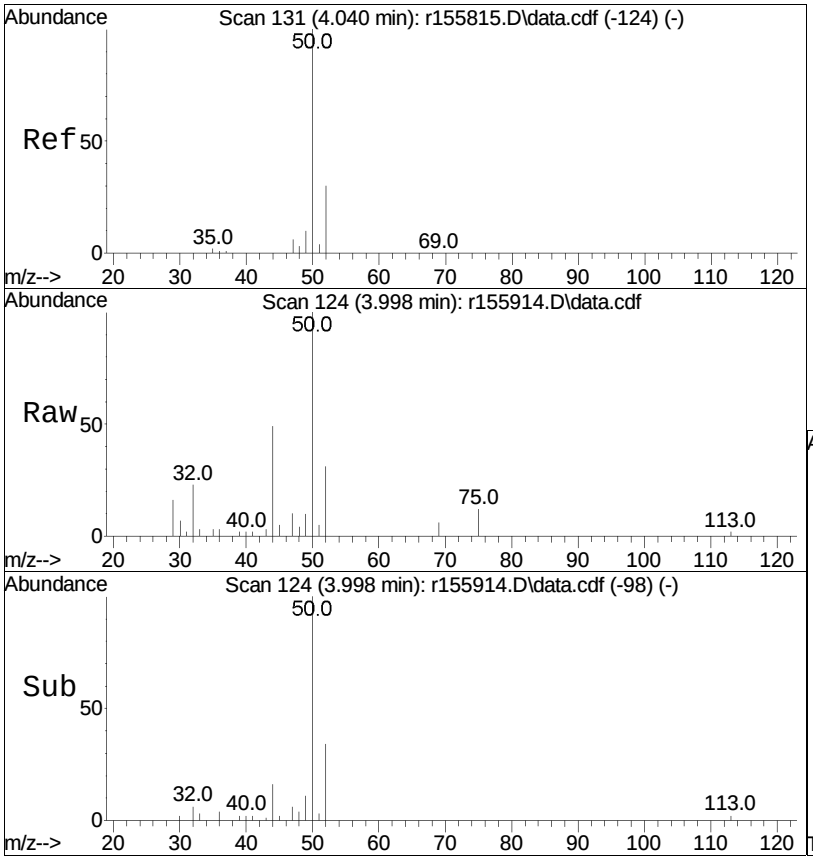


#5
dichlorodifluoromethane
Concen: 0.42 ppbV
RT: 3.84 min Scan# 97
Delta R.T. -0.042 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 85 Resp: 8113

Ion	Ratio	Lower	Upper
85	100		
87	33.3	25.6	38.4

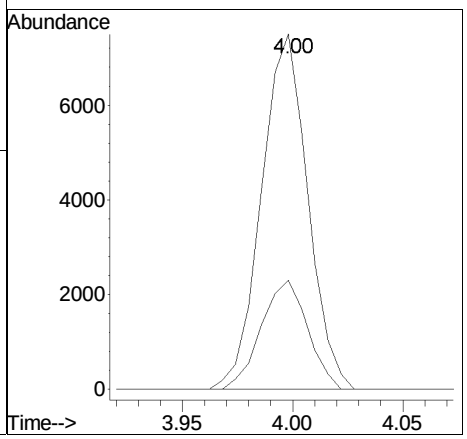


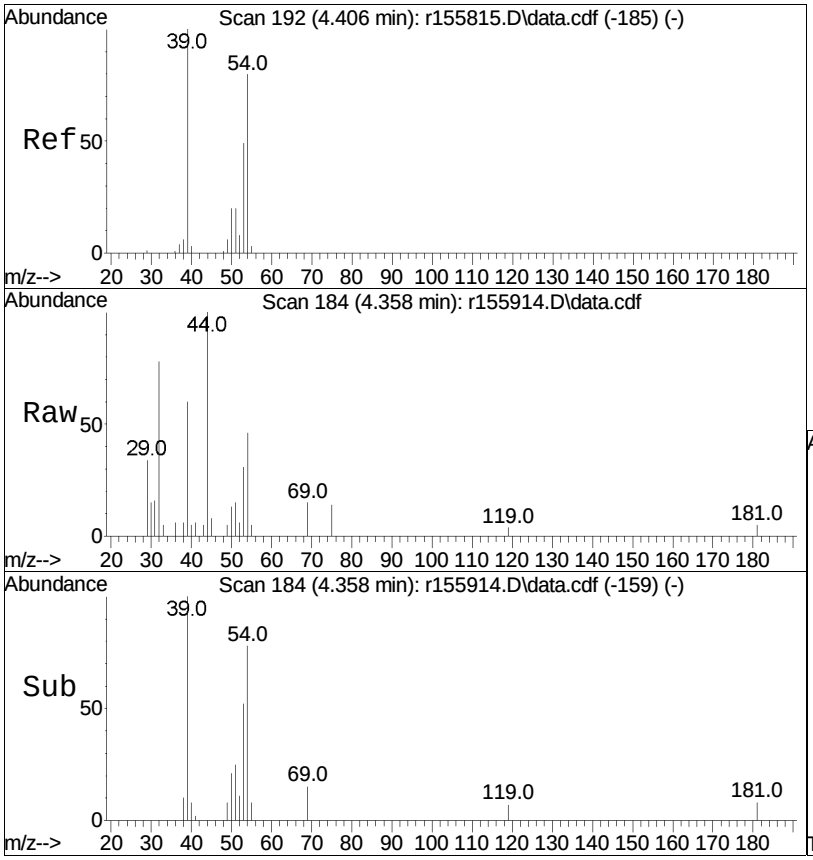


#6
chloromethane
Concen: 0.79 ppbV
RT: 4.00 min Scan# 124
Delta R.T. -0.042 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 50 Resp: 10963

Ion	Ratio	Lower	Upper
50	100		
52	30.7	24.1	36.1

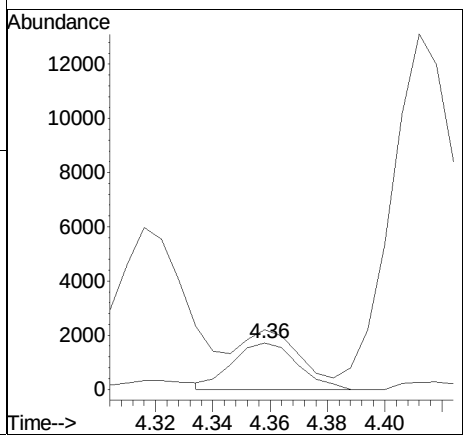


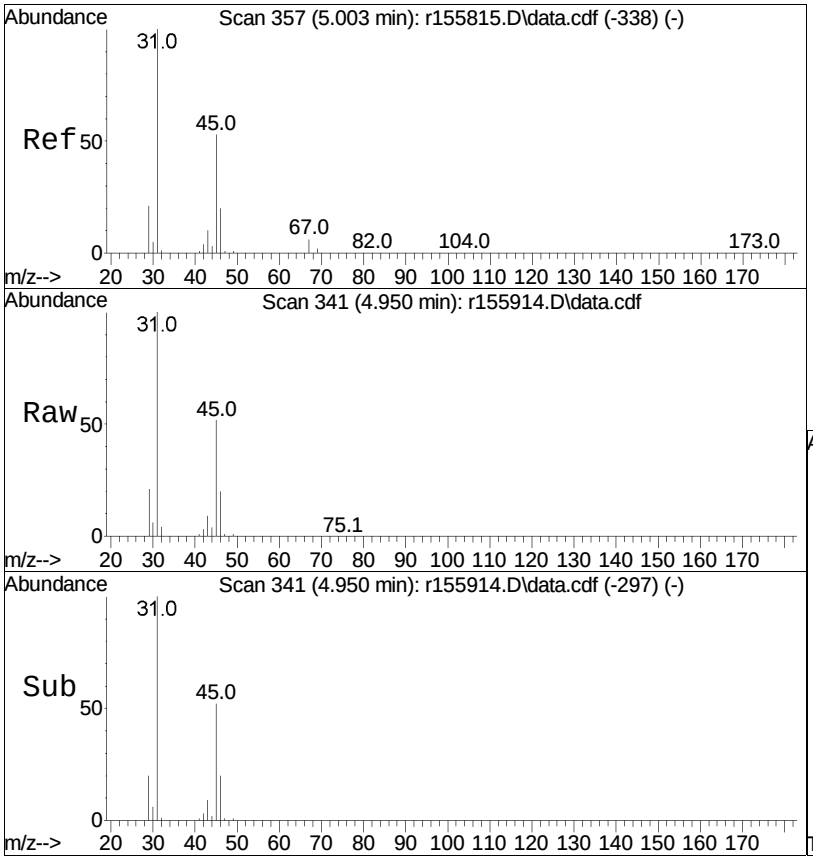


#10
1,3-butadiene
Concen: 0.23 ppbV
RT: 4.36 min Scan# 184
Delta R.T. -0.048 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 54 Resp: 2711

Ion	Ratio	Lower	Upper
54	100		
39	128.4	100.8	151.2

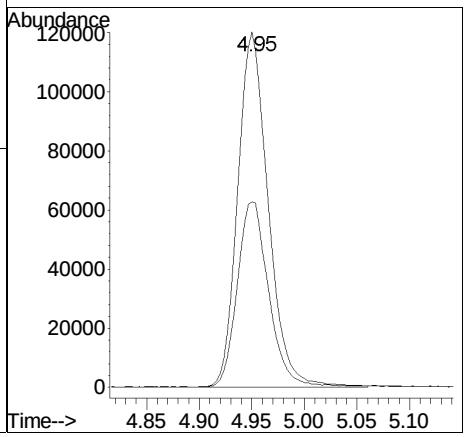


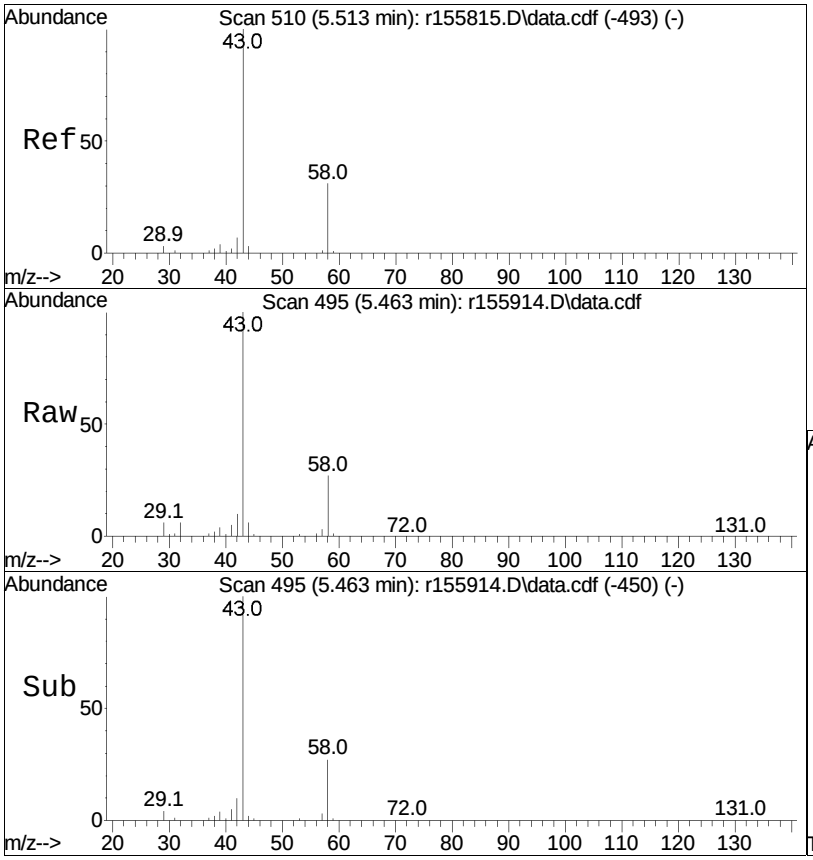


#15
ethanol
Concen: 19.71 ppbV
RT: 4.95 min Scan# 341
Delta R.T. -0.053 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 31 Resp: 242997

Ion	Ratio	Lower	Upper
31	100		
45	52.2	42.6	63.8

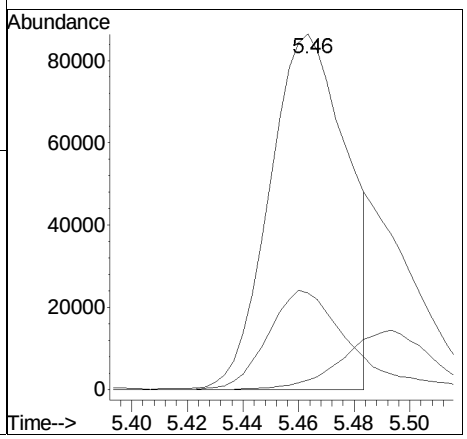


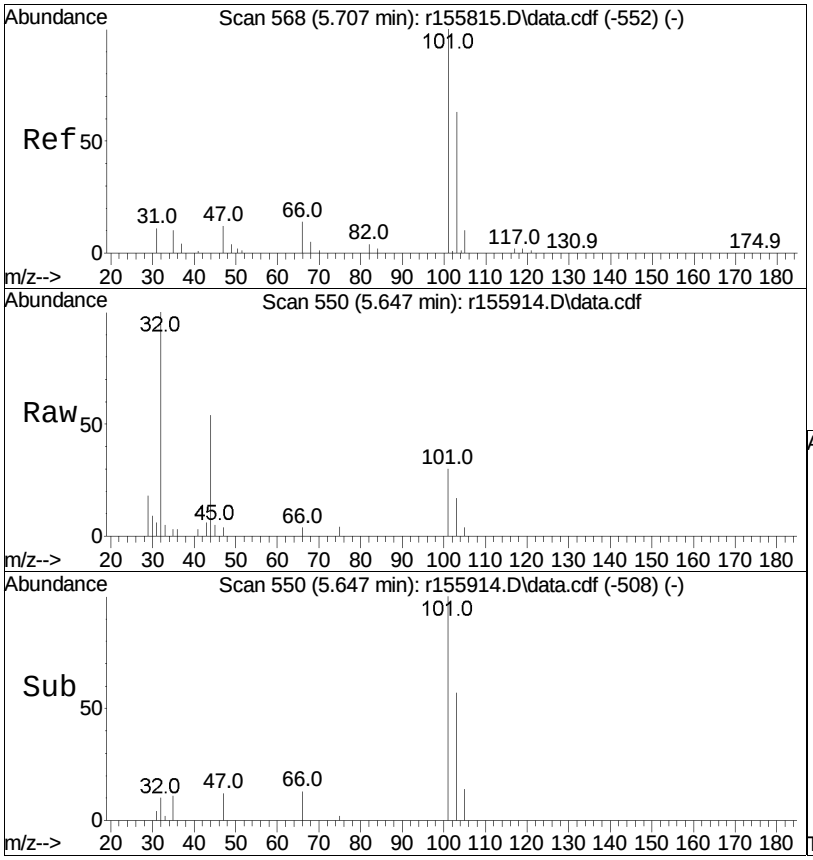


#19
acetone
Concen: 8.75 ppbV m
RT: 5.46 min Scan# 495
Delta R.T. -0.050 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 43 Resp: 167424

Ion	Ratio	Lower	Upper
43	100		
58	27.1	24.5	36.7
57	2.6	0.6	0.8#

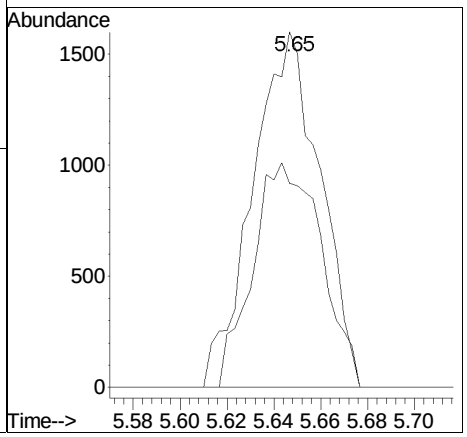


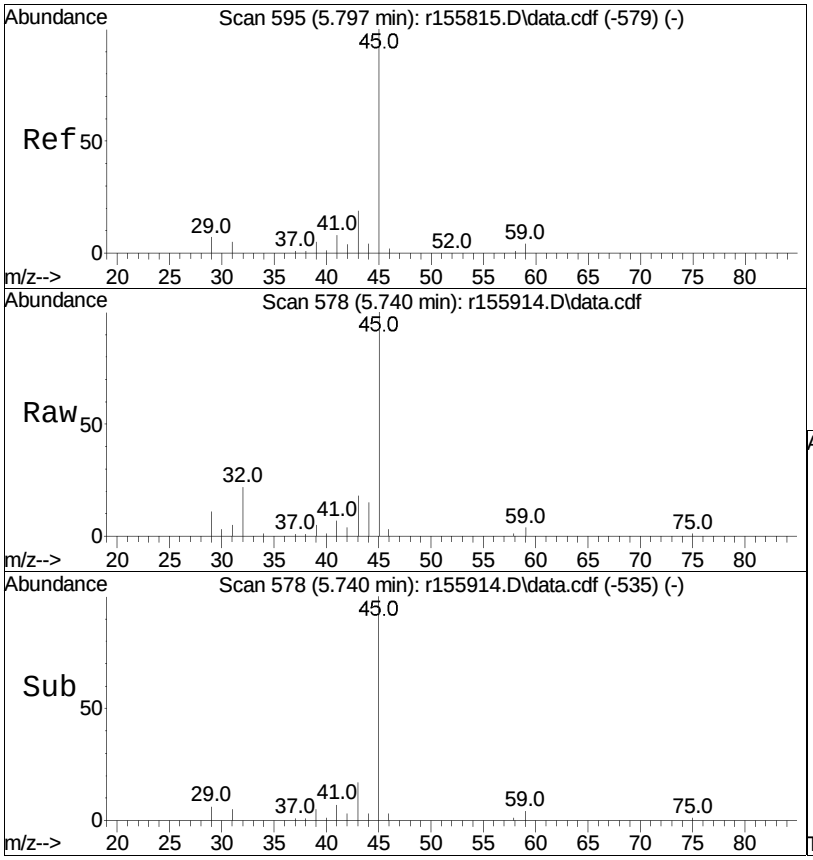


#21
trichlorofluoromethane
Concen: 0.20 ppbV
RT: 5.65 min Scan# 550
Delta R.T. -0.060 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion:101 Resp: 3192

Ion	Ratio	Lower	Upper
101	100		
103	57.4	50.2	75.4

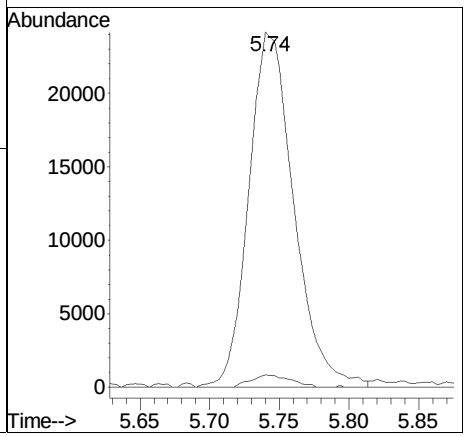


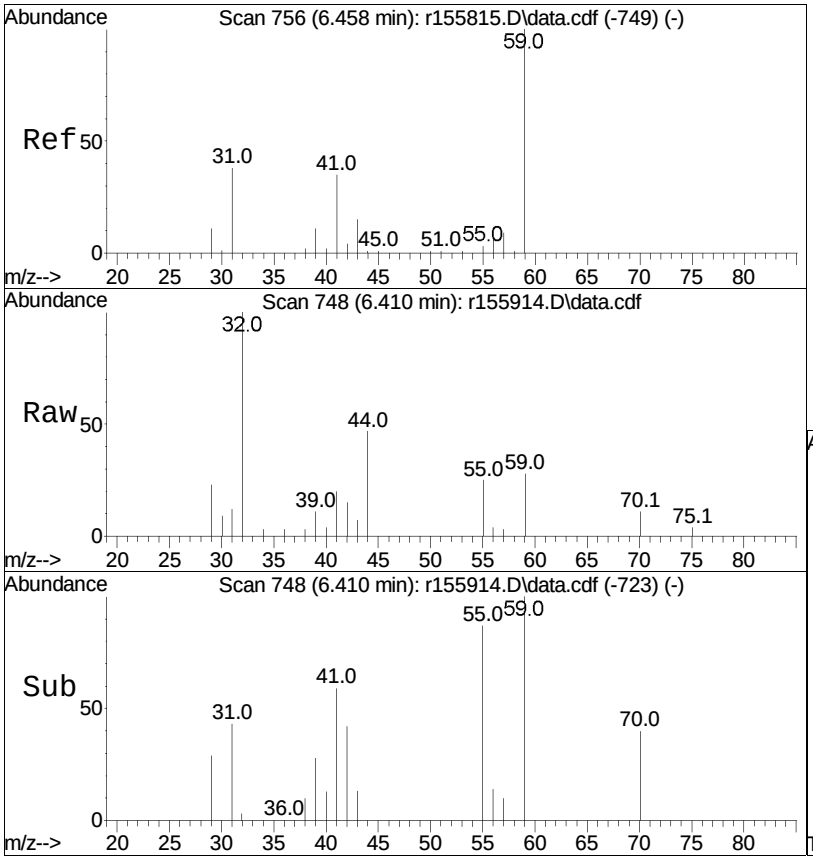


#22
isopropyl alcohol
Concen: 2.14 ppbV
RT: 5.74 min Scan# 578
Delta R.T. -0.057 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 45 Resp: 54526

Ion	Ratio	Lower	Upper
45	100		
59	3.5	2.8	4.2

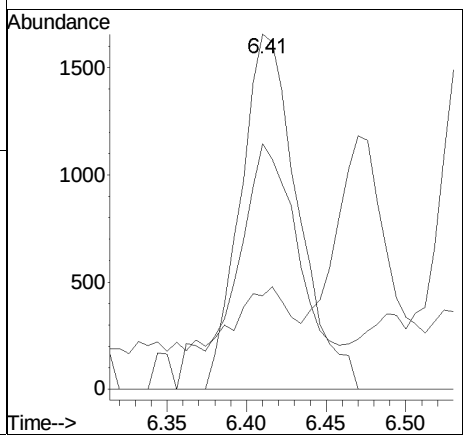


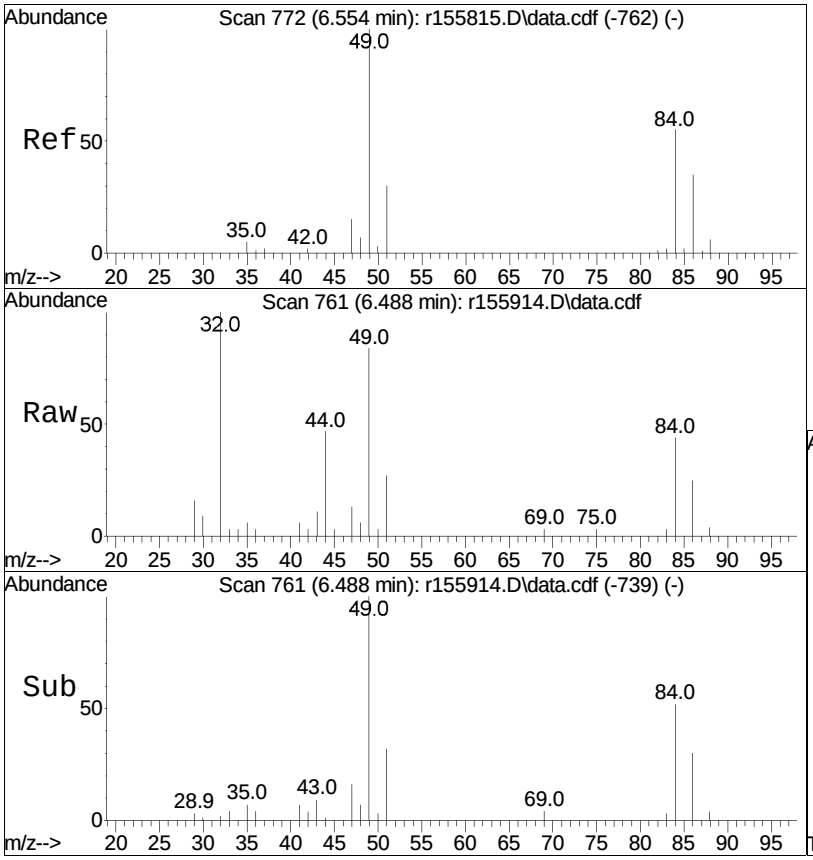


#27
tertiary butyl alcohol
Concen: 0.18 ppbV
RT: 6.41 min Scan# 748
Delta R.T. -0.048 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 59 Resp: 4158

Ion	Ratio	Lower	Upper
59	100		
41	69.2	27.1	40.7#
43	26.3	11.8	17.8#

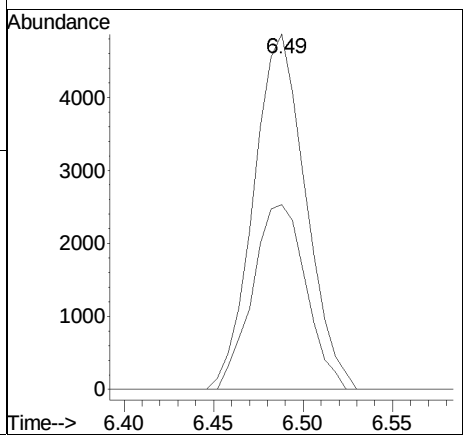


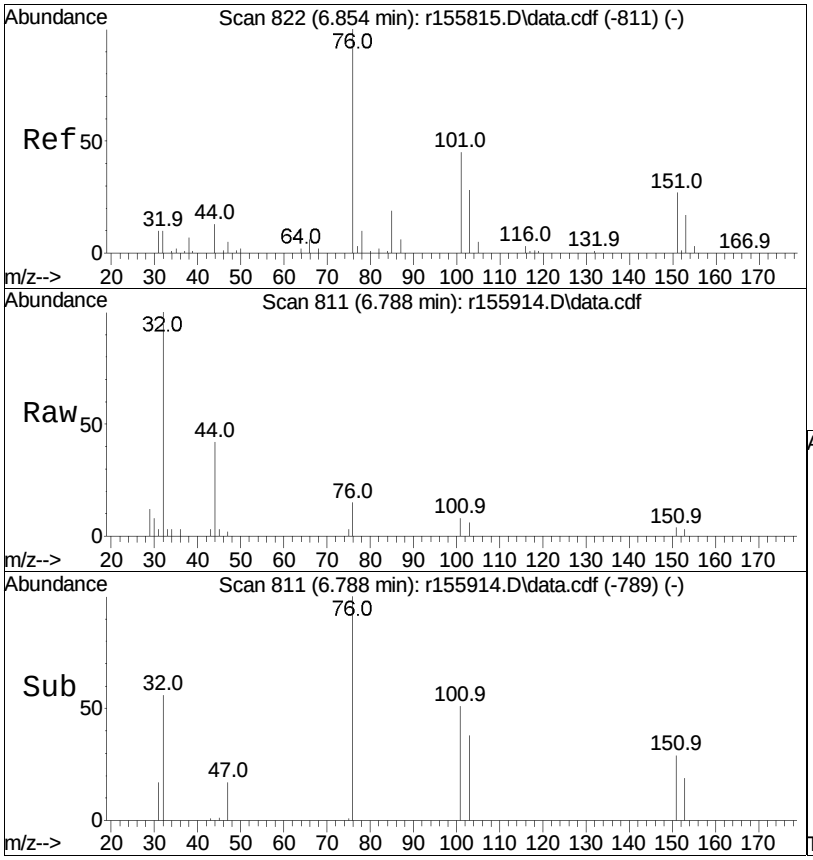


#28
methylene chloride
Concen: 0.57 ppbV
RT: 6.49 min Scan# 761
Delta R.T. -0.066 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 49 Resp: 9860

Ion	Ratio	Lower	Upper
49	100		
84	52.0	44.2	66.2

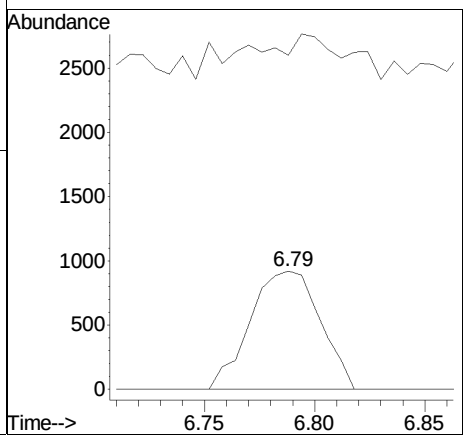


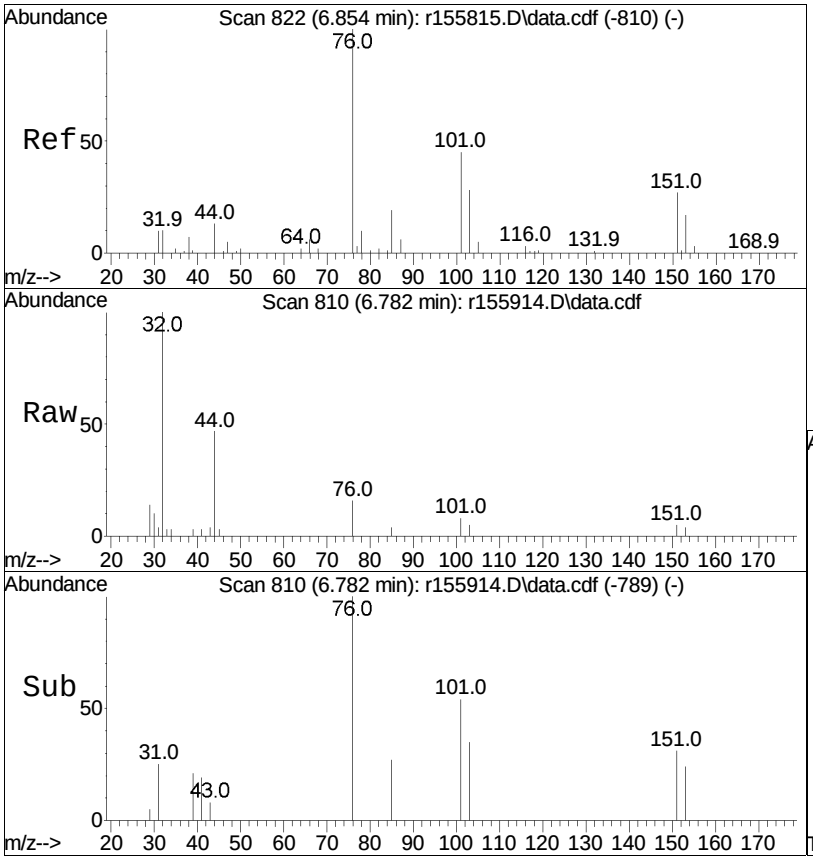


#30
carbon disulfide
Concen: 0.06 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 76 Resp: 2034

Ion	Ratio	Lower	Upper
76	100		
44	282.2	11.6	17.4#

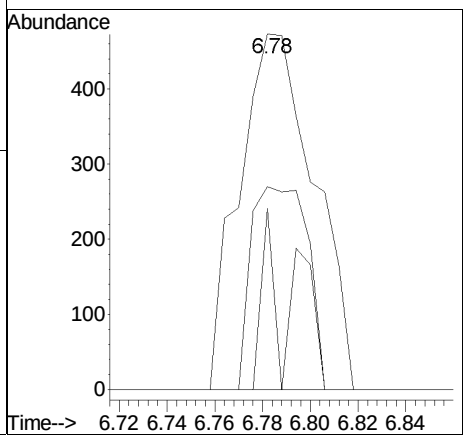


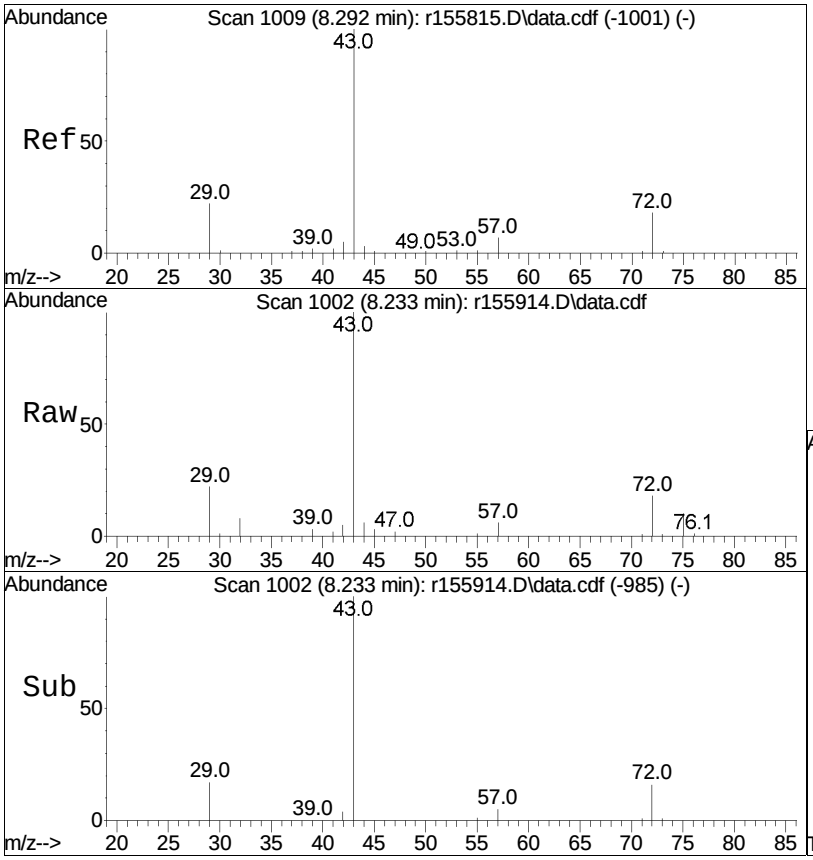


#31
Freon 113
Concen: 0.05 ppbV
RT: 6.78 min Scan# 810
Delta R.T. -0.072 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion:101 Resp: 1034

Ion	Ratio	Lower	Upper
101	100		
85	51.0	32.9	49.3#
151	57.1	47.3	70.9

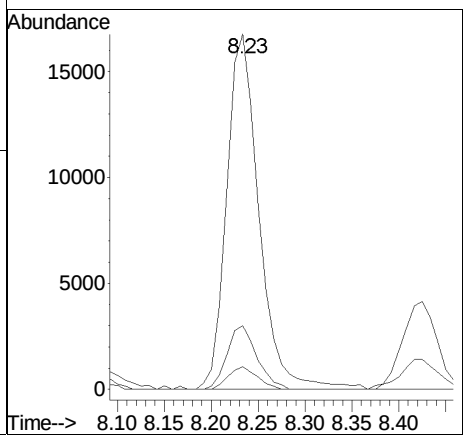


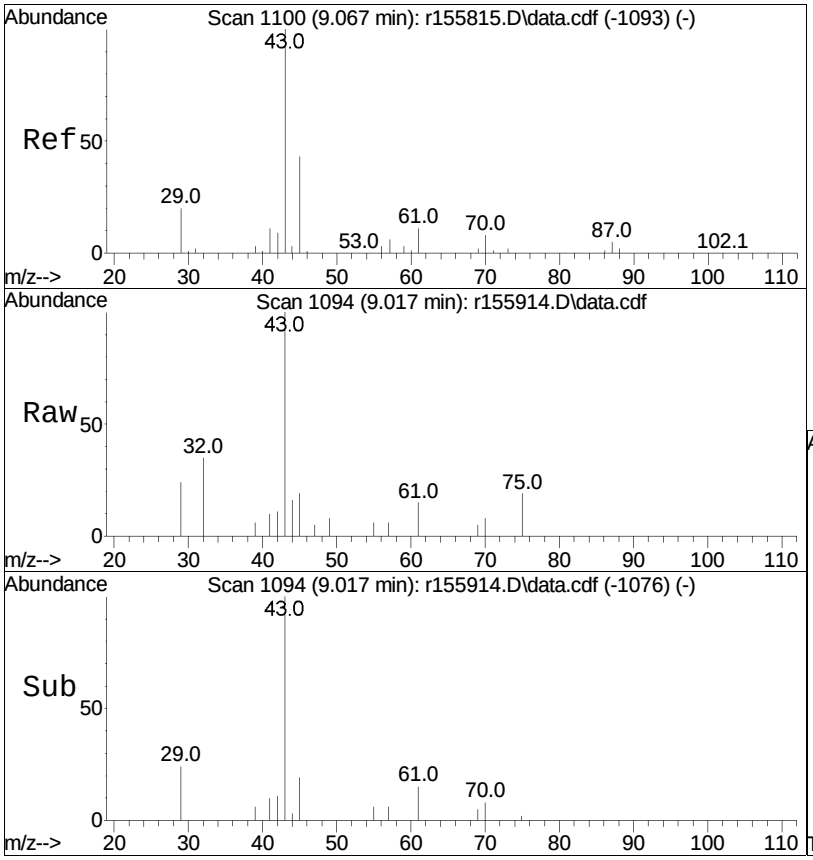


#36
2-butanone
Concen: 1.27 ppbV
RT: 8.23 min Scan# 1002
Delta R.T. -0.058 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 43 Resp: 40330

Ion	Ratio	Lower	Upper
43	100		
72	18.0	14.2	21.2
57	6.4	5.2	7.8

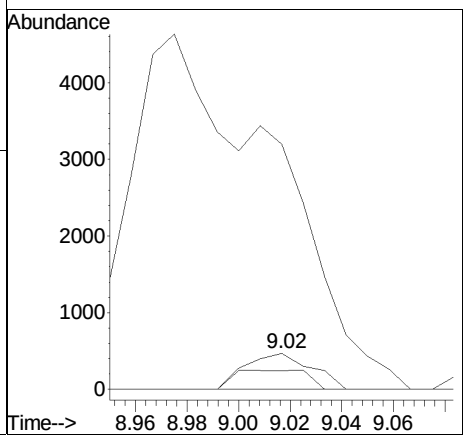


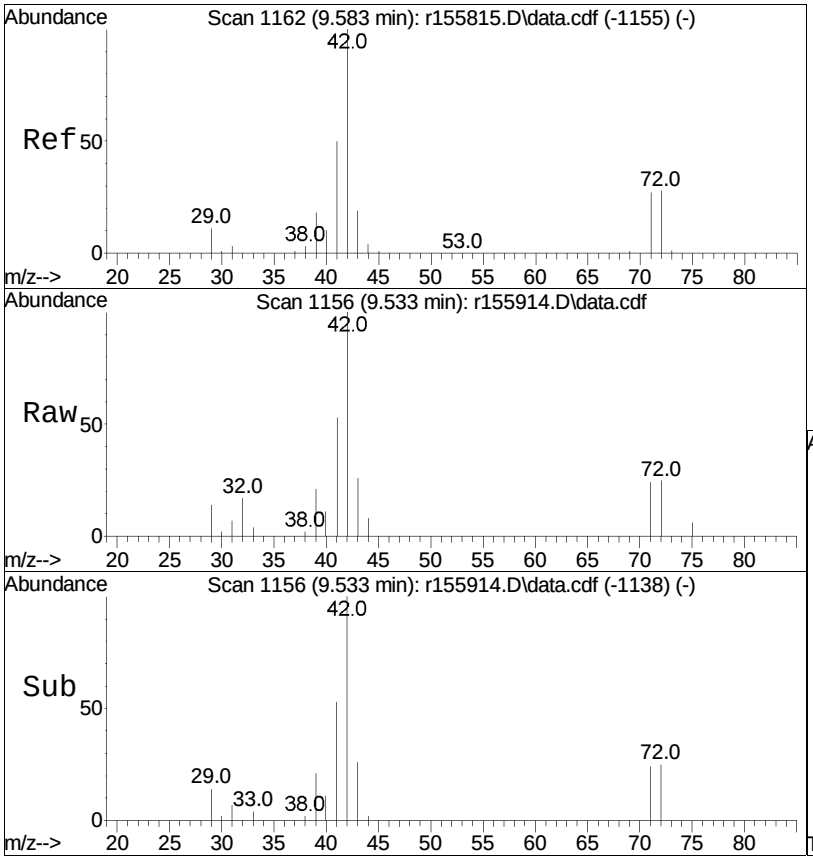


#38
Ethyl Acetate
Concen: 0.19 ppbV
RT: 9.02 min Scan# 1094
Delta R.T. -0.050 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 61 Resp: 848

Ion	Ratio	Lower	Upper
61	100		
70	51.9	63.0	94.6#
43	680.4	812.2	1218.4#

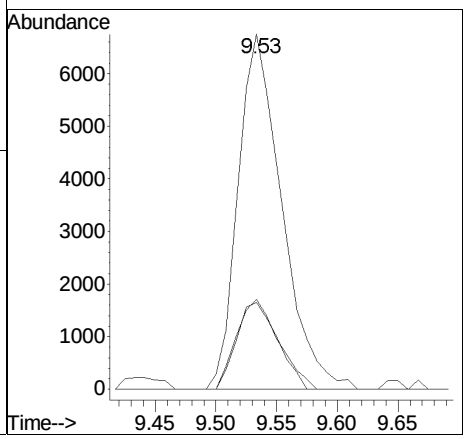


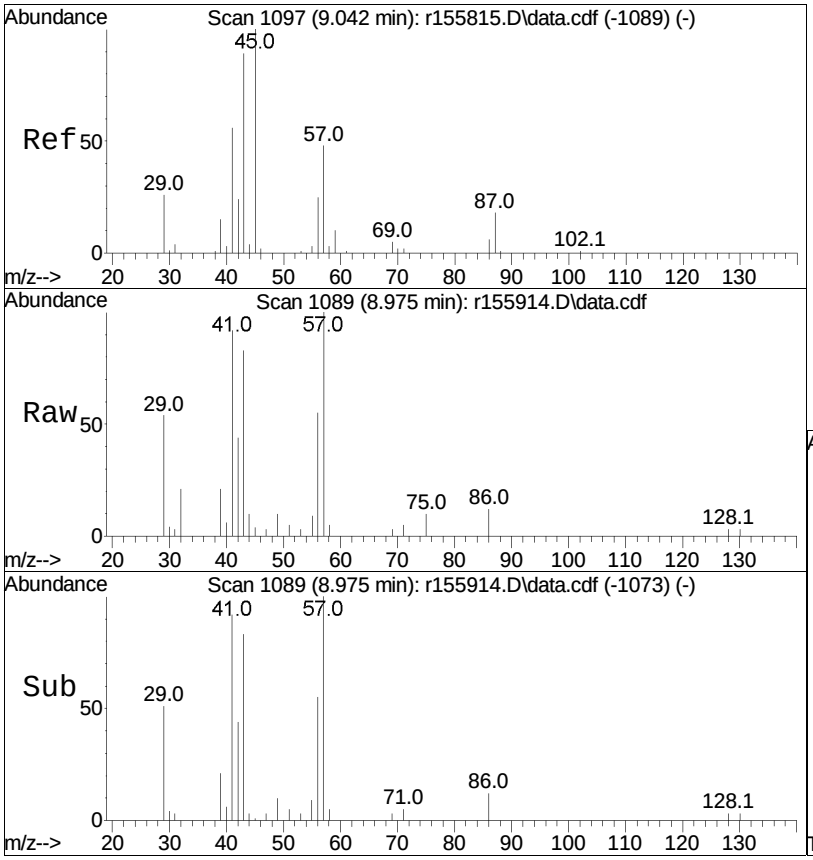


#40
Tetrahydrofuran
Concen: 0.85 ppbV
RT: 9.53 min Scan# 1156
Delta R.T. -0.050 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 42 Resp: 16912

Ion	Ratio	Lower	Upper
42	100		
71	24.5	21.4	32.0
72	25.4	22.6	33.8

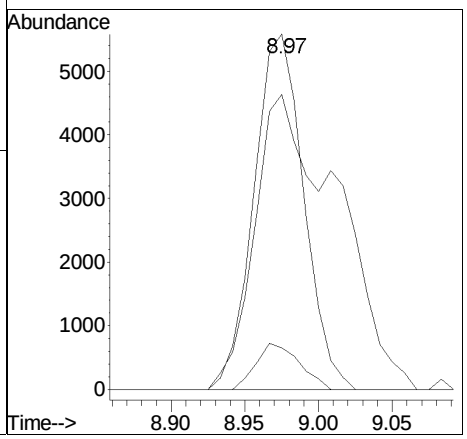


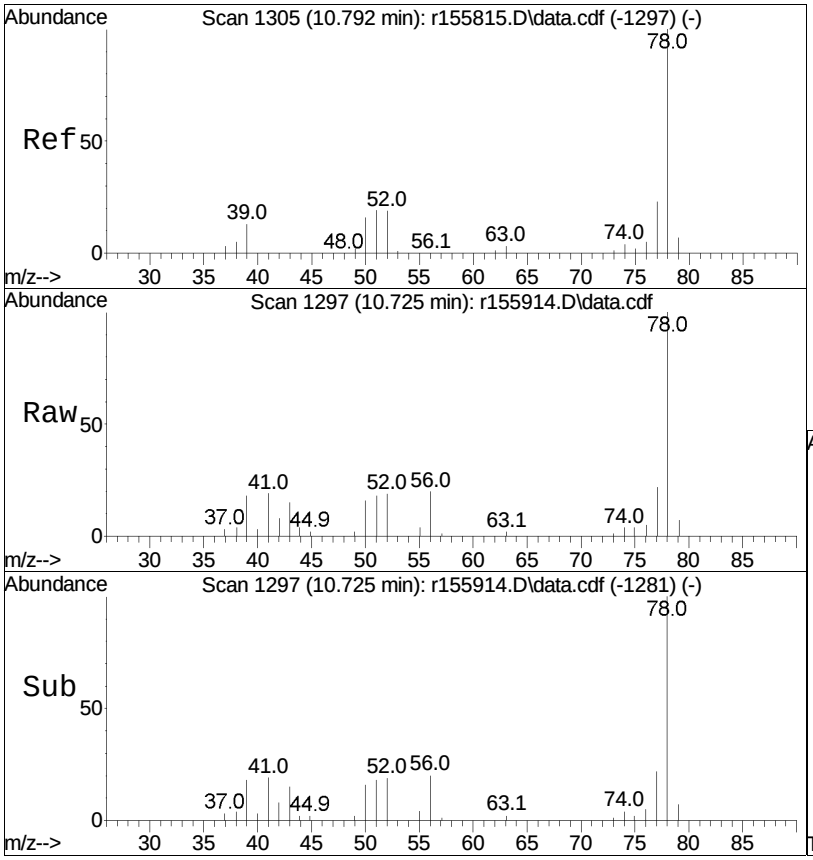


#44
hexane
Concen: 0.58 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 57 Resp: 13130

Ion	Ratio	Lower	Upper
57	100		
43	83.0	149.0	223.6#
86	11.7	9.9	14.9

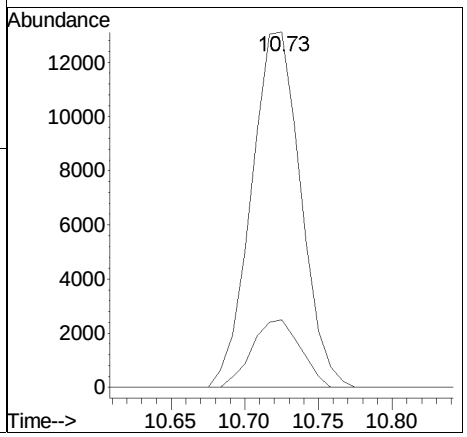


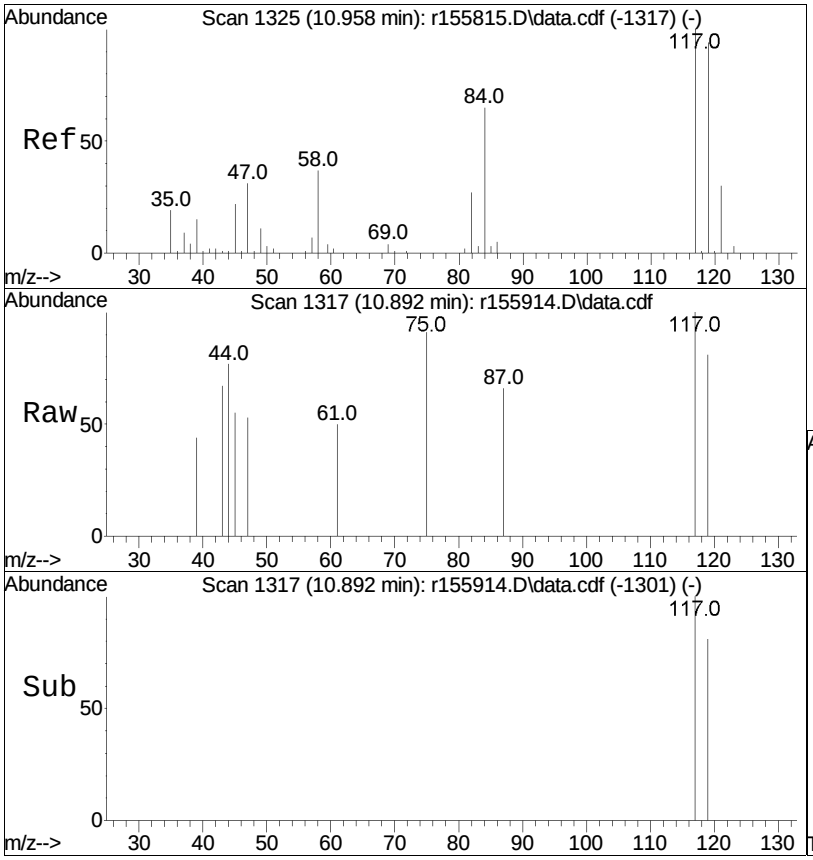


#50
benzene
Concen: 0.86 ppbV
RT: 10.73 min Scan# 1297
Delta R.T. -0.067 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 78 Resp: 30668

Ion	Ratio	Lower	Upper
78	100		
52	19.0	15.2	22.8

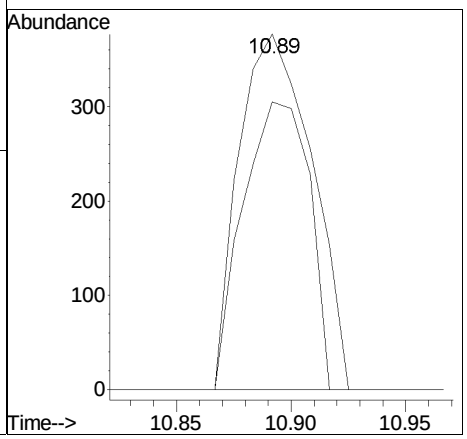


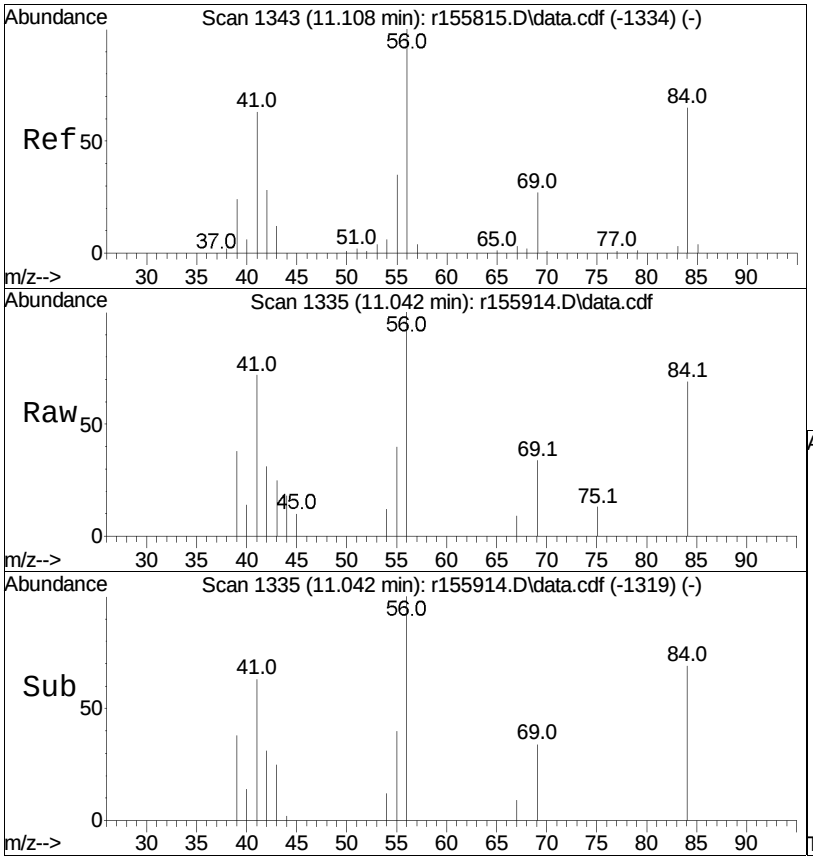


#52
carbon tetrachloride
Concen: 0.07 ppbV
RT: 10.89 min Scan# 1317
Delta R.T. -0.067 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion:117 Resp: 836

Ion	Ratio	Lower	Upper
117	100		
119	80.9	75.1	112.7
82	0.0	21.4	32.2#

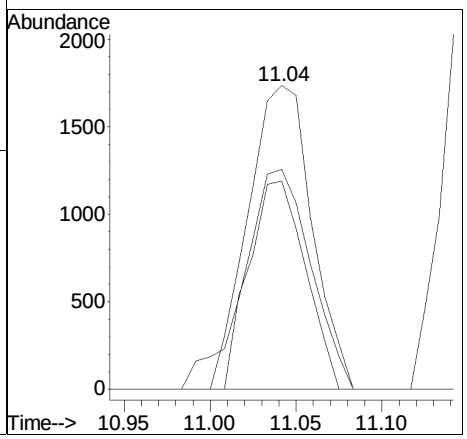


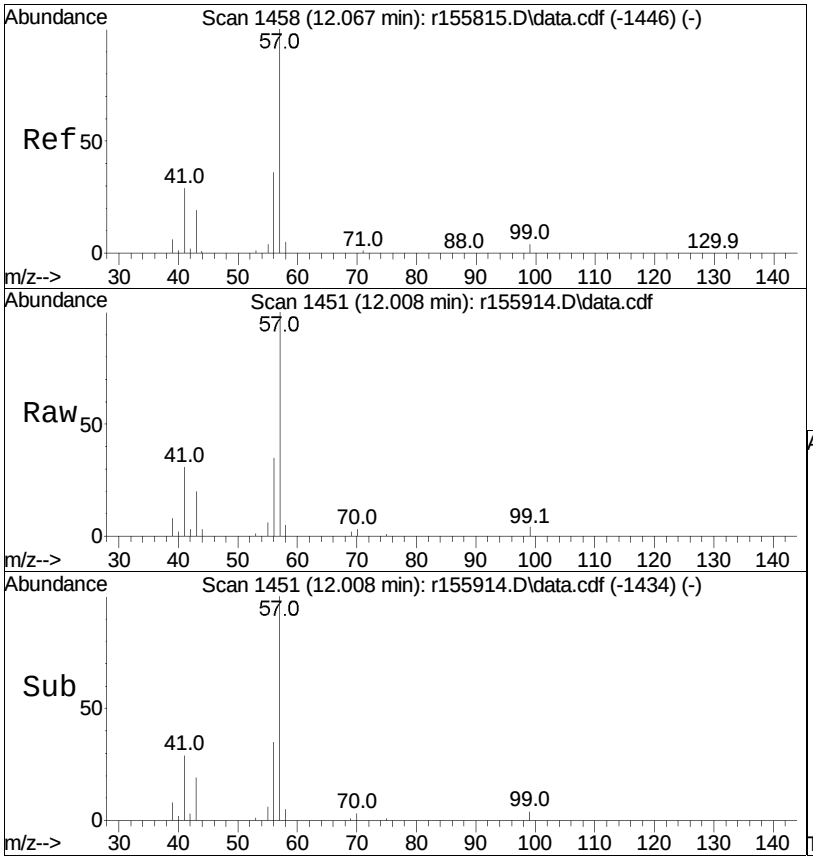


#53
cyclohexane
Concen: 0.19 ppbV
RT: 11.04 min Scan# 1335
Delta R.T. -0.067 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 56 Resp: 4510

Ion	Ratio	Lower	Upper
56	100		
84	68.5	52.1	78.1
41	72.4	50.6	75.8

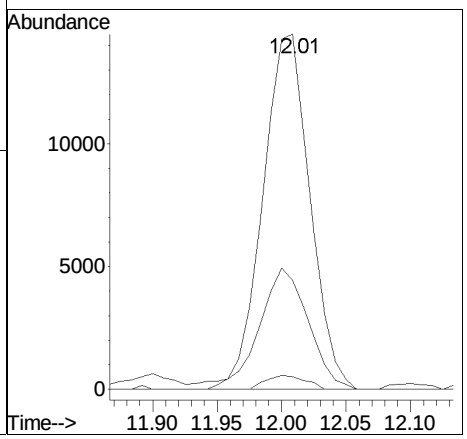


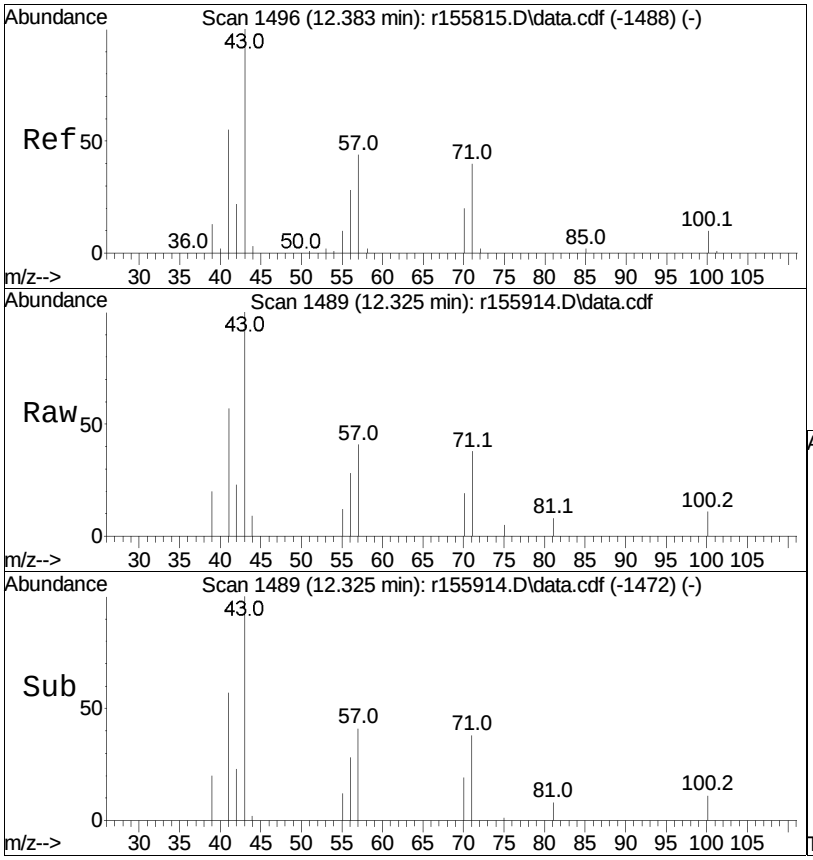


#60
2,2,4-trimethylpentane
Concen: 0.51 ppbV
RT: 12.01 min Scan# 1451
Delta R.T. -0.058 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 57 Resp: 36758

Ion	Ratio	Lower	Upper
57	100		
99	3.6	3.0	4.4
41	30.7	23.1	34.7

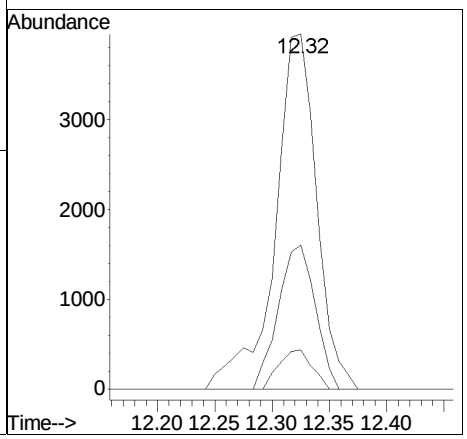


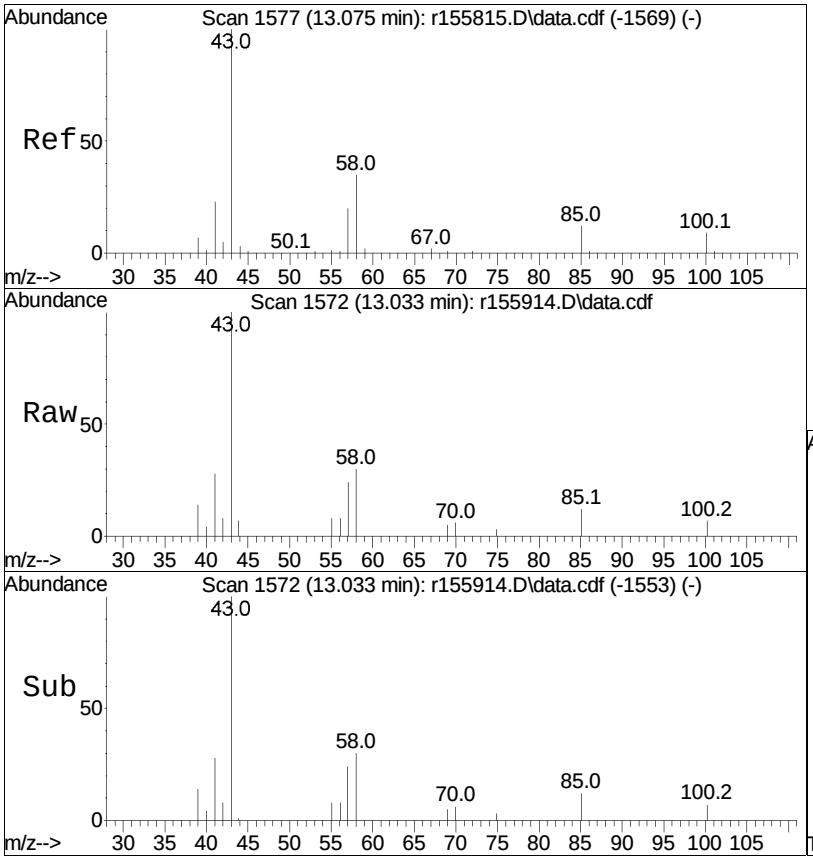


#62
heptane
Concen: 0.31 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 43 Resp: 9996

Ion	Ratio	Lower	Upper
43	100		
57	40.6	35.1	52.7
100	11.1	8.1	12.1

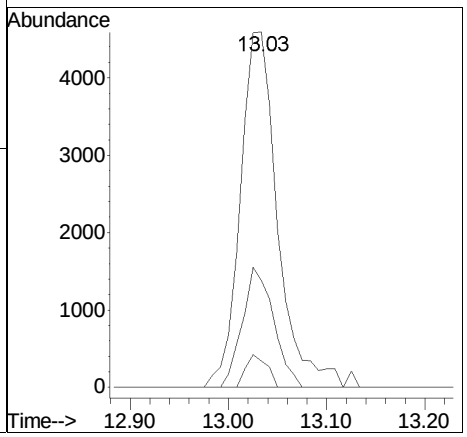


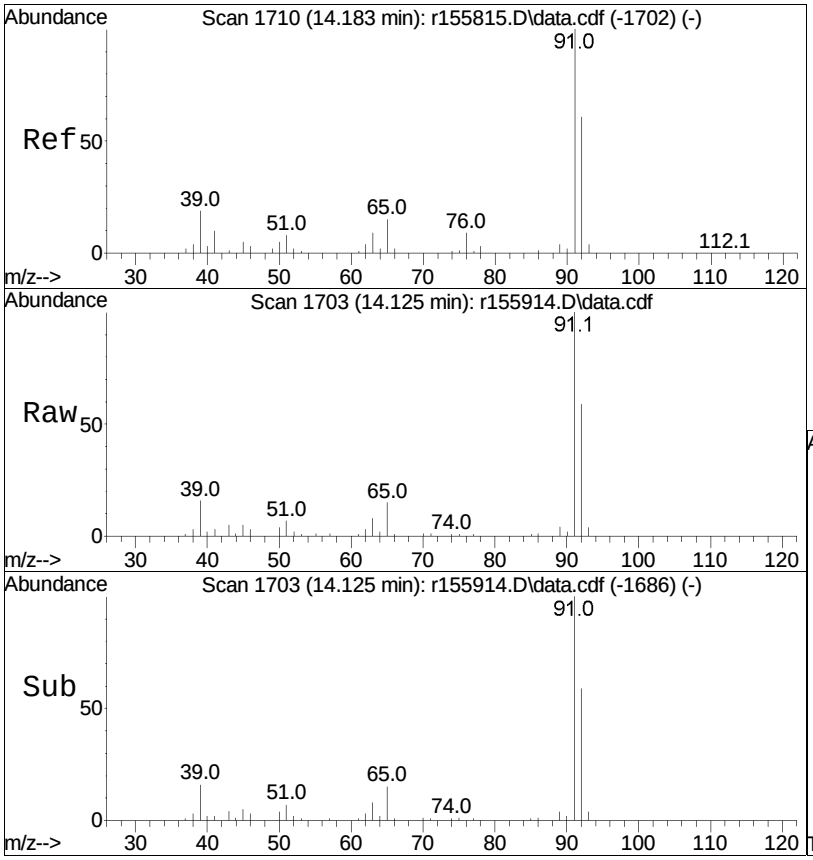


#64
4-methyl-2-pentanone
Concen: 0.33 ppbV
RT: 13.03 min Scan# 1572
Delta R.T. -0.042 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 43 Resp: 12242

Ion	Ratio	Lower	Upper
43	100		
58	30.2	28.1	42.1
100	7.4	7.0	10.4

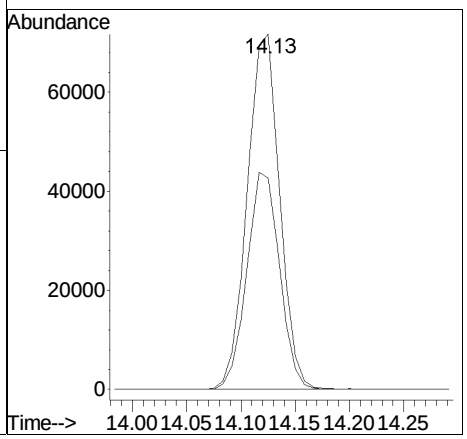


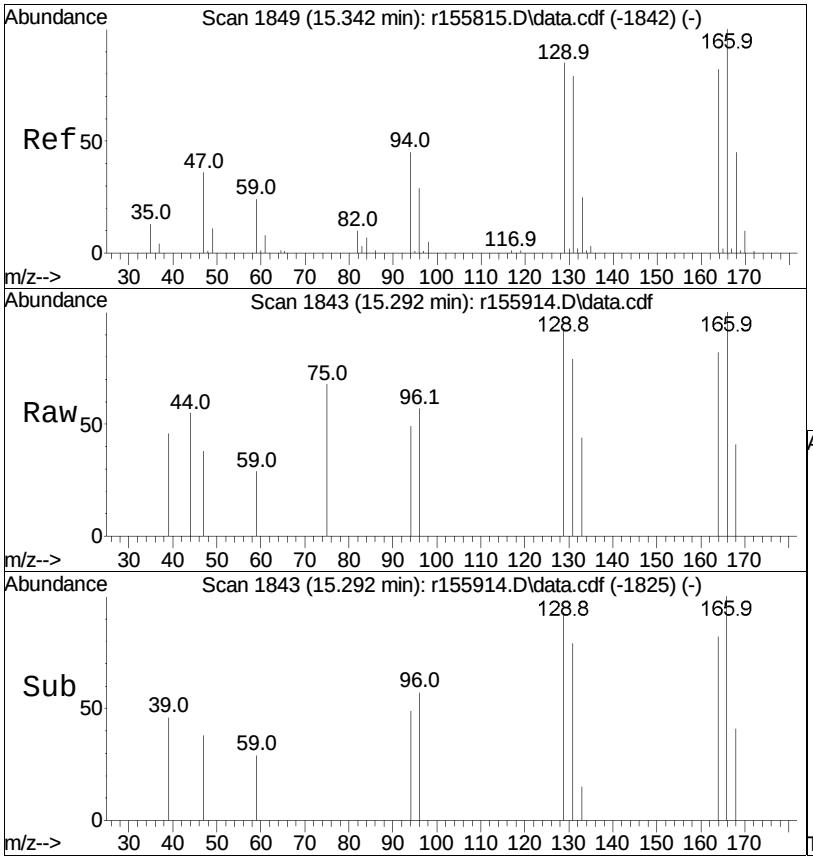


#68
toluene
Concen: 3.94 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 91 Resp: 149369

Ion	Ratio	Lower	Upper
91	100		
92	59.5	48.6	72.8

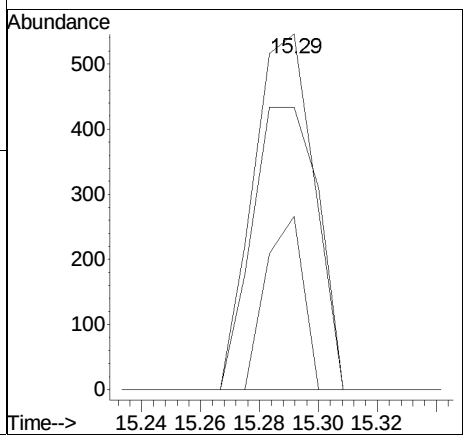


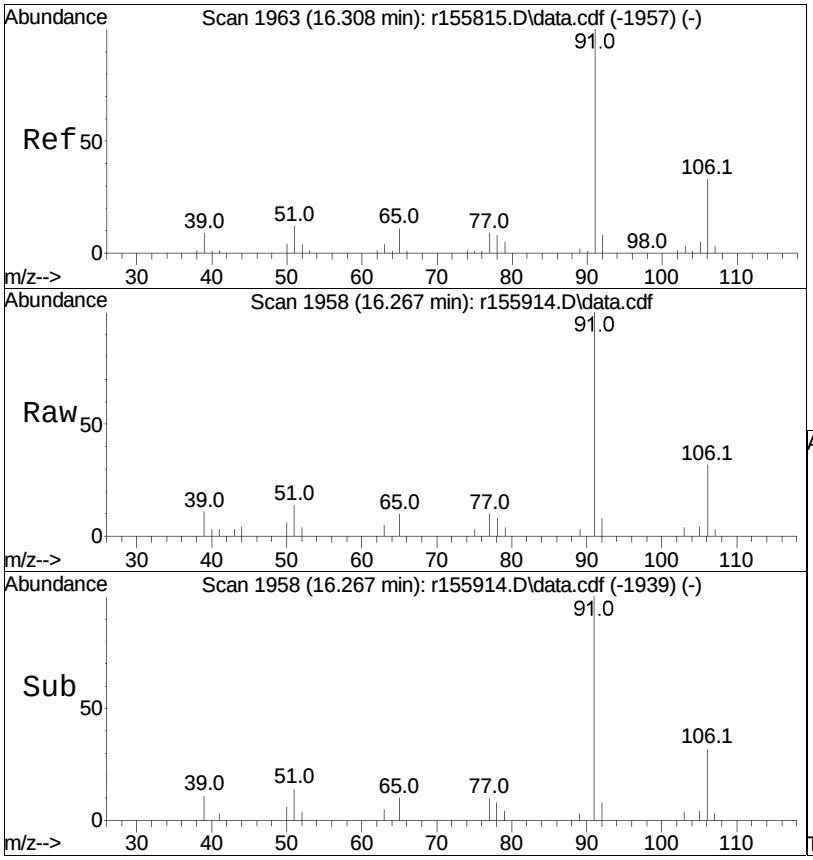


#78
tetrachloroethene
Concen: 0.06 ppbV
RT: 15.29 min Scan# 1843
Delta R.T. -0.050 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion:166 Resp: 780

Ion	Ratio	Lower	Upper
166	100		
131	79.5	62.9	94.3
94	48.7	35.9	53.9

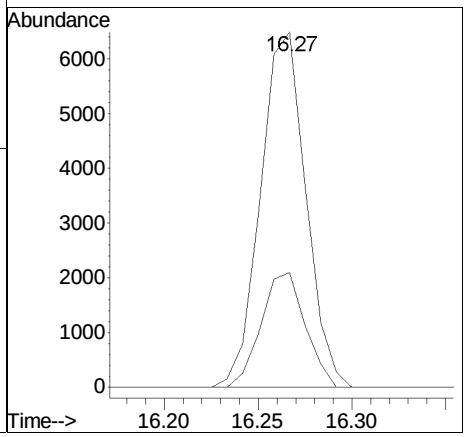


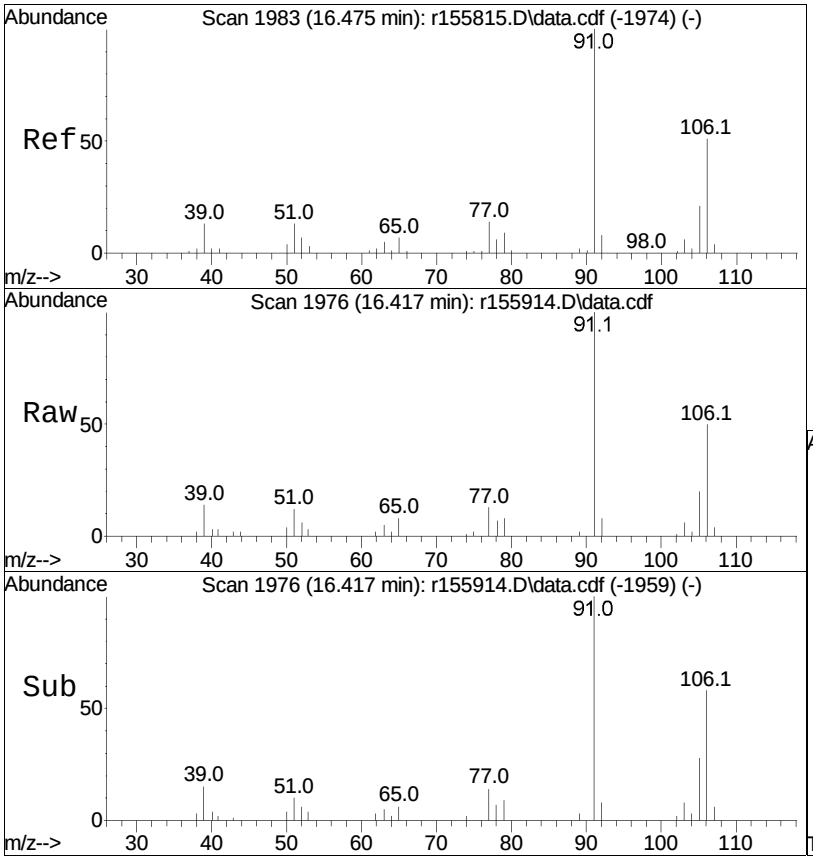


#81
ethylbenzene
Concen: 0.23 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 91 Resp: 10900

Ion	Ratio	Lower	Upper
91	100		
106	32.3	26.8	40.2

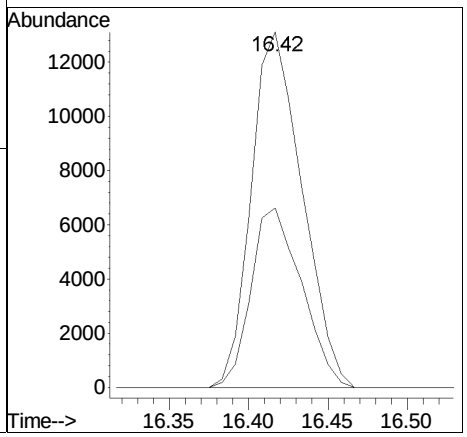


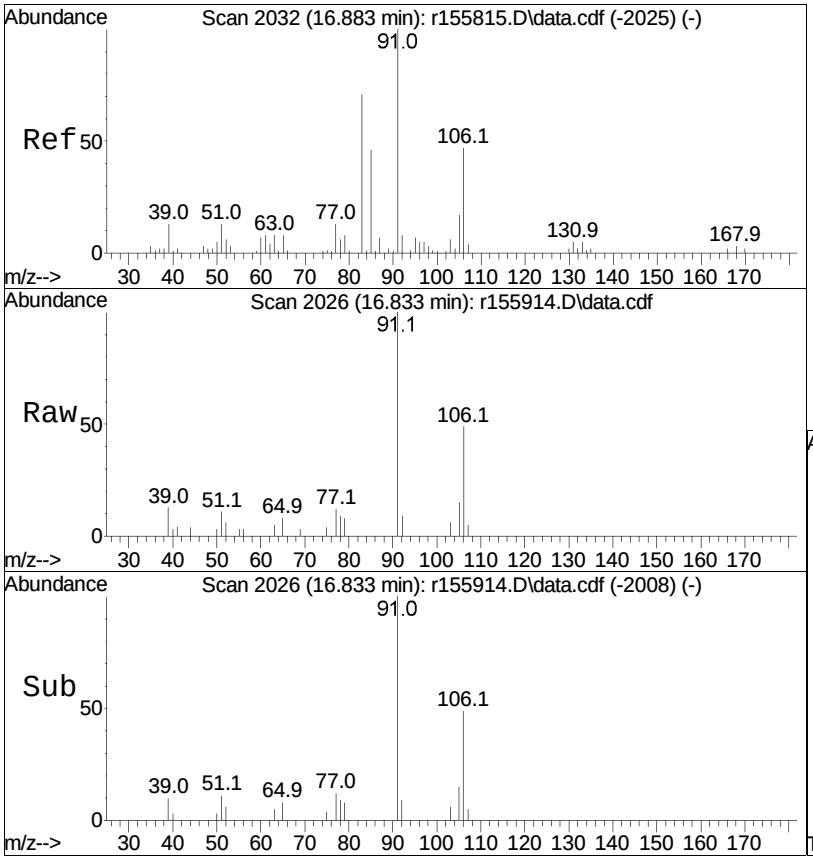


#83
m+p-xylene
Concen: 0.77 ppbV
RT: 16.42 min Scan# 1976
Delta R.T. -0.058 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 91 Resp: 29214

Ion	Ratio	Lower	Upper
91	100		
106	50.5	40.4	60.6

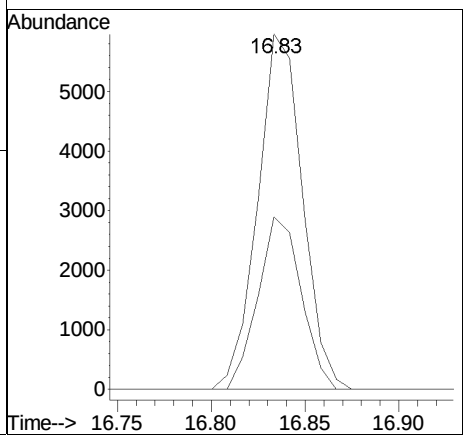


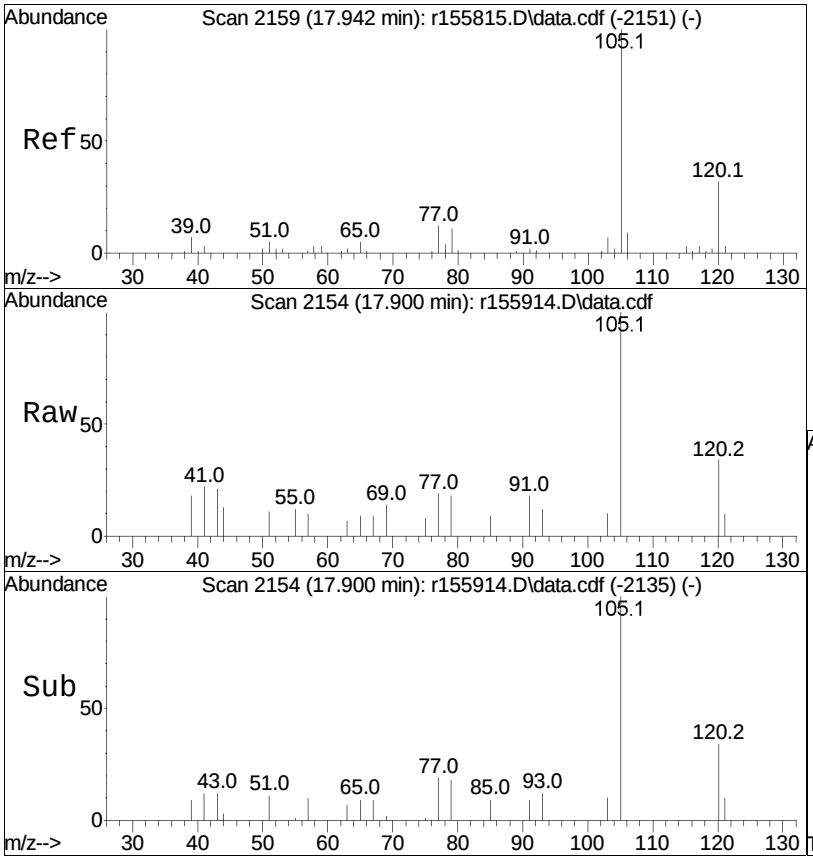


#87
o-xylene
Concen: 0.26 ppbV
RT: 16.83 min Scan# 2026
Delta R.T. -0.050 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion: 91 Resp: 9918

Ion	Ratio	Lower	Upper
91	100		
106	48.6	38.0	57.0

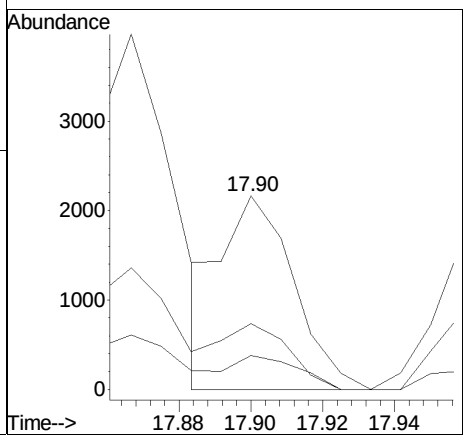


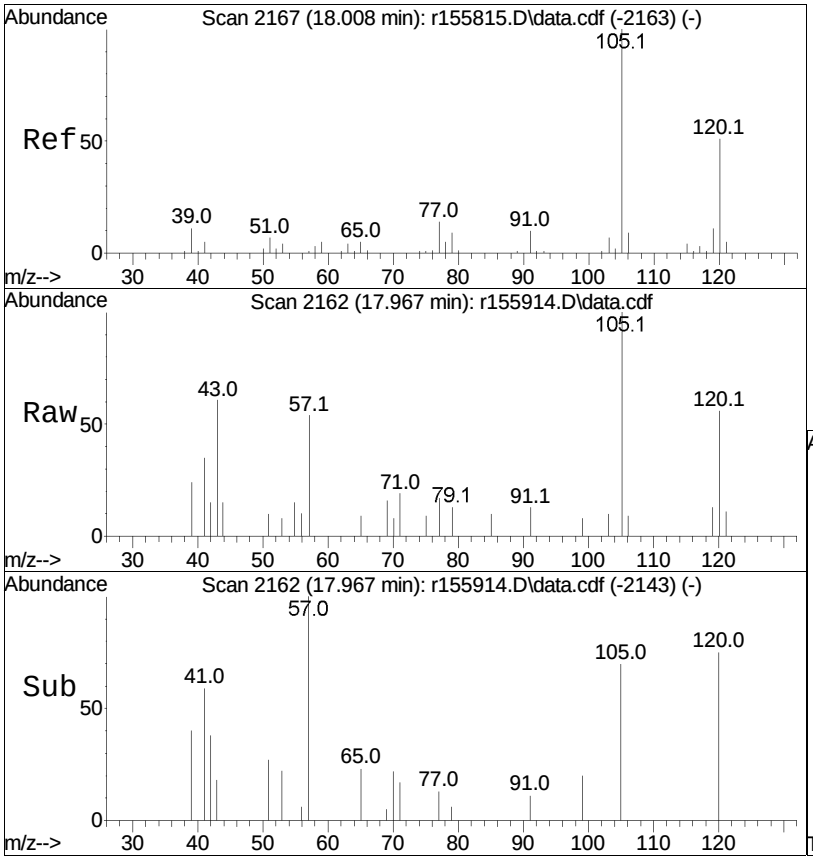


#96
4-ethyl toluene
Concen: 0.06 ppbV m
RT: 17.90 min Scan# 2154
Delta R.T. -0.042 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion:105 Resp: 3044

Ion	Ratio	Lower	Upper
105	100		
120	34.0	25.3	37.9
91	17.6	8.5	12.7#

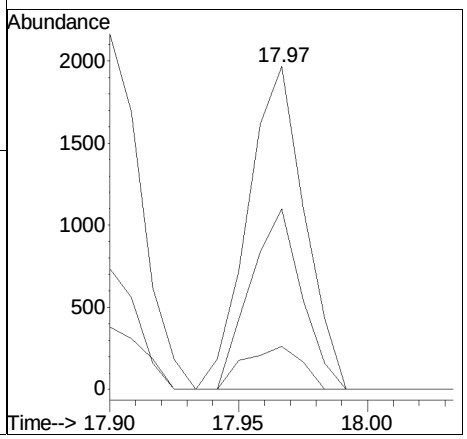




#97
1,3,5-trimethylbenzene
Concen: 0.07 ppbV
RT: 17.97 min Scan# 2162
Delta R.T. -0.042 min
Lab File: r155914.D
Acq: 20 Feb 2018 11:13 PM

Tgt Ion:105 Resp: 3012

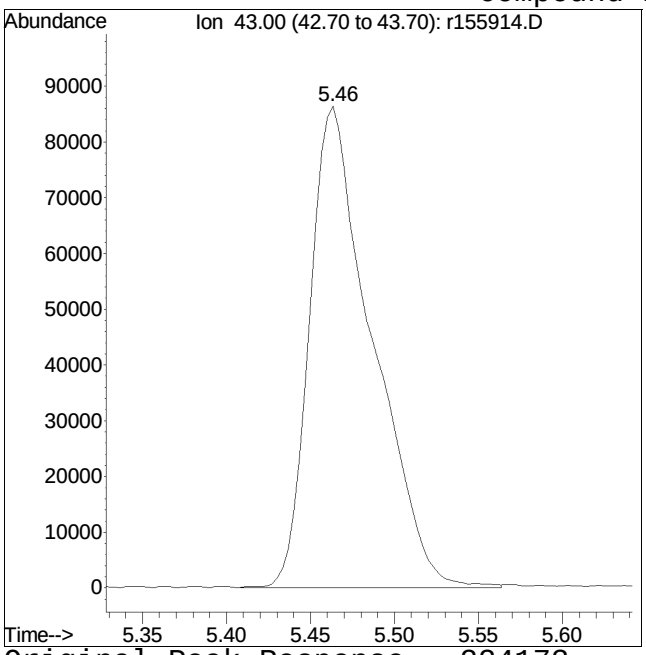
Ion	Ratio	Lower	Upper
105	100		
120	55.8	40.8	61.2
91	13.3	8.0	12.0#



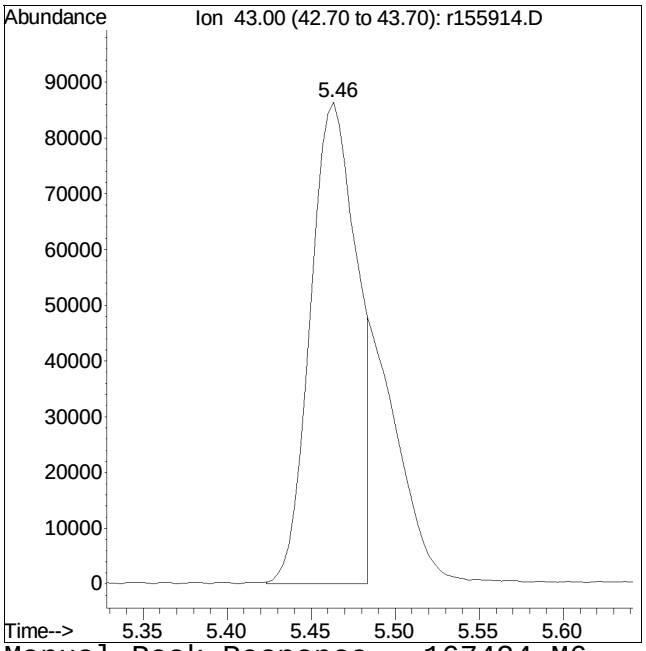
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155914.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 11:13 PM Instrument :
Sample : L1805020-04,3,250,250 Quant Date : 2/21/2018 6:41 am

Compound #19: acetone



Original Peak Response = 224173



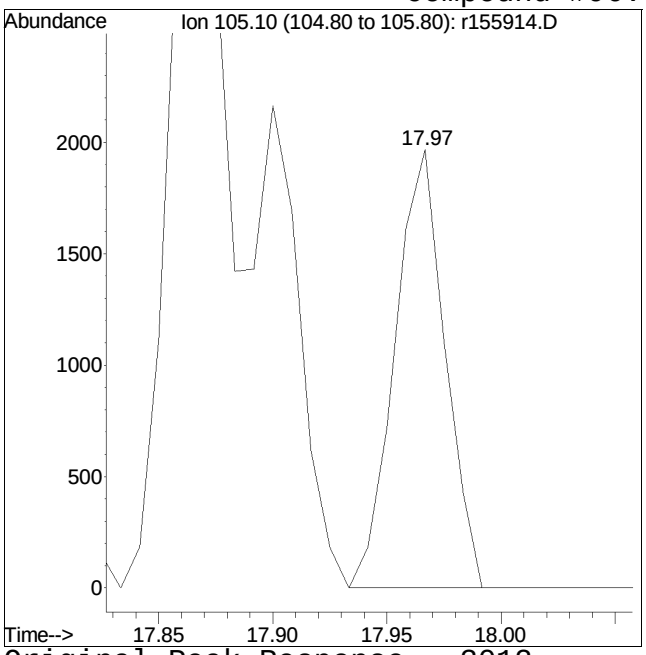
Manual Peak Response = 167424 M6

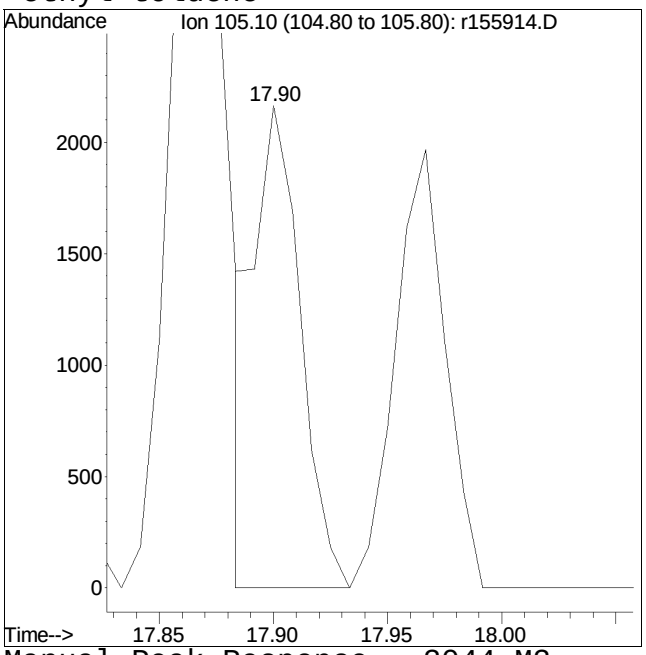
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155914.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 11:13 PM Instrument :
Sample : L1805020-04,3,250,250 Quant Date : 2/21/2018 6:41 am

Compound #96: 4-ethyl toluene





Original Peak Response = 3012 Manual Peak Response = 3044 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155915.D
Acq On : 20 Feb 2018 11:53 PM
Operator : AIRLAB15:RY
Sample : L1805020-05,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:41:24 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	168640	10.000	ppbV	-0.07
Standard Area = 147251			Recovery = 114.53%			
43) 1,4-difluorobenzene	11.15	114	306291	10.000	ppbV	-0.07
Standard Area = 262067			Recovery = 116.88%			
67) chlorobenzene-D5	15.88	54	75215	10.000	ppbV	-0.05
Standard Area = 67836			Recovery = 110.88%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	3.84	85	8518	0.435	ppbV	97
6) chloromethane	4.00	50	25475	1.820	ppbV	99
7) Freon-114	4.10		0	N.D.		
9) vinyl chloride	4.21	62	1884	0.126	ppbV	97
10) 1,3-butadiene	4.36	54	1759	0.152	ppbV	97
13) bromomethane	0.00		0	N.D.	d	
14) chloroethane	4.81		0	N.D.		
15) ethanol	4.95	31	150654	12.188	ppbV	99
17) vinyl bromide	0.00		0	N.D.		
19) acetone	5.46	43	204169M6	10.645	ppbV	
21) trichlorofluoromethane	5.65	101	6268	0.393	ppbV	98
22) isopropyl alcohol	5.74	45	66953	2.620	ppbV	98
26) 1,1-dichloroethene	0.00		0	N.D.	d	
27) tertiary butyl alcohol	6.42	59	5344	0.234	ppbV #	67
28) methylene chloride	6.49	49	2107	0.121	ppbV	91
29) 3-chloropropene	6.64		0	N.D.		
30) carbon disulfide	6.79	76	5371	0.158	ppbV #	1
31) Freon 113	6.79	101	1161	0.061	ppbV	91
32) trans-1,2-dichloroethene	7.54	61	952	0.052	ppbV #	72
33) 1,1-dichloroethane	0.00		0	N.D.	d	
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	8.23	43	44043	1.379	ppbV	98
37) cis-1,2-dichloroethene	8.72	61	8909	0.534	ppbV	99
38) Ethyl Acetate	9.01	61	1263	0.286	ppbV #	56
39) chloroform	9.06	83	4400	0.235	ppbV #	93
40) Tetrahydrofuran	9.53	42	19463	0.974	ppbV	96
42) 1,2-dichloroethane	9.90		0	N.D.		
44) hexane	8.97	57	6667	0.290	ppbV #	38
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155915.D
Acq On : 20 Feb 2018 11:53 PM
Operator : AIRLAB15:RY
Sample : L1805020-05,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:41:24 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	10.72	78	16771	0.460	ppbV	98
52) carbon tetrachloride	10.89	117	715	0.058	ppbV #	86
53) cyclohexane	0.00		0	N.D.	d	
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	11.99		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	11.96	130	2261	0.197	ppbV	95
60) 2,2,4-trimethylpentane	12.00	57	21250	0.289	ppbV #	90
62) heptane	12.32	43	6539	0.198	ppbV	91
63) cis-1,3-dichloropropene	0.00		0	N.D.	d	
64) 4-methyl-2-pentanone	13.03	43	8016	0.210	ppbV	98
65) trans-1,3-dichloropropene	13.68		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	14.13	91	103889	2.730	ppbV	99
72) 2-hexanone	0.00		0	N.D.	d	
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.	d	
78) tetrachloroethene	15.29	166	4585	0.376	ppbV	93
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	16.27	91	8514	0.181	ppbV	95
83) m+p-xylene	16.42	91	23810	0.625	ppbV	95
84) bromoform	0.00		0	N.D.		
85) styrene	0.00		0	N.D.	d	
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	16.84	91	7590	0.196	ppbV	92
96) 4-ethyl toluene	17.90	105	3145M3	0.065	ppbV	
97) 1,3,5-trimethylbenzene	17.97	105	3123	0.074	ppbV #	96
99) 1,2,4-trimethylbenzene	0.00		0	N.D.	d	
101) Benzyl Chloride	0.00		0	N.D.	d	
102) 1,3-dichlorobenzene	0.00		0	N.D.		
103) 1,4-dichlorobenzene	0.00		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	0.00		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

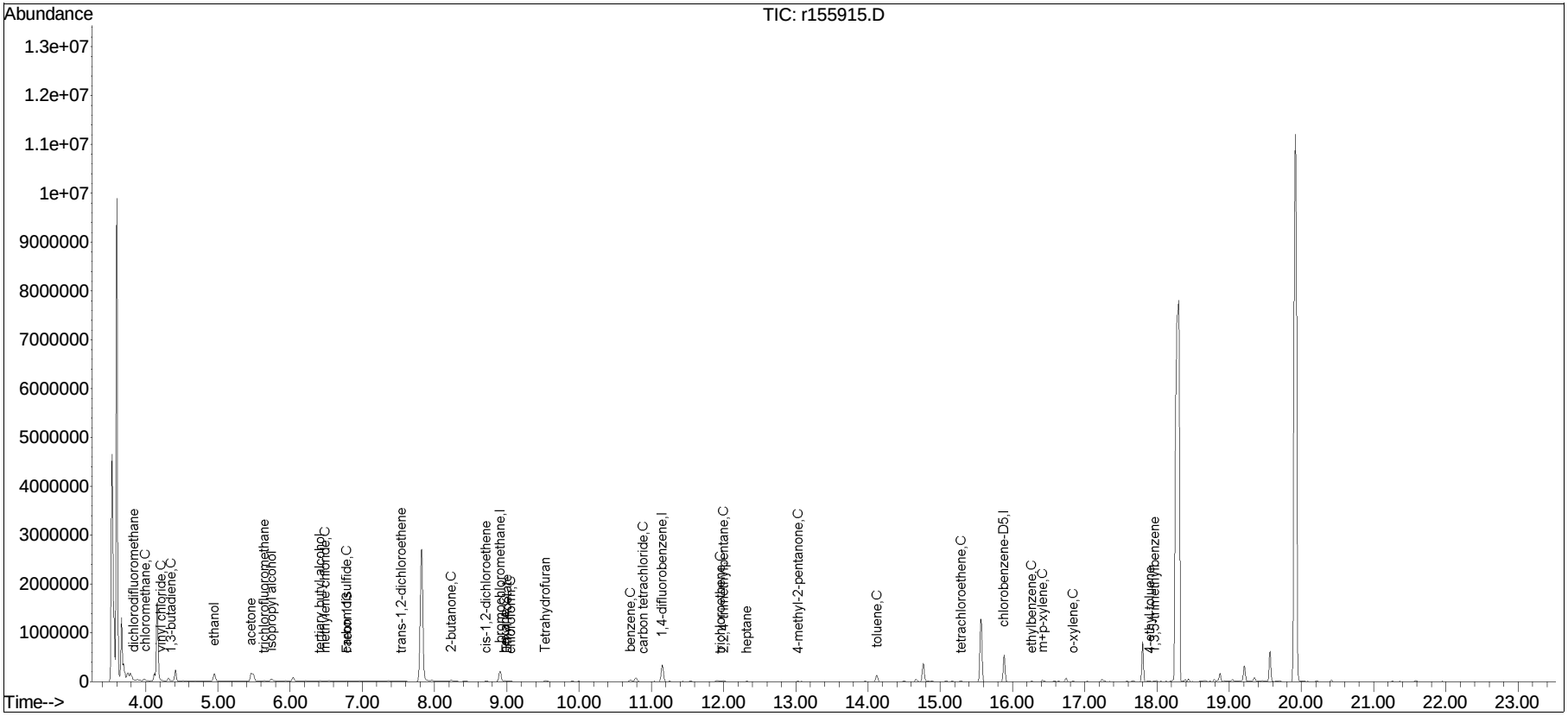
(#) = qualifier out of range (m) = manual integration (+) = signals summed

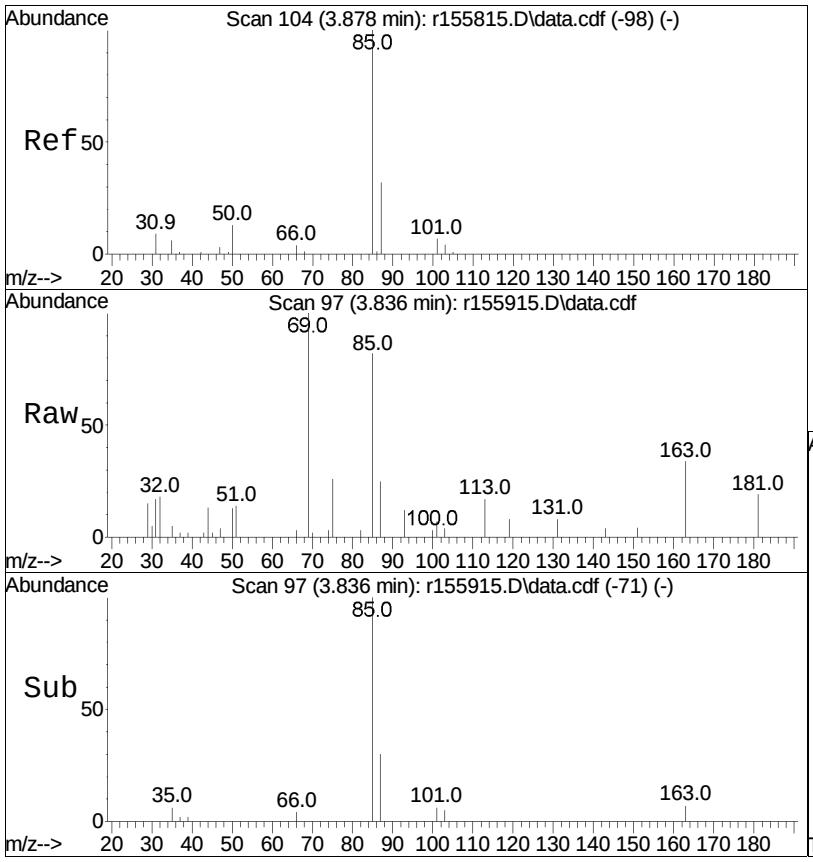
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155915.D
Acq On : 20 Feb 2018 11:53 PM
Operator : AIRLAB15:RY
Sample : L1805020-05,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:41:24 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : TO15-NY - .s\Data\Airlab15\2018\180220T\r155899.D

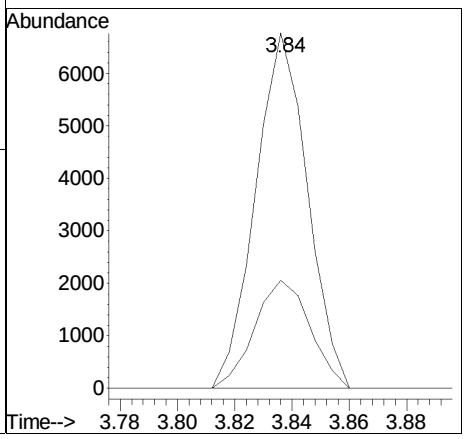


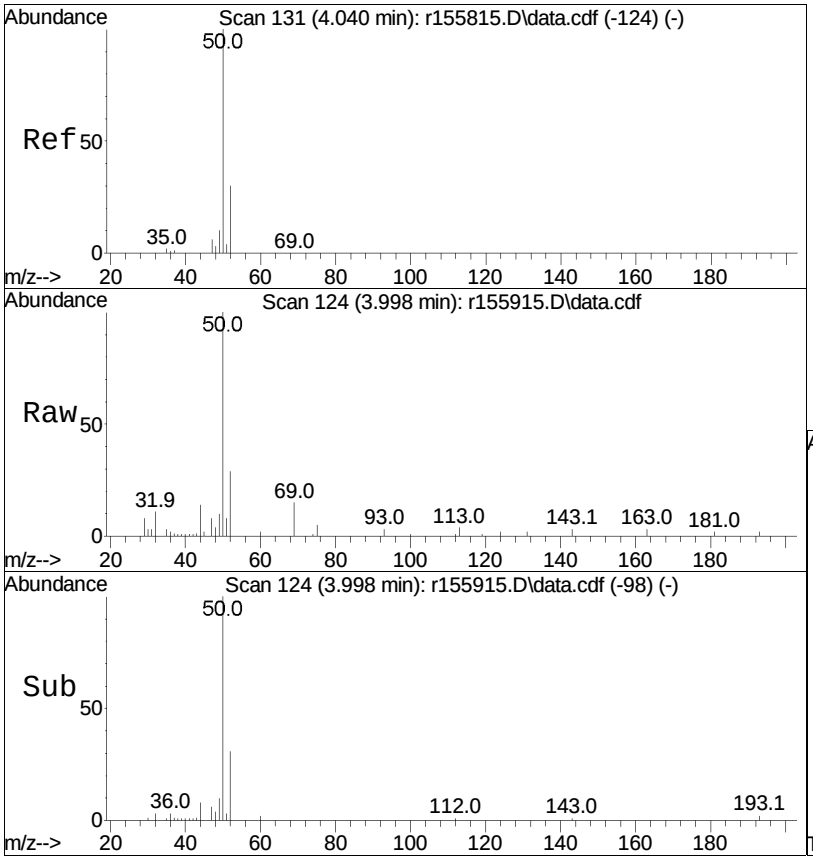


#5
dichlorodifluoromethane
Concen: 0.43 ppbV
RT: 3.84 min Scan# 97
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 85 Resp: 8518

Ion	Ratio	Lower	Upper
85	100		
87	30.4	25.6	38.4

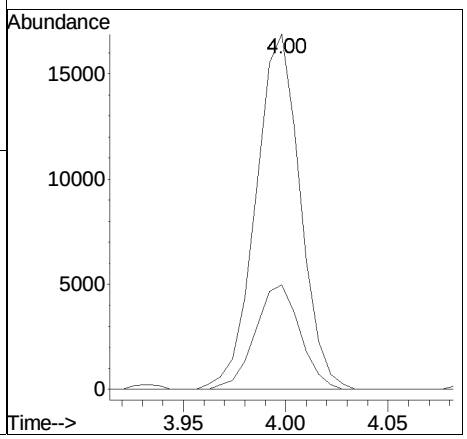


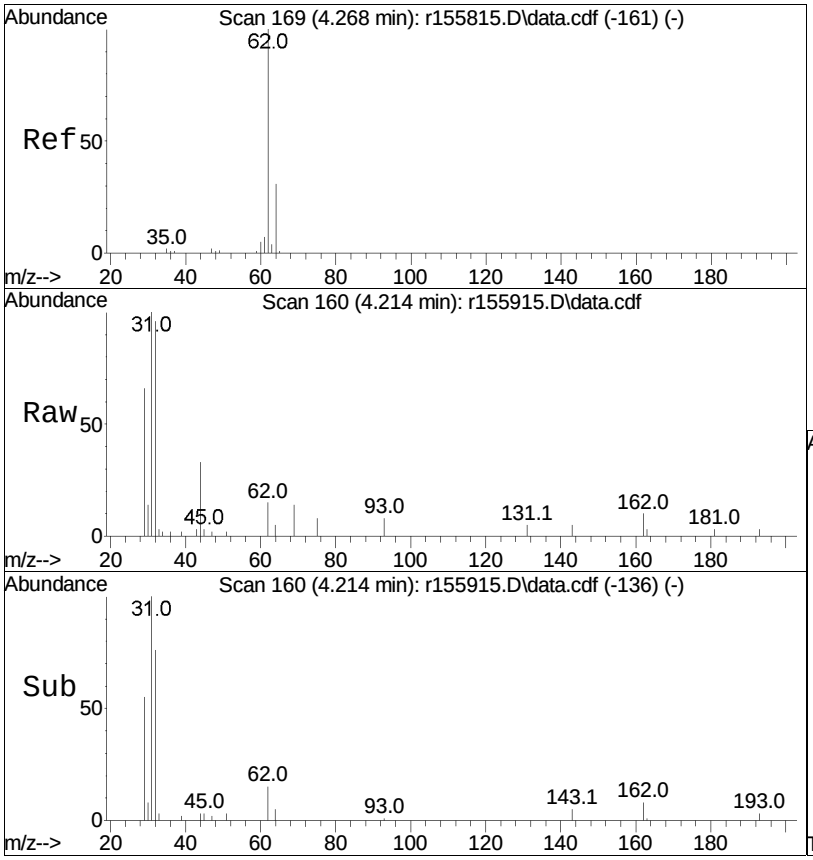


#6
chloromethane
Concen: 1.82 ppbV
RT: 4.00 min Scan# 124
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 50 Resp: 25475

Ion	Ratio	Lower	Upper
50	100		
52	29.4	24.1	36.1

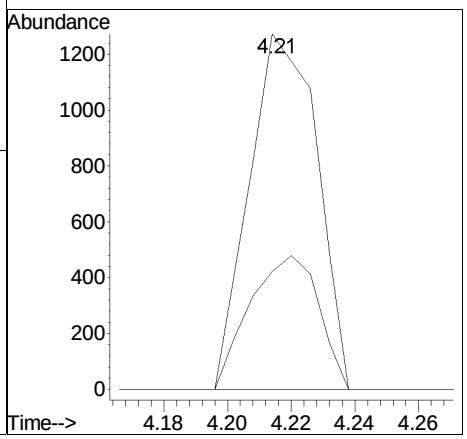


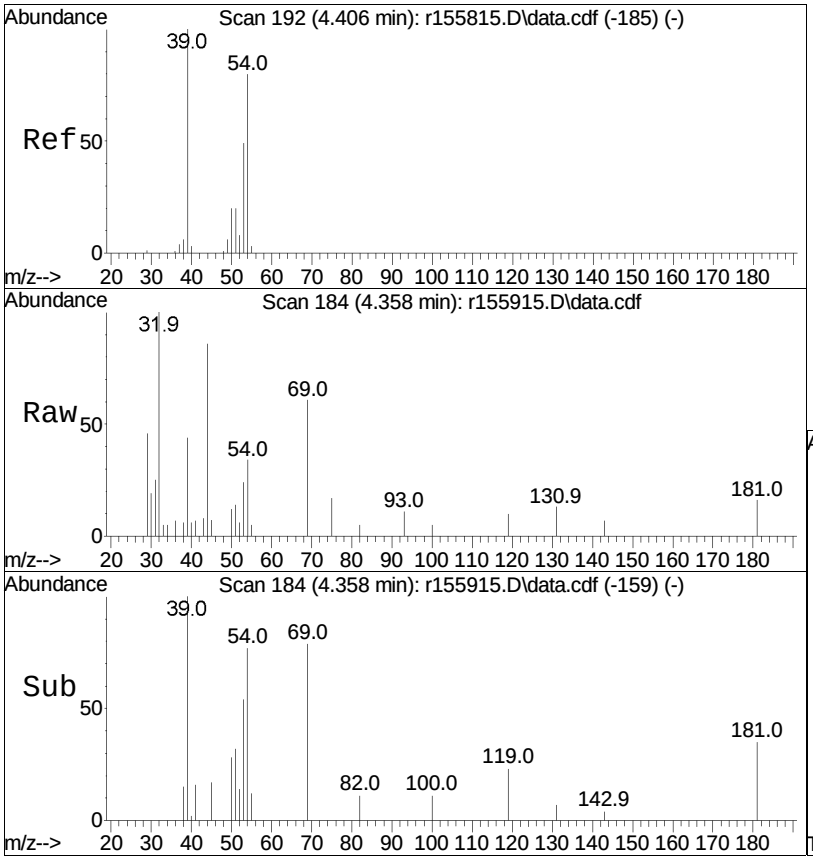


#9
vinyl chloride
Concen: 0.13 ppbV
RT: 4.21 min Scan# 160
Delta R.T. -0.054 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 62 Resp: 1884

Ion	Ratio	Lower	Upper
62	100		
64	33.2	25.1	37.7

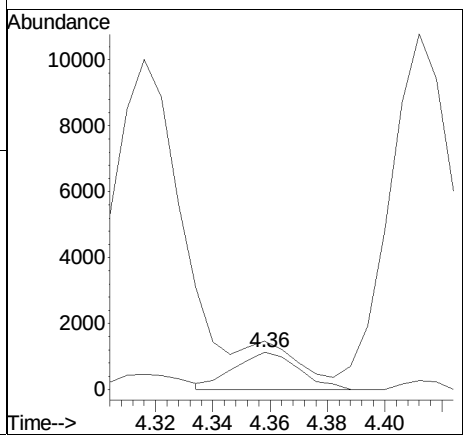


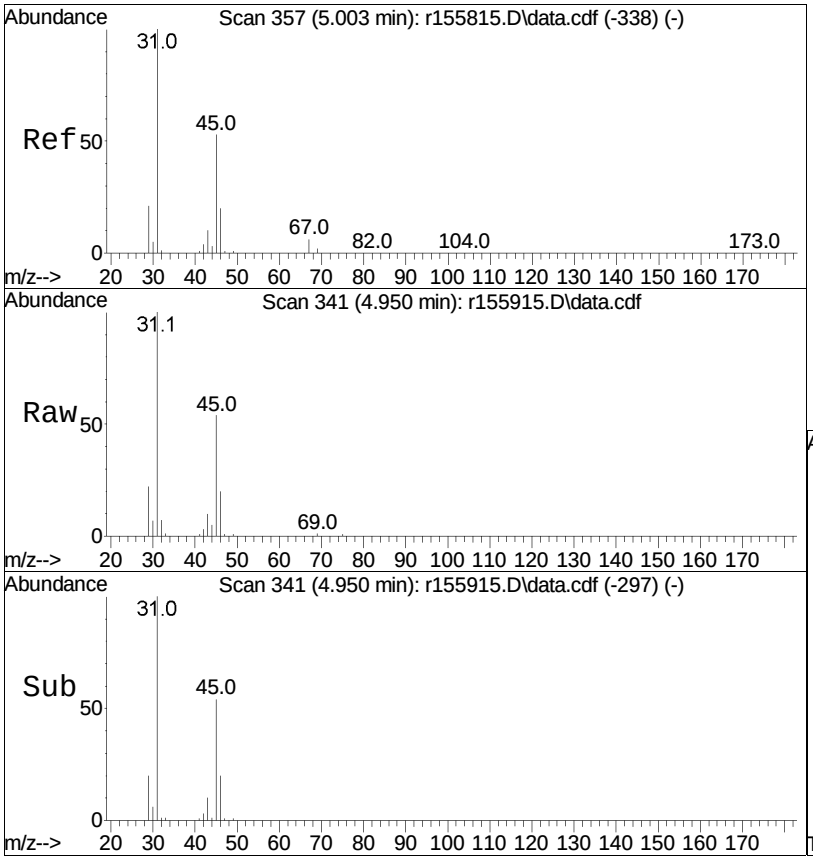


#10
1,3-butadiene
Concen: 0.15 ppbV
RT: 4.36 min Scan# 184
Delta R.T. -0.048 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 54 Resp: 1759

Ion	Ratio	Lower	Upper
54	100		
39	129.6	100.8	151.2

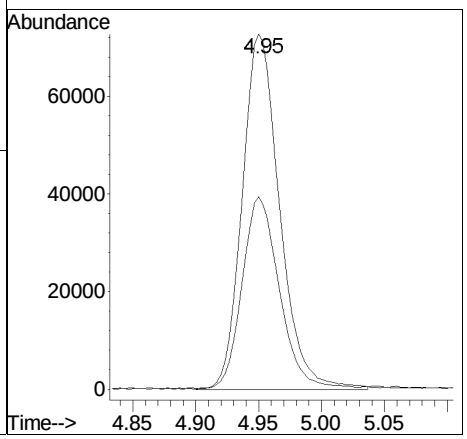


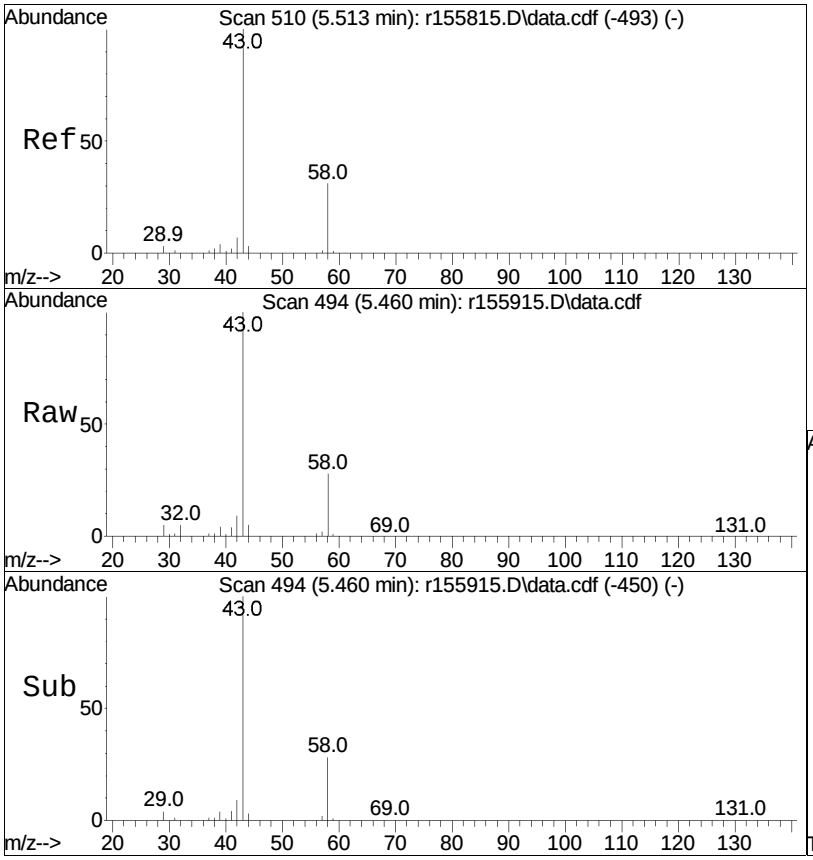


#15
ethanol
Concen: 12.19 ppbV
RT: 4.95 min Scan# 341
Delta R.T. -0.053 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 31 Resp: 150654

Ion	Ratio	Lower	Upper
31	100		
45	54.2	42.6	63.8

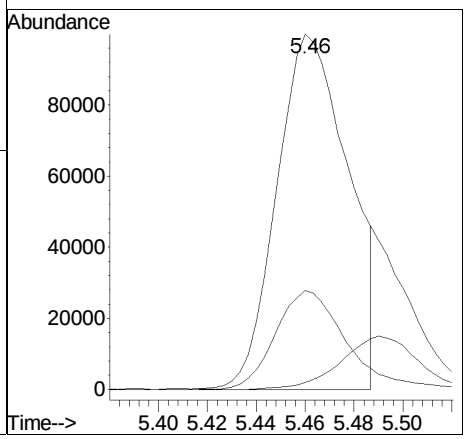


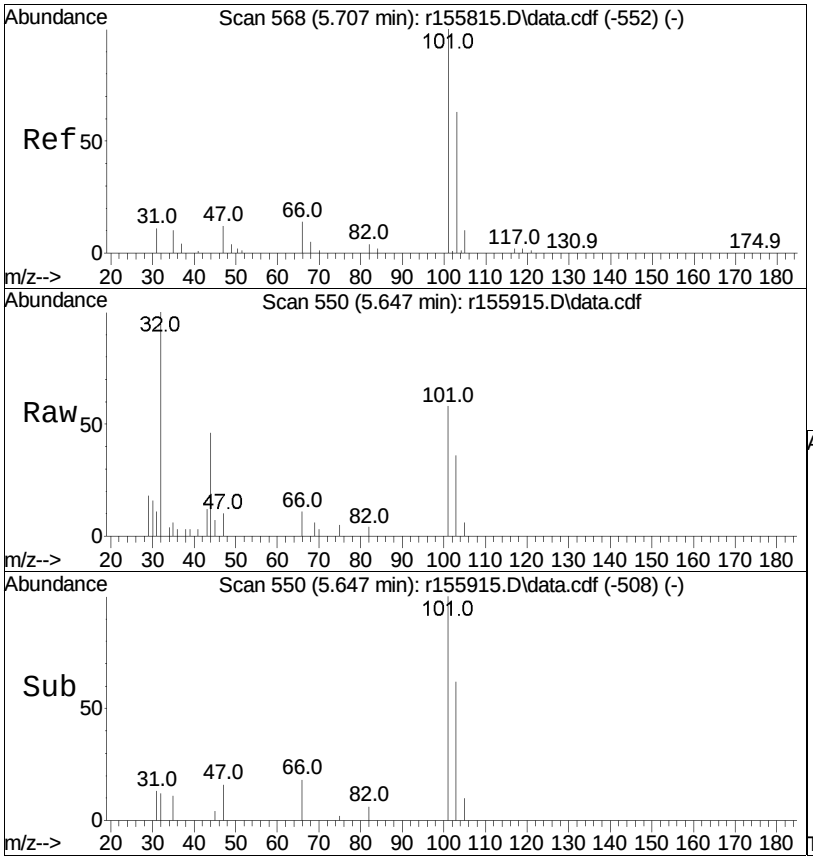


#19
acetone
Concen: 10.64 ppbV m
RT: 5.46 min Scan# 494
Delta R.T. -0.053 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 43 Resp: 204169

Ion	Ratio	Lower	Upper
43	100		
58	27.9	24.5	36.7
57	2.0	0.6	0.8#

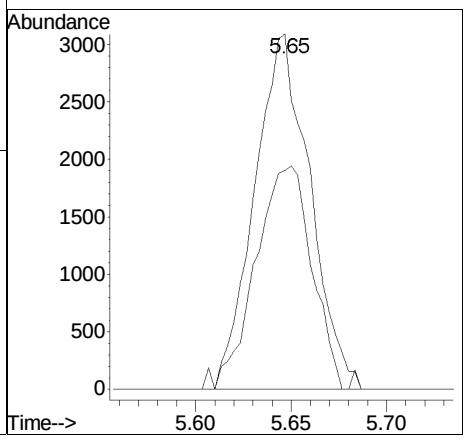


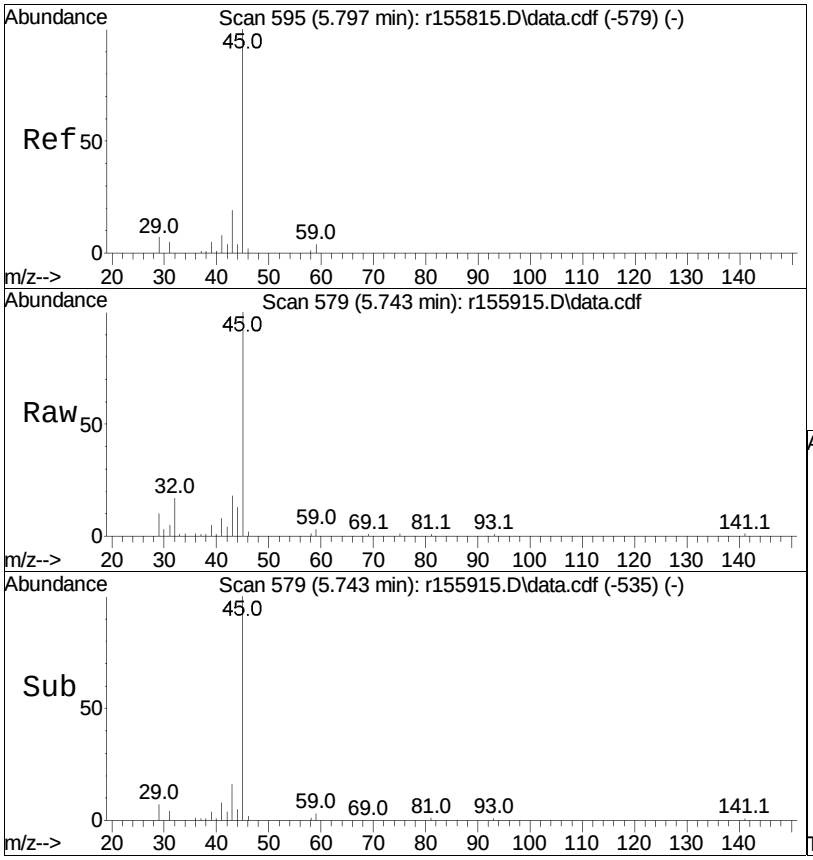


#21
trichlorofluoromethane
Concen: 0.39 ppbV
RT: 5.65 min Scan# 550
Delta R.T. -0.060 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:101 Resp: 6268

Ion	Ratio	Lower	Upper
101	100		
103	61.6	50.2	75.4

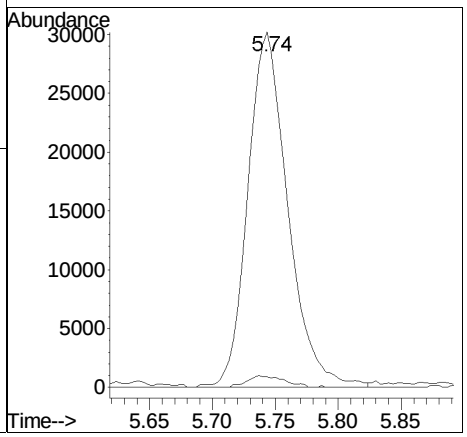


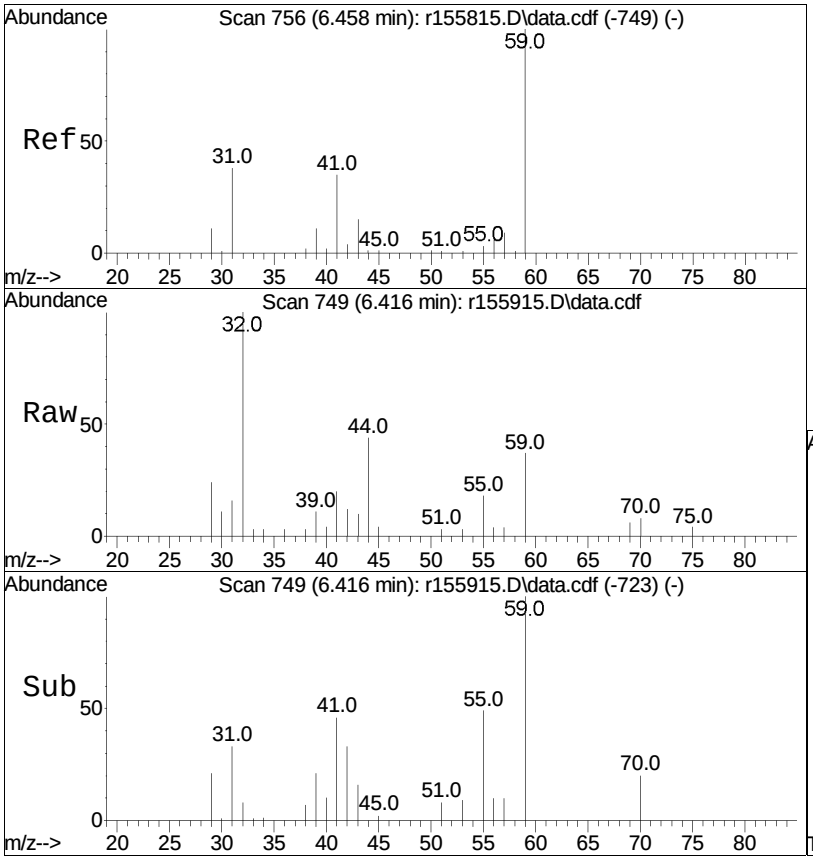


#22
isopropyl alcohol
Concen: 2.62 ppbV
RT: 5.74 min Scan# 579
Delta R.T. -0.053 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 45 Resp: 66953

Ion	Ratio	Lower	Upper
45	100		
59	3.0	2.8	4.2

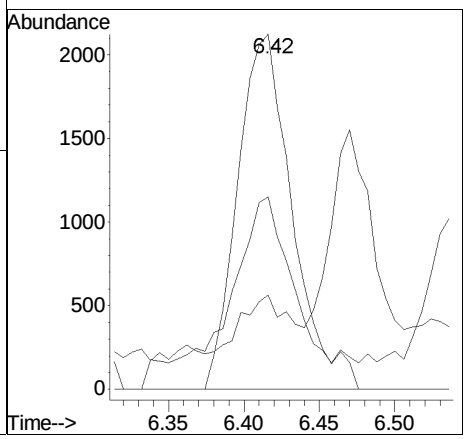


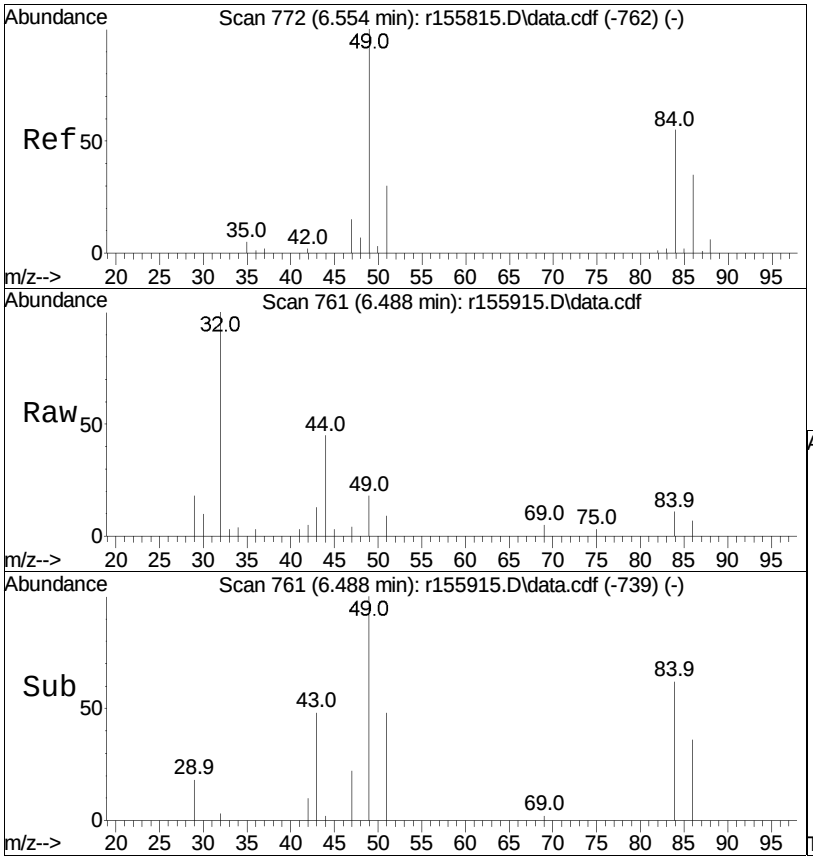


#27
tertiary butyl alcohol
Concen: 0.23 ppbV
RT: 6.42 min Scan# 749
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 59 Resp: 5344

Ion	Ratio	Lower	Upper
59	100		
41	54.2	27.1	40.7#
43	26.6	11.8	17.8#

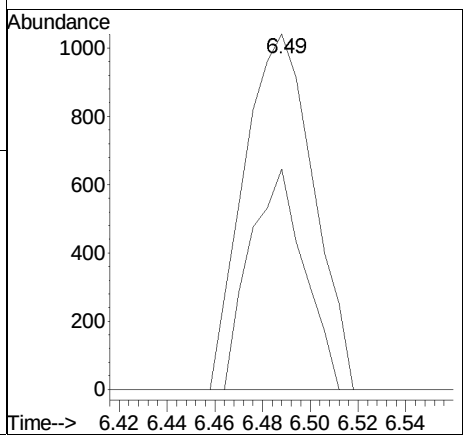


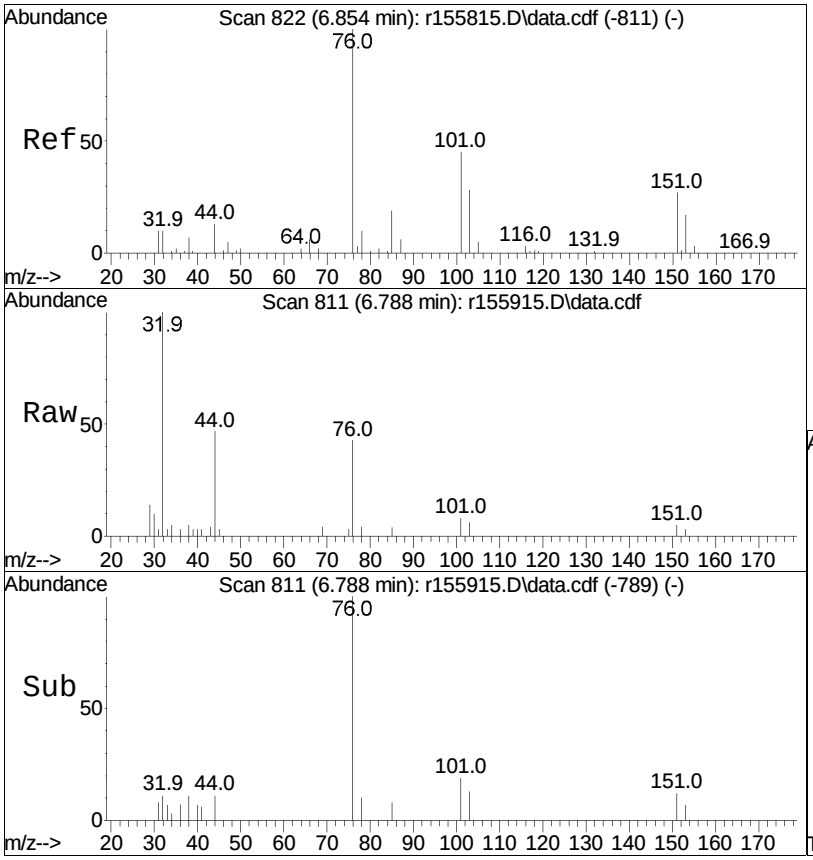


#28
methylene chloride
Concen: 0.12 ppbV
RT: 6.49 min Scan# 761
Delta R.T. -0.066 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 49 Resp: 2107

Ion	Ratio	Lower	Upper
49	100		
84	62.1	44.2	66.2

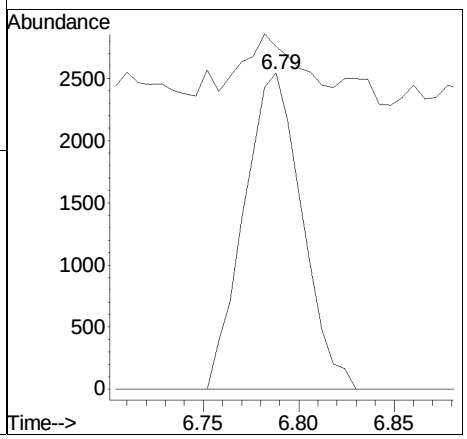


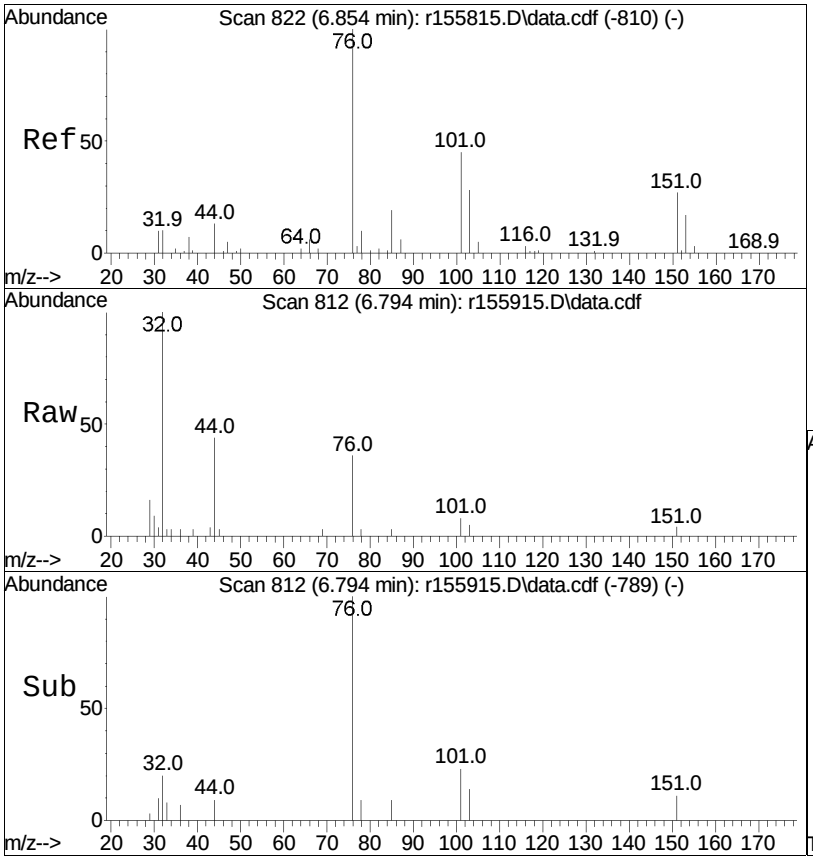


#30
carbon disulfide
Concen: 0.16 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 76 Resp: 5371

Ion	Ratio	Lower	Upper
76	100		
44	108.4	11.6	17.4#

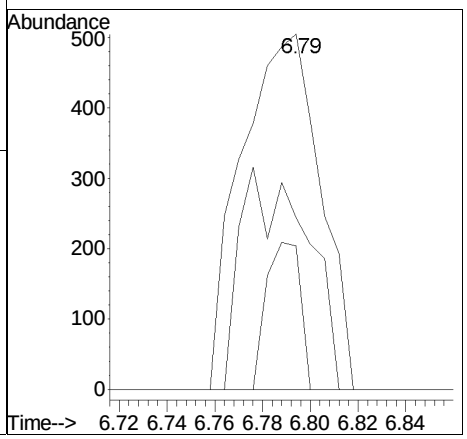


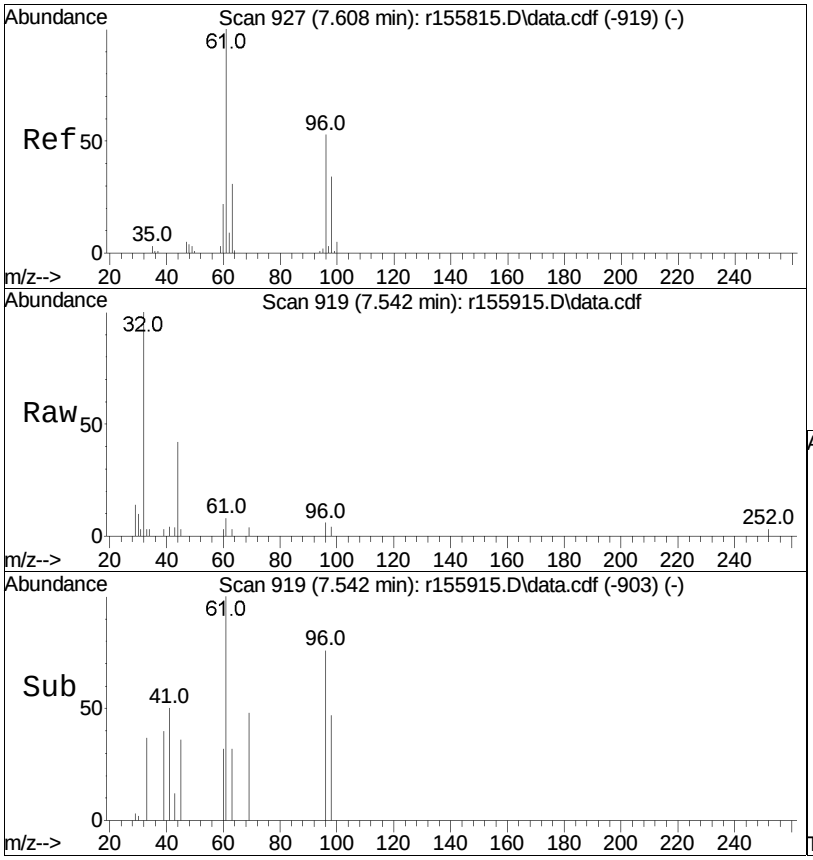


#31
Freon 113
Concen: 0.06 ppbV
RT: 6.79 min Scan# 812
Delta R.T. -0.060 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:101 Resp: 1161

Ion	Ratio	Lower	Upper
101	100		
85	40.4	32.9	49.3
151	48.3	47.3	70.9

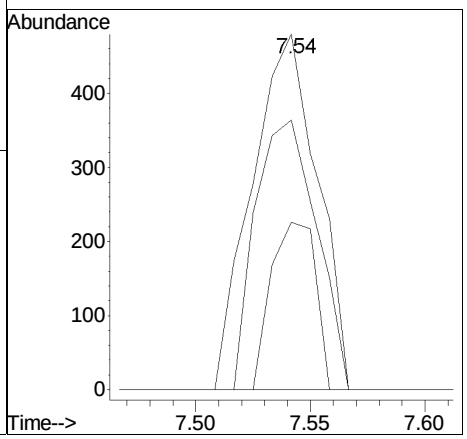


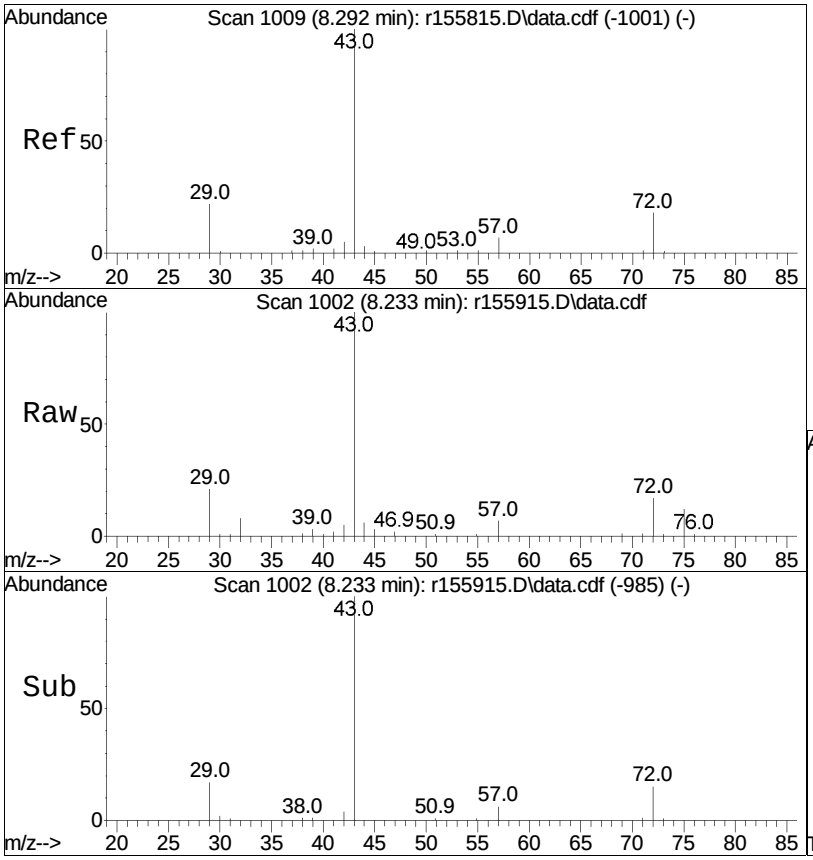


#32
trans-1,2-dichloroethene
Concen: 0.05 ppbV
RT: 7.54 min Scan# 919
Delta R.T. -0.067 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 61 Resp: 952

Ion	Ratio	Lower	Upper
61	100		
96	75.8	42.5	63.7#
98	47.1	27.4	41.0#

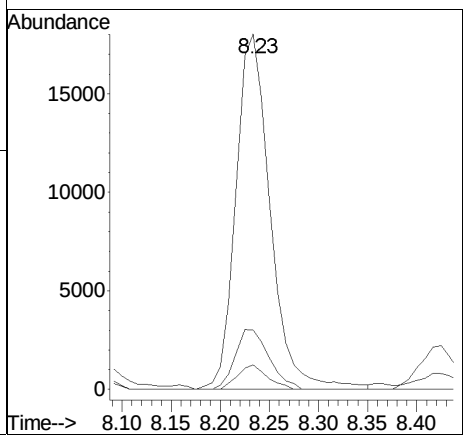


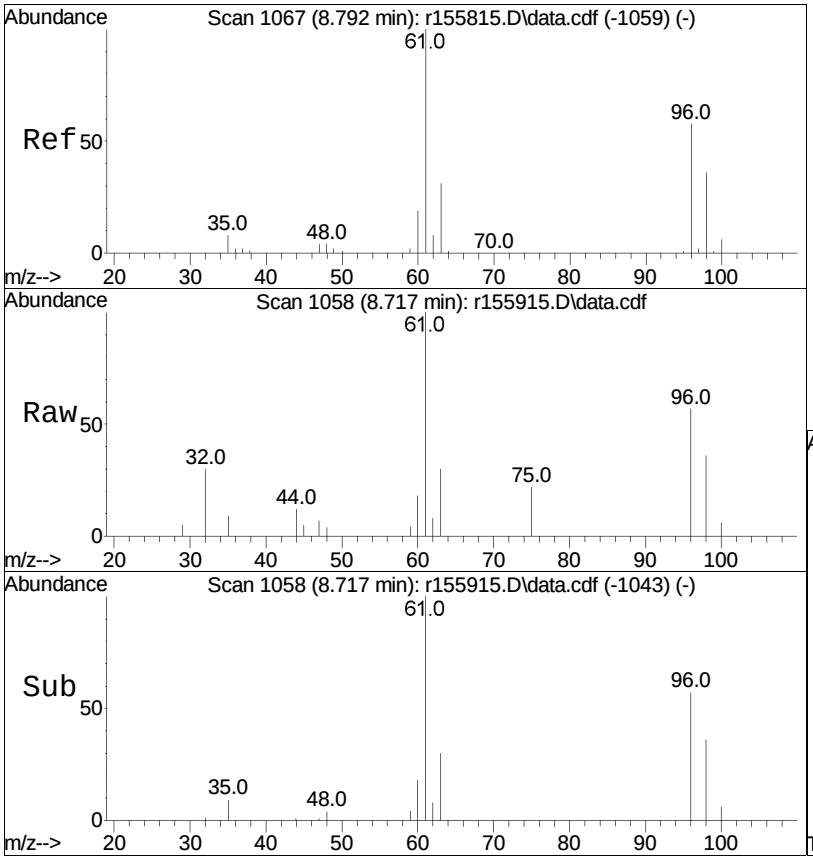


#36
2-butanone
Concen: 1.38 ppbV
RT: 8.23 min Scan# 1002
Delta R.T. -0.058 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 43 Resp: 44043

Ion	Ratio	Lower	Upper
43	100		
72	16.7	14.2	21.2
57	6.9	5.2	7.8

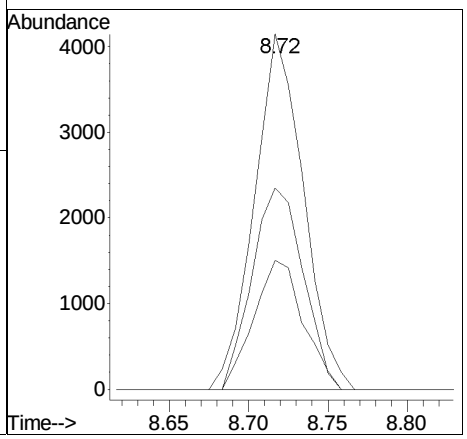


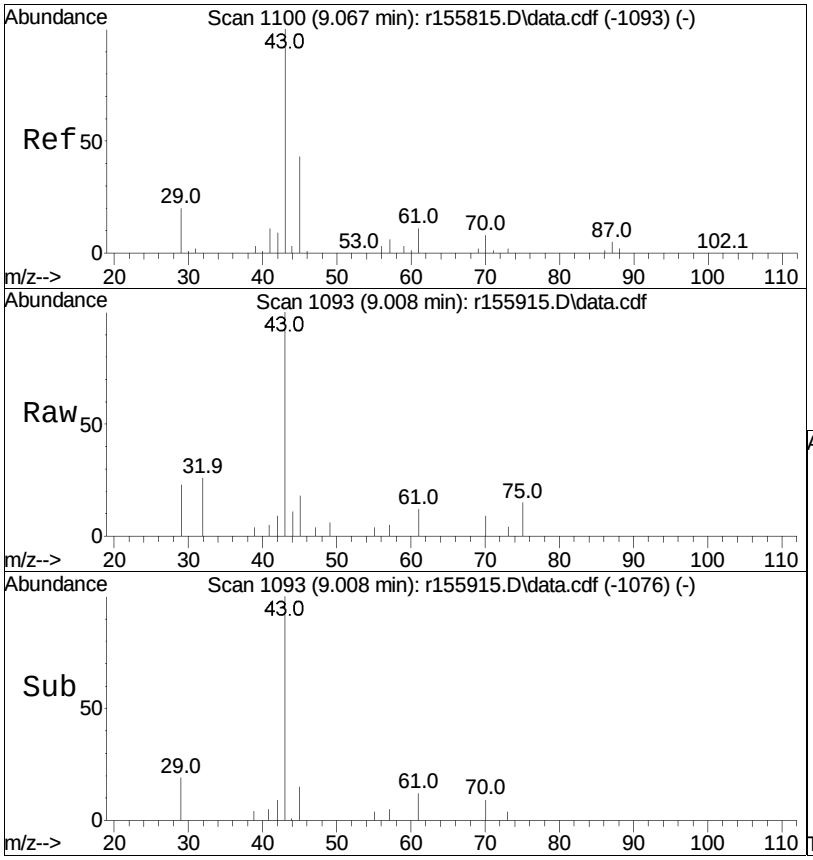


#37
cis-1,2-dichloroethene
Concen: 0.53 ppbV
RT: 8.72 min Scan# 1058
Delta R.T. -0.075 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 61 Resp: 8909

Ion	Ratio	Lower	Upper
61	100		
96	56.7	46.0	69.0
98	36.3	28.6	43.0

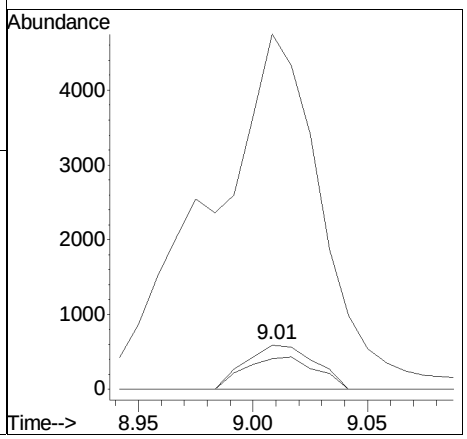


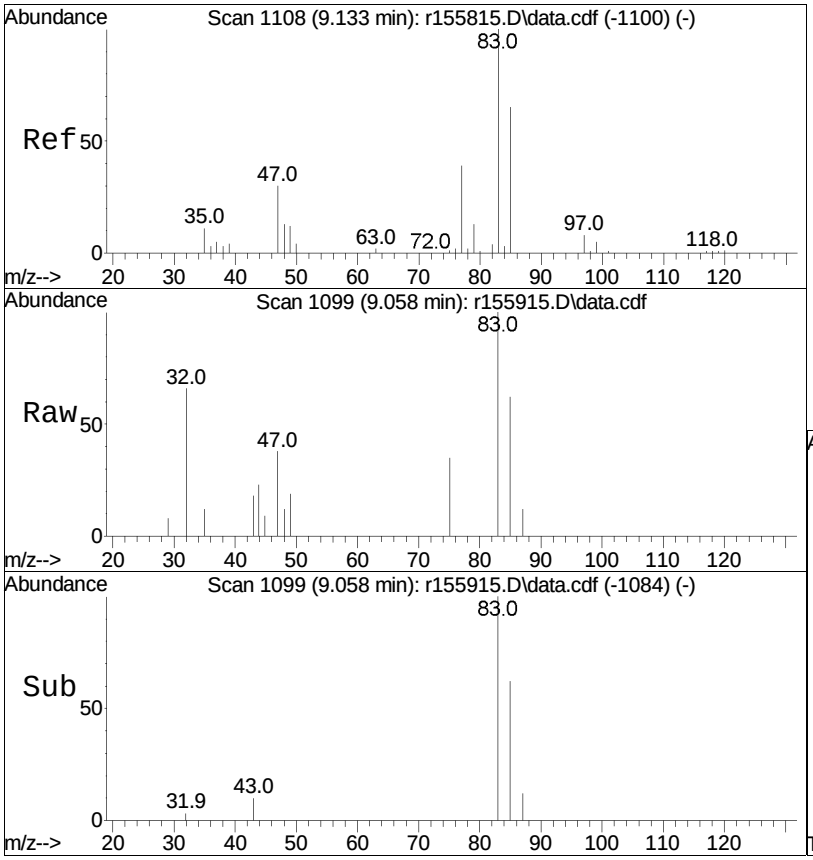


#38
Ethyl Acetate
Concen: 0.29 ppbV
RT: 9.01 min Scan# 1093
Delta R.T. -0.058 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 61 Resp: 1263

Ion	Ratio	Lower	Upper
61	100		
70	69.4	63.0	94.6
43	803.7	812.2	1218.4#

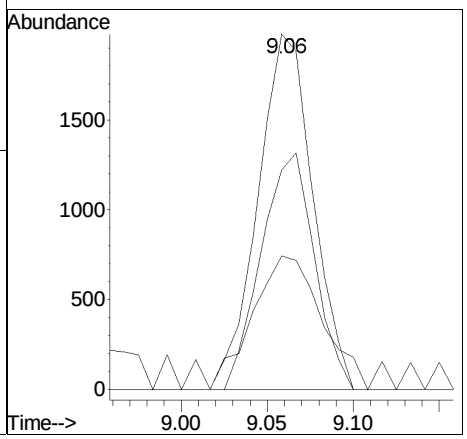


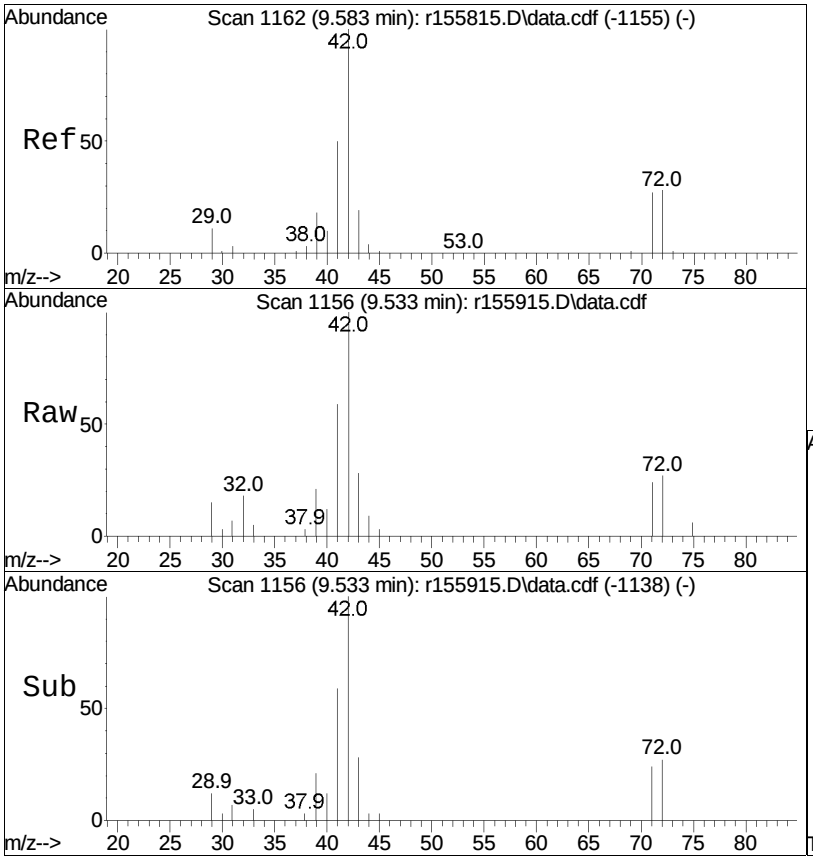


#39
chloroform
Concen: 0.23 ppbV
RT: 9.06 min Scan# 1099
Delta R.T. -0.075 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 83 Resp: 4400

Ion	Ratio	Lower	Upper
83	100		
85	61.8	51.8	77.8
47	37.6	24.2	36.2#

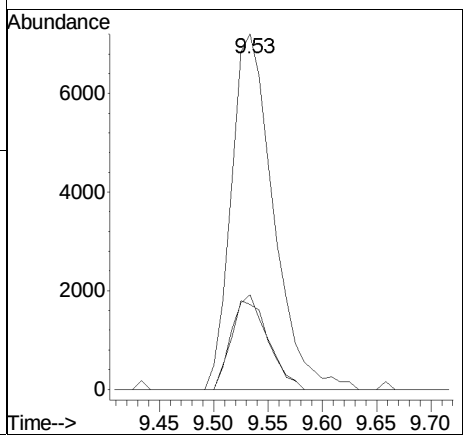


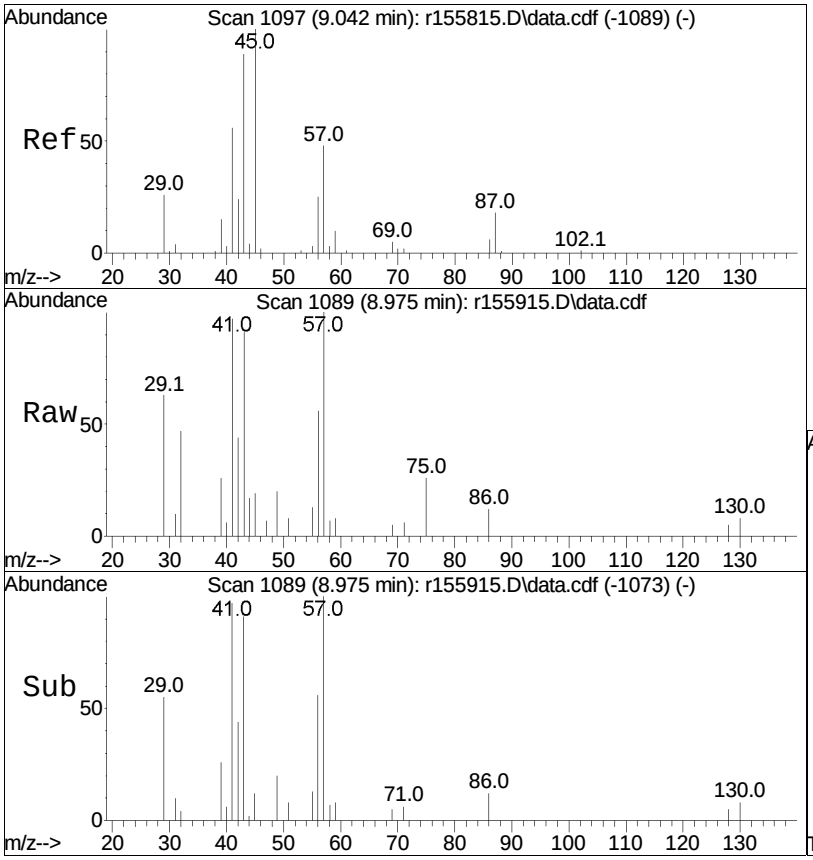


#40
Tetrahydrofuran
Concen: 0.97 ppbV
RT: 9.53 min Scan# 1156
Delta R.T. -0.050 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 42 Resp: 19463

Ion	Ratio	Lower	Upper
42	100		
71	23.9	21.4	32.0
72	26.7	22.6	33.8

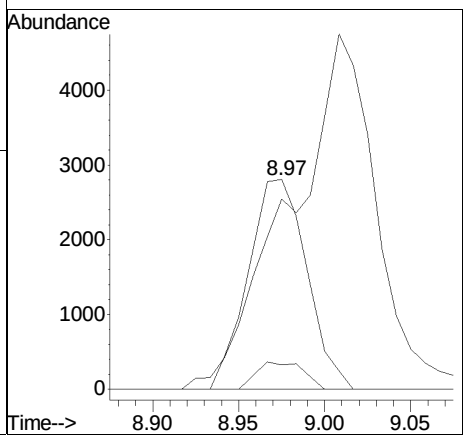


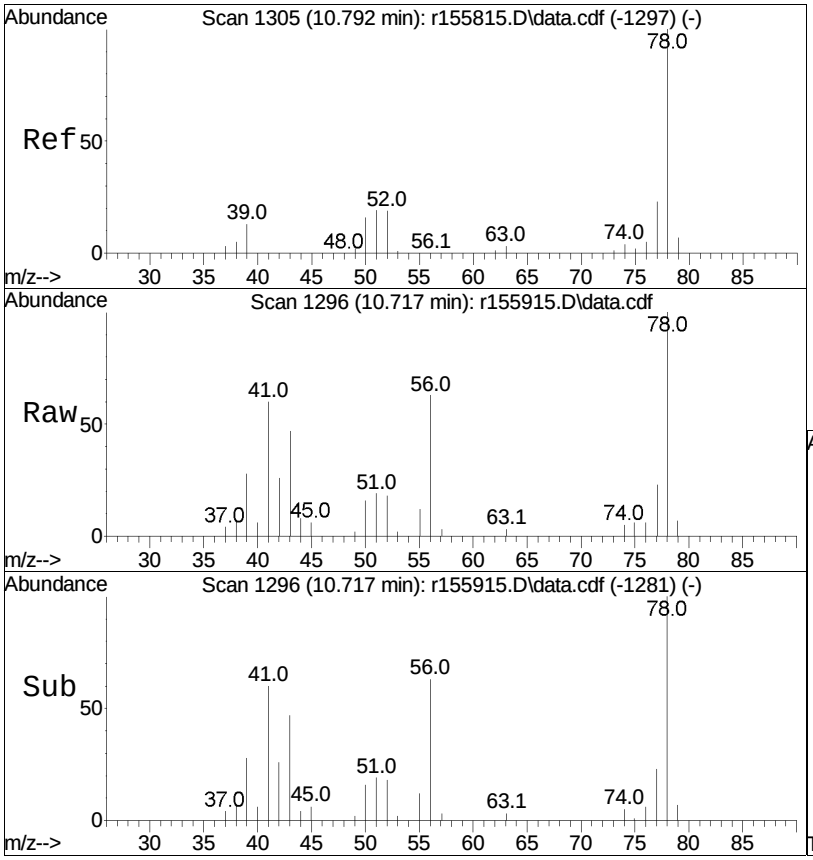


#44
hexane
Concen: 0.29 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 57 Resp: 6667

Ion	Ratio	Lower	Upper
57	100		
43	90.7	149.0	223.6#
86	11.6	9.9	14.9

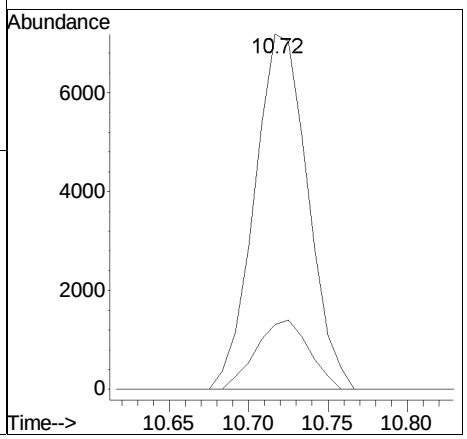


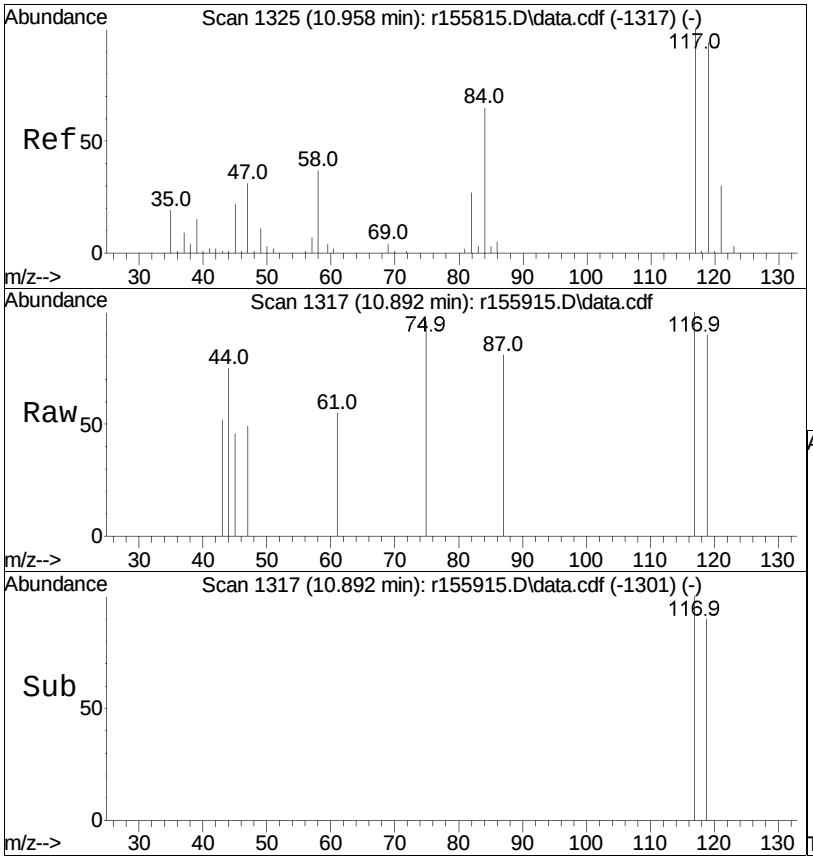


#50
benzene
Concen: 0.46 ppbV
RT: 10.72 min Scan# 1296
Delta R.T. -0.075 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 78 Resp: 16771

Ion	Ratio	Lower	Upper
78	100		
52	18.2	15.2	22.8

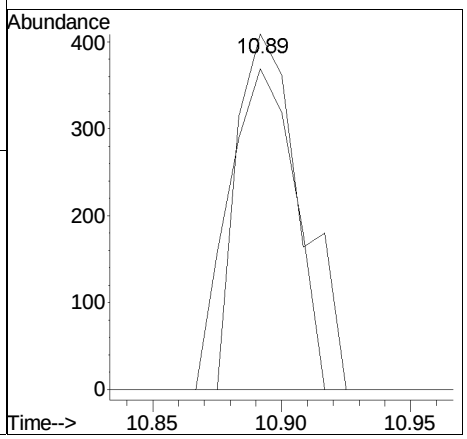


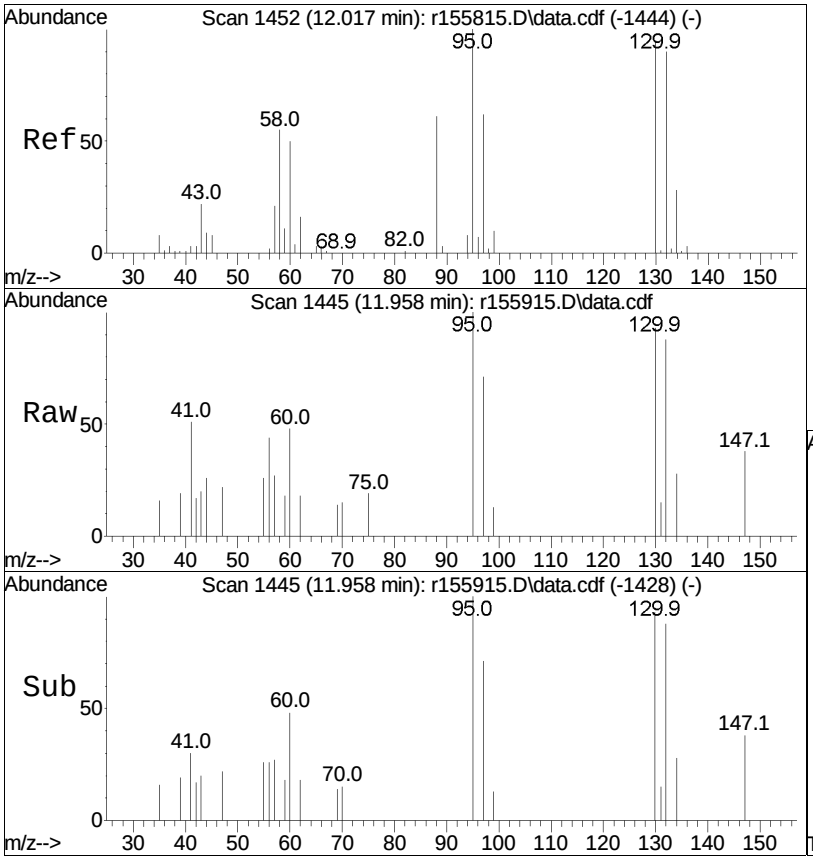


#52
carbon tetrachloride
Concen: 0.06 ppbV
RT: 10.89 min Scan# 1317
Delta R.T. -0.067 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:117 Resp: 715

Ion	Ratio	Lower	Upper
117	100		
119	90.2	75.1	112.7
82	0.0	21.4	32.2#

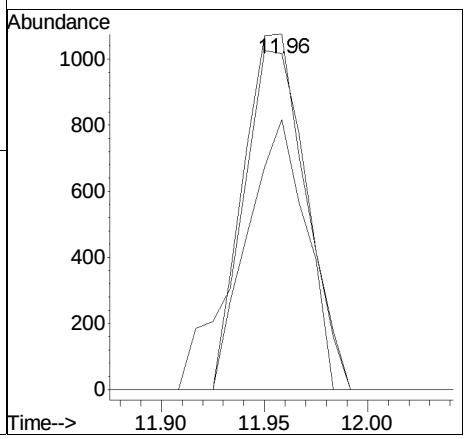


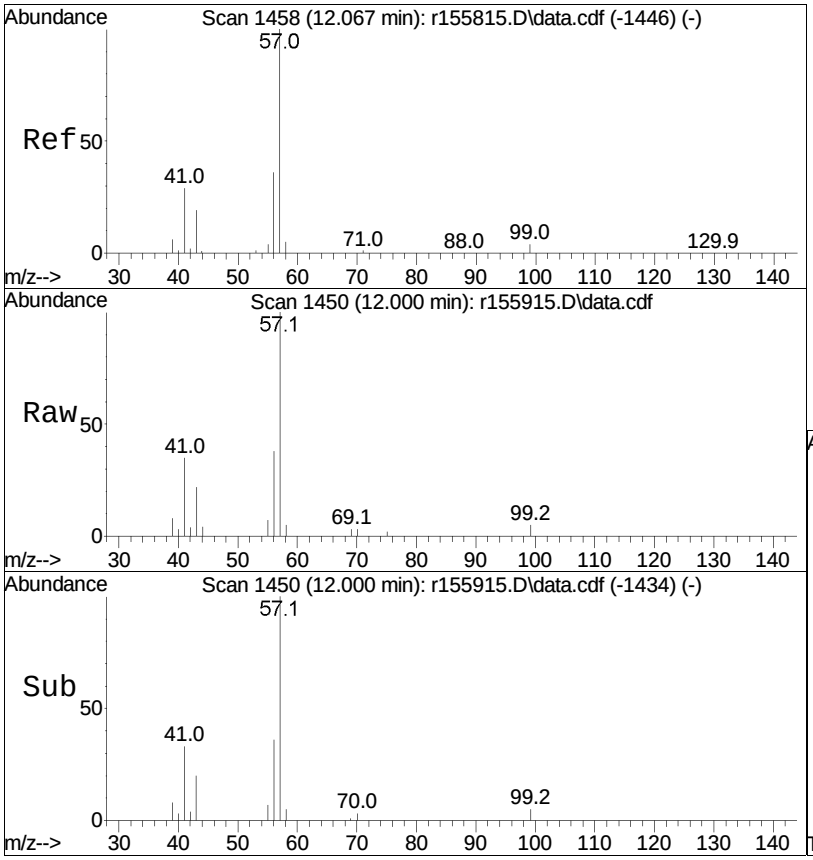


#59
trichloroethene
Concen: 0.20 ppbV
RT: 11.96 min Scan# 1445
Delta R.T. -0.058 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:130 Resp: 2261

Ion	Ratio	Lower	Upper
130	100		
132	94.5	75.7	113.5
97	75.9	52.5	78.7

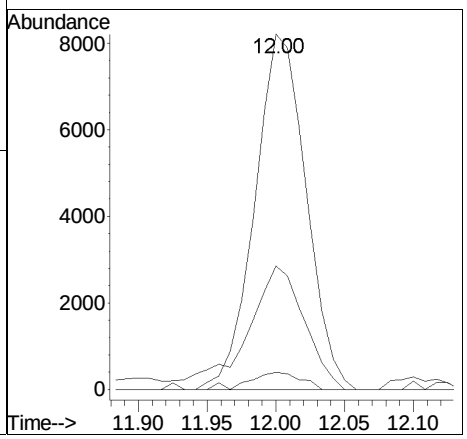


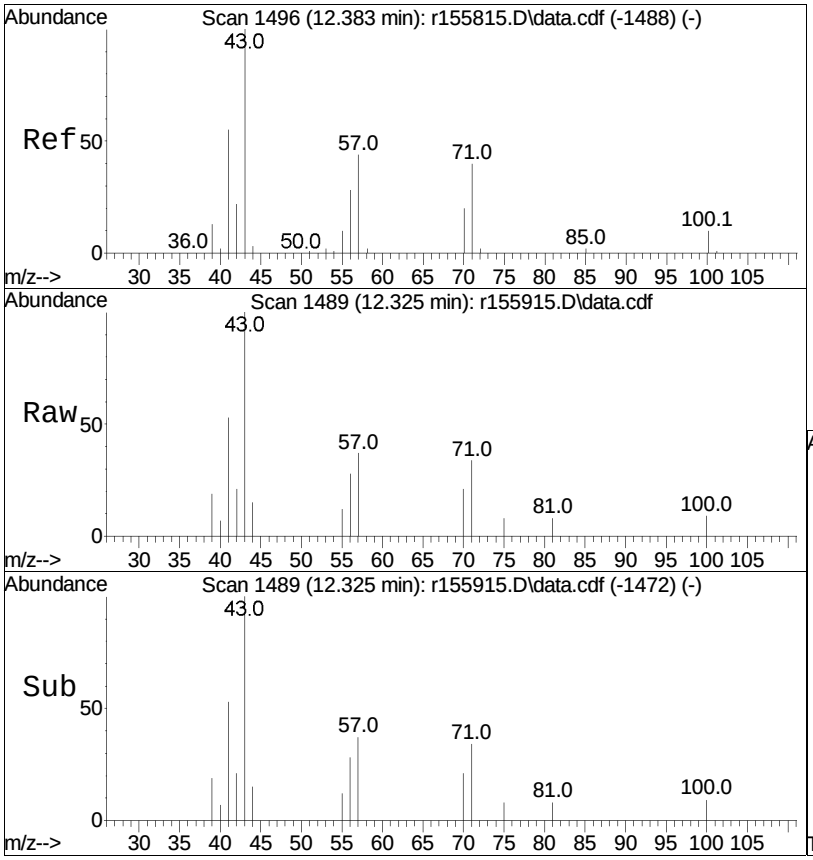


#60
2,2,4-trimethylpentane
Concen: 0.29 ppbV
RT: 12.00 min Scan# 1450
Delta R.T. -0.067 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 57 Resp: 21250

Ion	Ratio	Lower	Upper
57	100		
99	4.8	3.0	4.4#
41	34.7	23.1	34.7#

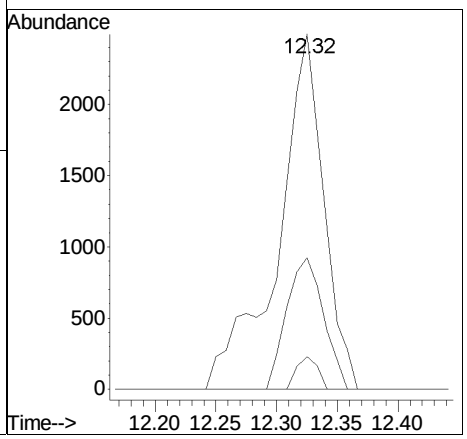


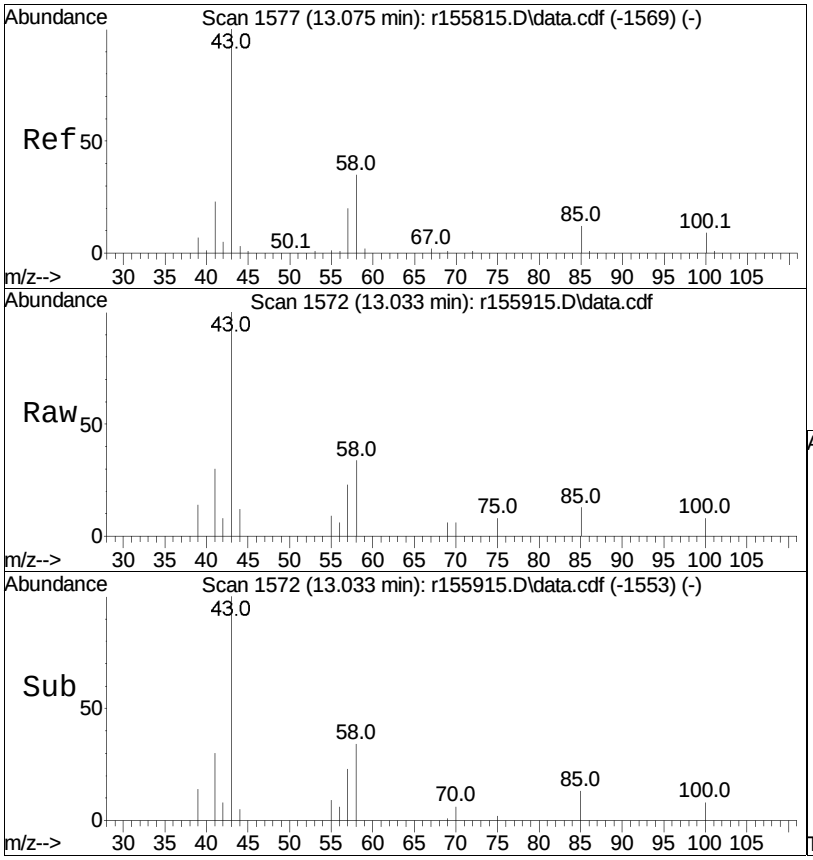


#62
heptane
Concen: 0.20 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 43 Resp: 6539

Ion	Ratio	Lower	Upper
43	100		
57	37.0	35.1	52.7
100	9.2	8.1	12.1

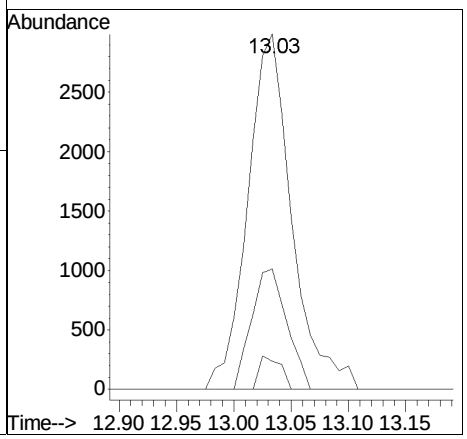


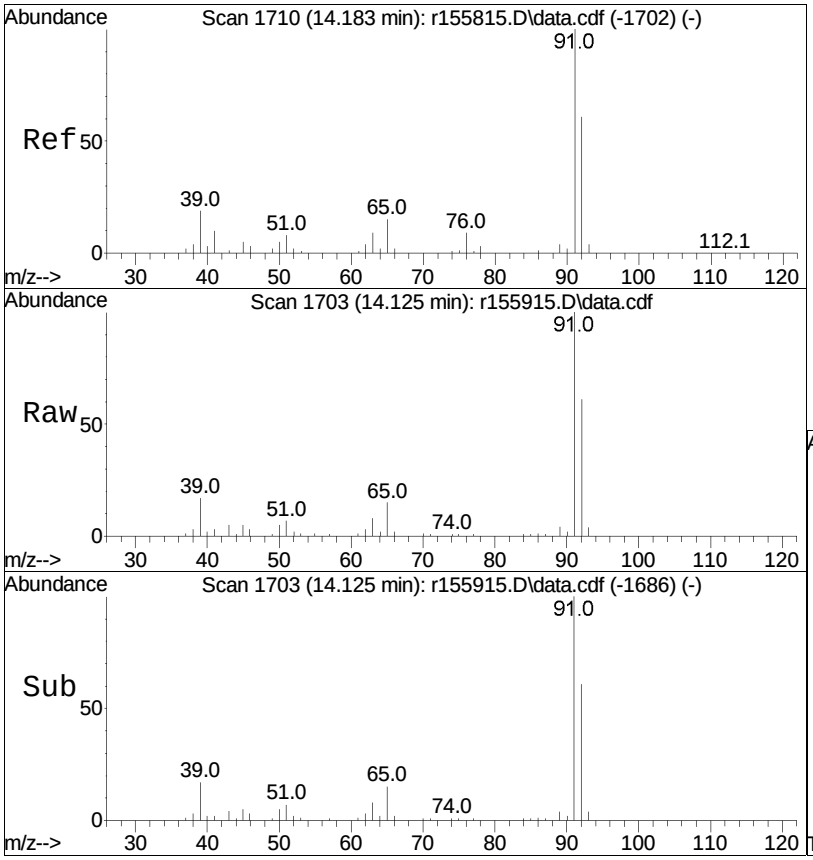


#64
4-methyl-2-pentanone
Concen: 0.21 ppbV
RT: 13.03 min Scan# 1572
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 43 Resp: 8016

Ion	Ratio	Lower	Upper
43	100		
58	33.9	28.1	42.1
100	8.0	7.0	10.4

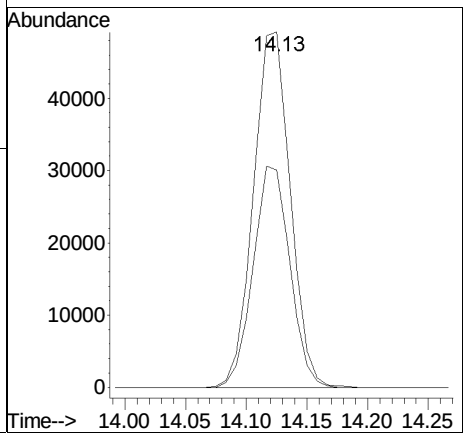


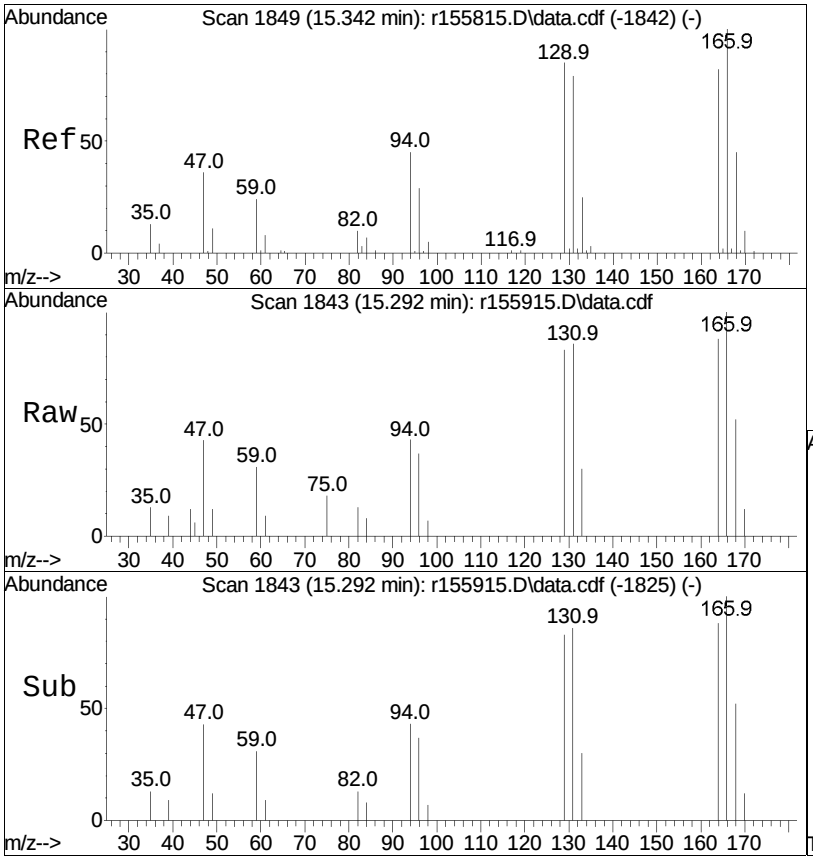


#68
toluene
Concen: 2.73 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 91 Resp: 103889

Ion	Ratio	Lower	Upper
91	100		
92	61.1	48.6	72.8

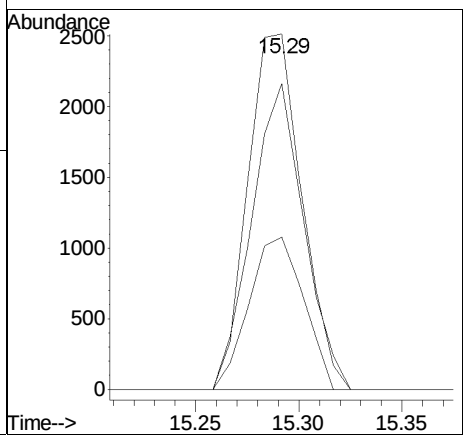


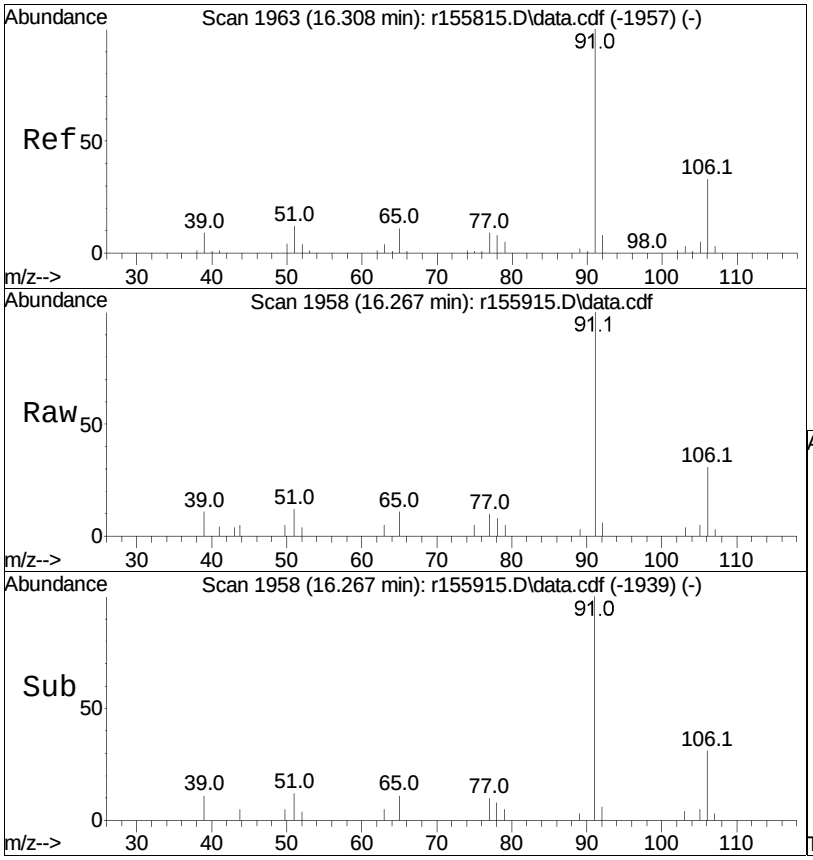


#78
tetrachloroethene
Concen: 0.38 ppbV
RT: 15.29 min Scan# 1843
Delta R.T. -0.050 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:166 Resp: 4585

Ion	Ratio	Lower	Upper
166	100		
131	86.1	62.9	94.3
94	42.9	35.9	53.9

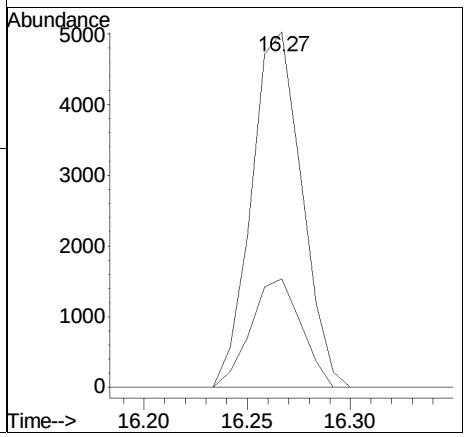


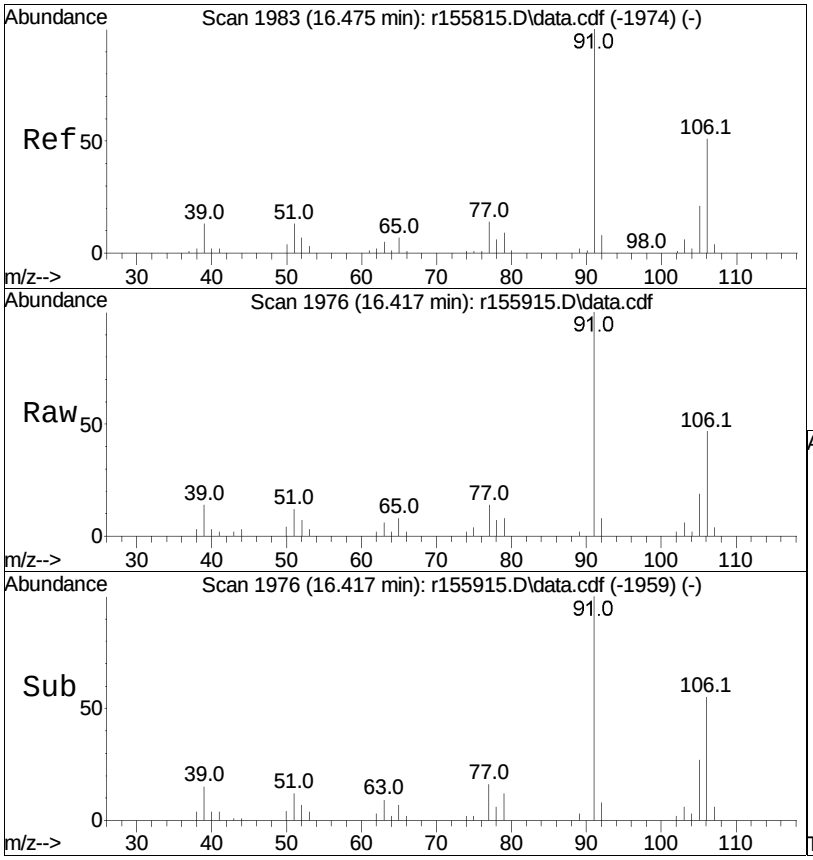


#81
ethylbenzene
Concen: 0.18 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 91 Resp: 8514

Ion	Ratio	Lower	Upper
91	100		
106	30.6	26.8	40.2

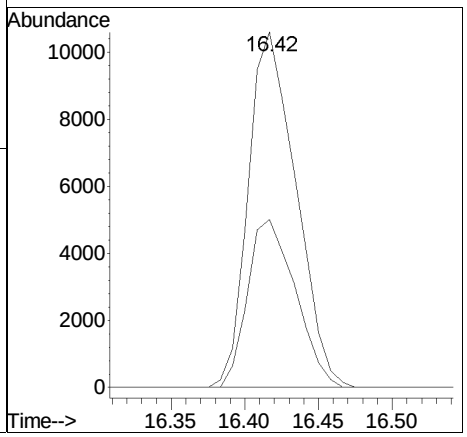


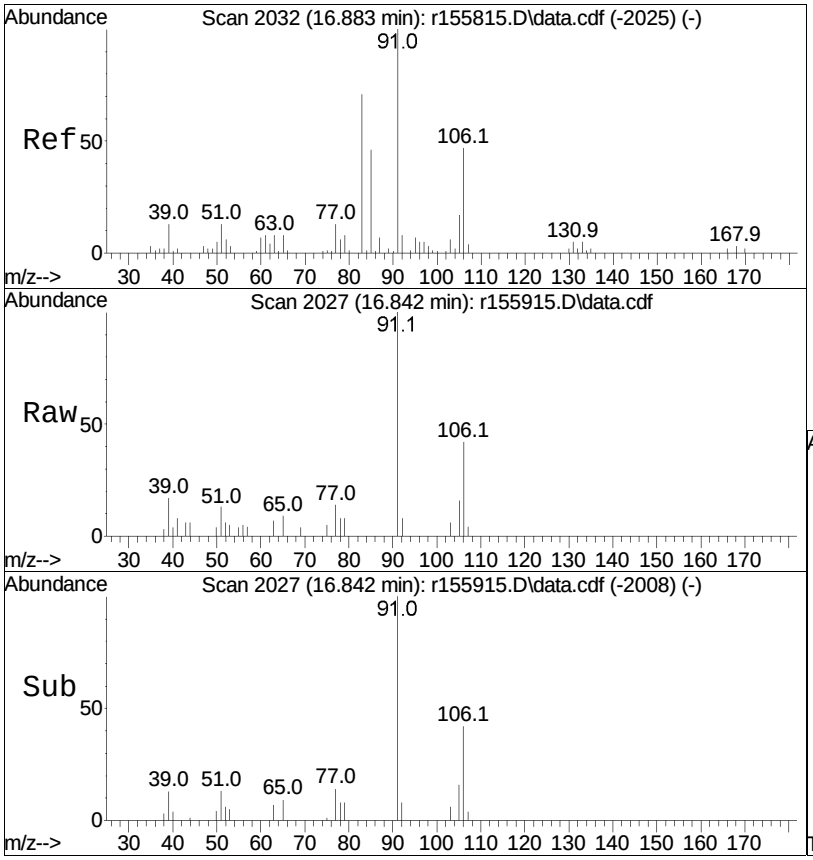


#83
m+p-xylene
Concen: 0.62 ppbV
RT: 16.42 min Scan# 1976
Delta R.T. -0.058 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 91 Resp: 23810

Ion	Ratio	Lower	Upper
91	100		
106	47.2	40.4	60.6

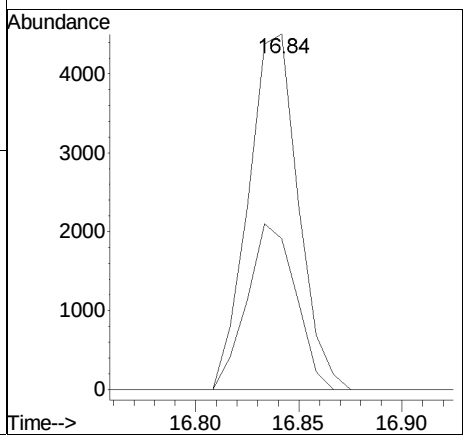


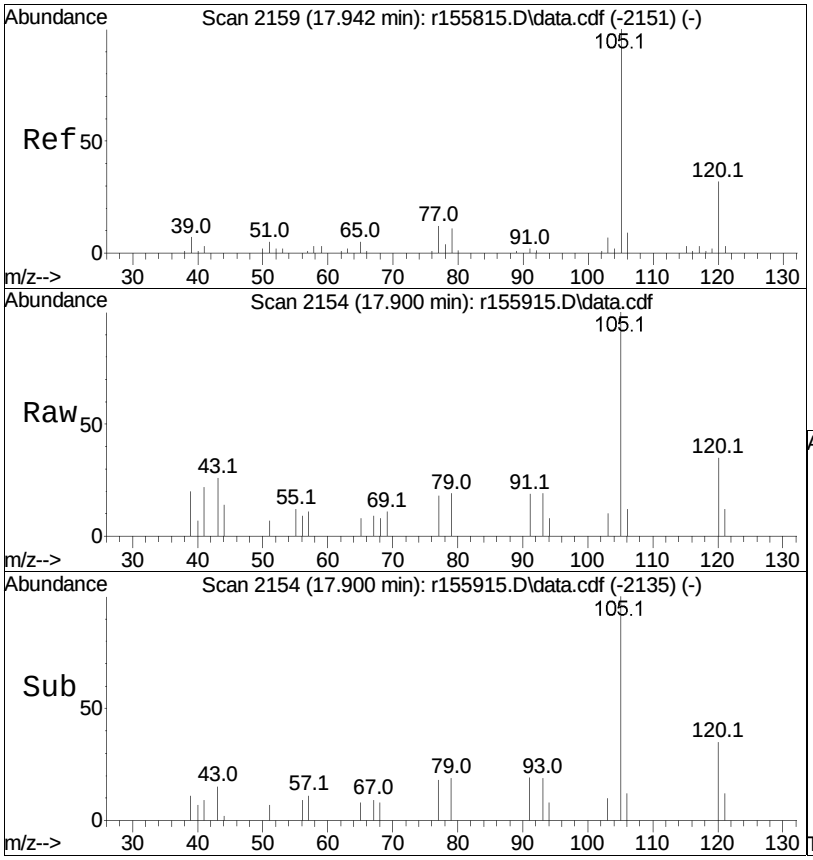


#87
o-xylene
Concen: 0.20 ppbV
RT: 16.84 min Scan# 2027
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion: 91 Resp: 7590

Ion	Ratio	Lower	Upper
91	100		
106	42.4	38.0	57.0

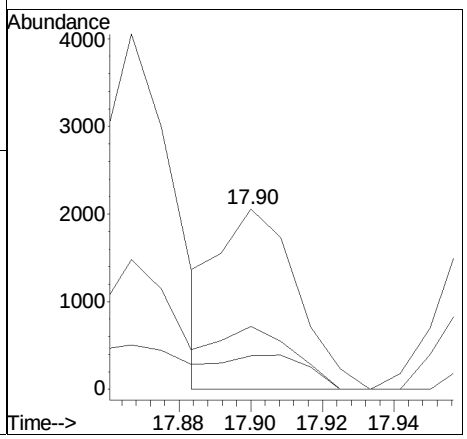


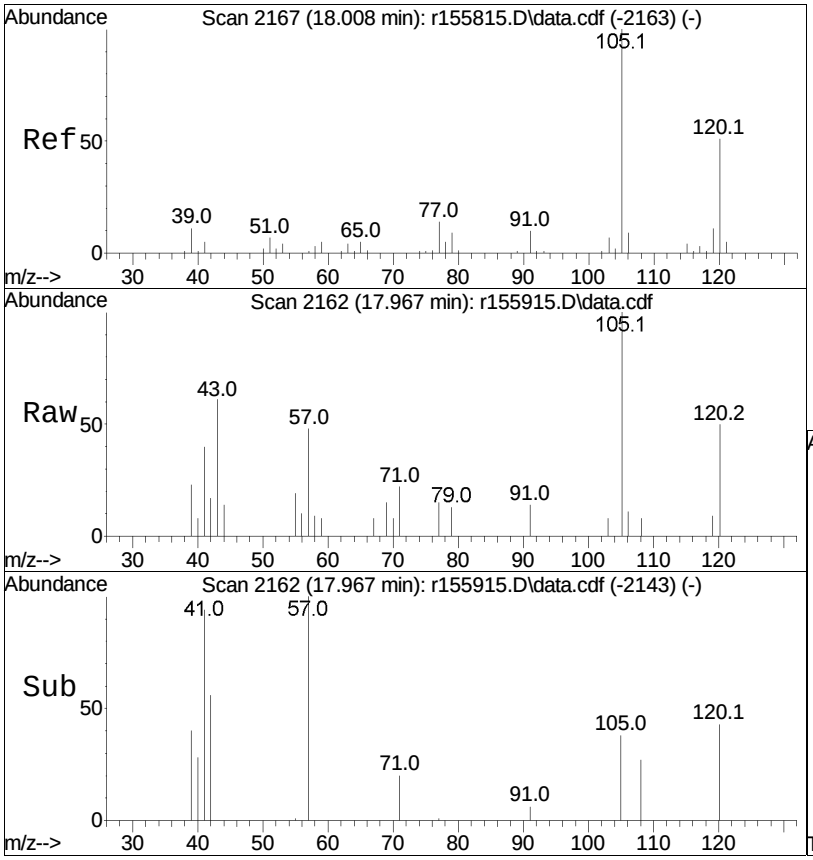


#96
4-ethyl toluene
Concen: 0.06 ppbV m
RT: 17.90 min Scan# 2154
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:105 Resp: 3145

Ion	Ratio	Lower	Upper
105	100		
120	34.9	25.3	37.9
91	18.6	8.5	12.7#

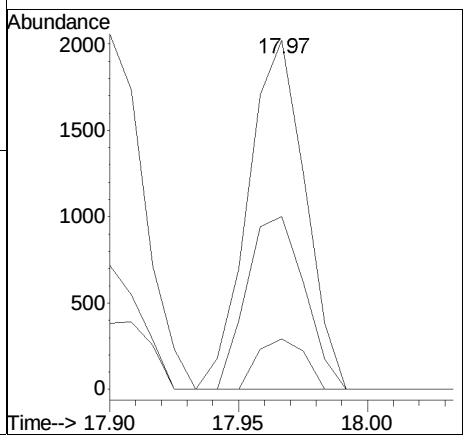




#97
1,3,5-trimethylbenzene
Concen: 0.07 ppbV
RT: 17.97 min Scan# 2162
Delta R.T. -0.042 min
Lab File: r155915.D
Acq: 20 Feb 2018 11:53 PM

Tgt Ion:105 Resp: 3123

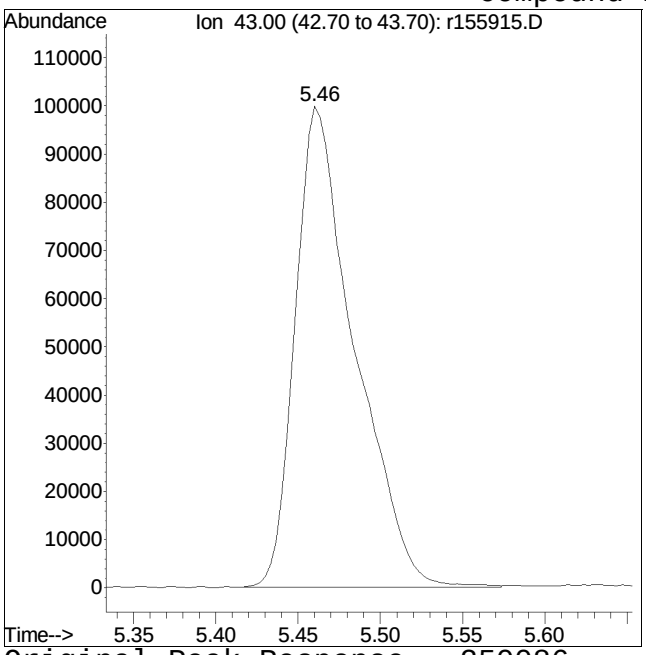
Ion	Ratio	Lower	Upper
105	100		
120	49.5	40.8	61.2
91	14.4	8.0	12.0#



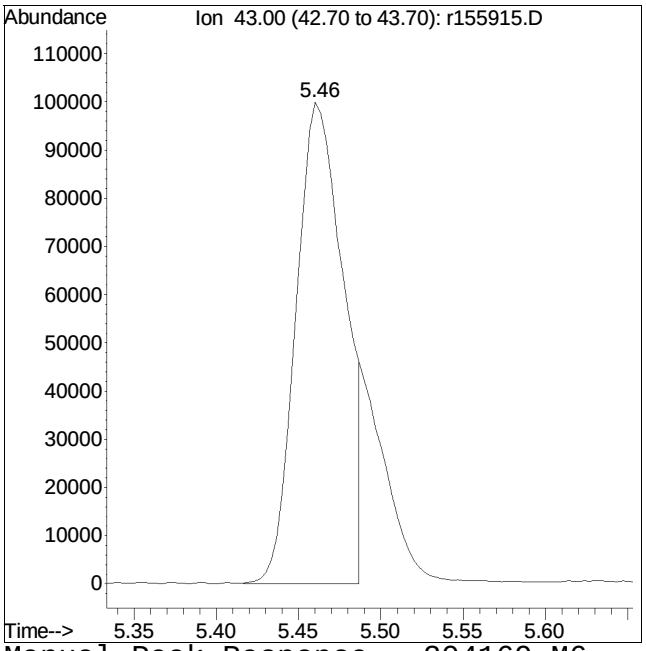
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155915.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 11:53 PM Instrument :
Sample : L1805020-05,3,250,250 Quant Date : 2/21/2018 6:41 am

Compound #19: acetone



Original Peak Response = 250086



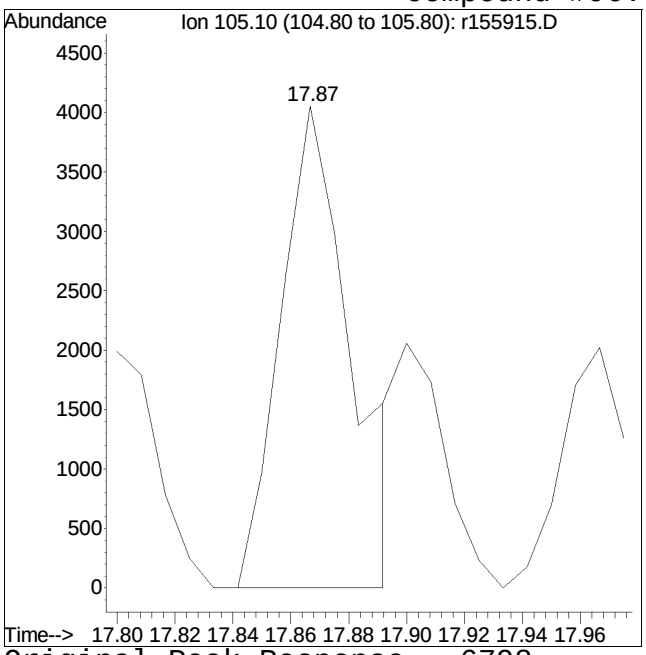
Manual Peak Response = 204169 M6

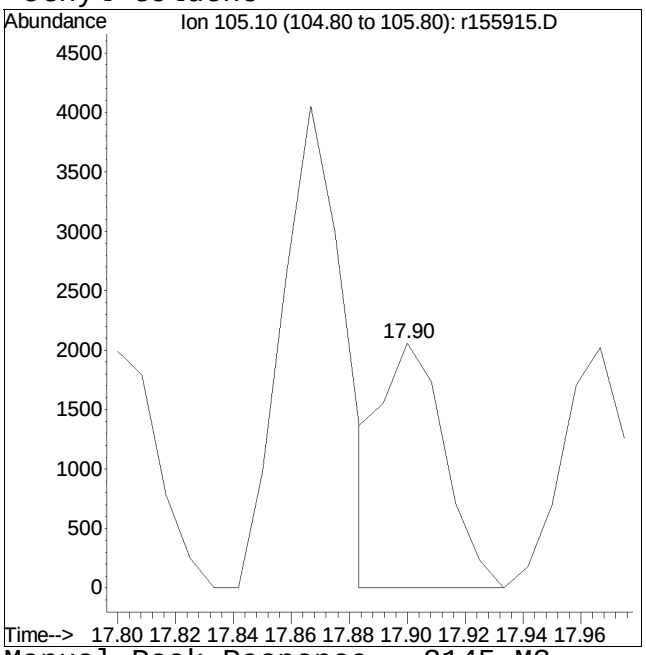
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155915.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 11:53 PM Instrument :
Sample : L1805020-05,3,250,250 Quant Date : 2/21/2018 6:41 am

Compound #96: 4-ethyl toluene





Original Peak Response = 6798 Manual Peak Response = 3145 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1805020**
Project Name	**: 365 BOND STREET**	**Project Number**	**: 100287501**
Instrument ID	**: AIRLAB15**	**Ical Ref**	**: ICAL14444**
Calibration dates	**: 02/15/18 19:06 02/16/18 07:41**		

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	1.140	1.124	1.101	1.066	1.026	0.981	0.897	0.861	1.0246	10.14
3)		propylene	1.017	0.930	0.903	0.832	0.808	0.790	0.698	0.717	0.8369	12.95
4)		propane	1.242	1.096	1.049	0.987	0.954	0.929	0.836	0.818	0.9890	14.13
5)		dichlorodifluoromethane	1.297	1.304	1.294	1.218	1.174	1.082	0.995	0.930	1.1618	12.48
6)	C	chloromethane	0.909	0.879	0.866	0.832	0.819	0.840	0.742	0.753	0.8301	7.04
7)		Freon-114	1.777	1.752	1.683	1.652	1.606	1.573	1.412	1.372	1.6036	9.20
8)	C	methanol			0.470	0.426	0.407	0.393	0.357	0.354	0.4012	10.98
9)	C	vinyl chloride	0.951	0.965	0.936	0.909	0.898	0.862	0.809	0.775	0.8882	7.65
10)	C	1,3-butadiene	0.740	0.747	0.704	0.687	0.737	0.665	0.607	0.613	0.6874	8.05
11)		butane	2.089	1.914	1.902	1.753	1.612	1.400	1.300	1.280	1.6564	18.53
12)	C	acetaldehyde		0.549	0.504	0.450	0.441	0.476	0.416	0.418	0.4646	10.44
13)	C	bromomethane	0.680	0.643	0.641	0.623	0.607	0.589	0.537	0.529	0.6063	8.65
14)	C	chloroethane	0.499	0.472	0.457	0.444	0.445	0.436	0.397	0.398	0.4434	7.83
15)		ethanol			0.791	0.774	0.740	0.742	0.680	0.671	0.7329	6.63
16)		dichlorofluoromethane	1.575	1.533	1.511	1.476	1.444	1.396	1.274	1.252	1.4327	8.25
17)	C	vinyl bromide	0.532	0.545	0.531	0.526	0.520	0.542	0.476	0.500	0.5212	4.42
18)	C	acrolein		0.385	0.365	0.356	0.352	0.353	0.326	0.335	0.3531	5.46
19)		acetone	1.622	1.313	1.207	1.045	1.025	1.040	0.945	0.901	1.1374	20.86
20)	C	acetonitrile	1.186	1.073	1.062	1.017	1.003	0.974	0.902	0.894	1.0140	9.42
21)		trichlorofluoromethane	1.070	1.030	1.013	0.970	0.959	0.889	0.832	0.811	0.9467	9.96
22)		isopropyl alcohol	2.500	1.833	1.531	1.288	1.233	1.327	1.203	1.208	1.5155	29.82
23)	C	acrylonitrile	0.640	0.656	0.657	0.646	0.651	0.640	0.597	0.614	0.6378	3.33
24)		pentane	2.245	2.227	2.129	2.027	2.118	2.300	2.099	2.009	2.1442	4.86
25)		ethyl ether	1.606	1.768	1.749	1.686	1.797	1.730	1.715	1.766	1.7271	3.46
26)	C	1,1-dichloroethene	1.225	1.250	1.190	1.181	1.167	1.095	1.047	1.006	1.1450	7.59
27)		tertiary butyl alcohol		1.459	1.416	1.414	1.364	1.334	1.272	1.234	1.3563	6.02
28)	C	methylene chloride		1.139	1.100	1.047	1.036	1.014	0.928	0.943	1.0295	7.47
29)	C	3-chloropropene	1.714	1.594	1.562	1.519	1.494	1.456	1.369	1.366	1.5094	7.72
30)	C	carbon disulfide	2.061	2.036	2.033	2.053	2.055	2.073	1.904	1.912	2.0158	3.36
31)		Freon 113	1.222	1.171	1.185	1.142	1.109	1.096	1.012	1.029	1.1206	6.60
32)		trans-1,2-dichloroethene	1.120	1.134	1.116	1.113	1.106	1.039	1.009	0.975	1.0766	5.59
33)	C	1,1-dichloroethane	1.456	1.407	1.392	1.355	1.351	1.279	1.229	1.187	1.3320	6.96
34)	C	MTBE	1.637	1.603	1.624	1.625	1.610	1.503	1.451	1.406	1.5573	5.82
35)	C	vinyl acetate	2.084	1.995	1.979	2.031	2.072	2.030	1.951	1.945	2.0109	2.59
36)	C	2-butanone	2.023	1.941	1.931	1.942	1.927	1.858	1.768	1.755	1.8932	4.90
37)		cis-1,2-dichloroethene	0.999	1.031	1.035	1.030	1.031	0.956	0.934	0.899	0.9893	5.33
38)		Ethyl Acetate	0.235	0.267	0.271	0.271	0.273	0.258	0.257	0.261	0.2616	4.72

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1805020**
Project Name	**: 365 BOND STREET**	**Project Number**	**: 100287501**
Instrument ID	**: AIRLAB15**	**Ical Ref**	**: ICAL14444**
Calibration dates	**: 02/15/18 19:06 02/16/18 07:41**		

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
39) C	chloroform	1.182	1.219	1.200	1.154	1.149	1.016	1.025	0.950	1.1118	9.00
40)	Tetrahydrofuran	1.190	1.152	1.209	1.229	1.232	1.185	1.138	1.144	1.1849	3.15
41)	2,2-dichloropropane	0.887	0.901	0.896	0.889	0.885	0.800	0.816	0.771	0.8555	6.00
42) C	1,2-dichloroethane	0.843	0.880	0.874	0.851	0.842	0.746	0.752	0.707	0.8119	8.19
43) I	1,4-difluorobenzene	----------ISTD----------									
44) C	hexane	0.765	0.751	0.760	0.747	0.766	0.715	0.744	0.746	0.7494	2.17
45)	diisopropyl ether	0.305	0.293	0.303	0.298	0.308	0.298	0.308	0.324	0.3048	3.10
46)	tert-butyl ethyl ether	1.265	1.255	1.272	1.259	1.291	1.231	1.231	1.228	1.2540	1.80
47) s	1,2-dichloroethane-D4	0.278	0.283	0.284	0.275	0.289	0.279	0.285	0.282	0.2820	1.58
48) C	1,1,1-trichloroethane	0.474	0.475	0.469	0.468	0.479	0.446	0.462	0.454	0.4661	2.42
49)	1,1-dichloropropene	0.533	0.524	0.525	0.518	0.525	0.490	0.499	0.494	0.5137	3.22
50) C	benzene	1.249	1.266	1.229	1.204	1.226	1.113	1.134	1.095	1.1896	5.53
51)	thiophene	0.560	0.580	0.579	0.541	0.548	0.545	0.562	0.562	0.5596	2.63
52) C	carbon tetrachloride	0.408	0.402	0.401	0.405	0.416	0.387	0.407	0.392	0.4023	2.26
53)	cyclohexane	0.788	0.794	0.787	0.782	0.791	0.727	0.759	0.750	0.7722	3.15
54)	tert-amyl methyl ether	0.934	0.939	0.945	0.965	0.979	0.937	0.958	0.970	0.9534	1.79
55)	dibromomethane	0.332	0.340	0.327	0.325	0.333	0.318	0.323	0.331	0.3286	2.05
56) C	1,2-dichloropropane	0.491	0.516	0.499	0.492	0.496	0.475	0.487	0.503	0.4950	2.41
57)	bromodichloromethane	0.608	0.603	0.612	0.633	0.649	0.601	0.623	0.613	0.6178	2.67
58) C	1,4-dioxane	0.210	0.238	0.241	0.256	0.250	0.247	0.259	0.268	0.2463	7.12
59) C	trichloroethene	0.349	0.376	0.369	0.379	0.378	0.358	0.376	0.408	0.3742	4.63
60) C	2,2,4-trimethylpentane	2.463	2.466	2.499	2.461	2.487	2.286	2.299	2.259	2.4025	4.23
61)	methyl methacrylate	0.540	0.568	0.558	0.548	0.564	0.581	0.594	0.614	0.5708	4.29
62)	heptane	1.126	1.056	1.063	1.071	1.088	1.062	1.068	1.109	1.0805	2.34
63) C	cis-1,3-dichloropropene	0.546	0.553	0.564	0.582	0.601	0.563	0.583	0.593	0.5732	3.38
64) C	4-methyl-2-pentanone	1.169	1.180	1.217	1.260	1.298	1.253	1.270	1.319	1.2459	4.29
65)	trans-1,3-dichloropropene	0.475	0.508	0.497	0.542	0.564	0.528	0.550	0.555	0.5273	5.97
66) C	1,1,2-trichloroethane	0.375	0.396	0.386	0.383	0.400	0.362	0.375	0.395	0.3842	3.35
67) I	chlorobenzene-D5	----------ISTD----------									
68) C	toluene	5.327	5.272	5.254	5.121	5.117	4.879	4.753	4.746	5.0585	4.65
69) s	toluene-D8	3.529	3.579	3.550	3.416	3.514	3.599	3.435	3.416	3.5047	2.09
70)	2-methylthiophene	3.254	3.146	3.123	2.998	2.976	3.047	2.922	3.004	3.0589	3.54
71)	1,3-dichloropropane	2.571	2.590	2.575	2.577	2.563	2.347	2.347	2.318	2.4861	4.97
72)	2-hexanone	3.785	4.037	4.190	4.645	4.766	4.663	4.602	4.769	4.4321	8.47
73)	3-methylthiophene	3.061	3.074	3.012	2.853	2.855	2.921	2.870	2.972	2.9522	3.07
74)	dibromochloromethane	1.784	1.713	1.810	1.908	1.951	1.867	1.874	1.917	1.8528	4.26
75) C	1,2-dibromoethane	2.378	2.255	2.245	2.294	2.296	2.109	2.128	2.179	2.2354	4.09
76)	butyl acetate	0.369	0.492	0.493	0.598	0.623	0.592	0.593	0.635	0.5495	16.56

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1805020**
Project Name	**: 365 BOND STREET**	**Project Number**	**: 100287501**
Instrument ID	**: AIRLAB15**	**Ical Ref**	**: ICAL14444**
Calibration dates	**: 02/15/18 19:06 02/16/18 07:41**		

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
77)		octane	1.915	1.884	1.908	1.946	1.928	1.806	1.846	1.836	1.8835	2.63
78)	C	tetrachloroethene	1.669	1.621	1.672	1.609	1.619	1.511	1.592	1.676	1.6211	3.37
79)		1,1,1,2-tetrachloroethane	1.425	1.402	1.383	1.458	1.460	1.385	1.453	1.557	1.4404	3.93
80)	C	chlorobenzene	3.856	3.802	3.781	3.772	3.688	3.442	3.526	3.720	3.6984	3.88
81)	C	ethylbenzene	6.523	6.356	6.335	6.451	6.443	6.120	5.968	5.949	6.2680	3.59
82)		2-ethylthiophene	2.758	2.756	2.787	2.614	2.601	2.646	2.590	2.655	2.6760	2.95
83)	C	m+p-xylene	5.170	5.181	5.193	5.152	5.131	4.935	4.858	4.918	5.0671	2.73
84)	C	bromoform	1.220	1.251	1.297	1.460	1.521	1.516	1.572	1.690	1.4409	11.64
85)	C	styrene	3.705	3.765	3.798	3.893	3.854	3.602	3.626	3.748	3.7486	2.72
86)	C	1,1,2,2-tetrachloroethane	4.066	4.085	4.020	4.167	4.088	3.897	3.890	4.100	4.0390	2.44
87)	C	o-xylene	5.246	5.223	5.227	5.225	5.254	5.031	4.989	5.060	5.1568	2.13
88)		1,2,3-trichloropropane	3.063	3.017	3.071	3.081	3.104	2.799	2.834	2.887	2.9820	4.10
89)		nonane	5.858	6.034	6.106	6.209	6.218	6.093	5.955	6.098	6.0712	2.00
90)	s	bromofluorobenzene	1.929	1.933	1.755	2.007	1.923	2.666	1.809	1.894	1.9896	14.30
91)	C	isopropylbenzene	6.033	6.236	6.270	6.193	6.045	5.709	5.587	5.806	5.9850	4.28
92)		bromobenzene	4.020	4.000	3.972	3.955	3.906	3.624	3.640	3.758	3.8596	4.20
93)		2-chlorotoluene	1.516	1.551	1.641	1.652	1.631	1.549	1.579	1.727	1.6058	4.32
94)		n-propylbenzene	1.726	1.832	1.908	1.915	1.893	1.804	1.880	2.131	1.8861	6.22
95)		4-chlorotoluene	1.477	1.571	1.569	1.542	1.590	1.534	1.536	1.697	1.5645	4.05
96)		4-ethyl toluene	6.387	6.526	6.660	6.692	6.620	6.199	6.194	6.514	6.4741	3.03
97)		1,3,5-trimethylbenzene	5.455	5.606	5.794	5.828	5.711	5.328	5.280	5.621	5.5780	3.69
98)		tert-butylbenzene	5.301	5.512	5.457	5.641	5.633	5.381	5.470	5.719	5.5142	2.57
99)		1,2,4-trimethylbenzene	5.413	5.523	5.684	5.776	5.711	5.493	5.759	6.049	5.6763	3.54
100)		decane	5.753	6.036	6.109	6.299	6.276	5.864	5.831	6.008	6.0220	3.34
101)	C	Benzyl Chloride	2.614	2.866	3.233	3.982	4.284	4.594	4.695	5.202	3.9338	23.77
102)		1,3-dichlorobenzene	3.163	3.226	3.332	3.407	3.373	3.189	3.297	3.724	3.3390	5.34
103)	C	1,4-dichlorobenzene	3.058	3.259	3.234	3.254	3.266	3.171	3.207	3.646	3.2619	5.20
104)		sec-butylbenzene	7.896	7.841	7.881	8.014	7.764	7.426	7.223	8.011	7.7571	3.67
105)		1,2,3-trimethylbenzene	3.844	4.031	4.146	3.969	3.926	3.952	4.113	4.546	4.0658	5.36
106)		p-isopropyltoluene	6.417	6.280	6.598	6.627	6.616	6.336	6.413	6.703	6.4987	2.40
107)		1,2-dichlorobenzene	2.913	3.050	3.079	3.122	2.998	2.947	2.973	3.274	3.0445	3.80
108)		n-butylbenzene	5.727	6.238	6.246	6.555	6.520	6.397	6.165	6.544	6.2990	4.39
109)		indan	3.916	4.128	4.122	4.047	4.016	4.053	3.983	4.199	4.0581	2.22
110)		indene	1.874	2.057	2.086	2.133	2.110	2.119	2.105	2.244	2.0912	4.95
111)	C	1,2-dibromo-3-chloropropane	1.082	1.271	1.346	1.643	1.693	1.630	1.630	1.768	1.5079	16.13
112)		undecane	5.301	6.070	6.380	6.987	7.105	6.555	6.254	6.677	6.4163	8.89
113)		1,2,4,5-tetramethylbenzene	5.003	5.384	5.462	6.242	6.158	5.538	5.399	5.777	5.6203	7.42
114)		dodecane	2.444	4.167	5.054	7.224	7.715	6.143	5.605	6.061	5.5515	30.38#

Initial Calibration Summary
Form 6

Client	**: Langan Engineering & Environmental**	**Lab Number**	**: L1805020**
Project Name	**: 365 BOND STREET**	**Project Number**	**: 100287501**
Instrument ID	**: AIRLAB15**	**Ical Ref**	**: ICAL14444**
Calibration dates	**: 02/15/18 19:06 02/16/18 07:41**		

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
115) C	1,2,4-trichlorobenzene	1.469	1.638	1.797	2.156	2.206	2.171	2.184	2.514	2.0169	17.23
116)	naphthalene	3.747	4.583	5.200	6.374	6.813	6.173	5.946	6.552	5.6735	18.85
117)	1,2,3-trichlorobenzene	1.253	1.534	1.625	2.044	2.120	1.916	1.893	2.290	1.8343	18.61
118)	benzothiophene	2.904	3.633	4.006	4.362	4.737	5.252	5.205	5.975	4.5092	21.94
119) C	hexachlorobutadiene	1.517	1.636	1.674	1.800	1.868	1.771	1.657	2.031	1.7444	9.12
120)	2-methylnaphthalene			0.593	1.085	1.307	1.448	1.457	1.748	1.2728	31.19#
121)	1-methylnaphthalene			1.152	1.543	1.742	1.795	1.697	2.011	1.6568	17.51

Response Factor Report

Method Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Method File : TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Feb 16 08:30:44 2018
Response Via : Initial Calibration

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	ISTD									
2)		chlorodifluoromethane	1.140	1.124	1.101	1.066	1.026	0.981	0.897	0.861	1.0246	10.14
3)		propylene	1.017	0.930	0.903	0.832	0.808	0.790	0.698	0.717	0.8369	12.95
4)		propane	1.242	1.096	1.049	0.987	0.954	0.929	0.836	0.818	0.9890	14.13
5)		dichlorodifluoromethane	1.297	1.304	1.294	1.218	1.174	1.082	0.995	0.930	1.1618	12.48
6)	C	chloromethane	0.909	0.879	0.866	0.832	0.819	0.840	0.742	0.753	0.8301	7.04
7)		Freon-114	1.777	1.752	1.683	1.652	1.606	1.573	1.412	1.372	1.6036	9.20
8)	C	methanol			0.470	0.426	0.407	0.393	0.357	0.354	0.4012	10.98
9)	C	vinyl chloride	0.951	0.965	0.936	0.909	0.898	0.862	0.809	0.775	0.8882	7.65
10)	C	1,3-butadiene	0.740	0.747	0.704	0.687	0.737	0.665	0.607	0.613	0.6874	8.05
11)		butane	2.089	1.914	1.902	1.753	1.612	1.400	1.300	1.280	1.6564	18.53
12)	C	acetaldehyde		0.549	0.504	0.450	0.441	0.476	0.416	0.418	0.4646	10.44
13)	C	bromomethane	0.680	0.643	0.641	0.623	0.607	0.589	0.537	0.529	0.6063	8.65
14)	C	chloroethane	0.499	0.472	0.457	0.444	0.445	0.436	0.397	0.398	0.4434	7.83
15)		ethanol			0.791	0.774	0.740	0.742	0.680	0.671	0.7329	6.63
16)		dichlorofluoromethane	1.575	1.533	1.511	1.476	1.444	1.396	1.274	1.252	1.4327	8.25
17)	C	vinyl bromide	0.532	0.545	0.531	0.526	0.520	0.542	0.476	0.500	0.5212	4.42
18)	C	acrolein		0.385	0.365	0.356	0.352	0.353	0.326	0.335	0.3531	5.46
19)		acetone	1.622	1.313	1.207	1.045	1.025	1.040	0.945	0.901	1.1374	20.86
20)	C	acetonitrile	1.186	1.073	1.062	1.017	1.003	0.974	0.902	0.894	1.0140	9.42
21)		trichlorofluoromethane	1.070	1.030	1.013	0.970	0.959	0.889	0.832	0.811	0.9467	9.96
22)		isopropyl alcohol	2.500	1.833	1.531	1.288	1.233	1.327	1.203	1.208	1.5155	29.82
23)	C	acrylonitrile	0.640	0.656	0.657	0.646	0.651	0.640	0.597	0.614	0.6378	3.33
24)		pentane	2.245	2.227	2.129	2.027	2.118	2.300	2.099	2.009	2.1442	4.86
25)		ethyl ether	1.606	1.768	1.749	1.686	1.797	1.730	1.715	1.766	1.7271	3.46
26)	C	1,1-dichloroethene	1.225	1.250	1.190	1.181	1.167	1.095	1.047	1.006	1.1450	7.59
27)		tertiary butyl alcohol		1.459	1.416	1.414	1.364	1.334	1.272	1.234	1.3563	6.02
28)	C	methylene chloride		1.139	1.100	1.047	1.036	1.014	0.928	0.943	1.0295	7.47
29)	C	3-chloropropene	1.714	1.594	1.562	1.519	1.494	1.456	1.369	1.366	1.5094	7.72
30)	C	carbon disulfide	2.061	2.036	2.033	2.053	2.055	2.073	1.904	1.912	2.0158	3.36
31)		Freon 113	1.222	1.171	1.185	1.142	1.109	1.096	1.012	1.029	1.1206	6.60

Response Factor Report

Method Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Method File : TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Feb 16 08:30:44 2018
Response Via : Initial Calibration

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)		trans-1,2-dichloroethene	1.120	1.134	1.116	1.113	1.106	1.039	1.009	0.975	1.0766	5.59
33)	C	1,1-dichloroethane	1.456	1.407	1.392	1.355	1.351	1.279	1.229	1.187	1.3320	6.96
34)	C	MTBE	1.637	1.603	1.624	1.625	1.610	1.503	1.451	1.406	1.5573	5.82
35)	C	vinyl acetate	2.084	1.995	1.979	2.031	2.072	2.030	1.951	1.945	2.0109	2.59
36)	C	2-butanone	2.023	1.941	1.931	1.942	1.927	1.858	1.768	1.755	1.8932	4.90
37)		cis-1,2-dichloroethene	0.999	1.031	1.035	1.030	1.031	0.956	0.934	0.899	0.9893	5.33
38)		Ethyl Acetate	0.235	0.267	0.271	0.271	0.273	0.258	0.257	0.261	0.2616	4.72
39)	C	chloroform	1.182	1.219	1.200	1.154	1.149	1.016	1.025	0.950	1.1118	9.00
40)		Tetrahydrofuran	1.190	1.152	1.209	1.229	1.232	1.185	1.138	1.144	1.1849	3.15
41)		2,2-dichloropropane	0.887	0.901	0.896	0.889	0.885	0.800	0.816	0.771	0.8555	6.00
42)	C	1,2-dichloroethane	0.843	0.880	0.874	0.851	0.842	0.746	0.752	0.707	0.8119	8.19
43)	I	1,4-difluorobenzene	----------ISTD----------									
44)	C	hexane	0.765	0.751	0.760	0.747	0.766	0.715	0.744	0.746	0.7494	2.17
45)		diisopropyl ether	0.305	0.293	0.303	0.298	0.308	0.298	0.308	0.324	0.3048	3.10
46)		tert-butyl ethyl ether	1.265	1.255	1.272	1.259	1.291	1.231	1.231	1.228	1.2540	1.80
47)	s	1,2-dichloroethane-D4	0.278	0.283	0.284	0.275	0.289	0.279	0.285	0.282	0.2820	1.58
48)	C	1,1,1-trichloroethane	0.474	0.475	0.469	0.468	0.479	0.446	0.462	0.454	0.4661	2.42
49)		1,1-dichloropropene	0.533	0.524	0.525	0.518	0.525	0.490	0.499	0.494	0.5137	3.22
50)	C	benzene	1.249	1.266	1.229	1.204	1.226	1.113	1.134	1.095	1.1896	5.53
51)		thiophene	0.560	0.580	0.579	0.541	0.548	0.545	0.562	0.562	0.5596	2.63
52)	C	carbon tetrachloride	0.408	0.402	0.401	0.405	0.416	0.387	0.407	0.392	0.4023	2.26
53)		cyclohexane	0.788	0.794	0.787	0.782	0.791	0.727	0.759	0.750	0.7722	3.15
54)		tert-amyl methyl ether	0.934	0.939	0.945	0.965	0.979	0.937	0.958	0.970	0.9534	1.79
55)		dibromomethane	0.332	0.340	0.327	0.325	0.333	0.318	0.323	0.331	0.3286	2.05
56)	C	1,2-dichloropropane	0.491	0.516	0.499	0.492	0.496	0.475	0.487	0.503	0.4950	2.41
57)		bromodichloromethane	0.608	0.603	0.612	0.633	0.649	0.601	0.623	0.613	0.6178	2.67
58)	C	1,4-dioxane	0.210	0.238	0.241	0.256	0.250	0.247	0.259	0.268	0.2463	7.12
59)	C	trichloroethene	0.349	0.376	0.369	0.379	0.378	0.358	0.376	0.408	0.3742	4.63
60)	C	2,2,4-trimethylpentane	2.463	2.466	2.499	2.461	2.487	2.286	2.299	2.259	2.4025	4.23
61)		methyl methacrylate	0.540	0.568	0.558	0.548	0.564	0.581	0.594	0.614	0.5708	4.29
62)		heptane	1.126	1.056	1.063	1.071	1.088	1.062	1.068	1.109	1.0805	2.34

Response Factor Report

Method Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Method File : TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Feb 16 08:30:44 2018
Response Via : Initial Calibration

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63)	C	cis-1,3-dichloropropene	0.546	0.553	0.564	0.582	0.601	0.563	0.583	0.593	0.5732	3.38
64)	C	4-methyl-2-pentanone	1.169	1.180	1.217	1.260	1.298	1.253	1.270	1.319	1.2459	4.29
65)		trans-1,3-dichloropropene	0.475	0.508	0.497	0.542	0.564	0.528	0.550	0.555	0.5273	5.97
66)	C	1,1,2-trichloroethane	0.375	0.396	0.386	0.383	0.400	0.362	0.375	0.395	0.3842	3.35
67)	I	chlorobenzene-D5	ISTD									
68)	C	toluene	5.327	5.272	5.254	5.121	5.117	4.879	4.753	4.746	5.0585	4.65
69)	s	toluene-D8	3.529	3.579	3.550	3.416	3.514	3.599	3.435	3.416	3.5047	2.09
70)		2-methylthiophene	3.254	3.146	3.123	2.998	2.976	3.047	2.922	3.004	3.0589	3.54
71)		1,3-dichloropropane	2.571	2.590	2.575	2.577	2.563	2.347	2.347	2.318	2.4861	4.97
72)		2-hexanone	3.785	4.037	4.190	4.645	4.766	4.663	4.602	4.769	4.4321	8.47
73)		3-methylthiophene	3.061	3.074	3.012	2.853	2.855	2.921	2.870	2.972	2.9522	3.07
74)		dibromochloromethane	1.784	1.713	1.810	1.908	1.951	1.867	1.874	1.917	1.8528	4.26
75)	C	1,2-dibromoethane	2.378	2.255	2.245	2.294	2.296	2.109	2.128	2.179	2.2354	4.09
76)		butyl acetate	0.369	0.492	0.493	0.598	0.623	0.592	0.593	0.635	0.5495	16.56
77)		octane	1.915	1.884	1.908	1.946	1.928	1.806	1.846	1.836	1.8835	2.63
78)	C	tetrachloroethene	1.669	1.621	1.672	1.609	1.619	1.511	1.592	1.676	1.6211	3.37
79)		1,1,1,2-tetrachloroethane	1.425	1.402	1.383	1.458	1.460	1.385	1.453	1.557	1.4404	3.93
80)	C	chlorobenzene	3.856	3.802	3.781	3.772	3.688	3.442	3.526	3.720	3.6984	3.88
81)	C	ethylbenzene	6.523	6.356	6.335	6.451	6.443	6.120	5.968	5.949	6.2680	3.59
82)		2-ethylthiophene	2.758	2.756	2.787	2.614	2.601	2.646	2.590	2.655	2.6760	2.95
83)	C	m+p-xylene	5.170	5.181	5.193	5.152	5.131	4.935	4.858	4.918	5.0671	2.73
84)	C	bromoform	1.220	1.251	1.297	1.460	1.521	1.516	1.572	1.690	1.4409	11.64
85)	C	styrene	3.705	3.765	3.798	3.893	3.854	3.602	3.626	3.748	3.7486	2.72
86)	C	1,1,2,2-tetrachloroethane	4.066	4.085	4.020	4.167	4.088	3.897	3.890	4.100	4.0390	2.44
87)	C	o-xylene	5.246	5.223	5.227	5.225	5.254	5.031	4.989	5.060	5.1568	2.13
88)		1,2,3-trichloropropane	3.063	3.017	3.071	3.081	3.104	2.799	2.834	2.887	2.9820	4.10
89)		nonane	5.858	6.034	6.106	6.209	6.218	6.093	5.955	6.098	6.0712	2.00
90)	s	bromofluorobenzene	1.929	1.933	1.755	2.007	1.923	2.666	1.809	1.894	1.9896	14.30
91)	C	isopropylbenzene	6.033	6.236	6.270	6.193	6.045	5.709	5.587	5.806	5.9850	4.28
92)		bromobenzene	4.020	4.000	3.972	3.955	3.906	3.624	3.640	3.758	3.8596	4.20
93)		2-chlorotoluene	1.516	1.551	1.641	1.652	1.631	1.549	1.579	1.727	1.6058	4.32

Response Factor Report

Method Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Method File : TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Feb 16 08:30:44 2018
Response Via : Initial Calibration

Calibration Files
0.2 =r155811.D 0.5 =r155812.D 1.0 =r155813.D 5.0 =r155814.D 10 =r155815.D 20 =r155819.D
50 =r155816.D 100 =r155817.D

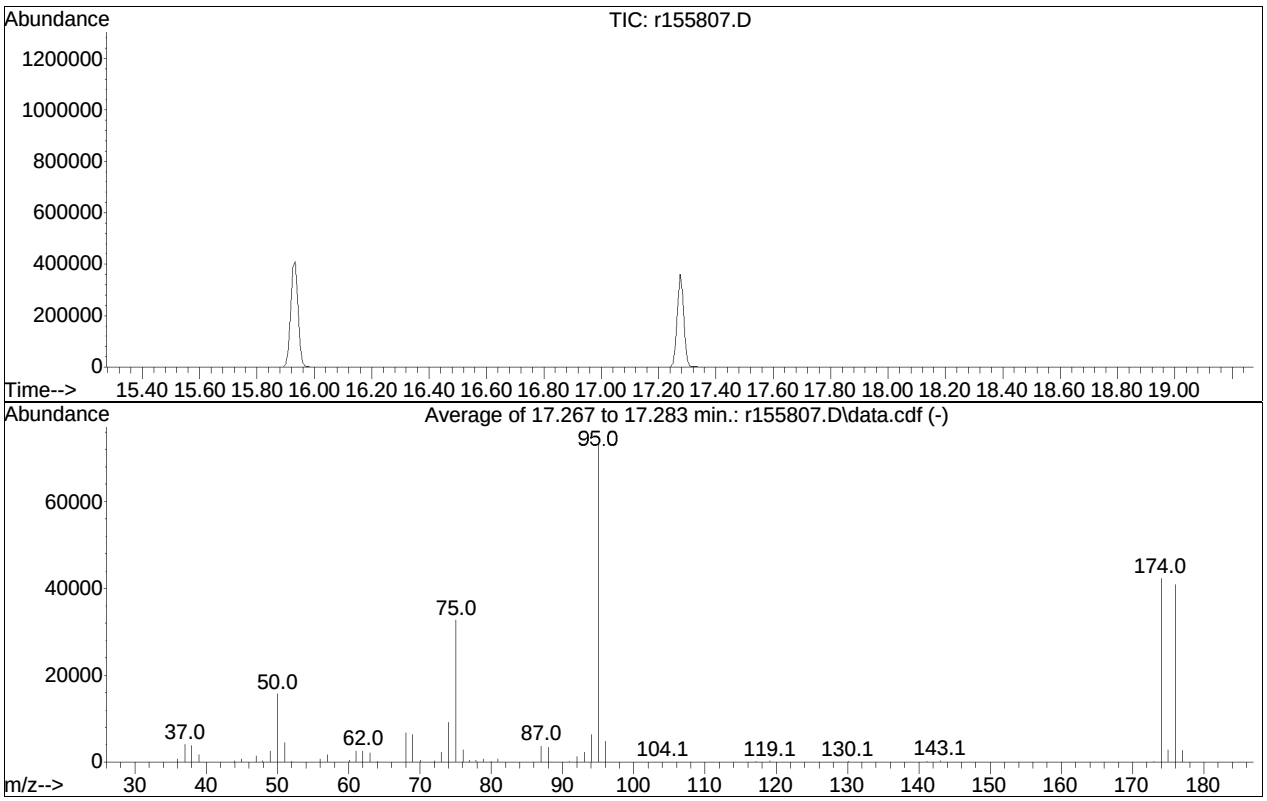
		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)		n-propylbenzene	1.726	1.832	1.908	1.915	1.893	1.804	1.880	2.131	1.8861	6.22
95)		4-chlorotoluene	1.477	1.571	1.569	1.542	1.590	1.534	1.536	1.697	1.5645	4.05
96)		4-ethyl toluene	6.387	6.526	6.660	6.692	6.620	6.199	6.194	6.514	6.4741	3.03
97)		1,3,5-trimethylbenzene	5.455	5.606	5.794	5.828	5.711	5.328	5.280	5.621	5.5780	3.69
98)		tert-butylbenzene	5.301	5.512	5.457	5.641	5.633	5.381	5.470	5.719	5.5142	2.57
99)		1,2,4-trimethylbenzene	5.413	5.523	5.684	5.776	5.711	5.493	5.759	6.049	5.6763	3.54
100)		decane	5.753	6.036	6.109	6.299	6.276	5.864	5.831	6.008	6.0220	3.34
101)	C	Benzyl Chloride	2.614	2.866	3.233	3.982	4.284	4.594	4.695	5.202	3.9338	23.77
102)		1,3-dichlorobenzene	3.163	3.226	3.332	3.407	3.373	3.189	3.297	3.724	3.3390	5.34
103)	C	1,4-dichlorobenzene	3.058	3.259	3.234	3.254	3.266	3.171	3.207	3.646	3.2619	5.20
104)		sec-butylbenzene	7.896	7.841	7.881	8.014	7.764	7.426	7.223	8.011	7.7571	3.67
105)		1,2,3-trimethylbenzene	3.844	4.031	4.146	3.969	3.926	3.952	4.113	4.546	4.0658	5.36
106)		p-isopropyltoluene	6.417	6.280	6.598	6.627	6.616	6.336	6.413	6.703	6.4987	2.40
107)		1,2-dichlorobenzene	2.913	3.050	3.079	3.122	2.998	2.947	2.973	3.274	3.0445	3.80
108)		n-butylbenzene	5.727	6.238	6.246	6.555	6.520	6.397	6.165	6.544	6.2990	4.39
109)		indan	3.916	4.128	4.122	4.047	4.016	4.053	3.983	4.199	4.0581	2.22
110)		indene	1.874	2.057	2.086	2.133	2.110	2.119	2.105	2.244	2.0912	4.95
111)	C	1,2-dibromo-3-chloropropane	1.082	1.271	1.346	1.643	1.693	1.630	1.630	1.768	1.5079	16.13
112)		undecane	5.301	6.070	6.380	6.987	7.105	6.555	6.254	6.677	6.4163	8.89
113)		1,2,4,5-tetramethylbenzene	5.003	5.384	5.462	6.242	6.158	5.538	5.399	5.777	5.6203	7.42
114)		dodecane	2.444	4.167	5.054	7.224	7.715	6.143	5.605	6.061	5.5515	30.38#
115)	C	1,2,4-trichlorobenzene	1.469	1.638	1.797	2.156	2.206	2.171	2.184	2.514	2.0169	17.23
116)		naphthalene	3.747	4.583	5.200	6.374	6.813	6.173	5.946	6.552	5.6735	18.85
117)		1,2,3-trichlorobenzene	1.253	1.534	1.625	2.044	2.120	1.916	1.893	2.290	1.8343	18.61
118)		benzothiophene	2.904	3.633	4.006	4.362	4.737	5.252	5.205	5.975	4.5092	21.94
119)	C	hexachlorobutadiene	1.517	1.636	1.674	1.800	1.868	1.771	1.657	2.031	1.7444	9.12
120)		2-methylnaphthalene			0.593	1.085	1.307	1.448	1.457	1.748	1.2728	31.19#
121)		1-methylnaphthalene			1.152	1.543	1.742	1.795	1.697	2.011	1.6568	17.51

(#) = Out of Range

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155807.D
Acq On : 15 Feb 2018 4:30 PM
Operator : AIRLAB15:MB
Sample : WG1089951-1,3,250,250
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Feb 16 08:30:44 2018



AutoFind: Scans 2078, 2079, 2080; Background Corrected with Scan 2072

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	21.3	15667	PASS
75	95	30	66	44.5	32708	PASS
95	95	100	100	100.0	73556	PASS
96	95	5	9	6.6	4865	PASS
173	174	0.00	2	0.4	184	PASS
174	95	50	120	57.5	42275	PASS
175	174	4	9	6.8	2864	PASS
176	174	93	101	96.6	40841	PASS
177	176	5	9	6.7	2719	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155811.D
Acq On : 15 Feb 2018 7:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.2
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:49:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:16 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.967	49	132043	10.000	ppbV	0.00
Standard Area = 136823			Recovery = 96.51%			
43) 1,4-difluorobenzene	11.217	114	246218	10.000	ppbV	0.00
Standard Area = 247749			Recovery = 99.38%			
67) chlorobenzene-D5	15.933	54	59908	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 96.15%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.842	65	68487	9.629	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.29%			
69) toluene-D8	14.067	98	211434	10.045	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.45%			
90) bromofluorobenzene	17.275	95	115566	10.030	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.30%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.776	51	3010	0.222	ppbV #	90
3) propylene	3.812	41	2685M6	0.252	ppbV	
4) propane	3.830	29	3281	0.260	ppbV	95
5) dichlorodifluoromethane	3.878	85	3425	0.221	ppbV	94
6) chloromethane	4.046	50	2401	0.222	ppbV	90
7) Freon-114	4.148	85	4694	0.221	ppbV	96
8) methanol	4.220	31	7663	1.427	ppbV #	53
9) vinyl chloride	4.268	62	2511	0.212	ppbV	99
10) 1,3-butadiene	4.406	54	1953	0.201	ppbV	95
11) butane	4.466	43	5517	0.259	ppbV	93
12) acetaldehyde	4.172	29	8090M4	1.391	ppbV	
13) bromomethane	4.687	94	1796	0.224	ppbV	90
14) chloroethane	4.867	64	1317	0.224	ppbV #	86
15) ethanol	5.013	31	13550	1.388	ppbV	99
16) dichlorofluoromethane	4.980	67	4160	0.218	ppbV	92
17) vinyl bromide	5.243	106	1404	0.205	ppbV	86
18) acrolein	5.383	56	1010	0.217	ppbV	96
19) acetone	5.537	43	21418	1.583	ppbV #	99
20) acetonitrile	5.250	41	3131	0.236	ppbV	92
21) trichlorofluoromethane	5.700	101	2827	0.223	ppbV	88
22) isopropyl alcohol	5.810	45	16506	1.013	ppbV	99
23) acrylonitrile	6.043	53	1690	0.197	ppbV	94
24) pentane	6.103	43	5929	0.212	ppbV #	90

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155811.D
Acq On : 15 Feb 2018 7:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.2
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:49:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:16 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	6.143	31	4241	0.179	ppbV		94
26) 1,1-dichloroethene	6.404	61	3234	0.210	ppbV		91
27) tertiary butyl alcohol	6.482	59	3949	0.219	ppbV	#	83
28) methylene chloride	6.548	49	3259	0.238	ppbV		99
29) 3-chloropropene	6.680	41	4526	0.229	ppbV	#	89
30) carbon disulfide	6.848	76	5442	0.201	ppbV	#	1
31) Freon 113	6.848	101	3226	0.220	ppbV		96
32) trans-1,2-dichloroethene	7.600	61	2959	0.203	ppbV		91
33) 1,1-dichloroethane	7.825	63	3846	0.216	ppbV		99
34) MTBE	7.917	73	4322	0.203	ppbV		94
35) vinyl acetate	8.025	43	5503	0.201	ppbV	#	95
36) 2-butanone	8.308	43	5343	0.210	ppbV		100
37) cis-1,2-dichloroethene	8.783	61	2637	0.194	ppbV		88
38) Ethyl Acetate	9.083	61	621	0.172	ppbV	#	38
39) chloroform	9.125	83	3121	0.206	ppbV		96
40) Tetrahydrofuran	9.617	42	3143M6	0.193	ppbV		
41) 2,2-dichloropropane	9.150	77	2342	0.200	ppbV		86
42) 1,2-dichloroethane	9.958	62	2225	0.200	ppbV		96
44) hexane	9.042	57	3767	0.200	ppbV		82
45) diisopropyl ether	9.050	87	1503	0.198	ppbV		85
46) tert-butyl ethyl ether	9.667	59	6229	0.196	ppbV		96
48) 1,1,1-trichloroethane	10.258	97	2336	0.198	ppbV		97
49) 1,1-dichloropropene	10.625	75	2627	0.203	ppbV		95
50) benzene	10.783	78	6149	0.204	ppbV		97
51) thiophene	10.933	84	2759	0.205	ppbV		96
52) carbon tetrachloride	10.950	117	2008	0.196	ppbV		87
53) cyclohexane	11.108	56	3880	0.199	ppbV		96
54) tert-amyl methyl ether	11.500	73	4600	0.191	ppbV		99
55) dibromomethane	11.708	93	1635	0.199	ppbV		90
56) 1,2-dichloropropane	11.742	63	2419	0.198	ppbV	#	90
57) bromodichloromethane	11.967	83	2995	0.187	ppbV	#	93
58) 1,4-dioxane	12.058	88	1036	0.168	ppbV	#	55
59) trichloroethene	12.017	130	1720	0.185	ppbV		96
60) 2,2,4-trimethylpentane	12.067	57	12128	0.198	ppbV	#	98
61) methyl methacrylate	12.275	41	2659	0.191	ppbV		93
62) heptane	12.383	43	5547	0.207	ppbV		99
63) cis-1,3-dichloropropene	13.033	75	2691	0.182	ppbV		97
64) 4-methyl-2-pentanone	13.092	43	5755	0.180	ppbV		99
65) trans-1,3-dichloropropene	13.658	75	2338	0.169	ppbV		93
66) 1,1,2-trichloroethane	13.858	97	1848	0.188	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155811.D
Acq On : 15 Feb 2018 7:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.2
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:49:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:16 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.175	91	6382	0.208	ppbV	100
70) 2-methylthiophene	14.250	97	3899	0.219	ppbV	95
71) 1,3-dichloropropane	14.208	76	3080	0.201	ppbV	92
72) 2-hexanone	14.483	43	4535	0.159	ppbV #	94
73) 3-methylthiophene	14.442	97	3668	0.214	ppbV	95
74) dibromochloromethane	14.625	129	2137	0.183	ppbV #	91
75) 1,2-dibromoethane	14.875	107	2849	0.207	ppbV	98
76) butyl acetate	15.133	73	442	0.118	ppbV	77
77) octane	15.208	85	2294	0.199	ppbV	92
78) tetrachloroethene	15.333	166	2000	0.206	ppbV	93
79) 1,1,1,2-tetrachloroethane	15.950	131	1707	0.195	ppbV	96
80) chlorobenzene	15.967	112	4620	0.209	ppbV	93
81) ethylbenzene	16.308	91	7815	0.202	ppbV	99
82) 2-ethylthiophene	16.342	97	3305	0.212	ppbV	97
83) m+p-xylene	16.467	91	12389M4	0.403	ppbV	
84) bromoform	16.533	173	1462	0.160	ppbV	88
85) styrene	16.792	104	4439	0.192	ppbV	96
86) 1,1,2,2-tetrachloroethane	16.883	83	4872	0.199	ppbV	97
87) o-xylene	16.883	91	6286	0.200	ppbV	97
88) 1,2,3-trichloropropane	16.992	75	3670	0.197	ppbV	99
89) nonane	17.075	43	7019	0.188	ppbV	99
91) isopropylbenzene	17.392	105	7229	0.200	ppbV	97
92) bromobenzene	17.467	77	4817	0.206	ppbV	97
93) 2-chlorotoluene	17.792	126	1817	0.186	ppbV	89
94) n-propylbenzene	17.825	120	2068	0.182	ppbV	95
95) 4-chlorotoluene	17.850	126	1770	0.186	ppbV	96
96) 4-ethyl toluene	17.942	105	7653	0.193	ppbV	95
97) 1,3,5-trimethylbenzene	18.008	105	6536	0.191	ppbV	100
98) tert-butylbenzene	18.350	119	6352	0.188	ppbV	95
99) 1,2,4-trimethylbenzene	18.350	105	6486	0.190	ppbV	97
100) decane	18.433	57	6893	0.183	ppbV	98
101) Benzyl Chloride	18.475	91	3132	0.122	ppbV	100
102) 1,3-dichlorobenzene	18.483	146	3790	0.188	ppbV	88
103) 1,4-dichlorobenzene	18.542	146	3664	0.187	ppbV	99
104) sec-butylbenzene	18.575	105	9461	0.203	ppbV	99
105) 1,2,3-trimethylbenzene	18.708	105	4606	0.196	ppbV	96
106) p-isopropyltoluene	18.708	119	7688	0.194	ppbV	96
107) 1,2-dichlorobenzene	18.833	146	3490	0.194	ppbV	98
108) n-butylbenzene	19.067	91	6862	0.176	ppbV	97
109) indan	18.883	117	4692	0.195	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155811.D
Acq On : 15 Feb 2018 7:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.2
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:49:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:16 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

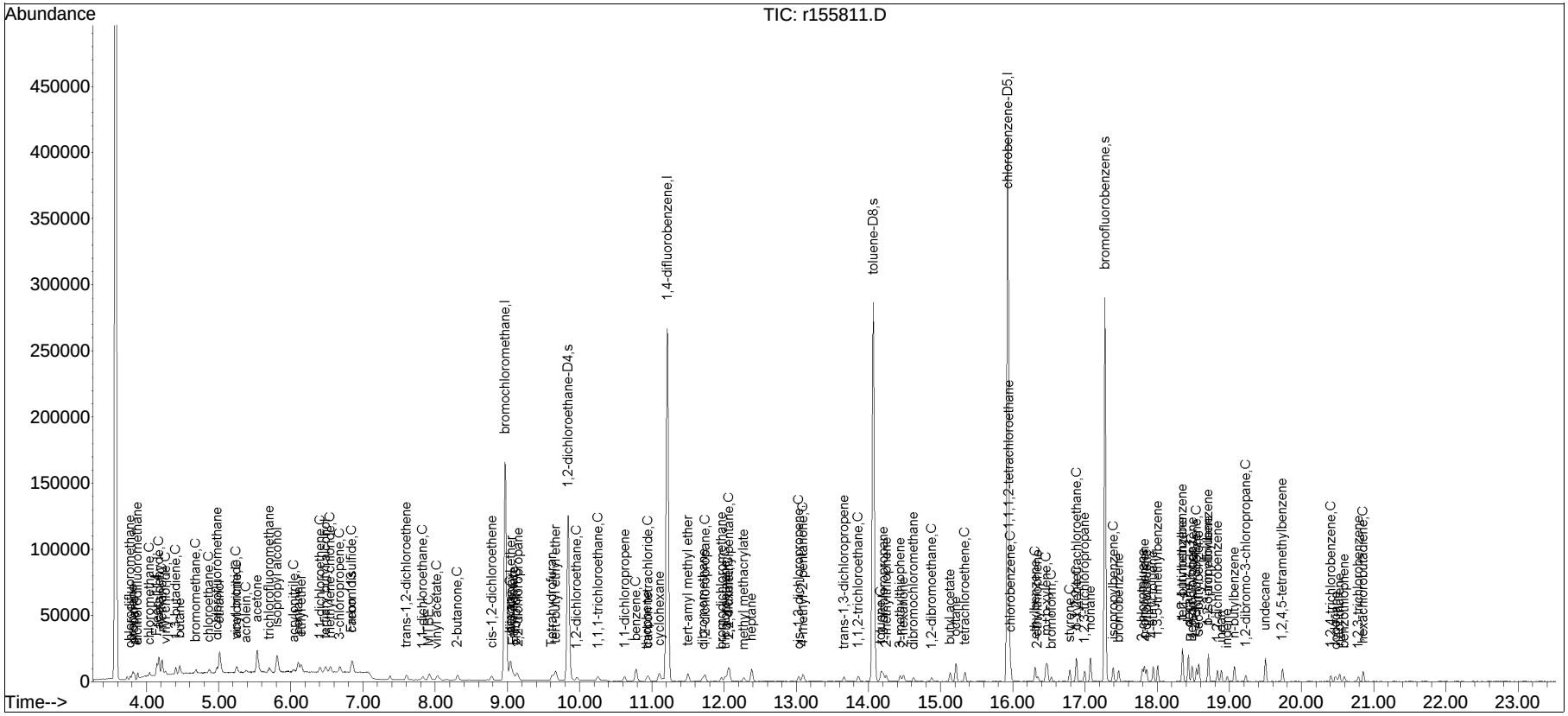
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.967	115	2245	0.178	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.225	75	1296	0.128	ppbV #	67
112) undecane	19.500	57	6351	0.149	ppbV #	94
113) 1,2,4,5-tetramethylben...	19.733	119	5994	0.162	ppbV	96
114) dodecane	20.475	57	2928	0.063	ppbV	99
115) 1,2,4-trichlorobenzene	20.408	180	1760	0.133	ppbV #	92
116) naphthalene	20.525	128	4490	0.110	ppbV	98
117) 1,2,3-trichlorobenzene	20.783	180	1501	0.118	ppbV #	84
118) benzothiophene	20.592	134	3480	0.123	ppbV #	94
119) hexachlorobutadiene	20.850	225	1818	0.162	ppbV #	83
120) 2-methylnaphthalene	0.000		0	N.D.		
121) 1-methylnaphthalene	21.942		0	N.D.		

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155811.D
Acq On : 15 Feb 2018 7:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.2
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

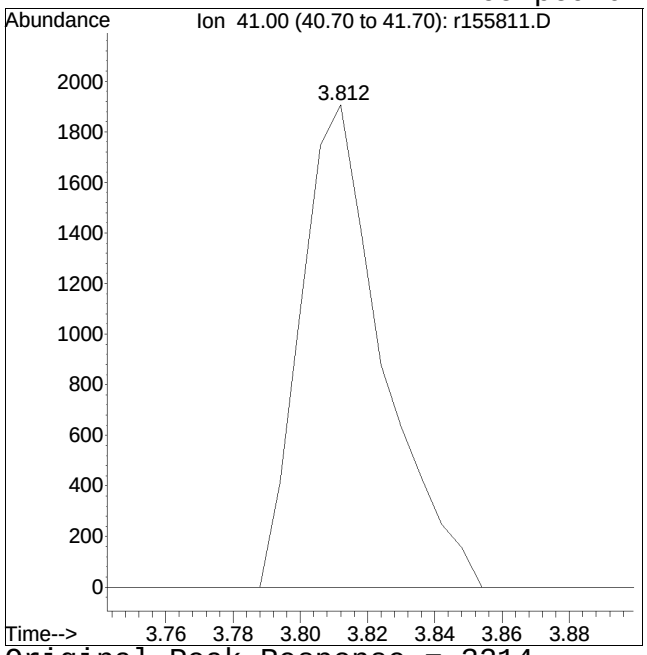
Quant Time: Feb 16 06:49:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:16 2018
Response via : Initial Calibration



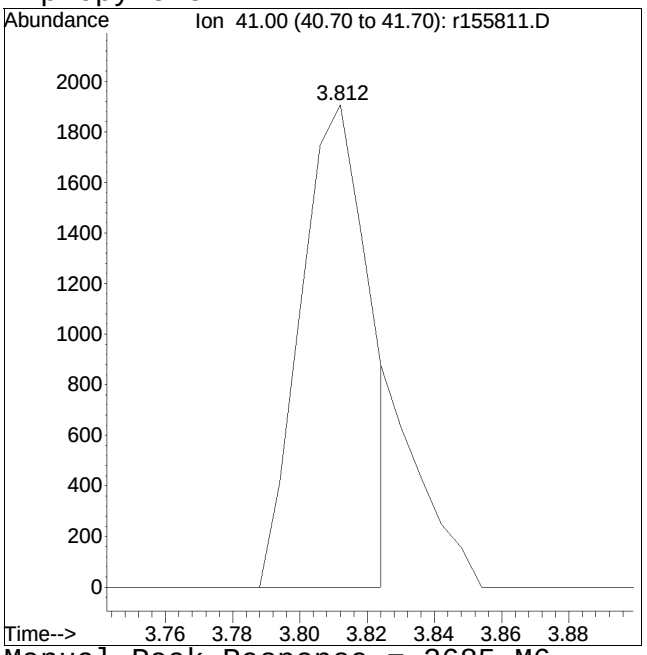
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155811.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 7:06 PM Instrument :
Sample : ITO15-SIMSTD0.2 Quant Date : 2/16/2018 6:45 am

Compound #3: propylene



Original Peak Response = 3214



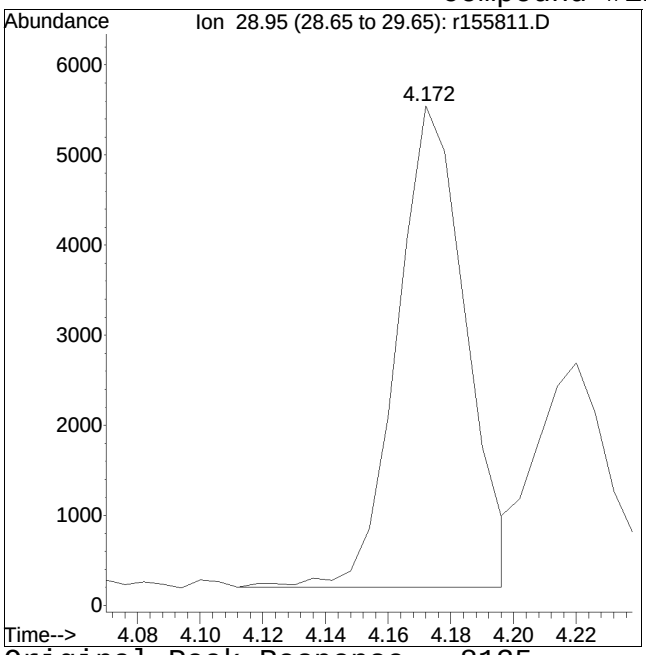
Manual Peak Response = 2685 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

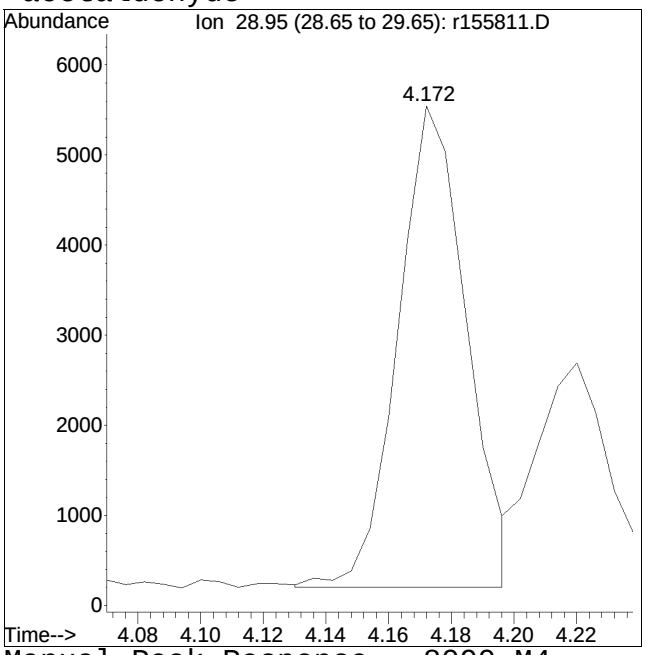
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155811.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 7:06 PM Instrument :
Sample : ITO15-SIMSTD0.2 Quant Date : 2/16/2018 6:45 am

Compound #12: acetaldehyde



Original Peak Response = 8135



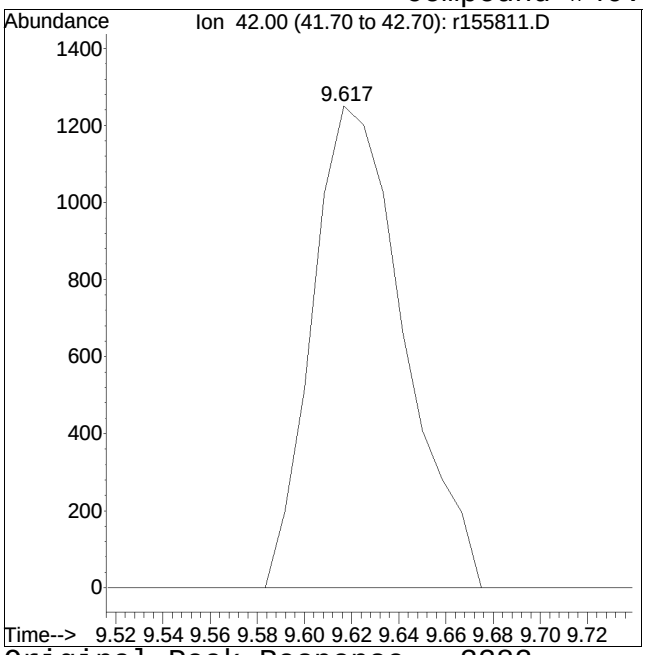
Manual Peak Response = 8090 M4

M4 = Poor automated baseline construction.

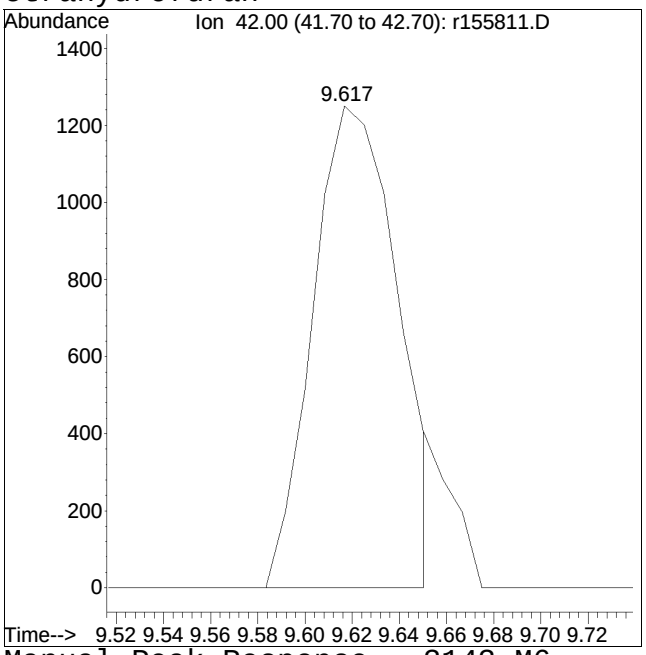
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155811.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 7:06 PM Instrument :
Sample : ITO15-SIMSTD0.2 Quant Date : 2/16/2018 6:45 am

Compound #40: Tetrahydrofuran



Original Peak Response = 3382



Manual Peak Response = 3143 M6

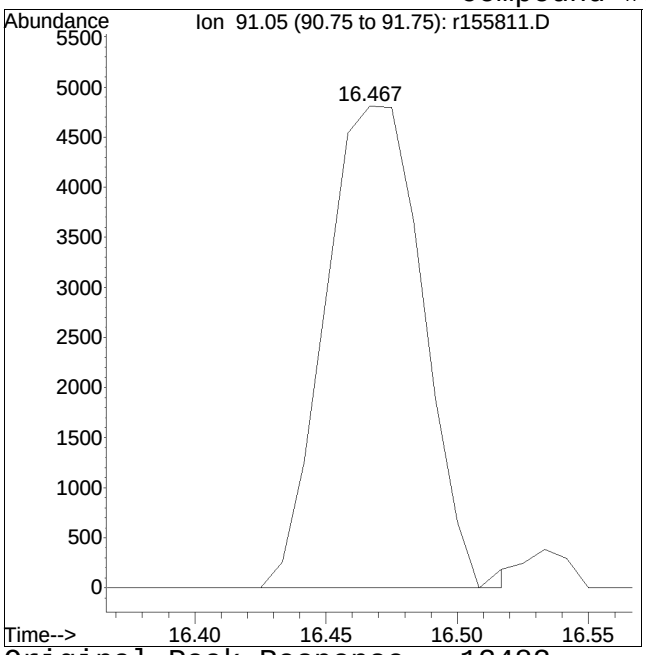
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

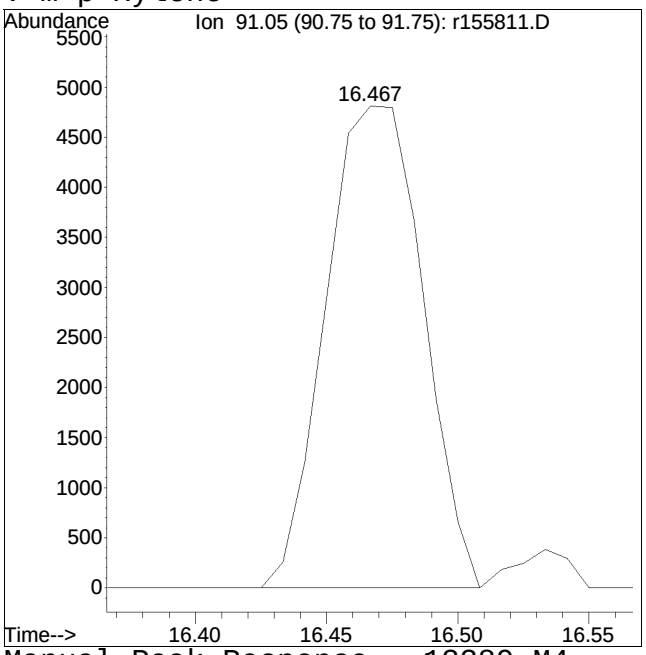
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155811.D
Date Inj'd : 2/15/2018 7:06 PM
Sample : ITO15-SIMSTD0.2

QMethod : TALL180215.M
Operator : AIRLAB15:MB
Instrument :
Quant Date : 2/16/2018 6:45 am

Compound #83: m+p-xylene



Original Peak Response = 12482



Manual Peak Response = 12389 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155812.D
Acq On : 15 Feb 2018 7:45 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.5
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:50:40 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.967	49	131219	10.000	ppbV	0.00
Standard Area = 136823			Recovery = 95.90%			
43) 1,4-difluorobenzene	11.217	114	243960	10.000	ppbV	0.00
Standard Area = 247749			Recovery = 98.47%			
67) chlorobenzene-D5	15.933	54	60298	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 96.77%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.842	65	68995	9.790	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.90%			
69) toluene-D8	14.067	98	215790	10.185	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.85%			
90) bromofluorobenzene	17.275	95	116574	10.052	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.52%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.776	51	7377	0.548	ppbV	97
3) propylene	3.806	41	6103M6	0.576	ppbV	
4) propane	3.830	29	7192	0.574	ppbV	96
5) dichlorodifluoromethane	3.878	85	8558	0.556	ppbV	100
6) chloromethane	4.040	50	5768	0.536	ppbV	94
7) Freon-114	4.142	85	11497	0.546	ppbV	98
8) methanol	4.214	31	16588	3.109	ppbV #	73
9) vinyl chloride	4.262	62	6330	0.537	ppbV	100
10) 1,3-butadiene	4.406	54	4900	0.507	ppbV	100
11) butane	4.460	43	12559	0.594	ppbV #	96
12) acetaldehyde	4.172	29	17997M4	3.113	ppbV	
13) bromomethane	4.687	94	4220	0.529	ppbV	98
14) chloroethane	4.870	64	3100	0.531	ppbV	96
15) ethanol	5.010	31	28494	2.936	ppbV	98
16) dichlorofluoromethane	4.977	67	10059	0.531	ppbV	97
17) vinyl bromide	5.243	106	3573	0.524	ppbV	87
18) acrolein	5.380	56	2526	0.546	ppbV #	85
19) acetone	5.530	43	43083	3.204	ppbV #	98
20) acetonitrile	5.247	41	7042	0.535	ppbV	89
21) trichlorofluoromethane	5.703	101	6758	0.537	ppbV	97
22) isopropyl alcohol	5.807	45	30071	1.858	ppbV	98
23) acrylonitrile	6.037	53	4305	0.504	ppbV #	89
24) pentane	6.100	43	14608	0.526	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155812.D
Acq On : 15 Feb 2018 7:45 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.5
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:50:40 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	6.140	31	11601	0.492	ppbV		98
26) 1,1-dichloroethene	6.404	61	8204	0.536	ppbV		94
27) tertiary butyl alcohol	6.476	59	9573	0.535	ppbV		95
28) methylene chloride	6.548	49	7473	0.550	ppbV		96
29) 3-chloropropene	6.680	41	10457	0.533	ppbV		100
30) carbon disulfide	6.848	76	13356	0.495	ppbV	#	37
31) Freon 113	6.842	101	7680	0.528	ppbV		98
32) trans-1,2-dichloroethene	7.600	61	7443	0.513	ppbV		93
33) 1,1-dichloroethane	7.825	63	9232	0.521	ppbV		100
34) MTBE	7.917	73	10515	0.498	ppbV		96
35) vinyl acetate	8.025	43	13086	0.481	ppbV		97
36) 2-butanone	8.300	43	12738	0.504	ppbV		99
37) cis-1,2-dichloroethene	8.783	61	6762	0.500	ppbV		96
38) Ethyl Acetate	9.075	61	1752	0.489	ppbV		58
39) chloroform	9.125	83	7995	0.530	ppbV		98
40) Tetrahydrofuran	9.608	42	7559M6	0.468	ppbV		
41) 2,2-dichloropropane	9.142	77	5909	0.509	ppbV		97
42) 1,2-dichloroethane	9.967	62	5774	0.522	ppbV		99
44) hexane	9.033	57	9164	0.491	ppbV	#	75
45) diisopropyl ether	9.042	87	3573	0.475	ppbV		97
46) tert-butyl ethyl ether	9.667	59	15304	0.486	ppbV		98
48) 1,1,1-trichloroethane	10.250	97	5800	0.496	ppbV		100
49) 1,1-dichloropropene	10.625	75	6396	0.500	ppbV		96
50) benzene	10.783	78	15445	0.516	ppbV		98
51) thiophene	10.933	84	7077	0.530	ppbV		99
52) carbon tetrachloride	10.958	117	4908	0.483	ppbV		94
53) cyclohexane	11.108	56	9691	0.502	ppbV		98
54) tert-amyl methyl ether	11.492	73	11460	0.480	ppbV		98
55) dibromomethane	11.700	93	4145	0.510	ppbV		92
56) 1,2-dichloropropane	11.742	63	6292	0.520	ppbV		98
57) bromodichloromethane	11.967	83	7361	0.465	ppbV		95
58) 1,4-dioxane	12.042	88	2908	0.477	ppbV		91
59) trichloroethene	12.017	130	4583	0.497	ppbV		97
60) 2,2,4-trimethylpentane	12.067	57	30075	0.496	ppbV	#	99
61) methyl methacrylate	12.275	41	6925	0.503	ppbV		94
62) heptane	12.383	43	12878	0.485	ppbV		99
63) cis-1,3-dichloropropene	13.033	75	6749	0.460	ppbV		97
64) 4-methyl-2-pentanone	13.092	43	14399	0.455	ppbV		100
65) trans-1,3-dichloropropene	13.658	75	6194	0.451	ppbV		99
66) 1,1,2-trichloroethane	13.858	97	4830	0.495	ppbV		95

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155812.D
Acq On : 15 Feb 2018 7:45 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.5
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:50:40 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.175	91	15896	0.515	ppbV	99
70) 2-methylthiophene	14.250	97	9484	0.528	ppbV	94
71) 1,3-dichloropropane	14.208	76	7808	0.505	ppbV	97
72) 2-hexanone	14.475	43	12170	0.424	ppbV	97
73) 3-methylthiophene	14.442	97	9267	0.538	ppbV	96
74) dibromochloromethane	14.625	129	5164	0.439	ppbV	97
75) 1,2-dibromoethane	14.875	107	6799	0.491	ppbV	99
76) butyl acetate	15.133	73	1484	0.395	ppbV	80
77) octane	15.208	85	5680	0.489	ppbV	98
78) tetrachloroethene	15.333	166	4888	0.501	ppbV	94
79) 1,1,1,2-tetrachloroethane	15.958	131	4228	0.480	ppbV	94
80) chlorobenzene	15.967	112	11463	0.515	ppbV	97
81) ethylbenzene	16.308	91	19163	0.493	ppbV	99
82) 2-ethylthiophene	16.342	97	8310	0.530	ppbV	98
83) m+p-xylene	16.475	91	31238	1.010	ppbV	98
84) bromoform	16.533	173	3773	0.411	ppbV	96
85) styrene	16.783	104	11350	0.488	ppbV	94
86) 1,1,2,2-tetrachloroethane	16.875	83	12315	0.500	ppbV	98
87) o-xylene	16.883	91	15746	0.497	ppbV	100
88) 1,2,3-trichloropropane	16.992	75	9095	0.486	ppbV	95
89) nonane	17.075	43	18192	0.485	ppbV	98
91) isopropylbenzene	17.392	105	18801	0.516	ppbV	100
92) bromobenzene	17.467	77	12061	0.512	ppbV	92
93) 2-chlorotoluene	17.792	126	4677	0.476	ppbV	94
94) n-propylbenzene	17.825	120	5523	0.484	ppbV	97
95) 4-chlorotoluene	17.850	126	4737	0.494	ppbV	94
96) 4-ethyl toluene	17.942	105	19676	0.493	ppbV	96
97) 1,3,5-trimethylbenzene	18.008	105	16903	0.491	ppbV	98
98) tert-butylbenzene	18.350	119	16618	0.489	ppbV	99
99) 1,2,4-trimethylbenzene	18.350	105	16652	0.484	ppbV	96
100) decane	18.433	57	18198	0.481	ppbV	98
101) Benzyl Chloride	18.475	91	8641	0.334	ppbV	98
102) 1,3-dichlorobenzene	18.483	146	9726	0.478	ppbV	99
103) 1,4-dichlorobenzene	18.542	146	9826	0.499	ppbV	97
104) sec-butylbenzene	18.575	105	23640	0.505	ppbV	96
105) 1,2,3-trimethylbenzene	18.708	105	12153	0.513	ppbV	95
106) p-isopropyltoluene	18.708	119	18934	0.475	ppbV	100
107) 1,2-dichlorobenzene	18.833	146	9196	0.509	ppbV	97
108) n-butylbenzene	19.067	91	18808	0.478	ppbV	93
109) indan	18.883	117	12446	0.514	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155812.D
Acq On : 15 Feb 2018 7:45 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.5
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:50:40 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

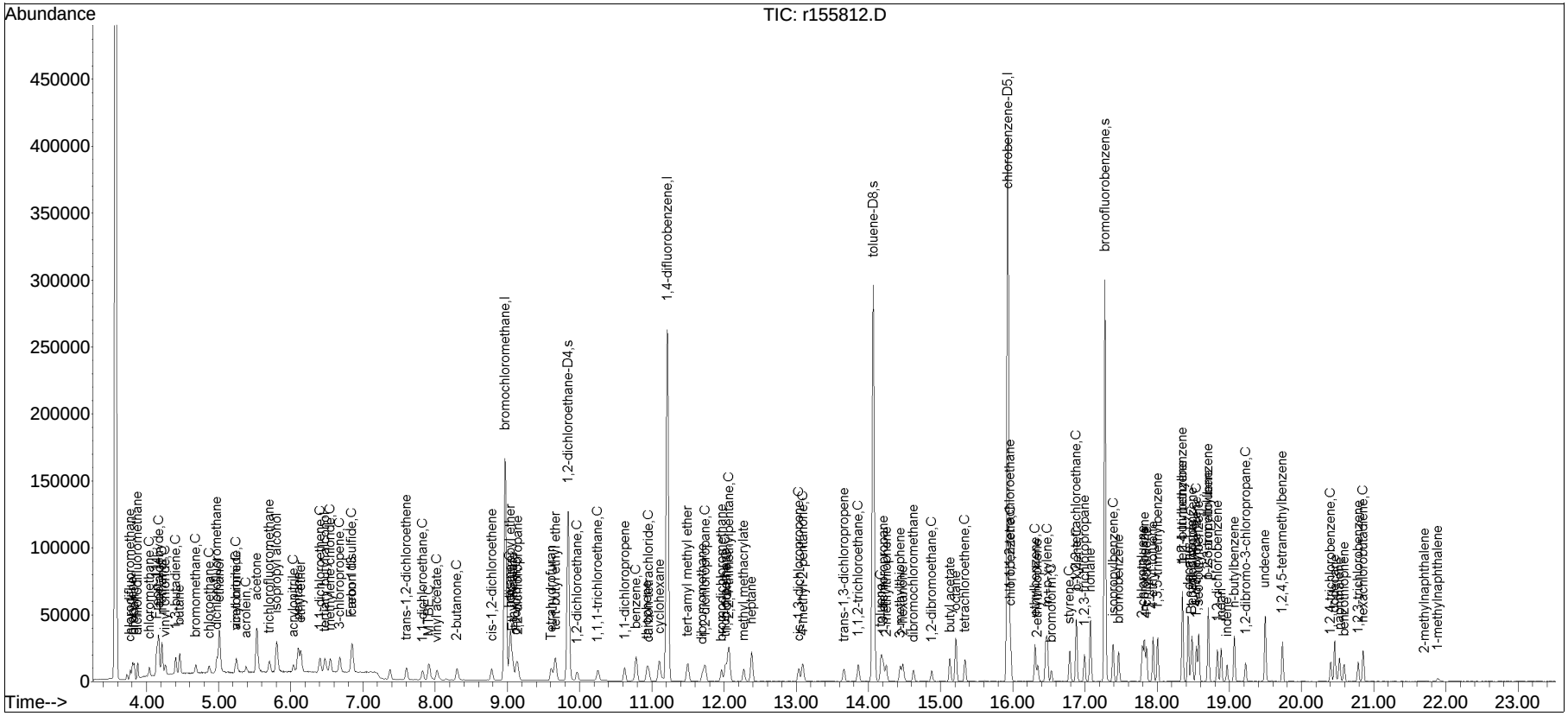
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.967	115	6203	0.487	ppbV	96
111) 1,2-dibromo-3-chloropr...	19.225	75	3832	0.375	ppbV	93
112) undecane	19.492	57	18301	0.427	ppbV	97
113) 1,2,4,5-tetramethylben...	19.733	119	16231	0.437	ppbV	96
114) dodecane	20.458	57	12563	0.270	ppbV	100
115) 1,2,4-trichlorobenzene	20.400	180	4939	0.371	ppbV	99
116) naphthalene	20.525	128	13818	0.336	ppbV	98
117) 1,2,3-trichlorobenzene	20.783	180	4624	0.362	ppbV	93
118) benzothiophene	20.592	134	10952	0.383	ppbV	99
119) hexachlorobutadiene	20.850	225	4933	0.438	ppbV	96
120) 2-methylnaphthalene	21.700	142	770	0.098	ppbV #	84
121) 1-methylnaphthalene	21.883	142	2520	0.240	ppbV	92

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155812.D
Acq On : 15 Feb 2018 7:45 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD0.5
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

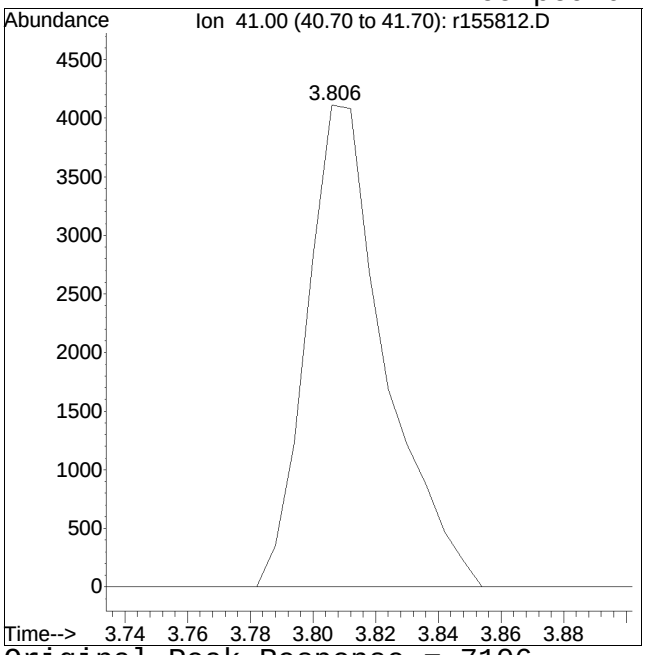
Quant Time: Feb 16 06:50:40 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration



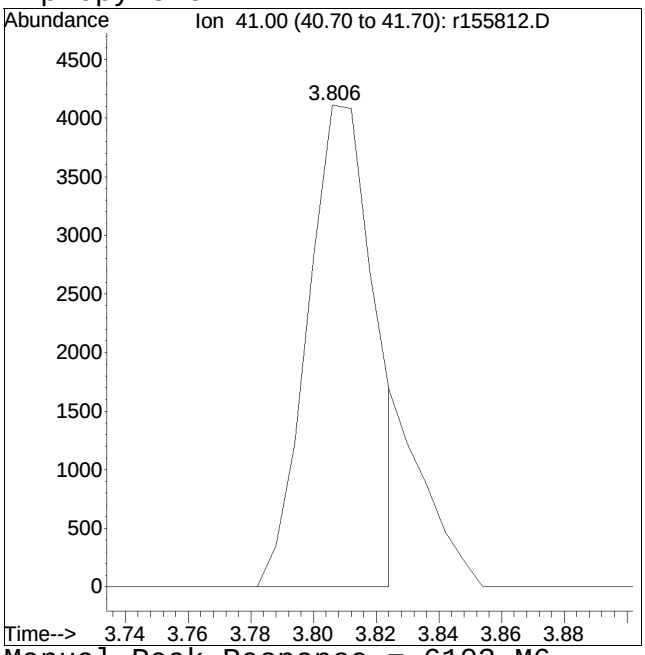
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155812.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 7:45 PM Instrument :
Sample : ITO15-SIMSTD0.5 Quant Date : 2/16/2018 6:45 am

Compound #3: propylene



Original Peak Response = 7106



Manual Peak Response = 6103 M6

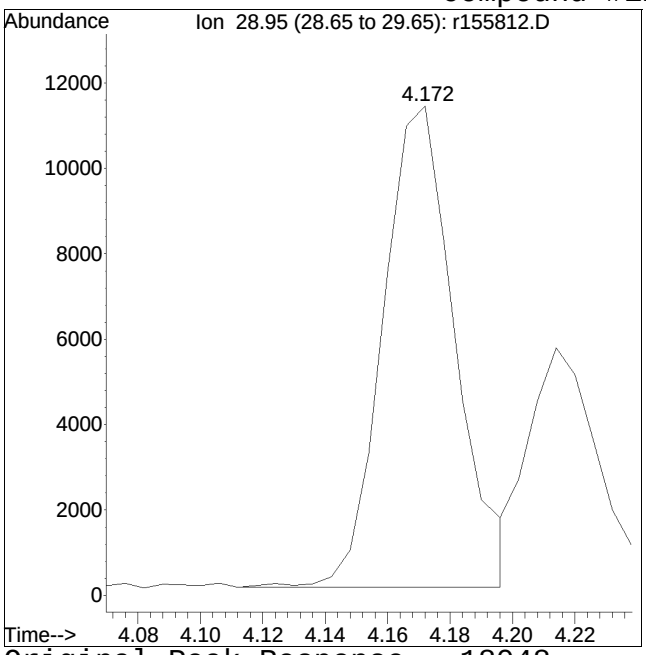
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

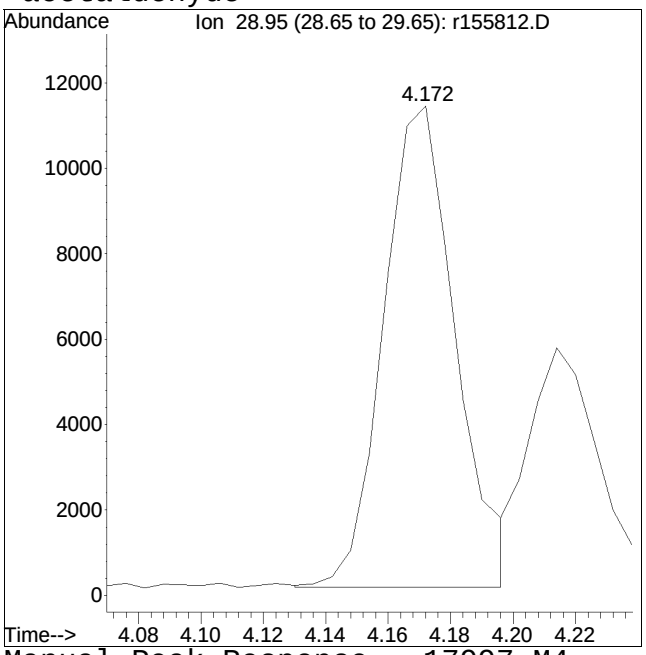
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155812.D
Date Inj'd : 2/15/2018 7:45 PM
Sample : ITO15-SIMSTD0.5

QMethod : TALL180215.M
Operator : AIRLAB15:MB
Instrument :
Quant Date : 2/16/2018 6:45 am

Compound #12: acetaldehyde



Original Peak Response = 18048



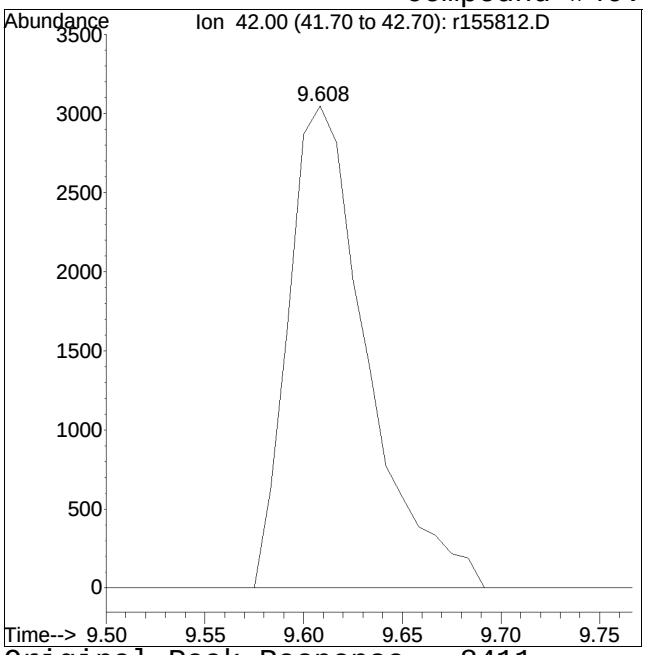
Manual Peak Response = 17997 M4

M4 = Poor automated baseline construction.

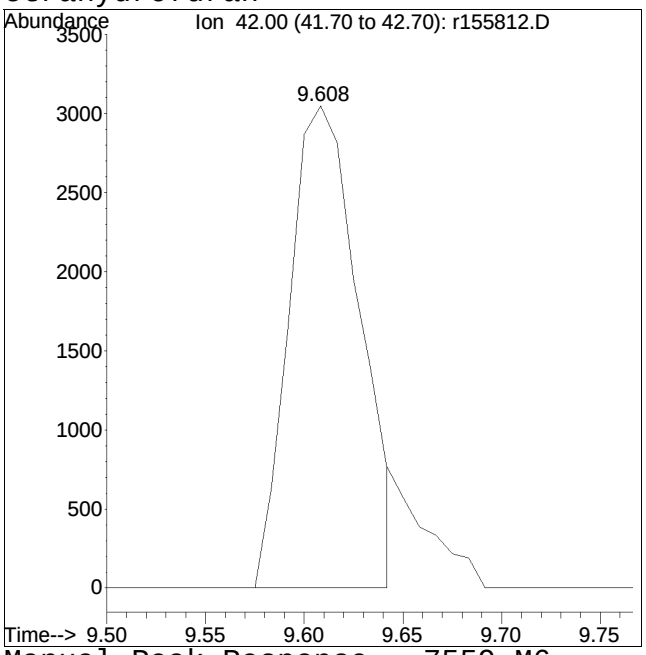
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155812.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 7:45 PM Instrument :
Sample : ITO15-SIMSTD0.5 Quant Date : 2/16/2018 6:45 am

Compound #40: Tetrahydrofuran



Original Peak Response = 8411



Manual Peak Response = 7559 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155813.D
Acq On : 15 Feb 2018 8:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD1.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:52:31 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.975	49	132750	10.000	ppbV	0.00
Standard Area = 136823			Recovery = 97.02%			
43) 1,4-difluorobenzene	11.217	114	245721	10.000	ppbV	0.00
Standard Area = 247749			Recovery = 99.18%			
67) chlorobenzene-D5	15.933	54	60678	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 97.38%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.842	65	69884	9.845	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.45%			
69) toluene-D8	14.067	98	215392	10.103	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.03%			
90) bromofluorobenzene	17.275	95	106464	9.122	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 91.22%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.776	51	14618	1.073	ppbV	96
3) propylene	3.806	41	11990M6	1.118	ppbV	
4) propane	3.830	29	13931	1.100	ppbV	99
5) dichlorodifluoromethane	3.878	85	17182	1.103	ppbV	98
6) chloromethane	4.040	50	11496	1.057	ppbV	96
7) Freon-114	4.142	85	22345	1.048	ppbV	95
8) methanol	4.214	31	31225	5.784	ppbV #	86
9) vinyl chloride	4.262	62	12426	1.042	ppbV	95
10) 1,3-butadiene	4.406	54	9346	0.955	ppbV	98
11) butane	4.460	43	25253	1.180	ppbV	99
12) acetaldehyde	4.166	29	33452	5.719	ppbV	96
13) bromomethane	4.683	94	8504	1.055	ppbV	98
14) chloroethane	4.867	64	6066	1.027	ppbV	99
15) ethanol	5.007	31	52480	5.345	ppbV	98
16) dichlorofluoromethane	4.977	67	20057	1.046	ppbV	99
17) vinyl bromide	5.247	106	7043	1.021	ppbV	85
18) acrolein	5.380	56	4840	1.034	ppbV	93
19) acetone	5.523	43	80146	5.892	ppbV	97
20) acetonitrile	5.243	41	14096	1.059	ppbV	94
21) trichlorofluoromethane	5.703	101	13442	1.056	ppbV	96
22) isopropyl alcohol	5.800	45	50794	3.102	ppbV	98
23) acrylonitrile	6.033	53	8723	1.009	ppbV	94
24) pentane	6.103	43	28265M4	1.005	ppbV	

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155813.D
Acq On : 15 Feb 2018 8:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD1.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:52:31 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	6.137	31	23215	0.973	ppbV		99
26) 1,1-dichloroethene	6.404	61	15798	1.020	ppbV		97
27) tertiary butyl alcohol	6.470	59	18802	1.038	ppbV		94
28) methylene chloride	6.548	49	14607	1.062	ppbV		99
29) 3-chloropropene	6.680	41	20742	1.046	ppbV		98
30) carbon disulfide	6.854	76	26986	0.989	ppbV	#	66
31) Freon 113	6.848	101	15732	1.069	ppbV		97
32) trans-1,2-dichloroethene	7.600	61	14820	1.010	ppbV		99
33) 1,1-dichloroethane	7.825	63	18484	1.031	ppbV		98
34) MTBE	7.908	73	21564	1.009	ppbV		97
35) vinyl acetate	8.025	43	26274	0.955	ppbV		97
36) 2-butanone	8.300	43	25639	1.003	ppbV		98
37) cis-1,2-dichloroethene	8.783	61	13735	1.004	ppbV		94
38) Ethyl Acetate	9.075	61	3592	0.992	ppbV		67
39) chloroform	9.125	83	15926	1.044	ppbV		98
40) Tetrahydrofuran	9.600	42	16056M6	0.982	ppbV		
41) 2,2-dichloropropane	9.150	77	11897	1.013	ppbV		93
42) 1,2-dichloroethane	9.967	62	11608	1.038	ppbV		97
44) hexane	9.042	57	18681	0.993	ppbV		92
45) diisopropyl ether	9.042	87	7448	0.983	ppbV		95
46) tert-butyl ethyl ether	9.667	59	31264	0.986	ppbV		99
48) 1,1,1-trichloroethane	10.258	97	11533	0.980	ppbV		100
49) 1,1-dichloropropene	10.625	75	12901	1.001	ppbV		97
50) benzene	10.792	78	30197	1.002	ppbV		97
51) thiophene	10.933	84	14225	1.057	ppbV		100
52) carbon tetrachloride	10.958	117	9857	0.964	ppbV		98
53) cyclohexane	11.108	56	19345	0.996	ppbV		98
54) tert-amyl methyl ether	11.492	73	23210	0.964	ppbV		98
55) dibromomethane	11.708	93	8044	0.983	ppbV		95
56) 1,2-dichloropropane	11.742	63	12258	1.005	ppbV		99
57) bromodichloromethane	11.967	83	15026	0.942	ppbV		95
58) 1,4-dioxane	12.033	88	5922	0.964	ppbV		95
59) trichloroethene	12.017	130	9075	0.977	ppbV		90
60) 2,2,4-trimethylpentane	12.067	57	61405	1.005	ppbV		99
61) methyl methacrylate	12.275	41	13713	0.989	ppbV		95
62) heptane	12.383	43	26126	0.977	ppbV		99
63) cis-1,3-dichloropropene	13.033	75	13862	0.938	ppbV		98
64) 4-methyl-2-pentanone	13.083	43	29914	0.938	ppbV		98
65) trans-1,3-dichloropropene	13.658	75	12204	0.881	ppbV		98
66) 1,1,2-trichloroethane	13.858	97	9497	0.967	ppbV		98

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155813.D
Acq On : 15 Feb 2018 8:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD1.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:52:31 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.175	91	31881	1.027	ppbV	99
70) 2-methylthiophene	14.250	97	18951	1.049	ppbV	98
71) 1,3-dichloropropane	14.208	76	15625	1.005	ppbV	97
72) 2-hexanone	14.475	43	25427	0.879	ppbV	99
73) 3-methylthiophene	14.442	97	18274	1.055	ppbV	99
74) dibromochloromethane	14.625	129	10981	0.928	ppbV	96
75) 1,2-dibromoethane	14.875	107	13620	0.978	ppbV	92
76) butyl acetate	15.125	73	2992	0.791	ppbV	95
77) octane	15.208	85	11575	0.989	ppbV	96
78) tetrachloroethene	15.342	166	10143	1.033	ppbV	98
79) 1,1,1,2-tetrachloroethane	15.958	131	8389	0.947	ppbV	96
80) chlorobenzene	15.967	112	22941	1.025	ppbV	96
81) ethylbenzene	16.308	91	38438	0.983	ppbV	98
82) 2-ethylthiophene	16.350	97	16909	1.071	ppbV	100
83) m+p-xylene	16.475	91	63021	2.024	ppbV	97
84) bromoform	16.533	173	7870	0.853	ppbV	91
85) styrene	16.792	104	23045	0.986	ppbV	99
86) 1,1,2,2-tetrachloroethane	16.875	83	24392	0.983	ppbV	98
87) o-xylene	16.883	91	31717	0.995	ppbV	98
88) 1,2,3-trichloropropane	16.992	75	18632	0.989	ppbV	99
89) nonane	17.075	43	37047	0.982	ppbV	99
91) isopropylbenzene	17.392	105	38048	1.037	ppbV	99
92) bromobenzene	17.467	77	24104	1.017	ppbV	99
93) 2-chlorotoluene	17.792	126	9957	1.006	ppbV	96
94) n-propylbenzene	17.825	120	11580	1.008	ppbV	83
95) 4-chlorotoluene	17.850	126	9520	0.987	ppbV	91
96) 4-ethyl toluene	17.942	105	40412	1.006	ppbV	99
97) 1,3,5-trimethylbenzene	18.008	105	35159	1.015	ppbV	99
98) tert-butylbenzene	18.350	119	33112	0.969	ppbV	100
99) 1,2,4-trimethylbenzene	18.350	105	34488	0.995	ppbV	98
100) decane	18.433	57	37067	0.973	ppbV	100
101) Benzyl Chloride	18.475	91	19615	0.755	ppbV	98
102) 1,3-dichlorobenzene	18.483	146	20220	0.988	ppbV	99
103) 1,4-dichlorobenzene	18.542	146	19622	0.990	ppbV	99
104) sec-butylbenzene	18.575	105	47822	1.015	ppbV	96
105) 1,2,3-trimethylbenzene	18.708	105	25157	1.056	ppbV	93
106) p-isopropyltoluene	18.708	119	40034M6	0.997	ppbV	
107) 1,2-dichlorobenzene	18.833	146	18683	1.027	ppbV	96
108) n-butylbenzene	19.067	91	37899	0.958	ppbV	98
109) indan	18.883	117	25014	1.026	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155813.D
Acq On : 15 Feb 2018 8:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD1.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:52:31 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

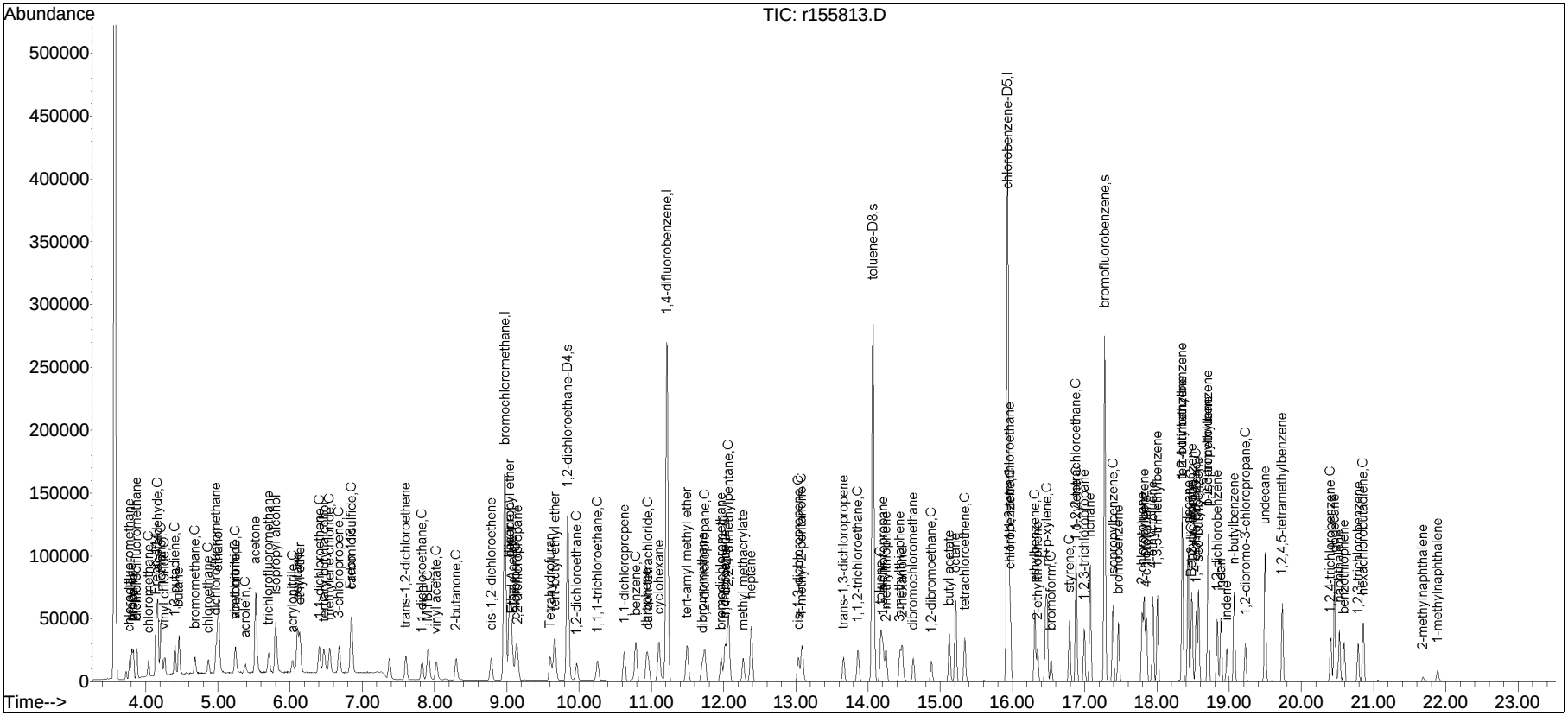
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.967	115	12660	0.989	ppbV	94
111) 1,2-dibromo-3-chloropr...	19.225	75	8168	0.795	ppbV	94
112) undecane	19.500	57	38713	0.898	ppbV	98
113) 1,2,4,5-tetramethylben...	19.733	119	33142	0.887	ppbV	98
114) dodecane	20.458	57	30665	0.655	ppbV	99
115) 1,2,4-trichlorobenzene	20.400	180	10906	0.815	ppbV	94
116) naphthalene	20.525	128	31550	0.763	ppbV	99
117) 1,2,3-trichlorobenzene	20.783	180	9860	0.767	ppbV	94
118) benzothiophene	20.592	134	24309	0.846	ppbV	99
119) hexachlorobutadiene	20.850	225	10158	0.896	ppbV	98
120) 2-methylnaphthalene	21.683	142	3599	0.454	ppbV	97
121) 1-methylnaphthalene	21.883	142	6993	0.662	ppbV	96

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155813.D
Acq On : 15 Feb 2018 8:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD1.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

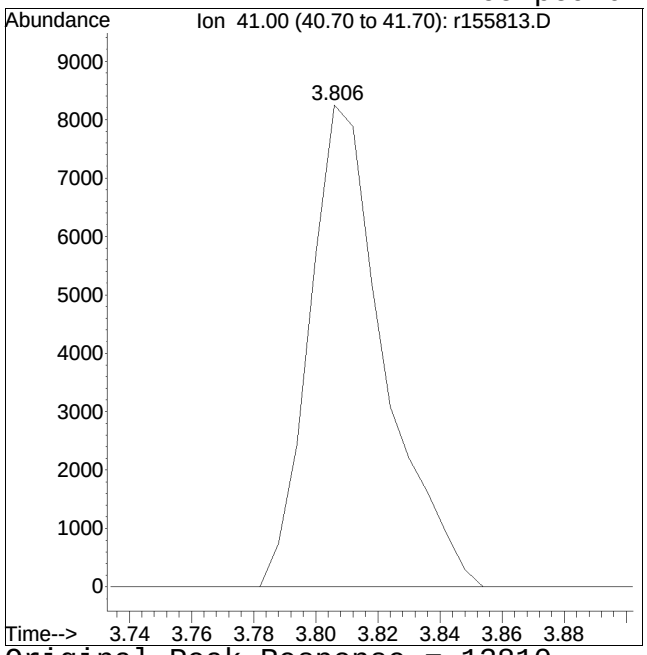
Quant Time: Feb 16 06:52:31 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration



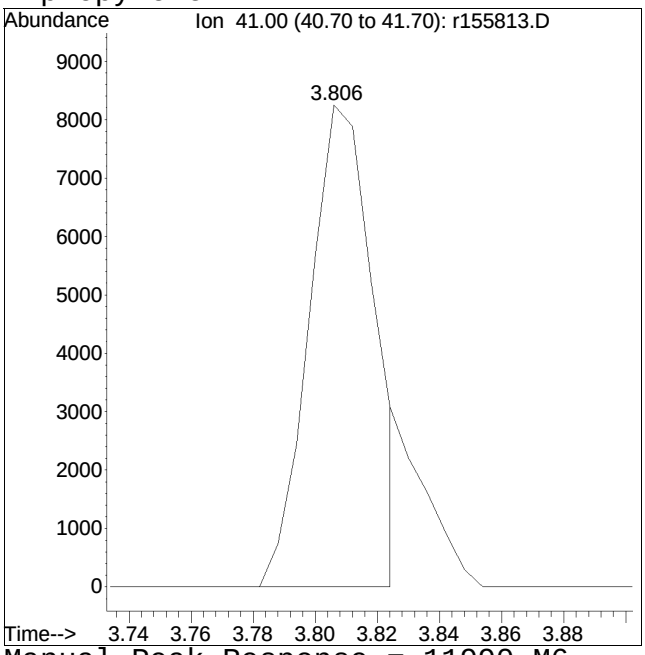
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155813.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 8:26 PM Instrument :
Sample : ITO15-SIMSTD1.0 Quant Date : 2/16/2018 6:46 am

Compound #3: propylene



Original Peak Response = 13810



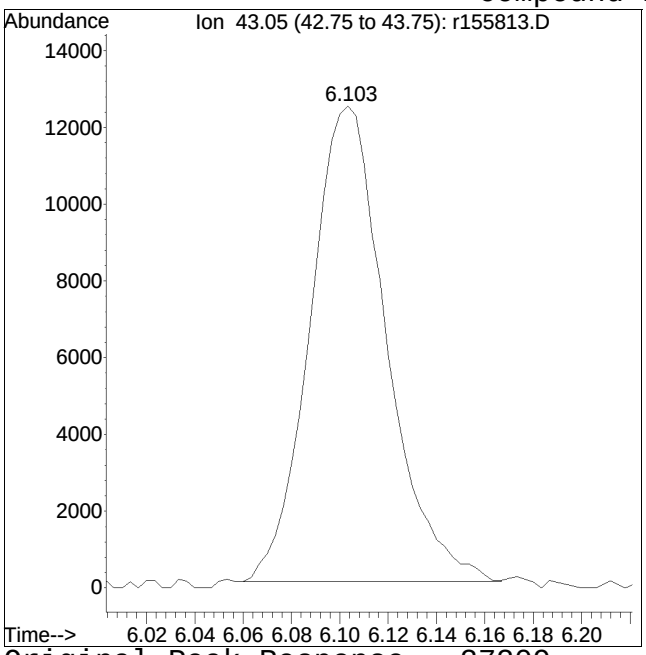
Manual Peak Response = 11990 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

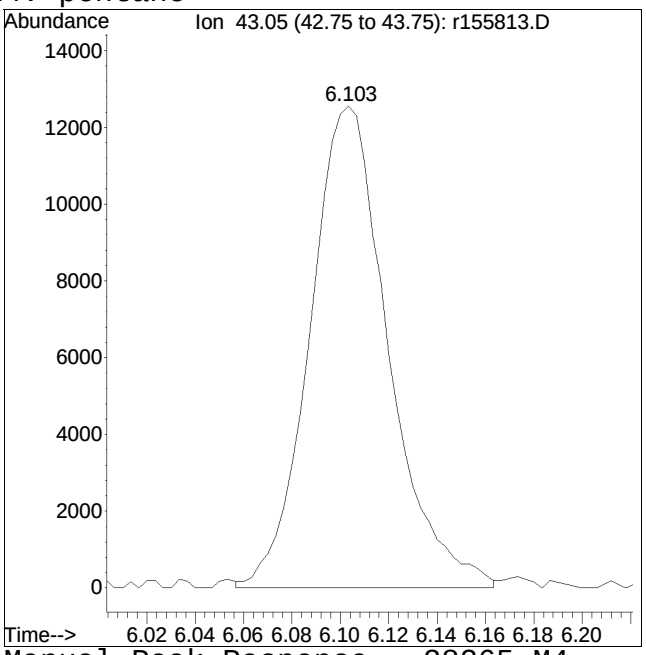
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155813.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 8:26 PM Instrument :
Sample : ITO15-SIMSTD1.0 Quant Date : 2/16/2018 6:46 am

Compound #24: pentane



Original Peak Response = 27209



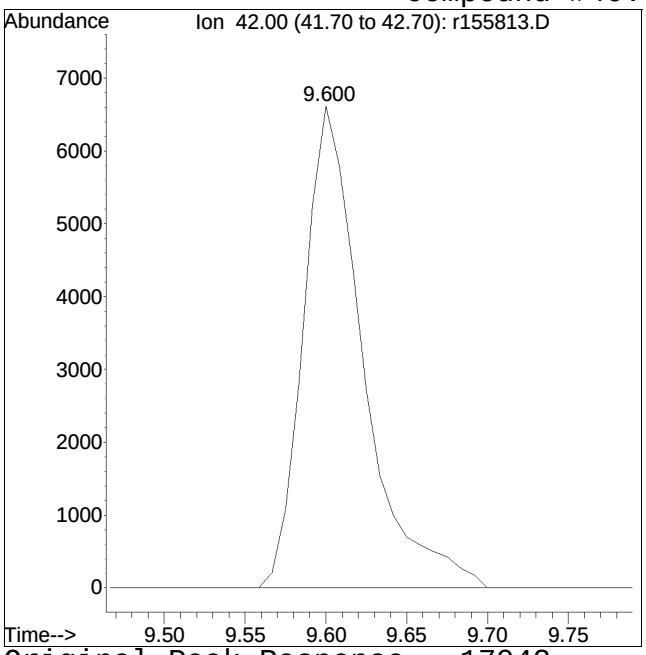
Manual Peak Response = 28265 M4

M4 = Poor automated baseline construction.

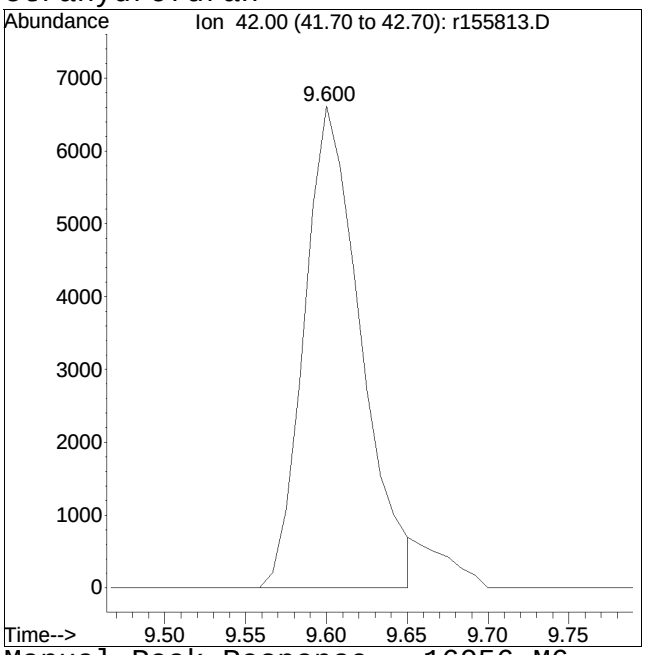
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155813.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 8:26 PM Instrument :
Sample : ITO15-SIMSTD1.0 Quant Date : 2/16/2018 6:46 am

Compound #40: Tetrahydrofuran



Original Peak Response = 17042



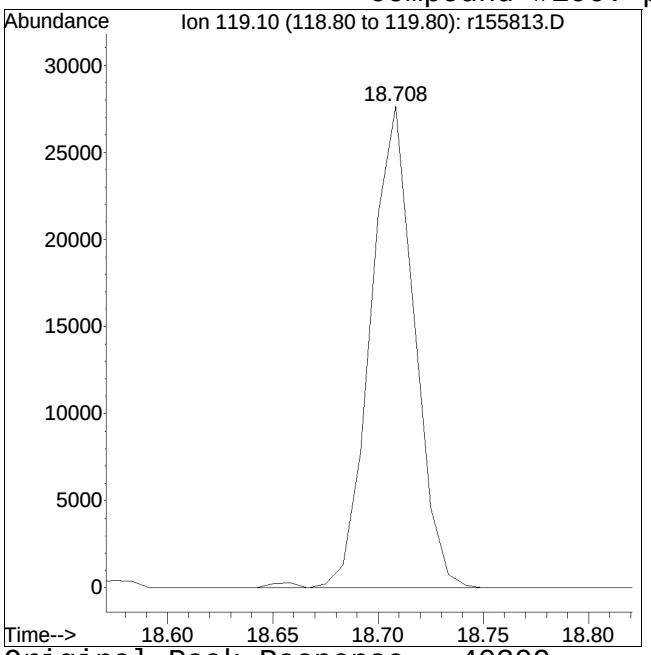
Manual Peak Response = 16056 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

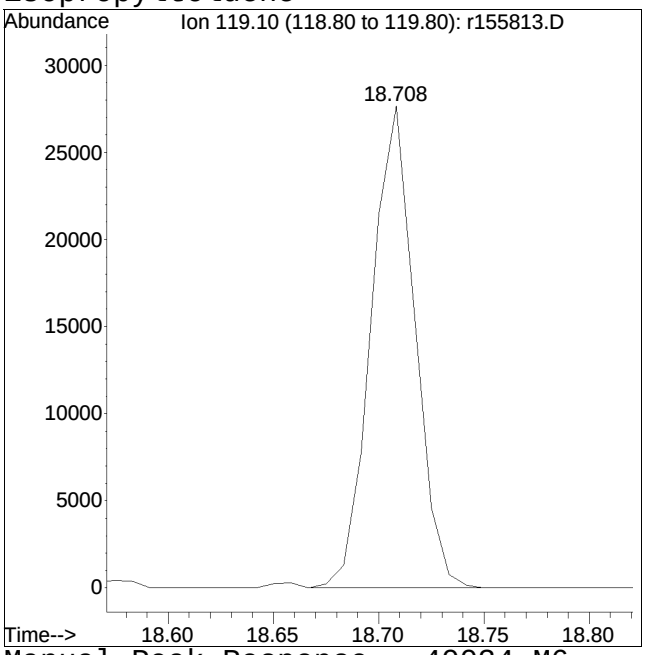
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155813.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 8:26 PM Instrument :
Sample : ITO15-SIMSTD1.0 Quant Date : 2/16/2018 6:46 am

Compound #106: p-isopropyltoluene



Original Peak Response = 40309



Manual Peak Response = 40034 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155814.D
Acq On : 15 Feb 2018 9:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD5.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:53:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.975	49	133911	10.000	ppbV	0.00
Standard Area = 136823			Recovery = 97.87%			
43) 1,4-difluorobenzene	11.217	114	248629	10.000	ppbV	0.00
Standard Area = 247749			Recovery = 100.36%			
67) chlorobenzene-D5	15.933	54	61512	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 98.72%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.842	65	68402	9.524	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.24%			
69) toluene-D8	14.067	98	210095	9.721	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.21%			
90) bromofluorobenzene	17.275	95	123446	10.434	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.34%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.776	51	71368	5.192	ppbV	99
3) propylene	3.806	41	55723M6	5.153	ppbV	
4) propane	3.830	29	66063	5.169	ppbV	100
5) dichlorodifluoromethane	3.878	85	81527	5.187	ppbV	97
6) chloromethane	4.040	50	55720	5.078	ppbV	99
7) Freon-114	4.148	85	110642	5.144	ppbV	97
8) methanol	4.208	31	142617	26.190	ppbV	98
9) vinyl chloride	4.262	62	60880	5.063	ppbV	100
10) 1,3-butadiene	4.406	54	45984	4.660	ppbV	98
11) butane	4.466	43	117374	5.438	ppbV	100
12) acetaldehyde	4.166	29	150606	25.526	ppbV	99
13) bromomethane	4.683	94	41715	5.129	ppbV	96
14) chloroethane	4.870	64	29716	4.990	ppbV	95
15) ethanol	5.003	31	259181	26.170	ppbV	98
16) dichlorofluoromethane	4.980	67	98850	5.112	ppbV	97
17) vinyl bromide	5.243	106	35248	5.065	ppbV	92
18) acrolein	5.377	56	23839	5.050	ppbV	98
19) acetone	5.517	43	349919	25.502	ppbV	99
20) acetonitrile	5.233	41	68109	5.070	ppbV	98
21) trichlorofluoromethane	5.703	101	64950	5.060	ppbV	98
22) isopropyl alcohol	5.793	45	215637	13.055	ppbV	99
23) acrylonitrile	6.033	53	43264	4.962	ppbV	95
24) pentane	6.103	43	135743	4.787	ppbV	99

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155814.D
Acq On : 15 Feb 2018 9:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD5.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:53:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.130	31	112912	4.692	ppbV	98
26) 1,1-dichloroethene	6.404	61	79053	5.060	ppbV	98
27) tertiary butyl alcohol	6.458	59	94653M6	5.182	ppbV	
28) methylene chloride	6.548	49	70115	5.054	ppbV	97
29) 3-chloropropene	6.680	41	101724	5.084	ppbV	99
30) carbon disulfide	6.848	76	137472	4.995	ppbV	98
31) Freon 113	6.848	101	76471	5.152	ppbV	99
32) trans-1,2-dichloroethene	7.600	61	74553	5.036	ppbV	99
33) 1,1-dichloroethane	7.825	63	90709	5.015	ppbV	96
34) MTBE	7.908	73	108785	5.045	ppbV	98
35) vinyl acetate	8.025	43	136007M4	4.902	ppbV	
36) 2-butanone	8.292	43	130031	5.040	ppbV	99
37) cis-1,2-dichloroethene	8.783	61	68982	4.997	ppbV	99
38) Ethyl Acetate	9.067	61	18169	4.972	ppbV	100
39) chloroform	9.125	83	77259	5.021	ppbV	99
40) Tetrahydrofuran	9.583	42	82281	4.987	ppbV	98
41) 2,2-dichloropropane	9.150	77	59519	5.024	ppbV	96
42) 1,2-dichloroethane	9.967	62	56995	5.052	ppbV	99
44) hexane	9.042	57	92916	4.882	ppbV	97
45) diisopropyl ether	9.042	87	37070	4.835	ppbV	96
46) tert-butyl ethyl ether	9.658	59	156461	4.875	ppbV	99
48) 1,1,1-trichloroethane	10.258	97	58219	4.888	ppbV	99
49) 1,1-dichloropropene	10.625	75	64425	4.938	ppbV	100
50) benzene	10.783	78	149733	4.911	ppbV	99
51) thiophene	10.933	84	67206	4.936	ppbV	99
52) carbon tetrachloride	10.958	117	50300	4.862	ppbV	98
53) cyclohexane	11.108	56	97186	4.943	ppbV	99
54) tert-amyl methyl ether	11.483	73	119940	4.925	ppbV	100
55) dibromomethane	11.708	93	40445	4.885	ppbV	99
56) 1,2-dichloropropane	11.742	63	61197	4.959	ppbV	99
57) bromodichloromethane	11.967	83	78703	4.876	ppbV	95
58) 1,4-dioxane	12.017	88	31884	5.132	ppbV	97
59) trichloroethene	12.017	130	47122	5.012	ppbV	97
60) 2,2,4-trimethylpentane	12.067	57	305883	4.946	ppbV	100
61) methyl methacrylate	12.267	41	68105	4.856	ppbV	99
62) heptane	12.383	43	133132	4.921	ppbV	99
63) cis-1,3-dichloropropene	13.033	75	72294	4.837	ppbV	97
64) 4-methyl-2-pentanone	13.075	43	156653	4.855	ppbV	99
65) trans-1,3-dichloropropene	13.658	75	67405	4.811	ppbV	100
66) 1,1,2-trichloroethane	13.858	97	47670	4.795	ppbV	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155814.D
Acq On : 15 Feb 2018 9:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD5.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:53:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.175	91	157496	5.004	ppbV	100
70) 2-methylthiophene	14.250	97	92201	5.036	ppbV	99
71) 1,3-dichloropropane	14.208	76	79268	5.027	ppbV	98
72) 2-hexanone	14.467	43	142851	4.873	ppbV	100
73) 3-methylthiophene	14.442	97	87744	4.997	ppbV	97
74) dibromochloromethane	14.625	129	58682	4.890	ppbV	99
75) 1,2-dibromoethane	14.875	107	70545	4.996	ppbV	96
76) butyl acetate	15.117	73	18407	4.802	ppbV	99
77) octane	15.208	85	59849	5.046	ppbV	99
78) tetrachloroethene	15.342	166	49487	4.970	ppbV	99
79) 1,1,1,2-tetrachloroethane	15.958	131	44831	4.990	ppbV	97
80) chlorobenzene	15.967	112	116024	5.114	ppbV	98
81) ethylbenzene	16.308	91	198394	5.006	ppbV	99
82) 2-ethylthiophene	16.350	97	80385	5.024	ppbV	99
83) m+p-xylene	16.467	91	316891	10.041	ppbV	100
84) bromoform	16.533	173	44901	4.799	ppbV	91
85) styrene	16.783	104	119718	5.051	ppbV	96
86) 1,1,2,2-tetrachloroethane	16.875	83	128154	5.097	ppbV	99
87) o-xylene	16.883	91	160687	4.972	ppbV	99
88) 1,2,3-trichloropropane	16.992	75	94772	4.963	ppbV	99
89) nonane	17.075	43	190959	4.993	ppbV	99
91) isopropylbenzene	17.392	105	190473	5.123	ppbV	96
92) bromobenzene	17.467	77	121639	5.062	ppbV	98
93) 2-chlorotoluene	17.792	126	50798	5.063	ppbV	92
94) n-propylbenzene	17.825	120	58884	5.058	ppbV	87
95) 4-chlorotoluene	17.850	126	47420	4.849	ppbV	89
96) 4-ethyl toluene	17.942	105	205823	5.054	ppbV	98
97) 1,3,5-trimethylbenzene	18.008	105	179254	5.102	ppbV	98
98) tert-butylbenzene	18.350	119	173500	5.008	ppbV	100
99) 1,2,4-trimethylbenzene	18.350	105	177651	5.057	ppbV	98
100) decane	18.433	57	193739	5.019	ppbV	100
101) Benzyl Chloride	18.475	91	122480	4.648	ppbV	99
102) 1,3-dichlorobenzene	18.483	146	104777	5.049	ppbV	99
103) 1,4-dichlorobenzene	18.542	146	100077	4.981	ppbV	97
104) sec-butylbenzene	18.575	105	246470	5.161	ppbV	97
105) 1,2,3-trimethylbenzene	18.708	105	122056	5.055	ppbV	97
106) p-isopropyltoluene	18.708	119	203817	5.008	ppbV	100
107) 1,2-dichlorobenzene	18.833	146	96032	5.208	ppbV	95
108) n-butylbenzene	19.067	91	201600	5.027	ppbV	100
109) indan	18.883	117	124460	5.038	ppbV	97

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155814.D
Acq On : 15 Feb 2018 9:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD5.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:53:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

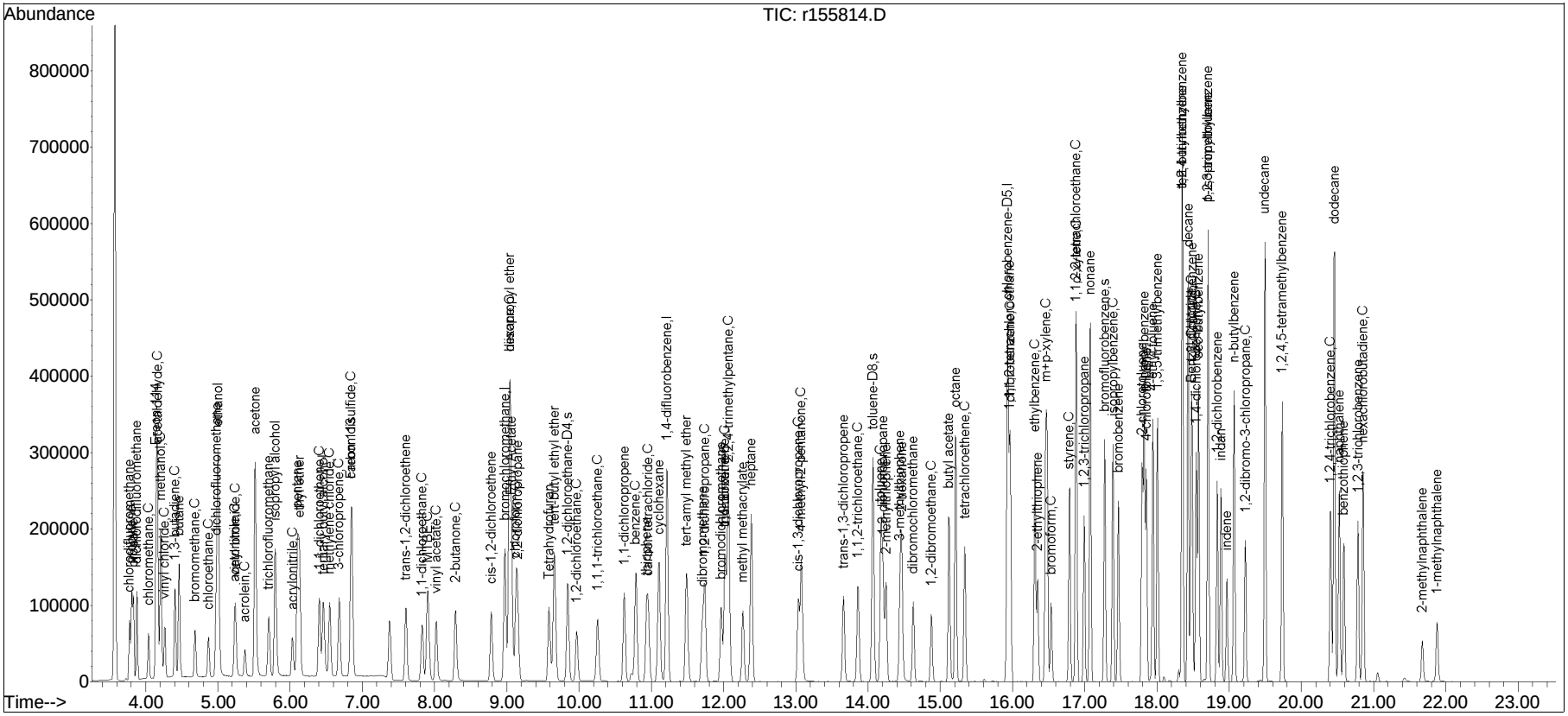
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.967	115	65617	5.055	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.225	75	50519	4.850	ppbV	99
112) undecane	19.492	57	214890	4.917	ppbV	97
113) 1,2,4,5-tetramethylben...	19.733	119	191972	5.068	ppbV	97
114) dodecane	20.458	57	222173	4.682	ppbV	96
115) 1,2,4-trichlorobenzene	20.400	180	66310	4.887	ppbV	96
116) naphthalene	20.525	128	196037	4.678	ppbV	99
117) 1,2,3-trichlorobenzene	20.783	180	62862	4.821	ppbV	100
118) benzothiophene	20.583	134	134164	4.605	ppbV	100
119) hexachlorobutadiene	20.850	225	55367	4.818	ppbV	94
120) 2-methylnaphthalene	21.675	142	33364	4.150	ppbV	98
121) 1-methylnaphthalene	21.875	142	47454	4.429	ppbV	98

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155814.D
Acq On : 15 Feb 2018 9:06 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD5.0
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

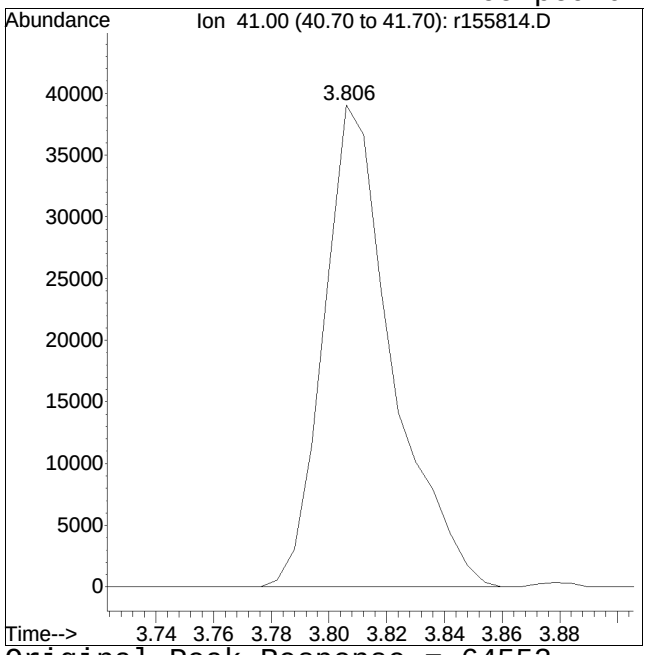
Quant Time: Feb 16 06:53:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration



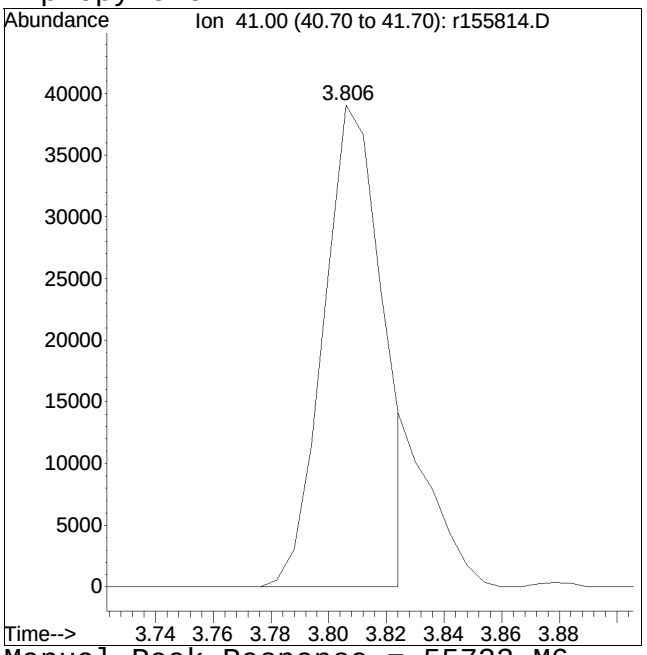
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155814.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:06 PM Instrument :
Sample : ITO15-SIMSTD5.0 Quant Date : 2/16/2018 6:46 am

Compound #3: propylene



Original Peak Response = 64552



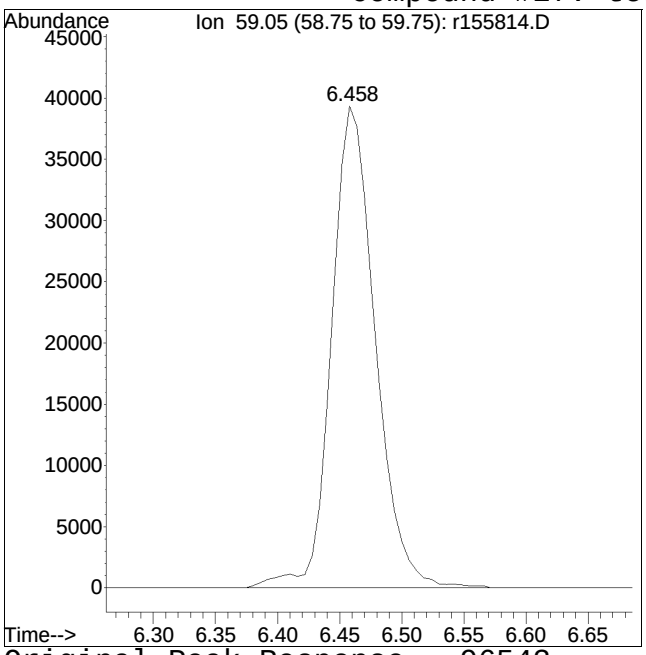
Manual Peak Response = 55723 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

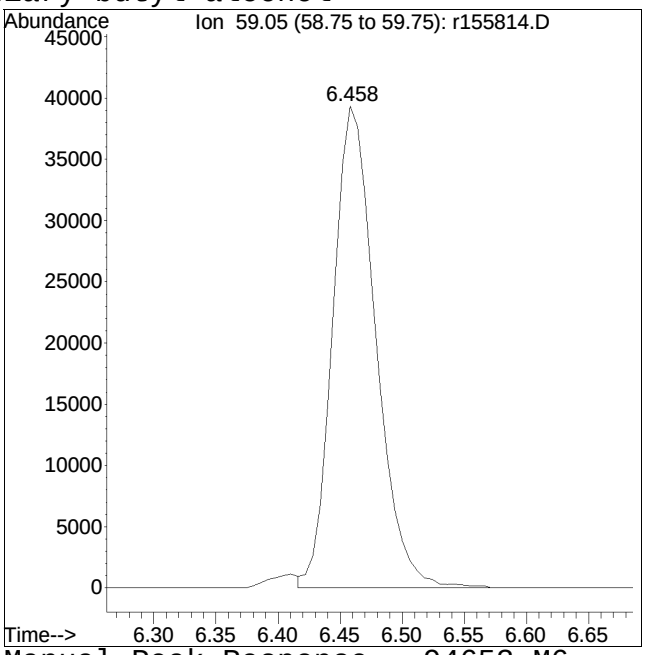
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155814.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:06 PM Instrument :
Sample : ITO15-SIMSTD5.0 Quant Date : 2/16/2018 6:46 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 96543



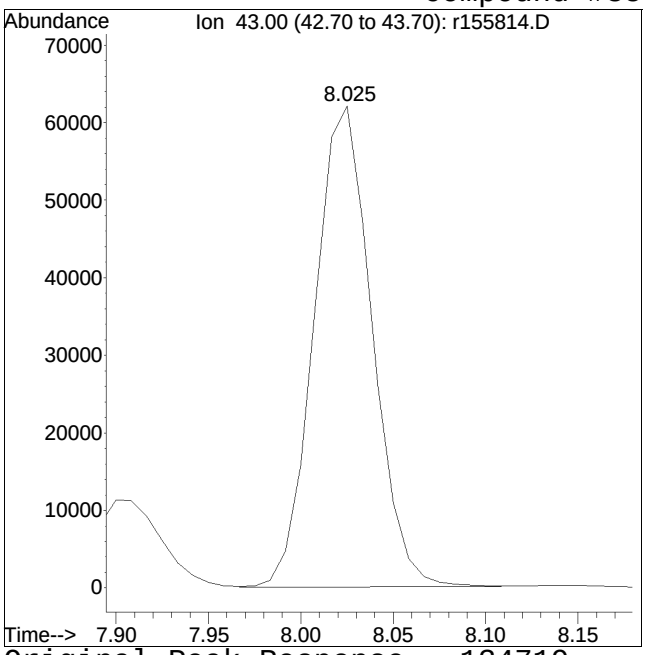
Manual Peak Response = 94653 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

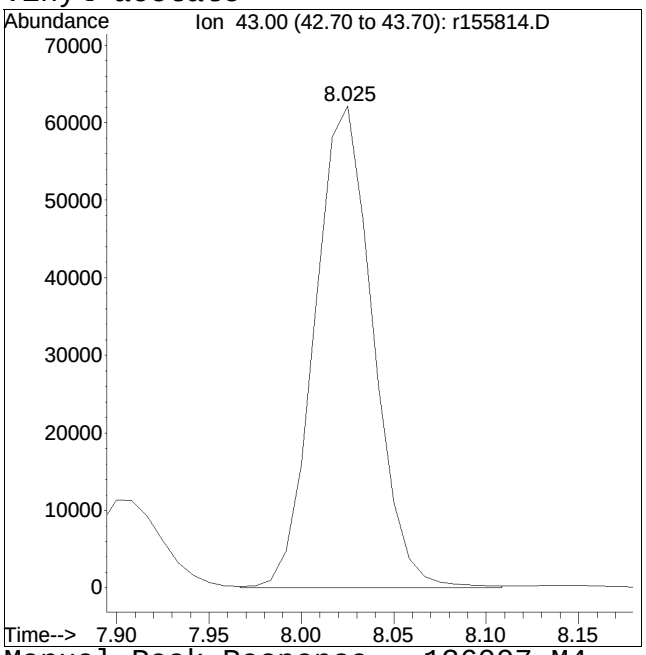
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155814.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:06 PM Instrument :
Sample : ITO15-SIMSTD5.0 Quant Date : 2/16/2018 6:46 am

Compound #35: vinyl acetate



Original Peak Response = 134719



Manual Peak Response = 136007 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155815.D
Acq On : 15 Feb 2018 9:47 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:43:18 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Feb 13 14:48:28 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.975	49	136823	10.000	ppbV	0.10
Standard Area = 136823			Recovery = 100.00%			
43) 1,4-difluorobenzene	11.217	114	247749	10.000	ppbV	0.10
Standard Area = 247749			Recovery = 100.00%			
67) chlorobenzene-D5	15.933	54	62309	10.000	ppbV	0.08
Standard Area = 62309			Recovery = 100.00%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.850	65	71570	11.030	ppbV	0.11
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.30%			
69) toluene-D8	14.067	98	218931	8.268	ppbV	0.09
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.68%			
90) bromofluorobenzene	17.275	95	119843	8.695	ppbV	0.07
Spiked Amount 10.000	Range 70 - 130		Recovery = 86.95%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.776	51	140442	10.254	ppbV	99
3) propylene	3.806	41	110488M6	10.748	ppbV	
4) propane	3.830	29	130587	9.681	ppbV #	96
5) dichlorodifluoromethane	3.878	85	160602	11.154	ppbV	99
6) chloromethane	4.040	50	112108	9.515	ppbV	100
7) Freon-114	4.148	85	219746	10.366	ppbV	94
8) methanol	4.208	31	278198	51.840	ppbV	97
9) vinyl chloride	4.268	62	122860	11.961	ppbV	100
10) 1,3-butadiene	4.406	54	100824	10.756	ppbV #	70
11) butane	4.466	43	220550	11.008	ppbV	96
12) acetaldehyde	4.166	29	301422	47.971	ppbV	90
13) bromomethane	4.683	94	83106	10.687	ppbV	98
14) chloroethane	4.870	64	60852	11.708	ppbV	99
15) ethanol	5.003	31	505954	50.337	ppbV	96
16) dichlorofluoromethane	4.980	67	197564	11.666	ppbV	98
17) vinyl bromide	5.247	106	71102	9.203	ppbV	95
18) acrolein	5.373	56	48230	9.881	ppbV	98
19) acetone	5.513	43	700993	55.889	ppbV #	97
20) acetonitrile	5.237	41	137255	11.753	ppbV	100
21) trichlorofluoromethane	5.707	101	131159	10.980	ppbV	100
22) isopropyl alcohol	5.797	45	421915	21.483	ppbV	99
23) acrylonitrile	6.033	53	89087	9.505	ppbV	98
24) pentane	6.103	43	289755	12.340	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155815.D
Acq On : 15 Feb 2018 9:47 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:43:18 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Feb 13 14:48:28 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	6.133	31	245862	12.015	ppbV		97
26) 1,1-dichloroethene	6.410	61	159625	11.897	ppbV		90
27) tertiary butyl alcohol	6.458	59	186642M6	11.087	ppbV		
28) methylene chloride	6.554	49	141747	9.532	ppbV		96
29) 3-chloropropene	6.680	41	204426	11.781	ppbV	#	92
30) carbon disulfide	6.854	76	281218	9.330	ppbV		98
31) Freon 113	6.854	101	151670	9.955	ppbV		94
32) trans-1,2-dichloroethene	7.608	61	151262	11.546	ppbV		89
33) 1,1-dichloroethane	7.833	63	184825	10.972	ppbV		96
34) MTBE	7.908	73	220335	9.990	ppbV	#	92
35) vinyl acetate	8.025	43	283491	10.163	ppbV		99
36) 2-butanone	8.292	43	263592	9.953	ppbV	#	98
37) cis-1,2-dichloroethene	8.792	61	141035	11.787	ppbV		85
38) Ethyl Acetate	9.067	61	37335	11.670	ppbV		78
39) chloroform	9.133	83	157230	11.656	ppbV		97
40) Tetrahydrofuran	9.583	42	168574	10.495	ppbV		96
41) 2,2-dichloropropane	9.150	77	121046	10.904	ppbV		95
42) 1,2-dichloroethane	9.967	62	115259	12.529	ppbV		94
44) hexane	9.042	57	189664	11.187	ppbV		85
45) diisopropyl ether	9.042	87	76400	10.105	ppbV		82
46) tert-butyl ethyl ether	9.658	59	319840	11.316	ppbV		99
48) 1,1,1-trichloroethane	10.258	97	118678	9.988	ppbV	#	85
49) 1,1-dichloropropene	10.625	75	129994	9.779	ppbV	#	87
50) benzene	10.792	78	303800	10.215	ppbV		98
51) thiophene	10.942	84	135669	10.022	ppbV		92
52) carbon tetrachloride	10.958	117	103089	10.567	ppbV		100
53) cyclohexane	11.108	56	195924	11.125	ppbV		95
54) tert-amyl methyl ether	11.492	73	242668	9.339	ppbV		96
55) dibromomethane	11.708	93	82504	9.832	ppbV		97
56) 1,2-dichloropropane	11.742	63	122972	10.305	ppbV		94
57) bromodichloromethane	11.967	83	160842	11.013	ppbV		98
58) 1,4-dioxane	12.017	88	61909	10.207	ppbV		92
59) trichloroethene	12.017	130	93685	9.373	ppbV		97
60) 2,2,4-trimethylpentane	12.067	57	616235	11.366	ppbV		98
61) methyl methacrylate	12.267	41	139742	10.246	ppbV		90
62) heptane	12.383	43	269560	9.639	ppbV	#	90
63) cis-1,3-dichloropropene	13.033	75	148923	9.842	ppbV		89
64) 4-methyl-2-pentanone	13.075	43	321500	10.012	ppbV		93
65) trans-1,3-dichloropropene	13.658	75	139612	9.935	ppbV		92
66) 1,1,2-trichloroethane	13.867	97	99061	9.551	ppbV	#	86

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155815.D
Acq On : 15 Feb 2018 9:47 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:43:18 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Feb 13 14:48:28 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	14.183	91	318816	9.153	ppbV		96
70) 2-methylthiophene	14.250	97	185449	8.047	ppbV		98
71) 1,3-dichloropropane	14.208	76	159724	9.097	ppbV		93
72) 2-hexanone	14.467	43	296943	9.594	ppbV		91
73) 3-methylthiophene	14.442	97	177886	8.050	ppbV		99
74) dibromochloromethane	14.625	129	121555	8.952	ppbV		99
75) 1,2-dibromoethane	14.875	107	143041	9.075	ppbV		98
76) butyl acetate	15.117	73	38829	9.589	ppbV		91
77) octane	15.208	85	120147	9.623	ppbV		85
78) tetrachloroethene	15.342	166	100861	8.532	ppbV		93
79) 1,1,1,2-tetrachloroethane	15.958	131	90998	8.793	ppbV		95
80) chlorobenzene	15.967	112	229814	9.206	ppbV		99
81) ethylbenzene	16.308	91	401446	9.321	ppbV		99
82) 2-ethylthiophene	16.350	97	162077	8.229	ppbV		96
83) m+p-xylene	16.475	91	639382	18.412	ppbV		98
84) bromoform	16.533	173	94778	8.645	ppbV		96
85) styrene	16.792	104	240111	8.849	ppbV		94
86) 1,1,2,2-tetrachloroethane	16.875	83	254707	9.852	ppbV		97
87) o-xylene	16.883	91	327344	9.278	ppbV		98
88) 1,2,3-trichloropropane	16.992	75	193432	9.406	ppbV		95
89) nonane	17.075	43	387411	9.095	ppbV		87
91) isopropylbenzene	17.392	105	376645	8.986	ppbV		100
92) bromobenzene	17.467	77	243406	9.528	ppbV		100
93) 2-chlorotoluene	17.792	126	101633	8.935	ppbV		86
94) n-propylbenzene	17.825	120	117929	9.024	ppbV		82
95) 4-chlorotoluene	17.850	126	99051M3	8.858	ppbV		
96) 4-ethyl toluene	17.942	105	412515	9.172	ppbV		99
97) 1,3,5-trimethylbenzene	18.008	105	355874	9.182	ppbV		99
98) tert-butylbenzene	18.350	119	350961	9.363	ppbV		93
99) 1,2,4-trimethylbenzene	18.350	105	355874	9.207	ppbV		95
100) decane	18.433	57	391036	10.584	ppbV	#	87
101) Benzyl Chloride	18.475	91	266953	9.574	ppbV		98
102) 1,3-dichlorobenzene	18.483	146	210195	9.083	ppbV		94
103) 1,4-dichlorobenzene	18.542	146	203502M3	8.927	ppbV		
104) sec-butylbenzene	18.575	105	483758	9.123	ppbV		99
105) 1,2,3-trimethylbenzene	18.708	105	244599	8.692	ppbV		99
106) p-isopropyltoluene	18.708	119	412254	9.371	ppbV		95
107) 1,2-dichlorobenzene	18.833	146	186777	8.792	ppbV		97
108) n-butylbenzene	19.067	91	406228	9.414	ppbV		99
109) indan	18.883	117	250238	8.932	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155815.D
Acq On : 15 Feb 2018 9:47 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:43:18 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Feb 13 14:48:28 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

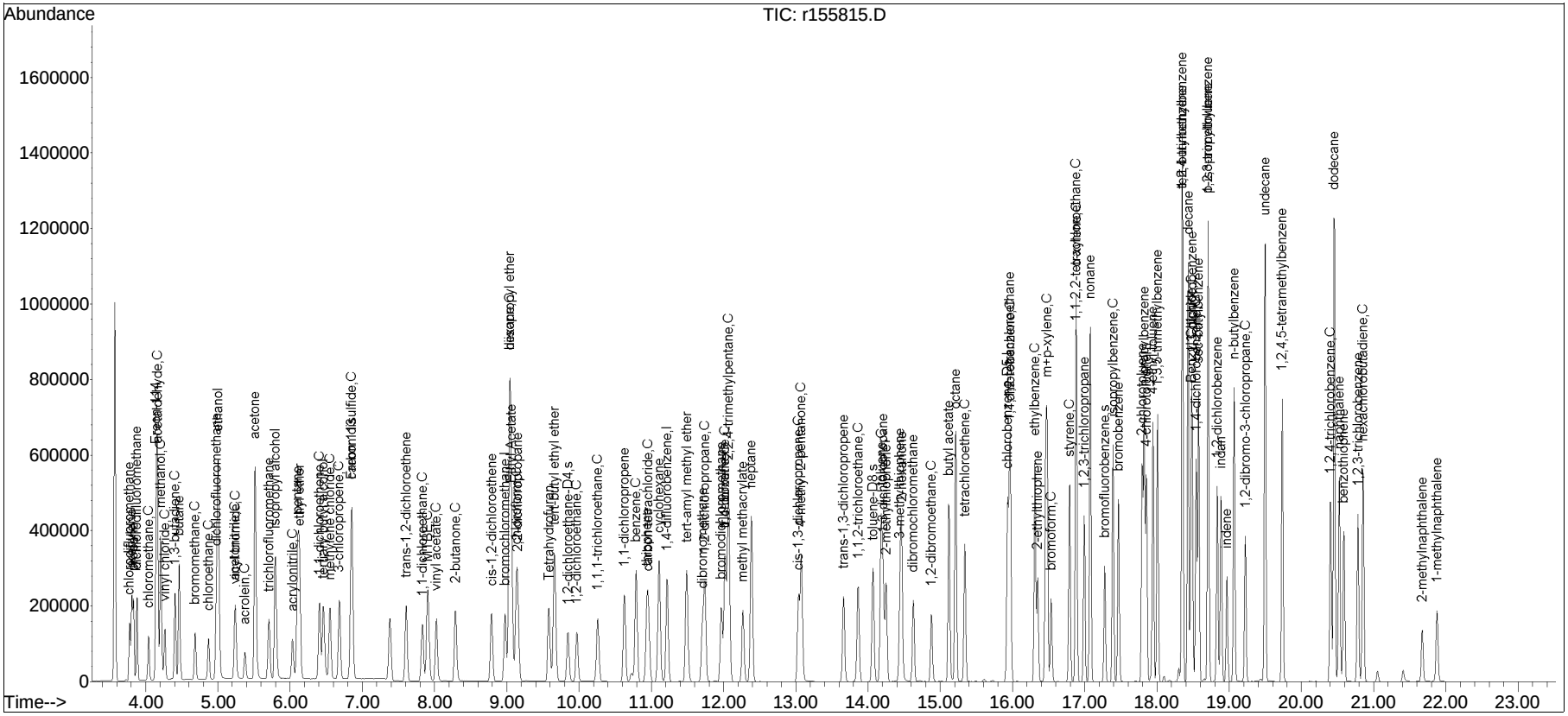
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.967	115	131488	9.217	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.225	75	105502	10.051	ppbV	91
112) undecane	19.500	57	442720	11.219	ppbV	89
113) 1,2,4,5-tetramethylben...	19.733	119	383700	9.706	ppbV	97
114) dodecane	20.450	57	480718	14.213	ppbV	86
115) 1,2,4-trichlorobenzene	20.400	180	137435	9.685	ppbV	98
116) naphthalene	20.525	128	424534	10.658	ppbV	99
117) 1,2,3-trichlorobenzene	20.783	180	132089	10.211	ppbV	99
118) benzothiophene	20.583	134	295128	8.560	ppbV	99
119) hexachlorobutadiene	20.850	225	116403	9.553	ppbV	96
120) 2-methylnaphthalene	21.675	142	81431	8.155	ppbV	99
121) 1-methylnaphthalene	21.875	142	108537	8.460	ppbV	95

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155815.D
Acq On : 15 Feb 2018 9:47 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

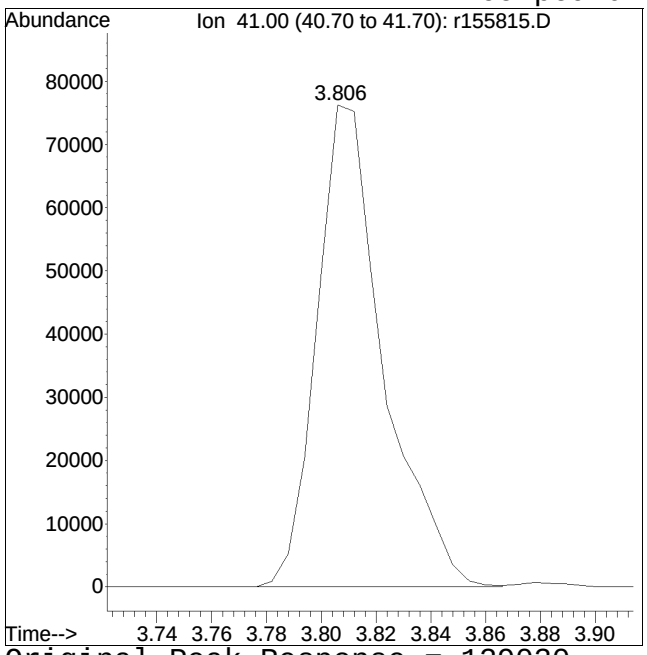
Quant Time: Feb 16 06:43:18 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Tue Feb 13 14:48:28 2018
Response via : Initial Calibration



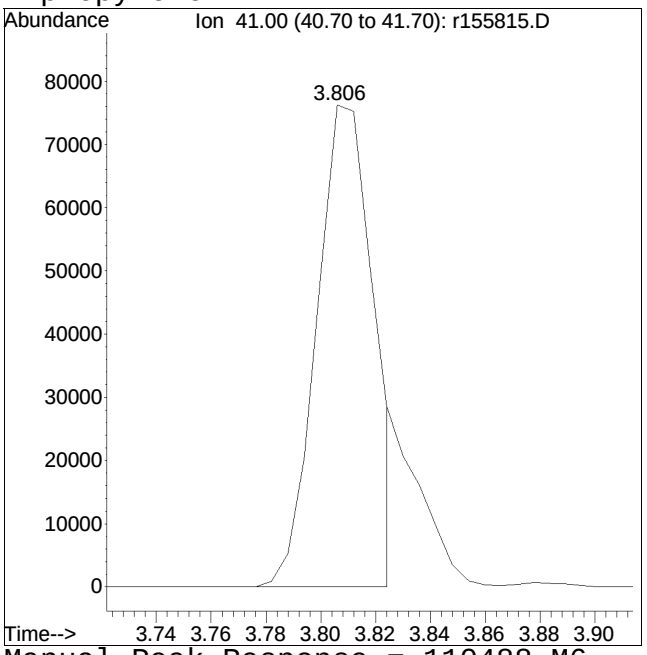
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155815.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:47 PM Instrument :
Sample : ITO15-SIMSTD010 Quant Date : 2/16/2018 6:41 am

Compound #3: propylene



Original Peak Response = 129030



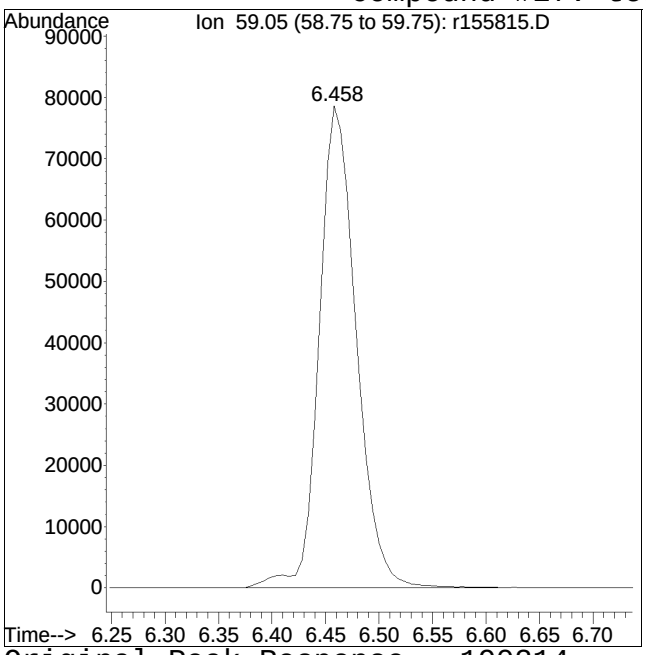
Manual Peak Response = 110488 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

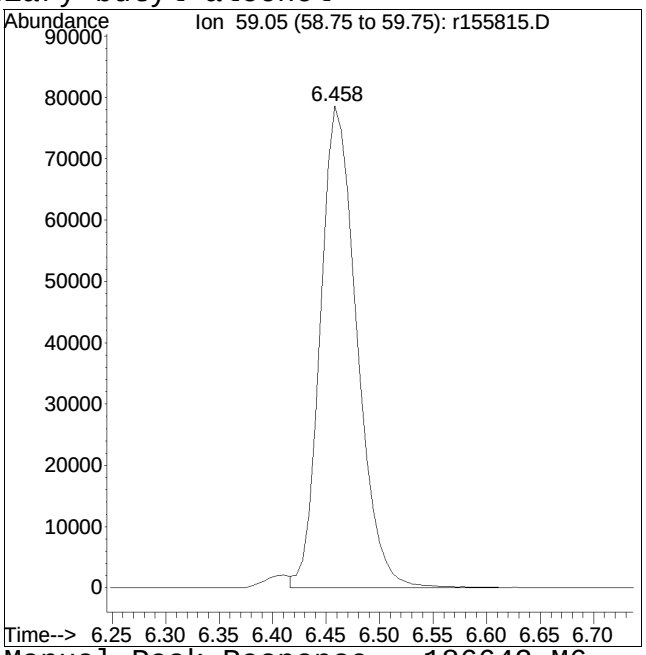
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155815.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:47 PM Instrument :
Sample : ITO15-SIMSTD010 Quant Date : 2/16/2018 6:41 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 190214



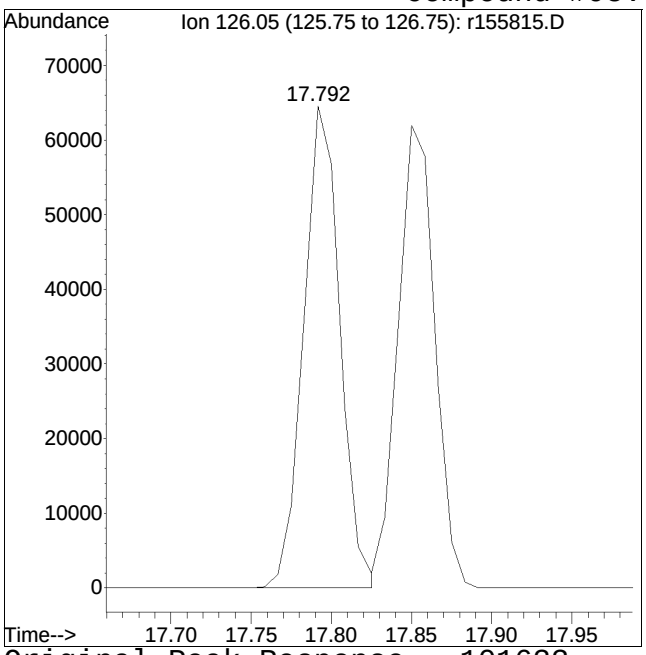
Manual Peak Response = 186642 M6

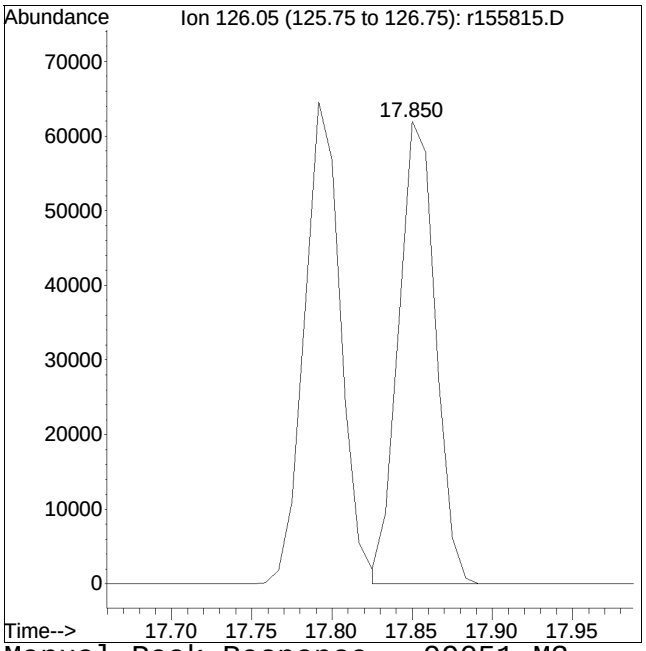
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155815.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:47 PM Instrument :
Sample : ITO15-SIMSTD010 Quant Date : 2/16/2018 6:41 am

Compound #95: 4-chlorotoluene





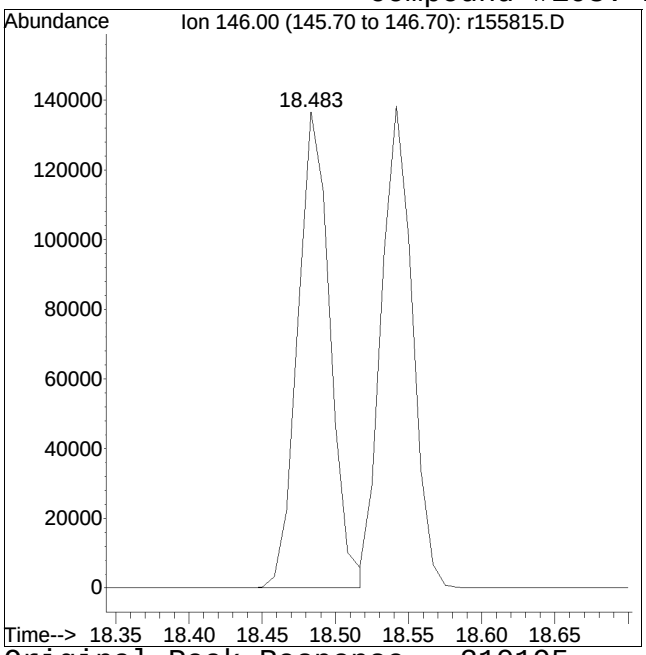
Original Peak Response = 101633 Manual Peak Response = 99051 M3

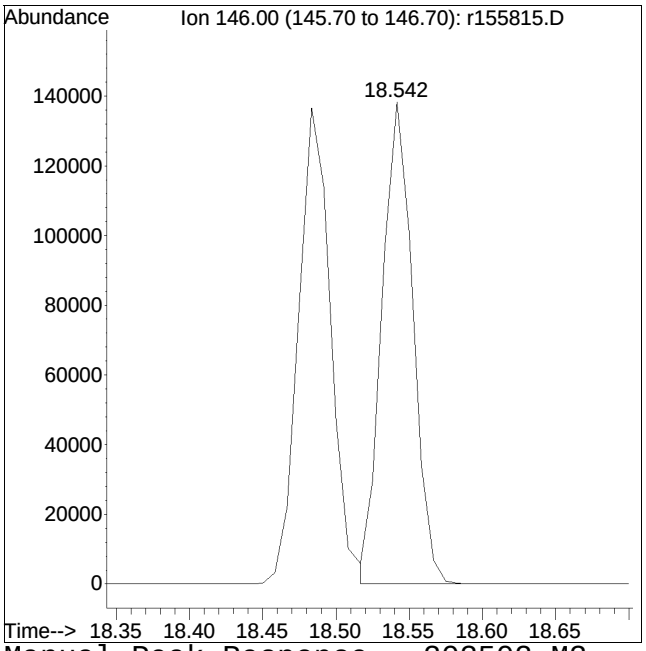
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155815.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 9:47 PM Instrument :
Sample : ITO15-SIMSTD010 Quant Date : 2/16/2018 6:41 am

Compound #103: 1,4-dichlorobenzene





Original Peak Response = 210195 Manual Peak Response = 203502 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155819.D
Acq On : 16 Feb 2018 7:41 AM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD020
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 08:30:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 07:00:53 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.992	49	132418	10.000	ppbV	0.02
Standard Area = 136823			Recovery = 96.78%			
43) 1,4-difluorobenzene	11.233	114	233833	10.000	ppbV	0.02
Standard Area = 247749			Recovery = 94.38%			
67) chlorobenzene-D5	15.942	54	58251	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 93.49%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.858	65	65174	9.868	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.68%			
69) toluene-D8	14.083	98	209648	10.309	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.09%			
90) bromofluorobenzene	17.250	95	155306	14.085	ppbV	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 140.85%#			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.782	51	259771	19.030	ppbV	98
3) propylene	3.812	41	209287M6	18.737	ppbV	
4) propane	3.836	29	246020	18.623	ppbV	99
5) dichlorodifluoromethane	3.884	85	286647	18.452	ppbV	99
6) chloromethane	4.046	50	222496	20.276	ppbV	99
7) Freon-114	4.154	85	416534	19.563	ppbV	100
8) methanol	4.214	31	520488	97.585	ppbV	99
9) vinyl chloride	4.274	62	228369	19.336	ppbV	99
10) 1,3-butadiene	4.418	54	176189	19.267	ppbV	96
11) butane	4.472	43	370899	16.545	ppbV	98
12) acetaldehyde	4.172	29	630222	102.851	ppbV	99
13) bromomethane	4.697	94	156083	19.365	ppbV	97
14) chloroethane	4.880	64	115426	19.613	ppbV	99
15) ethanol	5.013	31	982932	101.534	ppbV	98
16) dichlorofluoromethane	4.990	67	369760	19.420	ppbV	99
17) vinyl bromide	5.257	106	143463	20.902	ppbV	98
18) acrolein	5.387	56	93388	19.971	ppbV	96
19) acetone	5.523	43	1376743	90.304	ppbV	100
20) acetonitrile	5.247	41	258020	19.110	ppbV	100
21) trichlorofluoromethane	5.717	101	235433	18.618	ppbV	99
22) isopropyl alcohol	5.807	45	878791	43.026	ppbV	100
23) acrylonitrile	6.043	53	169555	20.088	ppbV	99
24) pentane	6.117	43	609119	21.678	ppbV	99

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155819.D
Acq On : 16 Feb 2018 7:41 AM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD020
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 08:30:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 07:00:53 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.140	31	458206	20.040	ppbV	98
26) 1,1-dichloroethene	6.422	61	290042	19.012	ppbV	94
27) tertiary butyl alcohol	6.470	59	353393M6	19.624	ppbV	
28) methylene chloride	6.566	49	268413	19.637	ppbV	99
29) 3-chloropropene	6.692	41	385714	19.202	ppbV	97
30) carbon disulfide	6.866	76	548879	20.646	ppbV	98
31) Freon 113	6.866	101	290300	19.502	ppbV	96
32) trans-1,2-dichloroethene	7.617	61	275112	19.201	ppbV	100
33) 1,1-dichloroethane	7.842	63	338670	19.092	ppbV	97
34) MTBE	7.917	73	398089	19.209	ppbV	99
35) vinyl acetate	8.033	43	537724M4	20.222	ppbV	
36) 2-butanone	8.300	43	492068	19.576	ppbV	99
37) cis-1,2-dichloroethene	8.800	61	253158	19.233	ppbV	98
38) Ethyl Acetate	9.083	61	68232	19.657	ppbV	89
39) chloroform	9.150	83	269097	18.056	ppbV	98
40) Tetrahydrofuran	9.592	42	313700	19.992	ppbV	97
41) 2,2-dichloropropane	9.167	77	211830	18.527	ppbV	96
42) 1,2-dichloroethane	9.983	62	197444	18.154	ppbV	99
44) hexane	9.050	57	334386	18.959	ppbV	99
45) diisopropyl ether	9.058	87	139577	19.526	ppbV	94
46) tert-butyl ethyl ether	9.675	59	575704	19.582	ppbV	99
48) 1,1,1-trichloroethane	10.275	97	208783	19.040	ppbV	97
49) 1,1-dichloropropene	10.642	75	229320	18.969	ppbV	98
50) benzene	10.800	78	520689	18.549	ppbV	100
51) thiophene	10.950	84	255028	19.418	ppbV	98
52) carbon tetrachloride	10.975	117	181020	19.140	ppbV	96
53) cyclohexane	11.125	56	339911	18.668	ppbV	97
54) tert-amyl methyl ether	11.500	73	438164	19.605	ppbV	98
55) dibromomethane	11.725	93	148826	19.281	ppbV	98
56) 1,2-dichloropropane	11.758	63	222133	19.080	ppbV	96
57) bromodichloromethane	11.983	83	280875	19.365	ppbV	95
58) 1,4-dioxane	12.025	88	115340	20.029	ppbV	97
59) trichloroethene	12.033	130	167399	19.011	ppbV	98
60) 2,2,4-trimethylpentane	12.083	57	1069164	18.901	ppbV	99
61) methyl methacrylate	12.283	41	271518	20.393	ppbV	100
62) heptane	12.400	43	496677	19.611	ppbV	95
63) cis-1,3-dichloropropene	13.050	75	263325	19.598	ppbV	99
64) 4-methyl-2-pentanone	13.083	43	586015	20.132	ppbV	98
65) trans-1,3-dichloropropene	13.675	75	246932	20.029	ppbV	98
66) 1,1,2-trichloroethane	13.875	97	169478	18.712	ppbV	99

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155819.D
Acq On : 16 Feb 2018 7:41 AM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD020
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 08:30:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 07:00:53 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68) toluene	14.192	91	568393	19.192	ppbV	98
70) 2-methylthiophene	14.258	97	355018	19.914	ppbV	96
71) 1,3-dichloropropane	14.217	76	273422	18.731	ppbV	99
72) 2-hexanone	14.475	43	543281	21.201	ppbV	95
73) 3-methylthiophene	14.458	97	340348	19.762	ppbV	98
74) dibromochloromethane	14.642	129	217465	20.171	ppbV	98
75) 1,2-dibromoethane	14.892	107	245665	18.714	ppbV	97
76) butyl acetate	15.125	73	68950	21.779	ppbV	92
77) octane	15.225	85	210400	19.065	ppbV	91
78) tetrachloroethene	15.350	166	176046	18.465	ppbV	98
79) 1,1,1,2-tetrachloroethane	15.967	131	161410	19.133	ppbV	99
80) chlorobenzene	15.975	112	400987	18.430	ppbV	98
81) ethylbenzene	16.317	91	712998	19.462	ppbV	98
82) 2-ethylthiophene	16.350	97	308249	19.743	ppbV	97
83) m+p-xylene	16.475	91	1149802	38.810	ppbV	98
84) bromoform	16.533	173	176596	21.197	ppbV	94
85) styrene	16.783	104	419616	19.110	ppbV	98
86) 1,1,2,2-tetrachloroethane	16.867	83	454007	19.200	ppbV	98
87) o-xylene	16.875	91	586149	19.445	ppbV	98
88) 1,2,3-trichloropropane	16.975	75	326121	18.611	ppbV	100
89) nonane	17.058	43	709789	20.080	ppbV	95
91) isopropylbenzene	17.367	105	665125	18.953	ppbV	99
92) bromobenzene	17.442	77	422223	18.618	ppbV	94
93) 2-chlorotoluene	17.750	126	180437M3	19.192	ppbV	
94) n-propylbenzene	17.783	120	210188	19.014	ppbV	94
95) 4-chlorotoluene	17.808	126	178749	19.561	ppbV	96
96) 4-ethyl toluene	17.900	105	722138	19.033	ppbV	98
97) 1,3,5-trimethylbenzene	17.958	105	620684	18.981	ppbV	96
98) tert-butylbenzene	18.292	119	626842	19.448	ppbV	98
99) 1,2,4-trimethylbenzene	18.292	105	640000	19.267	ppbV	100
100) decane	18.367	57	683214	19.404	ppbV	93
101) Benzyl Chloride	18.408	91	535244	23.932	ppbV	100
102) 1,3-dichlorobenzene	18.425	146	371501M3	18.978	ppbV	
103) 1,4-dichlorobenzene	18.475	146	369426	19.366	ppbV	97
104) sec-butylbenzene	18.508	105	865161	19.031	ppbV	99
105) 1,2,3-trimethylbenzene	18.642	105	460388	19.361	ppbV	94
106) p-isopropyltoluene	18.633	119	738115	19.428	ppbV	96
107) 1,2-dichlorobenzene	18.758	146	343361	19.273	ppbV	96
108) n-butylbenzene	18.983	91	745278	20.357	ppbV	100
109) indan	18.808	117	472168	19.971	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155819.D
Acq On : 16 Feb 2018 7:41 AM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD020
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 08:30:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 07:00:53 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

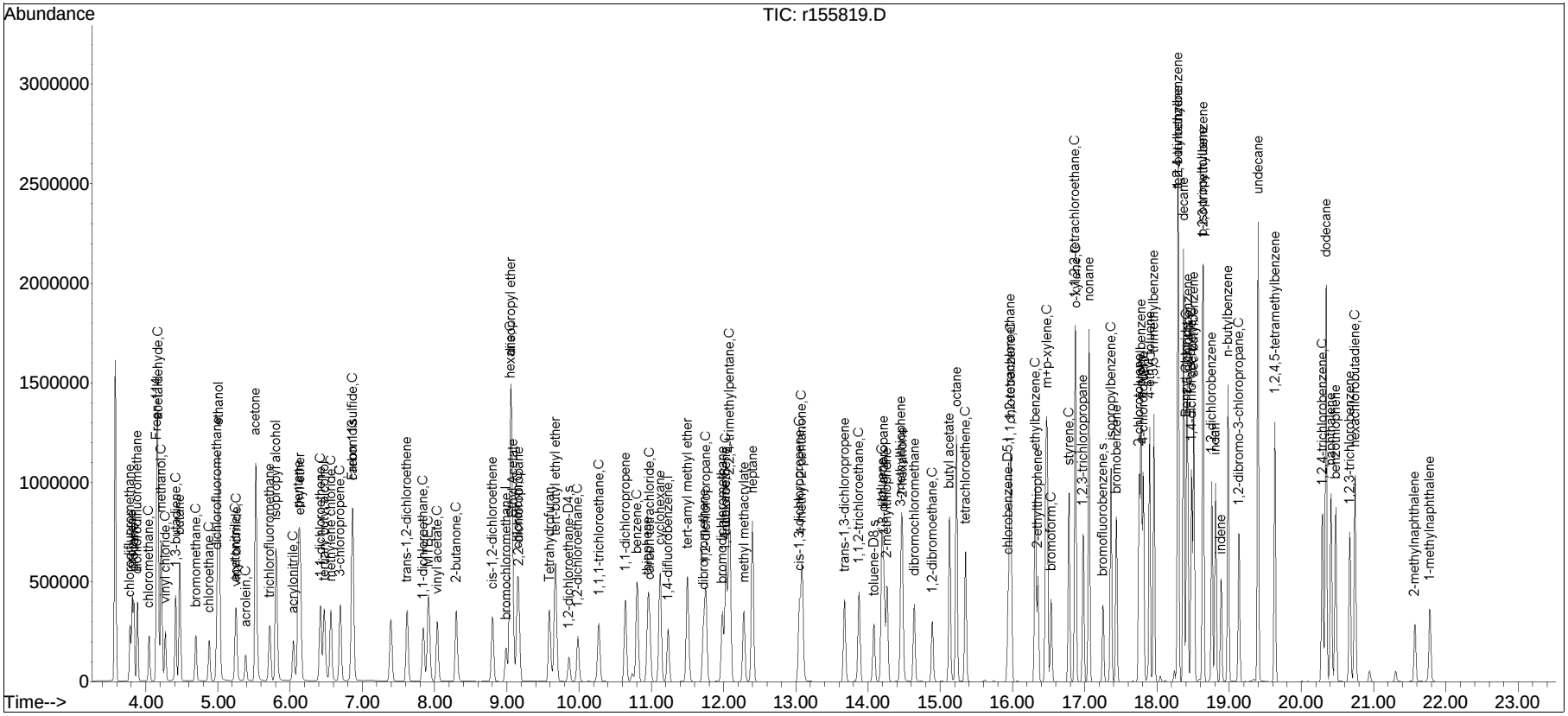
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.883	115	246862	20.304	ppbV	97
111) 1,2-dibromo-3-chloropr...	19.133	75	189915	21.874	ppbV	96
112) undecane	19.400	57	763721	20.497	ppbV	97
113) 1,2,4,5-tetramethylben...	19.633	119	645244	19.668	ppbV	98
114) dodecane	20.342	57	715640	22.472	ppbV	93
115) 1,2,4-trichlorobenzene	20.292	180	252949	21.769	ppbV	99
116) naphthalene	20.408	128	719141	22.037	ppbV	100
117) 1,2,3-trichlorobenzene	20.667	180	223197	21.022	ppbV	95
118) benzothiophene	20.475	134	611835	23.854	ppbV	99
119) hexachlorobutadiene	20.742	225	206272	20.343	ppbV	96
120) 2-methylnaphthalene	21.567	142	168660M3	23.392	ppbV	
121) 1-methylnaphthalene	21.775	142	209163	22.041	ppbV	100

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155819.D
Acq On : 16 Feb 2018 7:41 AM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD020
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

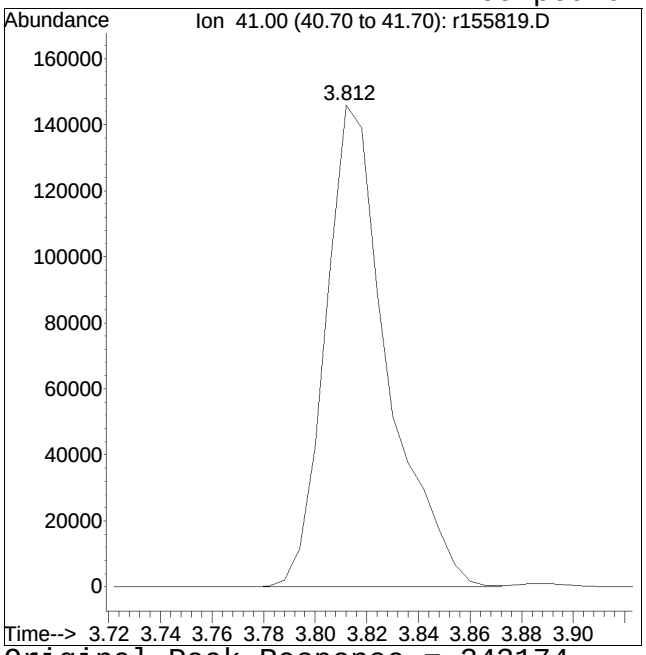
Quant Time: Feb 16 08:30:35 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 07:00:53 2018
Response via : Initial Calibration



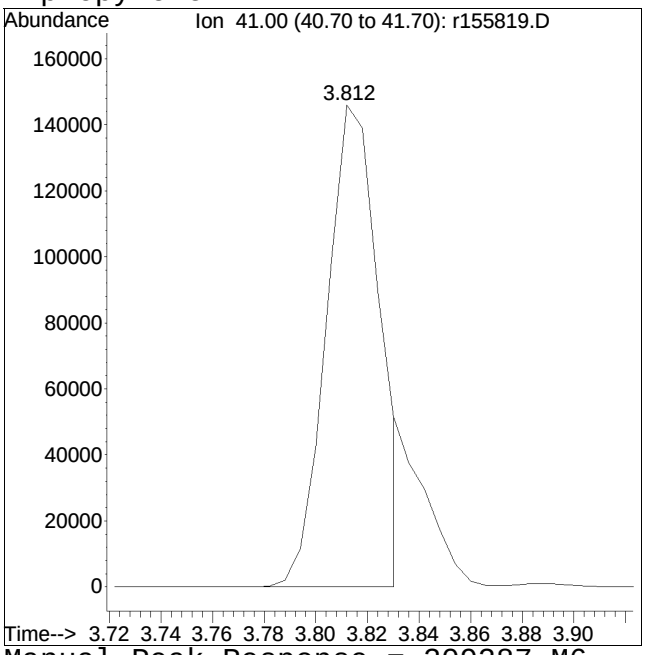
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155819.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 7:41 AM Instrument :
Sample : ITO15-SIMSTD020 Quant Date : 2/16/2018 8:29 am

Compound #3: propylene



Original Peak Response = 243174



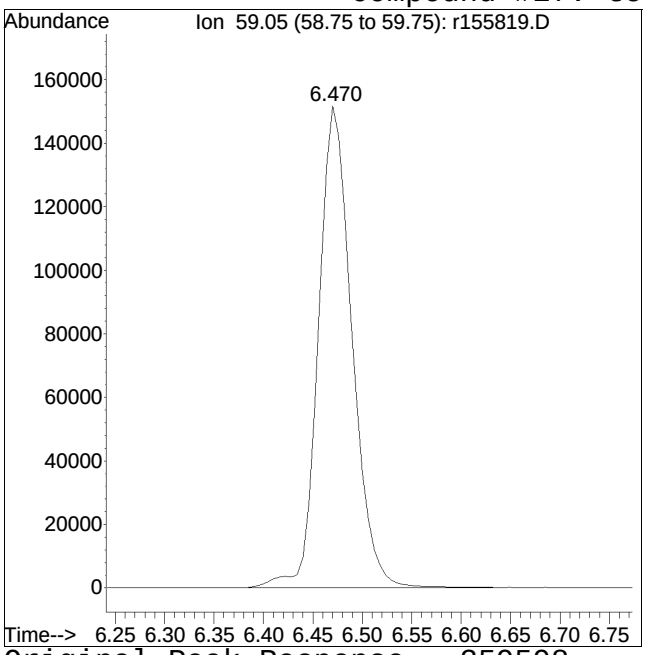
Manual Peak Response = 209287 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

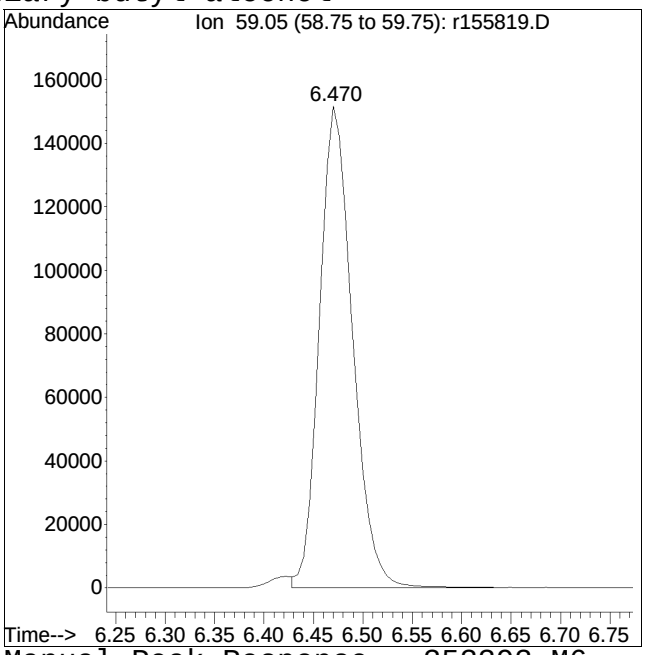
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155819.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 7:41 AM Instrument :
Sample : ITO15-SIMSTD020 Quant Date : 2/16/2018 8:29 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 359598



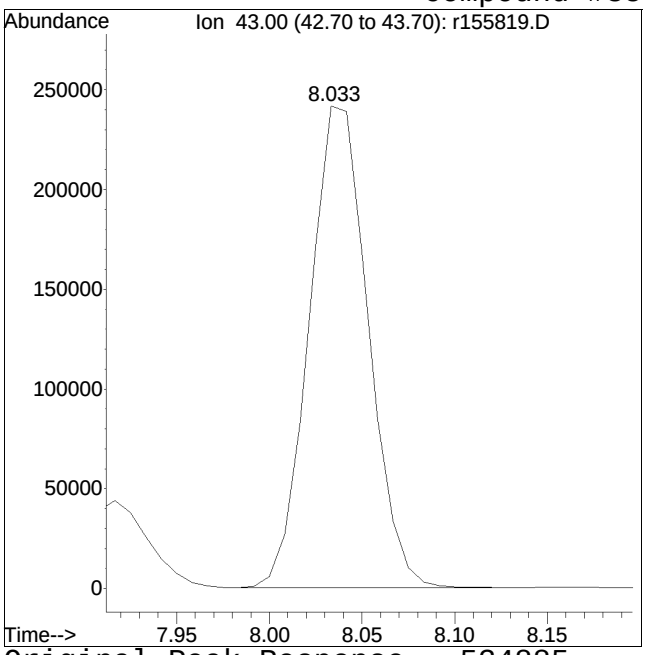
Manual Peak Response = 353393 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

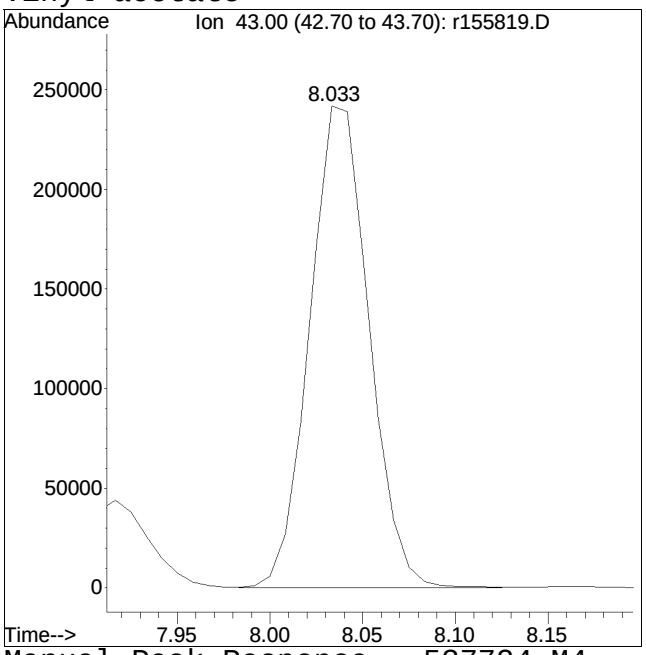
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155819.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 7:41 AM Instrument :
Sample : ITO15-SIMSTD020 Quant Date : 2/16/2018 8:29 am

Compound #35: vinyl acetate



Original Peak Response = 534885



Manual Peak Response = 537724 M4

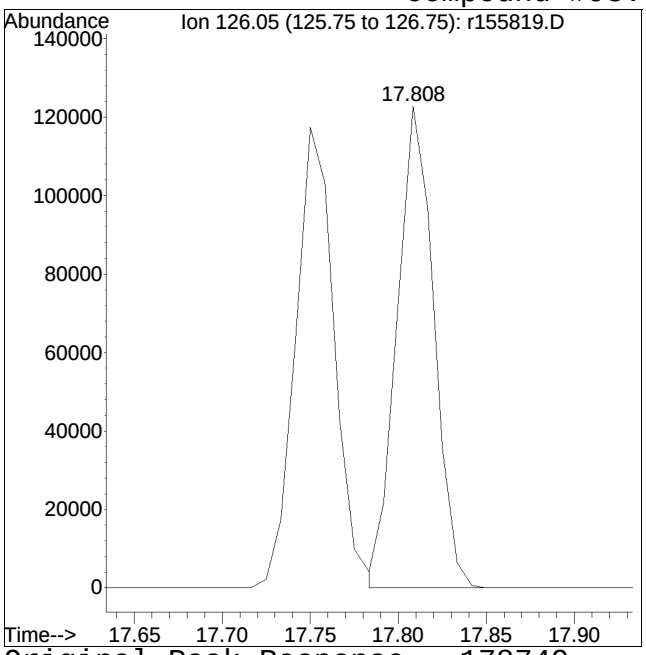
M4 = Poor automated baseline construction.

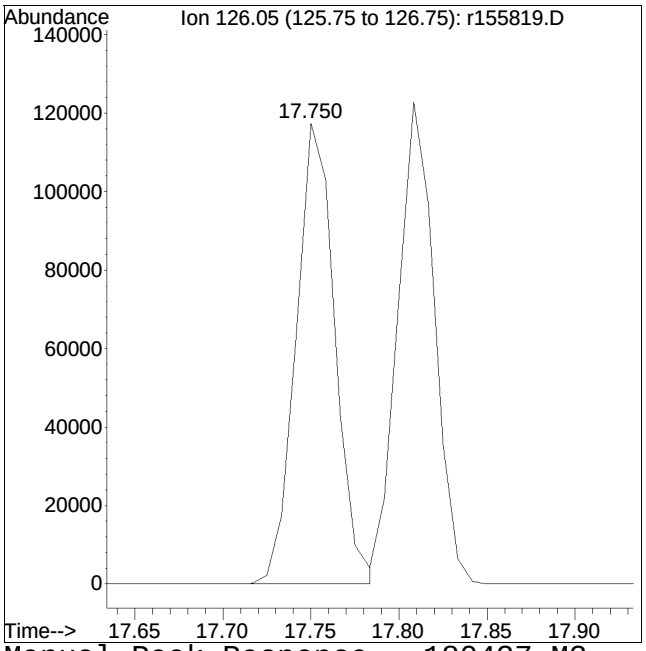
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\
Data File : r155819.D
Date Inj'd : 2/16/2018 7:41 AM
Sample : ITO15-SIMSTD020

QMethod : TALL180215.M
Operator : AIRLAB15:MB
Instrument :
Quant Date : 2/16/2018 8:29 am

Compound #93: 2-chlorotoluene





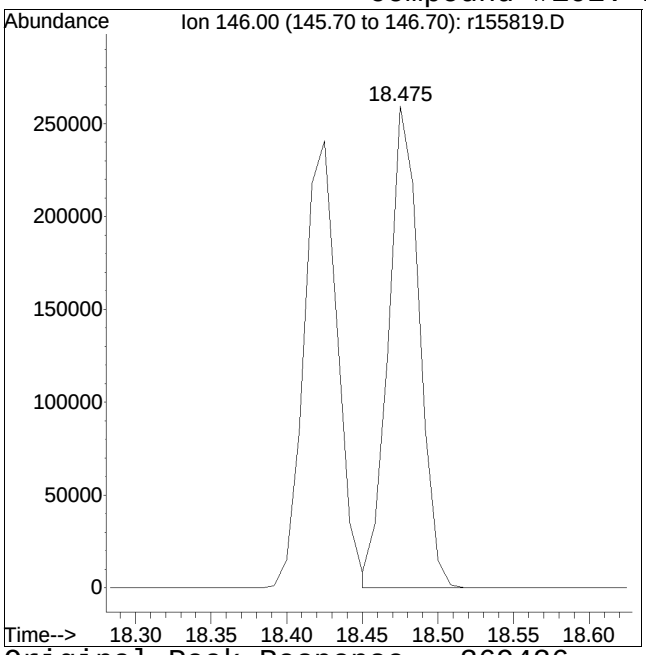
Original Peak Response = 178749 Manual Peak Response = 180437 M3

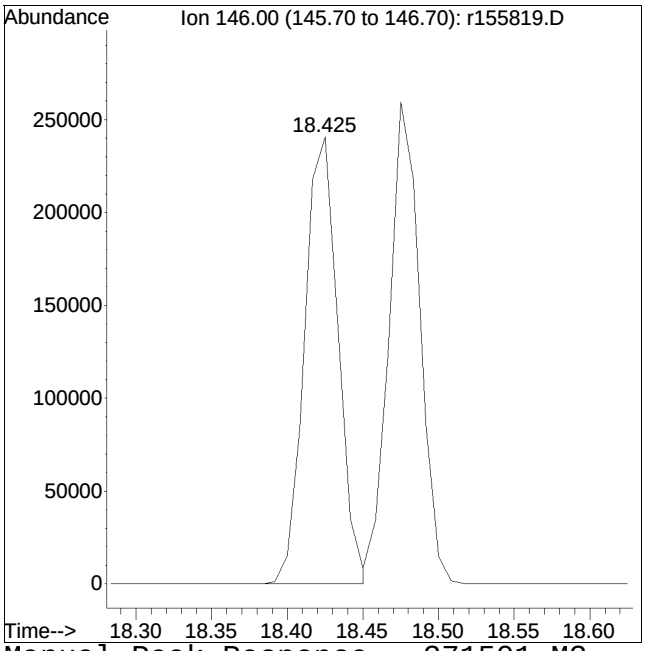
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155819.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 7:41 AM Instrument :
Sample : ITO15-SIMSTD020 Quant Date : 2/16/2018 8:29 am

Compound #102: 1,3-dichlorobenzene





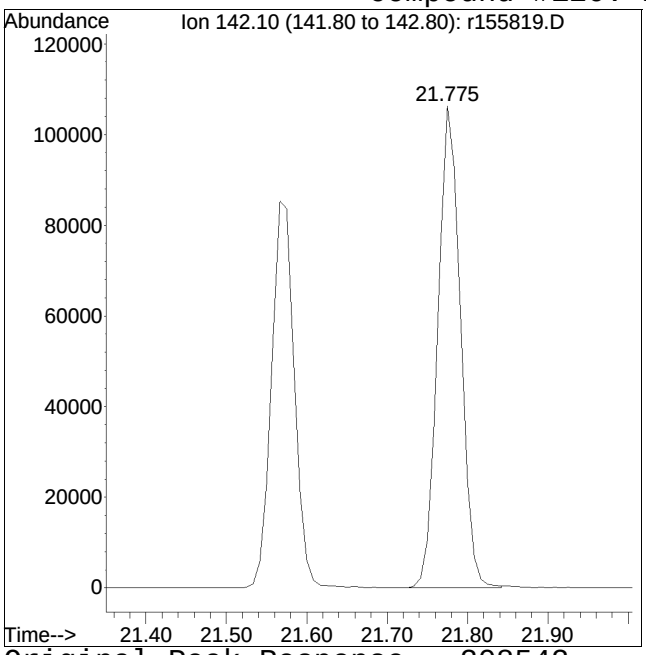
Original Peak Response = 369426 Manual Peak Response = 371501 M3

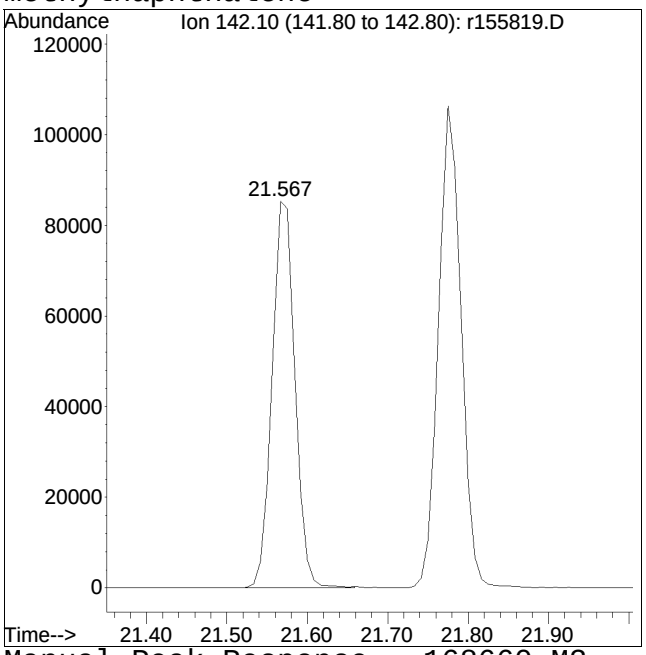
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155819.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 7:41 AM Instrument :
Sample : ITO15-SIMSTD020 Quant Date : 2/16/2018 8:29 am

Compound #120: 2-methylnaphthalene





Original Peak Response = 208542 Manual Peak Response = 168660 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155816.D
Acq On : 15 Feb 2018 10:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD050
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:56:03 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.983	49	145082	10.000	ppbV	0.00
Standard Area = 136823			Recovery = 106.04%			
43) 1,4-difluorobenzene	11.225	114	248485	10.000	ppbV	0.00
Standard Area = 247749			Recovery = 100.30%			
67) chlorobenzene-D5	15.933	54	64278	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 103.16%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.850	65	70917	9.879	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.79%			
69) toluene-D8	14.075	98	220800	9.776	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.76%			
90) bromofluorobenzene	17.283	95	116279	9.405	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.05%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.782	51	650838M6	43.704	ppbV	
3) propylene	3.812	41	506306M6	43.216	ppbV	
4) propane	3.836	29	606666	43.812	ppbV	97
5) dichlorodifluoromethane	3.884	85	721777	42.384	ppbV	99
6) chloromethane	4.040	50	537978	45.256	ppbV	99
7) Freon-114	4.148	85	1024302	43.959	ppbV	98
8) methanol	4.214	31	1295751	219.626	ppbV	100
9) vinyl chloride	4.268	62	586972	45.056	ppbV	100
10) 1,3-butadiene	4.406	54	440397	41.193	ppbV	98
11) butane	4.466	43	943245	40.333	ppbV	100
12) acetaldehyde	4.166	29	1507740	235.867	ppbV	99
13) bromomethane	4.687	94	389641	44.216	ppbV	99
14) chloroethane	4.873	64	287637	44.577	ppbV	97
15) ethanol	5.013	31	2464829	229.716	ppbV	99
16) dichlorofluoromethane	4.983	67	923960	44.105	ppbV	100
17) vinyl bromide	5.250	106	345195	45.786	ppbV	96
18) acrolein	5.377	56	236604	46.265	ppbV	98
19) acetone	5.517	43	3428350	230.615	ppbV	98
20) acetonitrile	5.240	41	654389	44.963	ppbV	97
21) trichlorofluoromethane	5.710	101	603707	43.408	ppbV	100
22) isopropyl alcohol	5.803	45	2181782	121.919	ppbV	100
23) acrylonitrile	6.040	53	433369	45.876	ppbV	96
24) pentane	6.107	43	1522399	49.550	ppbV	99

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155816.D
Acq On : 15 Feb 2018 10:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD050
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:56:03 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.133	31	1244053	47.719	ppbV	99
26) 1,1-dichloroethene	6.410	61	759157	44.851	ppbV	98
27) tertiary butyl alcohol	6.464	59	922975M6	46.637	ppbV	
28) methylene chloride	6.560	49	673157	44.787	ppbV	100
29) 3-chloropropene	6.686	41	993319	45.825	ppbV	99
30) carbon disulfide	6.854	76	1381088	46.315	ppbV	98
31) Freon 113	6.854	101	734315	45.659	ppbV	98
32) trans-1,2-dichloroethene	7.608	61	732076	45.643	ppbV	98
33) 1,1-dichloroethane	7.833	63	891262	45.477	ppbV	99
34) MTBE	7.908	73	1052465	45.047	ppbV	99
35) vinyl acetate	8.025	43	1415401M4	47.085	ppbV	
36) 2-butanone	8.292	43	1282669	45.891	ppbV	99
37) cis-1,2-dichloroethene	8.792	61	677499	45.303	ppbV	96
38) Ethyl Acetate	9.075	61	186718	47.165	ppbV	84
39) chloroform	9.142	83	743636	44.604	ppbV	98
40) Tetrahydrofuran	9.575	42	825745	46.196	ppbV	99
41) 2,2-dichloropropane	9.158	77	591758	46.104	ppbV	99
42) 1,2-dichloroethane	9.975	62	545203	44.610	ppbV	98
44) hexane	9.042	57	924899	48.621	ppbV	87
45) diisopropyl ether	9.050	87	382617	49.932	ppbV	92
46) tert-butyl ethyl ether	9.658	59	1529856	47.690	ppbV	99
48) 1,1,1-trichloroethane	10.267	97	574264	48.245	ppbV	98
49) 1,1-dichloropropene	10.633	75	620024	47.555	ppbV	98
50) benzene	10.792	78	1408291	46.219	ppbV	99
51) thiophene	10.942	84	698629	51.343	ppbV	97
52) carbon tetrachloride	10.967	117	505544	48.894	ppbV	99
53) cyclohexane	11.108	56	942448	47.960	ppbV	97
54) tert-amyl methyl ether	11.492	73	1189747	48.883	ppbV	97
55) dibromomethane	11.717	93	400699	48.423	ppbV	98
56) 1,2-dichloropropane	11.750	63	605472	49.091	ppbV	98
57) bromodichloromethane	11.975	83	774478	48.009	ppbV	94
58) 1,4-dioxane	12.017	88	322358	51.915	ppbV	97
59) trichloroethene	12.025	130	467642	49.769	ppbV	99
60) 2,2,4-trimethylpentane	12.075	57	2856889M6	46.223	ppbV	
61) methyl methacrylate	12.275	41	738265	52.674	ppbV	100
62) heptane	12.392	43	1327111	49.087	ppbV	98
63) cis-1,3-dichloropropene	13.042	75	723922	48.467	ppbV	96
64) 4-methyl-2-pentanone	13.075	43	1578457	48.951	ppbV	100
65) trans-1,3-dichloropropene	13.667	75	683720	48.828	ppbV	95
66) 1,1,2-trichloroethane	13.867	97	465747	46.877	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155816.D
Acq On : 15 Feb 2018 10:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD050
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:56:03 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	14.183	91	1527486	46.444	ppbV		100
70) 2-methylthiophene	14.258	97	939172	49.092	ppbV		96
71) 1,3-dichloropropane	14.217	76	754358	45.782	ppbV		98
72) 2-hexanone	14.467	43	1479053	48.284	ppbV		100
73) 3-methylthiophene	14.450	97	922369	50.263	ppbV		99
74) dibromochloromethane	14.633	129	602169	48.021	ppbV		99
75) 1,2-dibromoethane	14.883	107	684011	46.354	ppbV		96
76) butyl acetate	15.125	73	190713	47.612	ppbV		91
77) octane	15.217	85	593147	47.856	ppbV		99
78) tetrachloroethene	15.342	166	511619	49.171	ppbV		96
79) 1,1,1,2-tetrachloroethane	15.958	131	467046	49.753	ppbV		95
80) chlorobenzene	15.975	112	1133154	47.797	ppbV		99
81) ethylbenzene	16.317	91	1918129	46.317	ppbV		100
82) 2-ethylthiophene	16.350	97	832538	49.793	ppbV		98
83) m+p-xylene	16.475	91	3122410	94.678	ppbV		98
84) bromoform	16.542	173	505266	51.677	ppbV		98
85) styrene	16.792	104	1165292	47.045	ppbV		97
86) 1,1,2,2-tetrachloroethane	16.883	83	1250067	47.575	ppbV		99
87) o-xylene	16.883	91	1603408	47.482	ppbV		92
88) 1,2,3-trichloropropane	17.000	75	910676	45.638	ppbV		99
89) nonane	17.083	43	1913834	47.887	ppbV		97
91) isopropylbenzene	17.392	105	1795626	46.214	ppbV		93
92) bromobenzene	17.475	77	1169761	46.586	ppbV		97
93) 2-chlorotoluene	17.800	126	507466	48.402	ppbV		97
94) n-propylbenzene	17.825	120	604287	49.672	ppbV		89
95) 4-chlorotoluene	17.858	126	493559	48.302	ppbV		97
96) 4-ethyl toluene	17.950	105	1990737	46.780	ppbV		97
97) 1,3,5-trimethylbenzene	18.008	105	1697010	46.225	ppbV		95
98) tert-butylbenzene	18.358	119	1757870	48.553	ppbV		92
99) 1,2,4-trimethylbenzene	18.358	105	1851020	50.420	ppbV		92
100) decane	18.433	57	1874057	46.457	ppbV	#	96
101) Benzyl Chloride	18.475	91	1508951	54.793	ppbV		98
102) 1,3-dichlorobenzene	18.492	146	1059766	48.874	ppbV		98
103) 1,4-dichlorobenzene	18.550	146	1030713	49.097	ppbV		96
104) sec-butylbenzene	18.575	105	2321495	46.519	ppbV		96
105) 1,2,3-trimethylbenzene	18.717	105	1322017	52.393	ppbV		97
106) p-isopropyltoluene	18.708	119	2061132	48.465	ppbV		91
107) 1,2-dichlorobenzene	18.833	146	955533	49.592	ppbV		94
108) n-butylbenzene	19.075	91	1981512	47.284	ppbV		98
109) indan	18.892	117	1280163	49.591	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155816.D
Acq On : 15 Feb 2018 10:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD050
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:56:03 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

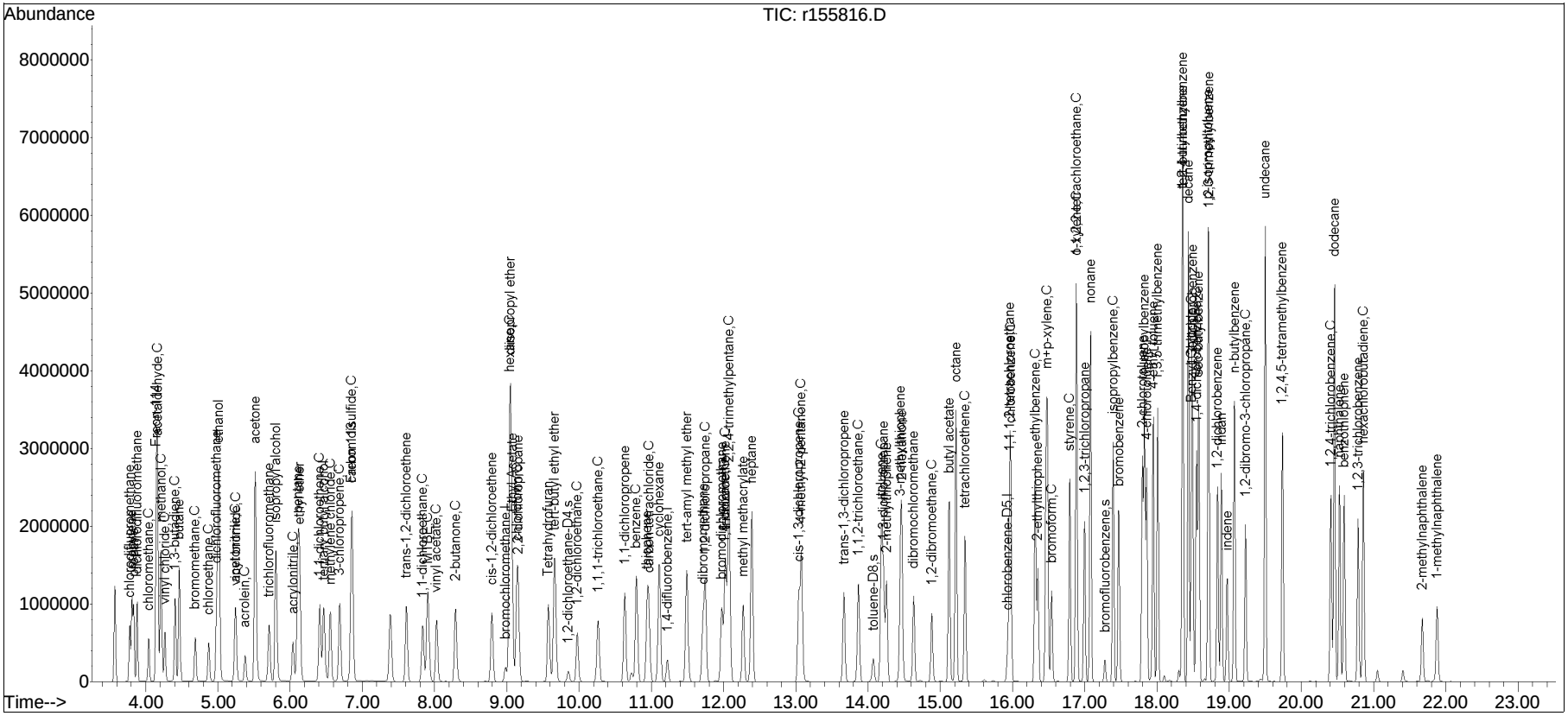
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.975	115	676518	49.875	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.225	75	523922	48.139	ppbV	92
112) undecane	19.500	57	2010099	44.013	ppbV #	98
113) 1,2,4,5-tetramethylben...	19.733	119	1735173	43.837	ppbV	98
114) dodecane	20.458	57	1801471	36.327	ppbV	94
115) 1,2,4-trichlorobenzene	20.408	180	701879	49.505	ppbV	99
116) naphthalene	20.525	128	1911002	43.635	ppbV	99
117) 1,2,3-trichlorobenzene	20.783	180	608418	44.650	ppbV	98
118) benzothiophene	20.592	134	1672855	54.946	ppbV	97
119) hexachlorobutadiene	20.858	225	532642	44.357	ppbV	94
120) 2-methylnaphthalene	21.675	142	468123	55.726	ppbV	97
121) 1-methylnaphthalene	21.875	142	545486	48.719	ppbV	99

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155816.D
Acq On : 15 Feb 2018 10:26 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD050
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

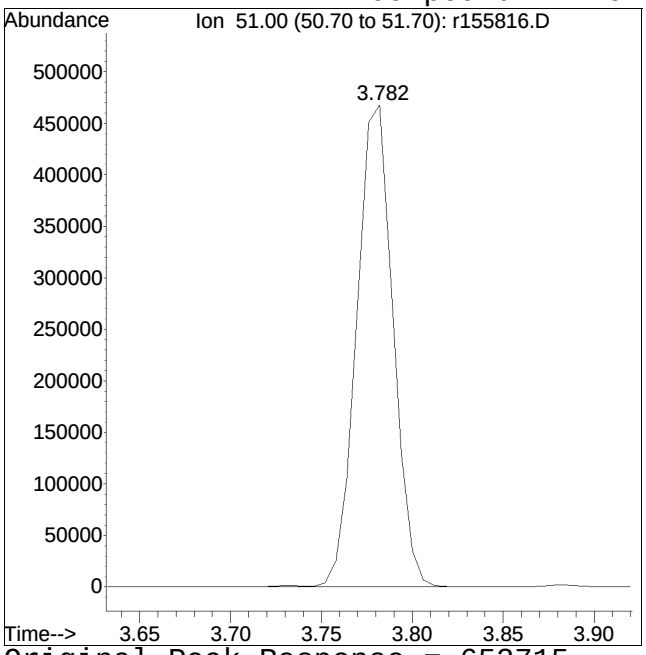
Quant Time: Feb 16 06:56:03 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration



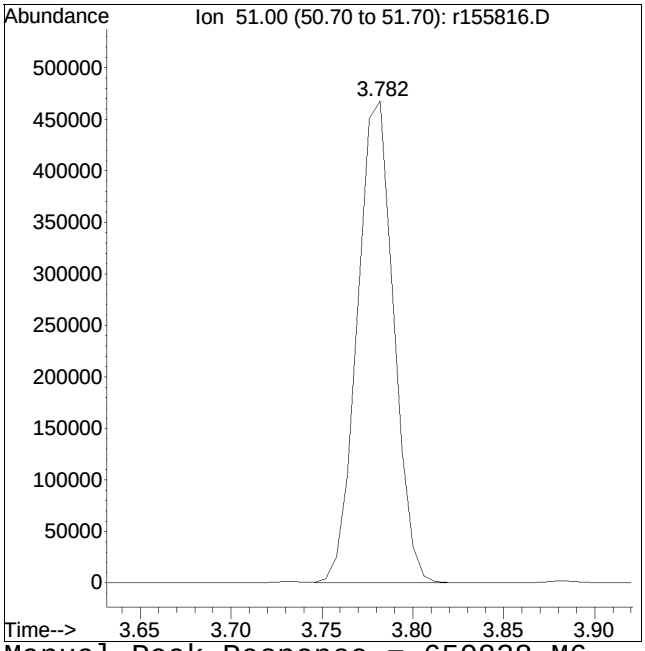
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155816.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 10:26 PM Instrument :
Sample : ITO15-SIMSTD050 Quant Date : 2/16/2018 6:46 am

Compound #2: chlorodifluoromethane



Original Peak Response = 652715



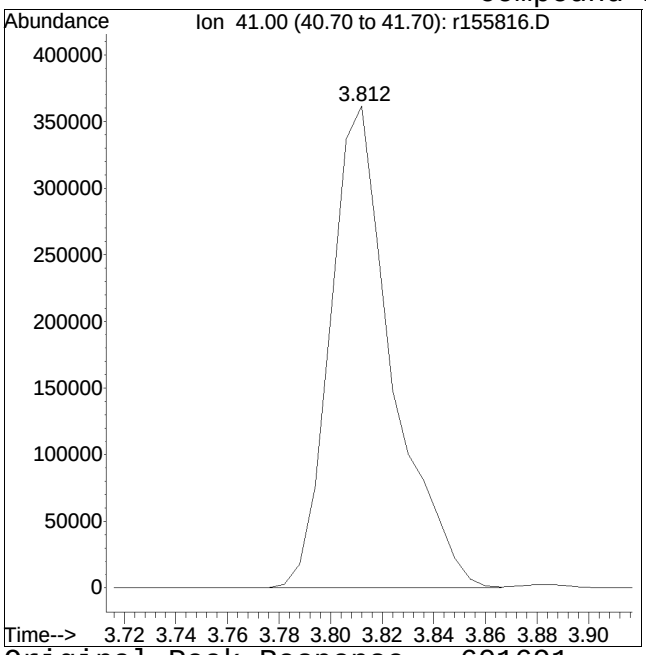
Manual Peak Response = 650838 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

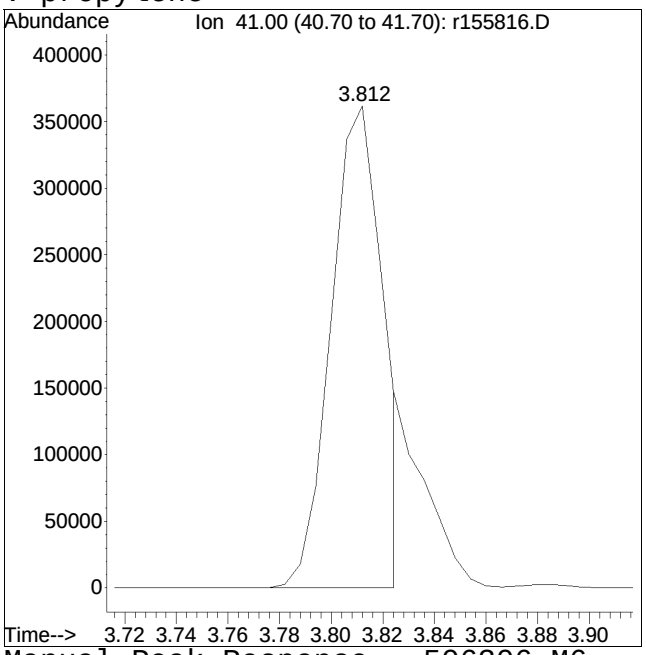
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155816.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 10:26 PM Instrument :
Sample : ITO15-SIMSTD050 Quant Date : 2/16/2018 6:46 am

Compound #3: propylene



Original Peak Response = 601691



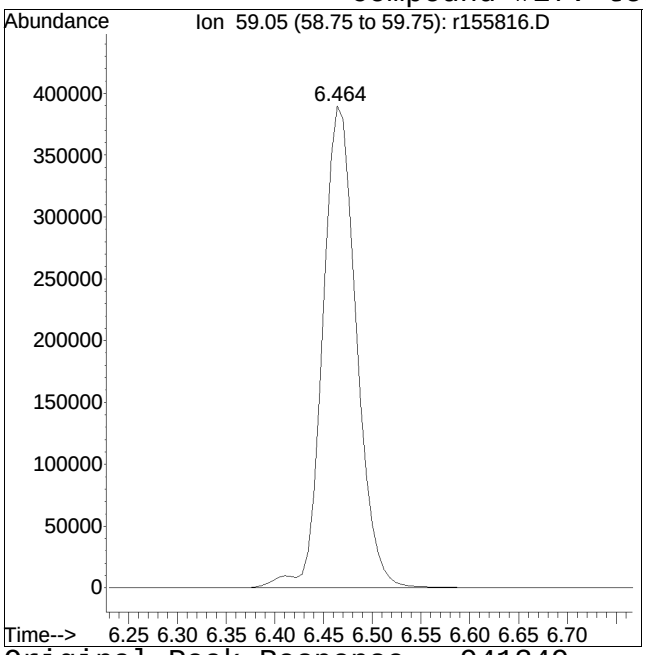
Manual Peak Response = 506306 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

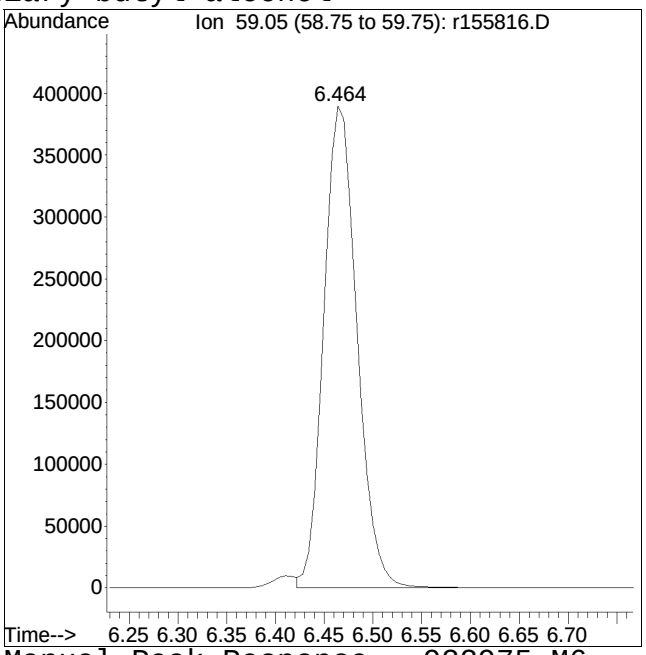
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155816.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 10:26 PM Instrument :
Sample : ITO15-SIMSTD050 Quant Date : 2/16/2018 6:46 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 941349



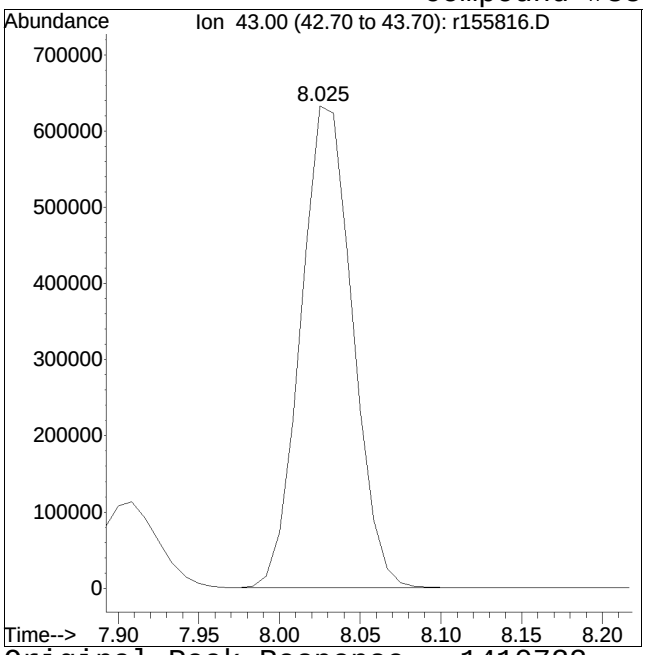
Manual Peak Response = 922975 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

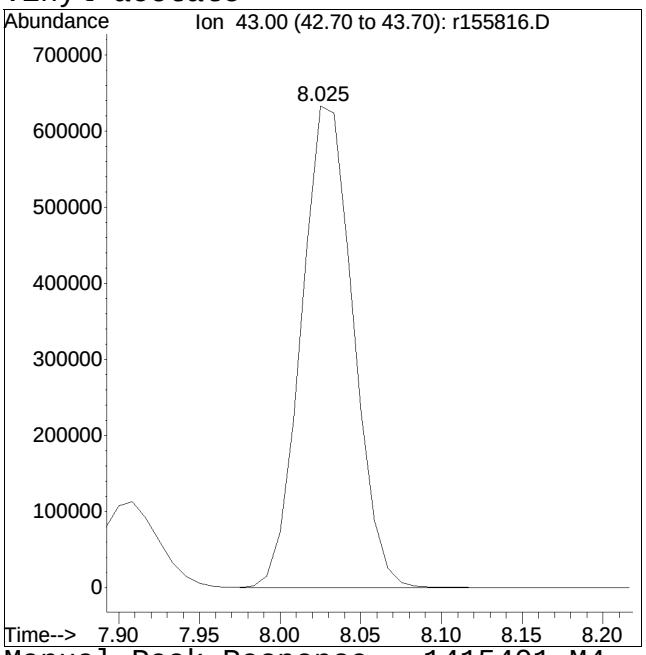
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155816.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 10:26 PM Instrument :
Sample : ITO15-SIMSTD050 Quant Date : 2/16/2018 6:46 am

Compound #35: vinyl acetate



Original Peak Response = 1410722



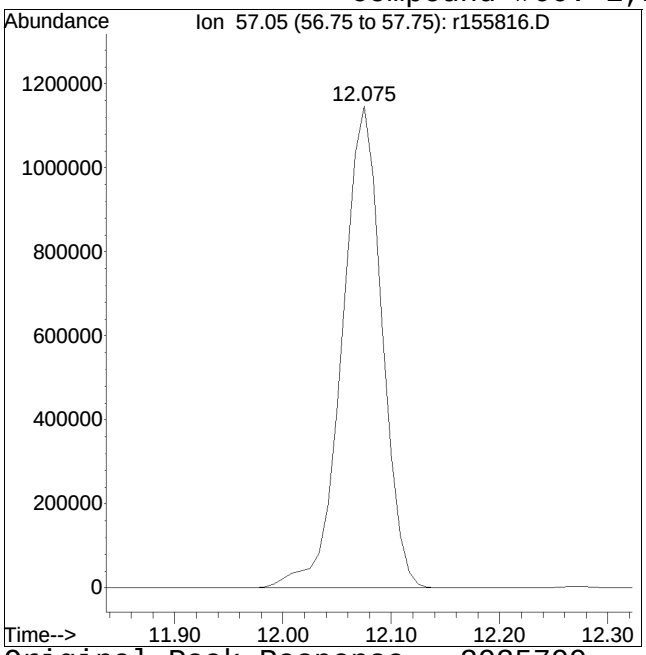
Manual Peak Response = 1415401 M4

M4 = Poor automated baseline construction.

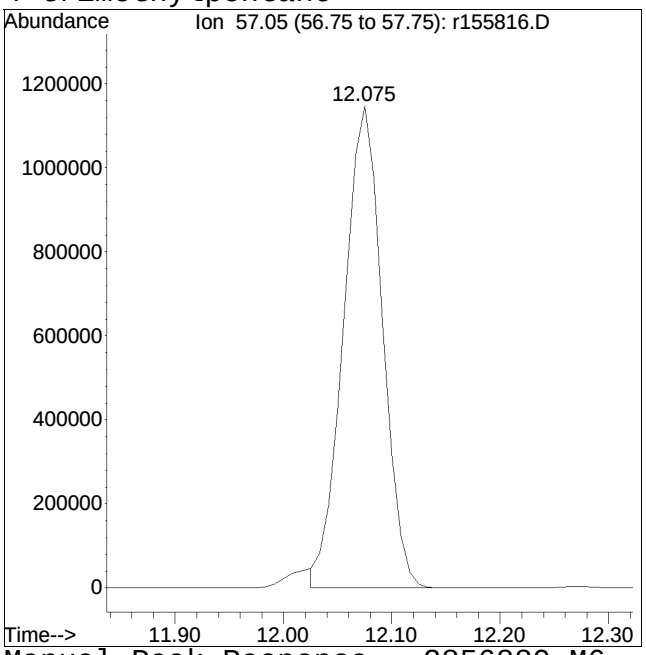
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155816.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 10:26 PM Instrument :
Sample : ITO15-SIMSTD050 Quant Date : 2/16/2018 6:46 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 2935799



Manual Peak Response = 2856889 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155817.D
Acq On : 15 Feb 2018 11:07 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD100
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:58:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.992	49	148689	10.000	ppbV	0.02
Standard Area = 136823			Recovery = 108.67%			
43) 1,4-difluorobenzene	11.225	114	245552	10.000	ppbV	0.00
Standard Area = 247749			Recovery = 99.11%			
67) chlorobenzene-D5	15.942	54	64702	10.000	ppbV	# 0.00
Standard Area = 62309			Recovery = 103.84%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.858	65	69343	9.776	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.76%			
69) toluene-D8	14.075	98	221049	9.723	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.23%			
90) bromofluorobenzene	17.283	95	122553	9.848	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.48%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.782	51	1280515M6	83.901	ppbV	
3) propylene	3.812	41	1065869M6	88.771	ppbV	
4) propane	3.836	29	1216164	85.698	ppbV	97
5) dichlorodifluoromethane	3.884	85	1383120	79.248	ppbV	98
6) chloromethane	4.046	50	1120153	91.943	ppbV	99
7) Freon-114	4.148	85	2040207	85.435	ppbV	98
8) methanol	4.214	31	2629022	434.801	ppbV	99
9) vinyl chloride	4.268	62	1152803	86.343	ppbV	98
10) 1,3-butadiene	4.412	54	911491	83.190	ppbV	94
11) butane	4.466	43	1902847	79.392	ppbV	98
12) acetaldehyde	4.166	29	3105212	473.987	ppbV	98
13) bromomethane	4.690	94	786998	87.141	ppbV	100
14) chloroethane	4.877	64	591448	89.438	ppbV	99
15) ethanol	5.023	31	4991463	453.907	ppbV	98
16) dichlorofluoromethane	4.987	67	1861718	86.713	ppbV	98
17) vinyl bromide	5.253	106	742719	96.122	ppbV	99
18) acrolein	5.383	56	497367	94.894	ppbV	97
19) acetone	5.523	43	6701093	439.827	ppbV #	94
20) acetonitrile	5.247	41	1329620	89.141	ppbV	98
21) trichlorofluoromethane	5.710	101	1205326	84.564	ppbV	99
22) isopropyl alcohol	5.813	45	4491369	244.892	ppbV	100
23) acrylonitrile	6.047	53	913046	94.310	ppbV	98
24) pentane	6.113	43	2987467	94.875	ppbV #	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155817.D
Acq On : 15 Feb 2018 11:07 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD100
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:58:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
25) ethyl ether	6.137	31	2625347	98.260	ppbV		97
26) 1,1-dichloroethene	6.416	61	1495359	86.203	ppbV		92
27) tertiary butyl alcohol	6.476	59	1834932	90.467	ppbV		99
28) methylene chloride	6.560	49	1401889	91.008	ppbV		100
29) 3-chloropropene	6.692	41	2030586	91.404	ppbV		97
30) carbon disulfide	6.860	76	2843035	93.029	ppbV		96
31) Freon 113	6.860	101	1529522	92.798	ppbV		94
32) trans-1,2-dichloroethene	7.617	61	1449355	88.171	ppbV		98
33) 1,1-dichloroethane	7.842	63	1765154	87.882	ppbV		97
34) MTBE	7.908	73	2089907	87.282	ppbV		100
35) vinyl acetate	8.033	43	2892004	93.873	ppbV		99
36) 2-butanone	8.300	43	2609035	91.081	ppbV		99
37) cis-1,2-dichloroethene	8.800	61	1337422	87.261	ppbV		95
38) Ethyl Acetate	9.083	61	387391	95.480	ppbV		76
39) chloroform	9.150	83	1412623	82.674	ppbV		99
40) Tetrahydrofuran	9.575	42	1700681	92.835	ppbV		99
41) 2,2-dichloropropane	9.167	77	1146395	87.149	ppbV	#	95
42) 1,2-dichloroethane	9.983	62	1051577	83.955	ppbV		97
44) hexane	9.050	57	1831857	97.448	ppbV		93
45) diisopropyl ether	9.050	87	795816	105.096	ppbV		82
46) tert-butyl ethyl ether	9.667	59	3015522	95.126	ppbV		98
48) 1,1,1-trichloroethane	10.267	97	1114575	94.756	ppbV		96
49) 1,1-dichloropropene	10.642	75	1213489	94.185	ppbV		99
50) benzene	10.800	78	2689410	89.318	ppbV		98
51) thiophene	10.950	84	1379489	102.590	ppbV		98
52) carbon tetrachloride	10.975	117	963372	94.287	ppbV		97
53) cyclohexane	11.117	56	1841483	94.831	ppbV		98
54) tert-amyl methyl ether	11.492	73	2382860	99.073	ppbV		98
55) dibromomethane	11.725	93	811949	99.294	ppbV		95
56) 1,2-dichloropropane	11.750	63	1235851	101.398	ppbV		95
57) bromodichloromethane	11.983	83	1505751	94.454	ppbV		97
58) 1,4-dioxane	12.017	88	658858	107.376	ppbV		95
59) trichloroethene	12.033	130	1002071	107.919	ppbV		100
60) 2,2,4-trimethylpentane	12.083	57	5547231M6	90.824	ppbV		
61) methyl methacrylate	12.275	41	1507417	108.837	ppbV		100
62) heptane	12.400	43	2723725	101.947	ppbV		97
63) cis-1,3-dichloropropene	13.050	75	1456438	98.673	ppbV		98
64) 4-methyl-2-pentanone	13.083	43	3239468	101.663	ppbV		99
65) trans-1,3-dichloropropene	13.675	75	1363840	98.562	ppbV		97
66) 1,1,2-trichloroethane	13.875	97	970866	98.884	ppbV		94

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155817.D
Acq On : 15 Feb 2018 11:07 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD100
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:58:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68) toluene	14.192	91	3070772	92.756	ppbV		99
70) 2-methylthiophene	14.267	97	1943729	100.936	ppbV		97
71) 1,3-dichloropropane	14.225	76	1499869	90.431	ppbV		97
72) 2-hexanone	14.475	43	3085818	100.076	ppbV		98
73) 3-methylthiophene	14.458	97	1922876	104.098	ppbV		99
74) dibromochloromethane	14.642	129	1240217	98.256	ppbV		96
75) 1,2-dibromoethane	14.892	107	1410179	94.939	ppbV		97
76) butyl acetate	15.125	73	410974	101.927	ppbV		89
77) octane	15.225	85	1187844	95.209	ppbV		96
78) tetrachloroethene	15.350	166	1084113	103.510	ppbV		97
79) 1,1,1,2-tetrachloroethane	15.967	131	1007198	106.590	ppbV		96
80) chlorobenzene	15.975	112	2406952	100.861	ppbV		96
81) ethylbenzene	16.317	91	3849346	92.341	ppbV		96
82) 2-ethylthiophene	16.358	97	1718153	102.088	ppbV		100
83) m+p-xylene	16.483	91	6364230	191.712	ppbV		94
84) bromoform	16.542	173	1093297	111.087	ppbV		93
85) styrene	16.800	104	2424814	97.252	ppbV		97
86) 1,1,2,2-tetrachloroethane	16.892	83	2652767	100.298	ppbV		98
87) o-xylene	16.892	91	3273879	96.314	ppbV	#	84
88) 1,2,3-trichloropropane	17.000	75	1868158	93.008	ppbV		97
89) nonane	17.083	43	3945623	98.079	ppbV	#	97
91) isopropylbenzene	17.400	105	3756518	96.048	ppbV		91
92) bromobenzene	17.475	77	2431781	96.211	ppbV		95
93) 2-chlorotoluene	17.800	126	1117685	105.905	ppbV		79
94) n-propylbenzene	17.833	120	1378525	112.571	ppbV		74
95) 4-chlorotoluene	17.858	126	1097836	106.736	ppbV		80
96) 4-ethyl toluene	17.950	105	4214633	98.390	ppbV		92
97) 1,3,5-trimethylbenzene	18.017	105	3636597	98.408	ppbV		97
98) tert-butylbenzene	18.358	119	3700311	101.534	ppbV	#	90
99) 1,2,4-trimethylbenzene	18.367	105	3913997	105.915	ppbV		87
100) decane	18.442	57	3887193	95.731	ppbV	#	98
101) Benzyl Chloride	18.483	91	3365817	121.420	ppbV		92
102) 1,3-dichlorobenzene	18.492	146	2409604	110.397	ppbV		97
103) 1,4-dichlorobenzene	18.550	146	2359095	111.637	ppbV		96
104) sec-butylbenzene	18.583	105	5183332	103.184	ppbV	#	91
105) 1,2,3-trimethylbenzene	18.717	105	2941536	115.812	ppbV		90
106) p-isopropyltoluene	18.717	119	4337270M6	101.318	ppbV		
107) 1,2-dichlorobenzene	18.842	146	2118174	109.212	ppbV		97
108) n-butylbenzene	19.075	91	4233966	100.372	ppbV	#	87
109) indan	18.900	117	2717116	104.565	ppbV		97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155817.D
Acq On : 15 Feb 2018 11:07 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD100
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 06:58:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default - All compounds listed

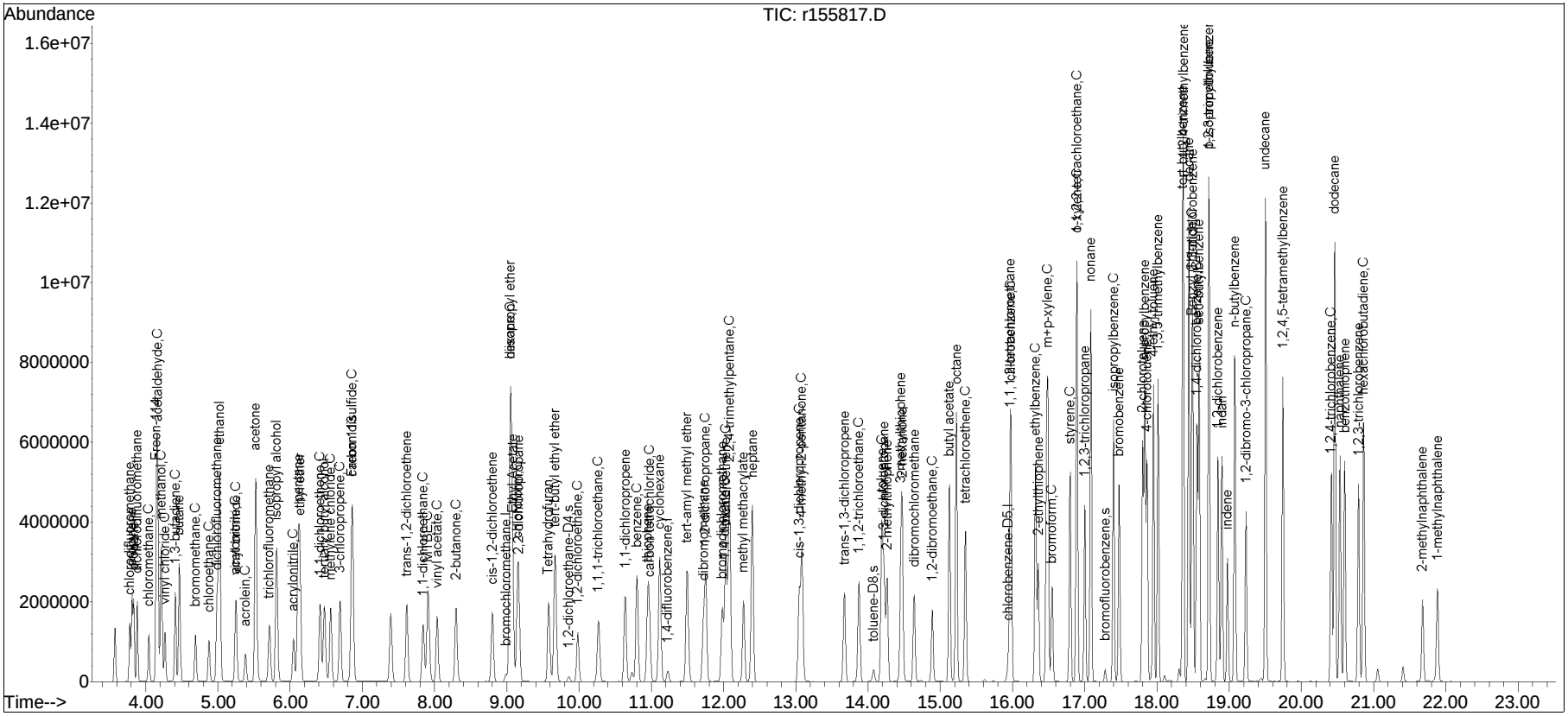
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	18.975	115	1452166	106.356	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.233	75	1144249	104.446	ppbV	90
112) undecane	19.500	57	4320364	93.978	ppbV #	94
113) 1,2,4,5-tetramethylben...	19.742	119	3738047	93.818	ppbV	90
114) dodecane	20.458	57	3921677	78.562	ppbV	97
115) 1,2,4-trichlorobenzene	20.408	180	1626314	113.957	ppbV	98
116) naphthalene	20.533	128	4239276	96.164	ppbV	97
117) 1,2,3-trichlorobenzene	20.792	180	1481902	108.040	ppbV	97
118) benzothiophene	20.600	134	3865863	126.145	ppbV	97
119) hexachlorobutadiene	20.858	225	1314268	108.731	ppbV #	85
120) 2-methylnaphthalene	21.675	142	1130674	133.715	ppbV	98
121) 1-methylnaphthalene	21.883	142	1301163	115.448	ppbV	97

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

Sub List : Default - All compounds listed8\180215T_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155817.D
Acq On : 15 Feb 2018 11:07 PM
Operator : AIRLAB15:MB
Sample : ITO15-SIMSTD100
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

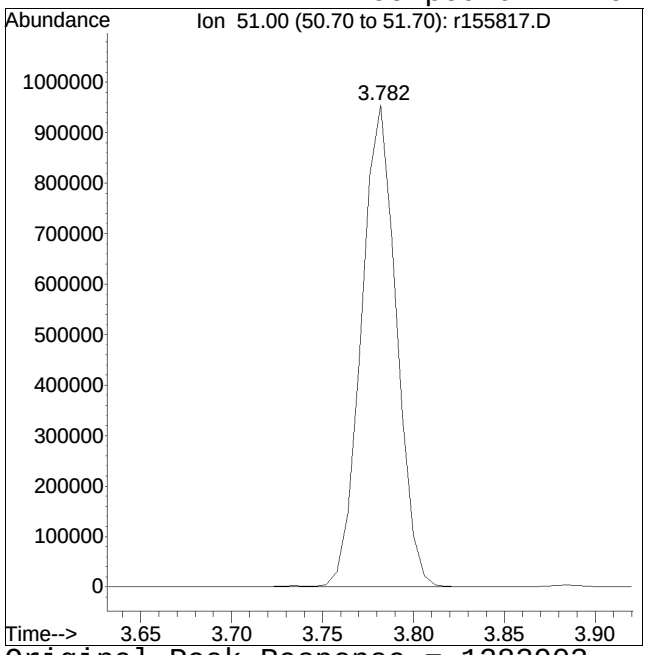
Quant Time: Feb 16 06:58:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 06:45:26 2018
Response via : Initial Calibration



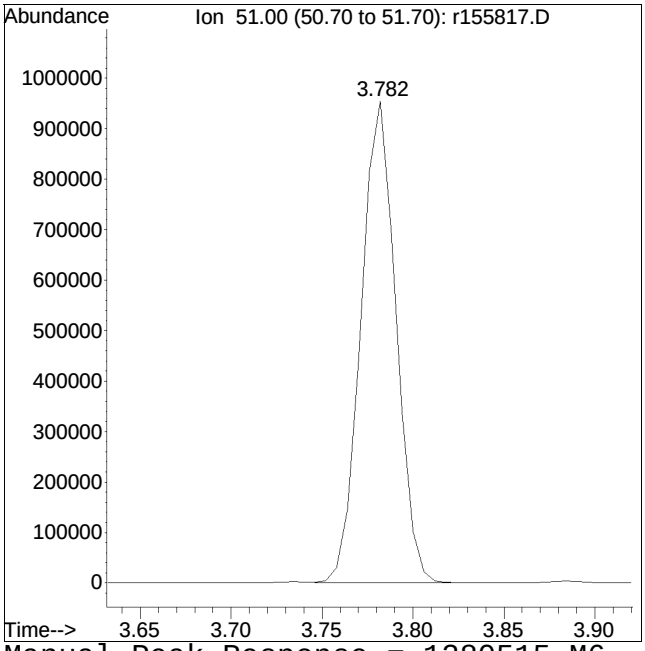
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155817.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 11:07 PM Instrument :
Sample : ITO15-SIMSTD100 Quant Date : 2/16/2018 6:46 am

Compound #2: chlorodifluoromethane



Original Peak Response = 1283903



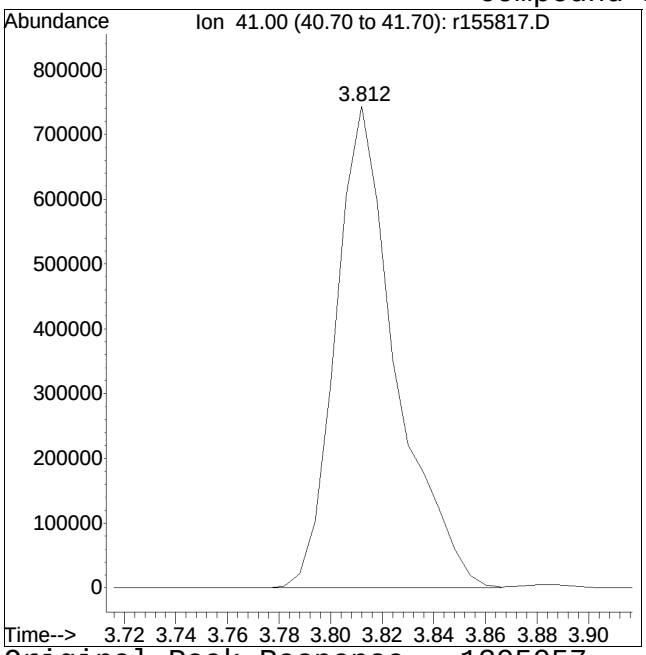
Manual Peak Response = 1280515 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

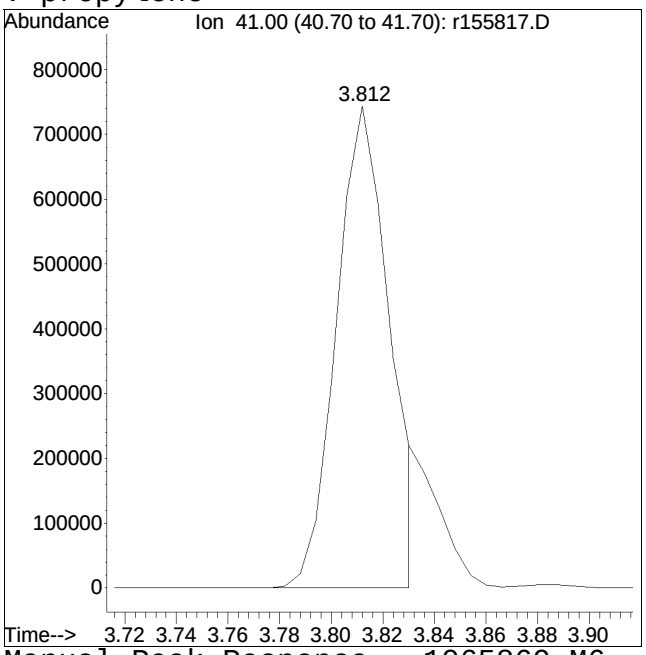
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155817.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 11:07 PM Instrument :
Sample : ITO15-SIMSTD100 Quant Date : 2/16/2018 6:46 am

Compound #3: propylene



Original Peak Response = 1205057



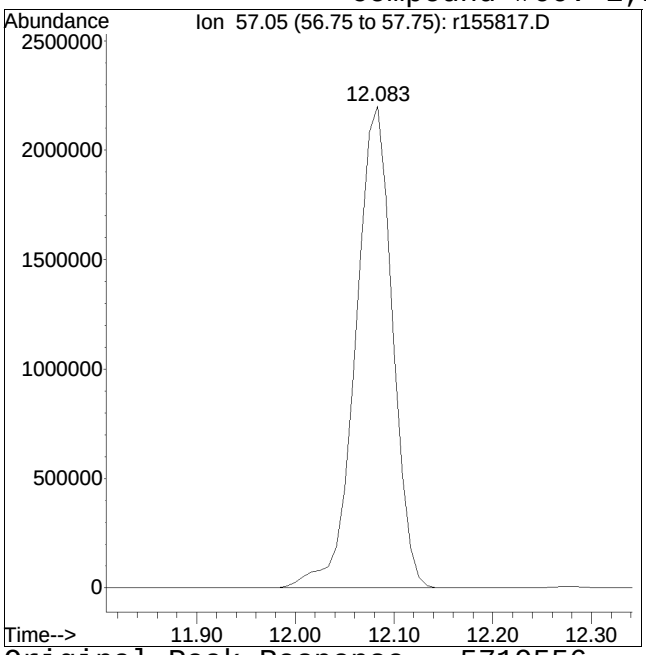
Manual Peak Response = 1065869 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

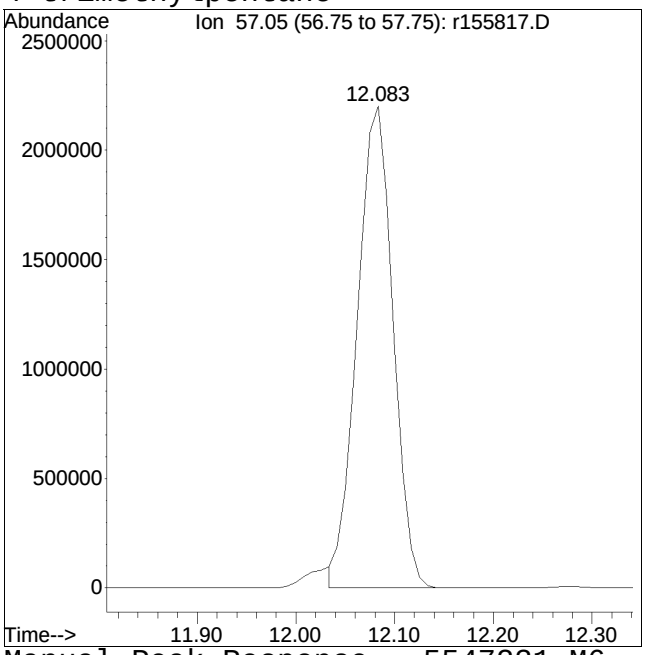
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155817.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 11:07 PM Instrument :
Sample : ITO15-SIMSTD100 Quant Date : 2/16/2018 6:46 am

Compound #60: 2,2,4-trimethylpentane



Original Peak Response = 5719556



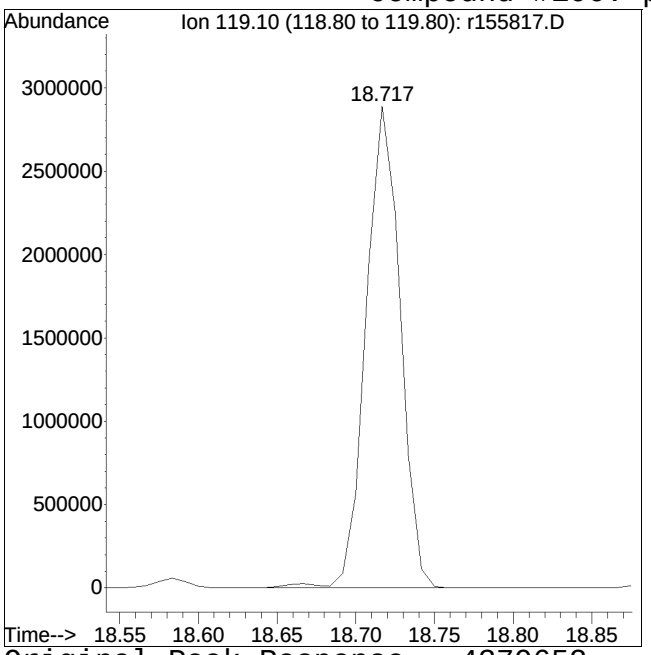
Manual Peak Response = 5547231 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

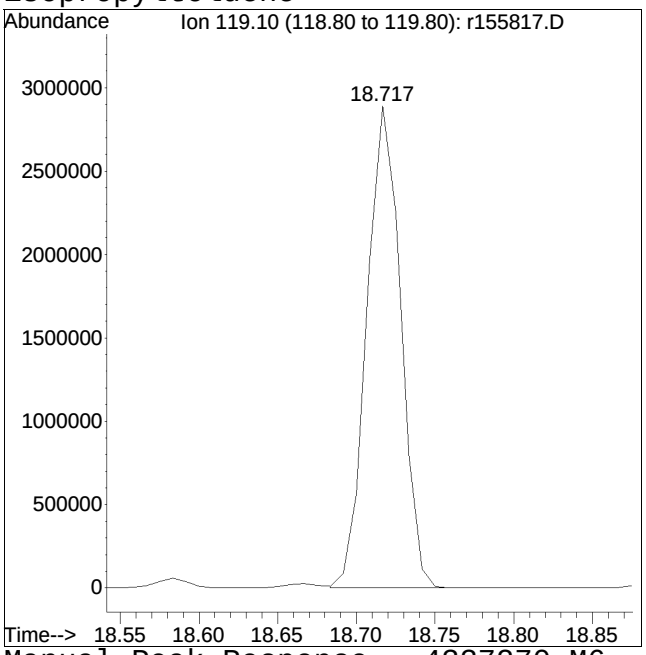
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155817.D Operator : AIRLAB15:MB
Date Inj'd : 2/15/2018 11:07 PM Instrument :
Sample : ITO15-SIMSTD100 Quant Date : 2/16/2018 6:46 am

Compound #106: p-isopropyltoluene



Original Peak Response = 4379652



Manual Peak Response = 4337270 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	92	0.02
2		chlorodifluoromethane	1.025	0.940	8.3	85	0.01
3		propylene	0.837	0.965	-15.3	110	0.01
4		propane	0.989	0.877	11.3	85	0.01
5		dichlorodifluoromethane	1.162	1.143	1.6	90	0.01
6	C	chloromethane	0.830	0.842	-1.4	95	0.01
7		Freon-114	1.604	1.624	-1.2	93	0.00
8	C	methanol	0.401	0.377	6.0	86	0.01
9	C	vinyl chloride	0.888	0.901	-1.5	93	0.00
10	C	1,3-butadiene	0.687	0.762	-10.9	96	0.01
11		butane	1.656	1.378	16.8	79	0.00
13	C	bromomethane	0.606	0.618	-2.0	94	0.01
14	C	chloroethane	0.443	0.450	-1.6	94	0.01
15		ethanol	0.733	0.740	-1.0	92	0.01
16		dichlorofluoromethane	1.433	1.369	4.5	88	0.00
17	C	vinyl bromide	0.521	0.570	-9.4	101	0.01
18	C	acrolein	0.353	0.338	4.2	88	0.02
19		acetone	1.137	1.287	-13.2	116	0.02
20	C	acetonitrile	1.014	0.985	2.9	91	0.01
21		trichlorofluoromethane	0.947	0.918	3.1	89	0.01
22		isopropyl alcohol	1.516	1.600	-5.5	120	0.01
23	C	acrylonitrile	0.638	0.648	-1.6	92	0.02
24		pentane	2.144	2.164	-0.9	94	0.01
25		ethyl ether	1.727	1.774	-2.7	91	0.00
26	C	1,1-dichloroethene	1.145	1.158	-1.1	92	0.01
27		tertiary butyl alcohol	1.356	1.384	-2.1	94	0.02
28	C	methylene chloride	1.030	1.056	-2.5	94	0.01
29	C	3-chloropropene	1.509	1.770	-17.3	109	0.02
30	C	carbon disulfide	2.016	2.133	-5.8	96	0.01
31		Freon 113	1.121	1.154	-2.9	96	0.01
32		trans-1,2-dichloroethene	1.077	1.135	-5.4	95	0.02
33	C	1,1-dichloroethane	1.332	1.335	-0.2	91	0.02
34	C	MTBE	1.557	1.715	-10.1	98	0.00
35	C	vinyl acetate	2.011	2.459	-22.3	110	0.02
36	C	2-butanone	1.893	2.080	-9.9	100	0.00
37		cis-1,2-dichloroethene	0.989	1.016	-2.7	91	0.00
38		Ethyl Acetate	0.262	0.288	-9.9	98	0.02
39	C	chloroform	1.112	1.096	1.4	88	0.02
40		Tetrahydrofuran	1.185	1.303	-10.0	98	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	0.855	0.800	6.4	84	0.02
42	C	1,2-dichloroethane	0.812	0.793	2.3	87	0.02
43	I	1,4-difluorobenzene	1.000	1.000	0.0	91	0.02
44	C	hexane	0.749	0.803	-7.2	96	0.02
45		diisopropyl ether	0.305	0.291	4.6	86	0.02
46		tert-butyl ethyl ether	1.254	1.208	3.7	85	0.02
47	s	1,2-dichloroethane-D4	0.282	0.289	-2.5	91	0.00
48	C	1,1,1-trichloroethane	0.466	0.480	-3.0	91	0.02
49		1,1-dichloropropene	0.514	0.504	1.9	88	0.02
50	C	benzene	1.190	1.147	3.6	85	0.02
52	C	carbon tetrachloride	0.402	0.409	-1.7	90	0.02
53		cyclohexane	0.772	0.829	-7.4	96	0.02
54		tert-amyl methyl ether	0.953	0.938	1.6	87	0.00
55		dibromomethane	0.329	0.313	4.9	86	0.02
56	C	1,2-dichloropropane	0.495	0.492	0.6	90	0.02
57		bromodichloromethane	0.618	0.672	-8.7	94	0.02
58	C	1,4-dioxane	0.246	0.275	-11.8	100	0.02
59	C	trichloroethene	0.374	0.368	1.6	89	0.02
60	C	2,2,4-trimethylpentane	2.402	2.601	-8.3	95	0.02
61		methyl methacrylate	0.571	0.717	-25.6	116	0.02
62		heptane	1.080	1.181	-9.4	99	0.02
63	C	cis-1,3-dichloropropene	0.573	0.610	-6.5	92	0.02
64	C	4-methyl-2-pentanone	1.246	1.405	-12.8	99	0.02
65		trans-1,3-dichloropropene	0.527	0.490	7.0	79	0.02
66	C	1,1,2-trichloroethane	0.384	0.390	-1.6	89	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	91	0.00
68	C	toluene	5.059	5.024	0.7	89	0.00
69	s	toluene-D8	3.505	3.509	-0.1	90	0.02
71		1,3-dichloropropane	2.486	2.341	5.8	83	0.02
72		2-hexanone	4.432	5.102	-15.1	97	0.00
74		dibromochloromethane	1.853	2.148	-15.9	100	0.02
75	C	1,2-dibromoethane	2.235	2.193	1.9	87	0.02
76		butyl acetate	0.550	0.559	-1.6	81	0.02
77		octane	1.883	1.762	6.4	83	0.02
78	C	tetrachloroethene	1.621	1.511	6.8	85	0.00
79		1,1,1,2-tetrachloroethane	1.440	1.342	6.8	83	0.00
80	C	chlorobenzene	3.698	3.552	3.9	87	0.02

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	6.268	6.294	-0.4	88	0.00
83	C	m+p-xylene	5.067	5.079	-0.2	90	0.00
84	C	bromoform	1.441	1.595	-10.7	95	0.00
85	C	styrene	3.749	3.701	1.3	87	0.00
86	C	1,1,2,2-tetrachloroethane	4.039	3.989	1.2	88	0.02
87	C	o-xylene	5.157	5.195	-0.7	90	0.00
88		1,2,3-trichloropropane	2.982	2.803	6.0	82	0.00
89		nonane	6.071	5.790	4.6	84	0.00
90	s	bromofluorobenzene	1.990	1.776	10.8	84	0.00
91	C	isopropylbenzene	5.985	5.792	3.2	87	0.00
92		bromobenzene	3.860	3.630	6.0	84	0.00
93		2-chlorotoluene	1.606	1.452	9.6	81	0.00
94		n-propylbenzene	1.886	1.731	8.2	83	0.00
95		4-chlorotoluene	1.564	1.416	9.5	81	0.00
96		4-ethyl toluene	6.474	6.696	-3.4	92	0.00
97		1,3,5-trimethylbenzene	5.578	5.521	1.0	88	0.00
98		tert-butylbenzene	5.514	5.162	6.4	83	0.00
99		1,2,4-trimethylbenzene	5.676	5.647	0.5	90	0.00
100		decane	6.022	5.678	5.7	82	0.00
101	C	Benzyl Chloride	3.934	4.762	-21.0	101	0.00
102		1,3-dichlorobenzene	3.339	3.140	6.0	84	0.00
103	C	1,4-dichlorobenzene	3.262	3.183	2.4	88	0.00
104		sec-butylbenzene	7.757	7.093	8.6	83	0.00
106		p-isopropyltoluene	6.499	5.669	12.8	78	0.00
107		1,2-dichlorobenzene	3.045	2.961	2.8	89	0.00
108		n-butylbenzene	6.299	6.374	-1.2	89	0.00
111	C	1,2-dibromo-3-chloropropane	1.508	1.590	-5.4	85	0.00
112		undecane	6.416	6.442	-0.4	82	0.00
114		dodecane	5.552	6.315	-13.7	74	0.02
115	C	1,2,4-trichlorobenzene	2.017	2.099	-4.1	86	0.00
116		naphthalene	5.674	5.955	-5.0	79	0.00
117		1,2,3-trichlorobenzene	1.834	1.848	-0.8	79	0.00
119	C	hexachlorobutadiene	1.744	1.808	-3.7	88	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.992	49	126432	10.000	ppbV	0.02
Standard Area = 136823			Recovery = 92.41%			
43) 1,4-difluorobenzene	11.233	114	225893	10.000	ppbV	0.02
Standard Area = 247749			Recovery = 91.18%			
67) chlorobenzene-D5	15.942	54	56431	10.000	ppbV	0.00
Standard Area = 62309			Recovery = 90.57%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	9.858	65	65319	10.254	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.54%			
69) toluene-D8	14.083	98	198029	10.013	ppbV	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.13%			
90) bromofluorobenzene	17.283	95	100237	8.928	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.28%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.788	51	118888	9.177	ppbV	99
3) propylene	3.818	41	122002M6	11.531	ppbV	
4) propane	3.842	29	110885	8.868	ppbV	98
5) dichlorodifluoromethane	3.890	85	144545	9.840	ppbV	98
6) chloromethane	4.052	50	106395	10.137	ppbV	99
7) Freon-114	4.154	85	205350	10.129	ppbV	99
8) methanol	4.220	31	238360	46.994	ppbV	99
9) vinyl chloride	4.274	62	113901	10.143	ppbV	99
10) 1,3-butadiene	4.418	54	96349	11.086	ppbV	98
11) butane	4.472	43	174187	8.318	ppbV	99
13) bromomethane	4.697	94	78094	10.188	ppbV	98
14) chloroethane	4.883	64	56901	10.151	ppbV	99
15) ethanol	5.017	31	467985	50.501	ppbV	98
16) dichlorofluoromethane	4.990	67	173110	9.557	ppbV	100
17) vinyl bromide	5.260	106	72009	10.927	ppbV	98
18) acrolein	5.390	56	42675	9.560	ppbV	98
19) acetone	5.530	43	813798	56.592	ppbV	100
20) acetonitrile	5.250	41	124481	9.710	ppbV	97
21) trichlorofluoromethane	5.720	101	116108	9.700	ppbV	100
22) isopropyl alcohol	5.810	45	505753	26.395	ppbV	100
23) acrylonitrile	6.050	53	81918	10.159	ppbV	98
24) pentane	6.117	43	273539	10.090	ppbV	99
25) ethyl ether	6.143	31	224269	10.270	ppbV	99

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	6.422	61	146452	10.117	ppbV	95
27) tertiary butyl alcohol	6.476	59	174966M6	10.203	ppbV	
28) methylene chloride	6.566	49	133457	10.253	ppbV	98
29) 3-chloropropene	6.698	41	223798	11.727	ppbV	98
30) carbon disulfide	6.866	76	269660	10.581	ppbV	100
31) Freon 113	6.866	101	145872	10.296	ppbV	97
32) trans-1,2-dichloroethene	7.625	61	143487	10.541	ppbV	97
33) 1,1-dichloroethane	7.850	63	168799	10.023	ppbV	100
34) MTBE	7.917	73	216778	11.010	ppbV	100
35) vinyl acetate	8.042	43	310863M4	12.227	ppbV	
36) 2-butanone	8.300	43	263020	10.988	ppbV	99
37) cis-1,2-dichloroethene	8.800	61	128474	10.272	ppbV	99
38) Ethyl Acetate	9.083	61	36465	11.026	ppbV	99
39) chloroform	9.150	83	138601	9.860	ppbV	98
40) Tetrahydrofuran	9.592	42	164795	11.000	ppbV	99
41) 2,2-dichloropropane	9.167	77	101105	9.348	ppbV	96
42) 1,2-dichloroethane	9.983	62	100273	9.769	ppbV	99
44) hexane	9.058	57	181370	10.714	ppbV	95
45) diisopropyl ether	9.058	87	65651	9.535	ppbV	94
46) tert-butyl ethyl ether	9.675	59	272970	9.636	ppbV	99
48) 1,1,1-trichloroethane	10.275	97	108421	10.297	ppbV	96
49) 1,1-dichloropropene	10.642	75	113870	9.813	ppbV	97
50) benzene	10.808	78	259030	9.639	ppbV	99
52) carbon tetrachloride	10.975	117	92341	10.161	ppbV	97
53) cyclohexane	11.125	56	187235	10.734	ppbV	99
54) tert-amyl methyl ether	11.500	73	211793	9.834	ppbV	99
55) dibromomethane	11.725	93	70737	9.529	ppbV	97
56) 1,2-dichloropropane	11.758	63	111085	9.934	ppbV	99
57) bromodichloromethane	11.983	83	151691	10.869	ppbV	97
58) 1,4-dioxane	12.033	88	62036	11.149	ppbV	99
59) trichloroethene	12.033	130	83190	9.840	ppbV	99
60) 2,2,4-trimethylpentane	12.083	57	587651	10.828	ppbV	100
61) methyl methacrylate	12.283	41	161944	12.560	ppbV	100
62) heptane	12.400	43	266832	10.933	ppbV	97
63) cis-1,3-dichloropropene	13.050	75	137707	10.636	ppbV	99
64) 4-methyl-2-pentanone	13.092	43	317365	11.277	ppbV	99
65) trans-1,3-dichloropropene	13.675	75	110741	9.296	ppbV	97
66) 1,1,2-trichloroethane	13.875	97	88168	10.159	ppbV	99
68) toluene	14.192	91	283500	9.931	ppbV	100
71) 1,3-dichloropropane	14.225	76	132130	9.418	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default-ICV-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72)	2-hexanone	14.475	43	287938	11.512	ppbV	97
74)	dibromochloromethane	14.642	129	121231	11.595	ppbV	99
75)	1,2-dibromoethane	14.892	107	123776	9.812	ppbV	99
76)	butyl acetate	15.133	73	31555	10.175	ppbV	91
77)	octane	15.225	85	99436	9.355	ppbV	88
78)	tetrachloroethene	15.350	166	85287	9.323	ppbV	97
79)	1,1,1,2-tetrachloroethane	15.967	131	75715	9.315	ppbV	98
80)	chlorobenzene	15.983	112	200430	9.604	ppbV	100
81)	ethylbenzene	16.317	91	355181	10.042	ppbV	99
83)	m+p-xylene	16.483	91	573180	20.045	ppbV	96
84)	bromoform	16.542	173	90008	11.069	ppbV	99
85)	styrene	16.800	104	208869	9.874	ppbV	97
86)	1,1,2,2-tetrachloroethane	16.892	83	225114	9.877	ppbV	97
87)	o-xylene	16.892	91	293182	10.075	ppbV	99
88)	1,2,3-trichloropropane	17.000	75	158187	9.400	ppbV	99
89)	nonane	17.083	43	326751	9.537	ppbV	97
91)	isopropylbenzene	17.400	105	326840	9.677	ppbV	99
92)	bromobenzene	17.475	77	204870	9.406	ppbV	100
93)	2-chlorotoluene	17.800	126	81918	9.040	ppbV	98
94)	n-propylbenzene	17.833	120	97695	9.179	ppbV	89
95)	4-chlorotoluene	17.858	126	79904	9.051	ppbV	97
96)	4-ethyl toluene	17.950	105	377868	10.343	ppbV	99
97)	1,3,5-trimethylbenzene	18.017	105	311573	9.898	ppbV	97
98)	tert-butylbenzene	18.358	119	291284	9.361	ppbV	99
99)	1,2,4-trimethylbenzene	18.358	105	318667	9.948	ppbV	98
100)	decane	18.442	57	320399	9.428	ppbV	96
101)	Benzyl Chloride	18.483	91	268744	12.106	ppbV	97
102)	1,3-dichlorobenzene	18.492	146	177187	9.404	ppbV	98
103)	1,4-dichlorobenzene	18.550	146	179621	9.758	ppbV	98
104)	sec-butylbenzene	18.583	105	400293	9.145	ppbV	98
106)	p-isopropyltoluene	18.717	119	319913	8.723	ppbV	98
107)	1,2-dichlorobenzene	18.842	146	167097	9.726	ppbV	96
108)	n-butylbenzene	19.075	91	359666	10.118	ppbV	98
111)	1,2-dibromo-3-chloropr...	19.233	75	89752	10.547	ppbV	99
112)	undecane	19.508	57	363539	10.040	ppbV	98
114)	dodecane	20.467	57	356358	11.375	ppbV	95
115)	1,2,4-trichlorobenzene	20.408	180	118428	10.405	ppbV	98
116)	naphthalene	20.533	128	336023	10.495	ppbV	99
117)	1,2,3-trichlorobenzene	20.792	180	104263	10.073	ppbV	99
119)	hexachlorobutadiene	20.858	225	102011	10.363	ppbV	96

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\r155815.D
Sub List : Default-ICV-AP2 - All compounds listed

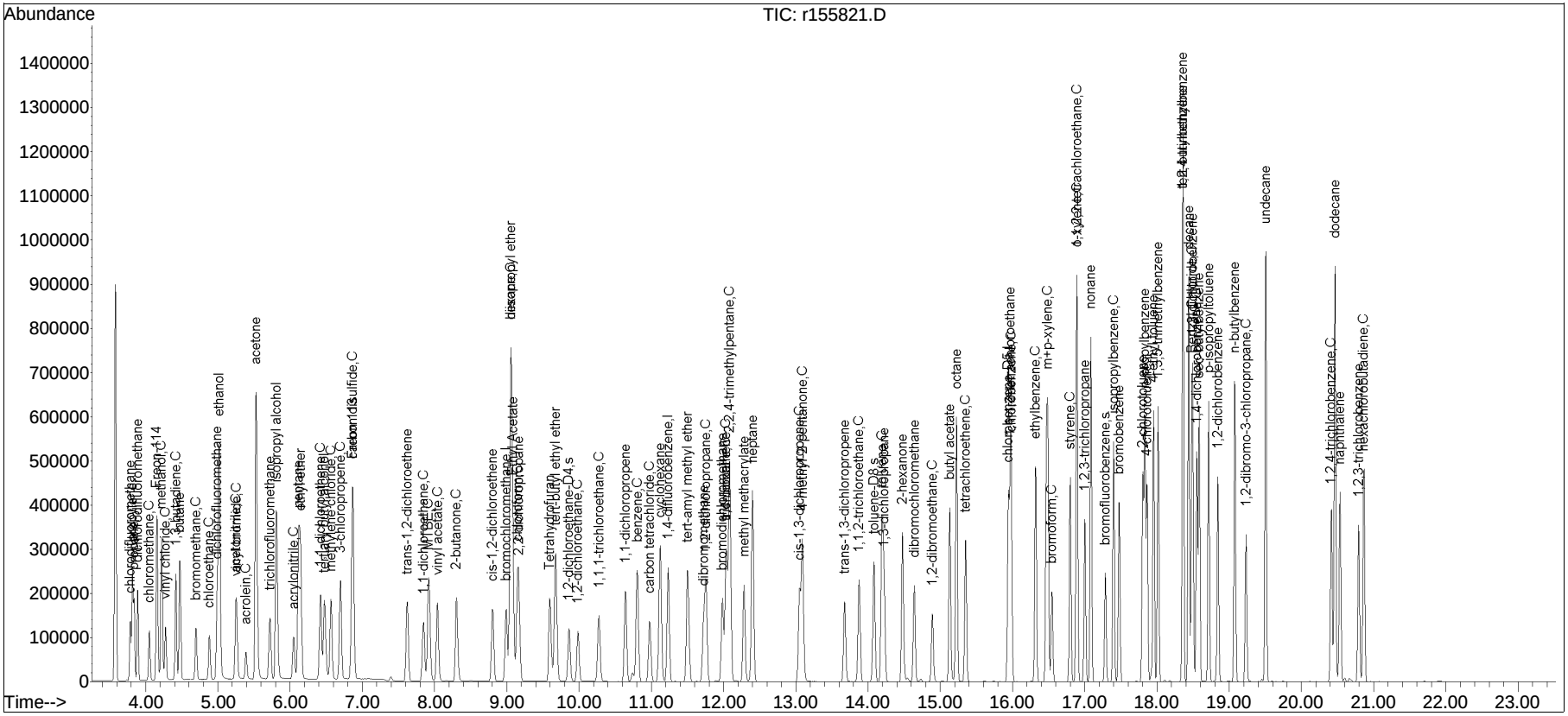
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Sub List : Default-ICV-AP2 - All compounds listedT_ICAL\r155815.D

Data Path : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\
Data File : r155821.D
Acq On : 16 Feb 2018 10:23 AM
Operator : AIRLAB15:MB
Sample : CTO15-LLSTD010
Misc : WG1089951
ALS Vial : 0 Sample Multiplier: 1

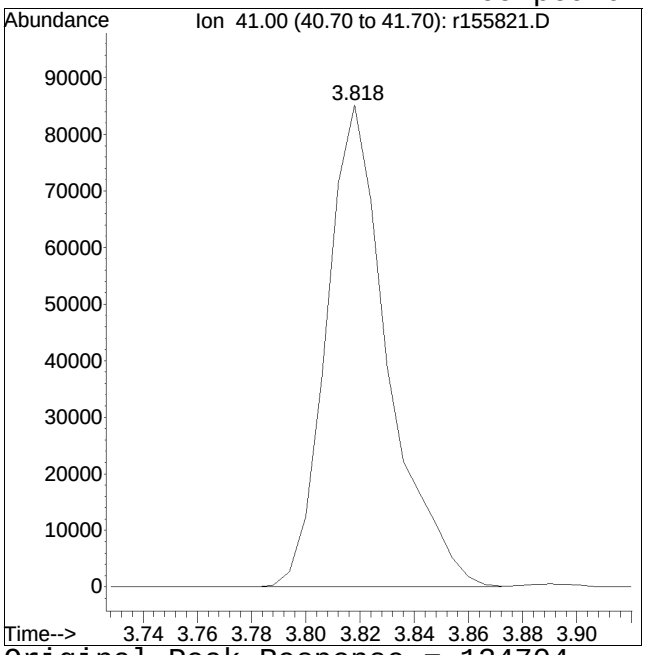
Quant Time: Feb 16 11:00:05 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180215T_ICAL\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration



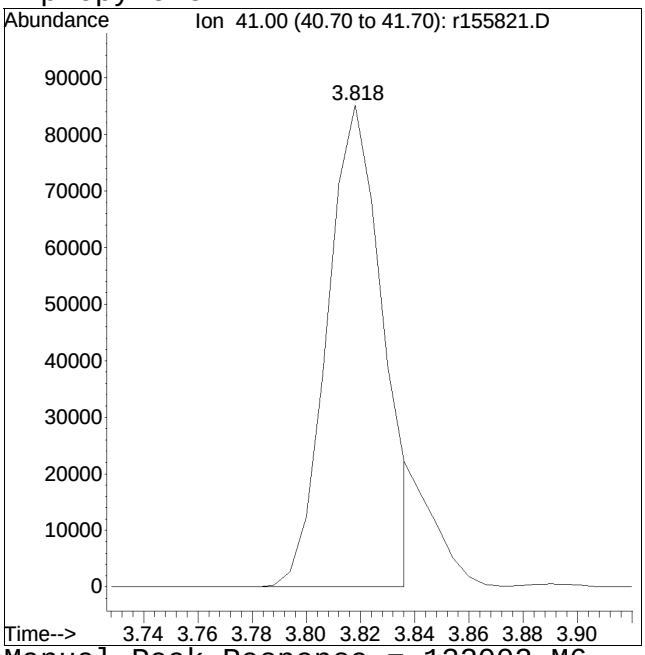
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155821.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 10:23 AM Instrument :
Sample : CTO15-LLSTD010 Quant Date : 2/16/2018 10:59 am

Compound #3: propylene



Original Peak Response = 134704



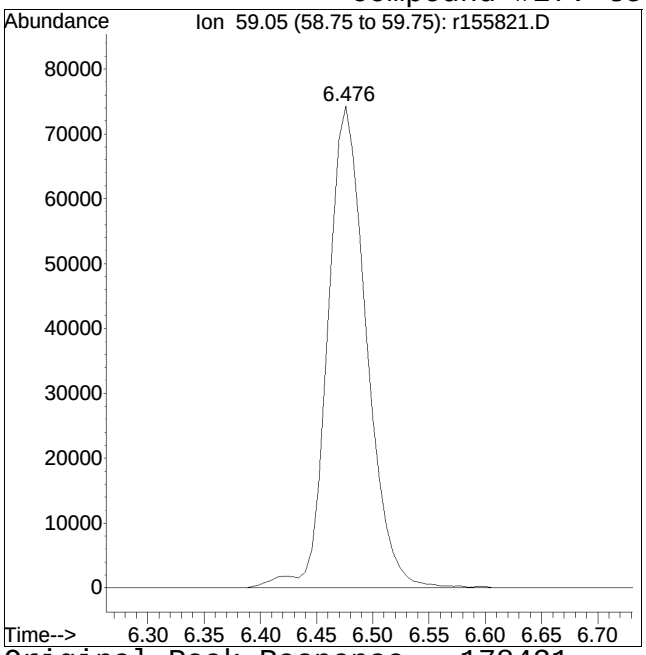
Manual Peak Response = 122002 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

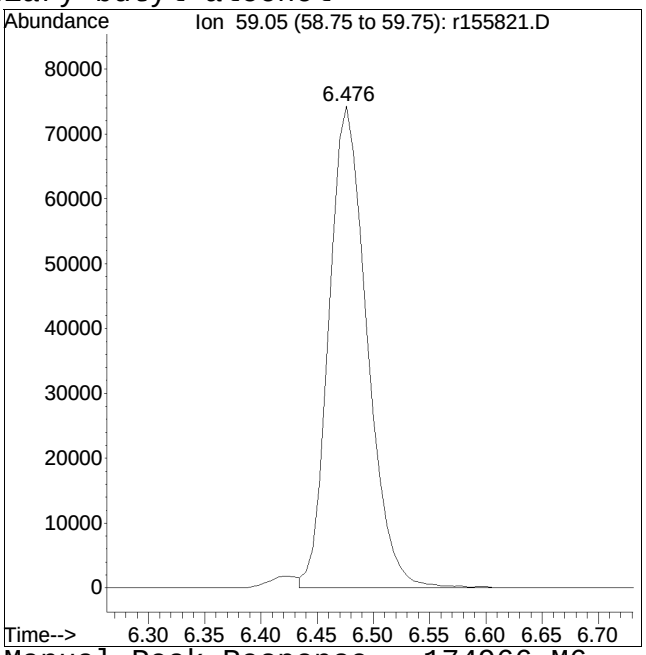
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155821.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 10:23 AM Instrument :
Sample : CTO15-LLSTD010 Quant Date : 2/16/2018 10:59 am

Compound #27: tertiary butyl alcohol



Original Peak Response = 178421



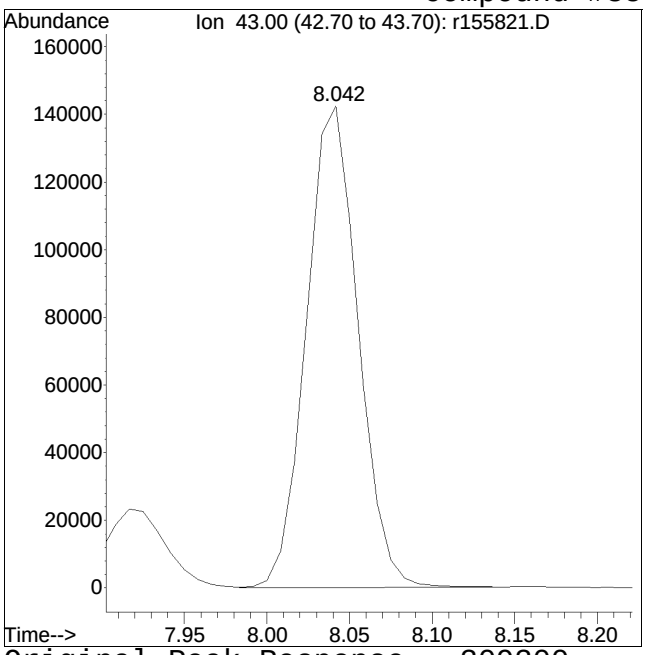
Manual Peak Response = 174966 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

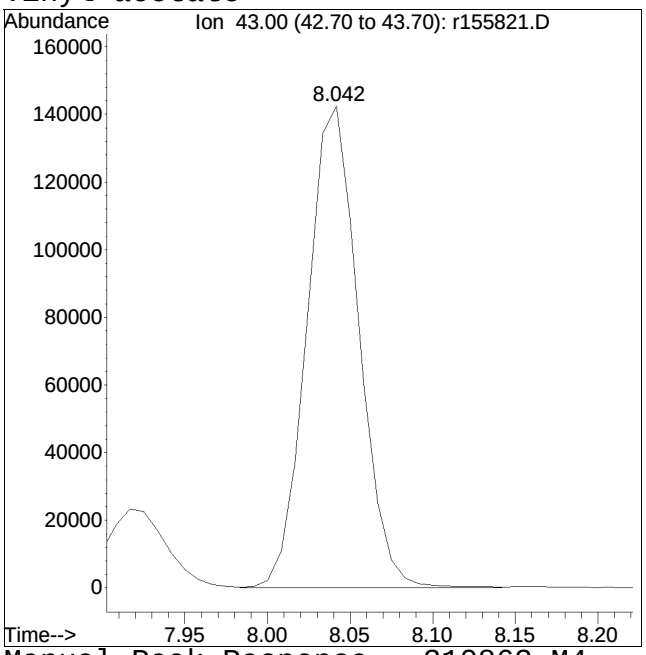
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155821.D Operator : AIRLAB15:MB
Date Inj'd : 2/16/2018 10:23 AM Instrument :
Sample : CTO15-LLSTD010 Quant Date : 2/16/2018 10:59 am

Compound #35: vinyl acetate



Original Peak Response = 309300



Manual Peak Response = 310863 M4

M4 = Poor automated baseline construction.

Continuing Calibration

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	Lab Number	: L1805020		
Project Name	: 365 BOND STREET	Project Number	: 100287501		
Instrument ID	: AIRLAB15	Calibration Date	: 02/20/18 11:43		
Lab File ID	: R155899	Init. Calib. Date(s)	: 02/15/18	02/16/18	
Sample No	: WG1090771-2	Init. Calib. Times	: 19:06	07:41	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
bromochloromethane	1	1	-	0	30	108	-.07
chlorodifluoromethane	1.025	0.985	-	3.9	30	103	-.04
propylene	0.837	0.756	-	9.7	30	101	-.04
propane	0.989	0.877	-	11.3	30	99	-.04
dichlorodifluoromethane	1.162	1.114	-	4.1	30	102	-.04
chloromethane	0.83	0.733	-	11.7	30	96	-.04
Freon-114	1.604	1.483	-	7.5	30	99	-.04
methanol	0.401	0.369	-	8	30	98	-.04
vinyl chloride	0.888	0.827	-	6.9	30	99	-.05
1,3-butadiene	0.687	0.619	-	9.9	30	90	-.04
butane	1.656	1.526	-	7.9	30	102	-.05
bromomethane	0.606	0.55	-	9.2	30	97	-.05
chloroethane	0.443	0.4	-	9.7	30	97	-.05
ethanol	0.733	0.667	-	9	30	97	-.05
dichlorofluoromethane	1.433	1.31	-	8.6	30	98	-.05
vinyl bromide	0.521	0.464	-	10.9	30	96	-.06
acrolein	0.353	0.319	-	9.6	30	97	-.06
acetone	1.137	0.953	-	16.2	30	100	-.06
acetonitrile	1.014	0.897	-	11.5	30	96	-.06
trichlorofluoromethane	0.947	0.87	-	8.1	30	98	-.06
isopropyl alcohol	1.516	1.094	-	27.8	30	95	-.06
acrylonitrile	0.638	0.58	-	9.1	30	96	-.06
pentane	2.144	1.788	-	16.6	30	91	-.06
ethyl ether	1.727	1.349	-	21.9	30	81	-.07
1,1-dichloroethene	1.145	1.072	-	6.4	30	99	-.07
tertiary butyl alcohol	1.356	1.194	-	11.9	30	94	-.06
methylene chloride	1.03	0.947	-	8.1	30	98	-.07
3-chloropropene	1.509	1.337	-	11.4	30	96	-.07
carbon disulfide	2.016	1.798	-	10.8	30	94	-.07
Freon 113	1.121	1.001	-	10.7	30	97	-.07
trans-1,2-dichloroethene	1.077	1.01	-	6.2	30	98	-.07
1,1-dichloroethane	1.332	1.236	-	7.2	30	99	-.07
MTBE	1.557	1.423	-	8.6	30	95	-.08
vinyl acetate	2.011	1.842	-	8.4	30	96	-.07
2-butanone	1.893	1.766	-	6.7	30	99	-.07
cis-1,2-dichloroethene	0.989	0.955	-	3.4	30	100	-.07
Ethyl Acetate	0.262	0.245	-	6.5	30	97	-.07
chloroform	1.112	1.069	-	3.9	30	100	-.07
Tetrahydrofuran	1.185	1.115	-	5.9	30	97	-.08
2,2-dichloropropane	0.855	0.82	-	4.1	30	100	-.07
1,2-dichloroethane	0.812	0.784	-	3.4	30	100	-.07
1,4-difluorobenzene	1	1	-	0	30	106	-.07
hexane	0.749	0.716	-	4.4	30	99	-.07
diisopropyl ether	0.305	0.28	-	8.2	30	96	-.07
tert-butyl ethyl ether	1.254	1.156	-	7.8	30	95	-.07

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	Lab Number	: L1805020		
Project Name	: 365 BOND STREET	Project Number	: 100287501		
Instrument ID	: AIRLAB15	Calibration Date	: 02/20/18 11:43		
Lab File ID	: R155899	Init. Calib. Date(s)	: 02/15/18	02/16/18	
Sample No	: WG1090771-2	Init. Calib. Times	: 19:06	07:41	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,1,1-trichloroethane	0.466	0.454	-	2.6	30	100	-.07
1,1-dichloropropene	0.514	0.503	-	2.1	30	101	-.07
benzene	1.19	1.154	-	3	30	100	-.07
carbon tetrachloride	0.402	0.397	-	1.2	30	101	-.07
cyclohexane	0.772	0.755	-	2.2	30	101	-.07
tert-amyl methyl ether	0.953	0.888	-	6.8	30	96	-.07
dibromomethane	0.329	0.319	-	3	30	101	-.07
1,2-dichloropropane	0.495	0.467	-	5.7	30	100	-.07
bromodichloromethane	0.618	0.619	-	-0.2	30	101	-.07
1,4-dioxane	0.246	0.231	-	6.1	30	98	-.07
trichloroethene	0.374	0.362	-	3.2	30	101	-.07
2,2,4-trimethylpentane	2.402	2.355	-	2	30	100	-.07
methyl methacrylate	0.571	0.533	-	6.7	30	100	-.06
heptane	1.08	1.014	-	6.1	30	99	-.06
cis-1,3-dichloropropene	0.573	0.572	-	0.2	30	101	-.06
4-methyl-2-pentanone	1.246	1.205	-	3.3	30	98	-.06
trans-1,3-dichloropropene	0.527	0.536	-	-1.7	30	101	-.06
1,1,2-trichloroethane	0.384	0.38	-	1	30	100	-.07
chlorobenzene-D5	1	1	-	0	30	109	-.05
toluene	5.059	4.706	-	7	30	100	-.06
1,3-dichloropropane	2.486	2.421	-	2.6	30	103	-.06
2-hexanone	4.432	4.285	-	3.3	30	98	-.06
dibromochloromethane	1.853	1.777	-	4.1	30	99	-.05
1,2-dibromoethane	2.235	2.189	-	2.1	30	104	-.05
butyl acetate	0.55	0.564	-	-2.5	30	99	-.04
octane	1.883	1.764	-	6.3	30	100	-.04
tetrachloroethene	1.621	1.553	-	4.2	30	104	-.05
1,1,1,2-tetrachloroethane	1.44	1.353	-	6	30	101	-.05
chlorobenzene	3.698	3.461	-	6.4	30	102	-.04
ethylbenzene	6.268	5.964	-	4.9	30	101	-.05
m+p-xylene	5.067	4.757	-	6.1	30	101	-.06
bromoform	1.441	1.408	-	2.3	30	101	-.05
styrene	3.749	3.688	-	1.6	30	104	-.06
1,1,2,2-tetrachloroethane	4.039	3.888	-	3.7	30	104	-.06
o-xylene	5.157	4.854	-	5.9	30	101	-.06
1,2,3-trichloropropane	2.982	2.913	-	2.3	30	102	-.07
nonane	6.071	5.695	-	6.2	30	100	-.07
isopropylbenzene	5.985	5.806	-	3	30	105	-.07
bromobenzene	3.86	3.687	-	4.5	30	103	-.07
2-chlorotoluene	1.606	1.519	-	5.4	30	101	-.08
n-propylbenzene	1.886	1.772	-	6	30	102	-.09
4-chlorotoluene	1.564	1.477	-	5.6	30	101	-.08
4-ethyl toluene	6.474	6.127	-	5.4	30	101	-.09
1,3,5-trimethylbenzene	5.578	5.277	-	5.4	30	101	-.09
tert-butylbenzene	5.514	5.153	-	6.5	30	100	-.11

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Langan Engineering & Environmental	**Lab Number**	: L1805020	
Project Name	: 365 BOND STREET	**Project Number**	: 100287501	
Instrument ID	: AIRLAB15	**Calibration Date**	: 02/20/18 11:43	
Lab File ID	: R155899	**Init. Calib. Date(s)**	: 02/15/18	02/16/18
Sample No	: WG1090771-2	**Init. Calib. Times**	: 19:06	07:41
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2,4-trimethylbenzene	5.676	5.397	-	4.9	30	103	-.1
decane	6.022	5.82	-	3.4	30	101	-.11
Benzyl Chloride	3.934	3.801	-	3.4	30	97	-.11
1,3-dichlorobenzene	3.339	3.143	-	5.9	30	101	-.11
1,4-dichlorobenzene	3.262	3.121	-	4.3	30	104	-.11
sec-butylbenzene	7.757	7.238	-	6.7	30	101	-.11
p-isopropyltoluene	6.499	6.258	-	3.7	30	103	-.12
1,2-dichlorobenzene	3.045	2.9	-	4.8	30	105	-.12
n-butylbenzene	6.299	6.148	-	2.4	30	103	-.13
1,2-dibromo-3-chloropropan	1.508	1.541	-	-2.2	30	99	-.13
undecane	6.416	6.499	-	-1.3	30	100	-.14
dodecane	5.552	6.497	-	-17	30	92	-.16
1,2,4-trichlorobenzene	2.017	2.042	-	-1.2	30	101	-.16
naphthalene	5.674	5.765	-	-1.6	30	92	-.17
1,2,3-trichlorobenzene	1.834	1.874	-	-2.2	30	96	-.17
hexachlorobutadiene	1.744	1.668	-	4.4	30	97	-.16

* Value outside of QC limits.

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	108	-0.07
2		chlorodifluoromethane	1.025	0.985	3.9	103	-0.04
3		propylene	0.837	0.756	9.7	101	-0.04
4		propane	0.989	0.877	11.3	99	-0.04
5		dichlorodifluoromethane	1.162	1.114	4.1	102	-0.04
6	C	chloromethane	0.830	0.733	11.7	96	-0.04
7		Freon-114	1.604	1.483	7.5	99	-0.04
8	C	methanol	0.401	0.369	8.0	98	-0.04
9	C	vinyl chloride	0.888	0.827	6.9	99	-0.05
10	C	1,3-butadiene	0.687	0.619	9.9	90	-0.04
11		butane	1.656	1.526	7.9	102	-0.05
13	C	bromomethane	0.606	0.550	9.2	97	-0.05
14	C	chloroethane	0.443	0.400	9.7	97	-0.05
15		ethanol	0.733	0.667	9.0	97	-0.05
16		dichlorofluoromethane	1.433	1.310	8.6	98	-0.05
17	C	vinyl bromide	0.521	0.464	10.9	96	-0.06
18	C	acrolein	0.353	0.319	9.6	97	-0.06
19		acetone	1.137	0.953	16.2	100	-0.06
20	C	acetonitrile	1.014	0.897	11.5	96	-0.06
21		trichlorofluoromethane	0.947	0.870	8.1	98	-0.06
22		isopropyl alcohol	1.516	1.094	27.8	95	-0.06
23	C	acrylonitrile	0.638	0.580	9.1	96	-0.06
24		pentane	2.144	1.788	16.6	91	-0.06
25		ethyl ether	1.727	1.349	21.9	81	-0.07
26	C	1,1-dichloroethene	1.145	1.072	6.4	99	-0.07
27		tertiary butyl alcohol	1.356	1.194	11.9	94	-0.06
28	C	methylene chloride	1.030	0.947	8.1	98	-0.07
29	C	3-chloropropene	1.509	1.337	11.4	96	-0.07
30	C	carbon disulfide	2.016	1.798	10.8	94	-0.07
31		Freon 113	1.121	1.001	10.7	97	-0.07
32		trans-1,2-dichloroethene	1.077	1.010	6.2	98	-0.07
33	C	1,1-dichloroethane	1.332	1.236	7.2	99	-0.07
34	C	MTBE	1.557	1.423	8.6	95	-0.08
35	C	vinyl acetate	2.011	1.842	8.4	96	-0.07
36	C	2-butanone	1.893	1.766	6.7	99	-0.07
37		cis-1,2-dichloroethene	0.989	0.955	3.4	100	-0.07
38		Ethyl Acetate	0.262	0.245	6.5	97	-0.07
39	C	chloroform	1.112	1.069	3.9	100	-0.07
40		Tetrahydrofuran	1.185	1.115	5.9	97	-0.08

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	0.855	0.820	4.1	100	-0.07
42	C	1,2-dichloroethane	0.812	0.784	3.4	100	-0.07
43	I	1,4-difluorobenzene	1.000	1.000	0.0	106	-0.07
44	C	hexane	0.749	0.716	4.4	99	-0.07
45		diisopropyl ether	0.305	0.280	8.2	96	-0.07
46		tert-butyl ethyl ether	1.254	1.156	7.8	95	-0.07
48	C	1,1,1-trichloroethane	0.466	0.454	2.6	100	-0.07
49		1,1-dichloropropene	0.514	0.503	2.1	101	-0.07
50	C	benzene	1.190	1.154	3.0	100	-0.07
52	C	carbon tetrachloride	0.402	0.397	1.2	101	-0.07
53		cyclohexane	0.772	0.755	2.2	101	-0.07
54		tert-amyl methyl ether	0.953	0.888	6.8	96	-0.07
55		dibromomethane	0.329	0.319	3.0	101	-0.07
56	C	1,2-dichloropropane	0.495	0.467	5.7	100	-0.07
57		bromodichloromethane	0.618	0.619	-0.2	101	-0.07
58	C	1,4-dioxane	0.246	0.231	6.1	98	-0.07
59	C	trichloroethene	0.374	0.362	3.2	101	-0.07
60	C	2,2,4-trimethylpentane	2.402	2.355	2.0	100	-0.07
61		methyl methacrylate	0.571	0.533	6.7	100	-0.06
62		heptane	1.080	1.014	6.1	99	-0.06
63	C	cis-1,3-dichloropropene	0.573	0.572	0.2	101	-0.06
64	C	4-methyl-2-pentanone	1.246	1.205	3.3	98	-0.06
65		trans-1,3-dichloropropene	0.527	0.536	-1.7	101	-0.06
66	C	1,1,2-trichloroethane	0.384	0.380	1.0	100	-0.07
67	I	chlorobenzene-D5	1.000	1.000	0.0	109	-0.05
68	C	toluene	5.059	4.706	7.0	100	-0.06
71		1,3-dichloropropane	2.486	2.421	2.6	103	-0.06
72		2-hexanone	4.432	4.285	3.3	98	-0.06
74		dibromochloromethane	1.853	1.777	4.1	99	-0.05
75	C	1,2-dibromoethane	2.235	2.189	2.1	104	-0.05
76		butyl acetate	0.550	0.564	-2.5	99	-0.04
77		octane	1.883	1.764	6.3	100	-0.04
78	C	tetrachloroethene	1.621	1.553	4.2	104	-0.05
79		1,1,1,2-tetrachloroethane	1.440	1.353	6.0	101	-0.05
80	C	chlorobenzene	3.698	3.461	6.4	102	-0.04
81	C	ethylbenzene	6.268	5.964	4.9	101	-0.05
83	C	m+p-xylene	5.067	4.757	6.1	101	-0.06

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	1.441	1.408	2.3	101	-0.05
85	C	styrene	3.749	3.688	1.6	104	-0.06
86	C	1,1,2,2-tetrachloroethane	4.039	3.888	3.7	104	-0.06
87	C	o-xylene	5.157	4.854	5.9	101	-0.06
88		1,2,3-trichloropropane	2.982	2.913	2.3	102	-0.07
89		nonane	6.071	5.695	6.2	100	-0.07
91	C	isopropylbenzene	5.985	5.806	3.0	105	-0.07
92		bromobenzene	3.860	3.687	4.5	103	-0.07
93		2-chlorotoluene	1.606	1.519	5.4	101	-0.08
94		n-propylbenzene	1.886	1.772	6.0	102	-0.09
95		4-chlorotoluene	1.564	1.477	5.6	101	-0.08
96		4-ethyl toluene	6.474	6.127	5.4	101	-0.09
97		1,3,5-trimethylbenzene	5.578	5.277	5.4	101	-0.09
98		tert-butylbenzene	5.514	5.153	6.5	100	-0.11
99		1,2,4-trimethylbenzene	5.676	5.397	4.9	103	-0.10
100		decane	6.022	5.820	3.4	101	-0.11
101	C	Benzyl Chloride	3.934	3.801	3.4	97	-0.11
102		1,3-dichlorobenzene	3.339	3.143	5.9	101	-0.11
103	C	1,4-dichlorobenzene	3.262	3.121	4.3	104	-0.11
104		sec-butylbenzene	7.757	7.238	6.7	101	-0.11
106		p-isopropyltoluene	6.499	6.258	3.7	103	-0.12
107		1,2-dichlorobenzene	3.045	2.900	4.8	105	-0.12
108		n-butylbenzene	6.299	6.148	2.4	103	-0.13
111	C	1,2-dibromo-3-chloropropane	1.508	1.541	-2.2	99	-0.13
112		undecane	6.416	6.499	-1.3	100	-0.14
114		dodecane	5.552	6.497	-17.0	92	-0.16
115	C	1,2,4-trichlorobenzene	2.017	2.042	-1.2	101	-0.16
116		naphthalene	5.674	5.765	-1.6	92	-0.17
117		1,2,3-trichlorobenzene	1.834	1.874	-2.2	96	-0.17
119	C	hexachlorobutadiene	1.744	1.668	4.4	97	-0.16

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	147251	10.000	ppbV	-0.07
43) 1,4-difluorobenzene	11.15	114	262067	10.000	ppbV	-0.07
67) chlorobenzene-D5	15.88	54	67836	10.000	ppbV	-0.05
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	3.74	51	145040	9.613	ppbV	99
3) propylene	3.77	41	111342M6	9.035	ppbV	
4) propane	3.79	29	129147	8.868	ppbV	100
5) dichlorodifluoromethane	3.84	85	164079	9.591	ppbV	98
6) chloromethane	4.00	50	107922	8.829	ppbV	99
7) Freon-114	4.11	85	218375	9.248	ppbV	96
8) methanol	4.17	31	271731	45.999	ppbV	98
9) vinyl chloride	4.22	62	121807	9.313	ppbV	99
10) 1,3-butadiene	4.36	54	91081	8.998	ppbV	99
11) butane	4.42	43	224744	9.214	ppbV	98
13) bromomethane	4.64	94	80951	9.068	ppbV	99
14) chloroethane	4.82	64	58845	9.014	ppbV	98
15) ethanol	4.95	31	491058	45.499	ppbV	97
16) dichlorofluoromethane	4.93	67	192929	9.145	ppbV	99
17) vinyl bromide	5.19	106	68350	8.905	ppbV	98
18) acrolein	5.32	56	46956	9.032	ppbV	96
19) acetone	5.46	43	701777	41.902	ppbV	99
20) acetonitrile	5.18	41	132045	8.844	ppbV	98
21) trichlorofluoromethane	5.65	101	128113	9.190	ppbV	100
22) isopropyl alcohol	5.74	45	402845	18.052	ppbV	100
23) acrylonitrile	5.97	53	85404	9.094	ppbV	96
24) pentane	6.04	43	263272	8.338	ppbV	99
25) ethyl ether	6.07	31	198636	7.810	ppbV	100
26) 1,1-dichloroethene	6.34	61	157869	9.364	ppbV	99
27) tertiary butyl alcohol	6.40	59	175836	8.804	ppbV	95
28) methylene chloride	6.49	49	139413	9.196	ppbV	99
29) 3-chloropropene	6.61	41	196926	8.860	ppbV	99
30) carbon disulfide	6.78	76	264732	8.919	ppbV	99
31) Freon 113	6.78	101	147353	8.930	ppbV	99
32) trans-1,2-dichloroethene	7.54	61	148710	9.380	ppbV	98
33) 1,1-dichloroethane	7.76	63	182054	9.282	ppbV	98
34) MTBE	7.83	73	209493	9.136	ppbV	99
35) vinyl acetate	7.96	43	271266	9.161	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2-butanone	8.22	43	260013	9.327	ppbV	99
37) cis-1,2-dichloroethene	8.72	61	140579	9.650	ppbV	99
38) Ethyl Acetate	9.00	61	36098	9.372	ppbV	91
39) chloroform	9.06	83	157408	9.615	ppbV	98
40) Tetrahydrofuran	9.51	42	164140	9.407	ppbV	99
41) 2,2-dichloropropane	9.08	77	120725	9.584	ppbV	99
42) 1,2-dichloroethane	9.90	62	115495	9.661	ppbV	99
44) hexane	8.97	57	187707	9.558	ppbV	85
45) diisopropyl ether	8.97	87	73392	9.188	ppbV	95
46) tert-butyl ethyl ether	9.59	59	302964	9.219	ppbV	99
48) 1,1,1-trichloroethane	10.19	97	119089	9.749	ppbV	99
49) 1,1-dichloropropene	10.56	75	131827	9.793	ppbV	99
50) benzene	10.72	78	302334	9.698	ppbV	98
52) carbon tetrachloride	10.89	117	104024	9.867	ppbV	99
53) cyclohexane	11.04	56	197853	9.777	ppbV	98
54) tert-amyl methyl ether	11.43	73	232645	9.311	ppbV	100
55) dibromomethane	11.64	93	83722	9.721	ppbV	99
56) 1,2-dichloropropane	11.68	63	122428	9.437	ppbV	97
57) bromodichloromethane	11.90	83	162180	10.017	ppbV	97
58) 1,4-dioxane	11.95	88	60604	9.388	ppbV	96
59) trichloroethene	11.95	130	94782	9.664	ppbV	99
60) 2,2,4-trimethylpentane	12.00	57	617290	9.804	ppbV	99
61) methyl methacrylate	12.21	41	139559	9.330	ppbV	99
62) heptane	12.32	43	265697	9.383	ppbV	99
63) cis-1,3-dichloropropene	12.98	75	149888	9.979	ppbV	99
64) 4-methyl-2-pentanone	13.02	43	315774	9.671	ppbV	98
65) trans-1,3-dichloropropene	13.60	75	140343	10.155	ppbV	99
66) 1,1,2-trichloroethane	13.80	97	99470	9.879	ppbV	99
68) toluene	14.13	91	319229	9.303	ppbV	100
71) 1,3-dichloropropane	14.15	76	164210	9.737	ppbV	95
72) 2-hexanone	14.41	43	290665	9.668	ppbV	100
74) dibromochloromethane	14.57	129	120548	9.591	ppbV	99
75) 1,2-dibromoethane	14.82	107	148522	9.794	ppbV	95
76) butyl acetate	15.07	73	38284	10.270	ppbV	92
77) octane	15.17	85	119666	9.366	ppbV	95
78) tetrachloroethene	15.29	166	105342	9.580	ppbV	98
79) 1,1,1,2-tetrachloroethane	15.91	131	91787	9.394	ppbV	96
80) chlorobenzene	15.93	112	234793	9.359	ppbV	99
81) ethylbenzene	16.26	91	404555	9.514	ppbV	99
83) m+p-xylene	16.42	91	645439	18.778	ppbV	99
84) bromoform	16.48	173	95530	9.773	ppbV	92

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85)	styrene	16.73	104	250158	9.838	ppbV	97
86)	1,1,2,2-tetrachloroethane	16.82	83	263732	9.626	ppbV	97
87)	o-xylene	16.82	91	329247	9.412	ppbV	96
88)	1,2,3-trichloropropane	16.93	75	197632	9.770	ppbV	99
89)	nonane	17.01	43	386347	9.381	ppbV	98
91)	isopropylbenzene	17.32	105	393837	9.700	ppbV	99
92)	bromobenzene	17.39	77	250144	9.554	ppbV	97
93)	2-chlorotoluene	17.71	126	103071M3	9.462	ppbV	
94)	n-propylbenzene	17.73	120	120187	9.394	ppbV	97
95)	4-chlorotoluene	17.77	126	100198	9.441	ppbV	99
96)	4-ethyl toluene	17.85	105	415637	9.464	ppbV	97
97)	1,3,5-trimethylbenzene	17.92	105	357978	9.461	ppbV	98
98)	tert-butylbenzene	18.24	119	349529	9.344	ppbV	94
99)	1,2,4-trimethylbenzene	18.25	105	366142	9.509	ppbV	95
100)	decane	18.32	57	394810	9.665	ppbV	99
101)	Benzyl Chloride	18.37	91	257831	9.662	ppbV	98
102)	1,3-dichlorobenzene	18.38	146	213236M3	9.414	ppbV	
103)	1,4-dichlorobenzene	18.43	146	211732	9.569	ppbV	98
104)	sec-butylbenzene	18.47	105	490966	9.330	ppbV	97
106)	p-isopropyltoluene	18.59	119	424530	9.630	ppbV	100
107)	1,2-dichlorobenzene	18.72	146	196742	9.526	ppbV	98
108)	n-butylbenzene	18.94	91	417065	9.760	ppbV	95
111)	1,2-dibromo-3-chloropr...	19.09	75	104534	10.219	ppbV	98
112)	undecane	19.36	57	440844	10.128	ppbV	99
114)	dodecane	20.29	57	440721M1	11.703	ppbV	
115)	1,2,4-trichlorobenzene	20.24	180	138524M1	10.125	ppbV	
116)	naphthalene	20.36	128	391058M2	10.161	ppbV	
117)	1,2,3-trichlorobenzene	20.62	180	127099M2	10.214	ppbV	
119)	hexachlorobutadiene	20.69	225	113142M1	9.561	ppbV	

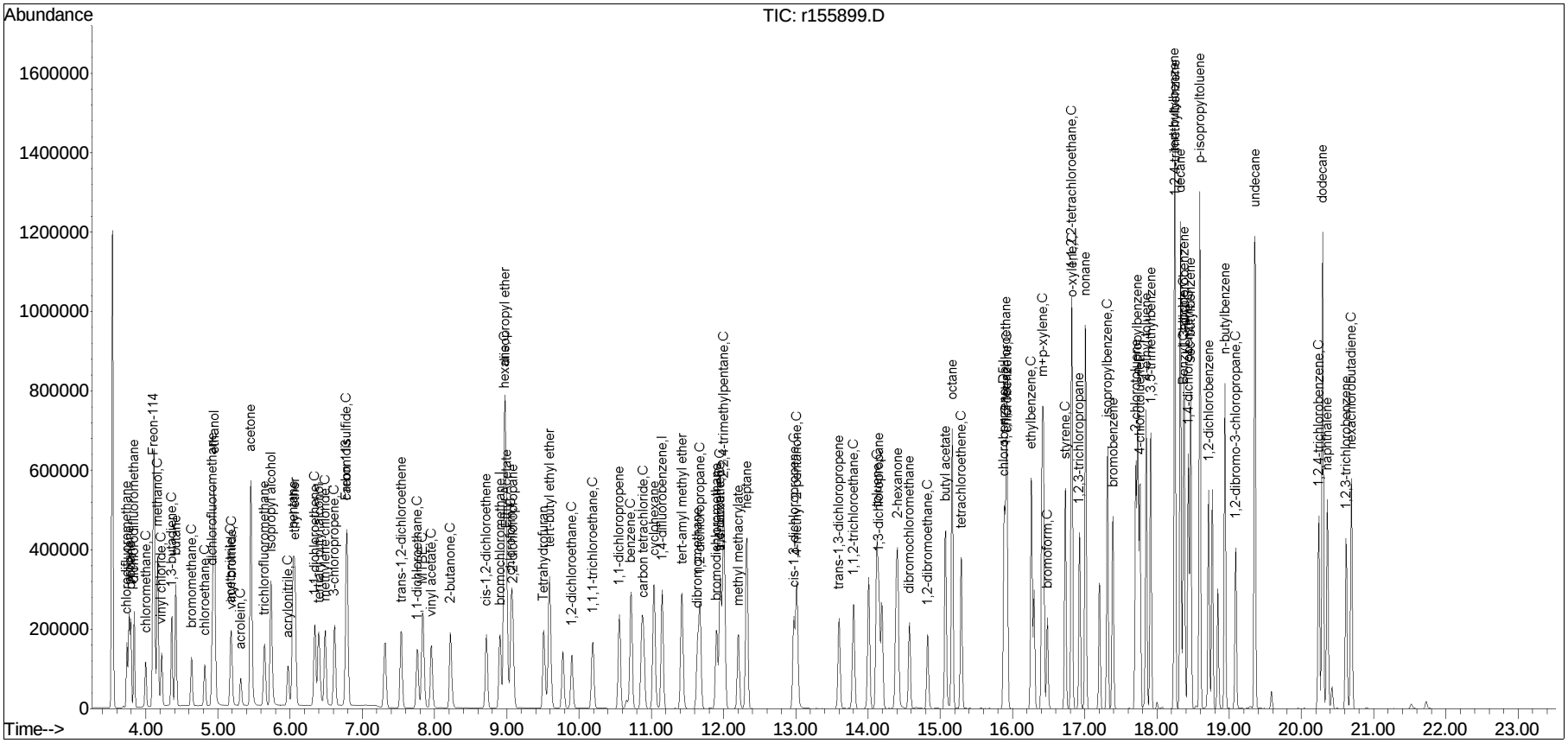
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155899.D
Acq On : 20 Feb 2018 11:43 AM
Operator : AIRLAB15:RY
Sample : WG1090771-2,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 12:23:27 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

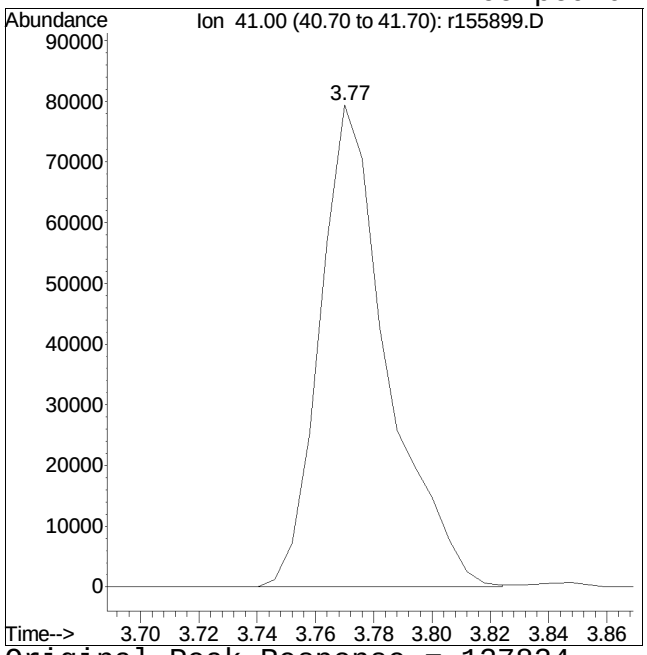
Sub List : Default-LCS-AP2 - All compounds listed



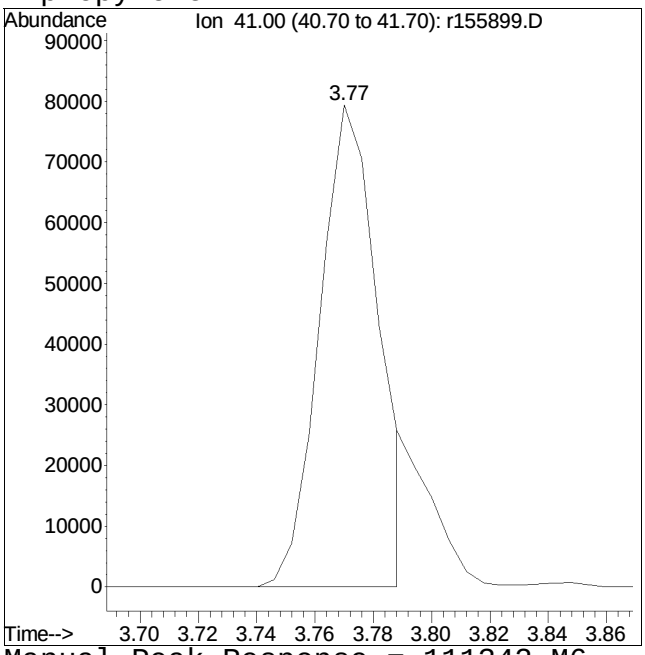
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155899.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 11:43 AM Instrument :
Sample : WG1090771-2,3,250,250 Quant Date : 2/20/2018 12:22 pm

Compound #3: propylene



Original Peak Response = 127824



Manual Peak Response = 111342 M6

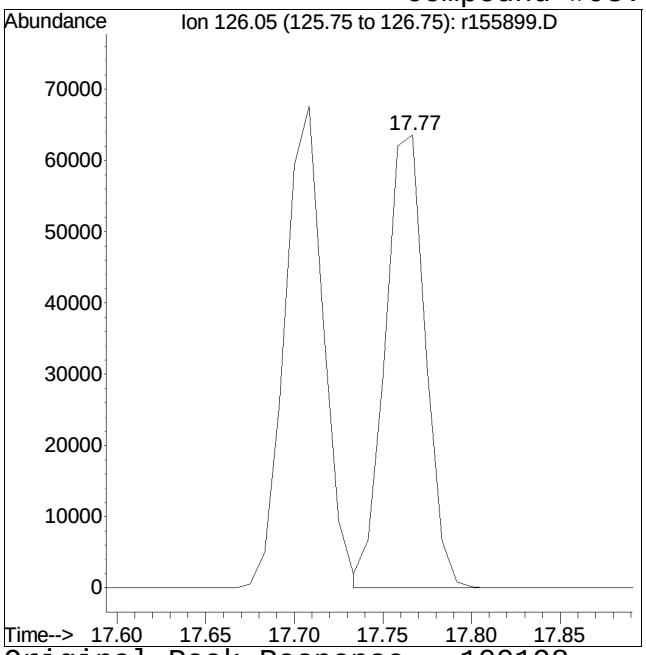
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

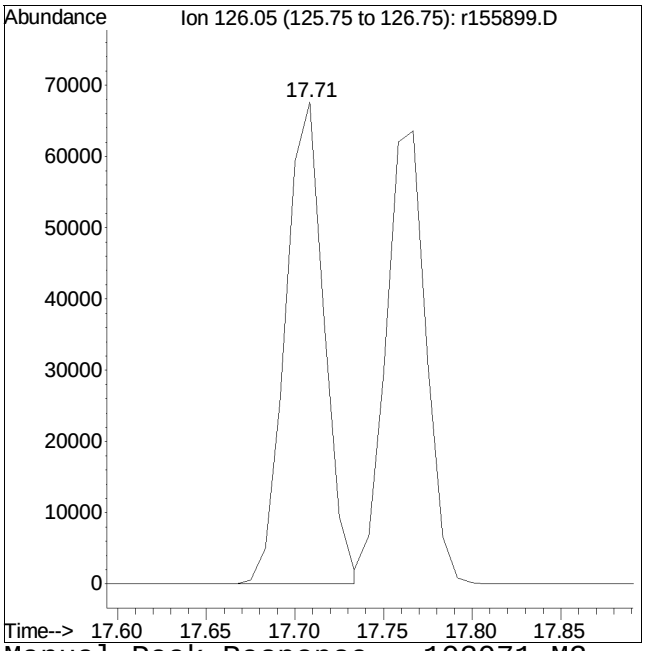
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155899.D
Date Inj'd : 2/20/2018 11:43 AM
Sample : WG1090771-2,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 12:22 pm

Compound #93: 2-chlorotoluene



Original Peak Response = 100198



Manual Peak Response = 103071 M3

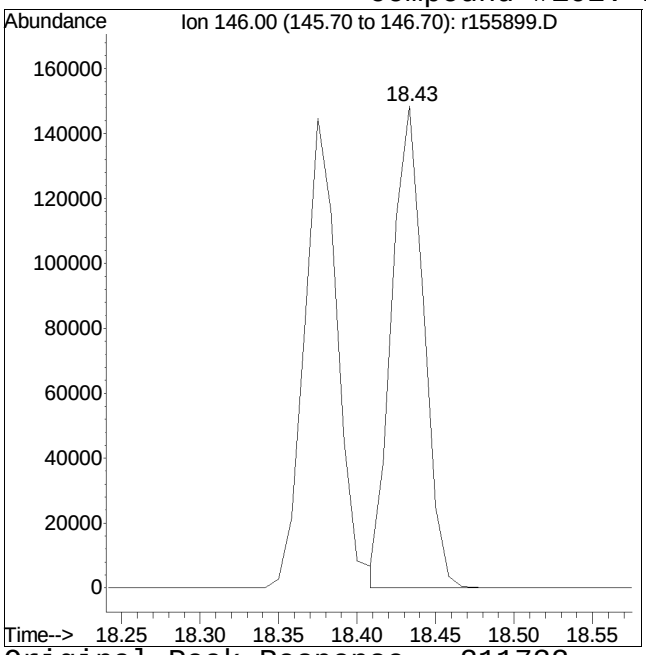
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

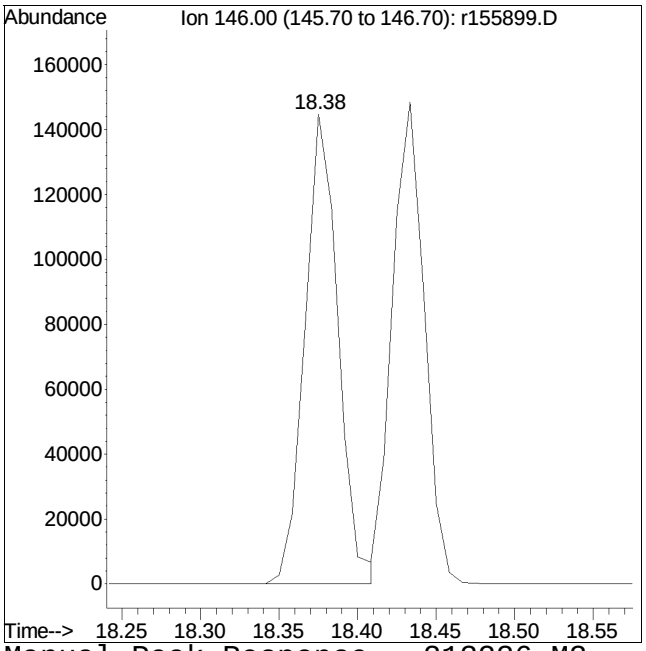
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155899.D
Date Inj'd : 2/20/2018 11:43 AM
Sample : WG1090771-2,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 12:22 pm

Compound #102: 1,3-dichlorobenzene



Original Peak Response = 211732



Manual Peak Response = 213236 M3

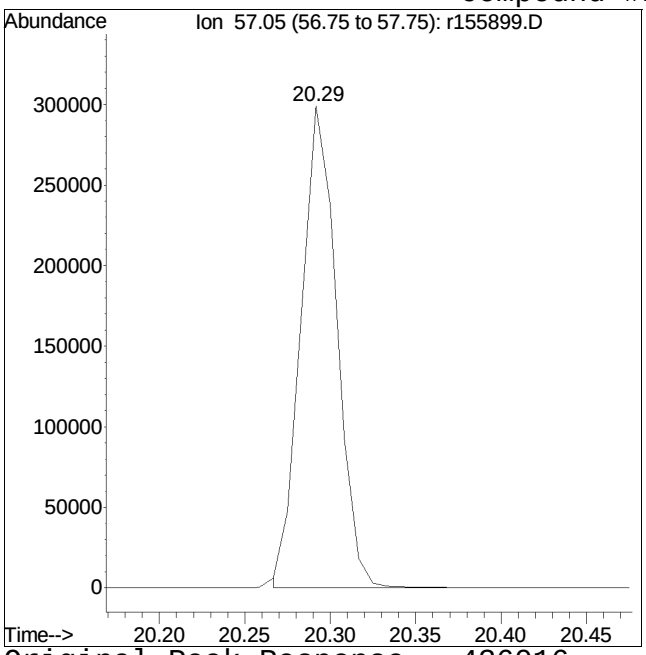
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

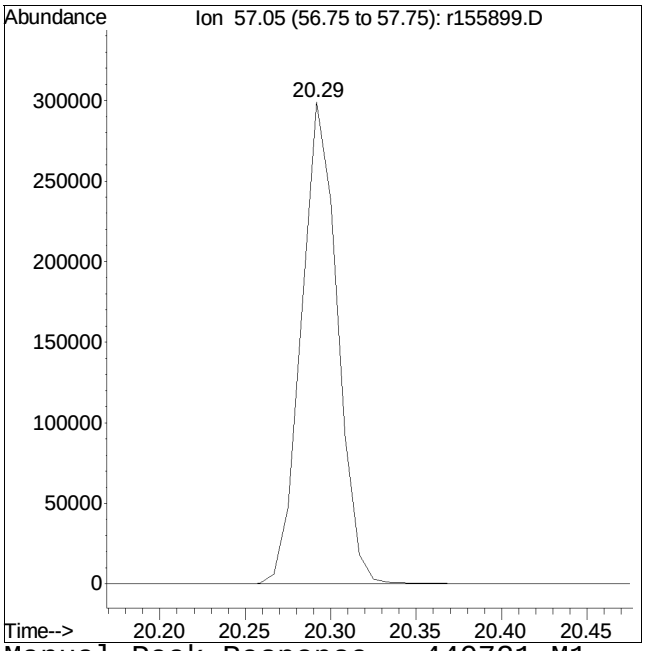
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155899.D
Date Inj'd : 2/20/2018 11:43 AM
Sample : WG1090771-2,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 12:22 pm

Compound #114: dodecane



Original Peak Response = 436016



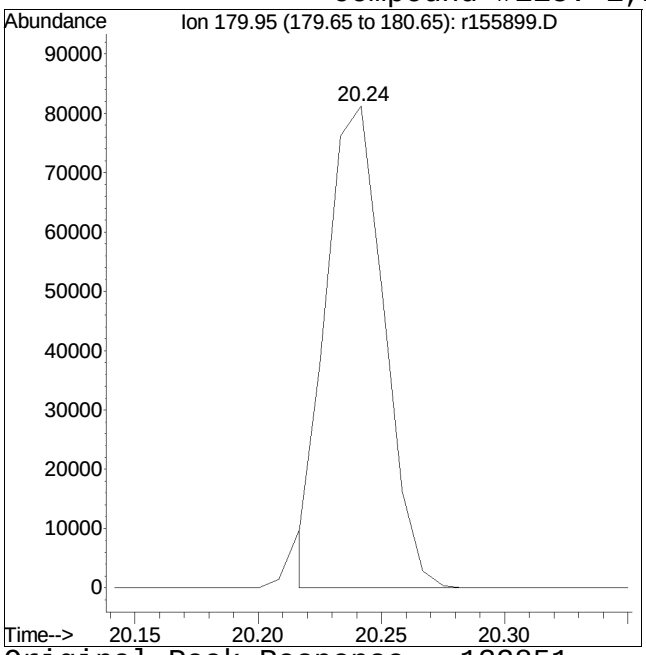
Manual Peak Response = 440721 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

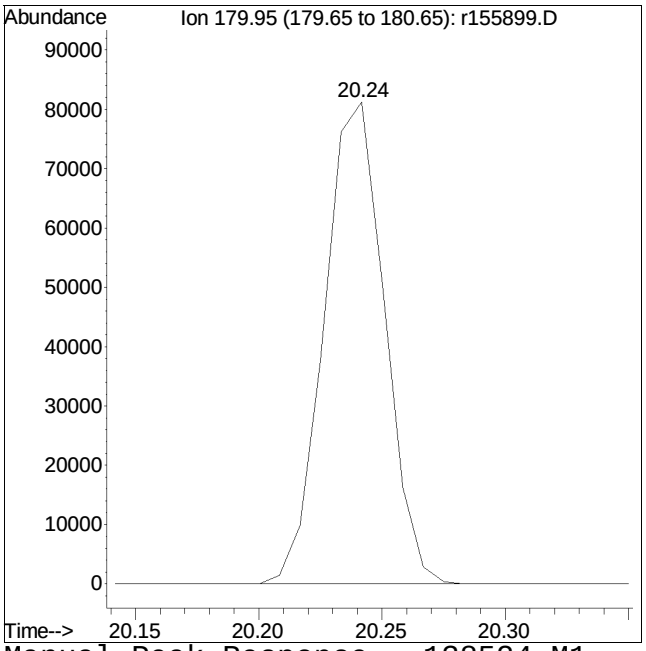
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155899.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 11:43 AM Instrument :
Sample : WG1090771-2,3,250,250 Quant Date : 2/20/2018 12:22 pm

Compound #115: 1,2,4-trichlorobenzene



Original Peak Response = 132851



Manual Peak Response = 138524 M1

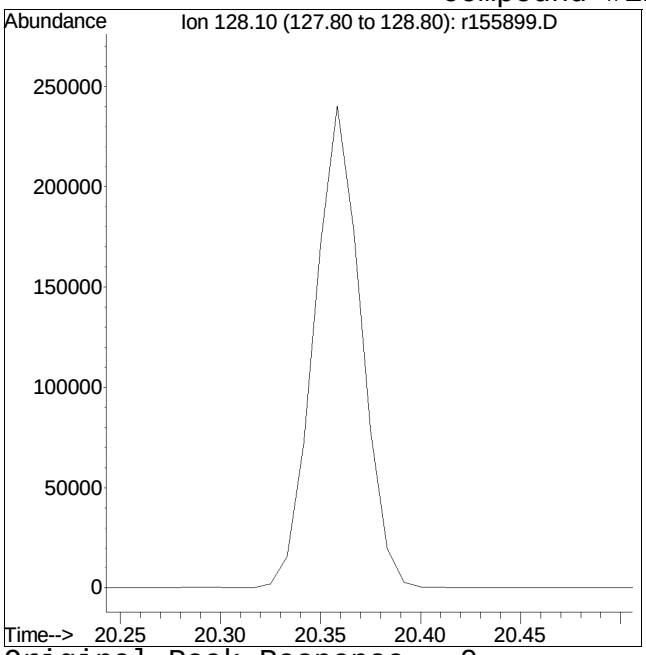
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration/Negative Proof Report

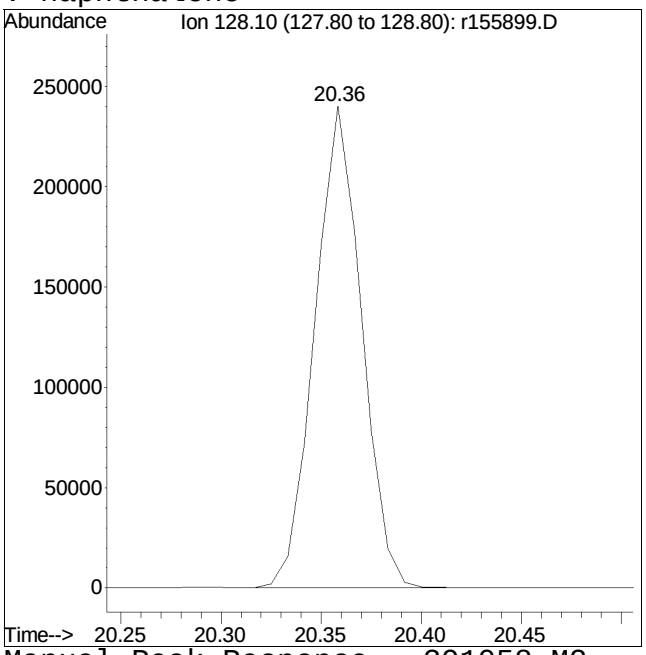
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155899.D
Date Inj'd : 2/20/2018 11:43 AM
Sample : WG1090771-2,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 12:22 pm

Compound #116: naphthalene



Original Peak Response = 0



Manual Peak Response = 391058 M2

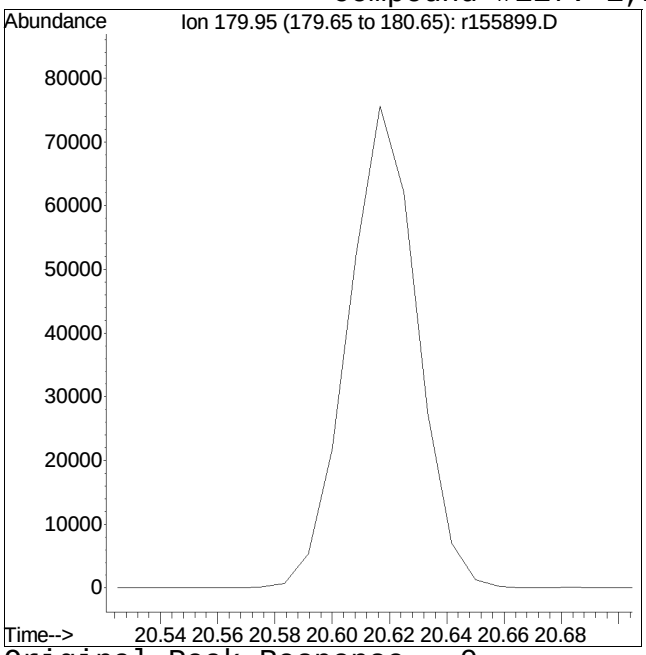
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

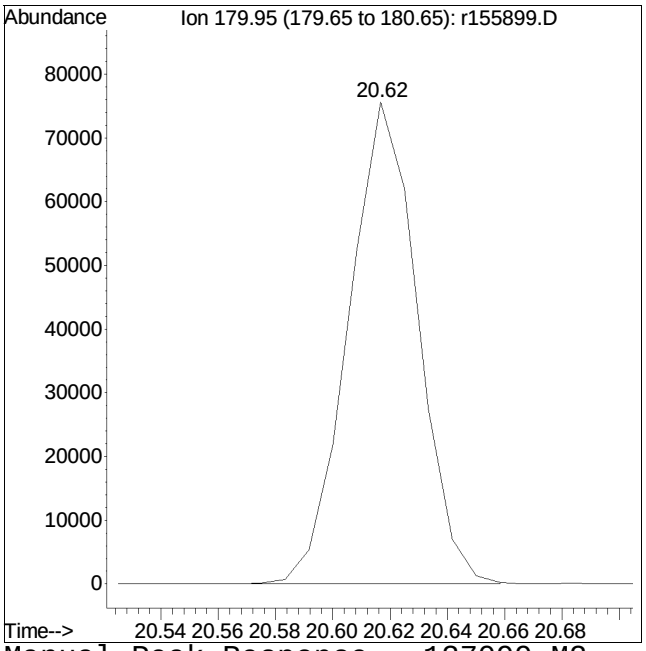
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155899.D
Date Inj'd : 2/20/2018 11:43 AM
Sample : WG1090771-2,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 12:22 pm

Compound #117: 1,2,3-trichlorobenzene



Original Peak Response = 0



Manual Peak Response = 127099 M2

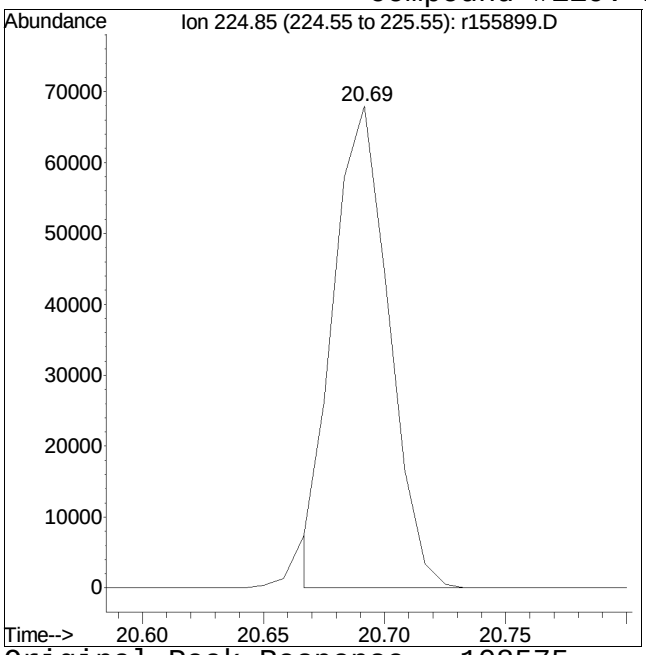
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

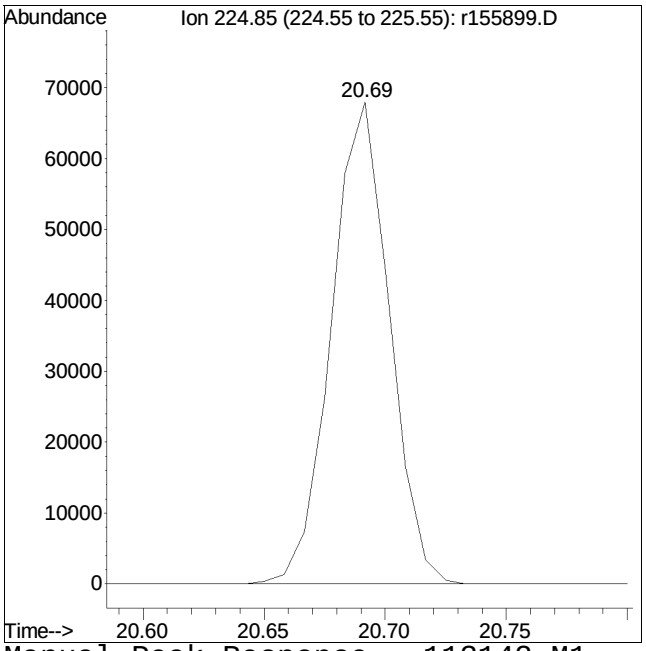
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155899.D
Date Inj'd : 2/20/2018 11:43 AM
Sample : WG1090771-2,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 12:22 pm

Compound #119: hexachlorobutadiene



Original Peak Response = 108575



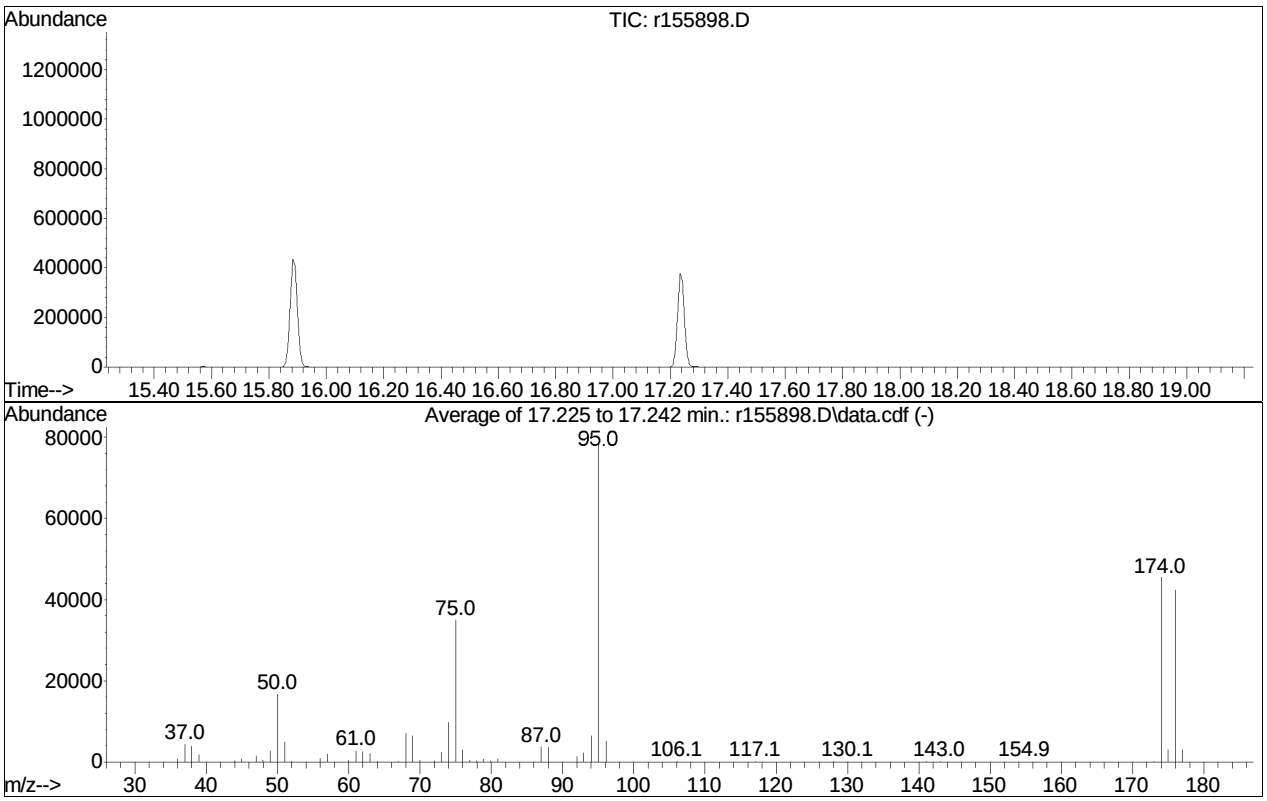
Manual Peak Response = 113142 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155898.D
Acq On : 20 Feb 2018 11:02 AM
Operator : AIRLAB15:RY
Sample : WG1090771-1,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Feb 16 08:30:44 2018



AutoFind: Scans 2073, 2074, 2075; Background Corrected with Scan 2067

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	21.3	16722	PASS
75	95	30	66	44.5	35000	PASS
95	95	100	100	100.0	78642	PASS
96	95	5	9	6.5	5103	PASS
173	174	0.00	2	0.5	237	PASS
174	95	50	120	57.8	45455	PASS
175	174	4	9	6.9	3139	PASS
176	174	93	101	93.2	42350	PASS
177	176	5	9	7.0	2975	PASS

Volatiles Raw QC Data

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 15:04:38 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	141733	10.000	ppbV	-0.07
Standard Area = 147251			Recovery =		96.25%	
43) 1,4-difluorobenzene	11.15	114	255835	10.000	ppbV	-0.07
Standard Area = 262067			Recovery =		97.62%	
67) chlorobenzene-D5	15.89	54	65306	10.000	ppbV	-0.04
Standard Area = 67836			Recovery =		96.27%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.00		0	N.D.		
3) propylene	3.78		0	N.D.		
4) propane	3.85		0	N.D.		
5) dichlorodifluoromethane	0.00		0	N.D.		
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
8) methanol	4.18	31	751	0.132	ppbV	# 1
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
11) butane	4.54		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	4.97		0	N.D.		
16) dichlorofluoromethane	0.00		0	N.D.		
17) vinyl bromide	0.00		0	N.D.		
18) acrolein	0.00		0	N.D.		
19) acetone	5.50	43	1315M3	0.082	ppbV	
20) acetonitrile	5.25		0	N.D.		
21) trichlorofluoromethane	0.00		0	N.D.		
22) isopropyl alcohol	5.78	45	3227	0.150	ppbV	# 89
23) acrylonitrile	0.00		0	N.D.		
24) pentane	6.06		0	N.D.		
25) ethyl ether	0.00		0	N.D.		
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	0.00		0	N.D.		
28) methylene chloride	0.00		0	N.D.		
29) 3-chloropropene	0.00		0	N.D.		
30) carbon disulfide	0.00		0	N.D.		
31) Freon 113	0.00		0	N.D.		

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 15:04:38 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
35) vinyl acetate	7.99		0	N.D.		
36) 2-butanone	0.00		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.		
41) 2,2-dichloropropane	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
45) diisopropyl ether	0.00		0	N.D.		
46) tert-butyl ethyl ether	0.00		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		
49) 1,1-dichloropropene	0.00		0	N.D.		
50) benzene	0.00		0	N.D.		
52) carbon tetrachloride	0.00		0	N.D.		
53) cyclohexane	0.00		0	N.D.	d	
54) tert-amyl methyl ether	0.00		0	N.D.		
55) dibromomethane	0.00		0	N.D.		
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	0.00		0	N.D.		
61) methyl methacrylate	0.00		0	N.D.		
62) heptane	0.00		0	N.D.		
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	13.08		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	0.00		0	N.D.		
71) 1,3-dichloropropane	0.00		0	N.D.		
72) 2-hexanone	0.00		0	N.D.		
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
76) butyl acetate	0.00		0	N.D.		
77) octane	0.00		0	N.D.		
78) tetrachloroethene	0.00		0	N.D.		

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 15:04:38 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.00		0	N.D.		
80)	chlorobenzene	0.00		0	N.D.		
81)	ethylbenzene	0.00		0	N.D.		
83)	m+p-xylene	0.00		0	N.D.		
84)	bromoform	0.00		0	N.D.		
85)	styrene	0.00		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	0.00		0	N.D.		
88)	1,2,3-trichloropropane	0.00		0	N.D.		
89)	nonane	0.00		0	N.D.		
91)	isopropylbenzene	0.00		0	N.D.		
92)	bromobenzene	0.00		0	N.D.		
93)	2-chlorotoluene	0.00		0	N.D.		
94)	n-propylbenzene	0.00		0	N.D.		
95)	4-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	0.00		0	N.D.		
97)	1,3,5-trimethylbenzene	0.00		0	N.D.		
98)	tert-butylbenzene	0.00		0	N.D.		
99)	1,2,4-trimethylbenzene	0.00		0	N.D.		
100)	decane	0.00		0	N.D.		
101)	Benzyl Chloride	0.00		0	N.D.		
102)	1,3-dichlorobenzene	0.00		0	N.D.		
103)	1,4-dichlorobenzene	0.00		0	N.D.		
104)	sec-butylbenzene	0.00		0	N.D.		
106)	p-isopropyltoluene	0.00		0	N.D.		
107)	1,2-dichlorobenzene	0.00		0	N.D.		
108)	n-butylbenzene	0.00		0	N.D.		
111)	1,2-dibromo-3-chloropr...	0.00		0	N.D.		
112)	undecane	0.00		0	N.D.		
114)	dodecane	0.00		0	N.D.		
115)	1,2,4-trichlorobenzene	0.00		0	N.D.		
116)	naphthalene	0.00		0	N.D.		
117)	1,2,3-trichlorobenzene	0.00		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

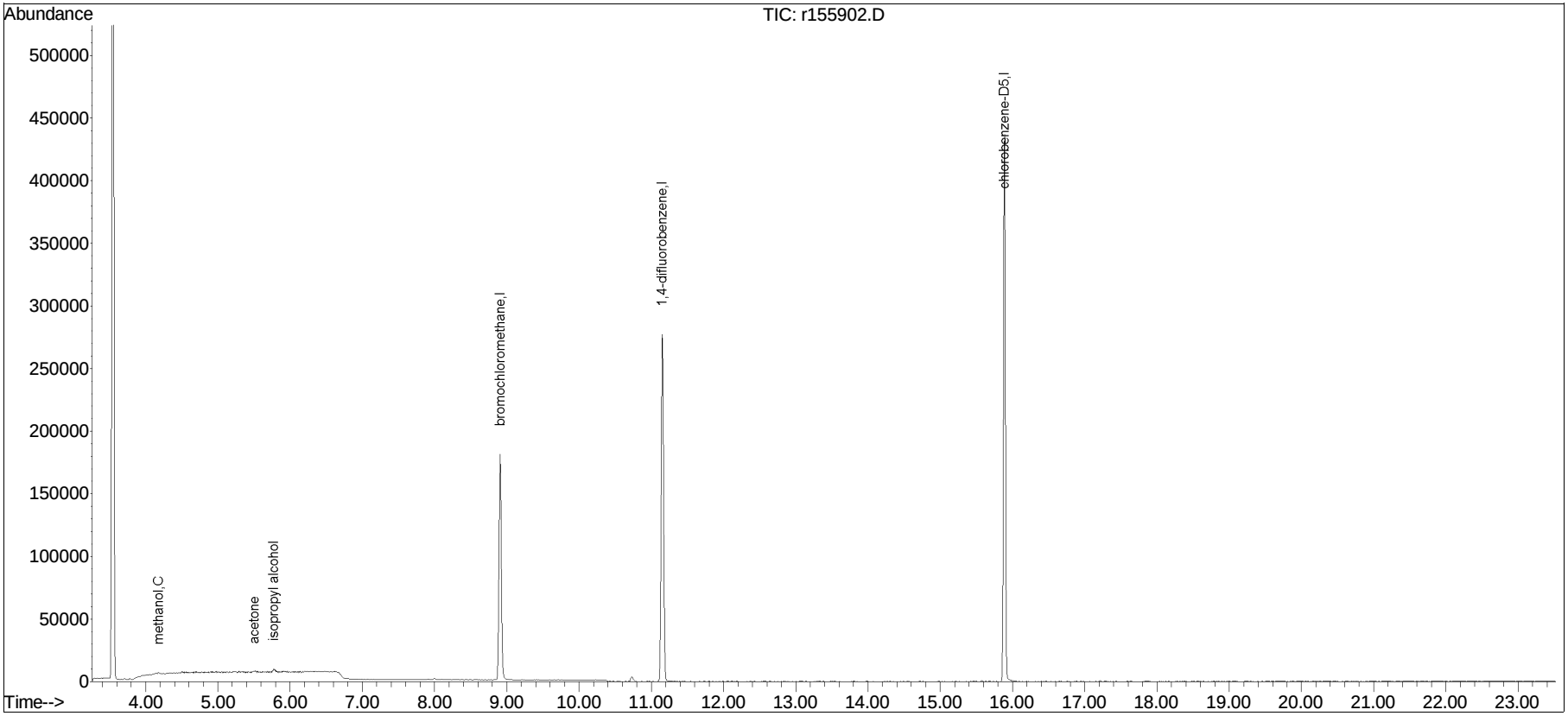
(#) = qualifier out of range (m) = manual integration (+) = signals summed

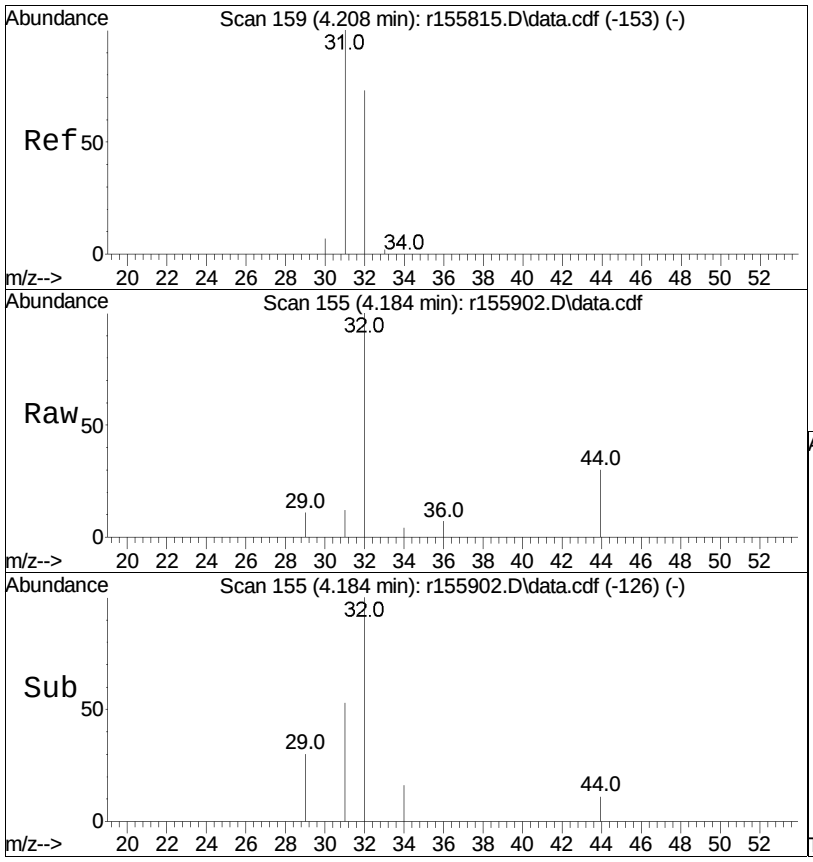
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 15:04:38 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listedT\r155899.D

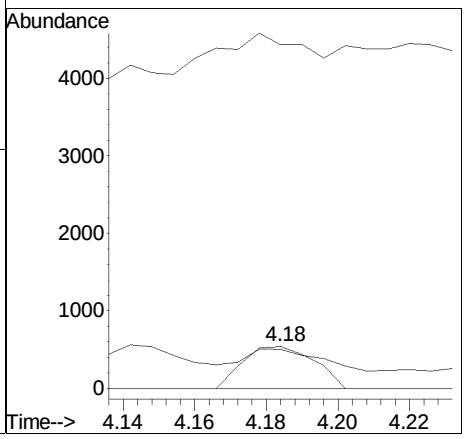


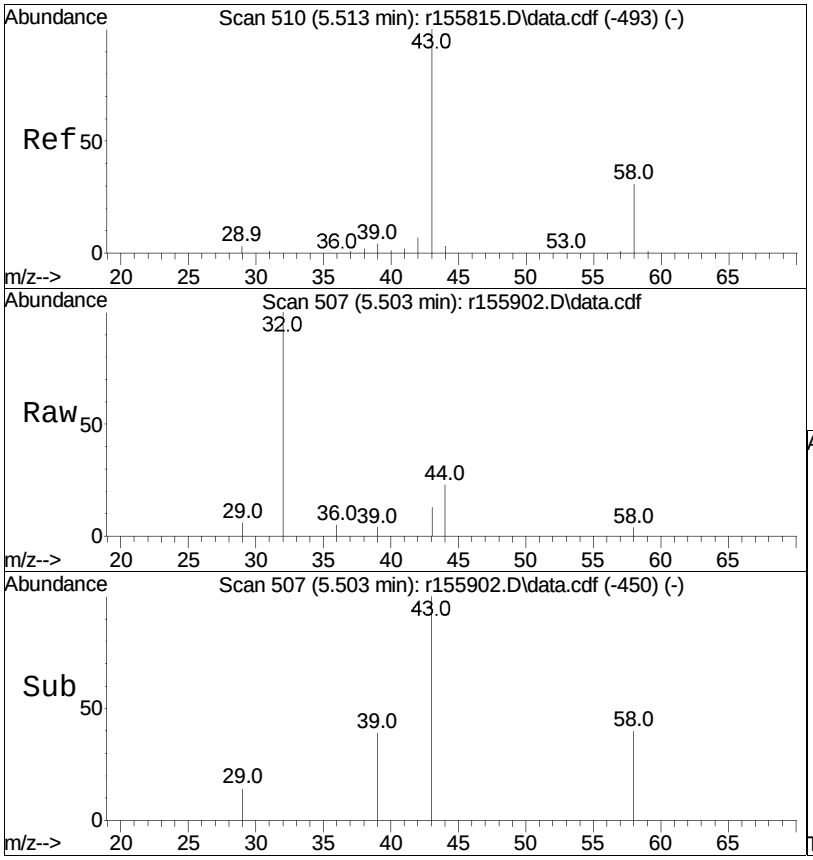


#8
methanol
Concen: 0.13 ppbV
RT: 4.18 min Scan# 155
Delta R.T. -0.024 min
Lab File: r155902.D
Acq: 20 Feb 2018 2:30 PM

Tgt Ion: 31 Resp: 751

Ion	Ratio	Lower	Upper
31	100		
32	820.4	58.6	87.8#
29	93.1	41.5	62.3#

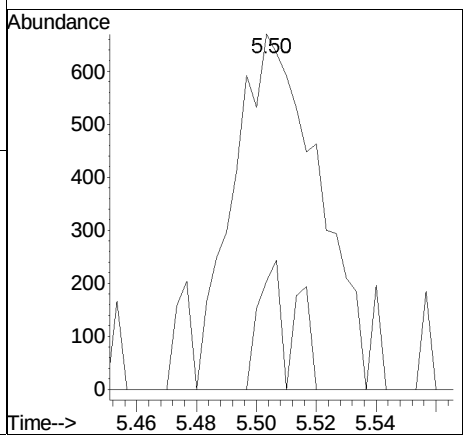


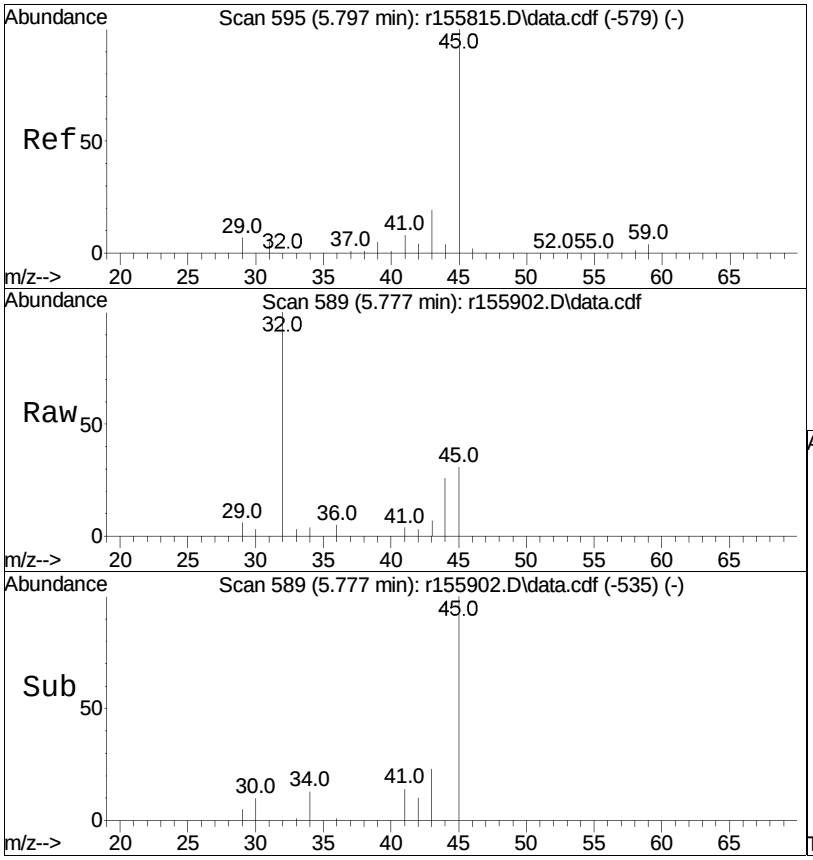


#19
acetone
Concen: 0.08 ppbV m
RT: 5.50 min Scan# 507
Delta R.T. -0.010 min
Lab File: r155902.D
Acq: 20 Feb 2018 2:30 PM

Tgt Ion: 43 Resp: 1315

Ion	Ratio	Lower	Upper
43	100		
58	30.4	24.5	36.7
57	0.0	0.6	0.8#

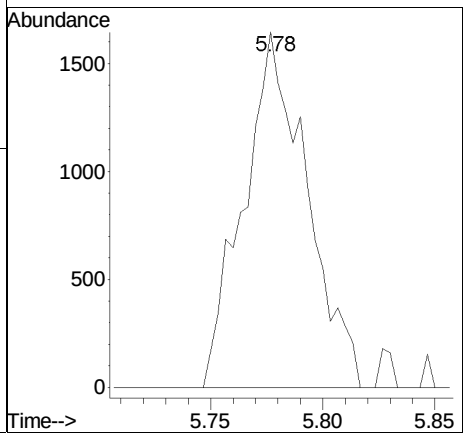




#22
isopropyl alcohol
Concen: 0.15 ppbV
RT: 5.78 min Scan# 589
Delta R.T. -0.020 min
Lab File: r155902.D
Acq: 20 Feb 2018 2:30 PM

Tgt Ion: 45 Resp: 3227

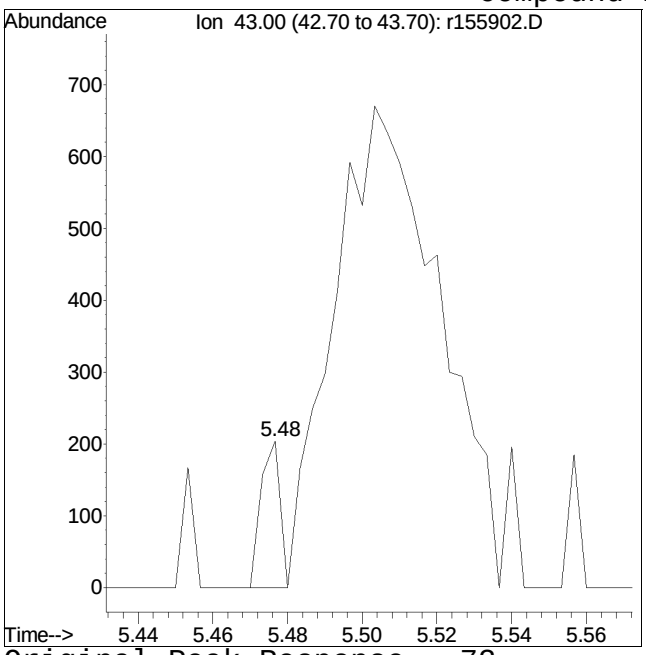
Ion	Ratio	Lower	Upper
45	100		
59	0.0	2.8	4.2#

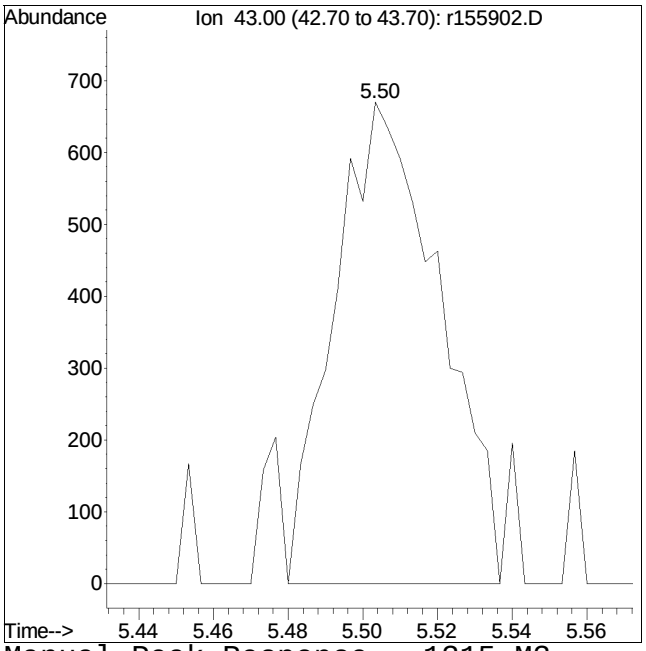


Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155902.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 2:30 PM Instrument :
Sample : WG1090771-4,3,250,250 Quant Date : 2/20/2018 3:04 pm

Compound #19: acetone





Original Peak Response = 72 Manual Peak Response = 1315 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: r155902.D

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	8.908	1074	1081	1103	rVB	180496	405292	51.78%	22.245%
2	10.733	1294	1298	1306	rVB	3656	9074	1.16%	0.498%
3	11.150	1342	1348	1359	rBV	277027	624793	79.82%	34.293%
4	15.892	1907	1913	1926	rBV	436742	782755	100.00%	42.963%

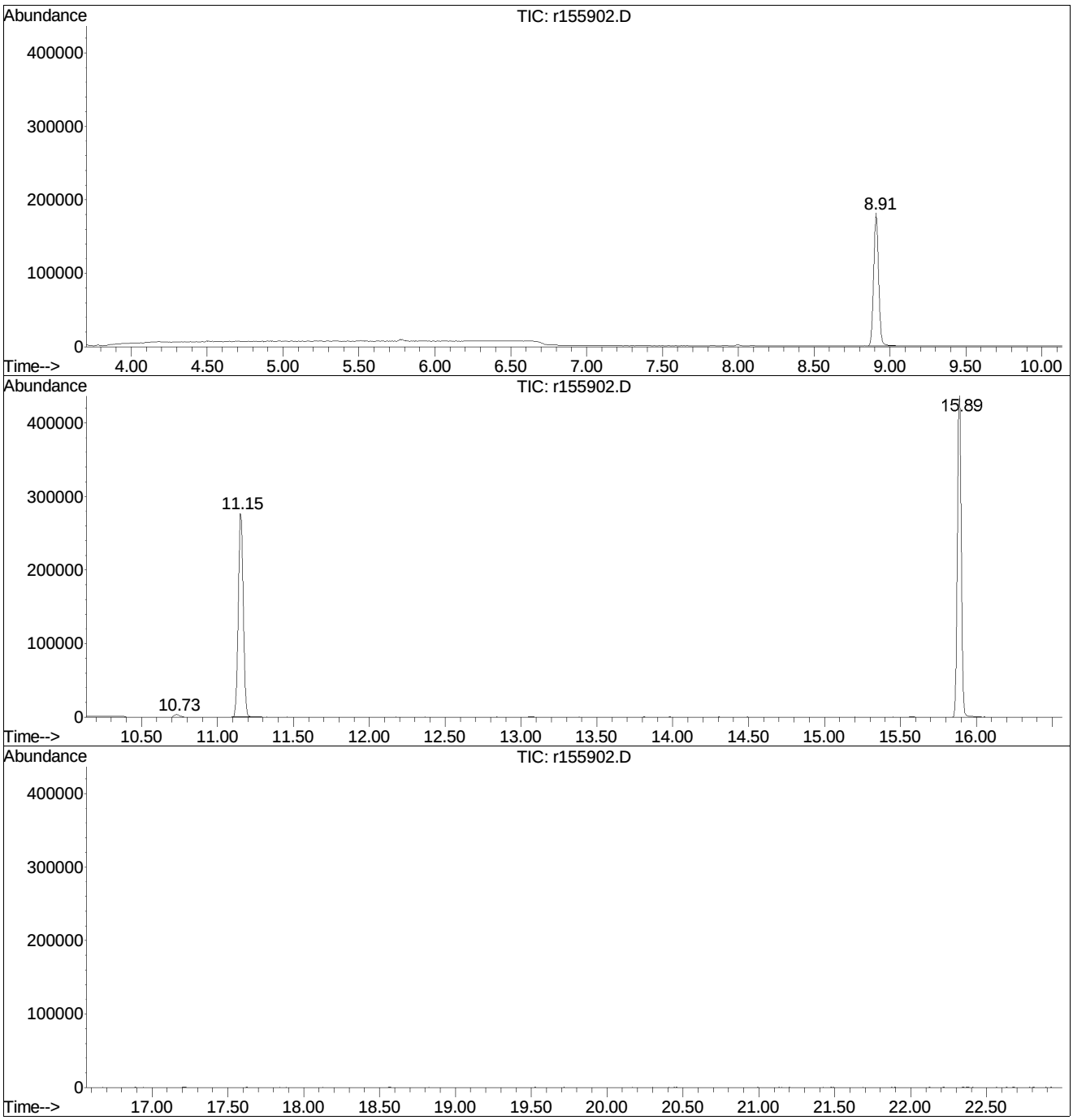
Sum of corrected areas: 1821914

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155902.D
Acq On : 20 Feb 2018 2:30 PM
Operator : AIRLAB15:RY
Sample : WG1090771-4,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

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

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	bromochloromethane	10.000	10.000	0.0	106	-0.07
2		chlorodifluoromethane	10.000	8.482	15.2	90	-0.03
3		propylene	10.000	10.558	-5.6	116	-0.03
4		propane	10.000	8.086	19.1	89	-0.03
5		dichlorodifluoromethane	10.000	9.084	9.2	95	-0.03
6	C	chloromethane	10.000	8.845	11.5	95	-0.04
7		Freon-114	10.000	8.991	10.1	95	-0.04
8	C	methanol	50.000	42.706	14.6	89	-0.04
9	C	vinyl chloride	10.000	9.125	8.8	96	-0.04
10	C	1,3-butadiene	10.000	9.928	0.7	98	-0.04
11		butane	10.000	8.858	11.4	97	-0.04
13	C	bromomethane	10.000	8.969	10.3	95	-0.04
14	C	chloroethane	10.000	8.883	11.2	94	-0.05
15		ethanol	50.000	43.598	12.8	92	-0.05
16		dichlorofluoromethane	10.000	8.442	15.6	89	-0.05
17	C	vinyl bromide	10.000	9.235	7.7	98	-0.05
18	C	acrolein	10.000	8.417	15.8	89	-0.05
19		acetone	50.000	50.950	-1.9	120	-0.05
20	C	acetonitrile	10.000	8.447	15.5	91	-0.05
21		trichlorofluoromethane	10.000	9.021	9.8	95	-0.06
22		isopropyl alcohol	25.000	22.165	11.3	116	-0.06
23	C	acrylonitrile	10.000	8.824	11.8	92	-0.06
24		pentane	10.000	7.970	20.3	86	-0.06
25		ethyl ether	10.000	7.235	27.6	74	-0.06
26	C	1,1-dichloroethene	10.000	9.272	7.3	97	-0.07
27		tertiary butyl alcohol	10.000	8.721	12.8	92	-0.06
28	C	methylene chloride	10.000	9.086	9.1	96	-0.07
29	C	3-chloropropene	10.000	10.214	-2.1	110	-0.06
30	C	carbon disulfide	10.000	8.927	10.7	93	-0.07
31		Freon 113	10.000	8.977	10.2	96	-0.07
32		trans-1,2-dichloroethene	10.000	9.609	3.9	99	-0.07
33	C	1,1-dichloroethane	10.000	9.049	9.5	95	-0.07
34	C	MTBE	10.000	9.833	1.7	101	-0.07
35	C	vinyl acetate	10.000	10.826	-8.3	112	-0.07
36	C	2-butanone	10.000	9.929	0.7	104	-0.07
37		cis-1,2-dichloroethene	10.000	9.648	3.5	98	-0.07
38		Ethyl Acetate	10.000	10.098	-1.0	103	-0.07
39	C	chloroform	10.000	9.643	3.6	99	-0.07
40		Tetrahydrofuran	10.000	9.926	0.7	101	-0.07

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	10.000	8.966	10.3	92	-0.07
42	C	1,2-dichloroethane	10.000	9.501	5.0	97	-0.07
43	I	1,4-difluorobenzene	10.000	10.000	0.0	105	-0.07
44	C	hexane	10.000	9.954	0.5	102	-0.07
45		diisopropyl ether	10.000	8.594	14.1	89	-0.07
46		tert-butyl ethyl ether	10.000	8.631	13.7	88	-0.07
48	C	1,1,1-trichloroethane	10.000	9.689	3.1	99	-0.07
49		1,1-dichloropropene	10.000	9.447	5.5	97	-0.07
50	C	benzene	10.000	9.302	7.0	95	-0.07
52	C	carbon tetrachloride	10.000	9.842	1.6	100	-0.07
53		cyclohexane	10.000	10.297	-3.0	106	-0.07
54		tert-amyl methyl ether	10.000	8.861	11.4	91	-0.07
55		dibromomethane	10.000	9.098	9.0	94	-0.07
56	C	1,2-dichloropropane	10.000	9.296	7.0	97	-0.07
57		bromodichloromethane	10.000	10.624	-6.2	106	-0.07
58	C	1,4-dioxane	10.000	10.157	-1.6	105	-0.07
59	C	trichloroethene	10.000	9.582	4.2	100	-0.06
60	C	2,2,4-trimethylpentane	10.000	10.453	-4.5	106	-0.07
61		methyl methacrylate	10.000	11.772	-17.7	125	-0.06
62		heptane	10.000	10.082	-0.8	105	-0.06
63	C	cis-1,3-dichloropropene	10.000	10.311	-3.1	103	-0.06
64	C	4-methyl-2-pentanone	10.000	10.463	-4.6	106	-0.06
65		trans-1,3-dichloropropene	10.000	8.970	10.3	88	-0.06
66	C	1,1,2-trichloroethane	10.000	9.920	0.8	100	-0.07
67	I	chlorobenzene-D5	10.000	10.000	0.0	109	-0.05
68	C	toluene	10.000	9.051	9.5	97	-0.06
71		1,3-dichloropropane	10.000	8.973	10.3	95	-0.06
72		2-hexanone	10.000	10.212	-2.1	103	-0.06
74		dibromochloromethane	10.000	10.577	-5.8	109	-0.05
75	C	1,2-dibromoethane	10.000	9.705	2.9	103	-0.05
76		butyl acetate	10.000	9.358	6.4	90	-0.04
77		octane	10.000	8.693	13.1	92	-0.04
78	C	tetrachloroethene	10.000	9.235	7.7	101	-0.05
79		1,1,1,2-tetrachloroethane	10.000	9.090	9.1	98	-0.05
80	C	chlorobenzene	10.000	9.085	9.1	99	-0.04
81	C	ethylbenzene	10.000	9.307	6.9	99	-0.04
83	C	m+p-xylene	20.000	18.261	8.7	98	-0.05

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
84	C	bromoform	10.000	10.638	-6.4	110	-0.05
85	C	styrene	10.000	9.482	5.2	100	-0.06
86	C	1,1,2,2-tetrachloroethane	10.000	9.491	5.1	102	-0.06
87	C	o-xylene	10.000	9.280	7.2	99	-0.06
88		1,2,3-trichloropropane	10.000	9.146	8.5	96	-0.06
89		nonane	10.000	8.597	14.0	91	-0.07
91	C	isopropylbenzene	10.000	9.363	6.4	101	-0.07
92		bromobenzene	10.000	9.016	9.8	97	-0.07
93		2-chlorotoluene	10.000	8.791	12.1	94	-0.08
94		n-propylbenzene	10.000	8.792	12.1	95	-0.09
95		4-chlorotoluene	10.000	9.037	9.6	97	-0.08
96		4-ethyl toluene	10.000	9.879	1.2	105	-0.09
97		1,3,5-trimethylbenzene	10.000	9.399	6.0	100	-0.09
98		tert-butylbenzene	10.000	8.907	10.9	95	-0.10
99		1,2,4-trimethylbenzene	10.000	9.182	8.2	99	-0.10
100		decane	10.000	8.932	10.7	93	-0.11
101	C	Benzyl Chloride	10.000	10.609	-6.1	106	-0.11
102		1,3-dichlorobenzene	10.000	9.493	5.1	102	-0.11
103	C	1,4-dichlorobenzene	10.000	9.430	5.7	103	-0.11
104		sec-butylbenzene	10.000	8.798	12.0	96	-0.11
106		p-isopropyltoluene	10.000	8.225	17.8	88	-0.12
107		1,2-dichlorobenzene	10.000	9.203	8.0	102	-0.12
108		n-butylbenzene	10.000	9.304	7.0	98	-0.13
111	C	1,2-dibromo-3-chloropropane	10.000	9.755	2.4	95	-0.13
112		undecane	10.000	9.505	4.9	93	-0.14
114		dodecane	10.000	10.693	-6.9	84	-0.16
115	C	1,2,4-trichlorobenzene	10.000	9.760	2.4	97	-0.16
116		naphthalene	10.000	9.497	5.0	86	-0.17
117		1,2,3-trichlorobenzene	10.000	9.571	4.3	90	-0.17
119	C	hexachlorobutadiene	10.000	9.373	6.3	95	-0.16

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	145211	10.000	ppbV	-0.07
Standard Area = 147251			Recovery =	98.61%		
43) 1,4-difluorobenzene	11.15	114	260482	10.000	ppbV	-0.07
Standard Area = 262067			Recovery =	99.40%		
67) chlorobenzene-D5	15.88	54	67814	10.000	ppbV	-0.05
Standard Area = 67836			Recovery =	99.97%		
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	3.75	51	126198	8.482	ppbV	99
3) propylene	3.78	41	128302M6	10.558	ppbV	
4) propane	3.80	29	116125	8.086	ppbV	98
5) dichlorodifluoromethane	3.85	85	153250	9.084	ppbV	98
6) chloromethane	4.00	50	106624	8.845	ppbV	97
7) Freon-114	4.11	85	209368	8.991	ppbV	98
8) methanol	4.17	31	248781	42.706	ppbV	99
9) vinyl chloride	4.23	62	117698	9.125	ppbV	99
10) 1,3-butadiene	4.36	54	99105	9.928	ppbV	98
11) butane	4.42	43	213056	8.858	ppbV	100
13) bromomethane	4.64	94	78956	8.969	ppbV	99
14) chloroethane	4.82	64	57191	8.883	ppbV	98
15) ethanol	4.95	31	464026	43.598	ppbV	99
16) dichlorofluoromethane	4.93	67	175630	8.442	ppbV	99
17) vinyl bromide	5.20	106	69898	9.235	ppbV	97
18) acrolein	5.32	56	43152	8.417	ppbV	96
19) acetone	5.46	43	841487	50.950	ppbV	99
20) acetonitrile	5.18	41	124378	8.447	ppbV	98
21) trichlorofluoromethane	5.65	101	124009	9.021	ppbV	98
22) isopropyl alcohol	5.74	45	487787	22.165	ppbV	99
23) acrylonitrile	5.97	53	81718	8.824	ppbV	96
24) pentane	6.05	43	248172	7.970	ppbV	99
25) ethyl ether	6.07	31	181440	7.235	ppbV	99
26) 1,1-dichloroethene	6.34	61	154167	9.272	ppbV	97
27) tertiary butyl alcohol	6.40	59	171749	8.721	ppbV	95
28) methylene chloride	6.49	49	135843	9.086	ppbV	98
29) 3-chloropropene	6.62	41	223871	10.214	ppbV	100
30) carbon disulfide	6.79	76	261319	8.927	ppbV	99
31) Freon 113	6.79	101	146081	8.977	ppbV	96

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	7.54	61	150219	9.609	ppbV	99
33) 1,1-dichloroethane	7.77	63	175019	9.049	ppbV	97
34) MTBE	7.84	73	222353	9.833	ppbV	99
35) vinyl acetate	7.96	43	316126	10.826	ppbV	100
36) 2-butanone	8.22	43	272949	9.929	ppbV	99
37) cis-1,2-dichloroethene	8.72	61	138596	9.648	ppbV	98
38) Ethyl Acetate	9.00	61	38355	10.098	ppbV	97
39) chloroform	9.07	83	155685	9.643	ppbV	98
40) Tetrahydrofuran	9.52	42	170781	9.926	ppbV	100
41) 2,2-dichloropropane	9.08	77	111382	8.966	ppbV	96
42) 1,2-dichloroethane	9.90	62	112009	9.501	ppbV	98
44) hexane	8.97	57	194290	9.954	ppbV	94
45) diisopropyl ether	8.97	87	68226	8.594	ppbV	99
46) tert-butyl ethyl ether	9.59	59	281920	8.631	ppbV	100
48) 1,1,1-trichloroethane	10.19	97	117643	9.689	ppbV	100
49) 1,1-dichloropropene	10.56	75	126405	9.447	ppbV	99
50) benzene	10.73	78	288249	9.302	ppbV	99
52) carbon tetrachloride	10.89	117	103137	9.842	ppbV	97
53) cyclohexane	11.04	56	207125	10.297	ppbV	99
54) tert-amyl methyl ether	11.43	73	220061	8.861	ppbV	99
55) dibromomethane	11.64	93	77879	9.098	ppbV	95
56) 1,2-dichloropropane	11.68	63	119869	9.296	ppbV	100
57) bromodichloromethane	11.90	83	170968	10.624	ppbV	99
58) 1,4-dioxane	11.95	88	65169	10.157	ppbV	99
59) trichloroethene	11.96	130	93409	9.582	ppbV	96
60) 2,2,4-trimethylpentane	12.00	57	654179	10.453	ppbV	100
61) methyl methacrylate	12.21	41	175022	11.772	ppbV	99
62) heptane	12.32	43	283741	10.082	ppbV	99
63) cis-1,3-dichloropropene	12.98	75	153946	10.311	ppbV	100
64) 4-methyl-2-pentanone	13.02	43	339542	10.463	ppbV	99
65) trans-1,3-dichloropropene	13.60	75	123211	8.970	ppbV	99
66) 1,1,2-trichloroethane	13.80	97	99276	9.920	ppbV	97
68) toluene	14.13	91	310495	9.051	ppbV	97
71) 1,3-dichloropropane	14.15	76	151268	8.973	ppbV	96
72) 2-hexanone	14.41	43	306921	10.212	ppbV	99
74) dibromochloromethane	14.57	129	132889	10.577	ppbV	97
75) 1,2-dibromoethane	14.82	107	147117	9.705	ppbV	98
76) butyl acetate	15.07	73	34873	9.358	ppbV	92
77) octane	15.17	85	111035	8.693	ppbV	96
78) tetrachloroethene	15.29	166	101523	9.235	ppbV	99

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79) 1,1,1,2-tetrachloroethane	15.91	131	88785	9.090	ppbV	99
80) chlorobenzene	15.93	112	227859	9.085	ppbV	98
81) ethylbenzene	16.27	91	395620	9.307	ppbV	98
83) m+p-xylene	16.43	91	627490M4	18.261	ppbV	
84) bromoform	16.48	173	103949	10.638	ppbV	93
85) styrene	16.73	104	241050	9.482	ppbV	98
86) 1,1,2,2-tetrachloroethane	16.82	83	259964	9.491	ppbV	99
87) o-xylene	16.82	91	324527	9.280	ppbV	99
88) 1,2,3-trichloropropane	16.93	75	184957	9.146	ppbV	99
89) nonane	17.01	43	353968	8.597	ppbV	97
91) isopropylbenzene	17.32	105	380015	9.363	ppbV	99
92) bromobenzene	17.39	77	235990	9.016	ppbV	96
93) 2-chlorotoluene	17.71	126	95737M3	8.791	ppbV	
94) n-propylbenzene	17.73	120	112446	8.792	ppbV	98
95) 4-chlorotoluene	17.77	126	95873	9.037	ppbV	95
96) 4-ethyl toluene	17.85	105	433734	9.879	ppbV	98
97) 1,3,5-trimethylbenzene	17.92	105	355543	9.399	ppbV	99
98) tert-butylbenzene	18.25	119	333050	8.907	ppbV	99
99) 1,2,4-trimethylbenzene	18.25	105	353454	9.182	ppbV	96
100) decane	18.32	57	364764	8.932	ppbV	99
101) Benzyl Chloride	18.37	91	283028	10.609	ppbV	99
102) 1,3-dichlorobenzene	18.38	146	214957M3	9.493	ppbV	
103) 1,4-dichlorobenzene	18.43	146	208592	9.430	ppbV	96
104) sec-butylbenzene	18.47	105	462829	8.798	ppbV	98
106) p-isopropyltoluene	18.59	119	362496	8.225	ppbV	95
107) 1,2-dichlorobenzene	18.72	146	189999	9.203	ppbV	98
108) n-butylbenzene	18.94	91	397410	9.304	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.09	75	99752	9.755	ppbV	98
112) undecane	19.36	57	413560	9.505	ppbV	97
114) dodecane	20.29	57	402560M1	10.693	ppbV	
115) 1,2,4-trichlorobenzene	20.24	180	133487M1	9.760	ppbV	
116) naphthalene	20.36	128	365404M2	9.497	ppbV	
117) 1,2,3-trichlorobenzene	20.62	180	119055M2	9.571	ppbV	
119) hexachlorobutadiene	20.69	225	110878M1	9.373	ppbV	

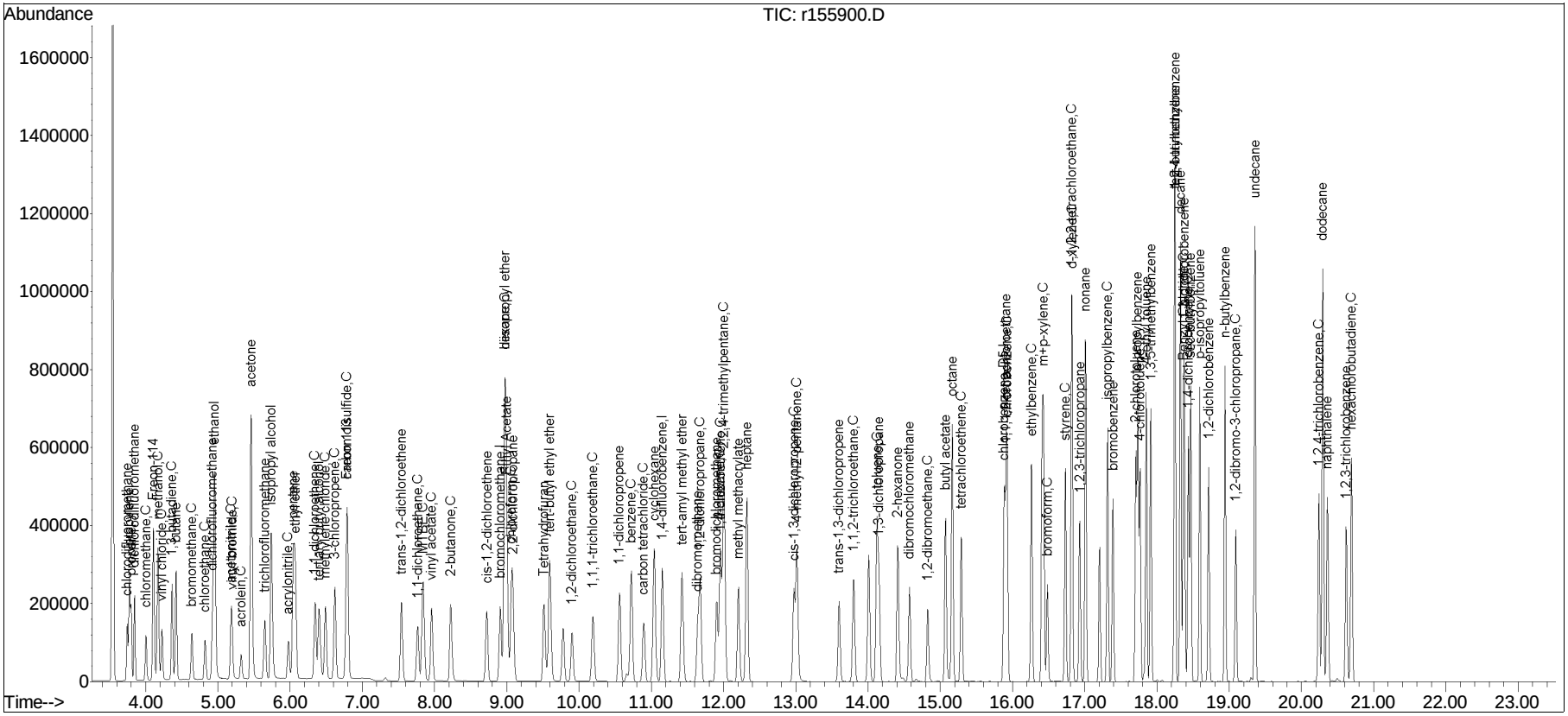
(#) = qualifier out of range (m) = manual integration (+) = signals summed

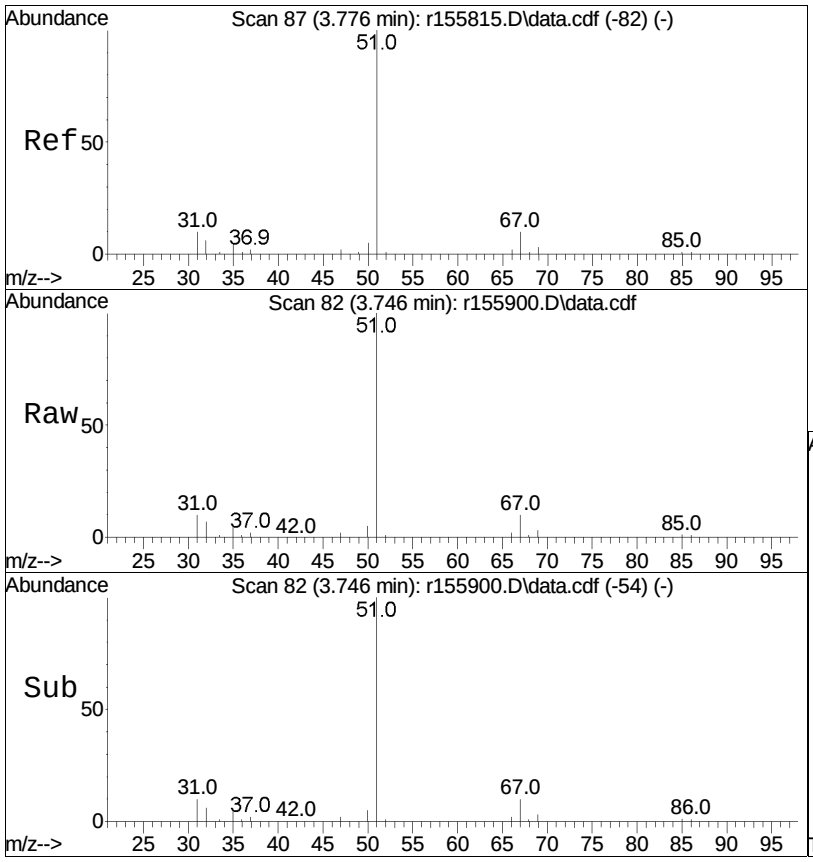
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155900.D
Acq On : 20 Feb 2018 12:43 PM
Operator : AIRLAB15:RY
Sample : WG1090771-3,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 20 13:18:25 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listedT\r155899.D

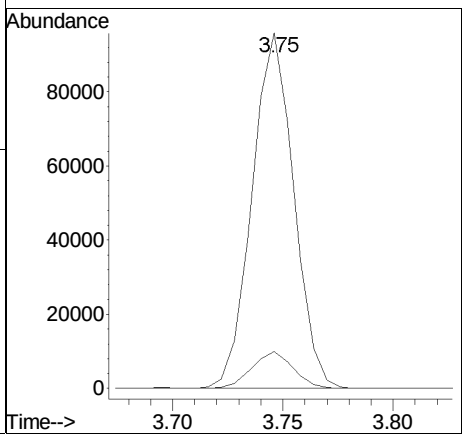


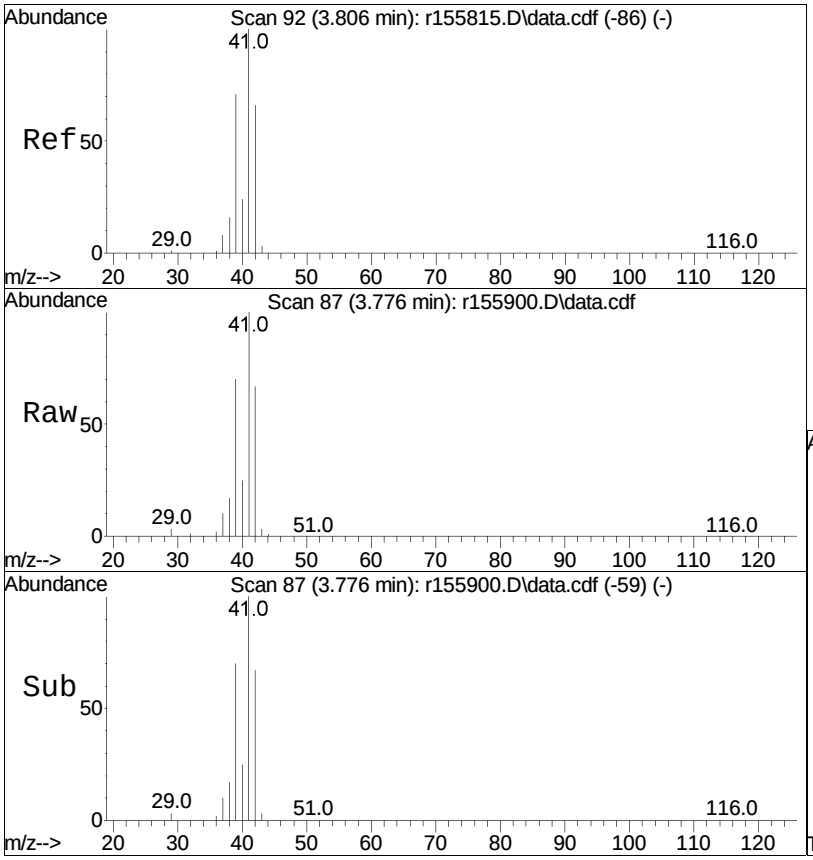


#2
chlorodifluoromethane
Concen: 8.48 ppbV
RT: 3.75 min Scan# 82
Delta R.T. -0.030 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 51 Resp: 126198

Ion	Ratio	Lower	Upper
51	100		
67	10.4	8.1	12.1

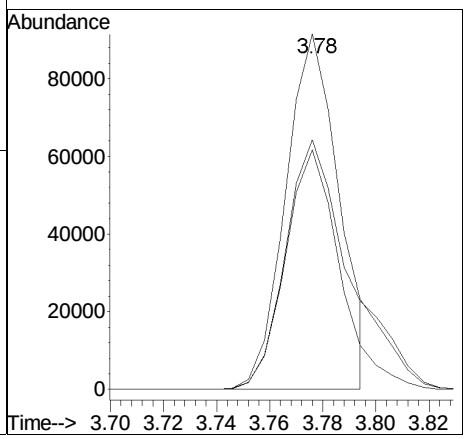


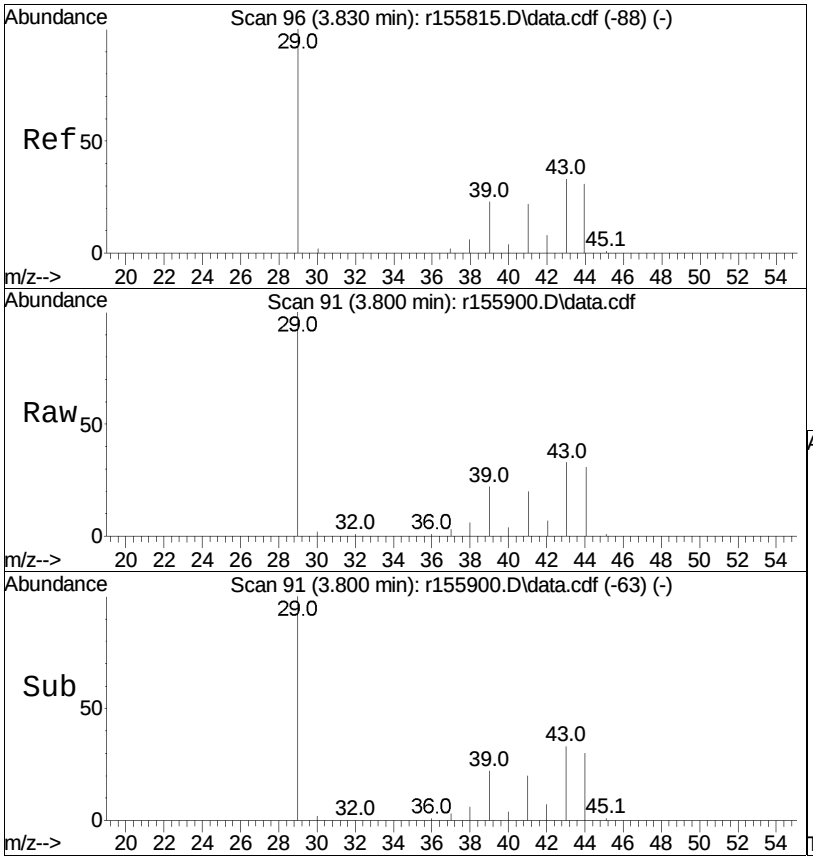


#3
propylene
Concen: 10.56 ppbV m
RT: 3.78 min Scan# 87
Delta R.T. -0.030 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 41 Resp: 128302

Ion	Ratio	Lower	Upper
41	100		
42	67.4	52.7	79.1
39	70.2	56.5	84.7

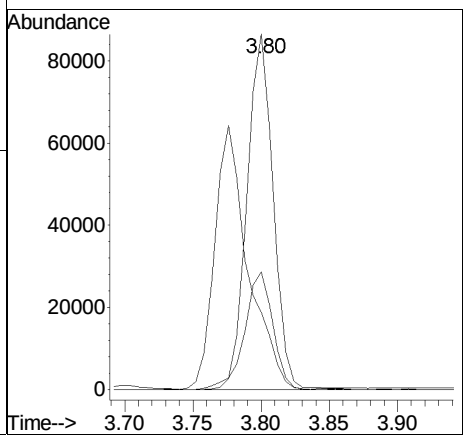


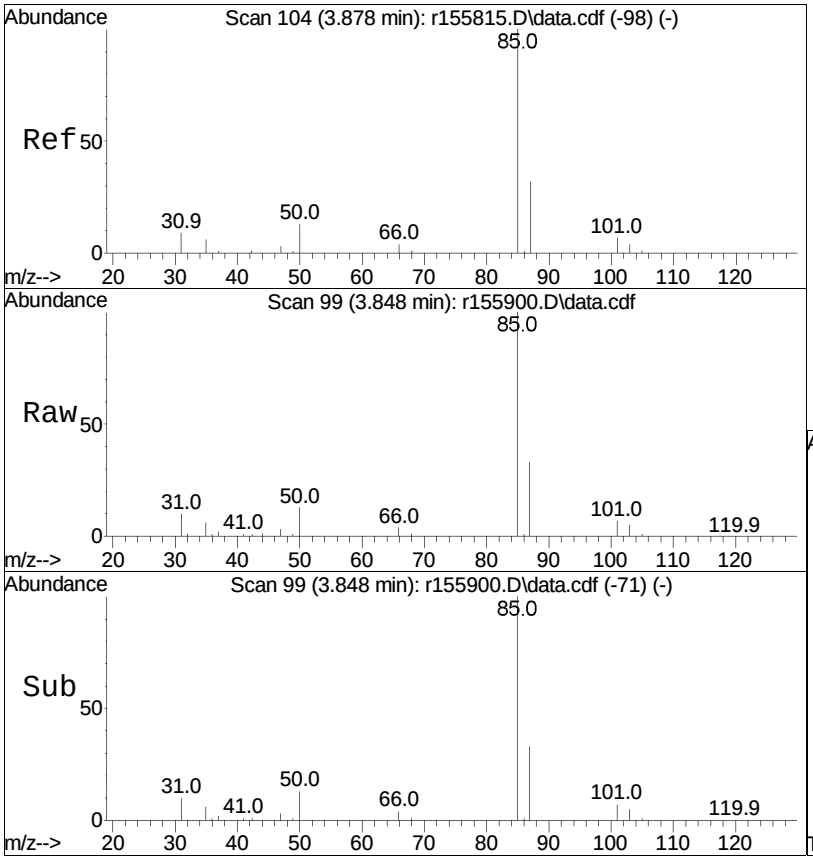


#4
propane
Concen: 8.09 ppbV
RT: 3.80 min Scan# 91
Delta R.T. -0.030 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 29 Resp: 116125

Ion	Ratio	Lower	Upper
29	100		
43	33.1	26.7	40.1
39	21.7	19.0	28.4

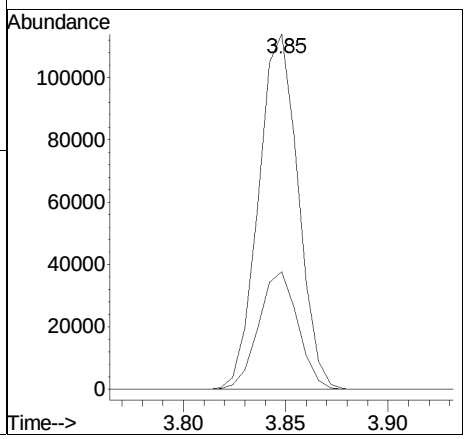


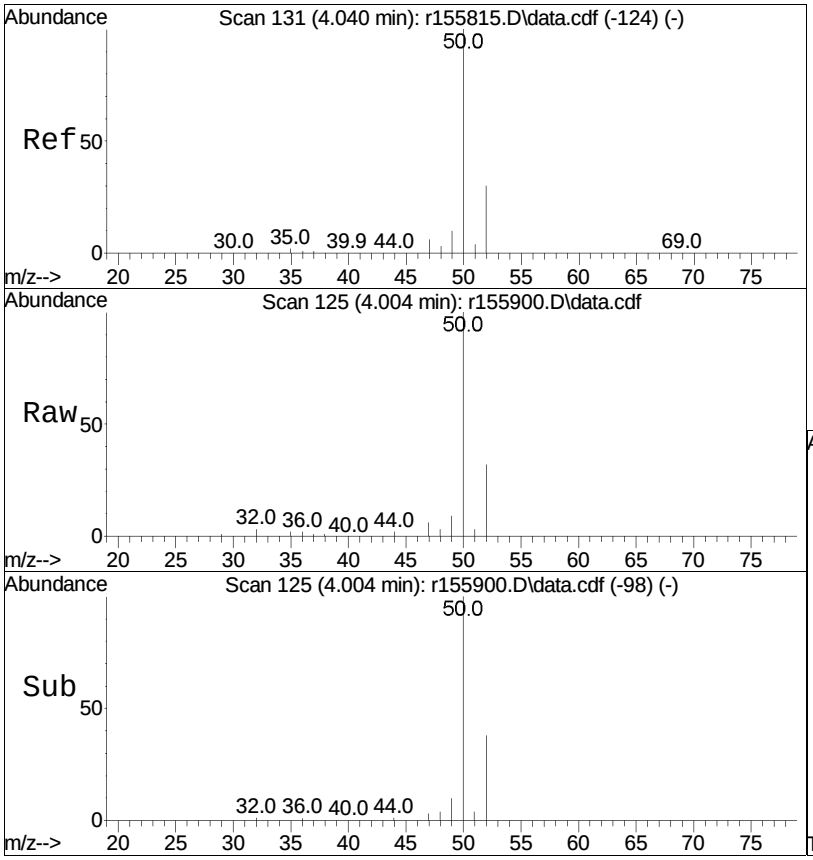


#5
dichlorodifluoromethane
Concen: 9.08 ppbV
RT: 3.85 min Scan# 99
Delta R.T. -0.030 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 85 Resp: 153250

Ion	Ratio	Lower	Upper
85	100		
87	33.1	25.6	38.4

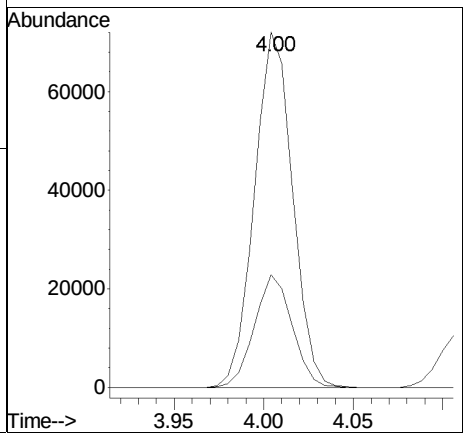


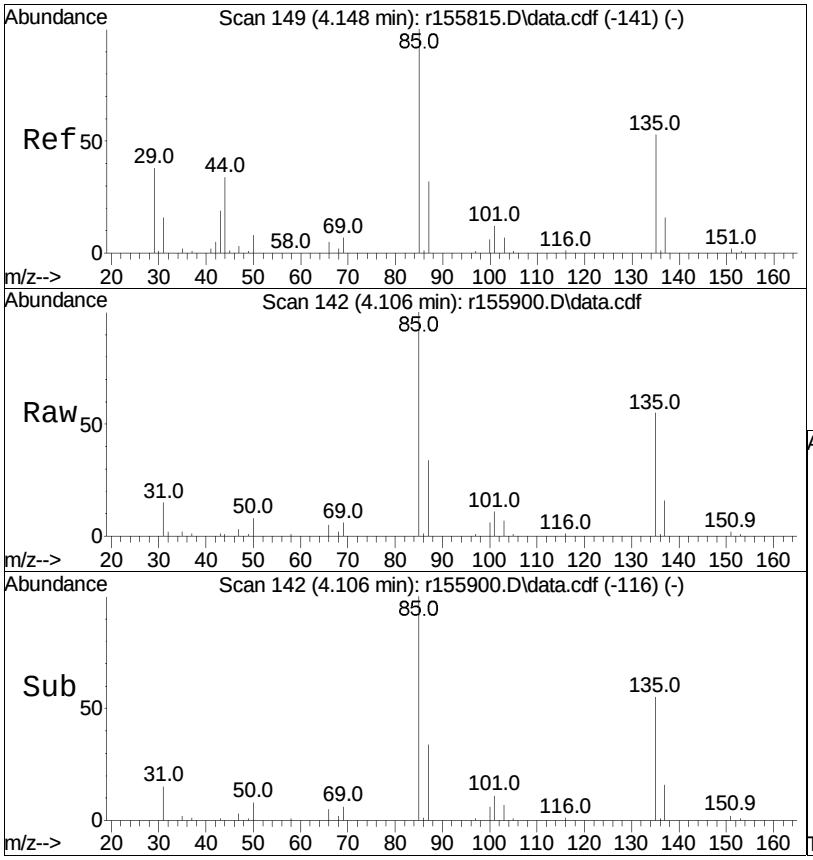


#6
chloromethane
Concen: 8.85 ppbV
RT: 4.00 min Scan# 125
Delta R.T. -0.036 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 50 Resp: 106624

Ion	Ratio	Lower	Upper
50	100		
52	31.7	24.1	36.1

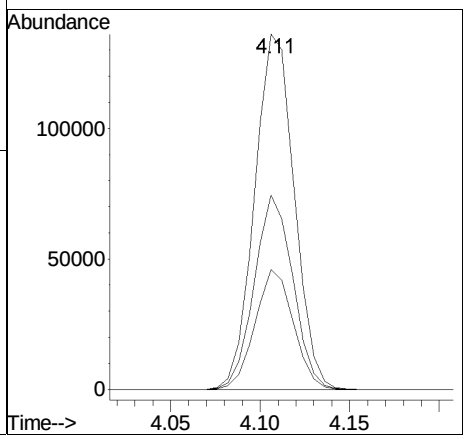


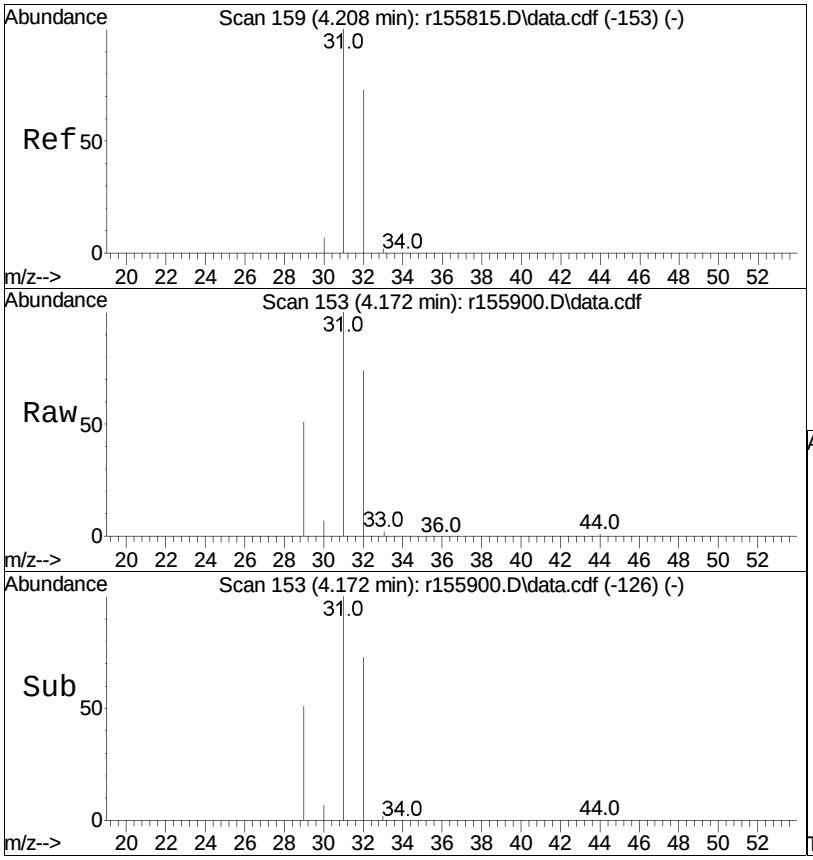


#7
Freon-114
Concen: 8.99 ppbV
RT: 4.11 min Scan# 142
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 85 Resp: 209368

Ion	Ratio	Lower	Upper
85	100		
87	33.7	25.8	38.6
135	54.7	42.6	63.8

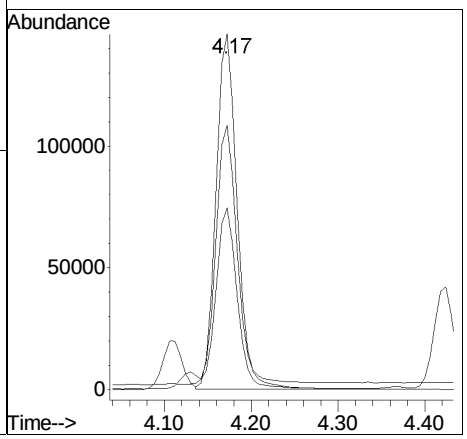


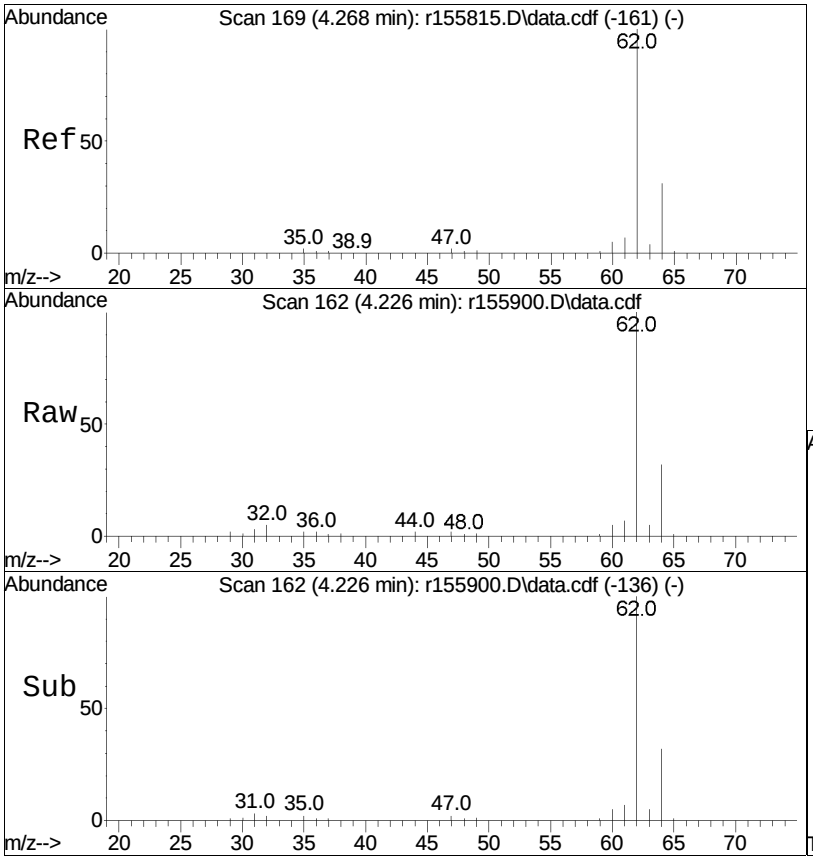


#8
methanol
Concen: 42.71 ppbV
RT: 4.17 min Scan# 153
Delta R.T. -0.036 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 31 Resp: 248781

Ion	Ratio	Lower	Upper
31	100		
32	74.3	58.6	87.8
29	51.1	41.5	62.3

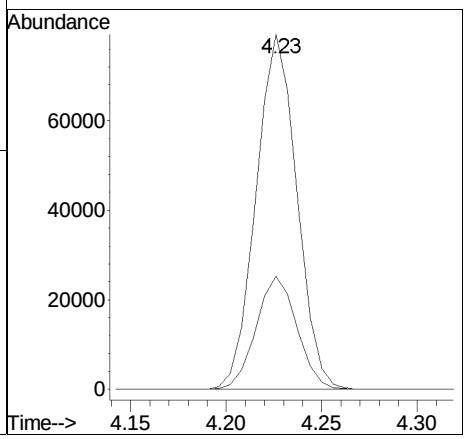


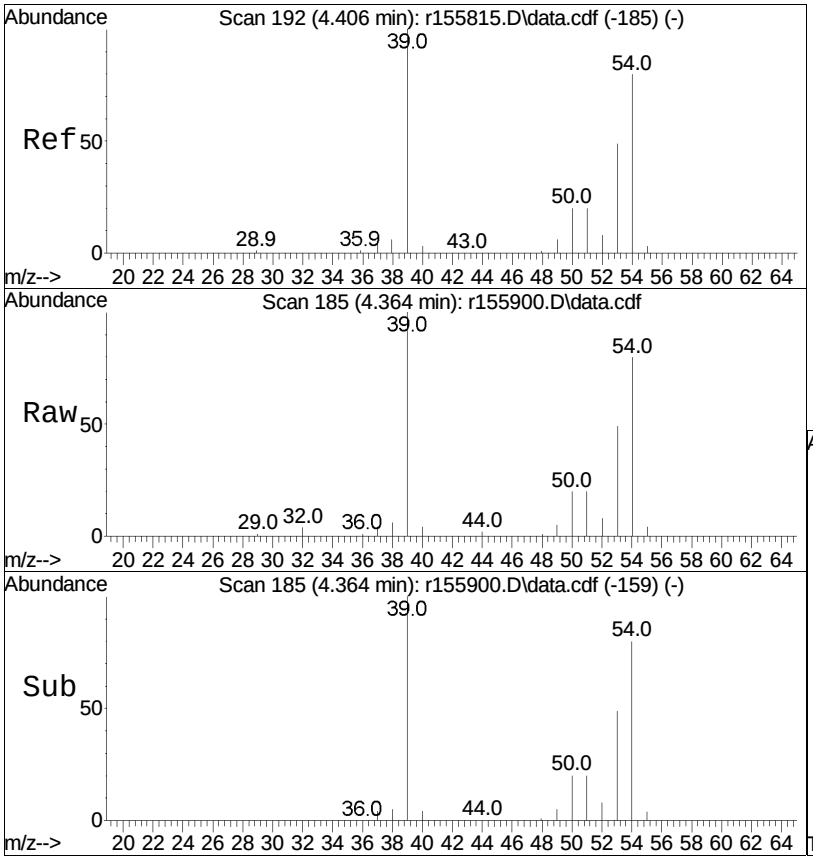


#9
vinyl chloride
Concen: 9.13 ppbV
RT: 4.23 min Scan# 162
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 62 Resp: 117698

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.1	37.7

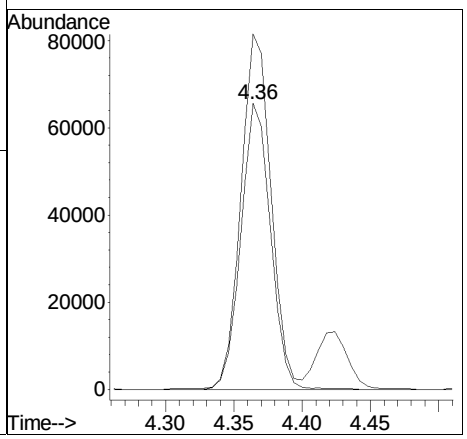


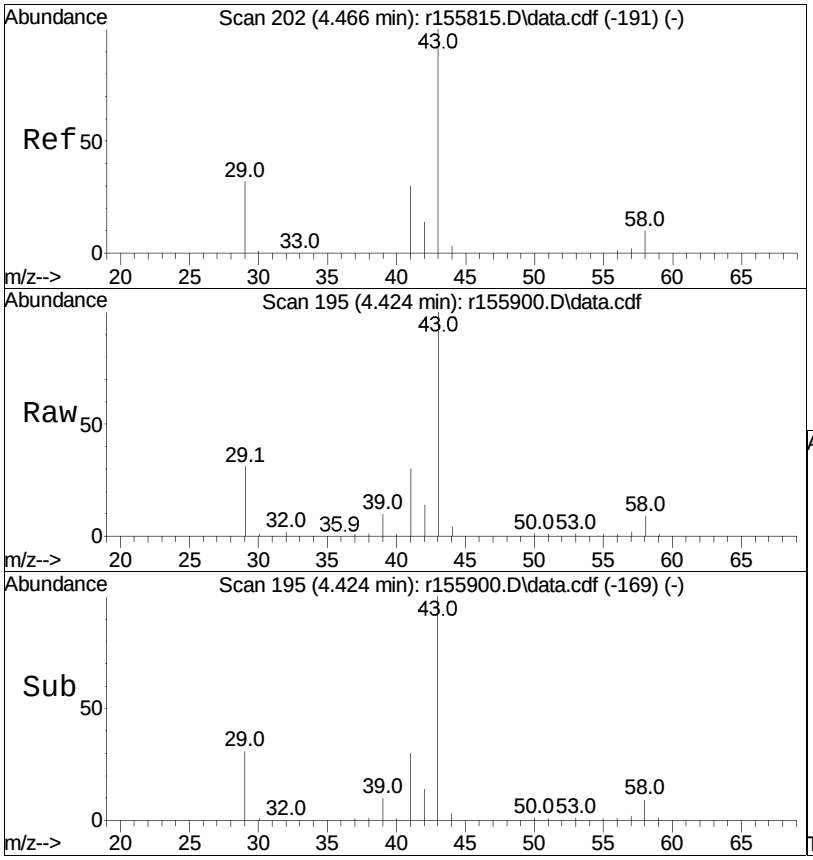


#10
1,3-butadiene
Concen: 9.93 ppbV
RT: 4.36 min Scan# 185
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 54 Resp: 99105

Ion	Ratio	Lower	Upper
54	100		
39	124.2	100.8	151.2

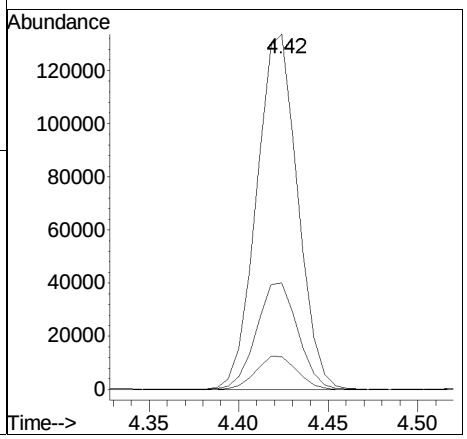


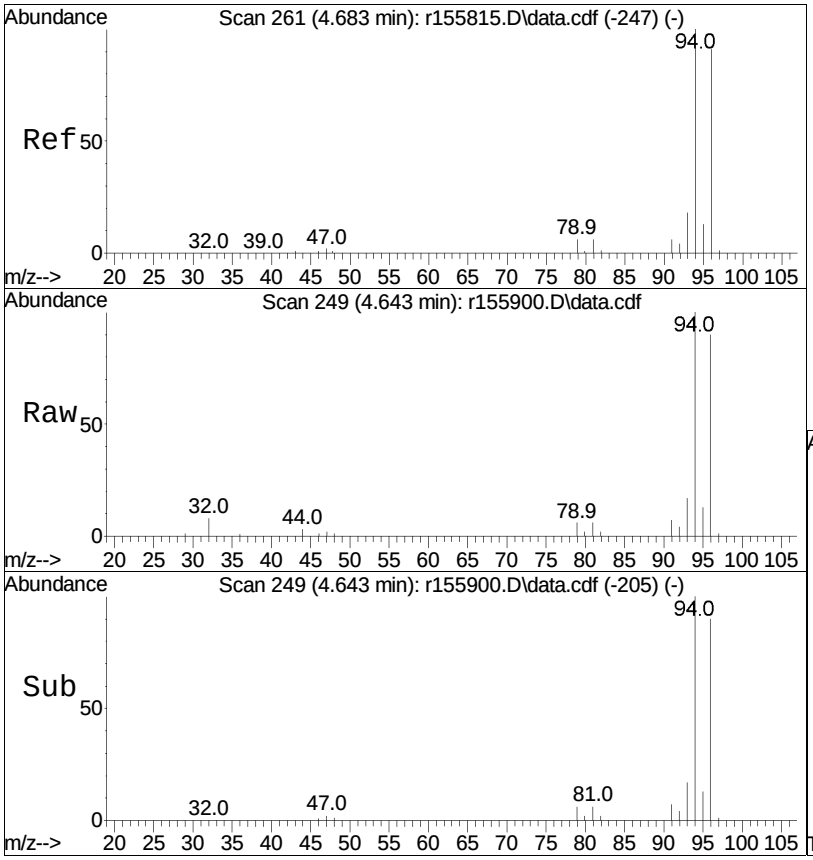


#11
butane
Concen: 8.86 ppbV
RT: 4.42 min Scan# 195
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 213056

Ion	Ratio	Lower	Upper
43	100		
58	9.2	7.7	11.5
41	30.0	24.1	36.1

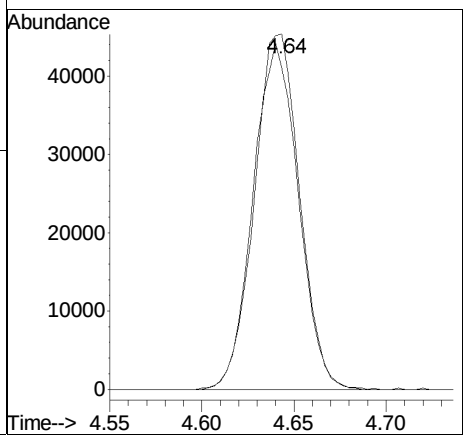


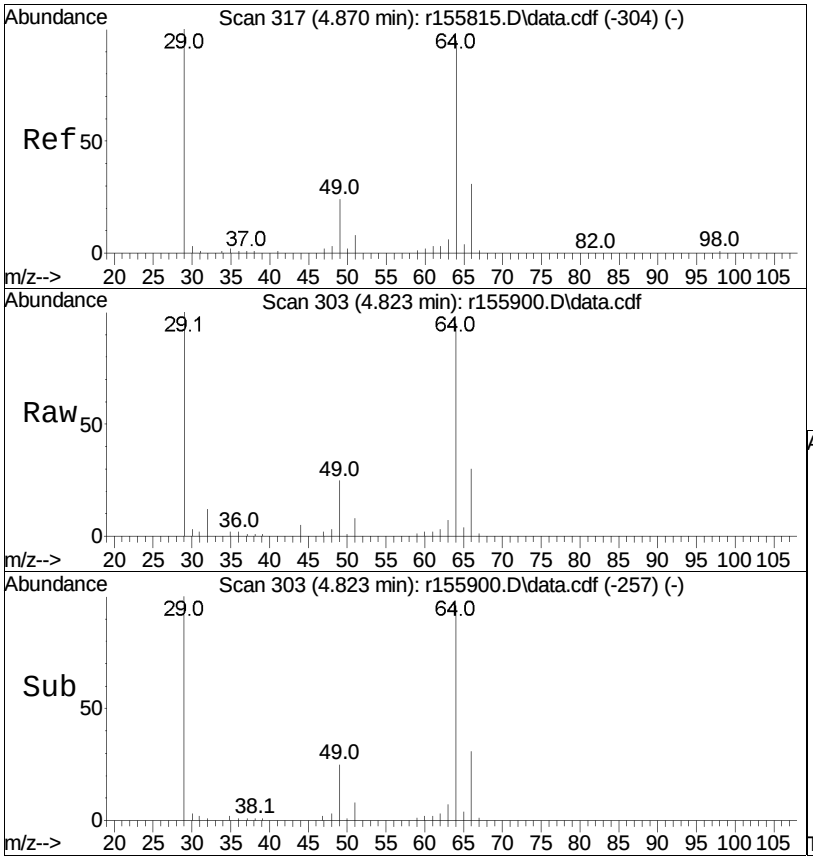


#13
bromomethane
Concen: 8.97 ppbV
RT: 4.64 min Scan# 249
Delta R.T. -0.040 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 94 Resp: 78956

Ion	Ratio	Lower	Upper
94	100		
96	90.4	73.0	109.6

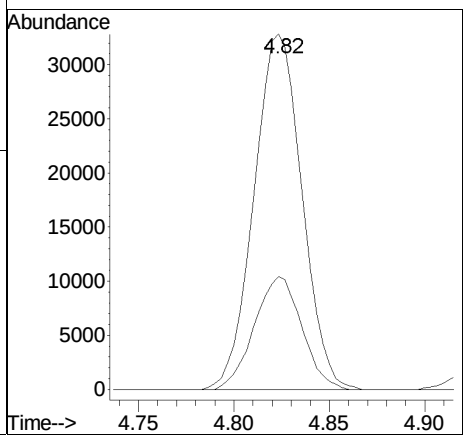


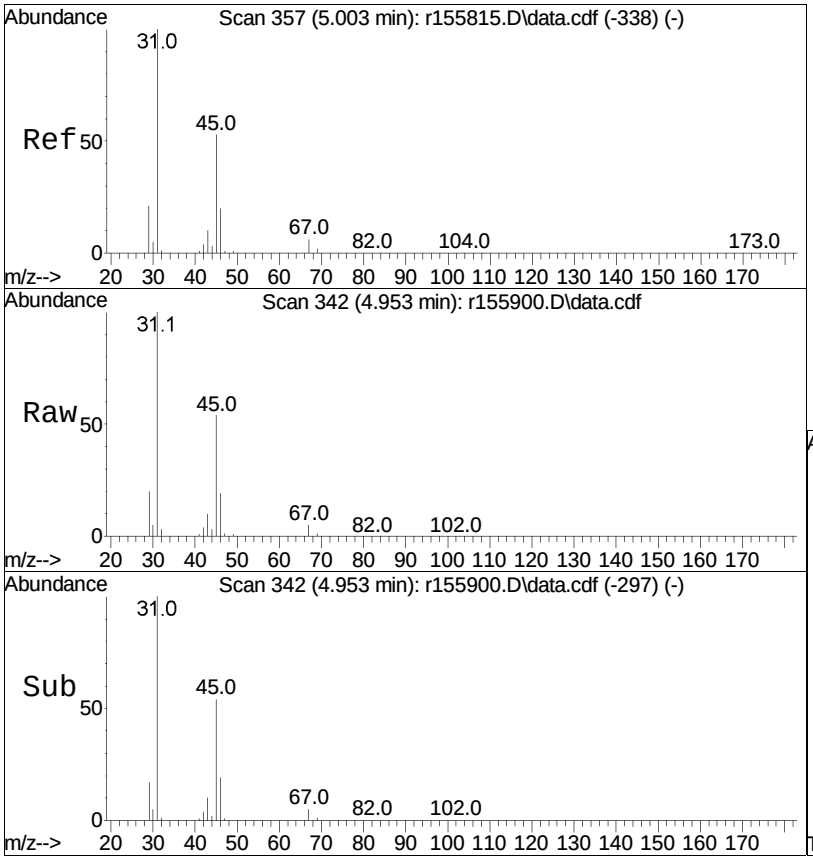


#14
chloroethane
Concen: 8.88 ppbV
RT: 4.82 min Scan# 303
Delta R.T. -0.047 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 64 Resp: 57191

Ion	Ratio	Lower	Upper
64	100		
66	31.8	26.2	39.2

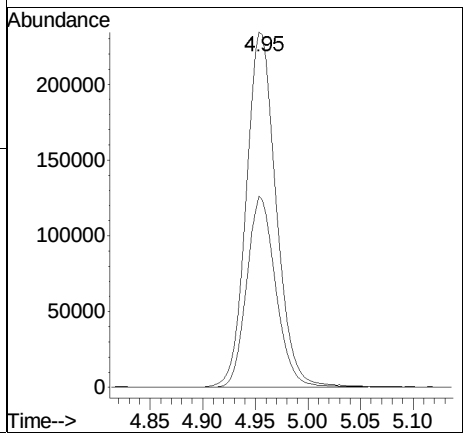


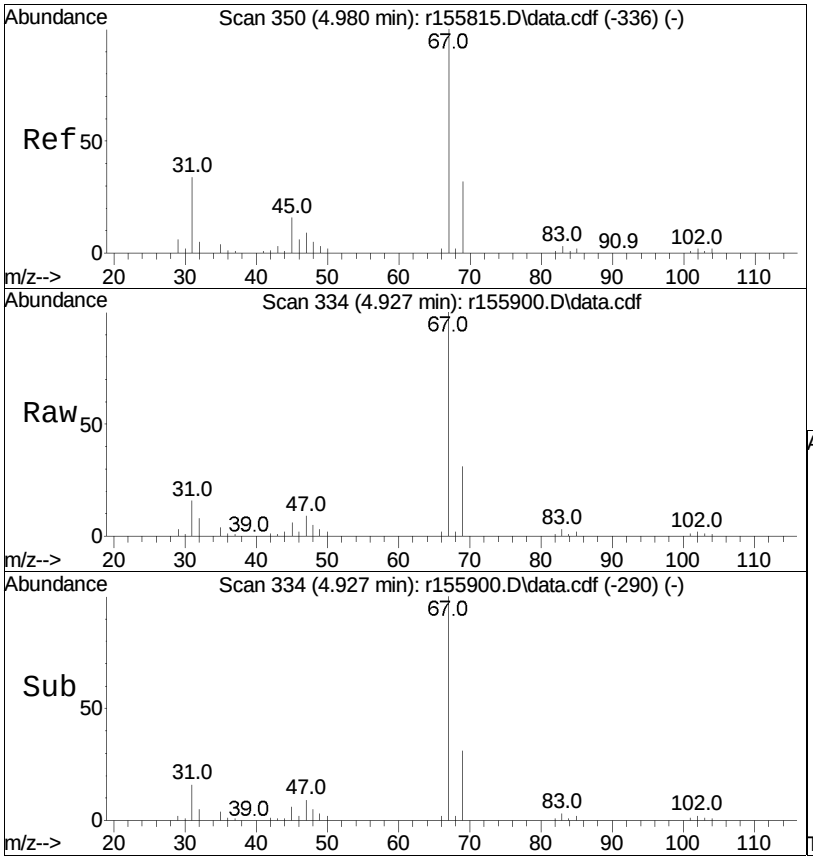


#15
ethanol
Concen: 43.60 ppbV
RT: 4.95 min Scan# 342
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 31 Resp: 464026

Ion	Ratio	Lower	Upper
31	100		
45	53.8	42.6	63.8

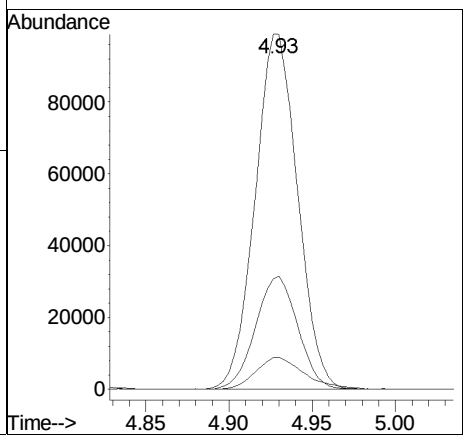


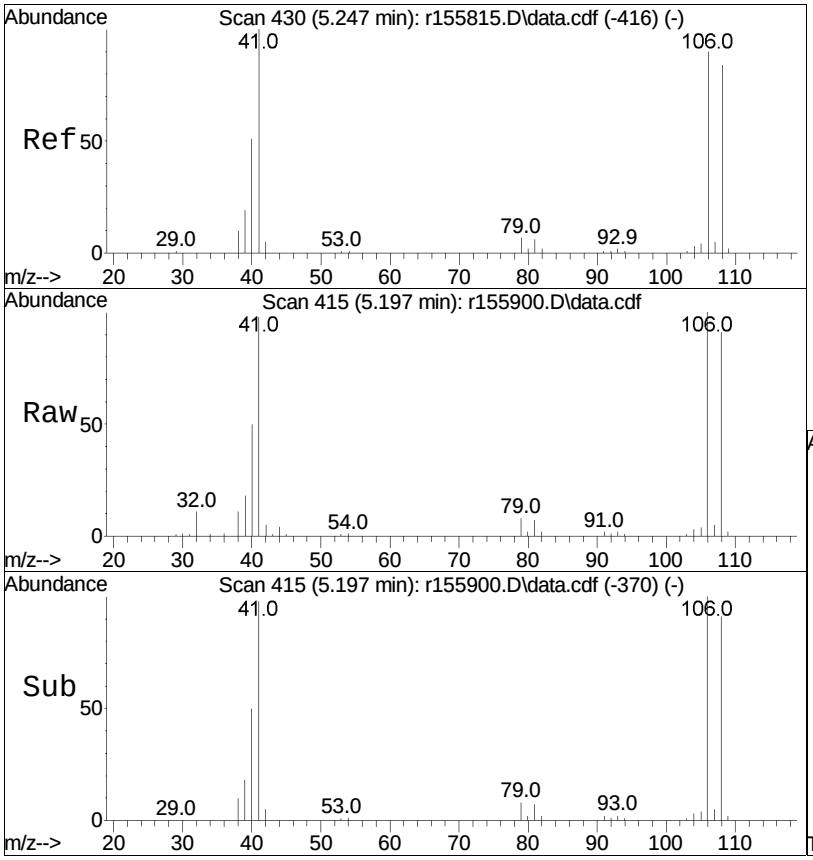


#16
dichlorofluoromethane
Concen: 8.44 ppbV
RT: 4.93 min Scan# 334
Delta R.T. -0.053 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 67 Resp: 175630

Ion	Ratio	Lower	Upper
67	100		
69	31.2	25.6	38.4
47	9.0	7.0	10.4

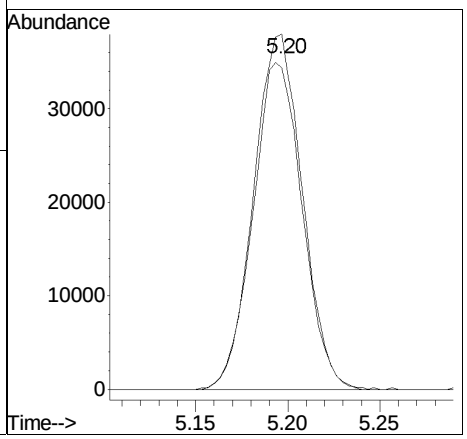


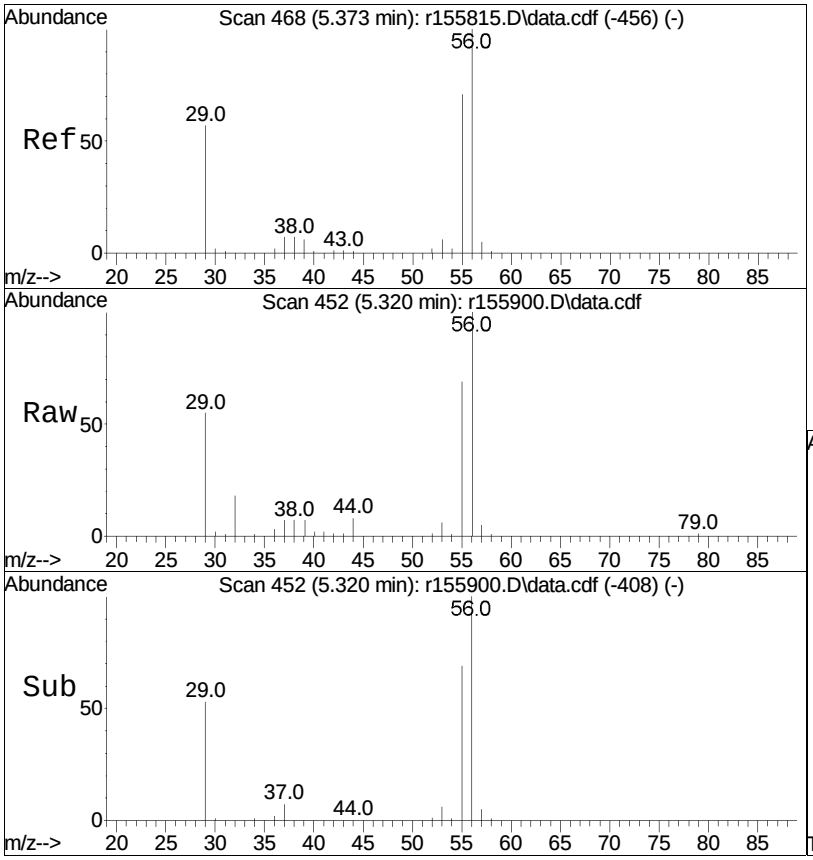


#17
vinyl bromide
Concen: 9.23 ppbV
RT: 5.20 min Scan# 415
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:106 Resp: 69898

Ion	Ratio	Lower	Upper
106	100		
108	90.5	74.6	112.0

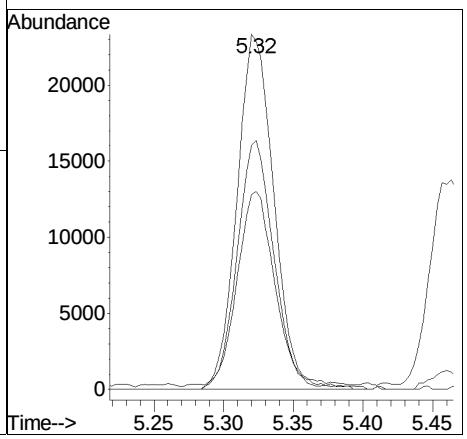


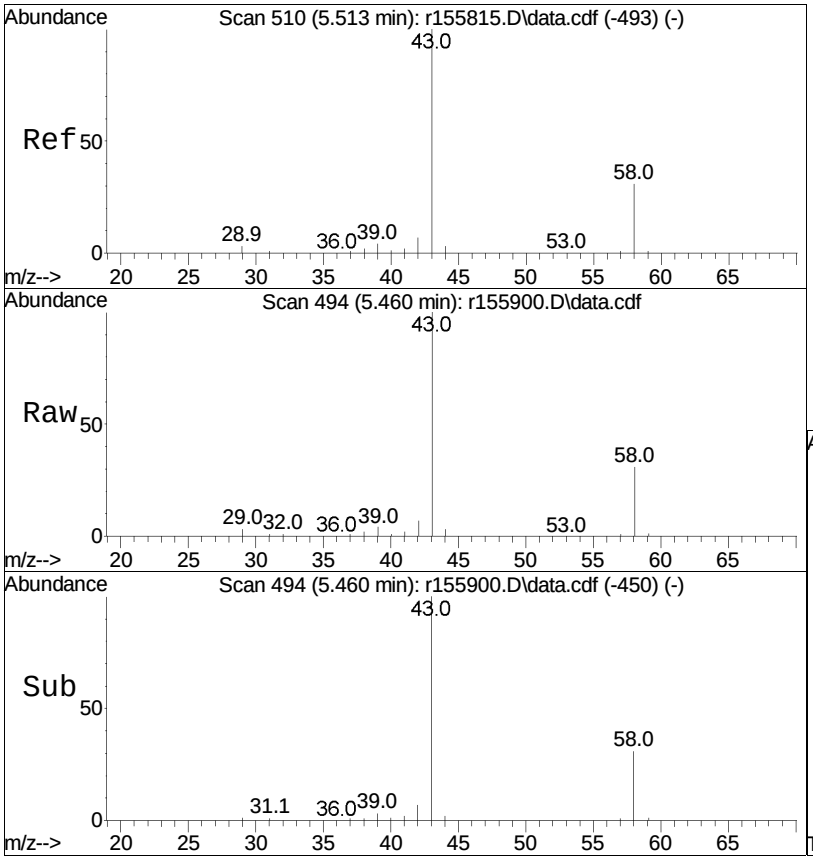


#18
acrolein
Concen: 8.42 ppbV
RT: 5.32 min Scan# 452
Delta R.T. -0.053 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 56 Resp: 43152

Ion	Ratio	Lower	Upper
56	100		
55	68.8	56.9	85.3
29	54.9	46.9	70.3

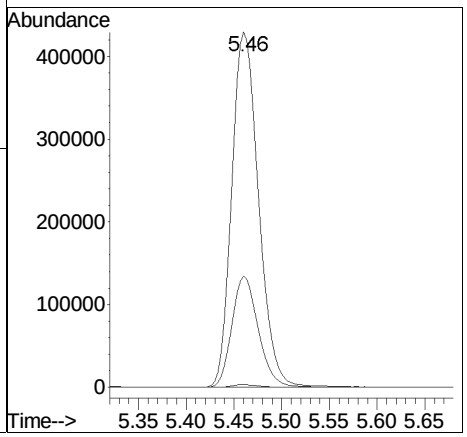


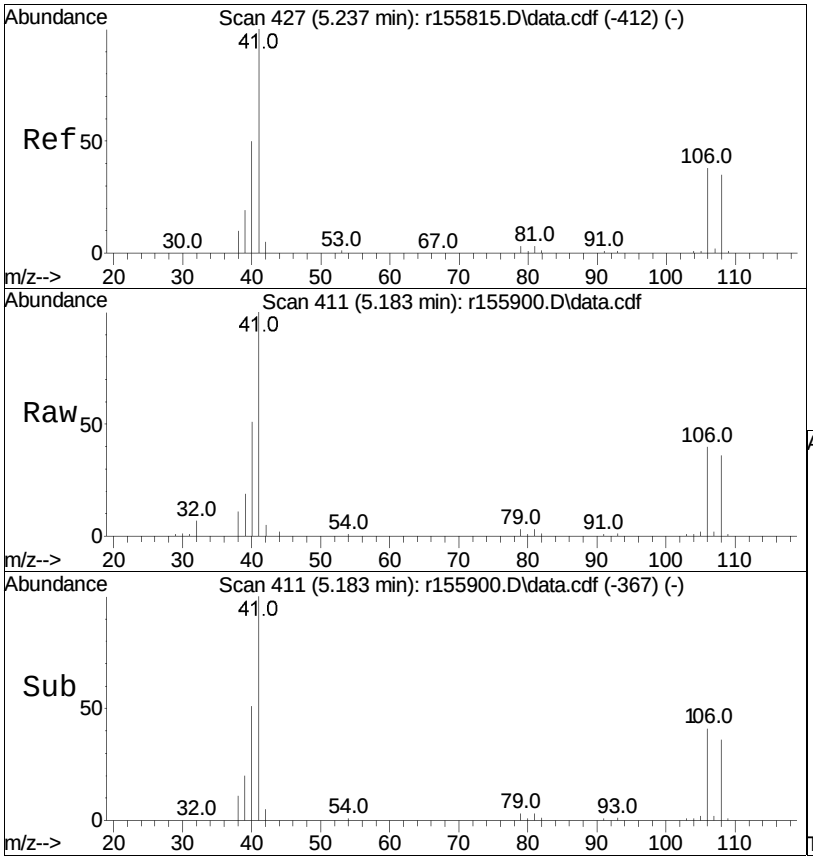


#19
acetone
Concen: 50.95 ppbV
RT: 5.46 min Scan# 494
Delta R.T. -0.053 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 841487

Ion	Ratio	Lower	Upper
43	100		
58	31.3	24.5	36.7
57	0.7	0.6	0.8

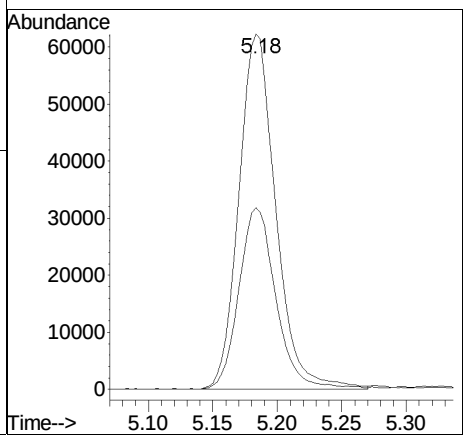


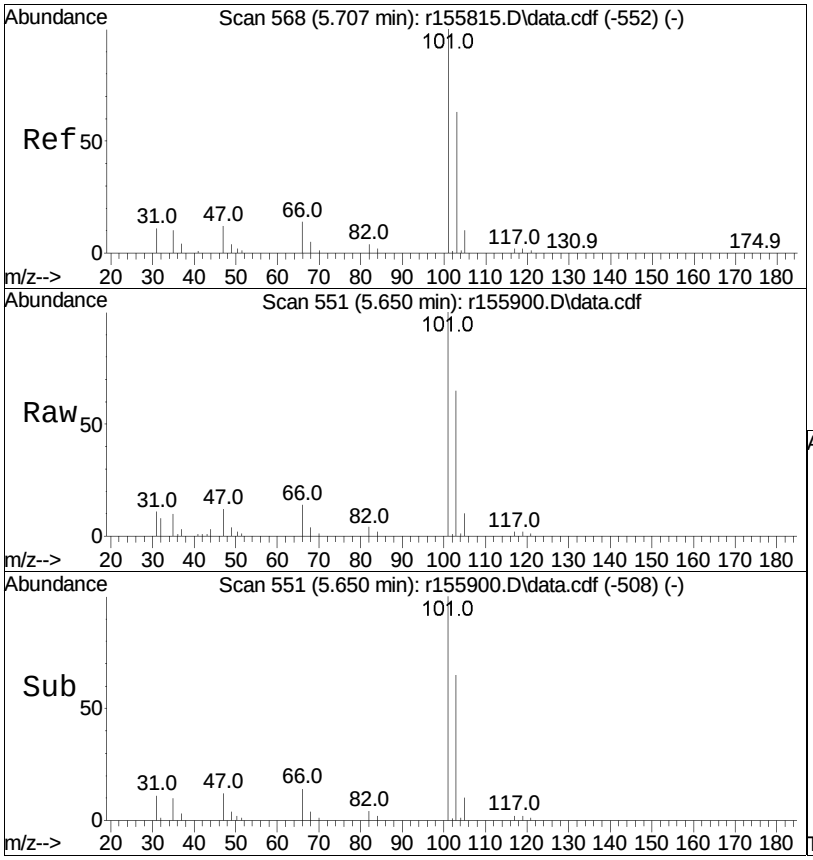


#20
acetonitrile
Concen: 8.45 ppbV
RT: 5.18 min Scan# 411
Delta R.T. -0.053 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 41 Resp: 124378

Ion	Ratio	Lower	Upper
41	100		
40	51.2	39.9	59.9

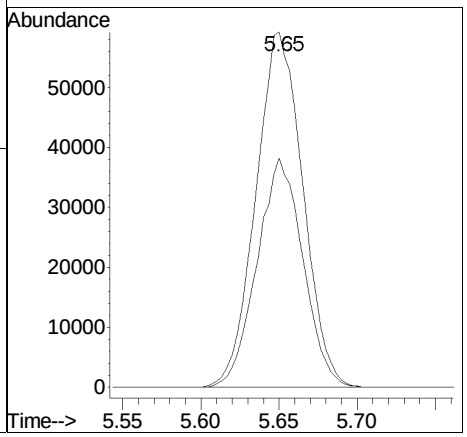


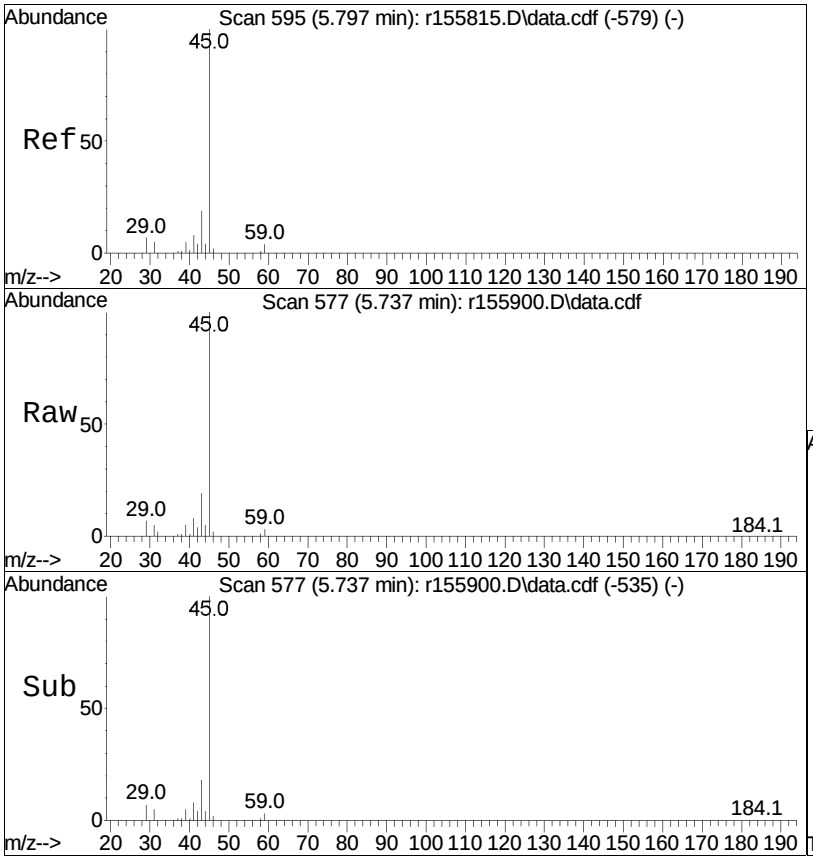


#21
trichlorofluoromethane
Concen: 9.02 ppbV
RT: 5.65 min Scan# 551
Delta R.T. -0.057 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:101 Resp: 124009

Ion	Ratio	Lower	Upper
101	100		
103	64.6	50.2	75.4

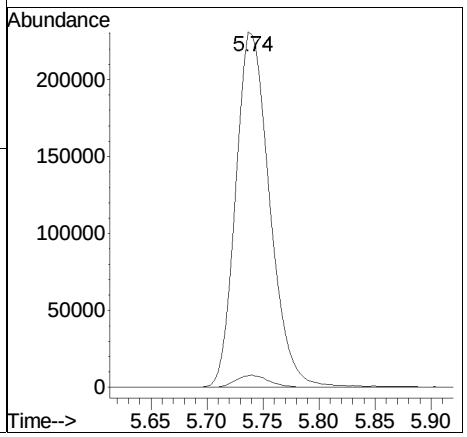


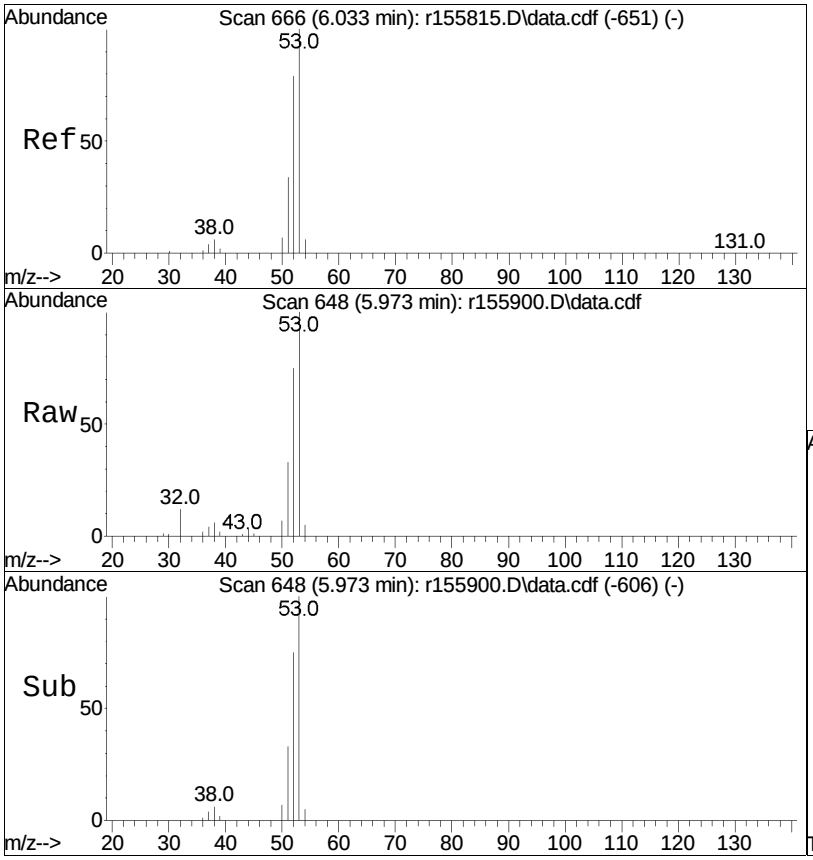


#22
isopropyl alcohol
Concen: 22.16 ppbV
RT: 5.74 min Scan# 577
Delta R.T. -0.060 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 45 Resp: 487787

Ion	Ratio	Lower	Upper
45	100		
59	3.3	2.8	4.2

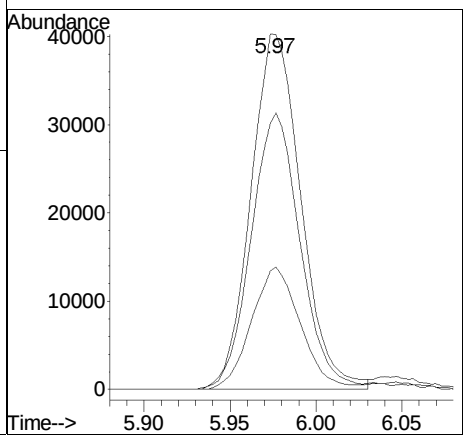


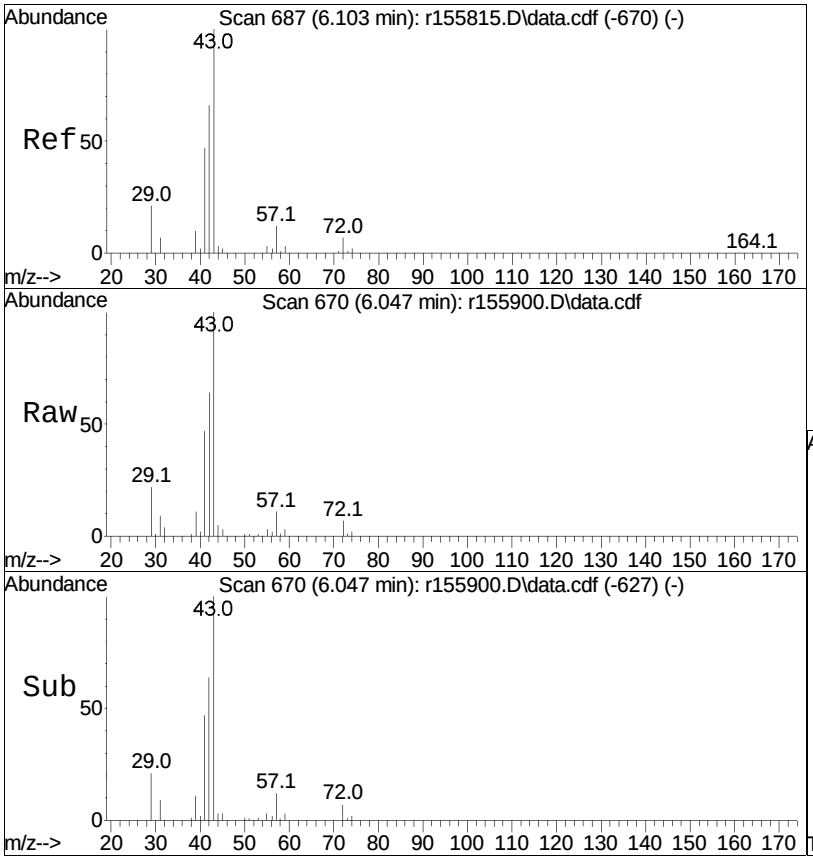


#23
acrylonitrile
Concen: 8.82 ppbV
RT: 5.97 min Scan# 648
Delta R.T. -0.060 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 53 Resp: 81718

Ion	Ratio	Lower	Upper
53	100		
52	74.9	63.2	94.8
51	33.3	27.0	40.6

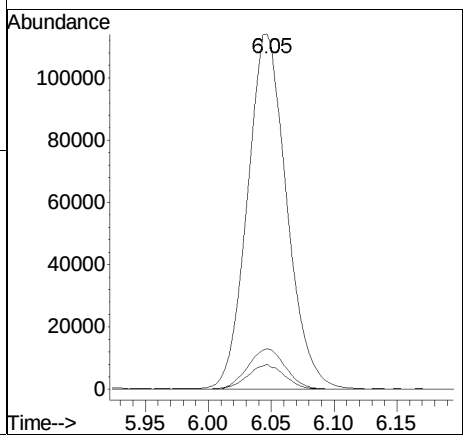


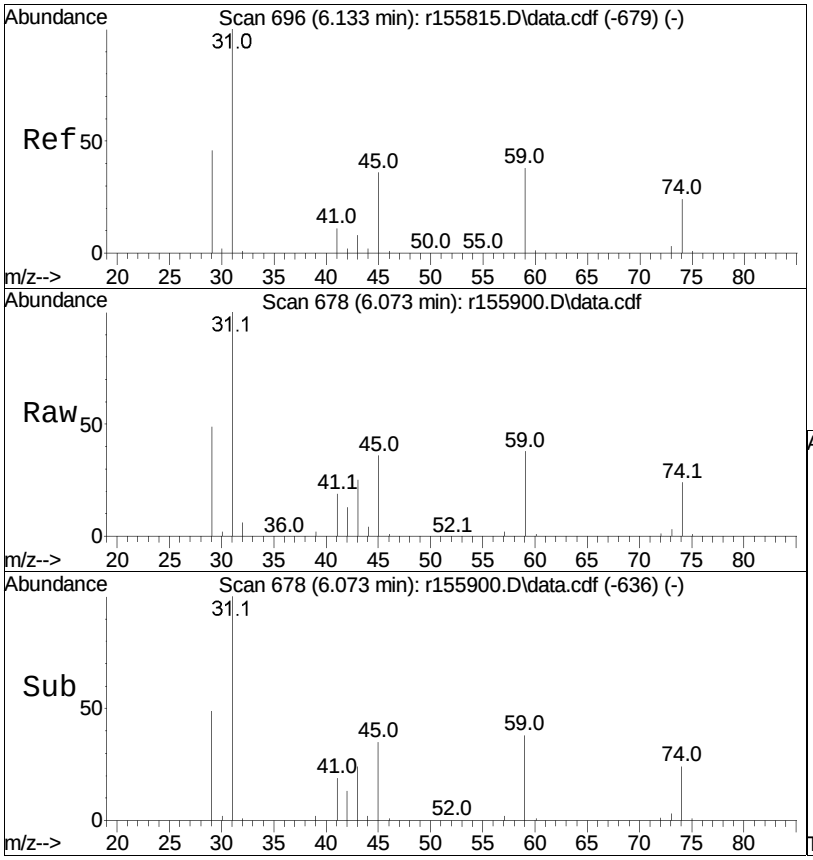


#24
pentane
Concen: 7.97 ppbV
RT: 6.05 min Scan# 670
Delta R.T. -0.057 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 248172

Ion	Ratio	Lower	Upper
43	100		
57	11.4	9.4	14.0
72	7.1	5.3	7.9

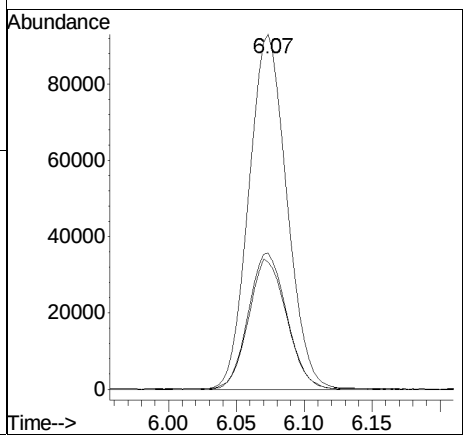


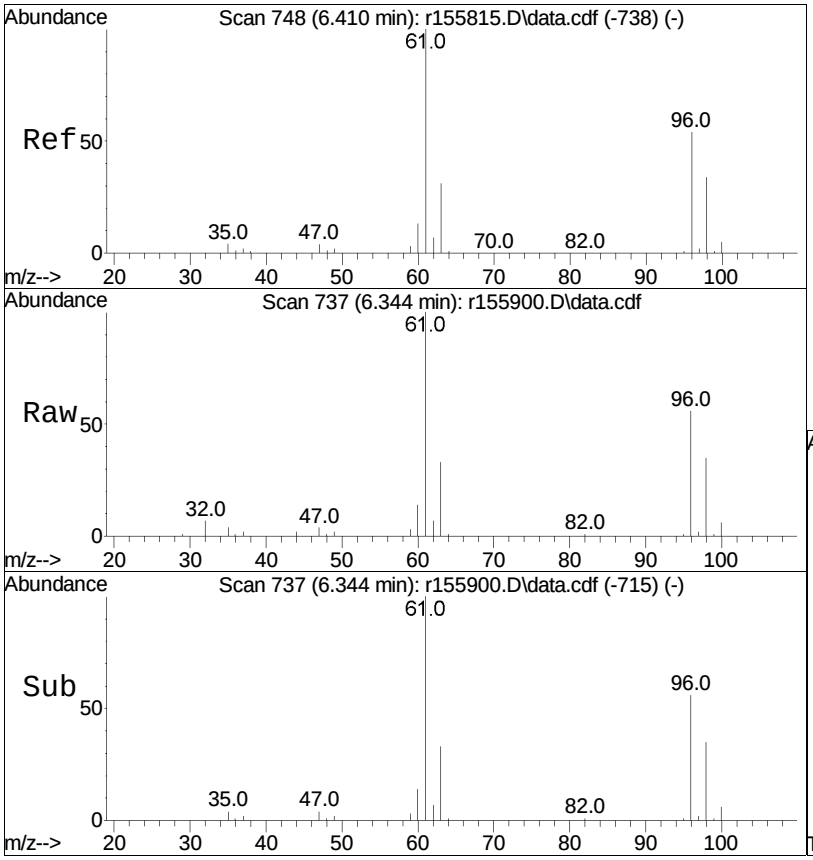


#25
ethyl ether
Concen: 7.23 ppbV
RT: 6.07 min Scan# 678
Delta R.T. -0.060 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 31 Resp: 181440

Ion	Ratio	Lower	Upper
31	100		
59	38.3	30.2	45.2
45	35.8	29.1	43.7

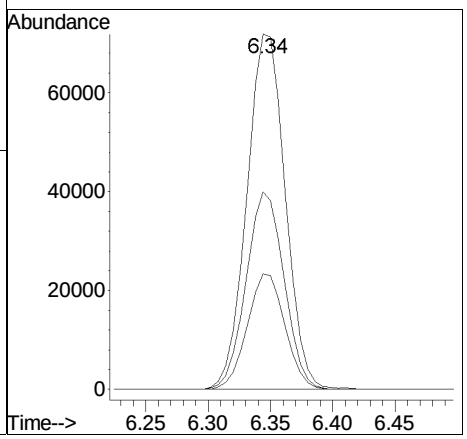


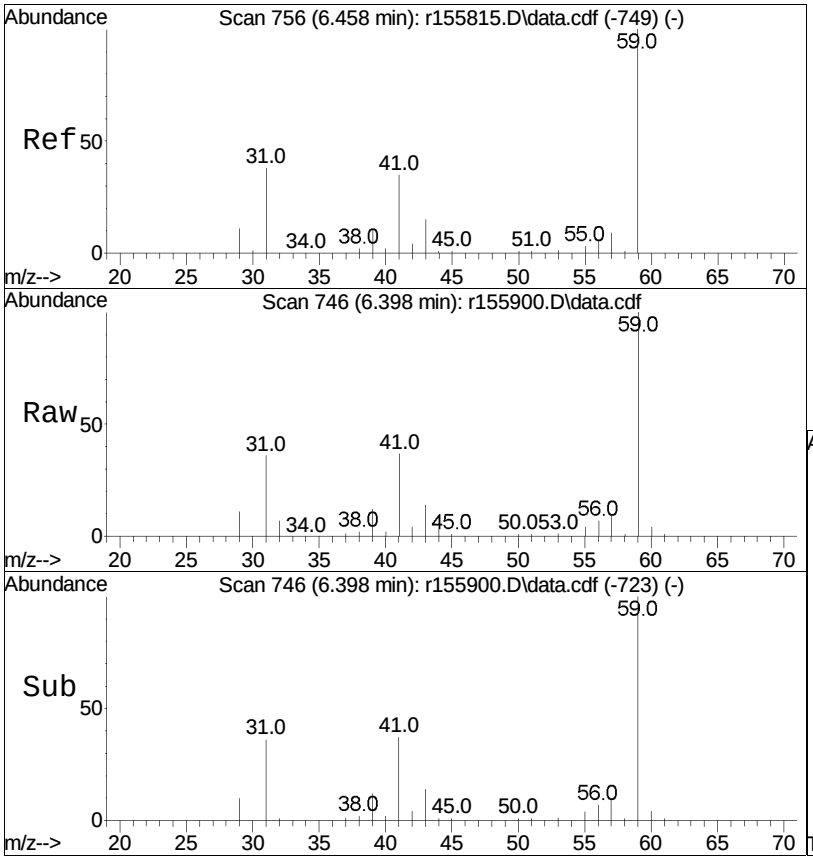


#26
1,1-dichloroethene
Concen: 9.27 ppbV
RT: 6.34 min Scan# 737
Delta R.T. -0.066 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 61 Resp: 154167

Ion	Ratio	Lower	Upper
61	100		
96	55.7	43.3	64.9
63	32.5	24.6	36.8

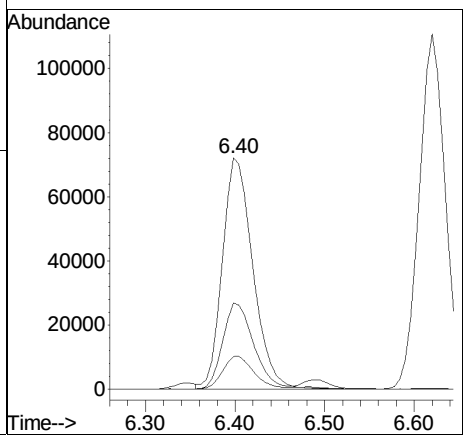


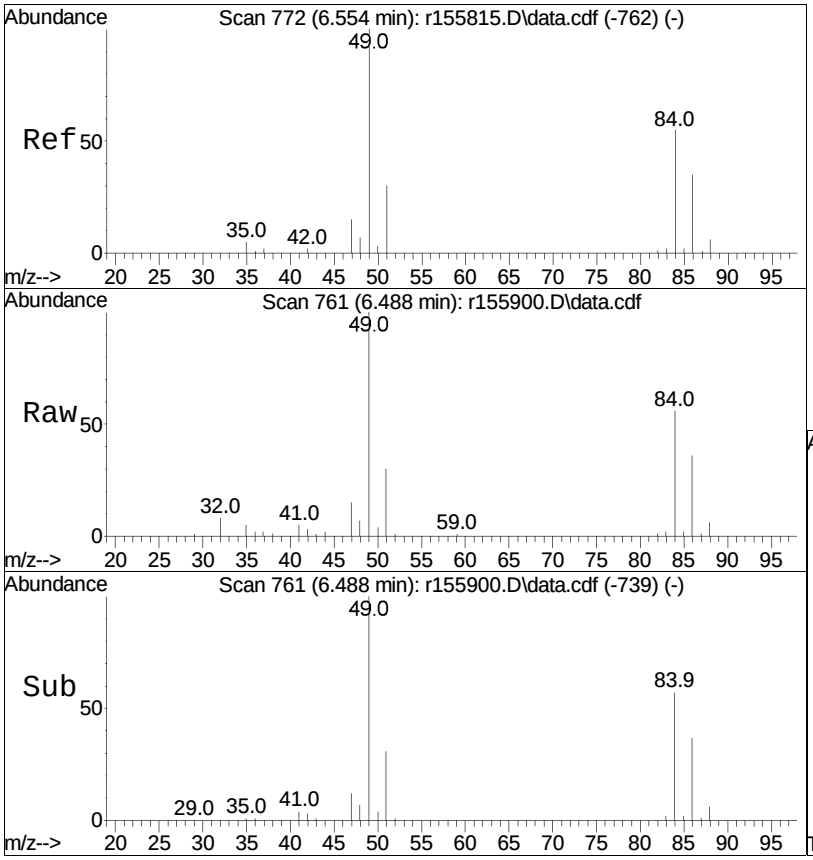


#27
tertiary butyl alcohol
Concen: 8.72 ppbV
RT: 6.40 min Scan# 746
Delta R.T. -0.060 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 59 Resp: 171749

Ion	Ratio	Lower	Upper
59	100		
41	37.3	27.1	40.7
43	14.2	11.8	17.8

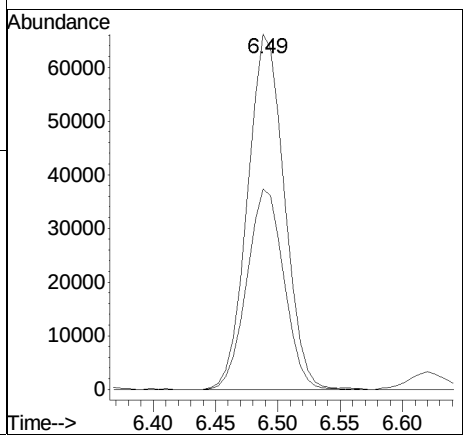


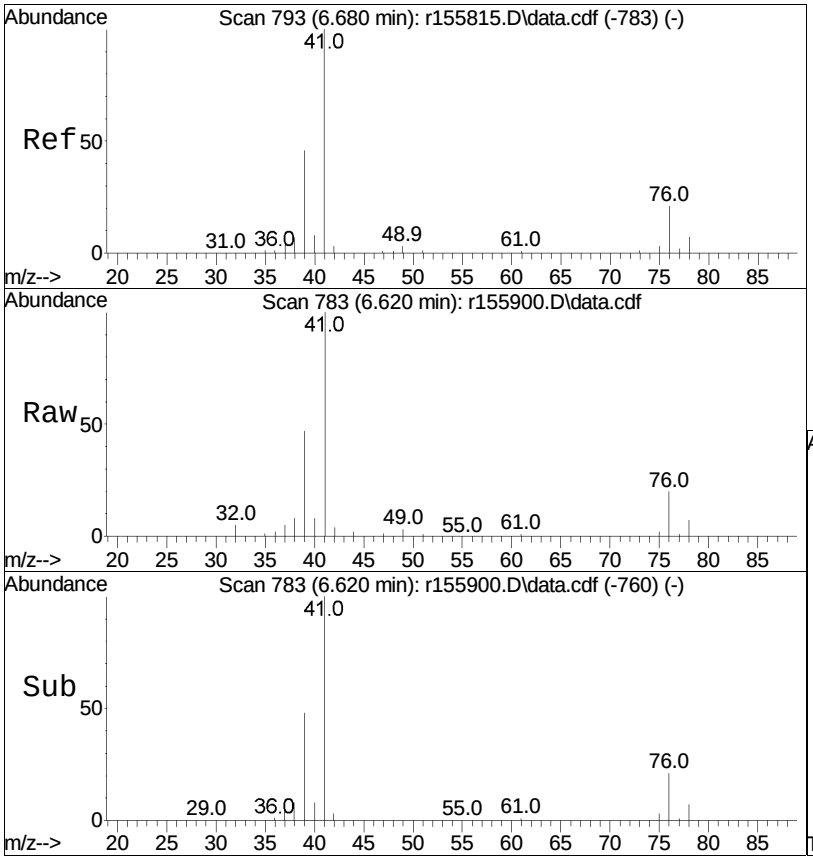


#28
methylene chloride
Concen: 9.09 ppbV
RT: 6.49 min Scan# 761
Delta R.T. -0.066 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 49 Resp: 135843

Ion	Ratio	Lower	Upper
49	100		
84	56.4	44.2	66.2

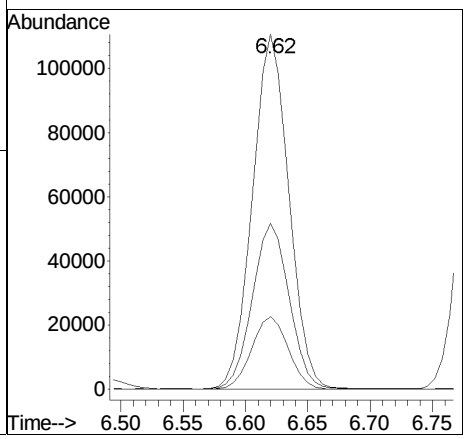


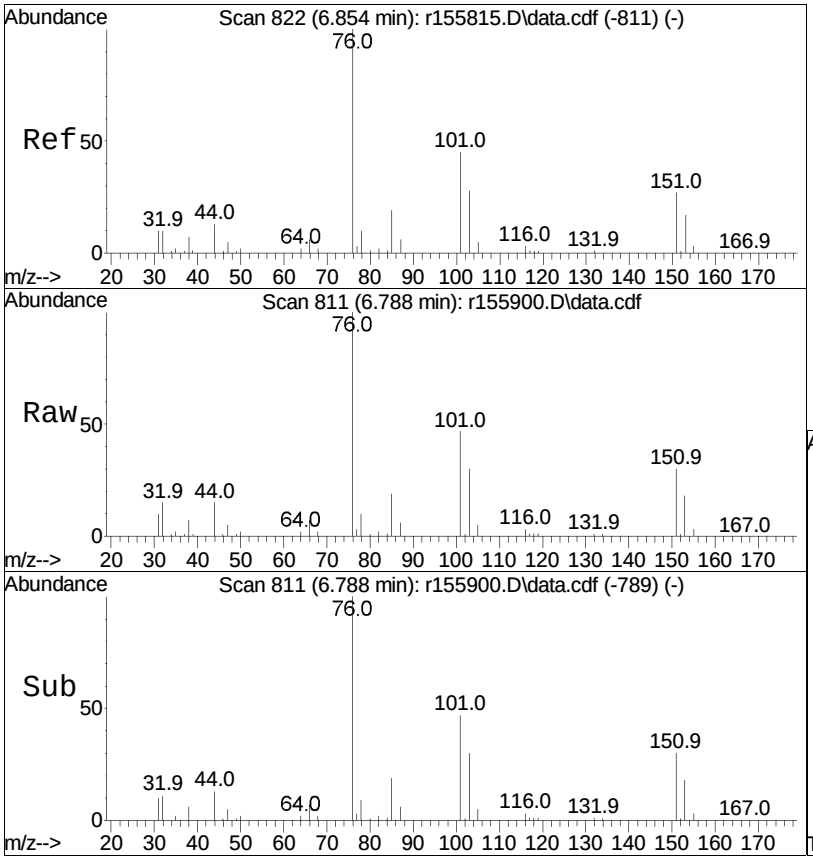


#29
3-chloropropene
Concen: 10.21 ppbV
RT: 6.62 min Scan# 783
Delta R.T. -0.060 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 41 Resp: 223871

Ion	Ratio	Lower	Upper
41	100		
39	46.7	37.3	55.9
76	20.5	16.7	25.1

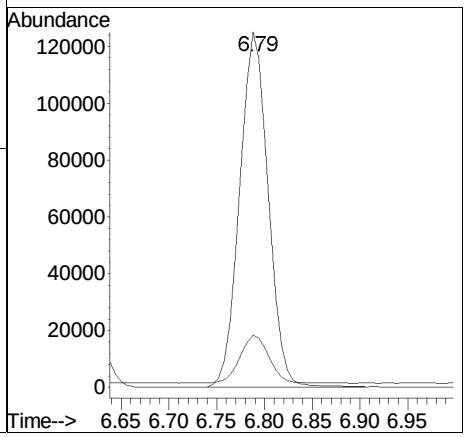


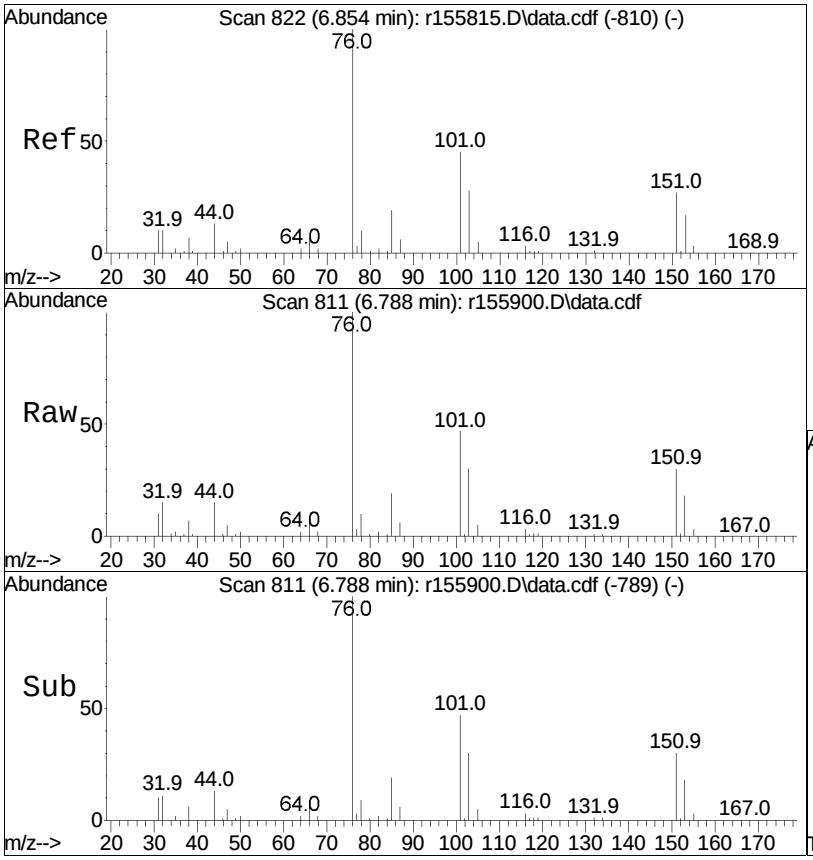


#30
carbon disulfide
Concen: 8.93 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 76 Resp: 261319

Ion	Ratio	Lower	Upper
76	100		
44	14.7	11.6	17.4

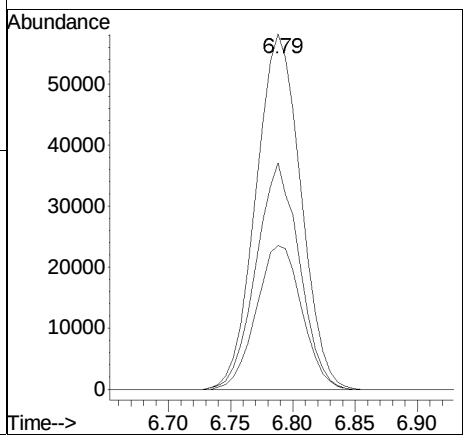


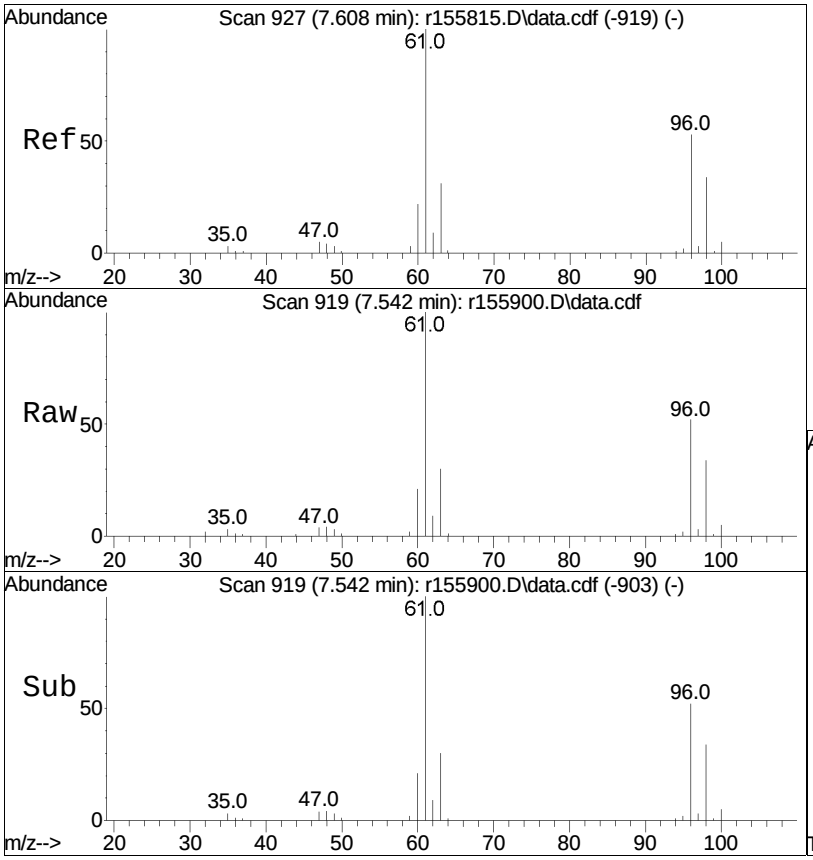


#31
Freon 113
Concen: 8.98 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:101 Resp: 146081

Ion	Ratio	Lower	Upper
101	100		
85	40.5	32.9	49.3
151	63.8	47.3	70.9

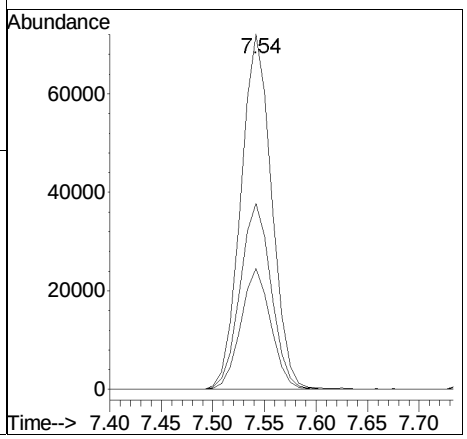


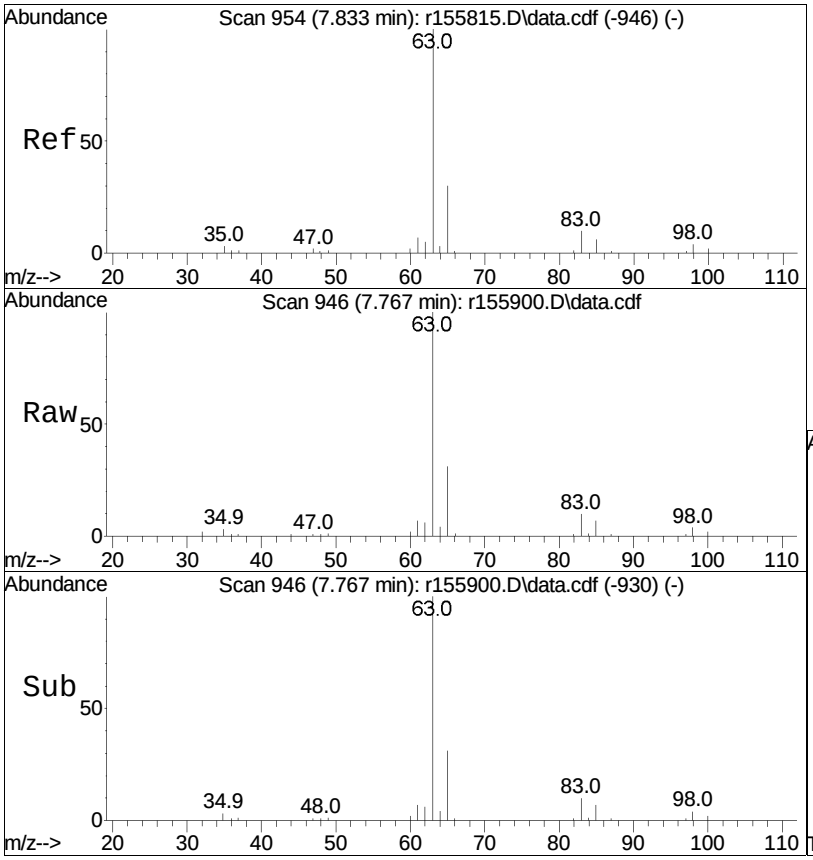


#32
trans-1,2-dichloroethene
Concen: 9.61 ppbV
RT: 7.54 min Scan# 919
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 61 Resp: 150219

Ion	Ratio	Lower	Upper
61	100		
96	52.4	42.5	63.7
98	34.1	27.4	41.0

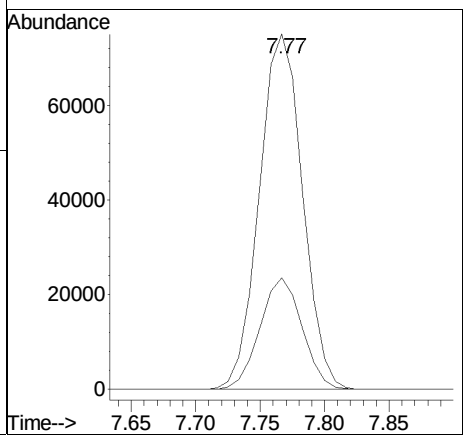


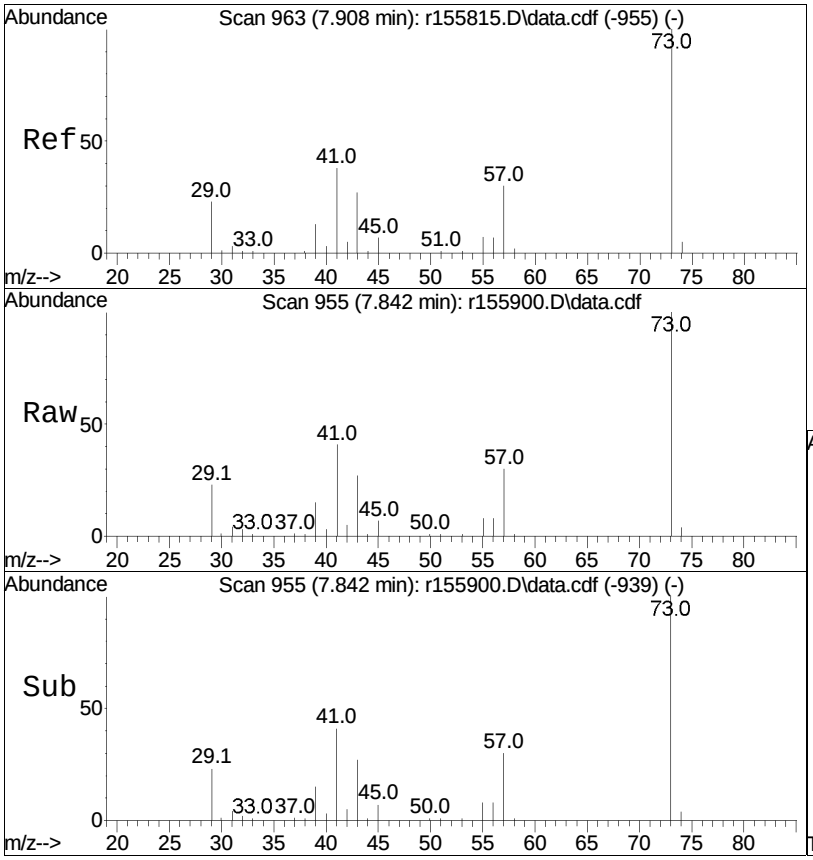


#33
1,1-dichloroethane
Concen: 9.05 ppbV
RT: 7.77 min Scan# 946
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 63 Resp: 175019

Ion	Ratio	Lower	Upper
63	100		
65	31.4	24.0	36.0

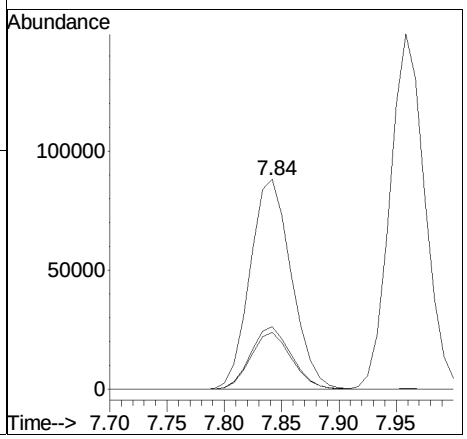


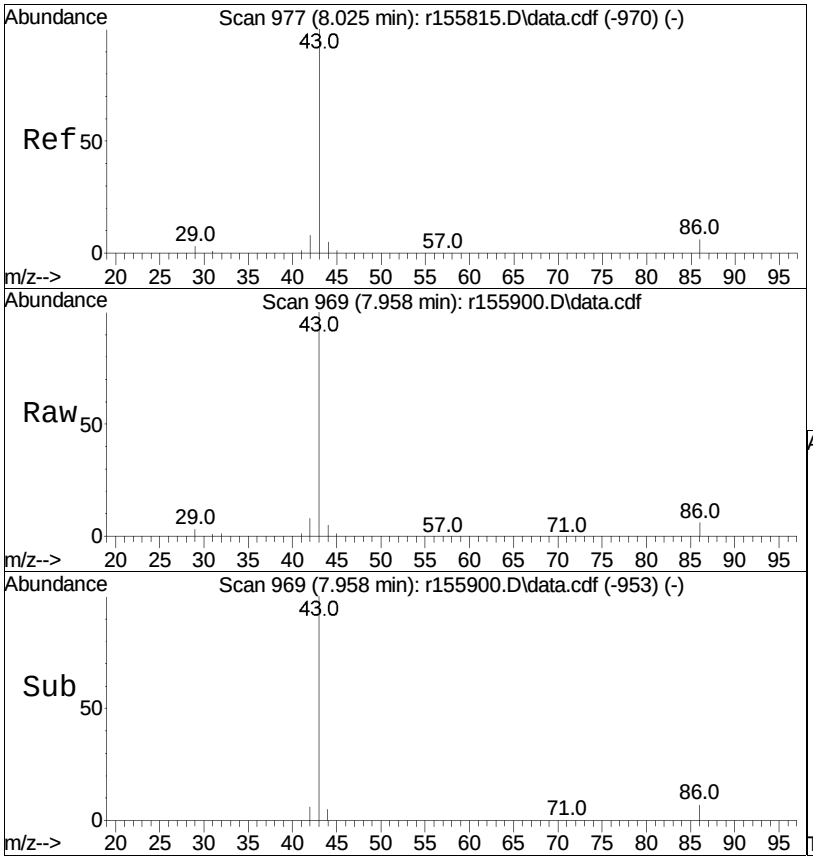


#34
MTBE
Concen: 9.83 ppbV
RT: 7.84 min Scan# 955
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 73 Resp: 222353

Ion	Ratio	Lower	Upper
73	100		
57	29.9	24.3	36.5
43	27.2	22.0	33.0

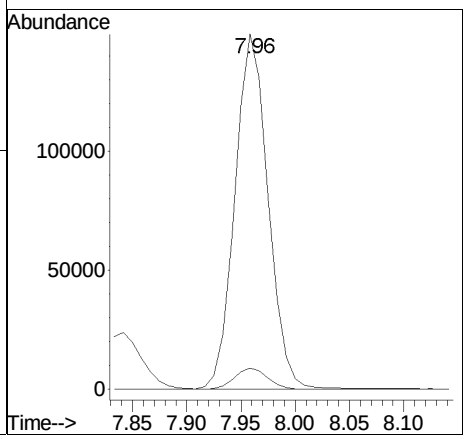


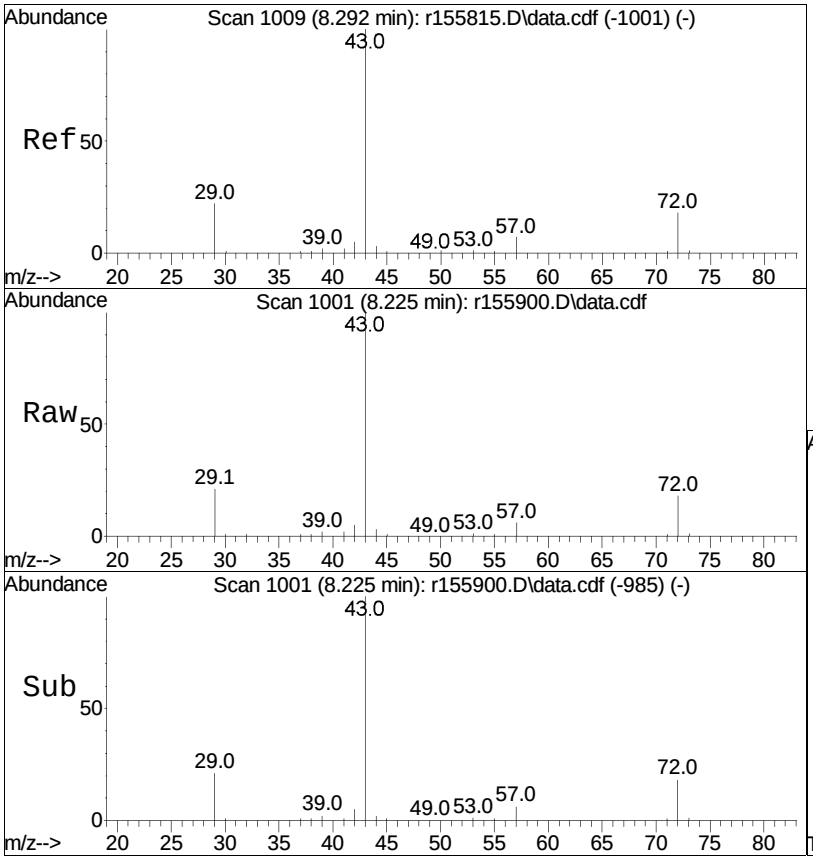


#35
vinyl acetate
Concen: 10.83 ppbV
RT: 7.96 min Scan# 969
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 316126

Ion	Ratio	Lower	Upper
43	100		
86	6.0	4.8	7.2

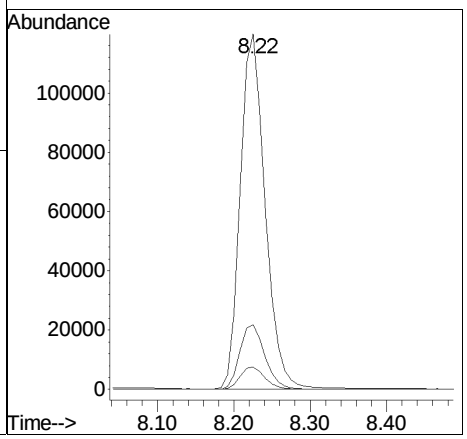


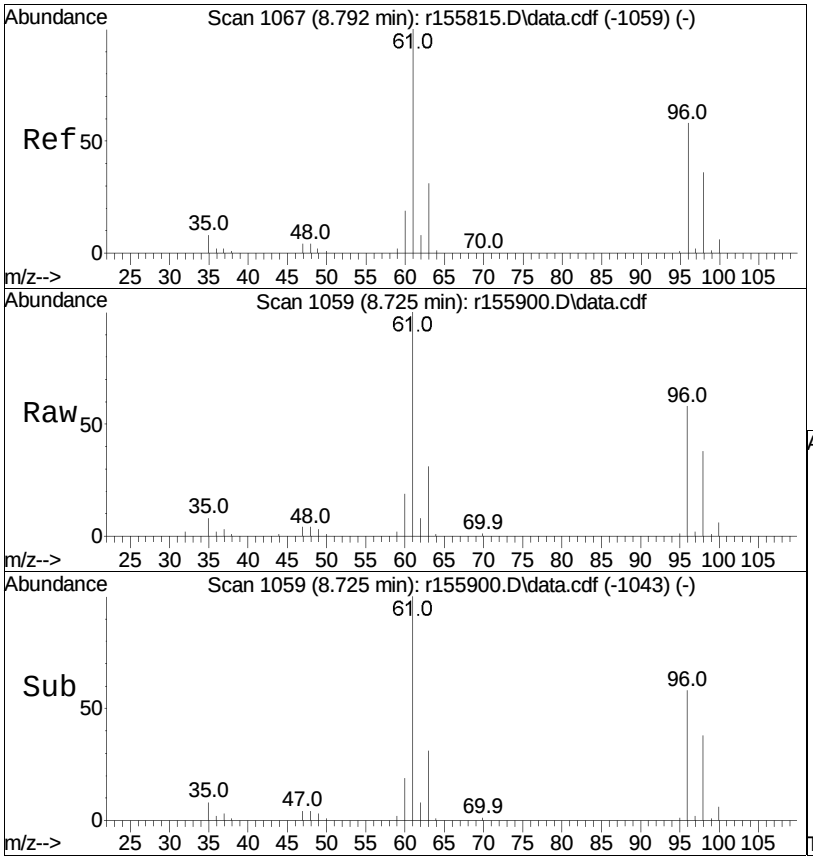


#36
2-butanone
Concen: 9.93 ppbV
RT: 8.22 min Scan# 1001
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 272949

Ion	Ratio	Lower	Upper
43	100		
72	18.2	14.2	21.2
57	6.3	5.2	7.8

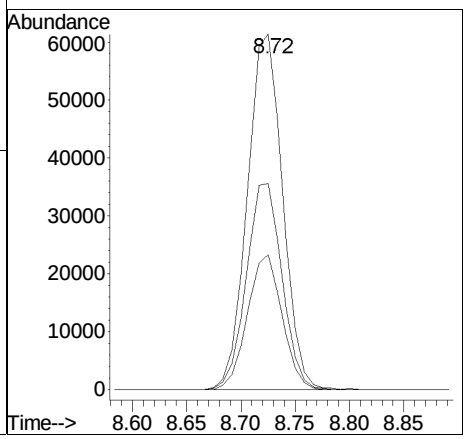


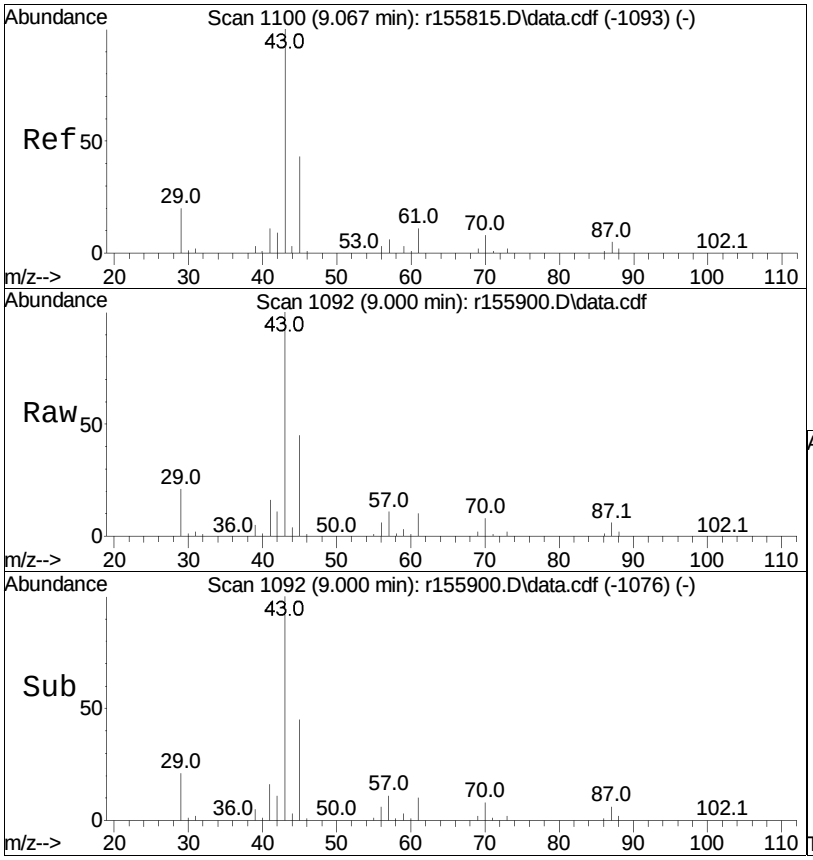


#37
cis-1,2-dichloroethene
Concen: 9.65 ppbV
RT: 8.72 min Scan# 1059
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 61 Resp: 138596

Ion	Ratio	Lower	Upper
61	100		
96	58.0	46.0	69.0
98	37.9	28.6	43.0

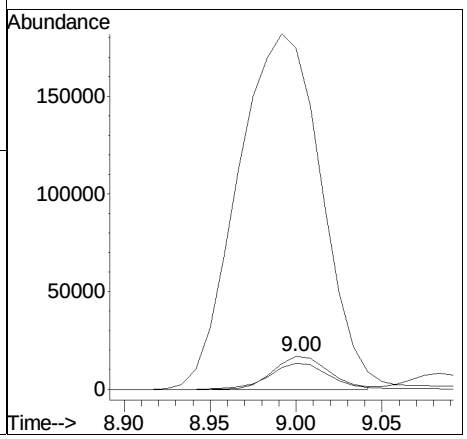


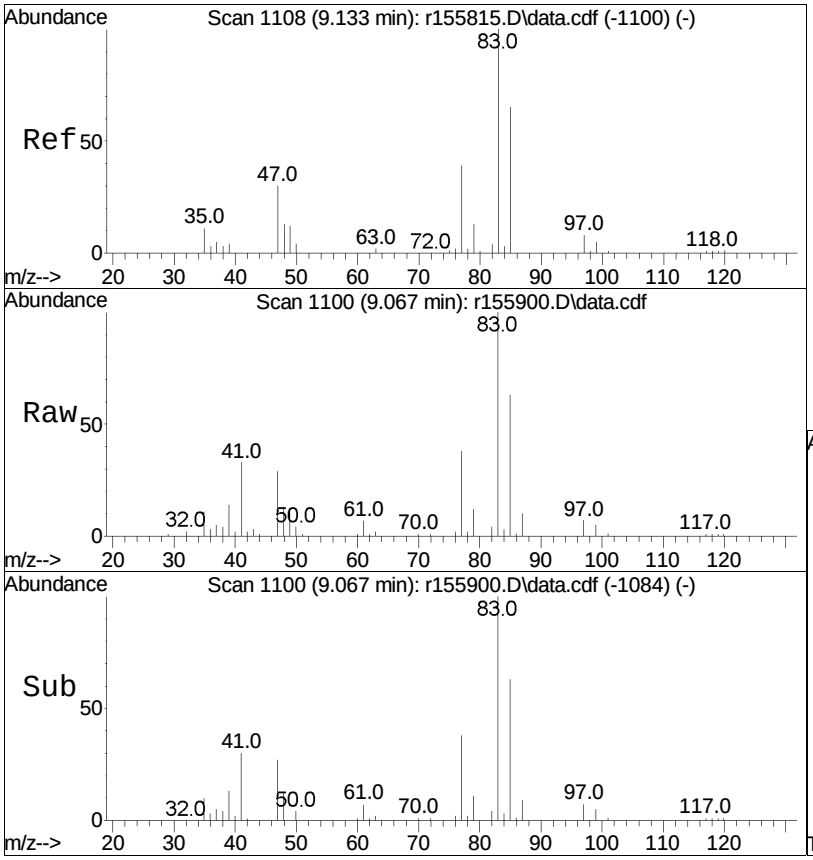


#38
Ethyl Acetate
Concen: 10.10 ppbV
RT: 9.00 min Scan# 1092
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 61 Resp: 38355

Ion	Ratio	Lower	Upper
61	100		
70	79.2	63.0	94.6
43	1031.1	812.2	1218.4

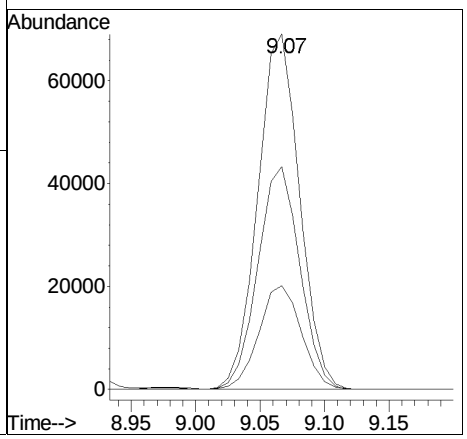


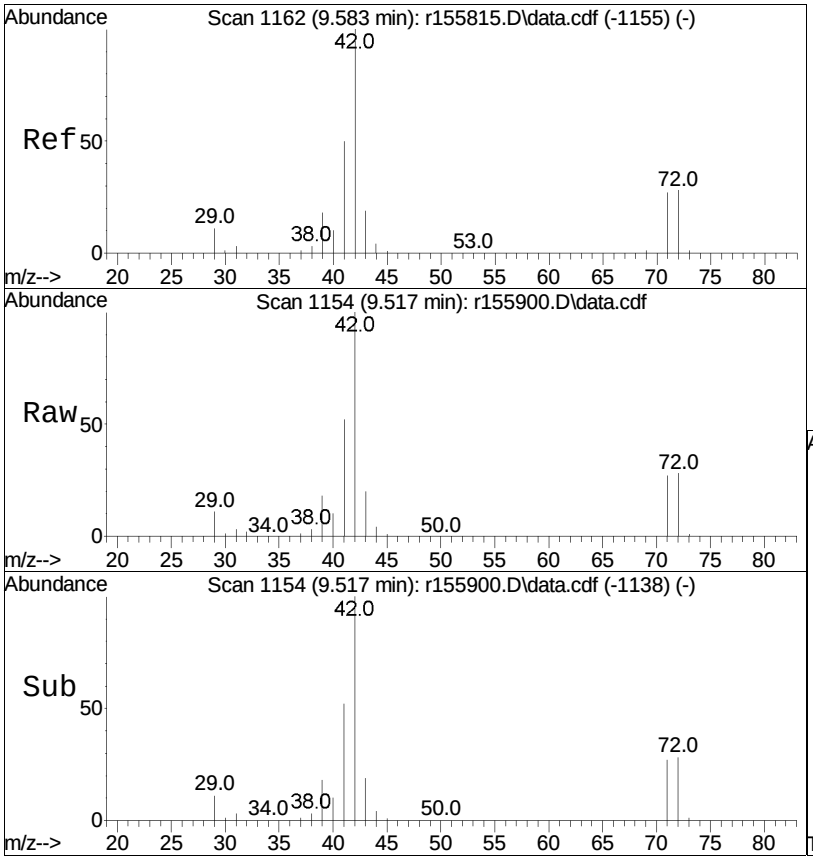


#39
chloroform
Concen: 9.64 ppbV
RT: 9.07 min Scan# 1100
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 83 Resp: 155685

Ion	Ratio	Lower	Upper
83	100		
85	62.7	51.8	77.8
47	29.2	24.2	36.2

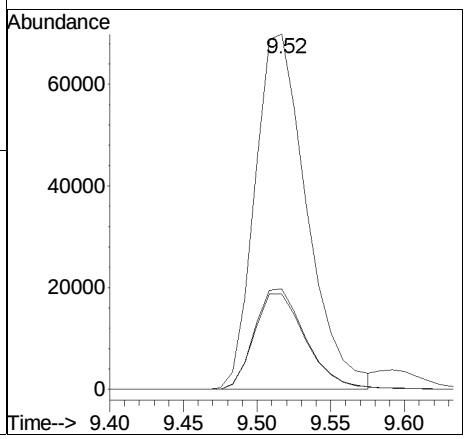


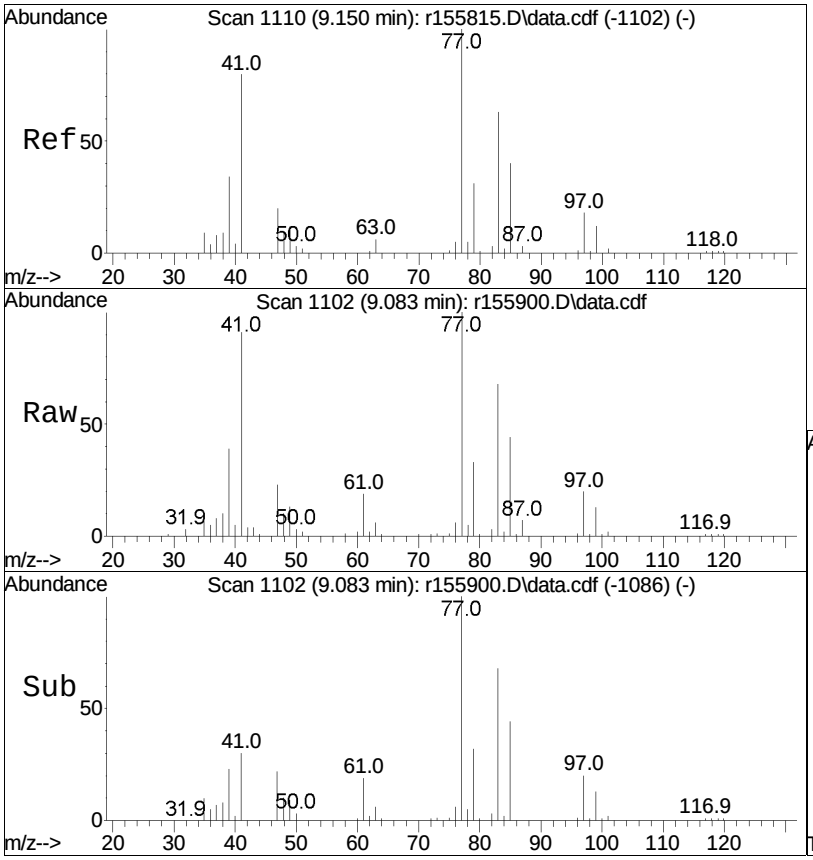


#40
Tetrahydrofuran
Concen: 9.93 ppbV
RT: 9.52 min Scan# 1154
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 42 Resp: 170781

Ion	Ratio	Lower	Upper
42	100		
71	26.8	21.4	32.0
72	28.3	22.6	33.8

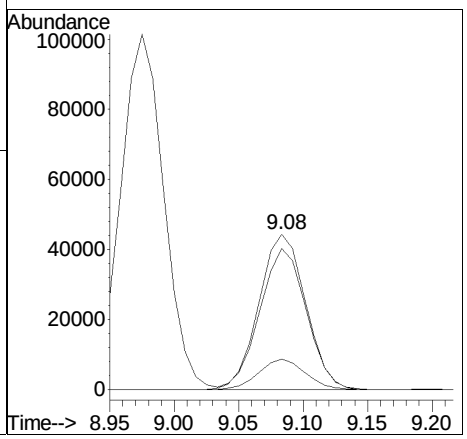


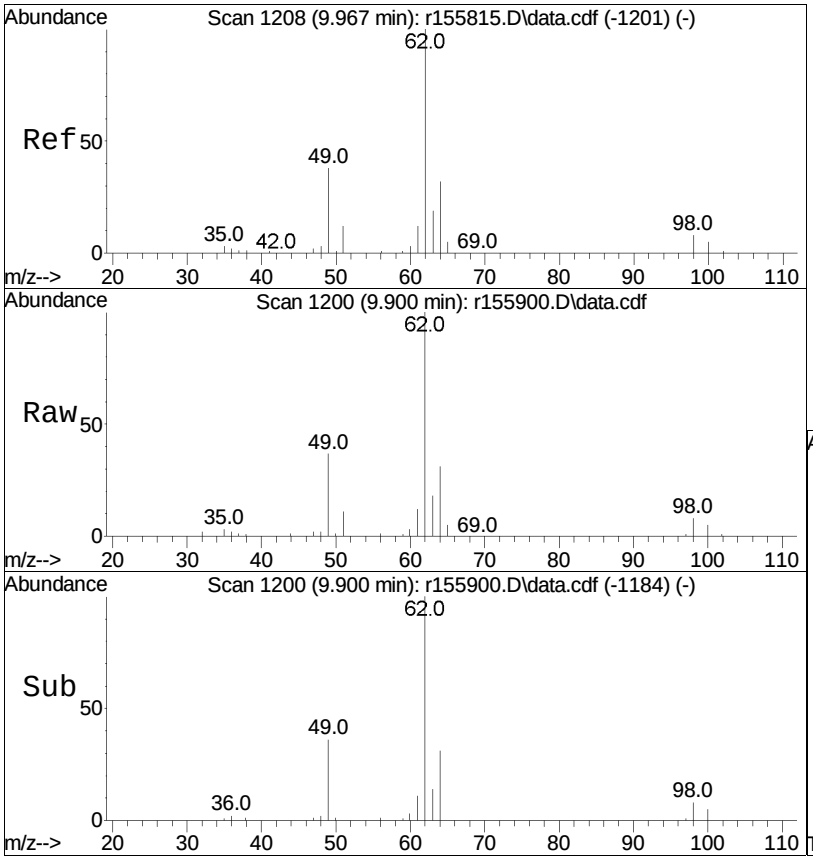


#41
2,2-dichloropropane
Concen: 8.97 ppbV
RT: 9.08 min Scan# 1102
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 77 Resp: 111382

Ion	Ratio	Lower	Upper
77	100		
41	90.9	70.0	105.0
97	19.6	14.6	21.8

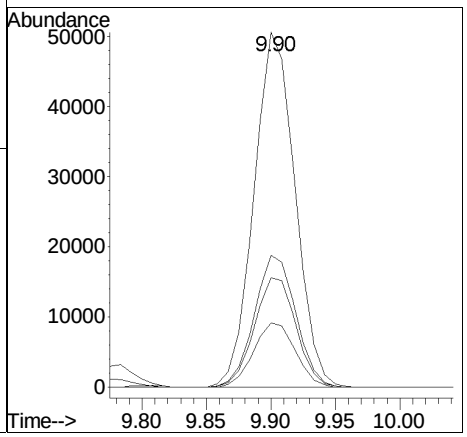


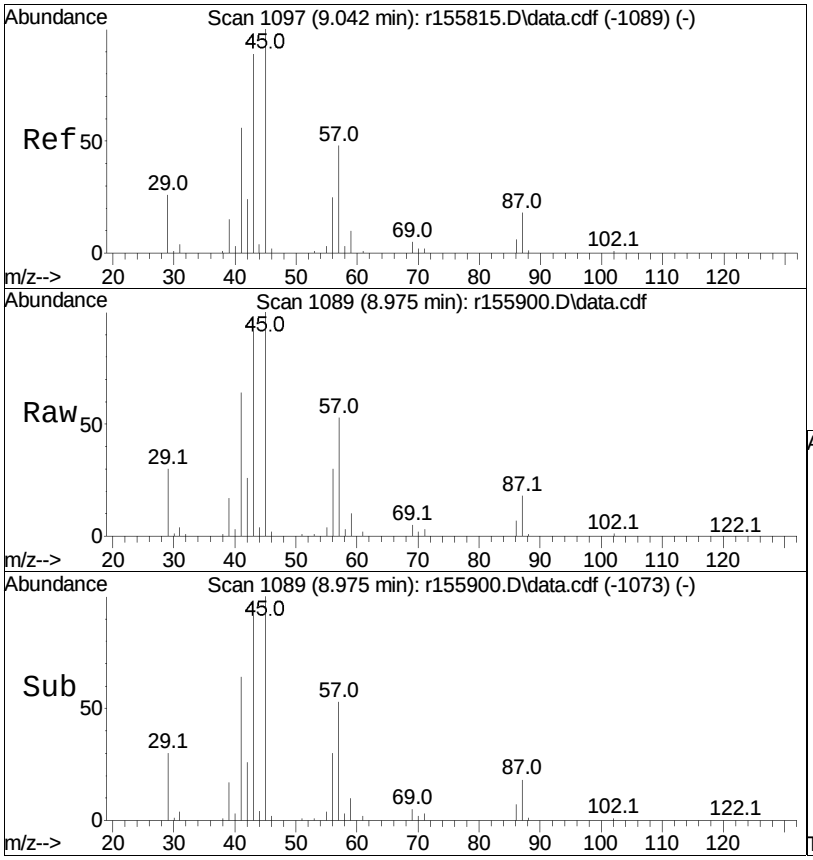


#42
1,2-dichloroethane
Concen: 9.50 ppbV
RT: 9.90 min Scan# 1200
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 62 Resp: 112009

Ion	Ratio	Lower	Upper
62	100		
64	30.9	25.3	37.9
49	37.2	30.6	45.8
63	18.2	15.3	22.9

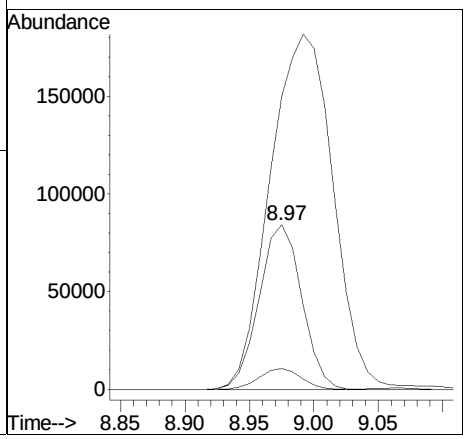


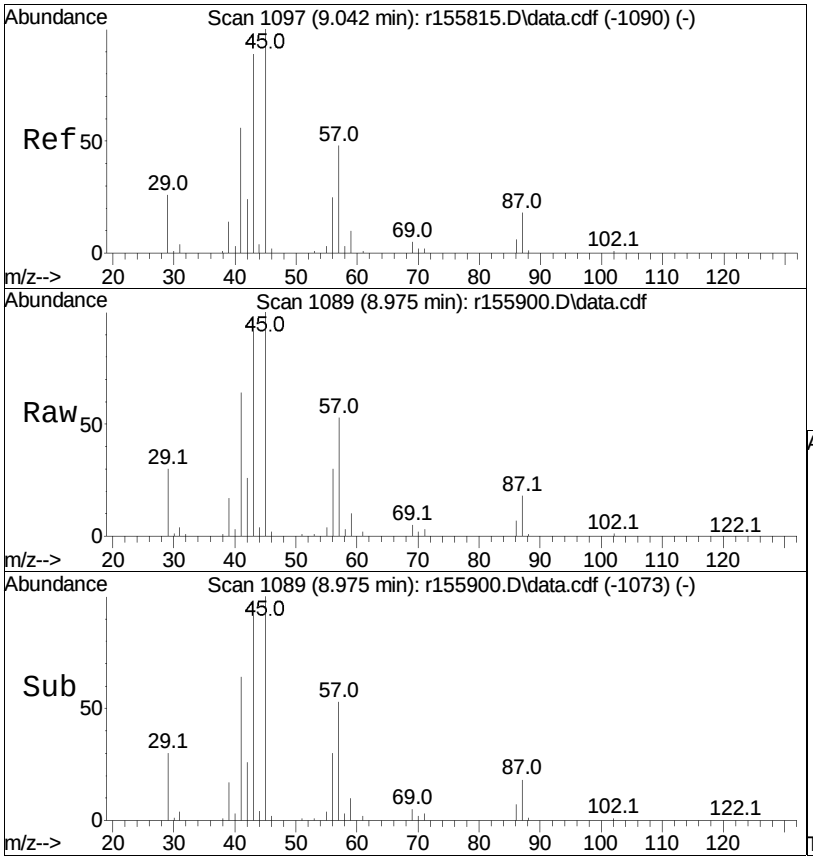


#44
hexane
Concen: 9.95 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 57 Resp: 194290

Ion	Ratio	Lower	Upper
57	100		
43	177.9	149.0	223.6
86	12.7	9.9	14.9

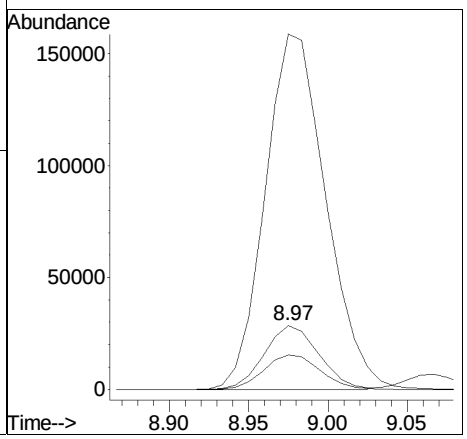


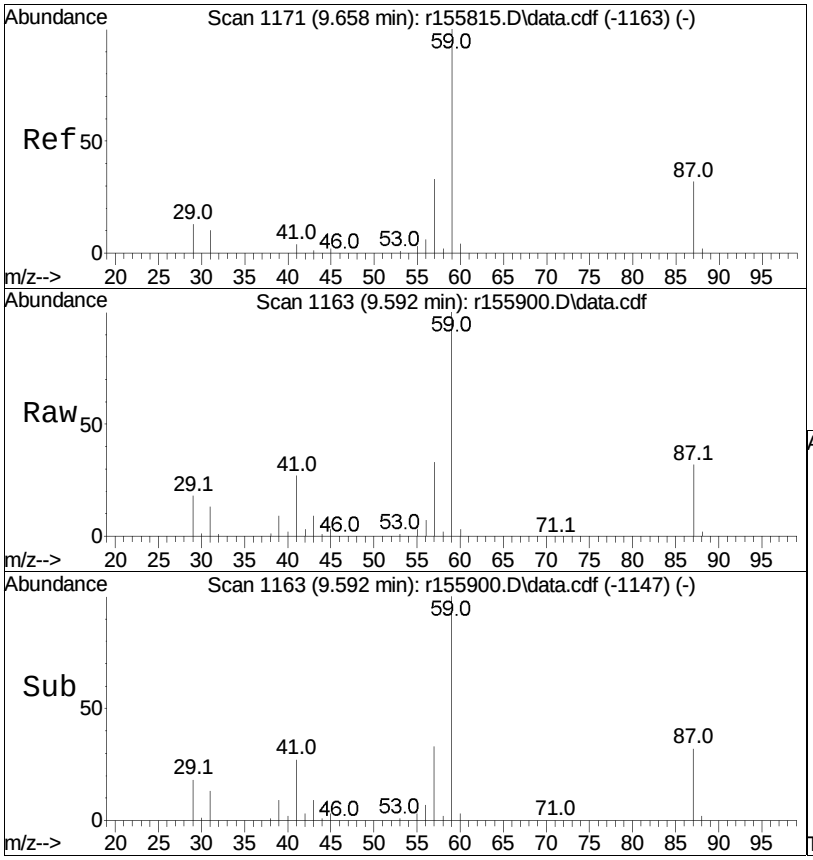


#45
diisopropyl ether
Concen: 8.59 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 87 Resp: 68226

Ion	Ratio	Lower	Upper
87	100		
59	53.9	44.6	67.0
45	556.8	448.6	673.0

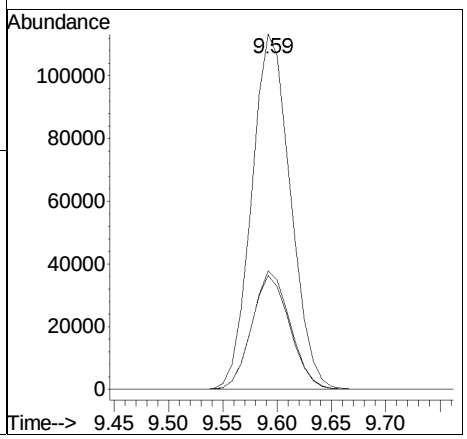


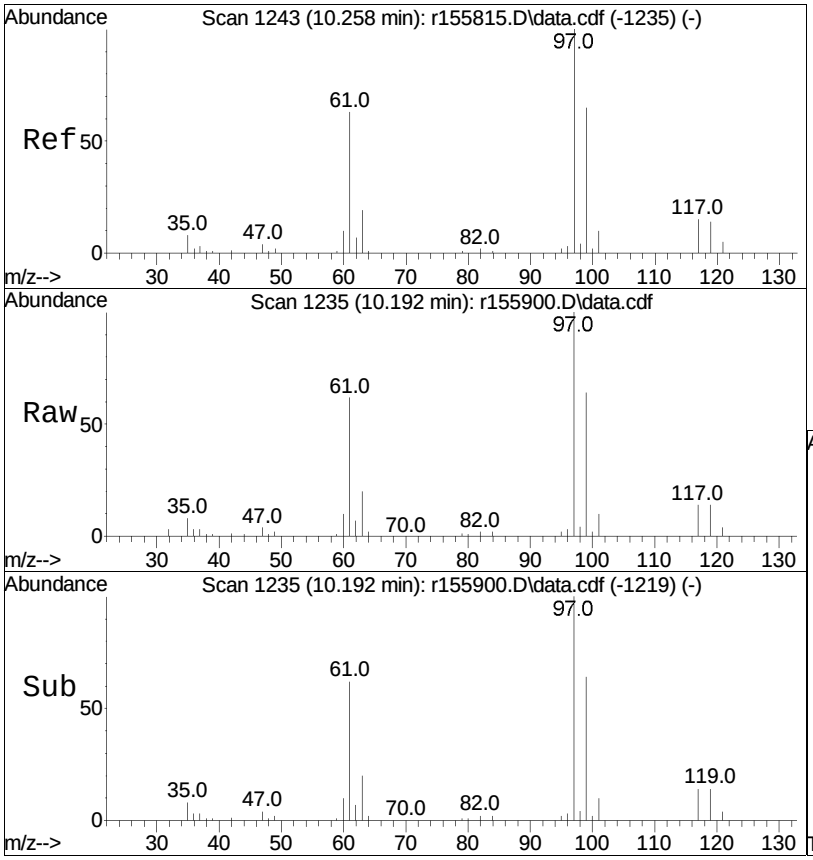


#46
tert-butyl ethyl ether
Concen: 8.63 ppbV
RT: 9.59 min Scan# 1163
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 59 Resp: 281920

Ion	Ratio	Lower	Upper
59	100		
87	32.1	25.9	38.9
57	33.3	26.5	39.7

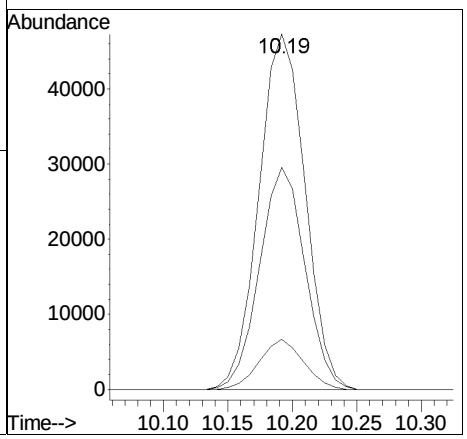


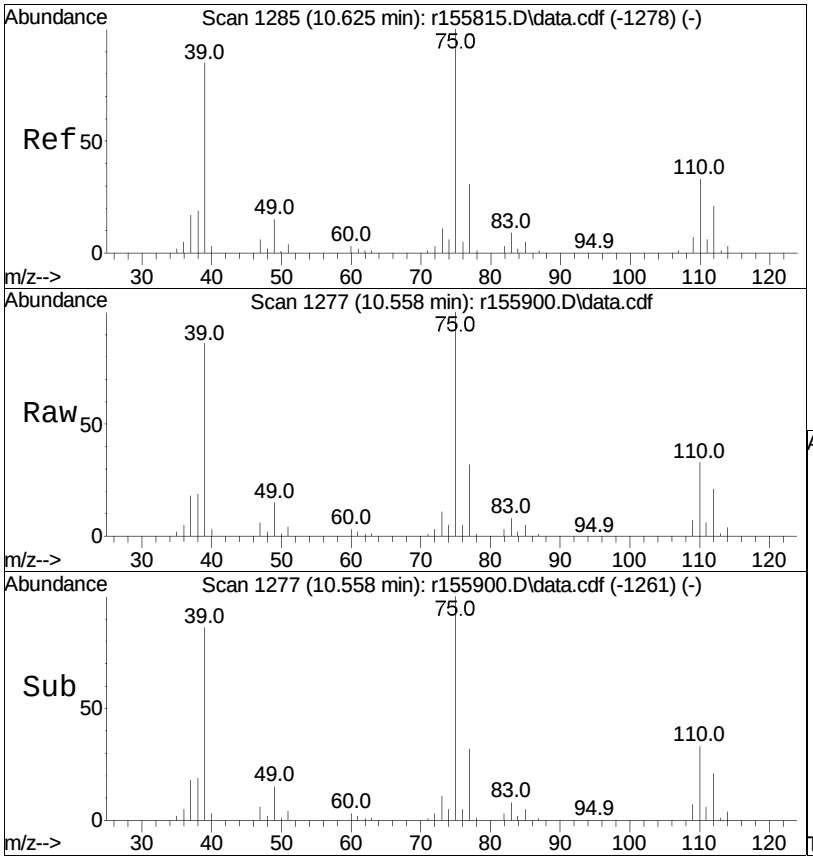


#48
1,1,1-trichloroethane
Concen: 9.69 ppbV
RT: 10.19 min Scan# 1235
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 97 Resp: 117643

Ion	Ratio	Lower	Upper
97	100		
61	62.5	50.0	75.0
119	14.1	11.0	16.6

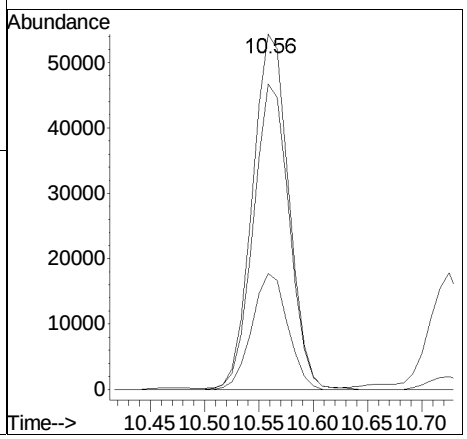


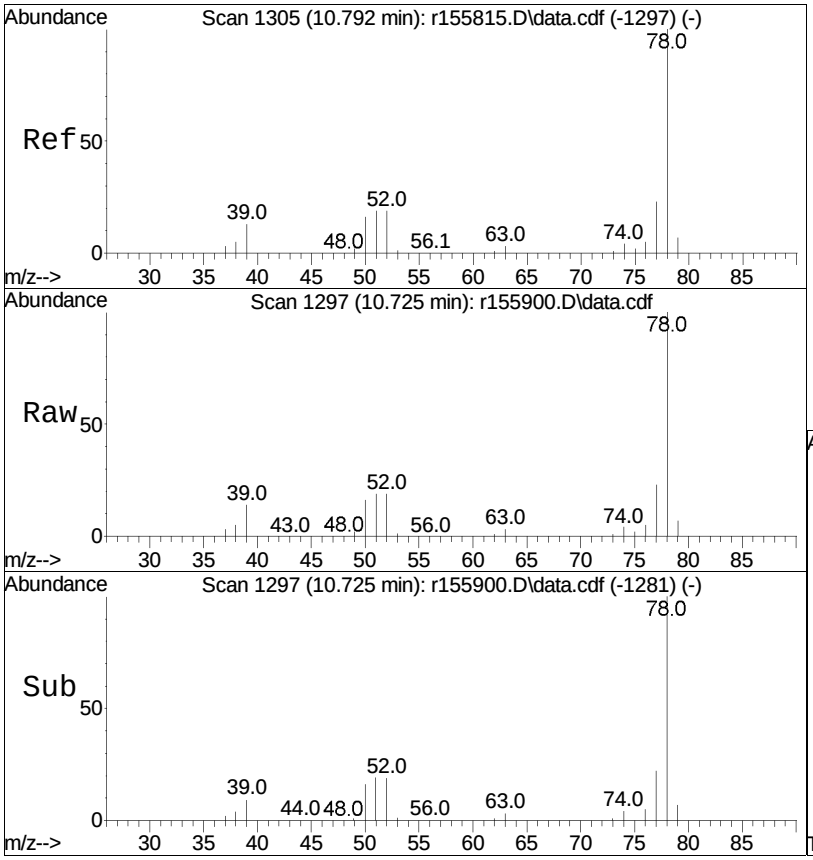


#49
1,1-dichloropropene
Concen: 9.45 ppbV
RT: 10.56 min Scan# 1277
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 75 Resp: 126405

Ion	Ratio	Lower	Upper
75	100		
110	32.6	26.6	39.8
39	86.0	67.8	101.8

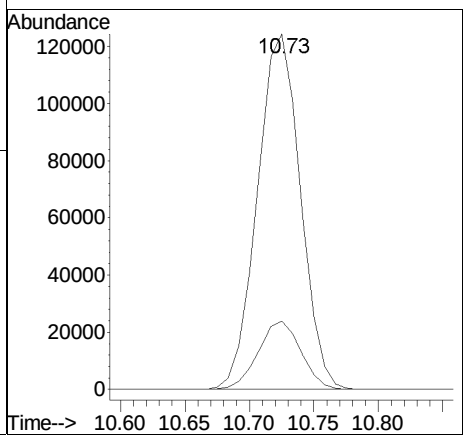


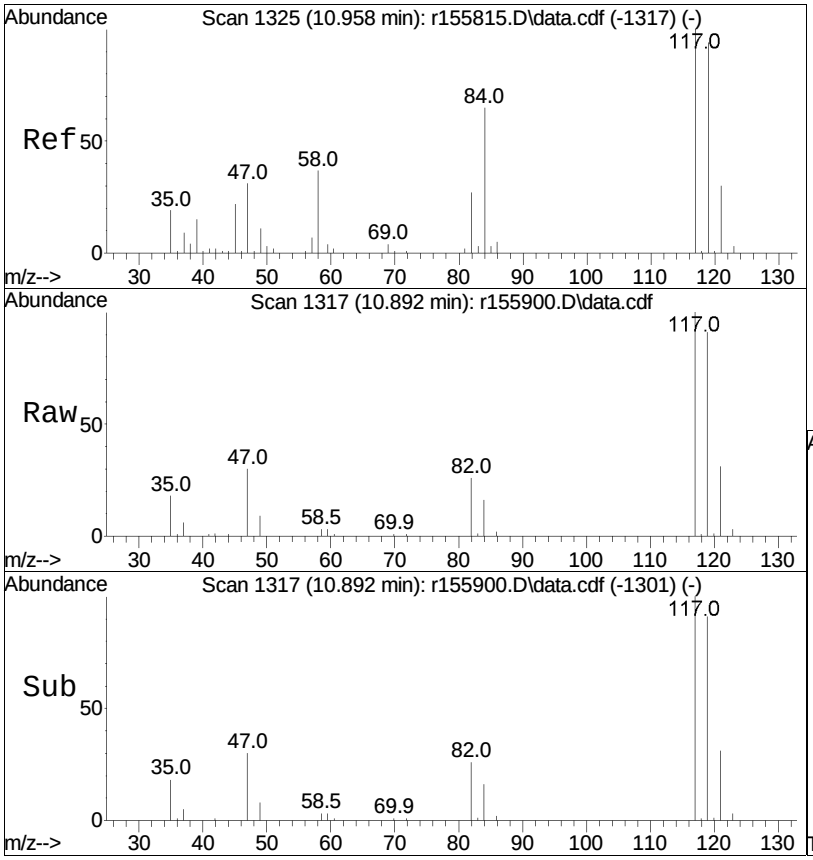


#50
benzene
Concen: 9.30 ppbV
RT: 10.73 min Scan# 1297
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 78 Resp: 288249

Ion	Ratio	Lower	Upper
78	100		
52	19.3	15.2	22.8

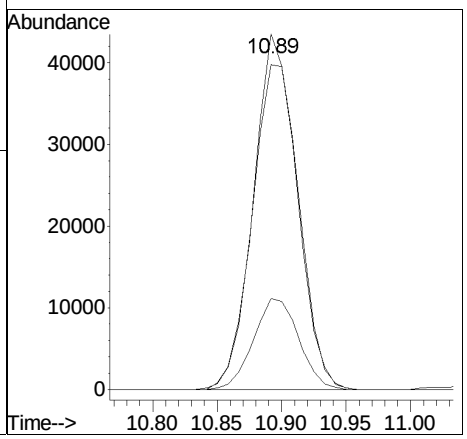


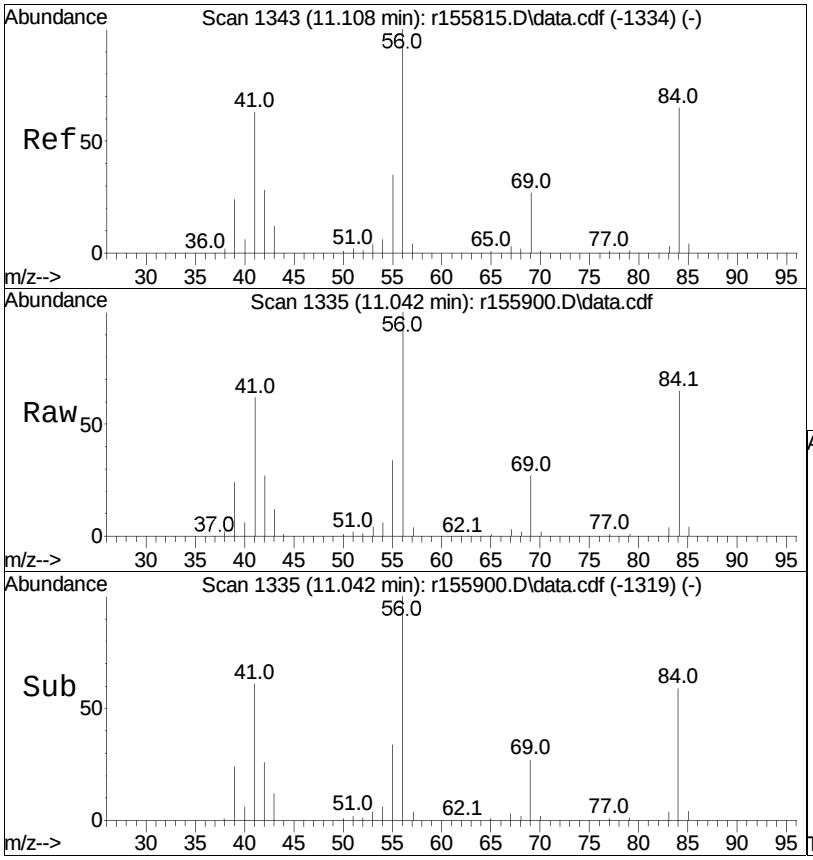


#52
carbon tetrachloride
Concen: 9.84 ppbV
RT: 10.89 min Scan# 1317
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:117 Resp: 103137

Ion	Ratio	Lower	Upper
117	100		
119	91.4	75.1	112.7
82	25.6	21.4	32.2

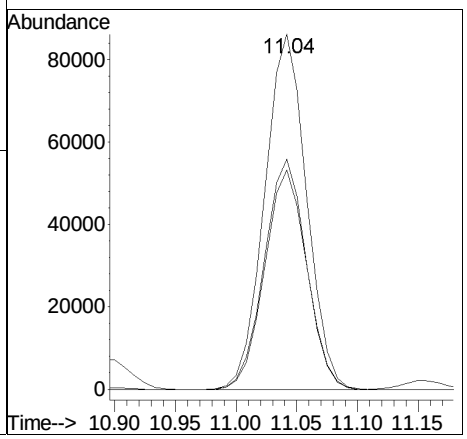


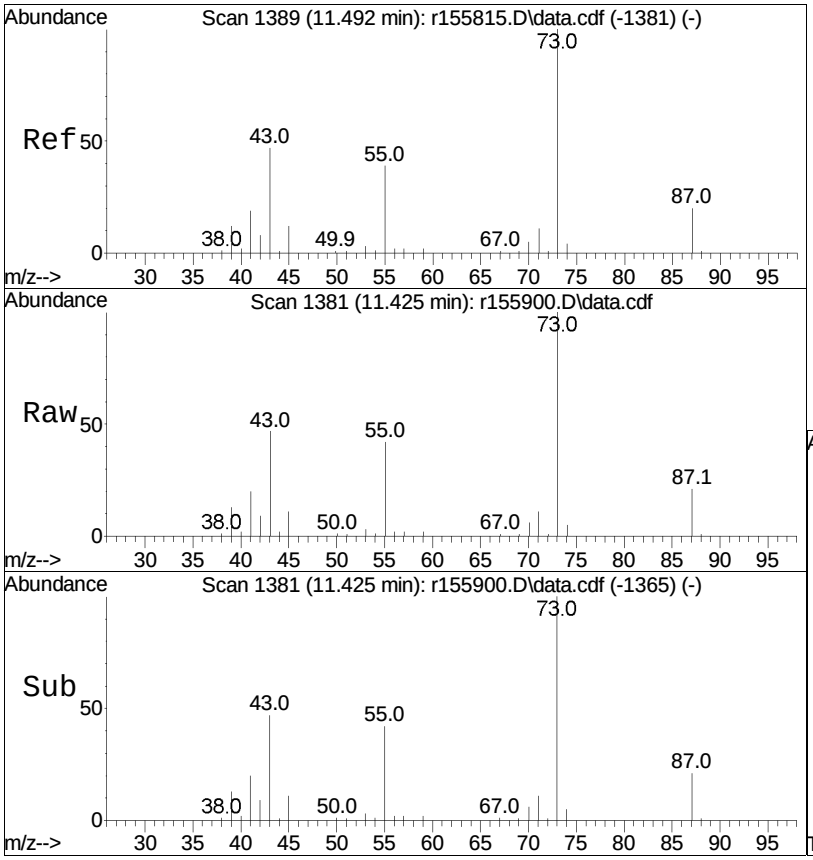


#53
cyclohexane
Concen: 10.30 ppbV
RT: 11.04 min Scan# 1335
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 56 Resp: 207125

Ion	Ratio	Lower	Upper
56	100		
84	64.8	52.1	78.1
41	61.7	50.6	75.8

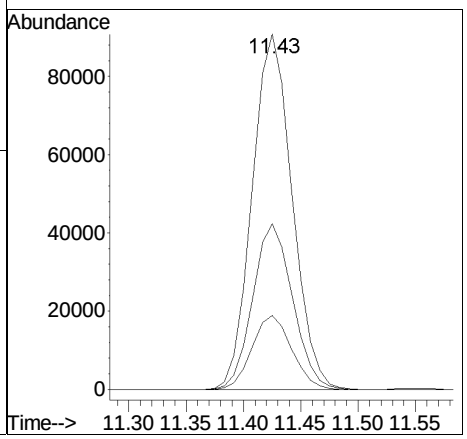


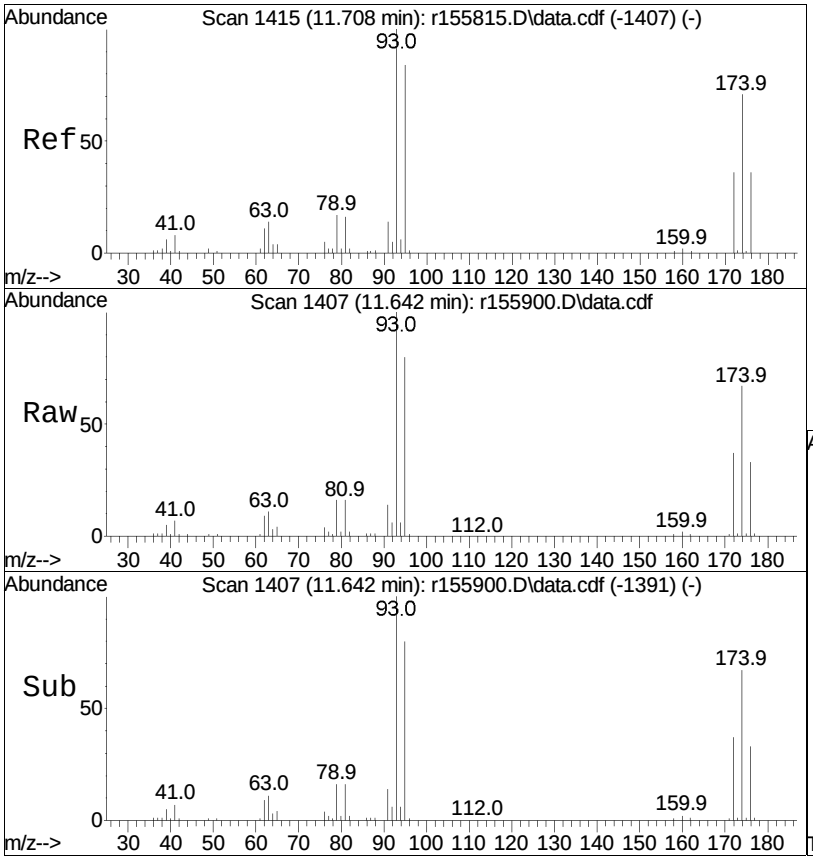


#54
tert-amyl methyl ether
Concen: 8.86 ppbV
RT: 11.43 min Scan# 1381
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 73 Resp: 220061

Ion	Ratio	Lower	Upper
73	100		
43	46.7	37.5	56.3
87	20.8	16.2	24.2

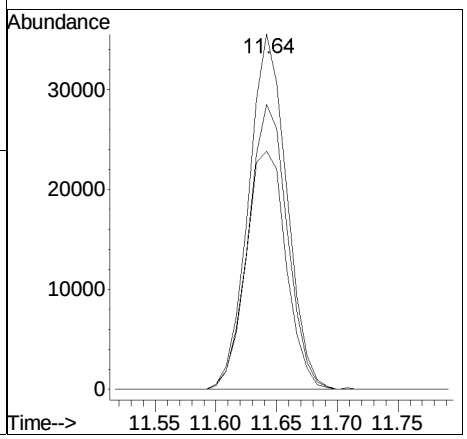


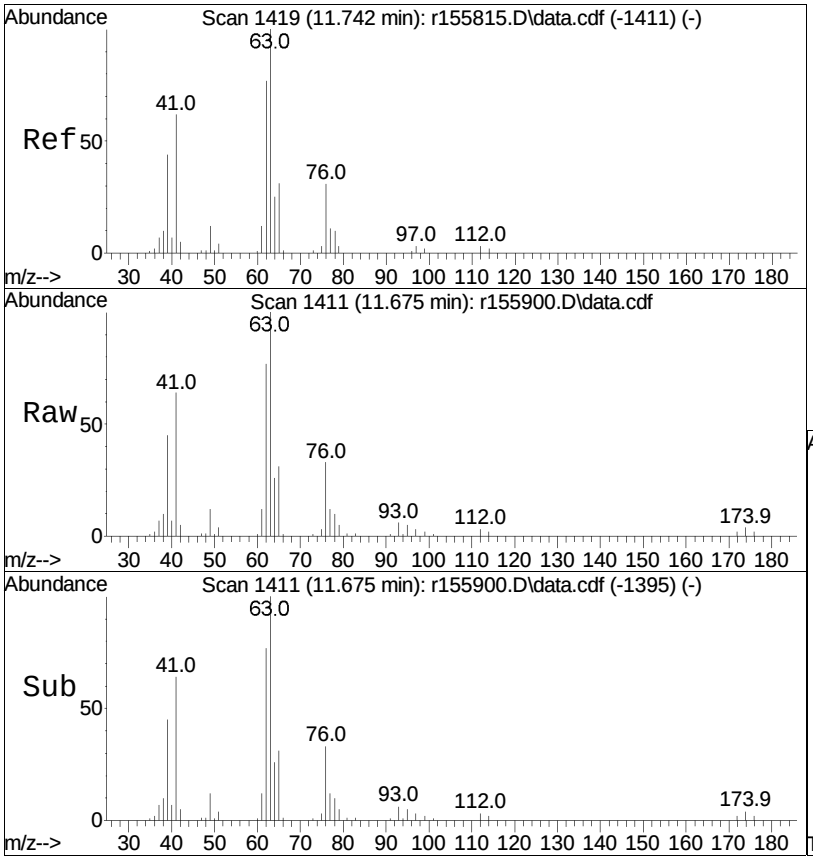


#55
dibromomethane
Concen: 9.10 ppbV
RT: 11.64 min Scan# 1407
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 93 Resp: 77879

Ion	Ratio	Lower	Upper
93	100		
174	67.1	57.1	85.7
95	80.2	67.4	101.0

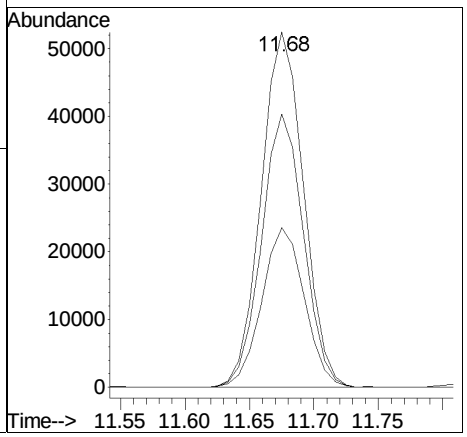


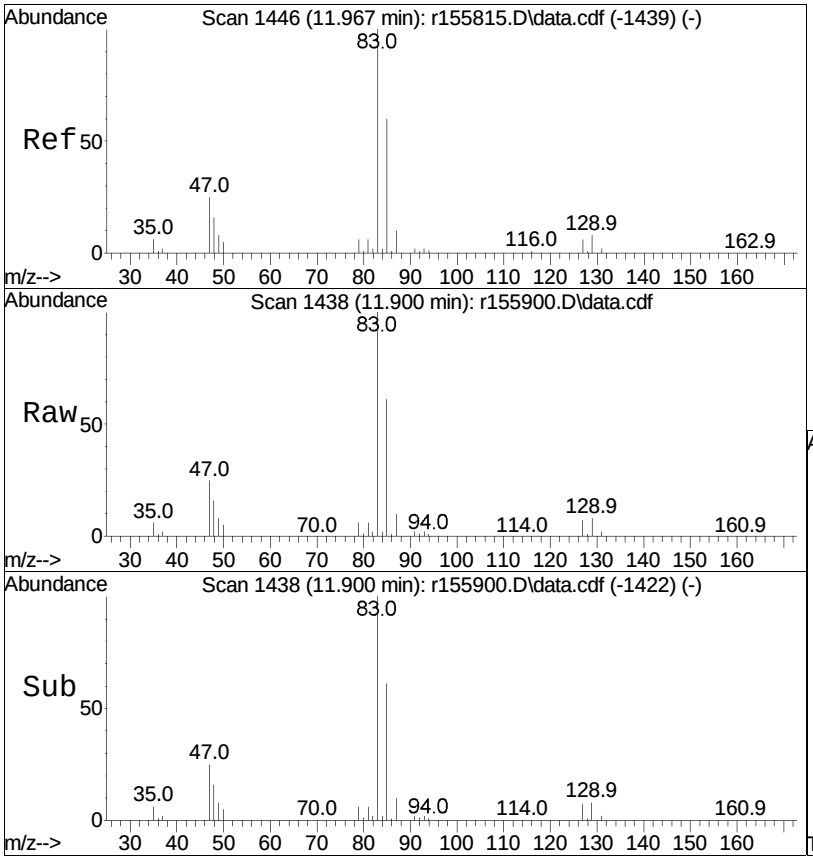


#56
1,2-dichloropropane
Concen: 9.30 ppbV
RT: 11.68 min Scan# 1411
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 63 Resp: 119869

Ion	Ratio	Lower	Upper
63	100		
62	76.9	61.5	92.3
39	44.9	35.6	53.4

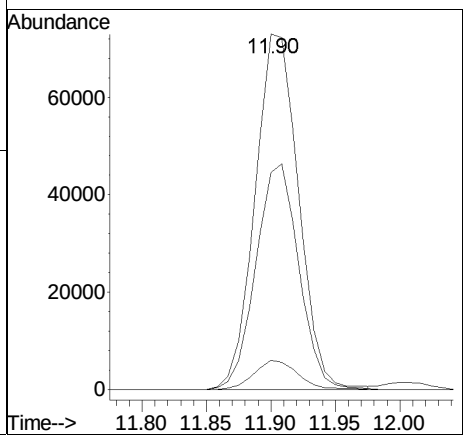


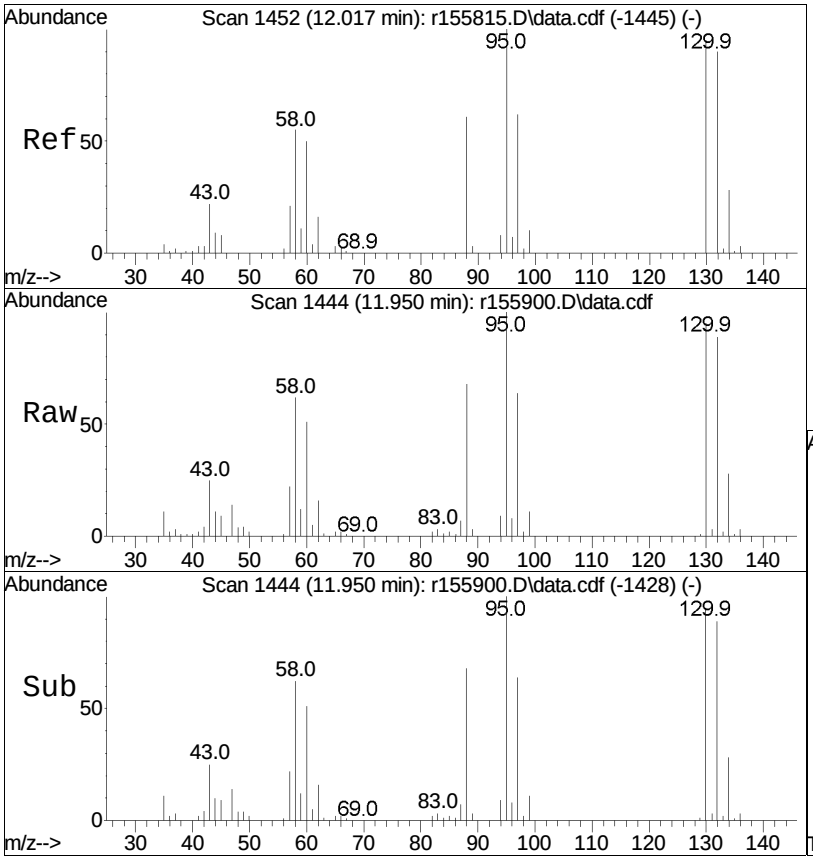


#57
bromodichloromethane
Concen: 10.62 ppbV
RT: 11.90 min Scan# 1438
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 83 Resp: 170968

Ion	Ratio	Lower	Upper
83	100		
85	61.1	48.2	72.2
129	8.2	6.3	9.5

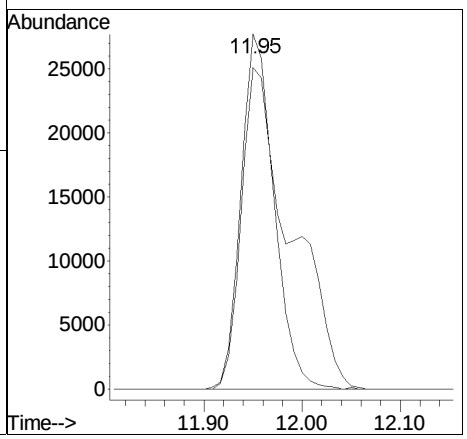


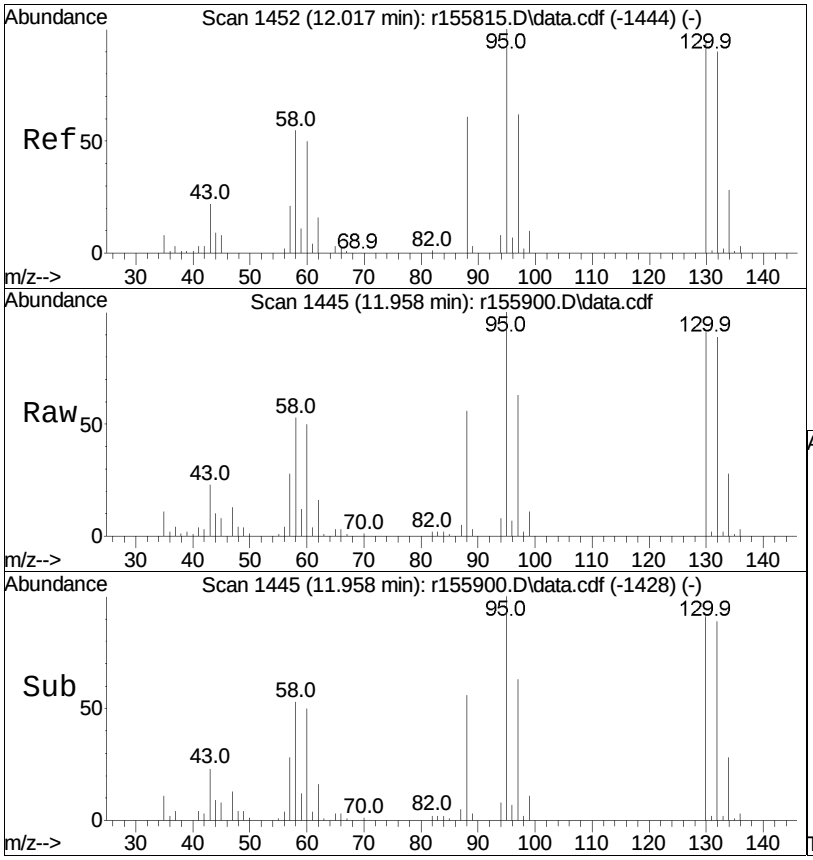


#58
1,4-dioxane
Concen: 10.16 ppbV
RT: 11.95 min Scan# 1444
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 88 Resp: 65169

Ion	Ratio	Lower	Upper
88	100		
58	90.6	71.8	107.8

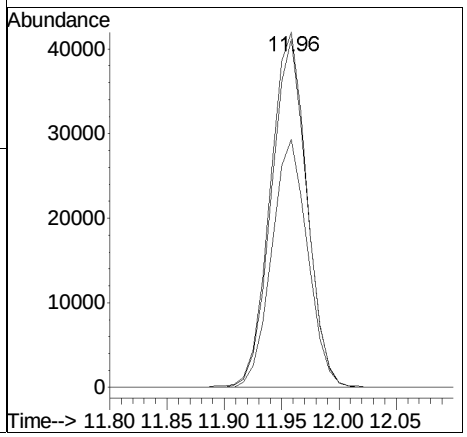


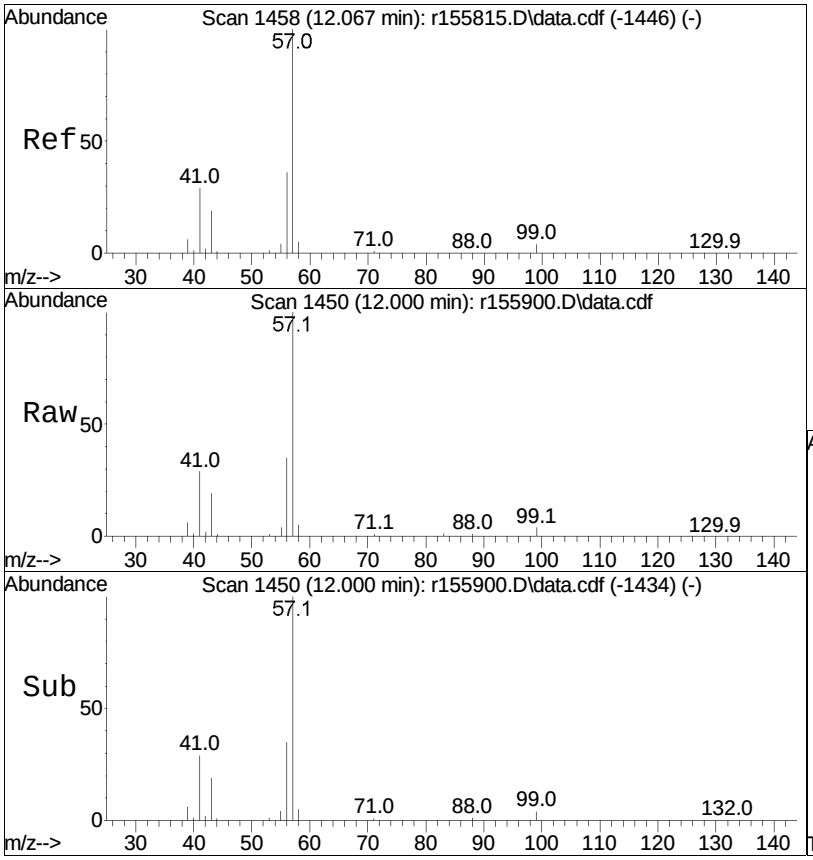


#59
trichloroethene
Concen: 9.58 ppbV
RT: 11.96 min Scan# 1445
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:130 Resp: 93409

Ion	Ratio	Lower	Upper
130	100		
132	98.1	75.7	113.5
97	69.8	52.5	78.7

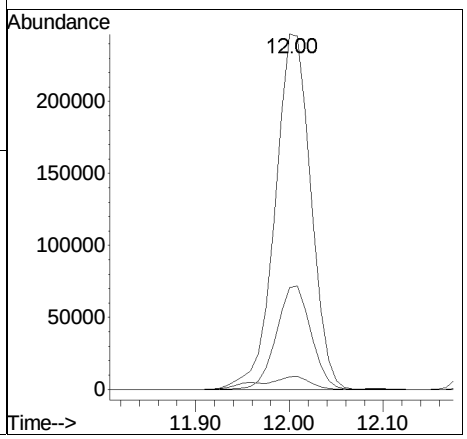


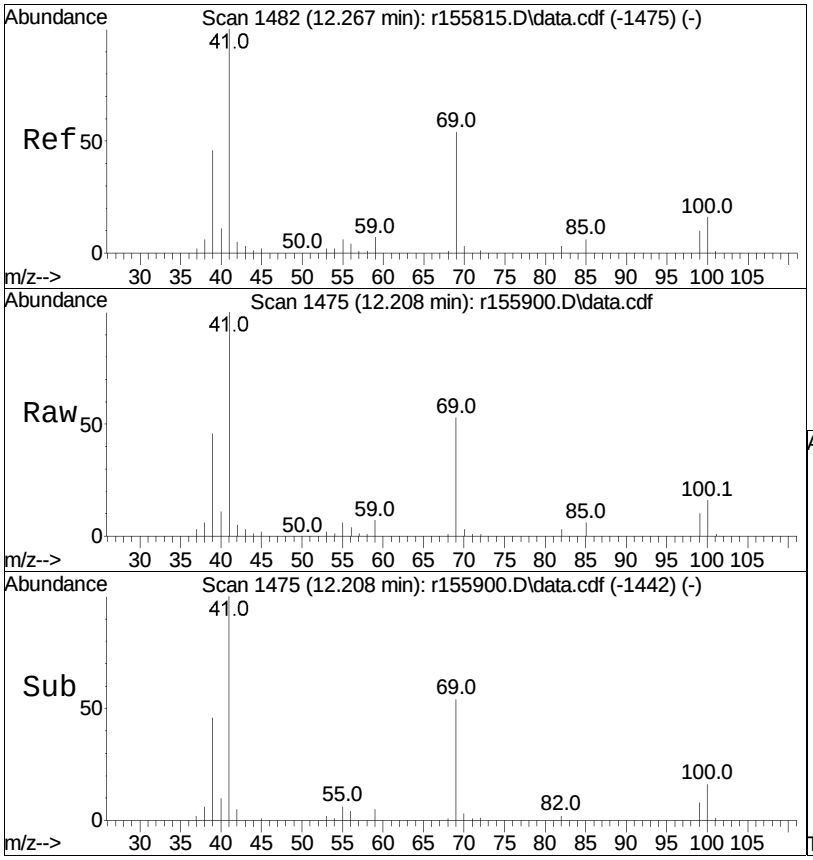


#60
2,2,4-trimethylpentane
Concen: 10.45 ppbV
RT: 12.00 min Scan# 1450
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 57 Resp: 654179

Ion	Ratio	Lower	Upper
57	100		
99	3.6	3.0	4.4
41	28.7	23.1	34.7

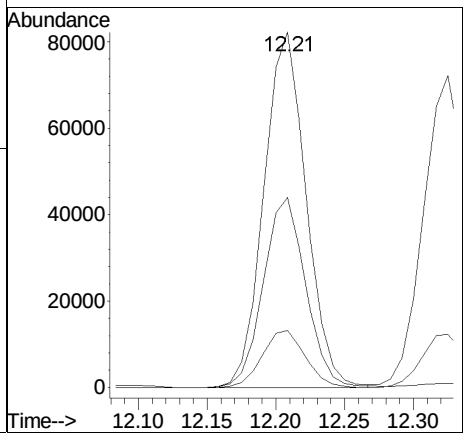


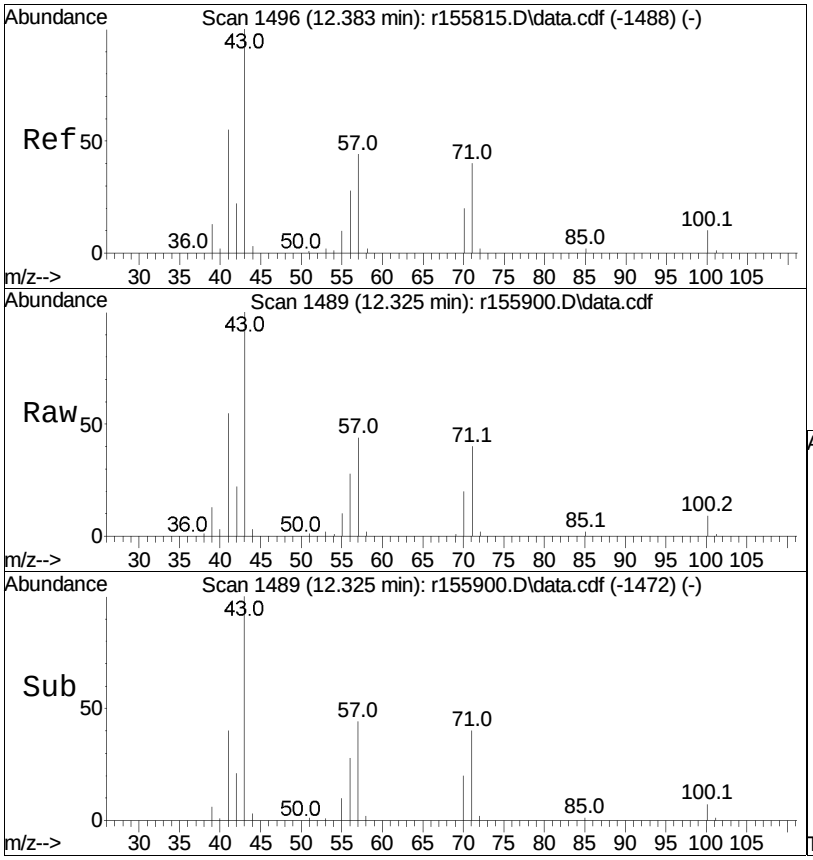


#61
methyl methacrylate
Concen: 11.77 ppbV
RT: 12.21 min Scan# 1475
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 41 Resp: 175022

Ion	Ratio	Lower	Upper
41	100		
69	53.8	42.6	63.8
100	16.4	12.9	19.3

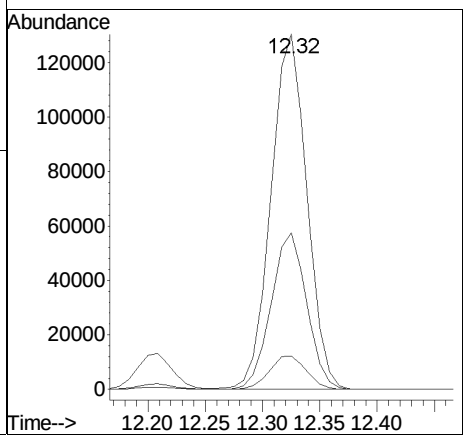


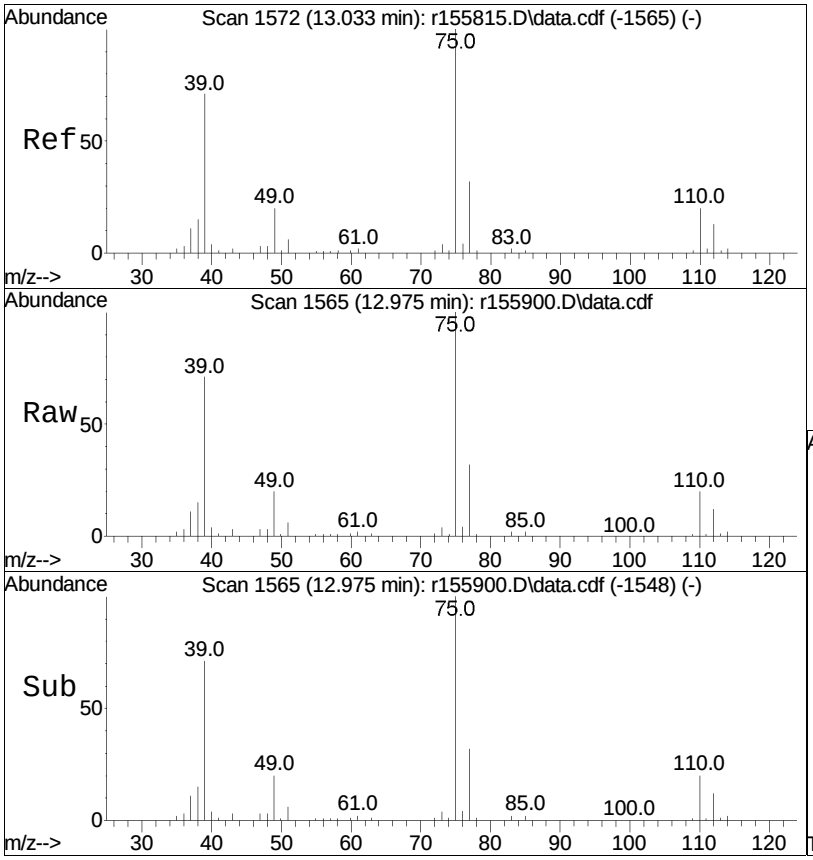


#62
heptane
Concen: 10.08 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 283741

Ion	Ratio	Lower	Upper
43	100		
57	44.1	35.1	52.7
100	9.4	8.1	12.1

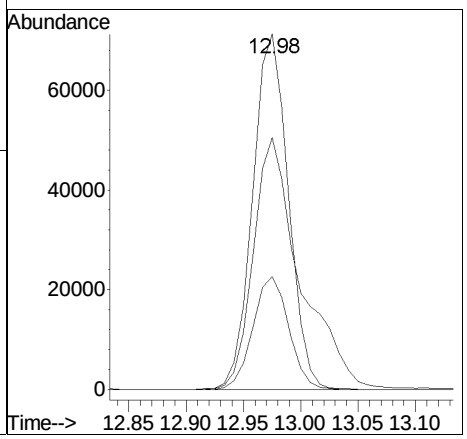


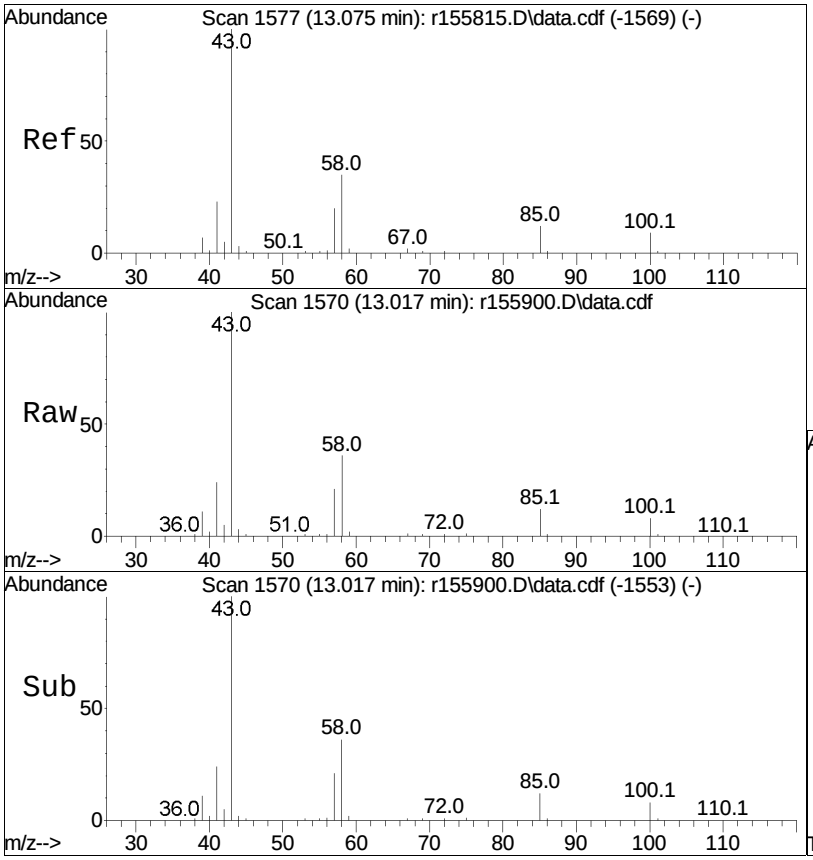


#63
cis-1,3-dichloropropene
Concen: 10.31 ppbV
RT: 12.98 min Scan# 1565
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 75 Resp: 153946

Ion	Ratio	Lower	Upper
75	100		
39	70.8	56.8	85.2
77	31.8	25.4	38.2

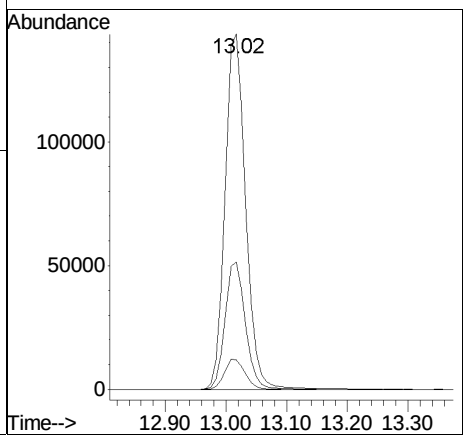


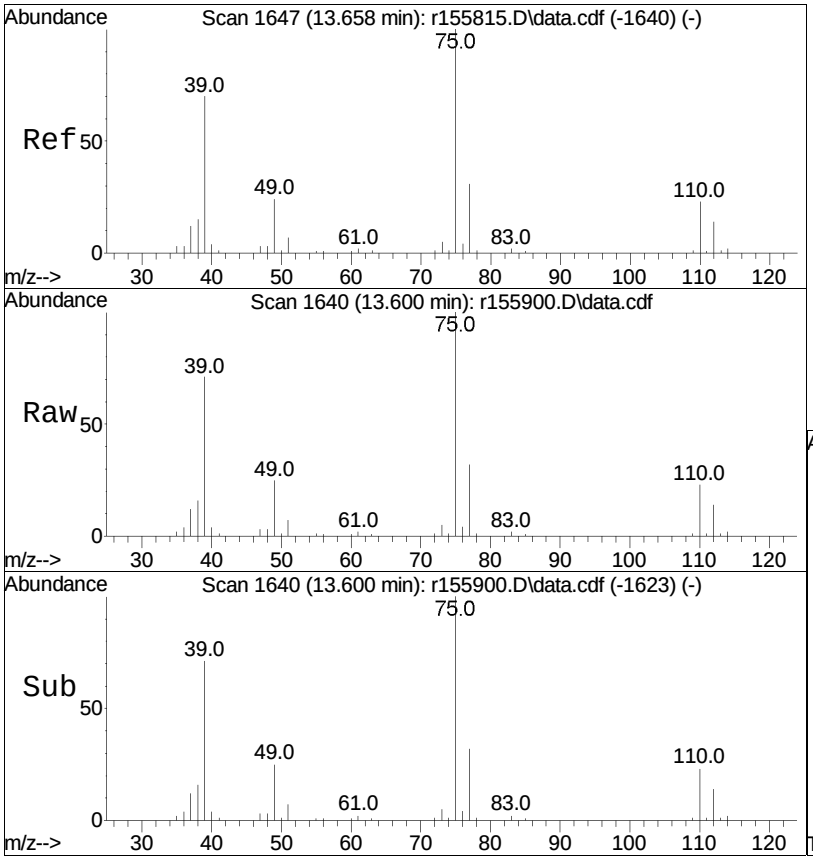


#64
4-methyl-2-pentanone
Concen: 10.46 ppbV
RT: 13.02 min Scan# 1570
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 339542

Ion	Ratio	Lower	Upper
43	100		
58	35.9	28.1	42.1
100	8.3	7.0	10.4

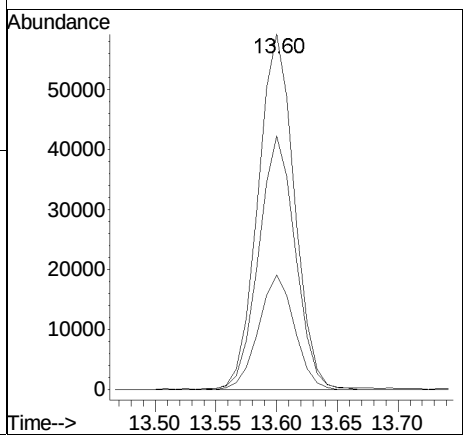


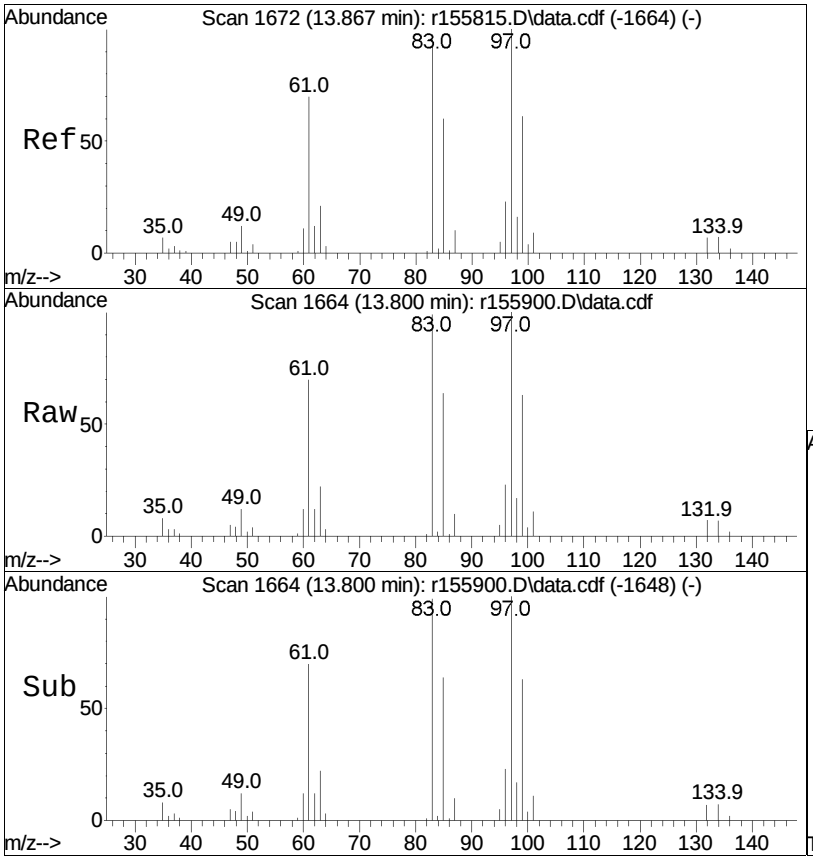


#65
trans-1,3-dichloropropene
Concen: 8.97 ppbV
RT: 13.60 min Scan# 1640
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 75 Resp: 123211

Ion	Ratio	Lower	Upper
75	100		
77	32.2	25.1	37.7
39	71.3	56.2	84.4

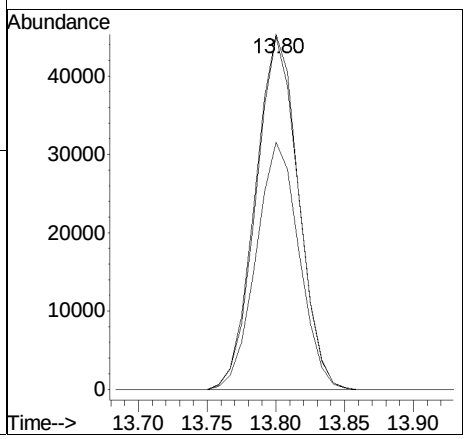


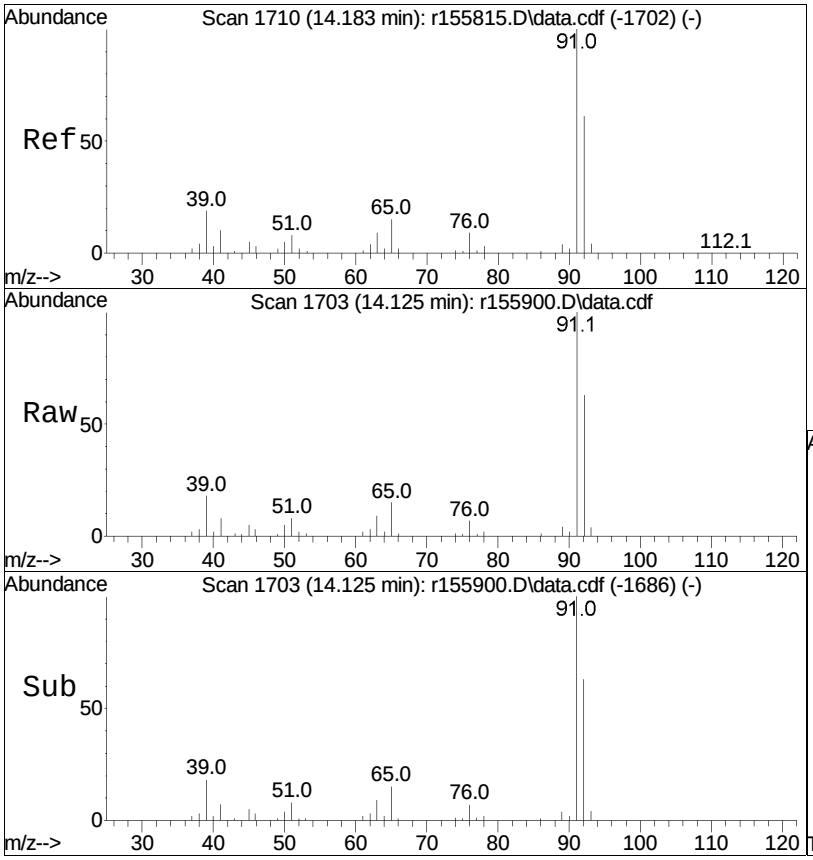


#66
1,1,2-trichloroethane
Concen: 9.92 ppbV
RT: 13.80 min Scan# 1664
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 97 Resp: 99276

Ion	Ratio	Lower	Upper
97	100		
83	99.3	76.2	114.2
61	69.6	56.3	84.5

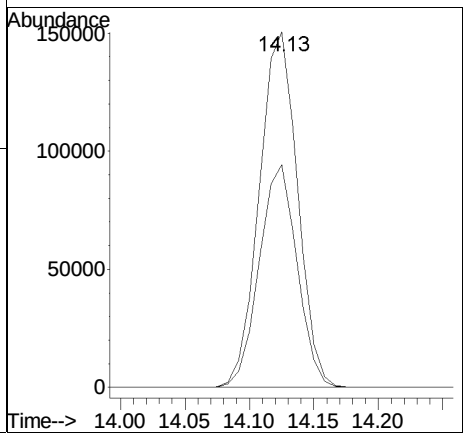


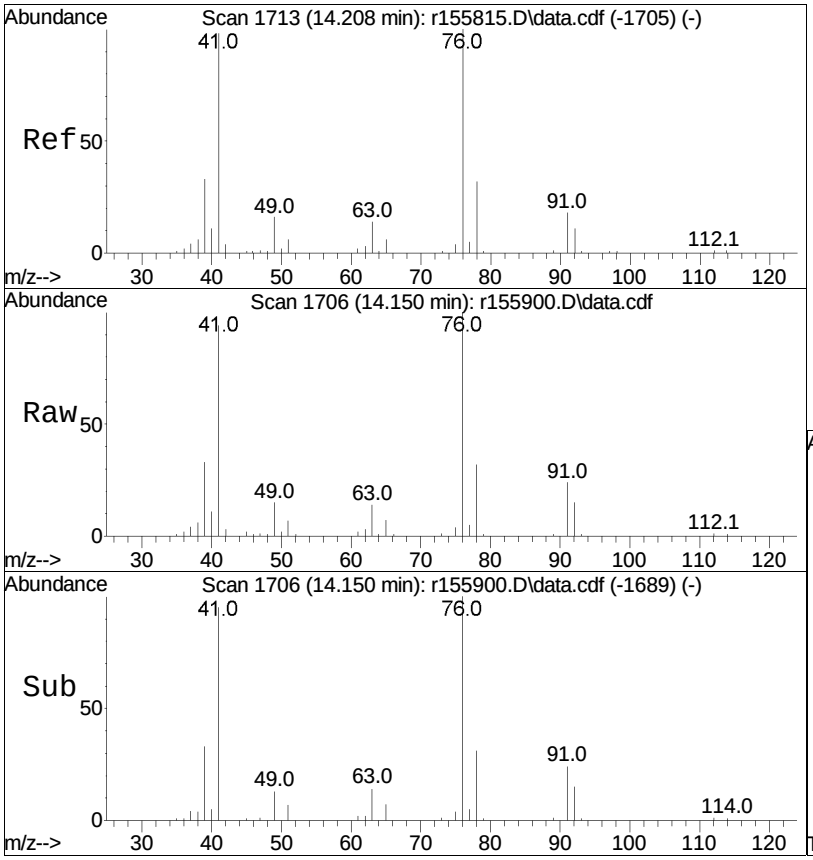


#68
toluene
Concen: 9.05 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 91 Resp: 310495

Ion	Ratio	Lower	Upper
91	100		
92	62.7	48.6	72.8

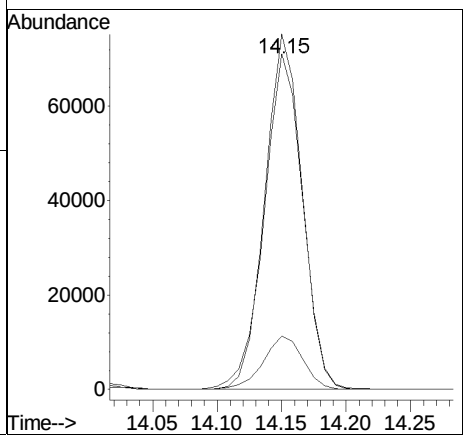


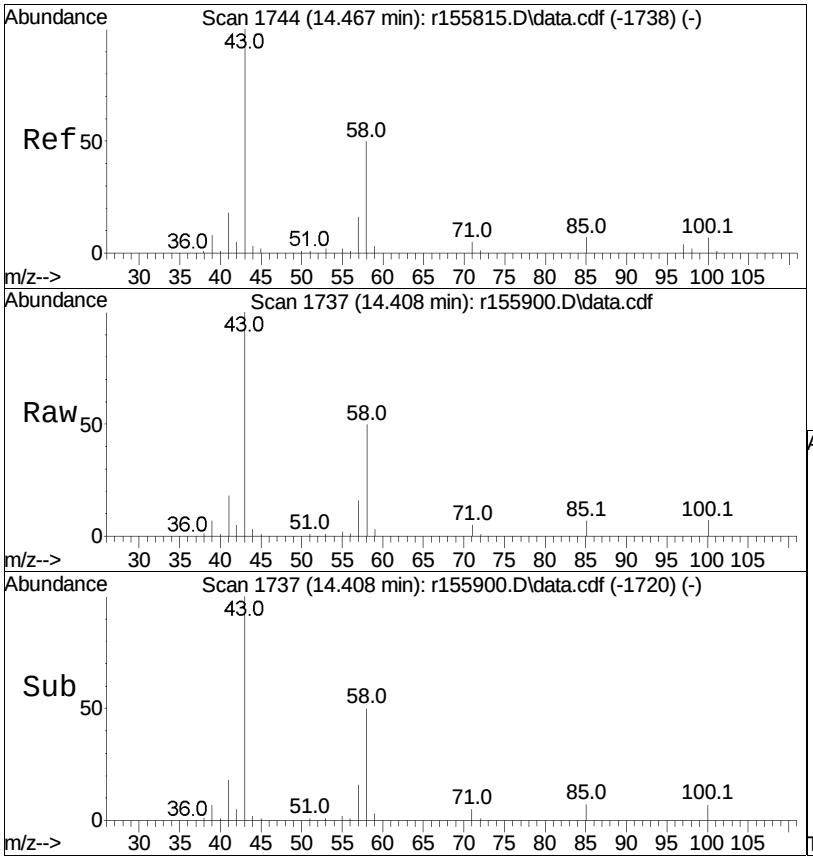


#71
1,3-dichloropropane
Concen: 8.97 ppbV
RT: 14.15 min Scan# 1706
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 76 Resp: 151268

Ion	Ratio	Lower	Upper
76	100		
41	94.5	78.9	118.3
49	15.0	12.7	19.1

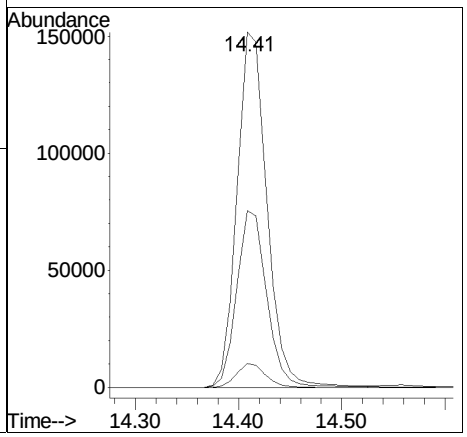


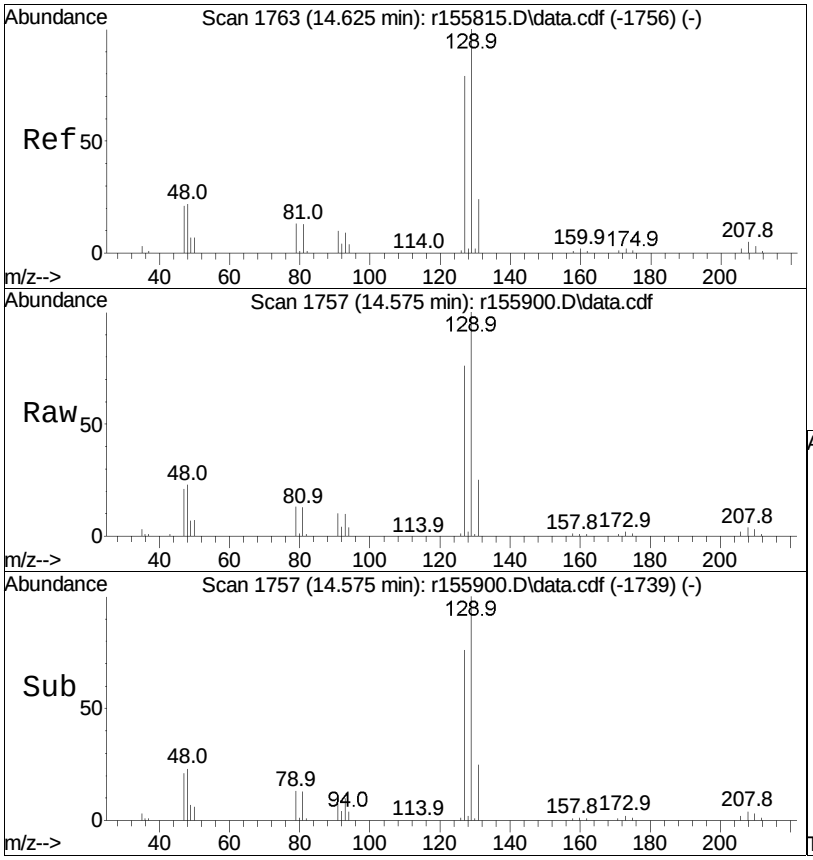


#72
2-hexanone
Concen: 10.21 ppbV
RT: 14.41 min Scan# 1737
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 306921

Ion	Ratio	Lower	Upper
43	100		
58	49.8	40.3	60.5
100	6.7	5.5	8.3

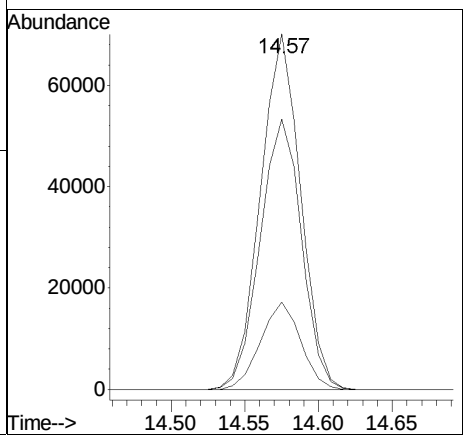


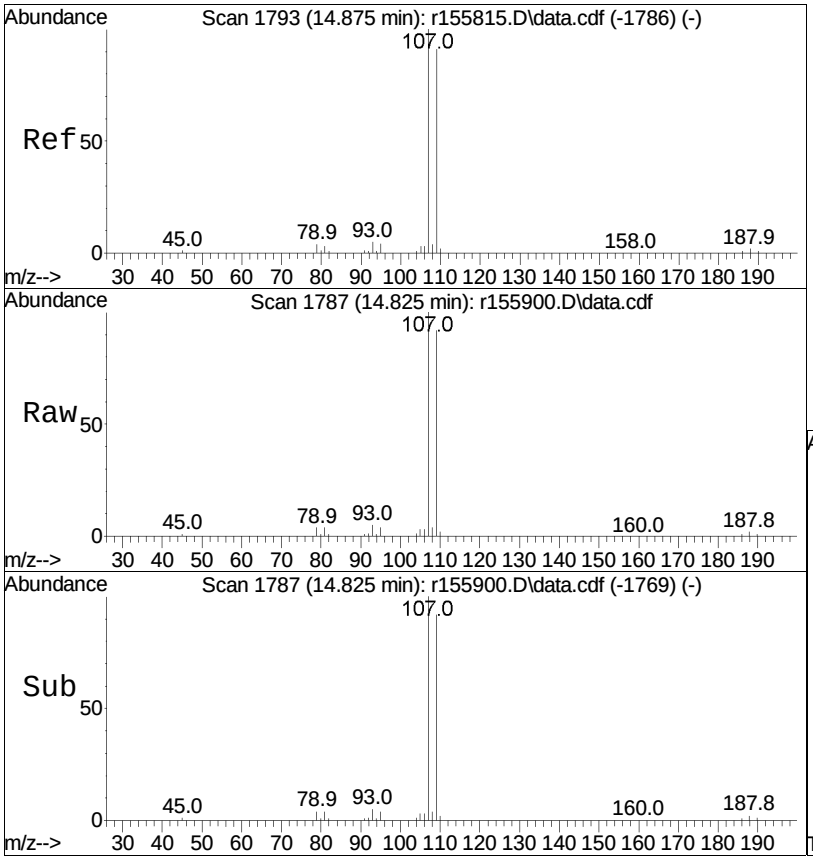


#74
dibromochloromethane
Concen: 10.58 ppbV
RT: 14.57 min Scan# 1757
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:129 Resp: 132889

Ion	Ratio	Lower	Upper
129	100		
127	76.0	62.8	94.2
131	24.5	18.9	28.3

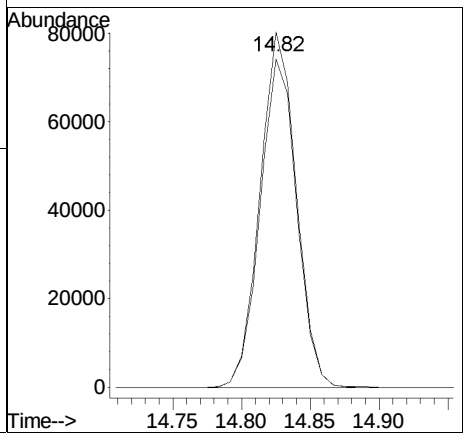


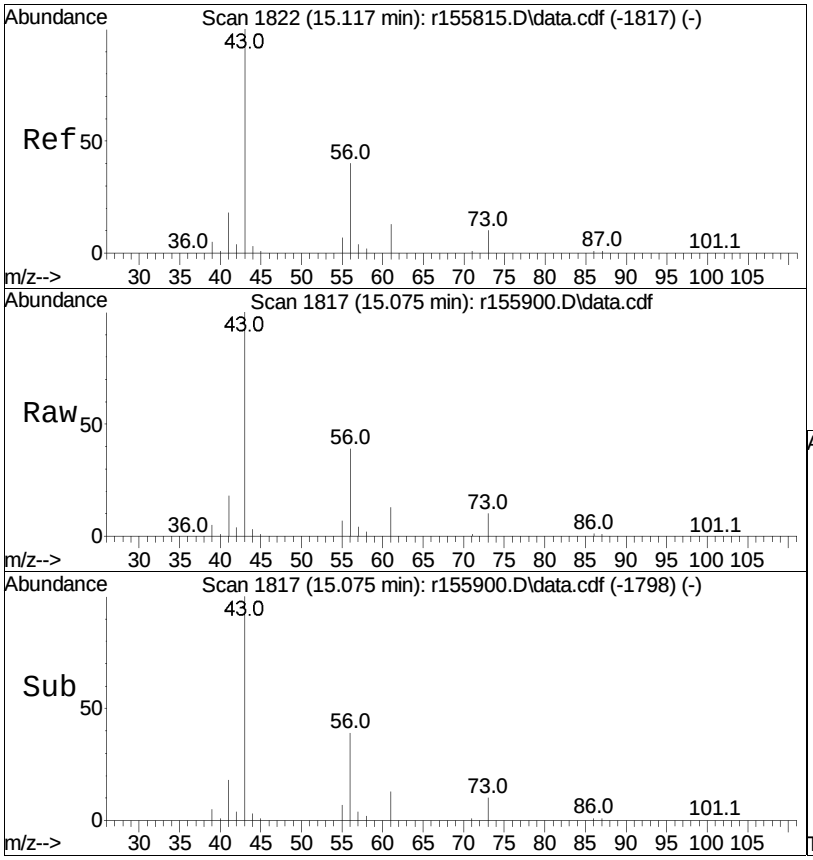


#75
1,2-dibromoethane
Concen: 9.70 ppbV
RT: 14.82 min Scan# 1787
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:107 Resp: 147117

Ion	Ratio	Lower	Upper
107	100		
109	92.4	72.7	109.1

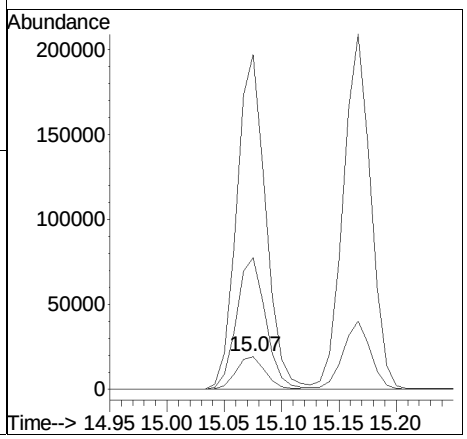


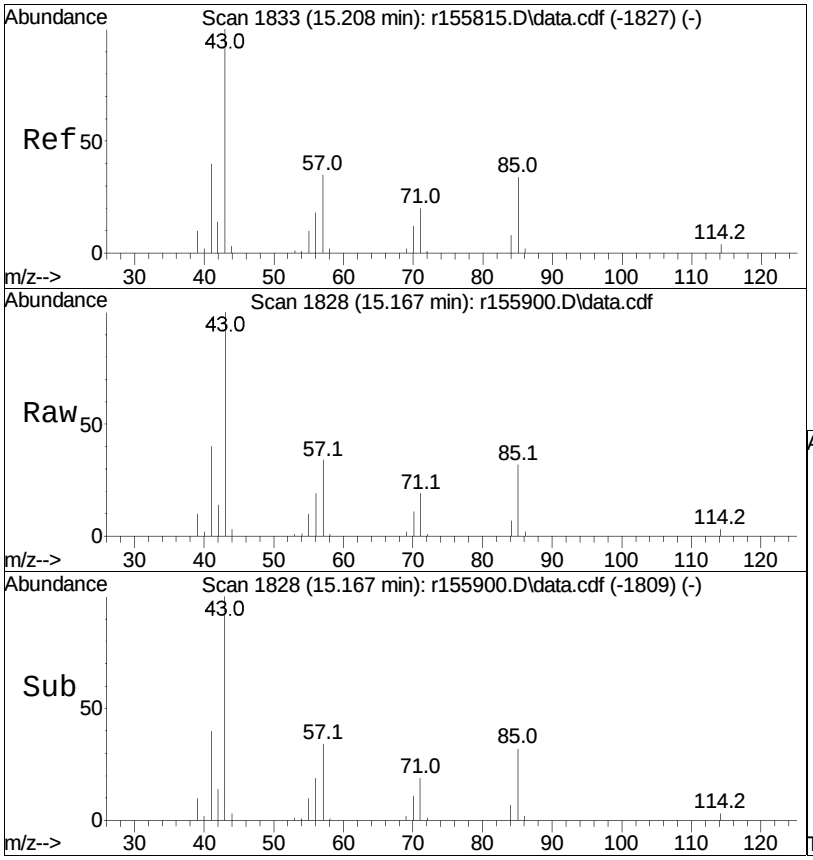


#76
butyl acetate
Concen: 9.36 ppbV
RT: 15.07 min Scan# 1817
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 73 Resp: 34873

Ion	Ratio	Lower	Upper
73	100		
56	402.0	310.6	465.8
43	1021.7	784.2	1176.4

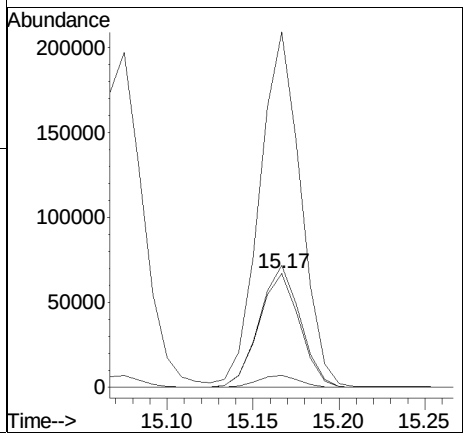


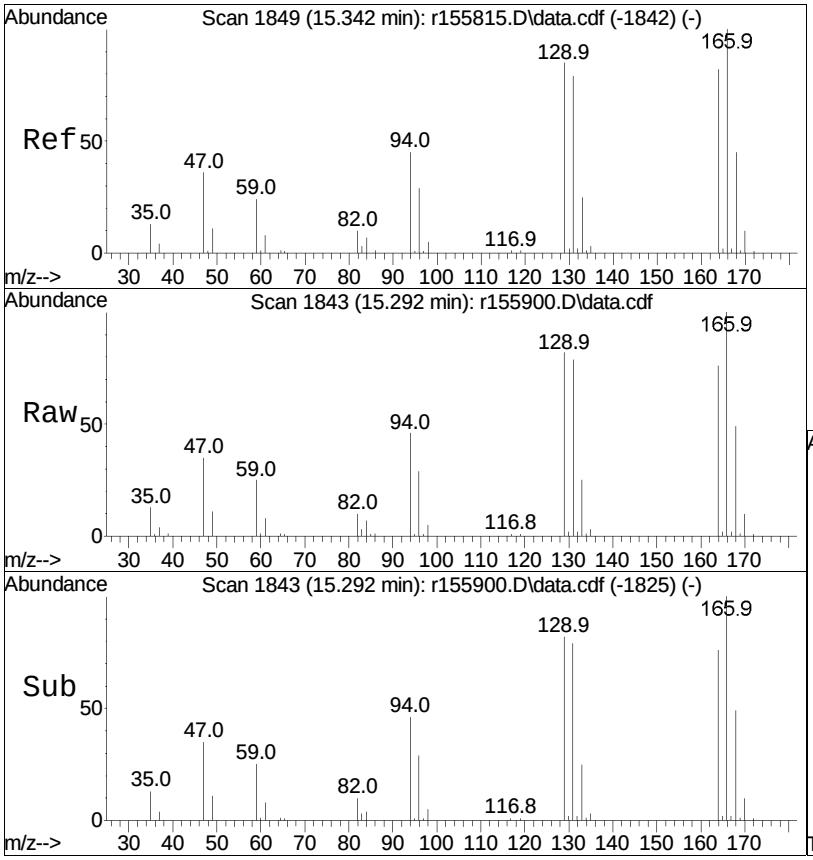


#77
octane
Concen: 8.69 ppbV
RT: 15.17 min Scan# 1828
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 85 Resp: 111035

Ion	Ratio	Lower	Upper
85	100		
57	107.3	83.9	125.9
114	10.7	9.0	13.6
43	312.2	241.8	362.6

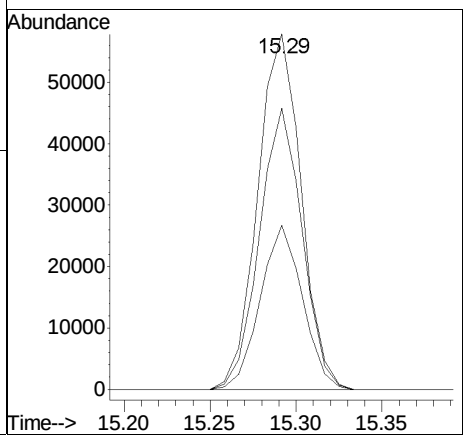


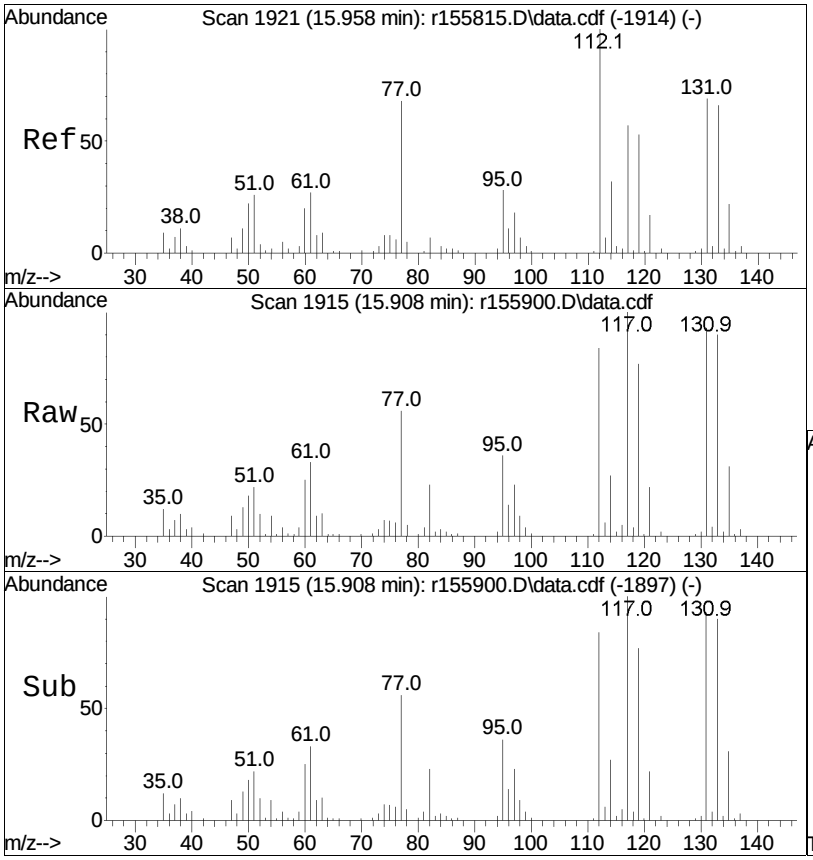


#78
tetrachloroethene
Concen: 9.24 ppbV
RT: 15.29 min Scan# 1843
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:166 Resp: 101523

Ion	Ratio	Lower	Upper
166	100		
131	79.1	62.9	94.3
94	46.2	35.9	53.9

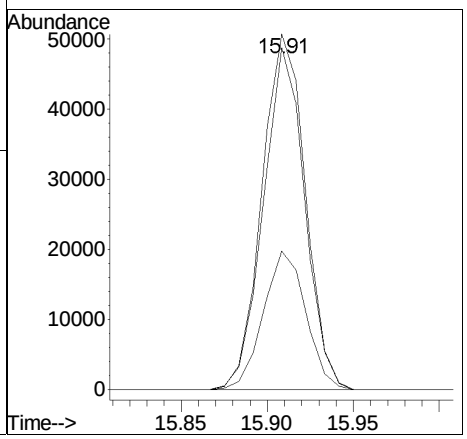


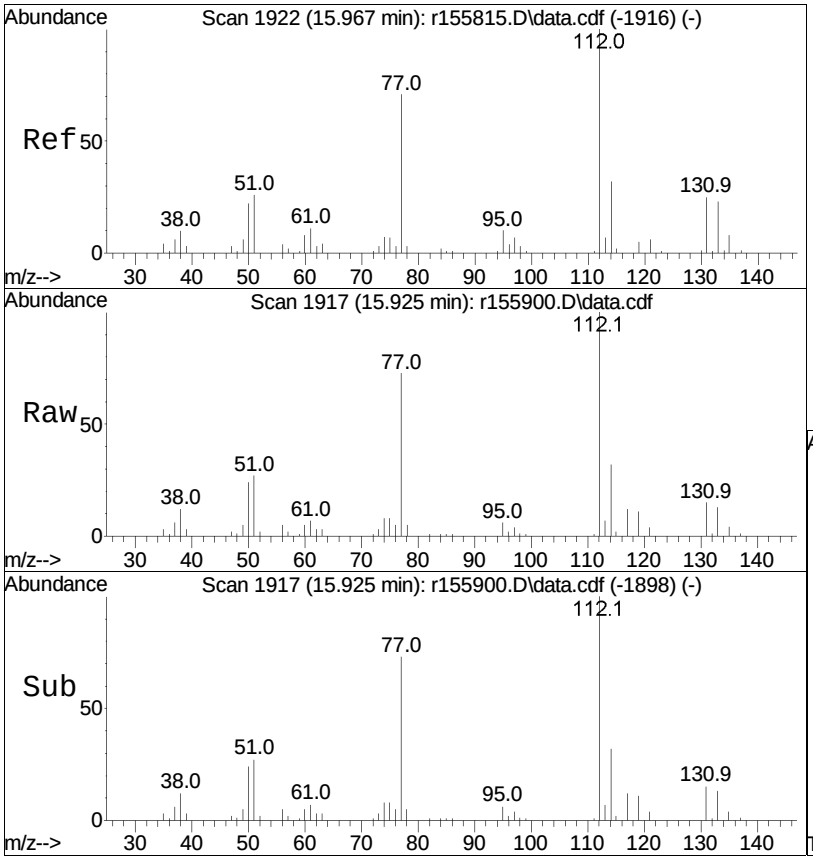


#79
1,1,1,2-tetrachloroethane
Concen: 9.09 ppbV
RT: 15.91 min Scan# 1915
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:131 Resp: 88785

Ion	Ratio	Lower	Upper
131	100		
133	96.2	76.6	114.8
95	38.9	32.1	48.1

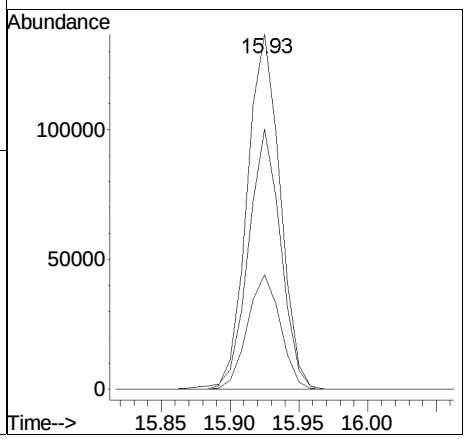


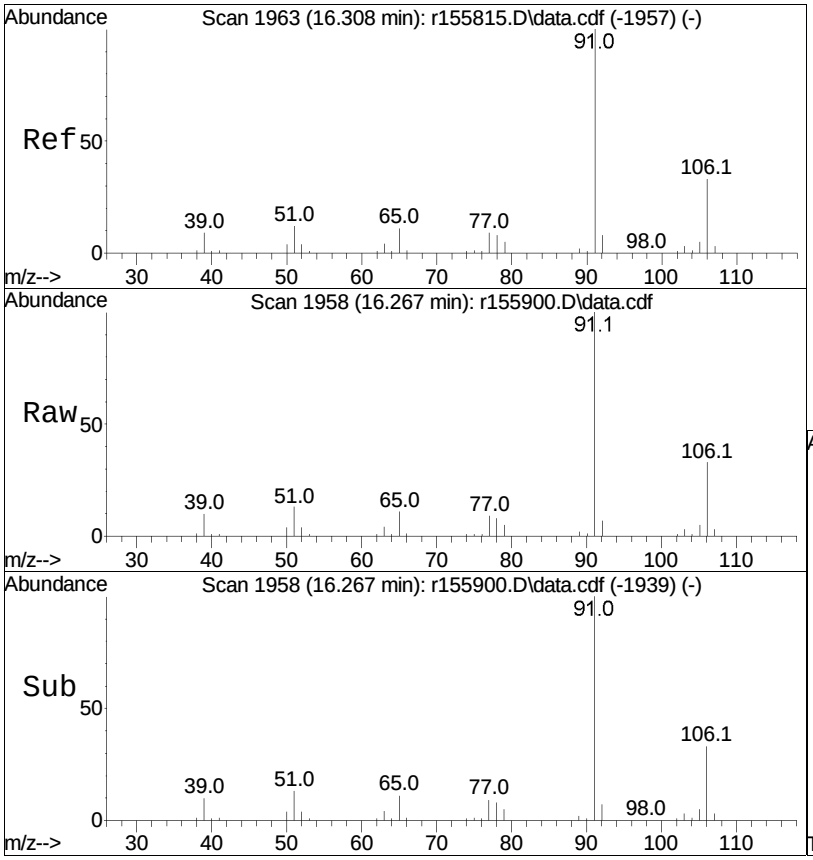


#80
chlorobenzene
Concen: 9.09 ppbV
RT: 15.93 min Scan# 1917
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:112 Resp: 227859

Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.2	37.8
77	73.3	56.9	85.3

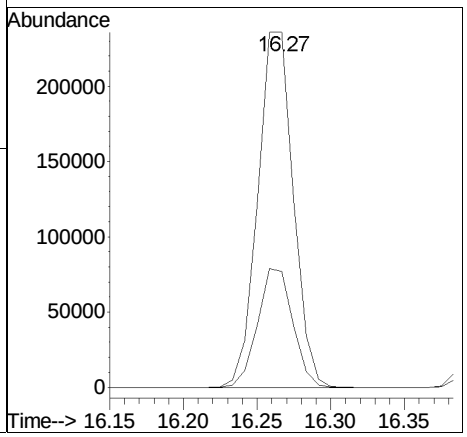


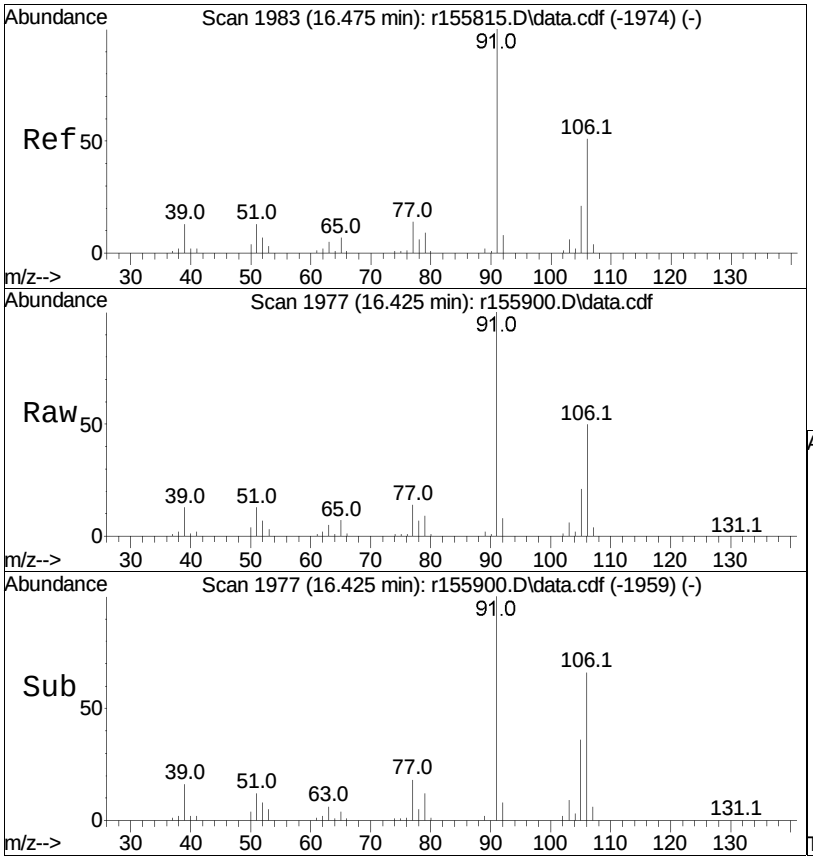


#81
ethylbenzene
Concen: 9.31 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 91 Resp: 395620

Ion	Ratio	Lower	Upper
91	100		
106	32.6	26.8	40.2

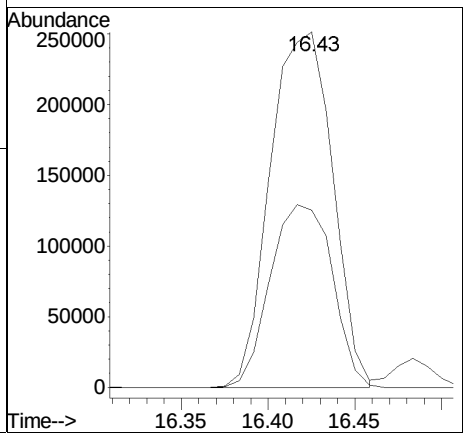


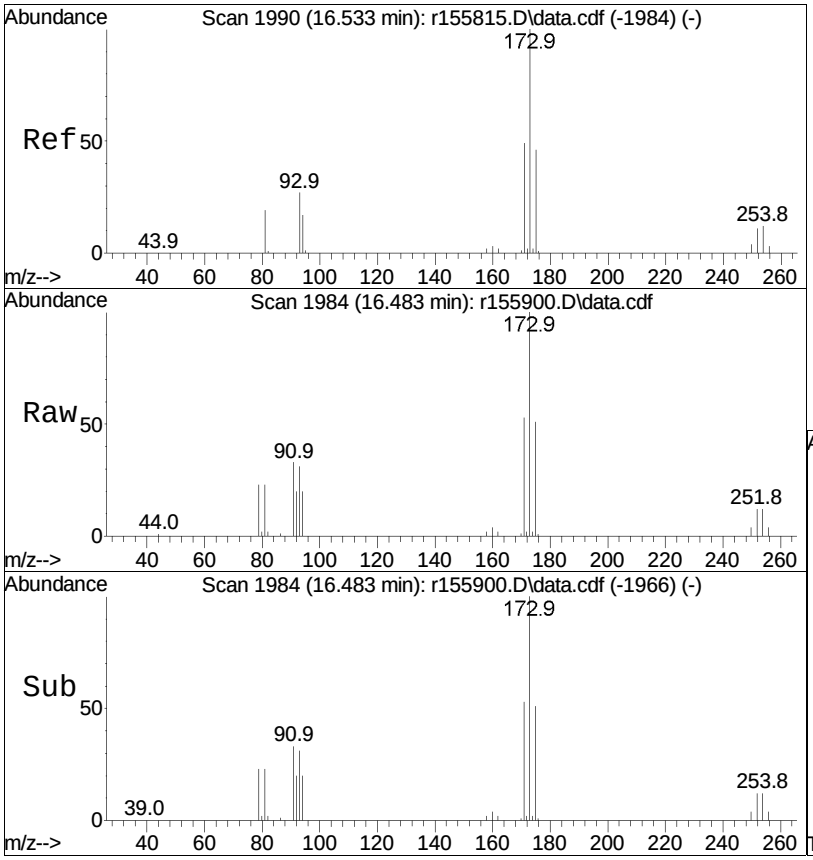


#83
m+p-xylene
Concen: 18.26 ppbV m
RT: 16.43 min Scan# 1977
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 91 Resp: 627490

Ion	Ratio	Lower	Upper
91	100		
106	49.9	40.4	60.6

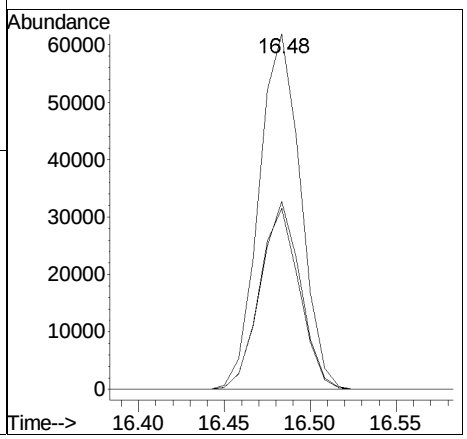


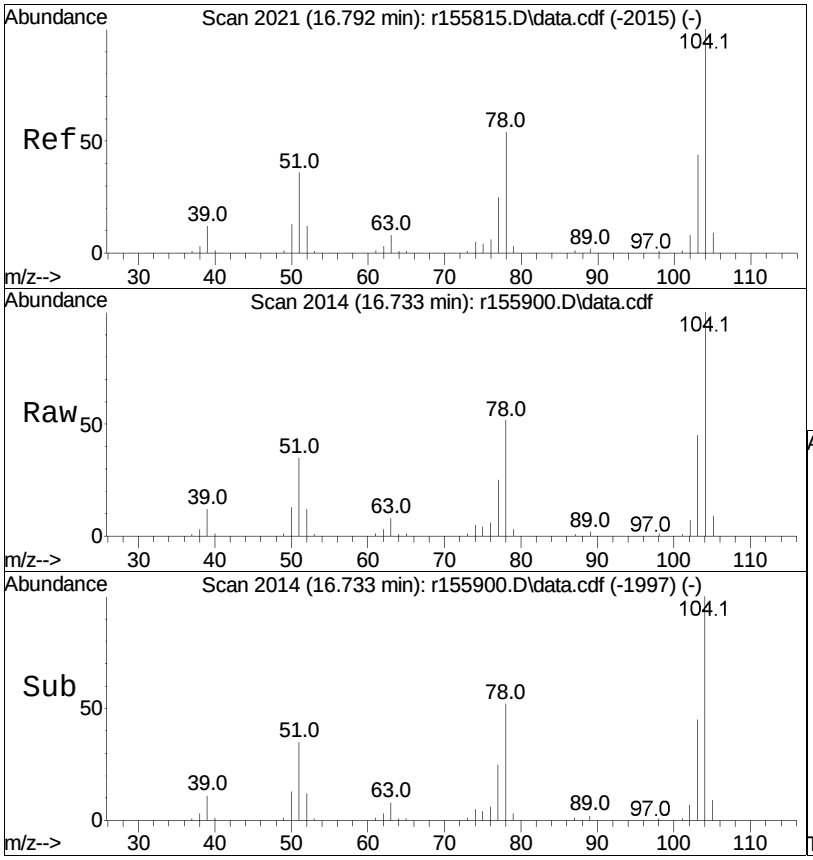


#84
bromoform
Concen: 10.64 ppbV
RT: 16.48 min Scan# 1984
Delta R.T. -0.050 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:173 Resp: 103949

Ion	Ratio	Lower	Upper
173	100		
175	50.9	36.6	54.8
171	52.9	39.0	58.6

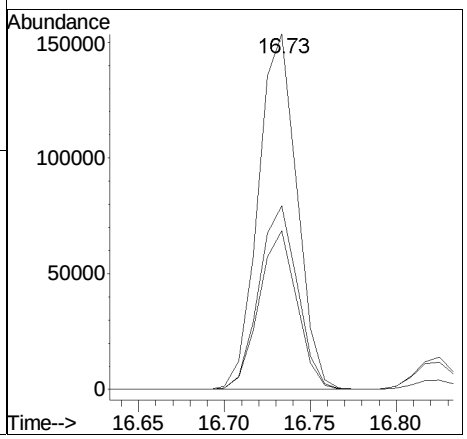


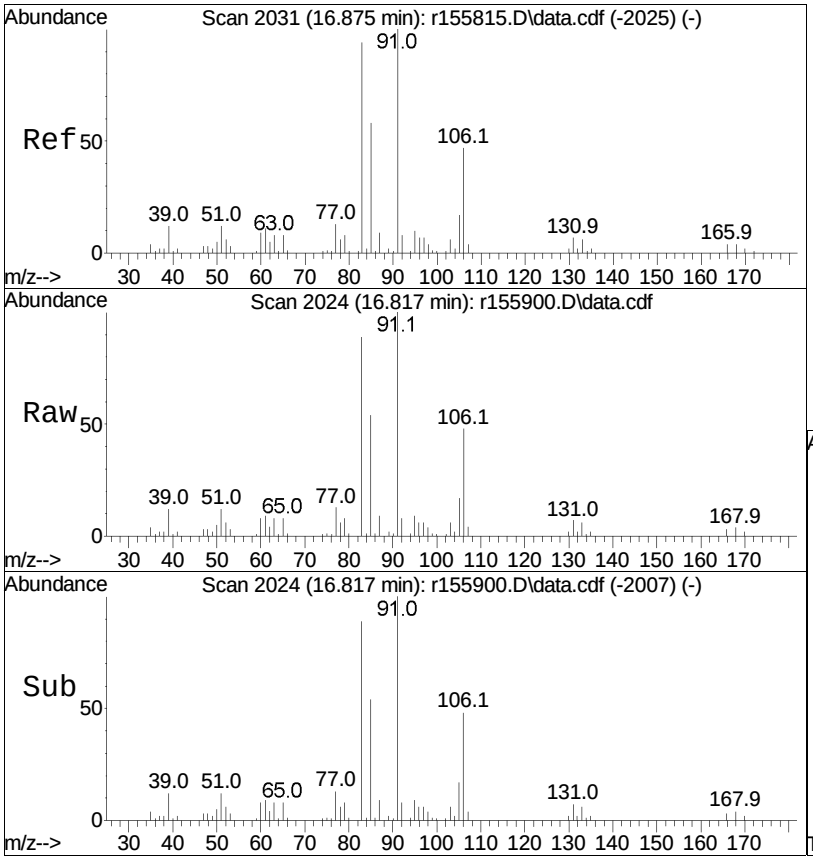


#85
styrene
Concen: 9.48 ppbV
RT: 16.73 min Scan# 2014
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:104 Resp: 241050

Ion	Ratio	Lower	Upper
104	100		
103	44.6	35.2	52.8
78	51.7	43.0	64.6

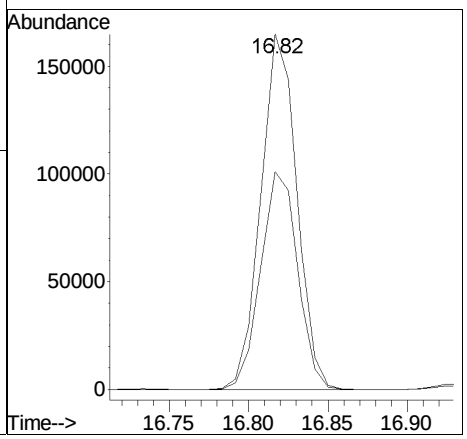


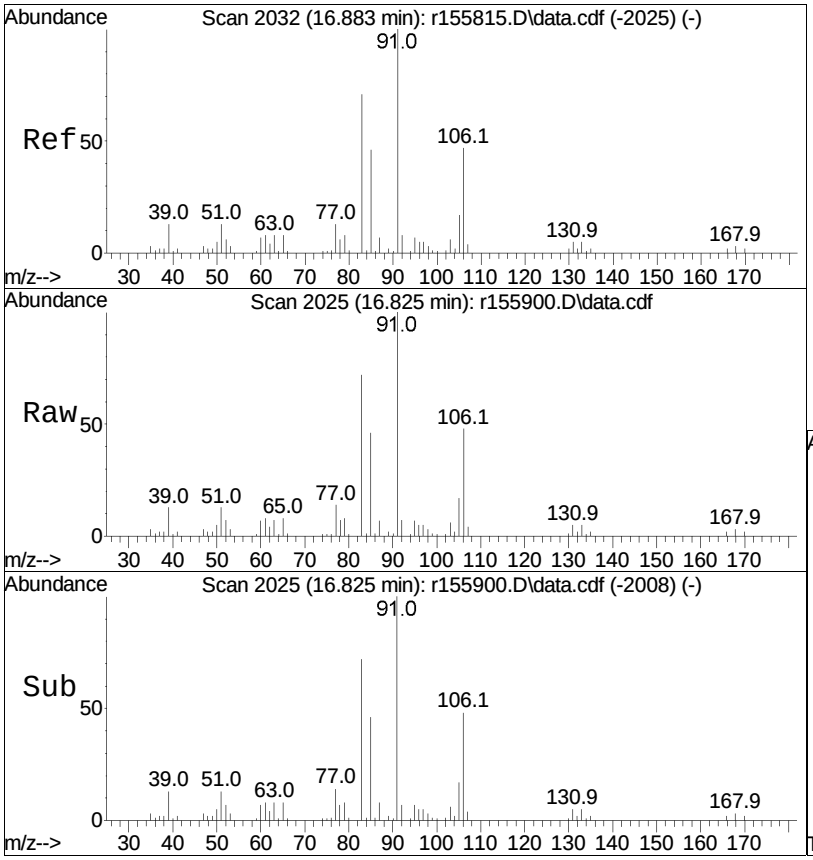


#86
1,1,2,2-tetrachloroethane
Concen: 9.49 ppbV
RT: 16.82 min Scan# 2024
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 83 Resp: 259964

Ion	Ratio	Lower	Upper
83	100		
85	61.3	49.6	74.4

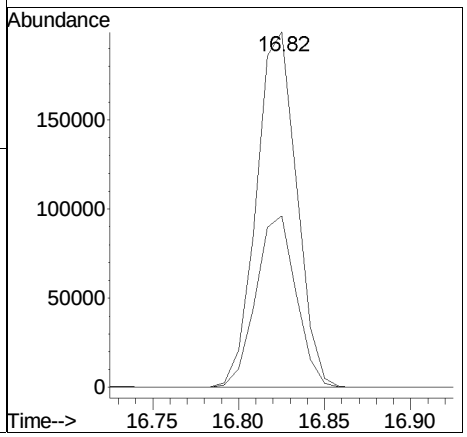


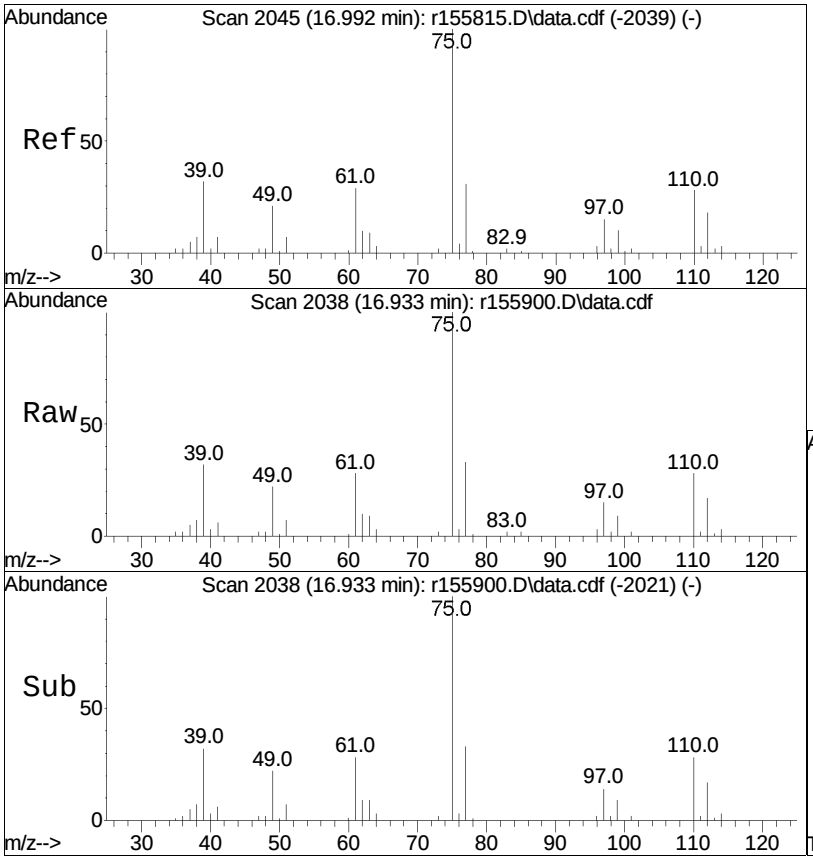


#87
o-xylene
Concen: 9.28 ppbV
RT: 16.82 min Scan# 2025
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 91 Resp: 324527

Ion	Ratio	Lower	Upper
91	100		
106	48.3	38.0	57.0

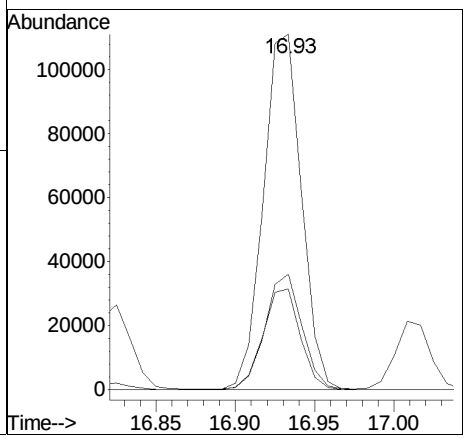


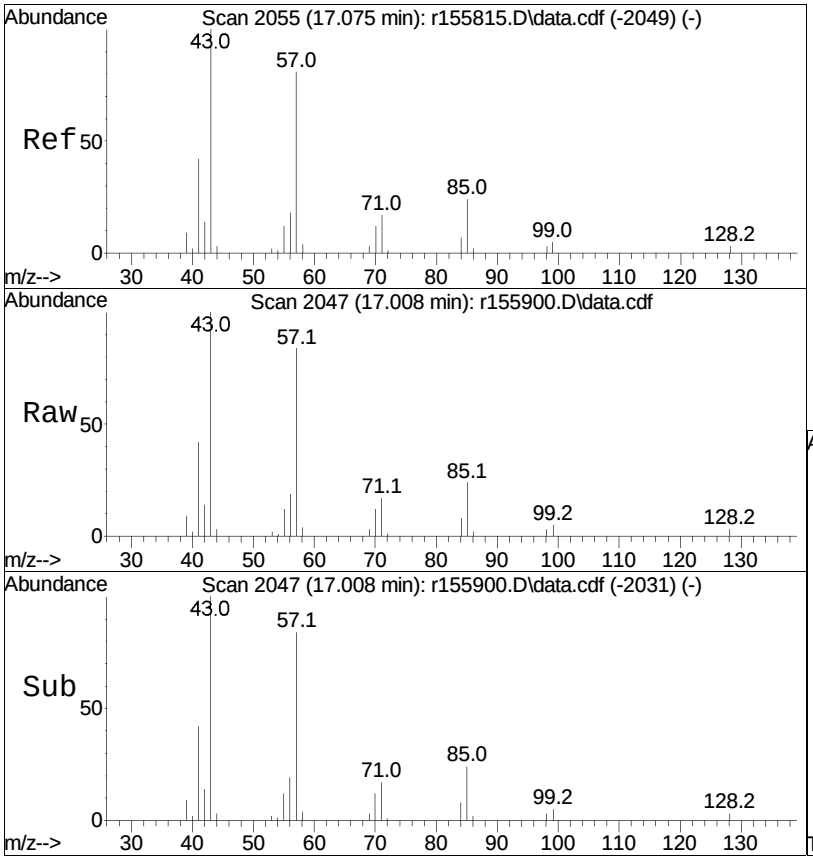


#88
1,2,3-trichloropropane
Concen: 9.15 ppbV
RT: 16.93 min Scan# 2038
Delta R.T. -0.058 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 75 Resp: 184957

Ion	Ratio	Lower	Upper
75	100		
110	28.3	22.3	33.5
39	32.4	25.4	38.2

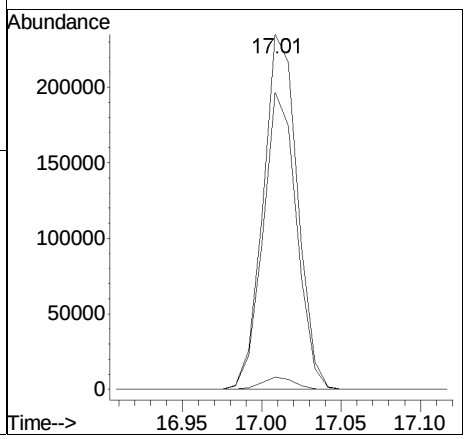


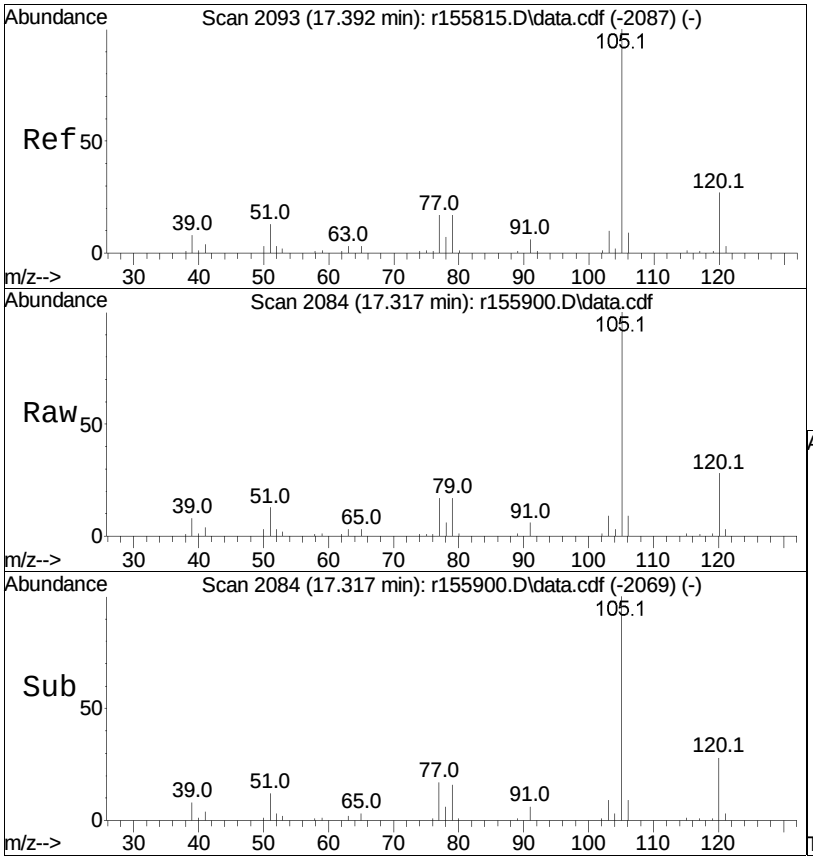


#89
nonane
Concen: 8.60 ppbV
RT: 17.01 min Scan# 2047
Delta R.T. -0.067 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 43 Resp: 353968

Ion	Ratio	Lower	Upper
43	100		
57	83.7	64.4	96.6
128	3.5	2.6	4.0

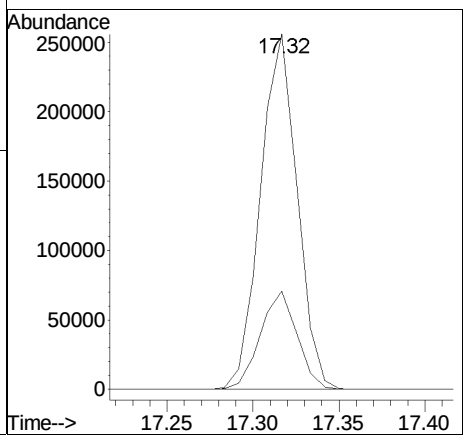


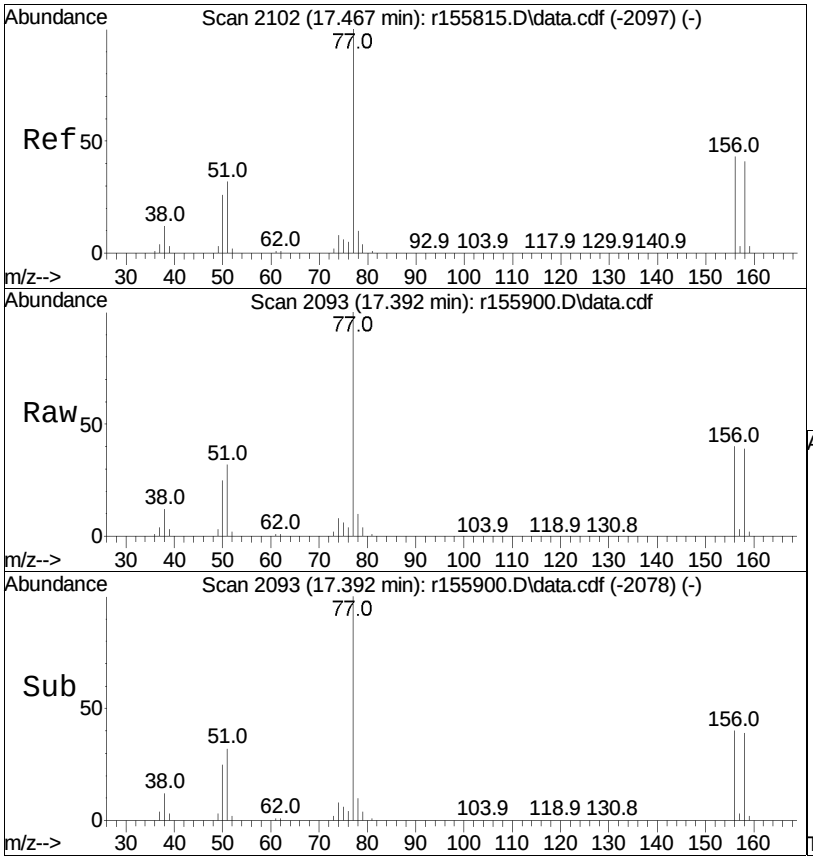


#91
isopropylbenzene
Concen: 9.36 ppbV
RT: 17.32 min Scan# 2084
Delta R.T. -0.075 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:105 Resp: 380015

Ion	Ratio	Lower	Upper
105	100		
120	27.6	21.8	32.8

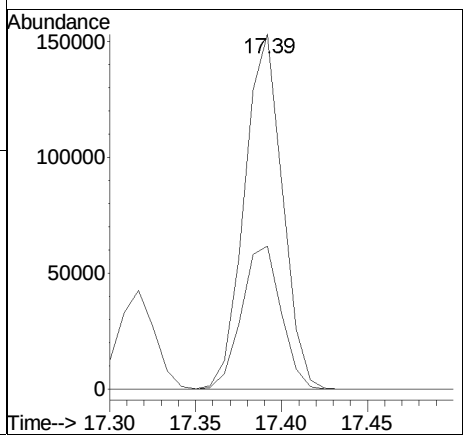


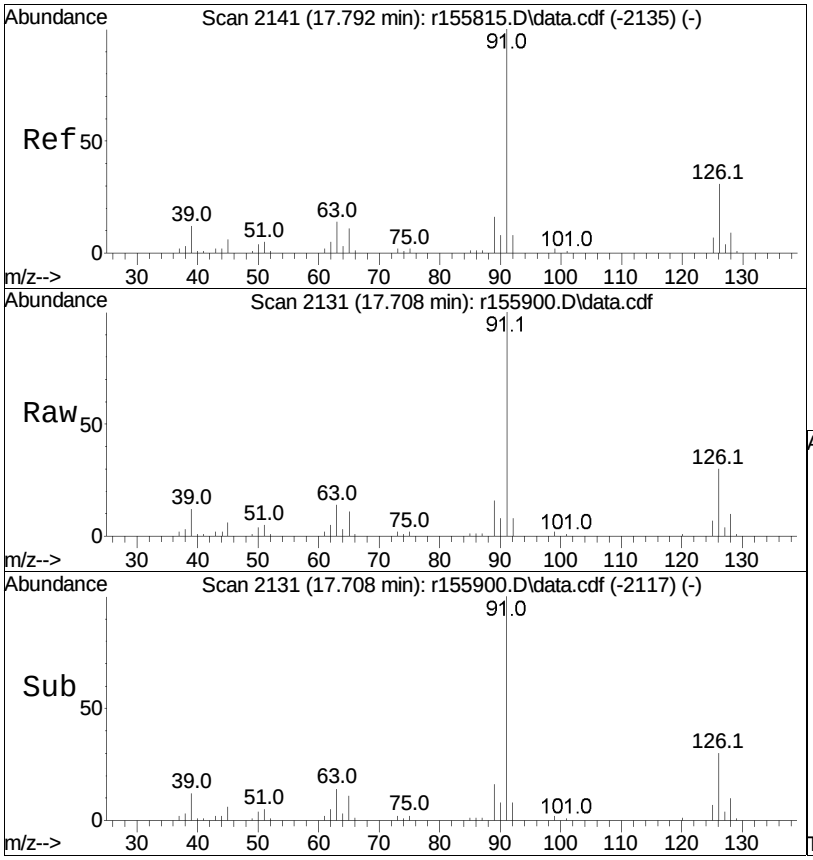


#92
bromobenzene
Concen: 9.02 ppbV
RT: 17.39 min Scan# 2093
Delta R.T. -0.075 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 77 Resp: 235990

Ion	Ratio	Lower	Upper
77	100		
156	40.3	34.2	51.2

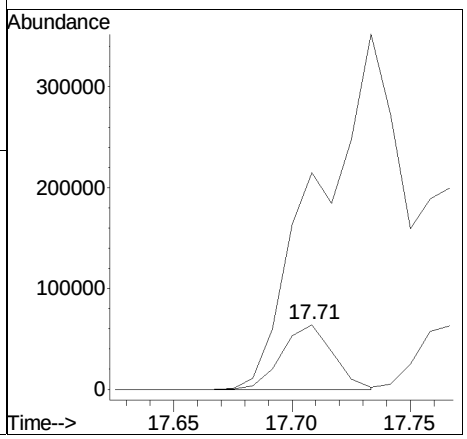


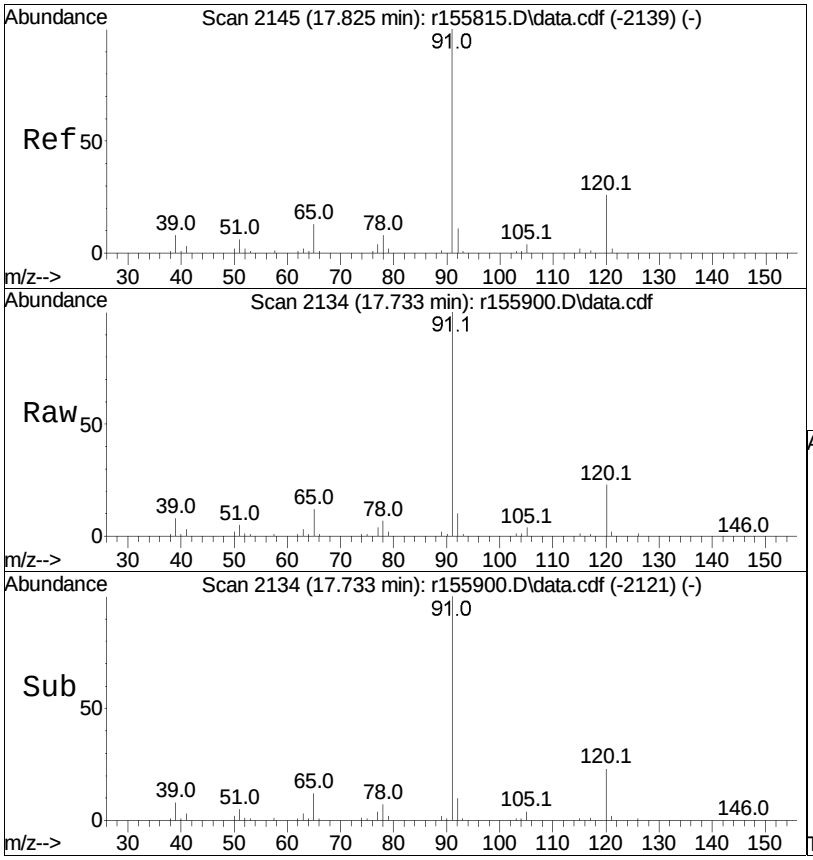


#93
2-chlorotoluene
Concen: 8.79 ppbV m
RT: 17.71 min Scan# 2131
Delta R.T. -0.083 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:126 Resp: 95737

Ion	Ratio	Lower	Upper
126	100		
91	335.9	261.3	391.9

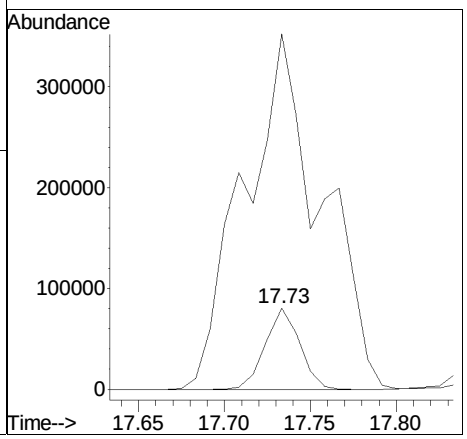


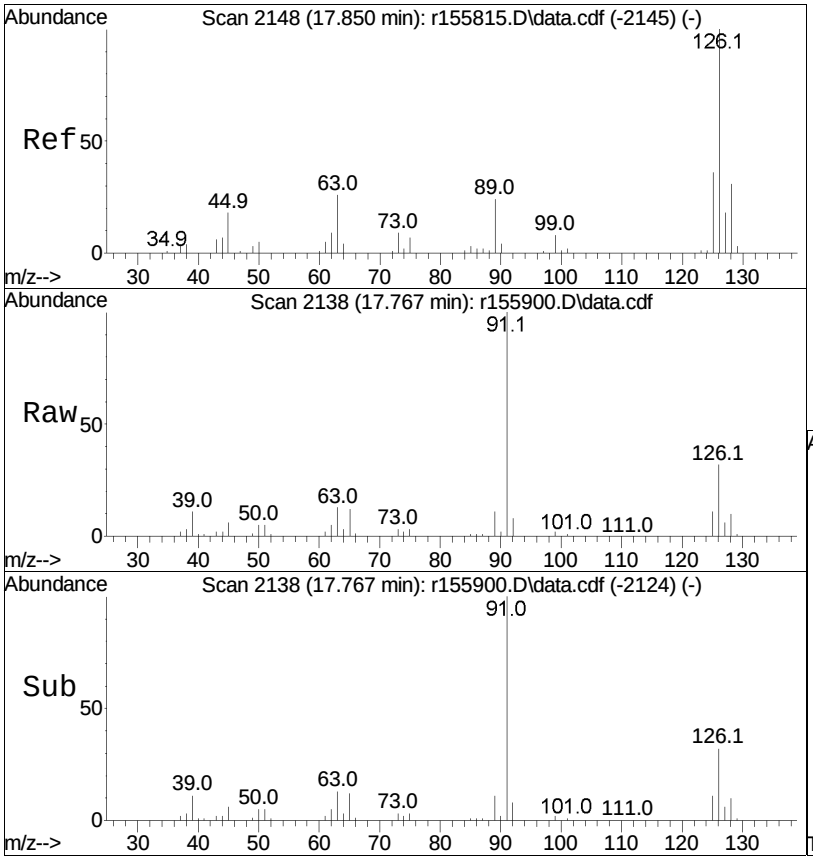


#94
n-propylbenzene
Concen: 8.79 ppbV
RT: 17.73 min Scan# 2134
Delta R.T. -0.092 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:120 Resp: 112446

Ion	Ratio	Lower	Upper
120	100		
91	437.6	346.2	519.2

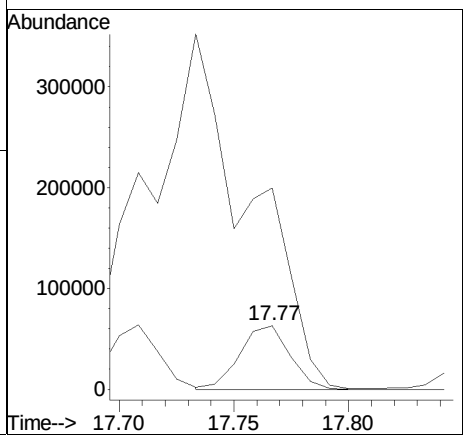


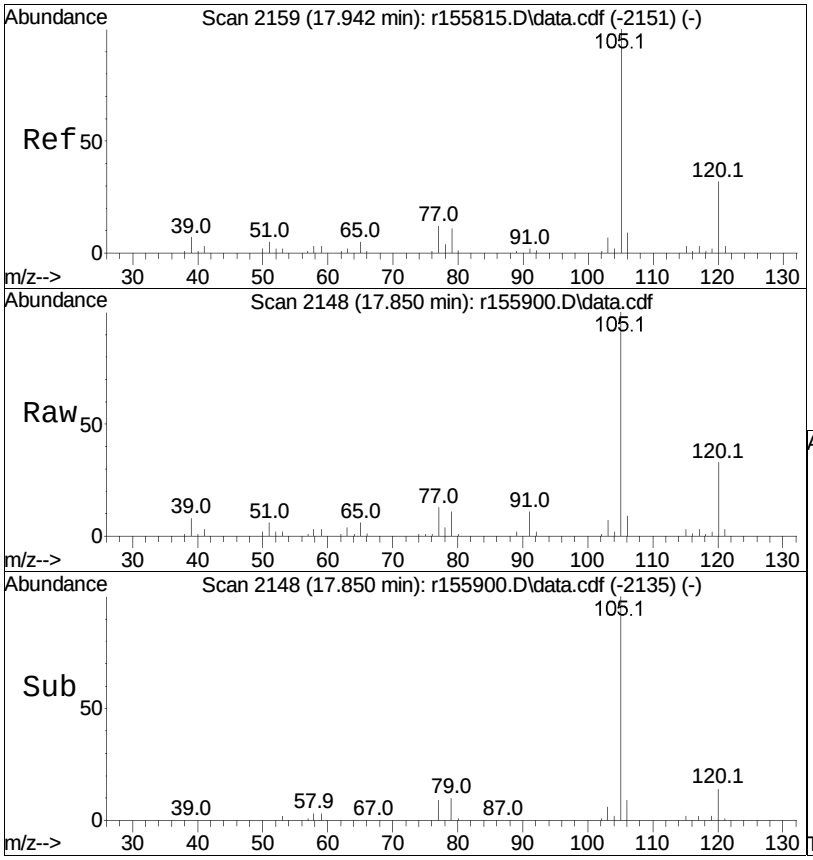


#95
4-chlorotoluene
Concen: 9.04 ppbV
RT: 17.77 min Scan# 2138
Delta R.T. -0.083 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:126 Resp: 95873

Ion	Ratio	Lower	Upper
126	100		
91	316.7	261.4	392.2

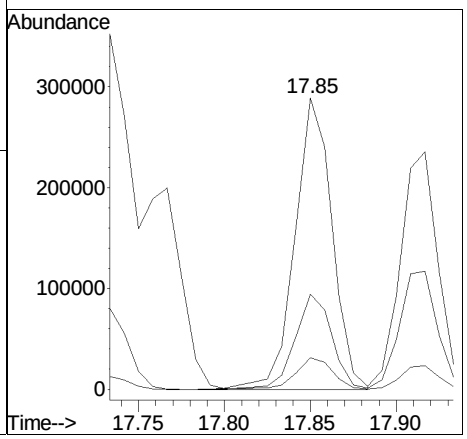


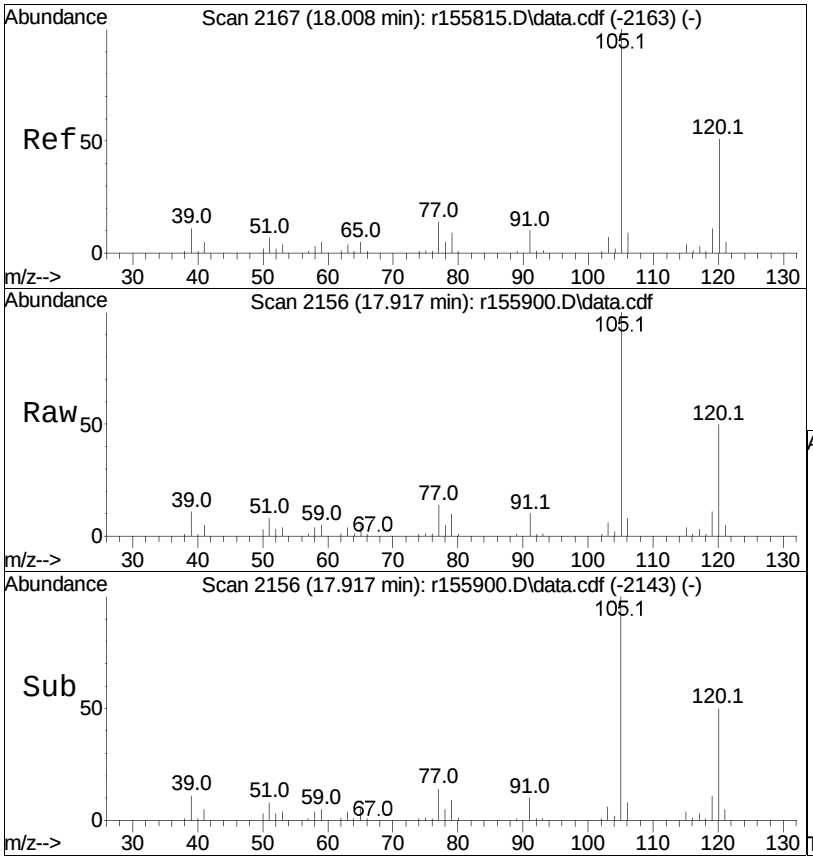


#96
4-ethyl toluene
Concen: 9.88 ppbV
RT: 17.85 min Scan# 2148
Delta R.T. -0.092 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:105 Resp: 433734

Ion	Ratio	Lower	Upper
105	100		
120	32.7	25.3	37.9
91	10.9	8.5	12.7

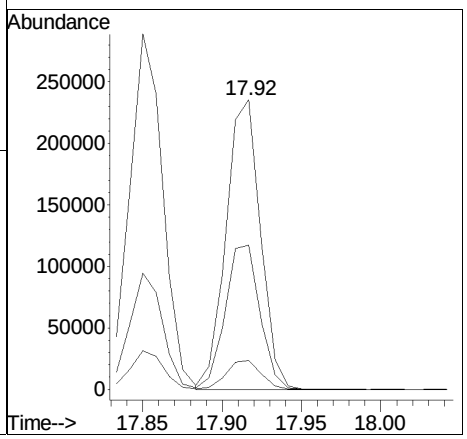


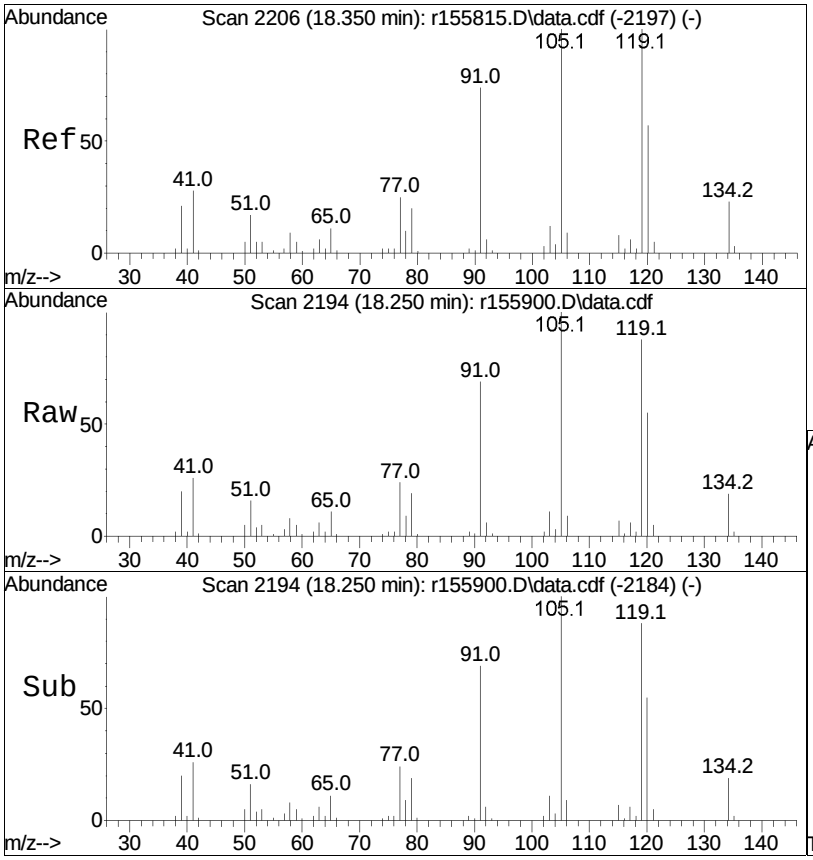


#97
1,3,5-trimethylbenzene
Concen: 9.40 ppbV
RT: 17.92 min Scan# 2156
Delta R.T. -0.092 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:105 Resp: 355543

Ion	Ratio	Lower	Upper
105	100		
120	49.8	40.8	61.2
91	10.0	8.0	12.0

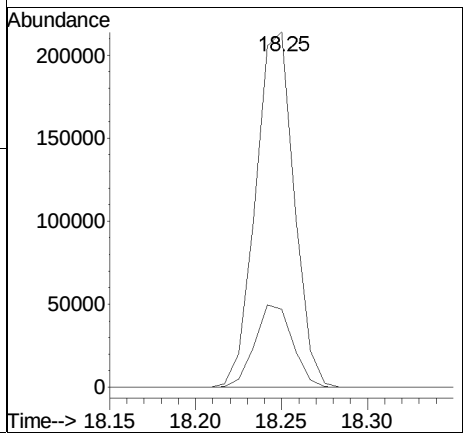


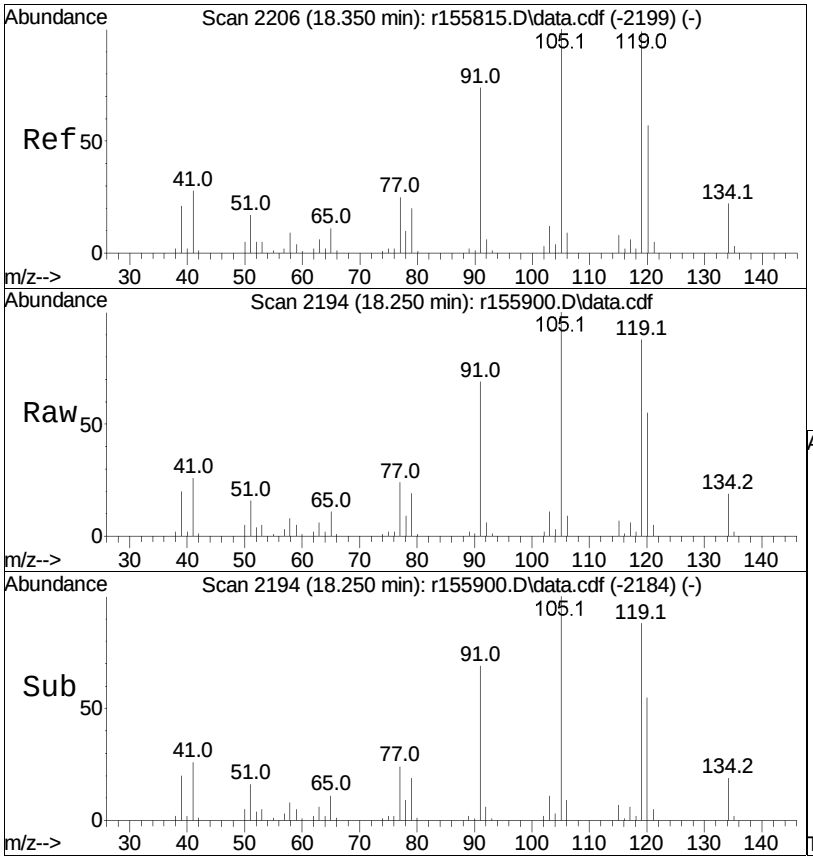


#98
tert-butylbenzene
Concen: 8.91 ppbV
RT: 18.25 min Scan# 2194
Delta R.T. -0.100 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:119 Resp: 333050

Ion	Ratio	Lower	Upper
119	100		
134	22.0	18.2	27.2

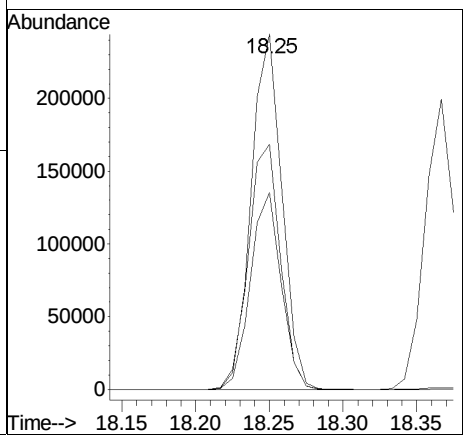


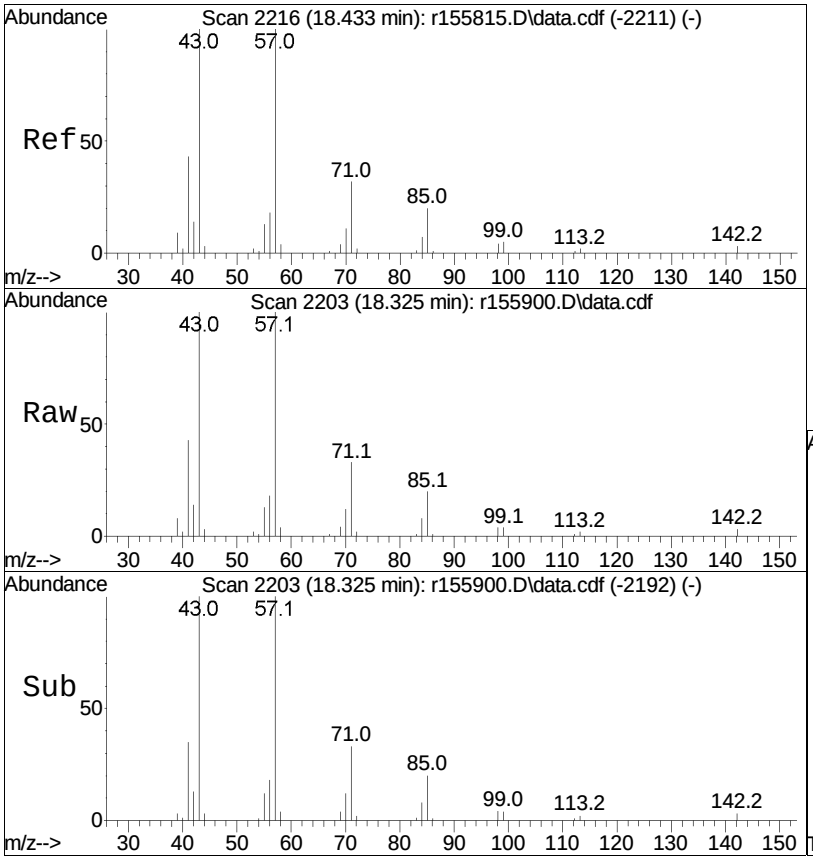


#99
1,2,4-trimethylbenzene
Concen: 9.18 ppbV
RT: 18.25 min Scan# 2194
Delta R.T. -0.100 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:105 Resp: 353454

Ion	Ratio	Lower	Upper
105	100		
120	55.4	45.9	68.9
91	69.0	59.2	88.8

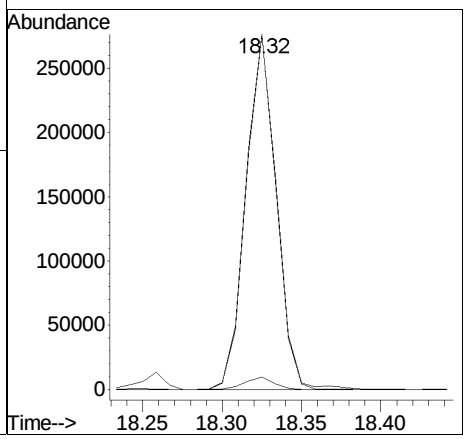


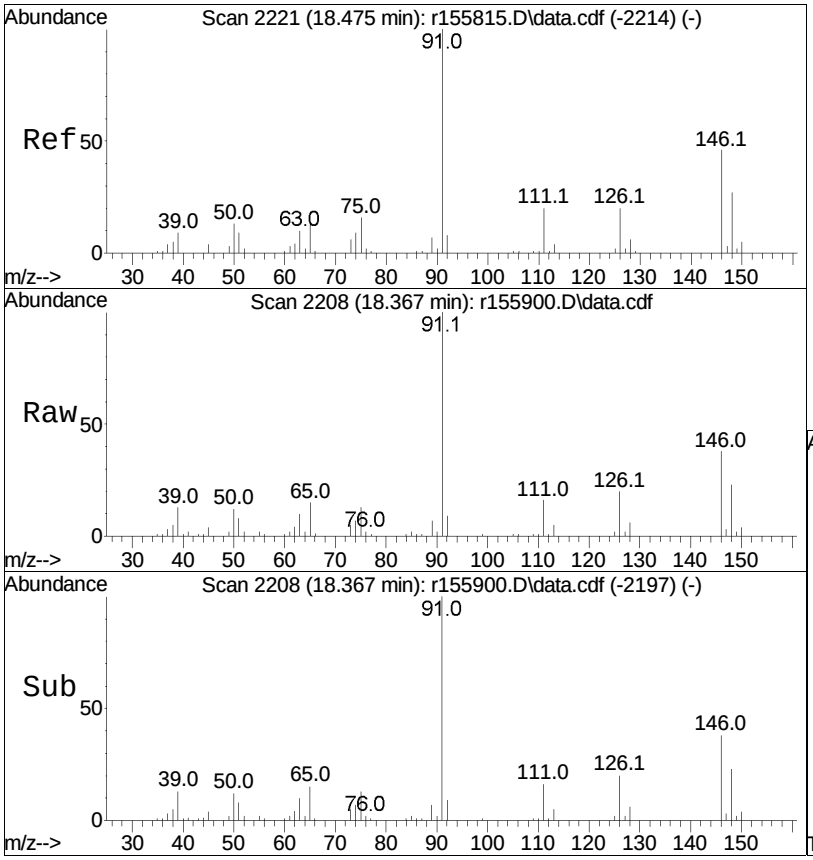


#100
decane
Concen: 8.93 ppbV
RT: 18.32 min Scan# 2203
Delta R.T. -0.108 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 57 Resp: 364764

Ion	Ratio	Lower	Upper
57	100		
43	99.6	80.2	120.4
142	3.5	2.5	3.7

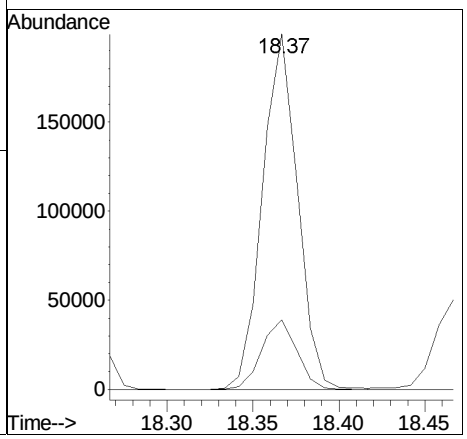


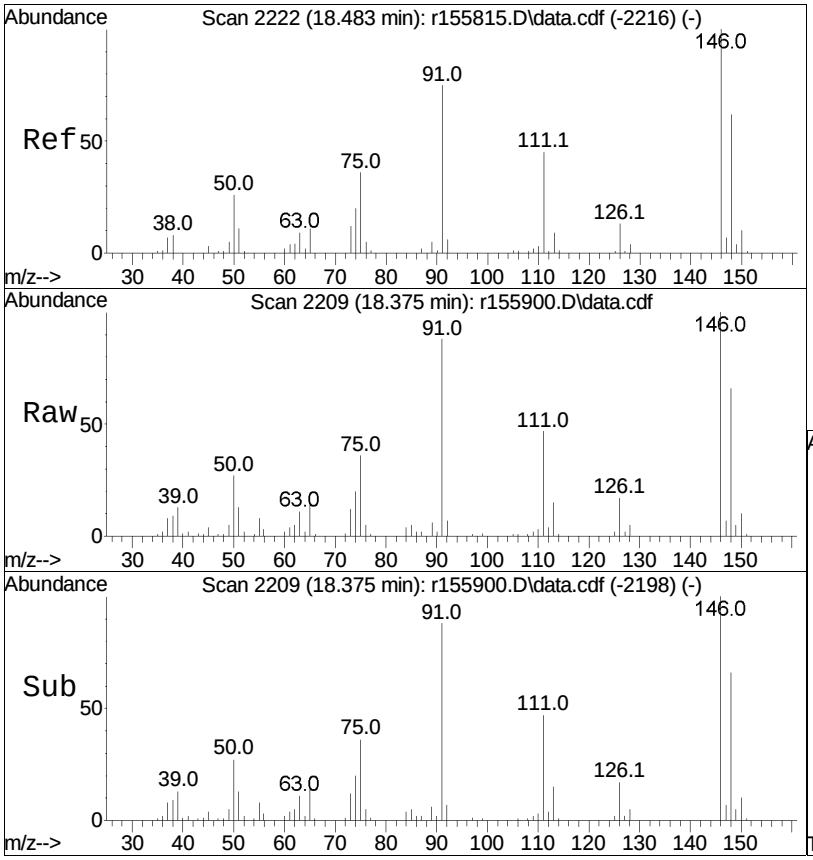


#101
Benzyl Chloride
Concen: 10.61 ppbV
RT: 18.37 min Scan# 2208
Delta R.T. -0.108 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 91 Resp: 283028

Ion	Ratio	Lower	Upper
91	100		
126	19.6	16.1	24.1

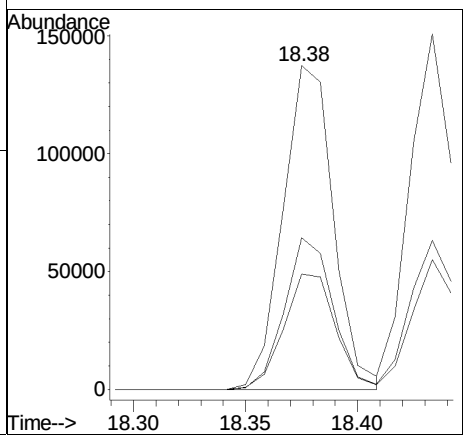


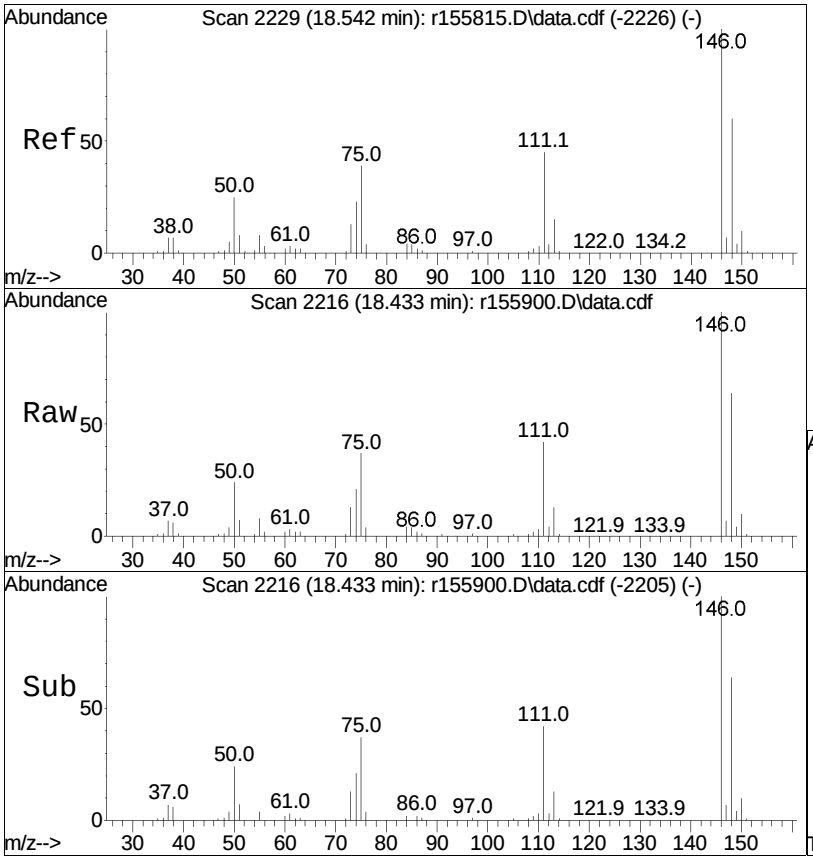


#102
1,3-dichlorobenzene
Concen: 9.49 ppbV m
RT: 18.38 min Scan# 2209
Delta R.T. -0.108 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:146 Resp: 214957

Ion	Ratio	Lower	Upper
146	100		
111	46.8	36.4	54.6
75	35.7	28.6	43.0

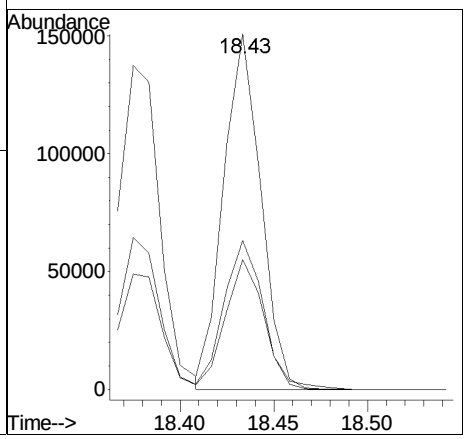


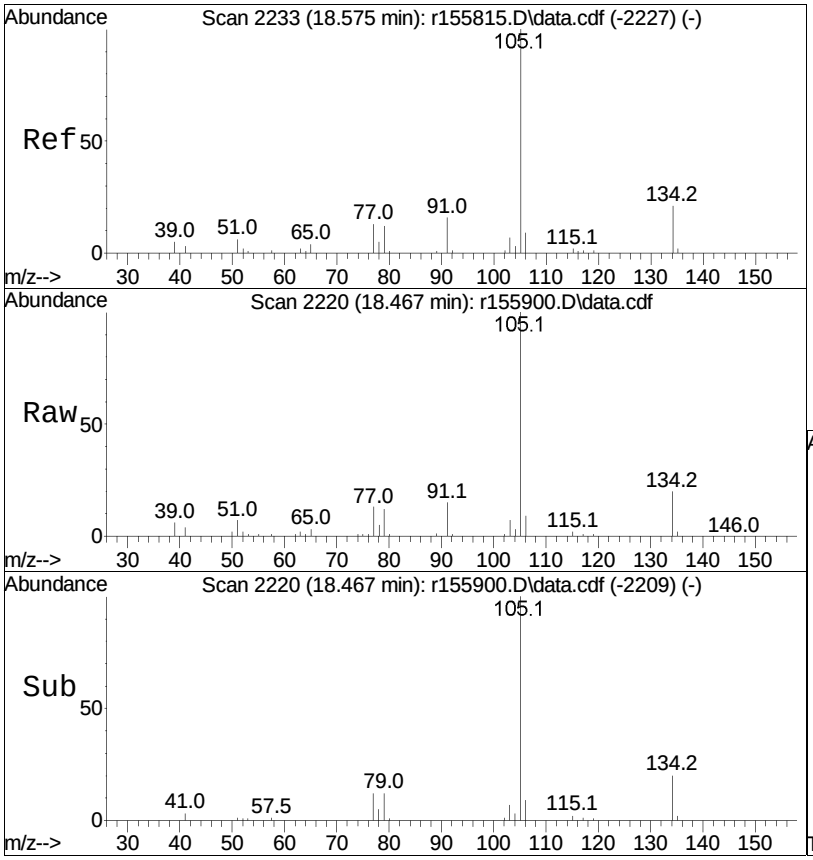


#103
1,4-dichlorobenzene
Concen: 9.43 ppbV
RT: 18.43 min Scan# 2216
Delta R.T. -0.108 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:146 Resp: 208592

Ion	Ratio	Lower	Upper
146	100		
111	41.9	35.5	53.3
75	36.5	30.9	46.3

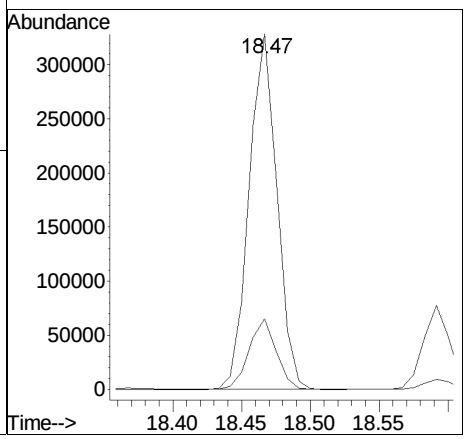


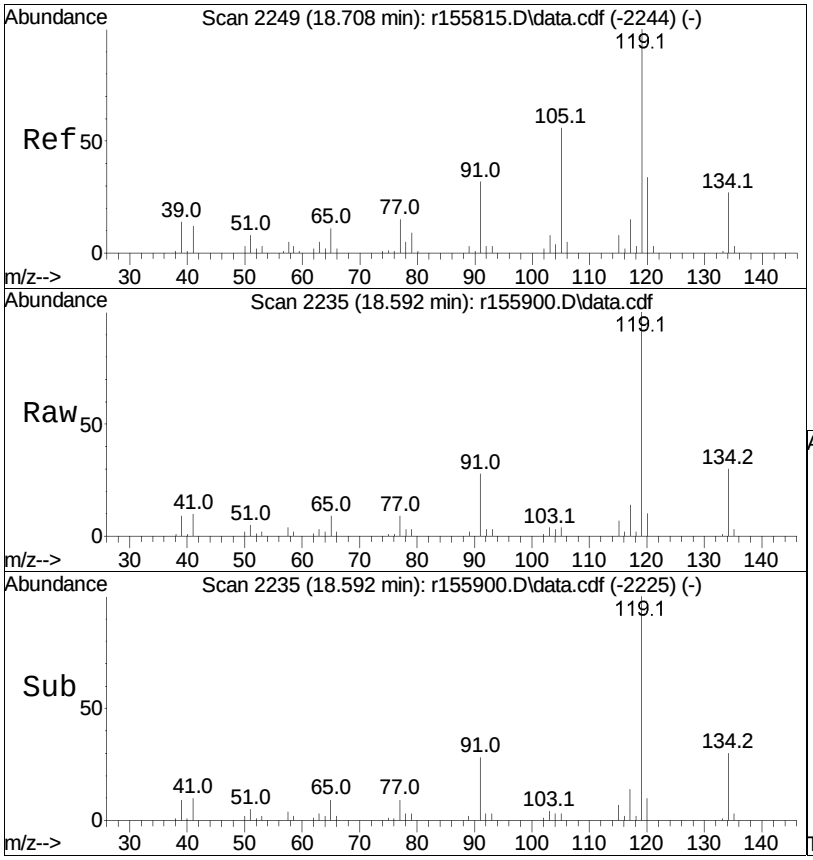


#104
sec-butylbenzene
Concen: 8.80 ppbV
RT: 18.47 min Scan# 2220
Delta R.T. -0.108 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:105 Resp: 462829

Ion	Ratio	Lower	Upper
105	100		
134	19.9	16.6	25.0

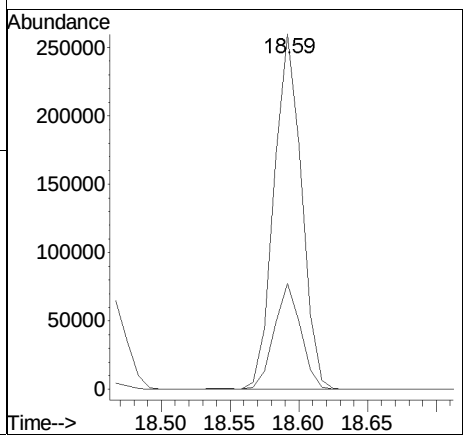


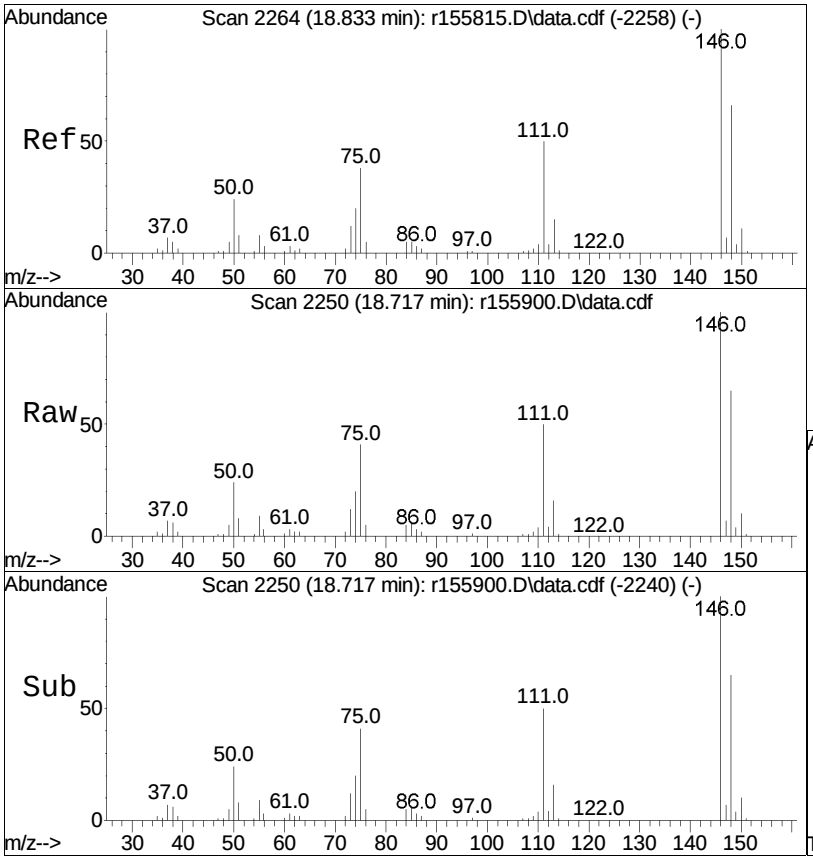


#106
p-isopropyltoluene
Concen: 8.23 ppbV
RT: 18.59 min Scan# 2235
Delta R.T. -0.117 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:119 Resp: 362496

Ion	Ratio	Lower	Upper
119	100		
134	29.8	21.6	32.4

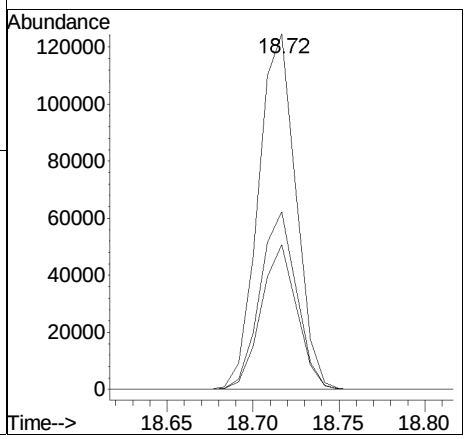


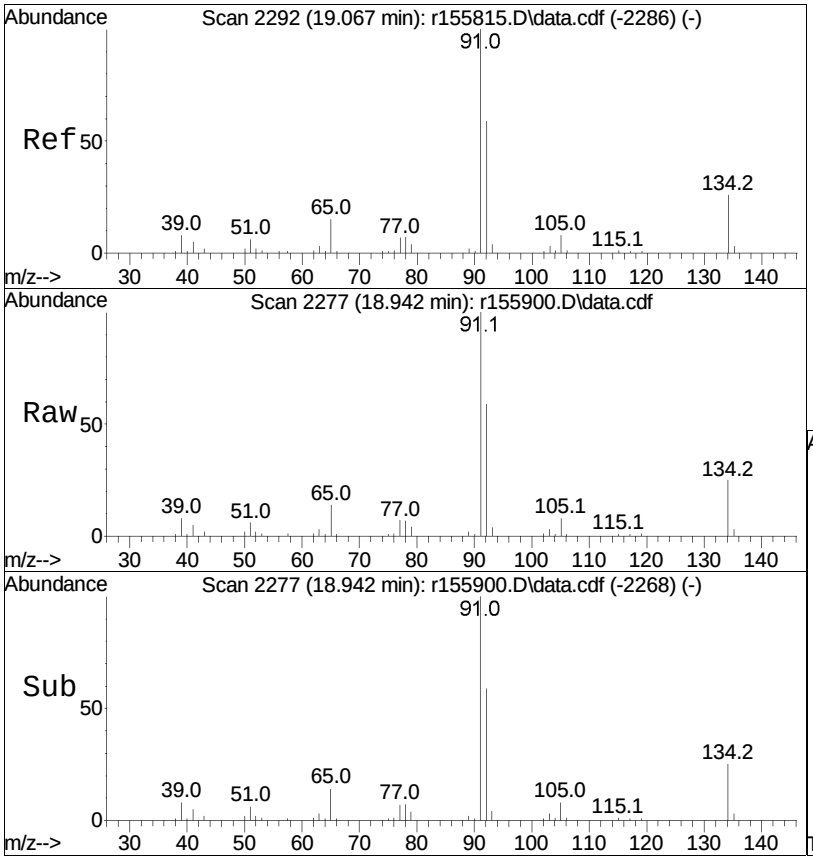


#107
1,2-dichlorobenzene
Concen: 9.20 ppbV
RT: 18.72 min Scan# 2250
Delta R.T. -0.117 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:146 Resp: 189999

Ion	Ratio	Lower	Upper
146	100		
111	50.0	39.8	59.6
75	40.8	30.8	46.2

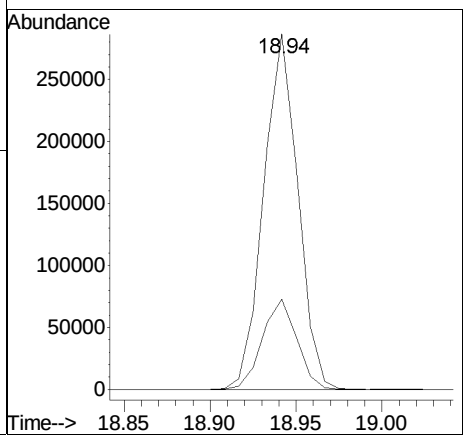


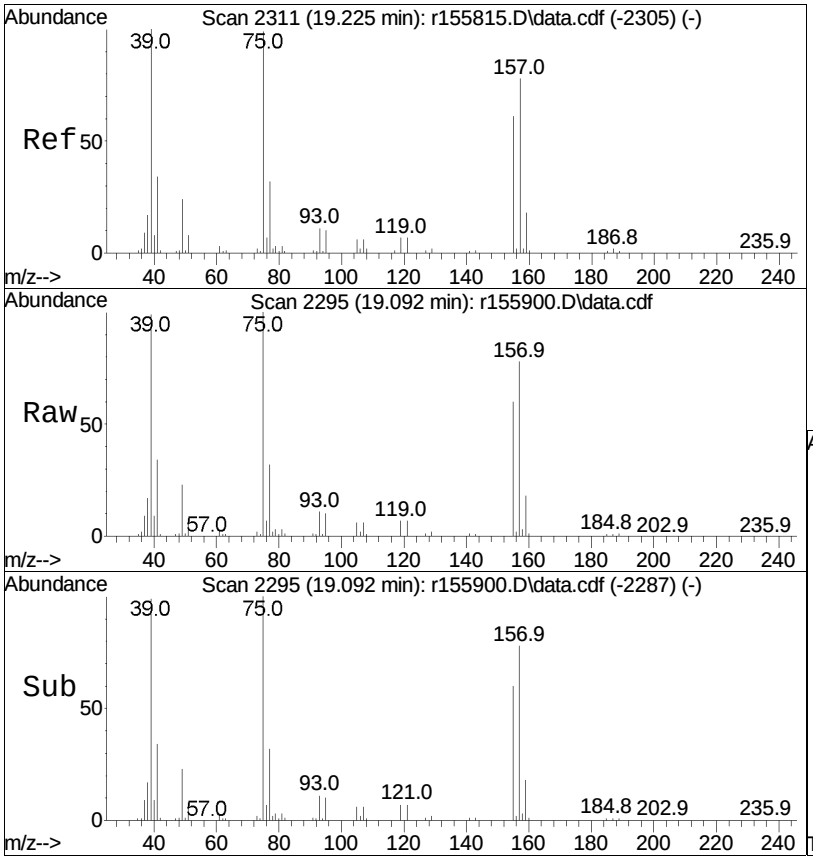


#108
n-butylbenzene
Concen: 9.30 ppbV
RT: 18.94 min Scan# 2277
Delta R.T. -0.125 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 91 Resp: 397410

Ion	Ratio	Lower	Upper
91	100		
134	25.4	20.8	31.2

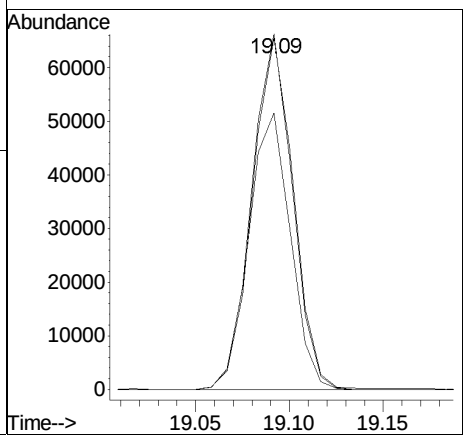


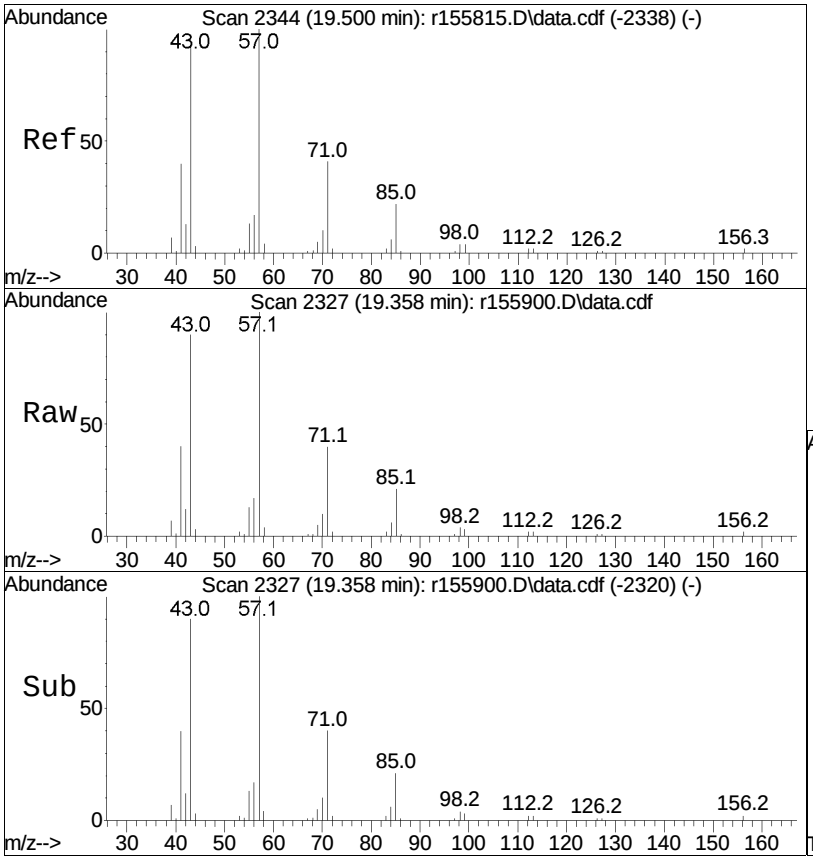


#111
1,2-dibromo-3-chloropropane
Concen: 9.75 ppbV
RT: 19.09 min Scan# 2295
Delta R.T. -0.133 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 75 Resp: 99752

Ion	Ratio	Lower	Upper
75	100		
157	77.8	63.2	94.8
39	98.9	81.0	121.6

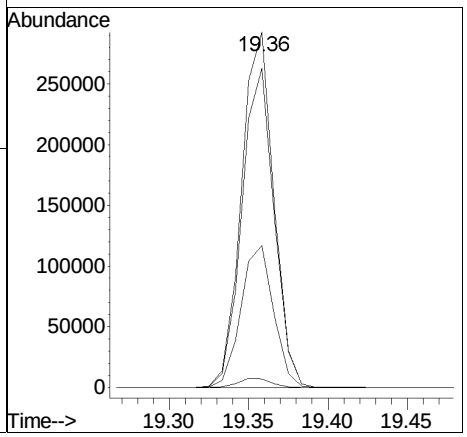


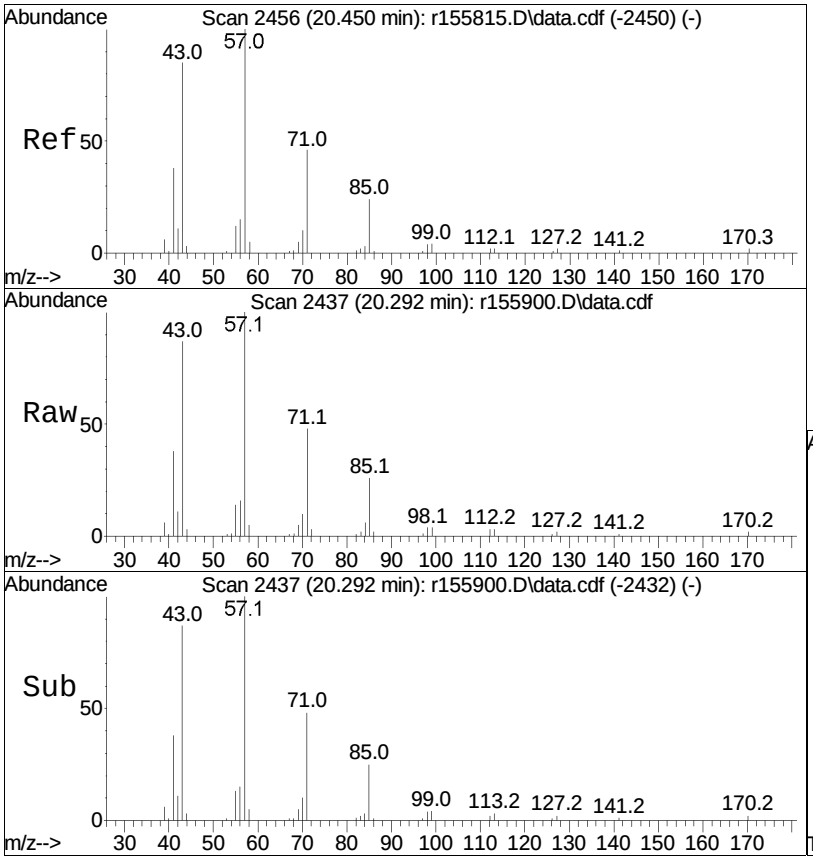


#112
undecane
Concen: 9.50 ppbV
RT: 19.36 min Scan# 2327
Delta R.T. -0.142 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 57 Resp: 413560

Ion	Ratio	Lower	Upper
57	100		
43	89.8	74.9	112.3
71	39.9	32.5	48.7
156	2.4	1.9	2.9

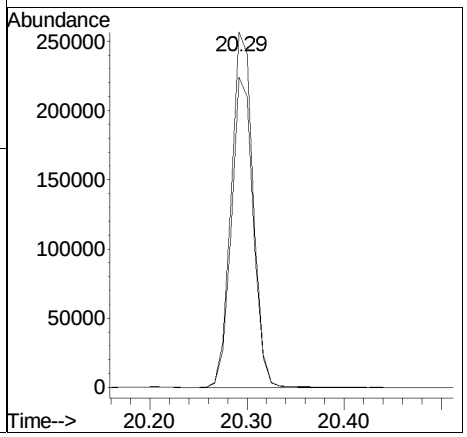


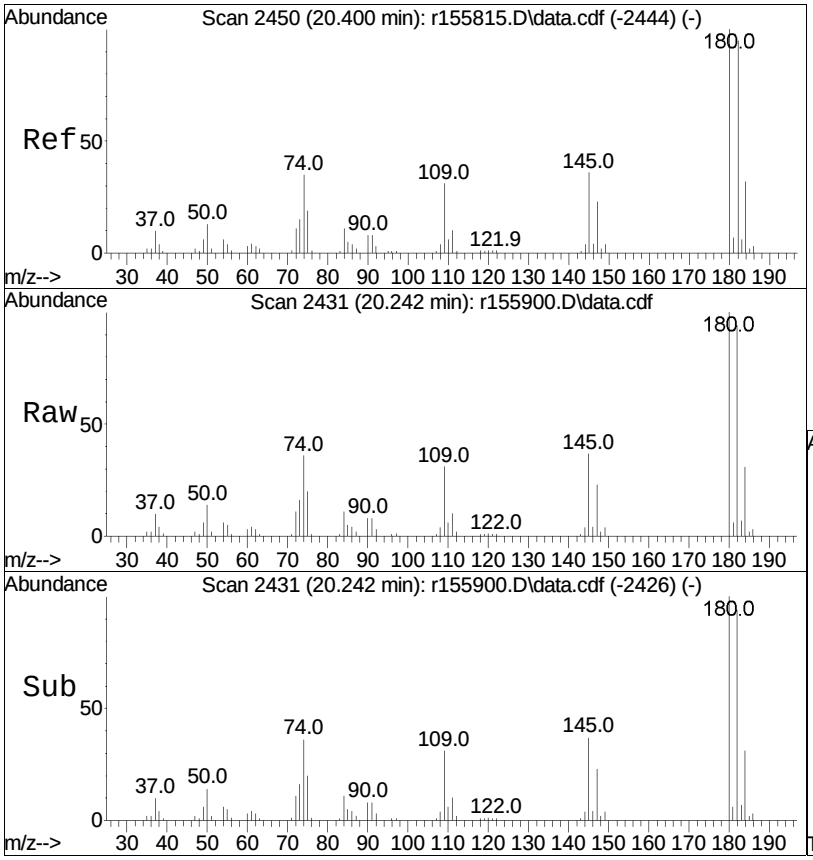


#114
dodecane
Concen: 10.69 ppbV m
RT: 20.29 min Scan# 2437
Delta R.T. -0.158 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion: 57 Resp: 402560

Ion	Ratio	Lower	Upper
57	100		
43	87.3	68.3	102.5

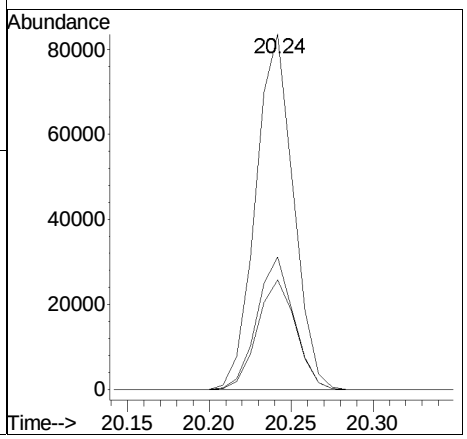


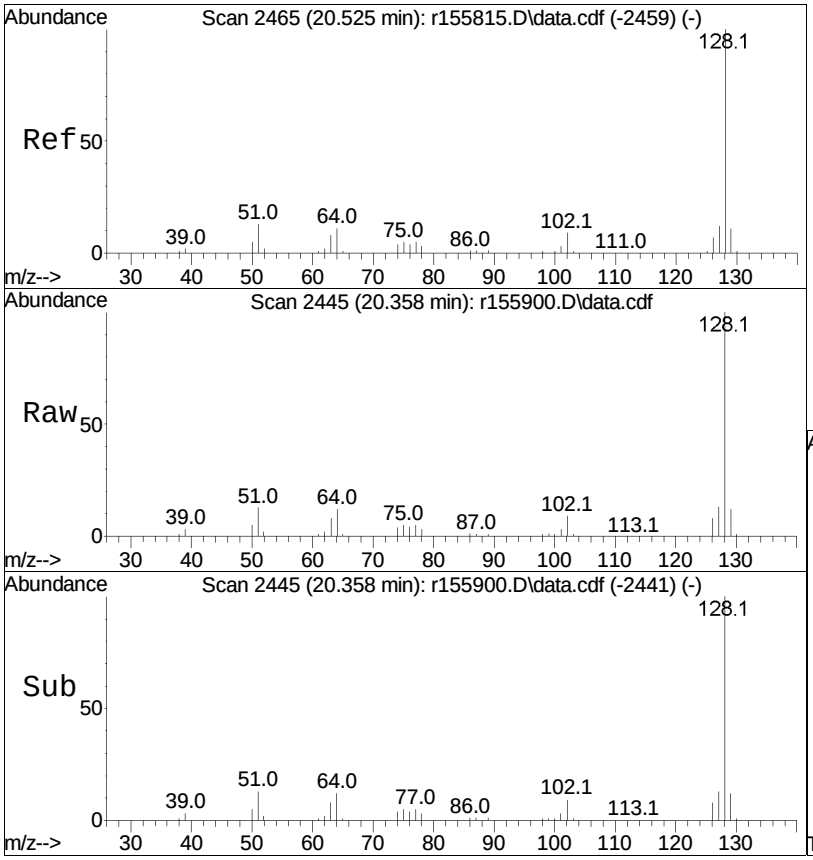


#115
1,2,4-trichlorobenzene
Concen: 9.76 ppbV m
RT: 20.24 min Scan# 2431
Delta R.T. -0.158 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:180 Resp: 133487

Ion	Ratio	Lower	Upper
180	100		
145	37.3	28.9	43.3
109	30.8	24.6	36.8

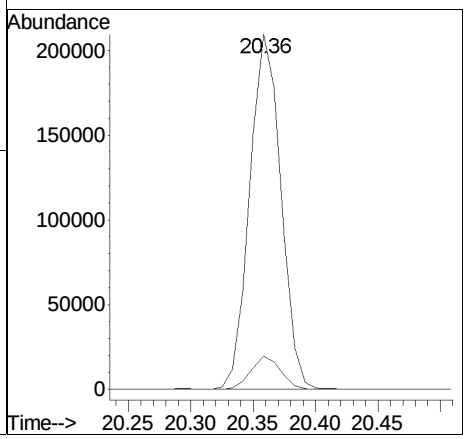


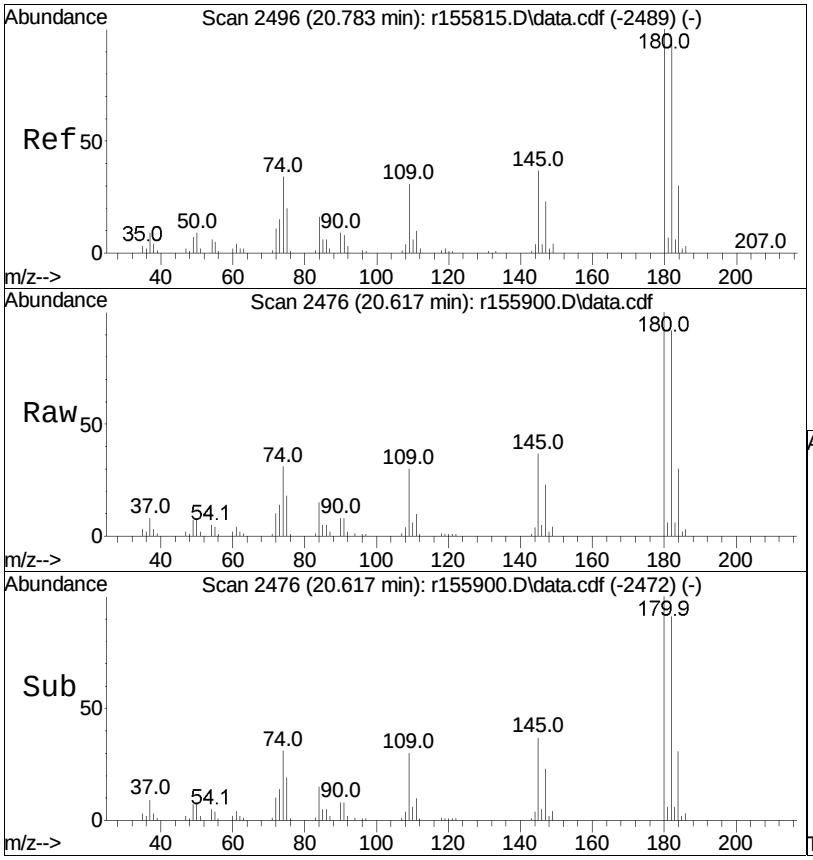


#116
naphthalene
Concen: 9.50 ppbV m
RT: 20.36 min Scan# 2445
Delta R.T. -0.167 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:128 Resp: 365404

Ion	Ratio	Lower	Upper
128	100		
102	9.3	7.0	10.6

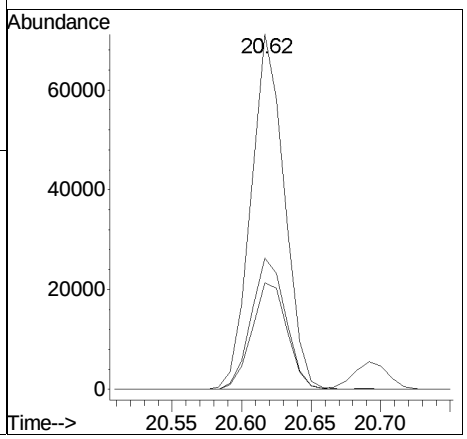


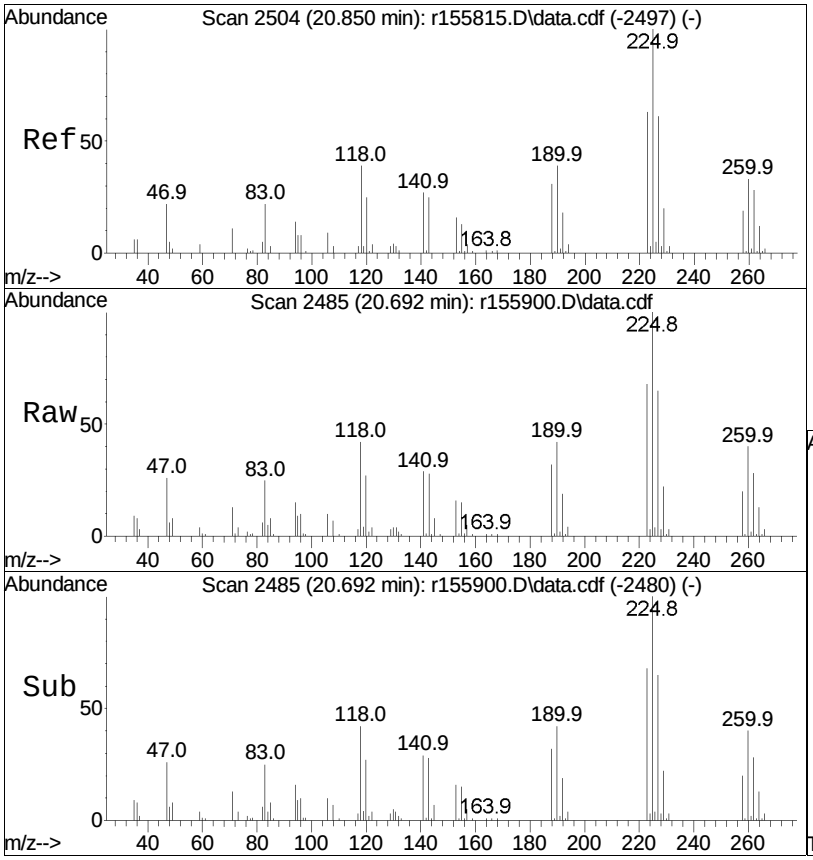


#117
1,2,3-trichlorobenzene
Concen: 9.57 ppbV m
RT: 20.62 min Scan# 2476
Delta R.T. -0.167 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:180 Resp: 119055

Ion	Ratio	Lower	Upper
180	100		
145	37.0	29.8	44.6
109	30.0	24.7	37.1

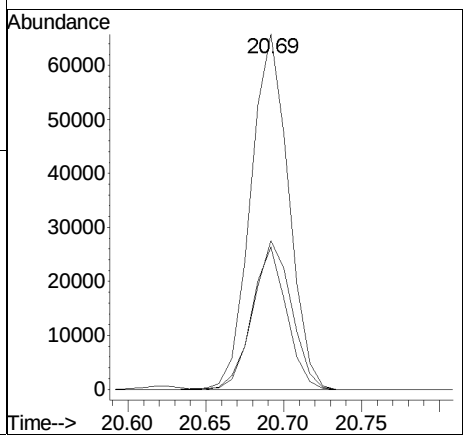




#119
hexachlorobutadiene
Concen: 9.37 ppbV m
RT: 20.69 min Scan# 2485
Delta R.T. -0.158 min
Lab File: r155900.D
Acq: 20 Feb 2018 12:43 PM

Tgt Ion:225 Resp: 110878

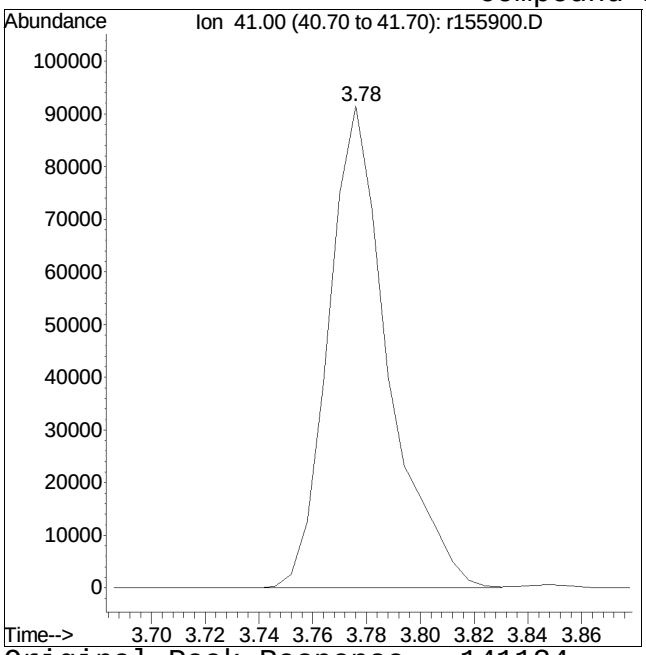
Ion	Ratio	Lower	Upper
225	100		
260	40.1	26.2	39.2#
118	41.9	31.6	47.4



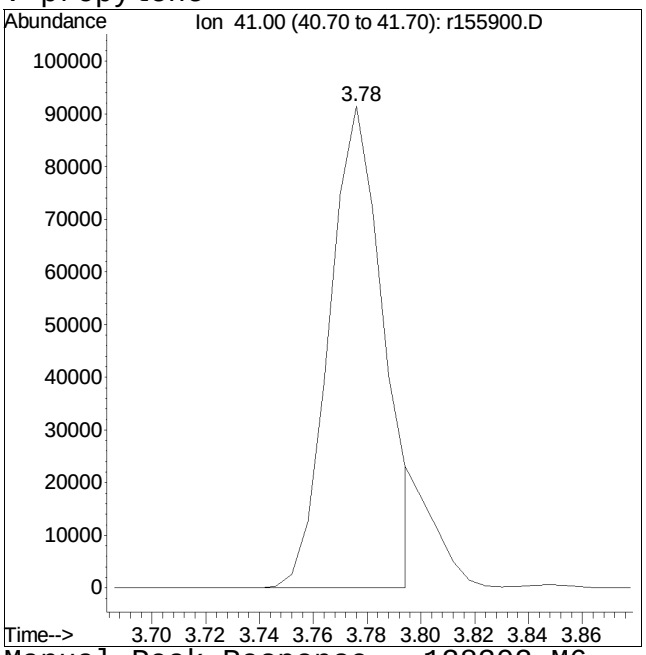
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155900.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 12:43 PM Instrument :
Sample : WG1090771-3,3,250,250 Quant Date : 2/20/2018 1:16 pm

Compound #3: propylene



Original Peak Response = 141124



Manual Peak Response = 128302 M6

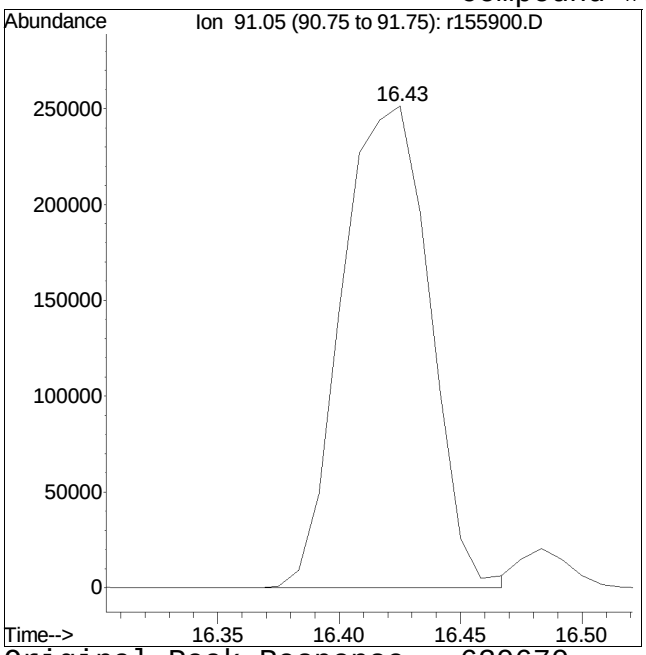
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

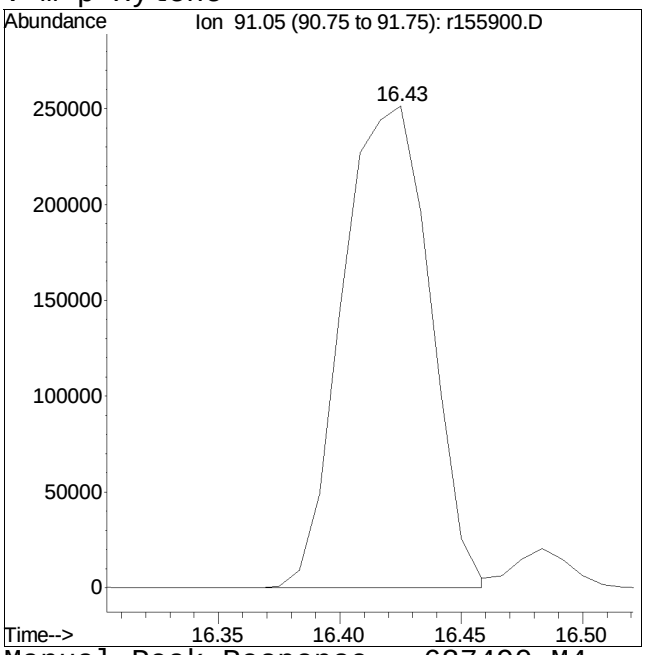
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155900.D
Date Inj'd : 2/20/2018 12:43 PM
Sample : WG1090771-3,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 1:16 pm

Compound #83: m+p-xylene



Original Peak Response = 630670



Manual Peak Response = 627490 M4

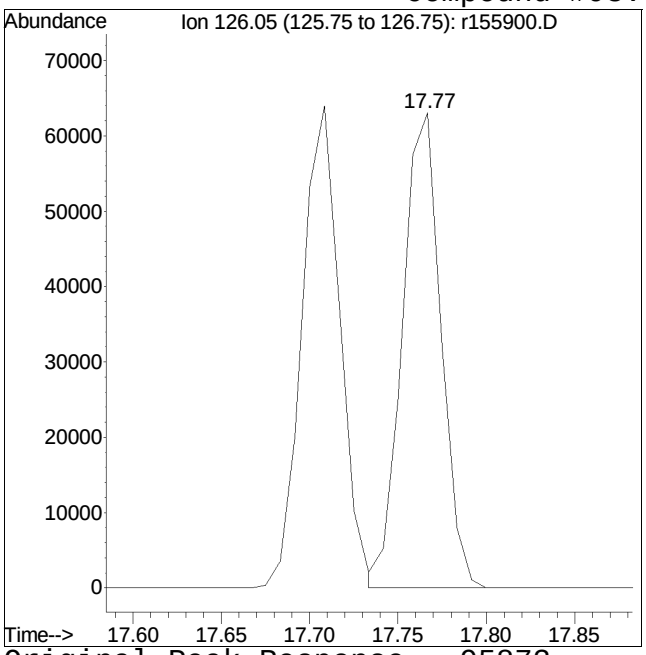
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

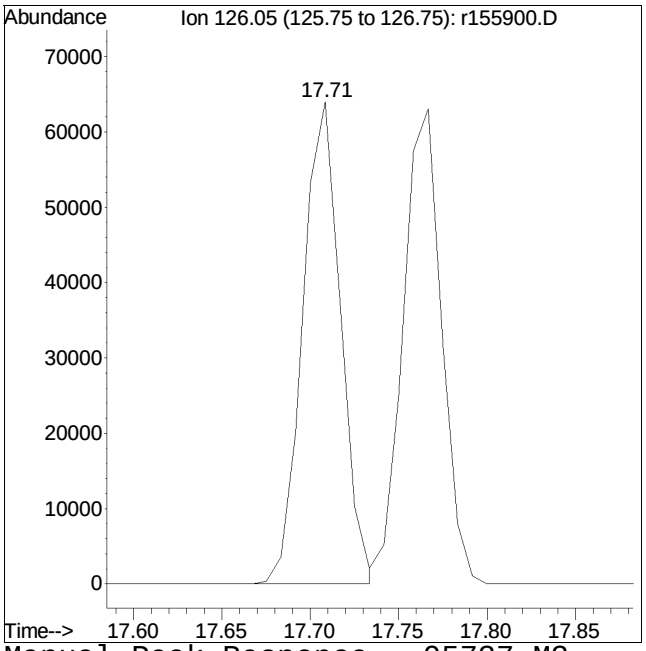
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155900.D
Date Inj'd : 2/20/2018 12:43 PM
Sample : WG1090771-3,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 1:16 pm

Compound #93: 2-chlorotoluene



Original Peak Response = 95873



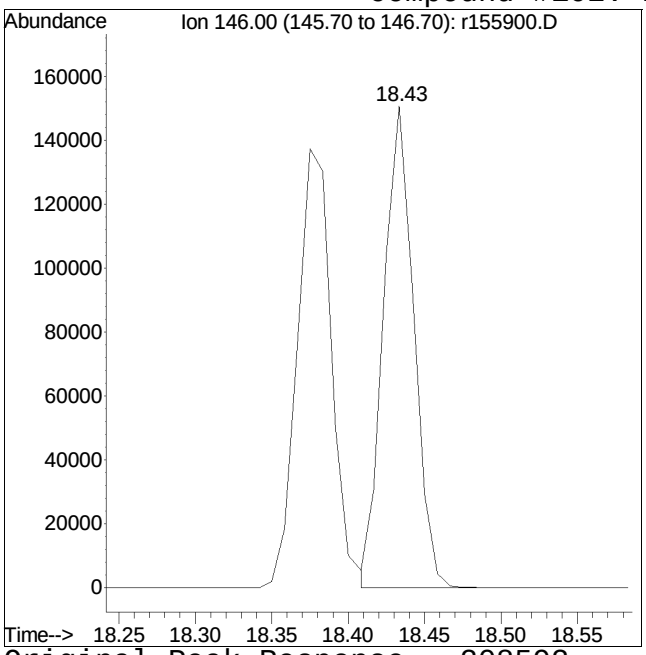
Manual Peak Response = 95737 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

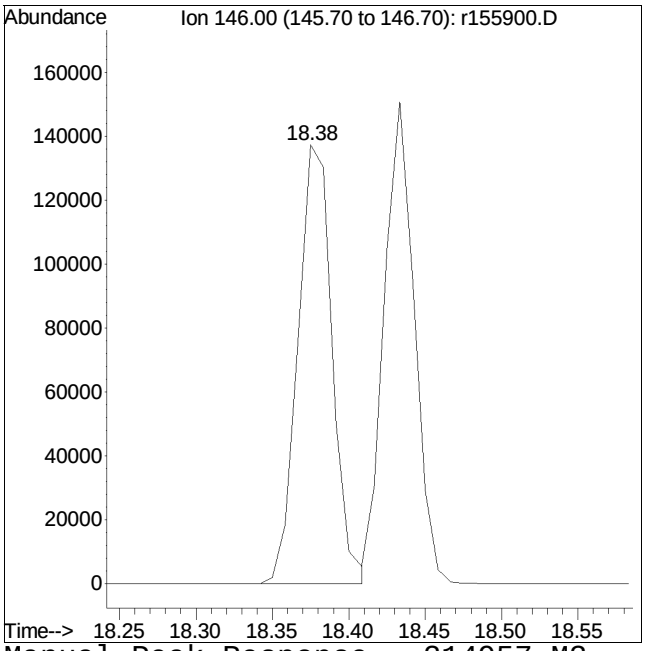
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155900.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 12:43 PM Instrument :
Sample : WG1090771-3,3,250,250 Quant Date : 2/20/2018 1:16 pm

Compound #102: 1,3-dichlorobenzene



Original Peak Response = 208592



Manual Peak Response = 214957 M3

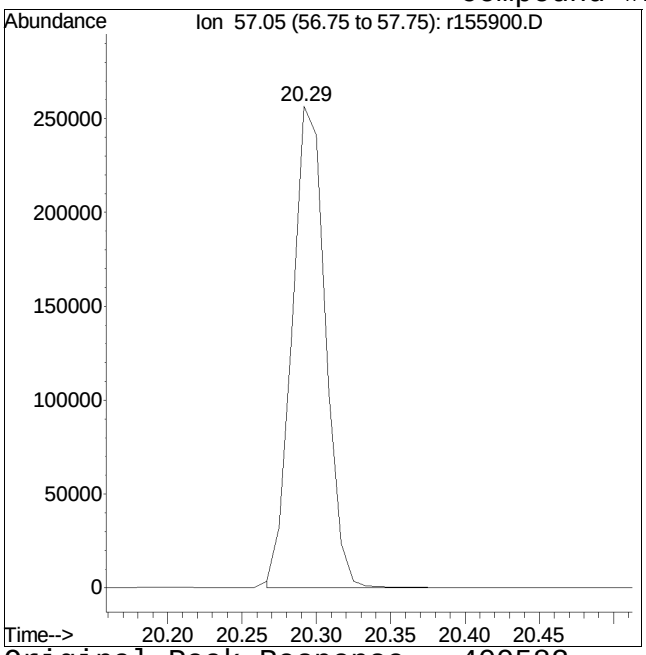
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

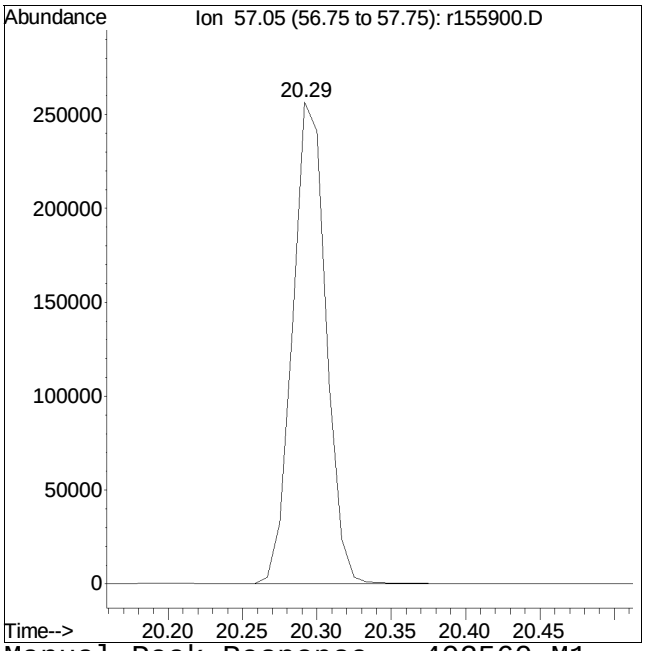
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155900.D
Date Inj'd : 2/20/2018 12:43 PM
Sample : WG1090771-3,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 1:16 pm

Compound #114: dodecane



Original Peak Response = 400582



Manual Peak Response = 402560 M1

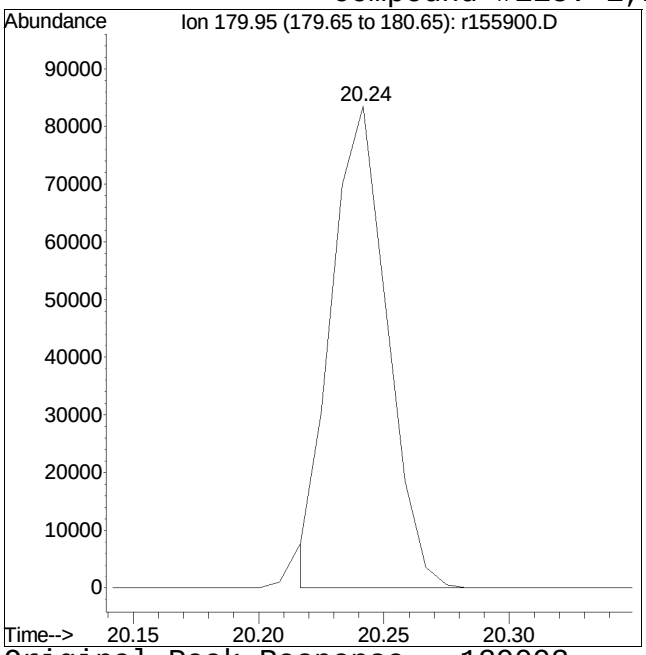
M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration/Negative Proof Report

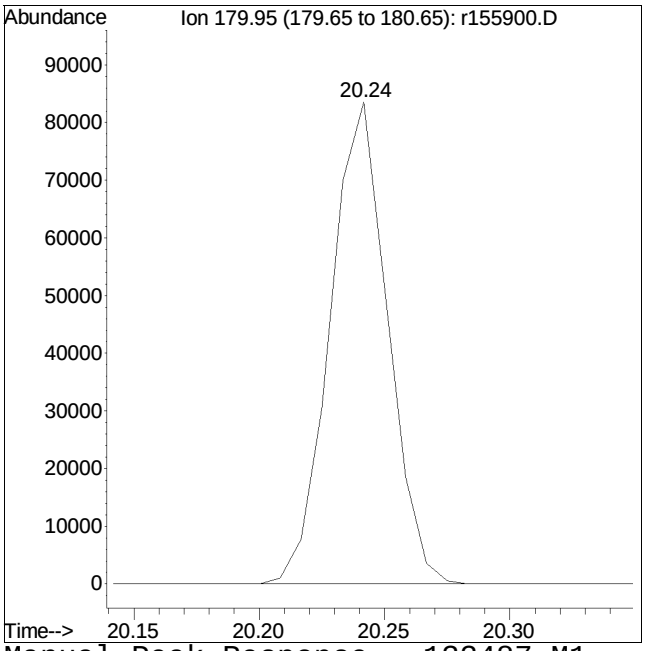
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155900.D
Date Inj'd : 2/20/2018 12:43 PM
Sample : WG1090771-3,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 1:16 pm

Compound #115: 1,2,4-trichlorobenzene



Original Peak Response = 129093



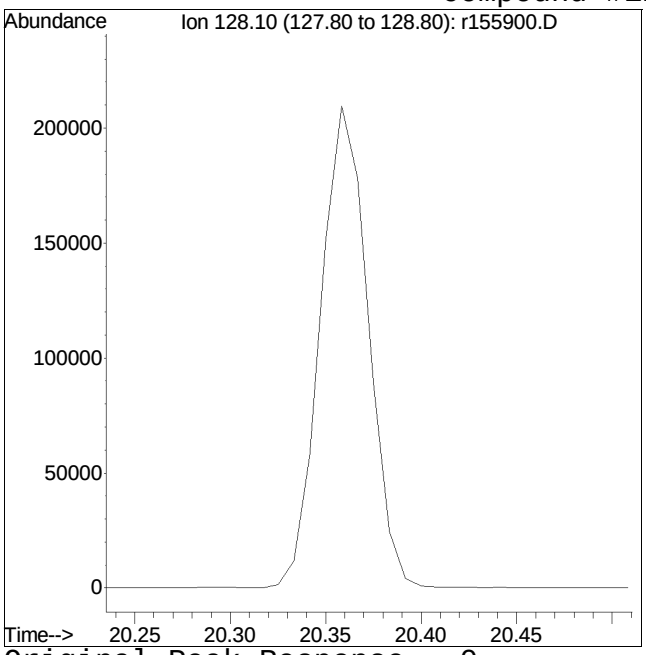
Manual Peak Response = 133487 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

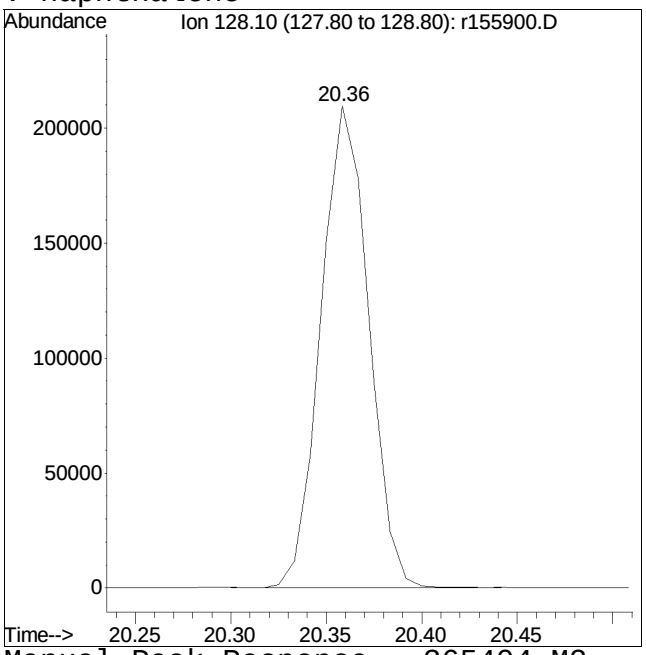
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155900.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 12:43 PM Instrument :
Sample : WG1090771-3,3,250,250 Quant Date : 2/20/2018 1:16 pm

Compound #116: naphthalene



Original Peak Response = 0



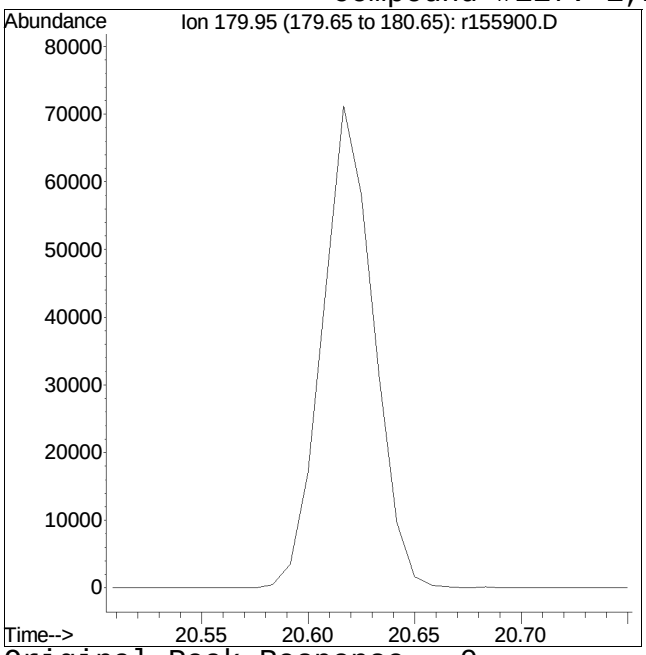
Manual Peak Response = 365404 M2

M2 = Peak not found by automatic integration algorithm.

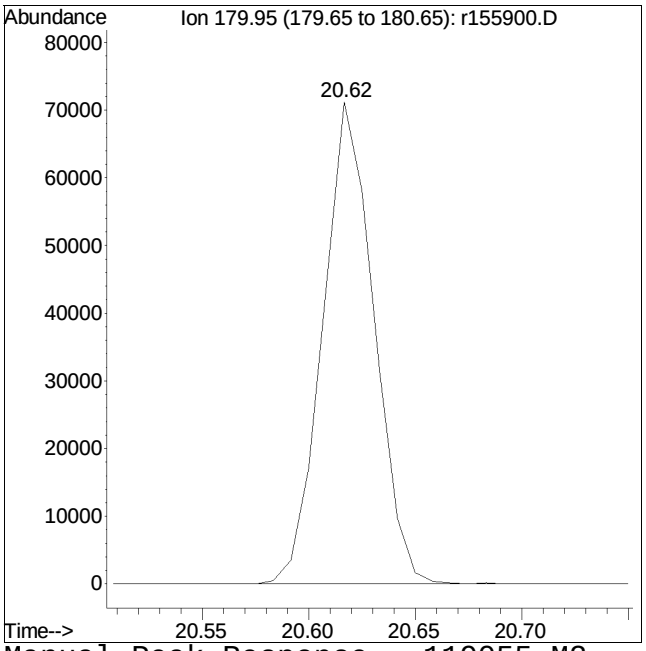
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155900.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 12:43 PM Instrument :
Sample : WG1090771-3,3,250,250 Quant Date : 2/20/2018 1:16 pm

Compound #117: 1,2,3-trichlorobenzene



Original Peak Response = 0



Manual Peak Response = 119055 M2

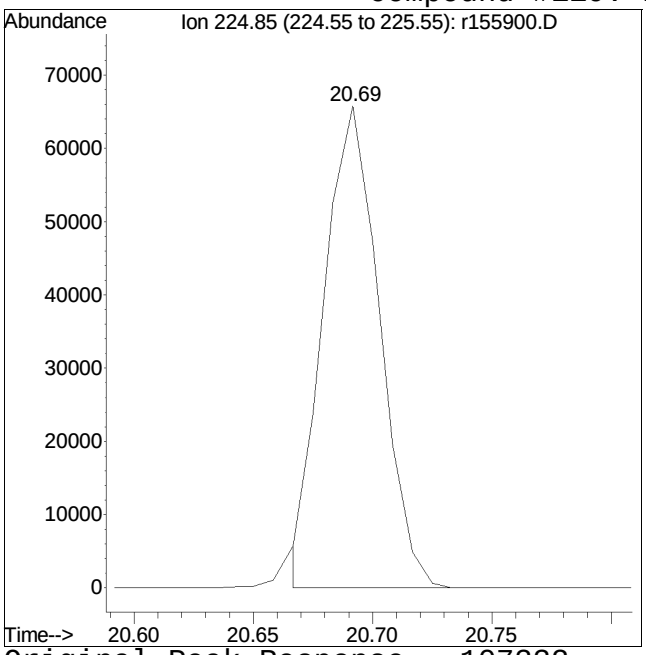
M2 = Peak not found by automatic integration algorithm.

Manual Integration/Negative Proof Report

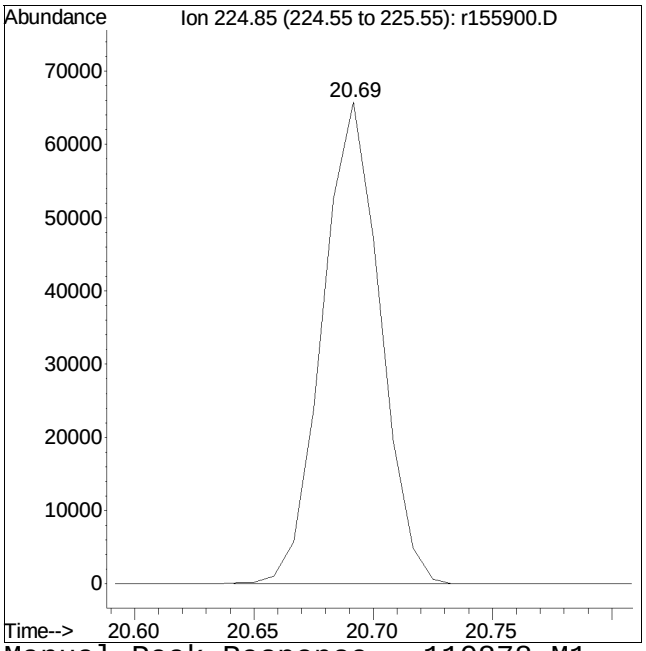
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155900.D
Date Inj'd : 2/20/2018 12:43 PM
Sample : WG1090771-3,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/20/2018 1:16 pm

Compound #119: hexachlorobutadiene



Original Peak Response = 107332



Manual Peak Response = 110878 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155911.D
Acq On : 20 Feb 2018 9:12 PM
Operator : AIRLAB15:RY
Sample : WG1090771-5,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:33:53 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	8.91	49	149878	10.000	ppbV	-0.07
Standard Area = 147251			Recovery = 101.78%			
43) 1,4-difluorobenzene	11.15	114	263745	10.000	ppbV	-0.07
Standard Area = 262067			Recovery = 100.64%			
67) chlorobenzene-D5	15.88	54	67431	10.000	ppbV	-0.05
Standard Area = 67836			Recovery = 99.40%			
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	3.84	85	7407	0.425	ppbV	97
6) chloromethane	4.00	50	5756	0.463	ppbV	98
7) Freon-114	0.00		0	N.D.	d	
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	4.36		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	4.99		0	N.D.		
15) ethanol	4.95	31	77051	7.014	ppbV	100
17) vinyl bromide	0.00		0	N.D.		
19) acetone	5.46	43	499761	29.317	ppbV	99
21) trichlorofluoromethane	5.65	101	2563	0.181	ppbV	87
22) isopropyl alcohol	5.75	45	25555	1.125	ppbV	98
26) 1,1-dichloroethene	0.00		0	N.D.	d	
27) tertiary butyl alcohol	6.42	59	2291	0.113	ppbV #	61
28) methylene chloride	6.49	49	2737	0.177	ppbV	96
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	6.78		0	N.D.		
31) Freon 113	6.79	101	853	0.051	ppbV #	84
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	7.81		0	N.D.		
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	8.24	43	14123	0.498	ppbV	100
37) cis-1,2-dichloroethene	0.00		0	N.D.		
38) Ethyl Acetate	9.02	61	1244	0.317	ppbV #	34
39) chloroform	0.00		0	N.D.	d	
40) Tetrahydrofuran	9.55	42	2380	0.134	ppbV	97
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	8.97	57	3391	0.172	ppbV #	29
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155911.D
Acq On : 20 Feb 2018 9:12 PM
Operator : AIRLAB15:RY
Sample : WG1090771-5,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:33:53 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab15\2018\180220T\r155899.D
Sub List : TO15-NY - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) benzene	10.73	78	10553	0.336	ppbV	100
52) carbon tetrachloride	10.89		0	N.D.		
53) cyclohexane	11.04	56	1114	0.055	ppbV	94
56) 1,2-dichloropropane	0.00		0	N.D.		
57) bromodichloromethane	0.00		0	N.D.		
58) 1,4-dioxane	0.00		0	N.D.		
59) trichloroethene	0.00		0	N.D.		
60) 2,2,4-trimethylpentane	12.00	57	7223	0.114	ppbV #	90
62) heptane	12.32	43	3699	0.130	ppbV #	89
63) cis-1,3-dichloropropene	0.00		0	N.D.		
64) 4-methyl-2-pentanone	13.04		0	N.D.		
65) trans-1,3-dichloropropene	0.00		0	N.D.		
66) 1,1,2-trichloroethane	0.00		0	N.D.		
68) toluene	14.13	91	59552	1.746	ppbV	96
72) 2-hexanone	14.44		0	N.D.		
74) dibromochloromethane	0.00		0	N.D.		
75) 1,2-dibromoethane	0.00		0	N.D.		
78) tetrachloroethene	15.29		0	N.D.		
80) chlorobenzene	0.00		0	N.D.		
81) ethylbenzene	16.27	91	3482	0.082	ppbV	98
83) m+p-xylene	16.42	91	8755	0.256	ppbV	99
84) bromoform	0.00		0	N.D.		
85) styrene	16.75		0	N.D.		
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87) o-xylene	16.84	91	2909	0.084	ppbV	96
96) 4-ethyl toluene	17.90		0	N.D.		
97) 1,3,5-trimethylbenzene	17.97		0	N.D.		
99) 1,2,4-trimethylbenzene	18.31	105	2250M6	0.059	ppbV	
101) Benzyl Chloride	0.00		0	N.D.		
102) 1,3-dichlorobenzene	0.00		0	N.D.		
103) 1,4-dichlorobenzene	0.00		0	N.D.		
107) 1,2-dichlorobenzene	0.00		0	N.D.		
115) 1,2,4-trichlorobenzene	0.00		0	N.D.		
119) hexachlorobutadiene	0.00		0	N.D.		

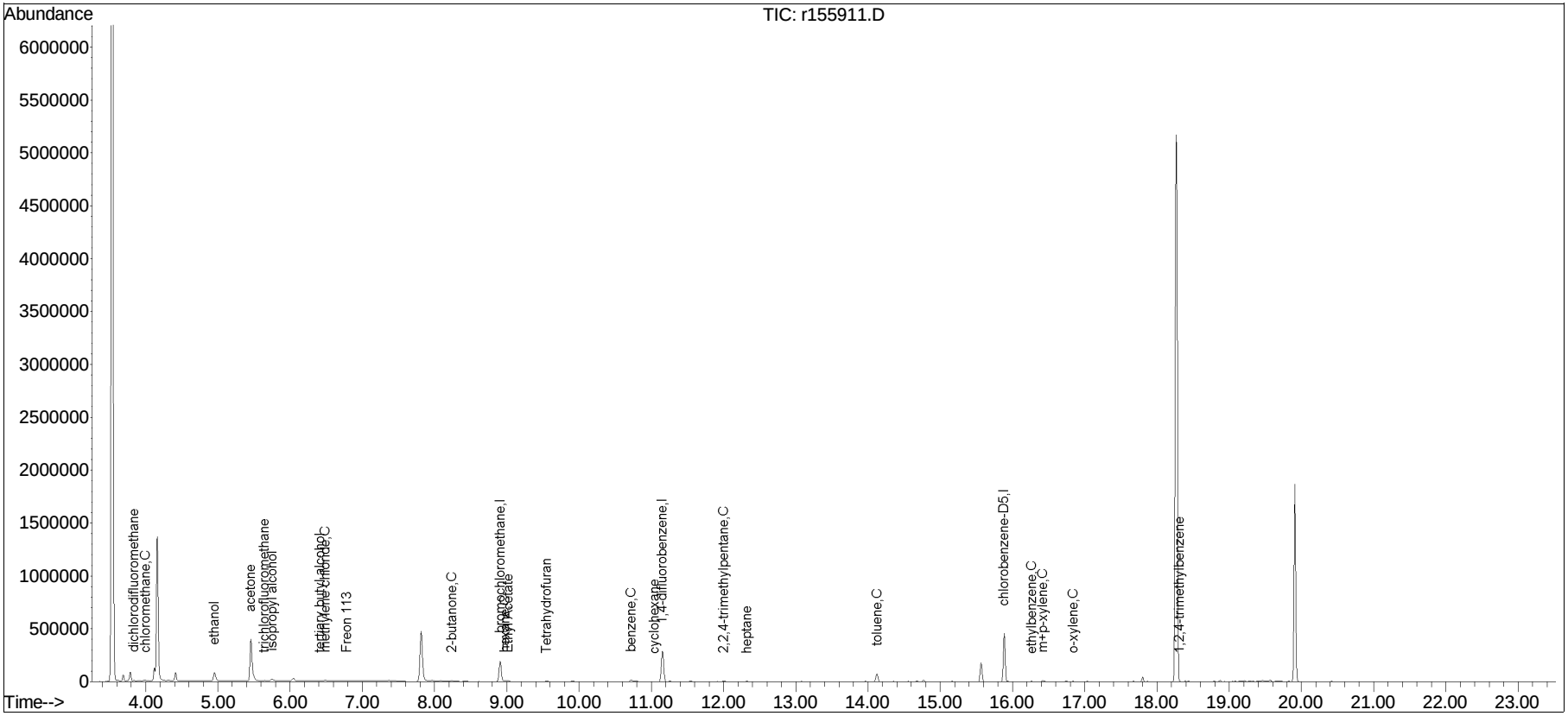
(#) = qualifier out of range (m) = manual integration (+) = signals summed

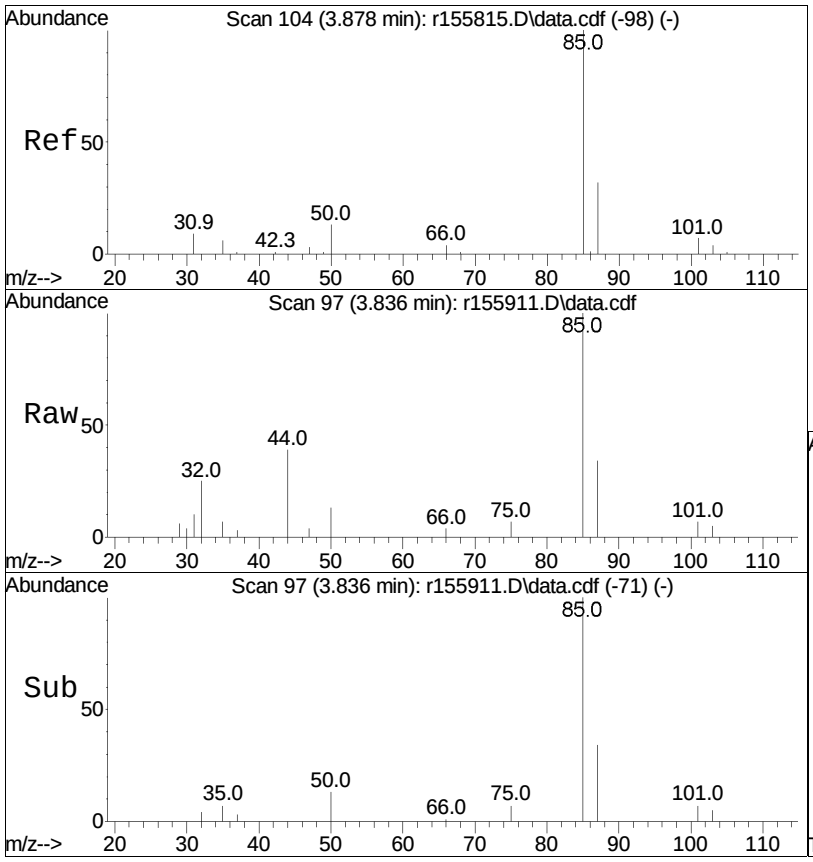
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab15\2018\180220T\
Data File : r155911.D
Acq On : 20 Feb 2018 9:12 PM
Operator : AIRLAB15:RY
Sample : WG1090771-5,3,250,250
Misc : WG1090771,ICAL14444
ALS Vial : 0 Sample Multiplier: 1

Quant Time: Feb 21 09:33:53 2018
Quant Method : O:\Forensics\Data\Airlab15\2018\180220T\TALL180215.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Feb 16 08:30:44 2018
Response via : Initial Calibration

Sub List : TO15-NY - .s\Data\Airlab15\2018\180220T\r155899.D

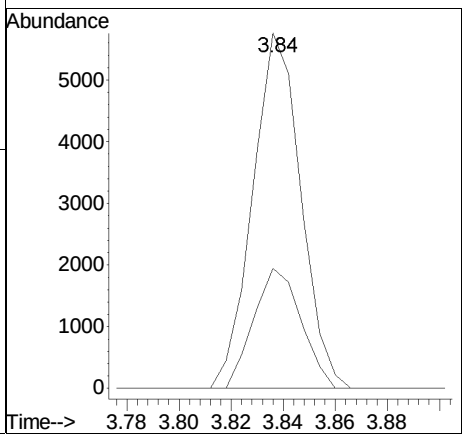


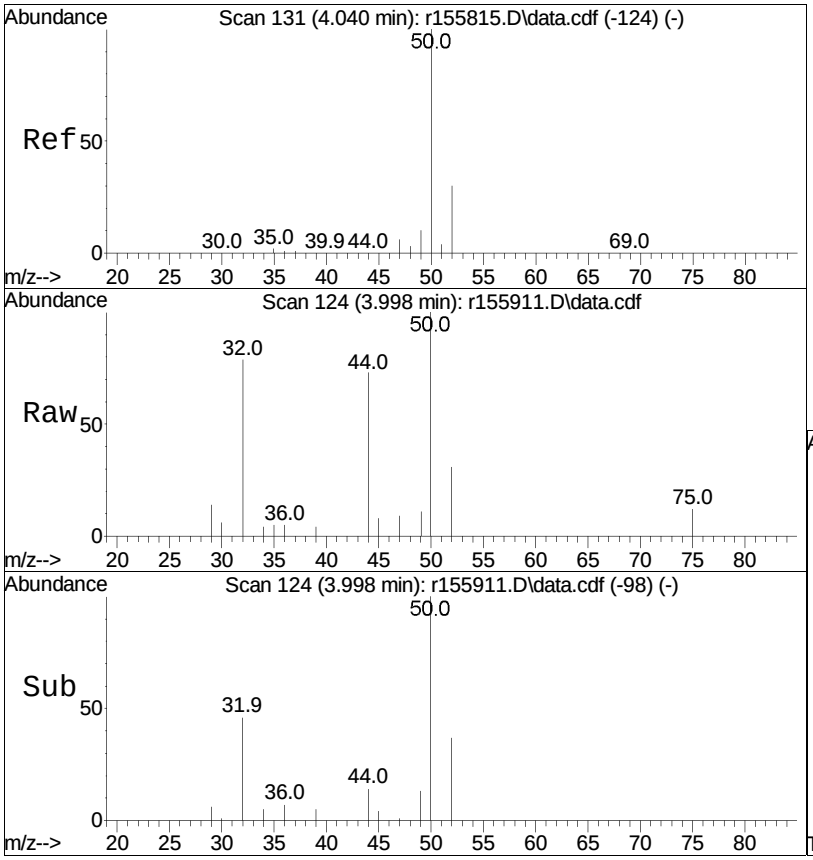


#5
dichlorodifluoromethane
Concen: 0.43 ppbV
RT: 3.84 min Scan# 97
Delta R.T. -0.042 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 85 Resp: 7407

Ion	Ratio	Lower	Upper
85	100		
87	33.8	25.6	38.4

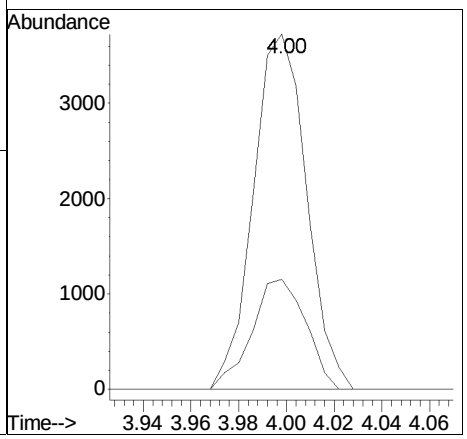


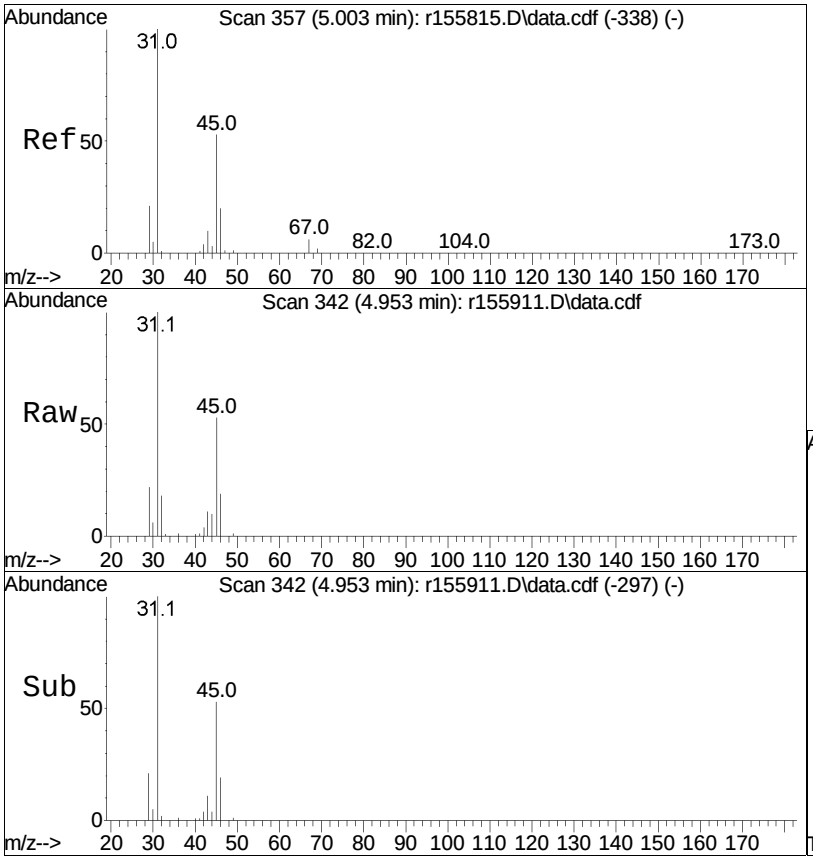


#6
chloromethane
Concen: 0.46 ppbV
RT: 4.00 min Scan# 124
Delta R.T. -0.042 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 50 Resp: 5756

Ion	Ratio	Lower	Upper
50	100		
52	31.0	24.1	36.1

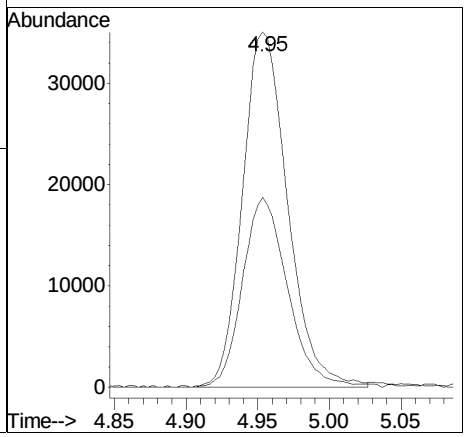


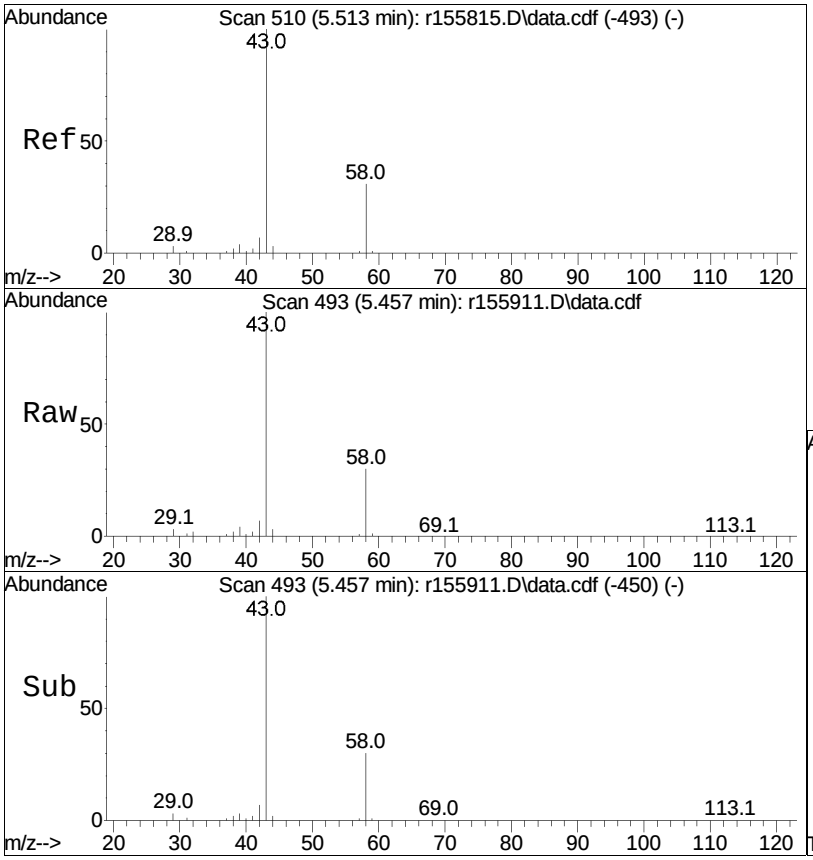


#15
ethanol
Concen: 7.01 ppbV
RT: 4.95 min Scan# 342
Delta R.T. -0.050 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 31 Resp: 77051

Ion	Ratio	Lower	Upper
31	100		
45	53.4	42.6	63.8

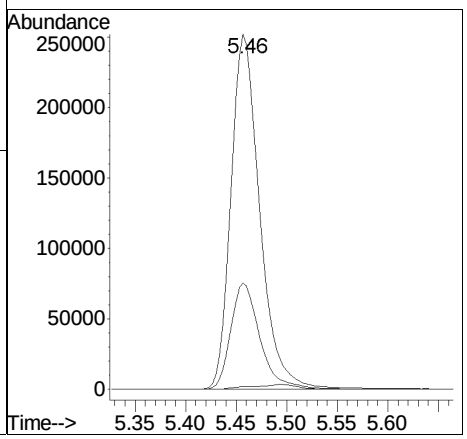


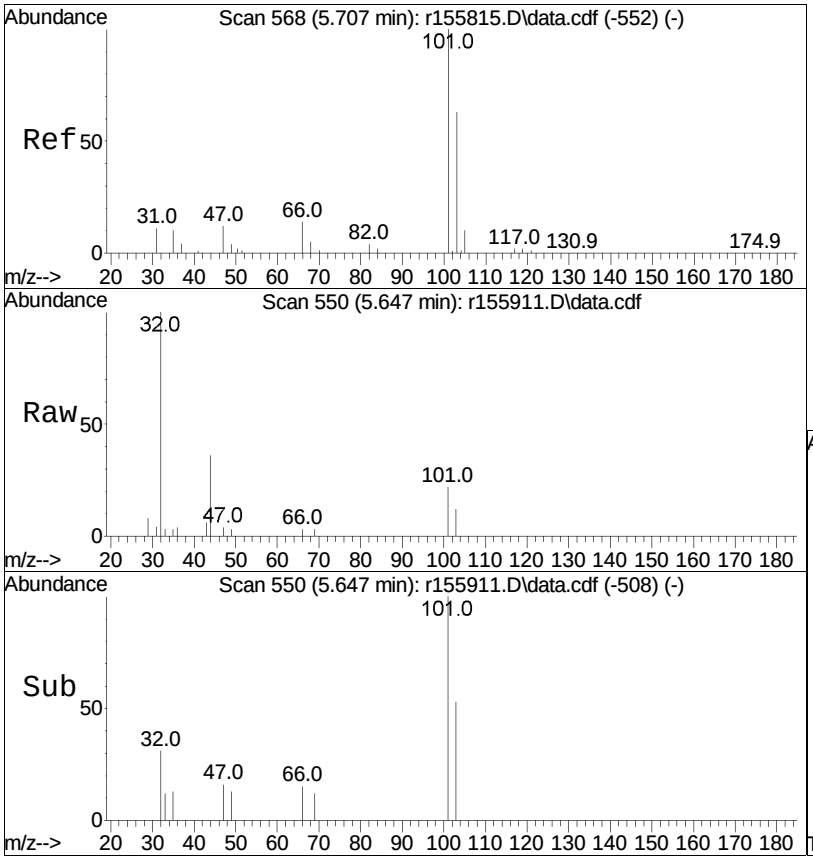


#19
acetone
Concen: 29.32 ppbV
RT: 5.46 min Scan# 493
Delta R.T. -0.057 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 43 Resp: 499761

Ion	Ratio	Lower	Upper
43	100		
58	29.9	24.5	36.7
57	0.8	0.6	0.8

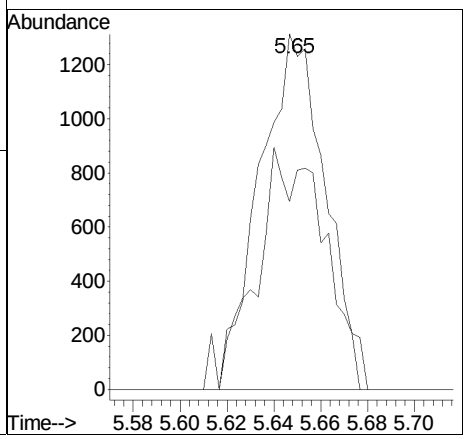


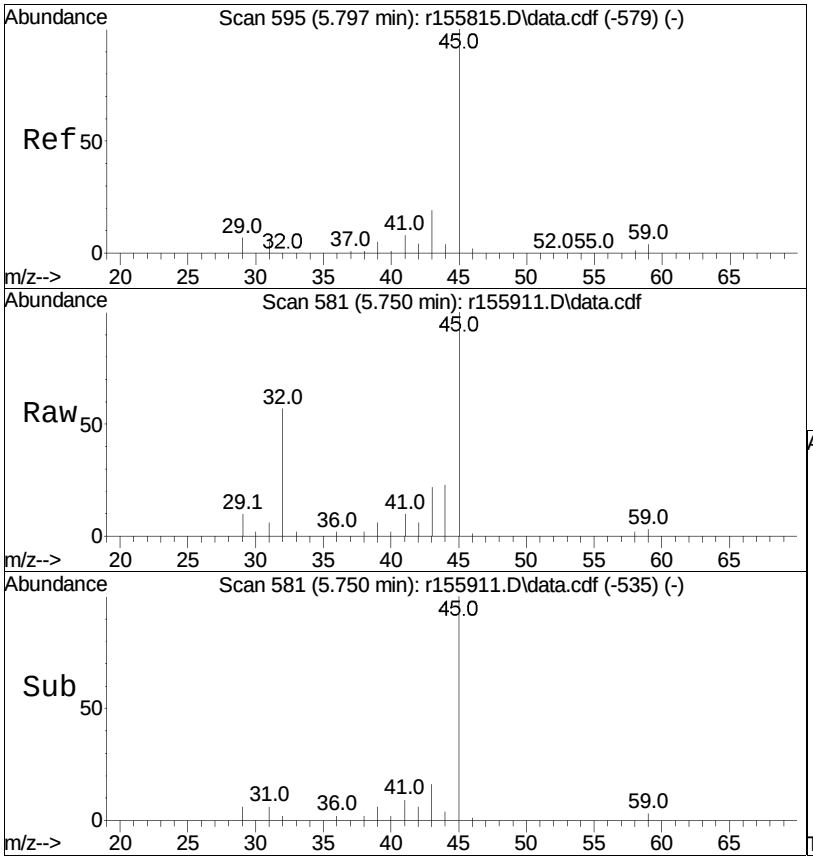


#21
trichlorofluoromethane
Concen: 0.18 ppbV
RT: 5.65 min Scan# 550
Delta R.T. -0.060 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion:101 Resp: 2563

Ion	Ratio	Lower	Upper
101	100		
103	52.9	50.2	75.4

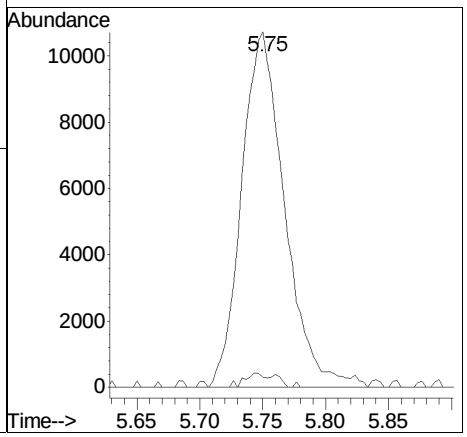


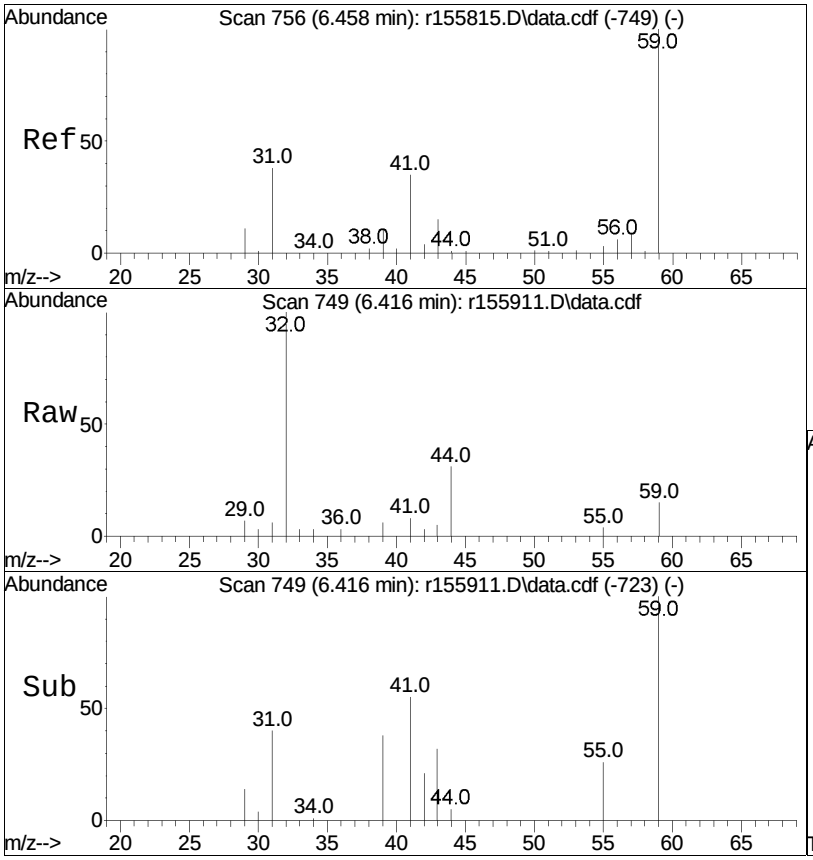


#22
isopropyl alcohol
Concen: 1.13 ppbV
RT: 5.75 min Scan# 581
Delta R.T. -0.047 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 45 Resp: 25555

Ion	Ratio	Lower	Upper
45	100		
59	2.9	2.8	4.2

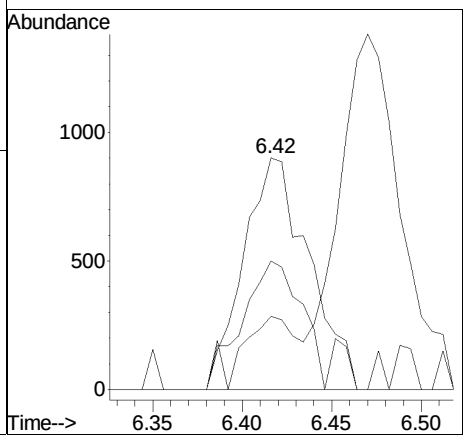


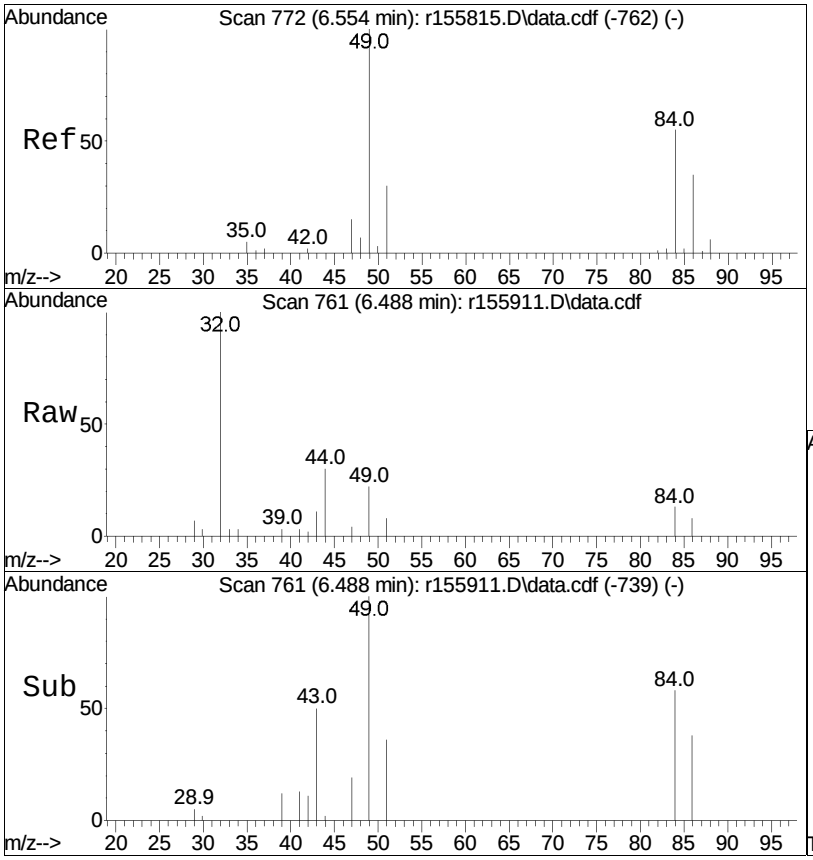


#27
tertiary butyl alcohol
Concen: 0.11 ppbV
RT: 6.42 min Scan# 749
Delta R.T. -0.042 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 59 Resp: 2291

Ion	Ratio	Lower	Upper
59	100		
41	55.5	27.1	40.7#
43	31.6	11.8	17.8#

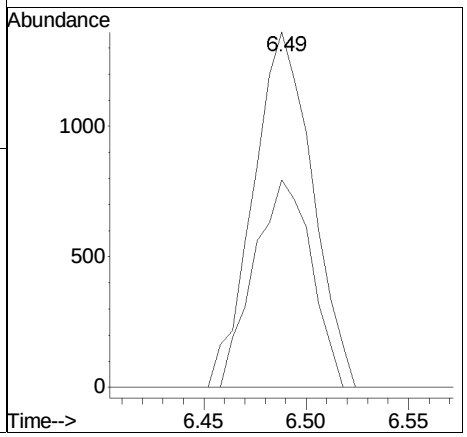


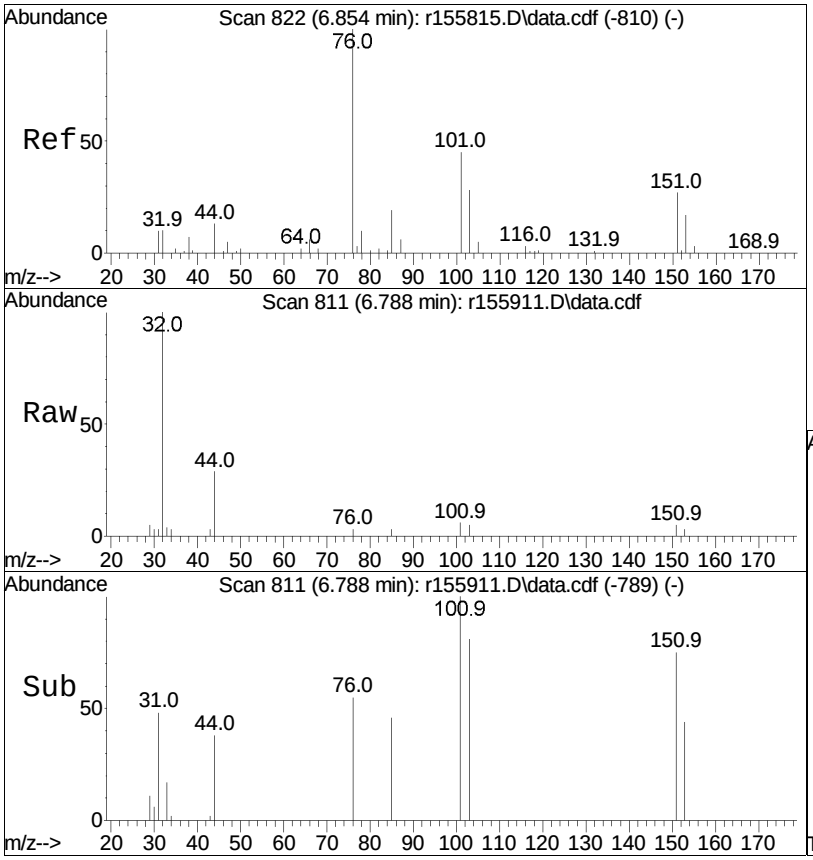


#28
methylene chloride
Concen: 0.18 ppbV
RT: 6.49 min Scan# 761
Delta R.T. -0.066 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 49 Resp: 2737

Ion	Ratio	Lower	Upper
49	100		
84	58.4	44.2	66.2

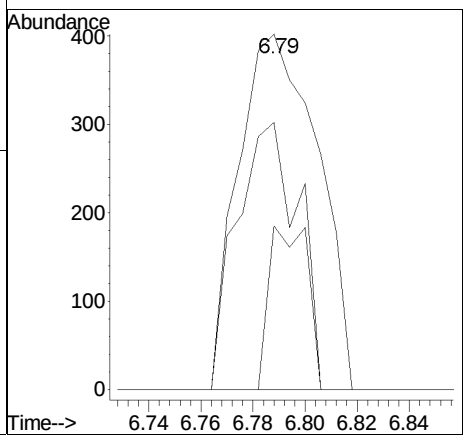


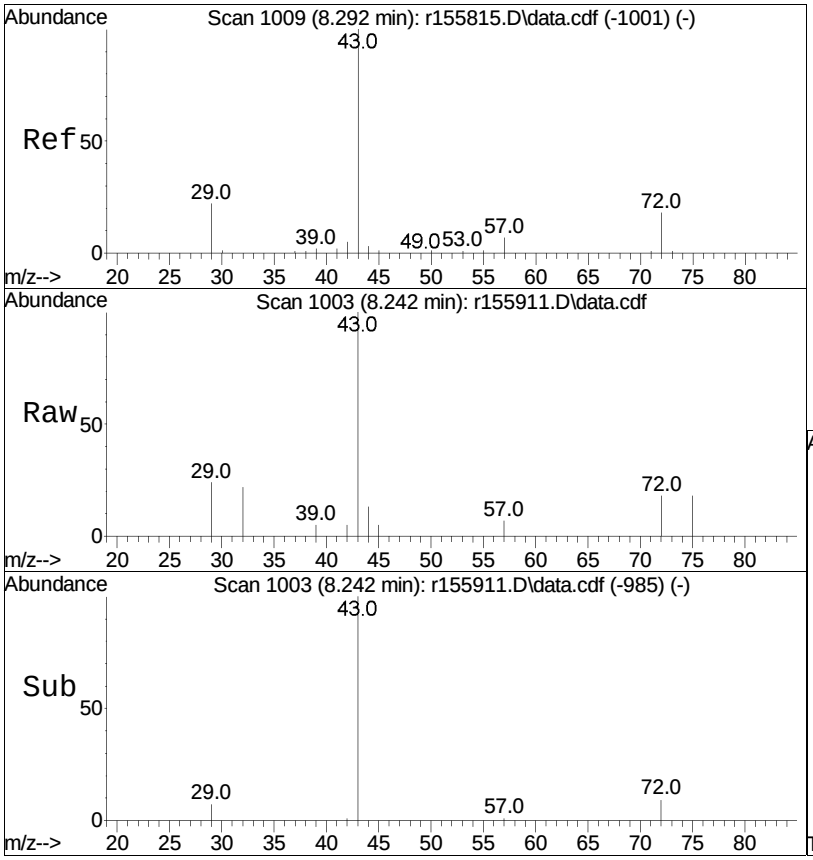


#31
Freon 113
Concen: 0.05 ppbV
RT: 6.79 min Scan# 811
Delta R.T. -0.066 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion:101 Resp: 853

Ion	Ratio	Lower	Upper
101	100		
85	46.0	32.9	49.3
151	75.1	47.3	70.9#

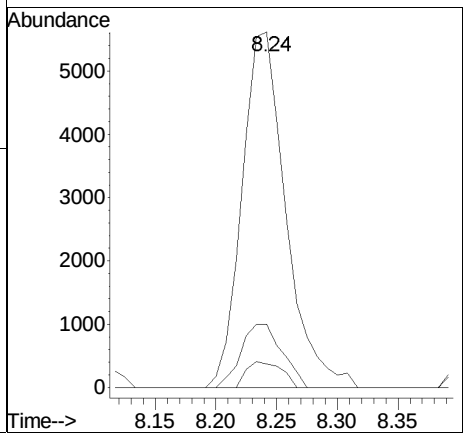


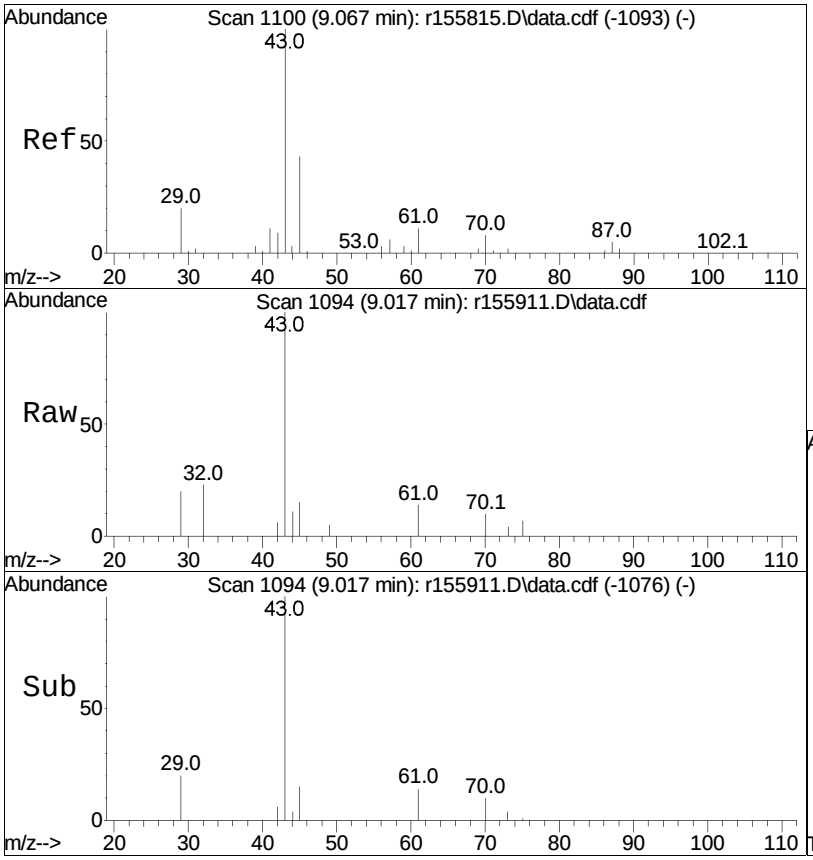


#36
2-butanone
Concen: 0.50 ppbV
RT: 8.24 min Scan# 1003
Delta R.T. -0.050 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 43 Resp: 14123

Ion	Ratio	Lower	Upper
43	100		
72	17.8	14.2	21.2
57	6.6	5.2	7.8

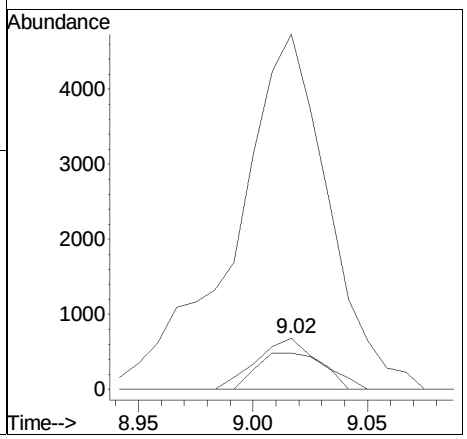


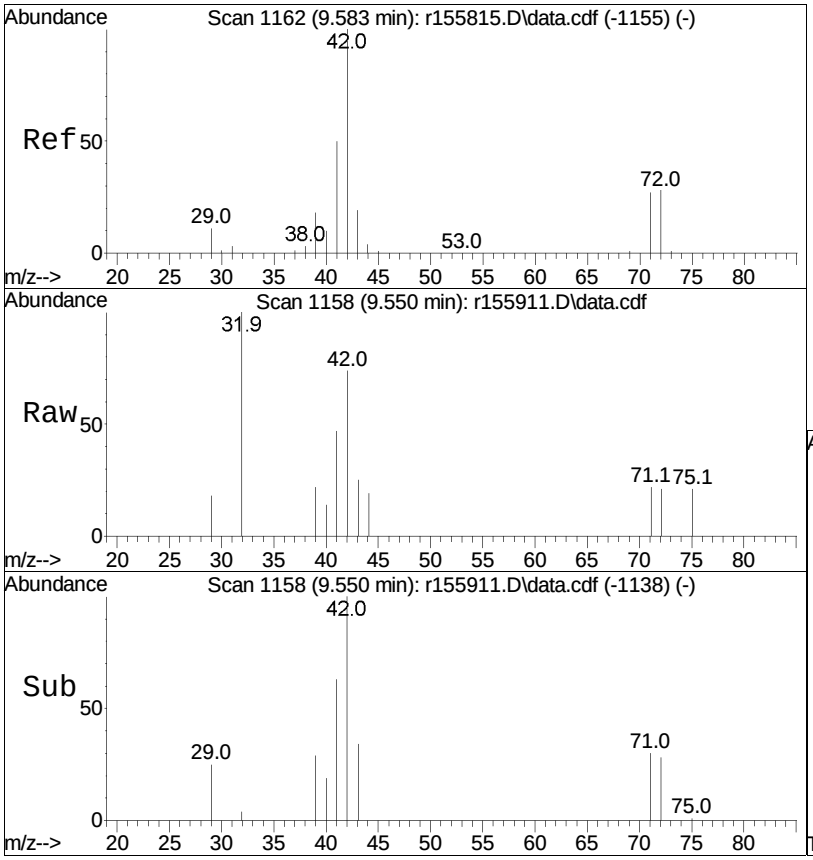


#38
Ethyl Acetate
Concen: 0.32 ppbV
RT: 9.02 min Scan# 1094
Delta R.T. -0.050 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 61 Resp: 1244

Ion	Ratio	Lower	Upper
61	100		
70	71.1	63.0	94.6
43	695.3	812.2	1218.4#

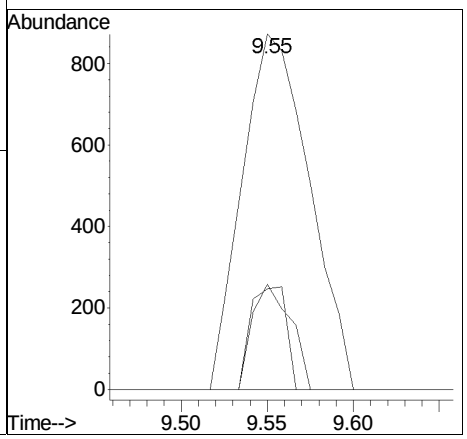


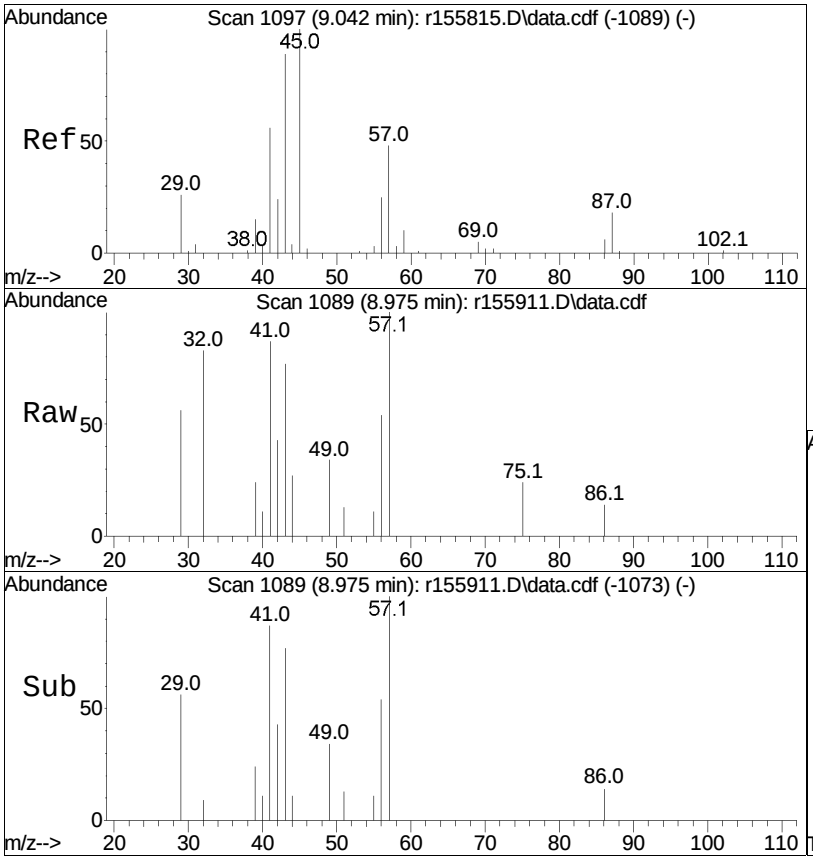


#40
Tetrahydrofuran
Concen: 0.13 ppbV
RT: 9.55 min Scan# 1158
Delta R.T. -0.033 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 42 Resp: 2380

Ion	Ratio	Lower	Upper
42	100		
71	29.6	21.4	32.0
72	28.3	22.6	33.8

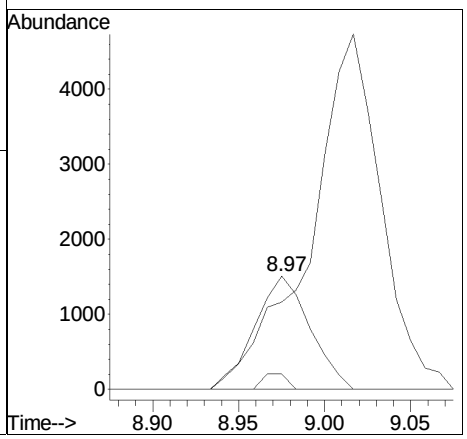


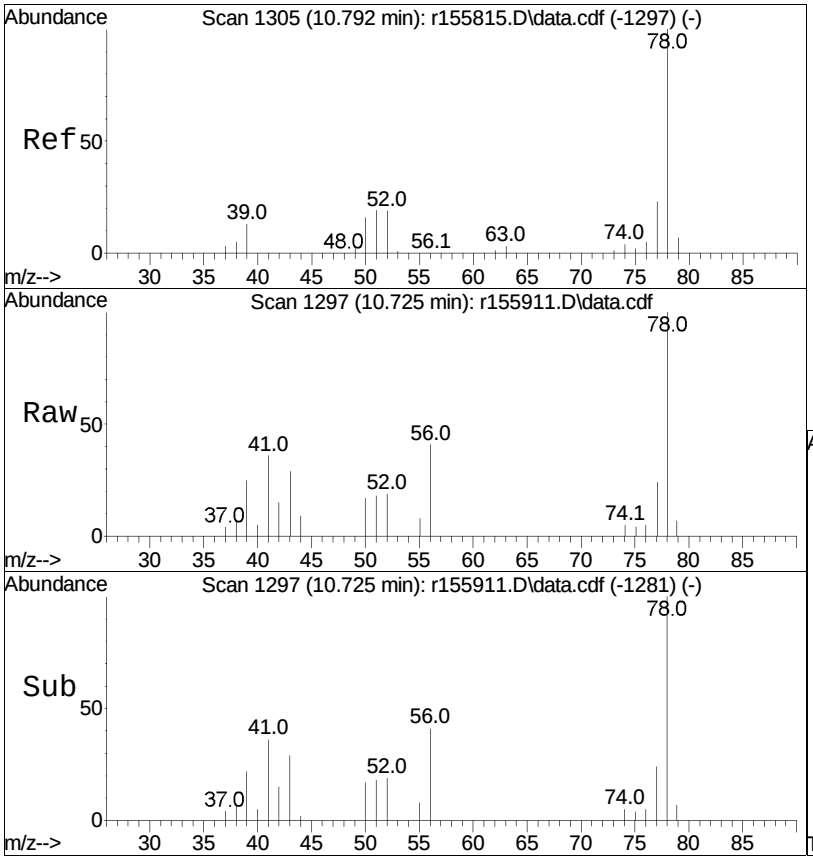


#44
hexane
Concen: 0.17 ppbV
RT: 8.97 min Scan# 1089
Delta R.T. -0.067 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 57 Resp: 3391

Ion	Ratio	Lower	Upper
57	100		
43	77.1	149.0	223.6#
86	13.7	9.9	14.9

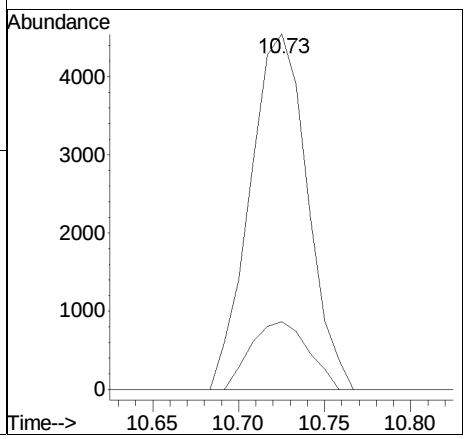


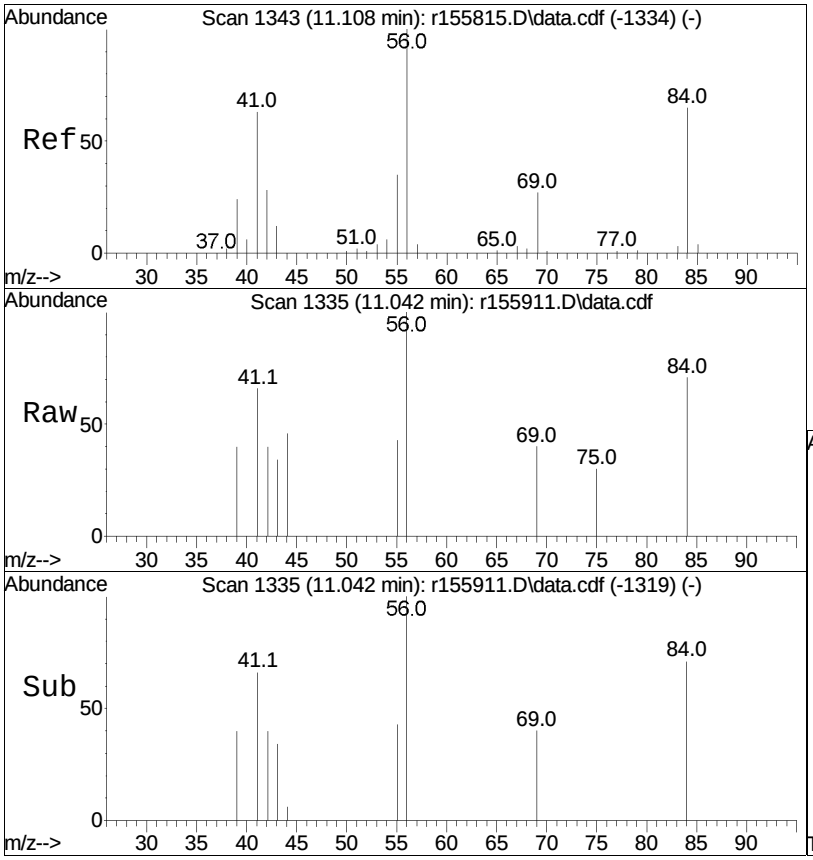


#50
benzene
Concen: 0.34 ppbV
RT: 10.73 min Scan# 1297
Delta R.T. -0.067 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 78 Resp: 10553

Ion	Ratio	Lower	Upper
78	100		
52	19.1	15.2	22.8

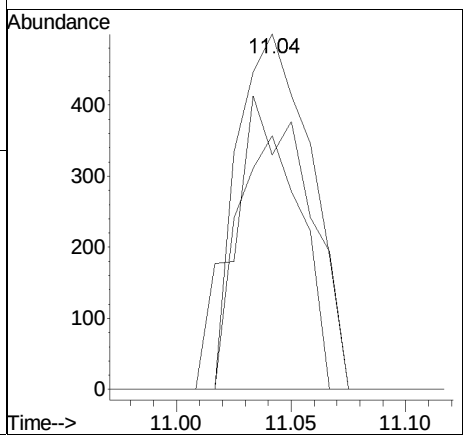


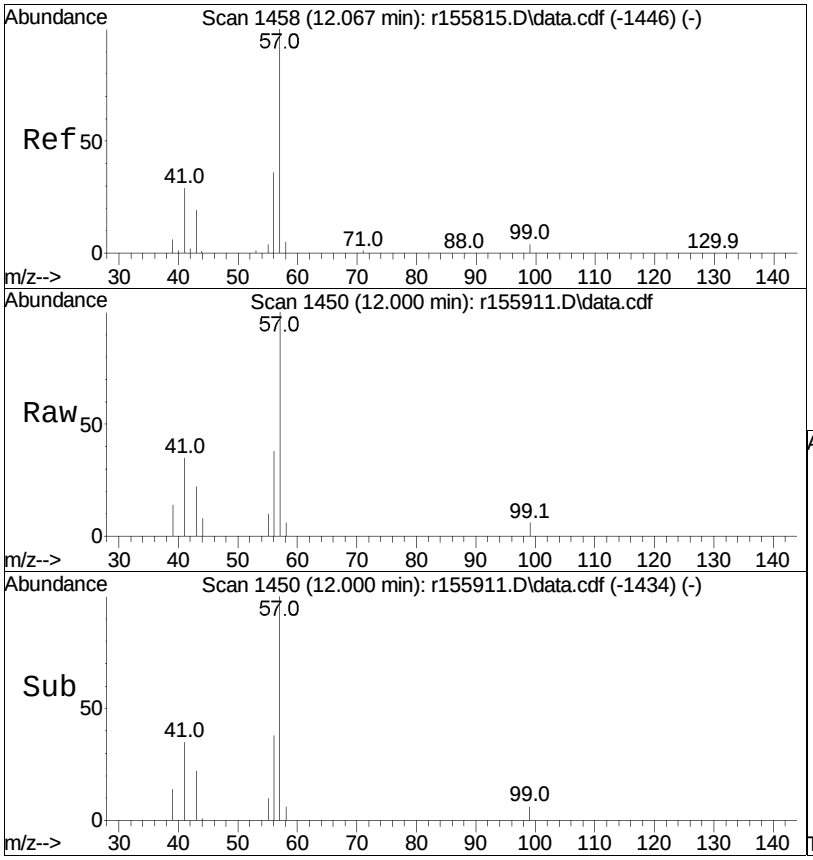


#53
cyclohexane
Concen: 0.05 ppbV
RT: 11.04 min Scan# 1335
Delta R.T. -0.067 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 56 Resp: 1114

Ion	Ratio	Lower	Upper
56	100		
84	71.4	52.1	78.1
41	66.0	50.6	75.8

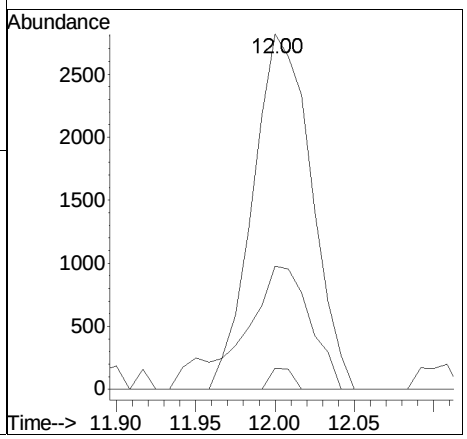


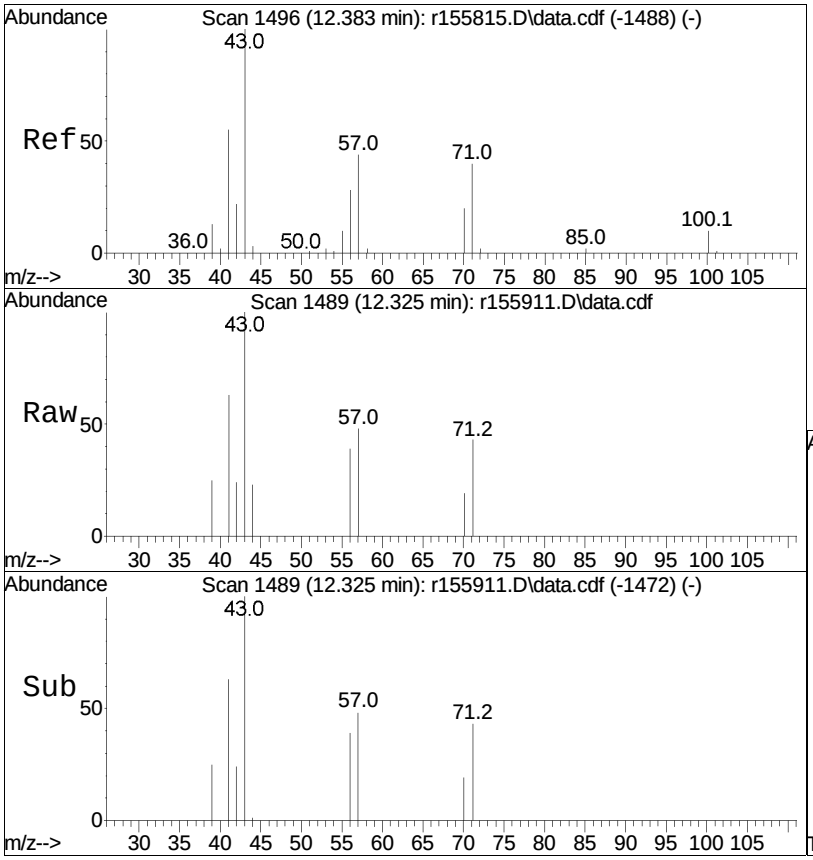


#60
2,2,4-trimethylpentane
Concen: 0.11 ppbV
RT: 12.00 min Scan# 1450
Delta R.T. -0.067 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 57 Resp: 7223

Ion	Ratio	Lower	Upper
57	100		
99	6.0	3.0	4.4#
41	34.7	23.1	34.7#

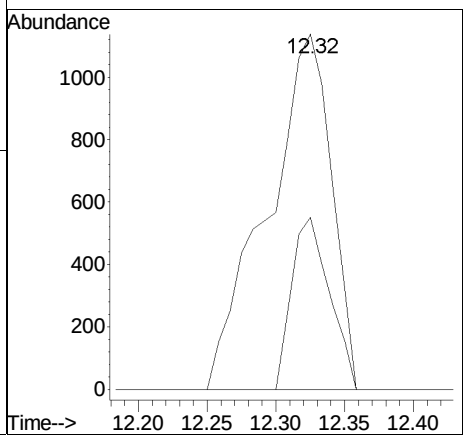


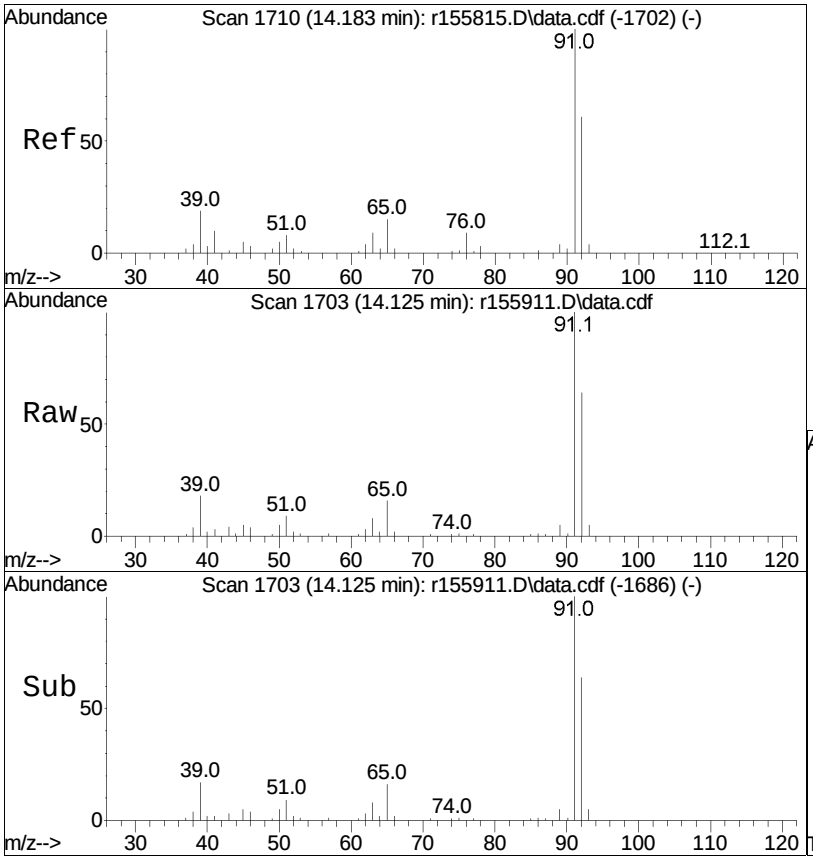


#62
heptane
Concen: 0.13 ppbV
RT: 12.32 min Scan# 1489
Delta R.T. -0.058 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 43 Resp: 3699

Ion	Ratio	Lower	Upper
43	100		
57	48.4	35.1	52.7
100	0.0	8.1	12.1#

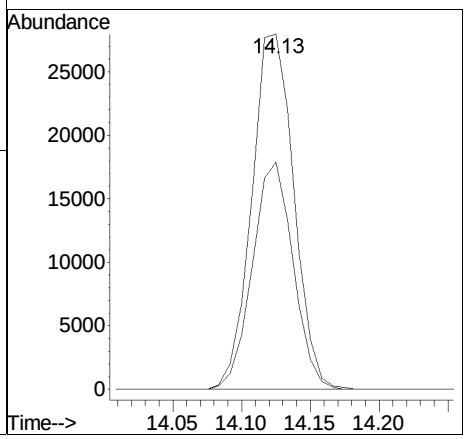


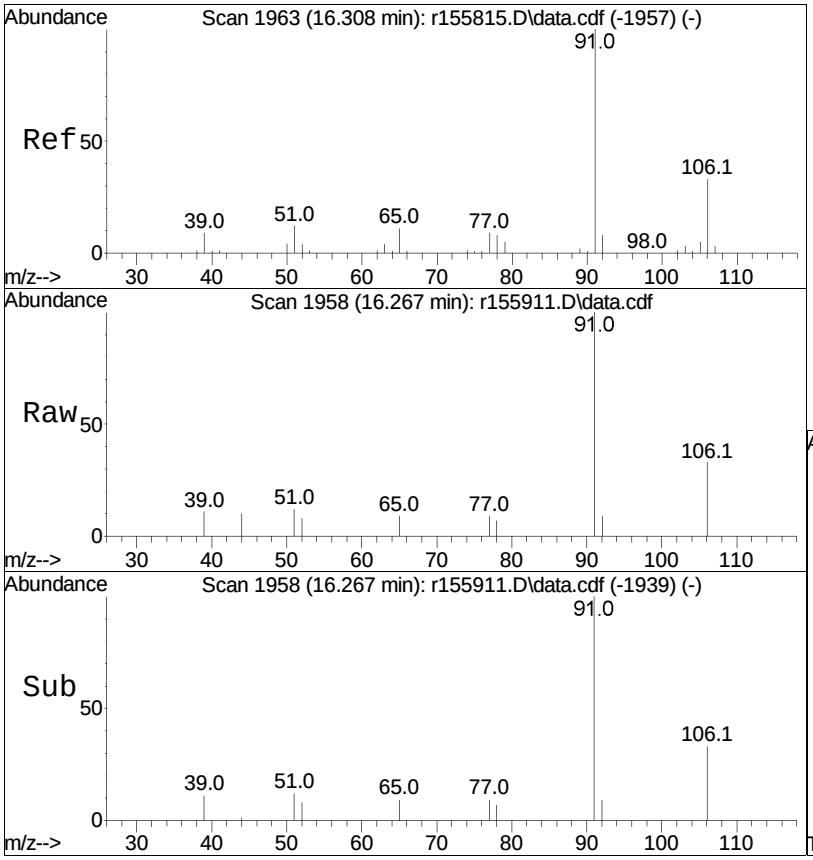


#68
toluene
Concen: 1.75 ppbV
RT: 14.13 min Scan# 1703
Delta R.T. -0.058 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 91 Resp: 59552

Ion	Ratio	Lower	Upper
91	100		
92	63.9	48.6	72.8

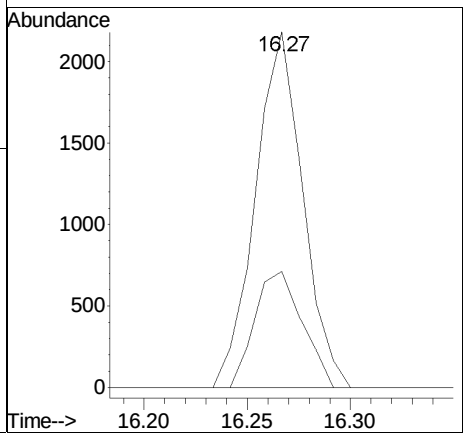


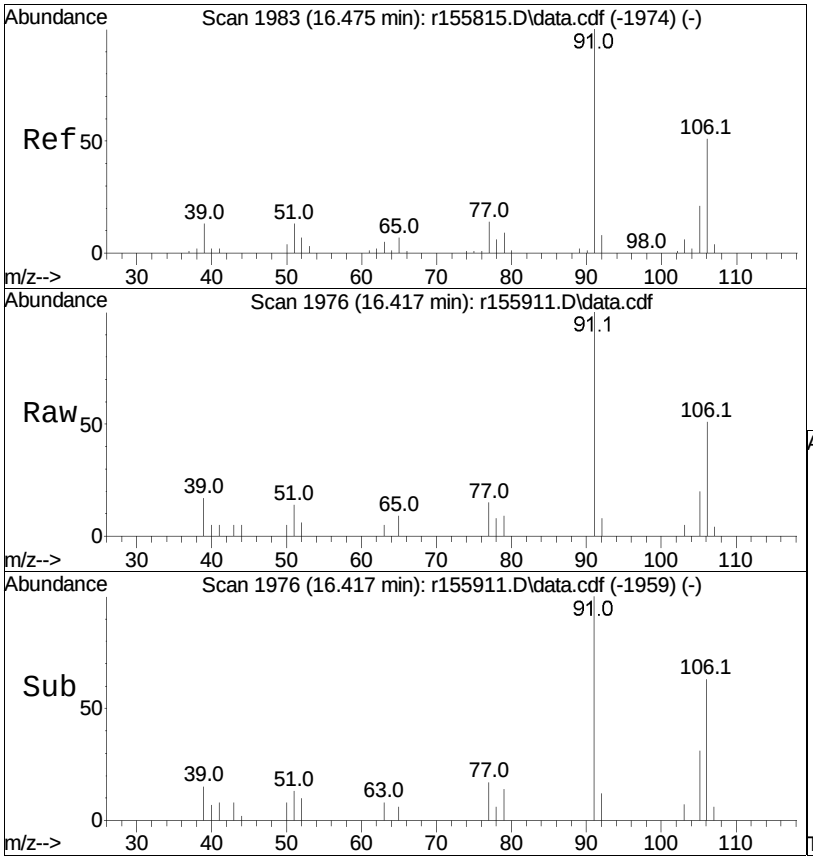


#81
ethylbenzene
Concen: 0.08 ppbV
RT: 16.27 min Scan# 1958
Delta R.T. -0.042 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 91 Resp: 3482

Ion	Ratio	Lower	Upper
91	100		
106	32.6	26.8	40.2

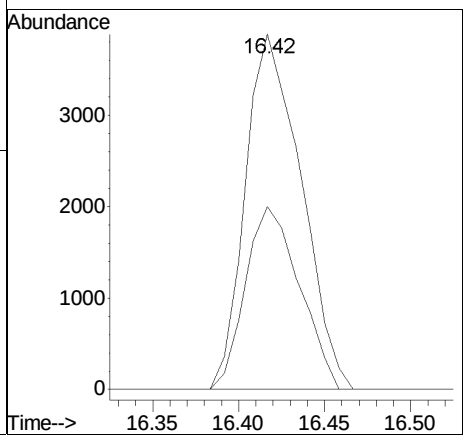


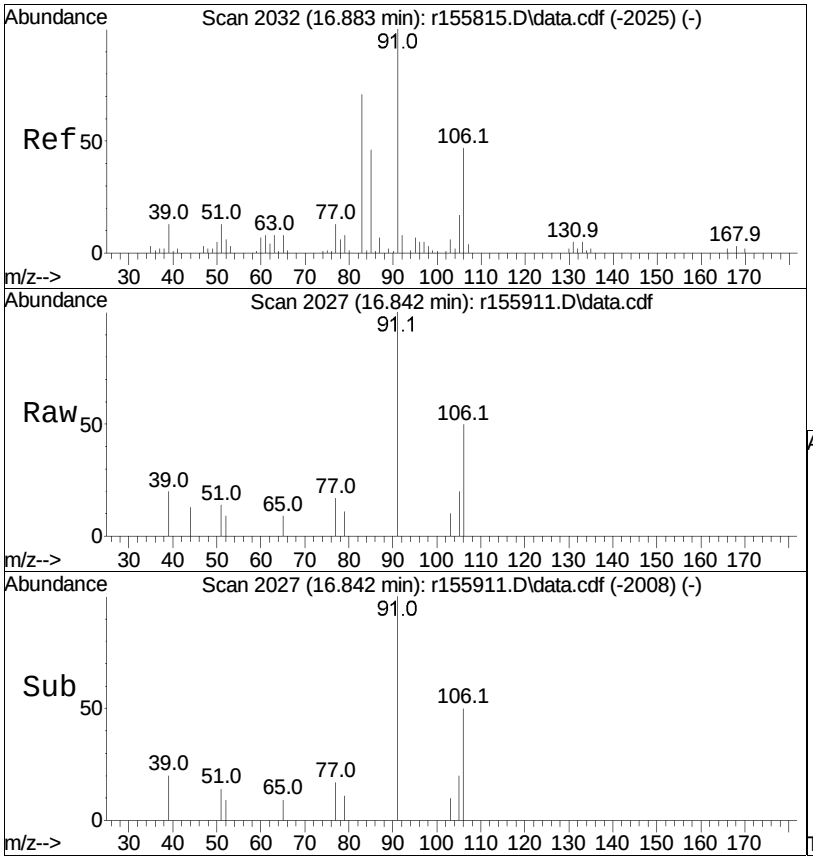


#83
m+p-xylene
Concen: 0.26 ppbV
RT: 16.42 min Scan# 1976
Delta R.T. -0.058 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 91 Resp: 8755

Ion	Ratio	Lower	Upper
91	100		
106	51.4	40.4	60.6

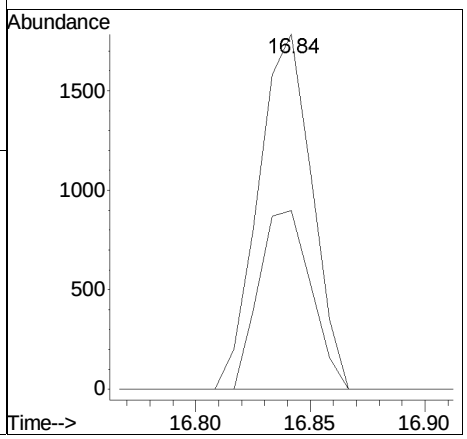


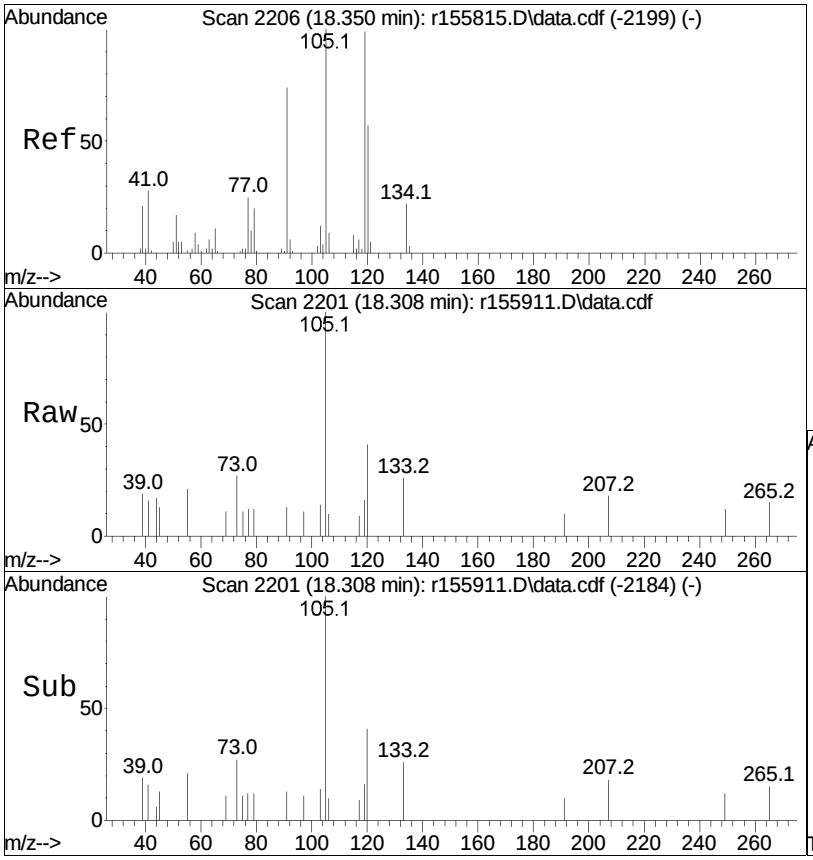


#87
o-xylene
Concen: 0.08 ppbV
RT: 16.84 min Scan# 2027
Delta R.T. -0.042 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion: 91 Resp: 2909

Ion	Ratio	Lower	Upper
91	100		
106	50.3	38.0	57.0

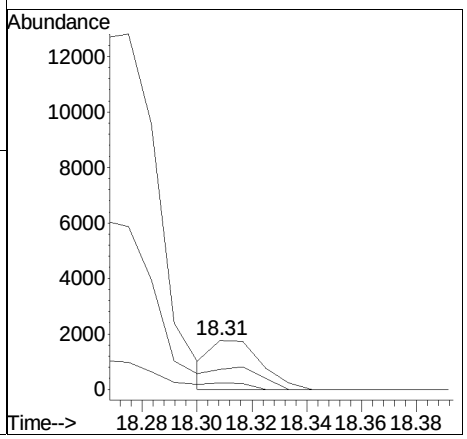




#99
1,2,4-trimethylbenzene
Concen: 0.06 ppbV m
RT: 18.31 min Scan# 2201
Delta R.T. -0.042 min
Lab File: r155911.D
Acq: 20 Feb 2018 9:12 PM

Tgt Ion:105 Resp: 2250

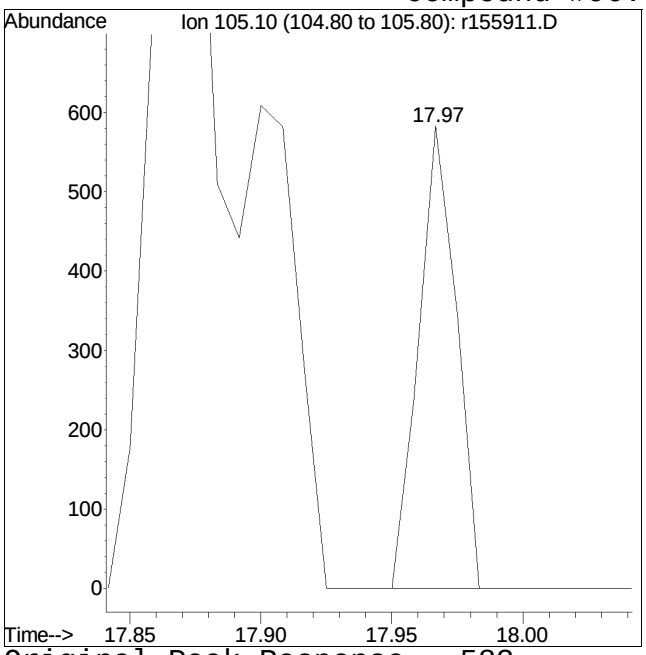
Ion	Ratio	Lower	Upper
105	100		
120	40.9	45.9	68.9#
91	13.3	59.2	88.8#



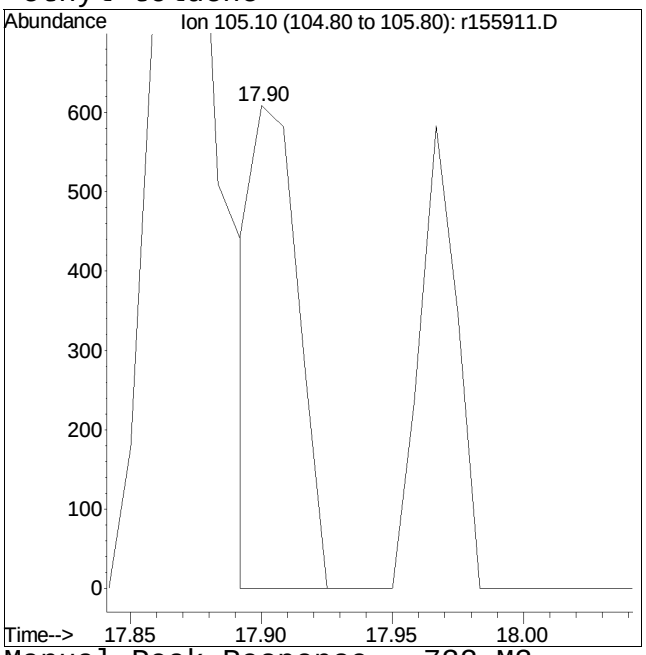
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab15\QMethod : TALL180215.M
Data File : r155911.D Operator : AIRLAB15:RY
Date Inj'd : 2/20/2018 9:12 PM Instrument :
Sample : WG1090771-5,3,250,250 Quant Date : 2/21/2018 6:40 am

Compound #96: 4-ethyl toluene



Original Peak Response = 583



Manual Peak Response = 732 M3

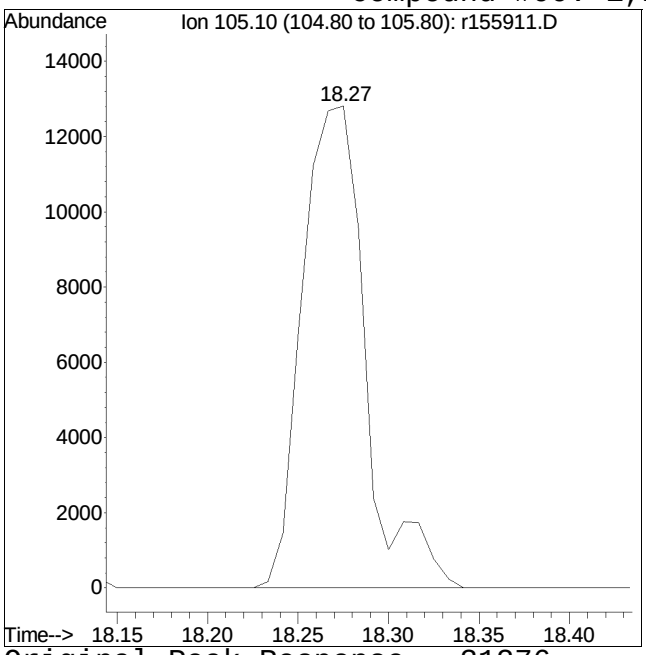
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Manual Integration/Negative Proof Report

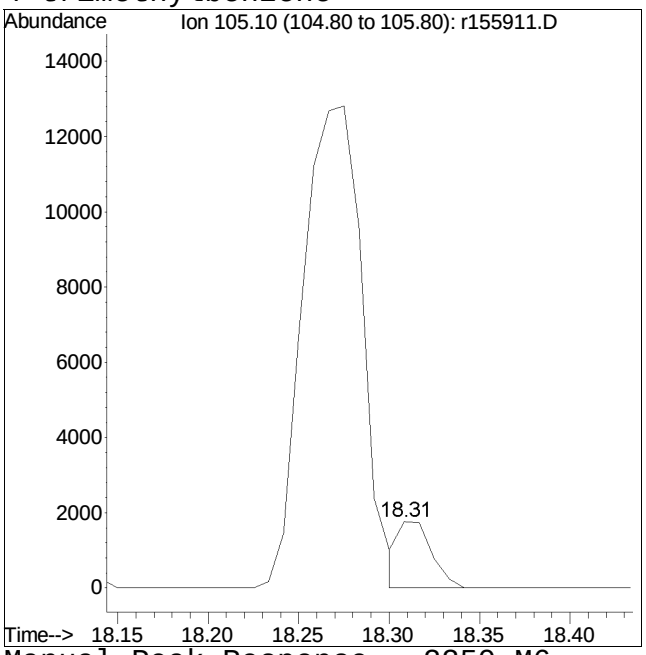
Data Path : O:\Forensics\Data\Airlab15\
Data File : r155911.D
Date Inj'd : 2/20/2018 9:12 PM
Sample : WG1090771-5,3,250,250

QMethod : TALL180215.M
Operator : AIRLAB15:RY
Instrument :
Quant Date : 2/21/2018 6:40 am

Compound #99: 1,2,4-trimethylbenzene



Original Peak Response = 31276



Manual Peak Response = 2250 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Calculation of Volatile Organic Compounds in Air

The instrument will calculate the concentration (ppbv). If the sample is diluted (DF), the result is multiplied by the DF to generate the final result.

Result, ppbv = C_s x DF
Where:
C_s = Concentration of sample (ppbv)
DF = Dilution Factor

Calculation of Instrument Dilution Factor

For dilutions, smaller sample volumes (< 250mL) are analyzed. The smallest volume that can be analyzed with accuracy is 10 mL.

Samples that arrive at the laboratory with pressures below -15 inches Hg must be pressurized with zero air to greater than -15 inches Hg. This pressurization results in a dilution factor.

Calculation of Dilution Factor
$DF = V_{cf} / V_{ci}$
Where:
V_{ci} = volume of air in canister prior to pressurization, L
P =

Conversion of ppbv to ug/m^3
ug/m^3 = (ppbv) * MW / 24.47
Where:
24.47 = molar gas constant (g/g-mole)
MW = molecular weight of the compound of interest

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

Dilution Factor for Pressurization of Subatmospheric Samples: Three Steps

Step 1: Calculate the volume in the canister prior to pressurization (Assume a 2.7 liter canister is used).

$V_{ci} = 2.7 * Pl/14.696$

Step 2: Calculate the volume in the canister after pressurization.

$V_{cf} = 2.7 * PF/14.696$

Step 3: Calculate the dilution factor.

$DF = V_{cf} / V_{ci}$

Where:

V_{ci} = volume of air in canister prior to pressurization, L
PI = pressure reading of canister prior to pressurization (psia)
V_{cf} = volume of air in canister after pressurization, L
PF = pressure reading of canister after pressurization (psia)
DF = dilution factor
14.696 = atmospheric pressure (psia)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Feb 21 2018, 01:55 pm

Work Group: WG1090771 for Department: 3 GC/MS

Created: 20-FEB-18 Due: Operator: MB

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1805020-02	861/V2	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805020-03	862/V3	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805020-04	863/DUP-1	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805020-05	864/V5	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805020-06	865/AMBIENT-1	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805497-01	20180215-01	S	TO15-LL	SOIL_VAPOR	DONE	U	0317	0220	1B	Can-2.7
L1805638-04	SV-3	S	TO15-LL	SOIL_VAPOR	DONE	U	0318	0221	1C	Can-2.7
L1805638-05	SV-4	S	TO15-LL	SOIL_VAPOR	DONE	U	0318	0221	1C	Can-2.7
L1805773-01	VAPOR CARBON INFLUEN	S	TO15-LL	SOIL_VAPOR	DONE	U	0321	0221	1B	Can-2.7
L1805773-02	STACK	S	TO15-LL	SOIL_VAPOR	DONE	U	0321	0221	1B	Can-2.7
L1805803-01	CAN 548 SHELF 2	S	TO15-LL	AIR	DONE	U	0321	0227	NC	Can-2.7
L1805803-02	CAN 858 SHELF 8	S	TO15-LL	AIR	DONE	U	0321	0227	NC	Can-1
L1805804-02	CAN 2121 SHELF 47	S	TO15-LL	AIR	DONE	U	0321	0227	NC	Can-6
L1805804-03	CAN 1572 SHELF 48	S	TO15-LL	AIR	DONE	U	0321	0227	NC	Can-6
L1805833-01	853/V1	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805833-02	865/AMBIENT-1	S	TO15-LL	SOIL_VAPOR	DONE	U	0315	0220	S0	Can-6
L1805848-01	CAN 1650 SHELF 41	S	TO15-LL	AIR	DONE	U	0322	0227	NC	Can-6
L1805850-01	CAN 514 SHELF 3	S	TO15-LL	AIR	DONE	U	0322	0227	NC	Can-2.7
WG1090771-1	MS BFB Tune Standard	S	TO15-LL	SOIL_VAPOR	DONE	U				
WG1090771-1	MS BFB Tune Standard	S	TO15-LL	AIR	DONE	U				
WG1090771-2	Continuing Calibrati	S	TO15-LL	AIR	DONE	U				
WG1090771-2	Continuing Calibrati	S	TO15-LL	SOIL_VAPOR	DONE	U				
WG1090771-3	Laboratory Control S	S	TO15-LL	SOIL_VAPOR	DONE	U				
WG1090771-3	Laboratory Control S	S	TO15-LL	AIR	DONE	U				
WG1090771-4	Laboratory Method Bl	S	TO15-LL	SOIL_VAPOR	DONE	U				
WG1090771-4	Laboratory Method Bl	S	TO15-LL	AIR	DONE	U				
WG1090771-5	Duplicate Sample	S	TO15-LL	SOIL_VAPOR	DONE	U				
WG1090771-5	Duplicate Sample	S	TO15-LL	AIR	DONE	U				

Comments:

WG1090771-5 L1805833-01

Sequence Report

2/16/2018 11:31:47 AM

ID	Name	Pos.	Int Std	Cal Std	Sample	Method	Inject	Status
	TA15021501	T1	100	100	250	Alpha-TO15.CTD3	2/15/2018 4:30:52 PM	Completed
	ITO15-SIMTD0.02	T5	100	100	50	Alpha-TO15.CTD3	2/15/2018 5:09:12 PM	Completed
	ITO15-SIMTD0.04	T5	100	100	125	Alpha-TO15.CTD3	2/15/2018 5:48:12 PM	Completed
	ITO15-SIMTD0.1	T5	100	100	250	Alpha-TO15.CTD3	2/15/2018 6:29:13 PM	Completed
	ITO15-LLSTD0.2	T6	100	100	50	Alpha-TO15.CTD3	2/15/2018 7:06:38 PM	Completed
	ITO15-LLSTD0.5	T6	100	100	125	Alpha-TO15.CTD3	2/15/2018 7:45:37 PM	Completed
	ITO15-LLSTD1.0	T6	100	100	250	Alpha-TO15.CTD3	2/15/2018 8:26:50 PM	Completed
	ITO15-LLSTD5.0	T7	100	100	125	Alpha-TO15.CTD3	2/15/2018 9:06:08 PM	Completed
	ITO15-LLSTD010	T7	100	100	250	Alpha-TO15.CTD3	2/15/2018 9:47:31 PM	Completed
	ITO15-LLSTD050	T8	100	100	125	Alpha-TO15.CTD3	2/15/2018 10:26:39 PM	Completed
	ITO15-LLSTD100	T8	100	100	250	Alpha-TO15.CTD3	2/15/2018 11:07:50 PM	Completed
	BA15021501	T1	100	100	250	Alpha-TO15.CTD3	2/15/2018 11:49:23 PM	Completed
	ITO15-LLSTD20	T8	100	100	50	Alpha-TO15.CTD3	2/16/2018 7:41:00 AM	Completed

Sequence Report

	BA1502 1502	T1	100	100	250	Alpha-TO15.CTD3	2/16/2018 9:43:20 AM	Completed
	CTO15-LLSTD010	T2	100	100	250	Alpha-TO15.CTD3	2/16/2018 10:23:56 AM	Completed
	CTO15-SIMSTD5.0	T2	100	100	125	Alpha-TO15.CTD3	2/16/2018 11:03:58 AM	Completed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airlab15

Internal Standard/Surrogate IDs: SS17-024 / SS17-031

Date: 02/15/18

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: MB

Sequence File Name: 180215.S

SIM ICAL# Full Scan ICAL# NJ ICAL# APH ICAL#

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA15021501	TO15_SFS.qgm	R155807.qgd	WG1089951	TUNE		N
5	ITO15-SIMSTD0.02	TO15_SFS.qgm	R155808.qgd	WG1089951	SIM ONLY	SS18-001D	N
5	ITO15-SIMSTD0.04	TO15_SFS.qgm	R155809.qgd	WG1089951	SIM ONLY	SS18-001D	N
5	ITO15-SIMSTD0.1	TO15_SFS.qgm	R155810.qgd	WG1089951	SIM ONLY	SS18-001D	N
6	ITO15-SIMSTD0.2	TO15_SFS.qgm	R155811.qgd	WG1089951		SS18-001C	N
6	ITO15-SIMSTD0.5	TO15_SFS.qgm	R155812.qgd	WG1089951		SS18-001C	N
7	ITO15-SIMSTD1.0	TO15_SFS.qgm	R155813.qgd	WG1089951		SS18-001C	N
7	ITO15-SIMSTD5.0	TO15_SFS.qgm	R155814.qgd	WG1089951		SS18-001B1	N
7	ITO15-SIMSTD010	TO15_SFS.qgm	R155815.qgd	WG1089951		SS18-001B1	N
8	ITO15-SIMSTD050	TO15_SFS.qgm	R155816.qgd	WG1089951		SS18-001A	N
8	ITO15-LLSTD100	TO15_SFS.qgm	R155817.qgd	WG1089951	NOT USED FOR SIM	SS18-001A	N
1	BLANK	TO15_SFS.qgm	R155818.qgd				N
8	ITO15-SIMSTD020	TO15_SFS.qgm	R155819.qgd	WG1089951		SS18-001A	N
1	BLANK	TO15_SFS.qgm	R155820.qgd				N
2	CTO15-LLSTD010	TO15_SFS.qgm	R155821.qgd	WG1089951	FULL SCAN ICV	SS18-002D	N
2	CTO15-SIMSTD5.0	TO15_SFS.qgm	R155822.qgd	WG1089951	SIM ICV	SS18-002D	N

Alpha Analytical Air Lab
Instrument Run Log

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation re

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL),

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airlab15

Internal Standard/Surrogate IDs: SS17-024 / SS17-031

Date: 02/20/18

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: MB

Sequence File Name: 180220.S

SIM ICAL# 14448 Full Scan ICAL# 14444 NJ ICAL# APH ICAL#

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	WG1090771-1,3,250,250	TO15_SFS.qgm	R155898.qgd	WG1090771,ICAL14444	TUNE		NA
2	WG1090771-2,3,250,250	TO15_SFS.qgm	R155899.qgd	WG1090771,ICAL14444	CC		NA
3	WG1090771-3,3,250,250	TO15_SFS.qgm	R155900.qgd	WG1090771,ICAL14444	LL LCS		NA
1	WG1090771-4,3,250,250	TO15_SFS.qgm	R155901.qgd	WG1090771,ICAL14444	BLANK FAILED		NA
1	WG1090771-4,3,250,250	TO15_SFS.qgm	R155902.qgd	WG1090771,ICAL14444	BLANK		NA
1	L1805804-02,3,250,250	TO15_SFS.qgm	R155903.qgd	WG1090771,ICAL14444		LL	NA
2	L1805804-03,3,250,250	TO15_SFS.qgm	R155904.qgd	WG1090771,ICAL14444		LL	NA
3	L1805803-01,3,250,250	TO15_SFS.qgm	R155905.qgd	WG1090771,ICAL14444		LL	NA
4	L1805803-02,3,250,250	TO15_SFS.qgm	R155906.qgd	WG1090771,ICAL14444		LL	NA
5	L1805848-01,3,250,250	TO15_SFS.qgm	R155907.qgd	WG1090771,ICAL14444		LL	NA
6	L1805850-01,3,250,250	TO15_SFS.qgm	R155908.qgd	WG1090771,ICAL14444		LL	NA
7	L1805833-02,3,250,250	TO15_SFS.qgm	R155909.qgd	WG1090771,ICAL14444	REPORT AS L1805020-06 ALSO	NY	Y
8	L1805833-01,3,250,250	TO15_SFS.qgm	R155910.qgd	WG1090771,ICAL14444		NY	Y
8	WG1090771-5,3,250,250	TO15_SFS.qgm	R155911.qgd	WG1090771,ICAL14444	TO15-LL DUP	NY	Y
9	L1805020-02,3,250,250	TO15_SFS.qgm	R155912.qgd	WG1090771,ICAL14444		NY	Y
10	L1805020-03,3,250,250	TO15_SFS.qgm	R155913.qgd	WG1090771,ICAL14444		NY	Y
11	L1805020-04,3,250,250	TO15_SFS.qgm	R155914.qgd	WG1090771,ICAL14444		NY	Y
12	L1805020-05,3,250,250	TO15_SFS.qgm	R155915.qgd	WG1090771,ICAL14444		NY	Y
13	L1805638-04,3,250,250	TO15_SFS.qgm	R155916.qgd	WG1090771,ICAL14444		NY	Y
14	L1805638-05,3,250,250	TO15_SFS.qgm	R155917.qgd	WG1090771,ICAL14444	2-BUTANONE OVERCAL	NY	Y
15	L1805497-01D,3,0.90,250	TO15_SFS.qgm	R155918.qgd	WG1090771,ICAL14444	TCE OVERCAL	STD + NAPH	Y
16	L1805773-01D,3,0.83,250	TO15_SFS.qgm	R155919.qgd	WG1090771,ICAL14444	CIS-1,2-DCE OVERCAL	STD + NAPH	Y

Alpha Analytical Air Lab
Instrument Run Log

1	L1805773-02D,3,0.85,250	TO15_SFS.qgm	R155920.qgd	WG1090771,ICAL14444	OVERDILUTED	STD + NAPH	Y
1	L1805773-02D,3,1.70,250	TO15_SFS.qgm	R155921.qgd	WG1090771,ICAL14444		STD + NAPH	Y
14	L1805638-05D,3,125,250	TO15_SFS.qgm	R155922.qgd	WG1090771,ICAL14444	2-BUTANONE ONLY	NY	Y
15	L1805497-01D2,3,0.22,250	TO15_SFS.qgm	R155923.qgd	WG1090771,ICAL14444	TCE ONLY	STD + NAPH	Y
16	L1805773-01D,3,0.41,250	TO15_SFS.qgm	R155924.qgd	WG1090771,ICAL14444	CIS-1,2-DCE ONLY	STD + NAPH	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation r

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL),

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

ATTACHMENT C

Data Usability Summary Report

LANGAN

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ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Jessica Friscia, Senior Staff Engineer

From: Kevin Nelson, Langan Staff Chemist

Date: February 27, 2018

Re: Data Usability Summary Report
For 365 Bond Street
Brooklyn, New York
Soil Vapor Samples Collected February 2018
Langan Project No.: 100287503

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of four soil vapor samples and one outdoor ambient air sample collected on February 13, 2018 by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. ("Langan") at 365 Bond Street located in Brooklyn, New York ("the Site"). The samples were analyzed by Alpha Analytical Laboratories (NYSDOH ELAP registration # 11148) for volatile organic compounds (VOCs) by the following analytical method:

- VOCs by USEPA Method TO-15

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
L1805020	L1805020-02	861/V2	2/13/2018	VOCs
L1805020	L1805020-03	862/V3	2/13/2018	VOCs
L1805020	L1805020-04	863/DUP-1	2/13/2018	VOCs
L1805020	L1805020-05	864/V5	2/13/2018	VOCs
L1805020	L1805020-06	865/AMBIENT-1	2/13/2018	VOCs

VALIDATION OVERVIEW

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of VOCs in Air Contained in Canisters by Method TO-15" (June 2014, Revision 6) and the USEPA Contract Laboratory Program "National Functional Guidelines for Superfund Organic Methods Data Review" (USEPA-540-R-014-002, August 2014).

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, laboratory duplicates, field duplicates, system monitoring compounds, internal standard area counts, clean canister certifications, target compound identification and quantification, chromatograms and overall system performance.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- **R –** The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently

valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

Client Sample ID	*Analysis*	*Analyte*	*CAS #*	*Validator Qualifier*
No qualification necessary				

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. No minor deficiencies were identified.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by USEPA Method TO-15:

The flow controller check for sample 863/DUP-1 (25%) exhibited a relative percent difference (RPD) greater than the upper control limit (i.e. 20%). This non-conformance does not require qualification. However, it must be noted by the data user that the air flow during the time-integrated sampling period may have been inconsistent.

COMMENTS:

One field duplicate (855/DUP-1) and parent sample (854/V2) pair was analyzed for volatiles. For results less than 5X the reporting limit (RL), analytes meet the precision criteria if the absolute difference is less than ±RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 25%.

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All sample hold times were met and the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed,

Kevin Nelson
Staff Chemist

APPENDIX E

Site Inspection Forms and Photographic Documentation

LANGAN

COMPOSITE COVER SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Allyson Kritzer Date: 2/13/18 - 2/14/18 Weather Conditions: Clear, 55°F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection/Periodic Review Report

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The site is occupied by a five- to twelve- story mixed-use commercial/residential building with a partial basement.
2	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?	X				See No. 4.
3	If YES to number 3, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?			X		See No. 4.
	Subgrade Parking Area Slab/First Floor Slab					
4	Are there any signs of cracking or damage?	X				Concrete slab and vapor barrier breached for utility work in first floor unoccupied commercial space located in the northern portion of the property, at the intersection of Bond Street and 1st Street.
5	Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
	Outdoor Paving/Sidewalks					
6	Are there any signs of cracking or damage?		X			
7	Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
	Landscaped Areas					
8	Is there adequate top soil cover present? (i.e. Is the underlying demarcation adequately covered?)	X				
9	Are there any signs of erosion?		X			

**

If the answer to any of the above questions indicate non-compliance with ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks: Repair activities will be completed in the Spring of 2018.

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

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APPENDIX H
Soil Cover System Inspection
Photographic Log
365 Bond Street
Brooklyn, New York

Photo 1: 1st Street sidewalk, facing northwest. 14 February 2018.

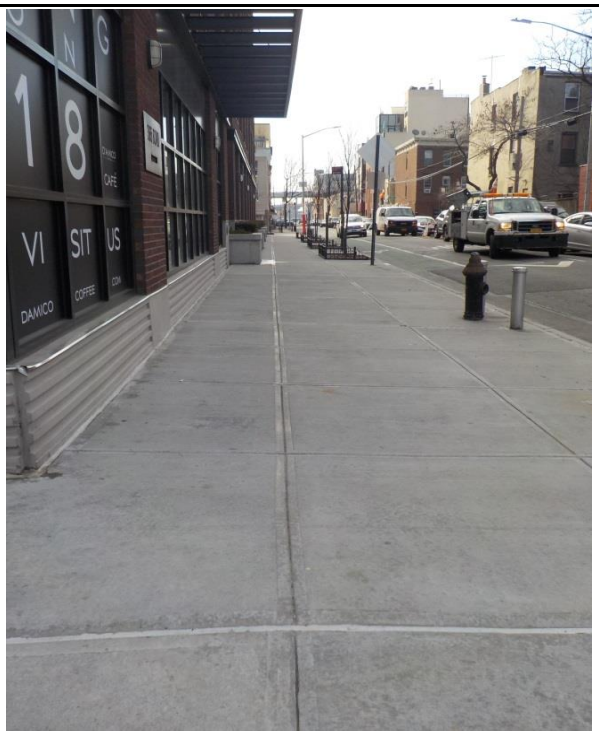

Photo 2: Bond Street sidewalk, facing southwest. 14 February 2018.

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APPENDIX H
Soil Cover System Inspection
Photographic Log
365 Bond Street
Brooklyn, New York

Photo 3: Paved southern esplanade area, facing east. 13 February 2018.

Photo 4: Landscaped esplanade area, facing north. 13 February 2018.

Photo 5: Paved esplanade area, facing north. 13 February 2018.

Photo 6: Sidewalk on 2nd Street and entrance into east esplanade area, facing southeast. 13 February 2018.

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APPENDIX H
Soil Cover System Inspection
Photographic Log
365 Bond Street
Brooklyn, New York

Photo 7: Subgrade parking garage entrance on 2nd Street, facing north. 14 February 2018.

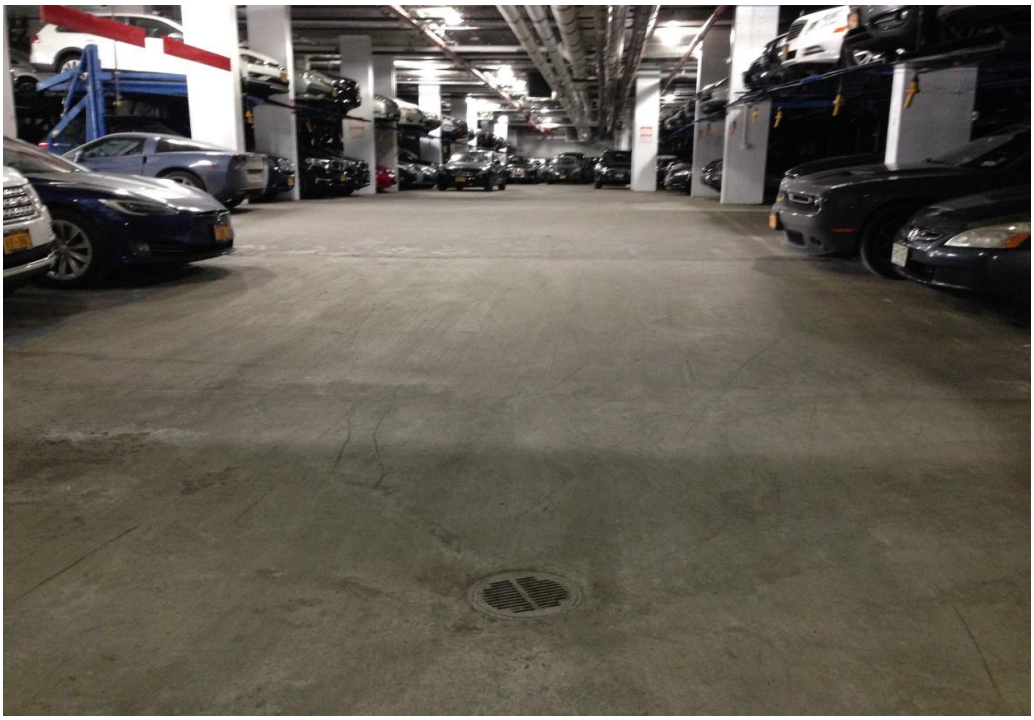

Photo 8: Subgrade parking garage concrete slab, facing north. 13 February 2018.

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APPENDIX H
Soil Cover System Inspection
Photographic Log
365 Bond Street
Brooklyn, New York

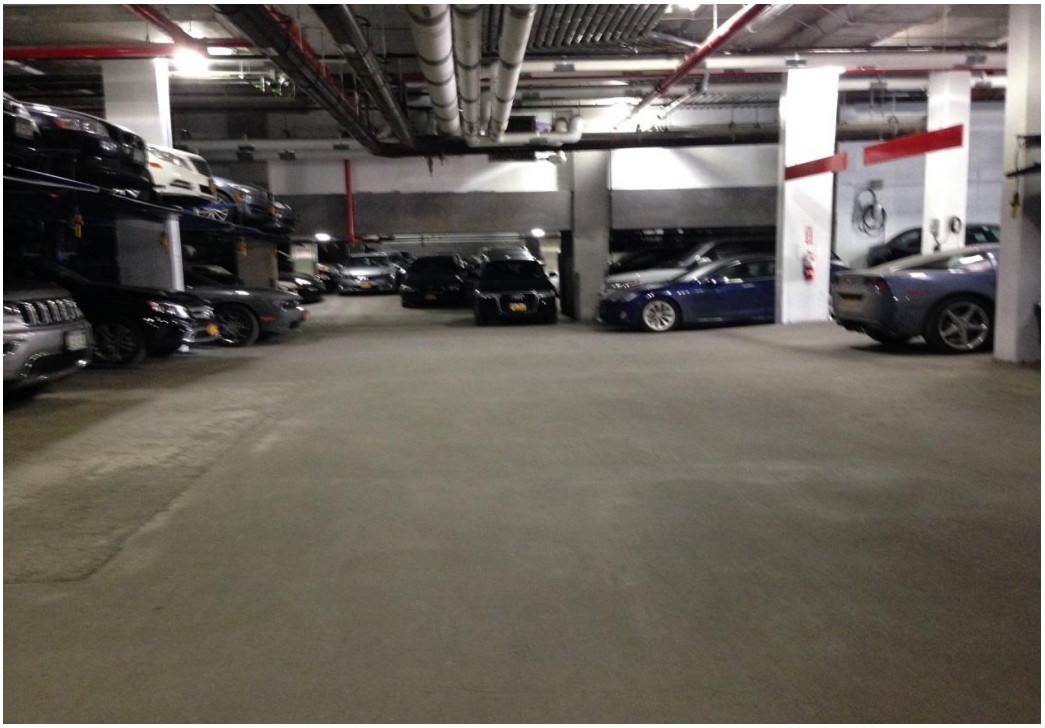

Photo 9: Subgrade parking garage concrete slab, facing south. 13 February 2018.

Photo 10: Subgrade parking garage foundation wall (beneath the first floor), facing northeast. 13 February 2018.

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APPENDIX H
Soil Cover System Inspection
Photographic Log
365 Bond Street
Brooklyn, New York

Photo 11: Subgrade parking garage foundation wall (beneath the first floor), facing northeast. 13 February 2018.

Photo 12: Concrete slab in subgrade boat house located within the southern portion of the building, facing southeast. 14 February 2018.

Photo 13: Concrete foundation wall (beneath first floor slab) in subgrade boathouse located within the southern portion of the building, facing east. 14 February 2018.

Photo 14: Composite cover system disturbance in the first floor unoccupied commercial space in northern portion of building, facing south. To be repaired the Spring of 2018. 13 February 2018.

Photo 15: Composite cover system breach for utility work in the first floor unoccupied commercial space in northern portion of building, facing south. To be repaired the Spring of 2018. 13 February 2018.

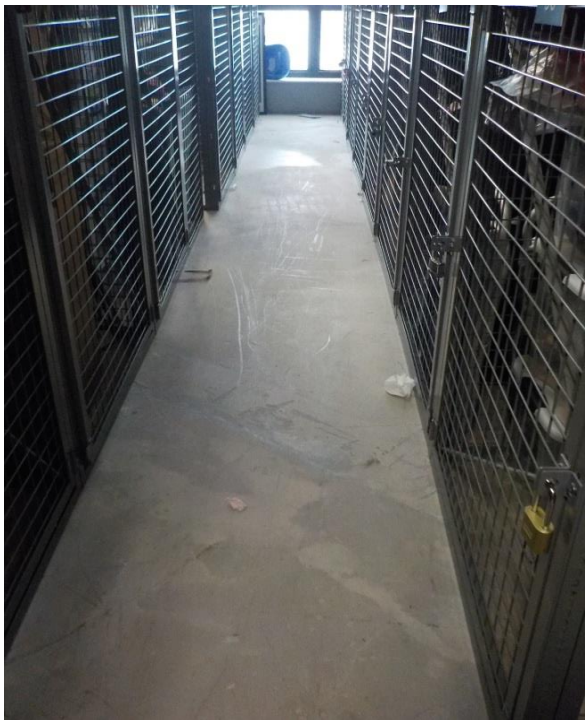

Photo 16: First floor concrete slab in tenant storage space, facing southwest. 14 February 2018.

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APPENDIX H
Soil Cover System Inspection
Photographic Log
365 Bond Street
Brooklyn, New York

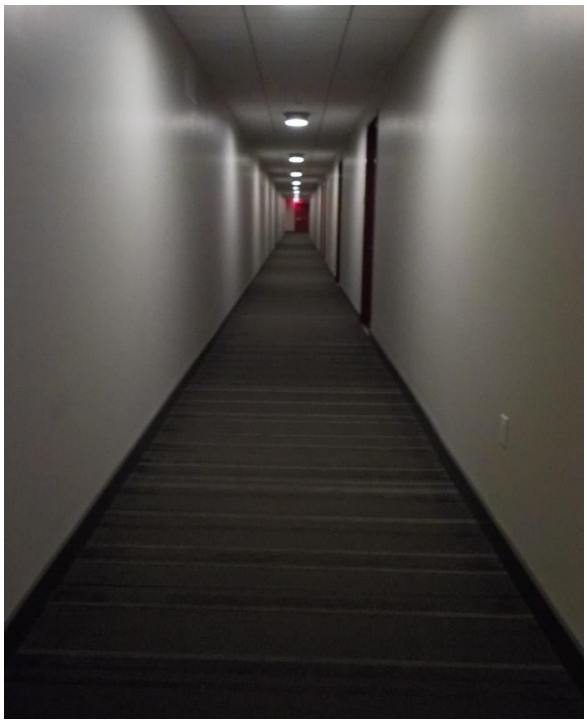

Photo 17: First floor concrete slab covered in carpet, facing north. 14 February 2018.

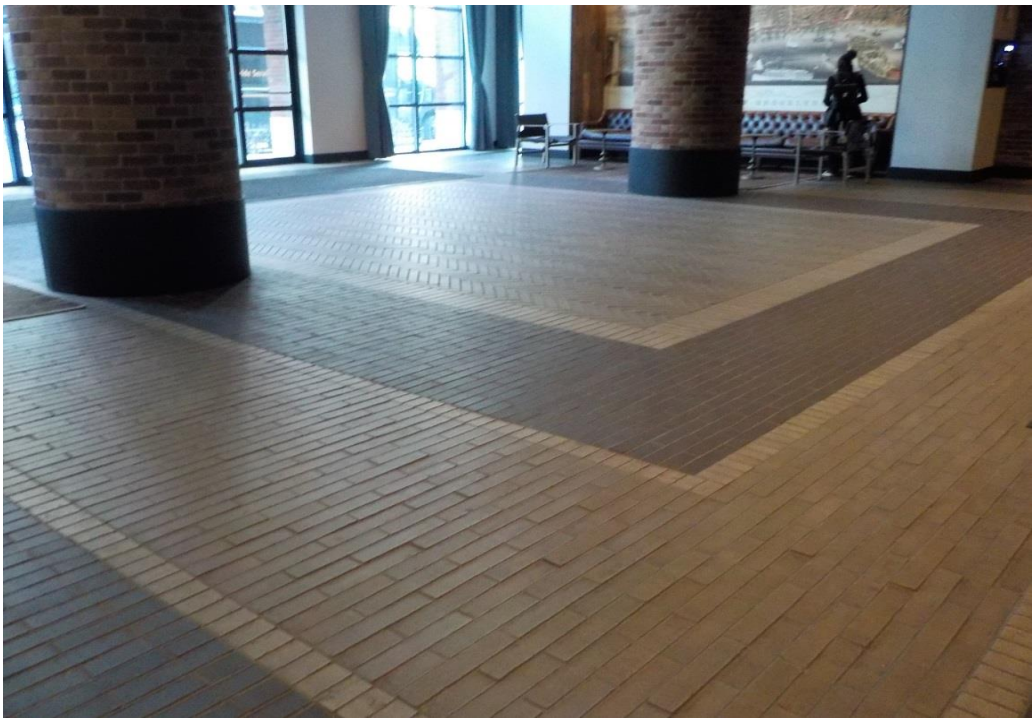

Photo 18: First floor concrete slab covered in brick/tile within the lobby, facing east. 14 February 2018.

Photo 19: First floor concrete slab within the electrical room, facing north. 14 February 2018.

Photo 20: First floor concrete slab covered with soft tiles within the gym, facing north. 14 February 2018.

SITE WIDE INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Allyson Kritzer Date: 2/13/18 - 2/14/18 Weather Conditions: Clear, 55°F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection/Periodic Review Report

Check one of the following: **Y:** Yes **N:** No **NA**: Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The site is occupied by a five- to twelve- story mixed-use commercial/residential building with a partial basement.
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) maintained on site, complete, and up to date?	X				A copy of the 2015 SMP is maintained onsite.
	Site Use Restrictions					
3	Has site use (restricted residential) remained the same?	X				
4	Are there any on-site vegetable gardens?		X			
5	Is groundwater being withdrawn for potable or non-potable use?		X			
	Soil Cover System					
6	Note the date of the most recent site cap inspection.	--	--	--	--	2/13/2018 - 2/14/2018
	If the Soil Cover System inspection is not being completed concurrently with this inspection, complete the following.					
7	Are there any indications of a breach in the capping system at the time of this inspection?					
8	Are there any cracks in the building slabs?					
9	Are there any cracks in the building walls?					
10	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?					
11	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?					

**

If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks: Sidewalks and top soil are in good condition. Repair to composite cover system in the unoccupied commercial space in the northern portion of the property will be completed in the Spring of 2018.

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.

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APPENDIX H

Site Wide Inspection Photographic Log

365 Bond Street
Brooklyn, New York

Photo 1: 2nd Street sidewalk, facing northwest. 13 February 2018.

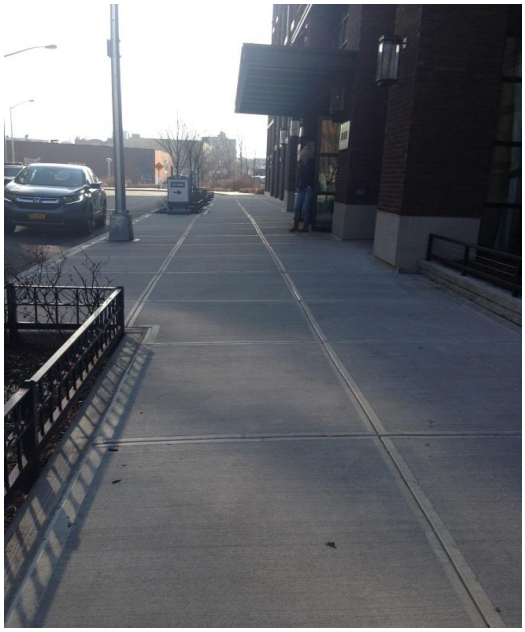

Photo 2: 1st Street sidewalk and lobby entrance, facing southeast. 14 February 2018.

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APPENDIX H

Site Wide Inspection Photographic Log

365 Bond Street
Brooklyn, New York

Photo 3: 365 Bond Street boathouse entrance, facing northeast. 13 February 2018.

Photo 4: V1 riser in good condition, facing east. 14 February 2018.

Photo 5: V1 riser and sample port in good condition, facing east. 14 February 2018.

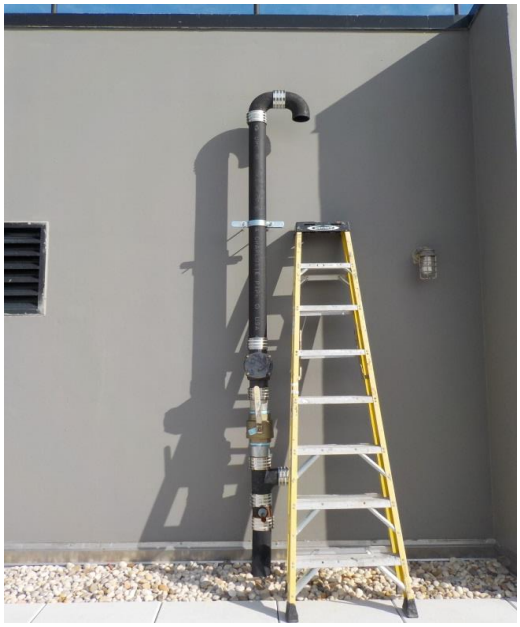

Photo 6: V2 riser and sample port in good condition, facing northeast. 14 February 2018.

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APPENDIX H

Site Wide Inspection Photographic Log

365 Bond Street
Brooklyn, New York

Photo 7: V2 subgrade sampling port metal enclosure, facing north. 13 February 2018.

Photo 8: V2 subgrade sampling port in good condition, facing north. 14 February 2018.

Photo 9: V3 riser in good condition, facing east. 14 February 2018.

Photo 10: V3 riser and sample port in good condition, facing south. 14 February 2018.

Photo 11: V3 subgrade sampling port in good condition, facing east. 13 February 2018.

Photo 12: V4 riser in good condition, facing west. 14 February 2018.

Photo 13: V4 riser and sample port in good condition, facing west. 14 February 2018.

Photo 14: V5 riser in good condition, facing southeast. 14 February 2018.

Photo 15: V5 riser and sample port in good condition, facing southeast. 14 February 2018.

Photo 16: V5 subgrade sampling port in good condition, facing south. 13 February 2018.

Photo 17: V6 riser and sample port in good condition, facing northwest. 14 February 2018.

APPENDIX F

ICEC Certification Form

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

Site Details **Box 1**

Site No. C224174

Site Name 365 Bond Street

Site Address: 365 Bond Street Zip Code: 11231
City/Town: Brooklyn
County: Kings
Site Acreage: 2.1

Reporting Period: March 1, 2017 to March 31, 2018

	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? Restricted-Residential, Commercial, and 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

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☑

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C224174 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
458-1	LSG 365 Bond Street LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan IC/EC Plan O&M Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
458-1	Vapor Mitigation Cover System

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

YES	NO
☒	☐

2. 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. C224174

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 CHRISTOPHER CUSUMANO (print name) at 365 BOND STREET BROOKLYN, NY 11231. (print business address),

am certifying as LSG 365 Bond Street, LLC (Owner or Remedial Party)

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

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

08/28/2020
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer 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 Ronald Boyer (print name) at Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 300 Kimball Drive, Parsippany, NJ 07054 (print business address),

am certifying as a Professional Engineer for the LSG 365 Bond Street, LLC (Owner or Remedial Party)

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

Stamp (Required for PE)

Date 7/2/18

Certificate of Occupancy

CO Number: 320590829T006

This certifies that the premises described herein conforms substantially to the approved plans and specifications and to the requirements of all applicable laws, rules and regulations for the uses and occupancies specified. No change of use or occupancy shall be made unless a new Certificate of Occupancy is issued. *This document or a copy shall be available for inspection at the building at all reasonable times.*

A.

Borough: Brooklyn	**Block Number:** 00458	**Certificate Type:** Temporary
Address: 365 BOND STREET	**Lot Number(s):** 1	**Effective Date:** 04/05/2017
Building Identification Number (BIN): 3336304	**Building Type:** New	**Expiration Date:** 07/04/2017

This building is subject to this Building Code: 2008 Code

For zoning lot metes & bounds, please see BISWeb.

B.

Construction classification:	1-B	(2014/2008 Code)
Building Occupancy Group classification:	R-2	(2014/2008 Code)
Multiple Dwelling Law Classification:	HAEA	

No. of stories: 12	**Height in feet:** 125	**No. of dwelling units:** 430

C.

Fire Protection Equipment:
Standpipe system, Fire alarm system, Sprinkler system

D.

Type and number of open spaces:
None associated with this filing.

E.

This Certificate is issued with the following legal limitations:
City Planning Commission - Recording Info: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226CMK, N 140170 ZCK

Outstanding requirements for obtaining Final Certificate of Occupancy:

There are 19 outstanding requirements. Please refer to BISWeb for further detail.

Borough Comments: None

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T006

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
001	001		OG	R-2	18	2	(18) EIGHTEEN DWELLING UNITS
001	001		OG	U		2	MECHANICAL ROOMS,ELECTRICAL ROOMS, IT ROOMS, GARBAGE ROOMS,
001	001		OG	S-2		2	BIKE STORAGE AND PARKING ROOMS, LEASING OFFICE, SUPERS WORKSHOP, TENANT STORAGE, RESIDENTIAL MANAGERS OFFICE
001	001		OG			2	PARKING FOR 193 CARS, VALET FOR PARKING GARAGE
001	001		OG	R-2		2	RESIDENTIAL LOBBY, ACCESSORY AMENITY SPACE
001	001		OG	M		6	COMMERCIAL SPACE
002	002			R-2	69	2	(69) SIXTYNINE DWELLING UNITS
003	005			R-2	75	2	(75) SEVENTYFIVE DWELLING UNITS
006	006			R-2	54	2	(54) FIFTY FOUR DWELLING UNITS, ACCESORY RESIDENTIAL TERRACE
006	006			U		2	TERRACE MECHINCAL SPACES
007	008			R-2	16	2	(16) EIGHTEEN DWELLING UNITS
007	008			U		2	MECHINCAL BULKHEAD, MECHANICAL TERRACES
009	011			R-2	8	2	(8) EIGHT DWELLING UNITS

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T006

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
009	011			U		2	MECHANICAL SPACE
012	012			R-2	8	2	(8) SEVEN DWELLING UNITS
ROF				U		2	MECHANICAL SPACE

PLEASE ADD THE BELOW: RESTRICTIVE DECLARATION #'S: 2014000000347, 2014000000351, 2014000000348, 2013000497366 ZONING EXHIBIT CRFN #'S: 2013000497370, 2013000497369 CPC CALENDAR #'S: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226 CMK, N 140170 ZCK, N 140171 ZCK

END OF SECTION

Borough Commissioner

Commissioner

END OF DOCUMENT

Certificate of Occupancy

CO Number: 320590829T007

This certifies that the premises described herein conforms substantially to the approved plans and specifications and to the requirements of all applicable laws, rules and regulations for the uses and occupancies specified. No change of use or occupancy shall be made unless a new Certificate of Occupancy is issued. *This document or a copy shall be available for inspection at the building at all reasonable times.*

A.

Borough: Brooklyn	**Block Number:** 00458	**Certificate Type:** Temporary
Address: 365 BOND STREET	**Lot Number(s):** 1	**Effective Date:** 06/27/2017
Building Identification Number (BIN): 3336304	**Building Type:** New	**Expiration Date:** 09/25/2017

This building is subject to this Building Code: 2008 Code

For zoning lot metes & bounds, please see BISWeb.

B.

Construction classification:	1-B	(2014/2008 Code)
Building Occupancy Group classification:	R-2	(2014/2008 Code)
Multiple Dwelling Law Classification:	HAEA	

No. of stories: 12	**Height in feet:** 125	**No. of dwelling units:** 430

C.

Fire Protection Equipment:
Standpipe system, Fire alarm system, Sprinkler system

D.

Type and number of open spaces:
None associated with this filing.

E.

This Certificate is issued with the following legal limitations:
City Planning Commission - Recording Info: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226CMK, N 140170 ZCK

Outstanding requirements for obtaining Final Certificate of Occupancy:

There are 16 outstanding requirements. Please refer to BISWeb for further detail.

Borough Comments: None

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T007

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
001	001		OG	R-2	18	2	(18) EIGHTEEN DWELLING UNITS
001	001		OG	U		2	MECHANICAL ROOMS,ELECTRICAL ROOMS, IT ROOMS, GARBAGE ROOMS,
001	001		OG			2	PARKING FOR 193 CARS, VALET FOR PARKING GARAGE
001	001		OG	R-2		2	RESIDENTIAL LOBBY, ACCESSORY AMENITY SPACE
001	001	41	OG	M		6	COMMERCIAL SPACE (EATING AND DRINKING ESTABLISHMENT).
001	001		OG	S-2		2	BIKE STORAGE AND PARKING ROOMS, LEASING OFFICE, SUPERS WORKSHOP, TENANT STORAGE, RESIDENTIAL MANAGERS OFFICE
002	002			R-2	69	2	(69) SIXTYNINE DWELLING UNITS
003	005			R-2	75	2	(75) SEVENTYFIVE DWELLING UNITS
006	006			R-2	54	2	(54) FIFTY FOUR DWELLING UNITS, ACCESORY RESIDENTIAL TERRACE
006	006			U		2	TERRACE MECHINCAL SPACES
007	008			R-2	16	2	(16) EIGHTEEN DWELLING UNITS
007	008			U		2	MECHINCAL BULKHEAD, MECHANICAL TERRACES
009	011			U		2	MECHANICAL SPACE

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T007

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
009	011			R-2	8	2	(8) EIGHT DWELLING UNITS
012	012			R-2	8	2	(8) SEVEN DWELLING UNITS
ROF				U		2	MECHANICAL SPACE

PLEASE ADD THE BELOW: RESTRICTIVE DECLARATION #'S: 2014000000347, 2014000000351, 2014000000348, 2013000497366 ZONING EXHIBIT CRFN #'S: 2013000497370, 2013000497369 CPC CALENDAR #'S: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226 CMK, N 140170 ZCK, N 140171 ZCK

END OF SECTION

Borough Commissioner

Commissioner

END OF DOCUMENT

Certificate of Occupancy

CO Number: 320590829T008

This certifies that the premises described herein conforms substantially to the approved plans and specifications and to the requirements of all applicable laws, rules and regulations for the uses and occupancies specified. No change of use or occupancy shall be made unless a new Certificate of Occupancy is issued. *This document or a copy shall be available for inspection at the building at all reasonable times.*

A.

Borough: Brooklyn	**Block Number:** 00458	**Certificate Type:** Temporary
Address: 365 BOND STREET	**Lot Number(s):** 1	**Effective Date:** 09/25/2017
Building Identification Number (BIN): 3336304	**Building Type:** New	**Expiration Date:** 12/24/2017

This building is subject to this Building Code: 2008 Code

For zoning lot metes & bounds, please see BISWeb.

B.

Construction classification:	1-B	(2014/2008 Code)
Building Occupancy Group classification:	R-2	(2014/2008 Code)
Multiple Dwelling Law Classification:	HAEA	

No. of stories: 12	**Height in feet:** 125	**No. of dwelling units:** 430

C.

Fire Protection Equipment:
Standpipe system, Fire alarm system, Sprinkler system

D.

Type and number of open spaces:
None associated with this filing.

E.

This Certificate is issued with the following legal limitations:
City Planning Commission - Recording Info: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226CMK, N 140170 ZCK

Outstanding requirements for obtaining Final Certificate of Occupancy:

There are 11 outstanding requirements. Please refer to BISWeb for further detail.

Borough Comments:

OK TO RENEW TCO#8 FOR 90 DAYS AS PREVIOUSLY ISSUED.

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T008

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
001	001		OG	R-2	18	2	(18) EIGHTEEN DWELLING UNITS
001	001		OG	U		2	MECHANICAL ROOMS,ELECTRICAL ROOMS, IT ROOMS, GARBAGE ROOMS,
001	001		OG			2	PARKING FOR 193 CARS, VALET FOR PARKING GARAGE
001	001		OG	R-2		2	RESIDENTIAL LOBBY, ACCESSORY AMENITY SPACE
001	001	41	OG	M		6	COMMERCIAL SPACE (EATING AND DRINKING ESTABLISHMENT).
001	001		OG	S-2		2	BIKE STORAGE AND PARKING ROOMS, LEASING OFFICE, SUPERS WORKSHOP, TENANT STORAGE, RESIDENTIAL MANAGERS OFFICE
002	002			R-2	69	2	(69) SIXTYNINE DWELLING UNITS
003	005			R-2	75	2	(75) SEVENTYFIVE DWELLING UNITS
006	006			R-2	54	2	(54) FIFTY FOUR DWELLING UNITS, ACCESORY RESIDENTIAL TERRACE
006	006			U		2	TERRACE MECHINCAL SPACES
007	008			R-2	16	2	(16) EIGHTEEN DWELLING UNITS
007	008			U		2	MECHINCAL BULKHEAD, MECHANICAL TERRACES
009	011			U		2	MECHANICAL SPACE

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T008

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
009	011			R-2	8	2	(8) EIGHT DWELLING UNITS
012	012			R-2	8	2	(8) SEVEN DWELLING UNITS
ROF				U		2	MECHANICAL SPACE

PLEASE ADD THE BELOW: RESTRICTIVE DECLARATION #'S: 2014000000347, 2014000000351, 2014000000348, 2013000497366 ZONING EXHIBIT CRFN #'S: 2013000497370, 2013000497369 CPC CALENDAR #'S: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226 CMK, N 140170 ZCK, N 140171 ZCK

END OF SECTION

Borough Commissioner

Commissioner

END OF DOCUMENT

Certificate of Occupancy

CO Number: 320590829T009

This certifies that the premises described herein conforms substantially to the approved plans and specifications and to the requirements of all applicable laws, rules and regulations for the uses and occupancies specified. No change of use or occupancy shall be made unless a new Certificate of Occupancy is issued. *This document or a copy shall be available for inspection at the building at all reasonable times.*

A.

Borough: Brooklyn **Address:** 365 BOND STREET **Building Identification Number (BIN):** 3425036	**Block Number:** 00458 **Lot Number(s):** 1 **Building Type:** New	**Certificate Type:** Temporary **Effective Date:** 12/21/2017 **Expiration Date:** 03/21/2018

This building is subject to this Building Code: 2008 Code

For zoning lot metes & bounds, please see BISWeb.

B.

Construction classification: 1-B (2014/2008 Code)

Building Occupancy Group classification: R-2 (2014/2008 Code)

Multiple Dwelling Law Classification: HAEA

No. of stories: 12 **Height in feet:** 125 **No. of dwelling units:** 430

C.

Fire Protection Equipment:
Standpipe system, Fire alarm system, Sprinkler system

D.

Type and number of open spaces:
None associated with this filing.

E.

This Certificate is issued with the following legal limitations:
City Planning Commission - Recording Info: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226CMK, N 140170 ZCK

Outstanding requirements for obtaining Final Certificate of Occupancy:

There are 10 outstanding requirements. Please refer to BISWeb for further detail.

Borough Comments:

OK TO RENEW TCO#9 FOR 90 DAYS AS PREVIOUSLY ISSUED. NO RENEWAL WITHOUT PROGRESS REPORT.

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T009

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
001	001		OG	R-2	18	2	(18) EIGHTEEN DWELLING UNITS
001	001		OG	U		2	MECHANICAL ROOMS,ELECTRICAL ROOMS, IT ROOMS, GARBAGE ROOMS,
001	001		OG			2	PARKING FOR 193 CARS, VALET FOR PARKING GARAGE
001	001		OG	R-2		2	RESIDENTIAL LOBBY, ACCESSORY AMENITY SPACE
001	001	41	OG	M		6	COMMERCIAL SPACE (EATING AND DRINKING ESTABLISHMENT).
001	001		OG	S-2		2	BIKE STORAGE AND PARKING ROOMS, LEASING OFFICE, SUPERS WORKSHOP, TENANT STORAGE, RESIDENTIAL MANAGERS OFFICE
002	002			R-2	69	2	(69) SIXTYNINE DWELLING UNITS
003	005			R-2	75	2	(75) SEVENTYFIVE DWELLING UNITS
006	006			R-2	54	2	(54) FIFTY FOUR DWELLING UNITS, ACCESORY RESIDENTIAL TERRACE
006	006			U		2	TERRACE MECHINCAL SPACES
007	008			R-2	16	2	(16) EIGHTEEN DWELLING UNITS
007	008			U		2	MECHINCAL BULKHEAD, MECHANICAL TERRACES
009	011			U		2	MECHANICAL SPACE

Borough Commissioner

Commissioner

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Certificate of Occupancy

CO Number: 320590829T009

Permissible Use and Occupancy

All Building Code occupancy group designations below are 2008 designations.

Floor From	To	Maximum persons permitted	Live load lbs per sq. ft.	Building Code occupancy group	Dwelling or Rooming Units	Zoning use group	Description of use
009	011			R-2	8	2	(8) EIGHT DWELLING UNITS
012	012			R-2	8	2	(8) SEVEN DWELLING UNITS
ROF				U		2	MECHANICAL SPACE

PLEASE ADD THE BELOW: RESTRICTIVE DECLARATION #'S: 2014000000347, 2014000000351, 2014000000348, 2013000497366 ZONING EXHIBIT CRFN #'S: 2013000497370, 2013000497369 CPC CALENDAR #'S: C 090047 ZMK, C 090048 ZSK, N 090049 ZRK, N 130226 CMK, N 140170 ZCK, N 140171 ZCK

END OF SECTION

Borough Commissioner

Commissioner

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