Additional Site Characterization Results Report

Former Bay Ridge Holder Stations A & B Site
Operable Unit 2
Brooklyn, New York
NYSDEC Site No.: 224058
Order on Consent Index #: A2-0552-0606

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AECOM

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Project No. 60137360-440

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Certification Page

I, Nelson J. Abrams, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Site Characterization Report was prepared in accordance with all applicable statues and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Signature_____ Date July 1, 2014_____

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List of Acronyms

ASP	Analytical Services Protocol
ASTM	ASTM International
AWQSGV	Ambient Water Quality Standards or Guidance Values
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
bgs	below ground surface
CLP	Contract Laboratory Program
COC	Chain of Custody
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Accreditation Program
EM	Electromagnetic
ft	Foot
GIS	Geographic Information Systems
GPR	Ground Penetrating Radar
IDW	Investigation Derived Waste
MGP	Manufactured Gas Plant
MS / MSD	Matrix Spike / Matrix Spike Duplicate
NYCDEP	New York City Department of Environmental Protection
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OCAS	Order on Consent and Administrative Settlement
PAHs	Polynuclear Aromatic Hydrocarbons
PID	Photo-ionization detector
ppb	parts per billion
PPE	Personal Protection Equipment
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RCOs	Recommended Cleanup Objectives
RCRA	Resource Conservation and Recovery Act
SC	Site Characterization
SMP	Site Management Plan
USEPA	United States Environmental Protection Agency

Executive Summary

AECOM Technical Services (AECOM), on behalf of National Grid, has prepared this Additional Site Characterization (SC) Report for the Former Bay Ridge Holder Stations A & B site Operable Unit 2 (the Site) located in Brooklyn, New York. The Site, which occupies the footprint of former Station B, is comprised of one tax parcel located between 8th and 9th Avenues and between 65th and 66th Streets. This report presents the results of the Additional SC activities that were conducted at the Site in April 2013. This Additional SC Results Report was developed pursuant to the Order on Consent and Administrative Settlement (OCAS) [Index No. A2-0552-0606, (NYSDEC, 2007)] between the Brooklyn Union Gas Company (now d/b/a National Grid NY) and the New York State Department of Environmental Conservation (NYSDEC), and in accordance with applicable guidelines of the NYSDEC and the New York State Department of Health (NYSDOH).

The Site is currently divided into three areas: 1) National Grid's Bay Ridge gate station is located in the middle, 2) youth athletic fields are located in the western portion, and 3) a vacant area borders the gate station to the south and east. During the 2010 and 2011 SC for the former Bay Ridge Holder Station A & B Site, impacted soils were encountered at some sample locations on the eastern (9th Avenue) portion of the Site. Impacts were observed in SC boring SB-106/MW-106 to the west of the former No. 4 holder, but not further north-west (SB-101/MW-101 and SB-102/MW-102).

The purpose of this additional SC work was to support a possible site boundary modification. The objective of the additional SC was to delineate subsurface soil impacts associated with samples collected from within the former holder No. 4 footprint during the original SC. Five soil borings (SB-126 through SB-130) were advanced at the Site to evaluate if impacts to the soil are present within or to the north or west of the footprint of the former holder No. 4. Continuous soil samples were collected from the ground surface to the bottom of the borehole for both field characterization (photoionization detector screening and observations) and for the collection of samples for laboratory analysis. Soil borings were advanced to depths from 12 to 20 feet below ground surface (bgs).

The analytical results of the subsurface soil samples indicate that benzene and ethylbenzene were detected above the NYSDEC Restricted Residential Site Cleanup Objectives (SCOs) in soil borings SB-126 and SB-127, respectively; several polynuclear aromatic hydrocarbons (PAHs) compounds were detected above either the NYSDEC Restricted Residential or Commercial SCOs in soil borings SB-126 through SB-129, and lead, and mercury were detected above the NYSDEC Restricted Residential SCOs in soil borings SB-126 and SB-127. No compounds were detected above the NYSDEC SCOs in samples collected from soil borings SB-130. Two samples (SB-126 from 10.5 to 12.5 ft bgs and SB-127 from 10 to 12 ft bgs) were collected immediately above the apparent foundation of the former holder No. 4. For these two samples, slight tar odors and slightly tar coated soils were observed in the field, and the laboratory results showed elevated concentrations of BTEX compounds, PAH compounds, lead and mercury. For soil samples collected from borings installed outside the footprint of the former holder No. 4 (SB-128, SB-129, and SB-130), only three PAH compounds exceeded either the Restricted Residential or Commercial SCOs. The results of the Additional SC indicate that there is residual soil contamination. However, it appears that the majority of the residual contamination is limited to the soils within the foundation of the former holder No. 4.

The scope of work for the Additional SC was successfully completed and the objectives identified in the Additional SC Work Plan were accomplished. The results of the Additional SC are consistent with data collected within the former holder No. 4 during the initial SC work. The elevated concentrations occur at depth (at least 10 ft bgs) and the analytical results indicate that these concentrations are confined to the former holder No. 4 footprint.

1.0 Introduction

AECOM Technical Services (AECOM), on behalf of National Grid, has prepared this Additional Site Characterization (SC) Report for the former Bay Ridge Holder Stations A & B site Operable Unit 2 (the Site) located in Brooklyn, New York. The Site, which occupies the footprint of former Station B, is comprised of one tax parcel located between 8th and 9th Avenues and between 65th and 66th Streets. This report presents the results of the Additional SC activities that were conducted at the Site in April 2013. This Additional SC Results Report was developed pursuant to the Order on Consent and Administrative Settlement (OCAS) [Index No. A2-0552-0606, (NYSDEC, 2007)] between the Brooklyn Union Gas Company (now d/b/a National Grid NY) and the New York State Department of Environmental Conservation (NYSDEC), and in accordance with applicable guidelines of the NYSDEC and the New York State Department of Health (NYSDOH).

The fieldwork for the Additional SC was completed in accordance with the NYSDEC-approved letter work plan entitled *Supplemental Site Characterization Activities, Former Bay Ridge Holder Station B Site, Brooklyn, New York, NYSDEC Site No.: 224058, Index # A2-0552-0606*, dated April 12, 2013 (the Additional SC Work Plan). The Additional SC Work Plan presented the scope of work to be conducted and identified that the activities would be conducted in accordance with the *Site Characterization Work Plan, Bay Ridge Former Holder Stations A and B Site, Brooklyn, New York, NYSDEC Site No.: 224058, Index # A2-0552-0606*, dated January 2010.

1.1 Additional SC Objectives

The purpose of the Additional SC work was to support a possible site boundary modification. The current OU-2 boundary is coincident with the boundary of the former Station B property line (.Block 5749 Lot 15) In particular, the objective of the additional SC was to determine the lateral extent of impacts associated with one of the former Station B gas holders, holder No. 4.

1.2 Scope of Work

The scope of work for the Additional SC, as defined in the NYSDEC-approved Additional SC Work Plan included the following:

- Locating underground utilities in the investigation areas;
- Community air monitoring during invasive drilling activities;
- Advancement of five soil borings and collection of subsurface soil samples for laboratory analysis;
- Surveying of the boring locations; and
- Investigation derived waste management.

The data presented in this Additional SC Report were collected during a two day period from April 24 to April 25, 2013.

1.3 Report Organization

Details of the Additional SC activities are provided in the following sections:

- Section 2 – provides a description of the Site, summary information regarding the operational history of the Site, a summary of previous SC activities, and the purpose of the Additional SC activities.

- Section 3 – provides a description of the Additional SC field investigation activities for the Site.
- Section 4 – provides the results of the Additional SC activities.
- Section 5 –summarizes the Additional SC findings and provides conclusions based on the field observations and analytical data.
- Section 6 – provides a list of the references cited in this report.

Tables and figures are included in sections that immediately follow the report text.

Appendices to the report include the following:

- Appendix A December 25, 1959 Brooklyn-Union Gas Employee Newsletter Article
- Appendix B Additional SC Work Plan
- Appendix C Soil Boring Logs
- Appendix D Data Usability Summary Report
- Appendix E Laboratory Analytical Results

2.0 Site Background

2.1 Site Description

The Site is currently divided into three areas: 1) National Grid's Bay Ridge gate station is located in the middle of the Site, 2) youth athletic fields are located in the western portion of the Site, and 3) a vacant area borders the gate station to the south and east (Figure 2-2). All three areas are fenced. The youth athletic fields and gate station have gates on 65th Street. The vacant area has a gate on 9th Avenue. Within the athletic field area there are three baseball / softball fields with bleachers, dugouts, a concession building and a storage shed. One of the baseball fields is also used as a pee-wee football / soccer field. The gate station has a building on 65th Street. The empty lot has an asphalt parking area on 9th Avenue and an unpaved area along 66th Street.

The Site (including the youth athletic fields) and properties adjacent to the southeast, east, northeast and north are zoned as manufacturing M-1 districts. This means that the uses in this area are considered light industrial including wholesale services and storage facilities. Commercial and residential districts are typically found adjacent to M-1 districts, which is the case in this area of Bay Ridge. The adjacent properties to the northwest, west, southwest, and south are zoned as public parks and as such are not subject to zoning regulations.

2.2 Site History

As presented in the *Site Characterization Results Report, Former Bay Ridge Holder Stations A and B Site, Brooklyn, New York, NYSDEC Site No.: 224058, Index # A2-0552-0606*, dated March 2012 (the Original SCR Report), the Site history of Station B (now OU-2) was developed based on a review of the historic Sanborn Fire Insurance maps, aerial photographs, Kings County Lighting Co. drawing S.611-20 dated 1951 and revised 1956, as well as previous environmental investigation reports. Since finalization of the Original SCR Report, the site history has been amended with information from an article published in a Brooklyn Union Gas Company employee newsletter dated December 25, 1959 (Appendix A), which discusses the demolition and removal of the two million cubic foot gas holder (holder No. 4).

In summary, gas holders and other related structures were present at the Site from prior to 1905 to sometime in the 1960s-1970s. In 1905 two gas holders (Nos. 1 and 2) including other structures were present in the current National Grid gate station and vacant area. By 1926 the original two holders had been removed, and three other gas holders (Nos. 3, 4, and 5) of varying sizes were present, along with oil tanks and other structures. By 1956 only two gas holders (Nos. 4 and 5) were present, holder No. 3 having been demolished sometime prior to this date. Holder No. 4 was demolished in 1959.

By 1975 none of the holders or other structures remained, except for the buildings associated with the current National Grid gate station. The youth athletic fields were constructed sometime in the late 1970s / early 1980s. Additional historical information is available in the March 2012 Site Characterization Results Report.

Based on a review of available maps and drawings, some historical and construction information for former holder No. 4 can be discerned. The holder was water-sealed and likely had a steel tank built on a relatively shallow concrete foundation slab. Based on the 2011 SC field work and fieldwork discussed herein, the foundation of former holder No. 4 is approximately 12 ft bgs.

2.3 Previous SC Activities

National Grid submitted the Original SCR Report in March 2012. The report, which was prepared by AECOM and approved by the NYSDEC, presented the SC activities and the data collected, and made recommendations based upon the field data and laboratory analytical results. The findings and conclusions specific to former Station B are as follows.

2.3.1 Geology

Based upon the SC activities, the site geology consists of four unconsolidated units varying widely in thickness and distribution. These units mostly consist of fill, sand, and silty sand. The sand unit and the silty sand unit are the most extensive units beneath the Site. The sand unit consists of two subunits, well graded sand and poorly graded sand. The silty sand was generally found underlying the sand unit and was encountered in most of the soil borings. Neither confining units nor bedrock were encountered during the SC investigation.

2.3.2 Observation, Laboratory Detections of Contaminants of Concern, and Recommendations

Coal tar and its constituents, including polynuclear aromatic hydrocarbons (PAHs), are contaminants of concern (COCs) at the Site.

- Coal tar was not observed in the surface and sub-surface soil in the area of the current youth athletic fields. Sub-surface impacts observed at the gate station and the adjacent vacant area were primarily located in and around the former Nos. 3 and 4 gas holders and appeared to be weathered. Observations of note in the vacant area and gate station included some stained soil with a naphthalene-like odor above the foundation of the former No. 4 gas holder, naphthalene-like odors and sheens within and around the location of the former No. 4 gas holder, and naphthalene-like odors and sheens within the location of the former No. 3 gas holder.

- Laboratory analysis of surface and sub-surface soil samples was completed. No significant impacts were reported in the surface soil samples. Sub-surface samples showed the presence of some elevated PAHs and metals (such as lead and mercury) in the shallow sub-surface soils (2 to 5 feet bgs) in the area of the gate station and vacant lot. The laboratory analysis of the surface and subsurface samples collected in the youth athletic field area did not detect any significant impacts from the former operations.

- The NYSDEC agreed with National Grid's recommendation that no additional actions were warranted in youth athletic field portion of Station B. An SMP was recommended for impacted soils located at the gate station and the vacant area adjacent to the gate station.

2.4 Additional Investigation Activities

National Grid’s discussions with AECOM regarding the preparation of the SMP identified the need to further delineate subsurface soil impacts detected in samples collected from within the former holder No. 4 footprint during the original SC. These impacts had been detected in samples collected within the vacant area and the gate station portions of Station B; however, the holder No. 4 footprint extends under the youth athletic fields. Thus, the area investigated for the additional SC is within the youth athletic field portion of the Site, and specifically on the two small baseball fields (Figure 2-2).

The purpose of this additional SC work was to support a possible site boundary modification. The objective of the additional SC was to delineate subsurface soil impacts associated with samples collected from within the former holder No. 4 footprint during the original SC.

3.0 Additional Site Characterization Activities

3.1 Field Investigation Activities

The Additional SC activities were performed on April 24 and 25, 2013. Subsurface utilities were located prior to starting the subsurface investigation work. Following the utility mark out, each sampling location was scanned using ground penetrating radar (GPR) and electromagnetic (EM) survey methods by Advanced Geological Services to confirm the location of marked utilities and/or to identify other unmarked utilities. Finally, prior to advancing soil borings, each boring location was hand excavated to a depth of 5 feet to verify shallow utilities were not present.

Five soil borings (SB-126 through SB-130) were advanced to evaluate the presence of soil impacts within or adjacent to the footprint of former holder No. 4 in the youth athletic fields area of the Site. The locations of the soil borings are shown on Figure 3-1. The borings were advanced using a direct-push (Geoprobe™) drilling rig equipped with Macro-Core™ samplers. Continuous soil samples were collected from the ground surface to the bottom of the borehole for both field characterization (photoionization detector screening and observations) and for the collection of samples for laboratory analysis. Soil borings were advanced to depths from 12 to 20 feet below ground surface (bgs).

Soil samples were logged by a geologist who recorded field observations including:

- The presence of fill material, if any,
- The nature of each geologic unit encountered,
- Observations of moisture content, if any,
- The results of PID-readings for soil headspace, and,
- Visual and olfactory observations of the presence of hydrocarbon-like or MGP residual materials.

The soils were logged in accordance with the National Grid protocols (KeySpan, 2005) as detailed in the Field Sampling and Analytical Plan (FSAP) located in Appendix C of the approved January 2010 Site Characterization Work Plan. The boring logs for this additional work are provided in Attachment A.

3.2 Analytical Program Summary

Three subsurface soil samples for laboratory analysis were collected from each soil boring. Table 3-1 provides the following summary information for the soil borings: boring identification, sample identification including depth, sampling rationale, boring completion depth, and laboratory analyses performed. The soil samples collected during the additional SC activities were analyzed by Spectrum Analytical Laboratories. Soil samples were analyzed for:

- Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) (USEPA Method 5035A using En Core Sampling tools);
- Polynuclear Aromatic Hydrocarbon (PAH) compounds (USEPA Method 8270);
- Resource Conservation and Recovery Act (RCRA) metals; and
- Free cyanide (extraction by USEPA Method 9012 and analysis by Microdiffusion, ASTM International method D4282-02).

The chemical analyses performed are summarized in Table 3-1. Requisite quality assurance/quality control (QA/QC) samples are presented in the Data Usability Summary Report (DUSR), which is provided as Appendix D. Results are discussed in Section 4.

3.3 Site Survey

The soil boring locations were surveyed by Geod Corporation (Geod) and plotted on an existing site plan. The horizontal locations were reported in the New York State Plane Coordinate System, Long Island Zone (NAD83) in feet. All vertical measurements were reported in NAVD88 in feet, to the nearest 0.1 ft. The figures presented in this document were developed using the survey results.

3.4 Site Restoration

Following the completion of subsurface sampling all drilling locations were restored to pre-sampling conditions.

3.5 Investigation-Derived Waste Management

Investigation-derived wastes (IDW) generated during the SC activities were soil and miscellaneous waste, which were kept separate for disposal.

- Soil
    - Soil from sampling sleeves
- Miscellaneous Waste
    - Plastic sampling sleeves from macro-core samplers
    - Personal protective equipment (PPE)
    - Surface debris that was removed prior to the advancement of the borings
    - Miscellaneous sampling equipment and plastic sheeting

All IDW was placed in drums and properly labeled. Off-site transport to permitted disposal facilities through National Grid's waste contractor, WRS, and disposal was at Bayshore Soil Management, LLC in Keasbey, NJ.

3.6 Community Air Monitoring Program

Community air monitoring was performed to provide real-time measurements of total VOCs and particulate (airborne dust) concentrations in air upwind and downwind of the designated work area when intrusive investigation activities were in progress. The procedures followed methods in general accordance with those described in the CAMP presented in the January 2010 Site Characterization Work Plan.

The monitoring was designed to provide protection for the downwind community, such as those present at the adjacent public areas and commercial properties, from potential releases of airborne constituents resulting from the investigation activities.

Total VOCs and particulates were monitored with a PID and particulate meter, respectively, located upwind and downwind of each work zone. The VOC and particulate levels at each location were recorded on field forms every 15 minutes. The PIDs and particulate meters were also set to log information continuously throughout the work day. This information was recorded so that the NYSDEC and NYSDOH could review the information if needed (Appendix F). The specific action levels for VOCs and particulates are provided in the CAMP Action levels were not reached as a result of the intrusive investigation activities at any time during the field sampling activities, so no response actions were necessary.

3.7 Quality Assurance/Quality Control Sampling

Field and laboratory quality control samples for the investigation were collected and analyzed to document the accuracy and precision of the samples. The QA/QC samples, summarized in the Data Usability Summary Reports (DUSR; Appendix D), include trip blanks, field equipment blanks, field duplicates and matrix spikes, and matrix spike duplicates. The data quality level for the investigation was consistent with procedures outlined in the NYSDEC Analytical Services Protocol (ASP) July 2005 methodologies. A full ASP Category B data package has been prepared by the laboratory for all the samples (Appendix D).The data was reviewed, and the DUSR was prepared, by a qualified chemist.

4.0 Site Characterization Results

This section presents a description of the Site conditions observed during the field investigation.

4.1 Site Geology

Fill was encountered in all of the borings advanced for the Additional SC investigation. The upper three feet of fill material consisted of fine to medium sand with some silt and gravel. This material was likely brought to the subject property for the construction of the youth athletic fields. A second layer of fill material was encountered in all borings below this first layer of fill, and consisted of fine to medium-grained sand with some silt, gravel, cobbles, and various fragments of brick, wood, concrete, and coal fragments. A unit consisting of fine grained sand with some and silt, rock fragments, and gravel was encountered in borings SB-129 and SB-130 at a depth of 10 and 12 feet bgs, respectively. This unit was encountered through the termination of both borings at 20 feet bgs. The fill material encountered within these borings is consistent with the fill material encountered in several of the soil borings advanced during the initial SC activities.

4.2 Observations of Historic Site Structures and Limits of Observed Soil Impacts

Soil borings SB-126 and SB-127 were advanced within what was anticipated to be the limits of former holder No. 4. Refusal of the drilling equipment at 12 feet bgs in soil borings SB-126 and SB-127, suggests that the foundation of the former holder tank is still in place. Slightly tar coated soil with tar-like odors was observed at a depth of 10 to 12 feet bgs, above the apparent holder foundation in both borings.

Soil borings SB-128, SB-129, and SB-130 were advanced outside the anticipated holder. In SB-128, outside the former holder No. 4 footprint, slight black staining and a tar-like odor were encountered at a depth of 10 to 12 feet bgs, and a slight tar odor was encountered in the boring at a depth of 19 to 20 feet bgs. No field observations of MGP-waste related contamination were recorded in SB-129 or SB-130.

4.3 Analytical Results

Analytical results for the soil samples collected for the additional SC activities are summarized on Table 4-1. As stated in the March 2012 SC Results Report, since the present and foreseeable future use and zoning for the Site and surrounding area will remain as they currently are, the subsurface soil analytical results are compared to the NYSDEC Division of Environmental Remediation, 6 NYCRR Part 375 Restricted Residential and Commercial Use Soil Cleanup Objectives (SCOs).

Figure 4-1 presents SC and additional SC soil sample locations and sample analytical results exceeding the above cleanup objectives. Included on the figure are the soil sample locations and results from the 2000 investigation report for the Bay Ridge Little League Baseball Fields prepared by VHB / Vanasse, Hangen, Brustkin, Inc (See Appendix C of the 2012 SC Results Report). . Figure 4-2 presents the analytical results from the area of the additional SC activities.

4.3.1 BTEX Results

BTEX compounds were detected in ten of the 16 samples collected from the Site, though only two samples detected BTEX compounds above the Restricted Residential SCOs.

Within the Holder No. 4 Footprint

Benzene was detected at 6.1 mg/kg in sample SB-126 (10.5 to 12.5 ft bgs) and ethylbenzene was detected in sample SB-127 (10 to 12 ft bgs). These two soil samples were collected immediately above the apparent foundation for the former No. 4 gas holder.

Outside the Holder No. 4 Footprint

There were no exceedances of the Restricted Residential SCOs for the BTEX compounds in the soil samples collected outside the former holder No. 4 foundation.

4.3.2 PAH Results

One or more of the PAHs were detected in 14 of the 16 subsurface soil samples. PAHs above the either the Restricted Residential or Commercial SCOs were detected in four of the soil samples, with samples from soil boring SB-126 and SB-127, within the former No. 4 gas holder, containing the highest concentrations. As with the elevated BTEX compounds, the samples containing the highest concentration of PAHs were collected immediately above the apparent foundation of the former No. 4 gas holder.

Within the Holder No. 4 Footprint

Benzo(a)anthracene, benzo(a)pyrene, benzo(a)fluoranthene, and dibenz(a,h)anthracene were detected above the Commercial SCOs in samples SB-126 (10.5 to 12.5 ft bgs) and SB-127 (10 to 12 ft bgs). Benzo(k)fluoranthene, chrysene and indeno(a,h)anthracene were detected above the Restricted Residential SCOs in sample SB-126 (10.5 to 12.5 ft bgs) while chrysene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above the Residential SCOs in sample SB-127 (10 to 12 ft bgs).

Outside the Holder No. 4 Footprint

PAHs above the Restricted Residential SCOs were also detected in soil samples from SB-128 and SB-129. Naphthalene was detected in SB-128 (10 to 12 ft bgs) and benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene were detected in SB-129 (1 to 3 ft bgs). There were no exceedances of the PAH soil cleanup objectives in the soil samples from SB-130.

4.3.3 Metal Results

Metals were detected in all of the subsurface soil samples. Lead and mercury were the only metals detected above the Restricted Residential SCOs. These exceedences were detected in SB-126 (10.5 to 12.5 ft bgs, concentration) and SB-127(10 to 12 ft bgs, concentration), which were collected immediately above the apparent foundation for the former No. 4 gas holder.

4.3.4 Cyanide Results

Free cyanide was detected in three of the 16 subsurface soil samples above the laboratory's minimum detection limit. However, none of the samples exceeded the applicable soil cleanup objectives.

4.4 Quality Control

To meet the data quality objectives for the Additional SC, which are defined in the Section 3 of the Quality Assurance Project Plan (QAPP) found in the project Work Plan [AECOM, 2010], NYSDEC Analytical Service Protocols (ASP) were used and all results were reported in Category B deliverables. These analyses were completed by Spectrum Analytical, Inc. The laboratory is a current participant in the New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) and has current Contract Laboratory Program (CLP) certification for all Additional SC analyte categories.

Quality assurance/quality control (QA/QC) samples collected in the field consisted of field duplicates, matrix spikes (MS), matrix spike duplicates (MSD), and trip blanks. Duplicate samples collected during the investigation activities are identified on analytical summary tables. QA/QC analytical results are included in the analytical reports.

4.5 DUSR Results

Soil analytical results were evaluated for conformance to method specifications, and qualifiers were applied using USEPA Region 2 Standard Operating Procedures (SOPs). and the validation criteria set forth in the *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review,* USEPA-540-R-07-003, July 2008, with additional reference to *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review,* document number EPA 540/R-99-008, May 1999, and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review,* EPA-540-R-04-004, October 2004, as they apply to the analytical methods employed. Data quality was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance standards, internal standards, initial and continuing calibrations, surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory and field duplicates, compound identification, and compound quantitation. Results of this evaluation are presented in Data Usability Summary Reports (DUSRs). The data were determined to be usable for the purpose of assessing the presence/absence and quantitative concentrations of the compounds/analytes in the soil samples tested with some qualifications. The DUSR for the soil samples is provided in Appendix D. The laboratory analytical results are provided in Appendix E.

5.0 Summary and Conclusions

5.1 Summary of Findings

The analytical results of the subsurface soil samples indicate that several BTEX and PAH compounds, lead, and mercury were detected above either the Restricted Residential or Commercial SCOs. The two samples containing the highest contaminant concentrations (SB-126: 10.5 to 12.5 ft bgs and SB-127: 10 to 12 ft bgs), were collected immediately above the apparent foundation of the former holder No. 4. With the exception of three PAH compounds, none of the other analytical parameters evaluated from soil samples collected around the perimeter of the former holder No. 4 exceeded either the Restricted Residential or Commercial SCOs. Outside of the former holder No. 4 footprint, concentrations of the three PAH compounds detected (naphthalene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene) marginally exceeded the Restricted Residential SCOs. As shown on Figure 4-1, the results of the Additional SC work indicate that there is residual contamination within the youth athletic field area of the Site. However, the majority of the residual contamination is limited to the soils directly in contact with the foundation of the former holder No. 4.

5.2 Conclusions

The scope of work for the Additional SC was successfully completed and the objectives identified in the Additional SC Work Plan were accomplished. The results of the Additional SC are consistent with data collected within the former holder No. 4 during the initial SC work. The elevated concentrations occur at depth (at least 10 ft bgs) and the analytical results indicate that these concentrations are confined to the former holder No. 4 footprint.

6.0 References

AECOM, 2013. Supplemental Site Characterization Activities, Former Bay Ridge Holder Station B Site, Brooklyn, New York, NYSDEC Site No.: 224058, Index # A2-0552-0606, dated April 12, 2013

AECOM, 2012. Site Characterization Results Report, Former Bay Ridge Holder Stations A and B Site, Brooklyn, New York, NYSDEC Site No.: 224058, Index # A2-0552-0606, dated March 2012,

AECOM, 2010. Site Characterization Work Plan, Bay Ridge Former Holder Stations A & B Former Gas Holder Site, Brooklyn, NY. July 2010.

GEI, 2007. Records Search for Bay Ridge Former Holder Stations A and B Site, Site Number 224058, April 6, 2007.

KeySpan, 2005. Field Descriptions of Samples from Former MGP Sites, November, 2005.

NYSDEC, 2006. Rules and Regulations, 6 NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.

NYSDEC, 2010. DER-10 Technical Guidance for Site Investigation and Remediation, May 2010.

Sanborn Fire Insurance Maps for 1905, 1926, 1942, 1950, 1951, 1970, 1977, 1981, 1992, 1993, 1994, and 1995.

Tables

Table 3-1
Additional Site Characterization Sample Location, Rationale, and Analytical Sample Summary
Former Bay Ridge Holder Stations A & B Site
Operable Unit 2
Brooklyn, New York

Sample Location	Sample IDs	Sample Location Rationale	Completion Depth (ft bgs)	Soil Sample Laboratory Analysis
SB-126	SB-126 (0-2)	Evaluate soils within the footprint of Holder No. 4.	12.5	BTEX, PAHs, RCRA 8 Metals, and Free CN
	SB-126 (8-10)			
	SB-126 (10.5-12.5)			
SB-127	SB-127 (3-5)		12	
	SB-127 (8-10)			
	SB-127 (10-12)			
SB-128	SB-128 (2-4)	Evaluate soils along the exterior perimeter footprint of Holder No. 4.	20	
	SB-128 (10-12)			
	SB-128 (18-20)			
SB-129	SB-129 (1-3)		20	
	SB-129 (8-10)			
	SB-129 (18-20)			
SB-130	SB-130 (2-4)		20	
	SB-130 (15-17)			
	SB-130 (18-20)			

Notes:

ID - identification

ft - feet

bgs - below ground surface

RCRA - Resource Conservation and Recovery Act

SB - Soil Boring

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes

PAHs - Polycyclic Aromatic Hydrocarbons

CN - Free Cyanide

TABLE 4-1
RESULTS OF SUBSURFACE SOIL SAMPLES
ADDITIONAL SITE CHARACTERIZATION
BAY RIDGE FORMER HOLDER STATIONS A & B SITE
OPERABLE UNIT 2
BROOKLYN, NEW YORK

Sample Location Sample Date Sample Interval (feet)	NYSDEC Part 375-6 Restricted Residential	NYSDEC Part 375-6 Commercial	SB-126 4/24/2013 (0-2)	SB-126 4/25/2013 (8-10)	SB-126 4/25/2013 (10.5-12.5)	SB-127 4/24/2013 (3-5)	SB-127 4/25/2013 (8-10)	SB-127 4/25/2013 (10-12)	SB-128 4/24/2013 (2-4)	SB-128 4/25/2013 (10-12)	SB-128 4/25/2013 (18-20)	SB-129 4/24/2013 (1-3)	SB-129 4/24/2013 (1-3)	SB-129 4/25/2013 (8-10)	SB-129 4/25/2013 (18-20)	SB-130 4/24/2013 (2-4)	SB-130 4/25/2013 (15-17)	SB-130 4/25/2013 (18-20)
BTEX (mg/Kg)																		
Benzene	4.8	44	< 0.0027 U	< 0.0032 U	**6.1**	< 0.0028 U	< 0.0024 U	**3.9 J**	< 0.0059 U	**0.0022 J**	**0.0021 J**	< 0.0058 U	< 0.0025 U	**0.019 J**	< 0.0029 U	< 0.0027 U	**0.0018 J**	< 0.0028 U
Ethylbenzene	41	390	< 0.0027 U	< 0.0032 U	**1.7**	< 0.0028 U	< 0.0024 U	**56**	< 0.0059 U	**1.7 J**	**0.071**	< 0.0058 U	< 0.0025 U	**0.039 J**	**0.0019 J**	< 0.0027 U	< 0.0025 U	< 0.0028 U
o-Xylene	NL	NL	< 0.0027 U	< 0.0032 U	**0.33 J**	< 0.0028 U	< 0.0024 U	**29**	< 0.0059 U	**19**	**0.43**	< 0.0058 U	< 0.0025 U	**0.028 J**	**0.00077 J**	< 0.0027 U	**0.0012 J**	< 0.0028 U
p-Xylene	NL	NL	< 0.0027 U	< 0.0032 U	**1.1**	< 0.0028 U	< 0.0024 U	**71**	< 0.0059 U	**23**	**0.51**	< 0.0058 U	< 0.0025 U	**0.053 J**	**0.0015 J**	**0.00089 J**	**0.0020 J**	< 0.0028 U
Toluene	100	500	< 0.0027 U	< 0.0032 U	**0.77 J**	< 0.0028 U	**0.00051 J**	**28 J**	< 0.0059 U	**0.042**	**0.0098**	< 0.0058 U	< 0.0025 U	**0.0093 J**	< 0.0029 U	< 0.0027 U	**0.0020 J**	< 0.0028 U
Xylenes (total)	100	500	< 0.0027 U	< 0.0032 U	**1**	< 0.0028 U	**0.00055 J**	**66**	< 0.0059 U	**35**	**0.81**	< 0.0058 U	< 0.0025 U	**0.081 J**	**0.0022 J**	**0.00089 J**	**0.0032**	**0.00057 J**
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)																		
2-Methylnaphthalene	NL	NL	< 0.4 U	< 0.37 U	**7.9 J**	< 0.36 U	< 0.35 U	**28**	< 0.37 U	**37 J**	**8.1**	< 0.39 U	< 0.37 U	**6.6**	< 0.35 U	< 0.37 U	**0.087 J**	< 0.35 U
Acenaphthene	100	500	< 0.4 U	< 0.37 U	**5.7 J**	< 0.36 U	< 0.35 U	**2.7**	< 0.37 U	< 0.37 U	< 0.35 U	**0.12 J**	< 0.37 U	**0.3 J**	< 0.35 U	< 0.37 U	< 0.39 U	< 0.35 U
Acenaphthylene	100	500	< 0.4 U	< 0.37 U	**2.6**	< 0.36 U	< 0.35 U	**1.1**	< 0.37 U	< 0.37 U	< 0.35 U	< 0.39 U	**0.2 J**	**0.53**	< 0.35 U	**0.12 J**	< 0.39 U	< 0.35 U
Anthracene	100	500	< 0.4 U	< 0.37 U	**15**	< 0.36 U	< 0.35 U	**5.4**	< 0.37 U	**0.094 J**	**0.1 J**	**0.15 J**	**0.24 J**	**0.77**	< 0.35 U	**0.15 J**	< 0.39 U	< 0.35 U
Benzo(a)anthracene	1	5.6	**0.37 J**	**0.11 J**	**18**	**0.24 J**	**0.17 J**	**6.2 J**	**0.22 J**	**0.3 J**	**0.26 J**	**0.98**	**0.71**	**0.82**	< 0.35 U	**0.44**	**0.17 J**	< 0.35 U
Benzo(a)pyrene	1	1	**0.36 J**	**0.088 J**	**12**	**0.21 J**	**0.16 J**	**5.4**	**0.18 J**	**0.22 J**	**0.22 J**	**0.89**	**0.53**	**0.57**	< 0.35 U	**0.38**	**0.27 J**	< 0.35 U
Benzo(b)fluoranthene	1	5.6	**0.43**	**0.11 J**	**14**	**0.27 J**	**0.2 J**	**6.1**	**0.21 J**	**0.3 J**	**0.27 J**	**1.4**	**0.56**	**0.47**	< 0.35 U	**0.44**	**0.33 J**	< 0.35 U
Benzo(ghi)perylene	100	500	**0.25 J**	< 0.37 U	**5.7 J**	**0.14 J**	**0.13 J**	**2.8**	**0.13 J**	**0.17 J**	**0.18 J**	**0.6**	**0.37 J**	**0.35 J**	< 0.35 U	**0.27 J**	**0.27 J**	< 0.35 U
Benzo(k)fluoranthene	3.9	56	**0.23 J**	< 0.37 U	**4.3**	**0.13 J**	**0.075 J**	**2.6**	**0.094 J**	**0.097 J**	**0.12 J**	**0.62**	**0.26 J**	**0.22 J**	< 0.35 U	**0.15 J**	**0.16 J**	< 0.35 U
Chrysene	3.9	56	**0.46**	**0.12 J**	**19**	**0.3 J**	**0.22 J**	**6.2 J**	**0.26 J**	**0.28 J**	**0.29 J**	**1.6**	**0.79**	**0.96**	< 0.35 U	**0.54**	**0.2 J**	< 0.35 U
Dibenz(a,h)anthracene	0.33	0.56	< 0.4 U	< 0.37 U	**2.7**	< 0.36 U	< 0.35 U	**0.87**	< 0.37 U	< 0.37 U	< 0.35 U	**0.18 J**	**0.098 J**	**0.09 J**	< 0.35 U	< 0.37 U	< 0.39 U	< 0.35 U
Fluoranthene	100	500	**0.54**	**0.19 J**	**38**	**0.39**	**0.28 J**	**11 J**	**0.3 J**	**0.59**	**0.59**	**3.5**	**0.93**	**1.3**	< 0.35 U	**0.65**	**0.18 J**	< 0.35 U
Fluorene	100	500	< 0.4 U	< 0.37 U	**12**	< 0.36 U	< 0.35 U	**3.9**	< 0.37 U	< 0.37 U	< 0.35 U	**0.15 J**	**0.092 J**	**1.1**	< 0.35 U	< 0.37 U	< 0.39 U	< 0.35 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	**0.21 J**	< 0.37 U	**5.2 J**	**0.13 J**	**0.099 J**	**2.4**	**0.11 J**	**0.15 J**	**0.14 J**	**0.57**	**0.28 J**	**0.24 J**	< 0.35 U	**0.2 J**	**0.23 J**	< 0.35 U
Naphthalene	100	500	< 0.4 U	< 0.37 U	**16**	< 0.36 U	< 0.35 U	**160**	< 0.37 U	**370**	**70**	< 0.39 U	< 0.37 U	**5.8**	< 0.35 U	< 0.37 U	**0.24 J**	< 0.35 U
Phenanthrene	100	500	**0.24 J**	**0.13 J**	**57**	**0.21 J**	**0.21 J**	**15 J**	**0.15 J**	**0.41**	**0.43**	**2.7**	**0.68**	**4**	< 0.35 U	**0.48**	**0.084 J**	< 0.35 U
Pyrene	100	500	**0.68**	**0.19 J**	**31**	**0.44**	**0.37**	**11 J**	**0.41**	**0.59**	**0.56**	**2.8**	**1.3**	**2.4**	< 0.35 U	**0.94**	**0.18 J**	< 0.35 U
Metals (mg/Kg)																		
Arsenic	16	16	**5.9 J**	**6.3 J**	**7.2 J**	**6.0 J**	**4.7 J**	**10.1 J**	**7.0 J**	**5.8 J**	**4.1 J**	**8.6 J**	**10.9 J**	**4.6 J**	**3.8 J**	**5.6 J**	**5.1 J**	**3.4 J**
Barium	400	400	**71.1**	**98.7**	**173**	**110**	**80.8**	**211**	**105**	**38.9**	**39.6**	**54.2**	**87.4**	**34.2**	**32.9**	**72.1**	**39.3**	**39.9**
Cadmium	4.3	9.3	**0.72**	**0.47**	**0.77**	**0.67**	**0.59**	**1.1**	**0.57**	**0.32**	**0.41**	**0.53**	**0.81**	**0.26**	**0.30**	**0.66**	**0.64**	**0.25 J**
Chromium	180	1500	**22.6**	**27.1**	**16.4**	**21.5**	**20.6**	**17.5**	**22.1**	**24.5**	**23.7**	**15.7**	**27.3**	**13.8**	**18.7**	**21.0**	**22.2**	**15.5**
Lead	400	1000	**251**	**284**	**480**	**262**	**332**	**779**	**255**	**63.5**	**39.4**	**76.4**	**359**	**190**	**13.3**	**373**	**175**	**19.6**
Selenium	180	1500	**2.4**	**2.6**	**2.3**	**1.8**	**2.2**	**2.8**	**1.5**	**2.0**	**2.0**	**2.5**	**2.8**	**1.5**	**1.9**	**2.3**	**2.2**	**2.4**
Silver	180	1500	< 1.2 U	< 1.5 U	< 1.5 U	< 1.2 U	< 1.3 U	< 1.4 U	< 1.4 U	< 1.5 U	< 1.4 U	< 1.3 U	< 1.5 U	< 1.4 U	< 1.3 U	< 1.1 U	< 1.4 U	< 1.6 U
Mercury	0.81	2.8	**0.21**	**0.16**	**0.83**	**0.18**	**0.15**	**1.3**	**0.14**	**0.026 J**	**0.0065 J**	**0.14**	**0.22**	**0.13**	< 0.040 U	**0.26**	**0.091**	< 0.038 U
Cyanide (mg/Kg)																		
Free Cyanide	27	27	< 1.27 U	< 1.30 U	< 1.34 U	< 1.14 U	< 1.26 U	**1.60**	< 1.04 U	**0.447 J**	< 0.966 U	< 1.12 U	< 1.17 U	< 1.04 U	< 0.986 U	< 1.17 U	**1.31 J**	< 1.07 U

Notes:

mg/Kg - milligrams per kilogram

NL = Not Listed

J = The associated numerical value is an estimated quantity.

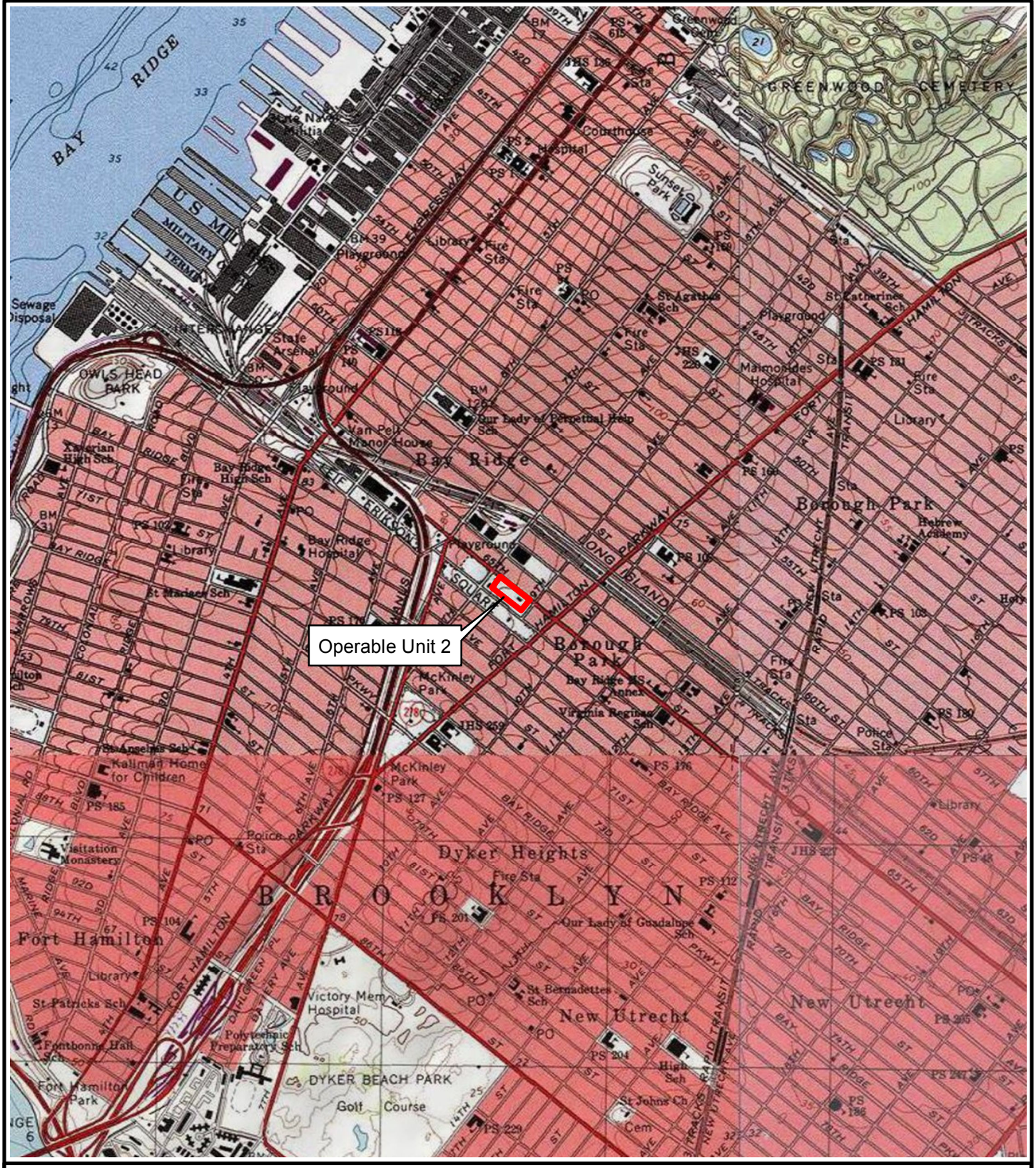
U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.

Bold indicates compound detected at a concentration greater than the reporting limit.

Green highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Restricted Residential Use Soil Cleanup Objective value.

Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.

Figures



AECOM Environment
125 BROAD STREET
NEW YORK, NY 10004
(212) 377-8400
www.aecom.com

Site Location
National Grid
Bay Ridge Former Gas Holder Stations A & B Site
Operable Unit 2
Brooklyn, NY

Data Source: USGS Topographic Quadrangles - Jersey City, 2009; Brooklyn, 1995; The Narrows, 1998; Coney Island, 1979.

Scale:	Date:	Project Number:
1"=2000'	6/25/2014	60137360

Figure Number:

2-1

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AECOM

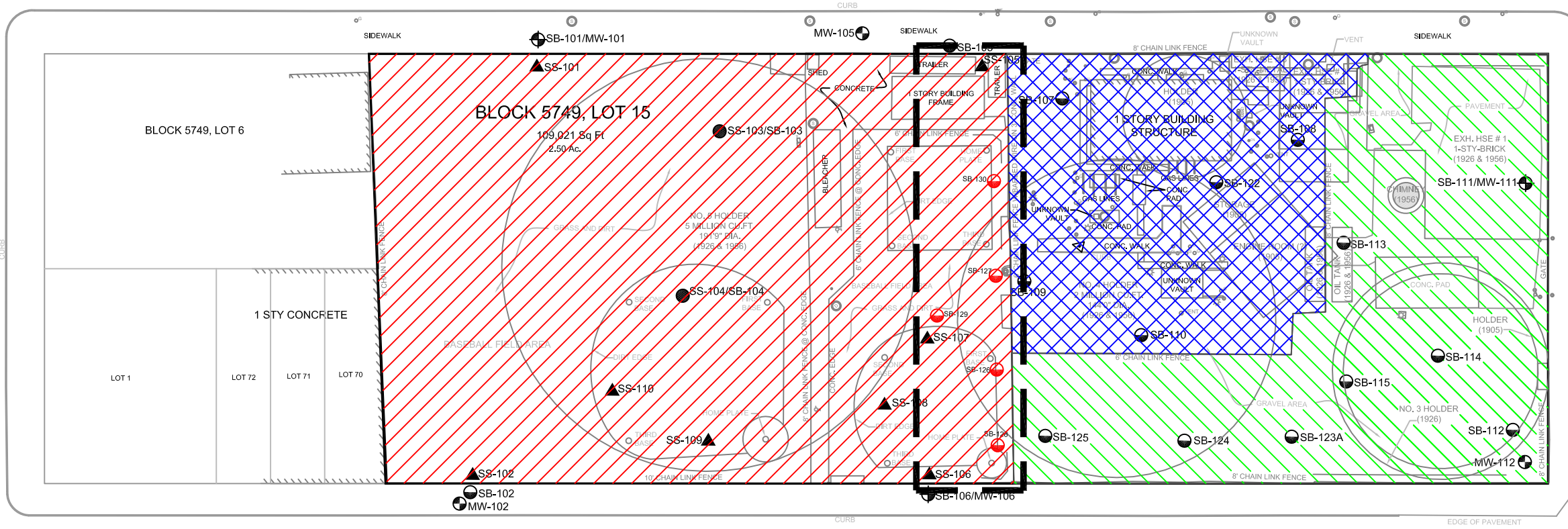
65TH STREET
(100' RIGHT-OF-WAY)

8TH AVENUE
(80' RIGHT-OF-WAY)

9TH AVENUE
(80' RIGHT-OF-WAY)

66TH STREET
(60' RIGHT- OF - WAY)

N.Y.C. 1983 (86)



Legend

- SB-126 — Location of Additional Soil Boring
- SS-101 — Location of Surface Soil Sample
- MW-102 — Location of Monitoring Well
- SS-103/SB-103 — Location of Surface Soil Sample and Soil Boring
- SB-101/MW-101 — Location of Soil Boring and Monitoring Well
- SB-102 — Location of Soil Boring
- Unknown Manhole
- Protective Post
- Control Points
- Fire Hyrdrant
- Unknown Vault
- Electric Meter
- Water Meter
- Water Valve
- Drainage Manhole
- Gas Valve
- Private Light Pole
- Sign
- Sewer Manhole
- Flag Pole
- Wood Pole with Street Light
- Fence Line
- Property Line
- Property Line Adjoiner
- Edge of Pavement Line
- Right-Of-Way Line
- Guide Rail
- Building
- Historic Structure
- Area of Additional Investigation
- National Grid Gate Station
- Youth Athletic Fields
- Vacant Area

DEED REFERENCES:

BLOCK 5749 LOT 1, DEED BOOK 4297 PAGE 1832; BLOCK 5749 LOT 6, DEED BOOK 4047 PAGE 2246;
BLOCK 5749 LOT 70, DEED BOOK 2841 PAGE 469; BLOCK 5749 LOT 71, DEED BOOK 4704 PAGE 2194;
BLOCK 5749 LOT 72, DEED BOOK 2474 PAGE 1751; BLOCK 5749 LOT 15, FROM NYC DIGITAL TAX MAP DATED 12-06-2008;

NOTES:

(1) This is not a valid, true copy of this document unless it bears the original signature and the raised, embossed seal of the surveyor noted hereon.

(2) Horizontal Datum is NAD 1983-CORS New York Long Island Zone 3104

(3) Vertical Datum is NAVD 88

(4) Units = U.S. Survey Feet

(5) Planimetric data shown hereon was generated from field observations in the month of April 2010 and March 2011.

(6) Site survey prepared by Geod Corporation
Project No.: 2918
Date: 6/9/11

(7) Location of historic structures based upon 1905 and 1926 Sanborn Fire Insurance Maps, and 1956 Kings County Lighting Company, Drawing No. 5,611-20.

Graphic Scale

60 0 30 60 120

(In Feet)

1 inch = 60 ft.

NATIONAL GRID
FORMER BAY RIDGE HOLDER STATIONS A & B SITE
OPERABLE UNIT 2
BROOKLYN, NEW YORK
NYSDEC SITE NO.: 224058

DATE: 12/18/2013 | DRWN: | JOB #: 60137360

LOCATION OF ADDITIONAL INVESTIGATION
FORMER BAY RIDGE HOLDER STATIONS A & B SITE
OPERABLE UNIT 2

FIGURE 2-2

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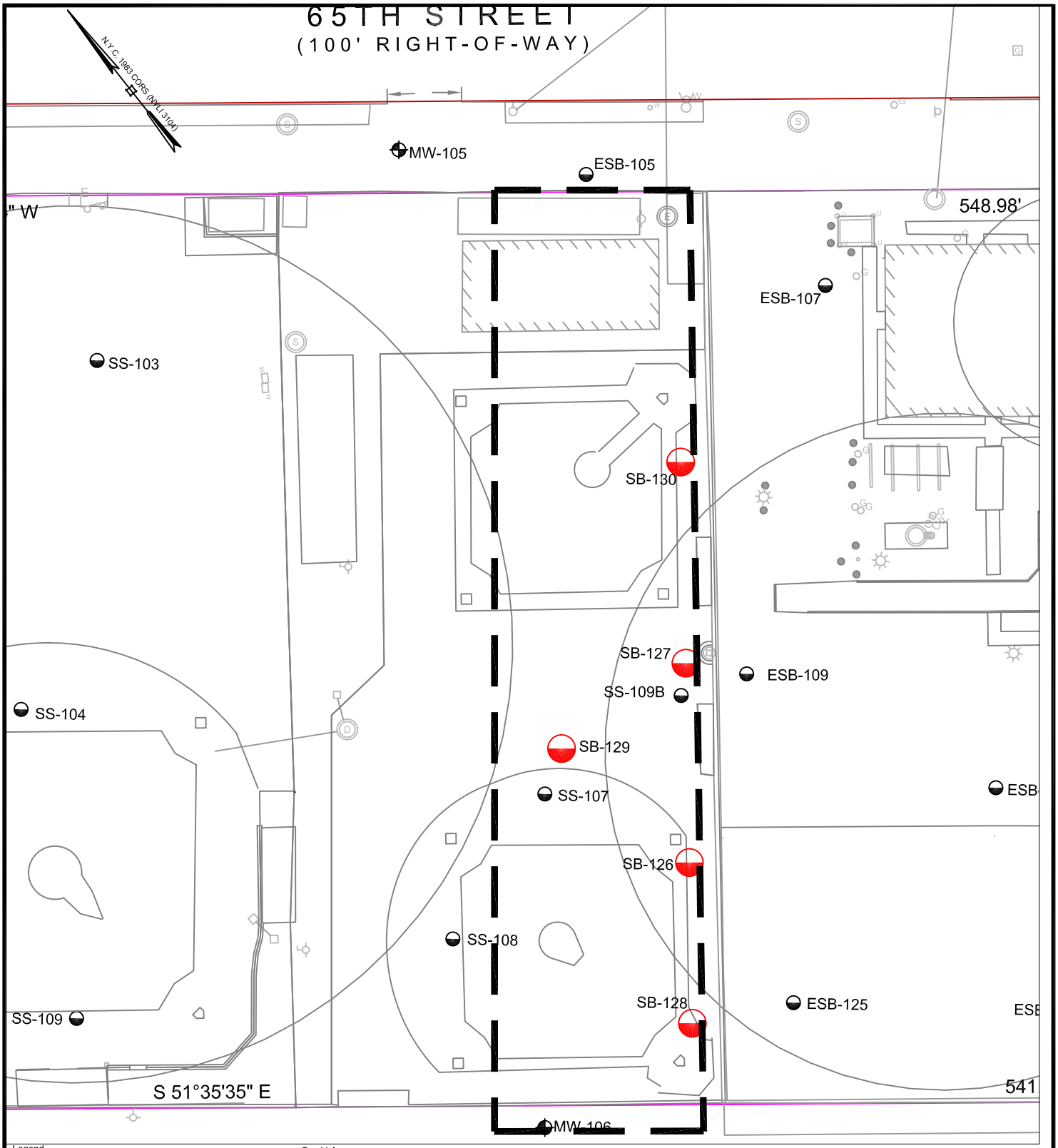

Legend

- Location of Additional Soil Boring
- Location of Surface Soil Sample
- Location of Monitoring Well
- Location of Surface Soil Sample and Soil Boring
- Location of Soil Boring and Monitoring Well
- Location of Soil Boring
- Unknown Manhole
- Protective Post
- Fire Hyrdrant
- Unknown Vault
- Electric Meter
- Water Meter
- Water Valve
- Water Box
- Drainage Manhole
- Gas Valve
- Oil Valve
- Gas Valve
- Private Light Pole
- Sign
- Sewer Manhole
- Flag Pole
- Unknown Valve
- Wood Pole with Street Light
- Gas Manhole
- Traffic Flow
- Fence Line
- Property Line
- Property Line Adjoiner
- Edge of Pavement Line
- Curb Line
- Right-Of-Way Line
- Guide Rail
- Building
- Area of Additional Investigation

Graphic Scale

30 0 15 30 60 (In Feet)

1 inch = 30 ft.

NATIONAL GRID
FORMER BAY RIDGE
HOLDER STATIONS A & B SITE
OPERABLE UNIT 2
BROOKLYN, NEW YORK
NYSDEC SITE NO.: 224058

DATE: 12/18/2013 | JOB #: 60137360

LOCATION OF ADDITIONAL SOIL BORINGS FORMER BAY RIDGE HOLDER STATIONS A & B SITE OPERABLE UNIT 2

FIGURE 3-1

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AECOM

N.Y.C. 1983 (88)

65TH STREET
(100' RIGHT-OF-WAY)

66TH STREET
(60' RIGHT-OF-WAY)

8TH AVENUE
(80' RIGHT-OF-WAY)

9TH AVENUE
(80' RIGHT-OF-WAY)

BLOCK 5749, LOTS 6

BLOCK 5749, LOT 15
105,021 Sq Ft
2.50 Ac.

1 STORY BUILDING
STRUCTURE

1 STY CONCRETE

BASEBALL FIELD AREA

Sample Location	SB-9A	SB-9B
Sample Date	3/15/00	3/15/00
Sample Interval (feet)	3-5	15-16
PAHs (mg/Kg)		
Benzo(a)anthracene	1.5	14.0
Benzo(a)pyrene	1.3	11.0
Benzo(b)fluoranthene	2	14.0
Chrysene	1.3	14.0
Indeno(1,2,3-cd)pyrene	ND	2.2

Sample Location	SB-127	SB-127	SB-127
Sample Date	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	3-5	8-10	10-12
BTEX (mg/Kg)			
Ethylbenzene	ND	ND	56
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	0.24 J	0.17 J	6.2 J
Benzo(a)pyrene	0.21 J	0.16 J	5.4
Benzo(b)fluoranthene	0.27 J	0.2 J	6.1
Chrysene	0.3 J	0.22 J	6.2 J
Dibenz(a,h)anthracene	ND	ND	0.87
Indeno(1,2,3-cd)pyrene	0.13 J	0.099 J	2.4
Naphthalene	ND	ND	160
Metals (mg/Kg)			
Lead	262	332	779
Mercury	0.18	0.15	1.3

Sample Location	SB-105	SB-105	SB-105
Sample Date	4/22/2010	4/27/2010	4/27/2010
Sample Interval (feet)	4-5	23-25	38-39
Metals (mg/Kg)			
Lead	431 J	3.9	6.3

Sample Location	SB-109	SB-109
Sample Date	4/14/2010	4/14/2010
Sample Interval (feet)	1-2	9-10
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)		
Benzo(a)anthracene	0.14 J	3.6
Benzo(a)pyrene	0.096 J	3.2
Benzo(b)fluoranthene	0.120 J	3.6
Dibenz(a,h)anthracene	ND	0.860 J
Indeno(1,2,3-cd)pyrene	0.058 J	1.9 J
Metals (mg/Kg)		
Lead	0.107 J	1110 J

Sample Location	SB-107	SB-107	SB-107
Sample Date	4/13/2010	4/13/2010	4/13/2010
Sample Interval (feet)	2-3	24-25	39-40
Metals (mg/Kg)			
Lead	896	3.4	12

Sample Location	SB-108	SB-108	SB-108
Sample Date	4/13/2010	4/13/2010	4/13/2010
Sample Interval (feet)	3-4	34-35	49-50
Metals (mg/Kg)			
Lead	669	6.7 J	6.9 J

Sample Location	SB-122	SB-122	SB-122
Sample Date	4/15/2010	4/15/2010	4/15/2010
Sample Interval (feet)	3-4	23-24	39-40
BTEX (mg/Kg)			
Ethylbenzene	ND	280	22
Toluene	ND	50	140
Total Xylenes	ND	750	218
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	0.9	4.9	2
Benzo(a)pyrene	0.68 J	3.6	1.2
Benzo(b)fluoranthene	0.83 J	2.1 J	0.93 J
Indeno(1,2,3-cd)pyrene	0.52 J	1.0 J	0.43 J
Naphthalene	0.37 J	660	110
Metals (mg/Kg)			
Lead	518 J	5.8 J	3.8 J

Sample Location	SB-103	SB-103	SB-103
Sample Date	4/12/2010	4/12/2010	4/12/2010
Sample Interval (feet)	3-4	13-15	48-50
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	1.5	ND	ND
Benzo(a)pyrene	1.3	ND	ND
Benzo(b)fluoranthene	1.8	ND	ND
Indeno(1,2,3-cd)pyrene	0.89 J	ND	ND

Sample Location	SB-113	SB-113	SB-113
Sample Date	4/20/2010	4/20/2010	4/20/2010
Sample Interval (feet)	4-5	13-14	40-42
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	1.2 J	12	ND
Benzo(a)pyrene	1.2 J	10	ND
Benzo(b)fluoranthene	0.89 J	6.5 J	ND
Benzo(ghi)perylene	0.79 J	3.7 J	ND
Chrysene	1.2 J	11	ND
Dibenz(a,h)anthracene	0.19 J	0.72 J	ND
Indeno(1,2,3-cd)pyrene	0.69 J	3.2 J	ND
Metals (mg/Kg)			
Lead	1130 J	13.6 J	7.8 J

Sample Location	SB-8A	SB-8B
Sample Date	3/15/00	3/15/00
Sample Interval (feet)	4-6	15-18
PAHs (mg/Kg)		
Benzo(a)anthracene	1.6	ND
Benzo(a)pyrene	1.1	ND
Benzo(b)fluoranthene	1.3	ND

Sample Location	SB-114	SB-114	SB-114
Sample Date	4/15/2010	4/16/2010	4/16/2010
Sample Interval (feet)	4-5	23-25	35-36.5
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Indeno(1,2,3-cd)pyrene	0.51 J	ND	ND

Sample Location	SB-6A	SB-6B
Sample Date	3/14/00	3/14/00
Sample Interval (feet)	4-4.5	11-15.5
BTEX (mg/Kg)		
Ethylbenzene*	78.0	ND

Sample Location	SB-112	SB-112	SB-112
Sample Date	4/21/2010	4/21/2010	4/22/2010
Sample Interval (feet)	0.5-1.5	14-15	44-44.5
BTEX (mg/Kg)			
Ethylbenzene	ND	72	ND
Toluene	0.0056 J	140	ND
Total Xylenes	0.002	640	ND
Metals (mg/Kg)			
Arsenic	27.4	2.3	1.2
Lead	562 J	6.1 J	5.7 J

Sample Location	SB-115	SB-115	SB-115	SB-115
Sample Date	12/22/2010	4/19/2010	4/19/2010	4/19/2010
Sample Interval (feet)	2	2-4	28-30	38.5-40
Metals (mg/Kg)				
Lead	2130 J	146 J	4.9 J	6.1 J

Sample Location	SB-106	SB-106	SB-106
Sample Date	4/22/2010	4/26/2010	4/26/2010
Sample Interval (feet)	3-4	43-45	58-60
BTEX (mg/Kg)			
Ethylbenzene	ND	70	0.086
Toluene	0.0055 J	240	0.77
Total Xylenes	0.0035	610	0.79

Sample Location	SB-129	SB-129 (DUP)	SB-129	SB-129
Sample Date	4/24/2013	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	1-3	1-3	(8-10)	(18-20)
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)				
Benzo(b)fluoranthene	1.4	0.56	0.47	ND
Indeno(1,2,3-cd)pyrene	0.57	0.28 J	0.24 J	ND

Sample Location	SB-110	SB-110
Sample Date	4/14/2010	4/14/2010
Sample Interval (feet)	2-3	8-9
BTEX (mg/Kg)		
Benzene	ND	550
Ethylbenzene	ND	330
Toluene	ND	1900
Total Xylenes	ND	2420
Volatile Organic Compounds (VOCs) (mg/Kg)		
1,2-Dichloroethane	ND	4.3 J
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)		
Benzo(a)anthracene	1.1	6.8 J
Benzo(a)pyrene	0.77	4.1 J
Benzo(b)fluoranthene	0.99	3.5 J
Chrysene	0.98	4.6 J
Dibenz(a,h)anthracene	0.11 J	0.54 J
Indeno(1,2,3-cd)pyrene	0.45 J	2.2 J
Naphthalene	0.28 J	1100
Metals (mg/Kg)		
Arsenic	10.6 J	34.2 J
Barium	367 J	1410 J
Cadmium	1.7 J	13.1 J
Lead	350 J	18000 J
Mercury	3.0 J	0.84 J

Sample Location	SB-128	SB-128	SB-128
Sample Date	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	2-4	10-12	18-20
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Naphthalene	ND	370	70

Sample Location	SB-126	SB-126	SB-126
Sample Date	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	0-2	8-10	10.5-12.5
BTEX (mg/Kg)			
Benzene	ND	ND	6.1
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	0.37 J	0.11 J	18
Benzo(a)pyrene	0.36 J	0.088 J	12
Benzo(b)fluoranthene	0.43	0.11 J	14
Benzo(k)fluoranthene	0.23 J	ND	4.3
Chrysene	0.46	0.12 J	19
Dibenz(a,h)anthracene	ND	ND	2.7
Indeno(1,2,3-cd)pyrene	0.21 J	ND	5.2 J
Metals (mg/Kg)			
Lead	251	284	480
Mercury	0.21	0.16	0.83

Legend

- SB-102 Location of SC and Additonal SC Soil Boring
- SS8/SB8 VHB Surface Soil/Soil Boring
- Unknown Manhole
- Protective Post
- Control Points
- Fire Hyrdrant
- Unknown Vault
- Electric Meter
- Water Meter
- Water Valve
- Drainage Manhole
- Gas Valve
- Private Light Pole
- Sign
- Sewer Manhole
- Flag Pole
- Wood Pole with Street Light
- Fence Line
- Property Line
- Property Line Adjoiner
- Edge of Pavement Line
- Right-Of-Way Line
- Guide Rail
- Building
- Historic Structure
- **BOLD** Exceedance of the NYSDEC Part 375-6.8(b) Restricted Residential Use Soil Cleanup Objective Value.
- **BOLD** Exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective Value.

Notes:
mg/Kg - milligrams per kilogram
NA = Not Analyzed.
ND = Not Detected. The compound was analyzed for but not detected at, or above, the reporting limit.
J = The associated numerical value is an estimated quantity.
Bold indicates compound detected at a concentration greater than the reporting limit.

DEED REFERENCES:

BLOCK 5749 LOT 1, DEED BOOK 4297 PAGE 1832; BLOCK 5749 LOT 6, DEED BOOK 4047 PAGE 2246;
BLOCK 5749 LOT 70, DEED BOOK 2841 PAGE 469; BLOCK 5749 LOT 71. DEED BOOK 4704 PAGE 2194;
BLOCK 5749 LOT 72, DEED BOOK 2474 PAGE 1751; BLOCK 5749 LOT 15, FROM NYC DIGITAL TAX MAP DATED 12-06-2008;

NOTES:

(1) This is not a valid, true copy of this document unless it bears the original signature and the raised, embossed seal of the surveyor noted hereon.

(2) Horizontal Datum is NAD 1983-CORS New York Long Island Zone 3104

(3) Vertical Datum is NAVD 88

(4) Units = U.S. Survey Feet

(5) Planimetric data shown hereon was generated from filed observations in the month of April 2010 and March 2011.

(6) Site survey prepared by Geod Corporation
Project No.: 2918
Date: 6/9/11

(7) Location of historic structures based upon 1905 and 1926 Sanborn Fire Insurance Maps, and 1956 Kings County Lighting Company, Drawing No. 5.611-20.

* VHB addressed ethylbenzene contamination in 2000 with the removal of 5 cubic yards of soil to a depth of 5 feet below grade.

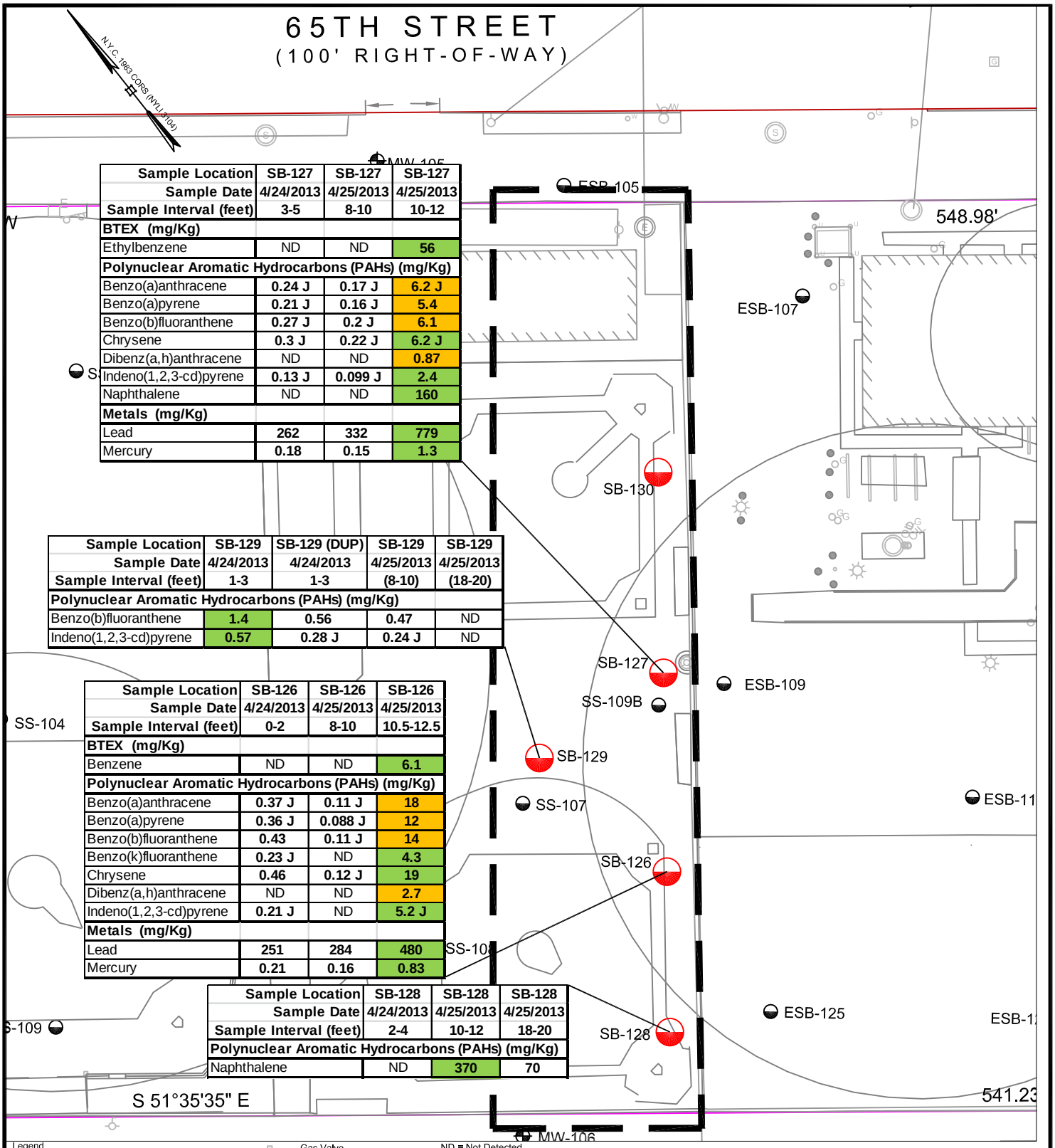
Graphic Scale
60 0 30 60 120
(In Feet)
1 inch = 60 ft.

NATIONAL GRID
FORMER BAY RIDGE HOLDER STATIONS A & B SITE
OPERABLE UNIT 2
BROOKLYN, NEW YORK
NYSDEC SITE NO.: 224058

DATE: 06/24/2011 | DRWN: | JOB #: 60137360

SOIL ANALYTICAL RESULTS - EXCEEDANCES OF THE NYSDEC RESTRICTED AND COMMERCIAL SOIL CLEANUP OBJECTIVES

FIGURE 4-1



Sample Location	SB-127	SB-127	SB-127
Sample Date	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	3-5	8-10	10-12
BTEX (mg/Kg)			
Ethylbenzene	ND	ND	56
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	0.24 J	0.17 J	6.2 J
Benzo(a)pyrene	0.21 J	0.16 J	5.4
Benzo(b)fluoranthene	0.27 J	0.2 J	6.1
Chrysene	0.3 J	0.22 J	6.2 J
Dibenz(a,h)anthracene	ND	ND	0.87
Indeno(1,2,3-cd)pyrene	0.13 J	0.099 J	2.4
Naphthalene	ND	ND	160
Metals (mg/Kg)			
Lead	262	332	779
Mercury	0.18	0.15	1.3

Sample Location	SB-129	SB-129 (DUP)	SB-129	SB-129
Sample Date	4/24/2013	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	1-3	1-3	(8-10)	(18-20)
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)				
Benzo(b)fluoranthene	1.4	0.56	0.47	ND
Indeno(1,2,3-cd)pyrene	0.57	0.28 J	0.24 J	ND

Sample Location	SB-126	SB-126	SB-126
Sample Date	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	0-2	8-10	10.5-12.5
BTEX (mg/Kg)			
Benzene	ND	ND	6.1
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Benzo(a)anthracene	0.37 J	0.11 J	18
Benzo(a)pyrene	0.36 J	0.088 J	12
Benzo(b)fluoranthene	0.43	0.11 J	14
Benzo(k)fluoranthene	0.23 J	ND	4.3
Chrysene	0.46	0.12 J	19
Dibenz(a,h)anthracene	ND	ND	2.7
Indeno(1,2,3-cd)pyrene	0.21 J	ND	5.2 J
Metals (mg/Kg)			
Lead	251	284	480
Mercury	0.21	0.16	0.83

Sample Location	SB-128	SB-128	SB-128
Sample Date	4/24/2013	4/25/2013	4/25/2013
Sample Interval (feet)	2-4	10-12	18-20
Polynuclear Aromatic Hydrocarbons (PAHs) (mg/Kg)			
Naphthalene	ND	370	70

Legend

- Location of Additional Soil Boring
- Location of Surface Soil Sample
- Location of Monitoring Well
- Location of Surface Soil Sample and Soil Boring
- Location of Soil Boring and Monitoring Well
- Location of Soil Boring
- Unknown Manhole
- Protective Post
- Fire Hyrdrant
- Unknown Vault
- Electric Meter
- Water Meter
- Water Valve
- Water Box
- Drainage Manhole
- Gas Valve
- Oil Valve
- Gas Valve
- Private Light Pole
- Sign
- Sewer Manhole
- Flag Pole
- Unknown Valve
- Wood Pole with Street Light
- Gas Manhole
- Traffic Flow
- Fence Line
- Property Line
- Property Line Adjoiner
- Edge of Pavement Line
- Curb Line
- Right-Of-Way Line
- Guide Rail
- Building
- Area of Additional Investigation

ND = Not Detected
J = The associated numerical value is an estimated quantity.
Bold indicates compound detected at a concentration greater than the reporting limit.
Green highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Restricted Residential Use Soil Cleanup Objective value.
Orange highlight indicates exceedance of the NYSDEC Part 375-6.8(b) Commercial Use Soil Cleanup Objective value.
No Compounds Exceed the NYSDEC Part 375-6.8(b) Restricted Residential and Commercial Use Soil Cleanup Objective Values In SB-130.

Graphic Scale

30 0 15 30 60 (In Feet)

1 inch = 30 ft.

NATIONAL GRID
FORMER BAY RIDGE
HOLDER STATIONS A & B SITE
OPERABLE UNIT 2
BROOKLYN, NEW YORK
NYSDEC SITE NO.: 224058

DATE: 12/18/2013 | JOB #: 60137360

RESULTS OF ADDITIONAL SOIL BORINGS FORMER BAY RIDGE HOLDER STATIONS A & B SITE OPERABLE UNIT 2

FIGURE 4-2

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Appendix A

December 25, 1969
Brooklyn-Union Gas
Employee Newsletter Article

51st between 1st + 2nd

Pensioners Send Greetings; Jigsaw Puzzles Arrive, Too

The very first person to respond to the Gas Club's appeal for jigsaw puzzles for the St. Albans Hospital veterans was *John J. Downie.* This pensioner sent in fifteen puzzles on Monday. "Puzzling" is John's hobby.

Frederick F. Fosdick Sr., writes relative to the Emblem Dinner: "Your kindness in sending the picture of the fifty-year 'kid' was appreciated. I am thankful to our president for his actions and words of cheer as he handed me the package on my fiftieth anniversary with the company. I have never seen an affair that so touched the heart. My thanks to all, especially Mr. Heyke."

Haul in Hefty Catch

The ocean heaved in a ground-swell of great intensity. Rain and fog cut the visibility, but the day wasn't wasted for the men who went fishing with the Accounting-Auditing Club on Dec. 12.

Clinging valiantly to their fishing rods and fighting mal-de-mer—sometimes unsuccessfully—they managed to haul in thirty-five cod ranging from 10 to 25 pounds. Really big catches were made by Andy Otto who caught a 36-pounder and Bill Dougherty who landed a 31-pounder. Quoting the Long Island Press, "The weather was terrible, but the codfish bit like flounders."

Hams Awarded To Eighteen

New Business Department bowlers took time out from the serious business of bowling on their December 17 date to celebrate the holiday season. Girl members of the club were present. Refreshments were served and eighteen 5-lb. canned hams were given away to these lucky winners:

Don Ballantyne, Bob Gilroy, Mel Karkenny, Al Trageser, Ed Cantwell, Lou Greco, Homer Manck, Frank Carnevale, Bob Huber, Neal Mishik, Dick Coddington, John Johnston, Chuck Noren, Joe Crowley, Pete Joyce and Noah Paulis.

The girls who won hams were Millicent Bucholz and Muriel Maxwell.

Wishing Everyone A Happy, Healthy and Prosperous New Year.

Only a pile of scrap remains at the site of the generator houses.

BAY RIDGE PLANT & BAY RIDGE HOLDER DEMOLITION

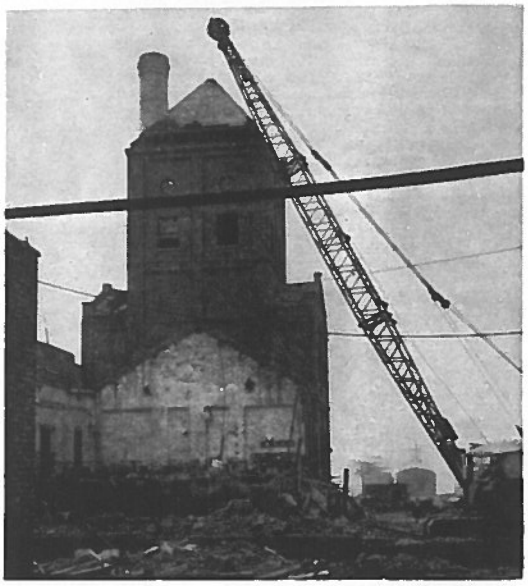
This week, the Construction Department reported that the demolition of the Bay Ridge plant was virtually complete.

At the plant, in September and October, we completed removal of the oil tanks and the remainder of the generator houses, the boiler house, the emulsion house, the storeroom, water tower building and exhauster house, and did other miscellaneous work. In November, the 150-foot stack and the machine shop building were demolished.

Among work remaining is the demolition of the walls only of the large garage building at First Avenue and cleaning up the yard, including removing scrap metal and bulldozing rubble into low spots.

Filling-In Operations

The demolition of the 2,000,000 cubic foot holder at Bay Ridge Station was completed early in December and all that remains to be done is the filling-in of the holder pit, which is about five feet deep.



Looking west toward the Bay, the tall building is the water tower and tar building. Foreground, the site of No. 2 holder and the exhauster house (white portion). The 150-foot chimney behind building was taken down in four days by two men. The little building, right, background, is the fire foam building, now demolished. Behind the water tower, is the Stores Building, also demolished.

They Gave Best Possible Gift—Blood for the Sick

Accounting Operations Department — Adam Aurecchione, Arlene Bove, Mabelle Brennan, William Bryson, Robert Cheeseman, Eileen Coico, Patrick Connolly, John D'Ornellas, Philip Dowling, Joseph Duffy, Thomas Farr, John Galway, Muriel Gleason.

Joseph Mackie, Bernard Markiewicz, Robert Montemurro, George Mullane, Andrew Schmidt, Charles Sipp, Evelyn Sullivan, Cornelius Walsh.

Audits & Systems Dept. — John Bennett, Joseph Cassidy, Joseph Castor, James Costello, John Meinke, Robert Schoepflin, Henry Teplitz.

Commercial Department — Robert Capone, William Cappiello, Anthony Cerulli, James Croak, Matthew Croak, Joseph Cunningham, Walter Dartley, Dominick Funiciello, Harry Gardinier, William Grattan, John Kenny, Leo Kenney, Edward Maloney, Michael Mula, James O'Donnell, Arthur Palmer, Howard Reed, John Smith, Muriel Weitman, John Woods, Charles Zengel.

Construction Department—Kurt Bayer, Antony Bobelis, Harold Cox, George Haislet, Willard Lehn, Joseph Loeb, Samuel Schwartz, Arthur Weyershausen.

Customers Service Dept.—Teresa Wanglund.

Distribution Department — Rose Bianculli, Joseph Fugalli.

Economic Research Department — John S. Stenger.

(Continued on Page 4)

Appendix B

Additional Site Characterization Work Plan

nationalgrid

Donald Campbell
Project Manager

April 12, 2013

Mr. R. Scott Deyette
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, New York 12233-7014

Subject: Supplemental Site Characterization Activities
Former Bay Ridge Holder Station B Site
Brooklyn, New York
NYSDEC Site No. 224058
Index No. A2-0552-0606

Dear Mr. Deyette:

National Grid is pleased to provide you this summary work plan letter describing additional field investigation activities to be undertaken at the Former Bay Ridge Holder Station B Site (the Site) in Brooklyn, New York (Figure 1). The additional services to be conducted are based upon discussions within National Grid regarding the preparation of an environmental easement for a portion of the Site. The supplemental investigation activities are being performed to better define potential environmental impacts, in particular lead, in the portion of the Site where the northwestern portion of Holder No. 4 was originally located. To further evaluate these areas, AECOM has prepared the following work plan and will be performing the described field activities.

ADVANCEMENT OF ADDITIONAL SOIL BORINGS

Five additional soil borings (SB-126 through SB-130) will be advanced at the Site to assist in evaluating if impacts to the soil are present within or adjacent to the footprint of Holder No. 4. The locations of the proposed soil borings are shown on Figure 2. Table 1 provides summary information regarding the borings, including their designations, sampling rationale, anticipated completion depth, and the laboratory analyses to be performed.

Based upon the previous sampling activities conducted at the Site, it is anticipated that the borings completed in the overburden soil will be advanced to depths no greater than 20 feet below ground surface (bgs) to delineate the vertical and horizontal extent of impacts, in particular lead concentrations previously detected in fill materials within the Holder No. 4 footprint. Soil borings will be terminated if the former holder foundation is encountered.

The subsurface borings will be advanced using a direct-push (Geoprobe™) drilling rig equipped with Macro-Core™ samplers. Continuous soil samples will be collected from the ground surface to the bottom of the borehole for both field characterization (photoionization detector screening and observations) and for the collection of samples for chemical analyses.

Soil samples obtained will be logged by a geologist who will record such data as the presence of fill material or subsurface structures, the nature of each geologic unit encountered, observations regarding moisture content, the results of PID soil headspace readings, and visual and olfactory observations regarding the presence of hydrocarbon-like or other residuals. The soils will be

287 Maspeth Avenue, Brooklyn, NY 11211
T: 718. 963.5412 ■ F: 718. 963.5611 ■ donald.campbell@us.ngrid.com ■ www.nationalgrid.com

logged in accordance with the National Grid protocols (KeySpan, 2005) as detailed in the Field Sampling and Analytical Plan (FSAP) located in Appendix C of the approved January 2010 Site Characterization Work Plan.

Three subsurface soil samples are proposed for laboratory analysis from each soil boring. The first sample will be collected at the depth of greatest apparent contamination from the 0 to 5 feet bgs interval. It is anticipated that second and third subsurface soil samples will be collected from depths greater than 5 feet bgs in each soil boring. Samples will be collected from the most apparently impacted intervals based on PID screening and field observations. If impacts are not encountered, a sample will be collected from a depth of 15 feet bgs. The final sample will be collected at the first clean interval (if impacts are encountered) or at the bottom of the boring.

Soil samples will be analyzed for:

- Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) compounds (USEPA Method 8260);
- Polycyclic Aromatic Hydrocarbon (PAH) compounds (USEPA Method 8270);
- Resource Conservation and Recovery Act (RCRA) metals; and
- Free cyanide (extraction by USEPA Method 9012 and analysis by Microdiffusion, ASTM International method D4282-02).

Upon completion, the soil borings will be tremie-grouted to grade with bentonite grout with native soil restoration at the surface.

A comprehensive data package (ASP Category B) for the soil samples will be submitted by the laboratory for validation by a qualified chemist. A Data Usability Summary Report (DUSR) will be prepared by AECOM for the analytical samples. Data will be managed in a database and compared to the NYSDEC criteria and standards used in the approved March 2012 Site Characterization Results Report.

At the completion of the supplemental investigation and validation of the laboratory data, a summary results report will be prepared for submission to the NYSDEC. The summary letter will include:

- A brief site description and history.
- Summary information regarding previous investigations and site characterization work performed at the Site.
- Descriptions of the field activities performed. A summary of all field observations, field measurements, and laboratory analytical data summarized in tabular format. Soil analytical results, managed in a database, will be compared to the NYSDEC soil cleanup criteria presented in the March 2012 Site Characterization Results Report.
- An integration of field observations and measurements with laboratory analytical data to evaluate the nature and extent of impacts, if any.
- A set of conclusions for the supplemental site investigation activities, primarily to determine if the proposed environmental easement should include all of the Former No. 4 Holder.

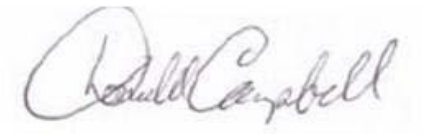
Appendices to the summary results report will include all pertinent data used to support the supplemental investigation efforts, including validated laboratory analytical results, DUSRs, and stratigraphic boring logs.

COMPLAINCE WITH APPROVED SITE CHARACTERIZATION WORK PLAN

Any additional sampling and quality assurance protocols, along with supplemental field activities not describe above (such as waste classification sampling and surveying activities) will be in accordance with the approved January 2010 Site Characterization Work Plan. The results obtained from this additional sampling will be included on the summary results report.

If you have any questions, comments or require any additional information, please do not hesitate to contact me at (718) 963-5453 or via electronic mail at donald.campbell@nationalgrid.com.

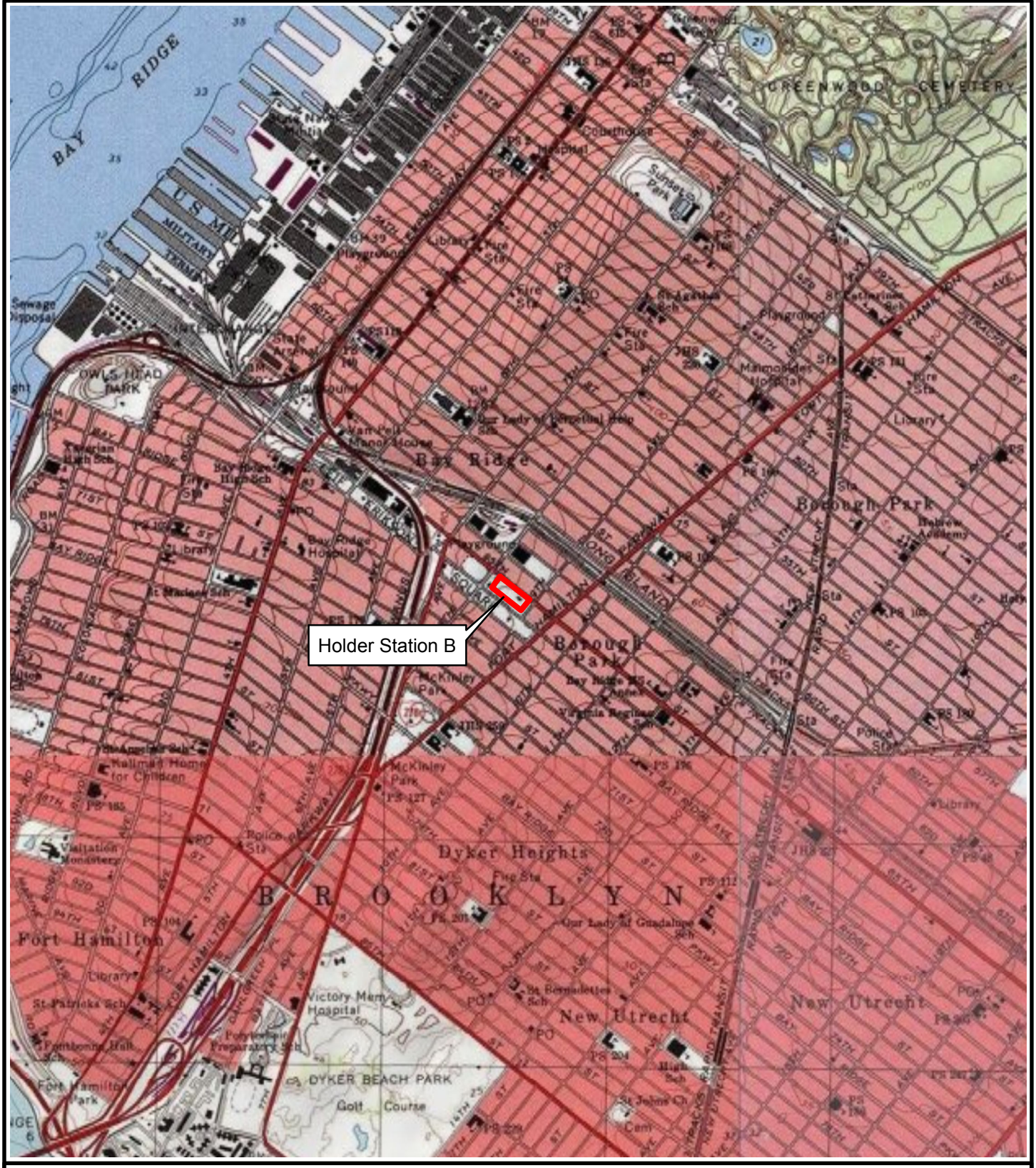
Sincerely,



Donald Campbell
Project Manager
Site Investigation and Remediation

Enclosures

Cc –
N. Abrams, AECOM (w/ enclosure – electronic copy only)
AECOM File 60137360



AECOM Environment
20 EXCHANGE PLACE
NEW YORK, NY 10005
(212) 798-8500
www.aecom.com

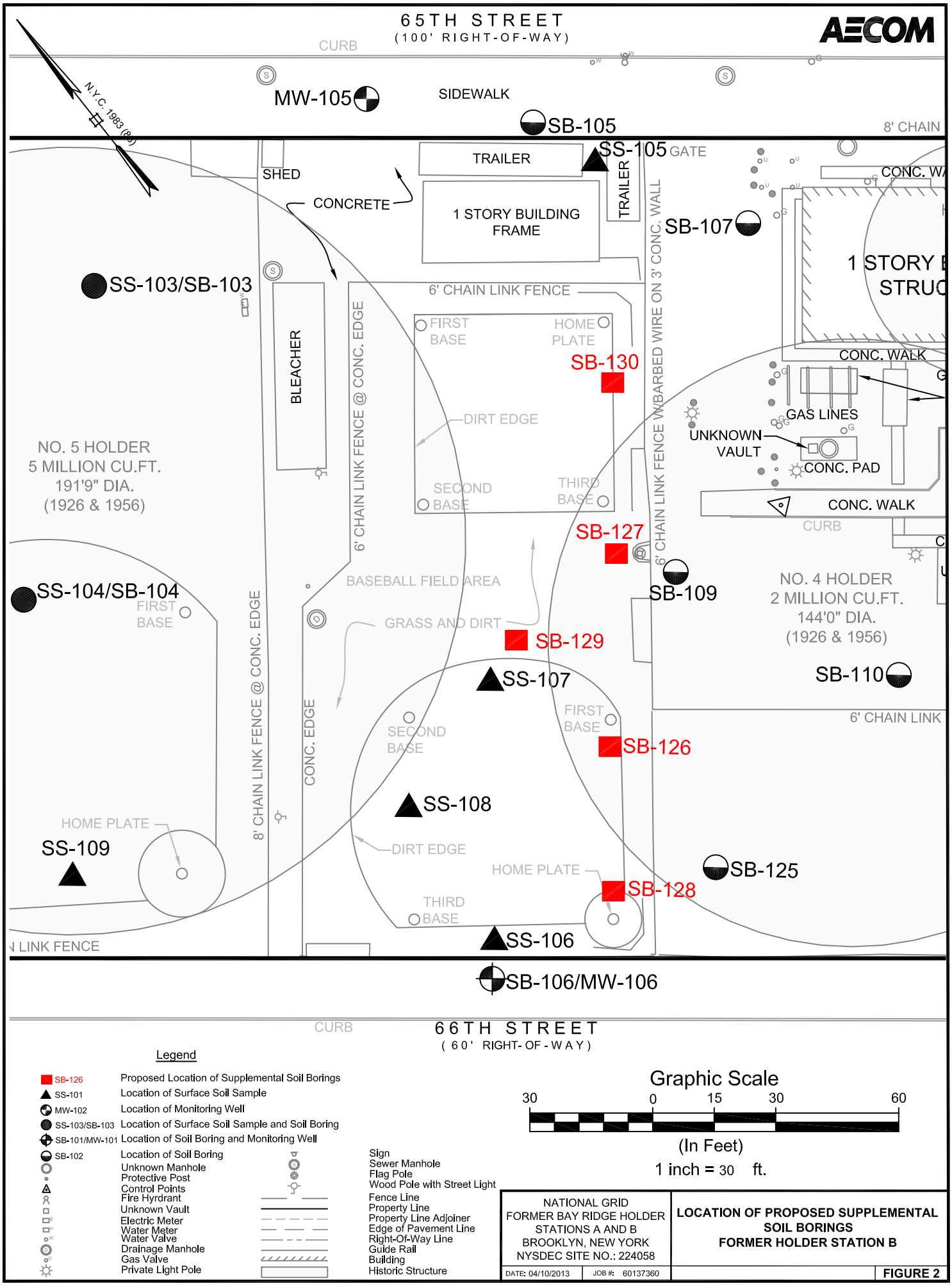
Site Location - Supplemental Investigation
National Grid
Bay Ridge Former Gas Holder Station B
Brooklyn, NY

Data Source: USGS Topographic Quadrangles - Jersey City, 1981; Brooklyn, 1979; The Narrows, 1981; Coney Island, 1979.

Scale:	Date:	Project Number:
1"=2000'	04/10/2013	60137360

Figure Number:

1



Legend

SB-126	Proposed Location of Supplemental Soil Borings
SS-101	Location of Surface Soil Sample
MW-102	Location of Monitoring Well
SS-103/SB-103	Location of Surface Soil Sample and Soil Boring
SB-101/MW-101	Location of Soil Boring and Monitoring Well
SB-102	Location of Soil Boring
	Unknown Manhole
	Protective Post
	Control Points
	Fire Hyrdrant
	Unknown Vault
	Electric Meter
	Water Meter
	Water Valve
	Drainage Manhole
	Gas Valve
	Private Light Pole
	Sign
	Sewer Manhole
	Flag Pole
	Wood Pole with Street Light
	Fence Line
	Property Line
	Property Line Adjoiner
	Edge of Pavement Line
	Right-Of-Way Line
	Guide Rail
	Building
	Historic Structure

Graphic Scale

30 0 15 30 60

(In Feet)

1 inch = 30 ft.

NATIONAL GRID
FORMER BAY RIDGE HOLDER STATIONS A AND B
BROOKLYN, NEW YORK
NYSDEC SITE NO.: 224058

LOCATION OF PROPOSED SUPPLEMENTAL SOIL BORINGS
FORMER HOLDER STATION B

DATE: 04/10/2013 | JOB #: 60137360 | **FIGURE 2**

File: L:\work\AECOM_work\60137360\500 Progress Submittal-Deliverables\502 SC Results Report\Figures\Updated_20110921\Figure 3 Location of Soil Borings and Monitoring Wells .dwg

Table 1
Proposed Supplemental Site Characteristic Sample Location, Rationale, and Analytical Sample Summary
Former Bay Ridge Holder Station B Site,
Brooklyn, New York

Location ID	Sample ID	Completion Depth (Feet)	Sample Depth (Feet)	No. of Samples	Analyses	Rationale
SB-126	SB-126 (depth)	20 feet maximum	Upper five feet Zone of worst case impacts First clean or botton of boring	3	BTEX, PAHs, RCRA 8 Metals, and Free CN	Evaluate soils within the footprint of Holder No. 4
SB-127	SB-127 (depth)	20 feet maximum	Upper five feet Zone of worst case impacts First clean or botton of boring	3	BTEX, PAHs, RCRA 8 Metals, and Free CN	Evaluate soils within the footprint of Holder No. 4
SB-128	SB-128 (depth)	20 feet maximum	Upper five feet Zone of worst case impacts First clean or botton of boring	3	BTEX, PAHs, RCRA 8 Metals, and Free CN	Evaluate soils along the exterior perimeter footprint of Holder No. 4
SB-129	SB-129 (depth)	20 feet maximum	Upper five feet Zone of worst case impacts First clean or botton of boring	3	BTEX, PAHs, RCRA 8 Metals, and Free CN	Evaluate soils along the exterior perimeter footprint of Holder No. 4
SB-130	SB-130 (depth)	20 feet maximum	Upper five feet Zone of worst case impacts First clean or botton of boring	3	BTEX, PAHs, RCRA 8 Metals, and Free CN	Evaluate soils along the exterior perimeter footprint of Holder No. 4

Notes

No. - number

ID - identification

RCRA - Resource Conservation and Recovery Act

SB - Soil Boring (Subsurface Soil)

BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes

PAHs - Polycyclic Aromatic Hydrocarbons

CN - cyanide

Appendix C

Soil Boring Logs

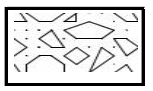
20 Exchange Place, 13th Floor
New York, New York 10005

Boring Log Legend

Project Name: Bay Ridge Former Station Holder B
Project Number: 60137360

Location: Brooklyn, NY
Client: National Grid

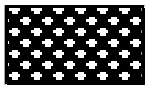
Stratigraphy



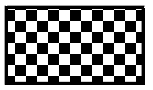
Fill

(GW) Well Graded Gravel

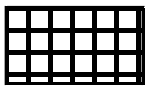
Meadow Mat



(PT) Fibrous and Friable Peat

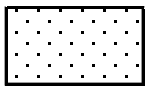


(OH) Organic Clay

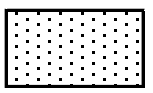


(SM) Silty Sand

(SC) Clayey Sand

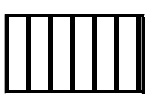


(SW) Well Graded Sand



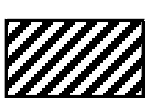
(SP) Poorly Graded Sand

(LIG) Lignite

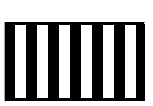


(ML) Sandy Silty

(CL) Clay and Silty Clay of Low Plasticity



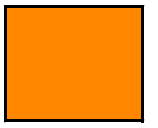
(CH) Clay and Silty Clay of High Plasticity



(BR) Bedrock

Visual Impacts

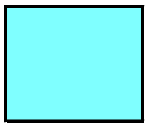
Tar Saturated



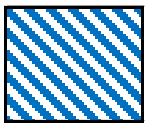
Interbedded Lenses of Saturated Tar

Blebs, Globs, Lenses, Coatings

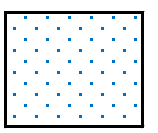
Tar Sheen/Staining



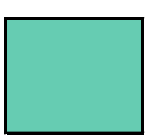
Tar/Naphthalene-Like Odors



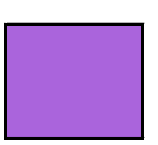
Petroleum Sheen/Staining



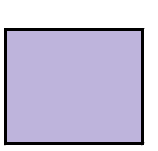
Petroleum Odors



Solid Tar



Purifier Material



Purifier Odors

Definitions:

1.) NA - Not Applicable
2.) ft - feet
3.) bgs - below ground surface
4.) SAA - Same As Above
5.) ppm - parts per million
6.) NAVD 88 - North American Vertical Datum of 1988
7.) PID - Photo Ionization Meter
8.) U.S.C.S. - Unified Soil Classification System
9.) WOR - Weight of Rods (drilling)
10.) WHO - Weight of Hammer

AECOM	*Client: National Grid*		***BORING ID: SB-126***
	Project Number: 60137360		
	Site Location: Bay Ridge Former Station Holder B		
	Boring Location: 65th Street btwn 8th and 9th Avenues, Brooklyn, NY		*Sheet: 1 of 1*
	Drilling Method: Geoprobe		*Monitoring Well Screen: NA*
	Sample Type(s): 5' disposable plastic liner	*Boring Diameter: 2-inch*	*Monitoring Well Sump: NA*
Logged By: Sara Meissner	*Ground Elevation:*	*Date Started/Pre-Cleared: 4/24/2013*	*Depth of Boring: 12.5 ft bgs*
Drilling Contractor: ZEBRA	*N/A (ft NAVD 88)*	*Date Finished: 4/25/2013*	*Water Level:* N/A

Depth (feet)	Recovery (inches)	PID (ppm)	(depth interval for PID reading)	Stratigraphy	U.S.C.S	Observed Impacts	Geologic Description	Lab Sample ID	Lab Sample Depth (ft)
0									
1		0.0	(0-1.5)				0.0'-3': Light brown fine to medium SAND, little silt and gravel (moist).	SB-126 (0-2')	0'-2'
2		0.0	(1.5-3)						
3									
4		0.0	(3-5)				3.0'-5.0': Brown, fine to medium SAND, some silt, gravel, brick fragments, rocks and cobbles (moist).		
5	45"/60"								
6		0.0	(5-7.5)		FILL		5.0'-8': SAA (moist).		
7									
8		0.0	(7.5-10)				8.0'-10': Brown fine silty SAND, some gravel (5" section of black coal within) (moist).	SB-126 (8-10')	8'-10'
9									
10									
11	24"/60"	4.7 66.2	(10-11)				10.0'-11.2': Light brown silty SAND, some wood, brick fragments, gravel (slight tar like odor).		
12		87.1 42.3	(11-12.5)				11.2'-12.5': SAA (strong tar like odor and slightly tar coated).	SB-126 (10.5-12.5')	10.5'-12.5'

EOB @ 12.5' bgs

NOTES:

1.) The location was pre-cleared to 5 ft bgs by using soft dig hand clearing methods.

Definitions:

1.) NA - Not Applicable
2.) ft - feet
3.) bgs - below ground surface
4.) SAA - Same As Above
5.) ppm - parts per million
6.) NAVD 88 - North American Vertical Datum of 1988
7.) PID - Photo Ionization Detector
8.) U.S.C.S. - Unified Soil Classification System

AECOM	*Client: National Grid*		***BORING ID: SB-127***
	Project Number: 60137360		
	Site Location: Bay Ridge Former Station Holder B		
	Boring Location: 65th Street btwn 8th and 9th Avenues, Brooklyn, NY		*Sheet: 1 of 1*
	Drilling Method: Geoprobe		*Monitoring Well Screen: NA*
	Sample Type(s): 5' disposable plastic liner	*Boring Diameter: 2-inch*	*Monitoring Well Sump: NA*
Logged By: Sara Meissner	*Ground Elevation: N/A (ft NAVD 88)*	*Date Started/Pre-Cleared: 4/24/2013*	*Depth of Boring: 12 ft bgs*
Drilling Contractor: ZEBRA		*Date Finished: 4/25/2013*	*Water Level:* N/A

Depth (feet)	Recovery (inches)	PID (ppm)	(depth interval for PID reading)	Stratigraphy	U.S.C.S	Observed Impacts	Geologic Description	Lab Sample ID	Lab Sample Depth (ft)
0									
1		0.0	(0-1.5)				0.0'-3': Brown to dark brown fine to medium SAND, some silt and gravel (moist).		
2		0.0	(1.5-3)						
3									
4		0.0	(3-5)				3.0'-5.0': Brown fine to medium SAND, some silt, brick fragments, concrete, and cobbles (moist).	SB-127 (3-5')	3'-5'
5									
6		0.0	(5-7.5)		FILL		5.0'-8': SAA, some non - tar like black staining, no odor (moist).		
7	40"/60"								
8		0.0	(7.5-10)				8.0'-10': Grey-brown fine to medium SAND, some silt, gravel, rocks, and brick fragments (dry).	SB-127 (8-10')	8'-10'
9									
10		0.2							
11	24"/60"	0.0 13.0	(10-11)				10.0'-12.0': SAA, slightly tar coated and slight tar odor (moist).	SB-127 (10-12')	10'-12'
12		14.8 6.7	(11-12)						

EOB @ 12' bgs

NOTES:

1.) The location was pre-cleared to 5 ft bgs by using soft dig hand clearing methods.

Definitions:

1.) NA - Not Applicable
2.) ft - feet
3.) bgs - below ground surface
4.) SAA - Same As Above
5.) ppm - parts per million
6.) NAVD 88 - North American Vertical Datum of 1988
7.) PID - Photo Ionization Detector
8.) U.S.C.S. - Unified Soil Classification System

AECOM	*Client: National Grid*	***BORING ID: SB-128***
	Project Number: 60137360	
	Site Location: Bay Ridge Former Station Holder B	
	Boring Location: 65th Street btwn 8th and 9th Avenues, Brooklyn, NY	*Sheet: 1 of 1*
	Drilling Method: Geoprobe	*Monitoring Well Screen: NA*
	Sample Type(s): 5' disposable plastic liner — *Boring Diameter: 2-inch*	*Monitoring Well Sump: NA*
Logged By: Sara Meissner	*Ground Elevation: N/A (ft NAVD 88)* — *Date Started/Pre-Cleared: 4/24/2013*	*Depth of Boring: 20 ft bgs*
Drilling Contractor: ZEBRA	*Date Finished: 4/25/2013*	*Water Level:* N/A

Depth (feet)	Recovery (inches)	PID (ppm)	(depth interval for PID reading)	Stratigraphy	U.S.C.S	Observed Impacts	Geologic Description	Lab Sample ID	Lab Sample Depth (ft)
0									
1		0.0	(0-1.5)				0.0'-3': Light brown fine to medium SAND, some silt and gravel (moist).		
2		0.0	(1.5-3)					SB-128 (2-4')	2'-4'
3									
4		0.0	(3-5)				3.0'-5.0': Brown fine to medium SAND, some silt, gravel, brick fragments, concrete and cobbles (moist).		
5	60"/60"	0.1 0.5	(5-7')				5.0'-10.0': SAA (moist).		
6									
7		0.1 0.1	(7-8.5')						
8									
9		0.1 0.0	(8.5-10')						
10					FILL				
11	40"/60"	1.4 44.8	(10-11.5')				10.0'-12.0': SAA, slight black staining and strong tar odor (dry).	SB-128 (10-12')	10'-12'
12		43.7 27.1	(11.5'-13.5')				12.0'-13.0': Red-brown medium silty SAND (dry).		
13							13.0'-15.0': Brown fine to medium SAND, some silt, gravel, brick, and wood fragments (dry).		
14		18.1 1.2 1.4	(13.5-15')						
15							15.0'-20.0': SAA, slight tar like odor at end of boring (dry).		
16	24"/60"	13.2 8.7	(15-16.5')						
17		6.1 1.4	(16.5-18.5')						
18								SB-128 (18-20')	18'-20'
19		3.2 1.0	(18.5-20')						
20									

EOB @ 20' bgs

NOTES:

1.) The location was pre-cleared to 5 ft bgs by using soft dig hand clearing methods.

Definitions:

1.) NA - Not Applicable
2.) ft - feet
3.) bgs - below ground surface
4.) SAA - Same As Above
5.) ppm - parts per million
6.) NAVD 88 - North American Vertical Datum of 1988
7.) PID - Photo Ionization Detector
8.) U.S.C.S. - Unified Soil Classification System

AECOM	*Client: National Grid*	***BORING ID: SB-129***
	Project Number: 60137360	
	Site Location: Bay Ridge Former Station Holder B	
	Boring Location: 65th Street btwn 8th and 9th Avenues, Brooklyn, NY	*Sheet: 1 of 1*
	Drilling Method: Geoprobe	*Monitoring Well Screen: NA*
	Sample Type(s): 5' disposable plastic liner — *Boring Diameter: 2-inch*	*Monitoring Well Sump: NA*
Logged By: Sara Meissner	*Ground Elevation: N/A (ft NAVD 88)* — *Date Started/Pre-Cleared: 4/24/2013*	*Depth of Boring: 20 ft bgs*
Drilling Contractor: ZEBRA	*Date Finished: 4/25/2013*	*Water Level:* N/A

Depth (feet)	Recovery (inches)	PID (ppm)	(depth interval for PID reading)	Stratigraphy	U.S.C.S	Observed Impacts	Geologic Description	Lab Sample ID	Lab Sample Depth (ft)
0									
1		0.0	(0-1.5)				0.0'-3': Brown fine to medium SAND, some silt and gravel (moist).		
2		0.0	(1.5-3)					SB-129 (1-3')	1'-3'
3									
4		0.0	(3-5)				3.0'-5.0': Brown fine to medium SAND, some silt, gravel, brick fragments, concrete and cobbles (moist).		
5	45"/60"								
6		0.0 0.0	(5-7')				5.0'-8.0': SAA (moist).		
7									
8		0.0 7.1	(7-8.5')						
9							8.0'-9.0': Light brown silty fine SAND, some brick and rock fragments (dry).	SB-129 (8-10')	8'-10'
10		12.4 25.2	(8.5-10')		FILL		9.0'-10.0': SAA, black stained and slight tar odor (dry).		
11	30"/60"	14.1 2.2	(10-11.5')				10.0'-12.0': SAA, slight tar odor (moist).		
12									
13		0.1 0.0	(11.5'-13.5')				12.0'-15.0': Reddish brown fine to medium SAND, some green-grey silt and rock fragments (moist).		
14									
15		0.0 0.0	(13.5-15')						
16	30"/60"	2.5 1.7	(15-16.5')				15.0'-20.0': SAA (dry).		
17									
18		0.0 0.0	(16.5-18.5')						
19								SB-129 (18-20')	18'-20'
20		0.0	(18.5-20')						

EOB @ 20' bgs

NOTES:

1.) The location was pre-cleared to 5 ft bgs by using soft dig hand clearing methods.

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1.) NA - Not Applicable
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4.) SAA - Same As Above
5.) ppm - parts per million
6.) NAVD 88 - North American Vertical Datum of 1988
7.) PID - Photo Ionization Detector
8.) U.S.C.S. - Unified Soil Classification System

AECOM	*Client: National Grid*	***BORING ID: SB-130***
	Project Number: 60137360	
	Site Location: Bay Ridge Former Station Holder B	
	Boring Location: 65th Street btwn 8th and 9th Avenues, Brooklyn, NY	*Sheet: 1 of 1*
	Drilling Method: Geoprobe	*Monitoring Well Screen: NA*
	Sample Type(s): 5' disposable plastic liner — *Boring Diameter: 2-inch*	*Monitoring Well Sump: NA*
Logged By: Sara Meissner	*Ground Elevation: N/A (ft NAVD 88)* — *Date Started/Pre-Cleared: 4/24/2013*	*Depth of Boring: 20 ft bgs*
Drilling Contractor: ZEBRA	*Date Finished: 4/25/2013*	*Water Level:* N/A

Depth (feet)	Recovery (inches)	PID (ppm)	(depth interval for PID reading)	Stratigraphy	U.S.C.S	Observed Impacts	Geologic Description	Lab Sample ID	Lab Sample Depth (ft)
0									
1		0.0	(0-1.5)				0.0'-3': Brown to dark brown fine to medium SAND, some silt and gravel (moist).		
2		0.0	(1.5-3)					SB-130 (2-4') & DUP 1	2'-4'
3									
4		0.0	(3-5)				3.0'-5.0': Brown fine to medium SAND, some silt, gravel, brick fragments, concrete, and cobbles (moist).		
5	60"/60"	0.0	(5-7')				5.0'-7.0': SAA (moist).		
6		0.0							
7		0.0	(7-8.5')				7.0'-7.5': Brown fine to medium SAND, some black coal pieces and gravel (moist).		
8		0.0					7.5'-9.0': Brown to reddish brown fine silty SAND, dense (dry).		
9		0.0	(8.5-10')				9.0'-10.0': 6" Black coal chunks. 6" Reddish-black fine SAND, some coal pieces and gravel (dry).		
10		1.4			FILL				
11	45"/60"	6.2	(10-11.5')				10.0'-12.0': Brown fine SAND, some silt and gravel. Slight tar like staining and tar like odors (moist).		
12		7.4							
13		1.2	(11.5'-13.5')				12.0'-15.0': Brown fine silty SAND (dry).		
14		0.1							
15		0.0	(13.5-15')						
16	58"/60"	0.0					15.0'-17.0': Brown fine silty SAND, black tar like staining and slight tar like odor (moist).	SB-130 (15-17')	15'-17'
17		5.0	(15-16.5')						
18		4.3					17.0'-20.0': Reddish brown fine dense SAND, some silt, rock fragments, and gravel (dry).		
19		8.7	(16.5-18.5')					SB-130 (18-20')	18'-20'
20		3.1							
		0.1							
		0.0	(18.5-20')						
		0.0							

EOB @ 20' bgs

NOTES:

1.) The location was pre-cleared to 5 ft bgs by using soft dig hand clearing methods.

Definitions:

1.) NA - Not Applicable
2.) ft - feet
3.) bgs - below ground surface
4.) SAA - Same As Above
5.) ppm - parts per million
6.) NAVD 88 - North American Vertical Datum of 1988
7.) PID - Photo Ionization Detector
8.) U.S.C.S. - Unified Soil Classification System

Appendix D

Data Usability Summary Report

AECOM Environment

Prepared for:
National Grid
Brooklyn, NY

Prepared by:
AECOM
Chelmsford, MA
60137360-440
July 9, 2013

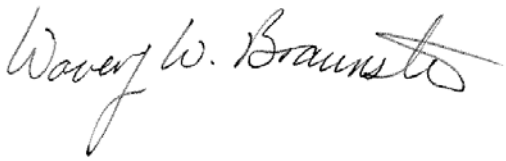
Data Usability Summary Report
National Grid/Former Bay Ridge Holder Station B Site
2013 Supplemental Soil Sampling
Draft

AECOM Environment

Prepared for:
National Grid
Brooklyn, NY

Prepared by:
AECOM
Chelmsford, MA
60137360-440
July 9, 2013

Data Usability Summary Report
National Grid/ Former Bay Ridge Holder Station B Site
2013 Supplemental Soil Sampling
Draft



Prepared and Reviewed by
Waverly Braunstein, Project Chemist

Contents

List of Appendices

Executive Summary

Overview

A data assessment was performed by the AECOM Chelmsford Chemistry Consulting Group on one data package from Spectrum Analytical, Inc., 646 Camp Ave, North Kingston, RI, 02852 for the analysis of soil samples collected on April 24, 2013 – April 25, 2013 at the Former Bay Ridge Holder Station B Site, in Brooklyn, New York.

The data were evaluated for conformance to method specifications and qualifiers were applied using the validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-07-003, July 2008, with additional reference to *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review*, document number EPA 540/R-99-008, May 1999 and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, EPA-540-R-04-004, October 2004, as they apply to the analytical methods employed. Field duplicate RPD control limits were taken from the *USEPA Region I Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses,* February 1988, upheld in DRAFT 1993.

Spectrum processed the samples and reported the results under a single sample delivery group (SDG). Table 1 provides a sample submittal list. The following analytical methods were requested on the chain-of-custody (COC) records:

- Selected Volatile Organic Compounds by USEPA SW-846 Method 8260C,
- Selected Semivolatile Organic Compounds by USEPA SW-846 Method 8270D,
- Trace Metals by USEPA SW-846 Methods 6010B, 7471A/7470A, and
- Weak Acid Dissociable Cyanide by USEPA SW-846 Method 9012B.

Table 1 - Sample Submittals
National Grid/Former Bay Ridge Holder Station B Site **2013 Samples**

Field ID	Spectrum ID	Matrix	Date Sampled
SB-126 (0-2)	M0619-01	Soil	4/24/2013
SB-126 (8-10)	M0619-02	Soil	4/25/2013
SB-126 (10.5-12.5)	M0619-03	Soil	4/25/2013
SB-127 (3-5)	M0619-04	Soil	4/24/2013
SB-127 (8-10)	M0619-05	Soil	4/25/2013
SB-127 (10-12)	M0619-06	Soil	4/25/2013
SB-128 (2-4)	M0619-07	Soil	4/24/2013
SB-128 (10-12)	M0619-08	Soil	4/25/2013
SB-128 (18-20)	M0619-09	Soil	4/25/2013
SB-129 (1-3)	M0619-10	Soil	4/24/2013
SB-129 (8-10)	M0619-11	Soil	4/25/2013
SB-129 (18-20)	M0619-12	Soil	4/25/2013
SB-130 (2-4)	M0619-13	Soil	4/24/2013
SB-130 (15-17)	M0619-14	Soil	4/25/2013

Field ID	Spectrum ID	Matrix	Date Sampled
SB-130 (18-20)	M0619-15	Soil	4/25/2013
DUP1(1)	M0619-16	Soil	4/24/2013
TB	M0619-17	Soil	4/24/2013

(1): Sample was a field duplicate. The parent and field duplicate samples were associated as follows.

Parent	Field Duplicate	Matrix
SB-130 (2-4)	DUP1	Soil

Summary

Data quality for the organic analyses was evaluated by reviewing the following parameters: holding times, GC/MS tuning and performance standards, internal standards, initial and continuing calibrations, surrogate recoveries, laboratory control standards (LCSs), laboratory blanks, laboratory and field duplicates, compound identification, and compound quantitation.

Inorganic data quality was evaluated by reviewing the following parameters: holding times, matrix spikes, initial calibrations, continuing calibration verification standard recoveries, contract required detection limit standard recoveries, laboratory control samples, ICP interference check sample recoveries, ICP serial dilution results, field and laboratory duplicates, and laboratory blanks.

The qualified analytical results are attached as Appendix B of this report. A glossary of data qualifier definitions is included in Appendix A of this report.

Each noncompliance with specific data usability criteria is discussed below. Support documentation for data qualifications was included in Appendix C of this report. Specific page references for the supporting documentation in the laboratory reports were provided in each item header.

1.0 Volatile Organic Compounds

Surrogate Recoveries (p.20): The recovery of the surrogate standard, bromofluorobenzene (BFB) exceeded the upper acceptance limit in sample SB-129 (8-10). Positive results in this sample were qualified as estimated (J).

Calibrations (pp.160, 210): The percent relative standard deviation (%RSD) for toluene was greater than 20% in the ICAL analyzed 4/17/13 on instrument V10. The medium level analyses for samples SB-126 (10.5-12.5), SB-127 (10-12), and the trip blank were associated with this ICAL; therefore, the positive and nondetect results for toluene were qualified as estimated (J/UJ) in these samples due to calibration nonconformance.

The %D for toluene was greater than the quality control limit of 20% in the CCV associated with the samples noted in the paragraph above. No additional validation actions were taken on this basis.

2.0 Semi-Volatile Organic Compounds

No data quality issues that resulted in the qualification of data were noted. No data qualifications were required.

3.0 Metals and Weak Acid Dissociable Cyanide (WAD)

Blanks (pp. 742-743): Silver was detected in the prep blank (PB) at a concentration <RL; consequently all detected results <RL were negated U at the sample specific RL.

It should be noted that selenium was detected (slightly above the MDL of 12.0 ug/L) at 12.4 ug/L (equivalent to 0.62 mg/kg) in one of five continuing calibration blanks (CCBs). The associated initial calibration blank (ICB) and PB were ND at the MDL for selenium. All sample results were approximately the same (1.5-2.8 mg/kg) and were detected above the sample specific RLs (1.1-1.6 mg/kg). Professional judgment was used to take no actions since this slight contamination appears to be an anomaly.

Barium was detected at concentrations well below the reporting limit in all ICBs, CCBs, and the PB. Since the results for barium in all samples were significantly greater than the blank contamination, no qualifications were required.

Laboratory Control Sample (p. 61): The recovery of WAD (111%), exceeded the upper acceptance limit of 110% in the laboratory control samples (LCS) associated with samples SB-128 (10-12)042513, SB-128 (18-20)042513, SB-129 (18-20)042513, SB-129 (8-10)042513, SB-130 (15-17)042513, and SB-130 (18-20)042513. The positive results in samples SB-128(10-12) and SB-130(18-20) were qualified as estimated (J). The non-detect results in the remaining samples were accepted without qualification.

4.0 Field Duplicate Comparisons

The samples listed in the table below were the parent and field duplicate samples collected for this sampling event.

Parent	Field Duplicate	Matrix
SB-130 (2-4)	DUP1	Soil

Field duplicate results were evaluated using the following criteria.

Organics: The RPD must be ≤ 50% for soil/sediments and ≤ 30% for groundwater samples if both results are greater than or equal to five times the reporting limit; otherwise the limits are doubled. If one result is non-detect and the other is detected, the positive result must be less than five times the reporting limit.

Inorganics: The RPD must be ≤ 50% for soil/sediments and ≤ 30% for groundwater samples if both results are greater than or equal to five times the reporting limit; otherwise the limits are doubled. If one results is non-detect and the other is detected, the positive result must be less than five times the reporting limit.

The results for the parent and field duplicate samples were non-detects, with exceptions of those listed in Table 2A below. All RPDs were less than the maximum advisory limits or the difference criteria were met for all analytes/compounds except for those results listed below in bolded text. The bolded results were qualified "J/UJ," as estimates because of laboratory/field sampling imprecision and/or sample heterogeneity.

The following notations are used in the field precision tables.

NC: Not calculable due to a non-detect result in either the native or duplicate sample
RPD: Relative percent difference

µg/Kg: micrograms per kilogram (ppb)
mg/Kg: milligrams per kilogram (ppm)

Table 2A – Field Precision
Former Bay Ridge Holder Station B Site 2013 Samples

Parameter	SB-130 (2-4)		DUP1		RPD (%)
m,p-Xylenes	0.89	ug/kg	2.5 U	ug/kg	NC
Xylenes(total)	0.89	ug/kg	2.5 U	ug/kg	NC
Acenaphthylene	120	ug/kg	200	ug/kg	50.0
Anthracene	150	ug/kg	240	ug/kg	46.2
Benzo(a)anthracene	440	ug/kg	710	ug/kg	47.0
Benzo(a)pyrene	380	ug/kg	530	ug/kg	33.0
Benzo(b)fluoranthene	440	ug/kg	560	ug/kg	24.0
Benzo(ghi)perylene	270	ug/kg	370	ug/kg	31.3
Benzo(k)fluoranthene	150	ug/kg	260	ug/kg	53.7
Chrysene	540	ug/kg	790	ug/kg	37.6
Dibenz(a,h)anthracene	370 U	ug/kg	98	ug/kg	NC
Fluoranthene	650	ug/kg	930	ug/kg	35.4
Fluorene	370 U	ug/kg	92	ug/kg	NC
Indeno(1,2,3-cd)pyrene	200	ug/kg	280	ug/kg	33.3
Phenanthrene	480	ug/kg	680	ug/kg	34.5
Pyrene	940	ug/kg	1300	ug/kg	32.1
Arsenic	**5.6**	**mg/kg**	**10.9**	**mg/kg**	**64.2**
Barium	72.1	mg/kg	87.4	mg/kg	19.2
Cadmium	0.66	mg/kg	0.81	mg/kg	20.4
Chromium	21	mg/kg	27.3	mg/kg	26.1
Lead	373	mg/kg	359.0	mg/kg	3.8
Mercury	0.26	mg/kg	0.22	mg/kg	16.7
Selenium	2.3	mg/kg	2.8	mg/kg	19.6

5.0 Notes

Positive organic results less than the reporting limit, but greater than the method detection limit (MDL) were qualified “J,” as estimated concentrations, due to increased uncertainty near the detection limit. The “J” qualifiers were maintained in the data validation.

Positive inorganic results less than the reporting limit, but greater than the MDL were flagged with a “J,” to indicate an estimated concentration, due to increased uncertainty near the detection limit. The “J” flags were maintained in the data validation.

Matrix spike and matrix spike duplicates, laboratory duplicates, and ICP serial dilutions that were performed on non-project samples were not evaluated because matrix similarity to project samples could not be assumed.

Appendix A

Glossary of Data Qualifier Codes

Glossary of Data Qualifier Codes

U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

Appendix B

Qualified Analytical Results

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (0-2)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-01B

Sample wt/vol: 11.2 (g/mL) G Lab File ID: V1M1658.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 17 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.7	U
108-88-3	Toluene	2.7	U
100-41-4	Ethylbenzene	2.7	U
179601-23-1	m,p-Xylene	2.7	U
95-47-6	o-Xylene	2.7	U
1330-20-7	Xylene (Total)	2.7	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-02B

Sample wt/vol: 9.00 (g/mL) G Lab File ID: V1M1659.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	3.2	U
108-88-3	Toluene	3.2	U
100-41-4	Ethylbenzene	3.2	U
179601-23-1	m,p-Xylene	3.2	U
95-47-6	o-Xylene	3.2	U
1330-20-7	Xylene (Total)	3.2	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126
(10.5-12.5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03B

Sample wt/vol: 10.0 (g/mL) G Lab File ID: V1M1660.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	440	E
108-88-3	Toluene	5.9	
100-41-4	Ethylbenzene	20	
179601-23-1	m,p-Xylene	17	
95-47-6	o-Xylene	6.0	
1330-20-7	Xylene (Total)	23	

Do not report
WB 6/27/13

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB-126
(10.5-12.5)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03C

Sample wt/vol: 9.30 (g/mL) G Lab File ID: V8B9539.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6100	
108-88-3	Toluene	770	J
100-41-4	Ethylbenzene	1700	
179601-23-1	m,p-Xylene	1100	
95-47-6	o-Xylene	330	J
1330-20-7	Xylene (Total)	1000	

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (3-5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-04B

Sample wt/vol: 10.1 (g/mL) G Lab File ID: V1M1661.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.8	U
108-88-3	Toluene	2.8	U
100-41-4	Ethylbenzene	2.8	U
179601-23-1	m,p-Xylene	2.8	U
95-47-6	o-Xylene	2.8	U
1330-20-7	Xylene (Total)	2.8	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-05B

Sample wt/vol: 11.5 (g/mL) G Lab File ID: V1M1662.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 8.4 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.4	U
108-88-3	Toluene	0.51	J
100-41-4	Ethylbenzene	2.4	U
179601-23-1	m,p-Xylene	2.4	U
95-47-6	o-Xylene	2.4	U
1330-20-7	Xylene (Total)	0.55	J

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06B

Sample wt/vol: 9.80 (g/mL) G Lab File ID: V1M1663.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	820	E
108-88-3	Toluene	1900	E
100-41-4	Ethylbenzene	2500	E
179601-23-1	m,p-Xylene	2700	E
95-47-6	o-Xylene	1700	E
1330-20-7	Xylene (Total)	4400	E

Do not repeat

WB 6/27/13

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (10-12)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06C

Sample wt/vol: 12.8 (g/mL) G Lab File ID: V8B9541.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	3900	J
108-88-3	Toluene	28000	J
100-41-4	Ethylbenzene	56000	
179601-23-1	m,p-Xylene	71000	
95-47-6	o-Xylene	29000	
1330-20-7	Xylene (Total)	66000	

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-07B

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V1M1685.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.9	U
108-88-3	Toluene	5.9	U
100-41-4	Ethylbenzene	5.9	U
179601-23-1	m,p-Xylene	5.9	U
95-47-6	o-Xylene	5.9	U
1330-20-7	Xylene (Total)	5.9	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08B

Sample wt/vol: 9.70 (g/mL) G Lab File ID: V1M1665.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.2	J
108-88-3	Toluene	42	
100-41-4	Ethylbenzene	360	E
179601-23-1	m,p-Xylene	2300	E
95-47-6	o-Xylene	2100	E
1330-20-7	Xylene (Total)	4400	E

Do not report WB 6/27/13

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (10-12)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SMO619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08C

Sample wt/vol: 7.70 (g/mL) G Lab File ID: V8B9542.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
~~71-43-2~~	~~Benzene~~	~~5800~~	~~U~~
~~108-88-3~~	~~Toluene~~	~~5800~~	~~U~~
100-41-4	Ethylbenzene	1700	J
179601-23-1	m,p-Xylene	23000	
95-47-6	o-Xylene	19000	
1330-20-7	Xylene (Total)	35000	

Do not report WB 6/27/13

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09B

Sample wt/vol: 7.70 (g/mL) G Lab File ID: V1M1666.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 8.6 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.1	J
108-88-3	Toluene	9.8	
100-41-4	Ethylbenzene	71	
~~179601-23-1~~	~~m,p-Xylene~~	~~810~~	~~E~~
~~95-47-6~~	~~o-Xylene~~	~~720~~	~~E~~
~~1330-20-7~~	~~Xylene (Total)~~	~~1500~~	~~E~~

Do not report WB 6/27/13

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (18-20)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09C

Sample wt/vol: 11.1 (g/mL) G Lab File ID: V8B9540.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 8.6 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	390	U
108-88-3	Toluene	390	U
100-41-4	Ethylbenzene	390	U
179601-23-1	m,p-Xylene	510	
95-47-6	o-Xylene	430	
1330-20-7	Xylene (Total)	810	

Do not repeat WB 6/27/13

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (1-3)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-10B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1M1686.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 15 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.8	U
108-88-3	Toluene	5.8	U
100-41-4	Ethylbenzene	5.8	U
179601-23-1	m,p-Xylene	5.8	U
95-47-6	o-Xylene	5.8	U
1330-20-7	Xylene (Total)	5.8	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-11B

Sample wt/vol: 9.80 (g/mL) G Lab File ID: V1M1668.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 10 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	19	J
108-88-3	Toluene	9.3	J
100-41-4	Ethylbenzene	39	J
179601-23-1	m,p-Xylene	53	J
95-47-6	o-Xylene	28	J
1330-20-7	Xylene (Total)	81	J

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-12B

Sample wt/vol: 9.10 (g/mL) G Lab File ID: V1M1669.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 6.7 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.9	U
108-88-3	Toluene	2.9	U
100-41-4	Ethylbenzene	1.9	J
179601-23-1	m,p-Xylene	1.5	J
95-47-6	o-Xylene	0.77	J
1330-20-7	Xylene (Total)	2.2	J

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-13B

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V1M1670.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 13 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.7	U
108-88-3	Toluene	2.7	U
100-41-4	Ethylbenzene	2.7	U
179601-23-1	m,p-Xylene	0.89	J
95-47-6	o-Xylene	2.7	U
1330-20-7	Xylene (Total)	0.89	J

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (15-17)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-14B

Sample wt/vol: 11.7 (g/mL) G Lab File ID: V1M1671.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 16 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	1.8	J
108-88-3	Toluene	2.0	J
100-41-4	Ethylbenzene	2.5	U
179601-23-1	m,p-Xylene	2.0	J
95-47-6	o-Xylene	1.2	J
1330-20-7	Xylene (Total)	3.2	

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-15B

Sample wt/vol: 9.80 (g/mL) G Lab File ID: V1M1672.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 7.5 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.8	U
108-88-3	Toluene	2.8	U
100-41-4	Ethylbenzene	2.8	U
179601-23-1	m,p-Xylene	2.8	U
95-47-6	o-Xylene	2.8	U
1330-20-7	Xylene (Total)	0.57	J

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16B

Sample wt/vol: 11.5 (g/mL) G Lab File ID: V1M1673.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.5	U
108-88-3	Toluene	2.5	U
100-41-4	Ethylbenzene	2.5	U
179601-23-1	m,p-Xylene	2.5	U
95-47-6	o-Xylene	2.5	U
1330-20-7	Xylene (Total)	2.5	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-17A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1657.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-17B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V8B9538.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	750	U
108-88-3	Toluene	750	U J
100-41-4	Ethylbenzene	750	U
179601-23-1	m,p-Xylene	750	U
95-47-6	o-Xylene	750	U
1330-20-7	Xylene (Total)	750	U

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-126 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-02A

Sample wt/vol: 15.3 (g/mL) G Lab File ID: S6B3649.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	130	J
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	190	J
129-00-0	Pyrene	190	J
56-55-3	Benzo(a)anthracene	110	J
218-01-9	Chrysene	120	J
205-99-2	Benzo(b)fluoranthene	110	J
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	88	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-126
(10.5-12.5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03A

Sample wt/vol: 15.8 (g/mL) G Lab File ID: S6B3650.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	22000	E
91-57-6	2-Methylnaphthalene	9400	E
208-96-8	Acenaphthylene	2600	
83-32-9	Acenaphthene	7400	E
86-73-7	Fluorene	16000	E
85-01-8	Phenanthrene	53000	E
120-12-7	Anthracene	18000	E
206-44-0	Fluoranthene	36000	E
129-00-0	Pyrene	36000	E
56-55-3	Benzo(a)anthracene	21000	E
218-01-9	Chrysene	19000	E
205-99-2	Benzo(b)fluoranthene	22000	E
207-08-9	Benzo(k)fluoranthene	4300	
50-32-8	Benzo(a)pyrene	17000	E
193-39-5	Indeno(1,2,3-cd)pyrene	6900	E
53-70-3	Dibenzo(a,h)anthracene	2700	
191-24-2	Benzo(g,h,i)perylene	7500	E

Do not report compounds qualified "E" by the laboratory ~~report~~ from this analytical run.

WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-126
(10.5-12.5)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03ADL

Sample wt/vol: 15.8 (g/mL) G Lab File ID: S6B3674.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 20.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
91-20-3	Naphthalene	16000	D	
91-57-6	2-Methylnaphthalene	7900	DJ	
~~208-96-8~~	~~Acenaphthylene~~	~~2700~~	~~DJ~~	DNR
83-32-9	Acenaphthene	5700	DJ	
86-73-7	Fluorene	12000	D	
85-01-8	Phenanthrene	57000	D	
120-12-7	Anthracene	15000	D	
206-44-0	Fluoranthene	38000	D	
129-00-0	Pyrene	31000	D	
56-55-3	Benzo(a)anthracene	18000	D	
218-01-9	Chrysene	19000	D	
205-99-2	Benzo(b)fluoranthene	14000	D	
~~207-08-9~~	~~Benzo(k)fluoranthene~~	~~5100~~	~~DJ~~	DNR
50-32-8	Benzo(a)pyrene	12000	D	
193-39-5	Indeno(1,2,3-cd)pyrene	5200	DJ	
~~53-70-3~~	~~Dibenzo(a,h)anthracene~~	~~2000~~	~~DJ~~	DNR
191-24-2	Benzo(g,h,i)perylene	5700	DJ	

DNR = Do not report these compounds from this run.

WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-127 (3-5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-04A

Sample wt/vol: 15.5 (g/mL) G Lab File ID: S6B3651.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	360	U
91-57-6	2-Methylnaphthalene	360	U
208-96-8	Acenaphthylene	360	U
83-32-9	Acenaphthene	360	U
86-73-7	Fluorene	360	U
85-01-8	Phenanthrene	210	J
120-12-7	Anthracene	360	U
206-44-0	Fluoranthene	390	
129-00-0	Pyrene	440	
56-55-3	Benzo(a)anthracene	240	J
218-01-9	Chrysene	300	J
205-99-2	Benzo(b)fluoranthene	270	J
207-08-9	Benzo(k)fluoranthene	130	J
50-32-8	Benzo(a)pyrene	210	J
193-39-5	Indeno(1,2,3-cd)pyrene	130	J
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	140	J

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-127 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-05A

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3652.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 8.4 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	350	U
91-57-6	2-Methylnaphthalene	350	U
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	210	J
120-12-7	Anthracene	350	U
206-44-0	Fluoranthene	280	J
129-00-0	Pyrene	370	
56-55-3	Benzo(a)anthracene	170	J
218-01-9	Chrysene	220	J
205-99-2	Benzo(b)fluoranthene	200	J
207-08-9	Benzo(k)fluoranthene	75	J
50-32-8	Benzo(a)pyrene	160	J
193-39-5	Indeno(1,2,3-cd)pyrene	99	J
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	130	J

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-127 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06A

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3653.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
91-20-3	Naphthalene	84000	E	DNR
91-57-6	2-Methylnaphthalene	29000	E	DNR
208-96-8	Acenaphthylene	1100		
83-32-9	Acenaphthene	2700		
86-73-7	Fluorene	3900		
85-01-8	Phenanthrene	21000	E	DNR
120-12-7	Anthracene	5400		
206-44-0	Fluoranthene	15000	E	DNR
129-00-0	Pyrene	15000	E	DNR
56-55-3	Benzo(a)anthracene	8100	E	DNR
218-01-9	Chrysene	7900	E	DNR
205-99-2	Benzo(b)fluoranthene	6100		
207-08-9	Benzo(k)fluoranthene	2600		
50-32-8	Benzo(a)pyrene	5400		
193-39-5	Indeno(1,2,3-cd)pyrene	2400		
53-70-3	Dibenzo(a,h)anthracene	870		
191-24-2	Benzo(g,h,i)perylene	2800		

DNR = Do not report this compound from this run.

WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-127 (10-12)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06ADL

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3679.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 40.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
91-20-3	Naphthalene	160000	D	
91-57-6	2-Methylnaphthalene	28000	D	
208-96-8	Acenaphthylene	16000	U	DNR
83-32-9	Acenaphthene	16000	U	DNR
86-73-7	Fluorene	3400	DJ	
85-01-8	Phenanthrene	15000	DJ	
120-12-7	Anthracene	3900	DJ	DNR
206-44-0	Fluoranthene	11000	DJ	
129-00-0	Pyrene	11000	DJ	
56-55-3	Benzo(a)anthracene	6200	DJ	
218-01-9	Chrysene	6200	DJ	
205-99-2	Benzo(b)fluoranthene	4600	DJ	DNR
207-08-9	Benzo(k)fluoranthene	16000	U	DNR
50-32-8	Benzo(a)pyrene	3900	DJ	DNR
193-39-5	Indeno(1,2,3-cd)pyrene	16000	U	DNR
53-70-3	Dibenzo(a,h)anthracene	16000	U	DNR
191-24-2	Benzo(g,h,i)perylene	2000	DJ	DNR

DNR = Do not report this compound from this run.

WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-07A

Sample wt/vol: 15.2 (g/mL) G Lab File ID: S6B3654.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	150	J
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	300	J
129-00-0	Pyrene	410	
56-55-3	Benzo(a)anthracene	220	J
218-01-9	Chrysene	260	J
205-99-2	Benzo(b)fluoranthene	210	J
207-08-9	Benzo(k)fluoranthene	94	J
50-32-8	Benzo(a)pyrene	180	J
193-39-5	Indeno(1,2,3-cd)pyrene	110	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	130	J

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-128 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3655.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
~~91-20-3~~	~~Naphthalene~~	~~150000~~	~~E~~	DNR
~~91-57-6~~	~~2-Methylnaphthalene~~	~~47000~~	~~E~~	DNR
208-96-8	Acenaphthylene	370	U	
83-32-9	Acenaphthene	370	U	
86-73-7	Fluorene	410		
85-01-8	Phenanthrene	94	J	
120-12-7	Anthracene	590		
206-44-0	Fluoranthene	590		
129-00-0	Pyrene	300	J	
56-55-3	Benzo(a)anthracene	280	J	
218-01-9	Chrysene	300	J	
205-99-2	Benzo(b)fluoranthene	97	J	
207-08-9	Benzo(k)fluoranthene	220	J	
50-32-8	Benzo(a)pyrene	150	J	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	170	J	
191-24-2	Benzo(g,h,i)perylene			

DNR = Do not report this compound from this run.
WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (10-12)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08ADL

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3680.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 160.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370000	D
91-57-6	2-Methylnaphthalene	37000	DJ
208-96-8	Acenaphthylene	59000	U
83-32-9	Acenaphthene	59000	U
86-73-7	Fluorene	59000	U
85-01-8	Phenanthrene	59000	U
120-12-7	Anthracene	59000	U
206-44-0	Fluoranthene	59000	U
129-00-0	Pyrene	59000	U
56-55-3	Benzo(a)anthracene	59000	U
218-01-9	Chrysene	59000	U
205-99-2	Benzo(b)fluoranthene	59000	U
207-08-9	Benzo(k)fluoranthene	59000	U
50-32-8	Benzo(a)pyrene	59000	U
193-39-5	Indeno(1,2,3-cd)pyrene	59000	U
53-70-3	Dibenzo(a,h)anthracene	59000	U
191-24-2	Benzo(g,h,i)perylene	59000	U

Do not report WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-128 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09A

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3656.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 8.6 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
~~91-20-3~~	~~Naphthalene~~	~~57000~~	~~E~~	DNR
~~91-57-6~~	~~2-Methylnaphthalene~~	~~7800~~	~~E~~	DNR
208-96-8	Acenaphthylene	350	U	
83-32-9	Acenaphthene	350	U	
86-73-7	Fluorene	350	U	
85-01-8	Phenanthrene	430		
120-12-7	Anthracene	100	J	
206-44-0	Fluoranthene	590		
129-00-0	Pyrene	560		
56-55-3	Benzo(a)anthracene	260	J	
218-01-9	Chrysene	290	J	
205-99-2	Benzo(b)fluoranthene	270	J	
207-08-9	Benzo(k)fluoranthene	120	J	
50-32-8	Benzo(a)pyrene	220	J	
193-39-5	Indeno(1,2,3-cd)pyrene	140	J	
53-70-3	Dibenzo(a,h)anthracene	350	U	
191-24-2	Benzo(g,h,i)perylene	180	J	

DNR = Do not report this compound from this run.
WOB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (18-20) DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09ADL

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3677.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 8.6 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 20.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	70000	D
91-57-6	2-Methylnaphthalene	8100	D
208-96-8	Acenaphthylene	7000	U
83-32-9	Acenaphthene	7000	U
86-73-7	Fluorene	7000	U
85-01-8	Phenanthrene	7000	U
120-12-7	Anthracene	7000	U
206-44-0	Fluoranthene	7000	U
129-00-0	Pyrene	7000	U
56-55-3	Benzo(a)anthracene	7000	U
218-01-9	Chrysene	7000	U
205-99-2	Benzo(b)fluoranthene	7000	U
207-08-9	Benzo(k)fluoranthene	7000	U
50-32-8	Benzo(a)pyrene	7000	U
193-39-5	Indeno(1,2,3-cd)pyrene	7000	U
53-70-3	Dibenzo(a,h)anthracene	7000	U
191-24-2	Benzo(g,h,i)perylene	7000	U

Do not report from this run. WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-129 (1-3)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-10A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3657.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 15 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	390	U
91-57-6	2-Methylnaphthalene	390	U
208-96-8	Acenaphthylene	390	U
83-32-9	Acenaphthene	120	J
86-73-7	Fluorene	150	J
85-01-8	Phenanthrene	2700	
120-12-7	Anthracene	150	J
206-44-0	Fluoranthene	3500	
129-00-0	Pyrene	2800	
56-55-3	Benzo(a)anthracene	980	
218-01-9	Chrysene	1600	
205-99-2	Benzo(b)fluoranthene	1400	
207-08-9	Benzo(k)fluoranthene	620	
50-32-8	Benzo(a)pyrene	890	
193-39-5	Indeno(1,2,3-cd)pyrene	570	
53-70-3	Dibenzo(a,h)anthracene	180	J
191-24-2	Benzo(g,h,i)perylene	600	

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-129 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-11A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3658.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 10 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
91-20-3	Naphthalene	6700	E	DNR
91-57-6	2-Methylnaphthalene	7400	E	DNR
208-96-8	Acenaphthylene	530		
83-32-9	Acenaphthene	300	J	
86-73-7	Fluorene	1100		
85-01-8	Phenanthrene	4000		
120-12-7	Anthracene	770		
206-44-0	Fluoranthene	1300		
129-00-0	Pyrene	2400		
56-55-3	Benzo(a)anthracene	820		
218-01-9	Chrysene	960		
205-99-2	Benzo(b)fluoranthene	470		
207-08-9	Benzo(k)fluoranthene	220	J	
50-32-8	Benzo(a)pyrene	570		
193-39-5	Indeno(1,2,3-cd)pyrene	240	J	
53-70-3	Dibenzo(a,h)anthracene	90	J	
191-24-2	Benzo(g,h,i)perylene	350	J	

DNR = Do not report from this run.

LOB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SB-129 (8-10)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-11ADL

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3678.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 10 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	5800	Ø
91-57-6	2-Methylnaphthalene	6600	Ø
208-96-8	Acenaphthylene	490	DJ
83-32-9	Acenaphthene	260	DJ
86-73-7	Fluorene	1000	D
85-01-8	Phenanthrene	3500	D
120-12-7	Anthracene	610	DJ
206-44-0	Fluoranthene	1200	D
129-00-0	Pyrene	1900	D
56-55-3	Benzo(a)anthracene	710	DJ
218-01-9	Chrysene	840	D
205-99-2	Benzo(b)fluoranthene	430	DJ
207-08-9	Benzo(k)fluoranthene	180	DJ
50-32-8	Benzo(a)pyrene	490	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	210	DJ
53-70-3	Dibenzo(a,h)anthracene	730	U
191-24-2	Benzo(g,h,i)perylene	290	DJ

Do not report from this run. WB 6/27/13

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-129 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-12A

Sample wt/vol: 15.3 (g/mL) G Lab File ID: S6B3659.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.7 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	350	U
91-57-6	2-Methylnaphthalene	350	U
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-130 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-13A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3660.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 13 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	120	J
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	480	
120-12-7	Anthracene	150	J
206-44-0	Fluoranthene	650	
129-00-0	Pyrene	940	
56-55-3	Benzo(a)anthracene	440	
218-01-9	Chrysene	540	
205-99-2	Benzo(b)fluoranthene	440	
207-08-9	Benzo(k)fluoranthene	150	J
50-32-8	Benzo(a)pyrene	380	
193-39-5	Indeno(1,2,3-cd)pyrene	200	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	270	J

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-130 (15-17)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-14A

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S6B3661.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 16 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	240	J
91-57-6	2-Methylnaphthalene	87	J
208-96-8	Acenaphthylene	390	U
83-32-9	Acenaphthene	390	U
86-73-7	Fluorene	390	U
85-01-8	Phenanthrene	84	J
120-12-7	Anthracene	390	U
206-44-0	Fluoranthene	180	J
129-00-0	Pyrene	180	J
56-55-3	Benzo(a)anthracene	170	J
218-01-9	Chrysene	200	J
205-99-2	Benzo(b)fluoranthene	330	J
207-08-9	Benzo(k)fluoranthene	160	J
50-32-8	Benzo(a)pyrene	270	J
193-39-5	Indeno(1,2,3-cd)pyrene	230	J
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	270	J

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-130 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-15A

Sample wt/vol: 15.5 (g/mL) G Lab File ID: S6B3662.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 7.5 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	350	U
91-57-6	2-Methylnaphthalene	350	U
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUP1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16A

Sample wt/vol: 15.2 (g/mL) G Lab File ID: S6B3663.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup: (Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	200	J
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	92	J
85-01-8	Phenanthrene	680	
120-12-7	Anthracene	240	J
206-44-0	Fluoranthene	930	
129-00-0	Pyrene	1300	
56-55-3	Benzo(a)anthracene	710	
218-01-9	Chrysene	790	
205-99-2	Benzo(b)fluoranthene	560	
207-08-9	Benzo(k)fluoranthene	260	J
50-32-8	Benzo(a)pyrene	530	
193-39-5	Indeno(1,2,3-cd)pyrene	280	J
53-70-3	Dibenzo(a,h)anthracene	98	J
191-24-2	Benzo(g,h,i)perylene	370	J

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: DUP1

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-16

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.9		J	P
7440-39-3	Barium	87.4			P
7440-43-9	Cadmium	0.81			P
7440-47-3	Chromium	27.3			P
7439-92-1	Lead	359			P
7439-97-6	Mercury	0.22			CV
7782-49-2	Selenium	2.8			P
7440-22-4	Silver	1.5 ~~0.23~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (0-2)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-01

Level (low/med): MED Date Received: 04/29/2013

% Solids: 82.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.9		J	P
7440-39-3	Barium	71.1			P
7440-43-9	Cadmium	0.72			P
7440-47-3	Chromium	22.6			P
7439-92-1	Lead	251			P
7439-97-6	Mercury	0.21			CV
7782-49-2	Selenium	2.4			P
7440-22-4	Silver	1.2 ~~0.19~~		~~B~~ U	P

Comments:

lm13 05 03 A

M0619

FORM I - IN

SW846

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (10.5-12.5)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-03

Level (low/med): MED Date Received: 04/29/2013

% Solids: 78.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.2		J	P
7440-39-3	Barium	173			P
7440-43-9	Cadmium	0.77			P
7440-47-3	Chromium	16.4			P
7439-92-1	Lead	480			P
7439-97-6	Mercury	0.83			CV
7782-49-2	Selenium	2.3			P
7440-22-4	Silver	1.5 ~~0.34~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (8-10)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-02

Level (low/med): MED Date Received: 04/29/2013

% Solids: 87.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	6.3		J	P
7440-39-3	Barium	98.7			P
7440-43-9	Cadmium	0.47			P
7440-47-3	Chromium	27.1			P
7439-92-1	Lead	284			P
7439-97-6	Mercury	0.16			CV
7782-49-2	Selenium	2.6			P
7440-22-4	Silver	1.5 ~~0.14~~	~~B~~	U	P

Comments:

ilm13 05.03 A

M0619

FORM I - IN

SW846

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (10-12)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-06

Level (low/med): MED Date Received: 04/29/2013

% Solids: 78.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.1		J	P
7440-39-3	Barium	211			P
7440-43-9	Cadmium	1.1			P
7440-47-3	Chromium	17.5			P
7439-92-1	Lead	779			P
7439-97-6	Mercury	1.3			CV
7782-49-2	Selenium	2.8			P
7440-22-4	Silver	1.4 ~~0.45~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (3-5)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-04

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	6.0		J	P
7440-39-3	Barium	110			P
7440-43-9	Cadmium	0.67			P
7440-47-3	Chromium	21.5			P
7439-92-1	Lead	262			P
7439-97-6	Mercury	0.18			CV
7782-49-2	Selenium	1.8			P
7440-22-4	Silver	1.2 ~~0.16~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (8-10)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-05

Level (low/med): MED Date Received: 04/29/2013

% Solids: 91.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.7		J	P
7440-39-3	Barium	80.8			P
7440-43-9	Cadmium	0.59			P
7440-47-3	Chromium	20.6			P
7439-92-1	Lead	332			P
7439-97-6	Mercury	0.15			CV
7782-49-2	Selenium	2.2			P
7440-22-4	Silver	1.3 ~~0.072~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (10-12)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-08

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.8		J	P
7440-39-3	Barium	38.9			P
7440-43-9	Cadmium	0.32			P
7440-47-3	Chromium	24.5			P
7439-92-1	Lead	63.5			P
7439-97-6	Mercury	0.026	B	J	CV
7782-49-2	Selenium	2.0			P
7440-22-4	Silver	0.062	U		P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (18-20)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-09

Level (low/med): MED Date Received: 04/29/2013

% Solids: 91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.1		J	P
7440-39-3	Barium	39.6			P
7440-43-9	Cadmium	0.41			P
7440-47-3	Chromium	23.7			P
7439-92-1	Lead	39.4			P
7439-97-6	Mercury	0.0065	B	J	CV
7782-49-2	Selenium	2.0			P
7440-22-4	Silver	1.4 ~~0.14~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (2-4)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-07

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.0		J	P
7440-39-3	Barium	105			P
7440-43-9	Cadmium	0.57			P
7440-47-3	Chromium	22.1			P
7439-92-1	Lead	255			P
7439-97-6	Mercury	0.14			CV
7782-49-2	Selenium	1.5			P
7440-22-4	Silver	1.4 ~~0.18~~	~~B~~	U	P

Comments:

m13 05 03 A

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (1-3)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-10

Level (low/med): MED Date Received: 04/29/2013

% Solids: 84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	8.6		J	P
7440-39-3	Barium	54.2			P
7440-43-9	Cadmium	0.53			P
7440-47-3	Chromium	15.7			P
7439-92-1	Lead	76.4			P
7439-97-6	Mercury	0.14			CV
7782-49-2	Selenium	2.5			P
7440-22-4	Silver	1.3 ~~0.21~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (18-20)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-12

Level (low/med): MED Date Received: 04/29/2013

% Solids: 93.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.8		J	P
7440-39-3	Barium	32.9			P
7440-43-9	Cadmium	0.30			P
7440-47-3	Chromium	18.7			P
7439-92-1	Lead	13.3			P
7439-97-6	Mercury	0.0025	U		CV
7782-49-2	Selenium	1.9			P
7440-22-4	Silver	1.3 ~~0.062~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (8-10)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-11

Level (low/med): MED Date Received: 04/29/2013

% Solids: 89.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.6		J	P
7440-39-3	Barium	34.2			P
7440-43-9	Cadmium	0.26			P
7440-47-3	Chromium	13.8			P
7439-92-1	Lead	190			P
7439-97-6	Mercury	0.13			CV
7782-49-2	Selenium	1.5			P
7440-22-4	Silver	0.059	U		P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (15-17)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-14

Level (low/med): MED Date Received: 04/29/2013

% Solids: 84.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.1		J	P
7440-39-3	Barium	39.3			P
7440-43-9	Cadmium	0.64			P
7440-47-3	Chromium	22.2			P
7439-92-1	Lead	175			P
7439-97-6	Mercury	0.091			CV
7782-49-2	Selenium	2.2			P
7440-22-4	Silver	0.062	U		P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (18-20)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-15

Level (low/med): MED Date Received: 04/29/2013

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.4		J	P
7440-39-3	Barium	39.9			P
7440-43-9	Cadmium	0.25	B	J	P
7440-47-3	Chromium	15.5			P
7439-92-1	Lead	19.6			P
7439-97-6	Mercury	0.0024	U		CV
7782-49-2	Selenium	2.4			P
7440-22-4	Silver	1.6 ~~0.14~~	~~B~~	U	P

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (2-4)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-13

Level (low/med): MED Date Received: 04/29/2013

% Solids: 87.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.6		J	P
7440-39-3	Barium	72.1			P
7440-43-9	Cadmium	0.66			P
7440-47-3	Chromium	21.0			P
7439-92-1	Lead	373			P
7439-97-6	Mercury	0.26			CV
7782-49-2	Selenium	2.3			P
7440-22-4	Silver	1.1 ~~0.21~~	~~B~~	U	P

Comments:

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M0619

FORM I - IN

SW846

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-126 (0-2)	M0619	Soil	24-Apr-13 12:00	30-Apr-13
SB68738-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	80.6		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310352	
57-12-5	Cyanide (weak acid dissociable)	< 0.423	U	mg/kg dry	1.27	0.423	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-126 (8-10)	M0619	Soil	25-Apr-13 14:00	30-Apr-13
SB68738-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	74.2		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310352	
57-12-5	Cyanide (weak acid dissociable)	< 0.433	U	mg/kg dry	1.30	0.433	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-126 (10.5-12.5)	M0619	Soil	25-Apr-13 14:15	30-Apr-13
SB68738-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	77.4		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310352	
57-12-5	Cyanide (weak acid dissociable)	< 0.446	U	mg/kg dry	1.34	0.446	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-127 (3-5)	M0619	Soil	24-Apr-13 10:00	30-Apr-13
SB68738-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	85.7		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310352	
57-12-5	Cyanide (weak acid dissociable)	< 0.380	U	mg/kg dry	1.14	0.380	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-127 (8-10)	M0619	Soil	25-Apr-13 11:00	30-Apr-13
SB68738-05				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	75.8		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310352	
57-12-5	Cyanide (weak acid dissociable)	< 0.420	U	mg/kg dry	1.26	0.420	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification
SB-127 (10-12)
SB68738-06

Client Project #: M0619 | Matrix: Soil | Collection Date/Time: 25-Apr-13 11:15 | Received: 30-Apr-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	80.8		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310352	
57-12-5	Cyanide (weak acid dissociable)	1.60		mg/kg dry	1.14	0.379	1	SW846 9012B	07-May-13	06-May-13	RLT	1310404	

Sample Identification
SB-128 (2-4)
SB68738-07

Client Project #: M0619 | Matrix: Soil | Collection Date/Time: 24-Apr-13 13:30 | Received: 30-Apr-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	87.3		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.346	U	mg/kg dry	1.04	0.346	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification
SB-128 (10-12)
SB68738-08

Client Project #: M0619 | Matrix: Soil | Collection Date/Time: 25-Apr-13 14:30 | Received: 30-Apr-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	87.5		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	0.447	J	mg/kg dry	1.04	0.346	1	SW846 9012B	08-May-13	08-May-13	RLT	1310525	

Sample Identification
SB-128 (18-20)
SB68738-09

Client Project #: M0619 | Matrix: Soil | Collection Date/Time: 25-Apr-13 14:45 | Received: 30-Apr-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	92.4		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.322	U	mg/kg dry	0.966	0.322	1	SW846 9012B	08-May-13	08-May-13	RLT	1310525	

Sample Identification
SB-129 (1-3)
SB68738-10

Client Project #: M0619 | Matrix: Soil | Collection Date/Time: 24-Apr-13 11:00 | Received: 30-Apr-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	85.8		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.374	U	mg/kg dry	1.12	0.374	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-129 (8-10)	M0619	Soil	25-Apr-13 12:00	30-Apr-13
SB68738-11				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	86.5		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.346	U	mg/kg dry	1.04	0.346	1	SW846 9012B	08-May-13	08-May-13	RLT	1310525	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-129 (18-20)	M0619	Soil	25-Apr-13 12:15	30-Apr-13
SB68738-12				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	94.6		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.328	U	mg/kg dry	0.986	0.328	1	SW846 9012B	08-May-13	08-May-13	RLT	1310525	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-130 (2-4)	M0619	Soil	24-Apr-13 09:30	30-Apr-13
SB68738-13				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	85.9		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.391	U	mg/kg dry	1.17	0.391	1	SW846 90128	07-May-13	08-May-13	RLT	1310404	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-130 (15-17)	M0619	Soil	25-Apr-13 10:00	30-Apr-13
SB68738-14				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	98.6		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	1.31	J	mg/kg dry	0.925	0.308	1	SW846 9012B	08-May-13	08-May-13	RLT	1310525	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
SB-130 (18-20)	M0619	Soil	25-Apr-13 10:15	30-Apr-13
SB68738-15				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
General Chemistry Parameters													
	% Solids	87.8		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.355	U	mg/kg dry	1.07	0.355	1	SW846 9012B	08-May-13	08-May-13	RLT	1310525	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DUP SB68738-16	M0619	Soil	24-Apr-13 09:45	30-Apr-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert
General Chemistry Parameters													
	% Solids	86.3		%			1	SM2540 G Mod.	07-May-13	07-May-13	DT	1310354	
57-12-5	Cyanide (weak acid dissociable)	< 0.388	U	mg/kg dry	1.17	0.388	1	SW846 9012B	07-May-13	08-May-13	RLT	1310404	

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit

Appendix C

Support Documentation

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-71443	101	109	98	101				0
02	LCSD-71443	103	98	99	102				0
03	MB-71443	102	99	96	98				0
04	TB	101	96	99	99				0
05	SB-126 (0-2)	105	101	99	99				0
06	SB-126 (8-10)	105	105	96	101				0
07	SB-126 (10.5-12.5)	104	103	99	100				0
08	SB-127 (3-5)	109	108	98	102				0
09	SB-127 (8-10)	104	108	96	102				0
10	SB-127 (10-12)	105	104	98	106				0
11	SB-128 (10-12)	107	103	105	113				0
12	SB-128 (18-20)	104	107	95	115				0
13	SB-129 (8-10)	107	107	97	162 *				1
14	SB-129 (18-20)	105	106	99	104				0
15	SB-130 (2-4)	104	102	99	103				0
16	SB-130 (15-17)	105	104	104	103				0
17	SB-130 (18-20)	103	103	97	102				0
18	DUP1	103	102	97	102				0
19	LCS-71460	101	104	99	99				0
20	MB-71460	99	101	97	102				0
21	SB-128 (2-4)	101	100	97	101				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(76-128)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(88-110)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(85-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som13.05.07.A

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M0619 SAS No.: SDG No.: SM0619

Instrument ID: V10 Calibration Date(s): 04/17/2013 04/17/2013

Heated Purge: (Y/N) N Calibration Times: 12:22 15:07

Purge Volume: 5 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = V8B9277.D RRF020 = V8B9276.D RRF050 = V8B9275.D RRF100 = V8B9281.D RRF200 = V8B9280.D

RRF001 = V8B9279.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF001					RRF	% RSD
Benzene	1.229	1.274	1.173	1.207	1.207	1.408					1.250	6.8
Toluene	1.438	1.352	1.239	1.255	1.263	2.301					1.475	27.9
Ethylbenzene	0.548	0.597	0.553	0.567	0.567	0.598					0.572	3.7
m,p-Xylene	0.704	0.734	0.693	0.701	0.701	0.833					0.728	7.4
o-Xylene	0.688	0.719	0.666	0.678	0.681	0.741					0.695	4.2
Xylene (Total)	0.698	0.729	0.684	0.693	0.694	0.803					0.717	6.3

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V10 Calibration Date: 05/02/2013 Time: 8:08

Lab File ID: V8B9531.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD05010S Init. Calib. Time(s): 12:22 15:07

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Benzene	1.250	1.125	0.500	-10.0	20.0
Toluene	1.475	1.142	0.400	-22.5	20.0
Ethylbenzene	0.572	0.465	0.100	-18.7	20.0
m,p-Xylene	0.728	0.586	0.100	-19.4	20.0
o-Xylene	0.695	0.566	0.300	-18.6	20.0
Xylene (Total)	0.717	0.579	0.000	-19.2	20.0

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	CLIENT SAMPLE NO.	SDMC1 (NBZ) #	SDMC2 (FBP) #	SDMC3 (TPH) #	SDMC4 (PHL) #	SDMC5 (2FP) #	SDMC6 (TBP) #			TOT OUT
01	MB-71418	99	93	120	93	79	105			0
02	LCS-71418	102 *	91	99	89	98	111			1
03	SB-126 (0-2)	75	75	92						0
04	SB-126 (8-10)	87	82	105						0
05	SB-126 (10.5-12.5)	81	83	90						0
06	SB-127 (3-5)	82	78	99						0
07	SB-127 (8-10)	79	77	100						0
08	SB-127 (10-12)	62	59	73						0
09	SB-128 (2-4)	75	75	94						0
10	SB-128 (10-12)	113 *	83	93						1
11	SB-128 (18-20)	69	81	92						0
12	SB-129 (1-3)	87	87	101						0
13	SB-129 (8-10)	84	84	97						0
14	SB-129 (18-20)	86	81	98						0
15	SB-130 (2-4)	80	81	94						0
16	SB-130 (15-17)	81	79	93						0
17	SB-130 (18-20)	88	83	103						0
18	DUP1	81	81	96						0
19	DUP1MS	74	77	86						0

			QC LIMITS
SDMC1	(NBZ)	= Nitrobenzene-d5	(35-100)
SDMC2	(FBP)	= 2-Fluorobiphenyl	(45-105)
SDMC3	(TPH)	= Terphenyl-d14	(30-125)
SDMC4	(PHL)	= Phenol-d5	(40-100)
SDMC5	(2FP)	= 2-Fluorophenol	(35-105)
SDMC6	(TBP)	= 2,4,6-Tribromophenol	(35-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

som13.05.07.A

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	CLIENT SAMPLE NO.	SDMC1 (NBZ) #	SDMC2 (FBP) #	SDMC3 (TPH) #	SDMC4 (PHL) #	SDMC5 (2FP) #	SDMC6 (TBP) #			TOT OUT
20	DUP1MSD	82	84	94						0
21	SB-126 (10.5-12.5)DL	66	64	74						0
22	SB-128 (18-20)DL	60	61	65						0
23	SB-129 (8-10)DL	71	68	81						0
24	SB-127 (10-12)DL	0 D	0 D	0 D						3
25	SB-128 (10-12)DL	0 D	0 D	0 D						3

			QC LIMITS
SDMC1	(NBZ)	= Nitrobenzene-d5	(35-100)
SDMC2	(FBP)	= 2-Fluorobiphenyl	(45-105)
SDMC3	(TPH)	= Terphenyl-d14	(30-125)
SDMC4	(PHL)	= Phenol-d5	(40-100)
SDMC5	(2FP)	= 2-Fluorophenol	(35-105)
SDMC6	(TBP)	= 2,4,6-Tribromophenol	(35-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

som13.05.07.A

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID: **MB-71425**

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

OPTIMA3_130502A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 05/02/13 8:10	C	05/02/13 8:48	C	05/02/13 9:25	C	Preparation Blank	C	M
Arsenic	4.3	U	4.3	U	4.3	U	4.3	U	0.410	U	P
Barium	2.1	B	2.5	B	2.8	B	1.7	B	0.032	B	P
Cadmium	0.9	U	0.9	U	0.9	U	0.9	U	0.015	U	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.019	U	P
Lead	4.2	U	4.2	U	4.2	U	4.2	U	0.170	U	P
Selenium	12.0	U	12.0	U	12.0	U	12.4	B	0.640	U	P
Silver	6.9	U	6.9	U	6.9	U	6.9	U	0.128	B	P

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Blank Matrix (soil/water): Method Blank ID:

Preparation Blank Concentration Units (ug/L or mg/kg):

OPTIMA3_130502A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 05/02/13 9:59	C	05/02/13 10:32	C		C	Preparation Blank	C	M
Arsenic			4.3	U	4.3	U					P
Barium			2.4	B	2.5	B					P
Cadmium			0.9	U	0.9	U					P
Chromium			0.6	U	0.6	U					P
Lead			4.2	U	4.2	U					P
Selenium			12.0	U	12.0	U					P
Silver			6.9	U	6.9	U					P

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310525	Laboratory ID:	1310525-BS4
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 14:29	Spike ID:	13E0176
		File ID:	050813C2-030

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	20.0	22.2	111 *	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

Appendix E

Laboratory Analytical Results

Report Date:
10-May-13 09:22

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

AECOM
200 Liberty Street 25th Floor
New York, NY 10281

Work Order: M0619
Project : Bay Ridge Holders, Former MGP
Project #: 60137360.300

Attn: Nelson Abrams

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
M0619-01	SB-126 (0-2)	Soil	24-Apr-13 12:00	29-Apr-13 12:15
M0619-02	SB-126 (8-10)	Soil	25-Apr-13 14:00	29-Apr-13 12:15
M0619-03	SB-126 (10.5-12.5)	Soil	25-Apr-13 14:15	29-Apr-13 12:15
M0619-04	SB-127 (3-5)	Soil	24-Apr-13 10:00	29-Apr-13 12:15
M0619-05	SB-127 (8-10)	Soil	25-Apr-13 11:00	29-Apr-13 12:15
M0619-06	SB-127 (10-12)	Soil	25-Apr-13 11:15	29-Apr-13 12:15
M0619-07	SB-128 (2-4)	Soil	24-Apr-13 13:30	29-Apr-13 12:15
M0619-08	SB-128 (10-12)	Soil	25-Apr-13 14:30	29-Apr-13 12:15
M0619-09	SB-128 (18-20)	Soil	25-Apr-13 14:45	29-Apr-13 12:15
M0619-10	SB-129 (1-3)	Soil	24-Apr-13 11:00	29-Apr-13 12:15
M0619-11	SB-129 (8-10)	Soil	25-Apr-13 12:00	29-Apr-13 12:15
M0619-12	SB-129 (18-20)	Soil	25-Apr-13 12:15	29-Apr-13 12:15
M0619-13	SB-130 (2-4)	Soil	24-Apr-13 09:30	29-Apr-13 12:15
M0619-14	SB-130 (15-17)	Soil	25-Apr-13 10:00	29-Apr-13 12:15
M0619-15	SB-130 (18-20)	Soil	25-Apr-13 10:15	29-Apr-13 12:15
M0619-16	DUP1	Soil	24-Apr-13 09:45	29-Apr-13 12:15
M0619-17	TB	Soil	24-Apr-13 00:00	29-Apr-13 12:15

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirments have been meet.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
DoD ELAP
Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Identification and Analytical Requirements Summary

Project Name : Bay Ridge Holders, Former MGP -- 60137360.300 **SDG :** M0619

Customer Sample ID	Laboratory Sample ID	Analytical Requirements				
		MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other
SB-126 (0-2)	M0619-01	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-126 (0-2)	M0619-01				SW7471	
SB-126 (8-10)	M0619-02	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-126 (8-10)	M0619-02				SW7471	
SB-126 (10.5-12.5)	M0619-03	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-126 (10.5-12.5)	M0619-03	SW8260_MED_S			SW7471	
SB-127 (3-5)	M0619-04	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-127 (3-5)	M0619-04				SW7471	
SB-127 (8-10)	M0619-05	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-127 (8-10)	M0619-05				SW7471	
SB-127 (10-12)	M0619-06	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-127 (10-12)	M0619-06	SW8260_MED_S			SW7471	
SB-128 (2-4)	M0619-07	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-128 (2-4)	M0619-07				SW7471	
SB-128 (10-12)	M0619-08	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-128 (10-12)	M0619-08	SW8260_MED_S			SW7471	
SB-128 (18-20)	M0619-09	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-128 (18-20)	M0619-09	SW8260_MED_S			SW7471	
SB-129 (1-3)	M0619-10	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-129 (1-3)	M0619-10				SW7471	
SB-129 (8-10)	M0619-11	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-129 (8-10)	M0619-11				SW7471	
SB-129 (18-20)	M0619-12	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-129 (18-20)	M0619-12				SW7471	
SB-130 (2-4)	M0619-13	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-130 (2-4)	M0619-13				SW7471	
SB-130 (15-17)	M0619-14	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-130 (15-17)	M0619-14				SW7471	
SB-130 (18-20)	M0619-15	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
SB-130 (18-20)	M0619-15				SW7471	
DUP1	M0619-16	SW8260_LOW_S	SW8270_S		SW6010_S	SEE DATA
DUP1	M0619-16				SW7471	
TB	M0619-17	SW8260_LOW_S				
TB	M0619-17	SW8260_MED_S				

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : Bay Ridge Holders, Former MGP -- 60137360.300 **SDG :** M0619

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8260_LOW_S					
M0619-01B	SL	4/24/2013	4/29/2013	NA	5/1/2013
M0619-02B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-03B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-04B	SL	4/24/2013	4/29/2013	NA	5/1/2013
M0619-05B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-06B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-07B	SL	4/24/2013	4/29/2013	NA	5/2/2013
M0619-08B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-09B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-10B	SL	4/24/2013	4/29/2013	NA	5/2/2013
M0619-11B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-12B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-13B	SL	4/24/2013	4/29/2013	NA	5/1/2013
M0619-14B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-15B	SL	4/25/2013	4/29/2013	NA	5/1/2013
M0619-16B	SL	4/24/2013	4/29/2013	NA	5/1/2013
M0619-16BMS	SL	4/24/2013	4/29/2013	NA	5/2/2013
M0619-16BMSD	SL	4/24/2013	4/29/2013	NA	5/2/2013
M0619-17A	SL	4/24/2013	4/29/2013	NA	5/1/2013
SW8260_MED_S					
M0619-03C	SL	4/25/2013	4/29/2013	5/2/2013	5/2/2013
M0619-06C	SL	4/25/2013	4/29/2013	5/2/2013	5/2/2013
M0619-08C	SL	4/25/2013	4/29/2013	5/2/2013	5/2/2013
M0619-09C	SL	4/25/2013	4/29/2013	5/2/2013	5/2/2013
M0619-17B	SL	4/24/2013	4/29/2013	5/2/2013	5/2/2013

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSSEMI

Project Name : Bay Ridge Holders, Former MGP -- 60137360.300 **SDG :** M0619

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8270_S					
M0619-01A	SL	4/24/2013	4/29/2013	4/30/2013	5/6/2013
M0619-02A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-03A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-03ADL	SL	4/25/2013	4/29/2013	4/30/2013	5/7/2013
M0619-04A	SL	4/24/2013	4/29/2013	4/30/2013	5/6/2013
M0619-05A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-06A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-06ADL	SL	4/25/2013	4/29/2013	4/30/2013	5/7/2013
M0619-07A	SL	4/24/2013	4/29/2013	4/30/2013	5/6/2013
M0619-08A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-08ADL	SL	4/25/2013	4/29/2013	4/30/2013	5/7/2013
M0619-09A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-09ADL	SL	4/25/2013	4/29/2013	4/30/2013	5/7/2013
M0619-10A	SL	4/24/2013	4/29/2013	4/30/2013	5/6/2013
M0619-11A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-11ADL	SL	4/25/2013	4/29/2013	4/30/2013	5/7/2013
M0619-12A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-13A	SL	4/24/2013	4/29/2013	4/30/2013	5/6/2013
M0619-14A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-15A	SL	4/25/2013	4/29/2013	4/30/2013	5/6/2013
M0619-16A	SL	4/24/2013	4/29/2013	4/30/2013	5/6/2013
M0619-16AMS	SL	4/24/2013	4/29/2013	4/30/2013	5/7/2013
M0619-16AMSD	SL	4/24/2013	4/29/2013	4/30/2013	5/7/2013

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : Bay Ridge Holders, Former MGP -- 60137360.300 **SDG :** M0619

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
SW8260_LOW_S					
M0619-01B	SL	SW8260_LOW_S	NA	LOW	1
M0619-02B	SL	SW8260_LOW_S	NA	LOW	1
M0619-03B	SL	SW8260_LOW_S	NA	LOW	1
M0619-04B	SL	SW8260_LOW_S	NA	LOW	1
M0619-05B	SL	SW8260_LOW_S	NA	LOW	1
M0619-06B	SL	SW8260_LOW_S	NA	LOW	1
M0619-07B	SL	SW8260_LOW_S	NA	LOW	1
M0619-08B	SL	SW8260_LOW_S	NA	LOW	1
M0619-09B	SL	SW8260_LOW_S	NA	LOW	1
M0619-10B	SL	SW8260_LOW_S	NA	LOW	1
M0619-11B	SL	SW8260_LOW_S	NA	LOW	1
M0619-12B	SL	SW8260_LOW_S	NA	LOW	1
M0619-13B	SL	SW8260_LOW_S	NA	LOW	1
M0619-14B	SL	SW8260_LOW_S	NA	LOW	1
M0619-15B	SL	SW8260_LOW_S	NA	LOW	1
M0619-16B	SL	SW8260_LOW_S	NA	LOW	1
M0619-16BMS	SL	SW8260_LOW_S	NA	LOW	1
M0619-16BMSD	SL	SW8260_LOW_S	NA	LOW	1
M0619-17A	SL	SW8260_LOW_S	NA	LOW	1
SW8260_MED_S					
M0619-03C	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
M0619-06C	SL	SW8260_MED_S	SW5035_MED_PR	MED	10
M0619-08C	SL	SW8260_MED_S	SW5035_MED_PR	MED	10
M0619-09C	SL	SW8260_MED_S	SW5035_MED_PR	MED	1
M0619-17B	SL	SW8260_MED_S	SW5035_MED_PR	MED	1

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSSEMI

Project Name : Bay Ridge Holders, Former MGP -- 60137360.300 **SDG :** M0619

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
SW8270_S					
M0619-01A	SL	SW8270_S	3550B	NA	1
M0619-02A	SL	SW8270_S	3550B	NA	1
M0619-03A	SL	SW8270_S	3550B	NA	1
M0619-03ADL	SL	SW8270_S	3550B	NA	20
M0619-04A	SL	SW8270_S	3550B	NA	1
M0619-05A	SL	SW8270_S	3550B	NA	1
M0619-06A	SL	SW8270_S	3550B	NA	1
M0619-06ADL	SL	SW8270_S	3550B	NA	40
M0619-07A	SL	SW8270_S	3550B	NA	1
M0619-08A	SL	SW8270_S	3550B	NA	1
M0619-08ADL	SL	SW8270_S	3550B	NA	160
M0619-09A	SL	SW8270_S	3550B	NA	1
M0619-09ADL	SL	SW8270_S	3550B	NA	20
M0619-10A	SL	SW8270_S	3550B	NA	1
M0619-11A	SL	SW8270_S	3550B	NA	1
M0619-11ADL	SL	SW8270_S	3550B	NA	2
M0619-12A	SL	SW8270_S	3550B	NA	1
M0619-13A	SL	SW8270_S	3550B	NA	1
M0619-14A	SL	SW8270_S	3550B	NA	1
M0619-15A	SL	SW8270_S	3550B	NA	1
M0619-16A	SL	SW8270_S	3550B	NA	1
M0619-16AMS	SL	SW8270_S	3550B	NA	1
M0619-16AMSD	SL	SW8270_S	3550B	NA	1

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary ME

Project Name : Bay Ridge Holders, Former MGP -- 60137360.300 **SDG :** M0619

Laboratory Sample ID	Matrix	Metals Requested	Date Received By Lab	Date Analyzed
SW6010_S				
M0619-01A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-02A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-03A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-04A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-05A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-06A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-07A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-08A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-09A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-10A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-11A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-12A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-13A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-14A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-15A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-16A	SL	SW6010_S	4/29/2013	5/2/2013
M0619-16ADUP	SL	SW6010_S	4/29/2013	5/2/2013
M0619-16AMS	SL	SW6010_S	4/29/2013	5/2/2013
SW7471				
M0619-01A	SL	SW7471	4/29/2013	5/2/2013
M0619-02A	SL	SW7471	4/29/2013	5/2/2013
M0619-03A	SL	SW7471	4/29/2013	5/2/2013
M0619-04A	SL	SW7471	4/29/2013	5/2/2013
M0619-05A	SL	SW7471	4/29/2013	5/2/2013
M0619-06A	SL	SW7471	4/29/2013	5/2/2013
M0619-07A	SL	SW7471	4/29/2013	5/2/2013
M0619-08A	SL	SW7471	4/29/2013	5/2/2013
M0619-09A	SL	SW7471	4/29/2013	5/2/2013
M0619-10A	SL	SW7471	4/29/2013	5/2/2013
M0619-11A	SL	SW7471	4/29/2013	5/2/2013
M0619-12A	SL	SW7471	4/29/2013	5/2/2013
M0619-13A	SL	SW7471	4/29/2013	5/2/2013
M0619-14A	SL	SW7471	4/29/2013	5/2/2013
M0619-15A	SL	SW7471	4/29/2013	5/2/2013
M0619-16A	SL	SW7471	4/29/2013	5/2/2013
M0619-16ADUP	SL	SW7471	4/29/2013	5/2/2013
M0619-16AMS	SL	SW7471	4/29/2013	5/2/2013

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0619

Client ID: AECOM_NY
Project: Bay Ridge Holders, Former MGP
WO Name: Bay Ridge Holders, Former MGP
Location: AECOM_BAY-RIDGE, 60137360.300
Comments: Agawam EDD format is EQUIS AECOM FSM

Case:
SDG:
PO: 6021ACM

HC Due: 05/09/13
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0619-01A	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	PMoist	/					A1
M0619-01A	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-01A	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-01A	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-01B	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-01C	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-01D	SB-126 (0-2)	04/24/2013 12:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-02A	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	PMoist	/					A1
M0619-02A	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-02A	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-02A	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-02B	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-02C	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-02D	SB-126 (8-10)	04/25/2013 14:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-03A	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	PMoist	/					A1
M0619-03A	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-03A	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-03A	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-03B	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-03C	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	SW8260_MED_S	/ BTEX,				Y	VOA

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0619

Client ID: AECOM_NY
Project: Bay Ridge Holders, Former MGP
WO Name: Bay Ridge Holders, Former MGP
Location: AECOM_BAY-RIDGE, 60137360.300
Comments: Agawam EDD format is EQUIS AECOM FSM

Case:
SDG:
PO: 6021ACM

HC Due: 05/09/13
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0619-03D	SB-126 (10.5-12.5)	04/25/2013 14:15	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-04A	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	PMoist	/					A1
M0619-04A	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-04A	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-04A	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-04B	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-04C	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-04D	SB-127 (3-5)	04/24/2013 10:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-05A	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	PMoist	/					A1
M0619-05A	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-05A	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-05A	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-05B	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-05C	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-05D	SB-127 (8-10)	04/25/2013 11:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-06A	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	PMoist	/					A1
M0619-06A	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-06A	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-06A	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-06B	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0619

Client ID: AECOM_NY
Project: Bay Ridge Holders, Former MGP
WO Name: Bay Ridge Holders, Former MGP
Location: AECOM_BAY-RIDGE, 60137360.300
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Case:
SDG:
PO: 6021ACM

HC Due: 05/09/13
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0619-06C	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	SW8260_MED_S	/ BTEX,				Y	VOA
M0619-06D	SB-127 (10-12)	04/25/2013 11:15	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-07A	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	PMoist	/					A1
M0619-07A	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-07A	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-07A	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-07B	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-07C	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-07D	SB-128 (2-4)	04/24/2013 13:30	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-08A	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	PMoist	/					A1
M0619-08A	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-08A	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-08A	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-08B	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-08C	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	SW8260_MED_S	/ BTEX,				Y	VOA
M0619-08D	SB-128 (10-12)	04/25/2013 14:30	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-09A	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	PMoist	/					A1
M0619-09A	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-09A	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	SW7471	/ RCRA8					A1

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0619

Client ID: AECOM_NY
Project: Bay Ridge Holders, Former MGP
WO Name: Bay Ridge Holders, Former MGP
Location: AECOM_BAY-RIDGE, 60137360.300
Comments: Agawam EDD format is EQUIS AECOM FSM

Case:
SDG:
PO: 6021ACM

HC Due: 05/09/13
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0619-09A	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-09B	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-09C	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	SW8260_MED_S	/ BTEX,				Y	VOA
M0619-09D	SB-128 (18-20)	04/25/2013 14:45	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-10A	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	PMoist	/					A1
M0619-10A	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-10A	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-10A	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-10B	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-10C	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-10D	SB-129 (1-3)	04/24/2013 11:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-11A	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	PMoist	/					A1
M0619-11A	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-11A	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-11A	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-11B	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-11C	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-11D	SB-129 (8-10)	04/25/2013 12:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-12A	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	PMoist	/					A1

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0619

Client ID: AECOM_NY
Project: Bay Ridge Holders, Former MGP
WO Name: Bay Ridge Holders, Former MGP
Location: AECOM_BAY-RIDGE, 60137360.300
Comments: Agawam EDD format is EQUIS AECOM FSM

Case:
SDG:
PO: 6021ACM

HC Due: 05/09/13
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0619-12A	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-12A	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-12A	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-12B	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-12C	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-12D	SB-129 (18-20)	04/25/2013 12:15	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-13A	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	PMoist	/					A1
M0619-13A	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-13A	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-13A	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-13B	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-13C	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-13D	SB-130 (2-4)	04/24/2013 09:30	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-14A	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	PMoist	/					A1
M0619-14A	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-14A	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-14A	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-14B	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-14C	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

WorkOrder: M0619

Client ID: AECOM_NY
Project: Bay Ridge Holders, Former MGP
WO Name: Bay Ridge Holders, Former MGP
Location: AECOM_BAY-RIDGE, 60137360.300
Comments: Agawam EDD format is EQUIS AECOM FSM

Case:
SDG:
PO: 6021ACM

HC Due: 05/09/13
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M0619-14D	SB-130 (15-17)	04/25/2013 10:00	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-15A	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	PMoist	/					A1
M0619-15A	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	SW6010_S	/ RCRA8				Y	A1
M0619-15A	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	SW7471	/ RCRA8					A1
M0619-15A	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	SW8270_S	/ 8270_PAH,				Y	A1
M0619-15B	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-15C	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y		Y	VOA
M0619-15D	SB-130 (18-20)	04/25/2013 10:15	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam					SUB
M0619-16A	DUP1	04/24/2013 09:45	04/29/2013	Soil	PMoist	/			Y		A1
M0619-16A	DUP1	04/24/2013 09:45	04/29/2013	Soil	SW6010_S	/ RCRA8			Y	Y	A1
M0619-16A	DUP1	04/24/2013 09:45	04/29/2013	Soil	SW7471	/ RCRA8			Y		A1
M0619-16A	DUP1	04/24/2013 09:45	04/29/2013	Soil	SW8270_S	/ 8270_PAH,			Y	Y	A1
M0619-16B	DUP1	04/24/2013 09:45	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,			Y	Y	VOA
M0619-16C	DUP1	04/24/2013 09:45	04/29/2013	Soil	SW8260_MED_S	/ BTEX,		Y	Y	Y	VOA
M0619-16D	DUP1	04/24/2013 09:45	04/29/2013	Soil	SW9012_S	/ SPECTRUM--Free Cyanide, sub to Agawam			Y		SUB
M0619-17A	TB	04/24/2013 00:00	04/29/2013	Soil	SW8260_LOW_S	/ BTEX,				Y	VOA
M0619-17B	TB	04/24/2013 00:00	04/29/2013	Soil	SW8260_MED_S	/ BTEX,				Y	VOA

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Sample Transmittal Documentation

M0619

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Page 1 of 2

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive, Agawam, MA 01001, (413) 789-9018
☐ 8405 Benjamin Road, Ste A, Tampa, FL 33634, (813) 888-9507
☐ 646 Camp Avenue, N Kingstown, RI 02852, (401) 732-3400

Special Handling:

TAT- Ind icate Date Needed: 10 Day
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: AECOM
20 Exchange Place 13th Floor
New York NY

Telephone #: 860-617-6377 (Sara Cell)
Project Mgr. Nelson Abrams

Invoice To:

P.O. No.: ~~60137360~~ RQN:

Project No.: 60137360
Site Name: Bay Ridge Former Station Holder 2
Location: 65th St btw 8th & 9th Ave State: NY
Sampler(s): Sara Meissner

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11= 12=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: BTEX 8260	PAH 8270	RCRA Metals	Free Cyanide (9012 / D4282-02)	List preservative code below:	QA/QC Reporting Notes:
M0619-01	SB-126 (0-2')	4/24/13	1200	G	SO	3	3			X	X	X	X		~~X~~ Note: Lab choose sample w most soil for MS/MSD
02	SB-126 (8-10')	4/25/13	1400	G	SO	3	3			X	X	X	X		
03	SB-126 (10.5-12.5')	4/25/13	1415	G	SO	3	3			X	X	X	X		
04	SB-127 (3-5')	4/24/13	1000	G	SO	3	3			X	X	X	X		
05	SB-127 (8-10')	4/25/13	1100	G	SO	3	3			X	X	X	X		
06	SB-127 (10-12')	4/25/13	1115	G	SO	3	3			X	X	X	X		
07	SB-128 (2-4')	4/24/13	1330	G	SO	3	3			X	X	X	X		
08	SB-128 (10-12')	4/25/13	1430	G	SO	3	3			X	X	X	X		
09	SB-128 (18-20')	4/25/13	1445	G	SO	3	3			X	X	X	X		
10	SB-129 (1-3')	4/24/13	1100	G	SO	3	3			X	X	X	X		

QA/QC Reporting Level
☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☒ Other NYSDEC

State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp°C
		4-25-13	1600	
4/25/13 1530 DS	Sub Arise	4/25/13	9:45	
Sub Arise		4/26/13	0840	

☐ EDD Format EQuIS
☒ E-mail to sara.meissner@aecom.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

1.1°C 2.1°C 1.2°C 2.8

4/29/13 8:40 9:45 4/26/13 4/25/13 12:15

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M0619

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Page 2 of 2

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive, Agawam, MA 01001, (413) 789-9018
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Special Handling:
TAT- Indicate Date Needed: 10 Day
· All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
· Samples disposed of after 60 days unless otherwise instructed.

Report To: AECOM
20 Exchange Place 13th Floor
New York, NY
Telephone #: 860-617-6377 (Sara Cell)
Project Mgr. Nelson Abrams

Invoice To: SAME

P.O. No.: ——— RQN: ———

Project No.: 60137360
Site Name: Bay Ridge former Station Holder 2
Location: 65th St blw 8th & 9th Ave State: NY
Sampler(s): Sara Meissner

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11=_____ 12=_____

List preservative code below:

QA/QC Reporting Notes:

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: BTEX (8260)	PAH (8270)	RCRA Metals	Free Cyanide (9012B)	D4282-02			
M0619-11	SB-129 (8-10)	4/25/13	1200	G	SO	3	3			X	X	X	X				
-12	SB-129 (18-20)	4/25/13	1215	G	SO	3	3			X	X	X	X				
-13	SB-130 (2-4)	4/24/13	0930	G	SO	3	3			X	X	X	X				
-14	SB-130 (15-17)	4/25/13	1000	G	SO	3	3			X	X	X	X				
-15	SB-130 (18-20)	4/25/13	1015	G	SO	3	3			X	X	X	X				
-16	DUP 1	4/24/13	0945	G	SO	3	3			X	X	X	X				

QA/QC Reporting Level
☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☒ Other NYSDEC

State-specific reporting standards:

* Note: Lab chooses sample w most soil for MS/MSD

Relinquished by:	Received by:	Date:	Time:	Temp°C
DS 4/25/13	[illegible] 4/26/13	4-25-13	1600	
DS 4/25/13 1530	SUBFIGE	4/25/13	9PM	
SUBFIGE	[illegible]	4/26/13	0840	

☒ EDD Format EQUIS
☒ E-mail to sara.meissner@aecom.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☒ DI VOA Frozen ☐ Soil Jar Frozen

1.1°C 2.1°C 4.2°C 2.8°C

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Agnes Huntley 9AM 4/26/13

Revised Feb 2013 4/29/13

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Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

Received By: AMA	Page 01 of 00
Reviewed By: mm	Log-in Date 04/29/2013
Work Order: M0619	Client Name: AECOM Technical Services, Inc.
Project Name/Event: Bay Ridge Holders, Former MGP / 60137360.300	

Remarks: (1/2) Please see associated sample/extract transfer logbook pages submitted with this data package.

1. Custody Seal(s) — Present / Absent
   Intact / Broken
2. Custody Seal Nos. N/A
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists — Present / Absent
4. Airbill — AirBill / Sticker
   Present / Absent
5. Airbill No. Courier N/A
6. Sample Tags — Present / Absent
   Sample Tag Numbers — Listed / Not Listed on Chain-of-Custody
7. Sample Condition — Intact / Broken/ Leaking
8. Cooler Temperature Indicator Bottle — Present / Absent

9. Cooler Temperature	2.1 °C, 4.2°C
10. Does information on TR/COCs and sample tags agree?	Yes / No
11. Date Received at Laboratory	04/29/2013
12. Time Received	12:15

Sample Transfer

Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO
Area #	Area #
By	By
On	On

IR Temp Gun ID:MT-1

CoolantCondition:

Preservative Name/Lot No:

Lab Sample ID	Preservation (pH) HNO3	H2SO4	HCl	NaOH	H3PO4	VOA Matrix	Soil HeadSpace or Air Bubble > or equal to 1/4"
M0619-01						F/M	
M0619-02						F/M	
M0619-03						F/M	
M0619-04						F/M	
M0619-05						F/M	
M0619-06						F/M	
M0619-07						F/M	
M0619-08						F/M	
M0619-09						F/M	
M0619-10						F/M	
M0619-11						F/M	
M0619-12						F/M	
M0619-13						F/M	
M0619-14						F/M	
M0619-15						F/M	
M0619-16						F/M	
M0619-17						F/M	

VOA Matrix Key:

US = Unpreserved Soil — A= Air
UA = Unpreserved Aqueous — H = HCl
M = MeOH — E = Encore
N = NaHSO4 — F = Freeze

See Sample Condition Notification/Corrective Action Form Yes / No

Rad OK Yes / No

Spectrum Analytical, Inc. RI Division Sample Condition Notification

Project#: M0619 **Date of Receipt:** 4/29/13
Client: AECOM **Received By:** ALA
Client project #/name: Bay Bridge

Unusual Occurance Description:

Received 3 vials w/ H_2O and 3 vials w/ MeOH labeled as TB, however not listed on COC

Client Contacted:

Contacted via: Phone/Fax/E-mail
Date: 4/30/13 **Time:**
Contacted By: Agnes
Name of person contacted: Sara, Nelson

Client Response:

Responded via: Phone/Fax/E-mail
Date: 4/30/13
Name of person responding: Sara
Responding to: Agnes

Analyze TB - see email

Action Taken: TB logged in for analysis

Agnes Huntley [Warwick]

From: Meissner, Sara [Sara.Meissner@aecom.com]
Sent: Tuesday, April 30, 2013 4:18 PM
To: Agnes Huntley [RI]
Cc: Abrams, Nelson
Subject: Re: Bay Ridge

Yes please proceed.

Thank you,

Sara

Sent from my iPhone

On Apr 30, 2013, at 4:05 PM, "Agnes Huntley [RI]" <ang@spectrum-analytical.com> wrote:

> Good afternoon Sara,
>
> We received the soil samples collected at Bay Ridge on 4/24 and 4/25. There was a soil TB (DI water and methanol), however, this was not listed on the COC. Please confirm whether the laboratory shall proceed with the analysis of the TB.
>
> Thank you,
> Agnes
>
> ***Agnes (Ng) Huntley***
> CLP Project Manager
> Spectrum Analytical, featuring Hanibal Technology
> Rhode Island Division
> Formerly Mitkem Laboratories
> (P) 401-732-3400
> (F) 401-732-3499
> **********
> Due to rising cost of rush shipments, Spectrum Analytical requests that you allow sufficient time for all sample bottle order requests, 3 days notice at a minimum. If you need an expedited bottle order request Spectrum Analytical will provide the bottles but will request that you pay for the shipping. Spectrum Analytical will continue to pay for all shipping previously agreed to, given proper notification. Thank you for your understanding and cooperation
>
>

* Volatiles *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM

Project: Bay Ridge Holders, Former MGP

Laboratory Workorder / SDG #: M0619

SW846 8260C, VOC by GC-MS

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 8260C

IV. PREPARATION

Low Soil Samples were prepared following procedures in laboratory test code: SW5030B

Medium Soil Samples were prepared following procedures in laboratory test code: SW5035A

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: V1
Instrument Type: GCMS-VOA
Description: HP5890 II / HP5972
Manufacturer: Hewlett-Packard
Model: 5890 / 5972
GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

Instrument Code: V10
Instrument Type: GCMS-VOA
Description: HP7890A
Manufacturer: Agilent
Model: 7890A / 5975C
GC Column used: 30 m X 0.25 mm ID [1.40 um thickness] DB-624 capillary column.

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits with the following exceptions. Please note that the acceptance criteria allow one surrogate recovery outside of the QC limits per fraction.

SB-129 (8-10) (M0619-11B), recovery is above criteria for Bromofluorobenzene at 162% with criteria of (85-120).

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

Replicate RPDs were within the advisory QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Matrix spikes were performed on samples: DUP1 (M0619-16BMS) and DUP1 (M0619-16BMSD).

Percent recoveries were within the QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits with the following exceptions:

SB-128 (10-12) (M0619-08B), Peak area is outside QC Limits for 1,4-Dichlorobenzene-d4. All IS were within criteria in the medium soil analysis for this sample SB-128 (10-12) (M0619-08C).

F. Dilutions:

The following medium level samples were analyzed at dilution:

SB-127 (10-12) (M0619-06C) : Dilution Factor: 10
SB-128 (10-12) (M0619-08C) : Dilution Factor: 10

G. Samples:

The following samples were reported from both low and medium soil analyses:

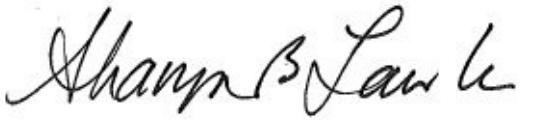
SB-126 (10.5-12.5)
SB-127 (10-12)
SB-128 (10-12)
SB-128 (18-20)
TB

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

No manual integrations were performed on any sample or standard.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed: 

Date: 05/09/13

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.

Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-71443	101	109	98	101				0
02	LCSD-71443	103	98	99	102				0
03	MB-71443	102	99	96	98				0
04	TB	101	96	99	99				0
05	SB-126 (0-2)	105	101	99	99				0
06	SB-126 (8-10)	105	105	96	101				0
07	SB-126 (10.5-12.5)	104	103	99	100				0
08	SB-127 (3-5)	109	108	98	102				0
09	SB-127 (8-10)	104	108	96	102				0
10	SB-127 (10-12)	105	104	98	106				0
11	SB-128 (10-12)	107	103	105	113				0
12	SB-128 (18-20)	104	107	95	115				0
13	SB-129 (8-10)	107	107	97	162 *				1
14	SB-129 (18-20)	105	106	99	104				0
15	SB-130 (2-4)	104	102	99	103				0
16	SB-130 (15-17)	105	104	104	103				0
17	SB-130 (18-20)	103	103	97	102				0
18	DUP1	103	102	97	102				0
19	LCS-71460	101	104	99	99				0
20	MB-71460	99	101	97	102				0
21	SB-128 (2-4)	101	100	97	101				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(76-128)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(88-110)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(85-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som13.05.07.A

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
22	SB-129 (1-3)	105	104	99	104				0
23	DUP1MS	103	101	99	104				0
24	DUP1MSD	105	102	97	105				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(76-128)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(88-110)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(85-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som13.05.07.A

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) MED

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	LCS-71469	109	101	96	105				0
02	MB-71469	110	102	98	101				0
03	TBME	109	102	97	106				0
04	SB-126 (10.5-12.5)ME	108	100	95	112				0
05	SB-128 (18-20)ME	103	102	96	109				0
06	SB-127 (10-12)ME	104	102	97	105				0
07	SB-128 (10-12)ME	104	104	98	104				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(76-128)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(88-110)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(85-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som13.05.07.A

3B - FORM III VOA-2

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix Spike - EPA Sample No.: DUP1 Level: (LOW/MED) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS %REC	#	QC. LIMITS REC.
Benzene	52.4567	0.0000	47.5809	91		75-125
Toluene	52.4567	0.0000	46.4574	89		70-125
Ethylbenzene	52.4567	0.0000	48.1003	92		75-125
m,p-Xylene	104.9134	0.0000	91.3620	87		80-125
o-Xylene	52.4567	0.0000	47.0180	90		75-125
Xylene (Total)	157.3701	0.0000	138.3800	88		83-125

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Benzene	51.5029	47.9466	93		3		0-40	75-125
Toluene	51.5029	46.4264	90		2		0-40	70-125
Ethylbenzene	51.5029	43.8852	85		7		0-40	75-125
m,p-Xylene	103.0059	89.7540	87		0		0-40	80-125
o-Xylene	51.5029	46.2200	90		0		0-40	75-125
Xylene (Total)	154.5088	135.9741	88		0		0-40	83-125

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 0 out of 12 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-71443

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab Sample ID: LCS-71443 LCS Lot No.:

Date Extracted: 05/01/2013 Date Analyzed (1): 05/01/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Benzene	50.0000	0.0000	51.4701	103		75 - 125
Toluene	50.0000	0.0000	50.5982	101		70 - 125
Ethylbenzene	50.0000	0.0000	51.5522	103		75 - 125
m,p-Xylene	100.0000	0.0000	103.6821	104		80 - 125
o-Xylene	50.0000	0.0000	53.2709	107		75 - 125
Xylene (Total)	150.0000	0.0000	156.9530	105		83 - 125

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

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-71460

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab Sample ID: LCS-71460 LCS Lot No.:

Date Extracted: 05/02/2013 Date Analyzed (1): 05/02/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Benzene	50.0000	0.0000	50.7812	102		75 - 125
Toluene	50.0000	0.0000	49.7769	100		70 - 125
Ethylbenzene	50.0000	0.0000	49.2891	99		75 - 125
m,p-Xylene	100.0000	0.0000	98.9540	99		80 - 125
o-Xylene	50.0000	0.0000	49.6949	99		75 - 125
Xylene (Total)	150.0000	0.0000	148.6489	99		83 - 125

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

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-71469

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab Sample ID: LCS-71469 LCS Lot No.:

Date Extracted: 05/02/2013 Date Analyzed (1): 05/02/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Benzene	2500.0000	0.0000	2588.3844	104		75 - 125
Toluene	2500.0000	0.0000	2245.8160	90		70 - 125
Ethylbenzene	2500.0000	0.0000	2416.4622	97		75 - 125
m,p-Xylene	5000.0000	0.0000	4708.7344	94		80 - 125
o-Xylene	2500.0000	0.0000	2392.3758	96		75 - 125
Xylene (Total)	7500.0000	0.0000	7101.1102	95		75 - 125

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

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.
LCSD-71443

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab Sample ID: LCSD-71443 LCS Lot No.:

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Benzene	50.0000	50.4443	101		2		40	75 - 125
Toluene	50.0000	49.7080	99		2		40	70 - 125
Ethylbenzene	50.0000	50.2085	100		3		40	75 - 125
m,p-Xylene	100.0000	101.2704	101		3		40	80 - 125
o-Xylene	50.0000	51.3179	103		4		40	75 - 125
Xylene (Total)	150.0000	152.5883	102		3		40	83 - 125

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 0 out of 6 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
MB-71443

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V1M1655.D Lab Sample ID: MB-71443

Instrument ID: V1

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/01/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:37

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-71443	LCS-71443	V1M1652.D	9:14
02	LCSD-71443	LCSD-71443	V1M1653.D	9:40
03	TB	M0619-17A	V1M1657.D	11:29
04	SB-126 (0-2)	M0619-01B	V1M1658.D	11:55
05	SB-126 (8-10)	M0619-02B	V1M1659.D	12:20
06	SB-126 (10.5-12.5)	M0619-03B	V1M1660.D	12:45
07	SB-127 (3-5)	M0619-04B	V1M1661.D	13:10
08	SB-127 (8-10)	M0619-05B	V1M1662.D	13:35
09	SB-127 (10-12)	M0619-06B	V1M1663.D	14:01
10	SB-128 (10-12)	M0619-08B	V1M1665.D	14:52
11	SB-128 (18-20)	M0619-09B	V1M1666.D	15:17
12	SB-129 (8-10)	M0619-11B	V1M1668.D	16:07
13	SB-129 (18-20)	M0619-12B	V1M1669.D	16:33
14	SB-130 (2-4)	M0619-13B	V1M1670.D	16:58
15	SB-130 (15-17)	M0619-14B	V1M1671.D	17:24
16	SB-130 (18-20)	M0619-15B	V1M1672.D	17:49
17	DUP1	M0619-16B	V1M1673.D	18:15

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
MB-71460

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V1M1684.D Lab Sample ID: MB-71460

Instrument ID: V1

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/02/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:11

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-71460	LCS-71460	V1M1682.D	9:06
02	SB-128 (2-4)	M0619-07B	V1M1685.D	10:37
03	SB-129 (1-3)	M0619-10B	V1M1686.D	11:02
04	DUP1MS	M0619-16BMS	V1M1687.D	11:27
05	DUP1MSD	M0619-16BMSD	V1M1688.D	11:52

COMMENTS:

som13.05.07.A

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
MB-71469

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V8B9536.D Lab Sample ID: MB-71469

Instrument ID: V10

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/02/2013

Level: (TRACE or LOW/MED) MED Time Analyzed: 10:56

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS-71469	LCS-71469	V8B9533.D	9:32
02	TBME	M0619-17B	V8B9538.D	11:52
03	SB-126 (10.5-12.5)ME	M0619-03C	V8B9539.D	12:19
04	SB-128 (18-20)ME	M0619-09C	V8B9540.D	12:47
05	SB-127 (10-12)ME	M0619-06C	V8B9541.D	13:15
06	SB-128 (10-12)ME	M0619-08C	V8B9542.D	13:43

COMMENTS:

5A - FORM V VOA

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1O

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V1M1544.D BFB Injection Date: 04/17/2013

Instrument ID: V1 BFB Injection Time: 9:05

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.9
75	30.0 - 60.0% of mass 95	37.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.1 (0.1)1
174	Greater than 50.0% of mass 95	73.2
175	5.0 - 9.0% of mass 174	5.7 (7.9)1
176	95.0 - 101.0% of mass 174	72.7 (99.4)1
177	5.0 - 9.0% of mass 176	4.7 (6.5)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501O	VSTD0501O	V1M1546.D	04/17/2013	10:29
02	VSTD0201O	VSTD0201O	V1M1547.D	04/17/2013	10:54
03	VSTD2001O	VSTD2001O	V1M1549.D	04/17/2013	12:20
04	VSTD1001O	VSTD1001O	V1M1550.D	04/17/2013	12:45
05	VSTD0051O	VSTD0051O	V1M1554.D	04/17/2013	14:50

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB1T

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V1M1650.D BFB Injection Date: 05/01/2013

Instrument ID: V1 BFB Injection Time: 8:18

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	40.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	95.0 - 101.0% of mass 174	70.5 (95.6)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501T	VSTD0501T	V1M1651.D	05/01/2013	8:35
02	LCS-71443	LCS-71443	V1M1652.D	05/01/2013	9:14
03	LCSD-71443	LCSD-71443	V1M1653.D	05/01/2013	9:40
04	MB-71443	MB-71443	V1M1655.D	05/01/2013	10:37
05	TB	M0619-17A	V1M1657.D	05/01/2013	11:29
06	SB-126 (0-2)	M0619-01B	V1M1658.D	05/01/2013	11:55
07	SB-126 (8-10)	M0619-02B	V1M1659.D	05/01/2013	12:20
08	SB-126 (10.5-12.5)	M0619-03B	V1M1660.D	05/01/2013	12:45
09	SB-127 (3-5)	M0619-04B	V1M1661.D	05/01/2013	13:10
10	SB-127 (8-10)	M0619-05B	V1M1662.D	05/01/2013	13:35
11	SB-127 (10-12)	M0619-06B	V1M1663.D	05/01/2013	14:01
12	SB-128 (10-12)	M0619-08B	V1M1665.D	05/01/2013	14:52
13	SB-128 (18-20)	M0619-09B	V1M1666.D	05/01/2013	15:17
14	SB-129 (8-10)	M0619-11B	V1M1668.D	05/01/2013	16:07
15	SB-129 (18-20)	M0619-12B	V1M1669.D	05/01/2013	16:33
16	SB-130 (2-4)	M0619-13B	V1M1670.D	05/01/2013	16:58

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB1T

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V1M1650.D BFB Injection Date: 05/01/2013

Instrument ID: V1 BFB Injection Time: 8:18

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	40.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.4 (7.3)1
176	95.0 - 101.0% of mass 174	70.5 (95.6)1
177	5.0 - 9.0% of mass 176	4.6 (6.6)2

1 - Value is % mass 174 2 - Value is % mass 176

17	SB-130 (15-17)	M0619-14B	V1M1671.D	05/01/2013	17:24
18	SB-130 (18-20)	M0619-15B	V1M1672.D	05/01/2013	17:49
19	DUP1	M0619-16B	V1M1673.D	05/01/2013	18:15

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB1U

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V1M1680.D BFB Injection Date: 05/02/2013

Instrument ID: V1 BFB Injection Time: 7:52

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.5
75	30.0 - 60.0% of mass 95	41.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	70.1
175	5.0 - 9.0% of mass 174	5.1 (7.3)1
176	95.0 - 101.0% of mass 174	68.7 (98.1)1
177	5.0 - 9.0% of mass 176	4.5 (6.5)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501U	VSTD0501U	V1M1681.D	05/02/2013	8:09
02	LCS-71460	LCS-71460	V1M1682.D	05/02/2013	9:06
03	MB-71460	MB-71460	V1M1684.D	05/02/2013	10:11
04	SB-128 (2-4)	M0619-07B	V1M1685.D	05/02/2013	10:37
05	SB-129 (1-3)	M0619-10B	V1M1686.D	05/02/2013	11:02
06	DUP1MS	M0619-16BMS	V1M1687.D	05/02/2013	11:27
07	DUP1MSD	M0619-16BMSD	V1M1688.D	05/02/2013	11:52

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB10K

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V8B9274.D BFB Injection Date: 04/17/2013

Instrument ID: V10 BFB Injection Time: 11:11

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.0
75	30.0 - 80.0% of mass 95	48.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 -120% of mass 95	82.8
175	5.0 - 9.0% of mass 174	5.6 (6.8)1
176	95.0 - 101% of mass 174	80.1 (96.8)1
177	5.0 - 9.0% of mass 176	5.1 (6.4)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD05010K	VSTD05010K	V8B9275.D	04/17/2013	12:22
02	VSTD02010K	VSTD02010K	V8B9276.D	04/17/2013	12:49
03	VSTD00510K	VSTD00510K	V8B9277.D	04/17/2013	13:17
04	VSTD00110K	VSTD00110K	V8B9279.D	04/17/2013	14:12
05	VSTD20010K	VSTD20010K	V8B9280.D	04/17/2013	14:39
06	VSTD10010K	VSTD10010K	V8B9281.D	04/17/2013	15:07

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB10S

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: V8B9530.D BFB Injection Date: 05/02/2013

Instrument ID: V10 BFB Injection Time: 7:50

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.1
75	30.0 - 80.0% of mass 95	51.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	50.0 -120% of mass 95	79.5
175	5.0 - 9.0% of mass 174	5.6 (7.1)1
176	95.0 - 101% of mass 174	77.9 (98.1)1
177	5.0 - 9.0% of mass 176	4.9 (6.3)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD05010S	VSTD05010S	V8B9531.D	05/02/2013	8:08
02	LCS-71469	LCS-71469	V8B9533.D	05/02/2013	9:32
03	MB-71469	MB-71469	V8B9536.D	05/02/2013	10:56
04	TBME	M0619-17B	V8B9538.D	05/02/2013	11:52
05	SB-126 (10.5-12.5)ME	M0619-03C	V8B9539.D	05/02/2013	12:19
06	SB-128 (18-20)ME	M0619-09C	V8B9540.D	05/02/2013	12:47
07	SB-127 (10-12)ME	M0619-06C	V8B9541.D	05/02/2013	13:15
08	SB-128 (10-12)ME	M0619-08C	V8B9542.D	05/02/2013	13:43

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####): VSTD0501T Date Analyzed: 05/01/2013

Lab File ID (Standard): V1M1651.D Time Analyzed: 8:35

Instrument ID: V1 Heated Purge: (Y/N) Y

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	430046		4.586		307276		7.471		137170		10.032	
	UPPER LIMIT	860092		5.086		614552		7.971		274340		10.532	
	LOWER LIMIT	215023		4.086		153638		6.971		68585		9.532	
	EPA SAMPLE NO.												
01	LCS-71443	427681		4.589		297502		7.485		130761		10.036	
02	LCSD-71443	432775		4.591		304292		7.477		137585		10.028	
03	MB-71443	402454		4.595		291405		7.472		127230		10.032	
04	TB	357894		4.586		249627		7.482		107379		10.033	
05	SB-126 (0-2)	404731		4.593		273323		7.479		111956		10.030	
06	SB-126 (8-10)	396148		4.591		282603		7.477		121890		10.028	
07	SB-126 (10.5-12.5)	382452		4.581		271026		7.467		110858		10.028	
08	SB-127 (3-5)	400184		4.575		283233		7.471		124339		10.032	
09	SB-127 (8-10)	398941		4.591		282538		7.467		120899		10.028	
10	SB-127 (10-12)	410128		4.585		294380		7.481		121316		10.042	
11	SB-128 (10-12)	418234		4.588		273286		7.484		56735	*	10.055	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####): VSTD0501T Date Analyzed: 05/01/2013

Lab File ID (Standard): V1M1651.D Time Analyzed: 8:35

Instrument ID: V1 Heated Purge: (Y/N) Y

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	430046		4.586		307276		7.471		137170		10.032	
	UPPER LIMIT	860092		5.086		614552		7.971		274340		10.532	
	LOWER LIMIT	215023		4.086		153638		6.971		68585		9.532	
	EPA SAMPLE NO.												
12	SB-128 (18-20)	406232		4.581		298232		7.467		138437		10.048	
13	SB-129 (8-10)	400690		4.587		279779		7.463		126835		10.033	
14	SB-129 (18-20)	410298		4.579		286535		7.474		129915		10.025	
15	SB-130 (2-4)	396468		4.582		276060		7.478		120015		10.029	
16	SB-130 (15-17)	381848		4.587		257909		7.483		106698		10.034	
17	SB-130 (18-20)	412657		4.581		290076		7.467		126779		10.028	
18	DUP1	409537		4.596		287350		7.472		122648		10.033	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####): VSTD0501U Date Analyzed: 05/02/2013

Lab File ID (Standard): V1M1681.D Time Analyzed: 8:09

Instrument ID: V1 Heated Purge: (Y/N) Y

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	407958		4.582		280419		7.468		126057		10.029	
	UPPER LIMIT	815916		5.082		560838		7.968		252114		10.529	
	LOWER LIMIT	203979		4.082		140210		6.968		63029		9.529	
	EPA SAMPLE NO.												
01	LCS-71460	399875		4.586		282359		7.472		120305		10.033	
02	MB-71460	386892		4.596		270430		7.482		116136		10.033	
03	SB-128 (2-4)	367370		4.595		259252		7.471		109366		10.022	
04	SB-129 (1-3)	377909		4.586		268944		7.482		115885		10.033	
05	DUP1MS	378804		4.591		264936		7.468		118104		10.028	
06	DUP1MSD	420247		4.592		296611		7.477		128417		10.029	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####): VSTD05010S Date Analyzed: 05/02/2013

Lab File ID (Standard): V8B9531.D Time Analyzed: 8:08

Instrument ID: V10 Heated Purge: (Y/N) N

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	1686050		5.307		1348990		8.291		699211		10.782	
	UPPER LIMIT	3372100		5.807		2697980		8.791		1398422		11.282	
	LOWER LIMIT	843025		4.807		674495		7.791		349606		10.282	
	EPA SAMPLE NO.												
01	LCS-71469	1781649		5.304		1419794		8.291		720878		10.783	
02	MB-71469	1801702		5.307		1359792		8.294		617938		10.786	
03	TBME	1652726		5.304		1281828		8.294		625886		10.786	
04	SB-126 (10.5-12.5)ME	1647383		5.304		1286209		8.294		712182		10.786	
05	SB-128 (18-20)ME	1972938		5.304		1523376		8.294		821347		10.786	
06	SB-127 (10-12)ME	2251220		5.307		1744036		8.294		866995		10.786	
07	SB-128 (10-12)ME	2377315		5.307		1845960		8.294		911251		10.783	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (0-2)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-01B

Sample wt/vol: 11.2 (g/mL) G Lab File ID: V1M1658.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 17 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.7	U
108-88-3	Toluene	2.7	U
100-41-4	Ethylbenzene	2.7	U
179601-23-1	m,p-Xylene	2.7	U
95-47-6	o-Xylene	2.7	U
1330-20-7	Xylene (Total)	2.7	U

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1658.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1658.D
Lab Smp Id: M0619-01B Client Smp ID: SB-126 (0-2)
Inj Date : 01-MAY-2013 11:55
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-01B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 59
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	11.200	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

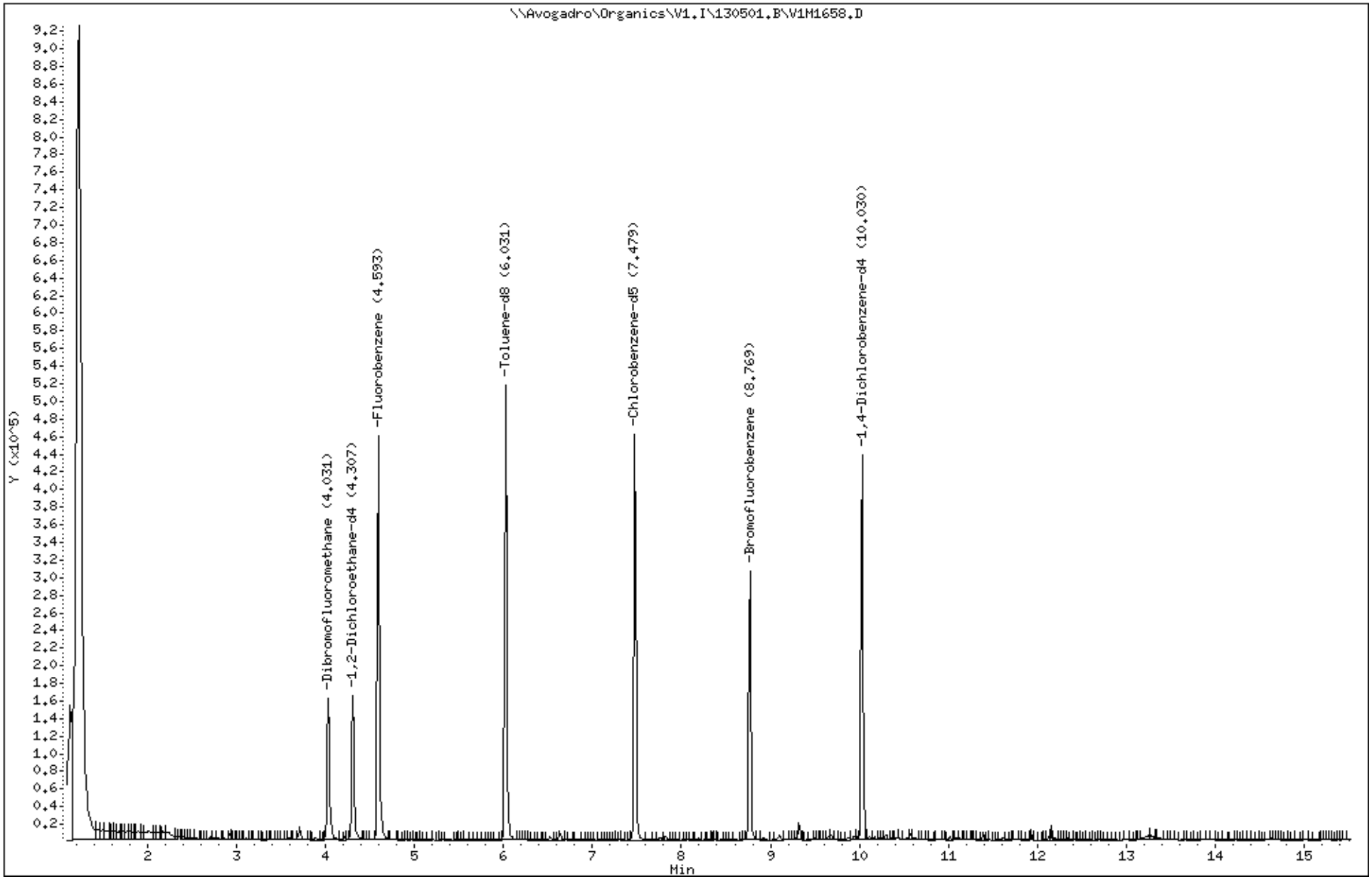
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.031	4.029	(0.878)	100913	52.4656	23
$ 37 1,2-Dichloroethane-d4	102	4.307	4.305	(0.938)	29568	50.3735	22
* 41 Fluorobenzene	96	4.592	4.590	(1.000)	404731	50.0000	
$ 51 Toluene-d8	98	6.030	6.019	(0.806)	347049	49.7053	22
* 60 Chlorobenzene-d5	117	7.478	7.476	(1.000)	273323	50.0000	
$ 70 Bromofluorobenzene	95	8.768	8.757	(1.173)	121999	49.6371	22
* 84 1,4-Dichlorobenzene-d4	152	10.029	10.027	(1.000)	111956	50.0000	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1658.D
Date : 01-MAY-2013 11:55
Client ID: SB-126 (0-2)
Sample Info: 5ML,M0619-01B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-02B

Sample wt/vol: 9.00 (g/mL) G Lab File ID: V1M1659.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	3.2	U
108-88-3	Toluene	3.2	U
100-41-4	Ethylbenzene	3.2	U
179601-23-1	m,p-Xylene	3.2	U
95-47-6	o-Xylene	3.2	U
1330-20-7	Xylene (Total)	3.2	U

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1659.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1659.D
Lab Smp Id: M0619-02B Client Smp ID: SB-126 (8-10)
Inj Date : 01-MAY-2013 12:20
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-02B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 60
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

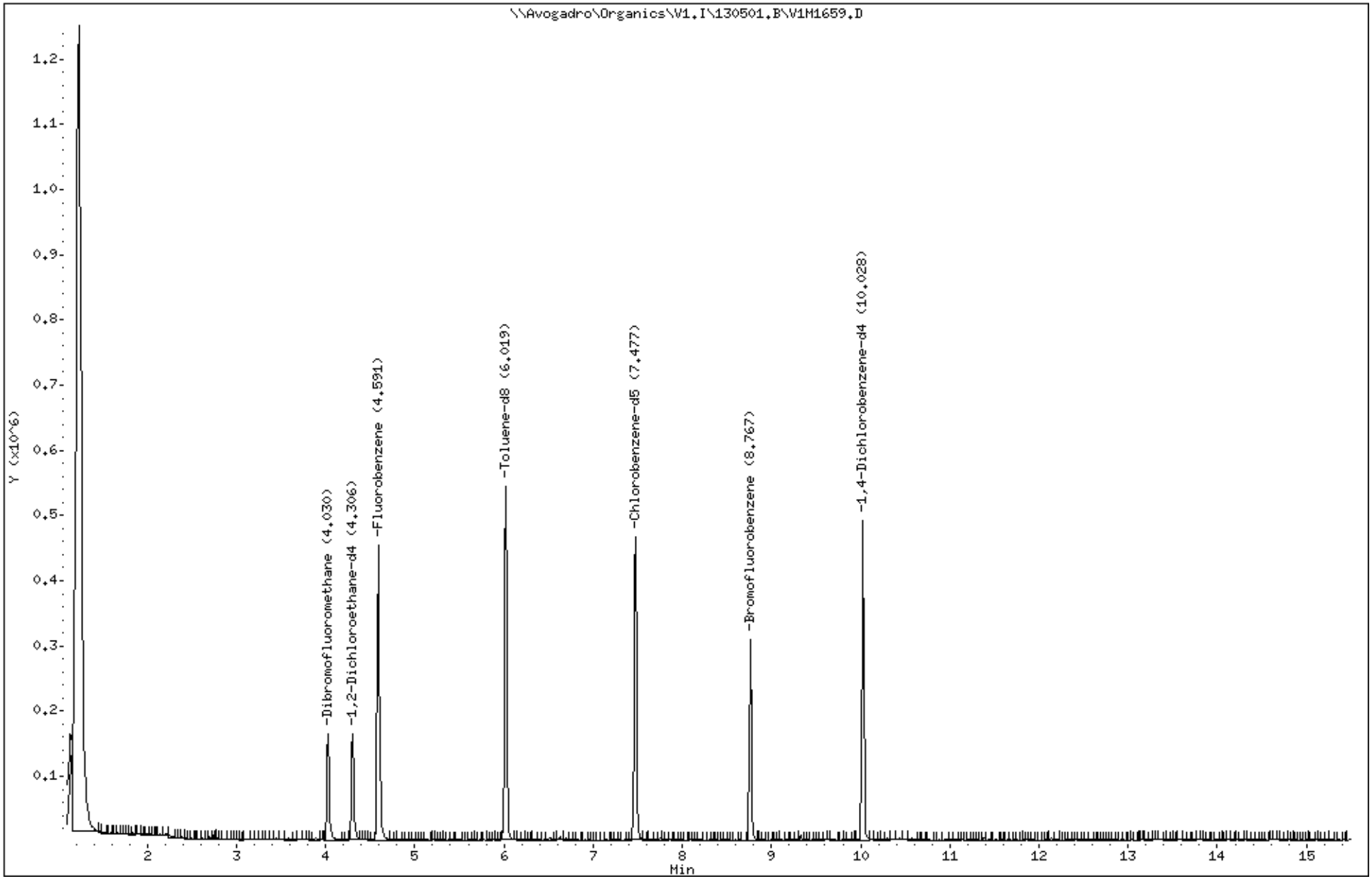
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.029	4.029	(0.878)	99023	52.5984	29
$ 37 1,2-Dichloroethane-d4	102	4.305	4.305	(0.938)	30170	52.5127	29
* 41 Fluorobenzene	96	4.591	4.590	(1.000)	396148	50.0000	
$ 51 Toluene-d8	98	6.019	6.019	(0.805)	347236	48.0990	27
* 60 Chlorobenzene-d5	117	7.477	7.476	(1.000)	282603	50.0000	
$ 70 Bromofluorobenzene	95	8.767	8.757	(1.173)	128457	50.5483	28
* 84 1,4-Dichlorobenzene-d4	152	10.028	10.027	(1.000)	121890	50.0000	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1659.D
Date : 01-MAY-2013 12:20
Client ID: SB-126 (8-10)
Sample Info: 5ML,M0619-02B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126
(10.5-12.5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03B

Sample wt/vol: 10.0 (g/mL) G Lab File ID: V1M1660.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	440	E
108-88-3	Toluene	5.9	
100-41-4	Ethylbenzene	20	
179601-23-1	m,p-Xylene	17	
95-47-6	o-Xylene	6.0	
1330-20-7	Xylene (Total)	23	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1660.D
Lab Smp Id: M0619-03B Client Smp ID: SB-126 (10.5-12.5)
Inj Date : 01-MAY-2013 12:45
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-03B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 61
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	10.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.019	4.029	(0.877)	94937	52.2339	26
$	37 1,2-Dichloroethane-d4	102	4.295	4.305	(0.938)	28624	51.6060	26
	38 Benzene	78	4.354	4.364	(0.951)	5594948	683.873	340(A)
*	41 Fluorobenzene	96	4.581	4.590	(1.000)	382452	50.0000	
$	51 Toluene-d8	98	6.009	6.019	(0.805)	343732	49.6474	25
	52 Toluene	91	6.078	6.078	(1.327)	68768	9.22535	5
*	60 Chlorobenzene-d5	117	7.466	7.476	(1.000)	271026	50.0000	
	64 Ethylbenzene	106	7.634	7.634	(1.022)	80066	30.6665	15
	65 m,p-Xylene	106	7.762	7.762	(1.040)	90846	27.0596	14
	66 o-Xylene	106	8.185	8.185	(1.096)	29949	9.34864	5
$	70 Bromofluorobenzene	95	8.767	8.757	(1.174)	121656	49.9170	25
M	81 Xylene (Total)	106				120795	36.4082	18
*	84 1,4-Dichlorobenzene-d4	152	10.027	10.027	(1.000)	110858	50.0000	

QC Flag Legend

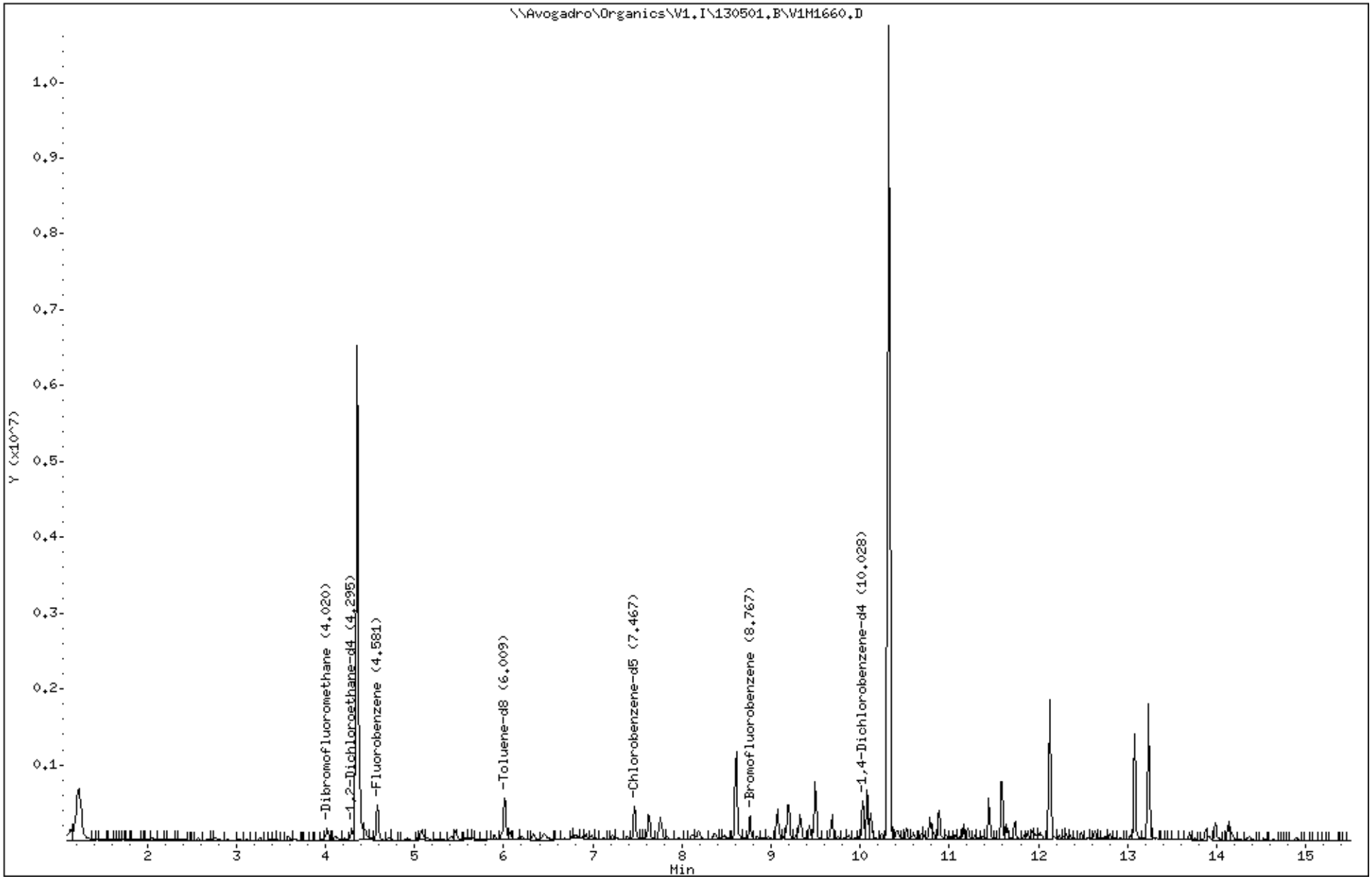
A - Target compound detected but, quantitated amount
    exceeded maximum amount.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D
Date : 01-MAY-2013 12:45
Client ID: SB-126 (10.5-12.5)
Sample Info: 5ML,M0619-03B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D

Date : 01-MAY-2013 12:45

Client ID: SB-126 (10.5-12.5)

Instrument: V1.i

Sample Info: 5ML,M0619-03B,,71443

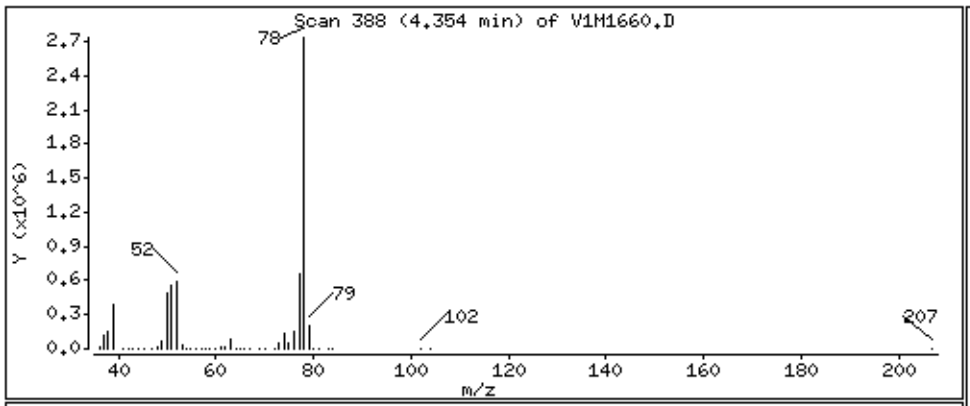
Operator: AM SRC: LIMS

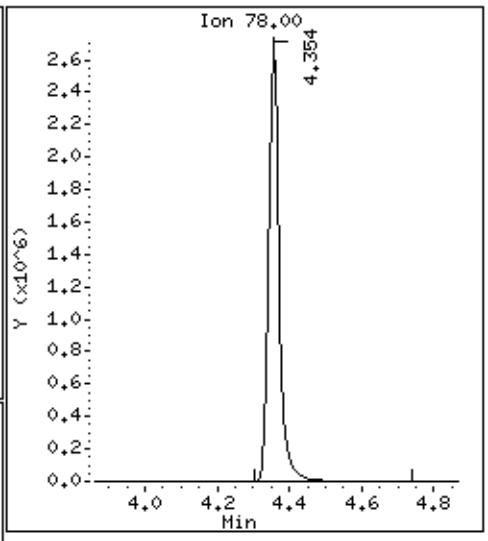
Column phase: DB-624

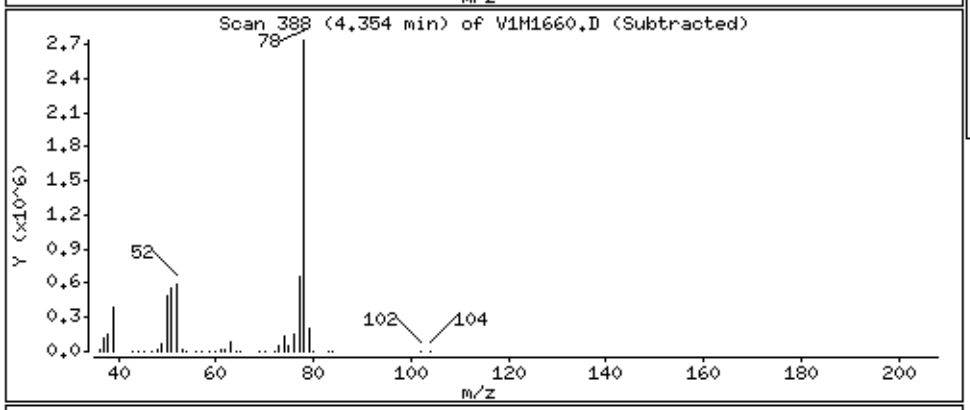
Column diameter: 0.25

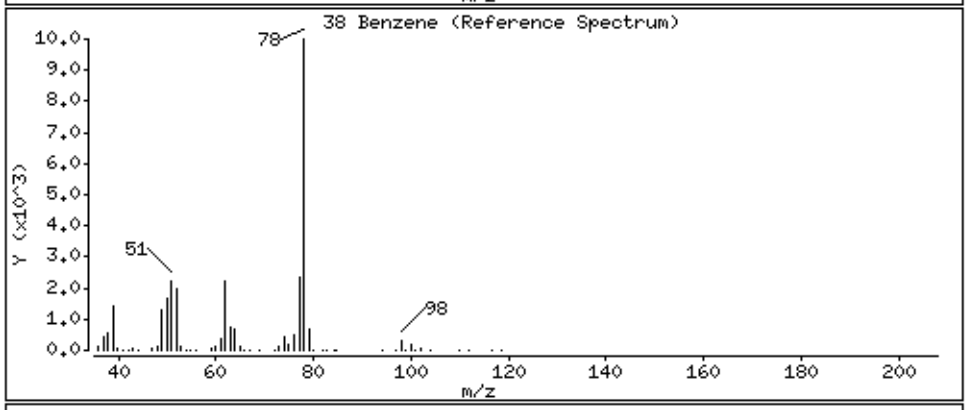
38 Benzene

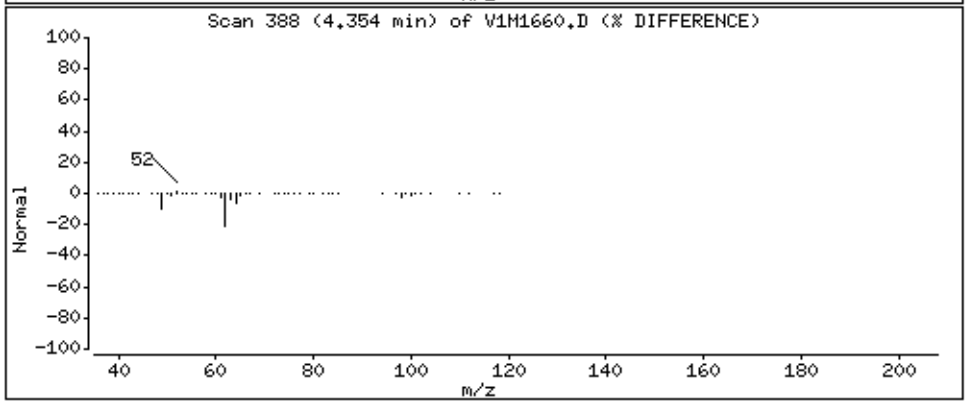
Concentration: 340 ug/Kg











Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D

Date : 01-MAY-2013 12:45

Client ID: SB-126 (10.5-12.5)

Instrument: V1.i

Sample Info: 5ML,M0619-03B,,71443

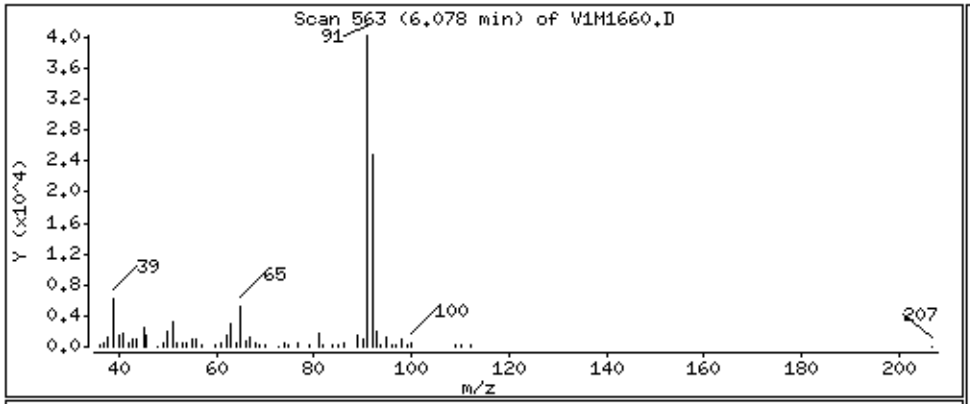
Operator: AM SRC: LIMS

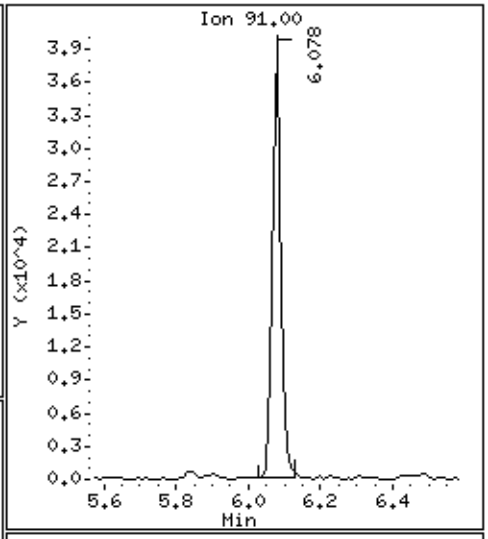
Column phase: DB-624

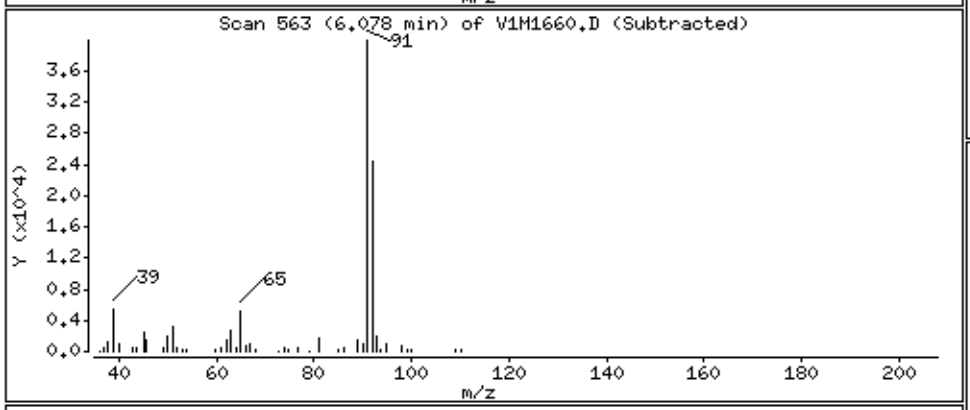
Column diameter: 0.25

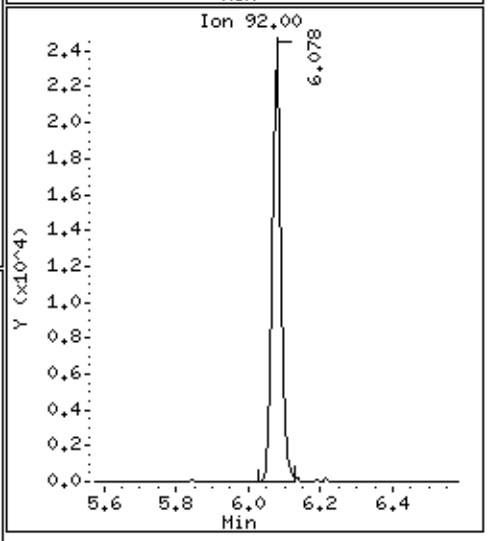
52 Toluene

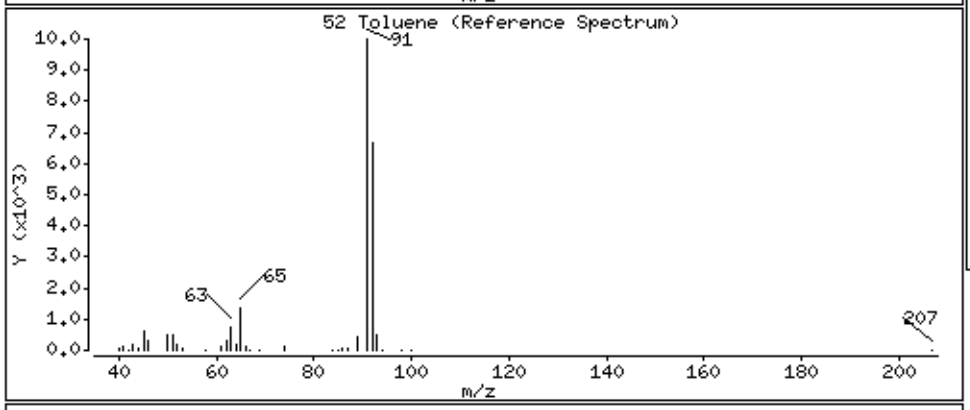
Concentration: 5 ug/Kg

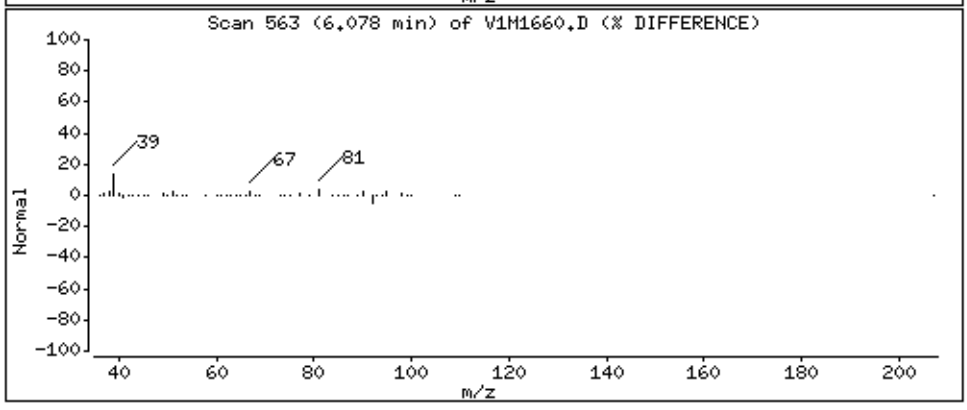












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D

Date : 01-MAY-2013 12:45

Client ID: SB-126 (10.5-12.5)

Instrument: V1.i

Sample Info: 5ML,M0619-03B,,71443

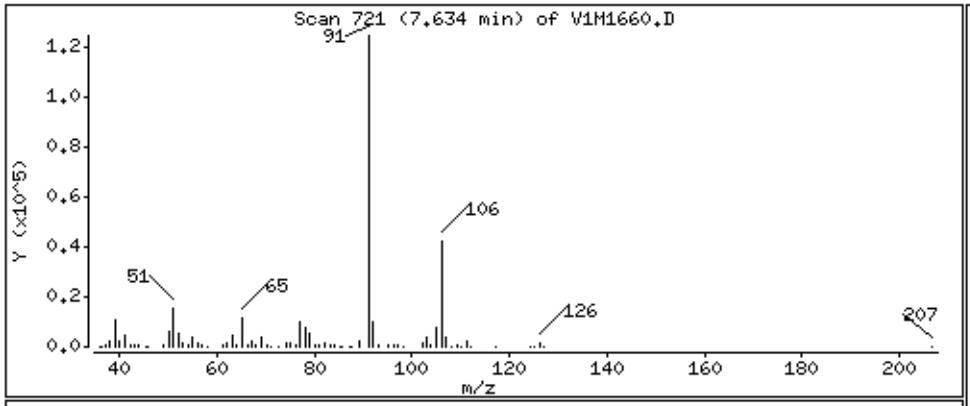
Operator: AM SRC: LIMS

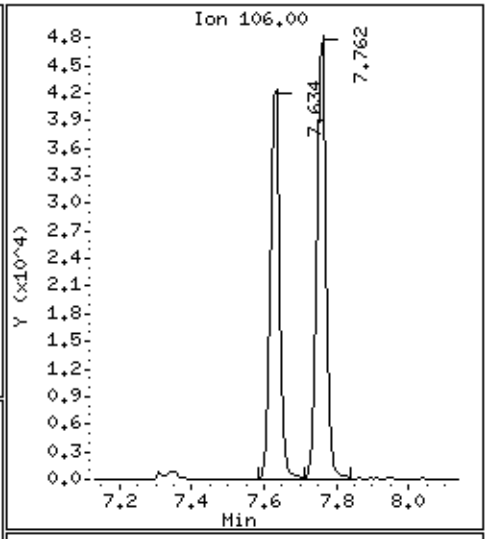
Column phase: DB-624

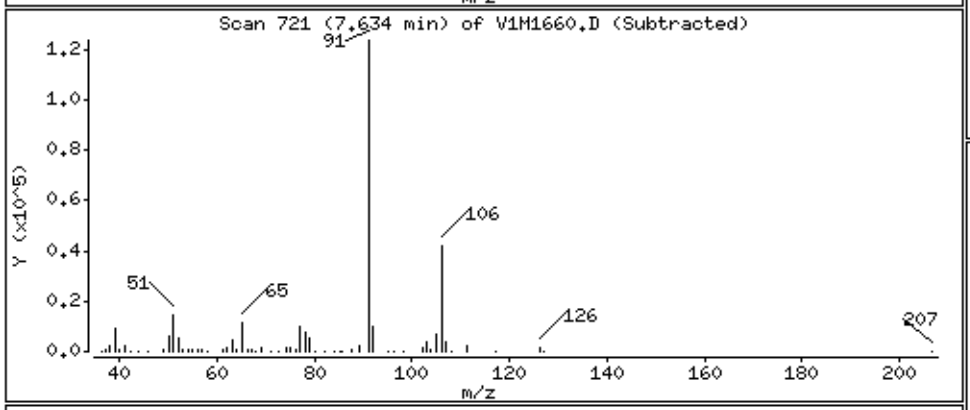
Column diameter: 0.25

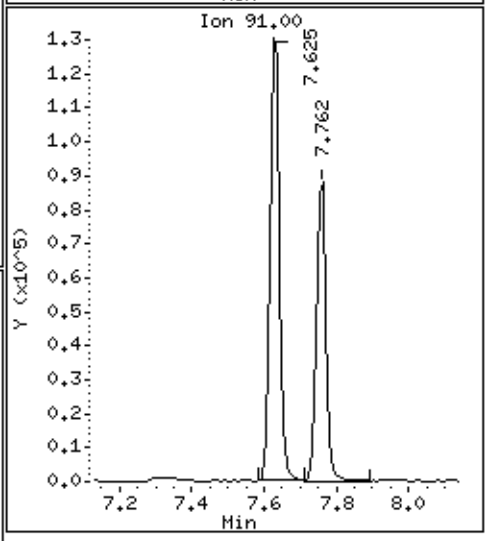
64 Ethylbenzene

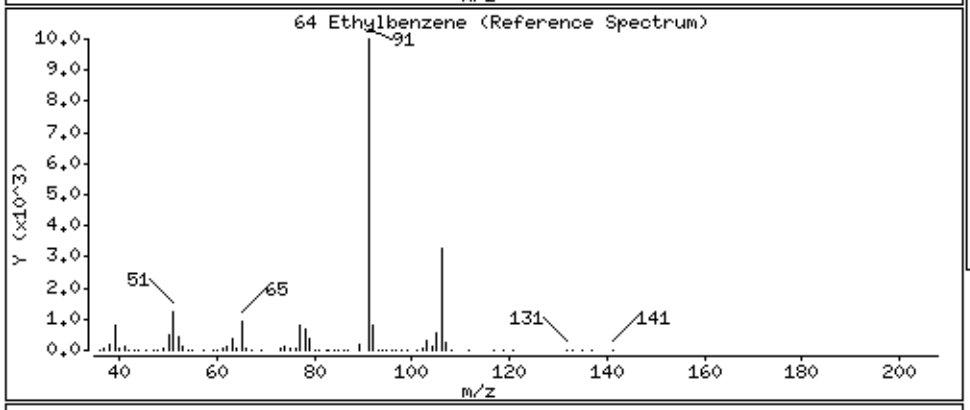
Concentration: 15 ug/Kg

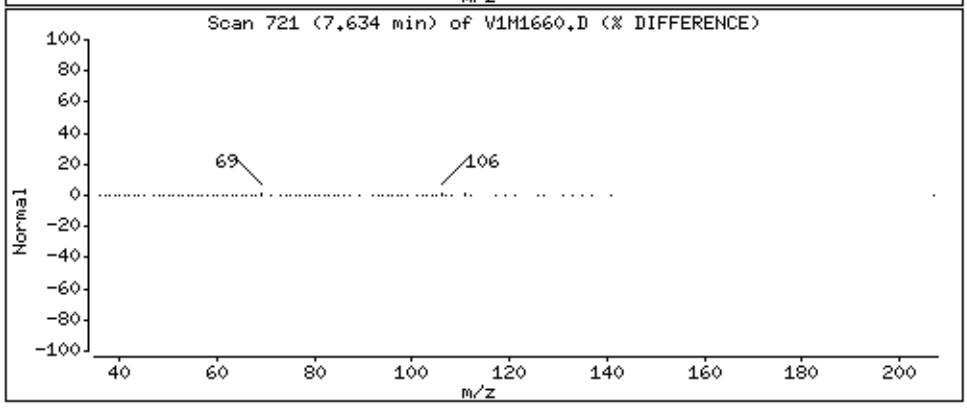












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D

Date : 01-MAY-2013 12:45

Client ID: SB-126 (10.5-12.5)

Instrument: V1.i

Sample Info: 5ML,M0619-03B,,71443

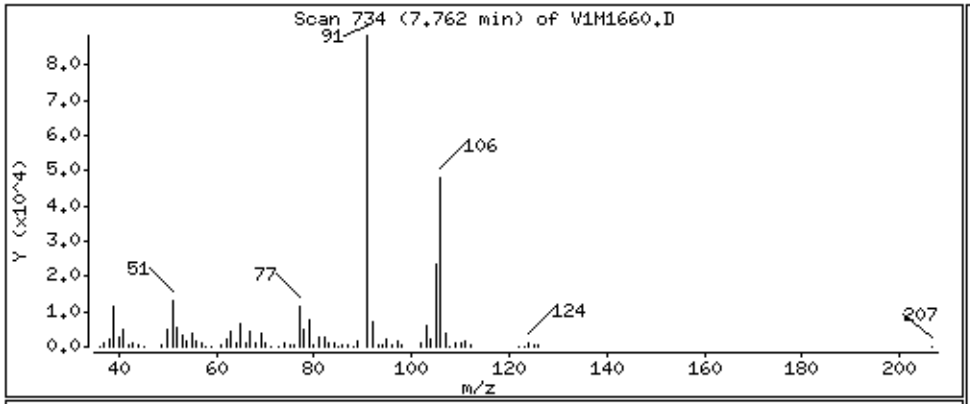
Operator: AM SRC: LIMS

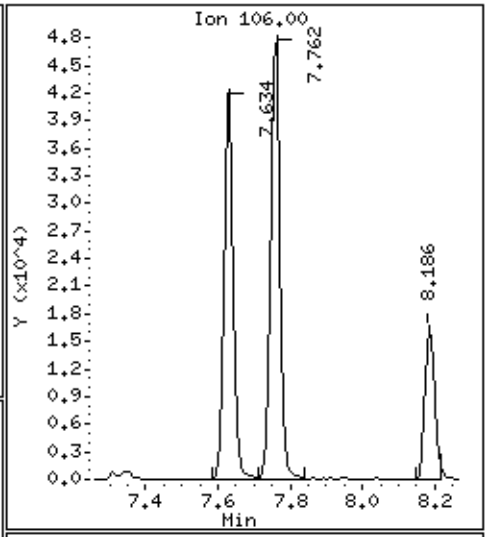
Column phase: DB-624

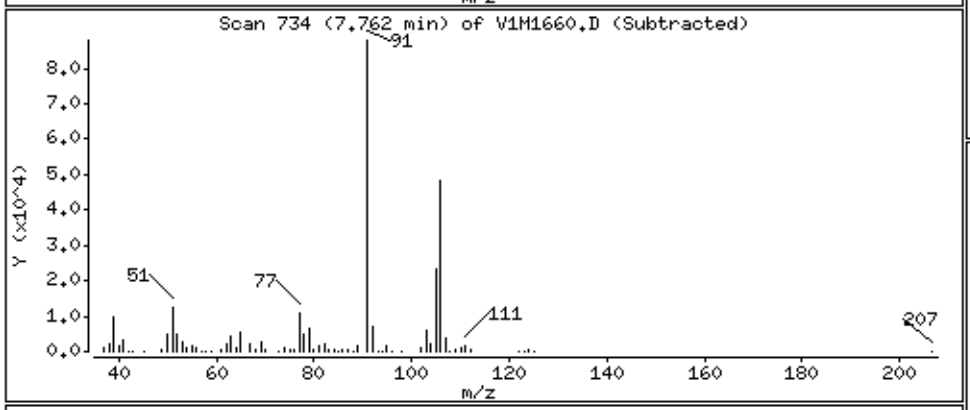
Column diameter: 0.25

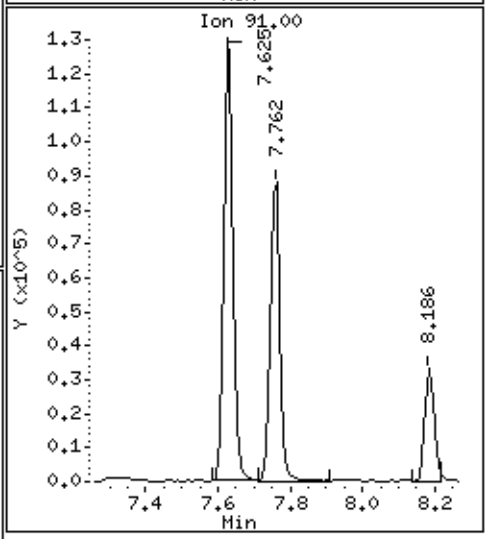
65 m,p-Xylene

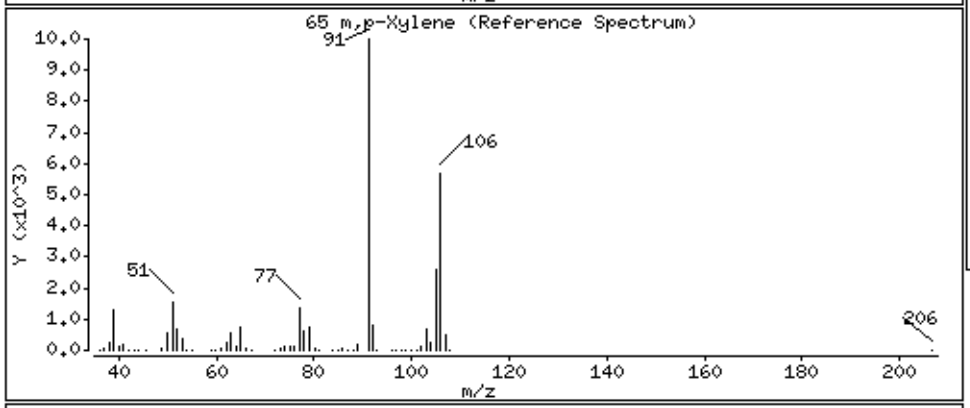
Concentration: 14 ug/Kg

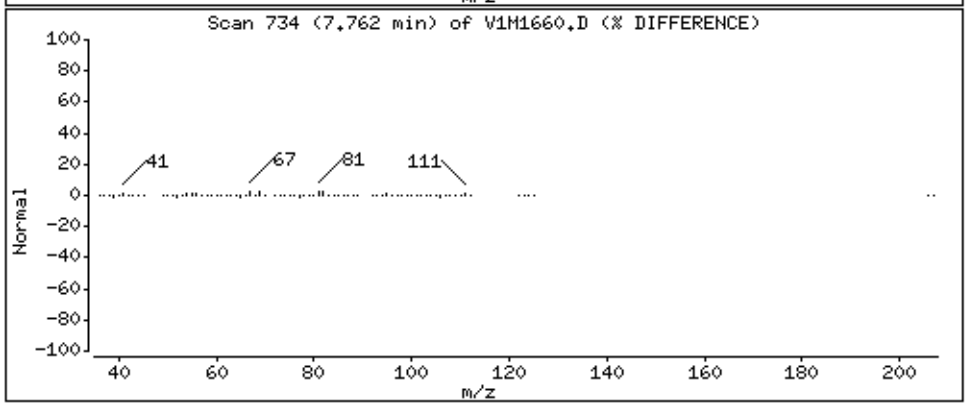












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1660.D

Date : 01-MAY-2013 12:45

Client ID: SB-126 (10.5-12.5)

Instrument: V1.i

Sample Info: 5ML,M0619-03B,,71443

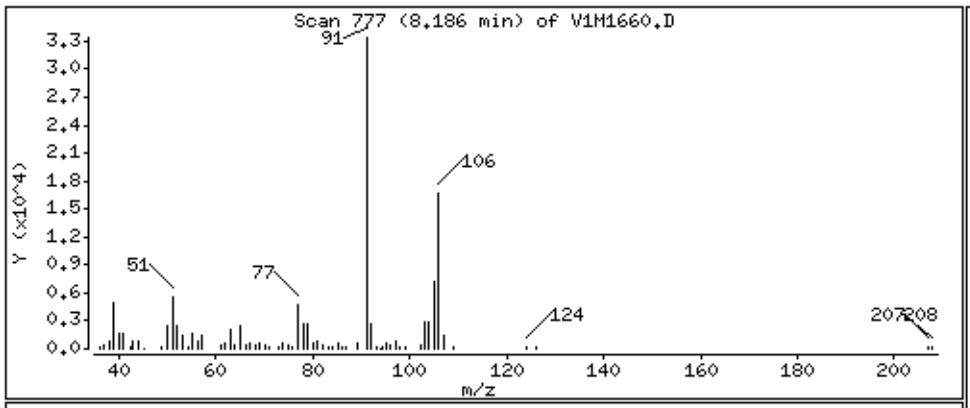
Operator: AM SRC: LIMS

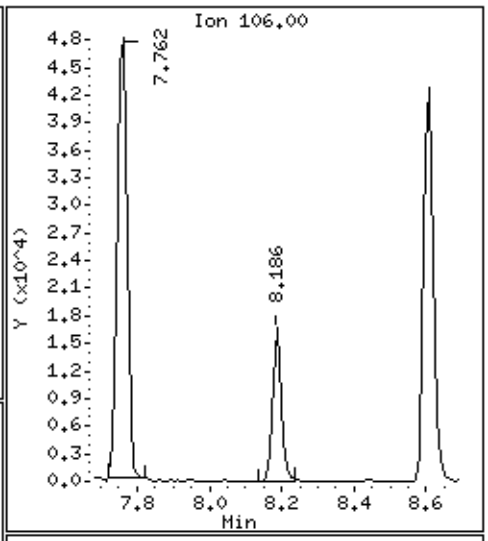
Column phase: DB-624

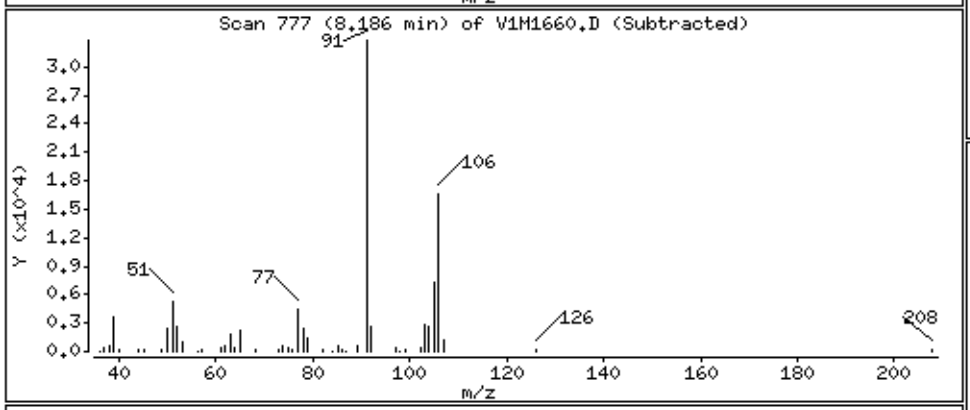
Column diameter: 0.25

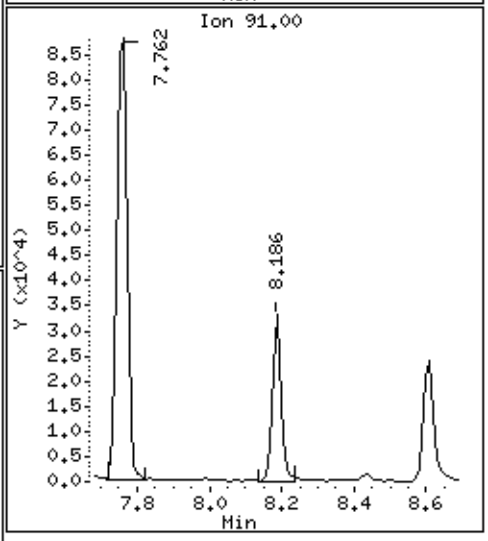
66 o-Xylene

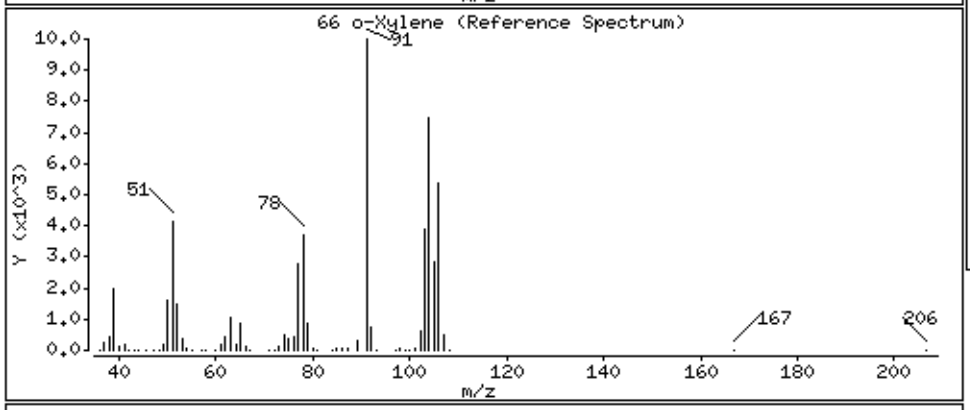
Concentration: 5 ug/Kg

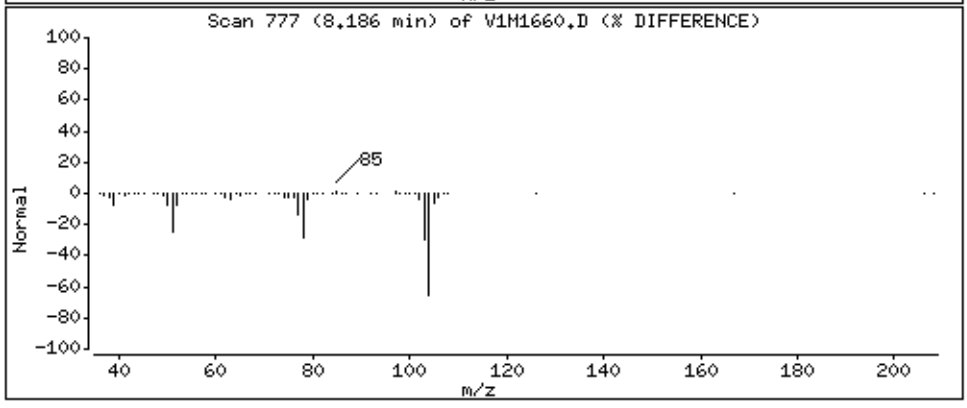












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-126
(10.5-12.5)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03C

Sample wt/vol: 9.30 (g/mL) G Lab File ID: V8B9539.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6100	
108-88-3	Toluene	770	
100-41-4	Ethylbenzene	1700	
179601-23-1	m,p-Xylene	1100	
95-47-6	o-Xylene	330	J
1330-20-7	Xylene (Total)	1000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9539.d
Lab Smp Id: M0619-03C Client Smp ID: SB-126 (10.5-12.5)
Inj Date : 02-MAY-2013 12:19
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,M0619-03C,,71469
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.300	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	15.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	36 Dibromofluoromethane	113	4.712	4.715	(0.888)	451798	54.1490	4400
$	42 1,2-Dichloroethane-d4	102	5.011	5.014	(0.945)	96814	50.1689	4000
	43 Benzene	78	5.072	5.075	(0.956)	2124258	51.5901	4200
*	46 Fluorobenzene	96	5.303	5.306	(1.000)	1647383	50.0000	
$	58 Toluene-d8	98	6.782	6.786	(0.818)	1622341	47.4864	3800
	59 Toluene	91	6.853	6.853	(1.292)	317429	6.53249	530
*	68 Chlorobenzene-d5	117	8.294	8.290	(1.000)	1286209	50.0000	
	72 Ethylbenzene	106	8.441	8.438	(1.018)	210034	14.2846	1200
	73 m,p-Xylene	106	8.570	8.567	(1.033)	181617	9.70282	780
	74 o-Xylene	106	9.020	9.014	(1.088)	49900	2.78986	220(a)
$	79 Bromofluorobenzene	95	9.589	9.589	(1.156)	712552	56.1977	4500(R)
M	94 Xylene (Total)	106				231517	12.4927	1000
*	92 1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	712182	50.0000	

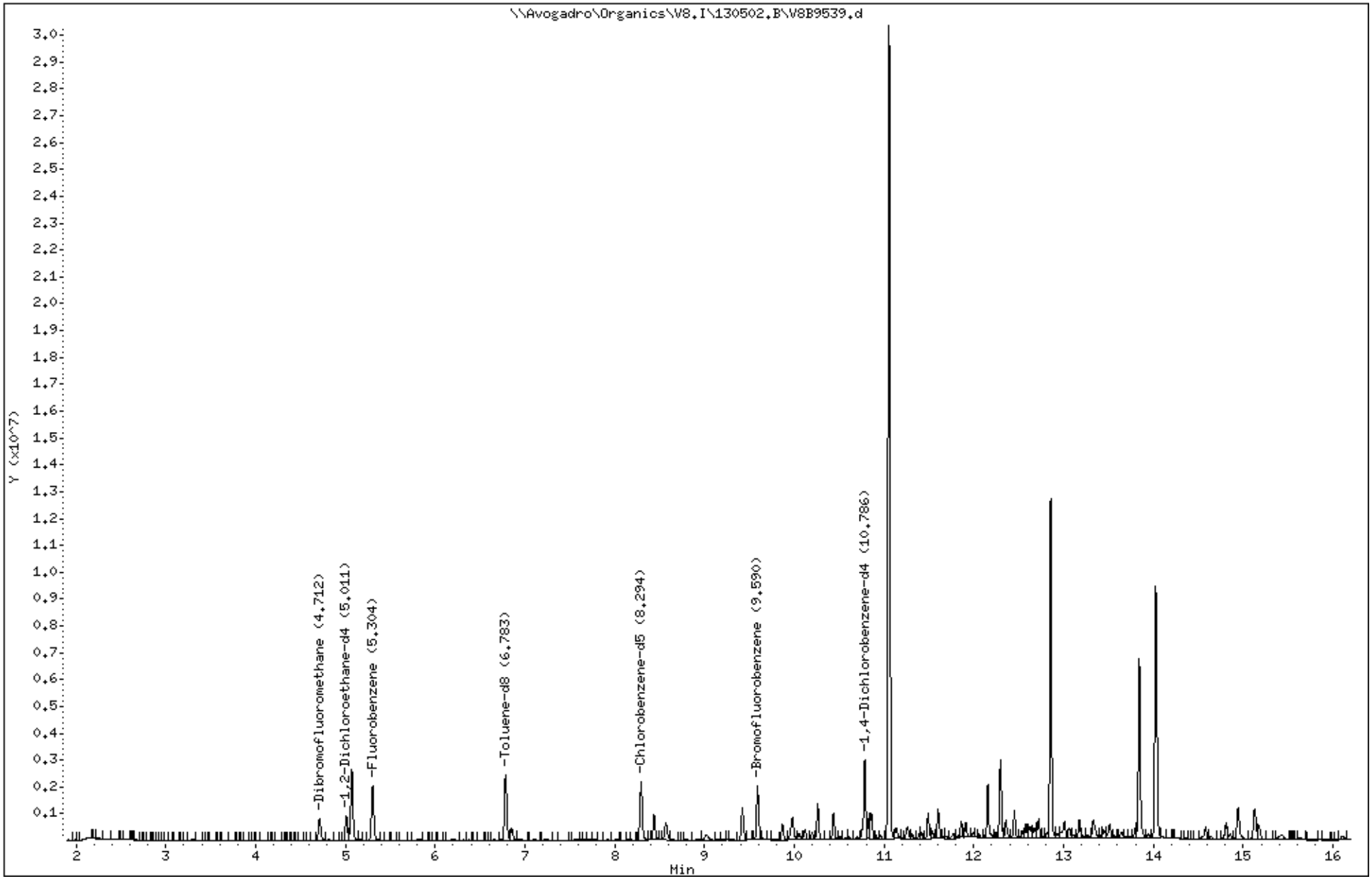
QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d
Date : 02-MAY-2013 12:19
Client ID: SB-126 (10.5-12.5)
Sample Info: 5ML,M0619-03C,,71469

Instrument: V8.i

Operator: V10 SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d

Date : 02-MAY-2013 12:19

Client ID: SB-126 (10.5-12.5)

Instrument: V8.i

Sample Info: 5ML,M0619-03C,,71469

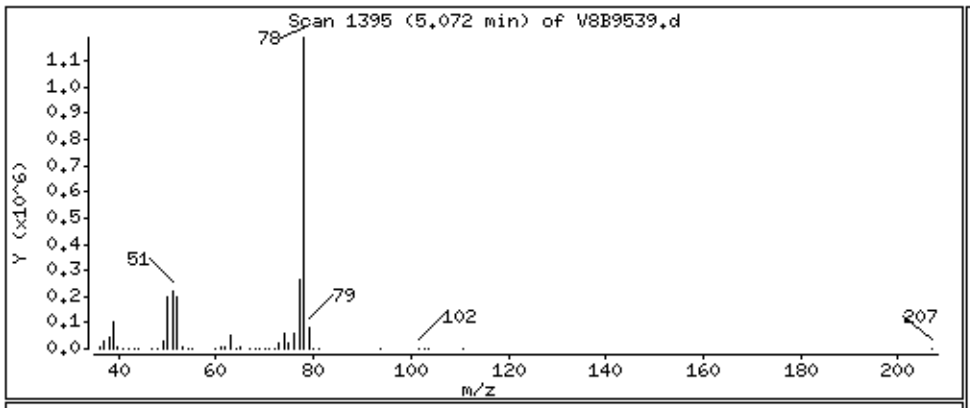
Operator: V10 SRC: LIMS

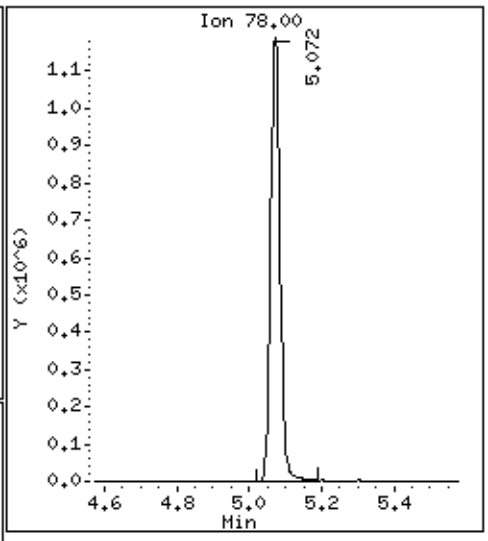
Column phase: DB-624

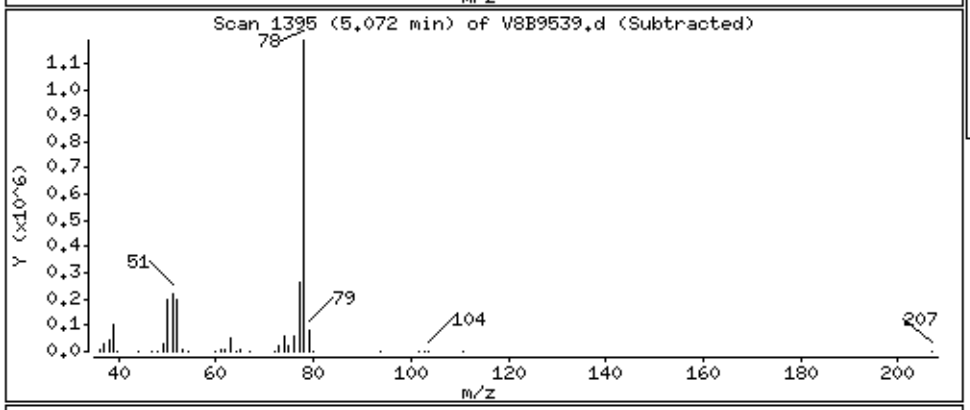
Column diameter: 0.25

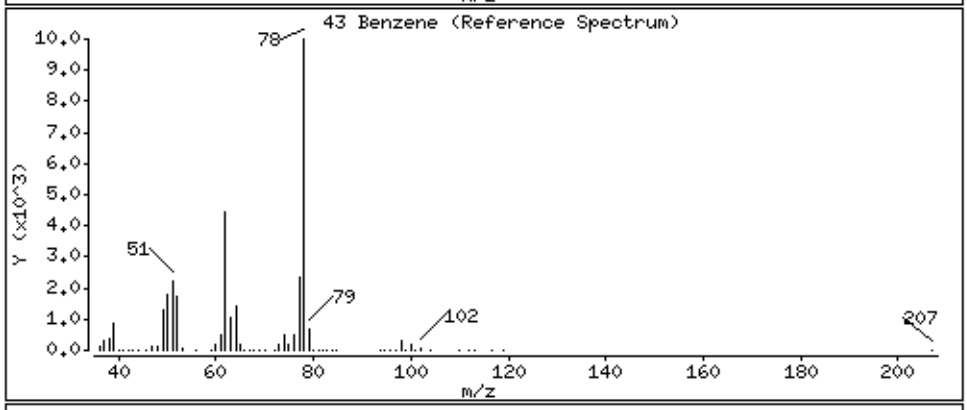
43 Benzene

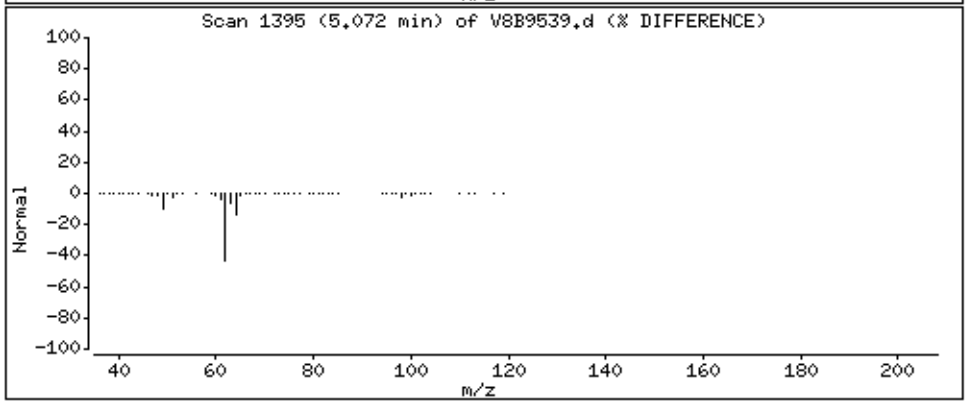
Concentration: 4200 ug/Kg











Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d

Date : 02-MAY-2013 12:19

Client ID: SB-126 (10.5-12.5)

Instrument: V8.i

Sample Info: 5ML,M0619-03C,,71469

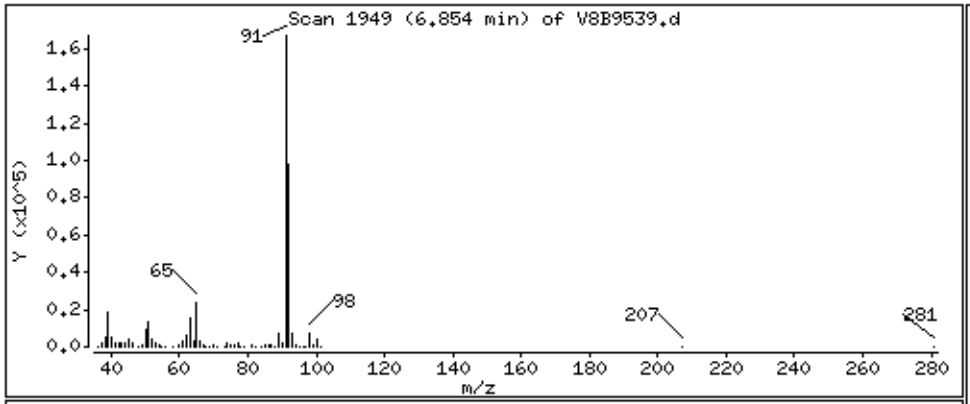
Operator: V10 SRC: LIMS

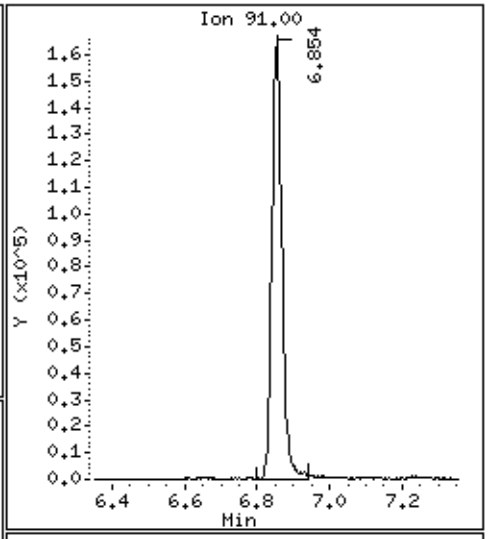
Column phase: DB-624

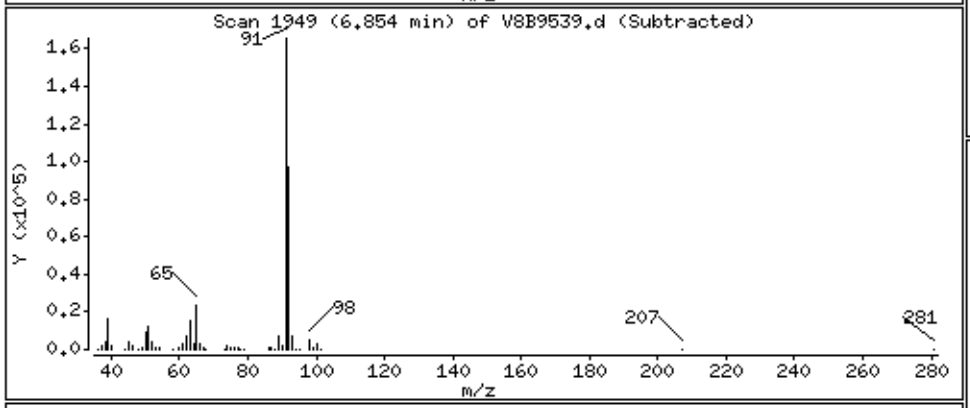
Column diameter: 0.25

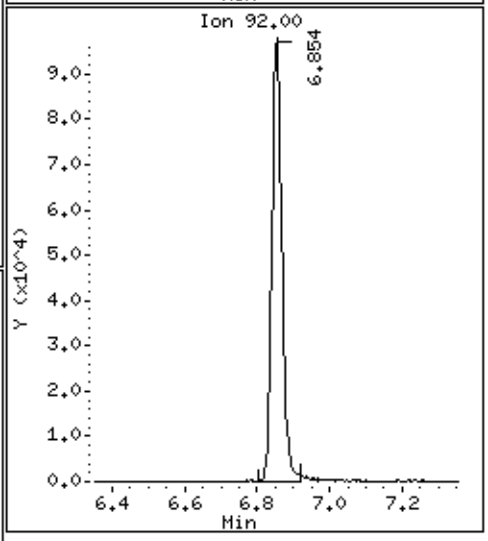
59 Toluene

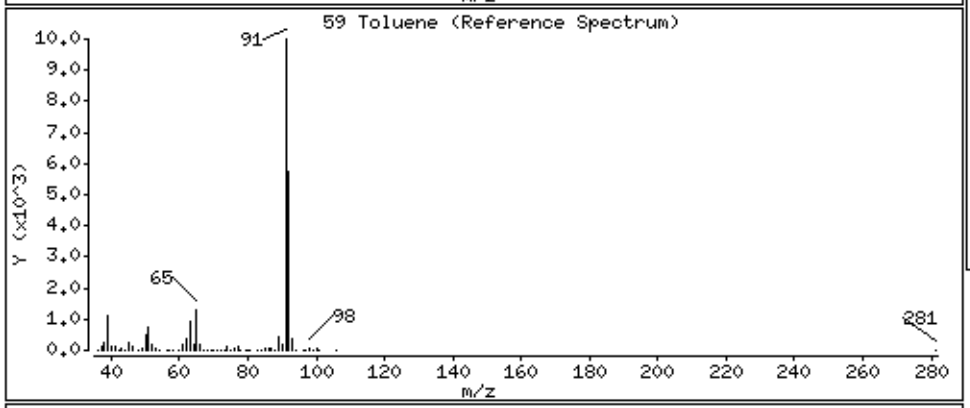
Concentration: 530 ug/Kg

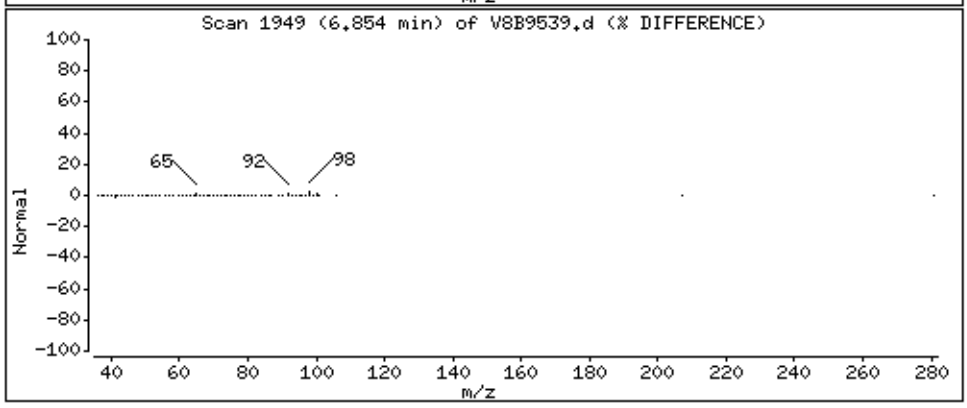












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d

Date : 02-MAY-2013 12:19

Client ID: SB-126 (10.5-12.5)

Instrument: V8.i

Sample Info: 5ML,M0619-03C,,71469

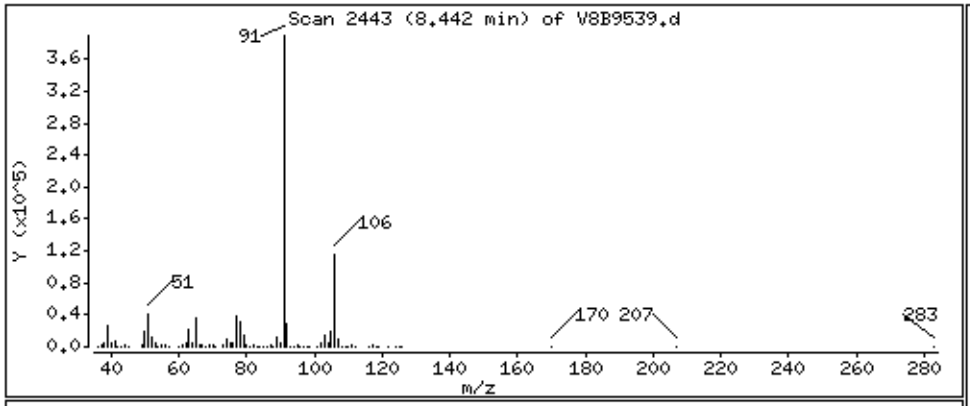
Operator: V10 SRC: LIMS

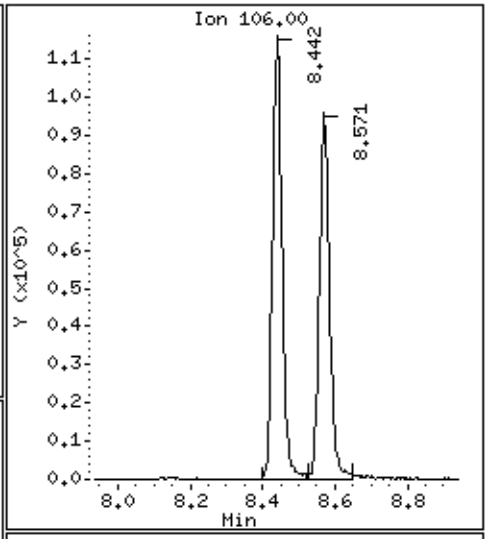
Column phase: DB-624

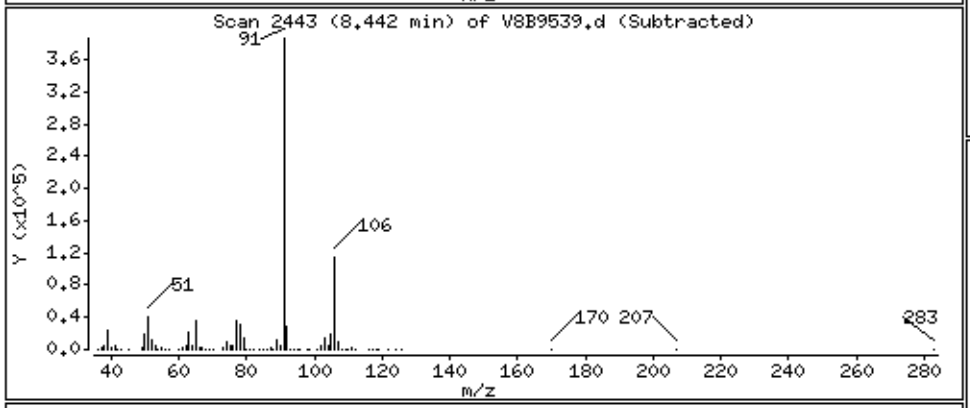
Column diameter: 0.25

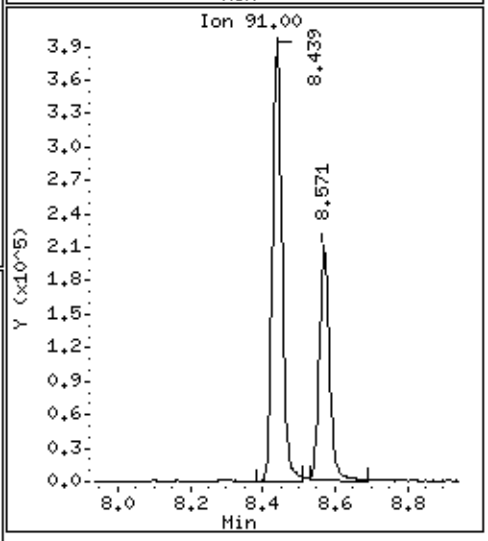
72 Ethylbenzene

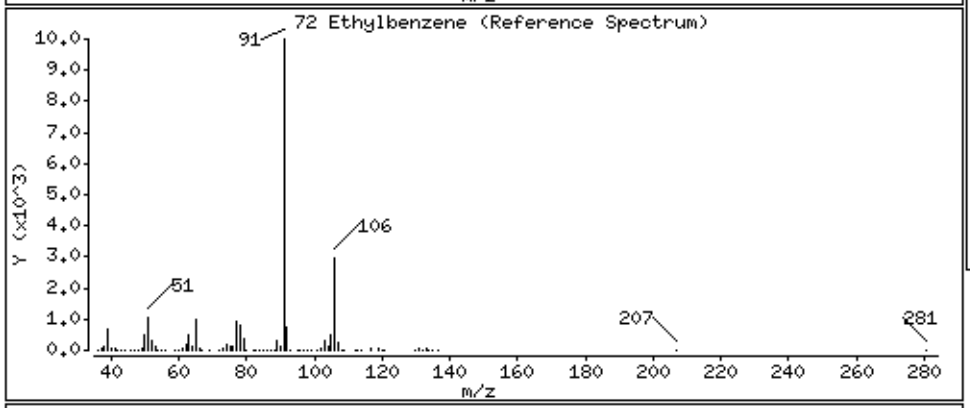
Concentration: 1200 ug/Kg

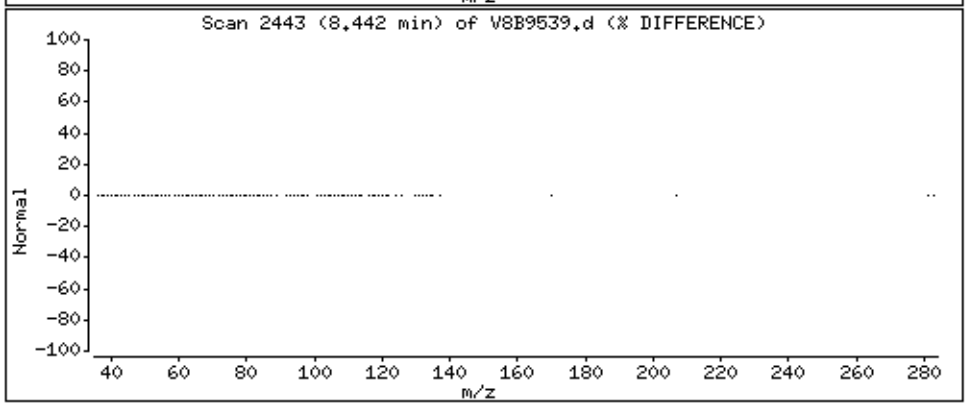












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d

Date : 02-MAY-2013 12:19

Client ID: SB-126 (10.5-12.5)

Instrument: V8.i

Sample Info: 5ML,M0619-03C,,71469

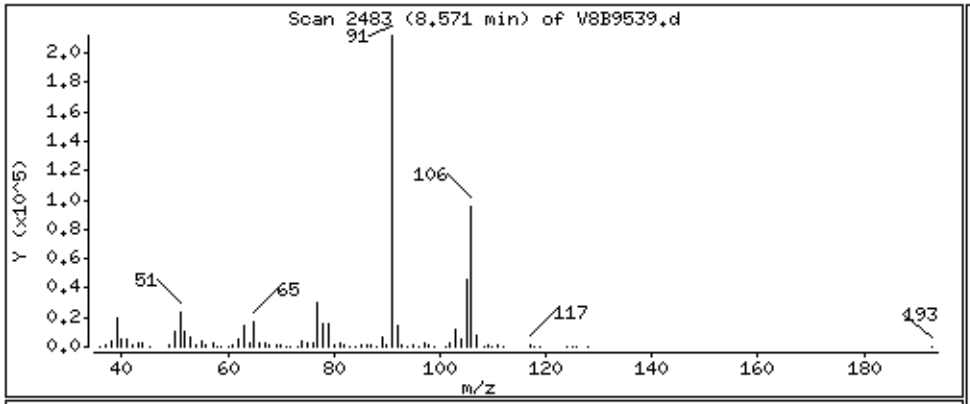
Operator: V10 SRC: LIMS

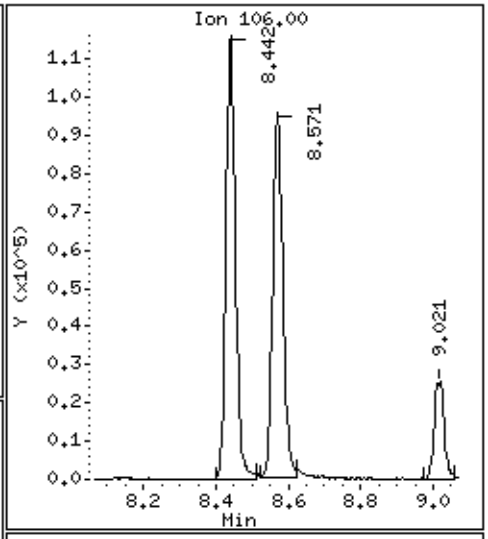
Column phase: DB-624

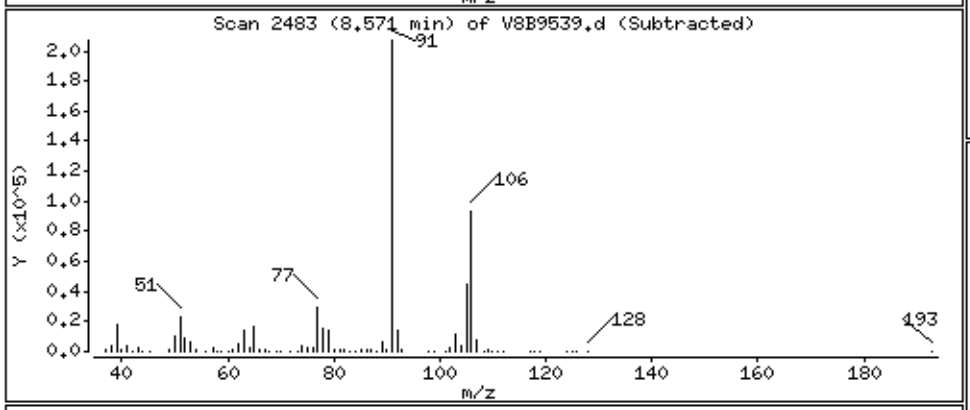
Column diameter: 0.25

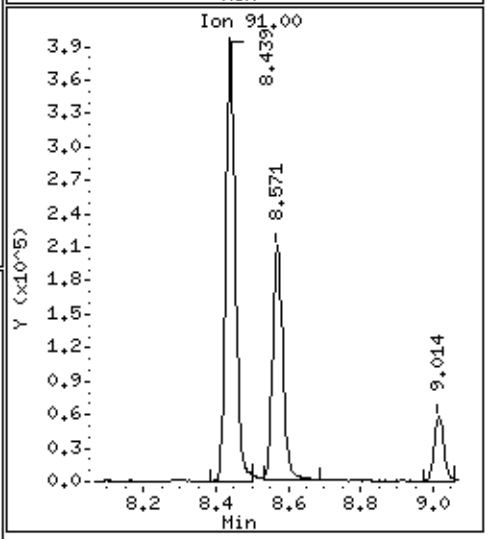
73 m,p-Xylene

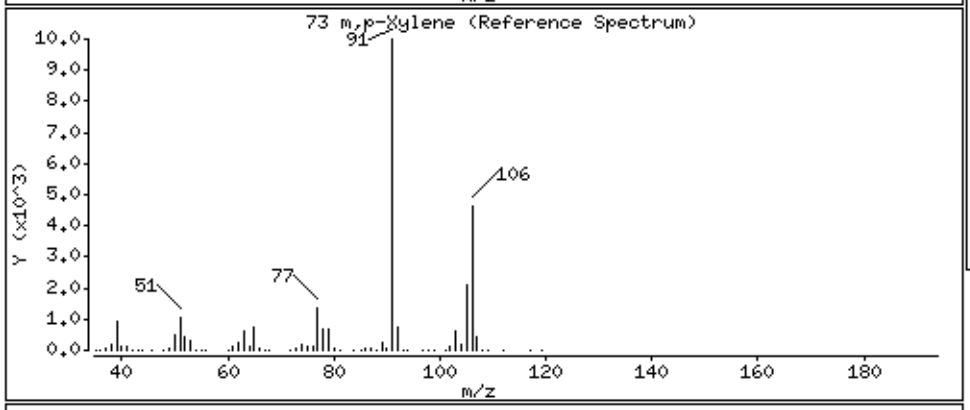
Concentration: 780 ug/Kg

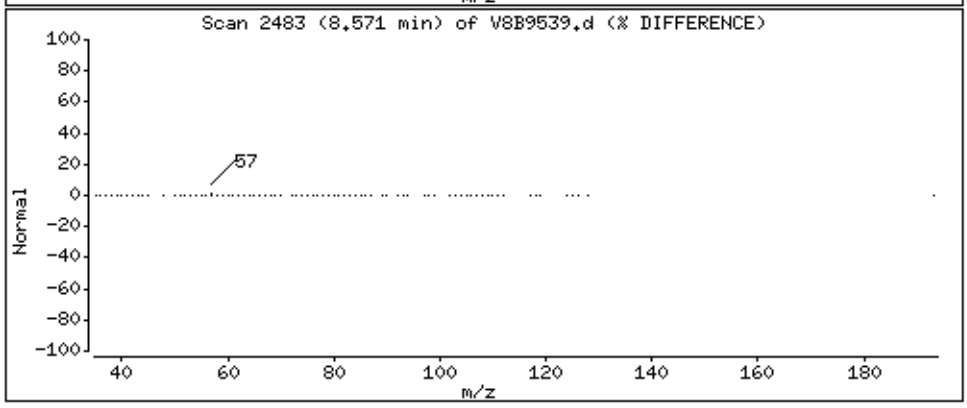












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9539.d

Date : 02-MAY-2013 12:19

Client ID: SB-126 (10.5-12.5)

Instrument: V8.i

Sample Info: 5ML,M0619-03C,,71469

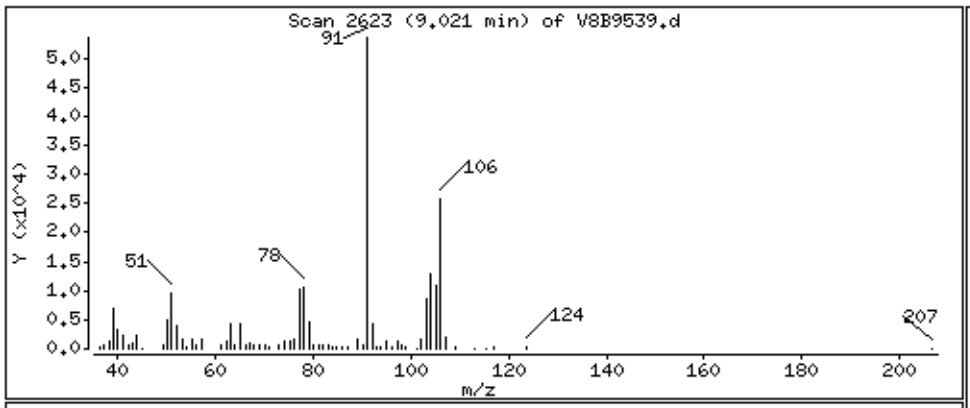
Operator: V10 SRC: LIMS

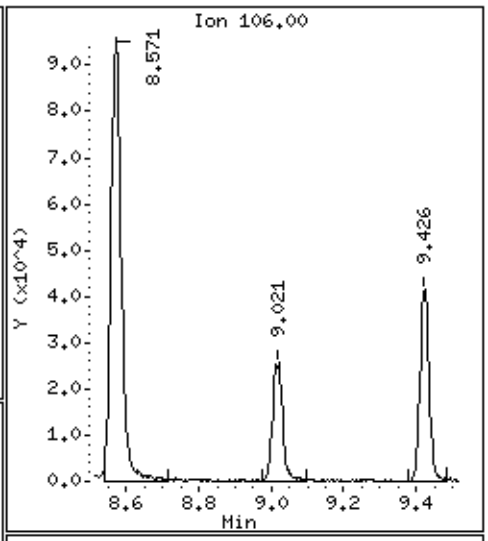
Column phase: DB-624

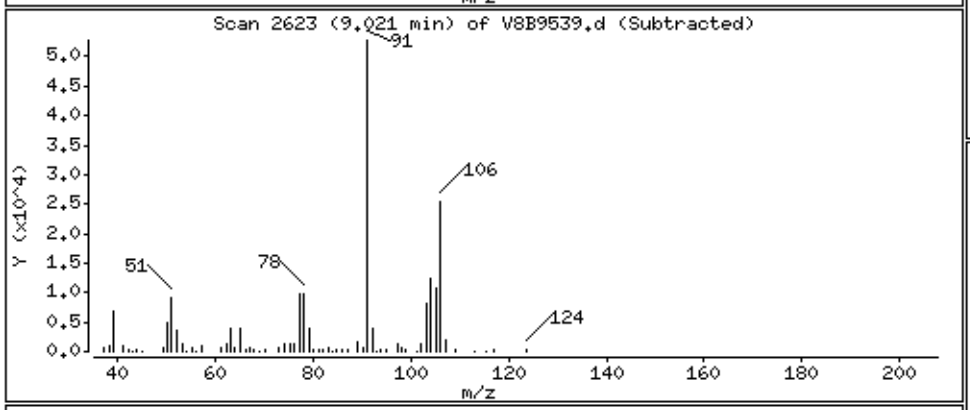
Column diameter: 0.25

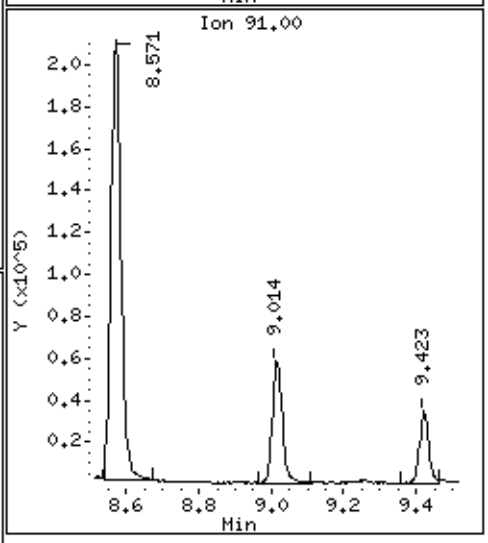
74 o-Xylene

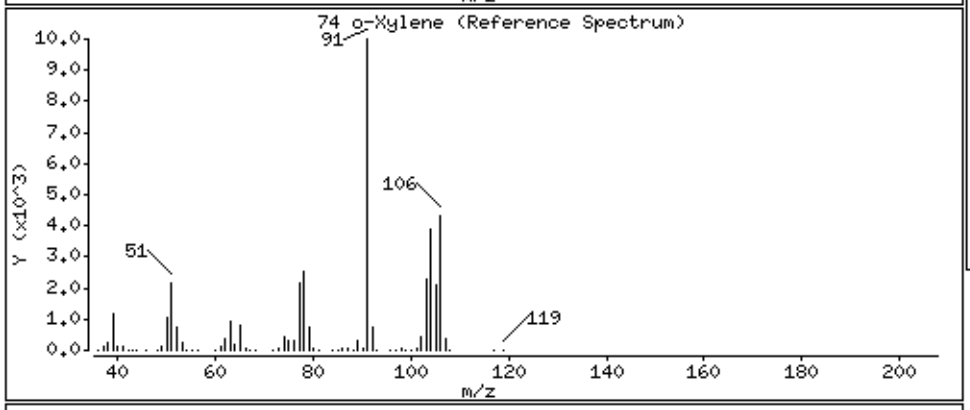
Concentration: 220 ug/Kg

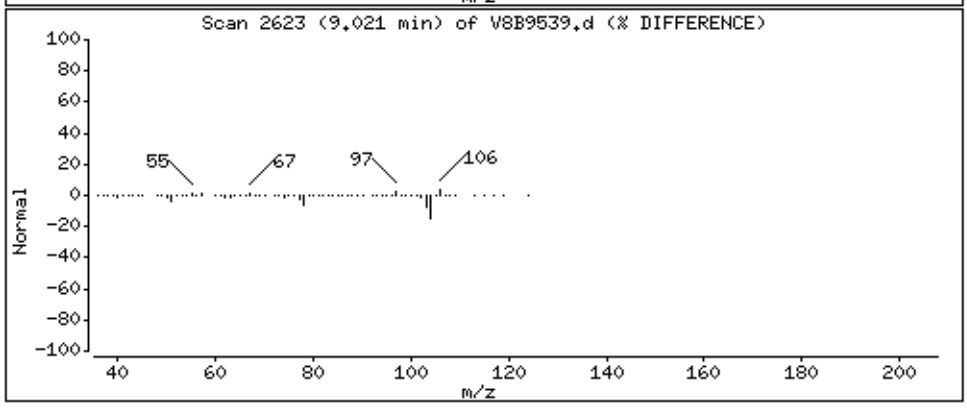












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (3-5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-04B

Sample wt/vol: 10.1 (g/mL) G Lab File ID: V1M1661.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.8	U
108-88-3	Toluene	2.8	U
100-41-4	Ethylbenzene	2.8	U
179601-23-1	m,p-Xylene	2.8	U
95-47-6	o-Xylene	2.8	U
1330-20-7	Xylene (Total)	2.8	U

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1661.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1661.D
Lab Smp Id: M0619-04B Client Smp ID: SB-127 (3-5)
Inj Date : 01-MAY-2013 13:10
Operator : AM   SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-04B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 62
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	10.100	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

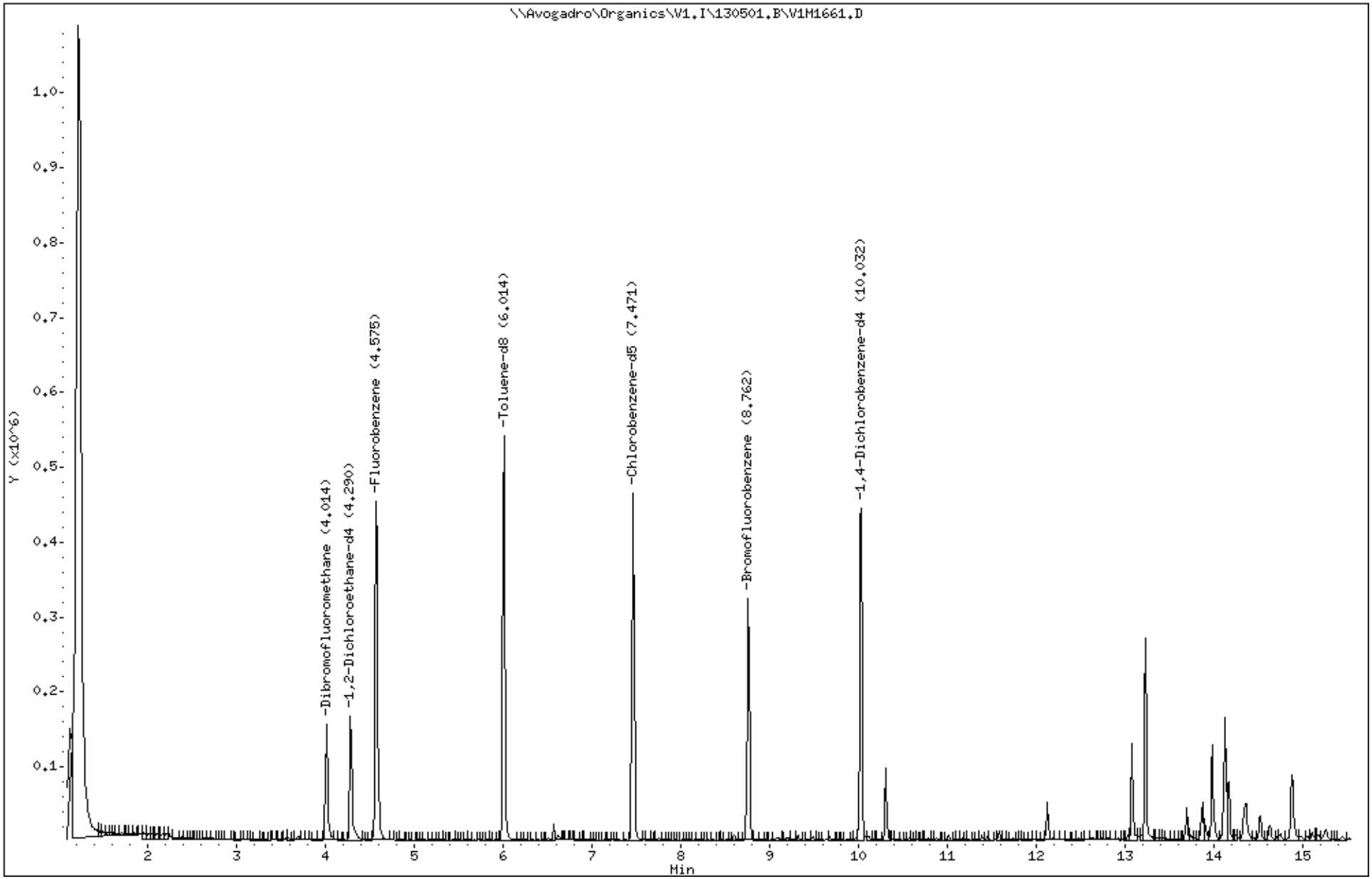
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.014	4.029	(0.877)	103792	54.5756	27
$ 37 1,2-Dichloroethane-d4	102	4.289	4.305	(0.938)	31320	53.9646	27
* 41 Fluorobenzene	96	4.575	4.590	(1.000)	400184	50.0000	
$ 51 Toluene-d8	98	6.013	6.019	(0.805)	355256	49.1004	24
* 60 Chlorobenzene-d5	117	7.471	7.476	(1.000)	283233	50.0000	
$ 70 Bromofluorobenzene	95	8.761	8.757	(1.173)	129760	50.9475	25
* 84 1,4-Dichlorobenzene-d4	152	10.032	10.027	(1.000)	124339	50.0000	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1661.D
Date : 01-MAY-2013 13:10
Client ID: SB-127 (3-5)
Sample Info: 5ML,M0619-04B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-05B

Sample wt/vol: 11.5 (g/mL) G Lab File ID: V1M1662.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 8.4 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.4	U
108-88-3	Toluene	0.51	J
100-41-4	Ethylbenzene	2.4	U
179601-23-1	m,p-Xylene	2.4	U
95-47-6	o-Xylene	2.4	U
1330-20-7	Xylene (Total)	0.55	J

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1662.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1662.D
Lab Smp Id: M0619-05B Client Smp ID: SB-127 (8-10)
Inj Date : 01-MAY-2013 13:35
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-05B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 63
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	11.500	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.019	4.029	(0.876)	98671	52.0445	23
$	37 1,2-Dichloroethane-d4	102	4.305	4.305	(0.938)	31336	54.1604	24
*	41 Fluorobenzene	96	4.590	4.590	(1.000)	398941	50.0000	
$	51 Toluene-d8	98	6.019	6.019	(0.806)	347425	48.1362	21
	52 Toluene	91	6.078	6.078	(1.324)	8359	1.07503	0.5(a)
*	60 Chlorobenzene-d5	117	7.466	7.476	(1.000)	282538	50.0000	
	65 m,p-Xylene	106	7.752	7.762	(1.038)	4062	1.16062	0.5(a)
$	70 Bromofluorobenzene	95	8.767	8.757	(1.174)	129783	51.0819	22
M	81 Xylene (Total)	106				4062	1.16062	0.5(a)
*	84 1,4-Dichlorobenzene-d4	152	10.027	10.027	(1.000)	120899	50.0000	

QC Flag Legend

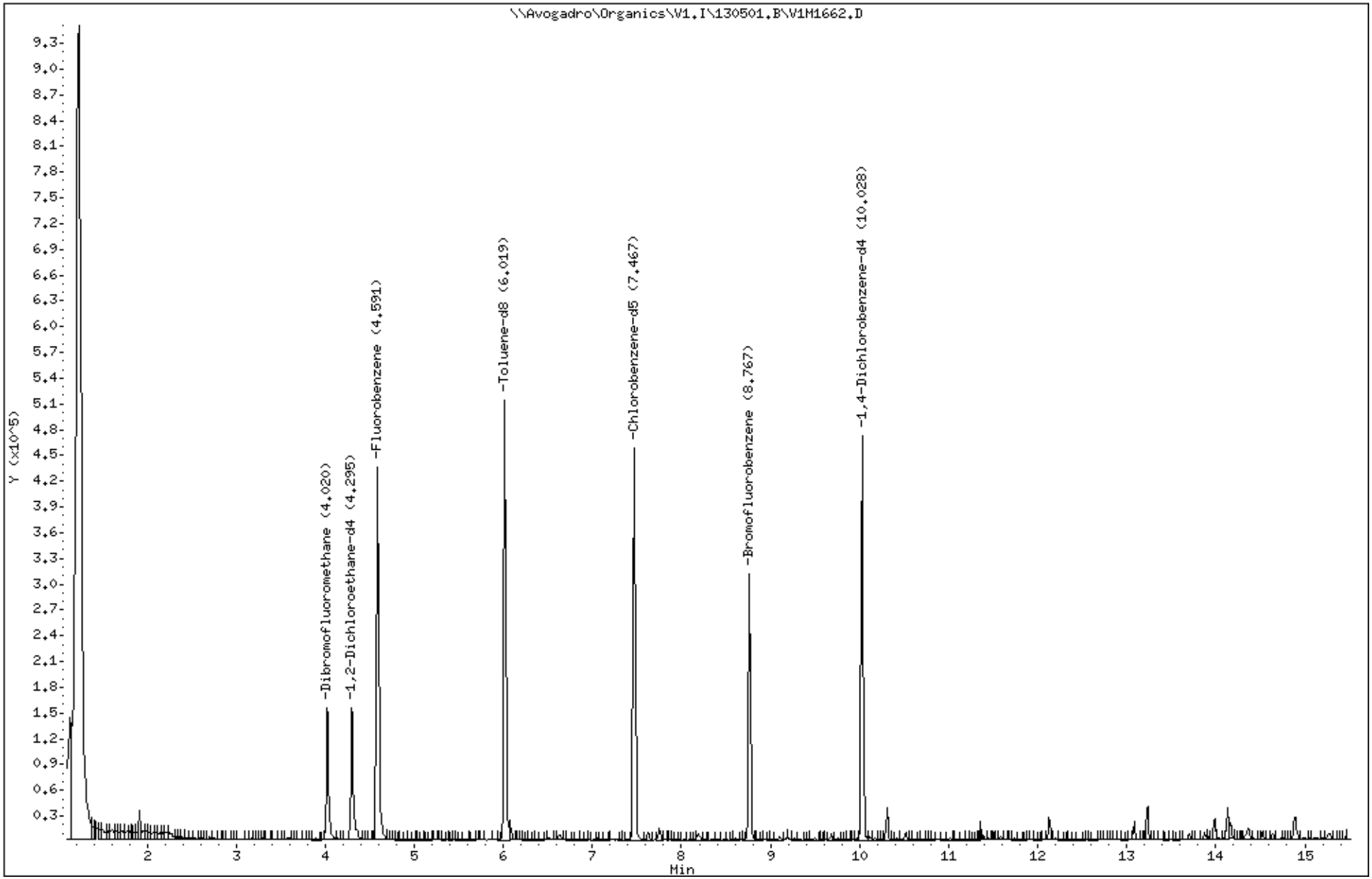
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1662.D
Date : 01-MAY-2013 13:35
Client ID: SB-127 (8-10)
Sample Info: 5ML,M0619-05B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1662.D

Date : 01-MAY-2013 13:35

Client ID: SB-127 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-05B,,71443

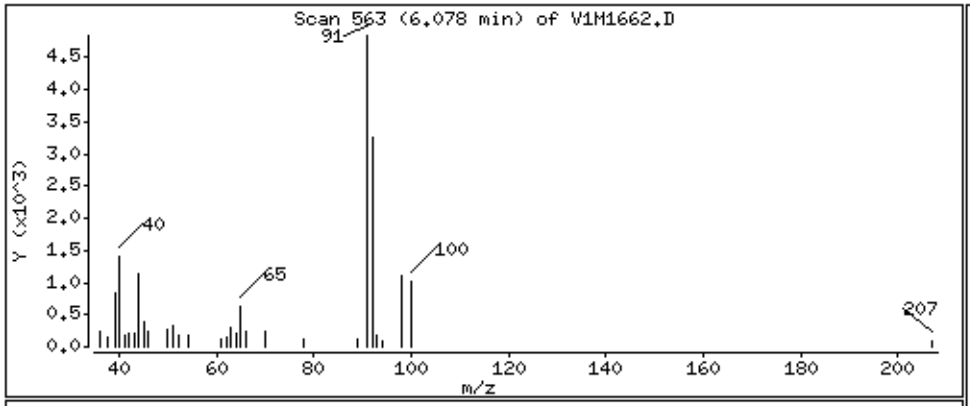
Operator: AM SRC: LIMS

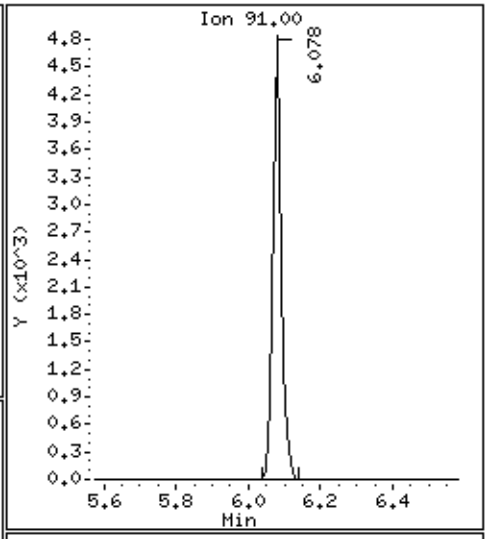
Column phase: DB-624

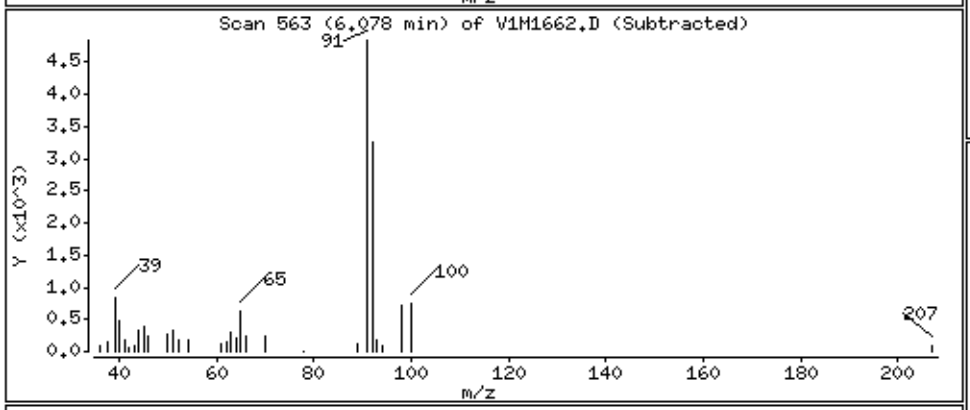
Column diameter: 0.25

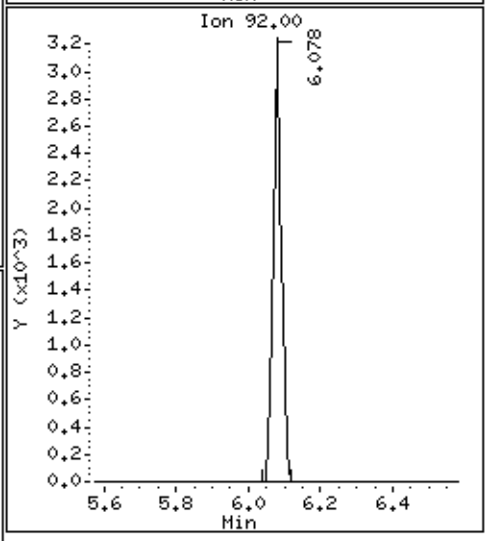
52 Toluene

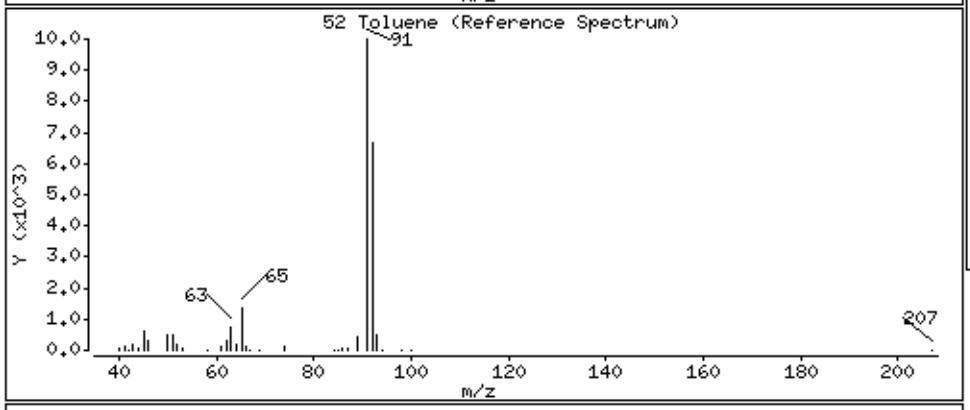
Concentration: 0.5 ug/Kg

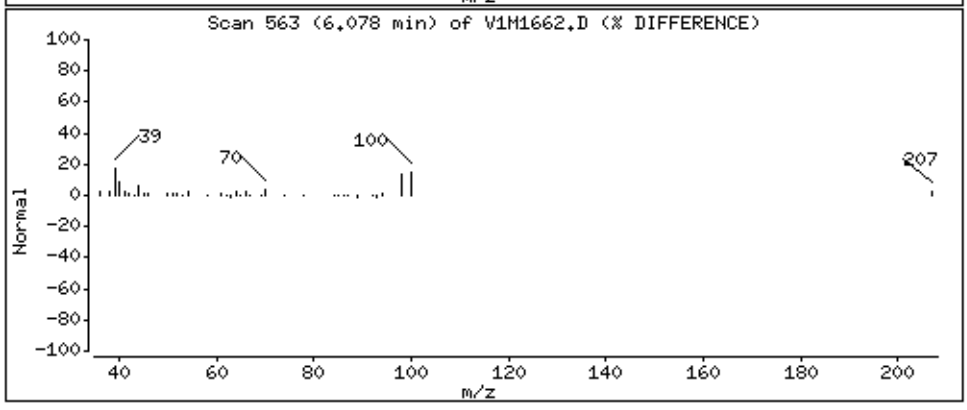












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1662.D

Date : 01-MAY-2013 13:35

Client ID: SB-127 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-05B,,71443

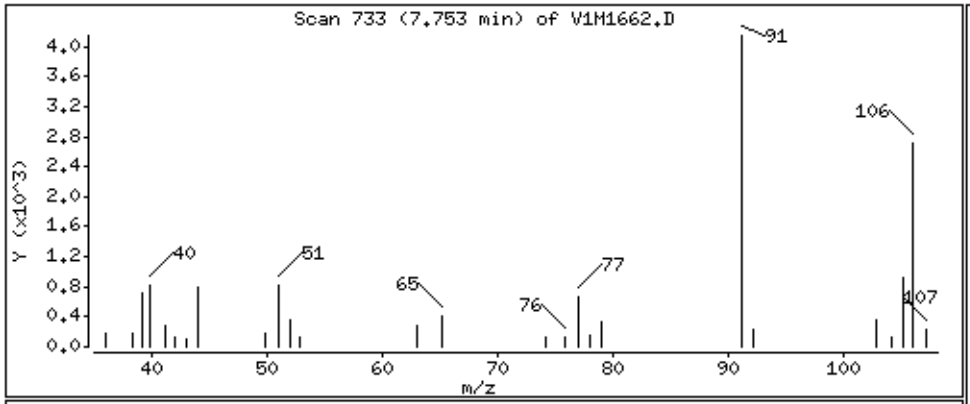
Operator: AM SRC: LIMS

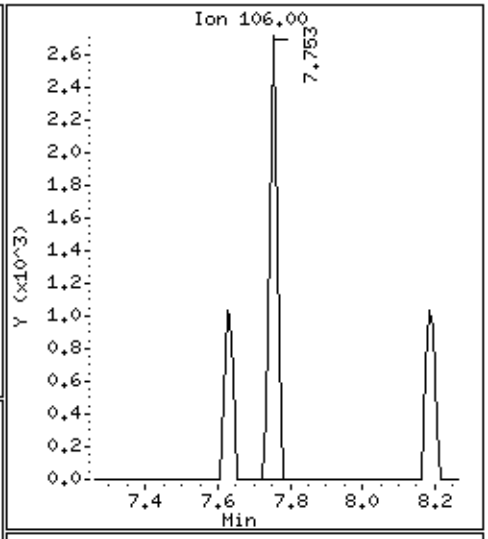
Column phase: DB-624

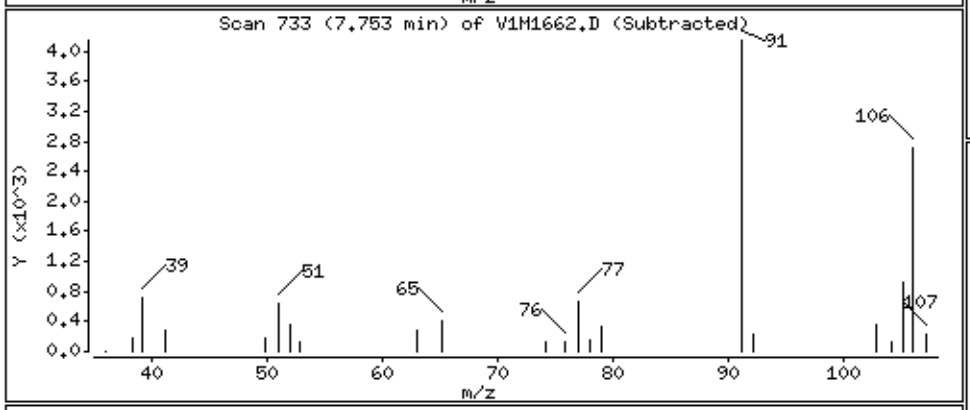
Column diameter: 0.25

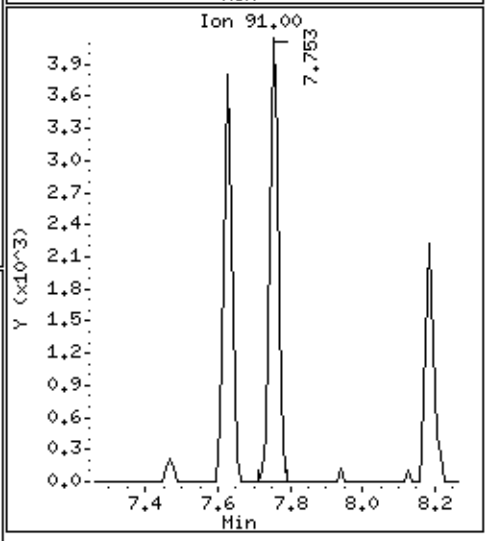
65 m,p-Xylene

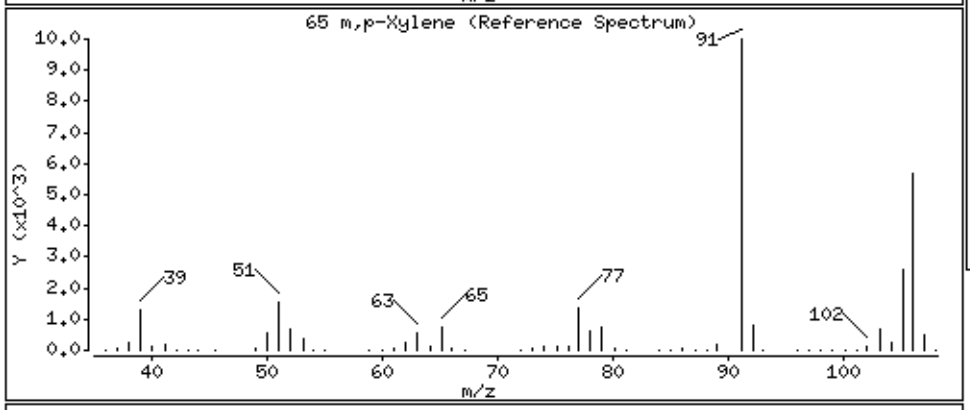
Concentration: 0.5 ug/Kg

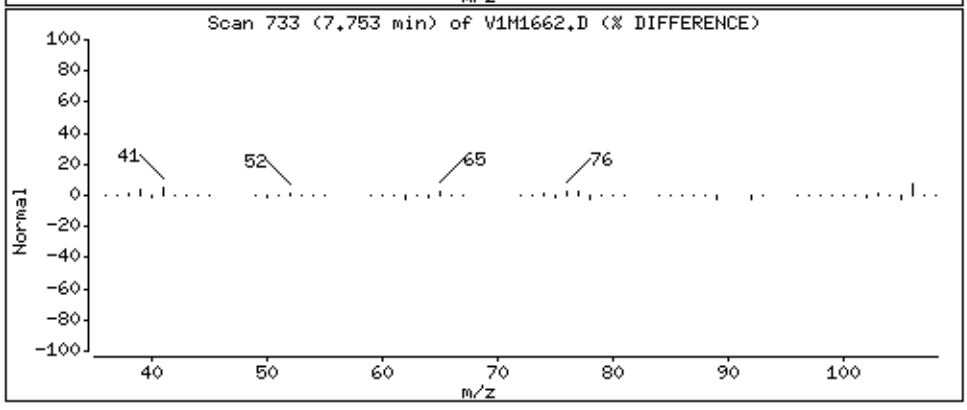












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06B

Sample wt/vol: 9.80 (g/mL) G Lab File ID: V1M1663.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	820	E
108-88-3	Toluene	1900	E
100-41-4	Ethylbenzene	2500	E
179601-23-1	m,p-Xylene	2700	E
95-47-6	o-Xylene	1700	E
1330-20-7	Xylene (Total)	4400	E

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1663.D
Lab Smp Id: M0619-06B Client Smp ID: SB-127 (10-12)
Inj Date : 01-MAY-2013 14:01
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-06B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 64
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.800	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.023	4.029	(0.878)	102343	52.5089	27
$	37 1,2-Dichloroethane-d4	102	4.299	4.305	(0.938)	31036	52.1787	27
	38 Benzene	78	4.368	4.364	(0.953)	10992447	1252.94	640(A)
*	41 Fluorobenzene	96	4.585	4.590	(1.000)	410128	50.0000	
$	51 Toluene-d8	98	6.032	6.019	(0.806)	367915	48.9246	25
	52 Toluene	91	6.121	6.078	(1.335)	23340627	2919.89	1500(A)
*	60 Chlorobenzene-d5	117	7.480	7.476	(1.000)	294380	50.0000	
	64 Ethylbenzene	106	7.677	7.634	(1.026)	11030962	3889.85	2000(AQ)
	65 m,p-Xylene	106	7.815	7.762	(1.045)	15142525	4152.56	2100(A)
	66 o-Xylene	106	8.219	8.185	(1.099)	8790017	2526.15	1300(A)
$	70 Bromofluorobenzene	95	8.771	8.757	(1.172)	140326	53.0098	27
M	81 Xylene (Total)	106				23932542	6678.71	3400
*	84 1,4-Dichlorobenzene-d4	152	10.041	10.027	(1.000)	121316	50.0000	(Q)

QC Flag Legend

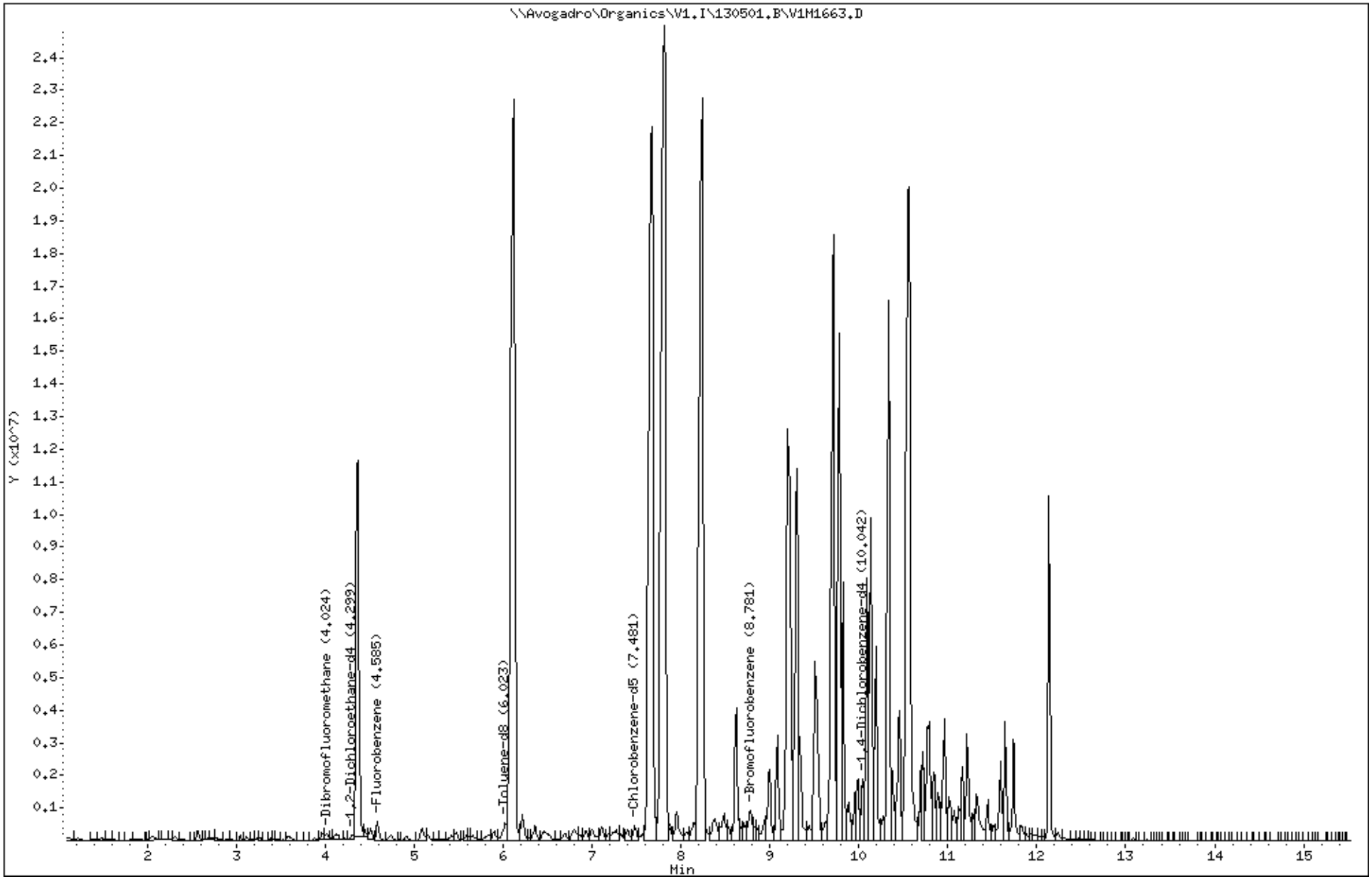
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D
Date : 01-MAY-2013 14:01
Client ID: SB-127 (10-12)
Sample Info: 5ML,M0619-06B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D

Date : 01-MAY-2013 14:01

Client ID: SB-127 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-06B,,71443

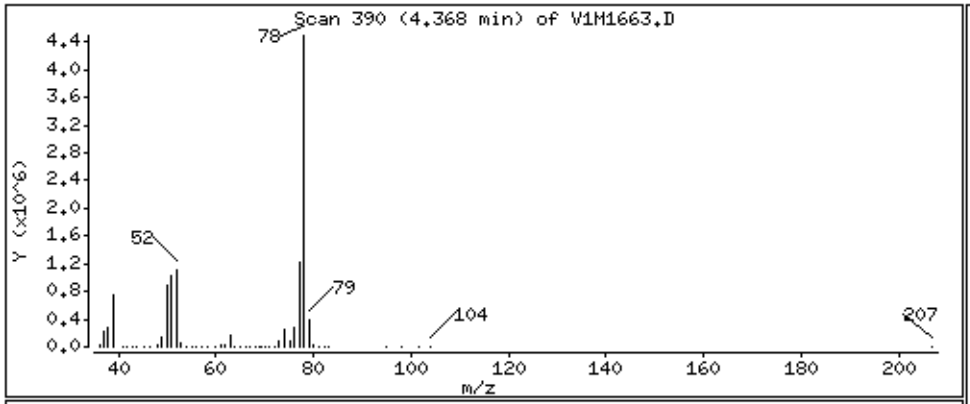
Operator: AM SRC: LIMS

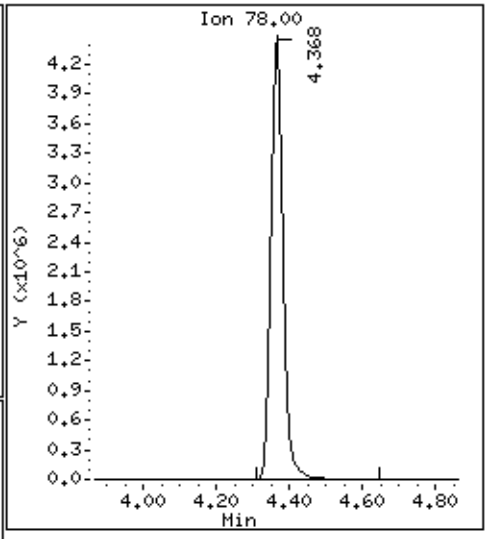
Column phase: DB-624

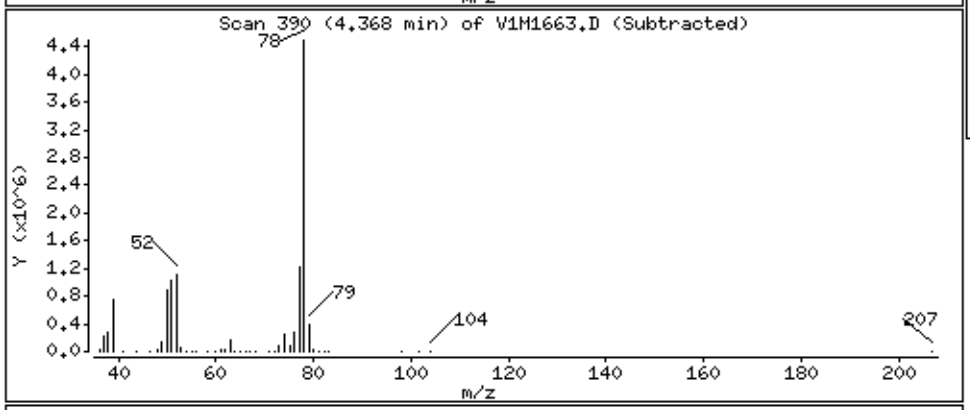
Column diameter: 0.25

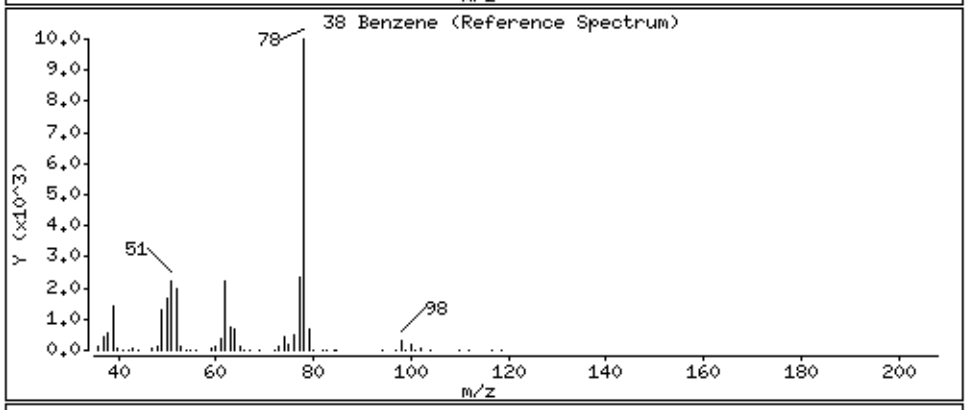
38 Benzene

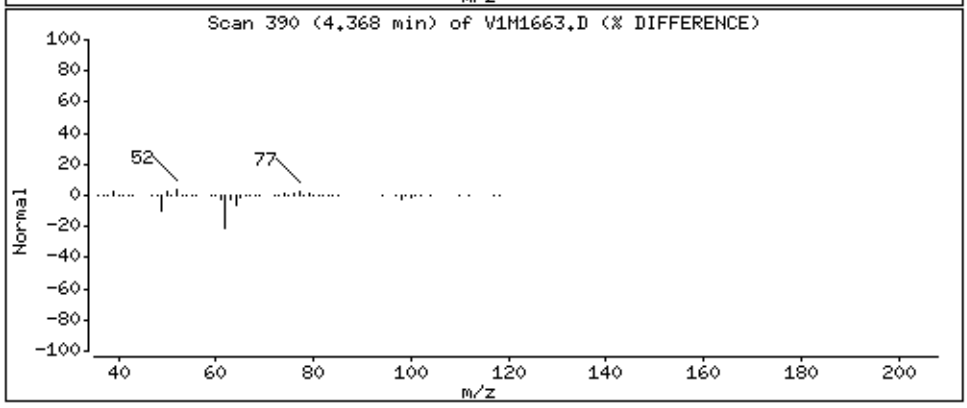
Concentration: 640 ug/Kg











Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D

Date : 01-MAY-2013 14:01

Client ID: SB-127 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-06B,,71443

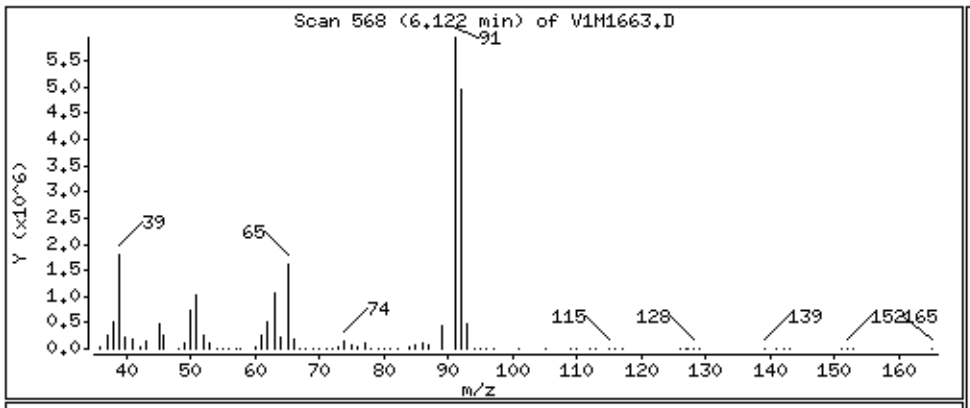
Operator: AM SRC: LIMS

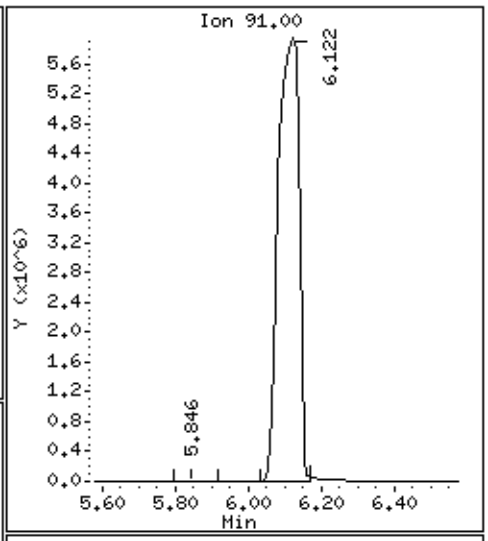
Column phase: DB-624

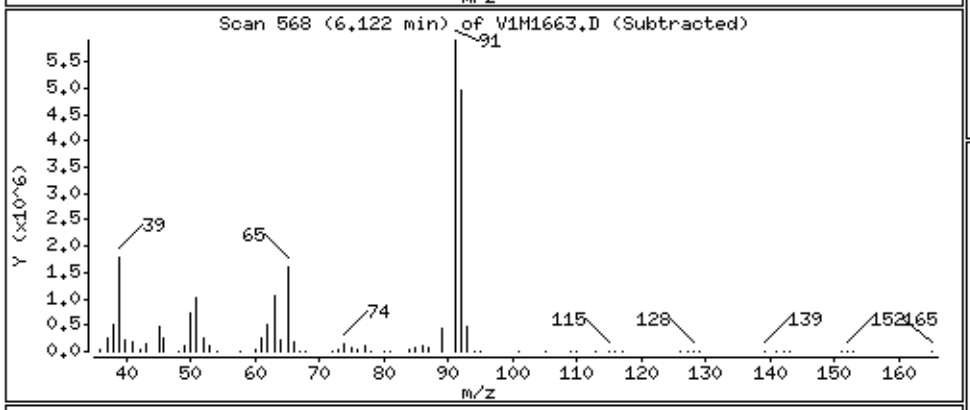
Column diameter: 0.25

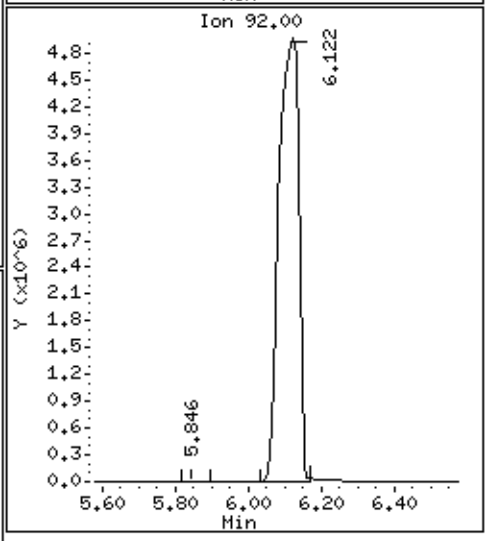
52 Toluene

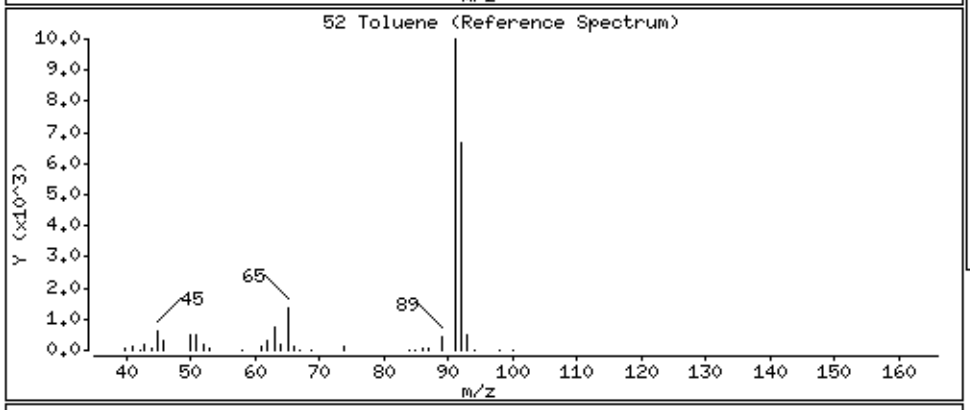
Concentration: 1500 ug/Kg

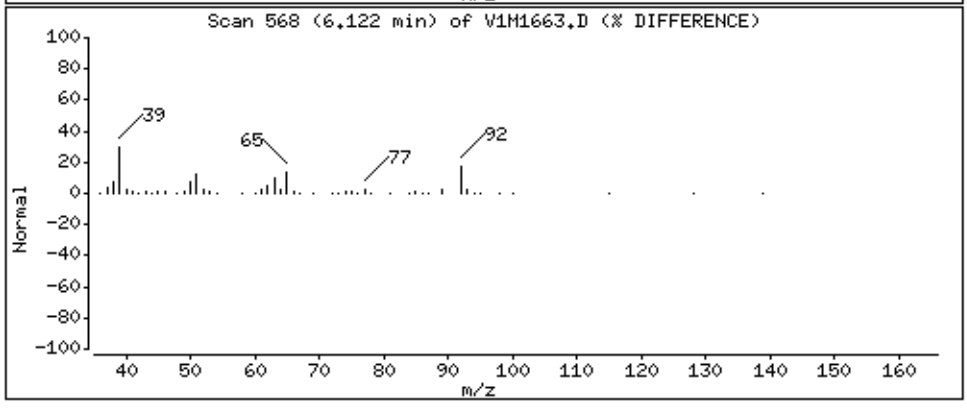












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D

Date : 01-MAY-2013 14:01

Client ID: SB-127 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-06B,,71443

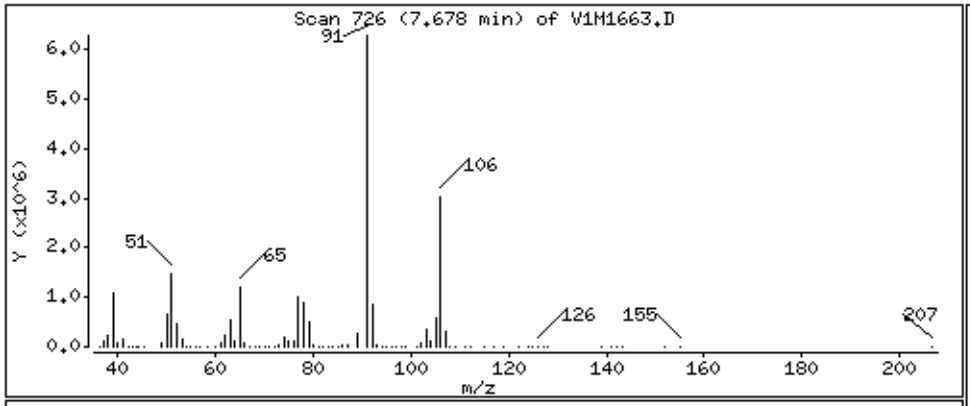
Operator: AM SRC: LIMS

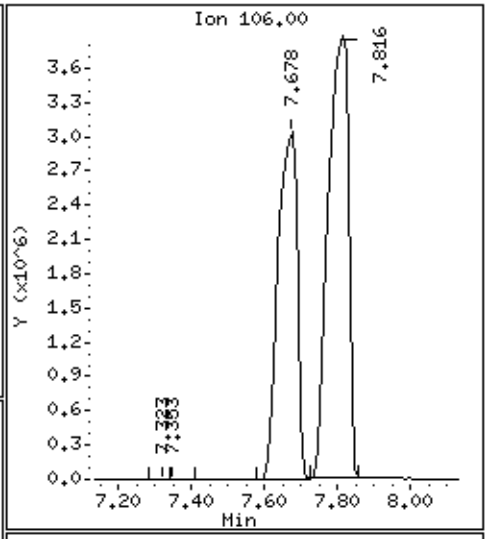
Column phase: DB-624

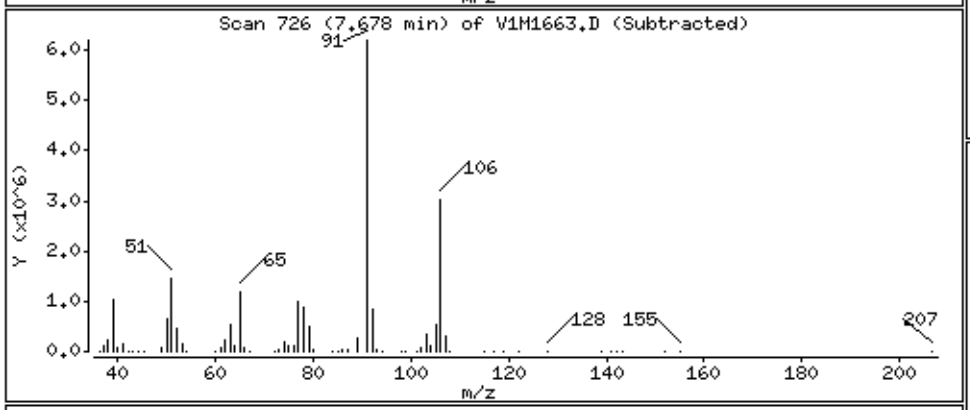
Column diameter: 0.25

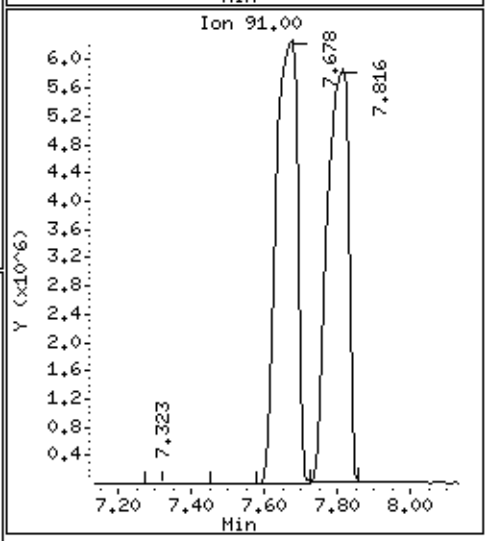
64 Ethylbenzene

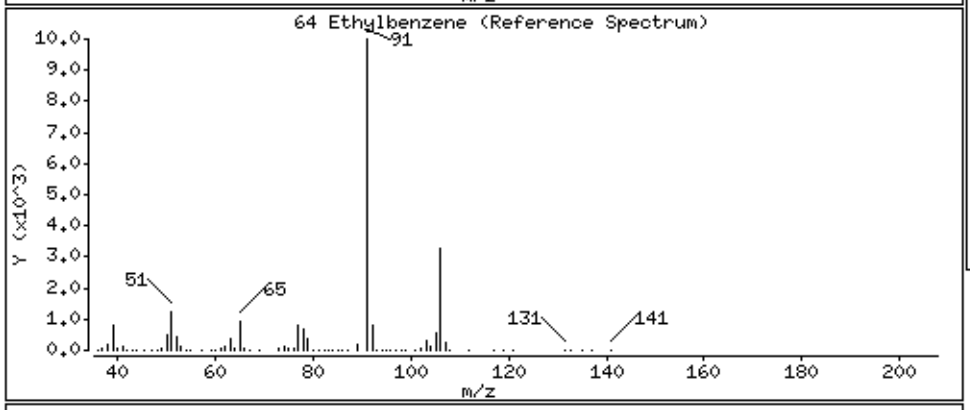
Concentration: 2000 ug/Kg

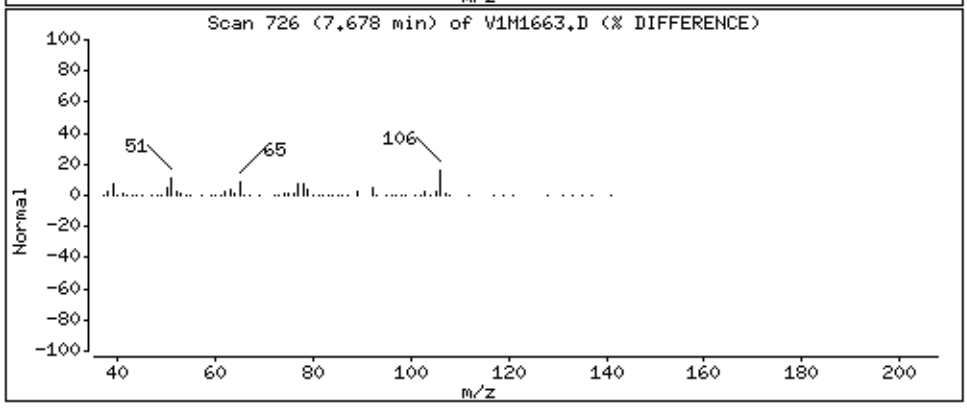












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D

Date : 01-MAY-2013 14:01

Client ID: SB-127 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-06B,,71443

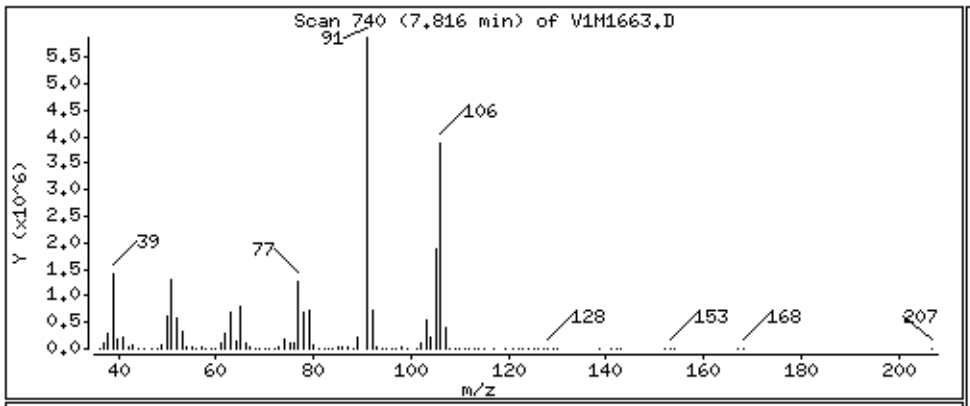
Operator: AM SRC: LIMS

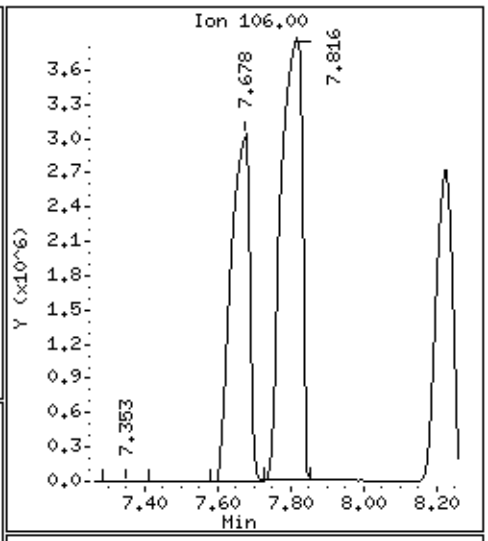
Column phase: DB-624

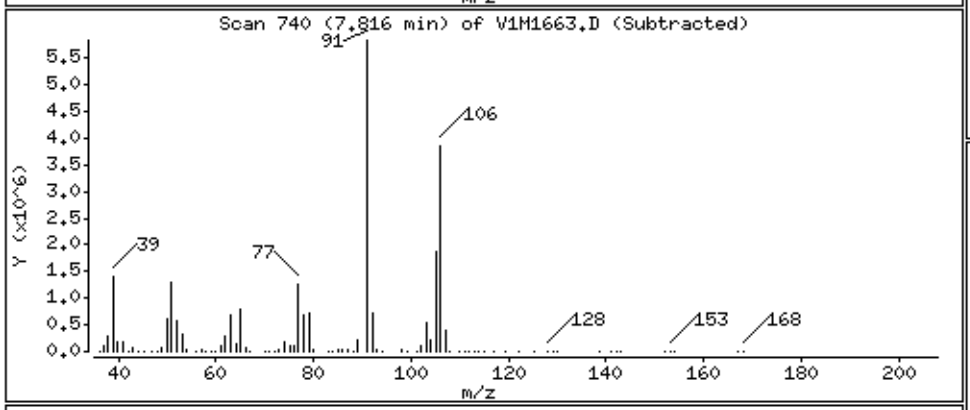
Column diameter: 0.25

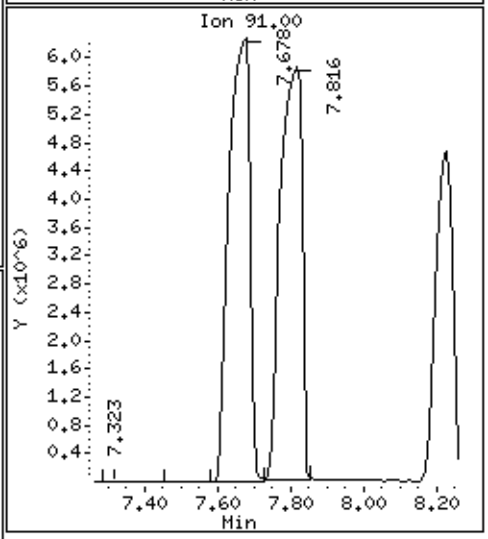
65 m,p-Xylene

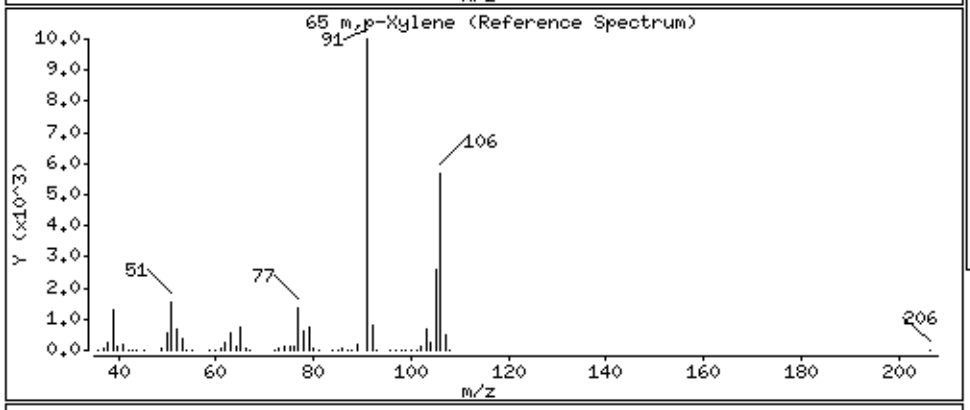
Concentration: 2100 ug/Kg

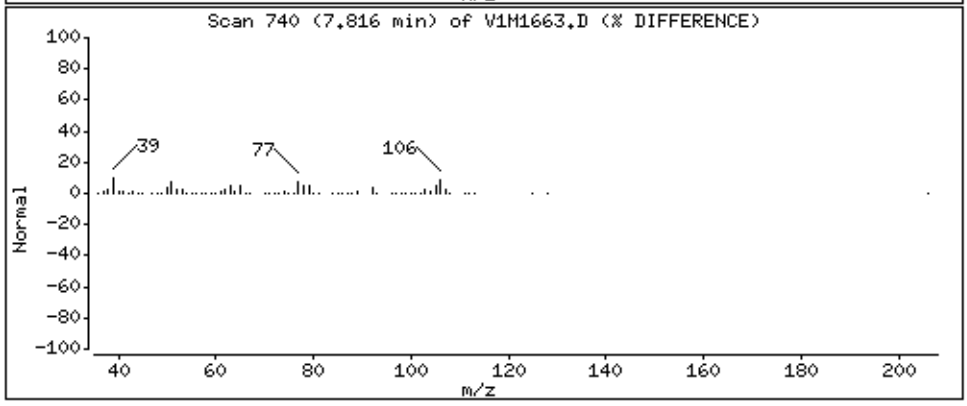












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1663.D

Date : 01-MAY-2013 14:01

Client ID: SB-127 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-06B,,71443

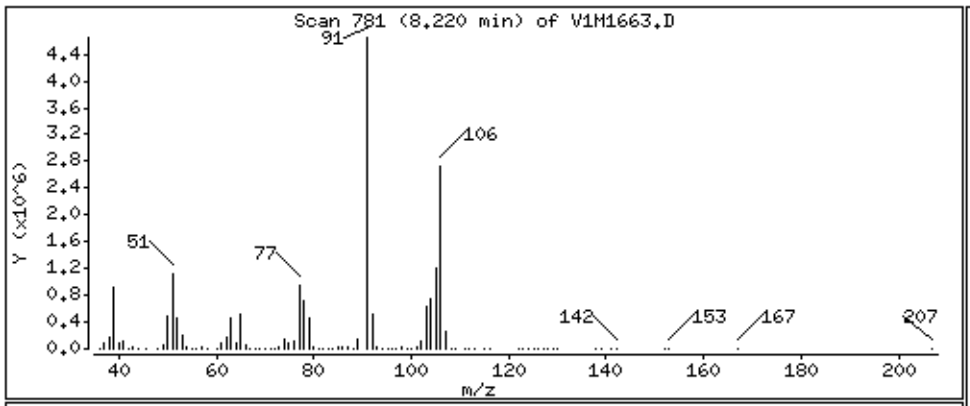
Operator: AM SRC: LIMS

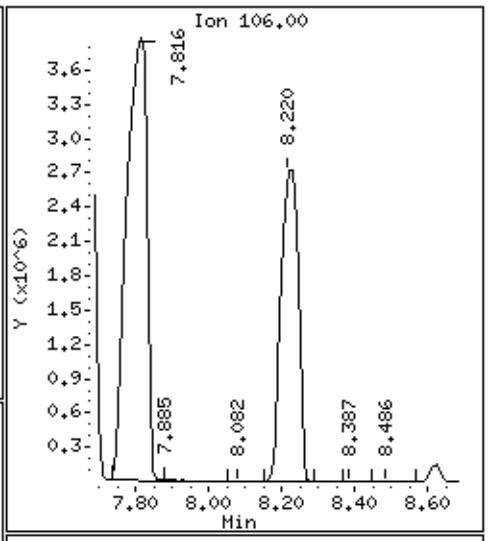
Column phase: DB-624

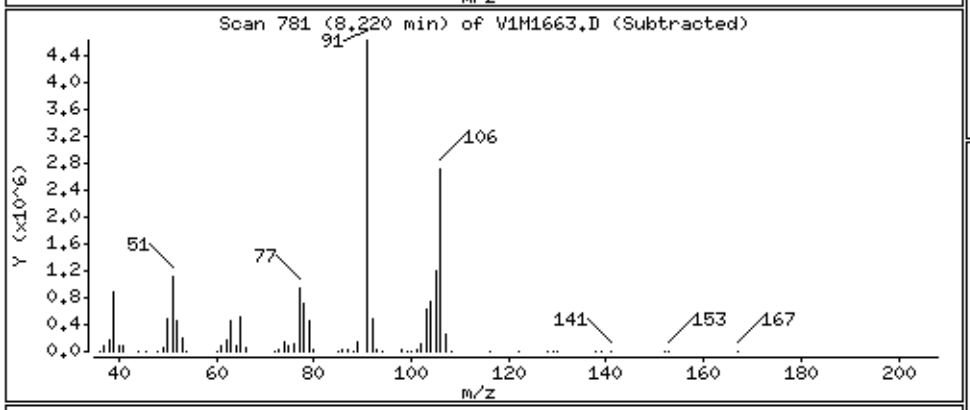
Column diameter: 0.25

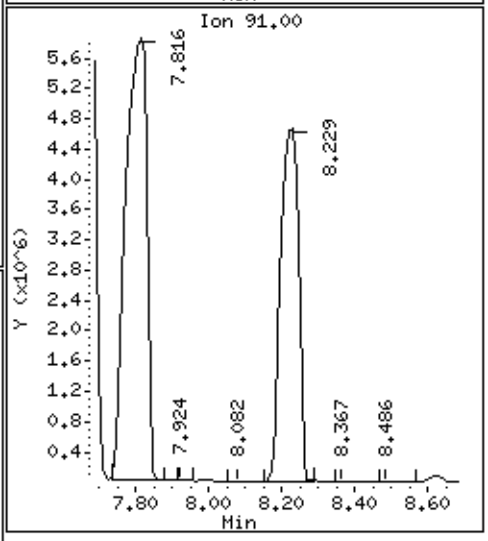
66 o-Xylene

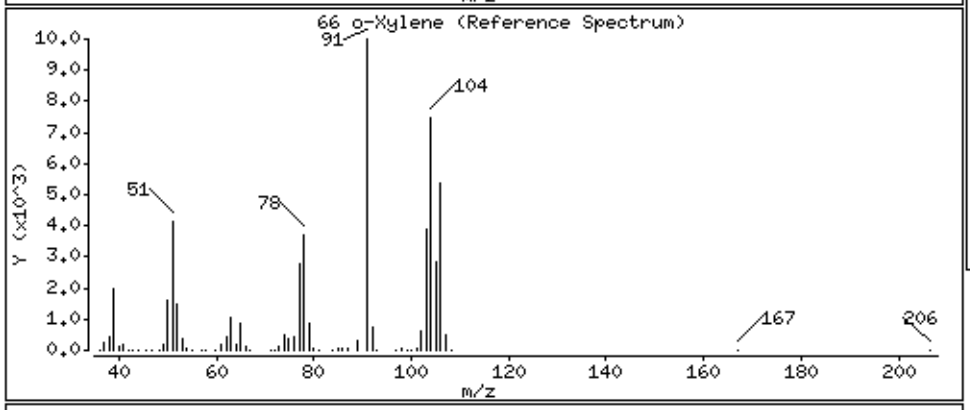
Concentration: 1300 ug/Kg

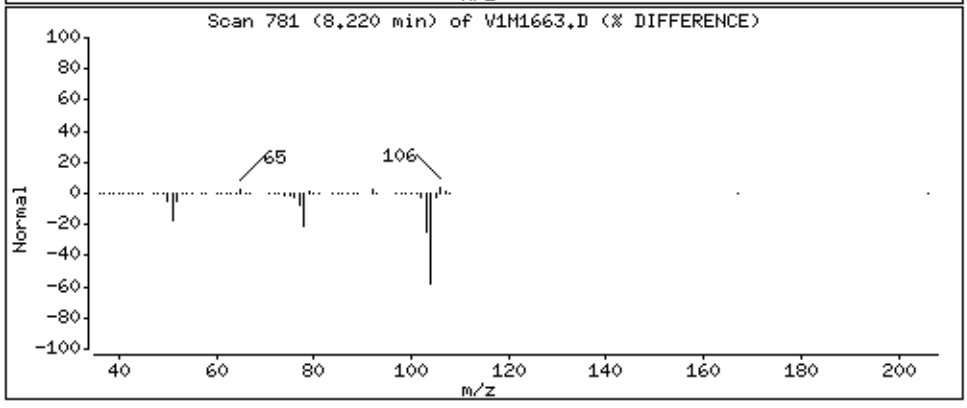












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-127 (10-12)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06C

Sample wt/vol: 12.8 (g/mL) G Lab File ID: V8B9541.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 22 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	3900	J
108-88-3	Toluene	28000	
100-41-4	Ethylbenzene	56000	
179601-23-1	m,p-Xylene	71000	
95-47-6	o-Xylene	29000	
1330-20-7	Xylene (Total)	66000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9541.d
Lab Smp Id: M0619-06C Client Smp ID: SB-127 (10-12)
Inj Date : 02-MAY-2013 13:15
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,M0619-06C,,71469,10
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	12.800	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	15.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	36 Dibromofluoromethane	113	4.715	4.715	(0.889)	594533	52.1433	3000
$	42 1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	133843	50.7538	3000
	43 Benzene	78	5.075	5.075	(0.956)	246021	4.37228	2600(a)
*	46 Fluorobenzene	96	5.306	5.306	(1.000)	2251220	50.0000	
$	58 Toluene-d8	98	6.785	6.786	(0.818)	2255427	48.6869	2800
	59 Toluene	91	6.853	6.853	(1.291)	2093475	31.5265	18000
*	68 Chlorobenzene-d5	117	8.293	8.290	(1.000)	1744036	50.0000	
	72 Ethylbenzene	106	8.438	8.438	(1.017)	1248912	62.6420	37000
	73 m,p-Xylene	106	8.567	8.567	(1.033)	2009711	79.1828	46000
	74 o-Xylene	106	9.014	9.014	(1.087)	793211	32.7059	19000
$	79 Bromofluorobenzene	95	9.589	9.589	(1.156)	899569	52.3230	3100
M	94 Xylene (Total)	106				2802922	111.889	66000
*	92 1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	866995	50.0000	

QC Flag Legend

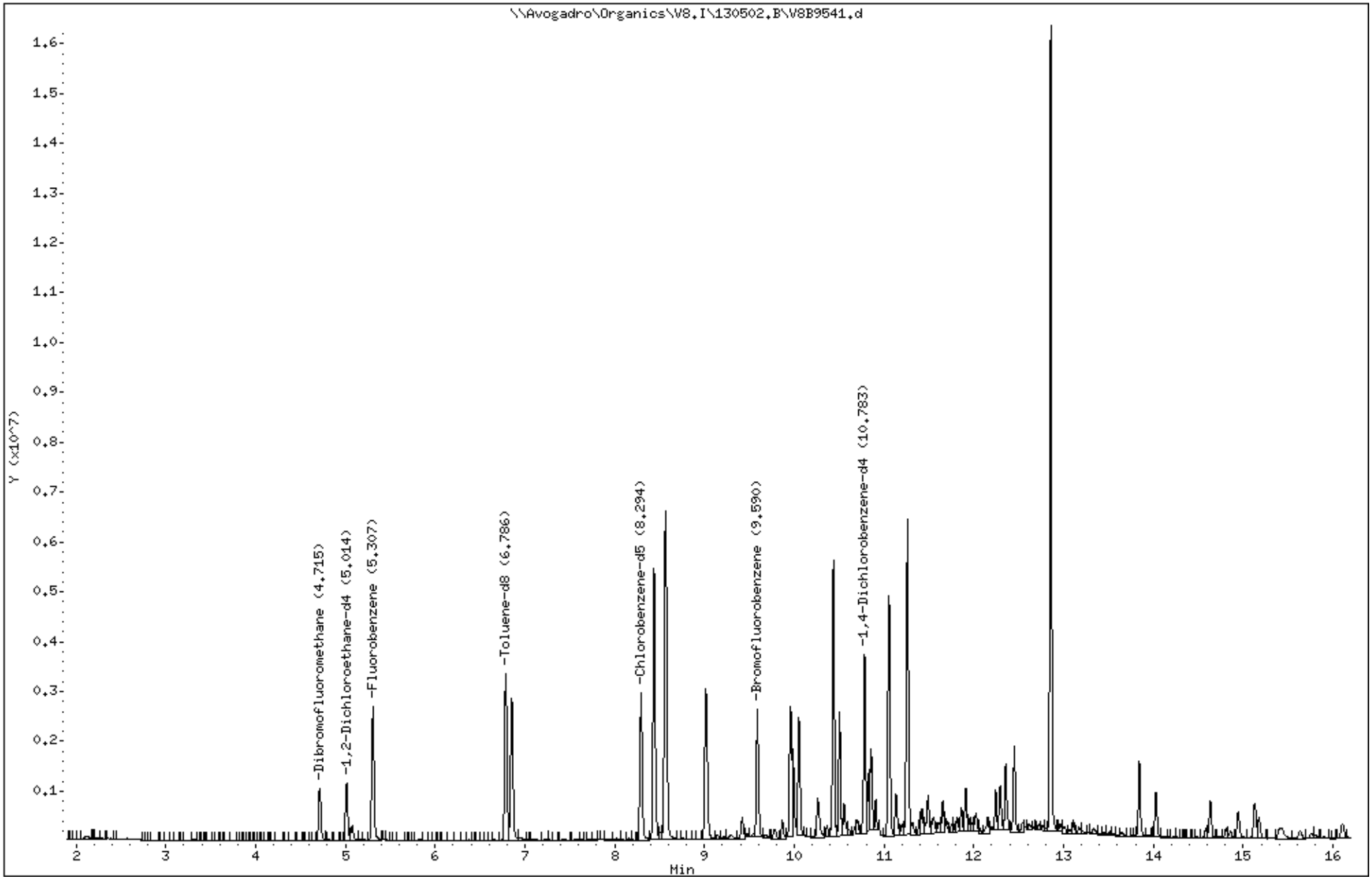
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d
Date : 02-MAY-2013 13:15
Client ID: SB-127 (10-12)
Sample Info: 5ML,M0619-06C,,71469,10

Instrument: V8.i

Operator: V10 SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d

Date : 02-MAY-2013 13:15

Client ID: SB-127 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-06C,,71469,10

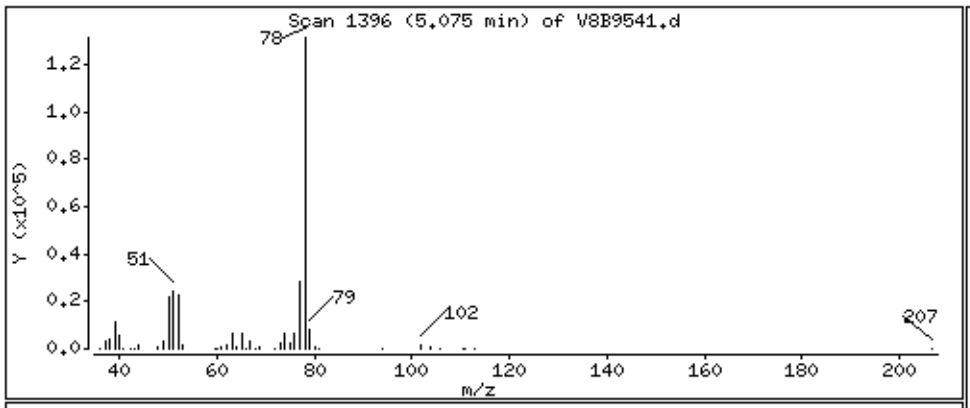
Operator: V10 SRC: LIMS

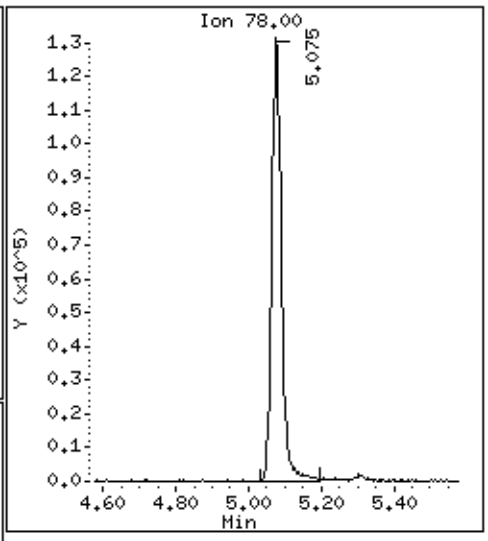
Column phase: DB-624

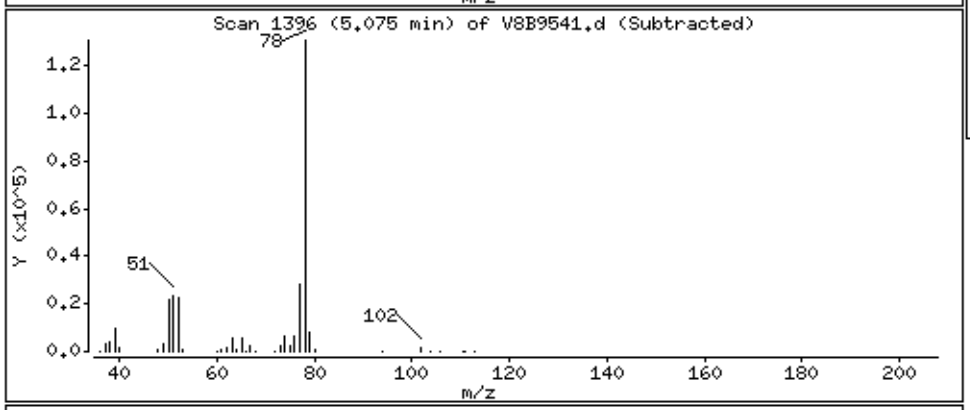
Column diameter: 0.25

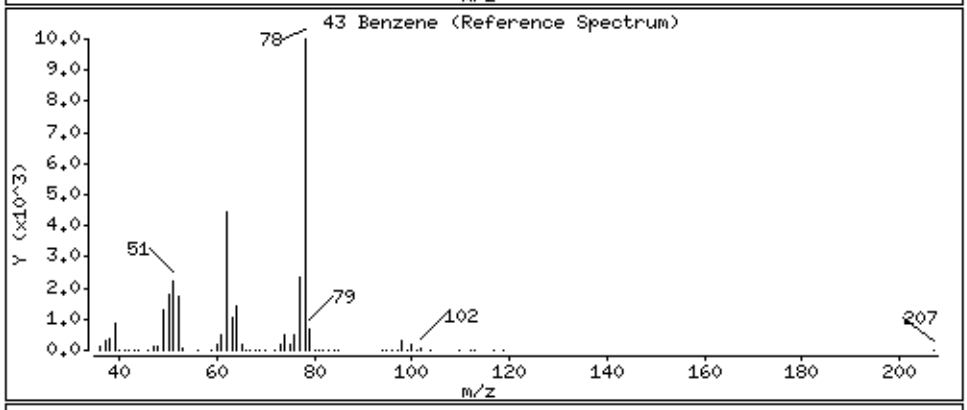
43 Benzene

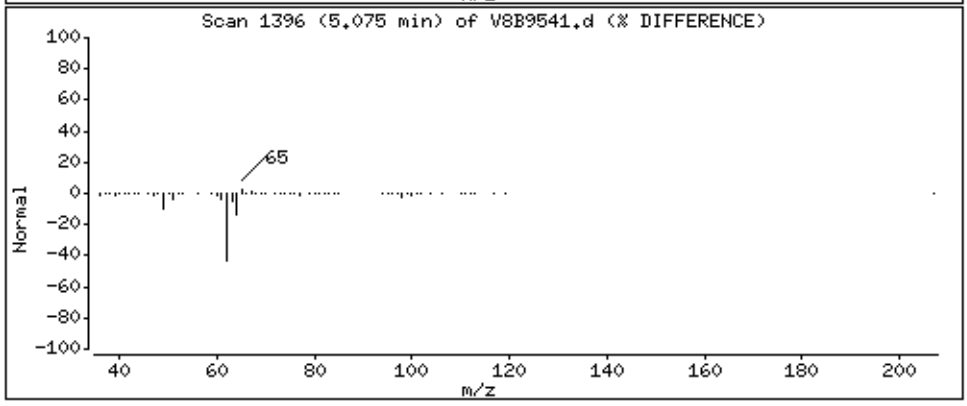
Concentration: 2600 ug/Kg











Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d

Date : 02-MAY-2013 13:15

Client ID: SB-127 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-06C,,71469,10

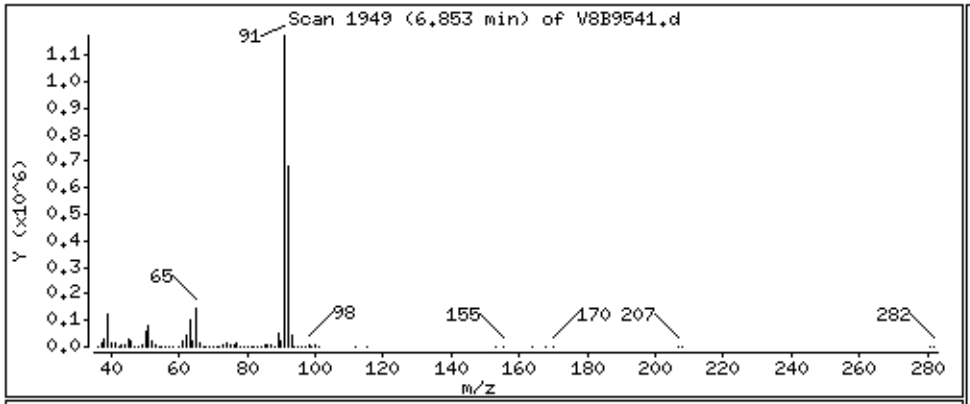
Operator: V10 SRC: LIMS

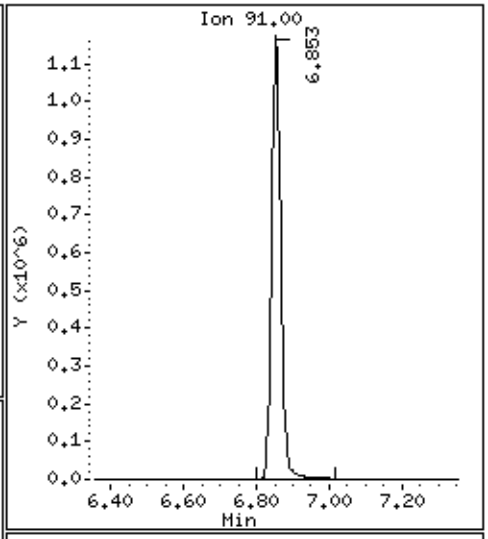
Column phase: DB-624

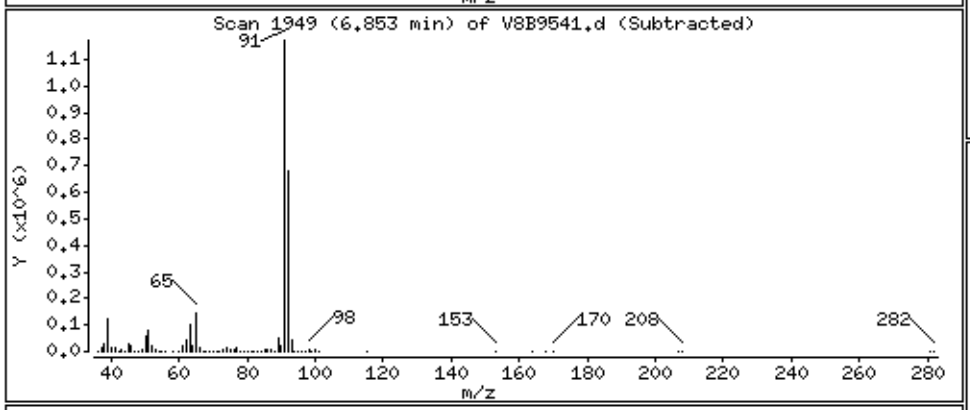
Column diameter: 0.25

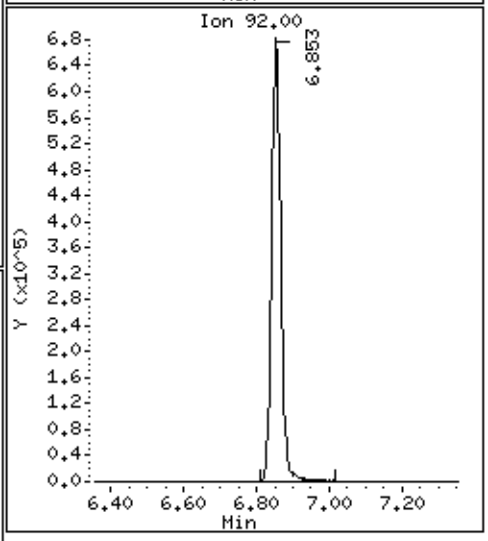
59 Toluene

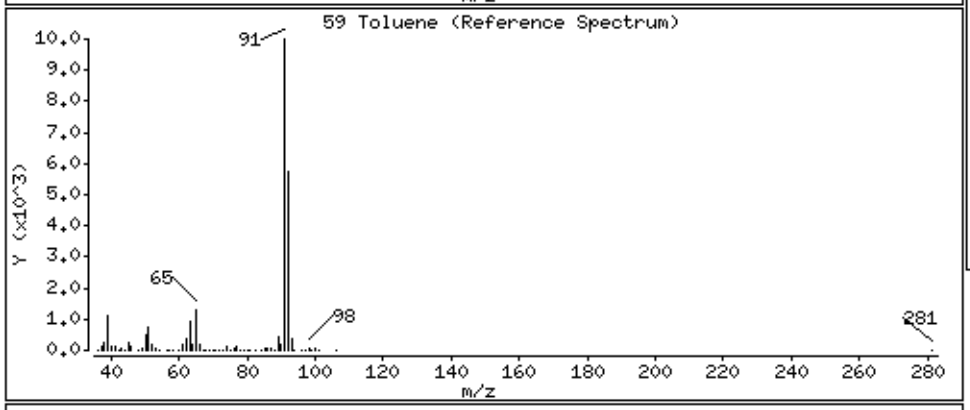
Concentration: 18000 ug/Kg

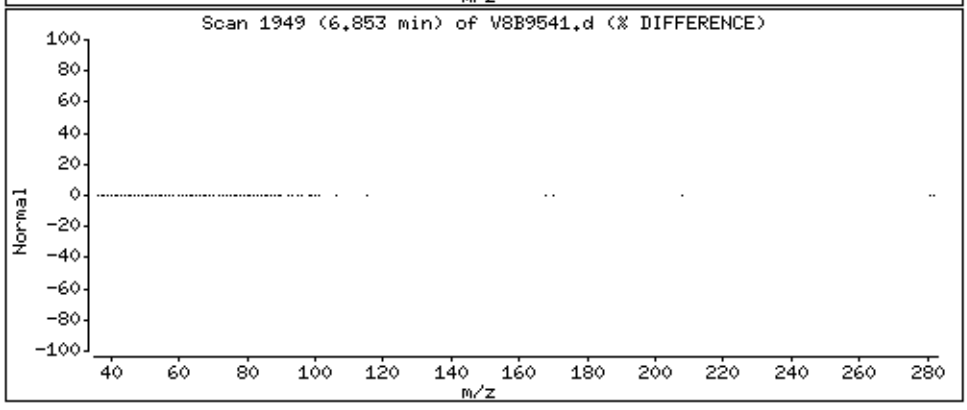












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d

Date : 02-MAY-2013 13:15

Client ID: SB-127 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-06C,,71469,10

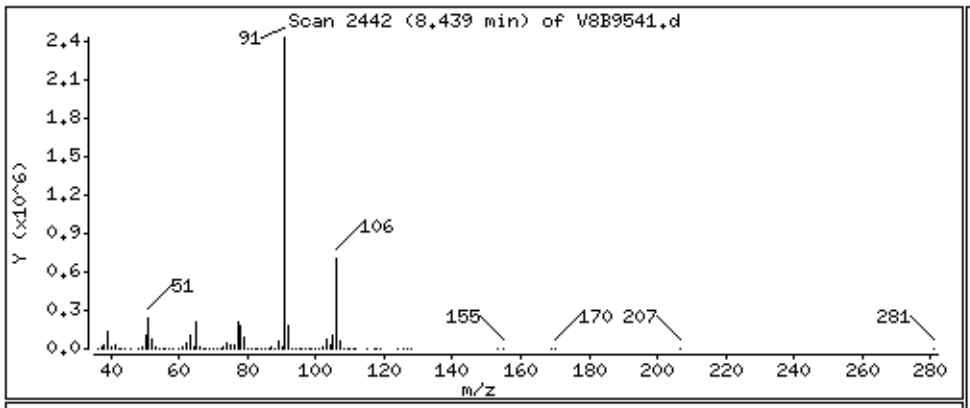
Operator: V10 SRC: LIMS

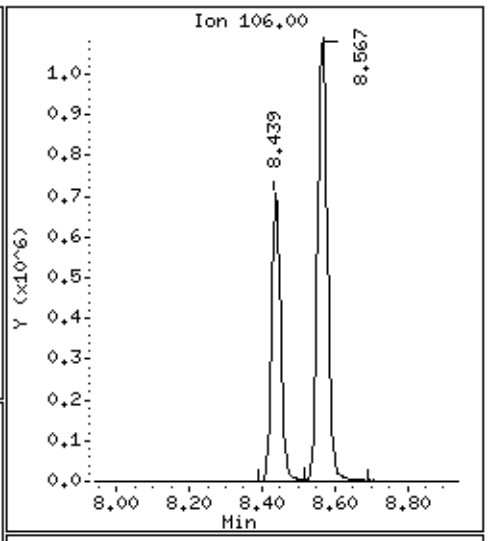
Column phase: DB-624

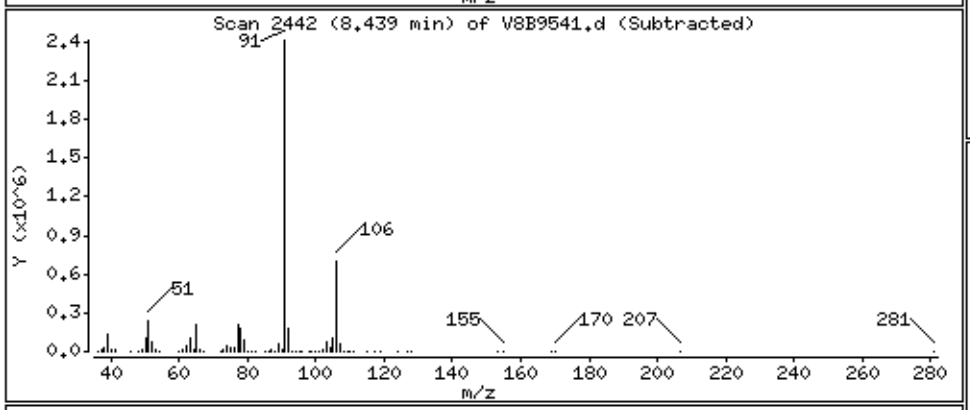
Column diameter: 0.25

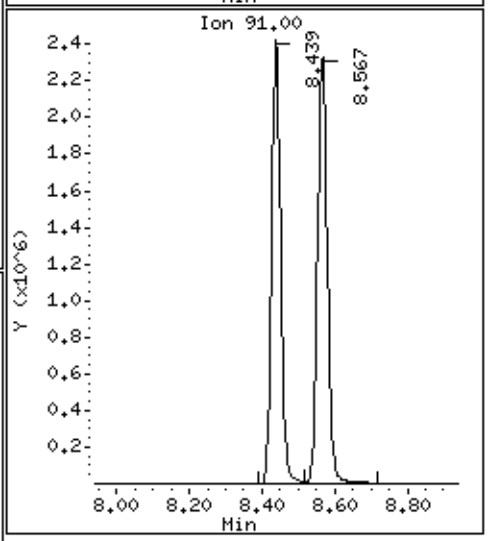
72 Ethylbenzene

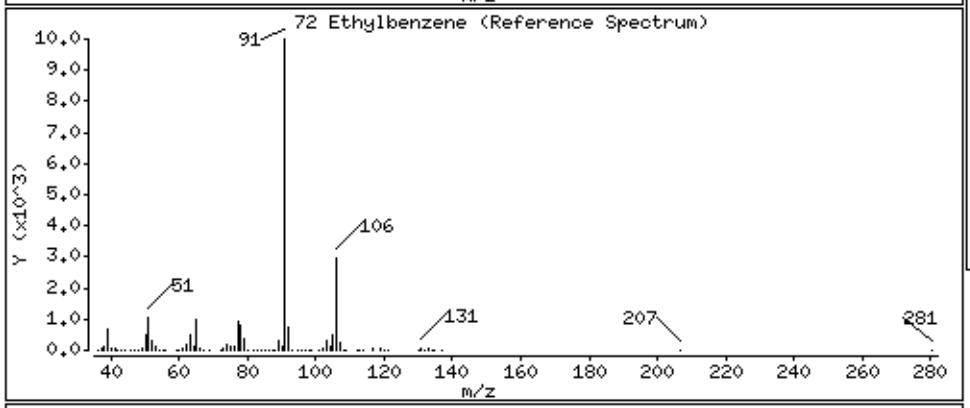
Concentration: 37000 ug/Kg

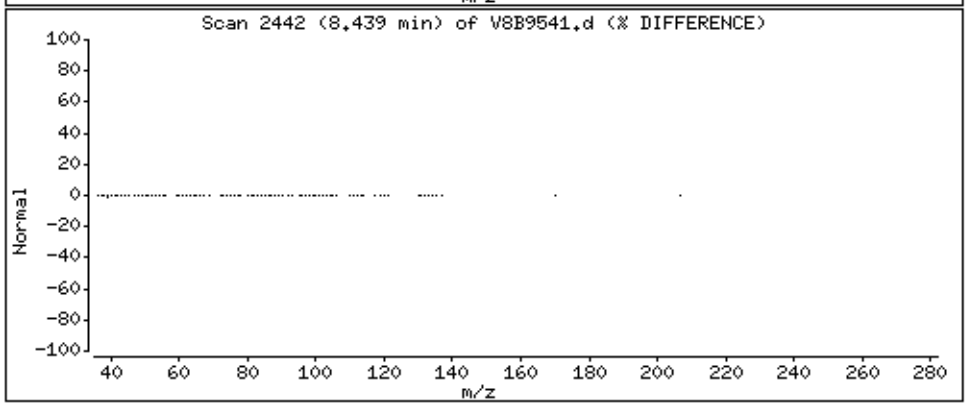












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d

Date : 02-MAY-2013 13:15

Client ID: SB-127 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-06C,,71469,10

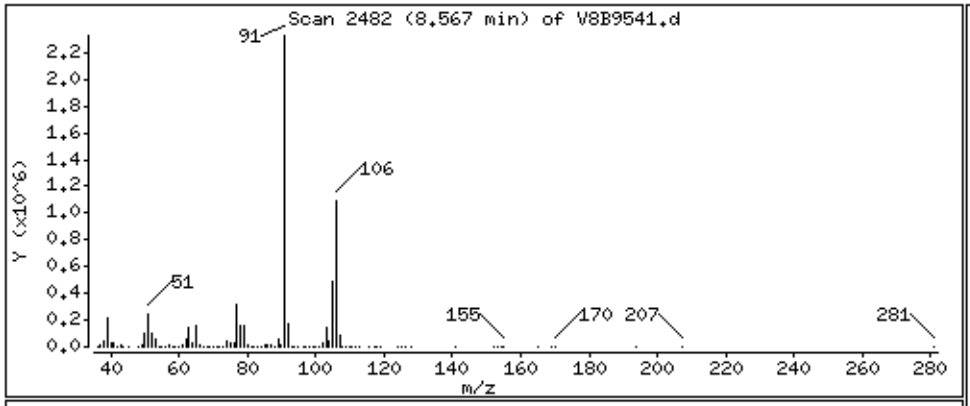
Operator: V10 SRC: LIMS

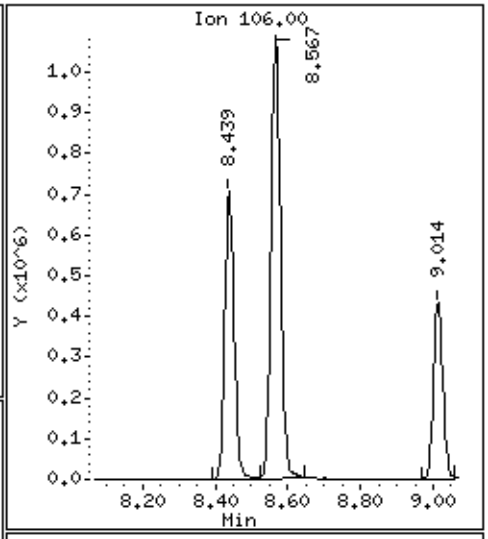
Column phase: DB-624

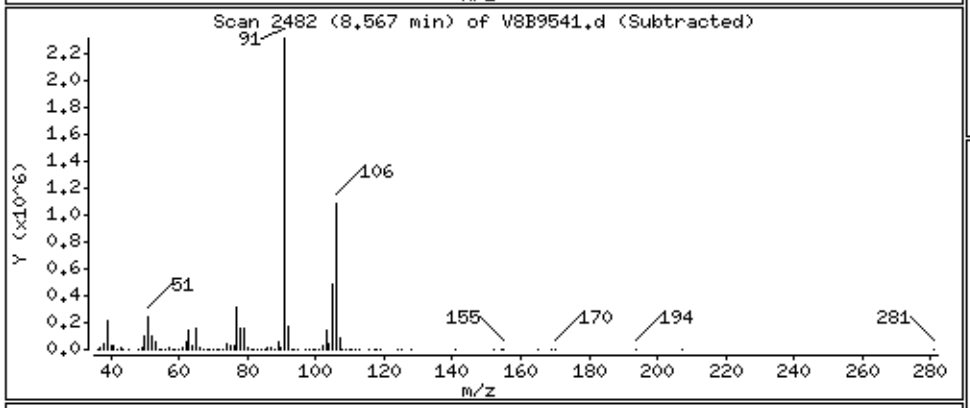
Column diameter: 0.25

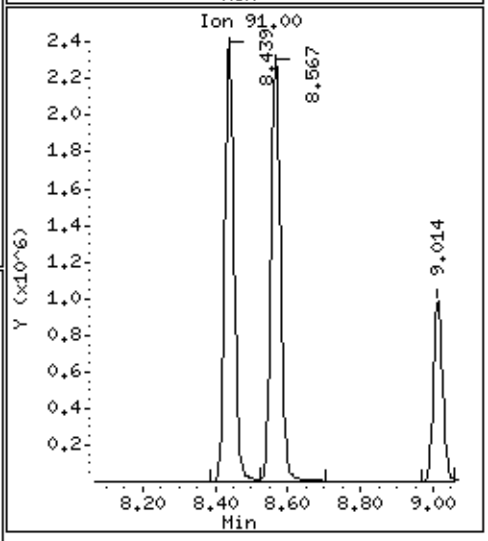
73 m,p-Xylene

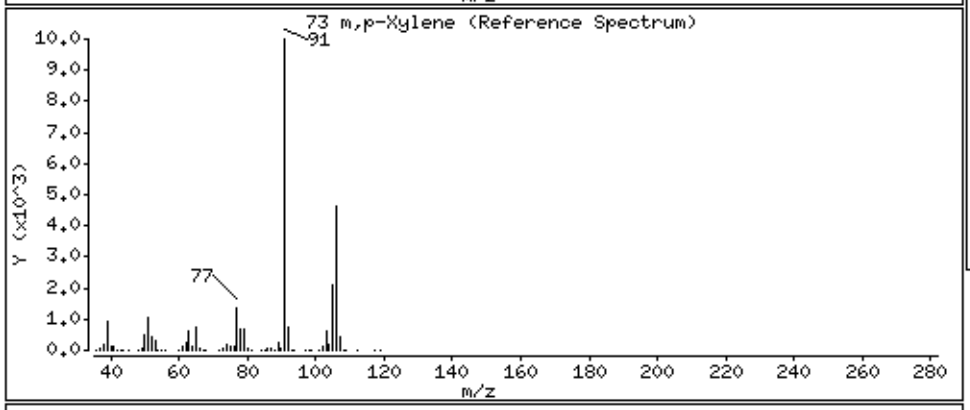
Concentration: 46000 ug/Kg

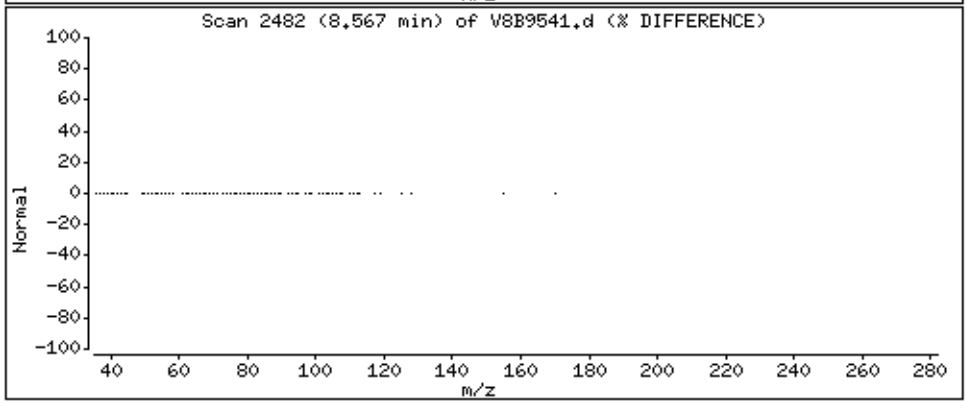












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9541.d

Date : 02-MAY-2013 13:15

Client ID: SB-127 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-06C,,71469,10

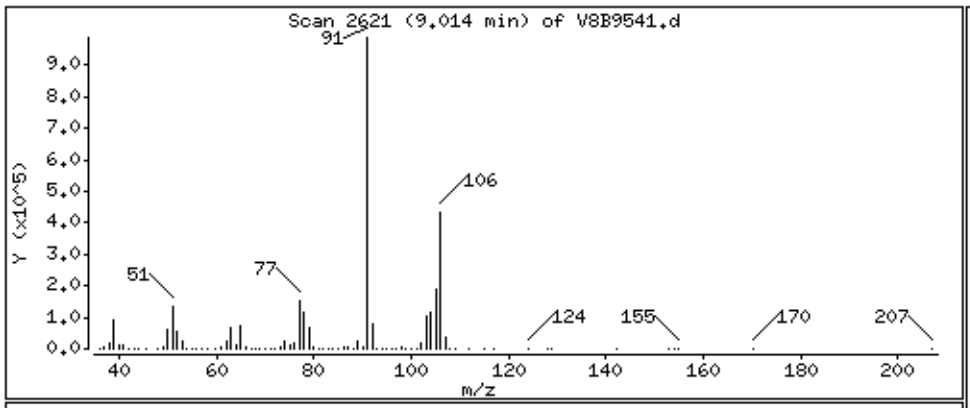
Operator: V10 SRC: LIMS

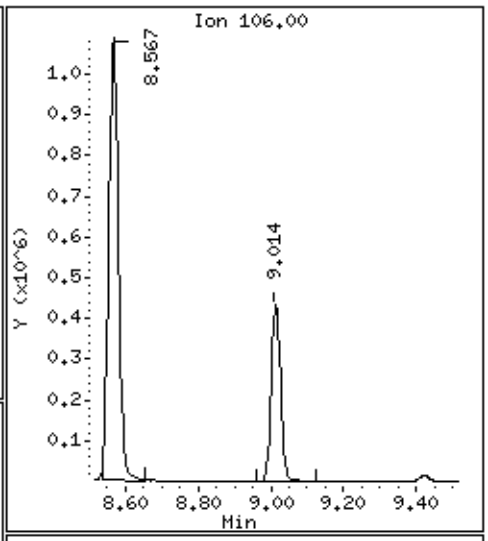
Column phase: DB-624

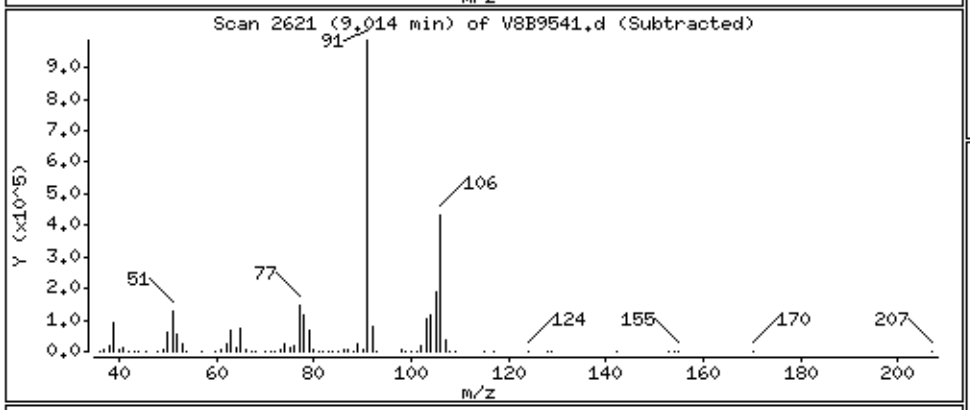
Column diameter: 0.25

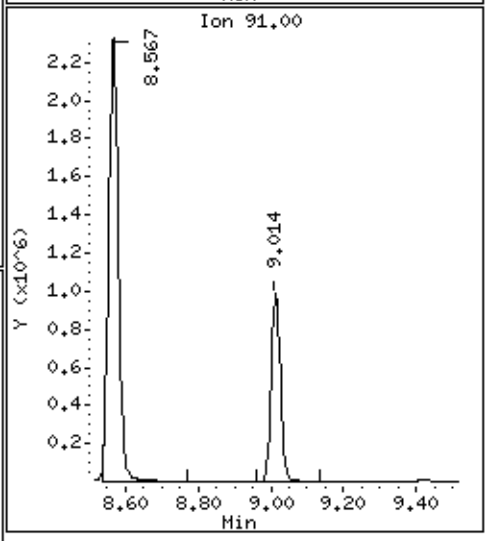
74 o-Xylene

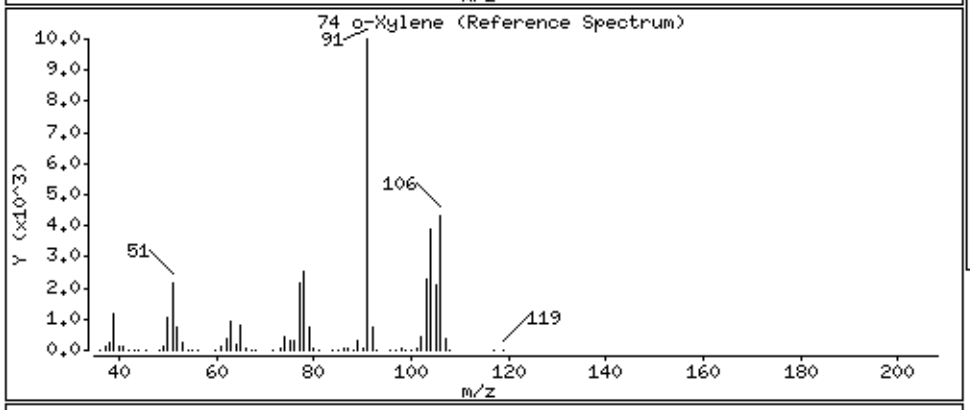
Concentration: 19000 ug/Kg

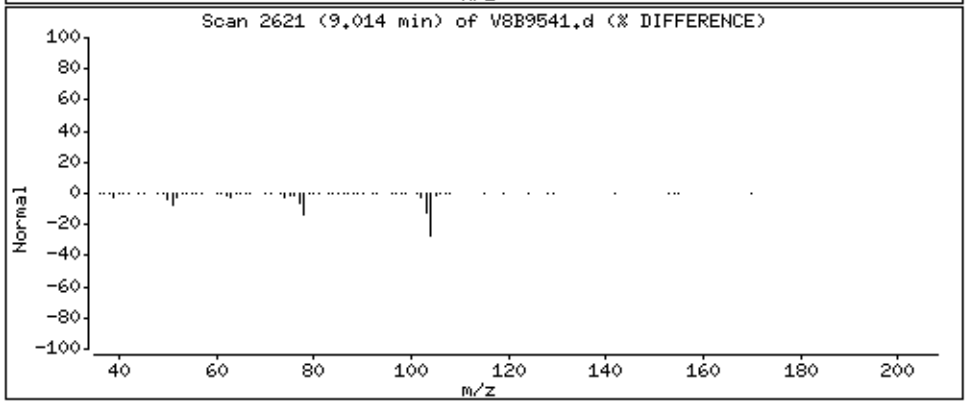












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-07B

Sample wt/vol: 4.80 (g/mL) G Lab File ID: V1M1685.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.9	U
108-88-3	Toluene	5.9	U
100-41-4	Ethylbenzene	5.9	U
179601-23-1	m,p-Xylene	5.9	U
95-47-6	o-Xylene	5.9	U
1330-20-7	Xylene (Total)	5.9	U

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1685.D
Report Date: 08-May-2013 11:57

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1685.D
Lab Smp Id: M0619-07B Client Smp ID: SB-128 (2-4)
Inj Date : 02-MAY-2013 10:37
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-07B,,71460
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 56
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	4.800	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

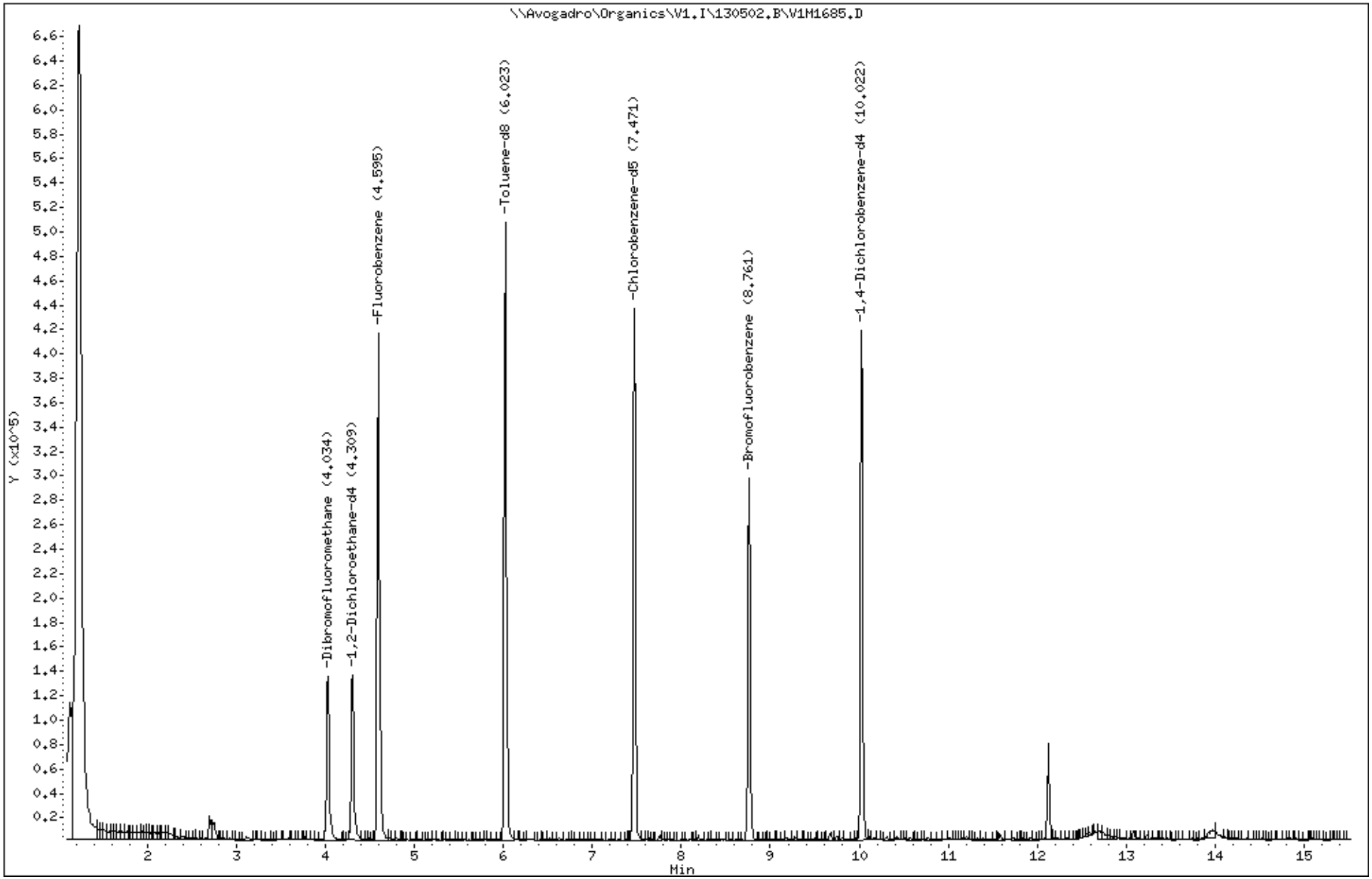
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.033	4.024	(0.878)	88173	50.5040	53
$ 37 1,2-Dichloroethane-d4	102	4.309	4.300	(0.938)	26639	49.9990	52
* 41 Fluorobenzene	96	4.595	4.585	(1.000)	367370	50.0000	
$ 51 Toluene-d8	98	6.023	6.013	(0.806)	322347	48.6731	51
* 60 Chlorobenzene-d5	117	7.471	7.471	(1.000)	259252	50.0000	
$ 70 Bromofluorobenzene	95	8.761	8.761	(1.173)	117387	50.3528	52
* 84 1,4-Dichlorobenzene-d4	152	10.022	10.032	(1.000)	109366	50.0000	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1685.D
Date : 02-MAY-2013 10:37
Client ID: SB-128 (2-4)
Sample Info: 5ML,M0619-07B,,71460

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08B

Sample wt/vol: 9.70 (g/mL) G Lab File ID: V1M1665.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.2	J
108-88-3	Toluene	42	
100-41-4	Ethylbenzene	360	E
179601-23-1	m,p-Xylene	2300	E
95-47-6	o-Xylene	2100	E
1330-20-7	Xylene (Total)	4400	E

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1665.D
Lab Smp Id: M0619-08B Client Smp ID: SB-128 (10-12)
Inj Date : 01-MAY-2013 14:52
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-08B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 66
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.700	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.026	4.029	(0.878)	106700	53.6833	28
$	37 1,2-Dichloroethane-d4	102	4.302	4.305	(0.938)	31194	51.4279	26
	38 Benzene	78	4.361	4.364	(0.951)	33975	3.79749	2(a)
*	41 Fluorobenzene	96	4.588	4.590	(1.000)	418234	50.0000	
$	51 Toluene-d8	98	6.026	6.019	(0.805)	365379	52.3376	27
	52 Toluene	91	6.085	6.078	(1.326)	587368	72.0550	37
*	60 Chlorobenzene-d5	117	7.483	7.476	(1.000)	273286	50.0000	
	64 Ethylbenzene	106	7.651	7.634	(1.022)	1629885	619.109	320(A)
	65 m,p-Xylene	106	7.809	7.762	(1.043)	13232550	3908.88	2000(A)
	66 o-Xylene	106	8.232	8.185	(1.100)	11569627	3581.62	1800(A)
$	70 Bromofluorobenzene	95	8.784	8.757	(1.174)	138441	56.3343	29
M	81 Xylene (Total)	106				24802177	7490.49	3900
*	84 1,4-Dichlorobenzene-d4	152	10.054	10.027	(1.000)	56735	50.0000	(Q)

QC Flag Legend

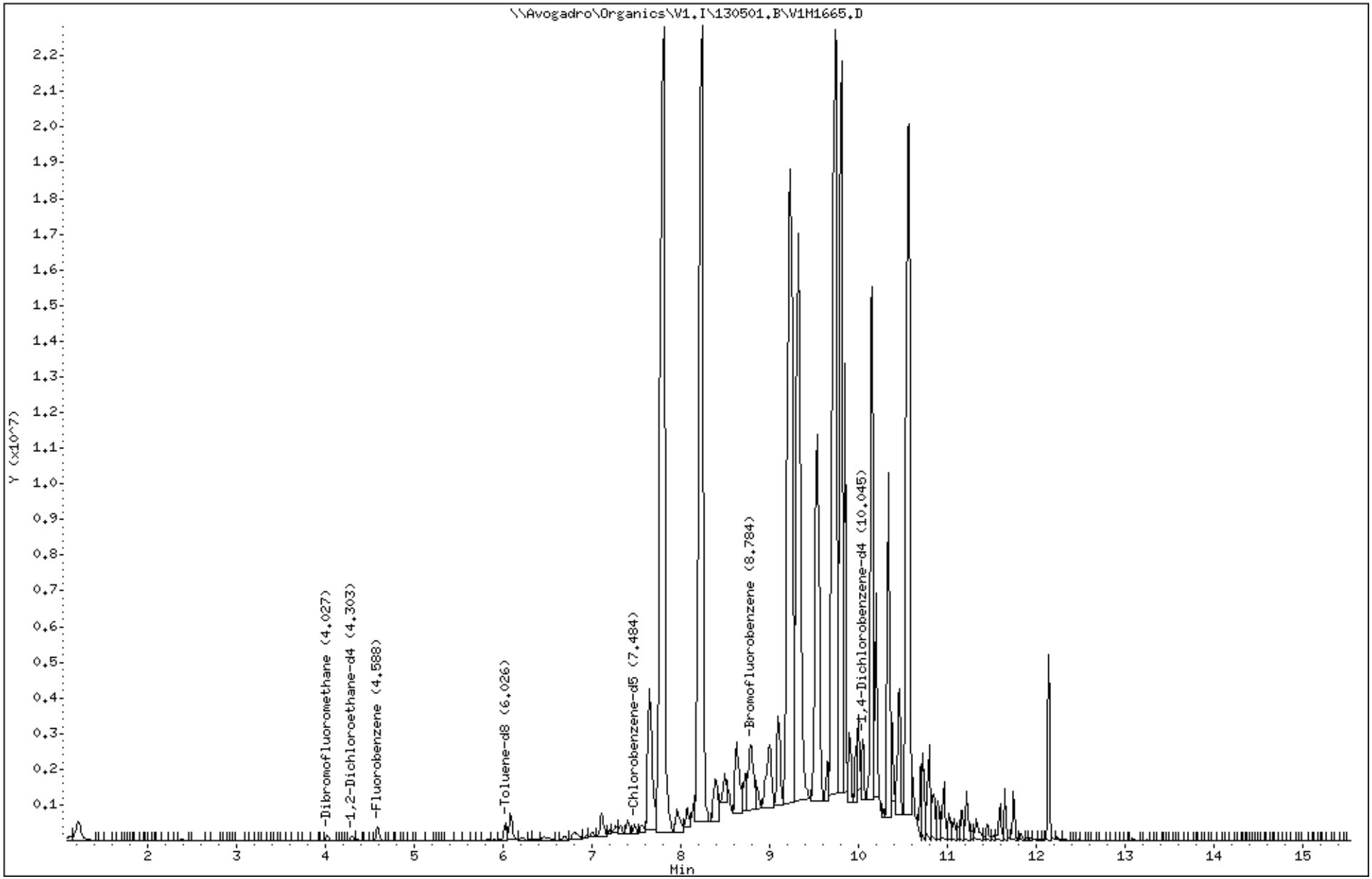
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D
Date : 01-MAY-2013 14:52
Client ID: SB-128 (10-12)
Sample Info: 5ML,M0619-08B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D

Date : 01-MAY-2013 14:52

Client ID: SB-128 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-08B,,71443

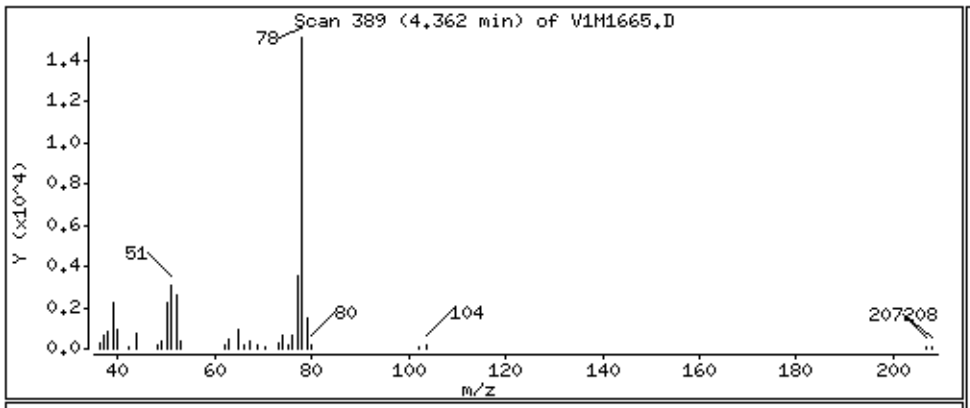
Operator: AM SRC: LIMS

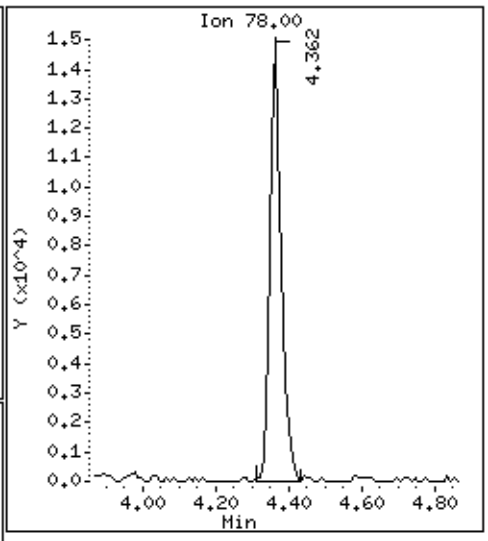
Column phase: DB-624

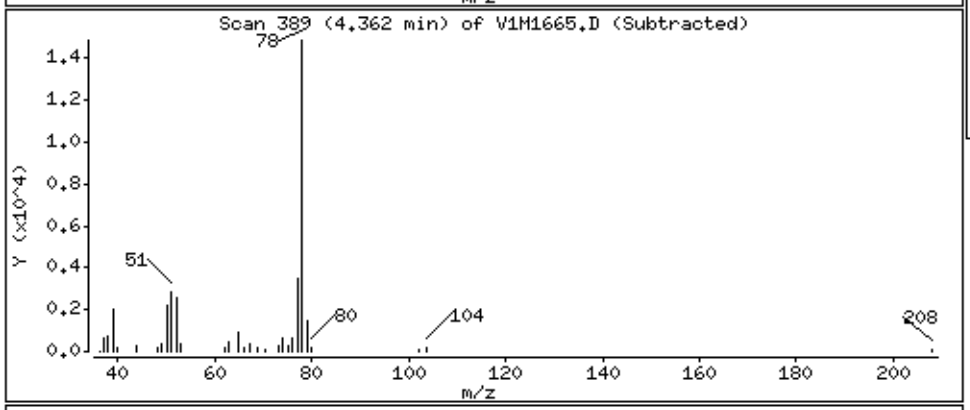
Column diameter: 0.25

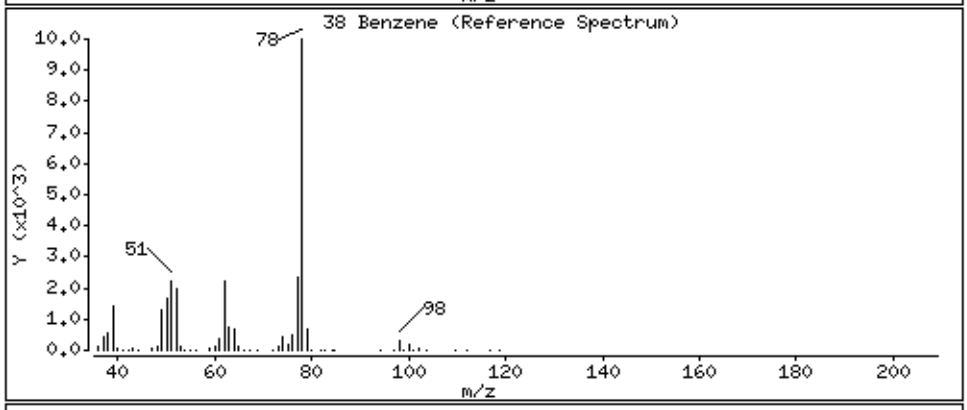
38 Benzene

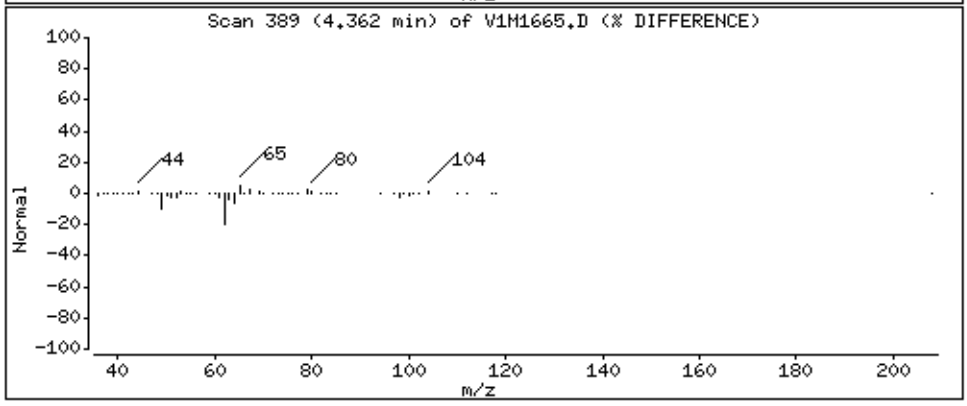
Concentration: 2 ug/Kg











Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D

Date : 01-MAY-2013 14:52

Client ID: SB-128 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-08B,,71443

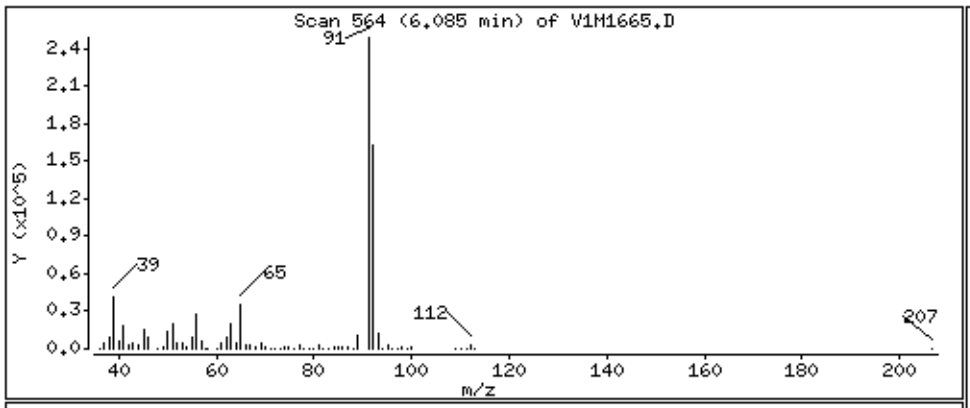
Operator: AM SRC: LIMS

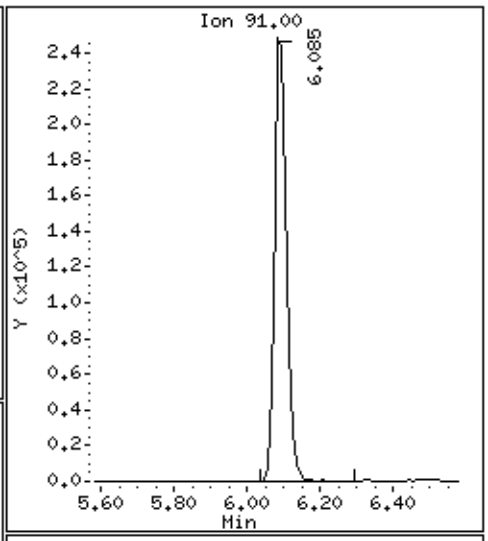
Column phase: DB-624

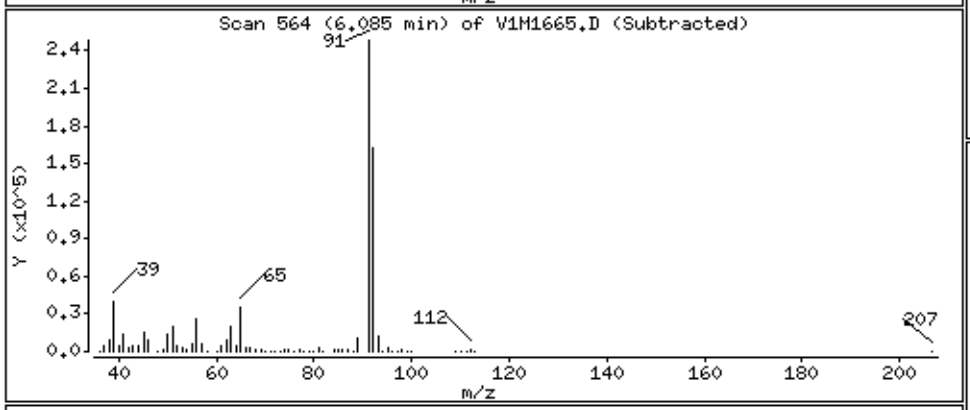
Column diameter: 0.25

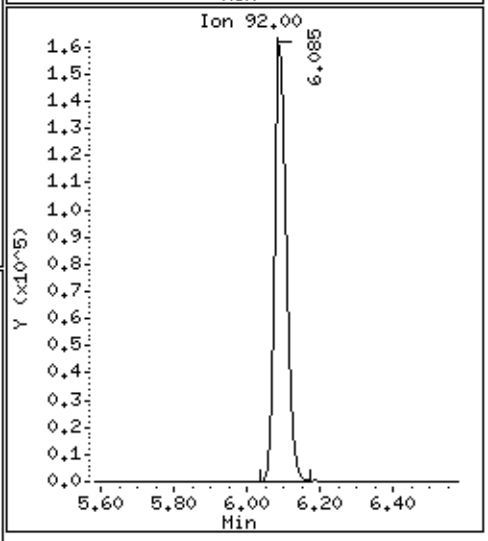
52 Toluene

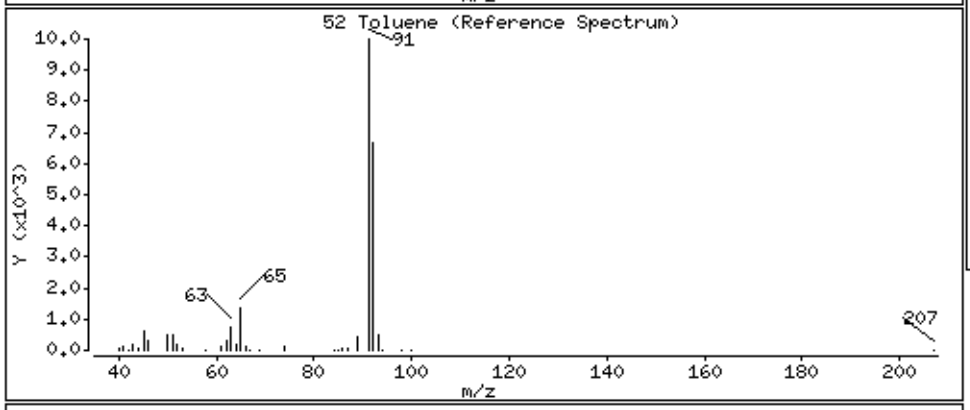
Concentration: 37 ug/Kg

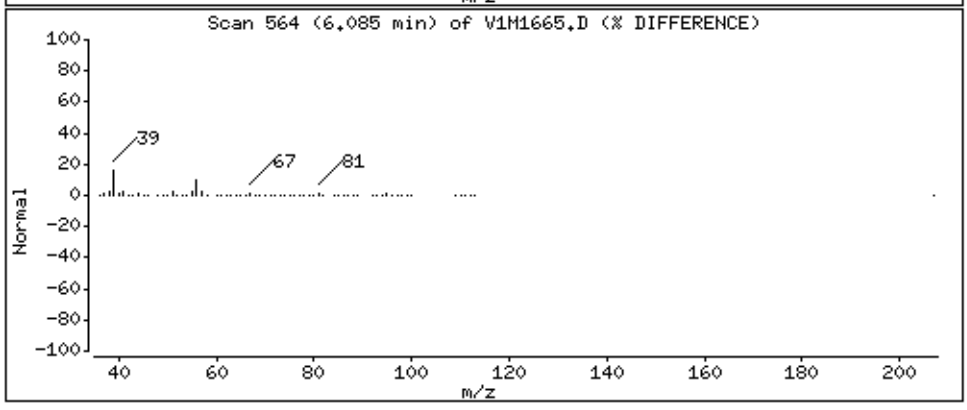












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D

Date : 01-MAY-2013 14:52

Client ID: SB-128 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-08B,,71443

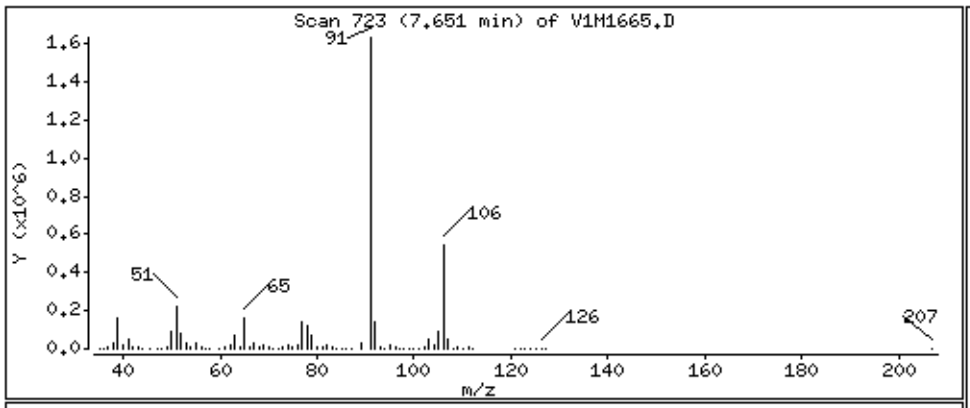
Operator: AM SRC: LIMS

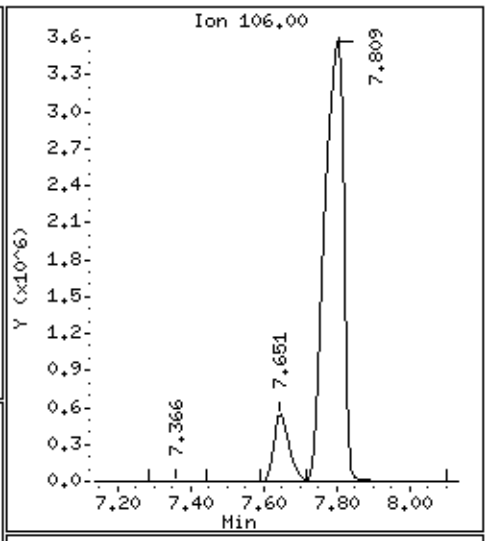
Column phase: DB-624

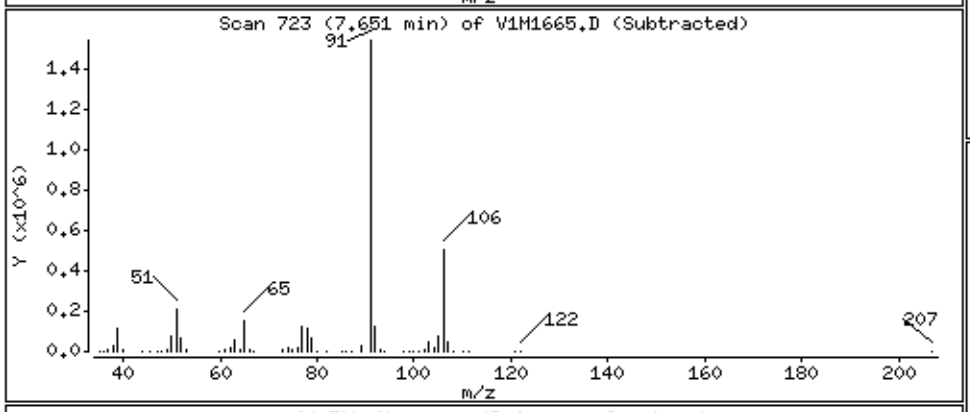
Column diameter: 0.25

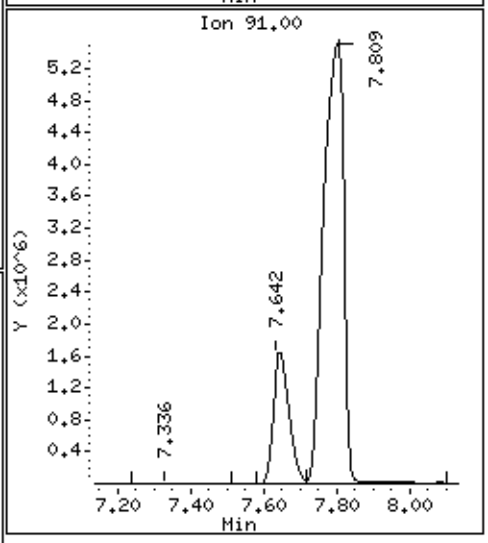
64 Ethylbenzene

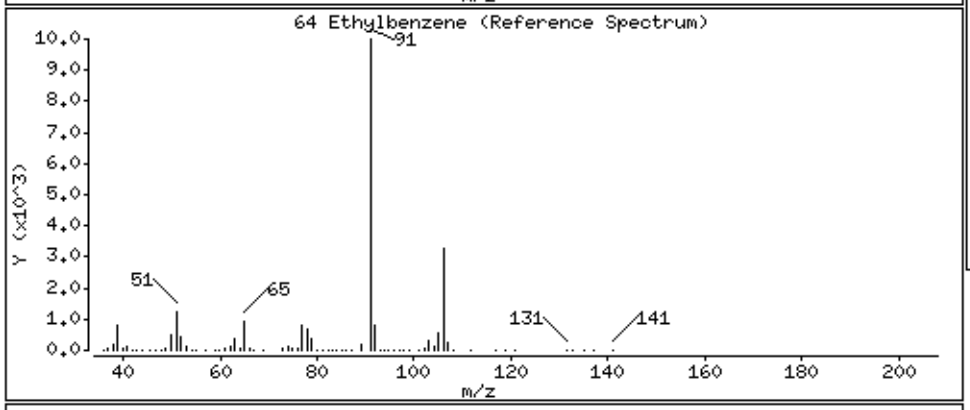
Concentration: 320 ug/Kg

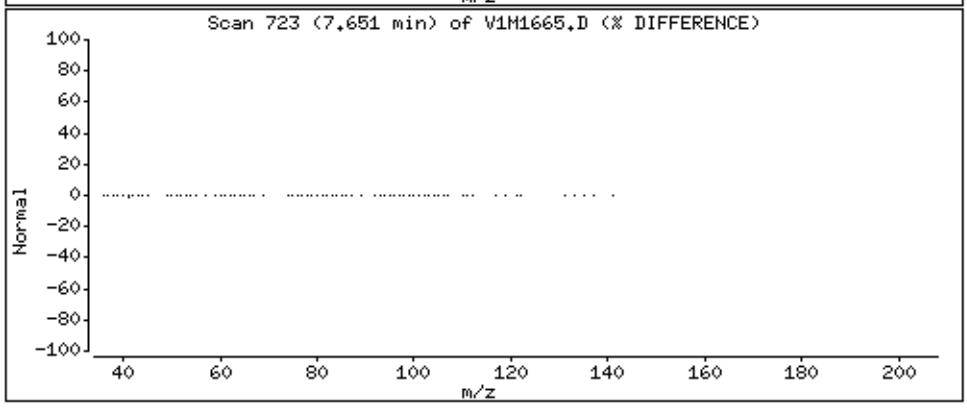












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D

Date : 01-MAY-2013 14:52

Client ID: SB-128 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-08B,,71443

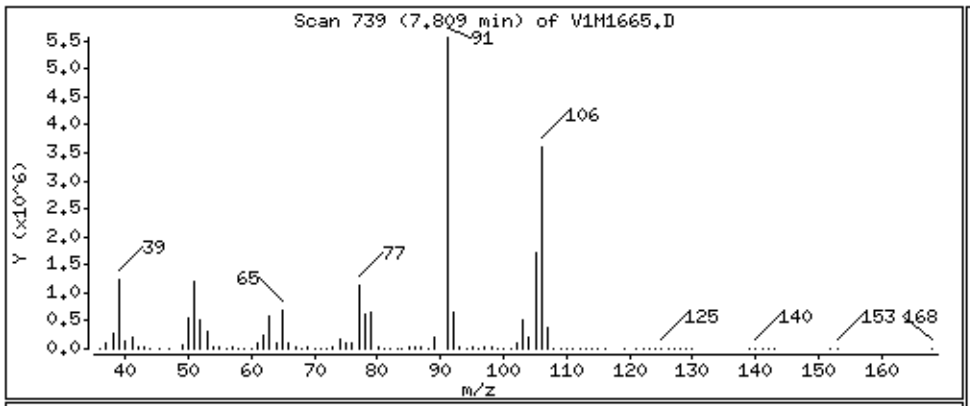
Operator: AM SRC: LIMS

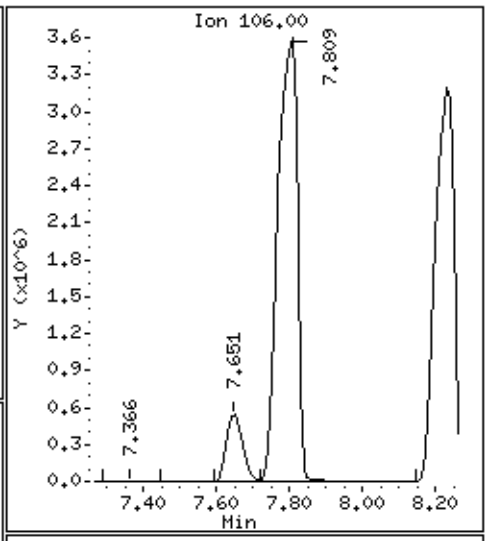
Column phase: DB-624

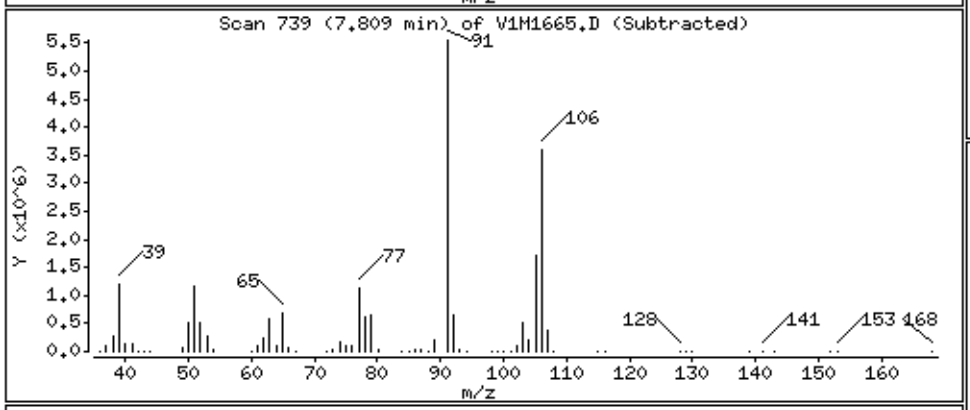
Column diameter: 0.25

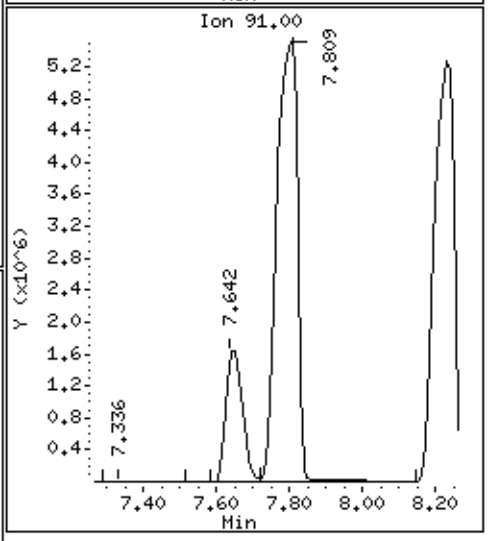
65 m,p-Xylene

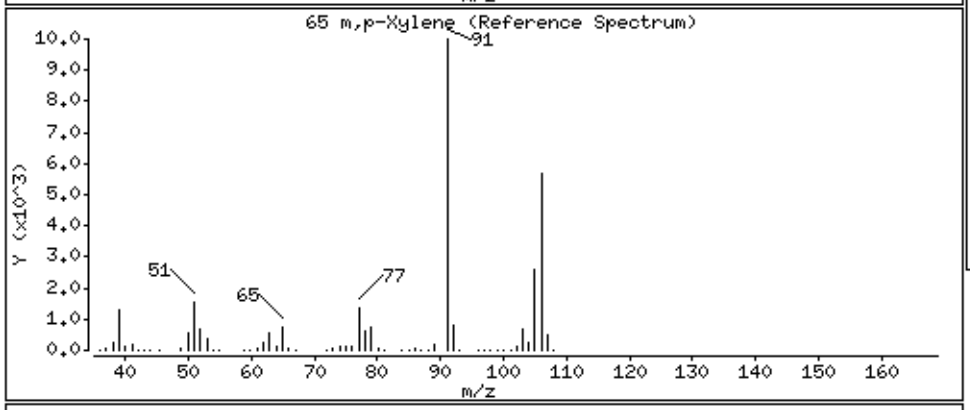
Concentration: 2000 ug/Kg

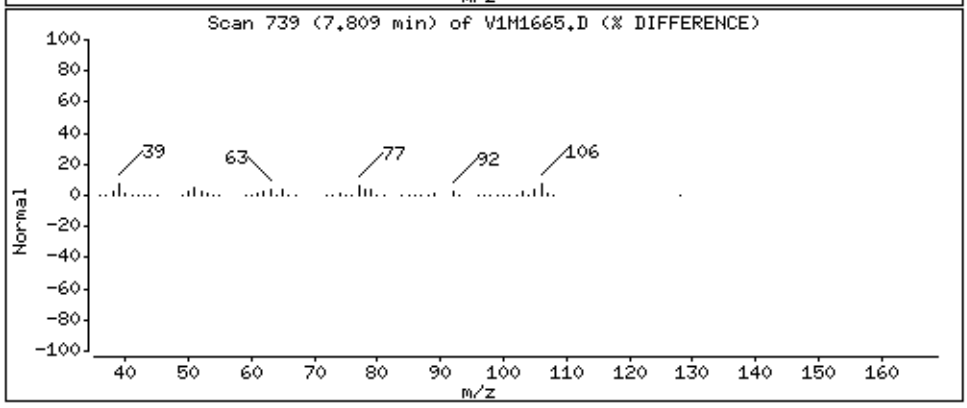












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1665.D

Date : 01-MAY-2013 14:52

Client ID: SB-128 (10-12)

Instrument: V1.i

Sample Info: 5ML,M0619-08B,,71443

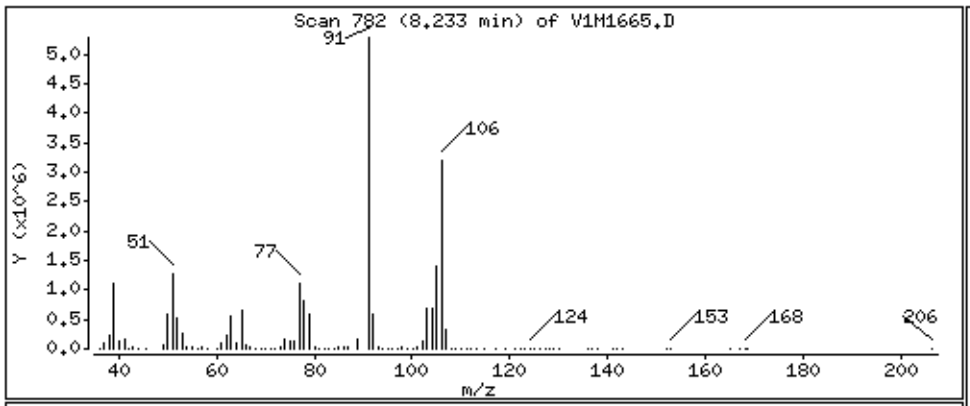
Operator: AM SRC: LIMS

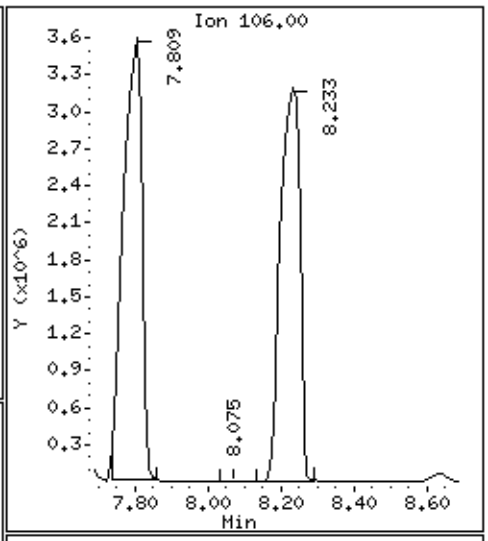
Column phase: DB-624

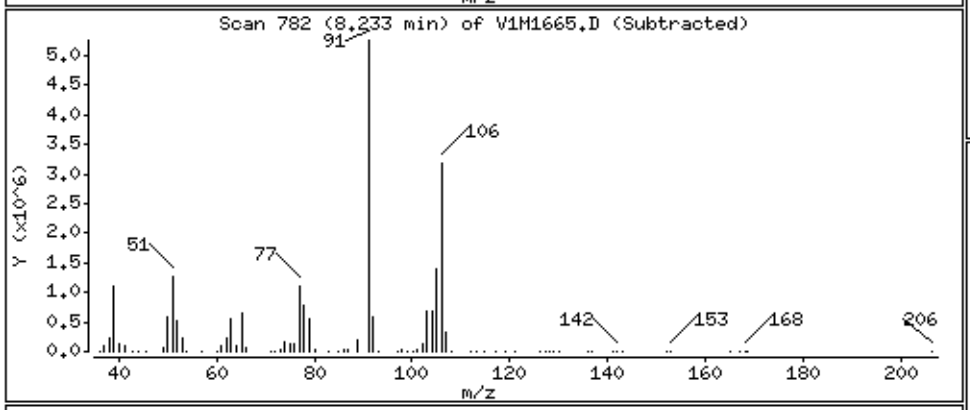
Column diameter: 0.25

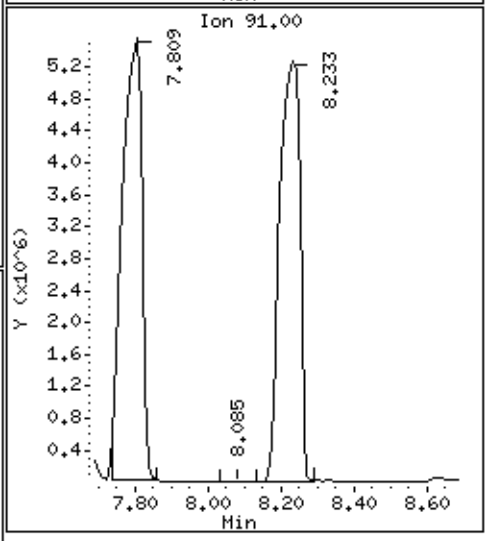
66 o-Xylene

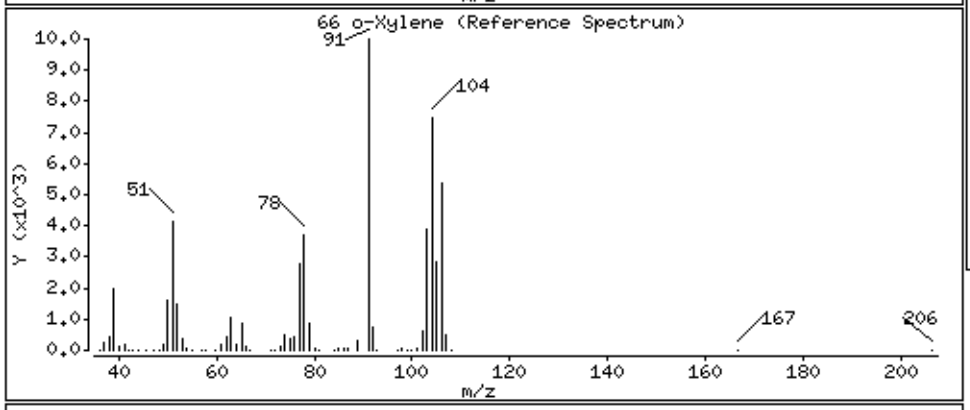
Concentration: 1800 ug/Kg

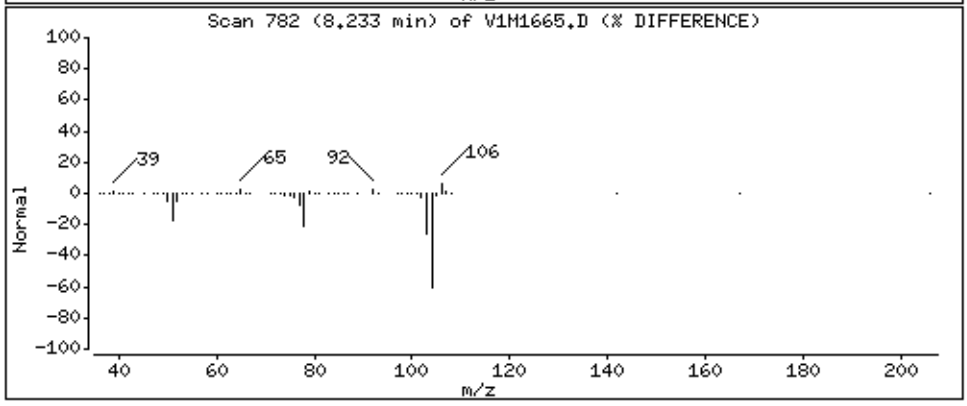












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (10-12)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08C

Sample wt/vol: 7.70 (g/mL) G Lab File ID: V8B9542.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 10.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5800	U
108-88-3	Toluene	5800	U
100-41-4	Ethylbenzene	1700	J
179601-23-1	m,p-Xylene	23000	
95-47-6	o-Xylene	19000	
1330-20-7	Xylene (Total)	35000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9542.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9542.d
Lab Smp Id: M0619-08C Client Smp ID: SB-128 (10-12)
Inj Date : 02-MAY-2013 13:43
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,M0619-08C,,71469,10
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	7.700	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	15.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

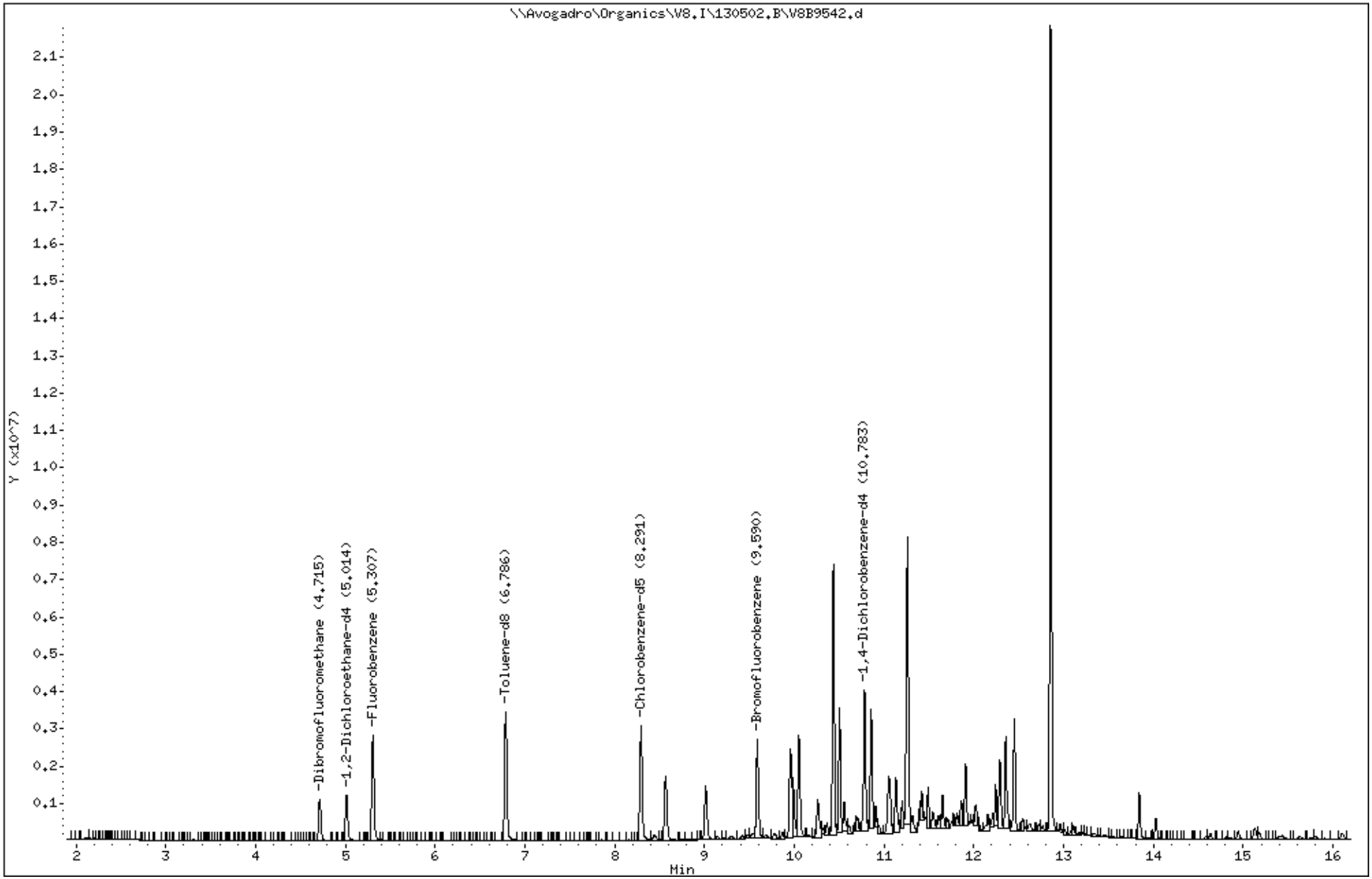
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	36 Dibromofluoromethane	113	4.712	4.715	(0.888)	628431	52.1929	5100
$	42 1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	144381	51.8459	5000
*	46 Fluorobenzene	96	5.307	5.306	(1.000)	2377315	50.0000	
$	58 Toluene-d8	98	6.786	6.786	(0.818)	2391612	48.7761	4800
*	68 Chlorobenzene-d5	117	8.294	8.290	(1.000)	1845960	50.0000	
	73 m,p-Xylene	106	8.567	8.567	(1.033)	530276	19.7393	19000
	74 o-Xylene	106	9.014	9.014	(1.087)	416104	16.2096	16000
$	79 Bromofluorobenzene	95	9.589	9.589	(1.156)	948694	52.1336	5100
M	94 Xylene (Total)	106				946380	35.9490	35000
*	92 1,4-Dichlorobenzene-d4	152	10.782	10.782	(1.000)	911251	50.0000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9542.d
Date : 02-MAY-2013 13:43
Client ID: SB-128 (10-12)
Sample Info: 5ML,M0619-08C,,71469,10

Instrument: V8.i

Operator: V10 SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9542.d

Date : 02-MAY-2013 13:43

Client ID: SB-128 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-08C,,71469,10

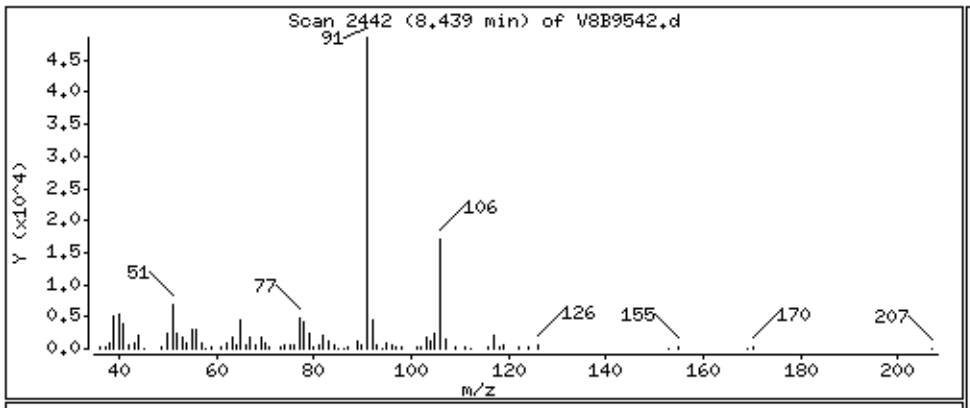
Operator: V10 SRC: LIMS

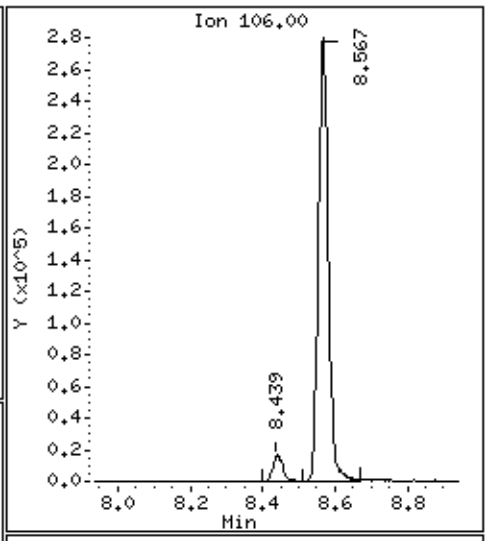
Column phase: DB-624

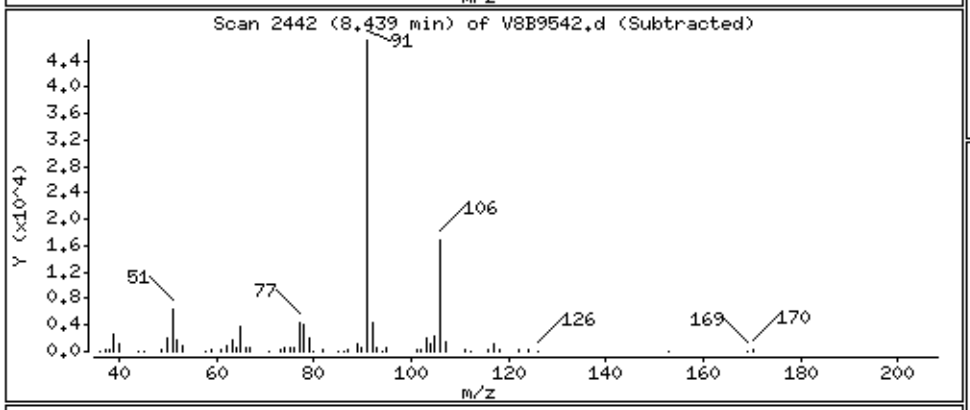
Column diameter: 0.25

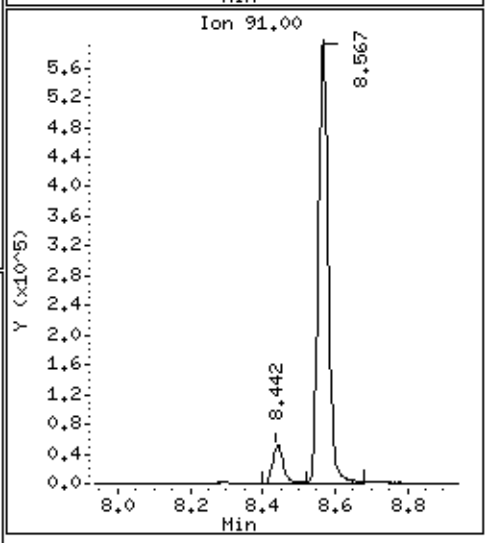
72 Ethylbenzene

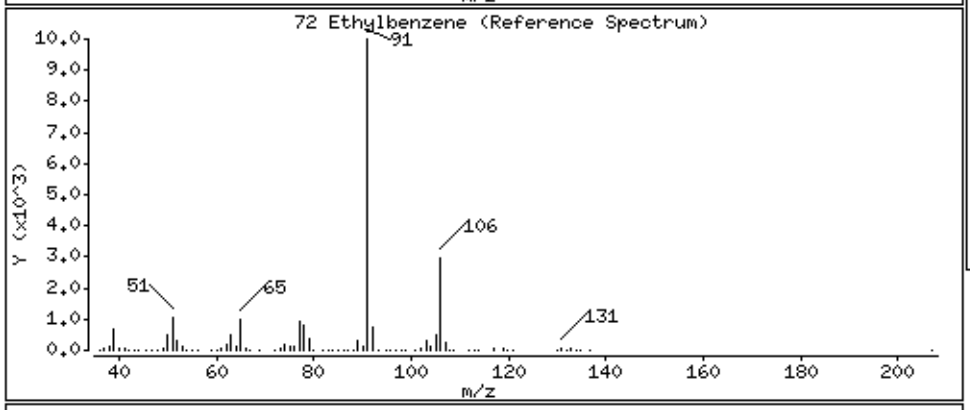
Concentration: 1400 ug/Kg

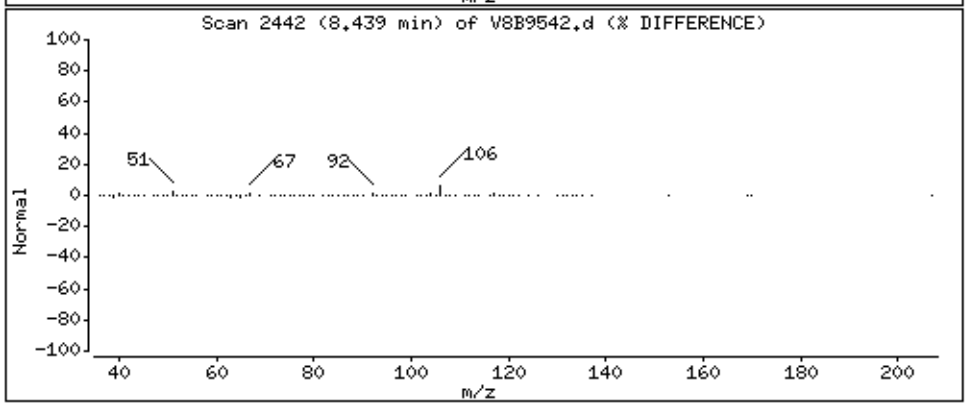












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9542.d

Date : 02-MAY-2013 13:43

Client ID: SB-128 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-08C,,71469,10

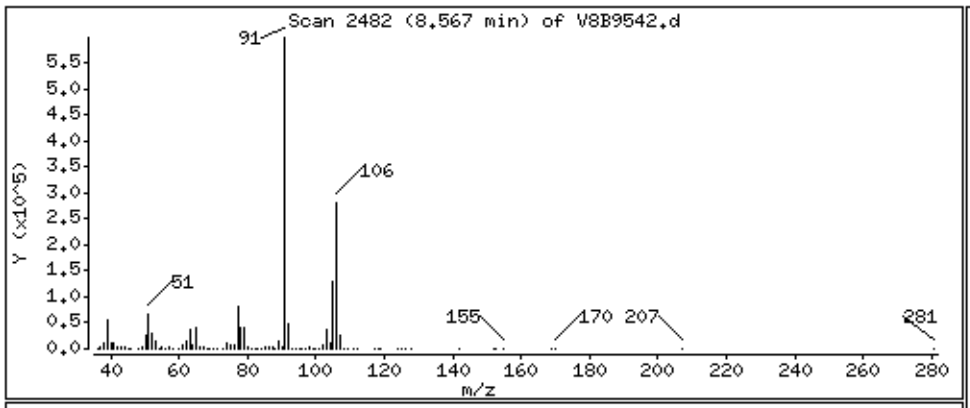
Operator: V10 SRC: LIMS

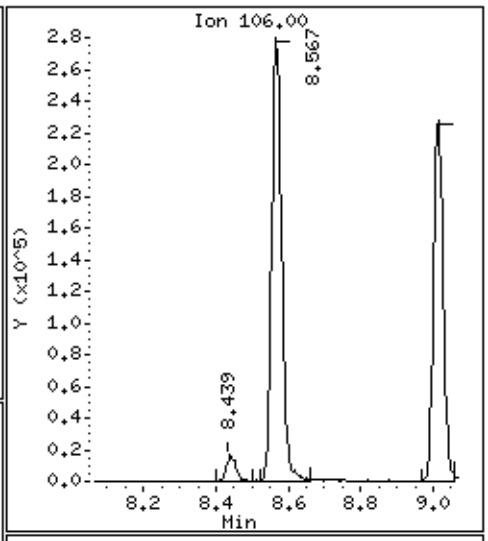
Column phase: DB-624

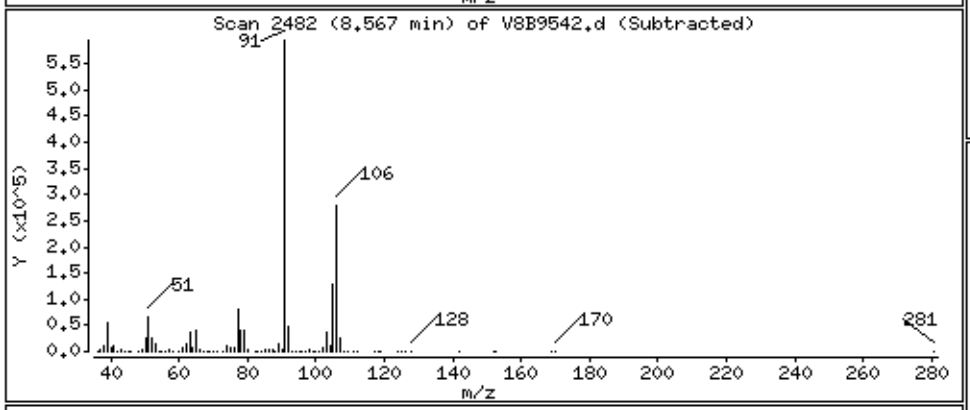
Column diameter: 0.25

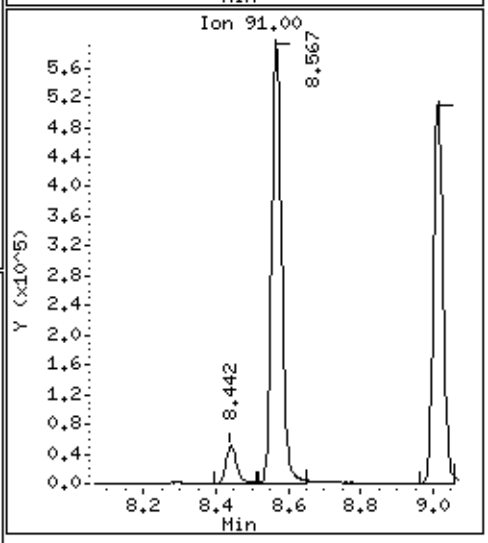
73 m,p-Xylene

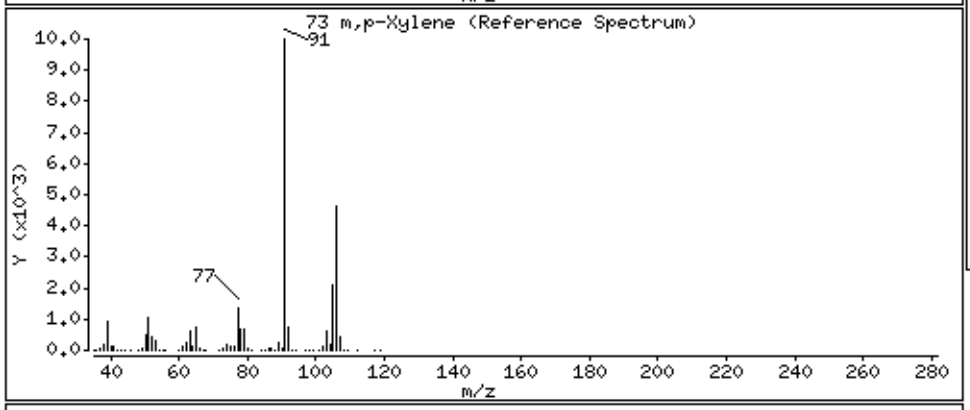
Concentration: 19000 ug/Kg

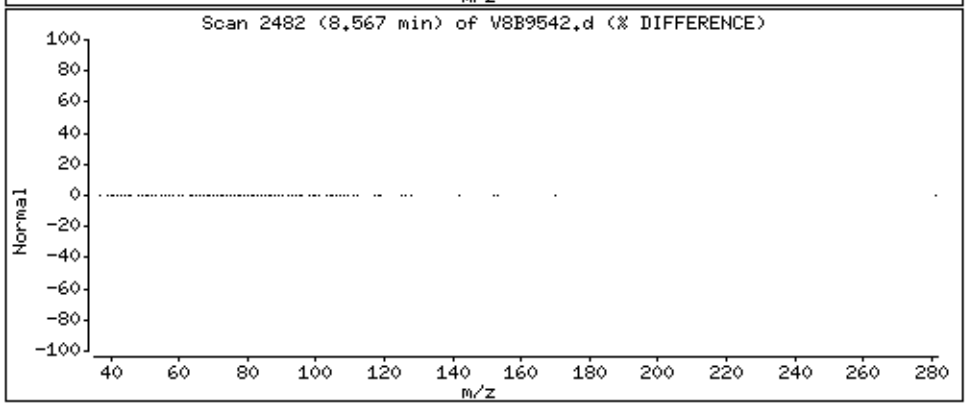












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9542.d

Date : 02-MAY-2013 13:43

Client ID: SB-128 (10-12)

Instrument: V8.i

Sample Info: 5ML,M0619-08C,,71469,10

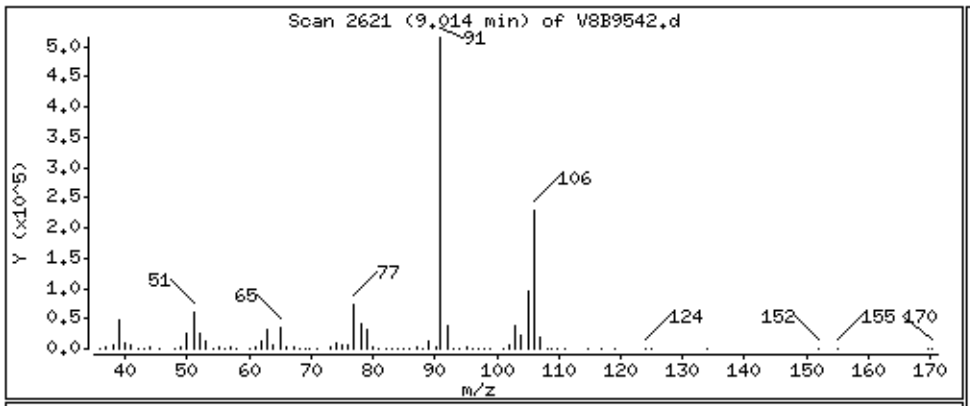
Operator: V10 SRC: LIMS

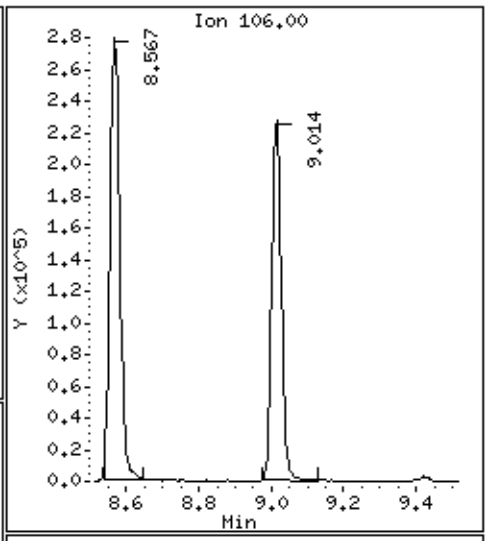
Column phase: DB-624

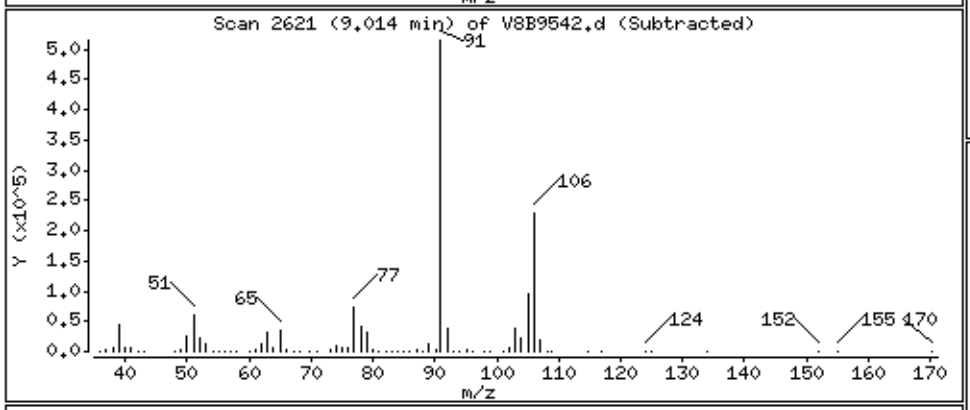
Column diameter: 0.25

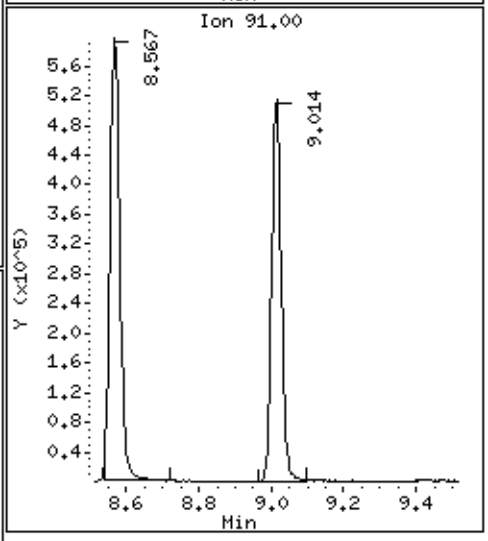
74 o-Xylene

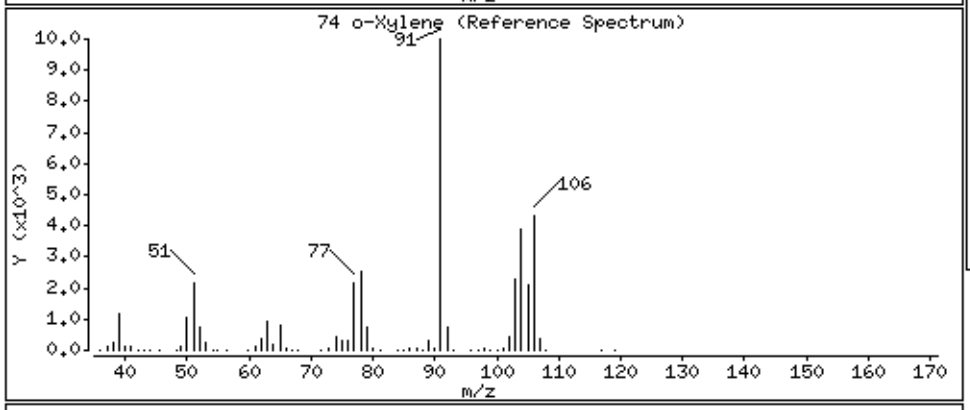
Concentration: 16000 ug/Kg

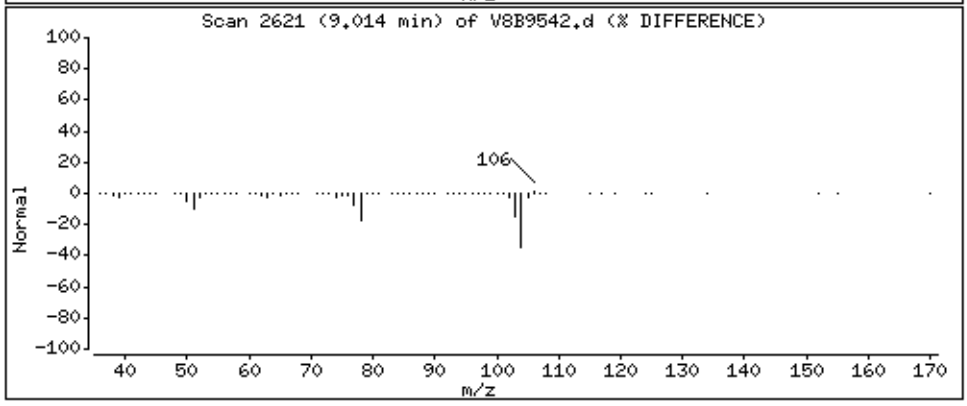












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09B

Sample wt/vol: 7.70 (g/mL) G Lab File ID: V1M1666.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 8.6 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.1	J
108-88-3	Toluene	9.8	
100-41-4	Ethylbenzene	71	
179601-23-1	m,p-Xylene	810	E
95-47-6	o-Xylene	720	E
1330-20-7	Xylene (Total)	1500	E

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1666.D
Lab Smp Id: M0619-09B Client Smp ID: SB-128 (18-20)
Inj Date : 01-MAY-2013 15:17
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-09B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 67
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	7.700	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.019	4.029	(0.877)	100363	51.9869	34
$	37 1,2-Dichloroethane-d4	102	4.295	4.305	(0.938)	31636	53.6975	35
	38 Benzene	78	4.354	4.364	(0.951)	25126	2.89138	2(a)
*	41 Fluorobenzene	96	4.581	4.590	(1.000)	406232	50.0000	
$	51 Toluene-d8	98	6.009	6.019	(0.805)	360909	47.3730	31
	52 Toluene	91	6.078	6.078	(1.327)	108823	13.7442	9
*	60 Chlorobenzene-d5	117	7.467	7.476	(1.000)	298232	50.0000	
	64 Ethylbenzene	106	7.624	7.634	(1.021)	286922	99.8705	65
	65 m,p-Xylene	106	7.762	7.762	(1.040)	4217590	1141.66	740(A)
	66 o-Xylene	106	8.196	8.185	(1.098)	3550590	1007.22	650(A)
$	70 Bromofluorobenzene	95	8.767	8.757	(1.174)	154309	57.5391	37
M	81 Xylene (Total)	106				7768180	2148.88	1400
*	84 1,4-Dichlorobenzene-d4	152	10.047	10.027	(1.000)	138437	50.0000	(Q)

QC Flag Legend

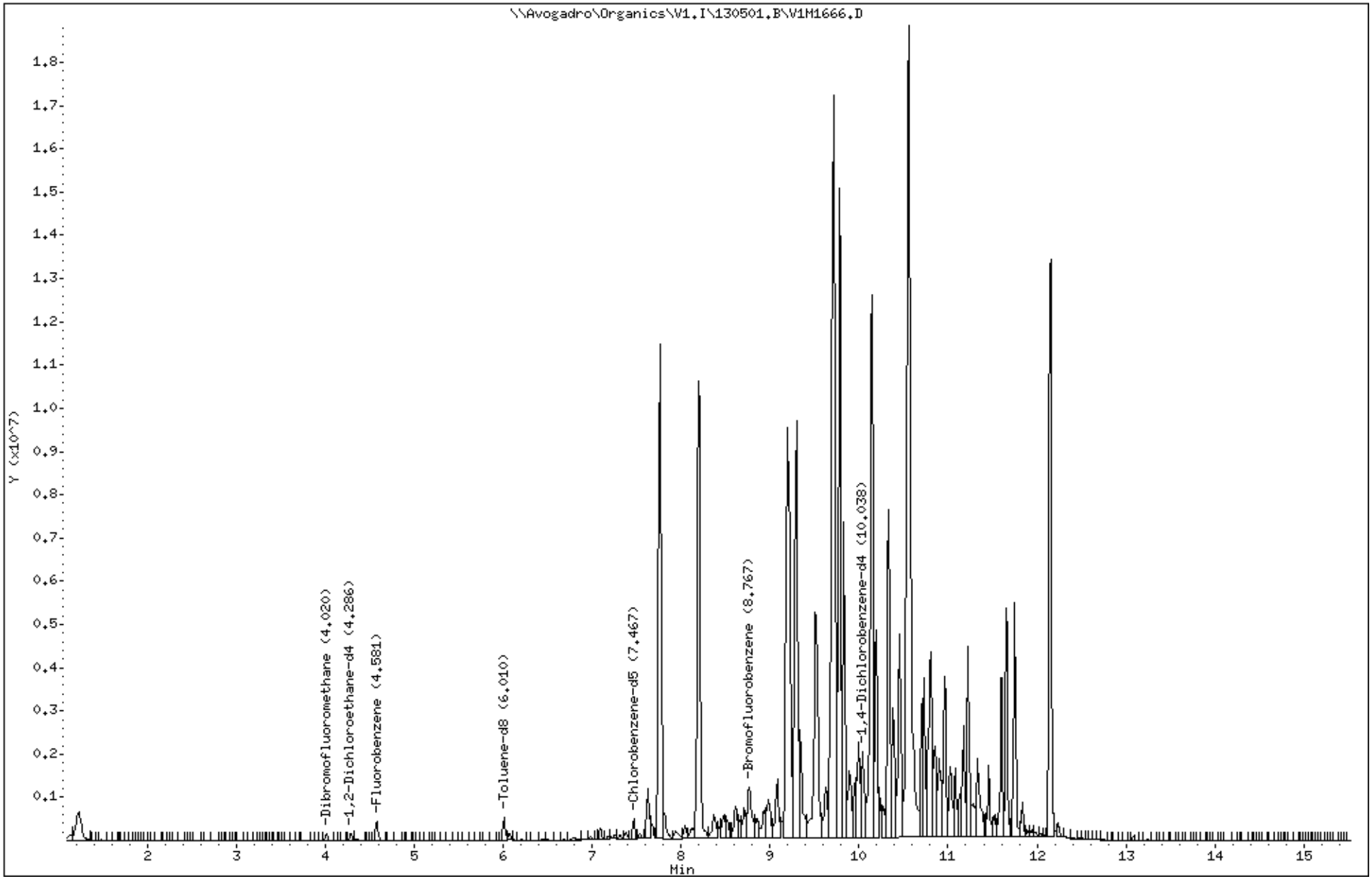
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D
Date : 01-MAY-2013 15:17
Client ID: SB-128 (18-20)
Sample Info: 5ML,M0619-09B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D

Date : 01-MAY-2013 15:17

Client ID: SB-128 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-09B,,71443

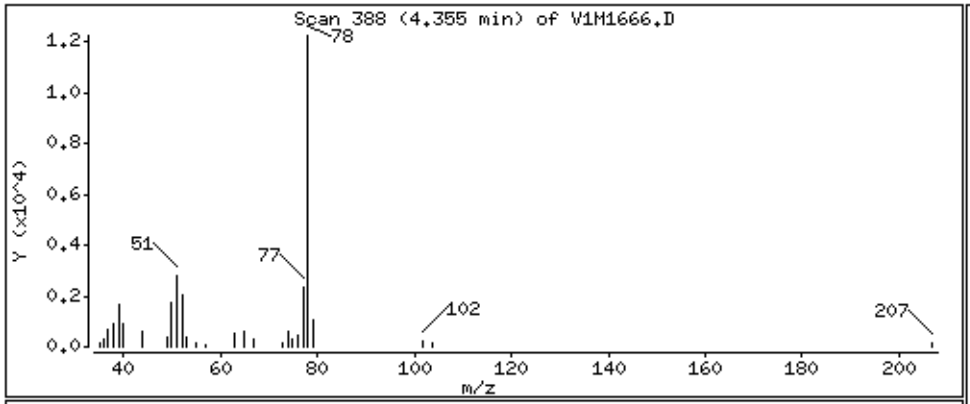
Operator: AM SRC: LIMS

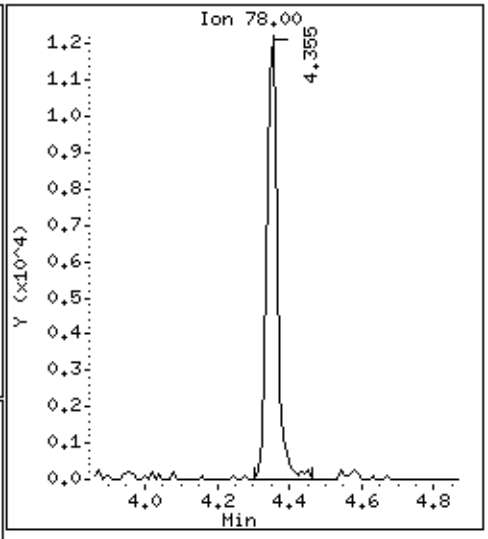
Column phase: DB-624

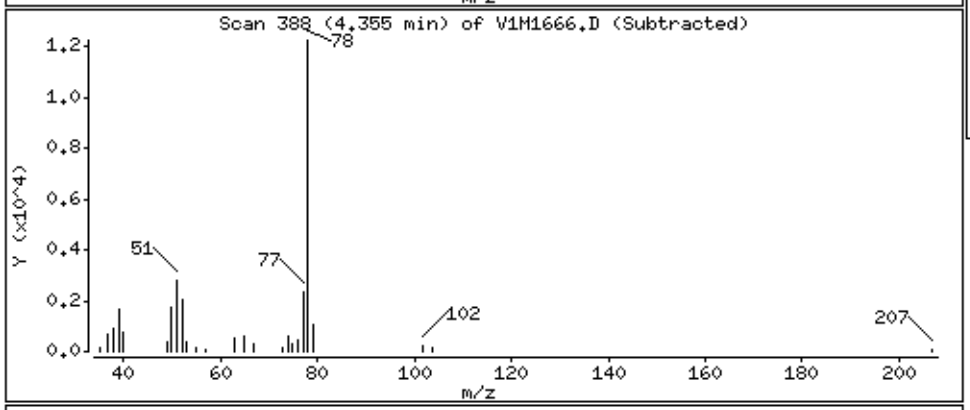
Column diameter: 0.25

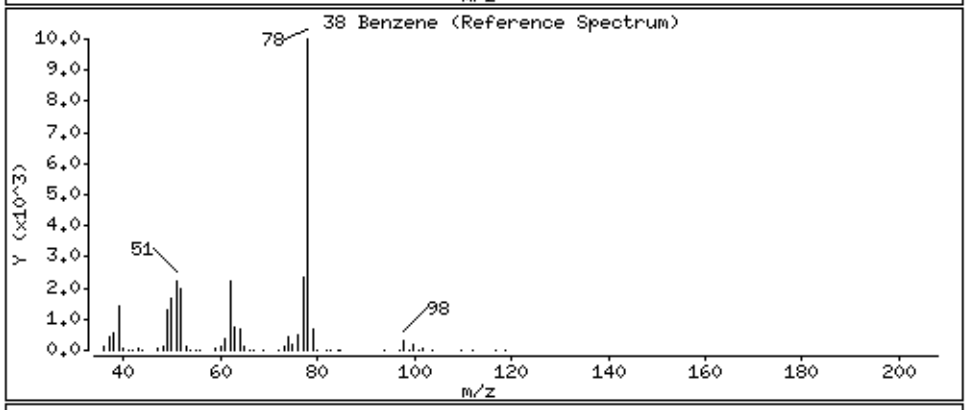
38 Benzene

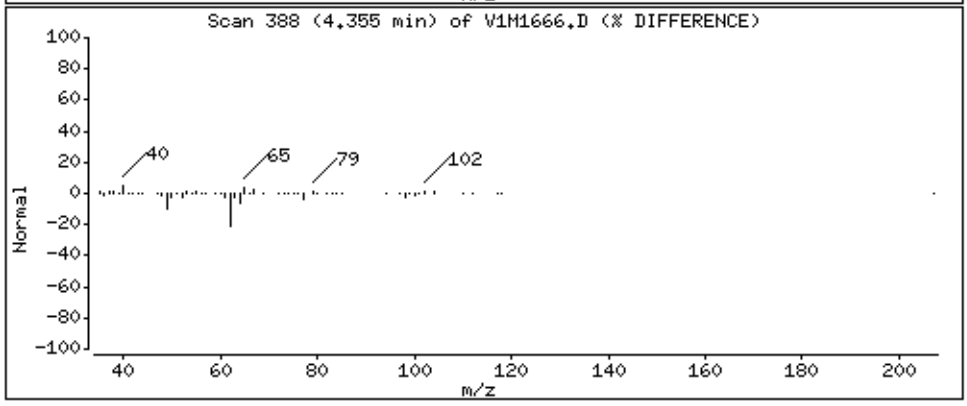
Concentration: 2 ug/Kg











Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D

Date : 01-MAY-2013 15:17

Client ID: SB-128 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-09B,,71443

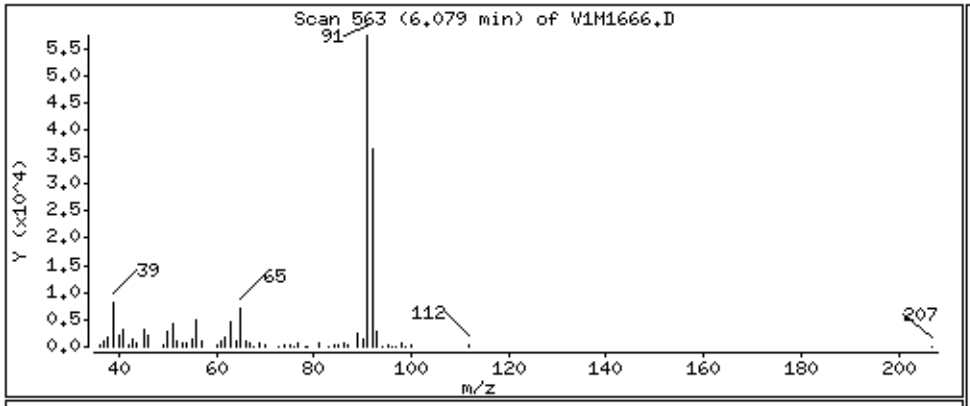
Operator: AM SRC: LIMS

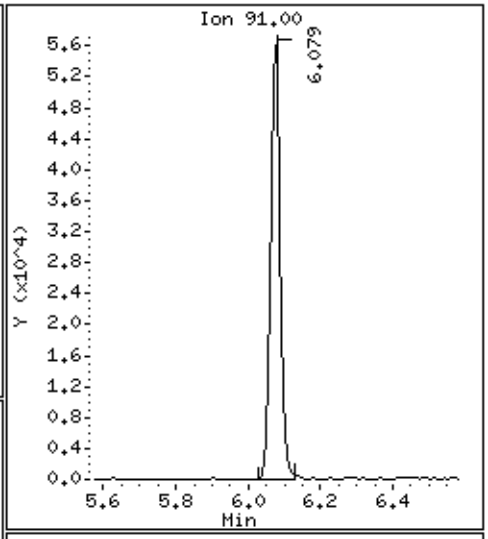
Column phase: DB-624

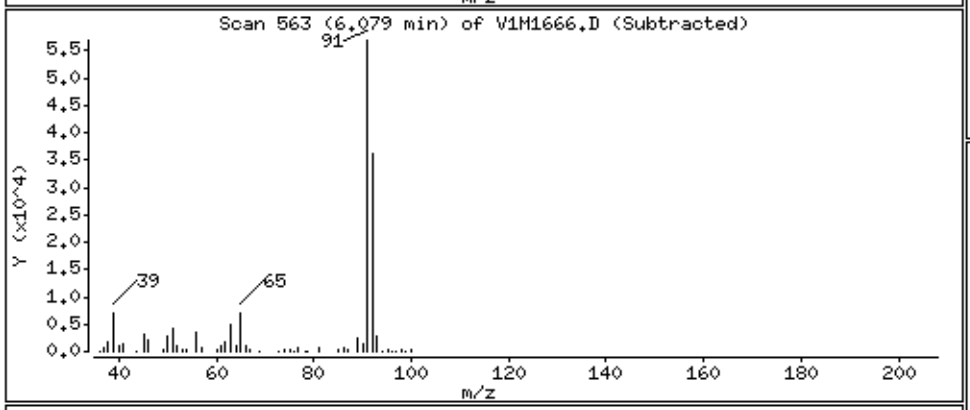
Column diameter: 0.25

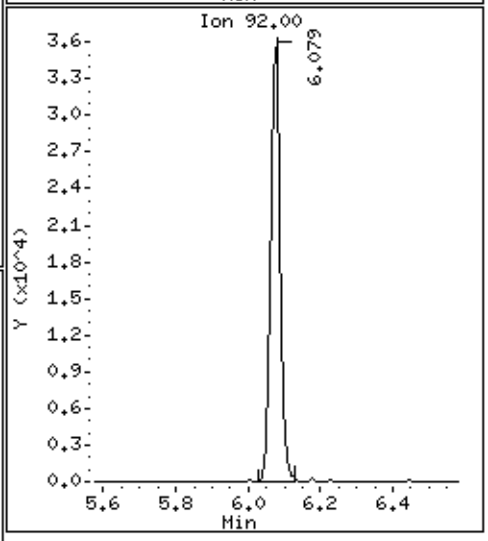
52 Toluene

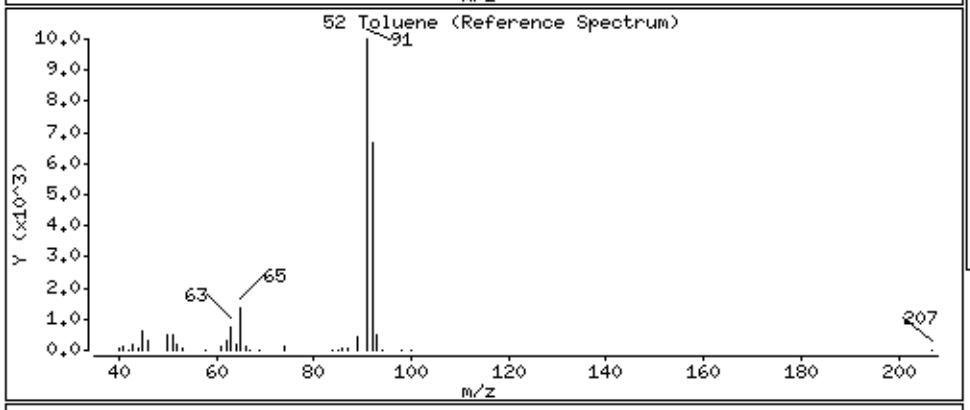
Concentration: 9 ug/Kg

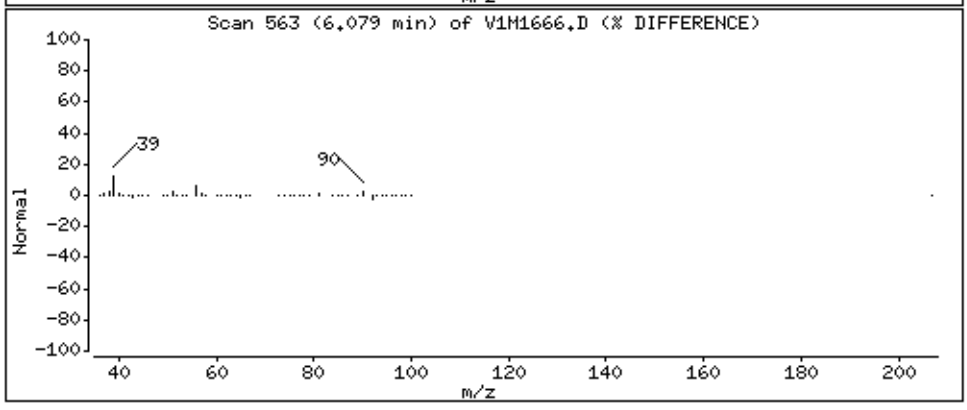












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D

Date : 01-MAY-2013 15:17

Client ID: SB-128 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-09B,,71443

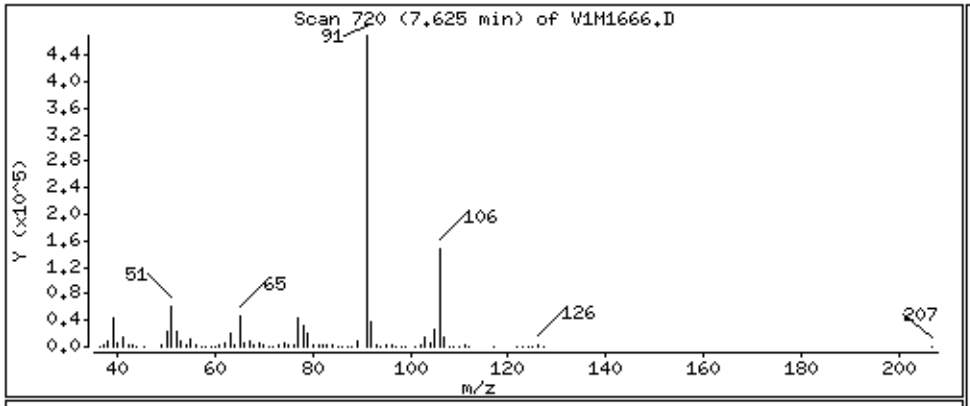
Operator: AM SRC: LIMS

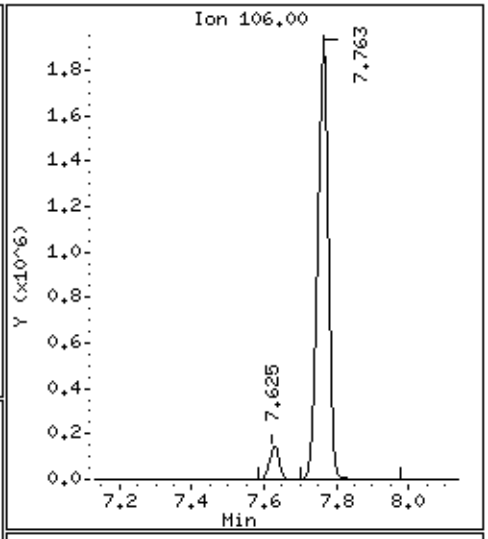
Column phase: DB-624

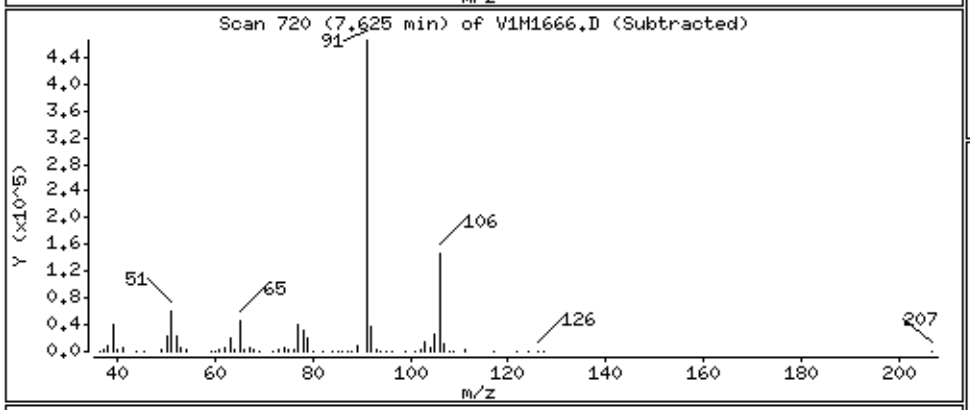
Column diameter: 0.25

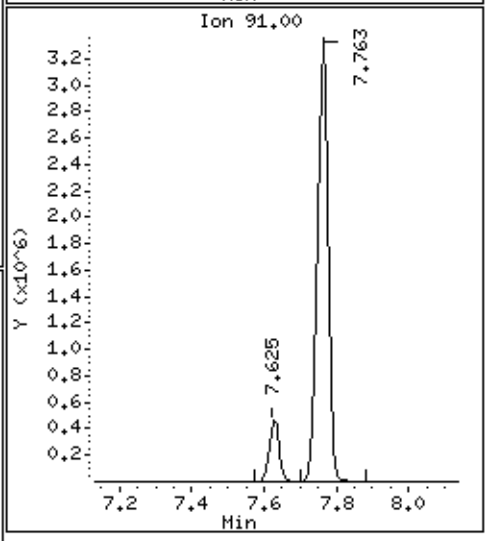
64 Ethylbenzene

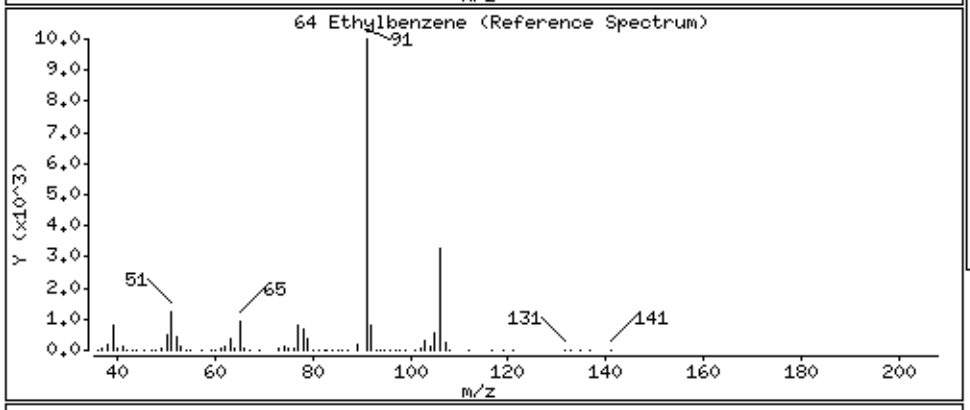
Concentration: 65 ug/Kg

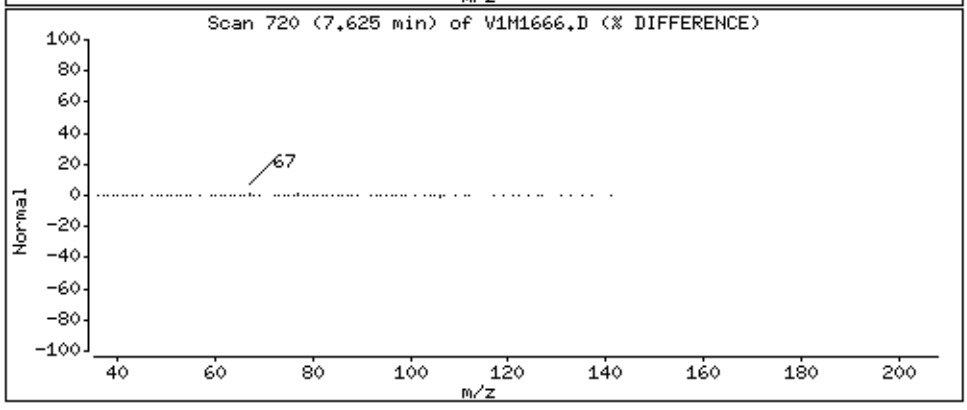












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D

Date : 01-MAY-2013 15:17

Client ID: SB-128 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-09B,,71443

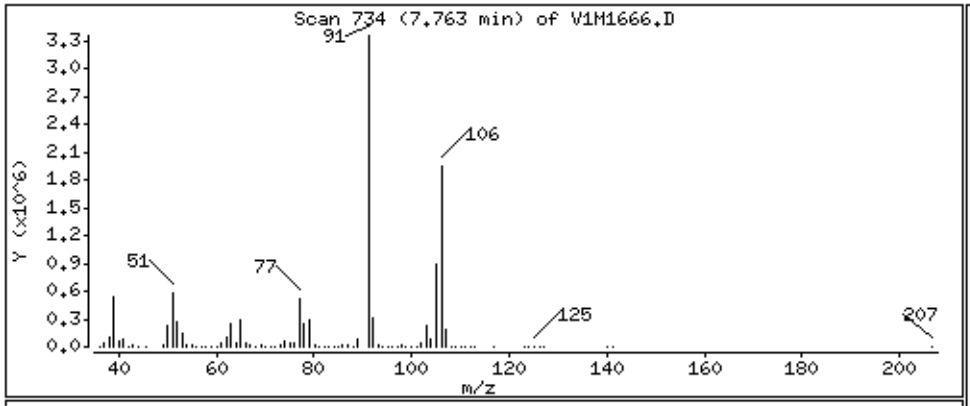
Operator: AM SRC: LIMS

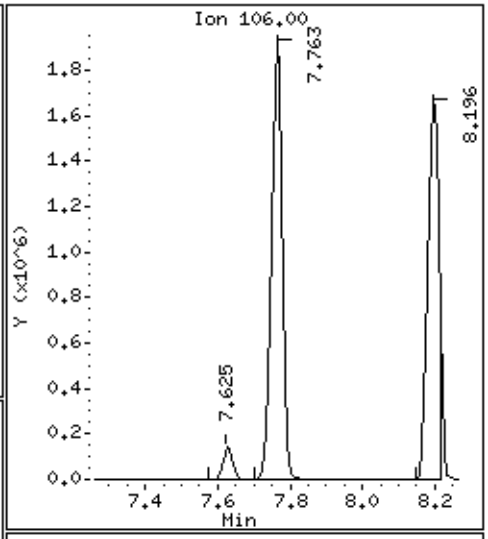
Column phase: DB-624

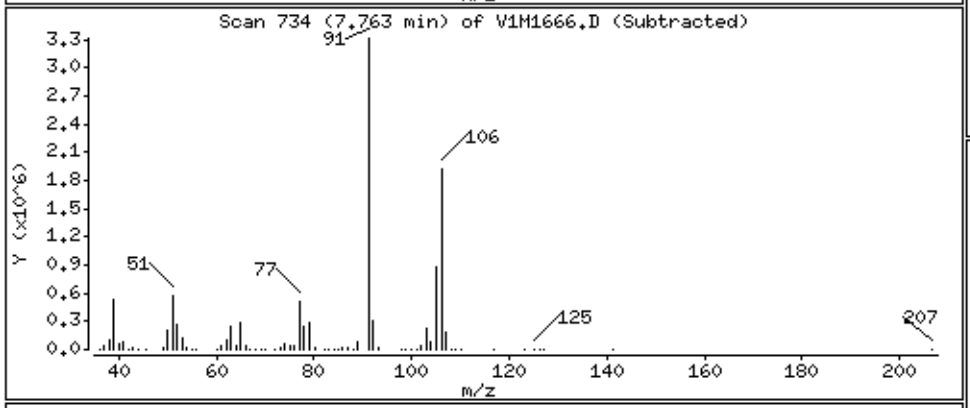
Column diameter: 0.25

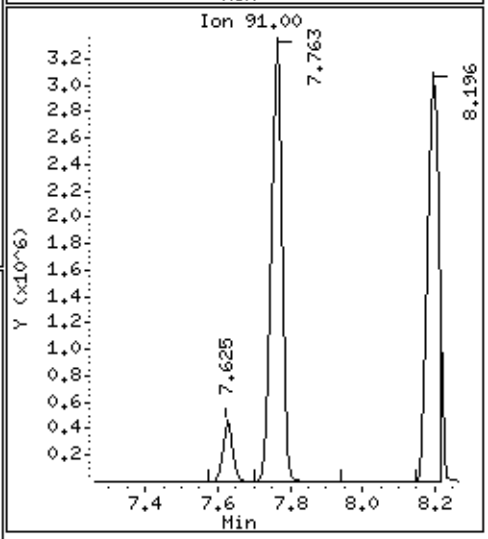
65 m,p-Xylene

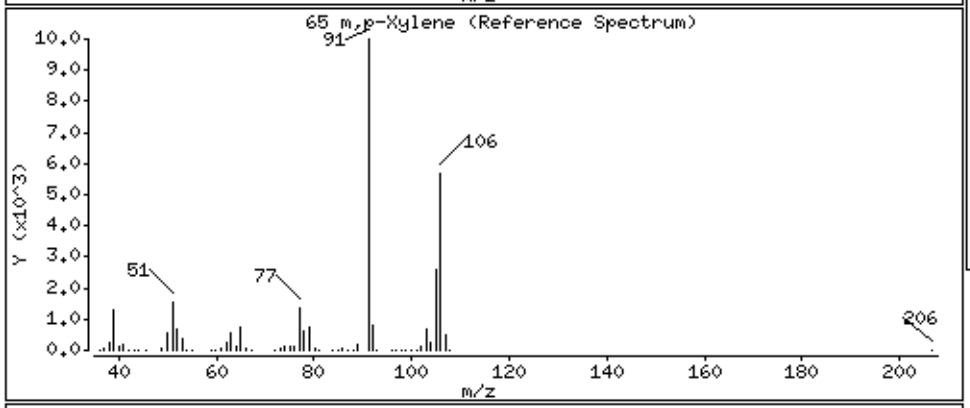
Concentration: 740 ug/Kg

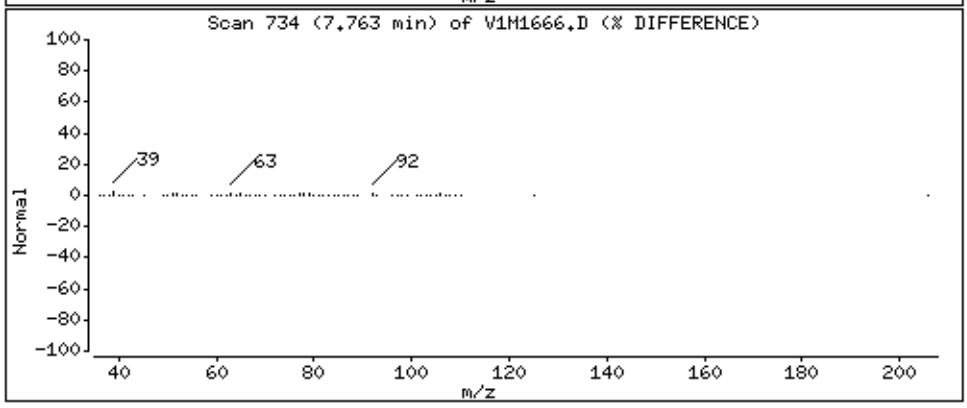












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1666.D

Date : 01-MAY-2013 15:17

Client ID: SB-128 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-09B,,71443

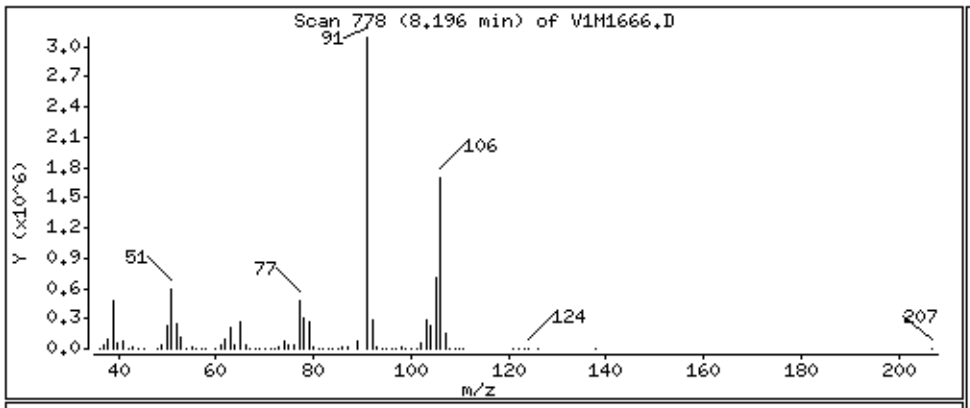
Operator: AM SRC: LIMS

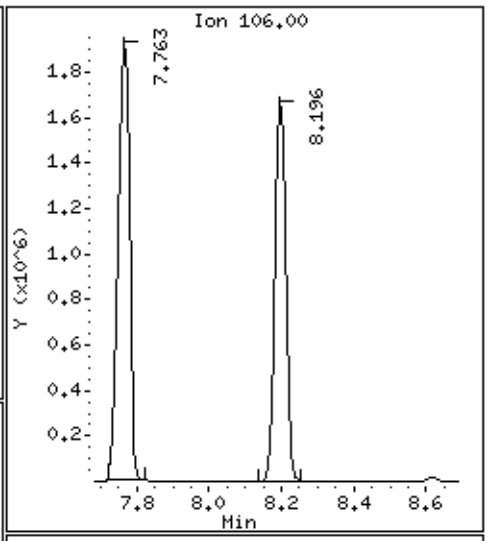
Column phase: DB-624

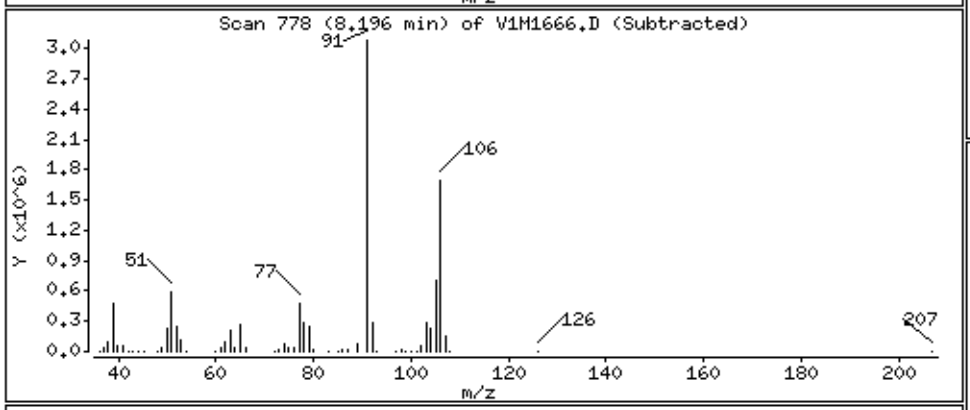
Column diameter: 0.25

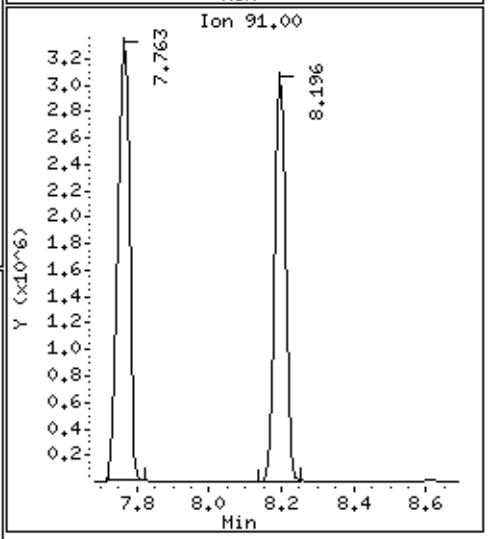
66 o-Xylene

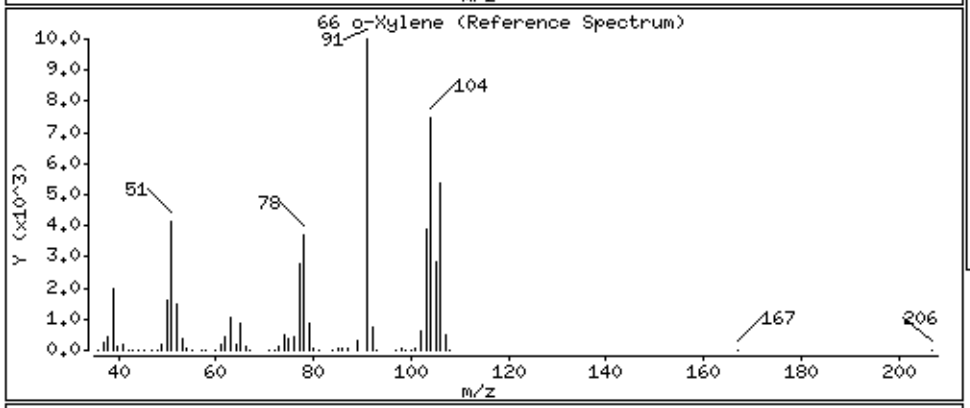
Concentration: 650 ug/Kg

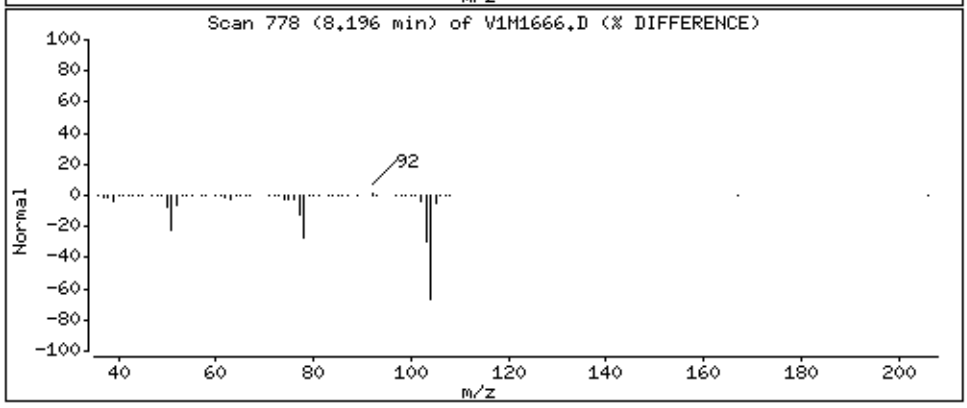












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-128 (18-20)ME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09C

Sample wt/vol: 11.1 (g/mL) G Lab File ID: V8B9540.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. 8.6 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	390	U
108-88-3	Toluene	390	U
100-41-4	Ethylbenzene	390	U
179601-23-1	m,p-Xylene	510	
95-47-6	o-Xylene	430	
1330-20-7	Xylene (Total)	810	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9540.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9540.d
Lab Smp Id: M0619-09C Client Smp ID: SB-128 (18-20)
Inj Date : 02-MAY-2013 12:47
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,M0619-09C,,71469
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	11.100	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	15.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

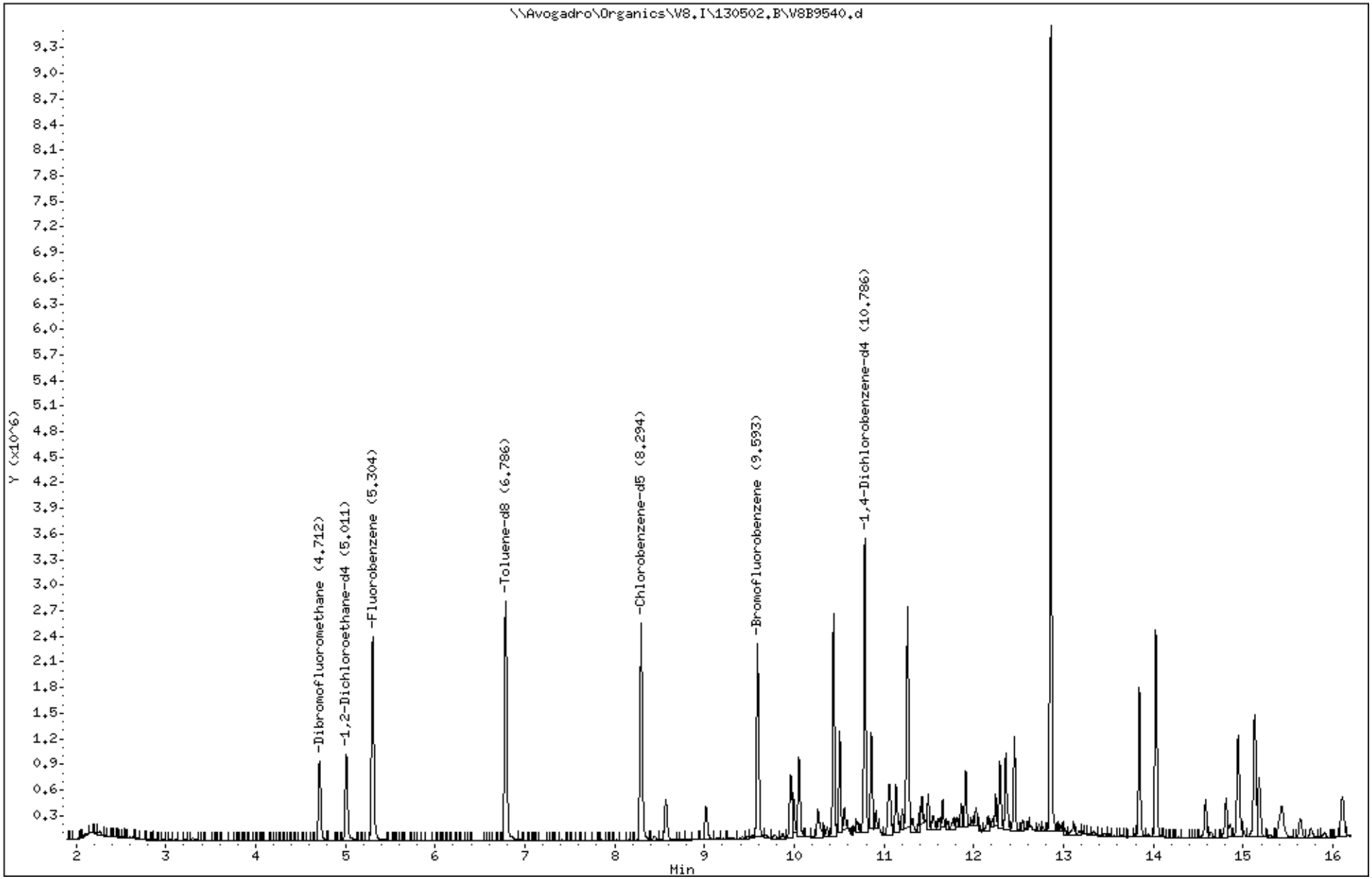
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	36 Dibromofluoromethane	113	4.712	4.715	(0.888)	516380	51.6769	3500
$	42 1,2-Dichloroethane-d4	102	5.011	5.014	(0.945)	118183	51.1367	3400
*	46 Fluorobenzene	96	5.303	5.306	(1.000)	1972938	50.0000	
$	58 Toluene-d8	98	6.785	6.786	(0.818)	1949800	48.1861	3200
*	68 Chlorobenzene-d5	117	8.293	8.290	(1.000)	1523376	50.0000	
	73 m,p-Xylene	106	8.567	8.567	(1.033)	144183	6.50369	440
	74 o-Xylene	106	9.017	9.014	(1.087)	115076	5.43214	370
$	79 Bromofluorobenzene	95	9.592	9.589	(1.157)	818867	54.5280	3700
M	94 Xylene (Total)	106				259259	11.9358	810
*	92 1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	821347	50.0000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9540.d
Date : 02-MAY-2013 12:47
Client ID: SB-128 (18-20)
Sample Info: 5ML,M0619-09C,,71469

Instrument: V8.i

Operator: V10 SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9540.d

Date : 02-MAY-2013 12:47

Client ID: SB-128 (18-20)

Instrument: V8.i

Sample Info: 5ML,M0619-09C,,71469

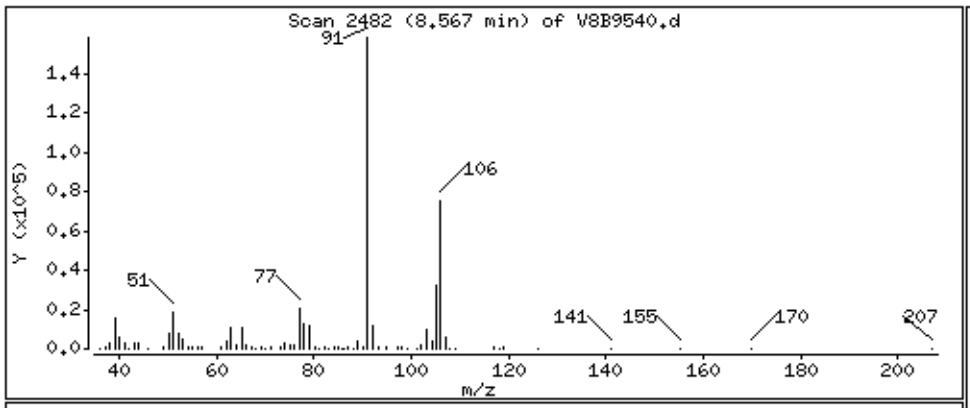
Operator: V10 SRC: LIMS

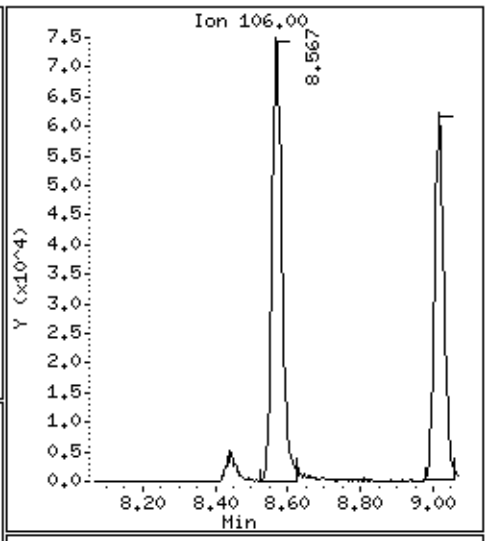
Column phase: DB-624

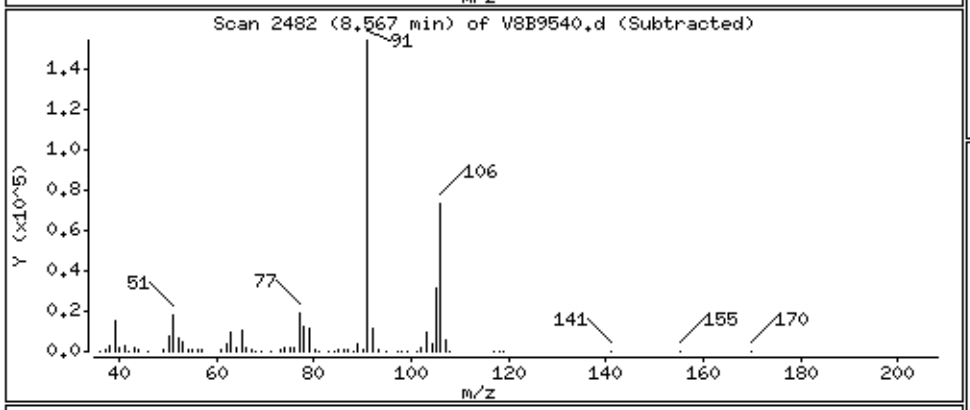
Column diameter: 0.25

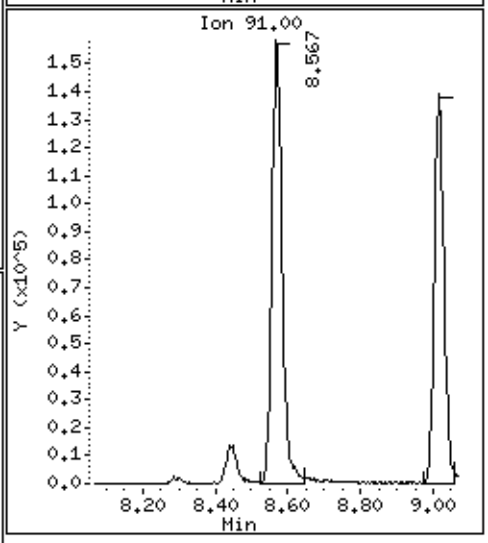
73 m,p-Xylene

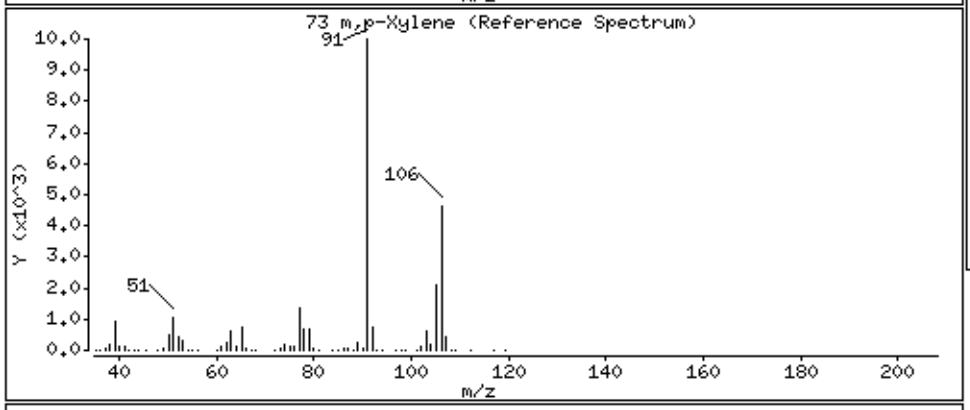
Concentration: 440 ug/Kg

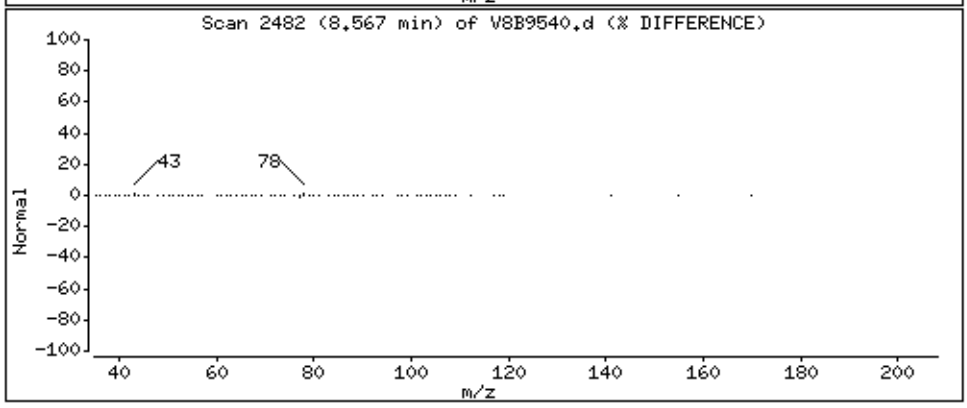












Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9540.d

Date : 02-MAY-2013 12:47

Client ID: SB-128 (18-20)

Instrument: V8.i

Sample Info: 5ML,M0619-09C,,71469

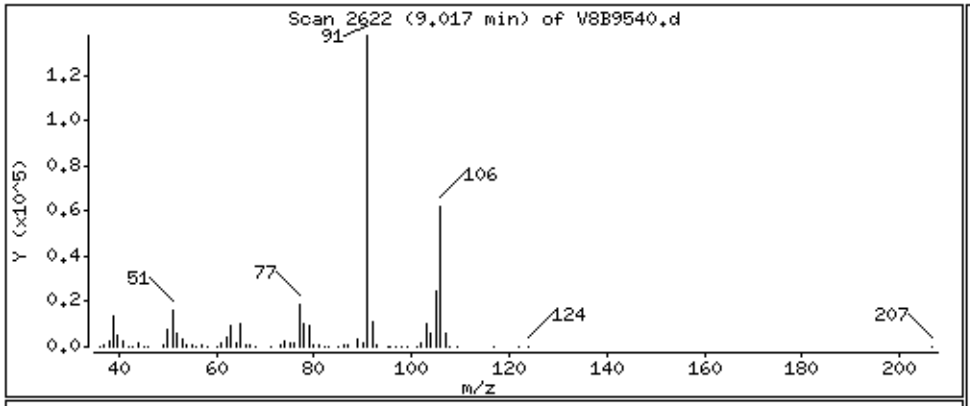
Operator: V10 SRC: LIMS

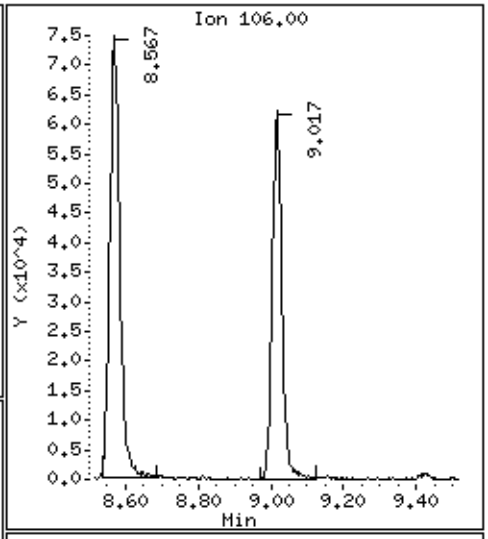
Column phase: DB-624

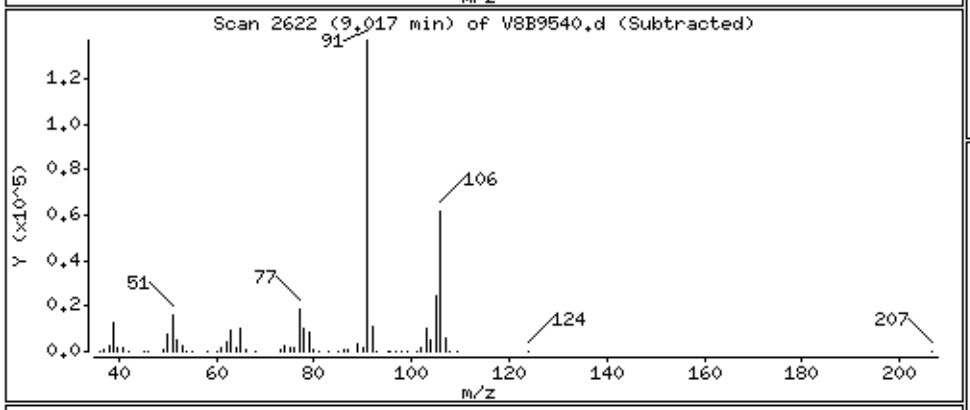
Column diameter: 0.25

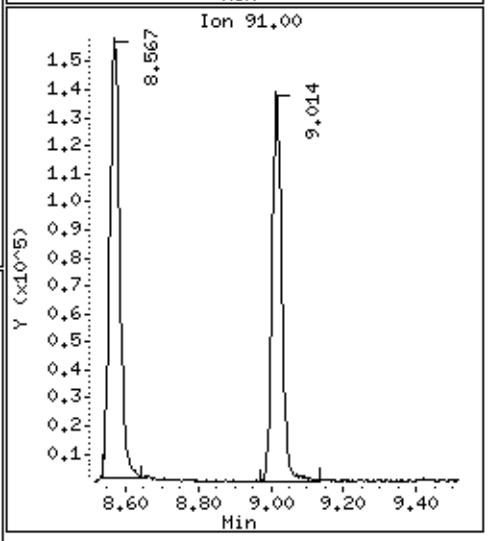
74 o-Xylene

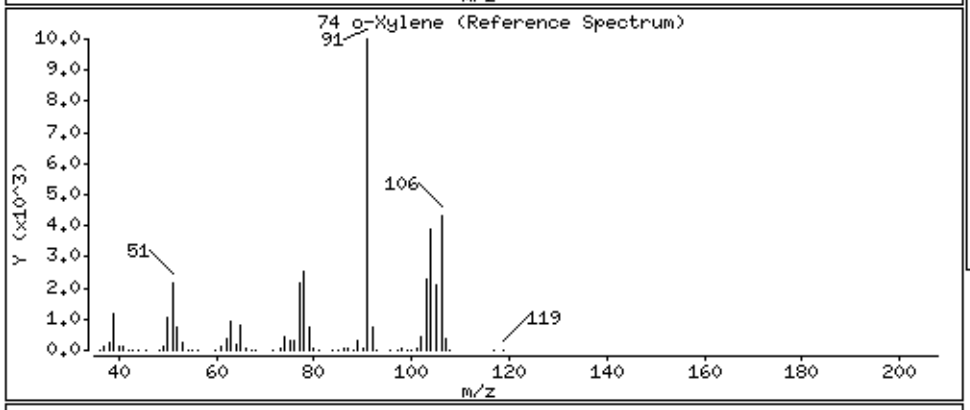
Concentration: 370 ug/Kg

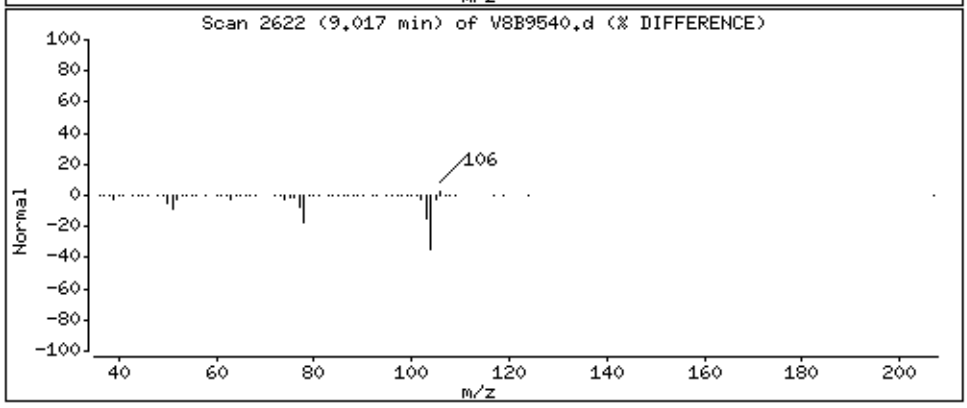












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (1-3)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-10B

Sample wt/vol: 5.10 (g/mL) G Lab File ID: V1M1686.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 15 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.8	U
108-88-3	Toluene	5.8	U
100-41-4	Ethylbenzene	5.8	U
179601-23-1	m,p-Xylene	5.8	U
95-47-6	o-Xylene	5.8	U
1330-20-7	Xylene (Total)	5.8	U

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1686.D
Report Date: 08-May-2013 11:58

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1686.D
Lab Smp Id: M0619-10B Client Smp ID: SB-129 (1-3)
Inj Date : 02-MAY-2013 11:02
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-10B,,71460
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 57
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.100	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

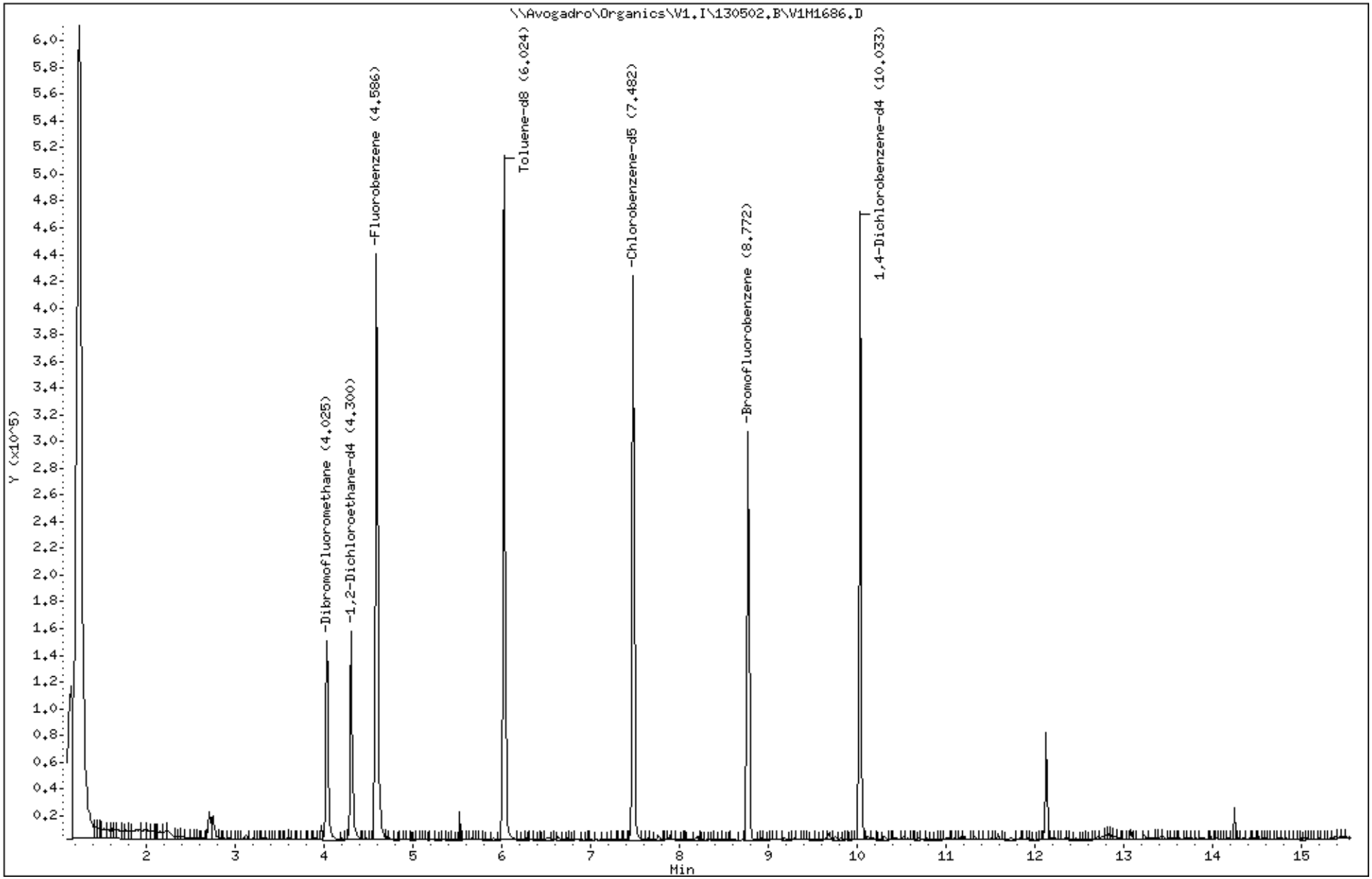
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.024	4.024	(0.878)	94412	52.5695	52
$ 37 1,2-Dichloroethane-d4	102	4.300	4.300	(0.938)	28578	52.1424	51
* 41 Fluorobenzene	96	4.586	4.585	(1.000)	377909	50.0000	
$ 51 Toluene-d8	98	6.024	6.013	(0.805)	340641	49.5819	49
* 60 Chlorobenzene-d5	117	7.481	7.471	(1.000)	268944	50.0000	
$ 70 Bromofluorobenzene	95	8.772	8.761	(1.172)	125318	51.8176	51
* 84 1,4-Dichlorobenzene-d4	152	10.032	10.032	(1.000)	115885	50.0000	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1686.D
Date : 02-MAY-2013 11:02
Client ID: SB-129 (1-3)
Sample Info: 5ML,M0619-10B,,71460

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-11B

Sample wt/vol: 9.80 (g/mL) G Lab File ID: V1M1668.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 10 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	19	
108-88-3	Toluene	9.3	
100-41-4	Ethylbenzene	39	
179601-23-1	m,p-Xylene	53	
95-47-6	o-Xylene	28	
1330-20-7	Xylene (Total)	81	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1668.D
Lab Smp Id: M0619-11B Client Smp ID: SB-129 (8-10)
Inj Date : 01-MAY-2013 16:07
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-11B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 69
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.800	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.015	4.029	(0.875)	101508	53.3072	27
$	37 1,2-Dichloroethane-d4	102	4.300	4.305	(0.938)	31081	53.4852	27
	38 Benzene	78	4.360	4.364	(0.951)	292269	34.0981	17
*	41 Fluorobenzene	96	4.586	4.590	(1.000)	400690	50.0000	
$	51 Toluene-d8	98	6.014	6.019	(0.806)	347105	48.5661	25
	52 Toluene	91	6.073	6.078	(1.324)	128196	16.4149	8
*	60 Chlorobenzene-d5	117	7.462	7.476	(1.000)	279779	50.0000	
	64 Ethylbenzene	106	7.620	7.634	(1.021)	184780	68.5595	35
	65 m,p-Xylene	106	7.758	7.762	(1.040)	321850	92.8676	47
	66 o-Xylene	106	8.181	8.185	(1.096)	162475	49.1302	25
$	70 Bromofluorobenzene	95	8.762	8.757	(1.174)	203658	80.9491	41(QR)
M	81 Xylene (Total)	106				484325	141.998	72
*	84 1,4-Dichlorobenzene-d4	152	10.033	10.027	(1.000)	126835	50.0000	(Q)

QC Flag Legend

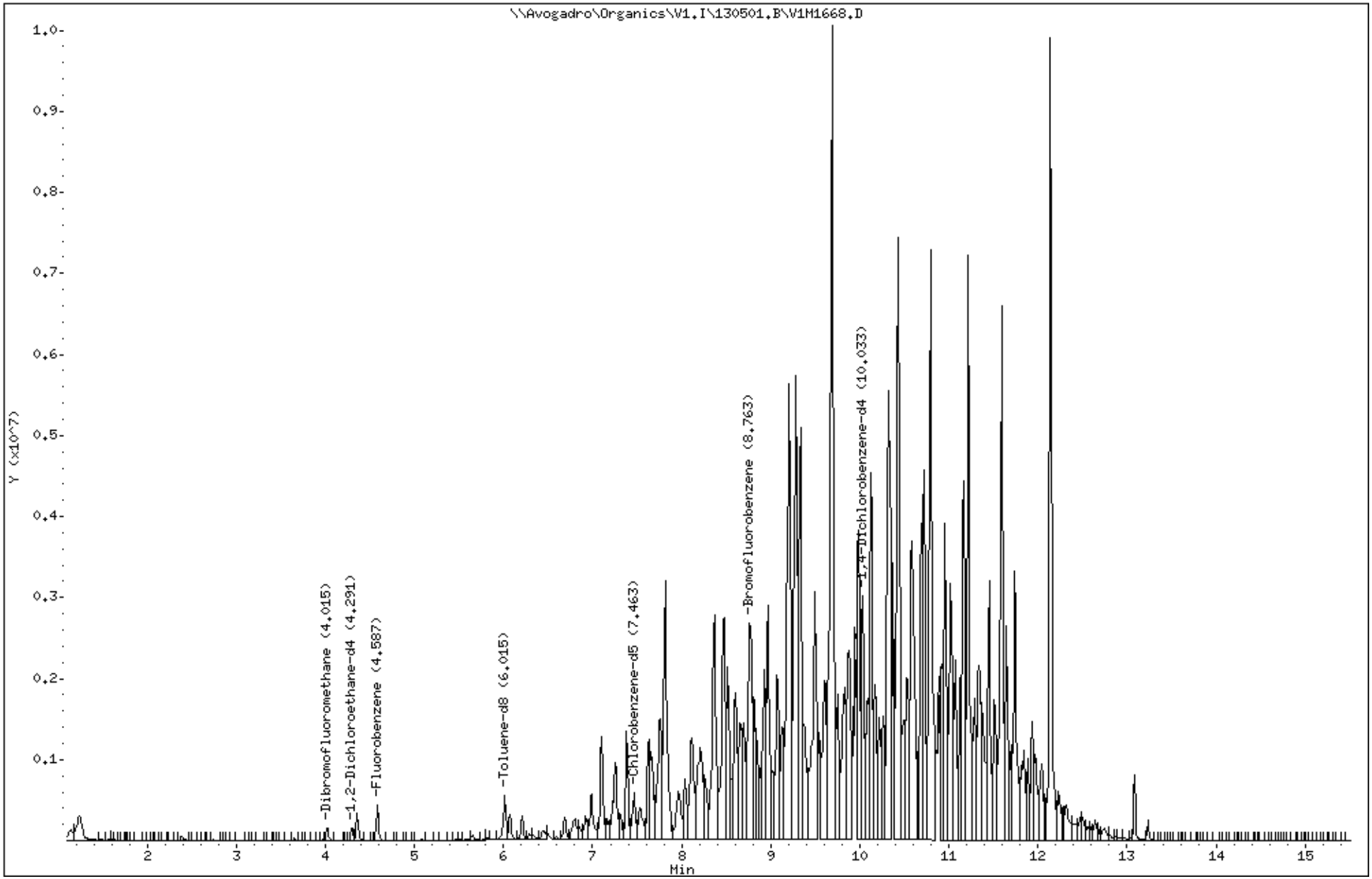
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D
Date : 01-MAY-2013 16:07
Client ID: SB-129 (8-10)
Sample Info: 5ML,M0619-11B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D

Date : 01-MAY-2013 16:07

Client ID: SB-129 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-11B,,71443

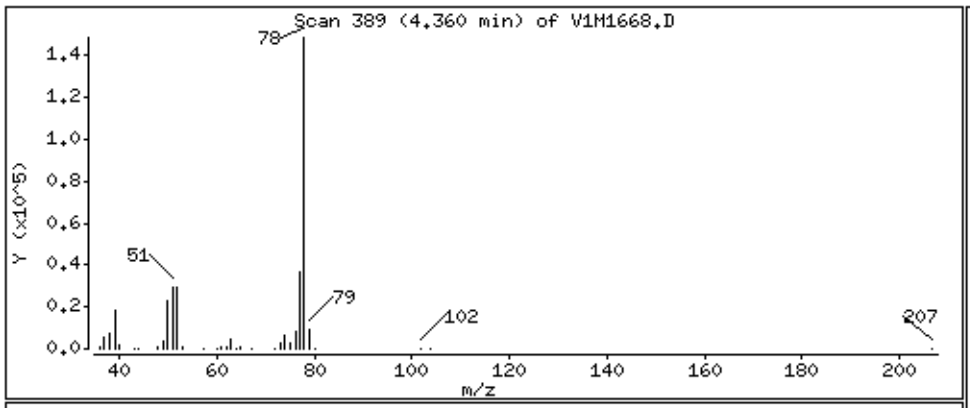
Operator: AM SRC: LIMS

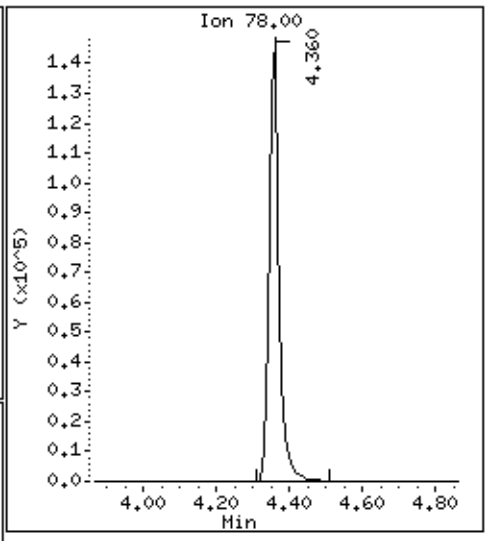
Column phase: DB-624

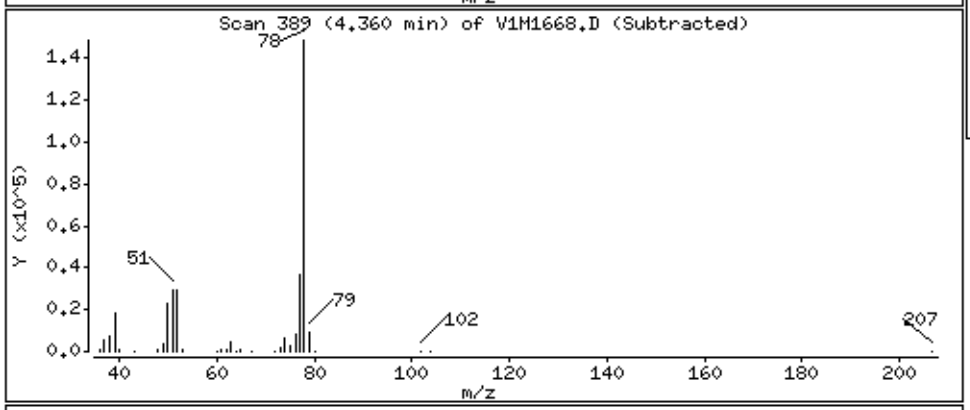
Column diameter: 0.25

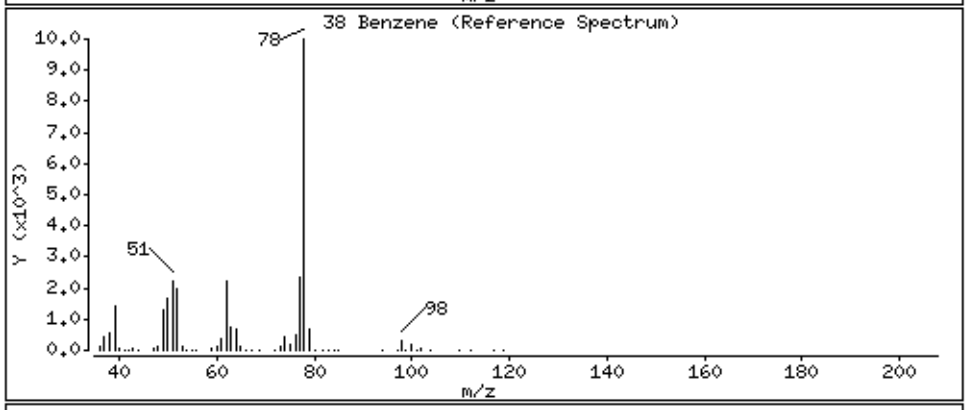
38 Benzene

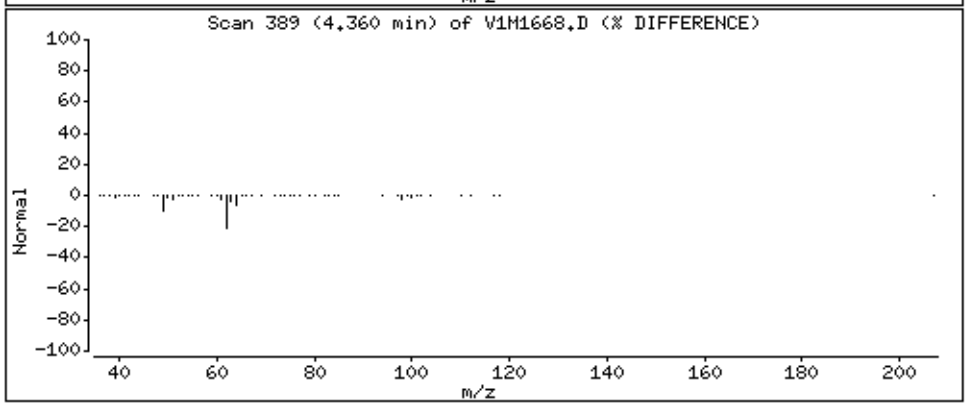
Concentration: 17 ug/Kg











Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D

Date : 01-MAY-2013 16:07

Client ID: SB-129 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-11B,,71443

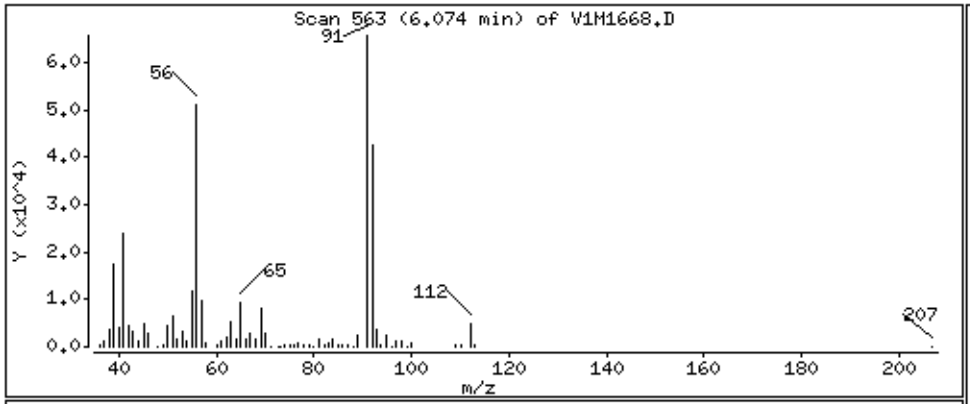
Operator: AM SRC: LIMS

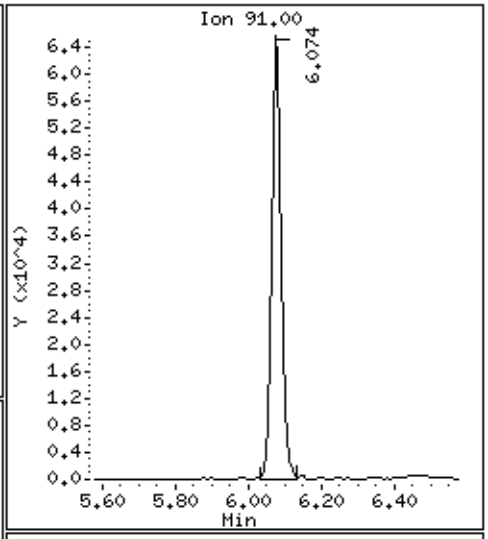
Column phase: DB-624

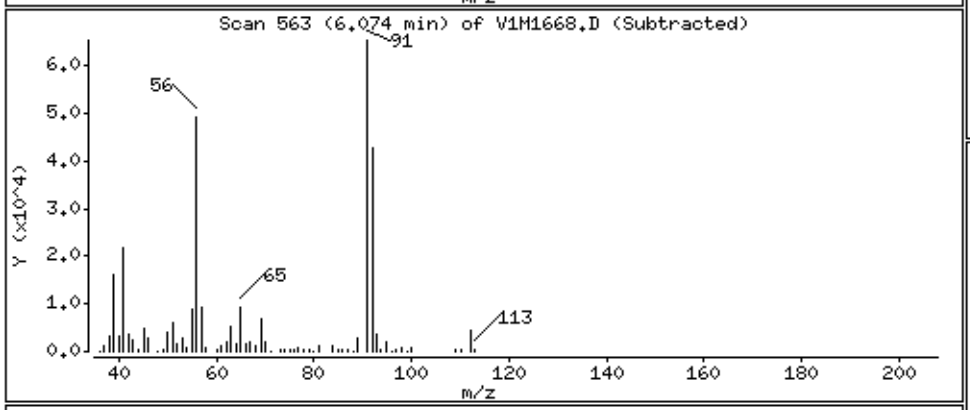
Column diameter: 0.25

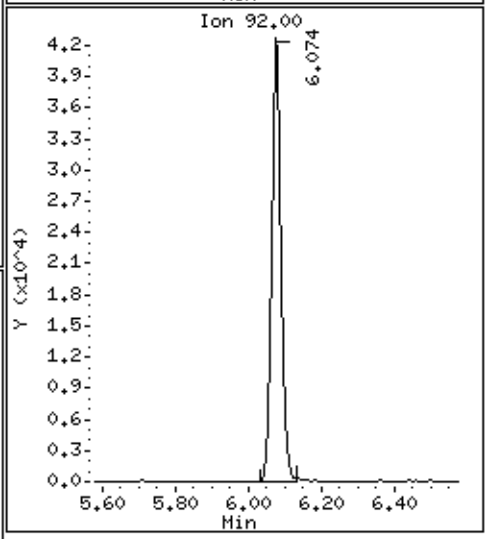
52 Toluene

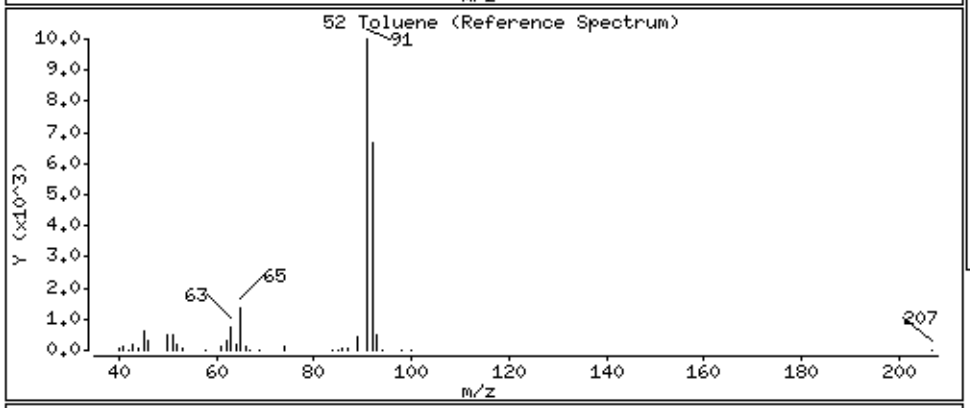
Concentration: 8 ug/Kg

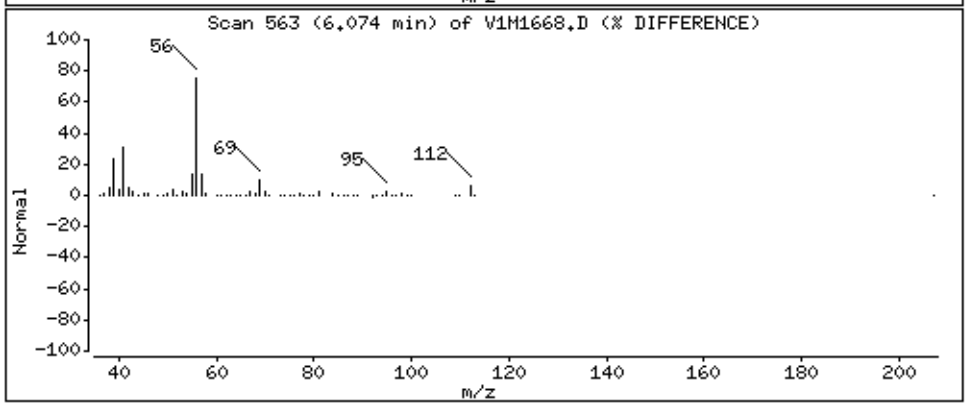












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D

Date : 01-MAY-2013 16:07

Client ID: SB-129 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-11B,,71443

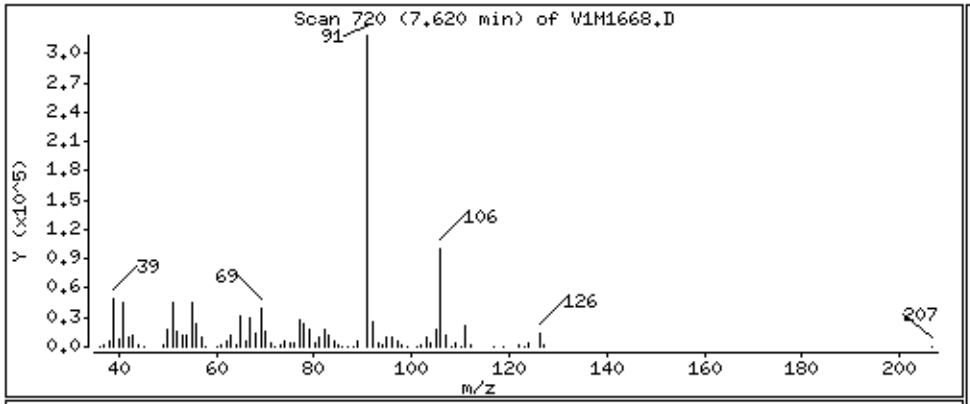
Operator: AM SRC: LIMS

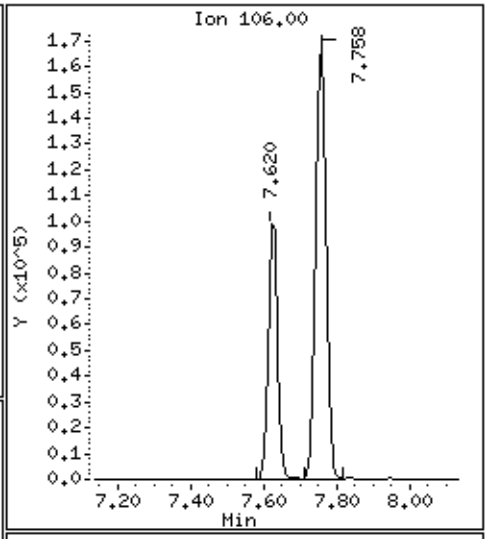
Column phase: DB-624

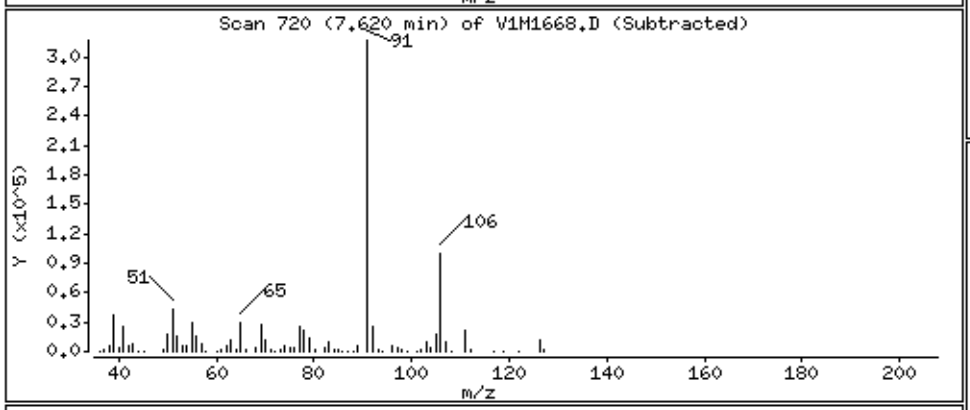
Column diameter: 0.25

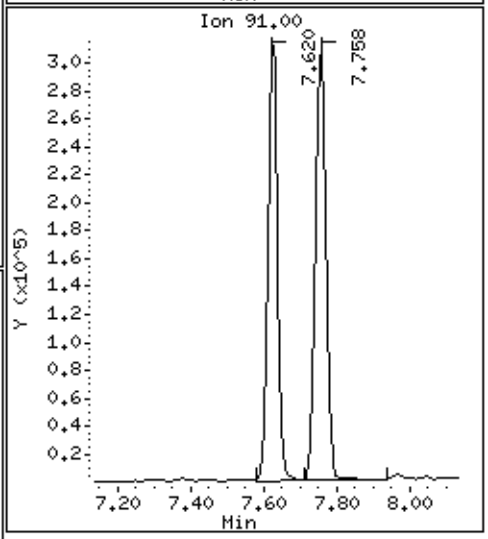
64 Ethylbenzene

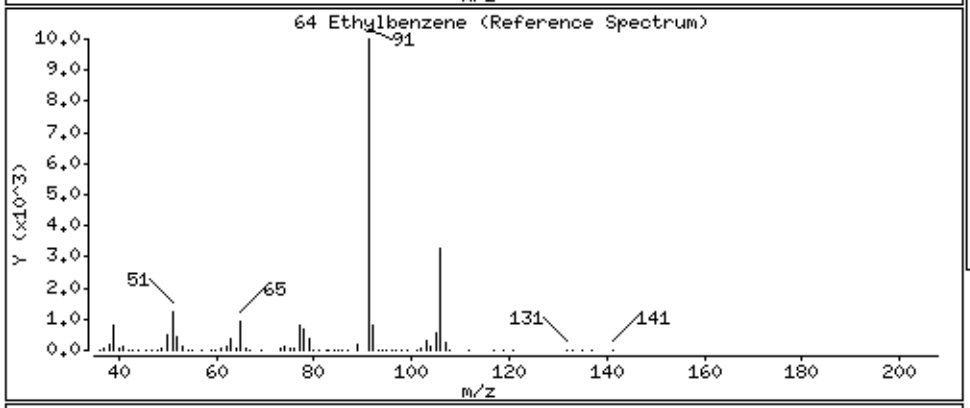
Concentration: 35 ug/Kg

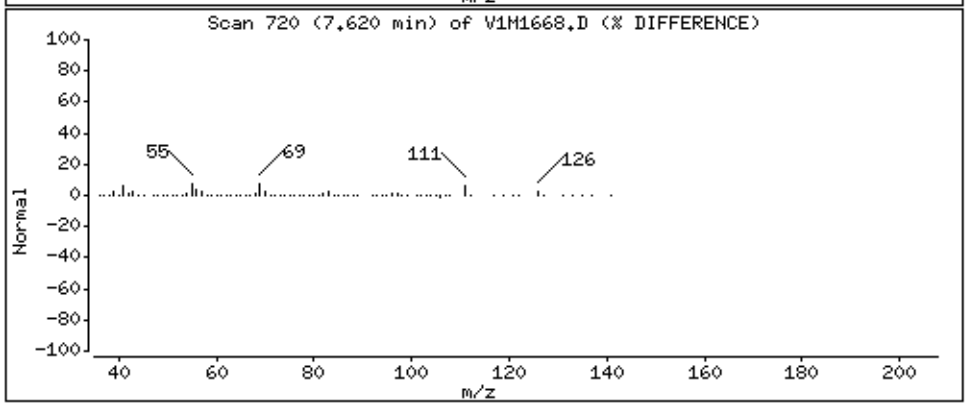












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D

Date : 01-MAY-2013 16:07

Client ID: SB-129 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-11B,,71443

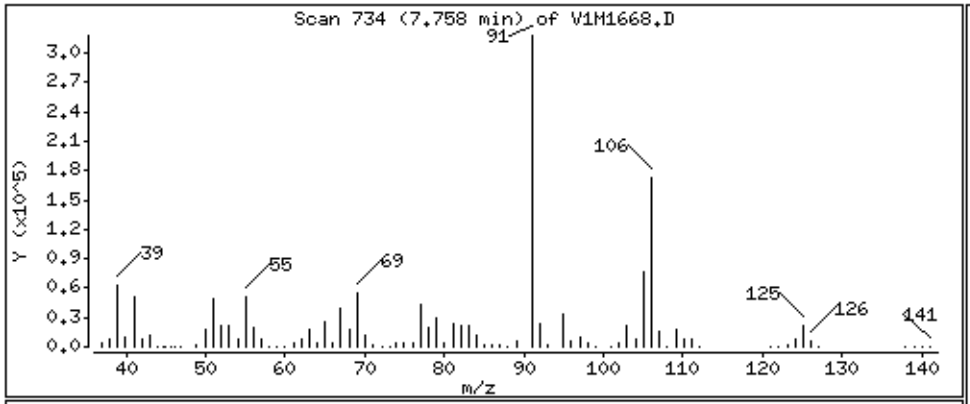
Operator: AM SRC: LIMS

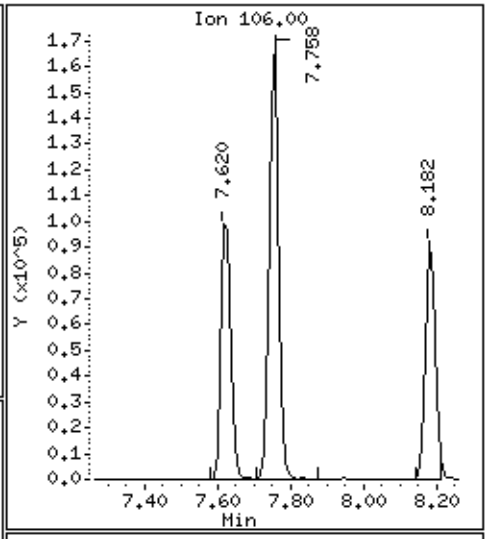
Column phase: DB-624

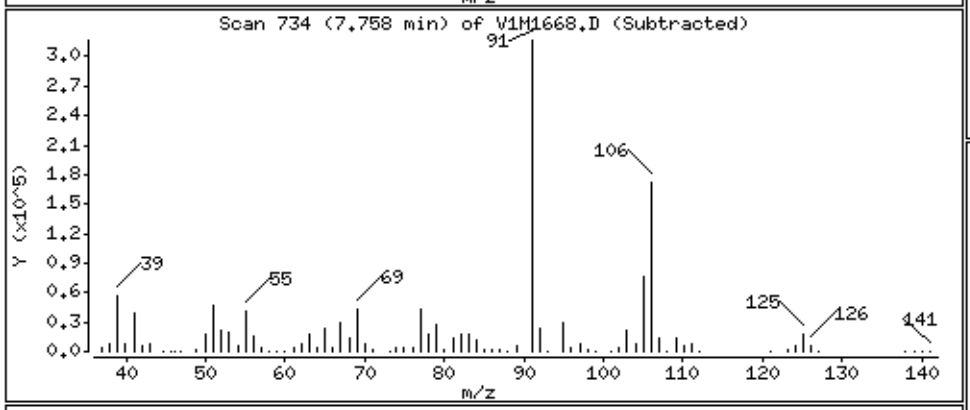
Column diameter: 0.25

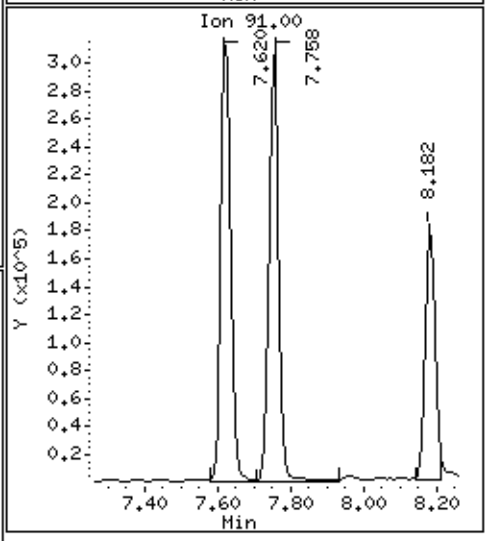
65 m,p-Xylene

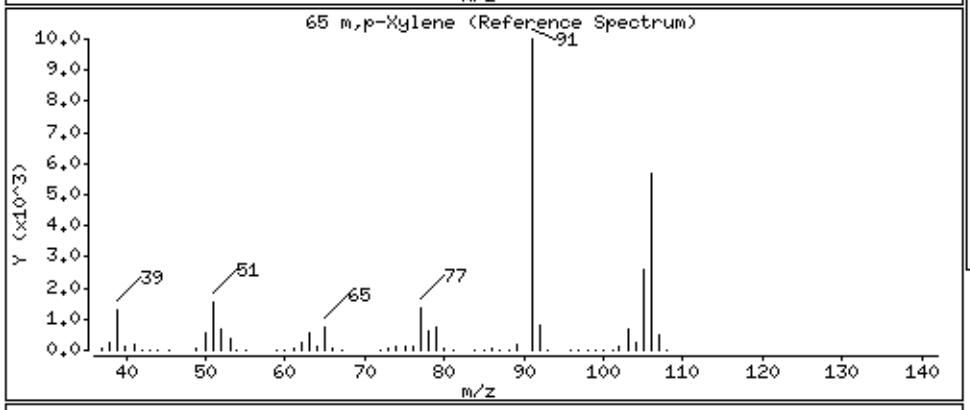
Concentration: 47 ug/Kg

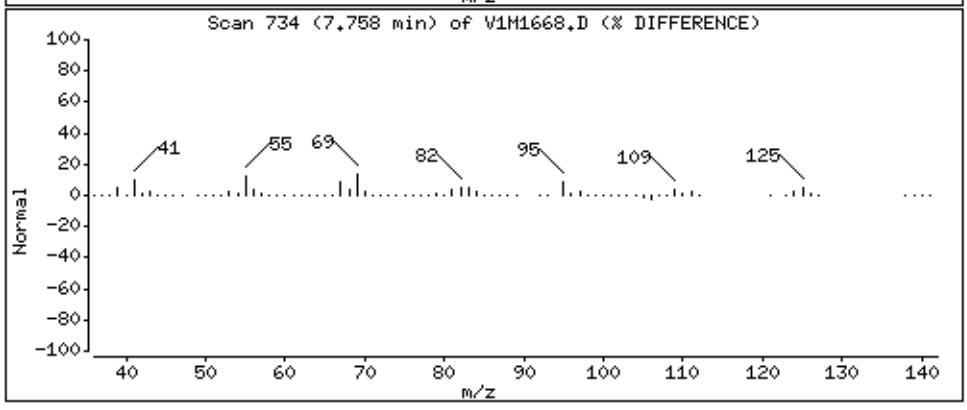












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1668.D

Date : 01-MAY-2013 16:07

Client ID: SB-129 (8-10)

Instrument: V1.i

Sample Info: 5ML,M0619-11B,,71443

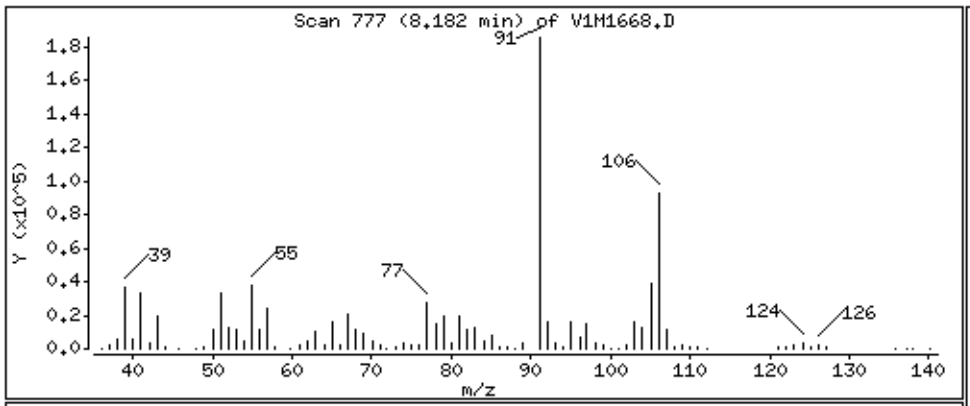
Operator: AM SRC: LIMS

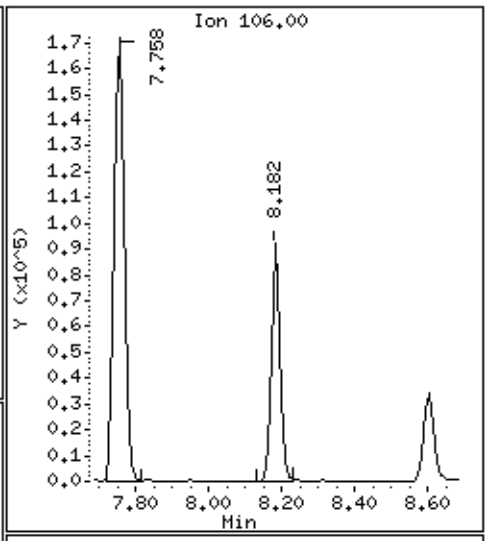
Column phase: DB-624

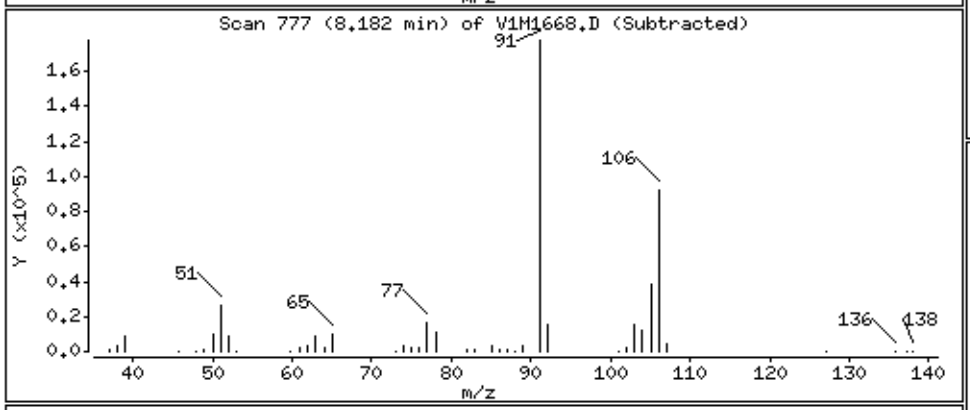
Column diameter: 0.25

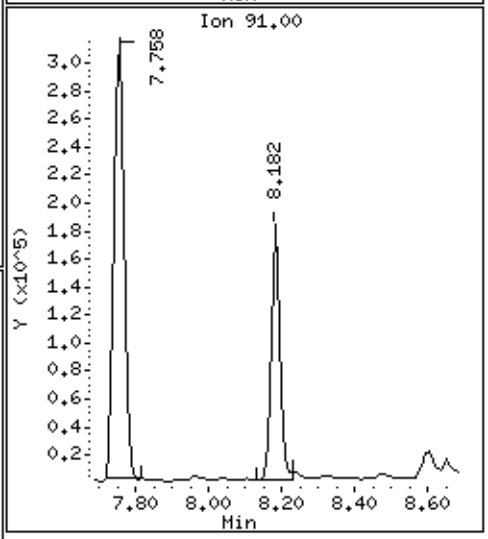
66 o-Xylene

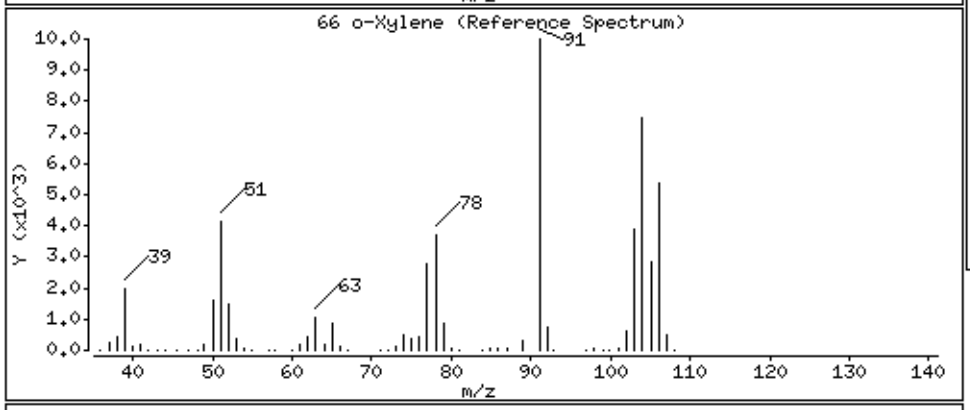
Concentration: 25 ug/Kg

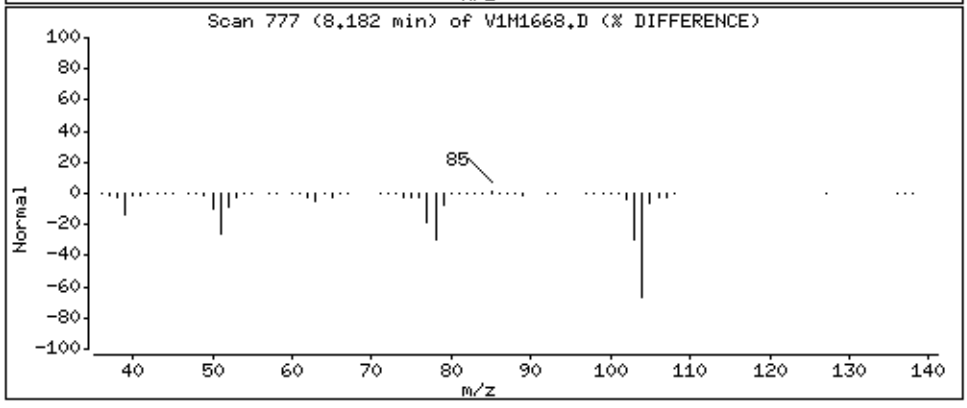












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-129 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-12B

Sample wt/vol: 9.10 (g/mL) G Lab File ID: V1M1669.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 6.7 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.9	U
108-88-3	Toluene	2.9	U
100-41-4	Ethylbenzene	1.9	J
179601-23-1	m,p-Xylene	1.5	J
95-47-6	o-Xylene	0.77	J
1330-20-7	Xylene (Total)	2.2	J

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1669.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1669.D
Lab Smp Id: M0619-12B Client Smp ID: SB-129 (18-20)
Inj Date : 01-MAY-2013 16:33
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-12B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 70
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

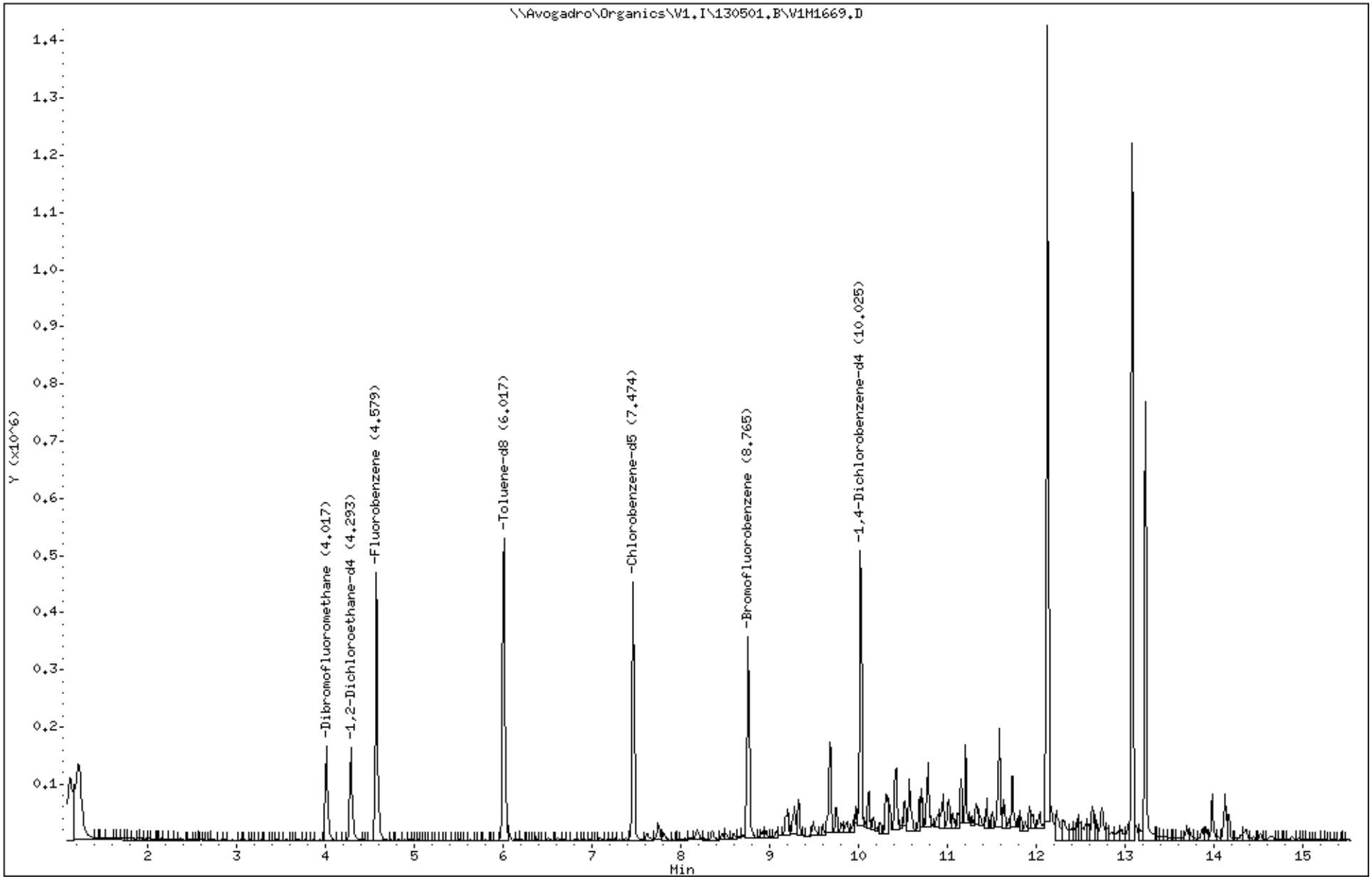
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.100	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.017	4.029	(0.877)	102055	52.3394	29
$	37 1,2-Dichloroethane-d4	102	4.292	4.305	(0.938)	31443	52.8410	29
*	41 Fluorobenzene	96	4.578	4.590	(1.000)	410298	50.0000	
$	51 Toluene-d8	98	6.016	6.019	(0.805)	362547	49.5307	27
*	60 Chlorobenzene-d5	117	7.474	7.476	(1.000)	286535	50.0000	
	64 Ethylbenzene	106	7.750	7.634	(1.037)	8886	3.21926	2(aQ)
	65 m,p-Xylene	106	7.750	7.762	(1.037)	8886	2.50354	1(a)
	66 o-Xylene	106	8.183	8.185	(1.095)	4426	1.30681	0.7(aQ)
$	70 Bromofluorobenzene	95	8.764	8.757	(1.173)	134352	52.1426	29
M	81 Xylene (Total)	106				13312	3.81035	2(a)
*	84 1,4-Dichlorobenzene-d4	152	10.025	10.027	(1.000)	129915	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1669.D
Date : 01-MAY-2013 16:33
Client ID: SB-129 (18-20)
Instrument: V1.i
Sample Info: 5ML,M0619-12B,,71443
Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1669.D

Date : 01-MAY-2013 16:33

Client ID: SB-129 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-12B,,71443

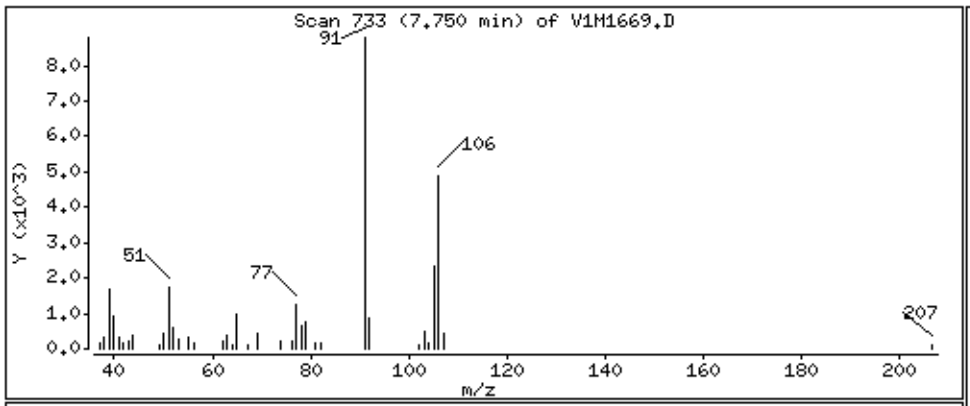
Operator: AM SRC: LIMS

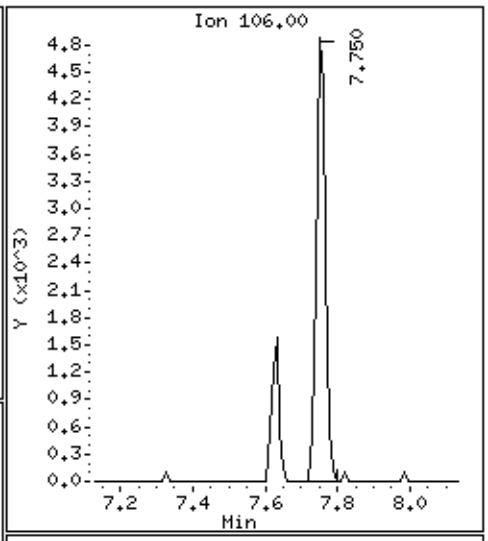
Column phase: DB-624

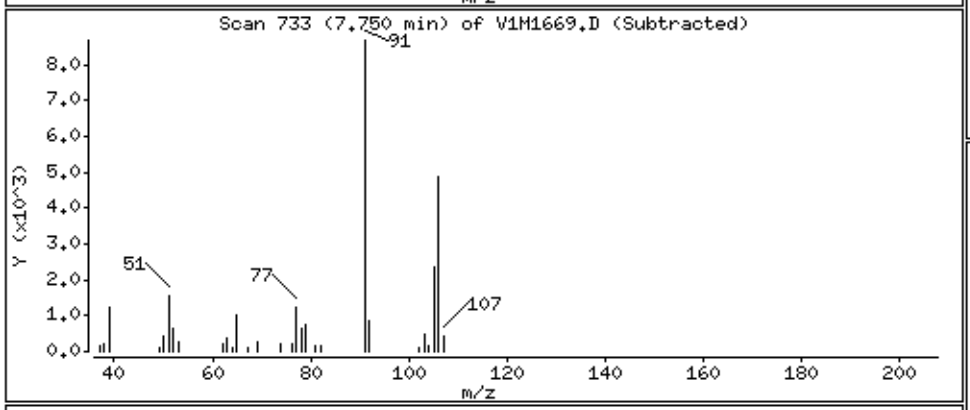
Column diameter: 0.25

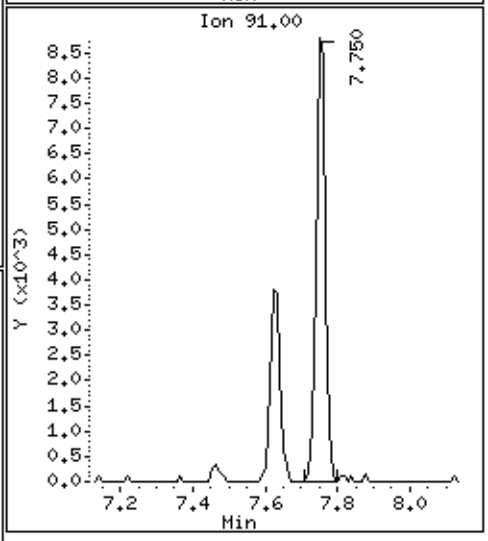
64 Ethylbenzene

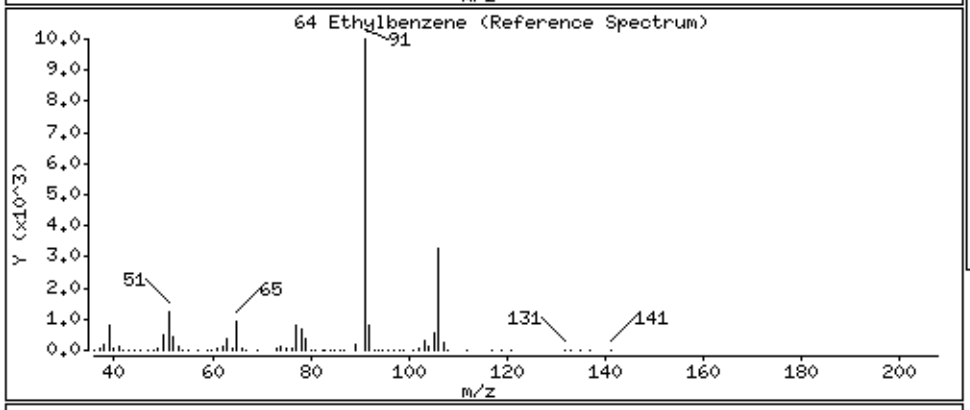
Concentration: 2 ug/Kg

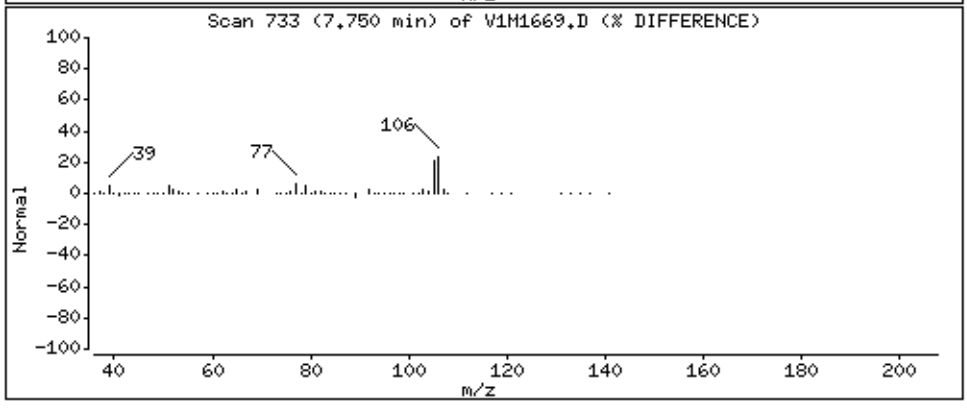












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1669.D

Date : 01-MAY-2013 16:33

Client ID: SB-129 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-12B,,71443

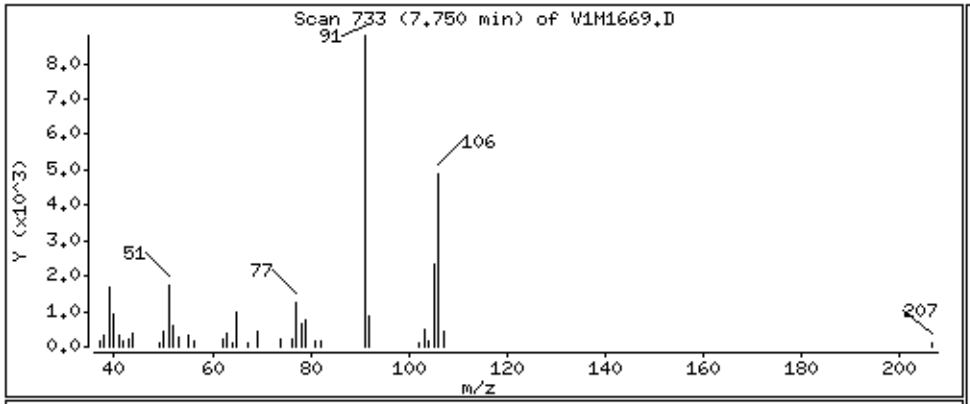
Operator: AM SRC: LIMS

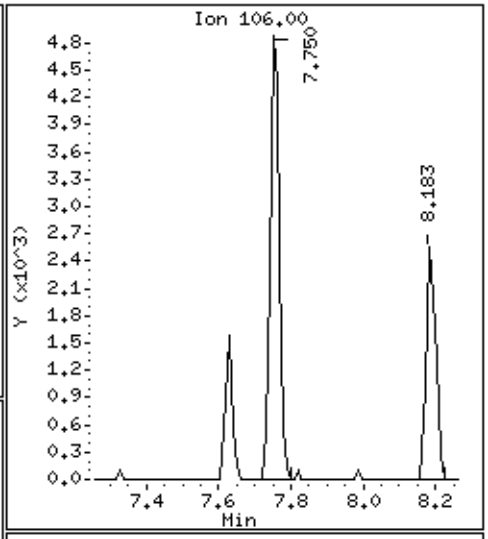
Column phase: DB-624

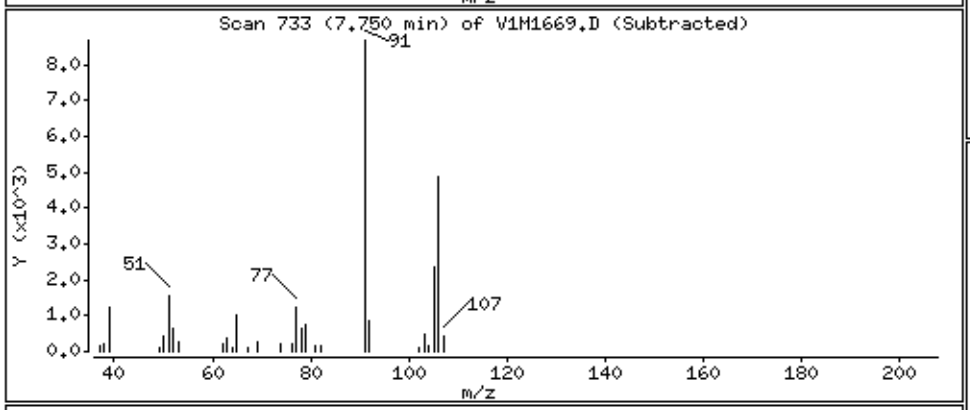
Column diameter: 0.25

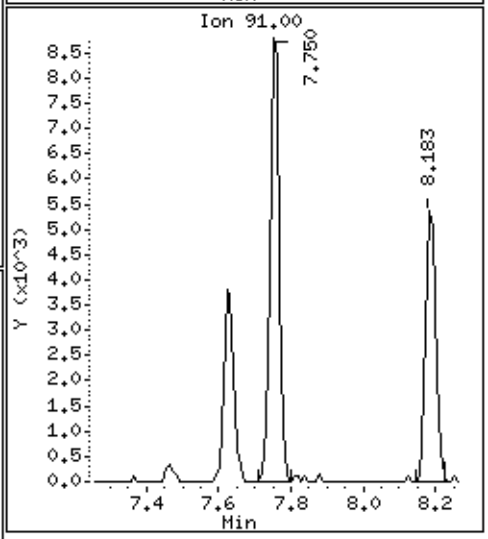
65 m,p-Xylene

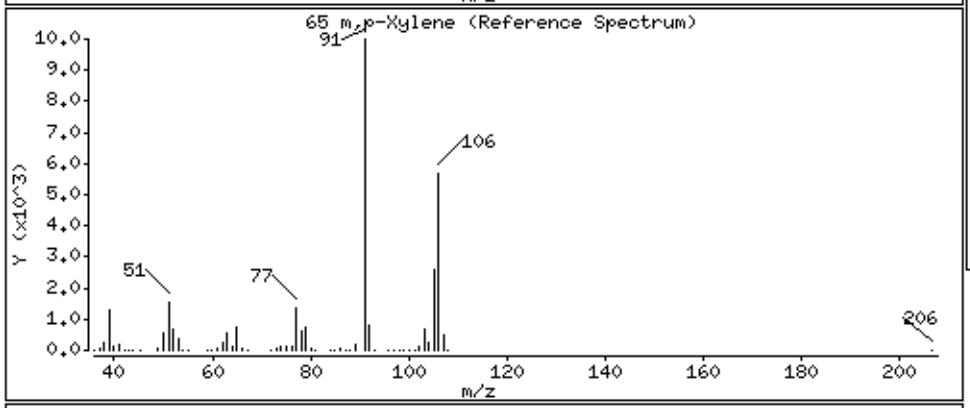
Concentration: 1 ug/Kg

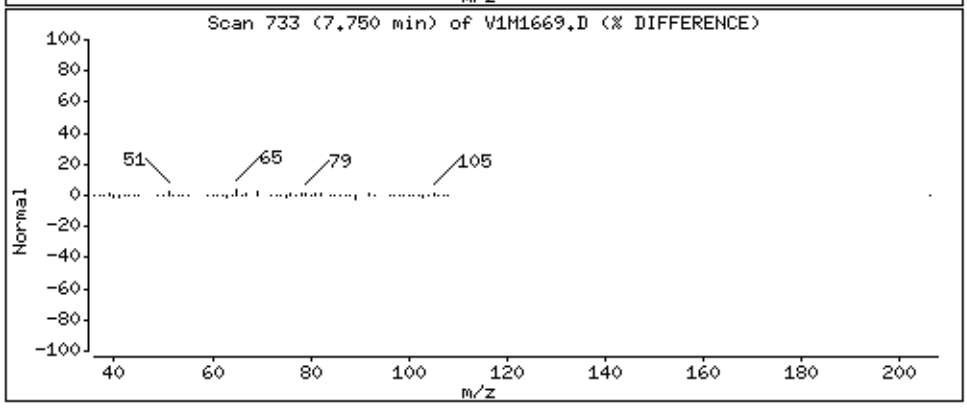












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1669.D

Date : 01-MAY-2013 16:33

Client ID: SB-129 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-12B,,71443

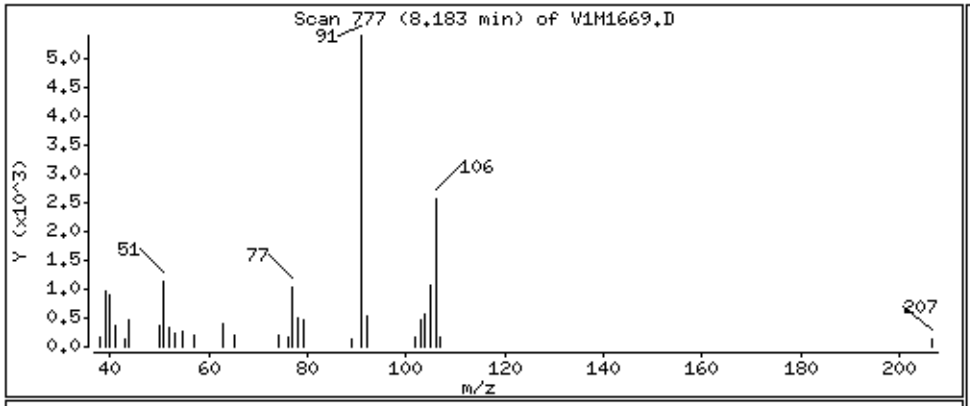
Operator: AM SRC: LIMS

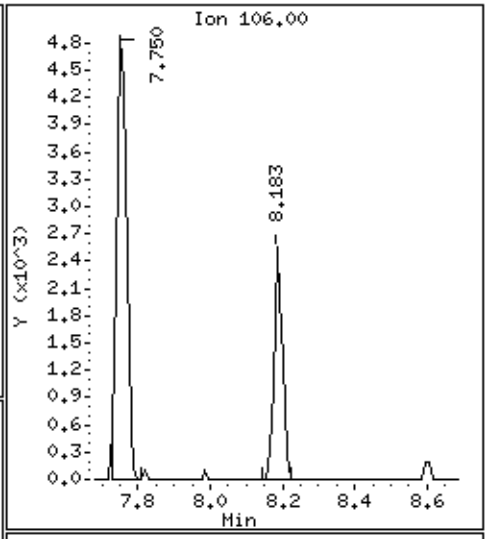
Column phase: DB-624

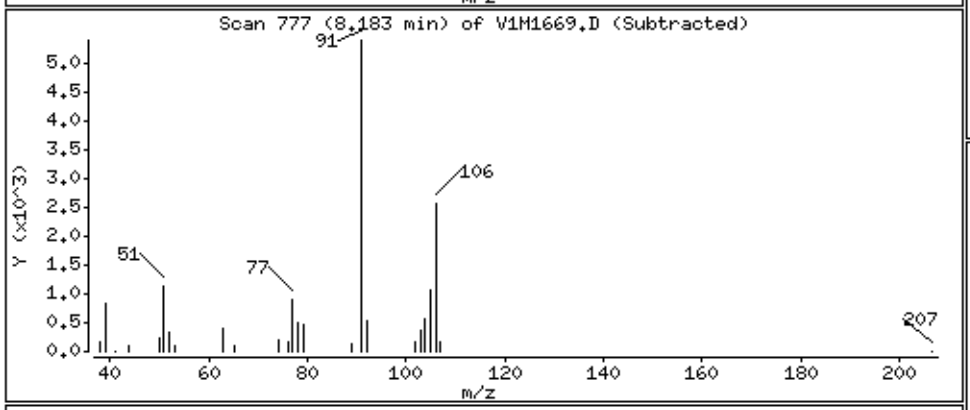
Column diameter: 0.25

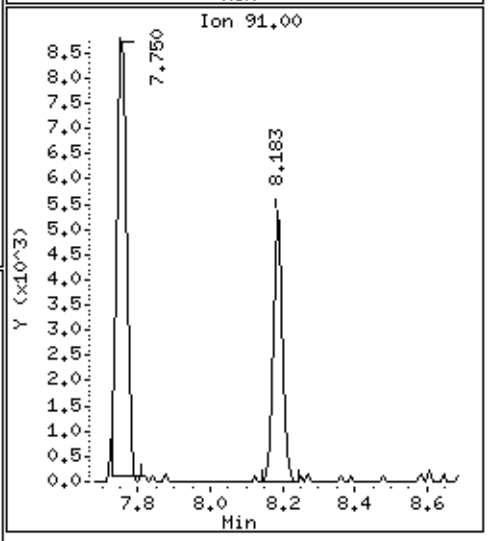
66 o-Xylene

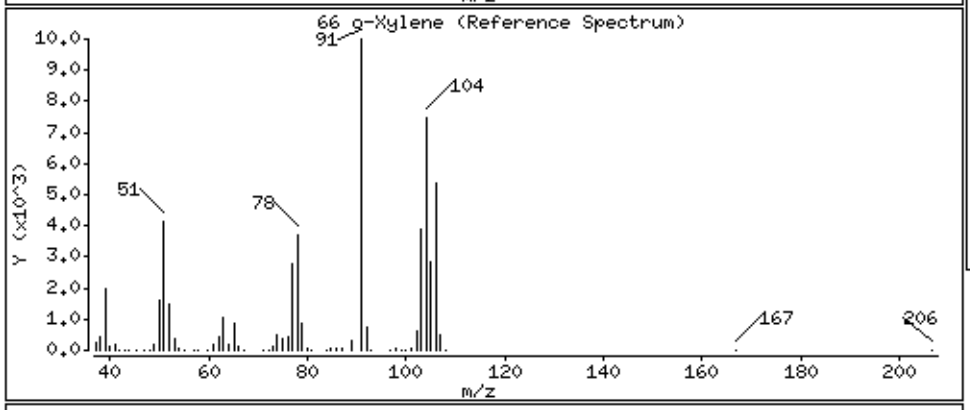
Concentration: 0.7 ug/Kg

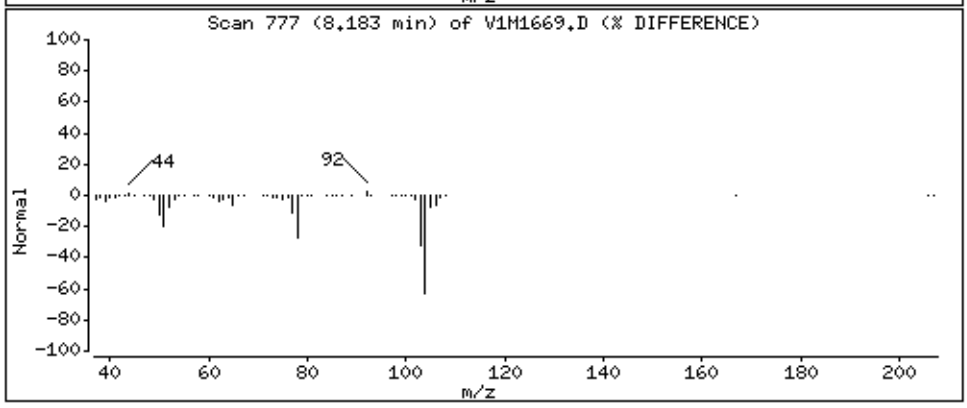












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-13B

Sample wt/vol: 10.5 (g/mL) G Lab File ID: V1M1670.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 13 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.7	U
108-88-3	Toluene	2.7	U
100-41-4	Ethylbenzene	2.7	U
179601-23-1	m,p-Xylene	0.89	J
95-47-6	o-Xylene	2.7	U
1330-20-7	Xylene (Total)	0.89	J

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1670.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1670.D
Lab Smp Id: M0619-13B Client Smp ID: SB-130 (2-4)
Inj Date : 01-MAY-2013 16:58
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-13B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 71
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

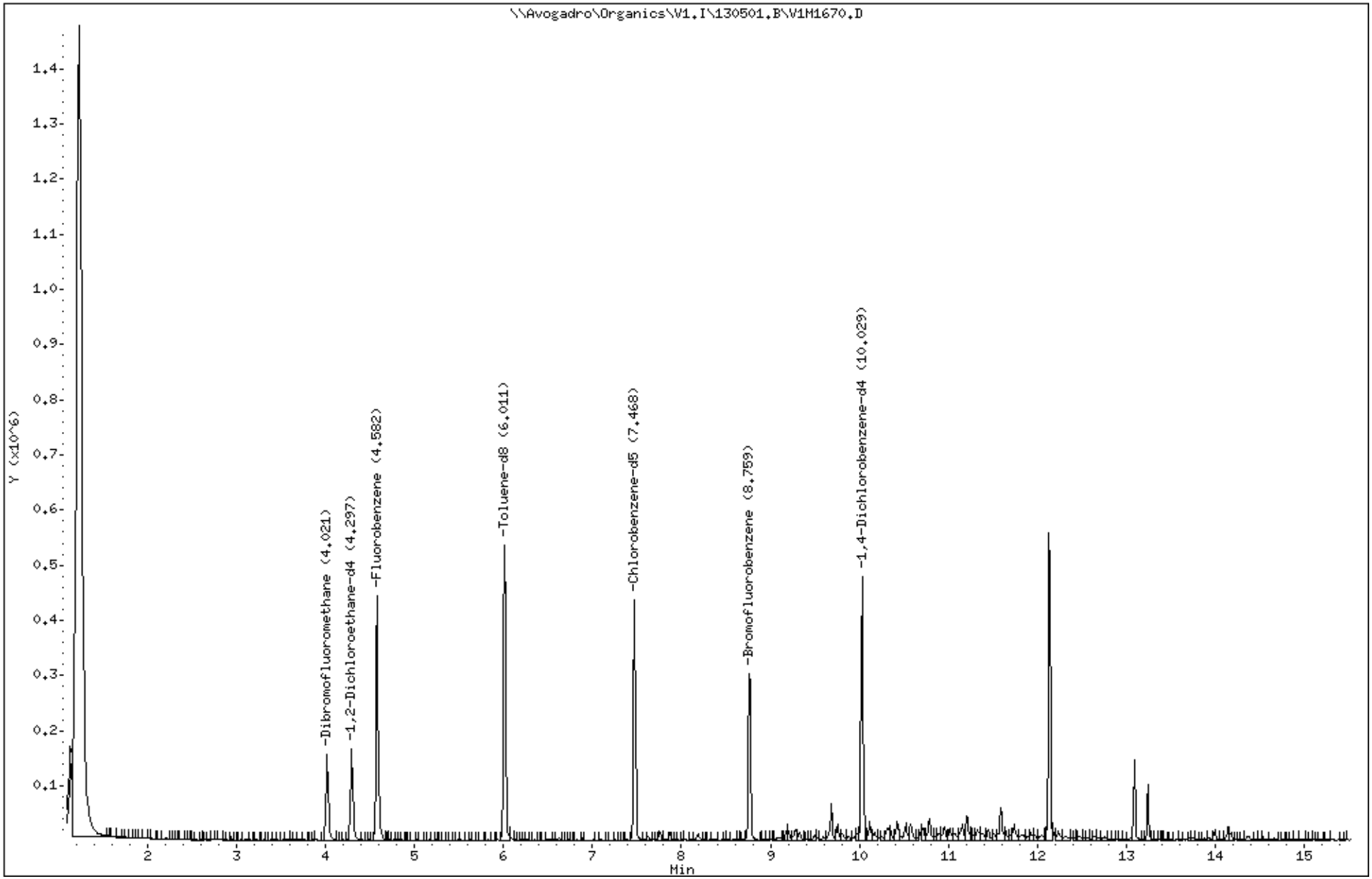
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	10.500	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.021	4.029	(0.877)	97794	51.9037	25
$ 37 1,2-Dichloroethane-d4	102	4.296	4.305	(0.938)	29401	51.1329	24
* 41 Fluorobenzene	96	4.582	4.590	(1.000)	396468	50.0000	
$ 51 Toluene-d8	98	6.010	6.019	(0.804)	350368	49.6831	24
* 60 Chlorobenzene-d5	117	7.478	7.476	(1.000)	276060	50.0000	
65 m,p-Xylene	106	7.754	7.762	(1.037)	5566	1.62767	0.8(a)
$ 70 Bromofluorobenzene	95	8.758	8.757	(1.171)	127956	51.5446	24
M 81 Xylene (Total)	106				5566	1.62767	0.8(a)
* 84 1,4-Dichlorobenzene-d4	152	10.029	10.027	(1.000)	120015	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1670.D
Date : 01-MAY-2013 16:58
Client ID: SB-130 (2-4)
Instrument: V1.i
Sample Info: 5ML,M0619-13B,,71443
Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1670.D

Date : 01-MAY-2013 16:58

Client ID: SB-130 (2-4)

Instrument: V1.i

Sample Info: 5ML,M0619-13B,,71443

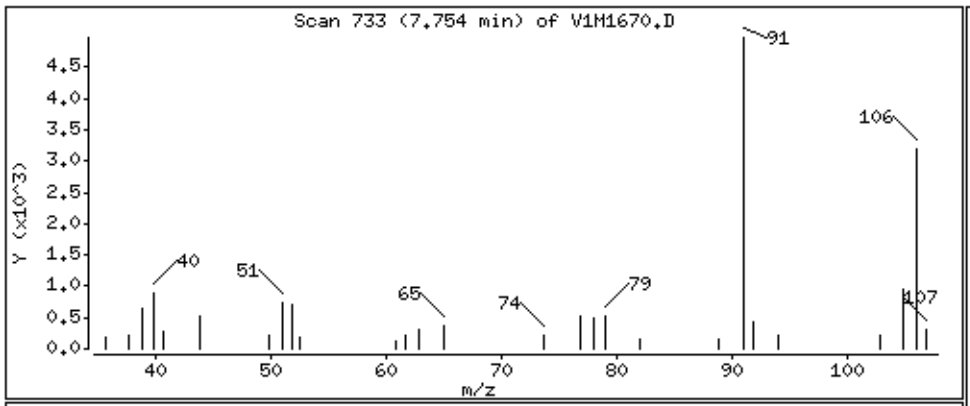
Operator: AM SRC: LIMS

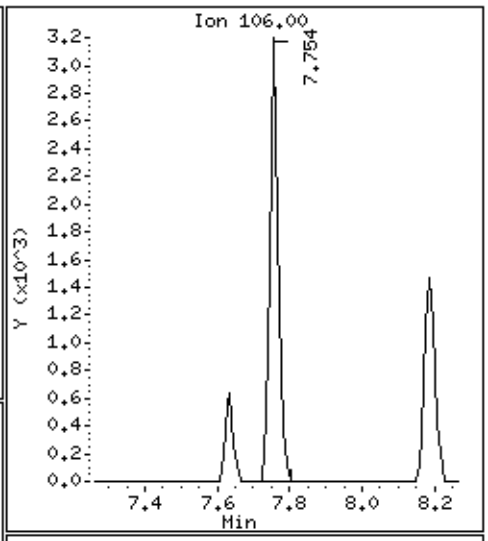
Column phase: DB-624

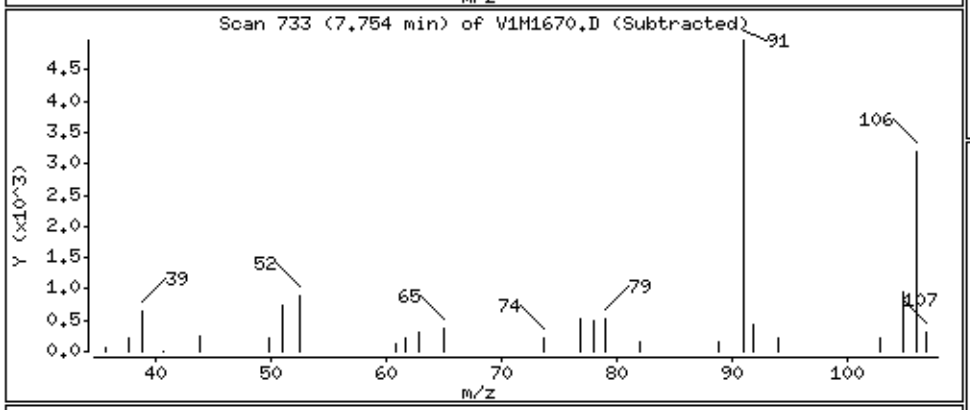
Column diameter: 0.25

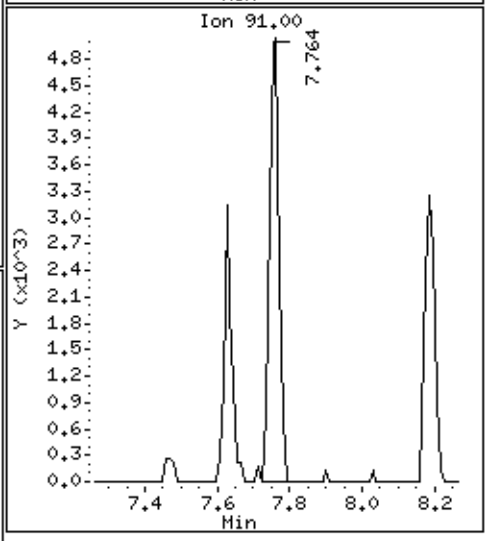
65 m,p-Xylene

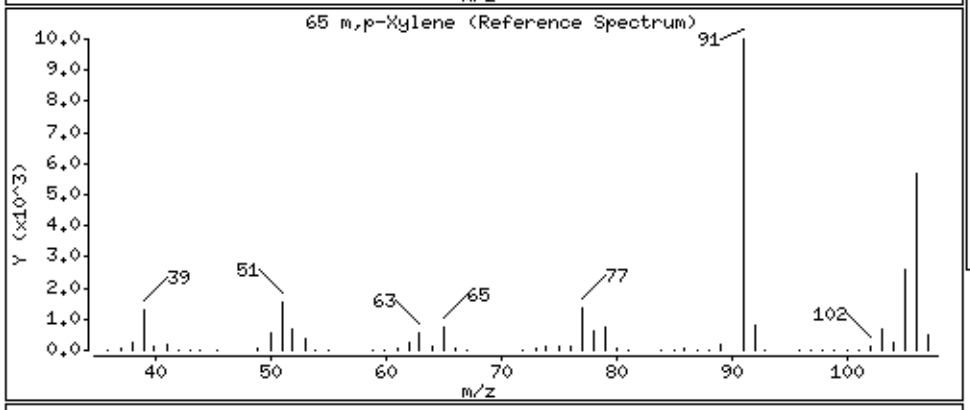
Concentration: 0.8 ug/Kg

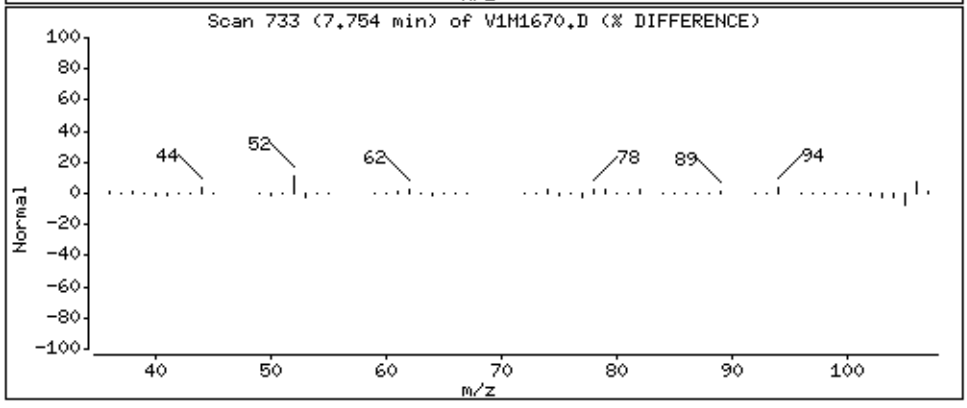












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (15-17)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-14B

Sample wt/vol: 11.7 (g/mL) G Lab File ID: V1M1671.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 16 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	1.8	J
108-88-3	Toluene	2.0	J
100-41-4	Ethylbenzene	2.5	U
179601-23-1	m,p-Xylene	2.0	J
95-47-6	o-Xylene	1.2	J
1330-20-7	Xylene (Total)	3.2	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1671.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1671.D
Lab Smp Id: M0619-14B Client Smp ID: SB-130 (15-17)
Inj Date : 01-MAY-2013 17:24
Operator : AM   SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-14B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 72
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	11.700	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.016	4.029	(0.875)	95302	52.5177	22
$	37 1,2-Dichloroethane-d4	102	4.301	4.305	(0.938)	28836	52.0704	22
	38 Benzene	78	4.360	4.364	(0.951)	28764	3.52140	2(a)
*	41 Fluorobenzene	96	4.587	4.590	(1.000)	381848	50.0000	
$	51 Toluene-d8	98	6.015	6.019	(0.804)	341040	51.7639	22
	52 Toluene	91	6.084	6.078	(1.326)	29265	3.93216	2(a)
*	60 Chlorobenzene-d5	117	7.483	7.476	(1.000)	257909	50.0000	
	65 m,p-Xylene	106	7.758	7.762	(1.037)	12387	3.87727	2(a)
	66 o-Xylene	106	8.192	8.185	(1.095)	7487	2.45594	1(a)
$	70 Bromofluorobenzene	95	8.763	8.757	(1.171)	119860	51.6813	22
M	81 Xylene (Total)	106				19874	6.33321	3
*	84 1,4-Dichlorobenzene-d4	152	10.034	10.027	(1.000)	106698	50.0000	

QC Flag Legend

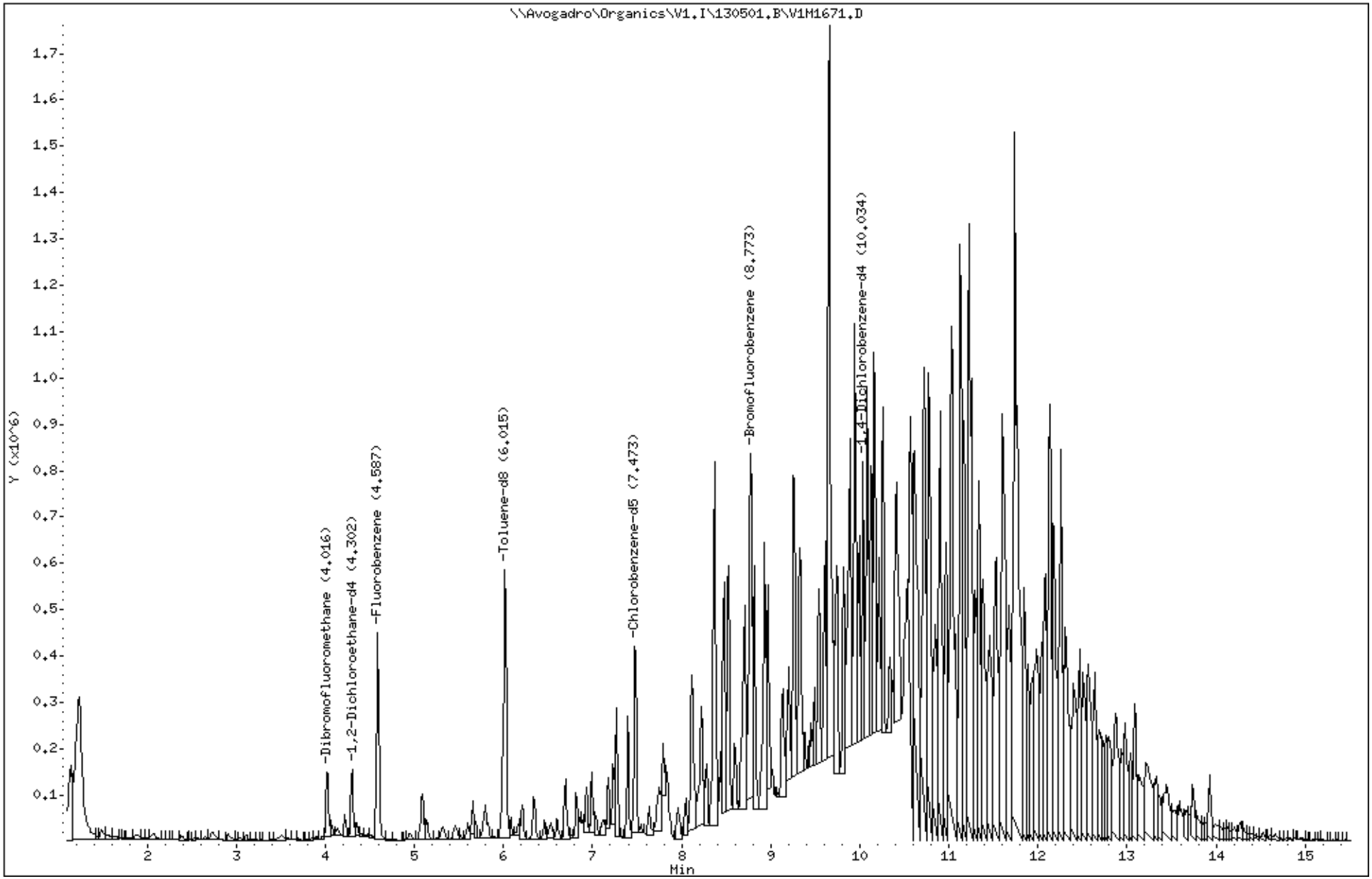
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1671.D
Date : 01-MAY-2013 17:24
Client ID: SB-130 (15-17)
Sample Info: 5ML,M0619-14B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



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Date : 01-MAY-2013 17:24

Client ID: SB-130 (15-17)

Instrument: V1.i

Sample Info: 5ML,M0619-14B,,71443

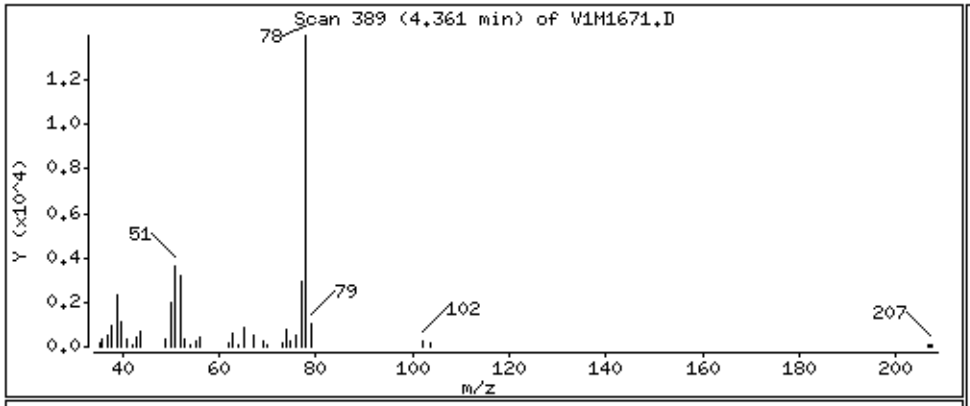
Operator: AM SRC: LIMS

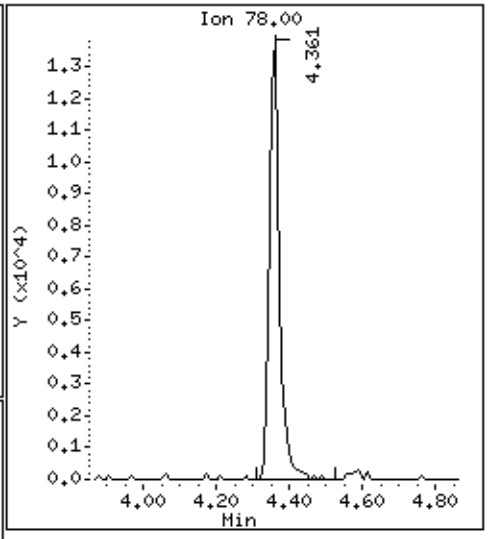
Column phase: DB-624

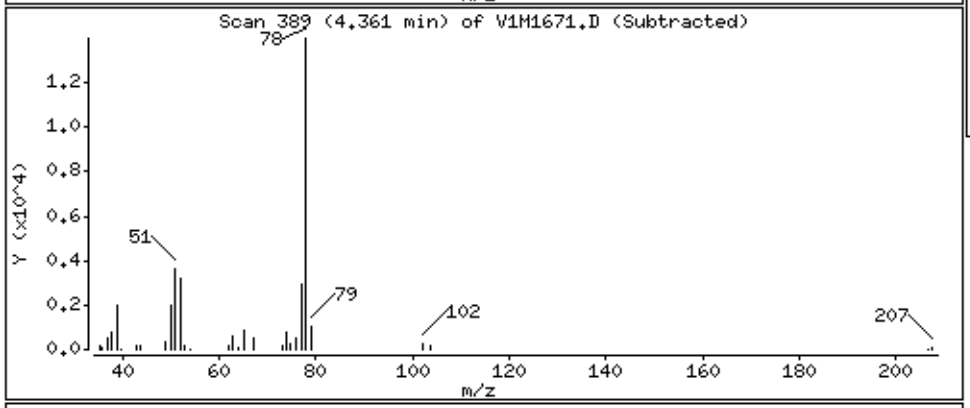
Column diameter: 0.25

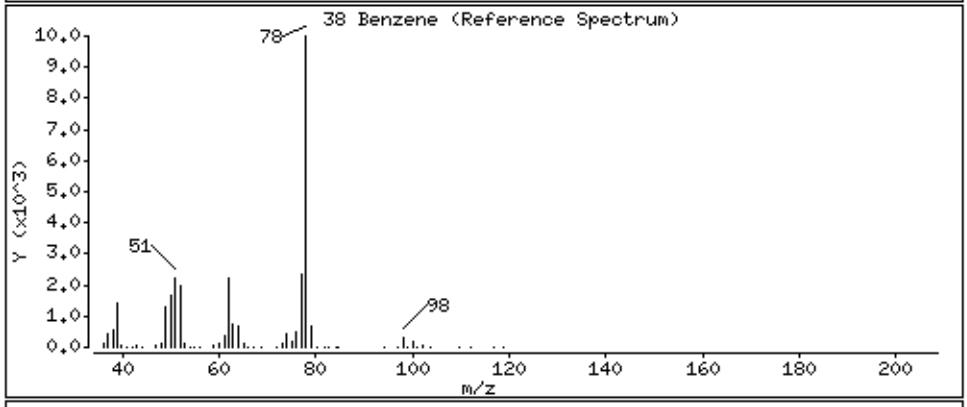
38 Benzene

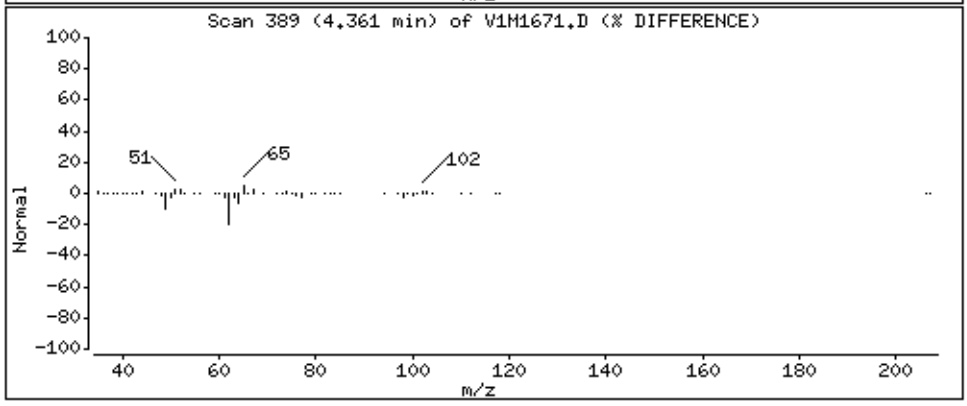
Concentration: 2 ug/Kg











Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1671.D

Date : 01-MAY-2013 17:24

Client ID: SB-130 (15-17)

Instrument: V1.i

Sample Info: 5ML,M0619-14B,,71443

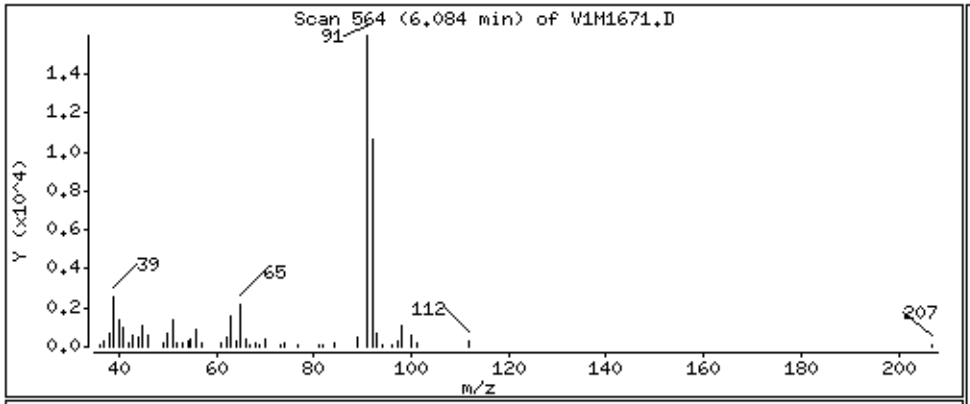
Operator: AM SRC: LIMS

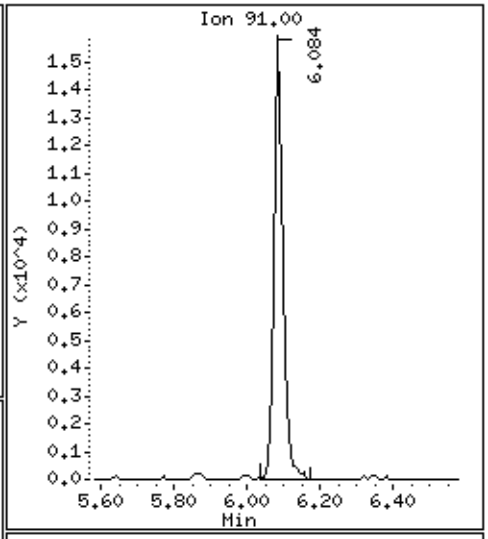
Column phase: DB-624

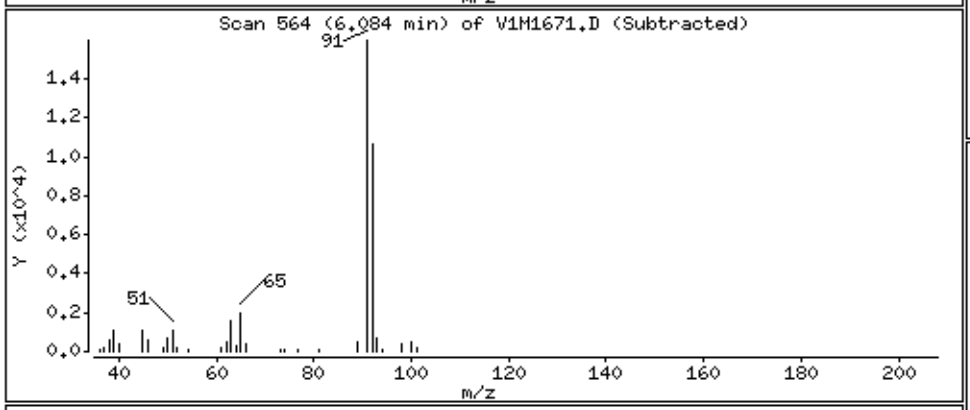
Column diameter: 0.25

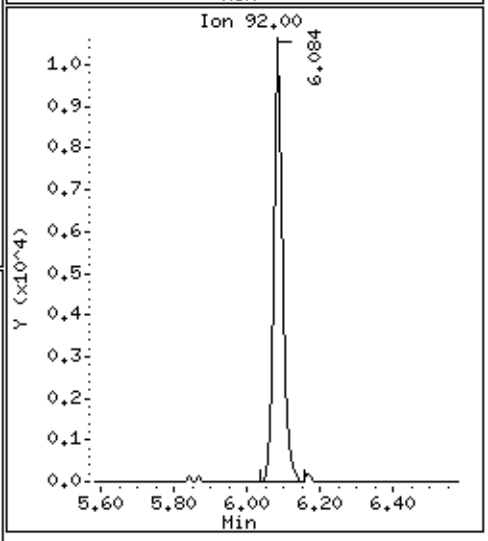
52 Toluene

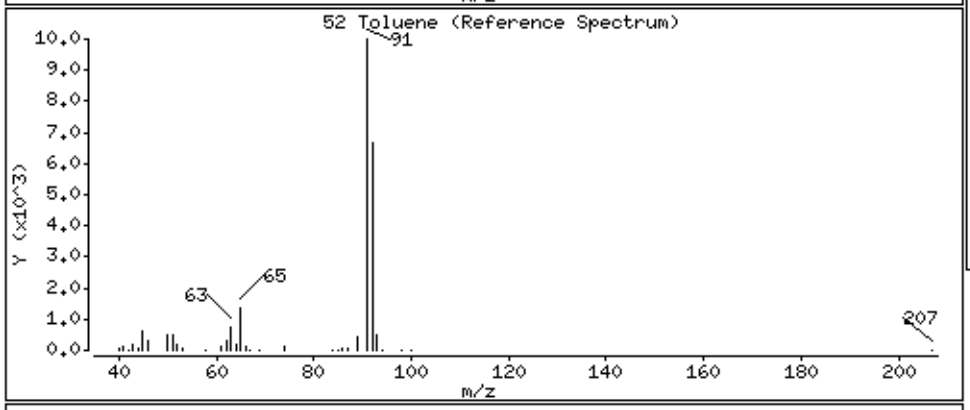
Concentration: 2 ug/Kg

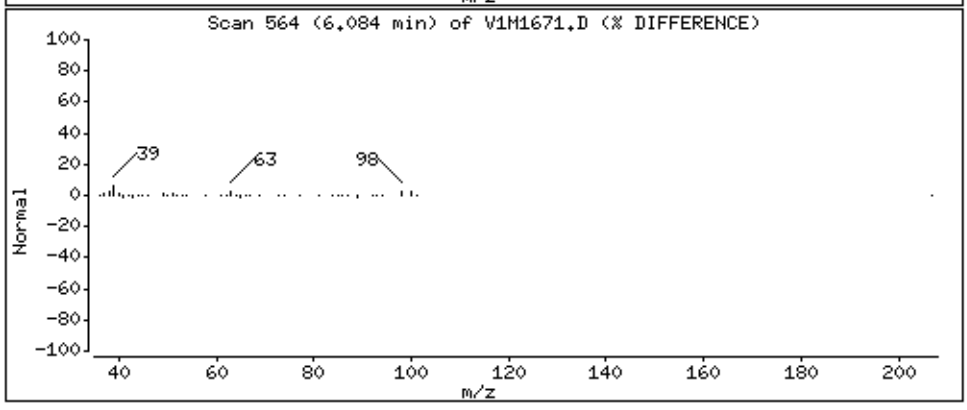












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1671.D

Date : 01-MAY-2013 17:24

Client ID: SB-130 (15-17)

Instrument: V1.i

Sample Info: 5ML,M0619-14B,,71443

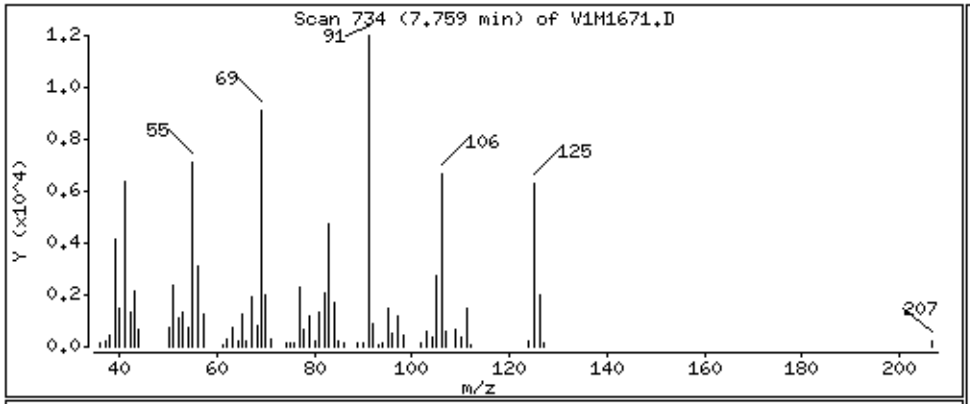
Operator: AM SRC: LIMS

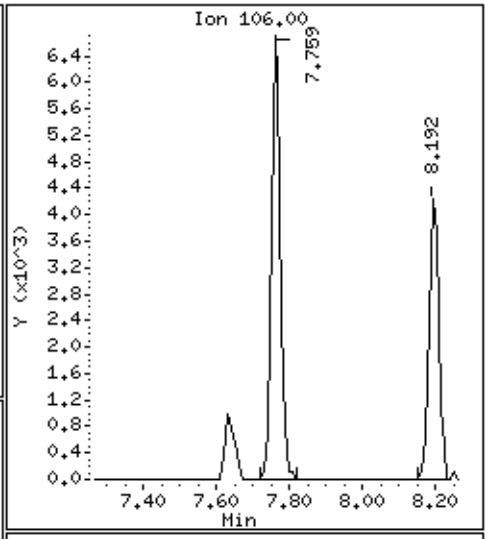
Column phase: DB-624

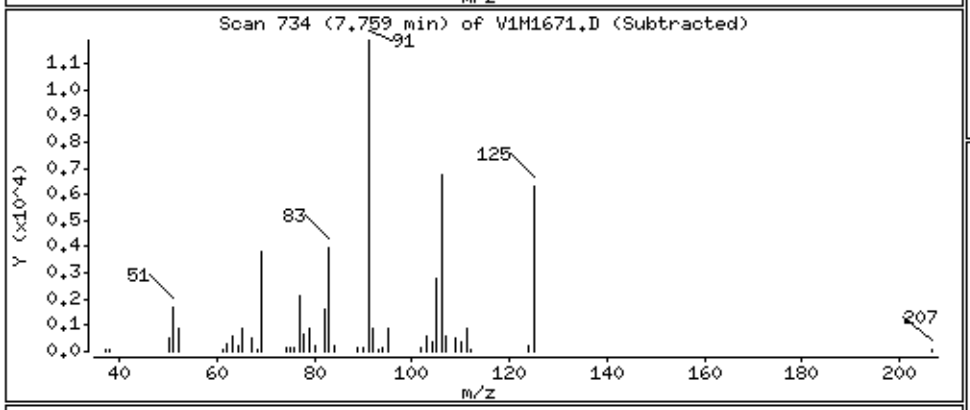
Column diameter: 0.25

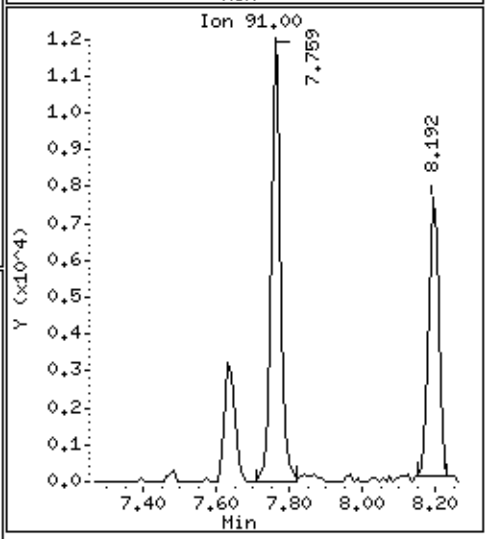
65 m,p-Xylene

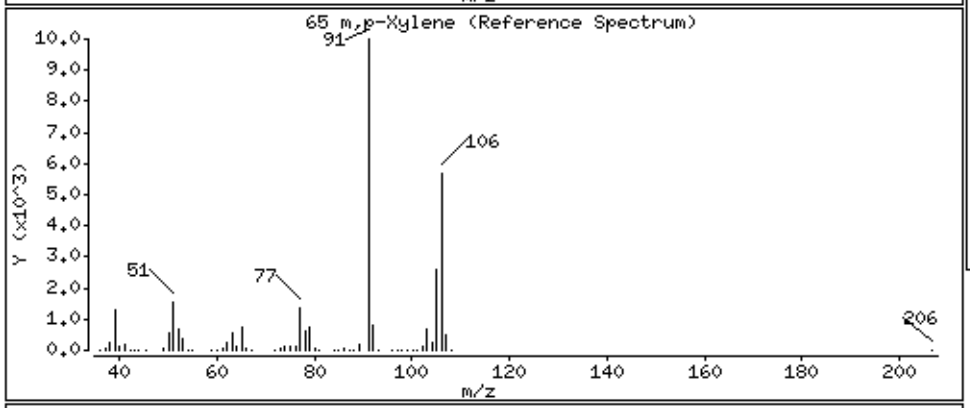
Concentration: 2 ug/Kg

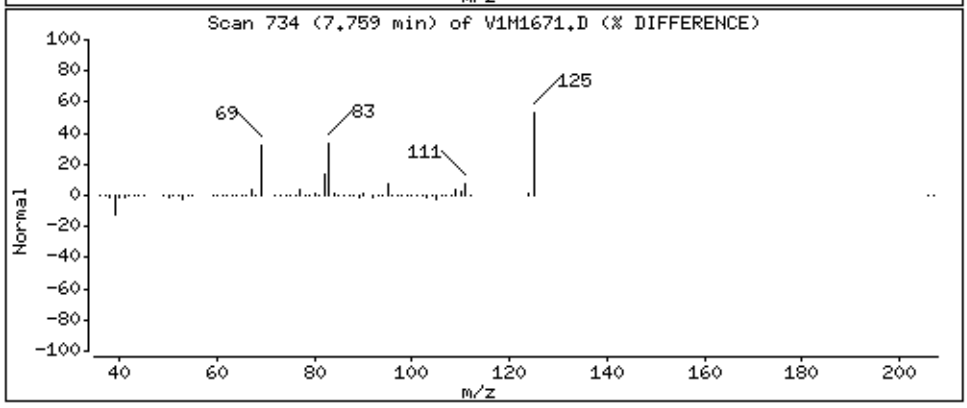












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1671.D

Date : 01-MAY-2013 17:24

Client ID: SB-130 (15-17)

Instrument: V1.i

Sample Info: 5ML,M0619-14B,,71443

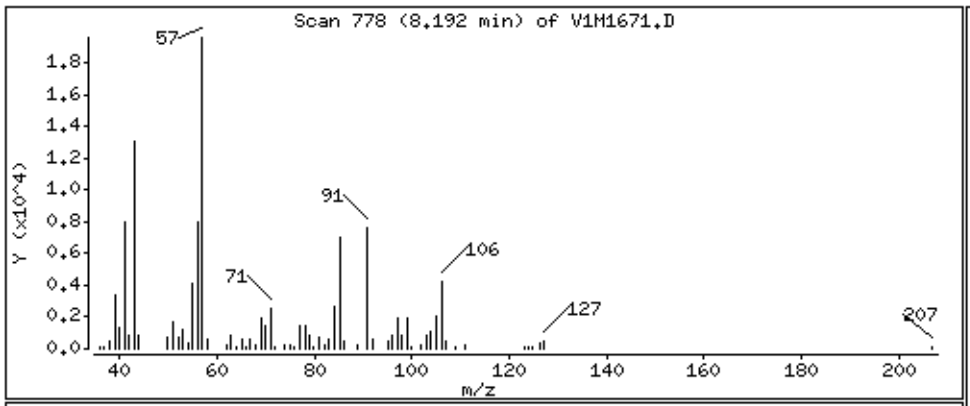
Operator: AM SRC: LIMS

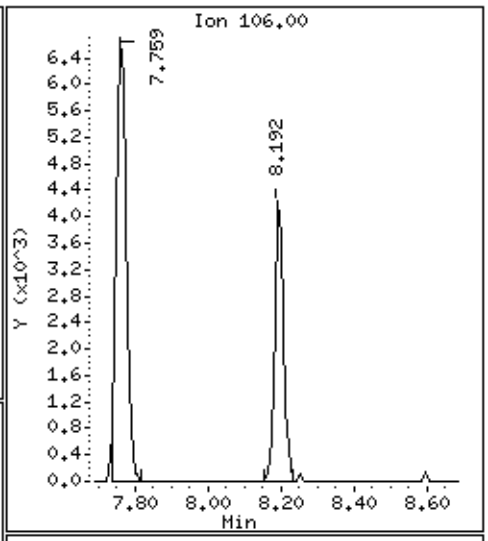
Column phase: DB-624

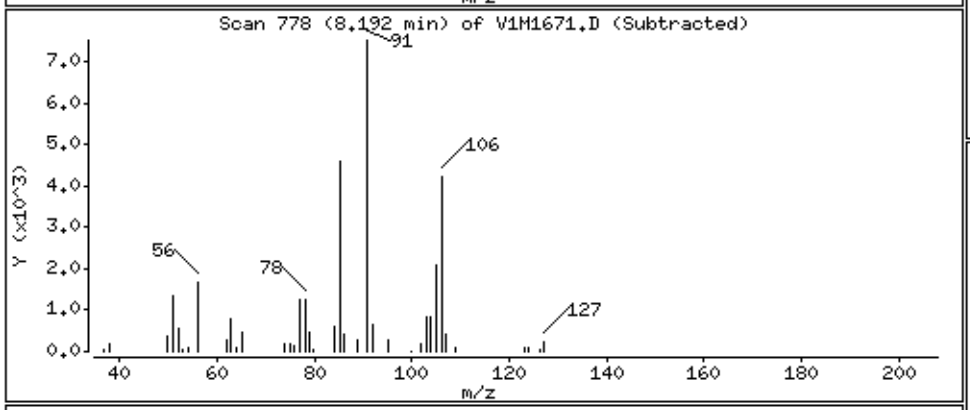
Column diameter: 0.25

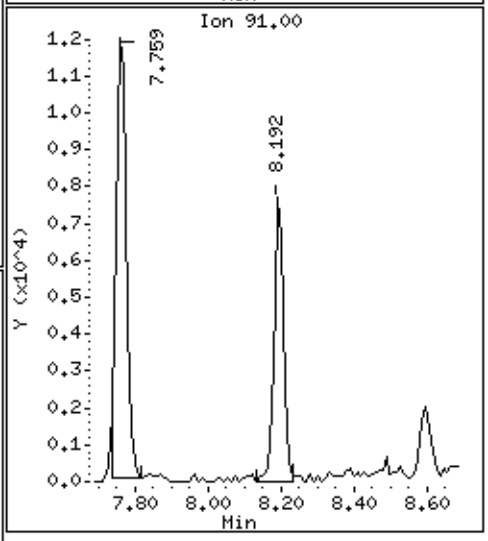
66 o-Xylene

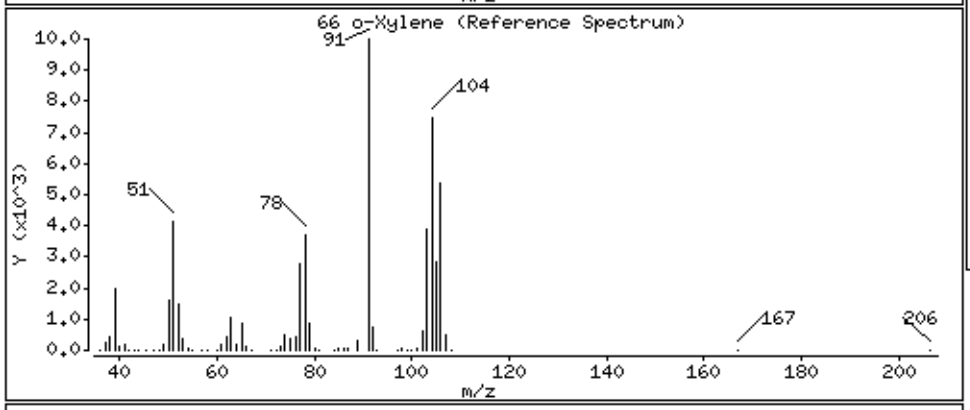
Concentration: 1 ug/Kg

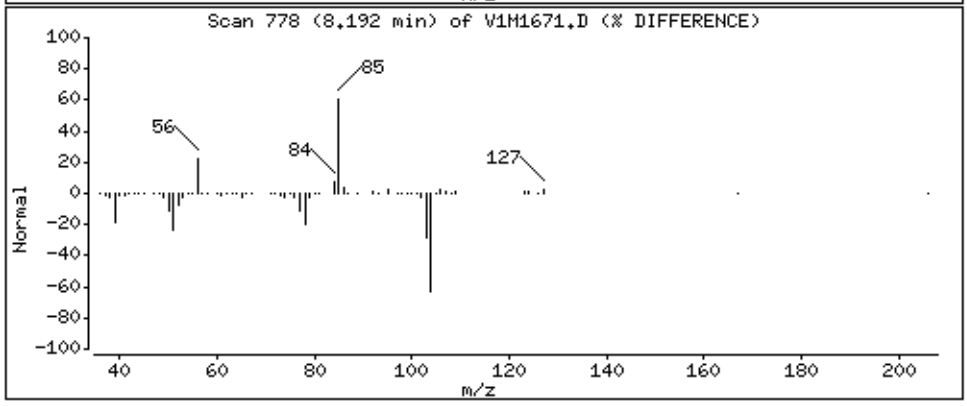












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-130 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-15B

Sample wt/vol: 9.80 (g/mL) G Lab File ID: V1M1672.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 7.5 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.8	U
108-88-3	Toluene	2.8	U
100-41-4	Ethylbenzene	2.8	U
179601-23-1	m,p-Xylene	2.8	U
95-47-6	o-Xylene	2.8	U
1330-20-7	Xylene (Total)	0.57	J

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1672.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1672.D
Lab Smp Id: M0619-15B Client Smp ID: SB-130 (18-20)
Inj Date : 01-MAY-2013 17:49
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-15B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 73
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	9.800	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	32 Dibromofluoromethane	113	4.009	4.029	(0.875)	100778	51.3891	26
$	37 1,2-Dichloroethane-d4	102	4.285	4.305	(0.935)	30786	51.4412	26
*	41 Fluorobenzene	96	4.580	4.590	(1.000)	412657	50.0000	
$	51 Toluene-d8	98	6.008	6.019	(0.805)	359832	48.5597	25
*	60 Chlorobenzene-d5	117	7.466	7.476	(1.000)	290076	50.0000	
	65 m,p-Xylene	106	7.742	7.762	(1.037)	3683	1.02498	0.5(a)
$	70 Bromofluorobenzene	95	8.756	8.757	(1.173)	133437	51.1553	26
M	81 Xylene (Total)	106				3683	1.02498	0.5(a)
*	84 1,4-Dichlorobenzene-d4	152	10.027	10.027	(1.000)	126779	50.0000	

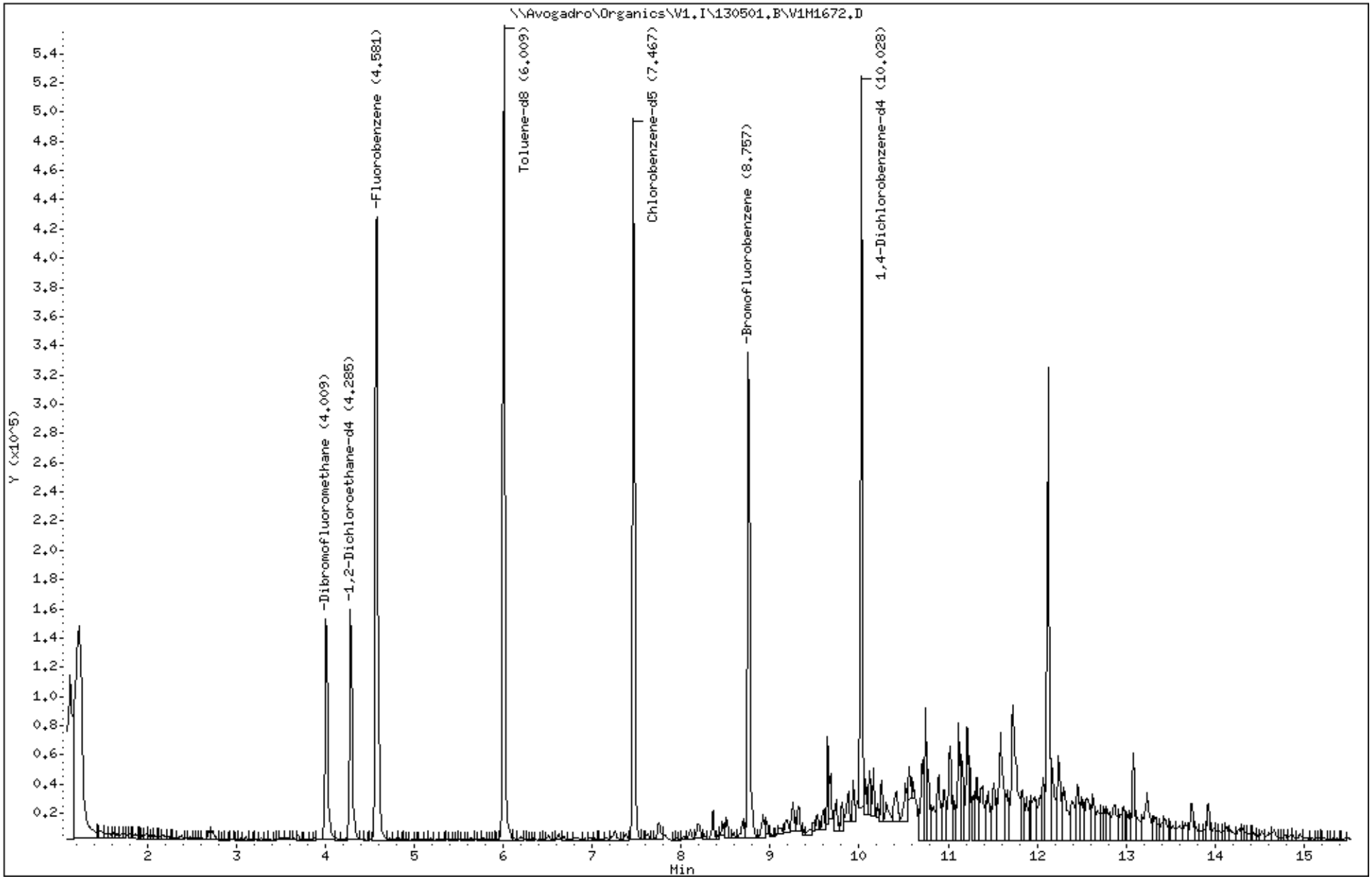
QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1672.D
Date : 01-MAY-2013 17:49
Client ID: SB-130 (18-20)
Sample Info: 5ML,M0619-15B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



M0619

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1672.D

Date : 01-MAY-2013 17:49

Client ID: SB-130 (18-20)

Instrument: V1.i

Sample Info: 5ML,M0619-15B,,71443

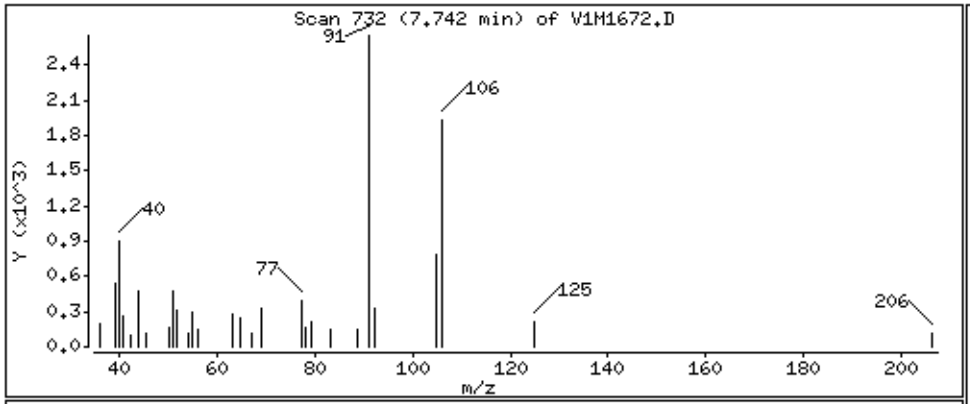
Operator: AM SRC: LIMS

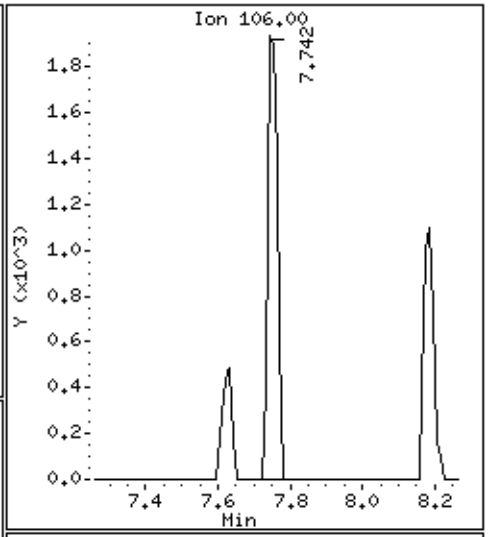
Column phase: DB-624

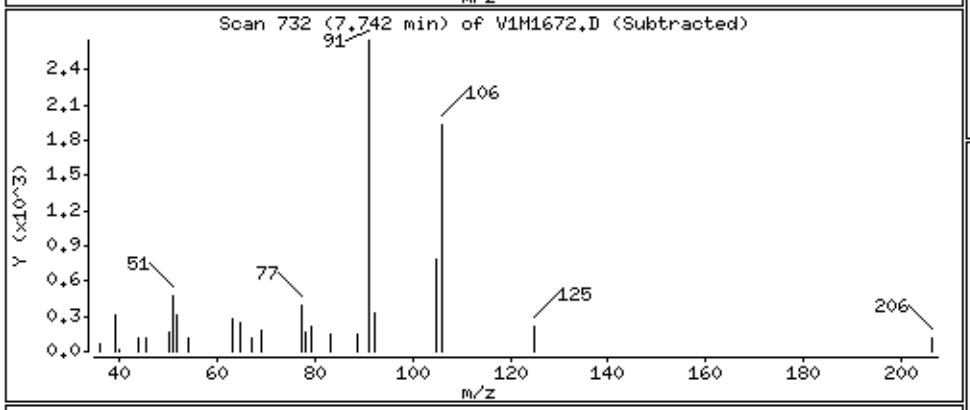
Column diameter: 0.25

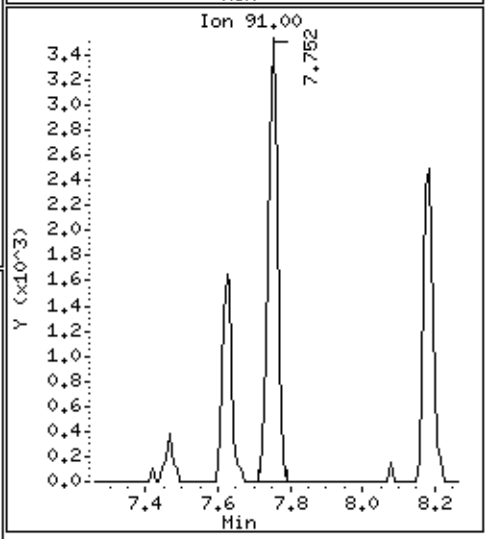
65 m,p-Xylene

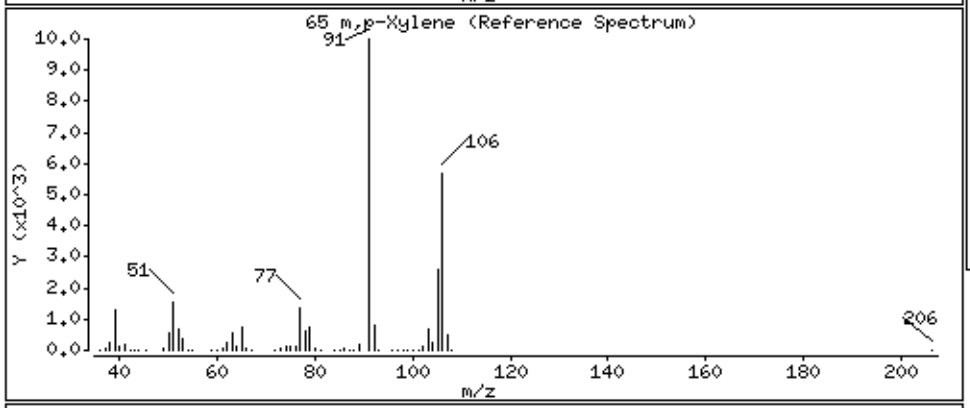
Concentration: 0.5 ug/Kg

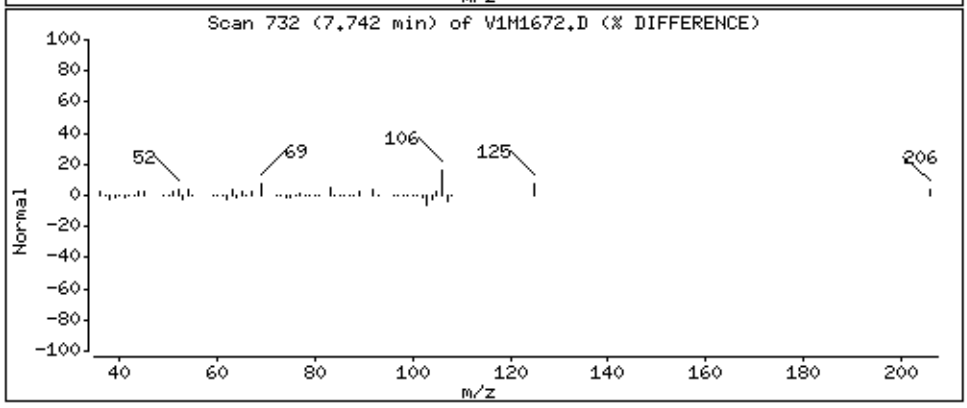












1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16B

Sample wt/vol: 11.5 (g/mL) G Lab File ID: V1M1673.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2.5	U
108-88-3	Toluene	2.5	U
100-41-4	Ethylbenzene	2.5	U
179601-23-1	m,p-Xylene	2.5	U
95-47-6	o-Xylene	2.5	U
1330-20-7	Xylene (Total)	2.5	U

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1673.D
Report Date: 08-May-2013 11:55

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1673.D
Lab Smp Id: M0619-16B Client Smp ID: DUP1
Inj Date : 01-MAY-2013 18:15
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-16B,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 74
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	11.500	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

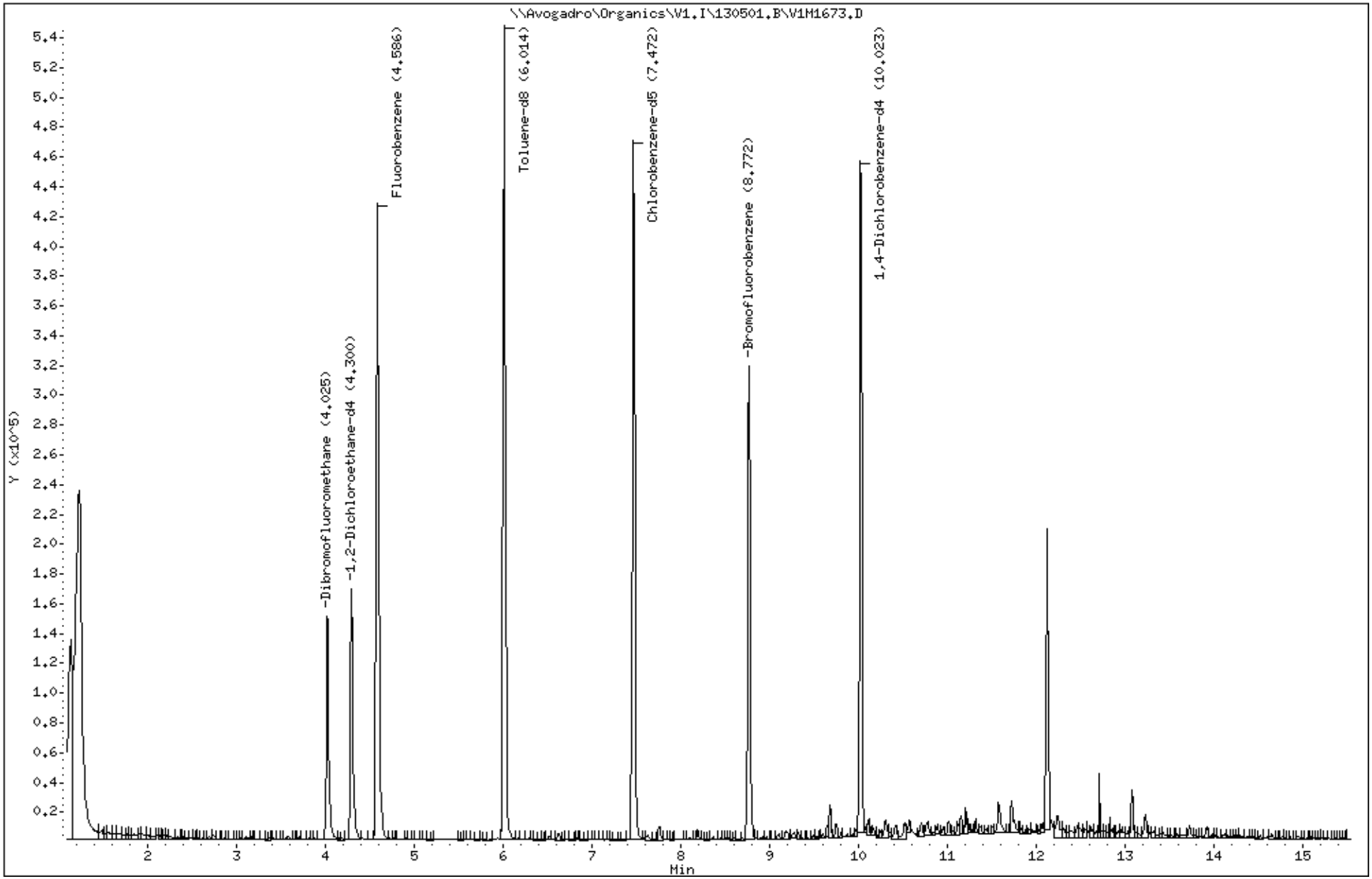
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.024	4.029	(0.876)	99938	51.3490	22
$ 37 1,2-Dichloroethane-d4	102	4.300	4.305	(0.936)	30175	50.8043	22
* 41 Fluorobenzene	96	4.595	4.590	(1.000)	409537	50.0000	
$ 51 Toluene-d8	98	6.014	6.019	(0.805)	357358	48.6833	21
* 60 Chlorobenzene-d5	117	7.471	7.476	(1.000)	287350	50.0000	
$ 70 Bromofluorobenzene	95	8.772	8.757	(1.174)	131870	51.0341	22
* 84 1,4-Dichlorobenzene-d4	152	10.032	10.027	(1.000)	122648	50.0000	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1673.D
Date : 01-MAY-2013 18:15
Client ID: DUP1
Sample Info: 5ML,M0619-16B,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-17A

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1657.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1657.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1657.D
Lab Smp Id: M0619-17A Client Smp ID: TB
Inj Date : 01-MAY-2013 11:29
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-17A,,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 58
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

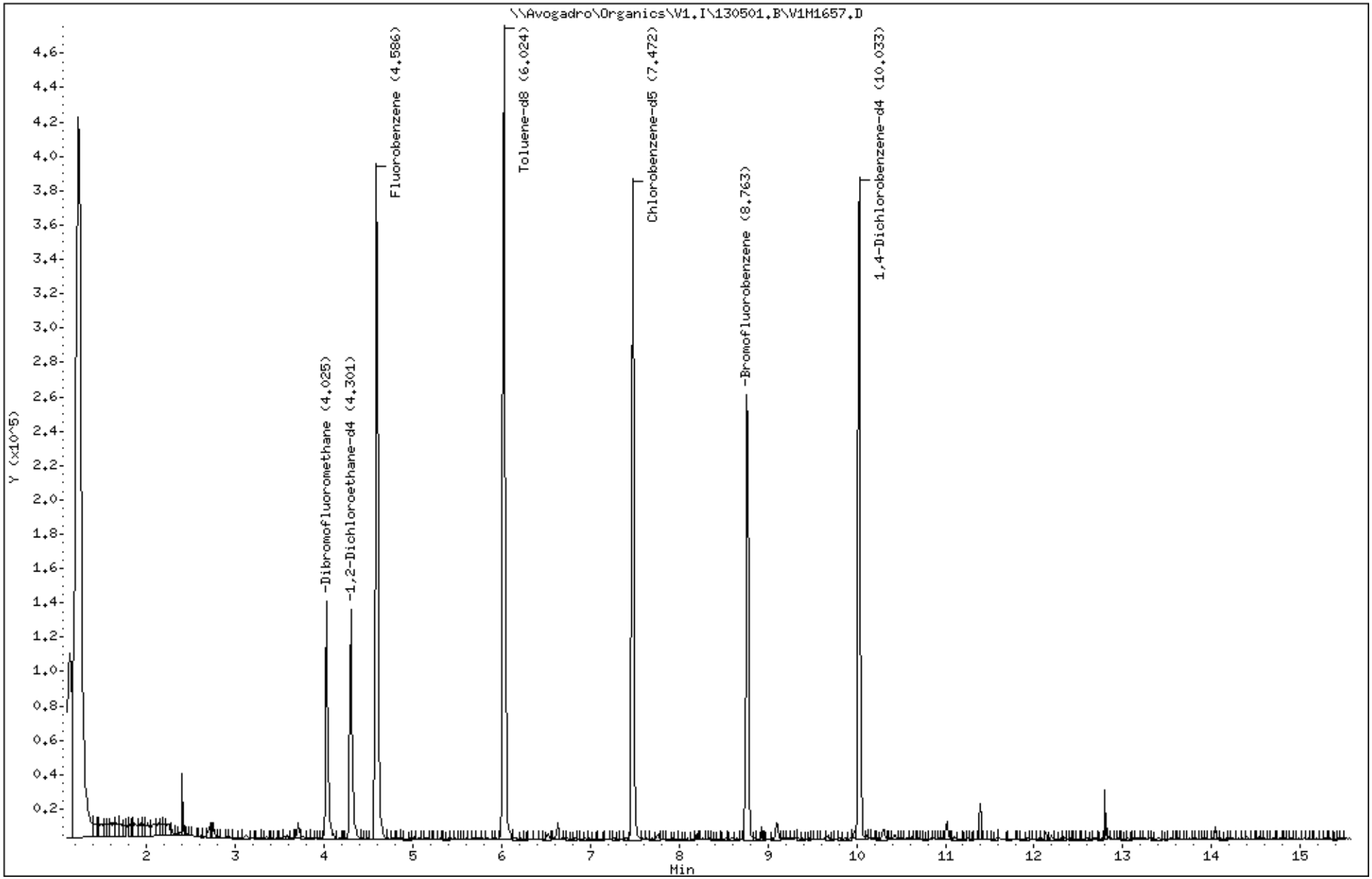
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.024	4.029	(0.878)	85944	50.5307	50
$ 37 1,2-Dichloroethane-d4	102	4.300	4.305	(0.938)	24803	47.7855	48
* 41 Fluorobenzene	96	4.586	4.590	(1.000)	357894	50.0000	
$ 51 Toluene-d8	98	6.024	6.019	(0.805)	315826	49.5272	50
* 60 Chlorobenzene-d5	117	7.482	7.476	(1.000)	249627	50.0000	
$ 70 Bromofluorobenzene	95	8.762	8.757	(1.171)	111420	49.6361	50
* 84 1,4-Dichlorobenzene-d4	152	10.033	10.027	(1.000)	107379	50.0000	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1657.D
Date : 01-MAY-2013 11:29
Client ID: TB
Sample Info: 5ML,M0619-17A,,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TBME

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-17B

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V8B9538.D

Level: (TRACE/LOW/MED) MED Date Received: 04/29/2013

% Moisture: not dec. Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 15000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	750	U
108-88-3	Toluene	750	U
100-41-4	Ethylbenzene	750	U
179601-23-1	m,p-Xylene	750	U
95-47-6	o-Xylene	750	U
1330-20-7	Xylene (Total)	750	U

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9538.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9538.d
Lab Smp Id: M0619-17B Client Smp ID: TB
Inj Date : 02-MAY-2013 11:52
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,M0619-17B,,71469
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	15.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

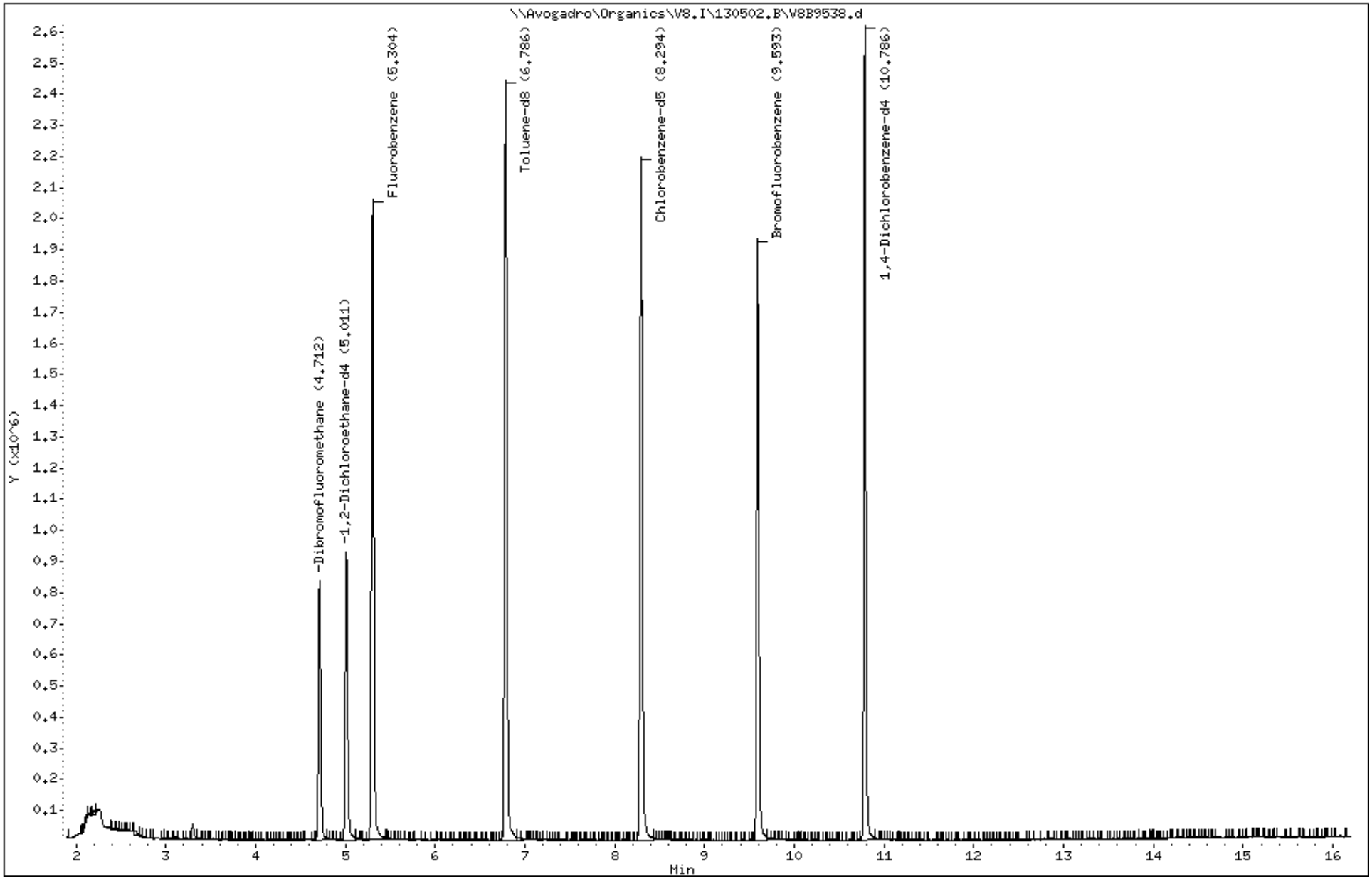
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 36 Dibromofluoromethane	113	4.711	4.715	(0.888)	454719	54.3229	54
$ 42 1,2-Dichloroethane-d4	102	5.011	5.014	(0.945)	98401	50.8264	51
* 46 Fluorobenzene	96	5.303	5.306	(1.000)	1652726	50.0000	
$ 58 Toluene-d8	98	6.785	6.786	(0.818)	1652158	48.5244	48
* 68 Chlorobenzene-d5	117	8.293	8.290	(1.000)	1281828	50.0000	
$ 79 Bromofluorobenzene	95	9.592	9.589	(1.157)	667084	52.7915	53
* 92 1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	625886	50.0000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9538.d
Date : 02-MAY-2013 11:52
Client ID: TB
Sample Info: 5ML,M0619-17B,,71469

Instrument: V8.i

Operator: V10 SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V1 Calibration Date(s): 04/17/2013 04/17/2013

Heated Purge: (Y/N) Y Calibration Time(s): 10:29 14:50

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1M1554.D RRF020 = V1M1547.D

RRF050 = V1M1546.D RRF100 = V1M1550.D RRF200 = V1M1549.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Benzene	1.215	1.030	1.178	0.975	0.950	1.070	11.2
Toluene	1.164	0.934	1.043	0.871	0.860	0.975	13.2
Ethylbenzene	0.572	0.472	0.509	0.420	0.436	0.482	12.7
m,p-Xylene	0.720	0.624	0.659	0.551	0.543	0.619	12.1
o-Xylene	0.678	0.579	0.637	0.534	0.527	0.591	11.1
Xylene (Total)	0.706	0.609	0.652	0.545	0.537	0.610	11.7

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V1 Calibration Date(s): 04/17/2013 04/17/2013

Heated Purge: (Y/N) Y Calibration Time(s): 10:29 14:50

Purge Volume: 5.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1M1554.D RRF020 = V1M1547.D

RRF050 = V1M1546.D RRF100 = V1M1550.D RRF200 = V1M1549.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dibromofluoromethane	0.240	0.224	0.237	0.244	0.244	0.238	3.5
1,2-Dichloroethane-d4	0.068	0.073	0.077	0.071	0.074	0.073	4.2
Toluene-d8	1.285	1.311	1.268	1.263	1.260	1.277	1.6
Bromofluorobenzene	0.461	0.413	0.451	0.457	0.466	0.450	4.7

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M0619 SAS No.: SDG No.: SM0619

Instrument ID: V10 Calibration Date(s): 04/17/2013 04/17/2013

Heated Purge: (Y/N) N Calibration Times: 12:22 15:07

Purge Volume: 5 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = V8B9277.D RRF020 = V8B9276.D RRF050 = V8B9275.D RRF100 = V8B9281.D RRF200 = V8B9280.D
RRF001 = V8B9279.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF001					RRF	% RSD
Benzene	1.229	1.274	1.173	1.207	1.207	1.408					1.250	6.8
Toluene	1.438	1.352	1.239	1.255	1.263	2.301					1.475	27.9
Ethylbenzene	0.548	0.597	0.553	0.567	0.567	0.598					0.572	3.7
m,p-Xylene	0.704	0.734	0.693	0.701	0.701	0.833					0.728	7.4
o-Xylene	0.688	0.719	0.666	0.678	0.681	0.741					0.695	4.2
Xylene (Total)	0.698	0.729	0.684	0.693	0.694	0.803					0.717	6.3

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M0619 SAS No.: SDG No.: SM0619

Instrument ID: V10 Calibration Date(s): 04/17/2013 04/17/2013

Heated Purge: (Y/N) N Calibration Times: 12:22 15:07

Purge Volume: 5 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = V8B9277.D RRF020 = V8B9276.D RRF050 = V8B9275.D RRF100 = V8B9281.D RRF200 = V8B9280.D
RRF001 = V8B9279.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	RRF001					RRF	% RSD
Dibromofluoromethane	0.254	0.250	0.252	0.255	0.255						0.253	0.8
1,2-Dichloroethane-d4	0.059	0.058	0.058	0.059	0.059						0.059	0.5
Toluene-d8	1.345	1.332	1.329	1.323	1.310						1.328	1.0
Bromofluorobenzene	0.490	0.494	0.493	0.493	0.495						0.493	0.4

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1546.D
Report Date: 22-Apr-2013 09:59

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130417.B\V1M1546.D
Lab Smp Id: VSTD0501O Client Smp ID: VSTD0501O
Inj Date : 17-APR-2013 10:29
Operator : AM   SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD0501O,VSTD0501O
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130417.B\v18260GH.m
Meth Date : 22-Apr-2013 08:33 amarquis Quant Type: ISTD
Cal Date : 10-APR-2013 10:17 Cal File: V1M1454.D
Als bottle: 30 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.315	1.305	(0.286)	39734	50.0000	50(H)
2	Chloromethane	50	1.433	1.434	(0.312)	228355	50.0000	54
3	Vinyl Chloride	62	1.541	1.542	(0.336)	171559	50.0000	55
4	Bromomethane	94	1.768	1.768	(0.385)	89081	50.0000	57
5	Chloroethane	64	1.847	1.847	(0.402)	116896	50.0000	55
6	Trichlorofluoromethane	101	2.034	2.034	(0.443)	106197	50.0000	56
127	Ethanol	46	2.122	2.123	(0.462)	106128	5000.00	5200
7	Ether	59	2.201	2.212	(0.479)	125289	50.0000	54
8	Acrolein	56	2.290	2.290	(0.498)	145754	250.000	270
9	1,1-Dichloroethene	96	2.398	2.399	(0.522)	133968	50.0000	53
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.418	2.418	(0.526)	133892	50.0000	55
11	Acetone	58	2.398	2.399	(0.522)	24462	50.0000	52
12	Iodomethane	142	2.516	2.517	(0.548)	218558	50.0000	55
13	Carbon Disulfide	76	2.556	2.547	(0.556)	359007	50.0000	51
14	Acetonitrile	40	2.595	2.596	(0.565)	169021	500.000	530
15	Methyl Acetate	43	2.635	2.635	(0.573)	168493	50.0000	53
16	Methylene Chloride	84	2.704	2.714	(0.588)	168263	50.0000	49
17	tert-Butanol	59	2.782	2.793	(0.606)	29460	100.000	100
18	Acrylonitrile	53	2.871	2.881	(0.625)	60742	50.0000	52
20	Methyl tert-butyl ether	73	2.920	2.921	(0.636)	308355	50.0000	55
19	trans-1,2-Dichloroethene	96	2.920	2.921	(0.636)	141994	50.0000	54

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	21	1,1-Dichloroethane	63	3.226	3.226	(0.702)	273971	50.0000	55
	22	Vinyl acetate	43	3.255	3.256	(0.708)	580909	50.0000	54
	23	Diisopropyl Ether	45	3.275	3.285	(0.713)	716203	50.0000	55
	24	Ethyl tert-butyl ether	59	3.551	3.561	(0.773)	440682	50.0000	53
M	27	1,2-dichloroethene, (Total)	100				287596	100.000	110
	25	cis-1,2-Dichloroethene	96	3.659	3.669	(0.796)	145602	50.0000	54
	26	2,2-Dichloropropane	77	3.669	3.669	(0.798)	78224	50.0000	52
	28	2-Butanone	72	3.669	3.669	(0.798)	17482	50.0000	54
	29	Bromochloromethane	128	3.846	3.847	(0.837)	69870	50.0000	55
	30	Tetrahydrofuran	72	3.886	3.896	(0.846)	31810	100.000	110
	31	Chloroform	83	3.905	3.916	(0.850)	195724	50.0000	54
$	32	Dibromofluoromethane	113	4.033	4.034	(0.878)	109683	50.0000	50
	33	1,1,1-Trichloroethane	97	4.073	4.073	(0.886)	129171	50.0000	56
	34	Cyclohexane	56	4.122	4.132	(0.897)	324926	50.0000	56
	36	Carbon Tetrachloride	117	4.211	4.211	(0.916)	118163	50.0000	54
	35	1,1-Dichloropropene	110	4.201	4.201	(0.914)	62576	50.0000	56
$	37	1,2-Dichloroethane-d4	102	4.309	4.310	(0.938)	35483	50.0000	53
	38	Benzene	78	4.368	4.369	(0.951)	545744	50.0000	55
	39	1,2-Dichloroethane	62	4.368	4.369	(0.951)	128834	50.0000	53
	40	tert-Amyl methyl ether	73	4.467	4.467	(0.972)	341011	50.0000	54
*	41	Fluorobenzene	96	4.595	4.595	(1.000)	463415	50.0000	
	42	Trichloroethene	130	4.910	4.910	(1.069)	135969	50.0000	54
	43	Methylcyclohexane	83	5.097	5.088	(1.109)	233639	50.0000	56
	44	1,2-Dichloropropane	63	5.107	5.098	(1.111)	156950	50.0000	55
	46	Dibromomethane	93	5.205	5.196	(1.133)	70741	50.0000	53
	47	1,4-Dioxane	88	5.225	5.226	(1.137)	26782	1000.00	1000
	48	Bromodichloromethane	83	5.343	5.344	(1.163)	142386	50.0000	55
	45	2-Chloroethyl vinyl ether	63	5.619	5.620	(1.223)	45424	50.0000	57
	49	cis-1,3-Dichloropropene	75	5.757	5.757	(1.253)	214907	50.0000	56
	50	4-Methyl-2-pentanone	43	5.905	5.905	(1.285)	168541	50.0000	52
$	51	Toluene-d8	98	6.023	6.023	(0.805)	407468	50.0000	50
	52	Toluene	91	6.092	6.083	(1.326)	483441	50.0000	54
	53	trans-1,3-Dichloropropene	75	6.289	6.289	(1.369)	166630	50.0000	56
	54	1,1,2-Trichloroethane	97	6.476	6.467	(1.409)	99105	50.0000	55
	55	Tetrachloroethene	164	6.643	6.634	(0.888)	92496	50.0000	54
	56	1,3-Dichloropropane	76	6.643	6.634	(0.888)	187133	50.0000	54
	57	2-Hexanone	43	6.732	6.733	(0.900)	133193	50.0000	51
	58	Dibromochloromethane	129	6.870	6.870	(0.918)	105633	50.0000	55
	59	1,2-Dibromoethane	107	6.988	6.989	(0.934)	107666	50.0000	55
*	60	Chlorobenzene-d5	117	7.481	7.481	(1.000)	321414	50.0000	
	63	1-Chlorohexane	91	7.500	7.501	(1.003)	192551	50.0000	54
	61	Chlorobenzene	112	7.510	7.511	(1.004)	322255	50.0000	53
	62	1,1,1,2-Tetrachloroethane	131	7.599	7.599	(1.016)	111240	50.0000	54
	64	Ethylbenzene	106	7.638	7.639	(1.021)	163464	50.0000	53
	65	m,p-Xylene	106	7.766	7.767	(1.038)	423581	100.000	110
	66	o-Xylene	106	8.200	8.190	(1.096)	204671	50.0000	54
	67	Styrene	104	8.209	8.210	(1.097)	363278	50.0000	54
	68	Bromoform	173	8.397	8.387	(1.122)	56911	50.0000	55
	69	Isopropylbenzene	105	8.613	8.614	(1.151)	518467	50.0000	54
	126	trans-1,4-Dichloro-2-butene	75	8.682	8.673	(1.161)	38343	50.0000	55
$	70	Bromofluorobenzene	95	8.771	8.771	(1.172)	145055	50.0000	50
	72	Bromobenzene	156	8.938	8.929	(0.890)	122732	50.0000	53
	71	1,1,2,2-Tetrachloroethane	83	8.938	8.939	(0.890)	143663	50.0000	52
	73	1,2,3-Trichloropropane	75	8.988	8.978	(0.895)	144164	50.0000	54

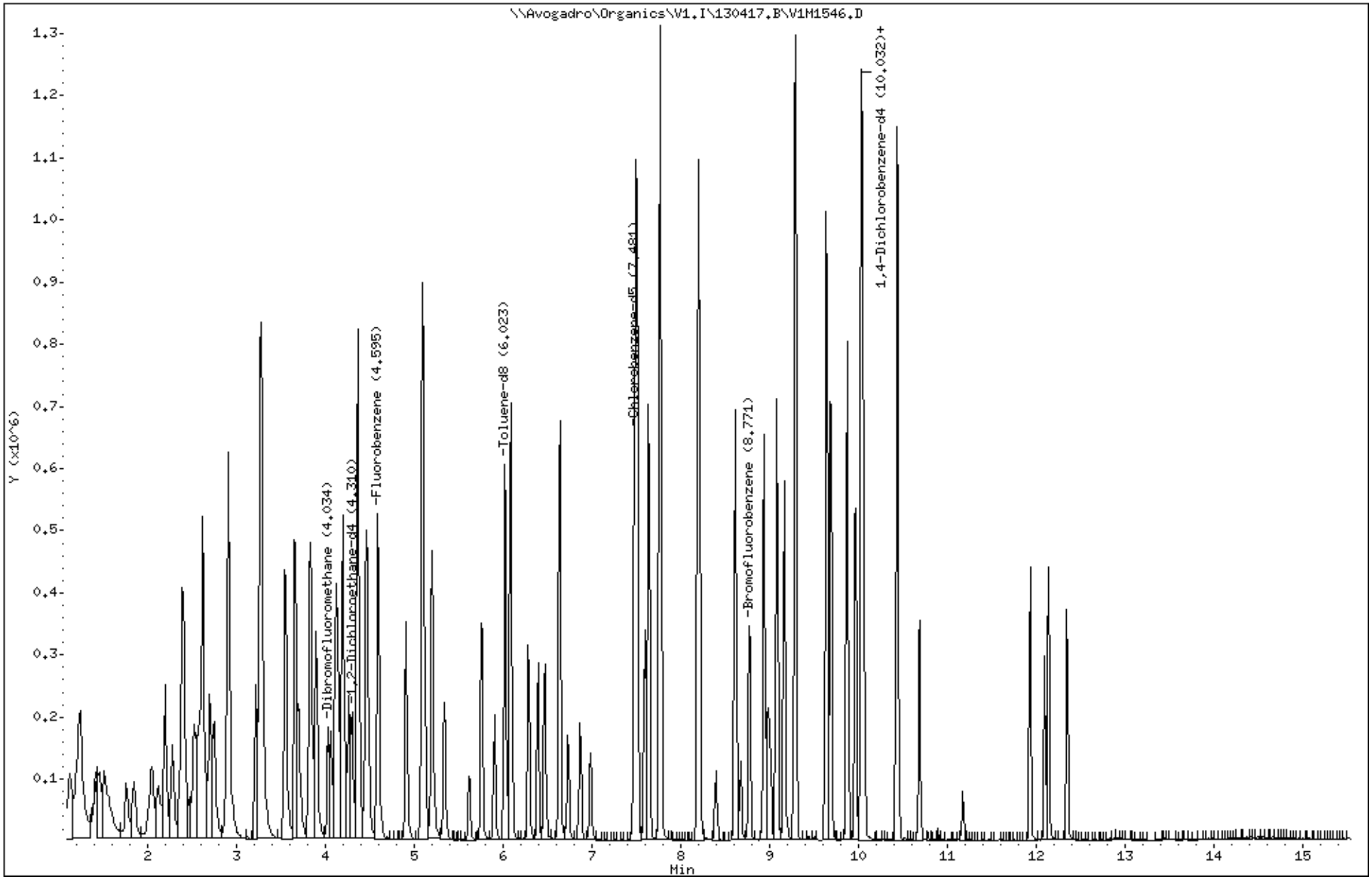
Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1546.D
Report Date: 22-Apr-2013 09:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
74	n-Propylbenzene	120	8.613	8.614	(0.858)	137559	50.0000	55
75	2-Chlorotoluene	126	9.165	9.165	(0.913)	125526	50.0000	54
76	1,3,5-Trimethylbenzene	105	9.293	9.284	(0.925)	415137	50.0000	55
77	4-Chlorotoluene	126	9.293	9.284	(0.925)	129049	50.0000	54
78	tert-Butylbenzene	119	9.638	9.638	(0.960)	434679	50.0000	56
79	1,2,4-Trimethylbenzene	105	9.697	9.687	(0.966)	424263	50.0000	55
M 81	Xylene (Total)	106				628252	150.000	160
80	sec-Butylbenzene	105	9.874	9.875	(0.983)	581940	50.0000	55
82	1,3-Dichlorobenzene	146	9.973	9.973	(0.993)	244971	50.0000	54
83	4-Isopropyltoluene	119	10.032	10.032	(0.999)	453633	50.0000	55
* 84	1,4-Dichlorobenzene-d4	152	10.042	10.032	(1.000)	138350	50.0000	
85	1,4-Dichlorobenzene	146	10.061	10.062	(1.002)	251284	50.0000	54
86	n-Butylbenzene	91	10.445	10.446	(1.040)	418787	50.0000	55
87	1,2-Dichlorobenzene	146	10.435	10.436	(1.039)	227065	50.0000	54
88	1,2-Dibromo-3-chloropropane	75	11.174	11.165	(1.113)	14451	50.0000	53
89	1,2,4-Trichlorobenzene	180	11.933	11.933	(1.188)	124818	50.0000	54
90	Hexachlorobutadiene	225	12.100	12.091	(1.205)	53138	50.0000	51
91	Naphthalene	128	12.139	12.140	(1.209)	300282	50.0000	52
92	1,2,3-Trichlorobenzene	180	12.346	12.347	(1.230)	103410	50.0000	54

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1546.D
Date : 17-APR-2013 10:29
Client ID: VSTD05010
Instrument: V1.i
Sample Info: 5ML,VSTD05010,VSTD05010
Operator: AM SRC: AM
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1547.D
Report Date: 22-Apr-2013 09:59

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130417.B\V1M1547.D
Lab Smp Id: VSTD0201O Client Smp ID: VSTD0201O
Inj Date : 17-APR-2013 10:54
Operator : AM   SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD0201O,VSTD0201O
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130417.B\v18260GH.m
Meth Date : 22-Apr-2013 08:33 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 10:54 Cal File: V1M1547.D
Als bottle: 31 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.311	1.305	(0.286)	18277	20.0000	22
2	Chloromethane	50	1.429	1.434	(0.311)	77231	20.0000	19
3	Vinyl Chloride	62	1.547	1.542	(0.337)	56467	20.0000	18
4	Bromomethane	94	1.764	1.768	(0.384)	30040	20.0000	19
5	Chloroethane	64	1.853	1.847	(0.404)	36260	20.0000	18
6	Trichlorofluoromethane	101	2.030	2.034	(0.442)	34892	20.0000	18
127	Ethanol	46	2.119	2.123	(0.462)	43330	2000.00	2100
7	Ether	59	2.197	2.212	(0.479)	45253	20.0000	19
8	Acrolein	56	2.286	2.290	(0.498)	53754	100.000	98
9	1,1-Dichloroethene	96	2.394	2.399	(0.522)	44353	20.0000	18
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.414	2.418	(0.526)	44922	20.0000	19
11	Acetone	58	2.394	2.399	(0.522)	8869	20.0000	19
12	Iodomethane	142	2.513	2.517	(0.547)	71056	20.0000	18
13	Carbon Disulfide	76	2.552	2.547	(0.556)	129312	20.0000	19
14	Acetonitrile	40	2.591	2.596	(0.565)	60415	200.000	190
15	Methyl Acetate	43	2.631	2.635	(0.573)	59446	20.0000	19
16	Methylene Chloride	84	2.749	2.714	(0.599)	61100	20.0000	19
17	tert-Butanol	59	2.779	2.793	(0.605)	10926	40.0000	39
18	Acrylonitrile	53	2.877	2.881	(0.627)	23059	20.0000	20
20	Methyl tert-butyl ether	73	2.917	2.921	(0.635)	106688	20.0000	19

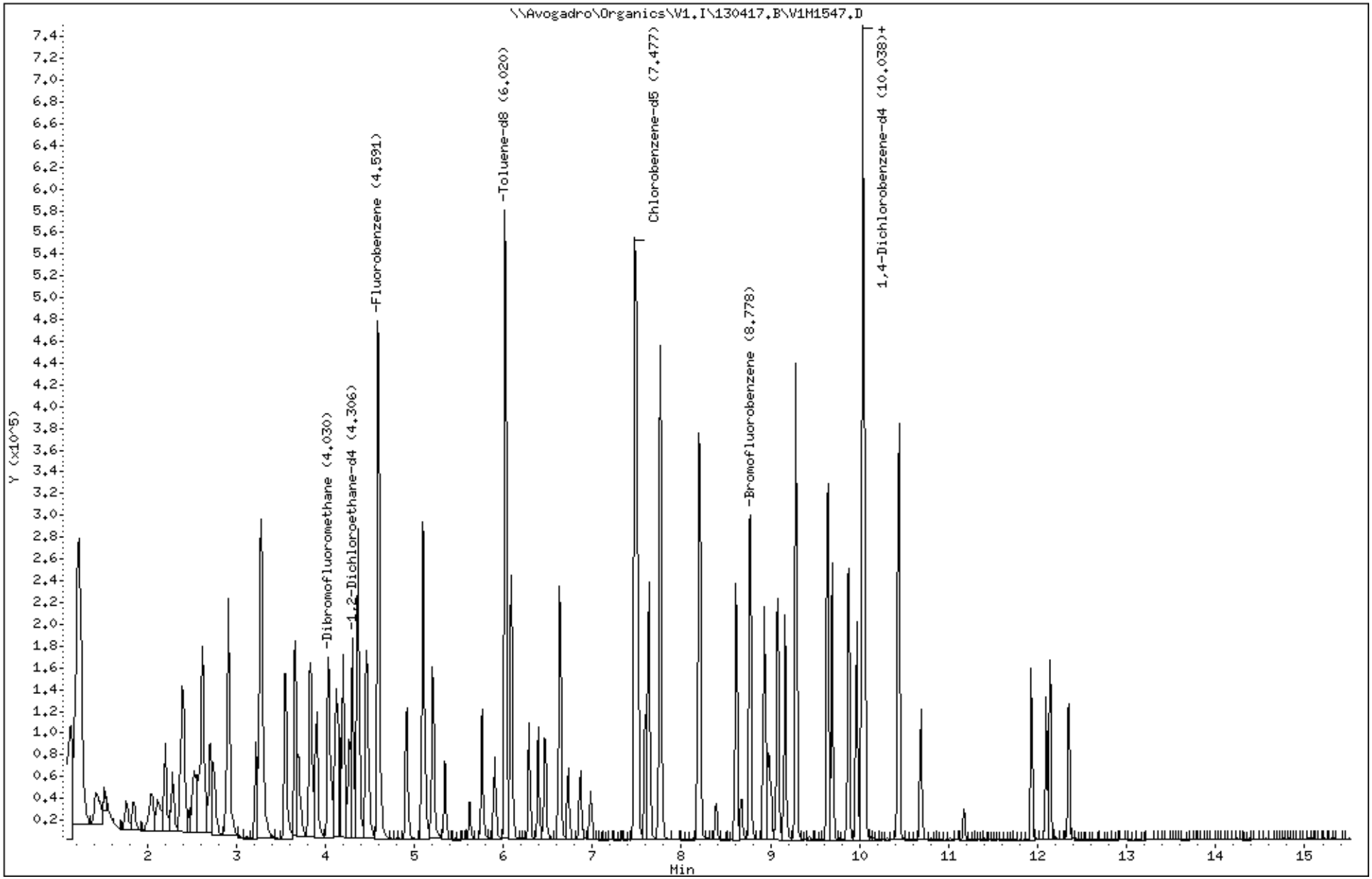
			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	19	trans-1,2-Dichloroethene	96	2.917	2.921	(0.635)	48527	20.0000	19
	21	1,1-Dichloroethane	63	3.222	3.226	(0.702)	90919	20.0000	18
	22	Vinyl acetate	43	3.251	3.256	(0.708)	206437	20.0000	19
	23	Diisopropyl Ether	45	3.271	3.285	(0.713)	245639	20.0000	19
	24	Ethyl tert-butyl ether	59	3.557	3.561	(0.775)	159585	20.0000	19
M	27	1,2-dichloroethene, (Total)	100				100151	40.0000	38
	25	cis-1,2-Dichloroethene	96	3.665	3.669	(0.798)	51624	20.0000	19
	26	2,2-Dichloropropane	77	3.665	3.669	(0.798)	28538	20.0000	20
	28	2-Butanone	72	3.665	3.669	(0.798)	6428	20.0000	20(T)
	29	Bromochloromethane	128	3.842	3.847	(0.837)	23899	20.0000	19
	30	Tetrahydrofuran	72	3.892	3.896	(0.848)	10087	40.0000	36
	31	Chloroform	83	3.901	3.916	(0.850)	68186	20.0000	19
$	32	Dibromofluoromethane	113	4.030	4.034	(0.878)	99211	50.0000	48
	33	1,1,1-Trichloroethane	97	4.059	4.073	(0.884)	38606	20.0000	18
	34	Cyclohexane	56	4.128	4.132	(0.899)	106253	20.0000	18
	36	Carbon Tetrachloride	117	4.207	4.211	(0.916)	39998	20.0000	19
	35	1,1-Dichloropropene	110	4.197	4.201	(0.914)	19897	20.0000	18
$	37	1,2-Dichloroethane-d4	102	4.305	4.310	(0.938)	32227	50.0000	49
	38	Benzene	78	4.364	4.369	(0.951)	182721	20.0000	19
	39	1,2-Dichloroethane	62	4.364	4.369	(0.951)	45773	20.0000	19
	40	tert-Amyl methyl ether	73	4.463	4.467	(0.972)	117220	20.0000	19
*	41	Fluorobenzene	96	4.591	4.595	(1.000)	443500	50.0000	
	42	Trichloroethene	130	4.916	4.910	(1.071)	45787	20.0000	19
	43	Methylcyclohexane	83	5.093	5.088	(1.109)	76155	20.0000	18
	44	1,2-Dichloropropane	63	5.103	5.098	(1.112)	50999	20.0000	18
	46	Dibromomethane	93	5.202	5.196	(1.133)	25543	20.0000	19
	47	1,4-Dioxane	88	5.231	5.226	(1.139)	10183	400.000	400
	48	Bromodichloromethane	83	5.340	5.344	(1.163)	47193	20.0000	18
	45	2-Chloroethyl vinyl ether	63	5.625	5.620	(1.225)	15100	20.0000	18
	49	cis-1,3-Dichloropropene	75	5.763	5.757	(1.255)	71585	20.0000	19
	50	4-Methyl-2-pentanone	43	5.901	5.905	(1.285)	65997	20.0000	20
$	51	Toluene-d8	98	6.019	6.023	(0.805)	387557	50.0000	51
	52	Toluene	91	6.088	6.083	(1.326)	165757	20.0000	19
	53	trans-1,3-Dichloropropene	75	6.285	6.289	(1.369)	55361	20.0000	18
	54	1,1,2-Trichloroethane	97	6.472	6.467	(1.410)	34081	20.0000	19
	55	Tetrachloroethene	164	6.630	6.634	(0.887)	30795	20.0000	19
	56	1,3-Dichloropropane	76	6.640	6.634	(0.888)	64613	20.0000	19
	57	2-Hexanone	43	6.728	6.733	(0.900)	52818	20.0000	21
	58	Dibromochloromethane	129	6.866	6.870	(0.918)	34785	20.0000	19(T)
	59	1,2-Dibromoethane	107	6.984	6.989	(0.934)	34962	20.0000	19
*	60	Chlorobenzene-d5	117	7.477	7.481	(1.000)	295694	50.0000	
	63	1-Chlorohexane	91	7.497	7.501	(1.003)	65301	20.0000	19
	61	Chlorobenzene	112	7.506	7.511	(1.004)	111395	20.0000	19
	62	1,1,1,2-Tetrachloroethane	131	7.595	7.599	(1.016)	36844	20.0000	19
	64	Ethylbenzene	106	7.634	7.639	(1.021)	55800	20.0000	19
	65	m,p-Xylene	106	7.763	7.767	(1.038)	147595	40.0000	39
	66	o-Xylene	106	8.196	8.190	(1.096)	68513	20.0000	19
	67	Styrene	104	8.206	8.210	(1.097)	124090	20.0000	19
	68	Bromoform	173	8.393	8.387	(1.123)	17554	20.0000	18(T)
	69	Isopropylbenzene	105	8.610	8.614	(1.151)	173324	20.0000	19
	126	trans-1,4-Dichloro-2-butene	75	8.669	8.673	(1.159)	11732	20.0000	18
$	70	Bromofluorobenzene	95	8.777	8.771	(1.174)	122028	50.0000	48
	72	Bromobenzene	156	8.935	8.929	(0.890)	41782	20.0000	19
	71	1,1,2,2-Tetrachloroethane	83	8.935	8.939	(0.890)	52369	20.0000	20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
73	1,2,3-Trichloropropane	75	8.974	8.978	(0.894)	49911	20.0000	19
74	n-Propylbenzene	120	8.610	8.614	(0.858)	42276	20.0000	18
75	2-Chlorotoluene	126	9.161	9.165	(0.913)	42368	20.0000	19
76	1,3,5-Trimethylbenzene	105	9.289	9.284	(0.925)	139406	20.0000	19
77	4-Chlorotoluene	126	9.289	9.284	(0.925)	42893	20.0000	19
78	tert-Butylbenzene	119	9.644	9.638	(0.961)	141958	20.0000	19
79	1,2,4-Trimethylbenzene	105	9.693	9.687	(0.966)	142413	20.0000	19
M 81	Xylene (Total)	106				216108	60.0000	58
80	sec-Butylbenzene	105	9.880	9.875	(0.984)	195266	20.0000	19
82	1,3-Dichlorobenzene	146	9.969	9.973	(0.993)	81951	20.0000	19
83	4-Isopropyltoluene	119	10.028	10.032	(0.999)	153631	20.0000	19
* 84	1,4-Dichlorobenzene-d4	152	10.038	10.032	(1.000)	128480	50.0000	
85	1,4-Dichlorobenzene	146	10.067	10.062	(1.003)	83776	20.0000	19
86	n-Butylbenzene	91	10.442	10.446	(1.040)	143745	20.0000	19
87	1,2-Dichlorobenzene	146	10.432	10.436	(1.039)	76622	20.0000	19
88	1,2-Dibromo-3-chloropropane	75	11.170	11.165	(1.113)	5125	20.0000	20
89	1,2,4-Trichlorobenzene	180	11.929	11.933	(1.188)	43879	20.0000	19
90	Hexachlorobutadiene	225	12.096	12.091	(1.205)	21862	20.0000	21
91	Naphthalene	128	12.136	12.140	(1.209)	112495	20.0000	20
92	1,2,3-Trichlorobenzene	180	12.352	12.347	(1.231)	37270	20.0000	20

QC Flag Legend

T - Target compound detected outside RT window.

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1547.D
Date : 17-APR-2013 10:54
Client ID: VSTD02010
Instrument: V1.i
Sample Info: 5ML,VSTD02010,VSTD02010
Operator: AM SRC: AM
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1549.D
Report Date: 22-Apr-2013 09:59

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130417.B\V1M1549.D
Lab Smp Id: VSTD2001O Client Smp ID: VSTD2001O
Inj Date : 17-APR-2013 12:20
Operator : AM   SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD2001O,VSTD2001O
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130417.B\v18260GH.m
Meth Date : 22-Apr-2013 08:33 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 12:20 Cal File: V1M1549.D
Als bottle: 33 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

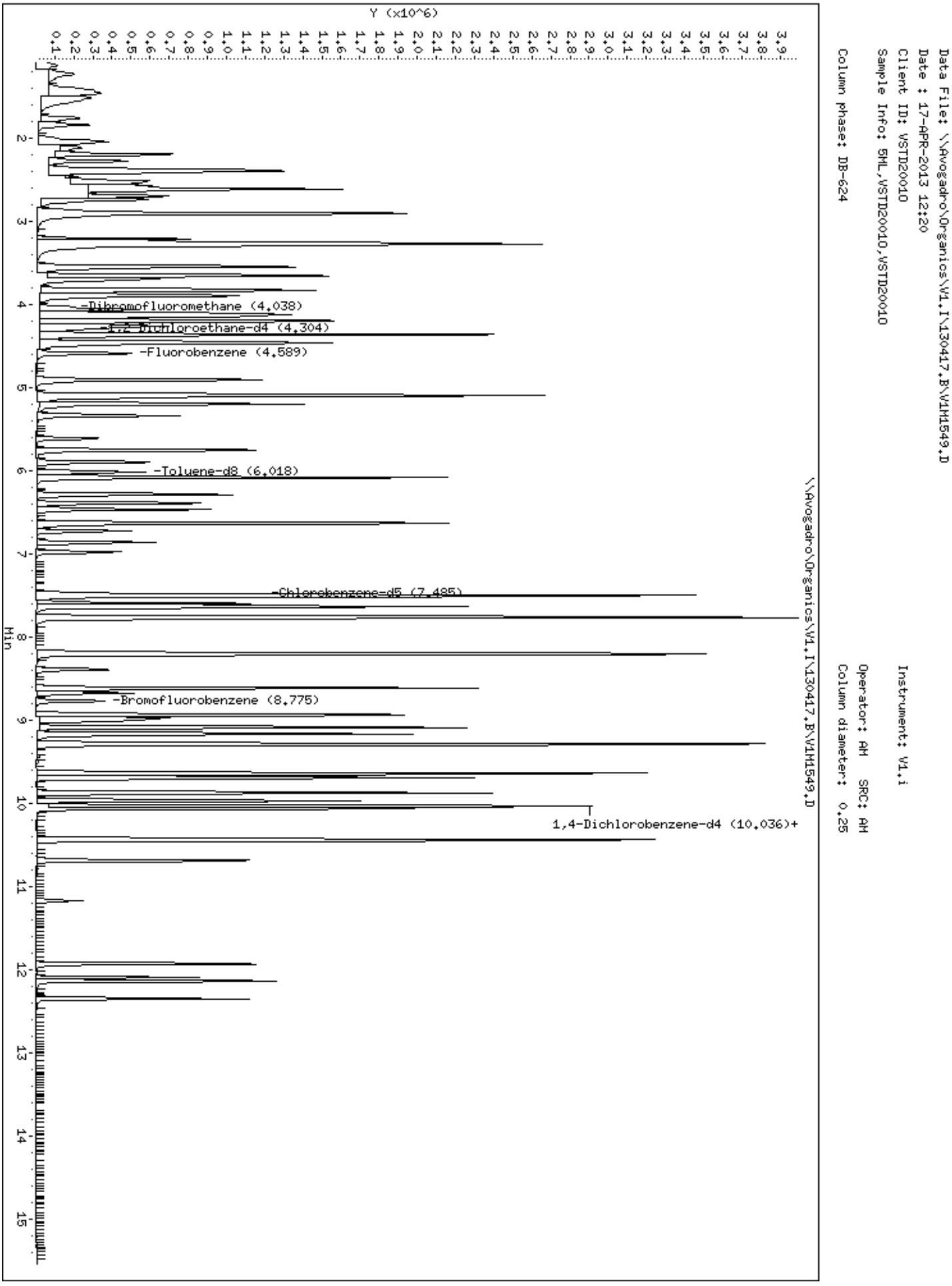
Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.299	1.305	(0.283)	146060	200.000	170
2	Chloromethane	50	1.447	1.434	(0.315)	727963	200.000	170
3	Vinyl Chloride	62	1.536	1.542	(0.335)	549360	200.000	180
4	Bromomethane	94	1.772	1.768	(0.386)	265153	200.000	170
5	Chloroethane	64	1.851	1.847	(0.403)	352267	200.000	170
6	Trichlorofluoromethane	101	2.028	2.034	(0.442)	331877	200.000	180
127	Ethanol	46	2.127	2.123	(0.463)	317530	20000.0	14000
7	Ether	59	2.195	2.212	(0.478)	386329	200.000	170
8	Acrolein	56	2.284	2.290	(0.498)	420371	1000.00	770
9	1,1-Dichloroethene	96	2.392	2.399	(0.521)	433481	200.000	180
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.412	2.418	(0.526)	441802	200.000	180
11	Acetone	58	2.392	2.399	(0.521)	68622	200.000	150
12	Iodomethane	142	2.511	2.517	(0.547)	695264	200.000	180
13	Carbon Disulfide	76	2.550	2.547	(0.556)	1229951	200.000	180
14	Acetonitrile	40	2.580	2.596	(0.562)	508747	2000.00	1600
15	Methyl Acetate	43	2.629	2.635	(0.573)	491503	200.000	160
16	Methylene Chloride	84	2.747	2.714	(0.599)	501002	200.000	140
17	tert-Butanol	59	2.786	2.793	(0.607)	92090	400.000	280
18	Acrylonitrile	53	2.875	2.881	(0.627)	190695	200.000	170
20	Methyl tert-butyl ether	73	2.914	2.921	(0.635)	931341	200.000	160

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	19	trans-1,2-Dichloroethene	96	2.914	2.921	(0.635)	456003	200.000	180
	21	1,1-Dichloroethane	63	3.220	3.226	(0.702)	874656	200.000	170
	22	Vinyl acetate	43	3.259	3.256	(0.710)	1783224	200.000	160
	23	Diisopropyl Ether	45	3.279	3.285	(0.715)	2214677	200.000	170
	24	Ethyl tert-butyl ether	59	3.555	3.561	(0.775)	1427205	200.000	170
M	27	1,2-dichloroethene, (Total)	100				931396	400.000	350
	25	cis-1,2-Dichloroethene	96	3.653	3.669	(0.796)	475393	200.000	170
	26	2,2-Dichloropropane	77	3.663	3.669	(0.798)	243507	200.000	160
	28	2-Butanone	72	3.663	3.669	(0.798)	53129	200.000	160
	29	Bromochloromethane	128	3.840	3.847	(0.837)	218625	200.000	170
	30	Tetrahydrofuran	72	3.890	3.896	(0.848)	95920	400.000	330
	31	Chloroform	83	3.909	3.916	(0.852)	625138	200.000	170
$	32	Dibromofluoromethane	113	4.037	4.034	(0.880)	110420	50.0000	52
	33	1,1,1-Trichloroethane	97	4.067	4.073	(0.886)	417214	200.000	180
	34	Cyclohexane	56	4.126	4.132	(0.899)	1060393	200.000	180
	36	Carbon Tetrachloride	117	4.205	4.211	(0.916)	392557	200.000	180
	35	1,1-Dichloropropene	110	4.205	4.201	(0.916)	203133	200.000	180
$	37	1,2-Dichloroethane-d4	102	4.303	4.310	(0.938)	33347	50.0000	50
	38	Benzene	78	4.362	4.369	(0.951)	1720402	200.000	170
	39	1,2-Dichloroethane	62	4.372	4.369	(0.953)	401421	200.000	170
	40	tert-Amyl methyl ether	73	4.461	4.467	(0.972)	1050083	200.000	160
*	41	Fluorobenzene	96	4.589	4.595	(1.000)	452634	50.0000	
	42	Trichloroethene	130	4.914	4.910	(1.071)	444128	200.000	180
	43	Methylcyclohexane	83	5.091	5.088	(1.109)	765661	200.000	180
	44	1,2-Dichloropropane	63	5.101	5.098	(1.112)	496526	200.000	170
	46	Dibromomethane	93	5.200	5.196	(1.133)	220369	200.000	160
	47	1,4-Dioxane	88	5.229	5.226	(1.139)	80039	4000.00	2700
	48	Bromodichloromethane	83	5.347	5.344	(1.165)	484862	200.000	180
	45	2-Chloroethyl vinyl ether	63	5.613	5.620	(1.223)	146934	200.000	170
	49	cis-1,3-Dichloropropene	75	5.761	5.757	(1.255)	690828	200.000	180
	50	4-Methyl-2-pentanone	43	5.899	5.905	(1.285)	522057	200.000	150
$	51	Toluene-d8	98	6.017	6.023	(0.804)	395148	50.0000	49
	52	Toluene	91	6.086	6.083	(1.326)	1556612	200.000	170
	53	trans-1,3-Dichloropropene	75	6.293	6.289	(1.371)	538763	200.000	180
	54	1,1,2-Trichloroethane	97	6.470	6.467	(1.410)	308459	200.000	160
	55	Tetrachloroethene	164	6.638	6.634	(0.887)	304984	200.000	180
	56	1,3-Dichloropropane	76	6.638	6.634	(0.887)	573687	200.000	160
	57	2-Hexanone	43	6.726	6.733	(0.899)	408949	200.000	140
	58	Dibromochloromethane	129	6.864	6.870	(0.917)	365570	200.000	180
	59	1,2-Dibromoethane	107	6.982	6.989	(0.933)	340092	200.000	170
*	60	Chlorobenzene-d5	117	7.485	7.481	(1.000)	313728	50.0000	
	63	1-Chlorohexane	91	7.504	7.501	(1.003)	622279	200.000	170
	61	Chlorobenzene	112	7.514	7.511	(1.004)	1040074	200.000	170
	62	1,1,1,2-Tetrachloroethane	131	7.603	7.599	(1.016)	368658	200.000	170
	64	Ethylbenzene	106	7.642	7.639	(1.021)	547429	200.000	180
	65	m,p-Xylene	106	7.770	7.767	(1.038)	1361596	400.000	340
	66	o-Xylene	106	8.204	8.190	(1.096)	661854	200.000	170
	67	Styrene	104	8.214	8.210	(1.097)	1160939	200.000	170
	68	Bromoform	173	8.401	8.387	(1.122)	205680	200.000	200
	69	Isopropylbenzene	105	8.617	8.614	(1.151)	1682619	200.000	170
	126	trans-1,4-Dichloro-2-butene	75	8.676	8.673	(1.159)	142933	200.000	200
$	70	Bromofluorobenzene	95	8.775	8.771	(1.172)	146195	50.0000	52
	72	Bromobenzene	156	8.942	8.929	(0.890)	403919	200.000	160
	71	1,1,2,2-Tetrachloroethane	83	8.942	8.939	(0.890)	440647	200.000	140

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	73	1,2,3-Trichloropropane	75	8.982	8.978	(0.894)	470041	200.000	160
	74	n-Propylbenzene	120	8.617	8.614	(0.858)	451700	200.000	180
	75	2-Chlorotoluene	126	9.169	9.165	(0.913)	410868	200.000	170
	76	1,3,5-Trimethylbenzene	105	9.297	9.284	(0.925)	1297151	200.000	170
	77	4-Chlorotoluene	126	9.287	9.284	(0.925)	407501	200.000	170
	78	tert-Butylbenzene	119	9.642	9.638	(0.960)	1343343	200.000	160
	79	1,2,4-Trimethylbenzene	105	9.691	9.687	(0.965)	1338454	200.000	170
M	81	Xylene (Total)	106				2023450	600.000	510
	80	sec-Butylbenzene	105	9.878	9.875	(0.983)	1781599	200.000	160
	82	1,3-Dichlorobenzene	146	9.977	9.973	(0.993)	793378	200.000	170
	83	4-Isopropyltoluene	119	10.036	10.032	(0.999)	1385605	200.000	160
*	84	1,4-Dichlorobenzene-d4	152	10.046	10.032	(1.000)	132746	50.0000	
	85	1,4-Dichlorobenzene	146	10.065	10.062	(1.002)	795473	200.000	160
	86	n-Butylbenzene	91	10.449	10.446	(1.040)	1218840	200.000	160
	87	1,2-Dichlorobenzene	146	10.430	10.436	(1.038)	711363	200.000	160
	88	1,2-Dibromo-3-chloropropane	75	11.178	11.165	(1.113)	48474	200.000	150
	89	1,2,4-Trichlorobenzene	180	11.937	11.933	(1.188)	367376	200.000	150
	90	Hexachlorobutadiene	225	12.104	12.091	(1.205)	153838	200.000	130
	91	Naphthalene	128	12.144	12.140	(1.209)	883659	200.000	140
	92	1,2,3-Trichlorobenzene	180	12.350	12.347	(1.229)	299049	200.000	140


Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1549.D
Date : 17-APR-2013 12:20
Client ID: VSTD20010
Sample Info: 5ML,VSTD20010,VSTD20010
Column phase: DB-624
Instrument: V1.i
Operator: AM SRC: AM
Column diameter: 0.25
Y (x10^6)
Min
-Dibromofluoromethane (4.038)
-1,2-Dichloroethane-d4 (4.304)
-Fluorobenzene (4.589)
-Toluene-d8 (6.018)
-Chlorobenzene-d5 (7.485)
-Bromofluorobenzene (8.775)
1,4-Dichlorobenzene-d4 (10.036)+
\\Avogadro\Organics\V1.I\130417.B\V1M1549.D

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1550.D
Report Date: 22-Apr-2013 09:59

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130417.B\V1M1550.D
Lab Smp Id: VSTD1001O Client Smp ID: VSTD1001O
Inj Date : 17-APR-2013 12:45
Operator : AM   SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD1001O,VSTD1001O
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130417.B\v18260GH.m
Meth Date : 22-Apr-2013 08:33 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 12:45 Cal File: V1M1550.D
Als bottle: 34 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

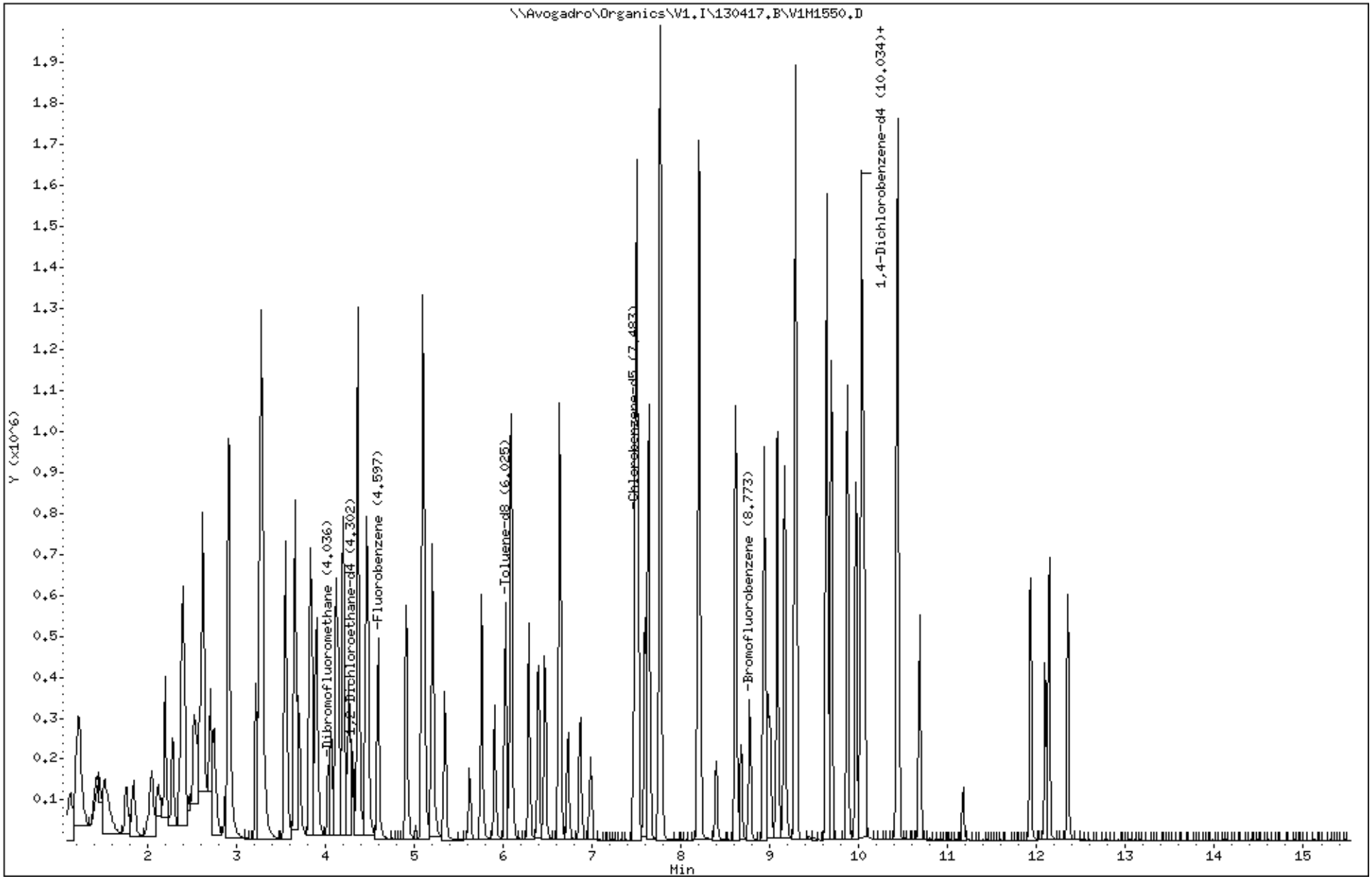
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.307	1.305	(0.284)	62241	100.000	82
2	Chloromethane	50	1.445	1.434	(0.314)	347799	100.000	88
3	Vinyl Chloride	62	1.543	1.542	(0.336)	261758	100.000	91
4	Bromomethane	94	1.770	1.768	(0.385)	131396	100.000	89
5	Chloroethane	64	1.849	1.847	(0.402)	172851	100.000	89
6	Trichlorofluoromethane	101	2.026	2.034	(0.441)	159059	100.000	92
127	Ethanol	46	2.125	2.123	(0.462)	168674	10000.0	8000
7	Ether	59	2.203	2.212	(0.479)	192942	100.000	90
8	Acrolein	56	2.282	2.290	(0.497)	225492	500.000	450
9	1,1-Dichloroethene	96	2.400	2.399	(0.522)	205695	100.000	90
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.410	2.418	(0.524)	198448	100.000	88
11	Acetone	58	2.390	2.399	(0.520)	34589	100.000	84
12	Iodomethane	142	2.518	2.517	(0.548)	338766	100.000	92
13	Carbon Disulfide	76	2.548	2.547	(0.554)	615249	100.000	96
14	Acetonitrile	40	2.587	2.596	(0.563)	266522	1000.00	900
15	Methyl Acetate	43	2.637	2.635	(0.574)	261320	100.000	90
16	Methylene Chloride	84	2.706	2.714	(0.589)	253309	100.000	81
17	tert-Butanol	59	2.784	2.793	(0.606)	45540	200.000	160
18	Acrylonitrile	53	2.883	2.881	(0.627)	99051	100.000	93
20	Methyl tert-butyl ether	73	2.922	2.921	(0.636)	478481	100.000	90

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	19	trans-1,2-Dichloroethene	96	2.912	2.921	(0.634)	216785	100.000	90
	21	1,1-Dichloroethane	63	3.218	3.226	(0.700)	422141	100.000	91
	22	Vinyl acetate	43	3.257	3.256	(0.709)	903870	100.000	90
	23	Diisopropyl Ether	45	3.277	3.285	(0.713)	1107799	100.000	91
	24	Ethyl tert-butyl ether	59	3.553	3.561	(0.773)	720309	100.000	93
M	27	1,2-dichloroethene, (Total)	100				449563	200.000	180
	25	cis-1,2-Dichloroethene	96	3.661	3.669	(0.796)	232778	100.000	91
	26	2,2-Dichloropropane	77	3.671	3.669	(0.799)	129603	100.000	94
	28	2-Butanone	72	3.661	3.669	(0.796)	26756	100.000	85
	29	Bromochloromethane	128	3.848	3.847	(0.837)	107301	100.000	90
	30	Tetrahydrofuran	72	3.888	3.896	(0.846)	49365	200.000	180
	31	Chloroform	83	3.907	3.916	(0.850)	299169	100.000	90
$	32	Dibromofluoromethane	113	4.035	4.034	(0.878)	104824	50.0000	51
	33	1,1,1-Trichloroethane	97	4.065	4.073	(0.884)	196916	100.000	93
	34	Cyclohexane	56	4.124	4.132	(0.897)	477638	100.000	88
	36	Carbon Tetrachloride	117	4.213	4.211	(0.916)	182281	100.000	91
	35	1,1-Dichloropropene	110	4.203	4.201	(0.914)	96745	100.000	93
$	37	1,2-Dichloroethane-d4	102	4.311	4.310	(0.938)	30674	50.0000	49
	38	Benzene	78	4.370	4.369	(0.951)	837965	100.000	90
	39	1,2-Dichloroethane	62	4.370	4.369	(0.951)	207373	100.000	92
	40	tert-Amyl methyl ether	73	4.459	4.467	(0.970)	529979	100.000	90
*	41	Fluorobenzene	96	4.597	4.595	(1.000)	429906	50.0000	
	42	Trichloroethene	130	4.912	4.910	(1.069)	208056	100.000	90
	43	Methylcyclohexane	83	5.099	5.088	(1.109)	346292	100.000	89
	44	1,2-Dichloropropane	63	5.099	5.098	(1.109)	244530	100.000	91
	46	Dibromomethane	93	5.207	5.196	(1.133)	112047	100.000	90
	47	1,4-Dioxane	88	5.227	5.226	(1.137)	43089	2000.00	1600
	48	Bromodichloromethane	83	5.345	5.344	(1.163)	229097	100.000	92
	45	2-Chloroethyl vinyl ether	63	5.621	5.620	(1.223)	73227	100.000	91
	49	cis-1,3-Dichloropropene	75	5.759	5.757	(1.253)	335341	100.000	93
	50	4-Methyl-2-pentanone	43	5.907	5.905	(1.285)	267468	100.000	83
$	51	Toluene-d8	98	6.025	6.023	(0.805)	378486	50.0000	50
	52	Toluene	91	6.094	6.083	(1.326)	749083	100.000	90
	53	trans-1,3-Dichloropropene	75	6.291	6.289	(1.369)	256465	100.000	91
	54	1,1,2-Trichloroethane	97	6.468	6.467	(1.407)	152488	100.000	86
	55	Tetrachloroethene	164	6.636	6.634	(0.887)	145881	100.000	91
	56	1,3-Dichloropropane	76	6.636	6.634	(0.887)	293338	100.000	88
	57	2-Hexanone	43	6.734	6.733	(0.900)	211557	100.000	78
	58	Dibromochloromethane	129	6.872	6.870	(0.918)	173429	100.000	92
	59	1,2-Dibromoethane	107	6.990	6.989	(0.934)	164477	100.000	89
*	60	Chlorobenzene-d5	117	7.483	7.481	(1.000)	299560	50.0000	
	63	1-Chlorohexane	91	7.502	7.501	(1.003)	289204	100.000	86
	61	Chlorobenzene	112	7.512	7.511	(1.004)	501057	100.000	87
	62	1,1,1,2-Tetrachloroethane	131	7.601	7.599	(1.016)	173933	100.000	88
	64	Ethylbenzene	106	7.640	7.639	(1.021)	251500	100.000	88
	65	m,p-Xylene	106	7.768	7.767	(1.038)	660389	200.000	180
	66	o-Xylene	106	8.202	8.190	(1.096)	319803	100.000	89
	67	Styrene	104	8.212	8.210	(1.097)	563508	100.000	87
	68	Bromoform	173	8.399	8.387	(1.122)	98590	100.000	99
	69	Isopropylbenzene	105	8.615	8.614	(1.151)	788572	100.000	87
	126	trans-1,4-Dichloro-2-butene	75	8.674	8.673	(1.159)	68411	100.000	99
$	70	Bromofluorobenzene	95	8.773	8.771	(1.172)	136997	50.0000	51
	72	Bromobenzene	156	8.940	8.929	(0.891)	194595	100.000	85
	71	1,1,2,2-Tetrachloroethane	83	8.940	8.939	(0.891)	229196	100.000	82

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	73	1,2,3-Trichloropropane	75	8.980	8.978	(0.895)	233370	100.000	86
	74	n-Propylbenzene	120	8.615	8.614	(0.859)	206066	100.000	86
	75	2-Chlorotoluene	126	9.167	9.165	(0.914)	192144	100.000	85
	76	1,3,5-Trimethylbenzene	105	9.295	9.284	(0.926)	617414	100.000	86
	77	4-Chlorotoluene	126	9.285	9.284	(0.925)	196056	100.000	86
	78	tert-Butylbenzene	119	9.640	9.638	(0.961)	628783	100.000	83
	79	1,2,4-Trimethylbenzene	105	9.689	9.687	(0.966)	634972	100.000	85
M	81	Xylene (Total)	106				980192	300.000	260
	80	sec-Butylbenzene	105	9.876	9.875	(0.984)	835199	100.000	83
	82	1,3-Dichlorobenzene	146	9.965	9.973	(0.993)	377579	100.000	85
	83	4-Isopropyltoluene	119	10.034	10.032	(1.000)	661085	100.000	84
*	84	1,4-Dichlorobenzene-d4	152	10.034	10.032	(1.000)	128703	50.0000	
	85	1,4-Dichlorobenzene	146	10.063	10.062	(1.003)	385838	100.000	84
	86	n-Butylbenzene	91	10.438	10.446	(1.040)	608993	100.000	83
	87	1,2-Dichlorobenzene	146	10.428	10.436	(1.039)	355202	100.000	85
	88	1,2-Dibromo-3-chloropropane	75	11.176	11.165	(1.114)	24936	100.000	85
	89	1,2,4-Trichlorobenzene	180	11.935	11.933	(1.189)	197937	100.000	84
	90	Hexachlorobutadiene	225	12.102	12.091	(1.206)	74994	100.000	72
	91	Naphthalene	128	12.142	12.140	(1.210)	509109	100.000	84
	92	1,2,3-Trichlorobenzene	180	12.348	12.347	(1.231)	167240	100.000	85

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1550.D
Date : 17-APR-2013 12:45
Client ID: VSTD10010
Instrument: V1.i
Sample Info: 5ML,VSTD10010,VSTD10010
Operator: AM SRC: AM
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1554.D
Report Date: 22-Apr-2013 09:59

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130417.B\V1M1554.D
Lab Smp Id: VSTD0051O Client Smp ID: VSTD0051O
Inj Date : 17-APR-2013 14:50
Operator : AM   SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD0051O,VSTD0051O
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130417.B\v18260GH.m
Meth Date : 22-Apr-2013 08:33 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 38 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.306	1.305	(0.284)	3642	5.00000	5
2	Chloromethane	50	1.424	1.434	(0.310)	23695	5.00000	6
3	Vinyl Chloride	62	1.533	1.542	(0.334)	17383	5.00000	6
4	Bromomethane	94	1.769	1.768	(0.385)	8344	5.00000	6
5	Chloroethane	64	1.848	1.847	(0.402)	12726	5.00000	6
6	Trichlorofluoromethane	101	2.025	2.034	(0.441)	10142	5.00000	6
127	Ethanol	46	2.124	2.123	(0.462)	11572	500.000	590
7	Ether	59	2.202	2.212	(0.479)	12504	5.00000	6
8	Acrolein	56	2.281	2.290	(0.496)	14508	25.0000	28
9	1,1-Dichloroethene	96	2.399	2.399	(0.522)	15141	5.00000	6
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.409	2.418	(0.524)	13106	5.00000	6
11	Acetone	58	2.390	2.399	(0.520)	3278	5.00000	7
12	Iodomethane	142	2.518	2.517	(0.548)	21579	5.00000	6
13	Carbon Disulfide	76	2.547	2.547	(0.554)	39521	5.00000	6
14	Acetonitrile	40	2.587	2.596	(0.563)	18982	50.0000	62
15	Methyl Acetate	43	2.636	2.635	(0.574)	19376	5.00000	6
16	Methylene Chloride	84	2.705	2.714	(0.589)	24983	5.00000	8
17	tert-Butanol	59	2.784	2.793	(0.606)	3720	10.0000	13
18	Acrylonitrile	53	2.882	2.881	(0.627)	6569	5.00000	6
20	Methyl tert-butyl ether	73	2.912	2.921	(0.634)	30195	5.00000	6

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	19 trans-1,2-Dichloroethene	96	2.912	2.921	(0.634)	15092	5.00000	6
	21 1,1-Dichloroethane	63	3.217	3.226	(0.700)	27373	5.00000	6
	22 Vinyl acetate	43	3.256	3.256	(0.709)	58395	5.00000	6
	23 Diisopropyl Ether	45	3.276	3.285	(0.713)	71948	5.00000	6
	24 Ethyl tert-butyl ether	59	3.552	3.561	(0.773)	45748	5.00000	6
M	27 1,2-dichloroethene, (Total)	100				29648	10.0000	12
	25 cis-1,2-Dichloroethene	96	3.660	3.669	(0.796)	14556	5.00000	6
	26 2,2-Dichloropropane	77	3.660	3.669	(0.796)	8689	5.00000	6
	28 2-Butanone	72	3.670	3.669	(0.799)	1830	5.00000	6
	29 Bromochloromethane	128	3.847	3.847	(0.837)	6832	5.00000	6
	30 Tetrahydrofuran	72	3.887	3.896	(0.846)	3703	10.0000	13
	31 Chloroform	83	3.906	3.916	(0.850)	20750	5.00000	6
$	32 Dibromofluoromethane	113	4.025	4.034	(0.876)	106476	50.0000	50
	33 1,1,1-Trichloroethane	97	4.064	4.073	(0.884)	12345	5.00000	6
	34 Cyclohexane	56	4.123	4.132	(0.897)	29442	5.00000	5
	36 Carbon Tetrachloride	117	4.202	4.211	(0.914)	12093	5.00000	6
	35 1,1-Dichloropropene	110	4.202	4.201	(0.914)	5922	5.00000	6
$	37 1,2-Dichloroethane-d4	102	4.310	4.310	(0.938)	30318	50.0000	47
	38 Benzene	78	4.369	4.369	(0.951)	53942	5.00000	6
	39 1,2-Dichloroethane	62	4.369	4.369	(0.951)	13785	5.00000	6
	40 tert-Amyl methyl ether	73	4.458	4.467	(0.970)	34612	5.00000	6
*	41 Fluorobenzene	96	4.596	4.595	(1.000)	443805	50.0000	
	42 Trichloroethene	130	4.911	4.910	(1.069)	14277	5.00000	6
	43 Methylcyclohexane	83	5.098	5.088	(1.109)	21856	5.00000	5
	44 1,2-Dichloropropane	63	5.108	5.098	(1.111)	15585	5.00000	6(T)
	46 Dibromomethane	93	5.207	5.196	(1.133)	7319	5.00000	6
	47 1,4-Dioxane	88	5.216	5.226	(1.135)	2949	100.000	120
	48 Bromodichloromethane	83	5.345	5.344	(1.163)	13120	5.00000	5
	45 2-Chloroethyl vinyl ether	63	5.620	5.620	(1.223)	3602	5.00000	5
	49 cis-1,3-Dichloropropene	75	5.768	5.757	(1.255)	19199	5.00000	5
	50 4-Methyl-2-pentanone	43	5.916	5.905	(1.287)	18881	5.00000	6
$	51 Toluene-d8	98	6.034	6.023	(0.805)	382753	50.0000	50
	52 Toluene	91	6.093	6.083	(1.326)	51664	5.00000	6
	53 trans-1,3-Dichloropropene	75	6.300	6.289	(1.371)	14949	5.00000	5
	54 1,1,2-Trichloroethane	97	6.477	6.467	(1.409)	9613	5.00000	6
	55 Tetrachloroethene	164	6.645	6.634	(0.887)	9049	5.00000	6
	56 1,3-Dichloropropane	76	6.645	6.634	(0.887)	18612	5.00000	6
	57 2-Hexanone	43	6.743	6.733	(0.900)	14657	5.00000	6
	58 Dibromochloromethane	129	6.871	6.870	(0.917)	8836	5.00000	5(T)
	59 1,2-Dibromoethane	107	6.999	6.989	(0.934)	10557	5.00000	6(T)
*	60 Chlorobenzene-d5	117	7.492	7.481	(1.000)	297876	50.0000	
	63 1-Chlorohexane	91	7.511	7.501	(1.003)	19319	5.00000	6
	61 Chlorobenzene	112	7.521	7.511	(1.004)	33720	5.00000	6
	62 1,1,1,2-Tetrachloroethane	131	7.610	7.599	(1.016)	10614	5.00000	6
	64 Ethylbenzene	106	7.649	7.639	(1.021)	17037	5.00000	6
	65 m,p-Xylene	106	7.777	7.767	(1.038)	42912	10.0000	12
	66 o-Xylene	106	8.201	8.190	(1.095)	20190	5.00000	6
	67 Styrene	104	8.221	8.210	(1.097)	36285	5.00000	6
	68 Bromoform	173	8.398	8.387	(1.121)	4478	5.00000	5(T)
	69 Isopropylbenzene	105	8.624	8.614	(1.151)	50729	5.00000	6
	126 trans-1,4-Dichloro-2-butene	75	8.684	8.673	(1.159)	2735	5.00000	4(a)
$	70 Bromofluorobenzene	95	8.782	8.771	(1.172)	137257	50.0000	51
	72 Bromobenzene	156	8.949	8.929	(0.891)	12705	5.00000	6
	71 1,1,2,2-Tetrachloroethane	83	8.949	8.939	(0.891)	15391	5.00000	6

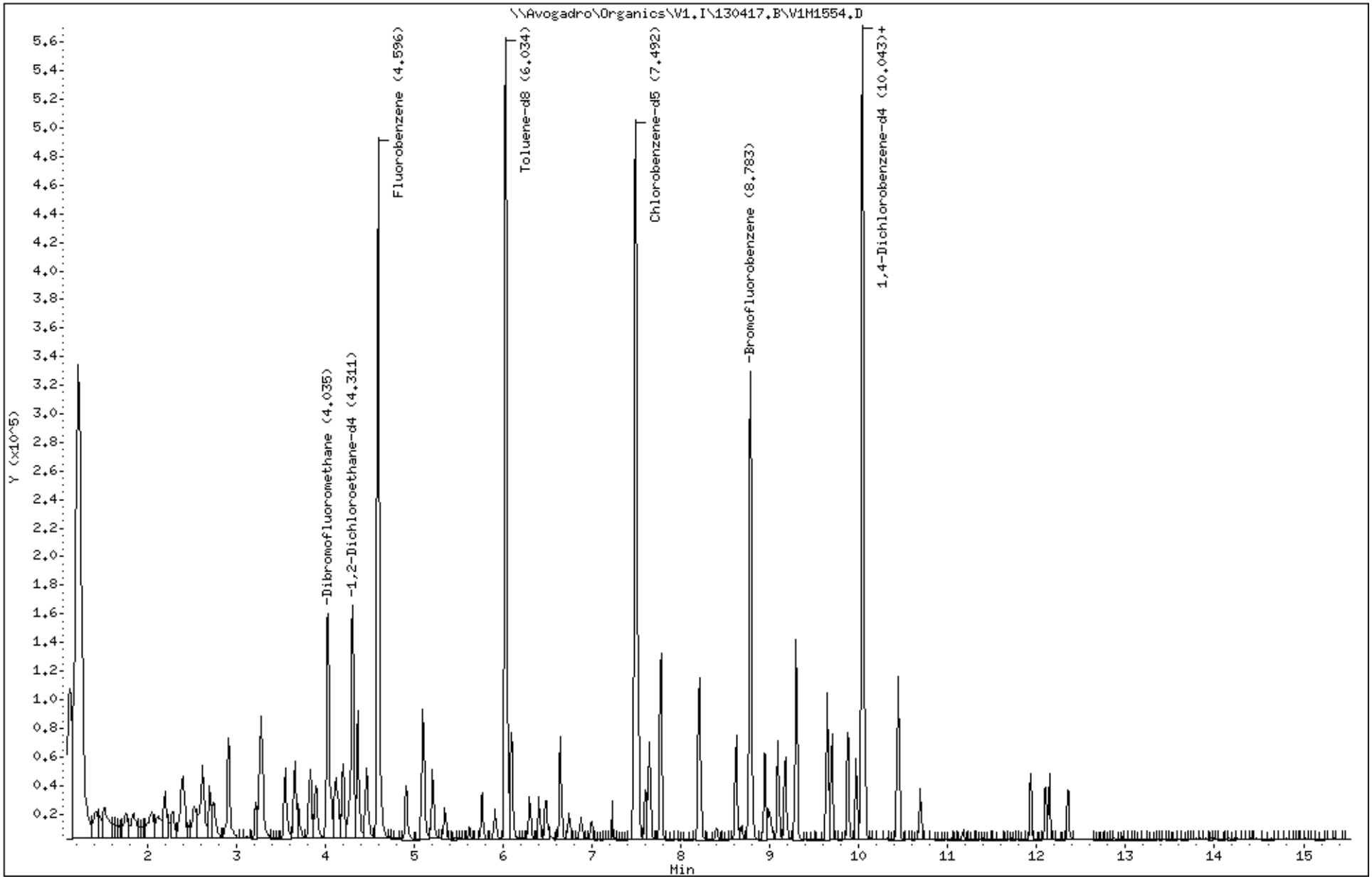
Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1554.D
Report Date: 22-Apr-2013 09:59

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	73	1,2,3-Trichloropropane	75	8.989	8.978	(0.895)	13166	5.00000	5
	74	n-Propylbenzene	120	8.624	8.614	(0.859)	13941	5.00000	6
	75	2-Chlorotoluene	126	9.176	9.165	(0.914)	12449	5.00000	6
	76	1,3,5-Trimethylbenzene	105	9.294	9.284	(0.925)	40828	5.00000	6
	77	4-Chlorotoluene	126	9.294	9.284	(0.925)	13475	5.00000	6
	78	tert-Butylbenzene	119	9.649	9.638	(0.961)	42355	5.00000	6
	79	1,2,4-Trimethylbenzene	105	9.698	9.687	(0.966)	41368	5.00000	6
M	81	Xylene (Total)	106				63102	15.0000	17
	80	sec-Butylbenzene	105	9.875	9.875	(0.983)	56815	5.00000	6
	82	1,3-Dichlorobenzene	146	9.974	9.973	(0.993)	24235	5.00000	6
	83	4-Isopropyltoluene	119	10.033	10.032	(0.999)	43951	5.00000	6
*	84	1,4-Dichlorobenzene-d4	152	10.043	10.032	(1.000)	130212	50.0000	
	85	1,4-Dichlorobenzene	146	10.062	10.062	(1.002)	25574	5.00000	6
	86	n-Butylbenzene	91	10.447	10.446	(1.040)	42713	5.00000	6
	87	1,2-Dichlorobenzene	146	10.437	10.436	(1.039)	22763	5.00000	6
	88	1,2-Dibromo-3-chloropropane	75	11.175	11.165	(1.113)	1349	5.00000	5
	89	1,2,4-Trichlorobenzene	180	11.934	11.933	(1.188)	12780	5.00000	6
	90	Hexachlorobutadiene	225	12.101	12.091	(1.205)	6551	5.00000	7
	91	Naphthalene	128	12.141	12.140	(1.209)	31507	5.00000	6
	92	1,2,3-Trichlorobenzene	180	12.357	12.347	(1.230)	10487	5.00000	6

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1554.D
Date : 17-APR-2013 14:50
Client ID: VSTD00510
Instrument: V1.i
Sample Info: 5ML,VSTD00510,VSTD00510
Operator: AM SRC: AM
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9275.d
Report Date: 22-Apr-2013 11:01

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9275.d
Lab Smp Id: VSTD05010K Client Smp ID: VSTD05010K
Inj Date : 17-APR-2013 12:22
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD05010K,VSTD05010K
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130417.B\v108260Gadd-6lvl.m
Meth Date : 18-Apr-2013 09:22 amarquis Quant Type: ISTD
Cal Date : 15-APR-2013 13:17 Cal File: V8B9226.d
Als bottle: 100 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	
1	Dichlorodifluoromethane	85	1.654	1.654	(0.312)	543822	50.0000		(aQ)
2	Freon114	85	1.773	1.773	(0.334)	701264	50.0000		(aQ)
3	Chloromethane	50	1.828	1.828	(0.344)	707656	50.0000		(aQ)
4	Vinyl Chloride	62	1.927	1.927	(0.363)	732993	50.0000		(aQ)
5	Bromomethane	94	2.213	2.213	(0.417)	471521	50.0000		(aQ)
6	Chloroethane	64	2.300	2.300	(0.434)	407070	50.0000		(aQ)
7	Trichlorofluoromethane	101	2.512	2.512	(0.474)	925483	50.0000		(aQ)
126	Ethanol	46	2.641	2.641	(0.498)	230022	5000.00		(aQ)
8	Ether	59	2.737	2.737	(0.516)	581730	50.0000		(aQ)
9	Acrolein	56	2.840	2.840	(0.535)	768104	250.000		(aQ)
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	684719	50.0000		(aQ)
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.924	2.924	(0.551)	695529	50.0000		(aQ)
12	Acetone	58	2.959	2.959	(0.558)	105435	50.0000		(aQ)
13	Iodomethane	142	3.059	3.059	(0.577)	731846	50.0000		(aQ)
14	Carbon Disulfide	76	3.123	3.123	(0.589)	2289765	50.0000		(aQ)
15	Acetonitrile	41	3.210	3.210	(0.605)	1260761	500.000		(aQ)
16	Allyl Chloride	39	3.210	3.210	(0.605)	821356	50.0000		(aQ)
17	Methyl Acetate	43	3.217	3.217	(0.606)	611009	50.0000		(aQ)
18	Methylene Chloride	84	3.303	3.303	(0.623)	766074	50.0000		(aQ)
19	tert-Butanol	59	3.364	3.364	(0.634)	117394	100.000		(a)
20	Acrylonitrile	53	3.490	3.490	(0.658)	267753	50.0000		(aQ)
21	trans-1,2-Dichloroethene	96	3.525	3.525	(0.664)	734305	50.0000		(aQ)
22	Methyl tert-butyl ether	73	3.516	3.516	(0.663)	2048375	50.0000		(aQ)

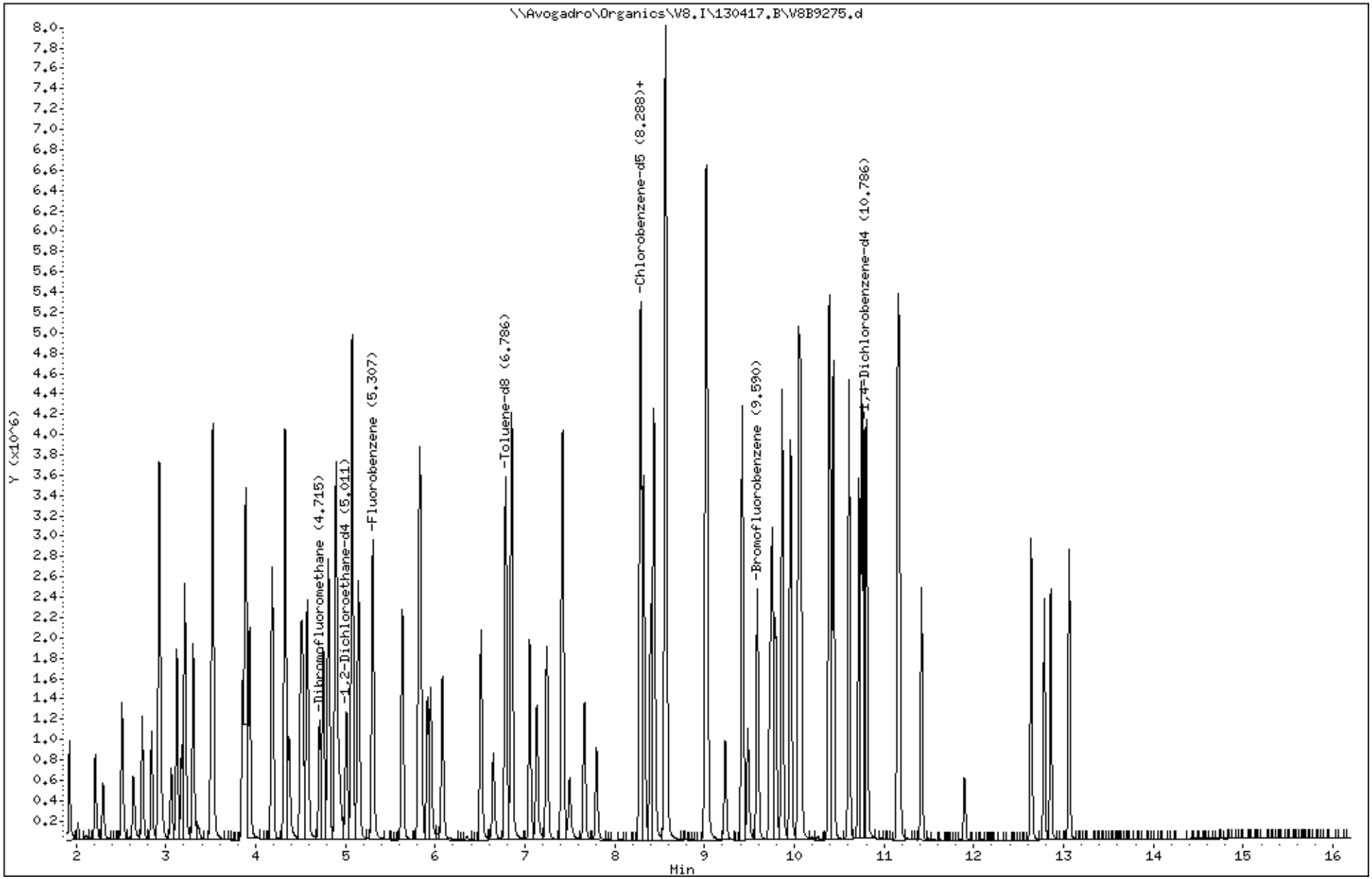
			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	23	1,1-Dichloroethane	63	3.856	3.856	(0.727)	1388570	50.0000	(aQ)
	24	Vinyl acetate	43	3.885	3.885	(0.732)	2179826	50.0000	(aQ)
	25	Diisopropyl Ether	45	3.895	3.895	(0.734)	2403920	50.0000	(aQ)
	26	2-Chloro-1,3-Butadiene	53	3.934	3.934	(0.741)	1125043	50.0000	(aQ)
	27	Ethyl tert-butyl ether	59	4.188	4.188	(0.789)	2242090	50.0000	(aQ)
	29	2,2-Dichloropropane	77	4.329	4.329	(0.816)	1163236	50.0000	(aQ)
	28	cis-1,2-Dichloroethene	96	4.326	4.326	(0.815)	797669	50.0000	(aQ)
	30	2-Butanone	72	4.326	4.326	(0.815)	97232	50.0000	(aQ)
	32	Propionitrile	54	4.371	4.371	(0.824)	972869	500.000	(aQ)
	33	Methacrylonitrile	41	4.503	4.503	(0.849)	819522	100.000	(aQ)
	34	Bromochloromethane	128	4.525	4.525	(0.853)	374332	50.0000	(aQ)
	31	Tetrahydrofuran	72	4.567	4.567	(0.861)	173297	100.000	(aQ)
	35	Chloroform	83	4.577	4.577	(0.862)	1348642	50.0000	(aQ)
$	36	Dibromofluoromethane	113	4.712	4.712	(0.888)	643169	50.0000	(a)
	37	1,1,1-Trichloroethane	97	4.753	4.753	(0.896)	1154467	50.0000	(aQ)
	38	Cyclohexane	56	4.811	4.811	(0.907)	1230641	50.0000	(aQ)
	39	1,1-Dichloropropene	110	4.892	4.892	(0.922)	366735	50.0000	(aQ)
	40	Carbon Tetrachloride	117	4.901	4.901	(0.924)	980581	50.0000	(aQ)
	41	Isobutyl Alcohol	43	4.930	4.930	(0.929)	532349	1000.00	(aQ)
$	42	1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	148417	50.0000	(a)
	43	Benzene	78	5.072	5.072	(0.956)	2989987	50.0000	(a)
	44	1,2-Dichloroethane	62	5.078	5.078	(0.957)	1083157	50.0000	(aQ)
	45	tert-Amyl methyl ether	73	5.146	5.146	(0.970)	1968763	50.0000	(aQ)
M	50	1,2-Dichloroethene (Total)	96				1531974	100.000	(a)
*	46	Fluorobenzene	96	5.306	5.306	(1.000)	2549193	50.0000	(Q)
	47	Trichloroethene	130	5.634	5.634	(1.062)	744785	50.0000	(aQ)
	48	Methylcyclohexane	83	5.821	5.821	(1.097)	1178100	50.0000	(aQ)
	49	1,2-Dichloropropane	63	5.840	5.840	(1.101)	778127	50.0000	(aQ)
	51	Methyl Methacrylate	69	5.914	5.914	(1.115)	557012	50.0000	(aQ)
	52	Dibromomethane	93	5.950	5.950	(1.121)	469996	50.0000	(aQ)
	53	1,4-Dioxane	88	5.953	5.953	(1.122)	154585	1000.00	(aQ)
	54	Bromodichloromethane	83	6.081	6.081	(1.146)	1034455	50.0000	(aQ)
	55	2-Chloroethyl vinyl ether	63	6.509	6.510	(1.227)	6623	50.0000	(TaQ)
	56	cis-1,3-Dichloropropene	75	6.509	6.509	(1.227)	1259538	50.0000	(aQ)
	57	4-Methyl-2-pentanone	43	6.647	6.647	(1.253)	638881	50.0000	(aQ)
$	58	Toluene-d8	98	6.786	6.786	(0.819)	2471093	50.0000	(a)
	59	Toluene	91	6.853	6.853	(1.291)	3159672	50.0000	(aQ)
	60	trans-1,3-Dichloropropene	75	7.052	7.052	(1.329)	1149447	50.0000	(aQ)
	61	Ethyl Methacrylate	69	7.133	7.133	(1.344)	767196	50.0000	(aQ)
	62	1,1,2-Trichloroethane	97	7.242	7.242	(1.365)	639392	50.0000	(aQ)
	63	Tetrachloroethene	164	7.413	7.413	(0.894)	603236	50.0000	(aQ)
	64	1,3-Dichloropropane	76	7.422	7.422	(0.895)	1132636	50.0000	(aQ)
	65	2-Hexanone	43	7.496	7.496	(0.904)	487956	50.0000	(aQ)
	66	Dibromochloromethane	129	7.660	7.660	(0.924)	758435	50.0000	(aQ)
	67	1,2-Dibromoethane	107	7.795	7.795	(0.940)	698262	50.0000	(aQ)
	69	1-Chlorohexane	91	8.281	8.281	(0.999)	1002645	50.0000	(aQ)
*	68	Chlorobenzene-d5	117	8.290	8.290	(1.000)	1858917	50.0000	(Q)
	70	Chlorobenzene	112	8.322	8.322	(1.004)	1982186	50.0000	(aQ)
	71	1,1,1,2-Tetrachloroethane	131	8.403	8.403	(1.014)	703764	50.0000	(aQ)
	72	Ethylbenzene	106	8.438	8.438	(1.018)	1028336	50.0000	(aQ)
	73	m,p-Xylene	106	8.567	8.567	(1.033)	2575071	100.000	(aQ)
	74	o-Xylene	106	9.014	9.014	(1.087)	1237205	50.0000	(aQ)
	75	Styrene	104	9.027	9.027	(1.089)	2106544	50.0000	(aQ)
	76	Bromoform	173	9.232	9.232	(1.114)	489062	50.0000	(aQ)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	
	77 Isopropylbenzene	105	9.422	9.422	(1.137)	3153058	50.0000		(aQ)
	78 trans-1,4-Dichloro-2-butene	75	9.486	9.486	(1.144)	274797	50.0000		(aQ)
$	79 Bromofluorobenzene	95	9.589	9.589	(1.157)	915607	50.0000		(aQ)
	80 1,1,2,2-Tetrachloroethane	83	9.728	9.728	(0.902)	884660	50.0000		(aQ)
	81 Bromobenzene	156	9.753	9.753	(0.905)	823980	50.0000		(aQ)
	82 1,2,3-Trichloropropane	75	9.785	9.785	(0.908)	1104670	50.0000		(aQ)
	83 n-Propylbenzene	120	9.866	9.866	(0.915)	809950	50.0000		(aQ)
	84 2-Chlorotoluene	126	9.959	9.959	(0.924)	760979	50.0000		(aQ)
	85 1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	2555503	50.0000		(aQ)
	86 4-Chlorotoluene	126	10.072	10.072	(0.934)	788622	50.0000		(aQ)
M	94 Xylene (Total)	106				3812276	150.000		(a)
	87 tert-Butylbenzene	119	10.387	10.387	(0.963)	2578503	50.0000		(aQ)
	88 1,2,4-Trimethylbenzene	105	10.435	10.435	(0.968)	2579582	50.0000		(aQ)
	89 sec-Butylbenzene	105	10.609	10.609	(0.984)	3146957	50.0000		(aQ)
	90 1,3-Dichlorobenzene	146	10.718	10.718	(0.994)	1449724	50.0000		(aQ)
	91 4-Isopropyltoluene	119	10.753	10.753	(0.997)	2548545	50.0000		(aQ)
*	92 1,4-Dichlorobenzene-d4	152	10.782	10.782	(1.000)	910478	50.0000		(Q)
	93 1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	1507844	50.0000		(aQ)
	95 n-Butylbenzene	91	11.152	11.152	(1.034)	2381359	50.0000		(aQ)
	96 1,2-Dichlorobenzene	146	11.171	11.171	(1.036)	1419080	50.0000		(aQ)
	97 Hexachloroethane	117	11.416	11.416	(1.059)	503607	50.0000		(aQ)
	98 1,2-Dibromo-3-chloropropane	75	11.895	11.895	(1.103)	151441	50.0000		(aQ)
	141 1,3,5-Trichlorobenzene	182	12.637	12.637	(2.381)	819413	50.0000		(aQ)
	99 1,2,4-Trichlorobenzene	180	12.641	12.641	(1.172)	854043	50.0000		(aQ)
	100 Hexachlorobutadiene	225	12.785	12.785	(1.186)	394808	50.0000		(aQ)
	101 Naphthalene	128	12.856	12.856	(1.192)	1735774	50.0000		(a)
	102 1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	783434	50.0000		(aQ)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9275.d
Date : 17-APR-2013 12:22
Client ID: VSTD05010K
Instrument: V8.i
Sample Info: 5ML,VSTD05010K,VSTD05010K
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9276.d
Report Date: 22-Apr-2013 11:01

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9276.d
Lab Smp Id: VSTD02010K Client Smp ID: VSTD02010K
Inj Date : 17-APR-2013 12:49
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD02010K,VSTD02010K
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130417.B\v108260Gadd-6lvl.m
Meth Date : 18-Apr-2013 09:22 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 12:49 Cal File: V8B9276.d
Als bottle: 100 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.654	1.654	(0.312)	216828	20.0000	20
2	Freon114	85	1.773	1.773	(0.334)	277710	20.0000	20
3	Chloromethane	50	1.828	1.828	(0.344)	301884	20.0000	21
4	Vinyl Chloride	62	1.927	1.927	(0.363)	307806	20.0000	20
5	Bromomethane	94	2.217	2.213	(0.418)	207747	20.0000	21
6	Chloroethane	64	2.300	2.300	(0.434)	172116	20.0000	20
7	Trichlorofluoromethane	101	2.516	2.512	(0.474)	372105	20.0000	20
126	Ethanol	46	2.641	2.641	(0.498)	110052	2000.00	2200(A)
8	Ether	59	2.741	2.737	(0.517)	262613	20.0000	21
9	Acrolein	56	2.844	2.840	(0.536)	358448	100.000	110
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	278062	20.0000	20
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.924	2.924	(0.551)	275008	20.0000	20
12	Acetone	58	2.959	2.959	(0.558)	43282	20.0000	20
13	Iodomethane	142	3.059	3.059	(0.577)	295794	20.0000	20
14	Carbon Disulfide	76	3.123	3.123	(0.589)	904312	20.0000	20
15	Acetonitrile	41	3.210	3.210	(0.605)	583290	200.000	210(A)
16	Allyl Chloride	39	3.213	3.210	(0.606)	362503	20.0000	21
17	Methyl Acetate	43	3.220	3.217	(0.607)	286966	20.0000	22
18	Methylene Chloride	84	3.307	3.303	(0.623)	334421	20.0000	21
19	tert-Butanol	59	3.364	3.364	(0.634)	60917	40.0000	45
20	Acrylonitrile	53	3.499	3.490	(0.660)	122258	20.0000	21
21	trans-1,2-Dichloroethene	96	3.528	3.525	(0.665)	302658	20.0000	20

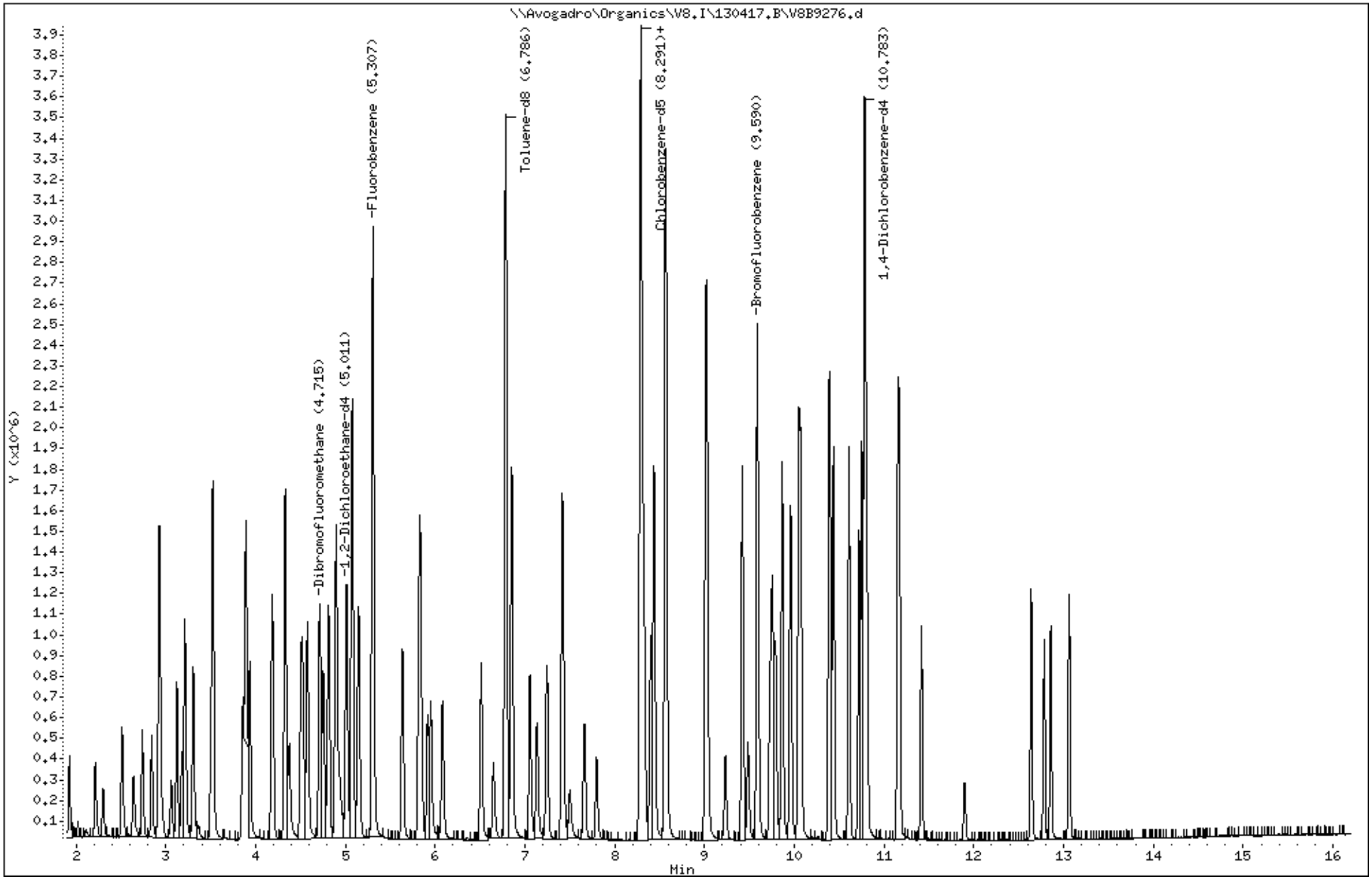
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	22 Methyl tert-butyl ether	73	3.519	3.516	(0.663)	925207	20.0000	21
	23 1,1-Dichloroethane	63	3.860	3.856	(0.727)	590855	20.0000	21
	24 Vinyl acetate	43	3.889	3.885	(0.733)	957128	20.0000	21
	25 Diisopropyl Ether	45	3.895	3.895	(0.734)	1053429	20.0000	21
	26 2-Chloro-1,3-Butadiene	53	3.937	3.934	(0.742)	455796	20.0000	20
	27 Ethyl tert-butyl ether	59	4.188	4.188	(0.789)	986551	20.0000	21
	29 2,2-Dichloropropane	77	4.332	4.329	(0.816)	469602	20.0000	20
	28 cis-1,2-Dichloroethene	96	4.326	4.326	(0.815)	341728	20.0000	21
	30 2-Butanone	72	4.332	4.326	(0.816)	43299	20.0000	21
	32 Propionitrile	54	4.374	4.371	(0.824)	457706	200.000	220(A)
	33 Methacrylonitrile	41	4.506	4.503	(0.849)	373478	40.0000	43
	34 Bromochloromethane	128	4.525	4.525	(0.853)	164778	20.0000	21
	31 Tetrahydrofuran	72	4.570	4.567	(0.861)	79690	40.0000	43
	35 Chloroform	83	4.577	4.577	(0.862)	573551	20.0000	21
$	36 Dibromofluoromethane	113	4.715	4.712	(0.889)	634784	50.0000	50
	37 1,1,1-Trichloroethane	97	4.753	4.753	(0.896)	484437	20.0000	20
	38 Cyclohexane	56	4.815	4.811	(0.907)	497773	20.0000	20
	39 1,1-Dichloropropene	110	4.895	4.892	(0.922)	149811	20.0000	20
	40 Carbon Tetrachloride	117	4.901	4.901	(0.924)	400991	20.0000	20
	41 Isobutyl Alcohol	43	4.933	4.930	(0.930)	245323	400.000	430(A)
$	42 1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	148068	50.0000	50
	43 Benzene	78	5.075	5.072	(0.956)	1294299	20.0000	21
	44 1,2-Dichloroethane	62	5.078	5.078	(0.957)	471040	20.0000	21
	45 tert-Amyl methyl ether	73	5.146	5.146	(0.970)	870866	20.0000	21
M	50 1,2-Dichloroethene (Total)	96				644386	40.0000	41
*	46 Fluorobenzene	96	5.306	5.306	(1.000)	2539176	50.0000	
	47 Trichloroethene	130	5.634	5.634	(1.062)	299444	20.0000	20
	48 Methylcyclohexane	83	5.824	5.821	(1.098)	473718	20.0000	20
	49 1,2-Dichloropropane	63	5.840	5.840	(1.101)	333883	20.0000	21
	51 Methyl Methacrylate	69	5.917	5.914	(1.115)	254233	20.0000	21
	52 Dibromomethane	93	5.953	5.950	(1.122)	207730	20.0000	21
	53 1,4-Dioxane	88	5.956	5.953	(1.122)	71812	400.000	430(A)
	54 Bromodichloromethane	83	6.085	6.081	(1.147)	443070	20.0000	21
	55 2-Chloroethyl vinyl ether	63	6.512	6.510	(1.227)	3218	20.0000	22(T)
	56 cis-1,3-Dichloropropene	75	6.512	6.509	(1.227)	530951	20.0000	20
	57 4-Methyl-2-pentanone	43	6.647	6.647	(1.253)	290574	20.0000	21
$	58 Toluene-d8	98	6.786	6.786	(0.819)	2454235	50.0000	50
	59 Toluene	91	6.853	6.853	(1.291)	1373683	20.0000	21
	60 trans-1,3-Dichloropropene	75	7.056	7.052	(1.330)	497269	20.0000	21
	61 Ethyl Methacrylate	69	7.133	7.133	(1.344)	332958	20.0000	21
	62 1,1,2-Trichloroethane	97	7.245	7.242	(1.365)	286735	20.0000	21
	63 Tetrachloroethene	164	7.416	7.413	(0.895)	249679	20.0000	20
	64 1,3-Dichloropropane	76	7.425	7.422	(0.896)	499903	20.0000	21
	65 2-Hexanone	43	7.499	7.496	(0.905)	212412	20.0000	21
	66 Dibromochloromethane	129	7.663	7.660	(0.924)	322371	20.0000	21
	67 1,2-Dibromoethane	107	7.798	7.795	(0.941)	304292	20.0000	21
	69 1-Chlorohexane	91	8.284	8.281	(0.999)	412858	20.0000	20
*	68 Chlorobenzene-d5	117	8.290	8.290	(1.000)	1842094	50.0000	
	70 Chlorobenzene	112	8.322	8.322	(1.004)	841122	20.0000	21
	71 1,1,1,2-Tetrachloroethane	131	8.403	8.403	(1.014)	300911	20.0000	21
	72 Ethylbenzene	106	8.438	8.438	(1.018)	439587	20.0000	21
	73 m,p-Xylene	106	8.567	8.567	(1.033)	1081595	40.0000	41
	74 o-Xylene	106	9.014	9.014	(1.087)	529887	20.0000	21
	75 Styrene	104	9.027	9.027	(1.089)	871347	20.0000	20

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	76 Bromoform	173	9.232	9.232	(1.114)	210200	20.0000	21
	77 Isopropylbenzene	105	9.422	9.422	(1.137)	1316472	20.0000	20
	78 trans-1,4-Dichloro-2-butene	75	9.486	9.486	(1.144)	118618	20.0000	21
$	79 Bromofluorobenzene	95	9.589	9.589	(1.157)	909891	50.0000	50
	80 1,1,2,2-Tetrachloroethane	83	9.731	9.728	(0.902)	400096	20.0000	21
	81 Bromobenzene	156	9.753	9.753	(0.905)	346790	20.0000	21
	82 1,2,3-Trichloropropane	75	9.785	9.785	(0.908)	493360	20.0000	21
	83 n-Propylbenzene	120	9.866	9.866	(0.915)	337809	20.0000	21
	84 2-Chlorotoluene	126	9.959	9.959	(0.924)	321017	20.0000	21
	85 1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	1076850	20.0000	21
	86 4-Chlorotoluene	126	10.072	10.072	(0.934)	330699	20.0000	21
M	94 Xylene (Total)	106				1611482	60.0000	62
	87 tert-Butylbenzene	119	10.387	10.387	(0.963)	1086318	20.0000	21
	88 1,2,4-Trimethylbenzene	105	10.438	10.435	(0.968)	1086455	20.0000	21
	89 sec-Butylbenzene	105	10.609	10.609	(0.984)	1320153	20.0000	21
	90 1,3-Dichlorobenzene	146	10.721	10.718	(0.994)	609601	20.0000	21
	91 4-Isopropyltoluene	119	10.753	10.753	(0.997)	1066400	20.0000	21
*	92 1,4-Dichlorobenzene-d4	152	10.782	10.782	(1.000)	889849	50.0000	
	93 1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	633711	20.0000	21
	95 n-Butylbenzene	91	11.155	11.152	(1.035)	961059	20.0000	20
	96 1,2-Dichlorobenzene	146	11.171	11.171	(1.036)	605715	20.0000	21
	97 Hexachloroethane	117	11.419	11.416	(1.059)	207843	20.0000	20
	98 1,2-Dibromo-3-chloropropane	75	11.895	11.895	(1.103)	69044	20.0000	22
	141 1,3,5-Trichlorobenzene	182	12.641	12.637	(2.382)	331272	20.0000	20(A)
	99 1,2,4-Trichlorobenzene	180	12.641	12.641	(1.172)	345031	20.0000	20
	100 Hexachlorobutadiene	225	12.785	12.785	(1.186)	164681	20.0000	21
	101 Naphthalene	128	12.856	12.856	(1.192)	729890	20.0000	21
	102 1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	327978	20.0000	21

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9276.d
Date : 17-APR-2013 12:49
Client ID: VSTD02010K
Instrument: V8.i
Sample Info: 5ML,VSTD02010K,VSTD02010K
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9277.d
Report Date: 22-Apr-2013 11:01

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9277.d
Lab Smp Id: VSTD00510K Client Smp ID: VSTD00510K
Inj Date : 17-APR-2013 13:17
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD00510K,VSTD00510K
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130417.B\v108260Gadd-6lvl.m
Meth Date : 18-Apr-2013 09:22 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 13:17 Cal File: V8B9277.d
Als bottle: 100 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.654	1.654	(0.312)	53906	5.00000	5.0
2	Freon114	85	1.773	1.773	(0.334)	68445	5.00000	5.0
3	Chloromethane	50	1.828	1.828	(0.344)	70895	5.00000	4.9
4	Vinyl Chloride	62	1.924	1.927	(0.363)	72601	5.00000	4.9
5	Bromomethane	94	2.213	2.213	(0.417)	52602	5.00000	5.2
6	Chloroethane	64	2.303	2.300	(0.434)	41343	5.00000	5.0
7	Trichlorofluoromethane	101	2.512	2.512	(0.474)	89795	5.00000	4.9
126	Ethanol	46	2.641	2.641	(0.498)	27151	500.000	530(A)
8	Ether	59	2.741	2.737	(0.517)	58826	5.00000	4.8
9	Acrolein	56	2.840	2.840	(0.535)	81101	25.0000	25
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	65712	5.00000	4.9
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.921	2.924	(0.550)	67755	5.00000	5.0
12	Acetone	58	2.959	2.959	(0.558)	10272	5.00000	4.9
13	Iodomethane	142	3.059	3.059	(0.577)	56639	5.00000	4.2
14	Carbon Disulfide	76	3.123	3.123	(0.589)	218863	5.00000	4.9
15	Acetonitrile	41	3.213	3.210	(0.606)	132804	50.0000	49
16	Allyl Chloride	39	3.210	3.210	(0.605)	89775	5.00000	5.2
17	Methyl Acetate	43	3.223	3.217	(0.607)	59903	5.00000	4.7
18	Methylene Chloride	84	3.307	3.303	(0.623)	83221	5.00000	5.2
19	tert-Butanol	59	3.371	3.364	(0.635)	13286	10.0000	9.9
20	Acrylonitrile	53	3.503	3.490	(0.660)	26587	5.00000	4.8
21	trans-1,2-Dichloroethene	96	3.525	3.525	(0.664)	72592	5.00000	4.9

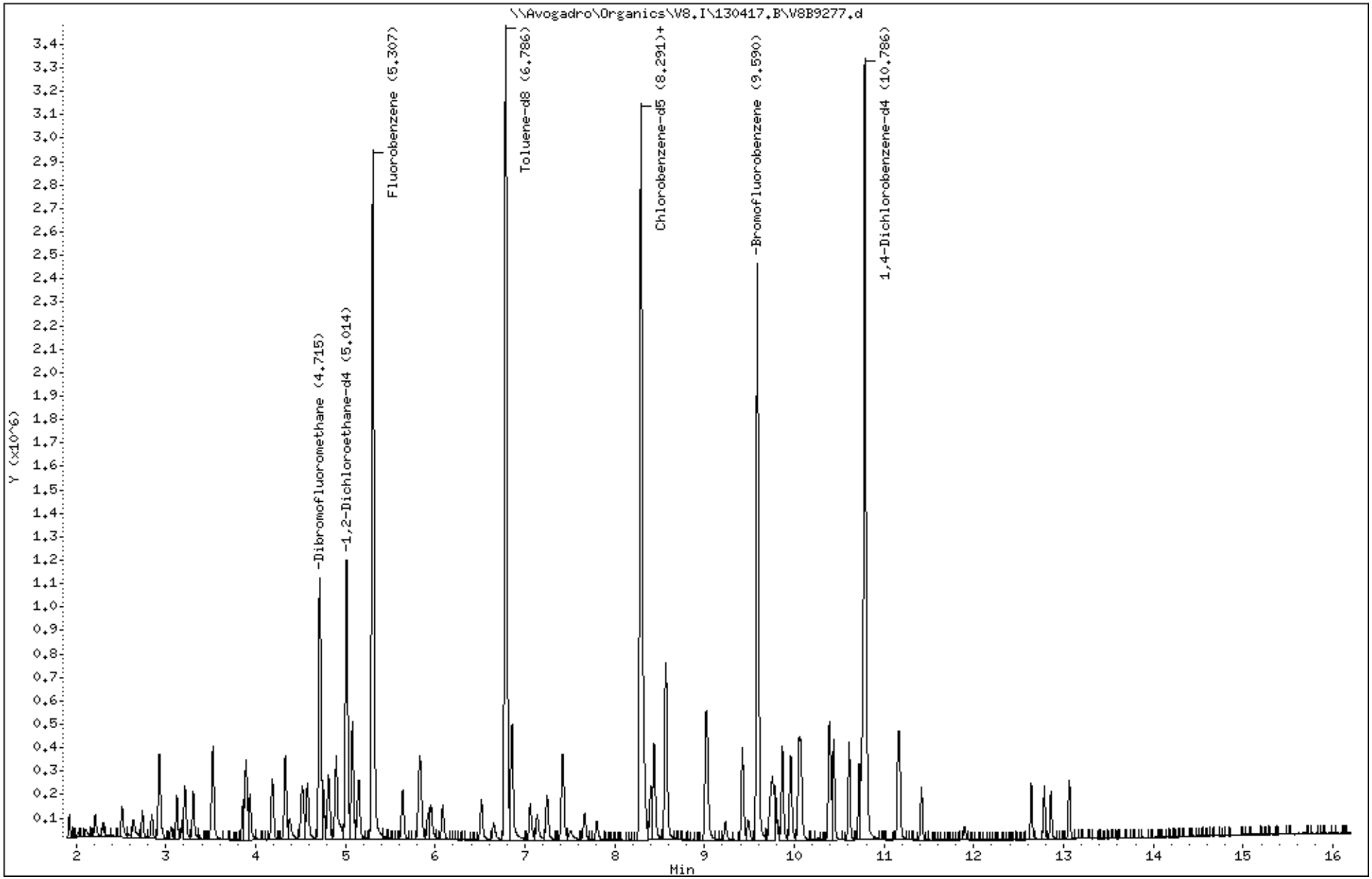
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
22	Methyl tert-butyl ether	73	3.519	3.516	(0.663)	205964	5.00000	4.8
23	1,1-Dichloroethane	63	3.860	3.856	(0.727)	135554	5.00000	4.8
24	Vinyl acetate	43	3.892	3.885	(0.733)	199992	5.00000	4.6
25	Diisopropyl Ether	45	3.898	3.895	(0.735)	239589	5.00000	4.8
26	2-Chloro-1,3-Butadiene	53	3.937	3.934	(0.742)	105742	5.00000	4.8
27	Ethyl tert-butyl ether	59	4.184	4.188	(0.789)	219875	5.00000	4.8
29	2,2-Dichloropropane	77	4.332	4.329	(0.816)	105282	5.00000	4.7
28	cis-1,2-Dichloroethene	96	4.329	4.326	(0.816)	78692	5.00000	4.9
30	2-Butanone	72	4.335	4.326	(0.817)	8322	5.00000	4.3
32	Propionitrile	54	4.380	4.371	(0.826)	95181	50.0000	47
33	Methacrylonitrile	41	4.509	4.503	(0.850)	74635	10.0000	9.0
34	Bromochloromethane	128	4.528	4.525	(0.853)	36681	5.00000	4.8
31	Tetrahydrofuran	72	4.573	4.567	(0.862)	16676	10.0000	9.3
35	Chloroform	83	4.580	4.577	(0.863)	134145	5.00000	4.9
$ 36	Dibromofluoromethane	113	4.715	4.712	(0.889)	641850	50.0000	50
37	1,1,1-Trichloroethane	97	4.757	4.753	(0.896)	113001	5.00000	4.9
38	Cyclohexane	56	4.815	4.811	(0.907)	119848	5.00000	4.9
39	1,1-Dichloropropene	110	4.895	4.892	(0.922)	33093	5.00000	4.6
40	Carbon Tetrachloride	117	4.898	4.901	(0.923)	91636	5.00000	4.8
41	Isobutyl Alcohol	43	4.808	4.930	(0.906)	12524	100.000	30(T)
$ 42	1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	148736	50.0000	50
43	Benzene	78	5.078	5.072	(0.957)	310424	5.00000	5.0
44	1,2-Dichloroethane	62	5.081	5.078	(0.958)	107758	5.00000	4.9
45	tert-Amyl methyl ether	73	5.149	5.146	(0.970)	195627	5.00000	4.8
M 50	1,2-Dichloroethene (Total)	96				151284	10.0000	9.8
* 46	Fluorobenzene	96	5.307	5.306	(1.000)	2526263	50.0000	
47	Trichloroethene	130	5.638	5.634	(1.062)	71710	5.00000	4.9
48	Methylcyclohexane	83	5.824	5.821	(1.098)	110688	5.00000	4.8
49	1,2-Dichloropropane	63	5.840	5.840	(1.101)	76397	5.00000	4.8
51	Methyl Methacrylate	69	5.924	5.914	(1.116)	50973	5.00000	4.5
52	Dibromomethane	93	5.953	5.950	(1.122)	46729	5.00000	4.8
53	1,4-Dioxane	88	5.956	5.953	(1.122)	15135	100.000	94
54	Bromodichloromethane	83	6.085	6.081	(1.147)	95514	5.00000	4.6
55	2-Chloroethyl vinyl ether	63	6.512	6.510	(1.227)	553	5.00000	4.1(T)
56	cis-1,3-Dichloropropene	75	6.515	6.509	(1.228)	116156	5.00000	4.7
57	4-Methyl-2-pentanone	43	6.651	6.647	(1.253)	61104	5.00000	4.6
$ 58	Toluene-d8	98	6.786	6.786	(0.819)	2445146	50.0000	50
59	Toluene	91	6.856	6.853	(1.292)	363185	5.00000	5.4
60	trans-1,3-Dichloropropene	75	7.059	7.052	(1.330)	102381	5.00000	4.5
61	Ethyl Methacrylate	69	7.139	7.133	(1.345)	65986	5.00000	4.4
62	1,1,2-Trichloroethane	97	7.249	7.242	(1.366)	65041	5.00000	4.9
63	Tetrachloroethene	164	7.416	7.413	(0.895)	58564	5.00000	4.9
64	1,3-Dichloropropane	76	7.425	7.422	(0.896)	111606	5.00000	4.8
65	2-Hexanone	43	7.509	7.496	(0.906)	40121	5.00000	4.3
66	Dibromochloromethane	129	7.667	7.660	(0.925)	66664	5.00000	4.5
67	1,2-Dibromoethane	107	7.805	7.795	(0.941)	66191	5.00000	4.7
69	1-Chlorohexane	91	8.287	8.281	(1.000)	95431	5.00000	4.8
* 68	Chlorobenzene-d5	117	8.290	8.290	(1.000)	1817887	50.0000	
70	Chlorobenzene	112	8.326	8.322	(1.004)	190833	5.00000	4.8
71	1,1,1,2-Tetrachloroethane	131	8.400	8.403	(1.013)	64882	5.00000	4.7
72	Ethylbenzene	106	8.438	8.438	(1.018)	99650	5.00000	4.8
73	m,p-Xylene	106	8.570	8.567	(1.034)	255798	10.0000	9.9
74	o-Xylene	106	9.014	9.014	(1.087)	125007	5.00000	5.0
75	Styrene	104	9.030	9.027	(1.089)	184193	5.00000	4.6

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	76	Bromoform	173	9.236	9.232	(1.114)	39879	5.00000	4.3
	77	Isopropylbenzene	105	9.422	9.422	(1.137)	291524	5.00000	4.7
	78	trans-1,4-Dichloro-2-butene	75	9.490	9.486	(1.145)	22313	5.00000	4.3
$	79	Bromofluorobenzene	95	9.589	9.589	(1.157)	890475	50.0000	50
	80	1,1,2,2-Tetrachloroethane	83	9.734	9.728	(0.903)	88318	5.00000	5.0
	81	Bromobenzene	156	9.756	9.753	(0.905)	76900	5.00000	4.9
	82	1,2,3-Trichloropropane	75	9.785	9.785	(0.907)	102844	5.00000	4.8
	83	n-Propylbenzene	120	9.869	9.866	(0.915)	74478	5.00000	4.8
	84	2-Chlorotoluene	126	9.956	9.959	(0.923)	72106	5.00000	4.9
	85	1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	237123	5.00000	4.8
	86	4-Chlorotoluene	126	10.075	10.072	(0.934)	71441	5.00000	4.8
M	94	Xylene (Total)	106				380805	15.0000	15
	87	tert-Butylbenzene	119	10.390	10.387	(0.963)	232804	5.00000	4.8
	88	1,2,4-Trimethylbenzene	105	10.438	10.435	(0.968)	243823	5.00000	4.9
	89	sec-Butylbenzene	105	10.609	10.609	(0.984)	290102	5.00000	4.8
	90	1,3-Dichlorobenzene	146	10.724	10.718	(0.994)	132907	5.00000	4.8
	91	4-Isopropyltoluene	119	10.753	10.753	(0.997)	229281	5.00000	4.8
*	92	1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	853016	50.0000	
	93	1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	139144	5.00000	4.8
	95	n-Butylbenzene	91	11.155	11.152	(1.034)	195821	5.00000	4.5
	96	1,2-Dichlorobenzene	146	11.174	11.171	(1.036)	131496	5.00000	4.8
	97	Hexachloroethane	117	11.416	11.416	(1.058)	42542	5.00000	4.6
	98	1,2-Dibromo-3-chloropropane	75	11.898	11.895	(1.103)	14764	5.00000	4.9
	141	1,3,5-Trichlorobenzene	182	12.641	12.637	(2.382)	65009	5.00000	4.3(A)
	99	1,2,4-Trichlorobenzene	180	12.641	12.641	(1.172)	68816	5.00000	4.4
	100	Hexachlorobutadiene	225	12.782	12.785	(1.185)	37959	5.00000	5.0
	101	Naphthalene	128	12.856	12.856	(1.192)	148593	5.00000	4.6
	102	1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	69211	5.00000	4.7

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9277.d
Date : 17-APR-2013 13:17
Client ID: VSTD00510K
Instrument: V8.i
Sample Info: 5ML,VSTD00510K,VSTD00510K
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9279.d
Report Date: 22-Apr-2013 11:01

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9279.d
Lab Smp Id: VSTD00110K Client Smp ID: VSTD00110K
Inj Date : 17-APR-2013 14:12
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD00110K,VSTD00110K
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130417.B\v108260Gadd-6lvl.m
Meth Date : 18-Apr-2013 09:22 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:12 Cal File: V8B9279.d
Als bottle: 100 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.651	1.654	(0.311)	9293	1.00000	0.87
2	Freon114	85	1.773	1.773	(0.334)	11993	1.00000	0.86
3	Chloromethane	50	1.827	1.828	(0.344)	15779	1.00000	1.1
4	Vinyl Chloride	62	1.924	1.927	(0.363)	13479	1.00000	0.92
5	Bromomethane	94	2.216	2.213	(0.418)	10760	1.00000	1.1
6	Chloroethane	64	2.307	2.300	(0.435)	7167	1.00000	0.90
7	Trichlorofluoromethane	101	2.516	2.512	(0.474)	16259	1.00000	0.90
126	Ethanol	46	2.644	2.641	(0.498)	6099	500.000	120
8	Ether	59	2.741	2.737	(0.517)	11237	1.00000	0.92
9	Acrolein	56	2.843	2.840	(0.536)	16451	5.00000	4.9
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	12906	1.00000	0.94
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.930	2.924	(0.552)	12046	1.00000	0.89
12	Acetone	58	2.962	2.959	(0.558)	3005	1.00000	1.5
13	Iodomethane	142	3.059	3.059	(0.576)	9318	1.00000	0.66
14	Carbon Disulfide	76	3.123	3.123	(0.589)	47566	1.00000	1.0
15	Acetonitrile	41	3.213	3.210	(0.606)	22732	1.00000	8.5
16	Allyl Chloride	39	3.213	3.210	(0.606)	13901	1.00000	0.80
17	Methyl Acetate	43	3.226	3.217	(0.608)	14209	1.00000	1.1
18	Methylene Chloride	84	3.306	3.303	(0.623)	21885	1.00000	1.3
19	tert-Butanol	59	3.374	3.364	(0.636)	4125	1.00000	3.0
20	Acrylonitrile	53	3.506	3.490	(0.661)	4365	1.00000	0.78
21	trans-1,2-Dichloroethene	96	3.532	3.525	(0.666)	13870	1.00000	0.94
22	Methyl tert-butyl ether	73	3.519	3.516	(0.663)	39815	1.00000	0.93

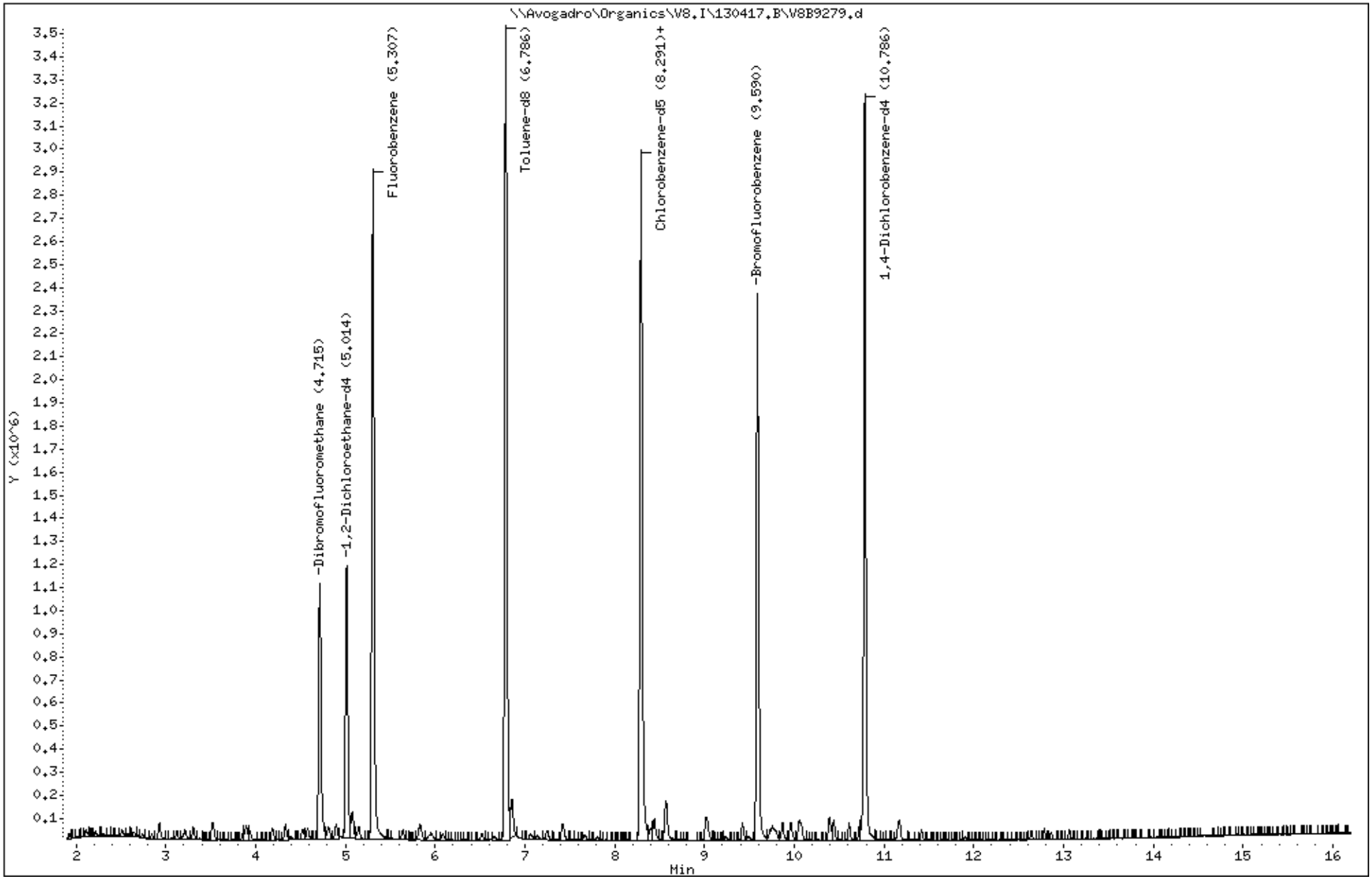
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	23	1,1-Dichloroethane	63	3.860	3.856	(0.727)	25957	1.00000	0.92
	24	Vinyl acetate	43	3.895	3.885	(0.734)	36801	1.00000	0.84
	25	Diisopropyl Ether	45	3.892	3.895	(0.733)	46606	1.00000	0.94
	26	2-Chloro-1,3-Butadiene	53	3.937	3.934	(0.742)	19667	1.00000	0.87
	27	Ethyl tert-butyl ether	59	4.191	4.188	(0.790)	42635	1.00000	0.92
	29	2,2-Dichloropropane	77	4.332	4.329	(0.816)	19097	1.00000	0.85
	28	cis-1,2-Dichloroethene	96	4.329	4.326	(0.816)	15688	1.00000	0.96
	30	2-Butanone	72	4.345	4.326	(0.819)	1039	1.00000	0.53
	32	Propionitrile	54	4.393	4.371	(0.828)	16950	1.00000	8.0
	33	Methacrylonitrile	41	4.515	4.503	(0.851)	14419	1.00000	1.6
	34	Bromochloromethane	128	4.528	4.525	(0.853)	7236	1.00000	0.95
	31	Tetrahydrofuran	72	4.577	4.567	(0.862)	3486	1.00000	1.8
	35	Chloroform	83	4.583	4.577	(0.864)	26111	1.00000	0.95
$	36	Dibromofluoromethane	113	4.715	4.712	(0.889)	637100	1.00000	49
	37	1,1,1-Trichloroethane	97	4.753	4.753	(0.896)	21501	1.00000	0.92
	38	Cyclohexane	56	4.811	4.811	(0.907)	21985	1.00000	0.90
	39	1,1-Dichloropropene	110	4.895	4.892	(0.922)	6428	1.00000	0.89
	40	Carbon Tetrachloride	117	4.901	4.901	(0.924)	17250	1.00000	0.89
	41	Isobutyl Alcohol	43	4.930	4.930	(0.929)	286	1.00000	0.56
$	42	1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	150142	1.00000	50
	43	Benzene	78	5.075	5.072	(0.956)	72370	1.00000	1.1
	44	1,2-Dichloroethane	62	5.078	5.078	(0.957)	22111	1.00000	0.98
	45	tert-Amyl methyl ether	73	5.149	5.146	(0.970)	38170	1.00000	0.92
M	50	1,2-Dichloroethene (Total)	96				29558	2.00000	(a)
*	46	Fluorobenzene	96	5.306	5.306	(1.000)	2569328	50.0000	
	47	Trichloroethene	130	5.644	5.634	(1.064)	14133	1.00000	0.95
	48	Methylcyclohexane	83	5.827	5.821	(1.098)	19260	1.00000	0.84
	49	1,2-Dichloropropane	63	5.843	5.840	(1.101)	15076	1.00000	0.94
	51	Methyl Methacrylate	69	5.924	5.914	(1.116)	8427	1.00000	0.70
	52	Dibromomethane	93	5.959	5.950	(1.123)	9077	1.00000	0.93
	53	1,4-Dioxane	88	5.972	5.953	(1.125)	3537	1.00000	21
	54	Bromodichloromethane	83	6.088	6.081	(1.147)	18439	1.00000	0.88
	55	2-Chloroethyl vinyl ether	63	6.506	6.510	(1.226)	140	1.00000	1.0(TM)M6 AM 04/22
	56	cis-1,3-Dichloropropene	75	6.519	6.509	(1.228)	20413	1.00000	0.82
	57	4-Methyl-2-pentanone	43	6.660	6.647	(1.255)	11517	1.00000	0.83
$	58	Toluene-d8	98	6.785	6.786	(0.819)	2469252	1.00000	51
	59	Toluene	91	6.856	6.853	(1.292)	118261	1.00000	1.6
	60	trans-1,3-Dichloropropene	75	7.068	7.052	(1.332)	18229	1.00000	0.80
	61	Ethyl Methacrylate	69	7.142	7.133	(1.346)	13270	1.00000	0.83
	62	1,1,2-Trichloroethane	97	7.245	7.242	(1.365)	13761	1.00000	1.0
	63	Tetrachloroethene	164	7.416	7.413	(0.895)	11376	1.00000	0.96
	64	1,3-Dichloropropane	76	7.432	7.422	(0.896)	20454	1.00000	0.90
	65	2-Hexanone	43	7.525	7.496	(0.908)	7364	1.00000	0.76
	66	Dibromochloromethane	129	7.663	7.660	(0.924)	12582	1.00000	0.86
	67	1,2-Dibromoethane	107	7.805	7.795	(0.941)	12797	1.00000	0.92(T)
	69	1-Chlorohexane	91	8.287	8.281	(1.000)	21471	1.00000	1.1
*	68	Chlorobenzene-d5	117	8.290	8.290	(1.000)	1814739	50.0000	
	70	Chlorobenzene	112	8.322	8.322	(1.004)	37044	1.00000	0.95
	71	1,1,1,2-Tetrachloroethane	131	8.403	8.403	(1.014)	12276	1.00000	0.90
	72	Ethylbenzene	106	8.441	8.438	(1.018)	21716	1.00000	1.0
	73	m,p-Xylene	106	8.570	8.567	(1.034)	60497	2.00000	2.3
	74	o-Xylene	106	9.014	9.014	(1.087)	26908	1.00000	1.1
	75	Styrene	104	9.033	9.027	(1.090)	31281	1.00000	0.76
	76	Bromoform	173	9.235	9.232	(1.114)	7388	1.00000	0.79

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	77 Isopropylbenzene	105	9.419	9.422	(1.136)	53254	1.00000	0.88
	78 trans-1,4-Dichloro-2-butene	75	9.486	9.486	(1.144)	4472	1.00000	0.80
$	79 Bromofluorobenzene	95	9.589	9.589	(1.157)	875893	1.00000	49
	80 1,1,2,2-Tetrachloroethane	83	9.731	9.728	(0.902)	18059	1.00000	1.0
	81 Bromobenzene	156	9.760	9.753	(0.905)	14978	1.00000	0.97
	82 1,2,3-Trichloropropane	75	9.785	9.785	(0.907)	25662	1.00000	1.2
	83 n-Propylbenzene	120	9.869	9.866	(0.915)	14193	1.00000	0.94
	84 2-Chlorotoluene	126	9.962	9.959	(0.924)	13754	1.00000	0.96
	85 1,3,5-Trimethylbenzene	105	10.052	10.049	(0.932)	46319	1.00000	0.96
	86 4-Chlorotoluene	126	10.078	10.072	(0.934)	14083	1.00000	0.96
M	94 Xylene (Total)	106				87405	3.00000	(a)
	87 tert-Butylbenzene	119	10.393	10.387	(0.964)	43570	1.00000	0.92
	88 1,2,4-Trimethylbenzene	105	10.441	10.435	(0.968)	50589	1.00000	1.0
	89 sec-Butylbenzene	105	10.612	10.609	(0.984)	53525	1.00000	0.92
	90 1,3-Dichlorobenzene	146	10.724	10.718	(0.994)	25318	1.00000	0.94
	91 4-Isopropyltoluene	119	10.756	10.753	(0.997)	40399	1.00000	0.87
*	92 1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	840787	50.0000	
	93 1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	28409	1.00000	1.0
	95 n-Butylbenzene	91	11.155	11.152	(1.034)	33211	1.00000	0.80
	96 1,2-Dichlorobenzene	146	11.174	11.171	(1.036)	23971	1.00000	0.91
	97 Hexachloroethane	117	11.415	11.416	(1.058)	7623	1.00000	0.84
	98 1,2-Dibromo-3-chloropropane	75	11.901	11.895	(1.103)	3372	1.00000	1.1
	141 1,3,5-Trichlorobenzene	182	12.647	12.637	(2.383)	10662	1.00000	0.68(A)
	99 1,2,4-Trichlorobenzene	180	12.644	12.641	(1.172)	10434	1.00000	0.69
	100 Hexachlorobutadiene	225	12.785	12.785	(1.185)	7426	1.00000	0.99
	101 Naphthalene	128	12.859	12.856	(1.192)	25325	1.00000	0.77
	102 1,2,3-Trichlorobenzene	180	13.065	13.062	(1.211)	10206	1.00000	0.72

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
M - Compound response manually integrated.

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9279.d
Date : 17-APR-2013 14:12
Client ID: VSTD00110K
Instrument: V8.i
Sample Info: 5ML,VSTD00110K,VSTD00110K
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9280.d
Report Date: 22-Apr-2013 11:01

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9280.d
Lab Smp Id: VSTD20010K Client Smp ID: VSTD20010K
Inj Date : 17-APR-2013 14:39
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD20010K,VSTD20010K
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130417.B\v108260Gadd-6lvl.m
Meth Date : 18-Apr-2013 09:22 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:39 Cal File: V8B9280.d
Als bottle: 100 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.654	1.654	(0.312)	2217912	200.000	210(A)
2	Freon114	85	1.773	1.773	(0.334)	2793924	200.000	200
3	Chloromethane	50	1.824	1.828	(0.344)	2829113	200.000	190
4	Vinyl Chloride	62	1.924	1.927	(0.363)	2859181	200.000	190
5	Bromomethane	94	2.204	2.213	(0.415)	1878896	200.000	180
6	Chloroethane	64	2.297	2.300	(0.433)	1526985	200.000	190
7	Trichlorofluoromethane	101	2.512	2.512	(0.473)	3637482	200.000	200
126	Ethanol	46	2.647	2.641	(0.499)	962191	20000.0	18000(A)
8	Ether	59	2.737	2.737	(0.516)	2488341	200.000	200
9	Acrolein	56	2.840	2.840	(0.535)	3467446	1000.00	1000(A)
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	2807628	200.000	200
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.921	2.924	(0.550)	2779682	200.000	200
12	Acetone	58	2.959	2.959	(0.558)	392618	200.000	190
13	Iodomethane	142	3.059	3.059	(0.576)	3500238	200.000	250(A)
14	Carbon Disulfide	76	3.120	3.123	(0.588)	9057871	200.000	200
15	Acetonitrile	41	3.210	3.210	(0.605)	5142798	2000.00	1900(A)
16	Allyl Chloride	39	3.210	3.210	(0.605)	3379736	200.000	190
17	Methyl Acetate	43	3.216	3.217	(0.606)	2734864	200.000	200
18	Methylene Chloride	84	3.303	3.303	(0.623)	3231347	200.000	180
19	tert-Butanol	59	3.371	3.364	(0.635)	599405	400.000	430(A)
20	Acrylonitrile	53	3.490	3.490	(0.658)	1220373	200.000	220(A)
21	trans-1,2-Dichloroethene	96	3.525	3.525	(0.664)	3015281	200.000	200

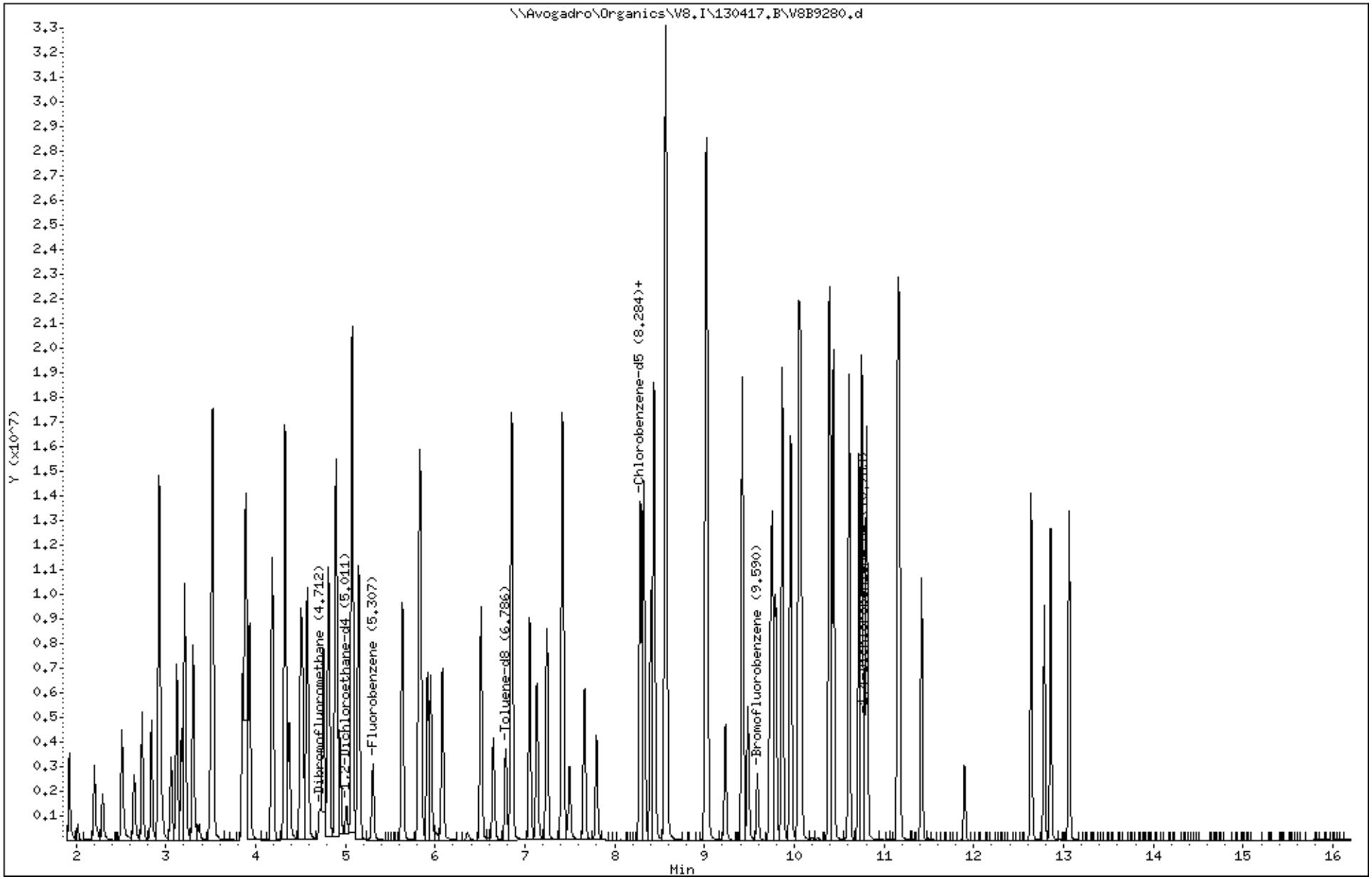
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	22 Methyl tert-butyl ether	73	3.515	3.516	(0.663)	8923963	200.000	210(A)
	23 1,1-Dichloroethane	63	3.856	3.856	(0.727)	5819530	200.000	200(A)
	24 Vinyl acetate	43	3.882	3.885	(0.732)	9268020	200.000	210(A)
	25 Diisopropyl Ether	45	3.895	3.895	(0.734)	9971484	200.000	200
	26 2-Chloro-1,3-Butadiene	53	3.933	3.934	(0.741)	4660182	200.000	200
	27 Ethyl tert-butyl ether	59	4.184	4.188	(0.789)	9666090	200.000	210(A)
	29 2,2-Dichloropropane	77	4.332	4.329	(0.816)	4781333	200.000	210(A)
	28 cis-1,2-Dichloroethene	96	4.326	4.326	(0.815)	3338089	200.000	200
	30 2-Butanone	72	4.322	4.326	(0.815)	405090	200.000	200
	32 Propionitrile	54	4.374	4.371	(0.824)	4484183	2000.00	2100(A)
	33 Methacrylonitrile	41	4.503	4.503	(0.849)	3744454	400.000	430(A)
	34 Bromochloromethane	128	4.525	4.525	(0.853)	1520746	200.000	200
	31 Tetrahydrofuran	72	4.567	4.567	(0.861)	802162	400.000	430(A)
	35 Chloroform	83	4.577	4.577	(0.862)	5675991	200.000	200
$	36 Dibromofluoromethane	113	4.712	4.712	(0.888)	663031	50.0000	50
	37 1,1,1-Trichloroethane	97	4.753	4.753	(0.896)	4828240	200.000	200(A)
	38 Cyclohexane	56	4.811	4.811	(0.907)	4965697	200.000	200
	39 1,1-Dichloropropene	110	4.892	4.892	(0.922)	1522702	200.000	210(A)
	40 Carbon Tetrachloride	117	4.898	4.901	(0.923)	4143873	200.000	210(A)
	41 Isobutyl Alcohol	43	4.937	4.930	(0.930)	2639061	4000.00	5400(A)
$	42 1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	153091	50.0000	50
	43 Benzene	78	5.075	5.072	(0.956)	12543492	200.000	190
	44 1,2-Dichloroethane	62	5.078	5.078	(0.957)	4619709	200.000	200
	45 tert-Amyl methyl ether	73	5.149	5.146	(0.970)	8793167	200.000	210(A)
M	50 1,2-Dichloroethene (Total)	96				6353370	400.000	400
*	46 Fluorobenzene	96	5.306	5.306	(1.000)	2598834	50.0000	(T)
	47 Trichloroethene	130	5.634	5.634	(1.062)	3111355	200.000	210(A)
	48 Methylcyclohexane	83	5.824	5.821	(1.098)	4724647	200.000	210(A)
	49 1,2-Dichloropropane	63	5.840	5.840	(1.101)	3256633	200.000	200
	51 Methyl Methacrylate	69	5.914	5.914	(1.115)	2593831	200.000	220(A)
	52 Dibromomethane	93	5.949	5.950	(1.121)	2048001	200.000	210(A)
	53 1,4-Dioxane	88	5.953	5.953	(1.122)	711975	4000.00	4200(A)
	54 Bromodichloromethane	83	6.081	6.081	(1.146)	4507995	200.000	220(A)
	55 2-Chloroethyl vinyl ether	63	6.509	6.510	(1.227)	27316	200.000	200(T)
	56 cis-1,3-Dichloropropene	75	6.509	6.509	(1.227)	5499792	200.000	220(A)
	57 4-Methyl-2-pentanone	43	6.647	6.647	(1.253)	3003713	200.000	220(A)
$	58 Toluene-d8	98	6.785	6.786	(0.819)	2562333	50.0000	49
	59 Toluene	91	6.853	6.853	(1.291)	13129101	200.000	170
	60 trans-1,3-Dichloropropene	75	7.052	7.052	(1.329)	5116798	200.000	220(A)
	61 Ethyl Methacrylate	69	7.133	7.133	(1.344)	3524505	200.000	220(A)
	62 1,1,2-Trichloroethane	97	7.245	7.242	(1.365)	2833773	200.000	200(A)
	63 Tetrachloroethene	164	7.412	7.413	(0.894)	2558058	200.000	200
	64 1,3-Dichloropropane	76	7.422	7.422	(0.895)	5016891	200.000	210(A)
	65 2-Hexanone	43	7.496	7.496	(0.904)	2225193	200.000	220(A)
	66 Dibromochloromethane	129	7.663	7.660	(0.924)	3429847	200.000	220(A)
	67 1,2-Dibromoethane	107	7.798	7.795	(0.941)	3106505	200.000	210(A)
	69 1-Chlorohexane	91	8.284	8.281	(0.999)	4190399	200.000	190
*	68 Chlorobenzene-d5	117	8.290	8.290	(1.000)	1955387	50.0000	
	70 Chlorobenzene	112	8.322	8.322	(1.004)	8464511	200.000	200
	71 1,1,1,2-Tetrachloroethane	131	8.406	8.403	(1.014)	3067467	200.000	210(A)
	72 Ethylbenzene	106	8.438	8.438	(1.018)	4431677	200.000	200
	73 m,p-Xylene	106	8.567	8.567	(1.033)	10969748	400.000	380(A)
	74 o-Xylene	106	9.014	9.014	(1.087)	5322829	200.000	190
	75 Styrene	104	9.026	9.027	(1.089)	9170887	200.000	210(A)

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	76	Bromoform	173	9.232	9.232	(1.114)	2292771	200.000	230(A)
	77	Isopropylbenzene	105	9.422	9.422	(1.137)	13518094	200.000	210(A)
	78	trans-1,4-Dichloro-2-butene	75	9.483	9.486	(1.144)	1352192	200.000	230(A)
$	79	Bromofluorobenzene	95	9.589	9.589	(1.157)	968011	50.0000	50
	80	1,1,2,2-Tetrachloroethane	83	9.731	9.728	(0.902)	3995828	200.000	200
	81	Bromobenzene	156	9.756	9.753	(0.905)	3585389	200.000	200
	82	1,2,3-Trichloropropane	75	9.789	9.785	(0.908)	5019657	200.000	200
	83	n-Propylbenzene	120	9.866	9.866	(0.915)	3484594	200.000	200
	84	2-Chlorotoluene	126	9.959	9.959	(0.924)	3235688	200.000	200
	85	1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	10968813	200.000	200
	86	4-Chlorotoluene	126	10.071	10.072	(0.934)	3374220	200.000	200
M	94	Xylene (Total)	106				16292577	600.000	580
	87	tert-Butylbenzene	119	10.390	10.387	(0.964)	11082936	200.000	200
	88	1,2,4-Trimethylbenzene	105	10.438	10.435	(0.968)	10975898	200.000	190
	89	sec-Butylbenzene	105	10.608	10.609	(0.984)	13349681	200.000	200
	90	1,3-Dichlorobenzene	146	10.721	10.718	(0.994)	6278463	200.000	200
	91	4-Isopropyltoluene	119	10.753	10.753	(0.997)	10882927	200.000	200(A)
*	92	1,4-Dichlorobenzene-d4	152	10.782	10.782	(1.000)	965491	50.0000	
	93	1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	6463939	200.000	200
	95	n-Butylbenzene	91	11.152	11.152	(1.034)	10015061	200.000	210(A)
	96	1,2-Dichlorobenzene	146	11.171	11.171	(1.036)	6123268	200.000	200
	97	Hexachloroethane	117	11.419	11.416	(1.059)	2221340	200.000	220(A)
	98	1,2-Dibromo-3-chloropropane	75	11.895	11.895	(1.103)	736052	200.000	210(A)
	141	1,3,5-Trichlorobenzene	182	12.640	12.637	(2.382)	3791497	200.000	250(A)
	99	1,2,4-Trichlorobenzene	180	12.640	12.641	(1.172)	3958289	200.000	240(A)
	100	Hexachlorobutadiene	225	12.785	12.785	(1.186)	1649135	200.000	190
	101	Naphthalene	128	12.856	12.856	(1.192)	8860859	200.000	240(A)
	102	1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	3622103	200.000	230(A)

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9280.d
Date : 17-APR-2013 14:39
Client ID: VSTD20010K
Instrument: V8.i
Sample Info: 5ML,VSTD20010K,VSTD20010K
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9281.d
Report Date: 22-Apr-2013 11:01

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9281.d
Lab Smp Id: VSTD10010K Client Smp ID: VSTD10010K
Inj Date : 17-APR-2013 15:07
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD10010K,VSTD10010K
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130417.B\v108260Gadd-6lvl.m
Meth Date : 18-Apr-2013 09:22 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.654	1.654	(0.312)	1098144	100.000	100
2	Freon114	85	1.773	1.773	(0.334)	1404288	100.000	100
3	Chloromethane	50	1.827	1.828	(0.344)	1494855	100.000	100
4	Vinyl Chloride	62	1.924	1.927	(0.363)	1478553	100.000	100
5	Bromomethane	94	2.210	2.213	(0.417)	919550	100.000	91
6	Chloroethane	64	2.300	2.300	(0.433)	766549	100.000	96
7	Trichlorofluoromethane	101	2.512	2.512	(0.473)	1801808	100.000	99
126	Ethanol	46	2.641	2.641	(0.498)	473211	10000.0	9300(A)
8	Ether	59	2.737	2.737	(0.516)	1241062	100.000	100
9	Acrolein	56	2.840	2.840	(0.535)	1720074	500.000	510
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	1402169	100.000	100
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.924	2.924	(0.551)	1382763	100.000	100
12	Acetone	58	2.959	2.959	(0.558)	173301	100.000	85
13	Iodomethane	142	3.059	3.059	(0.576)	1663266	100.000	120
14	Carbon Disulfide	76	3.123	3.123	(0.589)	4608083	100.000	100
15	Acetonitrile	41	3.210	3.210	(0.605)	2673585	1000.00	990(A)
16	Allyl Chloride	39	3.210	3.210	(0.605)	1671139	100.000	96
17	Methyl Acetate	43	3.216	3.217	(0.606)	1377194	100.000	100
18	Methylene Chloride	84	3.306	3.303	(0.623)	1613491	100.000	93
19	tert-Butanol	59	3.367	3.364	(0.635)	274738	200.000	200
20	Acrylonitrile	53	3.493	3.490	(0.658)	604255	100.000	110
21	trans-1,2-Dichloroethene	96	3.525	3.525	(0.664)	1503523	100.000	100

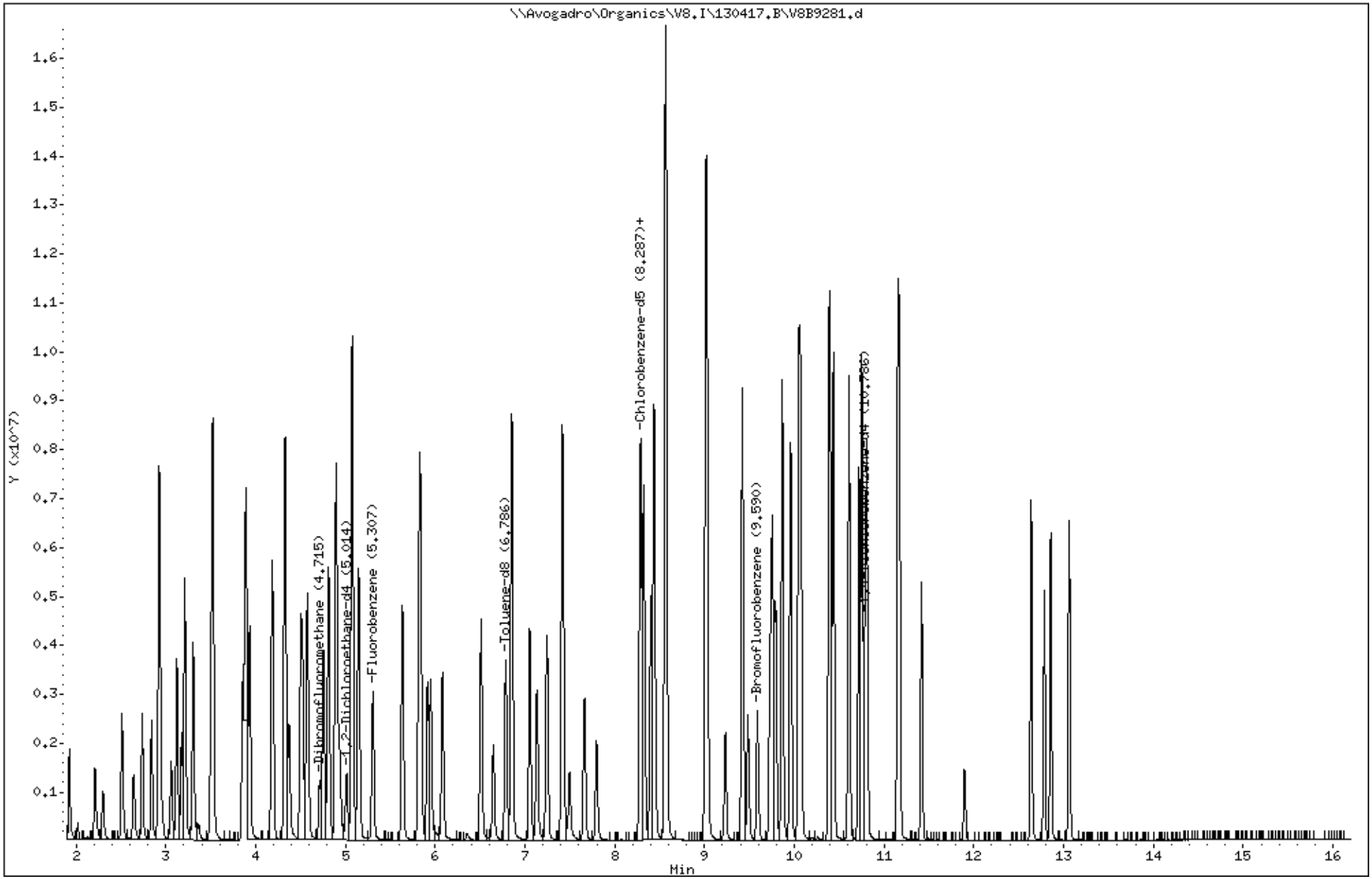
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	22 Methyl tert-butyl ether	73	3.515	3.516	(0.663)	4421618	100.000	100
	23 1,1-Dichloroethane	63	3.856	3.856	(0.727)	2868226	100.000	100
	24 Vinyl acetate	43	3.885	3.885	(0.732)	4641998	100.000	100
	25 Diisopropyl Ether	45	3.895	3.895	(0.734)	5023045	100.000	100
	26 2-Chloro-1,3-Butadiene	53	3.933	3.934	(0.741)	2321394	100.000	100
	27 Ethyl tert-butyl ether	59	4.187	4.188	(0.789)	4856170	100.000	100
	29 2,2-Dichloropropane	77	4.332	4.329	(0.816)	2329300	100.000	100
	28 cis-1,2-Dichloroethene	96	4.326	4.326	(0.815)	1663628	100.000	100
	30 2-Butanone	72	4.326	4.326	(0.815)	190260	100.000	97
	32 Propionitrile	54	4.374	4.371	(0.824)	2212183	1000.00	1000(A)
	33 Methacrylonitrile	41	4.502	4.503	(0.849)	1825100	200.000	210(A)
	34 Bromochloromethane	128	4.525	4.525	(0.853)	763594	100.000	99
	31 Tetrahydrofuran	72	4.570	4.567	(0.861)	398513	200.000	210(A)
	35 Chloroform	83	4.580	4.577	(0.863)	2795457	100.000	100
$	36 Dibromofluoromethane	113	4.715	4.712	(0.889)	660073	50.0000	50
	37 1,1,1-Trichloroethane	97	4.756	4.753	(0.896)	2395459	100.000	100
	38 Cyclohexane	56	4.814	4.811	(0.907)	2510241	100.000	100
	39 1,1-Dichloropropene	110	4.895	4.892	(0.922)	754204	100.000	100
	40 Carbon Tetrachloride	117	4.901	4.901	(0.924)	2043263	100.000	100
	41 Isobutyl Alcohol	43	4.933	4.930	(0.930)	1280509	2000.00	2500(A)
$	42 1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	151699	50.0000	50
	43 Benzene	78	5.075	5.072	(0.956)	6258019	100.000	97
	44 1,2-Dichloroethane	62	5.078	5.078	(0.957)	2286468	100.000	100
	45 tert-Amyl methyl ether	73	5.146	5.146	(0.970)	4325895	100.000	100
M	50 1,2-Dichloroethene (Total)	96				3167151	200.000	200
*	46 Fluorobenzene	96	5.306	5.306	(1.000)	2591614	50.0000	
	47 Trichloroethene	130	5.634	5.634	(1.062)	1534484	100.000	100
	48 Methylcyclohexane	83	5.824	5.821	(1.098)	2397094	100.000	100
	49 1,2-Dichloropropane	63	5.840	5.840	(1.101)	1635473	100.000	100
	51 Methyl Methacrylate	69	5.914	5.914	(1.115)	1275918	100.000	100
	52 Dibromomethane	93	5.949	5.950	(1.121)	1011517	100.000	100
	53 1,4-Dioxane	88	5.953	5.953	(1.122)	354277	2000.00	2100(A)
	54 Bromodichloromethane	83	6.081	6.081	(1.146)	2203571	100.000	100
	55 2-Chloroethyl vinyl ether	63	6.512	6.510	(1.227)	13991	100.000	100(T)
	56 cis-1,3-Dichloropropene	75	6.512	6.509	(1.227)	2701576	100.000	110
	57 4-Methyl-2-pentanone	43	6.647	6.647	(1.253)	1446482	100.000	100
$	58 Toluene-d8	98	6.785	6.786	(0.818)	2526134	50.0000	50
	59 Toluene	91	6.853	6.853	(1.291)	6505084	100.000	85
	60 trans-1,3-Dichloropropene	75	7.052	7.052	(1.329)	2481234	100.000	110
	61 Ethyl Methacrylate	69	7.133	7.133	(1.344)	1698250	100.000	100
	62 1,1,2-Trichloroethane	97	7.245	7.242	(1.365)	1391326	100.000	100
	63 Tetrachloroethene	164	7.416	7.413	(0.894)	1252379	100.000	100
	64 1,3-Dichloropropane	76	7.422	7.422	(0.895)	2467341	100.000	100
	65 2-Hexanone	43	7.496	7.496	(0.904)	1045749	100.000	100
	66 Dibromochloromethane	129	7.663	7.660	(0.924)	1646463	100.000	110
	67 1,2-Dibromoethane	107	7.798	7.795	(0.940)	1513525	100.000	100
	69 1-Chlorohexane	91	8.284	8.281	(0.999)	2082498	100.000	99
*	68 Chlorobenzene-d5	117	8.293	8.290	(1.000)	1908769	50.0000	
	70 Chlorobenzene	112	8.322	8.322	(1.003)	4132014	100.000	100
	71 1,1,1,2-Tetrachloroethane	131	8.406	8.403	(1.014)	1489685	100.000	100
	72 Ethylbenzene	106	8.438	8.438	(1.017)	2163208	100.000	99
	73 m,p-Xylene	106	8.567	8.567	(1.033)	5352594	200.000	190
	74 o-Xylene	106	9.014	9.014	(1.087)	2586759	100.000	97
	75 Styrene	104	9.026	9.027	(1.088)	4482563	100.000	100

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	76	Bromoform	173	9.232	9.232	(1.113)	1085678	100.000	110
	77	Isopropylbenzene	105	9.422	9.422	(1.136)	6645402	100.000	100
	78	trans-1,4-Dichloro-2-butene	75	9.483	9.486	(1.143)	645519	100.000	110
$	79	Bromofluorobenzene	95	9.589	9.589	(1.156)	941223	50.0000	50
	80	1,1,2,2-Tetrachloroethane	83	9.731	9.728	(0.902)	1957822	100.000	100
	81	Bromobenzene	156	9.756	9.753	(0.905)	1740138	100.000	100
	82	1,2,3-Trichloropropane	75	9.785	9.785	(0.907)	2448948	100.000	99
	83	n-Propylbenzene	120	9.866	9.866	(0.915)	1722516	100.000	100
	84	2-Chlorotoluene	126	9.959	9.959	(0.923)	1588182	100.000	100
	85	1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	5392837	100.000	100
	86	4-Chlorotoluene	126	10.071	10.072	(0.934)	1655993	100.000	100
M	94	Xylene (Total)	106				7939353	300.000	290
	87	tert-Butylbenzene	119	10.390	10.387	(0.963)	5408119	100.000	100
	88	1,2,4-Trimethylbenzene	105	10.435	10.435	(0.968)	5435761	100.000	99
	89	sec-Butylbenzene	105	10.608	10.609	(0.984)	6615803	100.000	100
	90	1,3-Dichlorobenzene	146	10.721	10.718	(0.994)	3060716	100.000	100
	91	4-Isopropyltoluene	119	10.753	10.753	(0.997)	5409601	100.000	100
*	92	1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	938191	50.0000	
	93	1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	3172263	100.000	100
	95	n-Butylbenzene	91	11.152	11.152	(1.034)	5075540	100.000	110
	96	1,2-Dichlorobenzene	146	11.171	11.171	(1.036)	3022829	100.000	100
	97	Hexachloroethane	117	11.419	11.416	(1.059)	1088645	100.000	110
	98	1,2-Dibromo-3-chloropropane	75	11.894	11.895	(1.103)	357694	100.000	100
	141	1,3,5-Trichlorobenzene	182	12.640	12.637	(2.382)	1830712	100.000	120(A)
	99	1,2,4-Trichlorobenzene	180	12.640	12.641	(1.172)	1923902	100.000	110
	100	Hexachlorobutadiene	225	12.785	12.785	(1.185)	857102	100.000	100
	101	Naphthalene	128	12.856	12.856	(1.192)	4309056	100.000	120
	102	1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	1775670	100.000	110

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9281.d
Date : 17-APR-2013 15:07
Client ID: VSTD10010K
Instrument: V8.i
Sample Info: 5ML,VSTD10010K,VSTD10010K
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V1 Calibration Date: 05/01/2013 Time: 8:35

Lab File ID: V1M1651.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD0501T Init. Calib. Time(s): 10:29 14:50

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Benzene	1.070	1.089	0.500	1.9	20.0
Toluene	0.975	0.975	0.400	0.1	20.0
Ethylbenzene	0.482	0.476	0.100	-1.2	20.0
m,p-Xylene	0.619	0.619	0.100	-0.1	20.0
o-Xylene	0.591	0.594	0.300	0.4	20.0
Xylene (Total)	0.610	0.610	0.000	0.1	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V1 Calibration Date: 05/01/2013 Time: 8:35

Lab File ID: V1M1651.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD0501T Init. Calib. Time(s): 10:29 14:50

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.238	0.246	0.100	3.3	20.0
1,2-Dichloroethane-d4	0.073	0.074	0.100	1.6	20.0
Toluene-d8	1.277	1.241	0.100	-2.9	20.0
Bromofluorobenzene	0.450	0.443	0.100	-1.4	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V1 Calibration Date: 05/02/2013 Time: 8:09

Lab File ID: V1M1681.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD0501U Init. Calib. Time(s): 10:29 14:50

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Benzene	1.070	1.081	0.500	1.1	20.0
Toluene	0.975	0.952	0.400	-2.3	20.0
Ethylbenzene	0.482	0.491	0.100	1.9	20.0
m,p-Xylene	0.619	0.621	0.100	0.2	20.0
o-Xylene	0.591	0.606	0.300	2.5	20.0
Xylene (Total)	0.610	0.616	0.000	1.0	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V1 Calibration Date: 05/02/2013 Time: 8:09

Lab File ID: V1M1681.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD0501U Init. Calib. Time(s): 10:29 14:50

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.238	0.241	0.100	1.5	20.0
1,2-Dichloroethane-d4	0.073	0.074	0.100	1.8	20.0
Toluene-d8	1.277	1.277	0.100	-0.1	20.0
Bromofluorobenzene	0.450	0.469	0.100	4.4	20.0

7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V10 Calibration Date: 05/02/2013 Time: 8:08

Lab File ID: V8B9531.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD05010S Init. Calib. Time(s): 12:22 15:07

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Benzene	1.250	1.125	0.500	-10.0	20.0
Toluene	1.475	1.142	0.400	-22.5	20.0
Ethylbenzene	0.572	0.465	0.100	-18.7	20.0
m,p-Xylene	0.728	0.586	0.100	-19.4	20.0
o-Xylene	0.695	0.566	0.300	-18.6	20.0
Xylene (Total)	0.717	0.579	0.000	-19.2	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: V10 Calibration Date: 05/02/2013 Time: 8:08

Lab File ID: V8B9531.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(VSTD#####) VSTD05010S Init. Calib. Time(s): 12:22 15:07

Heated Purge: (Y/N) N GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 5.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.253	0.282	0.100	11.5	20.0
1,2-Dichloroethane-d4	0.059	0.060	0.100	1.7	20.0
Toluene-d8	1.328	1.272	0.100	-4.3	20.0
Bromofluorobenzene	0.493	0.523	0.100	6.2	20.0

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1651.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1651.D
Lab Smp Id: VSTD0501T Client Smp ID: VSTD0501T
Inj Date : 01-MAY-2013 08:35
Operator : AM SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD0501T,VSTD0501T
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.305	1.301	(0.285)	34447	50.0000	47(M)M6 AM 05/08
2	Chloromethane	50	1.443	1.429	(0.315)	181797	50.0000	46
3	Vinyl Chloride	62	1.532	1.537	(0.334)	135664	50.0000	47
4	Bromomethane	94	1.768	1.764	(0.386)	68728	50.0000	47
5	Chloroethane	64	1.847	1.842	(0.403)	94527	50.0000	48
6	Trichlorofluoromethane	101	2.024	2.020	(0.442)	84822	50.0000	48
127	Ethanol	46	2.113	2.118	(0.461)	18383	5000.00	970(Q)
7	Ether	59	2.201	2.197	(0.480)	105780	50.0000	49(Q)
8	Acrolein	56	2.280	2.276	(0.497)	106813	250.000	220
9	1,1-Dichloroethene	96	2.389	2.394	(0.521)	112436	50.0000	48
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.408	2.404	(0.525)	115861	50.0000	51
11	Acetone	58	2.389	2.384	(0.521)	17262	50.0000	39
12	Iodomethane	142	2.507	2.512	(0.547)	186239	50.0000	51
13	Carbon Disulfide	76	2.546	2.542	(0.555)	311577	50.0000	48
14	Acetonitrile	40	2.576	2.581	(0.562)	120299	500.000	400(Q)
15	Methyl Acetate	43	2.625	2.620	(0.573)	130731	50.0000	44
16	Methylene Chloride	84	2.704	2.739	(0.590)	136987	50.0000	43
17	tert-Butanol	59	2.773	2.778	(0.605)	15299	100.000	57
18	Acrylonitrile	53	2.871	2.867	(0.626)	48622	50.0000	45
20	Methyl tert-butyl ether	73	2.911	2.906	(0.635)	252629	50.0000	49

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	19	trans-1,2-Dichloroethene	96	2.911	2.906	(0.635)	121962	50.0000	50
	21	1,1-Dichloroethane	63	3.216	3.211	(0.701)	231127	50.0000	50
	22	Vinyl acetate	43	3.246	3.251	(0.708)	482041	50.0000	48
	23	Diisopropyl Ether	45	3.265	3.271	(0.712)	610301	50.0000	50
	24	Ethyl tert-butyl ether	59	3.541	3.546	(0.772)	368376	50.0000	48
M	27	1,2-dichloroethene, (Total)	100				249257	100.000	100
	25	cis-1,2-Dichloroethene	96	3.649	3.655	(0.796)	127295	50.0000	50
	26	2,2-Dichloropropane	77	3.659	3.655	(0.798)	70859	50.0000	51
	28	2-Butanone	72	3.659	3.655	(0.798)	12161	50.0000	40(Q)
	29	Bromochloromethane	128	3.837	3.842	(0.837)	63299	50.0000	54
	30	Tetrahydrofuran	72	3.876	3.881	(0.845)	23379	100.000	85
	31	Chloroform	83	3.896	3.901	(0.850)	170872	50.0000	50
$	32	Dibromofluoromethane	113	4.024	4.029	(0.878)	105580	50.0000	52
	33	1,1,1-Trichloroethane	97	4.053	4.058	(0.884)	105109	50.0000	50
	34	Cyclohexane	56	4.112	4.118	(0.897)	260558	50.0000	49
	36	Carbon Tetrachloride	117	4.201	4.196	(0.916)	102512	50.0000	50
	35	1,1-Dichloropropene	110	4.191	4.187	(0.914)	54771	50.0000	52
$	37	1,2-Dichloroethane-d4	102	4.299	4.305	(0.938)	31691	50.0000	51
	38	Benzene	78	4.359	4.364	(0.951)	468522	50.0000	51
	39	1,2-Dichloroethane	62	4.359	4.364	(0.951)	113704	50.0000	50
	40	tert-Amyl methyl ether	73	4.447	4.452	(0.970)	272169	50.0000	47
*	41	Fluorobenzene	96	4.585	4.590	(1.000)	430046	50.0000	
	42	Trichloroethene	130	4.900	4.906	(1.069)	117937	50.0000	50
	43	Methylcyclohexane	83	5.087	5.093	(1.110)	197178	50.0000	51
	44	1,2-Dichloropropane	63	5.087	5.093	(1.110)	133670	50.0000	50
	46	Dibromomethane	93	5.196	5.201	(1.133)	60971	50.0000	50
	47	1,4-Dioxane	88	5.206	5.211	(1.135)	2341	1000.00	99(Q)
	48	Bromodichloromethane	83	5.334	5.339	(1.163)	125555	50.0000	52
	45	2-Chloroethyl vinyl ether	63	5.609	5.615	(1.223)	16111	50.0000	22
	49	cis-1,3-Dichloropropene	75	5.747	5.753	(1.253)	185109	50.0000	52
	50	4-Methyl-2-pentanone	43	5.895	5.900	(1.286)	127974	50.0000	42
$	51	Toluene-d8	98	6.013	6.019	(0.805)	381178	50.0000	48
	52	Toluene	91	6.082	6.078	(1.326)	419341	50.0000	50
	53	trans-1,3-Dichloropropene	75	6.279	6.284	(1.369)	144119	50.0000	52
	54	1,1,2-Trichloroethane	97	6.466	6.462	(1.410)	85445	50.0000	51
	55	Tetrachloroethene	164	6.624	6.629	(0.887)	85166	50.0000	52
	56	1,3-Dichloropropane	76	6.634	6.629	(0.888)	159267	50.0000	48
	57	2-Hexanone	43	6.722	6.728	(0.900)	94764	50.0000	38
	58	Dibromochloromethane	129	6.860	6.866	(0.918)	97318	50.0000	53
	59	1,2-Dibromoethane	107	6.979	6.974	(0.934)	89927	50.0000	48
*	60	Chlorobenzene-d5	117	7.471	7.476	(1.000)	307276	50.0000	
	63	1-Chlorohexane	91	7.491	7.496	(1.003)	170855	50.0000	50
	61	Chlorobenzene	112	7.501	7.506	(1.004)	287360	50.0000	49
	62	1,1,1,2-Tetrachloroethane	131	7.589	7.594	(1.016)	100053	50.0000	51
	64	Ethylbenzene	106	7.629	7.634	(1.021)	146174	50.0000	49
	65	m,p-Xylene	106	7.757	7.762	(1.038)	380374	100.000	100
	66	o-Xylene	106	8.190	8.185	(1.096)	182380	50.0000	50
	67	Styrene	104	8.200	8.205	(1.098)	319673	50.0000	49
	68	Bromoform	173	8.387	8.382	(1.123)	53345	50.0000	54
	69	Isopropylbenzene	105	8.604	8.609	(1.152)	460107	50.0000	50
	126	trans-1,4-Dichloro-2-butene	75	8.663	8.668	(1.160)	36648	50.0000	55
$	70	Bromofluorobenzene	95	8.761	8.757	(1.173)	136237	50.0000	49
	72	Bromobenzene	156	8.929	8.924	(0.890)	111170	50.0000	48
	71	1,1,2,2-Tetrachloroethane	83	8.929	8.924	(0.890)	118069	50.0000	43

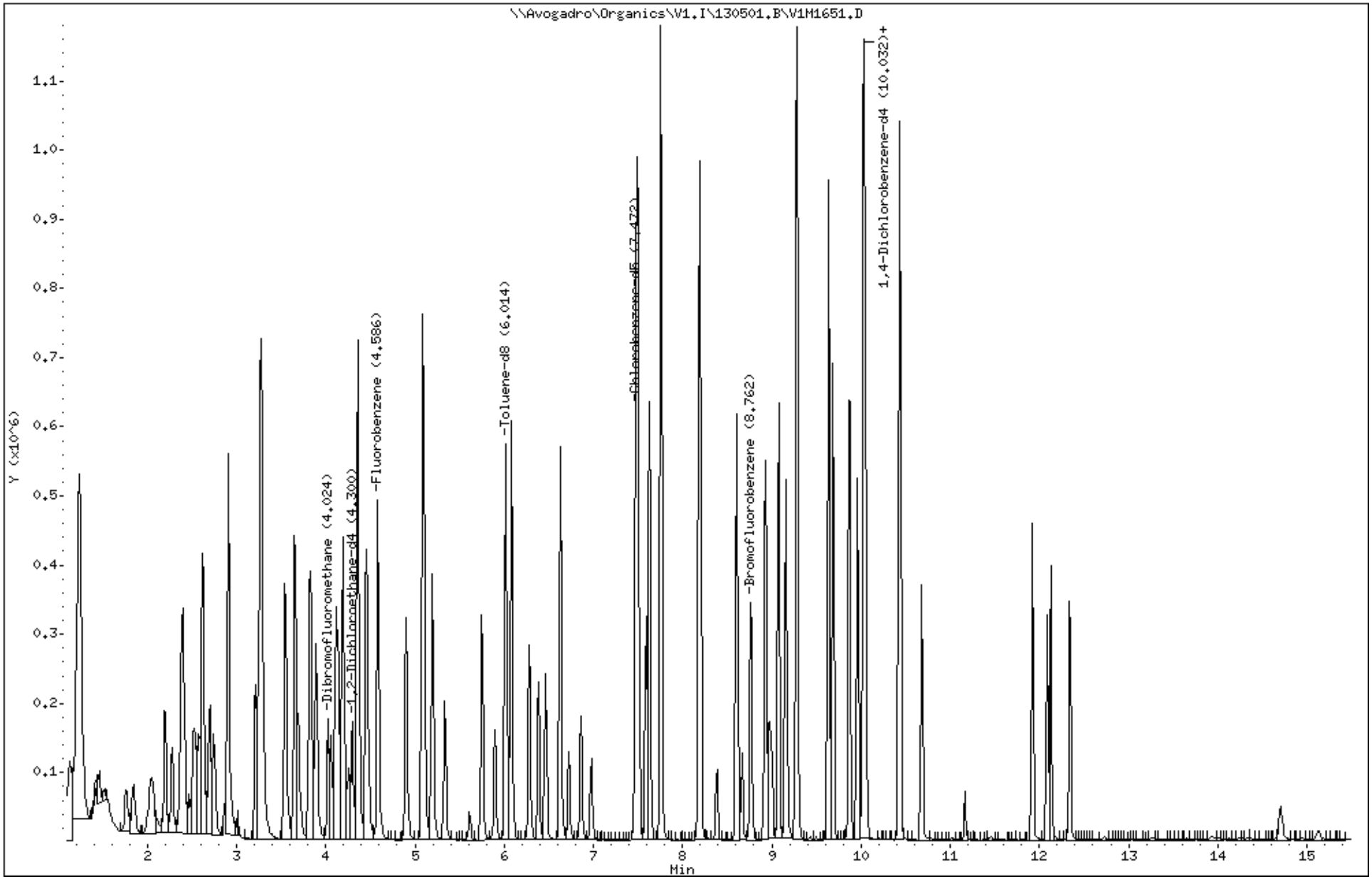
Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1651.D
Report Date: 08-May-2013 11:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
73	1,2,3-Trichloropropane	75	8.978	8.964	(0.895)	121673	50.0000	46
74	n-Propylbenzene	120	8.604	8.609	(0.858)	122278	50.0000	49
75	2-Chlorotoluene	126	9.155	9.151	(0.913)	111180	50.0000	48
76	1,3,5-Trimethylbenzene	105	9.283	9.279	(0.925)	362776	50.0000	48
77	4-Chlorotoluene	126	9.283	9.279	(0.925)	114590	50.0000	48
78	tert-Butylbenzene	119	9.638	9.623	(0.961)	382911	50.0000	49
79	1,2,4-Trimethylbenzene	105	9.687	9.683	(0.966)	367634	50.0000	48
M 81	Xylene (Total)	106				562754	150.000	150
80	sec-Butylbenzene	105	9.874	9.860	(0.984)	514925	50.0000	49
82	1,3-Dichlorobenzene	146	9.963	9.958	(0.993)	221256	50.0000	49
83	4-Isopropyltoluene	119	10.022	10.017	(0.999)	400686	50.0000	49
* 84	1,4-Dichlorobenzene-d4	152	10.032	10.027	(1.000)	137170	50.0000	
85	1,4-Dichlorobenzene	146	10.052	10.047	(1.002)	221753	50.0000	48
86	n-Butylbenzene	91	10.436	10.431	(1.040)	379363	50.0000	50
87	1,2-Dichlorobenzene	146	10.426	10.421	(1.039)	207452	50.0000	50
88	1,2-Dibromo-3-chloropropane	75	11.165	11.160	(1.113)	13512	50.0000	50
89	1,2,4-Trichlorobenzene	180	11.923	11.918	(1.189)	126543	50.0000	55
90	Hexachlorobutadiene	225	12.090	12.086	(1.205)	63358	50.0000	61
91	Naphthalene	128	12.130	12.125	(1.209)	273663	50.0000	48
92	1,2,3-Trichlorobenzene	180	12.337	12.342	(1.230)	103869	50.0000	54

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1651.D
Date : 01-MAY-2013 08:35
Client ID: VSTD0501T
Instrument: V1.i
Sample Info: 5ML,VSTD0501T,VSTD0501T
Operator: AM SRC: AM
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1681.D
Report Date: 08-May-2013 11:57

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1681.D
Lab Smp Id: VSTD0501U Client Smp ID: VSTD0501U
Inj Date : 02-MAY-2013 08:09
Operator : AM   SRC: AM Inst ID: V1.i
Smp Info : 5ML,VSTD0501U,VSTD0501U
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

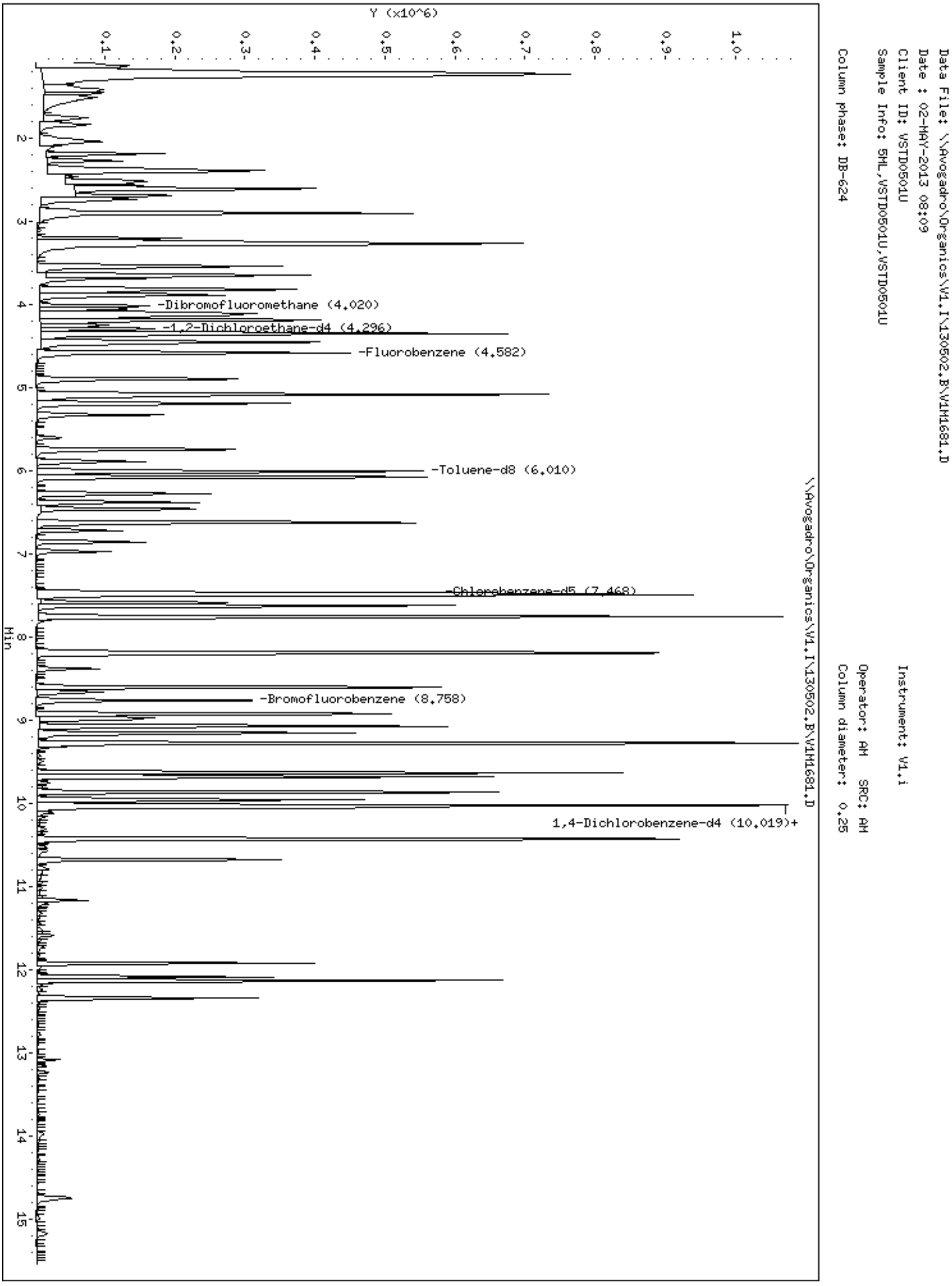
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.114	1.295	(0.243)	651	50.0000	0.9(aQ)
2	Chloromethane	50	1.429	1.433	(0.312)	176585	50.0000	48
3	Vinyl Chloride	62	1.528	1.522	(0.334)	134951	50.0000	49
4	Bromomethane	94	1.764	1.778	(0.385)	67613	50.0000	49
5	Chloroethane	64	1.843	1.867	(0.402)	96932	50.0000	52
6	Trichlorofluoromethane	101	2.020	2.034	(0.441)	81436	50.0000	49
127	Ethanol	46	2.119	2.113	(0.463)	10273	5000.00	570(Q)
7	Ether	59	2.198	2.202	(0.480)	104871	50.0000	52(Q)
8	Acrolein	56	2.277	2.280	(0.497)	104243	250.000	220
9	1,1-Dichloroethene	96	2.395	2.369	(0.523)	105782	50.0000	48
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.405	2.418	(0.525)	105815	50.0000	49
11	Acetone	58	2.385	2.389	(0.521)	16607	50.0000	40(Q)
12	Iodomethane	142	2.513	2.517	(0.549)	169924	50.0000	49
13	Carbon Disulfide	76	2.542	2.527	(0.555)	302627	50.0000	49
14	Acetonitrile	40	2.582	2.615	(0.564)	113346	500.000	400(Q)
15	Methyl Acetate	43	2.621	2.625	(0.572)	131359	50.0000	47
16	Methylene Chloride	84	2.700	2.704	(0.589)	134456	50.0000	45
17	tert-Butanol	59	2.769	2.773	(0.604)	15720	100.000	62
18	Acrylonitrile	53	2.868	2.871	(0.626)	50130	50.0000	49
20	Methyl tert-butyl ether	73	2.907	2.911	(0.635)	242965	50.0000	49

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	19	trans-1,2-Dichloroethene	96	2.907	2.911	(0.635)	113214	50.0000	49
	21	1,1-Dichloroethane	63	3.212	3.216	(0.701)	217535	50.0000	49
	22	Vinyl acetate	43	3.242	3.246	(0.708)	467635	50.0000	50
	23	Diisopropyl Ether	45	3.271	3.275	(0.714)	601642	50.0000	52
	24	Ethyl tert-butyl ether	59	3.547	3.541	(0.774)	338867	50.0000	46
M	27	1,2-dichloroethene, (Total)	100				233322	100.000	99
	25	cis-1,2-Dichloroethene	96	3.646	3.649	(0.796)	120108	50.0000	50
	26	2,2-Dichloropropane	77	3.655	3.659	(0.798)	60863	50.0000	46
	28	2-Butanone	72	3.655	3.649	(0.798)	11934	50.0000	42(Q)
	29	Bromochloromethane	128	3.833	3.837	(0.837)	55668	50.0000	50
	30	Tetrahydrofuran	72	3.882	3.876	(0.847)	23488	100.000	90
	31	Chloroform	83	3.892	3.896	(0.850)	156554	50.0000	49
$	32	Dibromofluoromethane	113	4.020	4.024	(0.877)	98379	50.0000	51
	33	1,1,1-Trichloroethane	97	4.059	4.063	(0.886)	96516	50.0000	48
	34	Cyclohexane	56	4.118	4.112	(0.899)	262499	50.0000	52
	36	Carbon Tetrachloride	117	4.197	4.201	(0.916)	94291	50.0000	49
	35	1,1-Dichloropropene	110	4.187	4.191	(0.914)	49275	50.0000	50
$	37	1,2-Dichloroethane-d4	102	4.296	4.300	(0.938)	30116	50.0000	51
	38	Benzene	78	4.355	4.359	(0.951)	440941	50.0000	50
	39	1,2-Dichloroethane	62	4.355	4.359	(0.951)	103766	50.0000	48
	40	tert-Amyl methyl ether	73	4.453	4.457	(0.972)	259043	50.0000	47
*	41	Fluorobenzene	96	4.581	4.585	(1.000)	407958	50.0000	
	42	Trichloroethene	130	4.897	4.900	(1.069)	106642	50.0000	48
	43	Methylcyclohexane	83	5.084	5.088	(1.110)	190786	50.0000	52
	44	1,2-Dichloropropane	63	5.094	5.097	(1.112)	126434	50.0000	50
	46	Dibromomethane	93	5.192	5.196	(1.133)	55180	50.0000	47
	47	1,4-Dioxane	88	5.202	5.206	(1.135)	1905	1000.00	85(Q)
	48	Bromodichloromethane	83	5.330	5.334	(1.163)	115564	50.0000	50
	45	2-Chloroethyl vinyl ether	63	5.606	5.610	(1.224)	16737	50.0000	24
	49	cis-1,3-Dichloropropene	75	5.744	5.747	(1.254)	169663	50.0000	50
	50	4-Methyl-2-pentanone	43	5.891	5.895	(1.286)	126301	50.0000	44
$	51	Toluene-d8	98	6.010	6.013	(0.805)	357965	50.0000	50
	52	Toluene	91	6.079	6.082	(1.327)	388396	50.0000	49
	53	trans-1,3-Dichloropropene	75	6.275	6.279	(1.370)	136056	50.0000	52
	54	1,1,2-Trichloroethane	97	6.463	6.466	(1.411)	77129	50.0000	49
	55	Tetrachloroethene	164	6.630	6.634	(0.888)	76466	50.0000	51
	56	1,3-Dichloropropane	76	6.630	6.634	(0.888)	153279	50.0000	51
	57	2-Hexanone	43	6.719	6.723	(0.900)	93657	50.0000	41
	58	Dibromochloromethane	129	6.857	6.870	(0.918)	87054	50.0000	52
	59	1,2-Dibromoethane	107	6.975	6.979	(0.934)	82724	50.0000	48
*	60	Chlorobenzene-d5	117	7.467	7.471	(1.000)	280419	50.0000	
	63	1-Chlorohexane	91	7.487	7.491	(1.003)	157245	50.0000	50
	61	Chlorobenzene	112	7.497	7.501	(1.004)	258244	50.0000	48
	62	1,1,1,2-Tetrachloroethane	131	7.585	7.589	(1.016)	91603	50.0000	51
	64	Ethylbenzene	106	7.625	7.629	(1.021)	137601	50.0000	51
	65	m,p-Xylene	106	7.753	7.757	(1.038)	348167	100.000	100
	66	o-Xylene	106	8.186	8.190	(1.096)	169859	50.0000	51
	67	Styrene	104	8.196	8.200	(1.098)	287435	50.0000	49
	68	Bromoform	173	8.383	8.387	(1.123)	43946	50.0000	49
	69	Isopropylbenzene	105	8.600	8.604	(1.152)	422757	50.0000	51
	126	trans-1,4-Dichloro-2-butene	75	8.669	8.663	(1.161)	28701	50.0000	48
$	70	Bromofluorobenzene	95	8.758	8.761	(1.173)	131627	50.0000	52
	72	Bromobenzene	156	8.925	8.929	(0.890)	97984	50.0000	46
	71	1,1,2,2-Tetrachloroethane	83	8.925	8.929	(0.890)	109926	50.0000	44

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	73	1,2,3-Trichloropropane	75	8.964	8.978	(0.894)	109907	50.0000	45
	74	n-Propylbenzene	120	8.600	8.614	(0.858)	113396	50.0000	50
	75	2-Chlorotoluene	126	9.152	9.155	(0.913)	105574	50.0000	50
	76	1,3,5-Trimethylbenzene	105	9.280	9.283	(0.925)	337222	50.0000	49
	77	4-Chlorotoluene	126	9.280	9.283	(0.925)	102254	50.0000	47
	78	tert-Butylbenzene	119	9.634	9.628	(0.961)	354724	50.0000	50
	79	1,2,4-Trimethylbenzene	105	9.683	9.687	(0.966)	355982	50.0000	50
M	81	Xylene (Total)	106				518026	150.000	150
	80	sec-Butylbenzene	105	9.861	9.865	(0.983)	482676	50.0000	50
	82	1,3-Dichlorobenzene	146	9.959	9.963	(0.993)	201308	50.0000	49
	83	4-Isopropyltoluene	119	10.018	10.022	(0.999)	379342	50.0000	51
*	84	1,4-Dichlorobenzene-d4	152	10.028	10.032	(1.000)	126057	50.0000	
	85	1,4-Dichlorobenzene	146	10.048	10.052	(1.002)	195522	50.0000	46
	86	n-Butylbenzene	91	10.432	10.436	(1.040)	354795	50.0000	51
	87	1,2-Dichlorobenzene	146	10.422	10.426	(1.039)	182816	50.0000	48
	88	1,2-Dibromo-3-chloropropane	75	11.161	11.165	(1.113)	12144	50.0000	48
	89	1,2,4-Trichlorobenzene	180	11.919	11.923	(1.189)	111603	50.0000	53
	90	Hexachlorobutadiene	225	12.087	12.091	(1.205)	55075	50.0000	58
	91	Naphthalene	128	12.126	12.130	(1.209)	463605	50.0000	88
	92	1,2,3-Trichlorobenzene	180	12.343	12.347	(1.231)	90774	50.0000	52

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.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Date : 02-MAY-2013 08:09
Client ID: VSTD0501U
Sample Info: 5ML,VSTD0501U,VSTD0501U
Column phase: DB-624
Instrument: V1.i
Operator: AM SRC: AM
Column diameter: 0.25
Y (x10^6)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Min
-Dibromofluoromethane (4.020)
-1,2-Dichloroethane-d4 (4.296)
-Fluorobenzene (4.582)
-Toluene-d8 (6.010)
-Chlorobenzene-d5 (7.468)
-Bromofluorobenzene (8.758)
1,4-Dichlorobenzene-d4 (10.019)+
\\Avogadro\Organics\V1.i\130502.B\V1M1681.D

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9531.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9531.d
Lab Smp Id: VSTD05010S Client Smp ID: VSTD05010S
Inj Date : 02-MAY-2013 08:08
Operator : V10   SRC: V10 Inst ID: V8.i
Smp Info : 5ML,VSTD05010S,VSTD05010S
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * 5/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.654	1.654	(0.312)	352976	50.0000	50
2	Freon114	85	1.773	1.773	(0.334)	431621	50.0000	47
3	Chloromethane	50	1.824	1.828	(0.344)	429104	50.0000	44
4	Vinyl Chloride	62	1.924	1.924	(0.363)	506453	50.0000	53
5	Bromomethane	94	2.213	2.213	(0.417)	312424	50.0000	48
6	Chloroethane	64	2.300	2.300	(0.433)	318649	50.0000	61
7	Trichlorofluoromethane	101	2.512	2.512	(0.473)	812618	50.0000	69
126	Ethanol	46	2.638	2.638	(0.497)	211134	5000.00	6400(AQ)
8	Ether	59	2.737	2.737	(0.516)	410541	50.0000	52
9	Acrolein	56	2.840	2.840	(0.535)	515508	250.000	230
10	1,1-Dichloroethene	96	2.930	2.930	(0.552)	421378	50.0000	47
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.924	2.924	(0.551)	451376	50.0000	51
12	Acetone	58	2.959	2.963	(0.558)	68799	50.0000	52
13	Iodomethane	142	3.059	3.059	(0.576)	247838	50.0000	27
14	Carbon Disulfide	76	3.120	3.123	(0.588)	1383676	50.0000	46
15	Acetonitrile	41	3.210	3.210	(0.605)	865199	500.000	490(A)
16	Allyl Chloride	39	3.210	3.213	(0.605)	592933	50.0000	52
17	Methyl Acetate	43	3.216	3.217	(0.606)	436278	50.0000	50
18	Methylene Chloride	84	3.306	3.307	(0.623)	512228	50.0000	45
19	tert-Butanol	59	3.361	3.364	(0.633)	79758	100.000	88
20	Acrylonitrile	53	3.493	3.496	(0.658)	179703	50.0000	49
21	trans-1,2-Dichloroethene	96	3.525	3.528	(0.664)	453157	50.0000	47

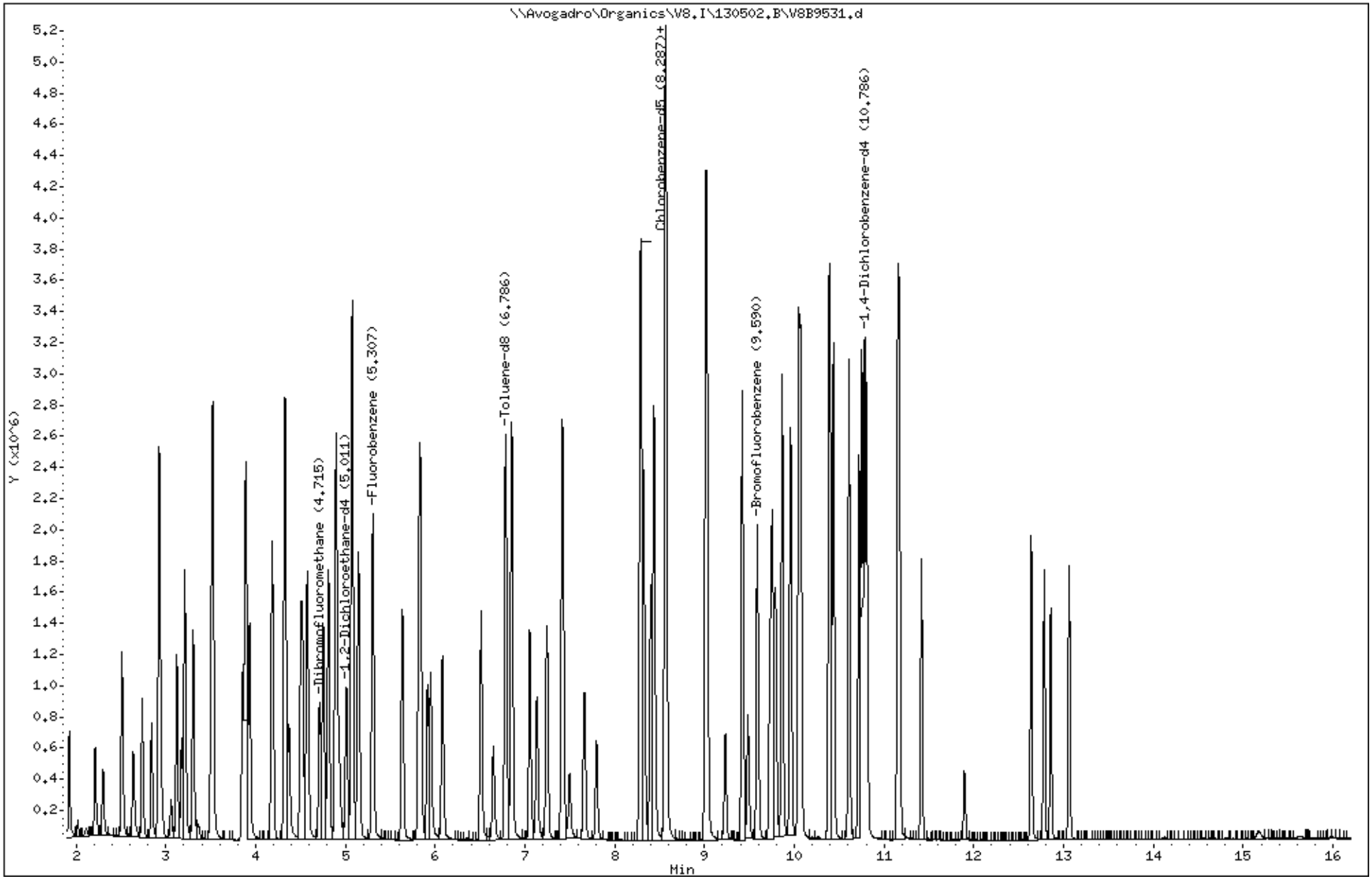
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	22 Methyl tert-butyl ether	73	3.515	3.519	(0.663)	1402301	50.0000	50
	23 1,1-Dichloroethane	63	3.856	3.856	(0.727)	928053	50.0000	50
	24 Vinyl acetate	43	3.885	3.885	(0.732)	1481455	50.0000	52
	25 Diisopropyl Ether	45	3.895	3.895	(0.734)	1643705	50.0000	51
	26 2-Chloro-1,3-Butadiene	53	3.933	3.934	(0.741)	752836	50.0000	51
	27 Ethyl tert-butyl ether	59	4.187	4.184	(0.789)	1528082	50.0000	50
	29 2,2-Dichloropropane	77	4.329	4.332	(0.816)	828403	50.0000	56
	28 cis-1,2-Dichloroethene	96	4.326	4.326	(0.815)	508484	50.0000	47
	30 2-Butanone	72	4.326	4.329	(0.815)	61656	50.0000	48
	32 Propionitrile	54	4.371	4.371	(0.824)	654195	500.000	470(A)
	33 Methacrylonitrile	41	4.502	4.503	(0.849)	587514	100.000	100
	34 Bromochloromethane	128	4.525	4.525	(0.853)	250454	50.0000	50
	31 Tetrahydrofuran	72	4.570	4.567	(0.861)	114312	100.000	92
	35 Chloroform	83	4.580	4.580	(0.863)	982375	50.0000	54
$	36 Dibromofluoromethane	113	4.715	4.715	(0.889)	476192	50.0000	56
	37 1,1,1-Trichloroethane	97	4.753	4.757	(0.896)	829759	50.0000	54
	38 Cyclohexane	56	4.811	4.811	(0.907)	735881	50.0000	46
	39 1,1-Dichloropropene	110	4.892	4.895	(0.922)	218922	50.0000	46
	40 Carbon Tetrachloride	117	4.898	4.898	(0.923)	712417	50.0000	56
	41 Isobutyl Alcohol	43	4.930	4.930	(0.929)	345343	1000.00	1000(A)
$	42 1,2-Dichloroethane-d4	102	5.010	5.014	(0.944)	100471	50.0000	51
	43 Benzene	78	5.075	5.075	(0.956)	1896269	50.0000	45
	44 1,2-Dichloroethane	62	5.078	5.078	(0.957)	858728	50.0000	58
	45 tert-Amyl methyl ether	73	5.146	5.146	(0.970)	1315468	50.0000	48
M	50 1,2-Dichloroethene (Total)	96				961641	100.000	94
*	46 Fluorobenzene	96	5.306	5.306	(1.000)	1686050	50.0000	
	47 Trichloroethene	130	5.634	5.634	(1.062)	445504	50.0000	46
	48 Methylcyclohexane	83	5.824	5.824	(1.098)	689200	50.0000	46
	49 1,2-Dichloropropane	63	5.840	5.840	(1.101)	514020	50.0000	49
	51 Methyl Methacrylate	69	5.914	5.914	(1.115)	363379	50.0000	46
	52 Dibromomethane	93	5.949	5.950	(1.121)	340432	50.0000	53
	53 1,4-Dioxane	88	5.949	5.950	(1.121)	102434	1000.00	920(A)
	54 Bromodichloromethane	83	6.081	6.081	(1.146)	756570	50.0000	55
	55 2-Chloroethyl vinyl ether	63	6.509	6.512	(1.227)	4902	50.0000	55(T)
	56 cis-1,3-Dichloropropene	75	6.512	6.509	(1.227)	817749	50.0000	50
	57 4-Methyl-2-pentanone	43	6.647	6.647	(1.253)	427702	50.0000	47
$	58 Toluene-d8	98	6.785	6.786	(0.818)	1715422	50.0000	48
	59 Toluene	91	6.853	6.853	(1.291)	1926126	50.0000	39
	60 trans-1,3-Dichloropropene	75	7.052	7.052	(1.329)	782675	50.0000	52
	61 Ethyl Methacrylate	69	7.133	7.133	(1.344)	488294	50.0000	46
	62 1,1,2-Trichloroethane	97	7.245	7.245	(1.365)	441271	50.0000	49
	63 Tetrachloroethene	164	7.416	7.416	(0.895)	360743	50.0000	41
	64 1,3-Dichloropropane	76	7.422	7.422	(0.895)	783233	50.0000	46
	65 2-Hexanone	43	7.496	7.496	(0.904)	334137	50.0000	46
	66 Dibromochloromethane	129	7.663	7.660	(0.924)	531933	50.0000	49
	67 1,2-Dibromoethane	107	7.795	7.798	(0.940)	468288	50.0000	45
	69 1-Chlorohexane	91	8.284	8.284	(0.999)	579020	50.0000	39
*	68 Chlorobenzene-d5	117	8.290	8.290	(1.000)	1348990	50.0000	
	70 Chlorobenzene	112	8.322	8.322	(1.004)	1244723	50.0000	43
	71 1,1,1,2-Tetrachloroethane	131	8.403	8.406	(1.014)	478092	50.0000	47
	72 Ethylbenzene	106	8.438	8.438	(1.018)	626814	50.0000	41
	73 m,p-Xylene	106	8.567	8.567	(1.033)	1582058	100.000	80
	74 o-Xylene	106	9.014	9.014	(1.087)	763072	50.0000	41
	75 Styrene	104	9.026	9.027	(1.089)	1318216	50.0000	43

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	76	Bromoform	173	9.232	9.232	(1.114)	327561	50.0000	47
	77	Isopropylbenzene	105	9.422	9.422	(1.137)	1944300	50.0000	43
	78	trans-1,4-Dichloro-2-butene	75	9.486	9.486	(1.144)	177821	50.0000	43
$	79	Bromofluorobenzene	95	9.589	9.589	(1.157)	706019	50.0000	53
	80	1,1,2,2-Tetrachloroethane	83	9.727	9.731	(0.902)	614905	50.0000	42
	81	Bromobenzene	156	9.753	9.753	(0.905)	526995	50.0000	41
	82	1,2,3-Trichloropropane	75	9.788	9.785	(0.908)	776849	50.0000	42
	83	n-Propylbenzene	120	9.866	9.866	(0.915)	498893	50.0000	40
	84	2-Chlorotoluene	126	9.959	9.959	(0.924)	478442	50.0000	40
	85	1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	1651665	50.0000	41
	86	4-Chlorotoluene	126	10.071	10.072	(0.934)	507688	50.0000	42
M	94	Xylene (Total)	106				2345130	150.000	120
	87	tert-Butylbenzene	119	10.390	10.387	(0.964)	1640392	50.0000	42
	88	1,2,4-Trimethylbenzene	105	10.435	10.435	(0.968)	1696197	50.0000	42
	89	sec-Butylbenzene	105	10.608	10.609	(0.984)	2029823	50.0000	42
	90	1,3-Dichlorobenzene	146	10.718	10.721	(0.994)	943505	50.0000	42
	91	4-Isopropyltoluene	119	10.750	10.753	(0.997)	1659527	50.0000	43
*	92	1,4-Dichlorobenzene-d4	152	10.782	10.782	(1.000)	699211	50.0000	
	93	1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	984731	50.0000	42
	95	n-Butylbenzene	91	11.152	11.155	(1.034)	1593249	50.0000	46
	96	1,2-Dichlorobenzene	146	11.171	11.171	(1.036)	948909	50.0000	43
	97	Hexachloroethane	117	11.415	11.416	(1.059)	338955	50.0000	45
	98	1,2-Dibromo-3-chloropropane	75	11.894	11.895	(1.103)	109638	50.0000	42
	141	1,3,5-Trichlorobenzene	182	12.640	12.641	(2.382)	486725	50.0000	47(A)
	99	1,2,4-Trichlorobenzene	180	12.640	12.641	(1.172)	509921	50.0000	41
	100	Hexachlorobutadiene	225	12.785	12.785	(1.186)	273629	50.0000	44
	101	Naphthalene	128	12.856	12.856	(1.192)	948903	50.0000	34
	102	1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	445091	50.0000	38

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9531.d
Date : 02-MAY-2013 08:08
Client ID: VSTD05010S
Instrument: V8.i
Sample Info: 5ML,VSTD05010S,VSTD05010S
Purge Volume: 5.0
Operator: V10 SRC: V10
Column phase: DB-624
Column diameter: 0.25



Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V1.I\130417.B\V1M1544.D
Lab Smp Id: BFB1O Client Smp ID: BFB1O
Inj Date : 17-APR-2013 09:05
Operator : AM SRC: AM Inst ID: V1.i
Smp Info : 5ML,BFB1O,BFB1O
Misc Info :
Comment :
Method : \\Avogadro\Organics\V1.I\130417.B\bfb8260.m
Meth Date : 15-Mar-2013 08:02 amarquis Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: SOIL

Concentration Formula: Amt * DF * Uf * Vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
4.595	4.600	(0.000)	95	45291			0.00- 100.00	100.00
4.595	4.600	(0.000)	50	8564			15.00- 40.00	18.91
4.595	4.600	(0.000)	75	17174			30.00- 60.00	37.92
4.595	4.600	(0.000)	96	2980			5.00- 9.00	6.58
4.595	4.600	(0.000)	173	33			0.00- 2.00	0.10
4.595	4.600	(0.000)	174	33137			50.00- 0.00	73.16
4.595	4.600	(0.000)	175	2602			5.00- 9.00	7.85
4.595	4.600	(0.000)	176	32923			95.00- 101.00	99.35
4.595	4.600	(0.000)	177	2147			5.00- 9.00	6.52

Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1544.D

Date : 17-APR-2013 09:05

Client ID: BFB10

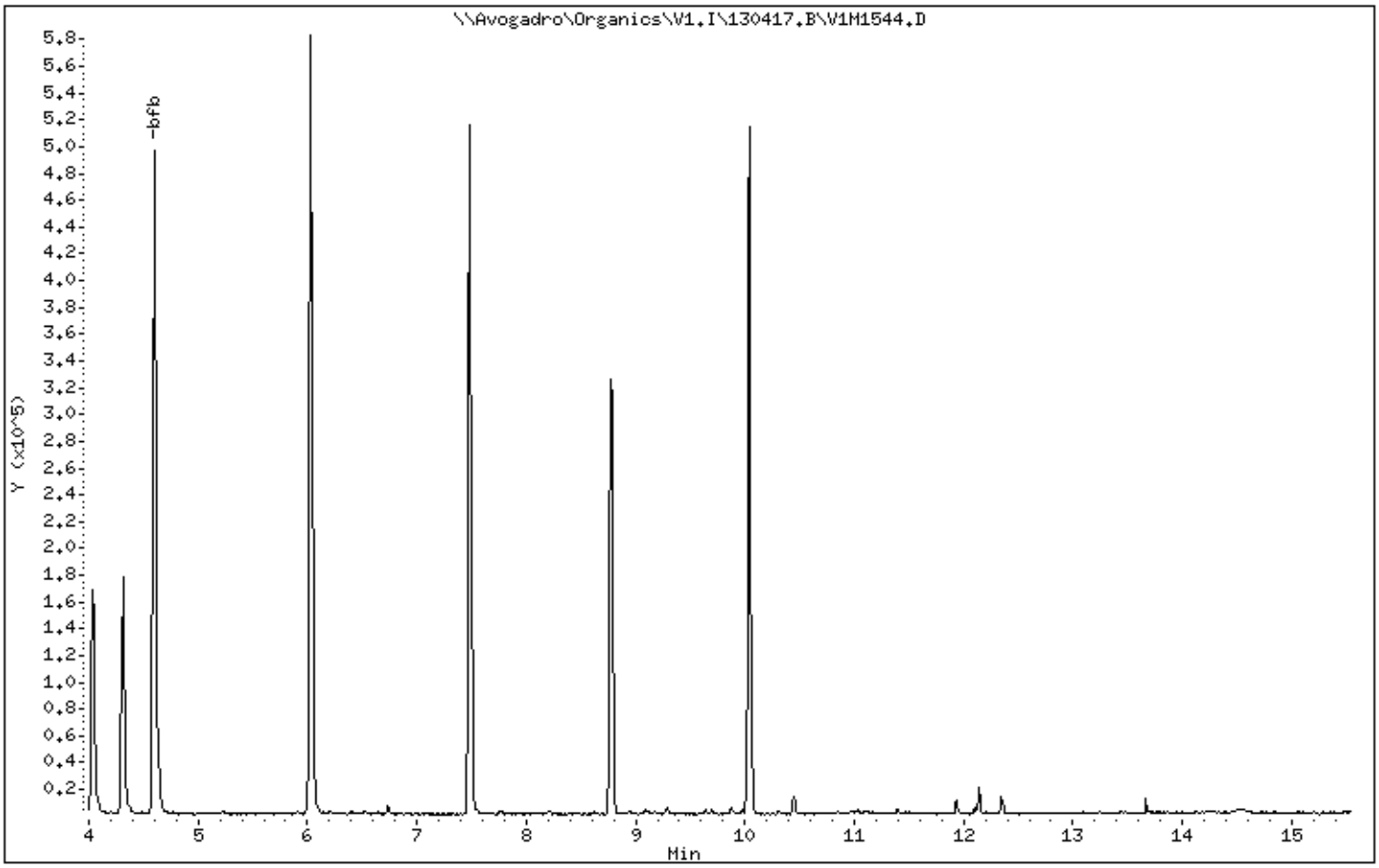
Instrument: V1.i

Sample Info: 5ML,BFB10,BFB10

Operator: AM SRC: AM

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130417.B\V1M1544.D

Date : 17-APR-2013 09:05

Client ID: BFB10

Instrument: V1.i

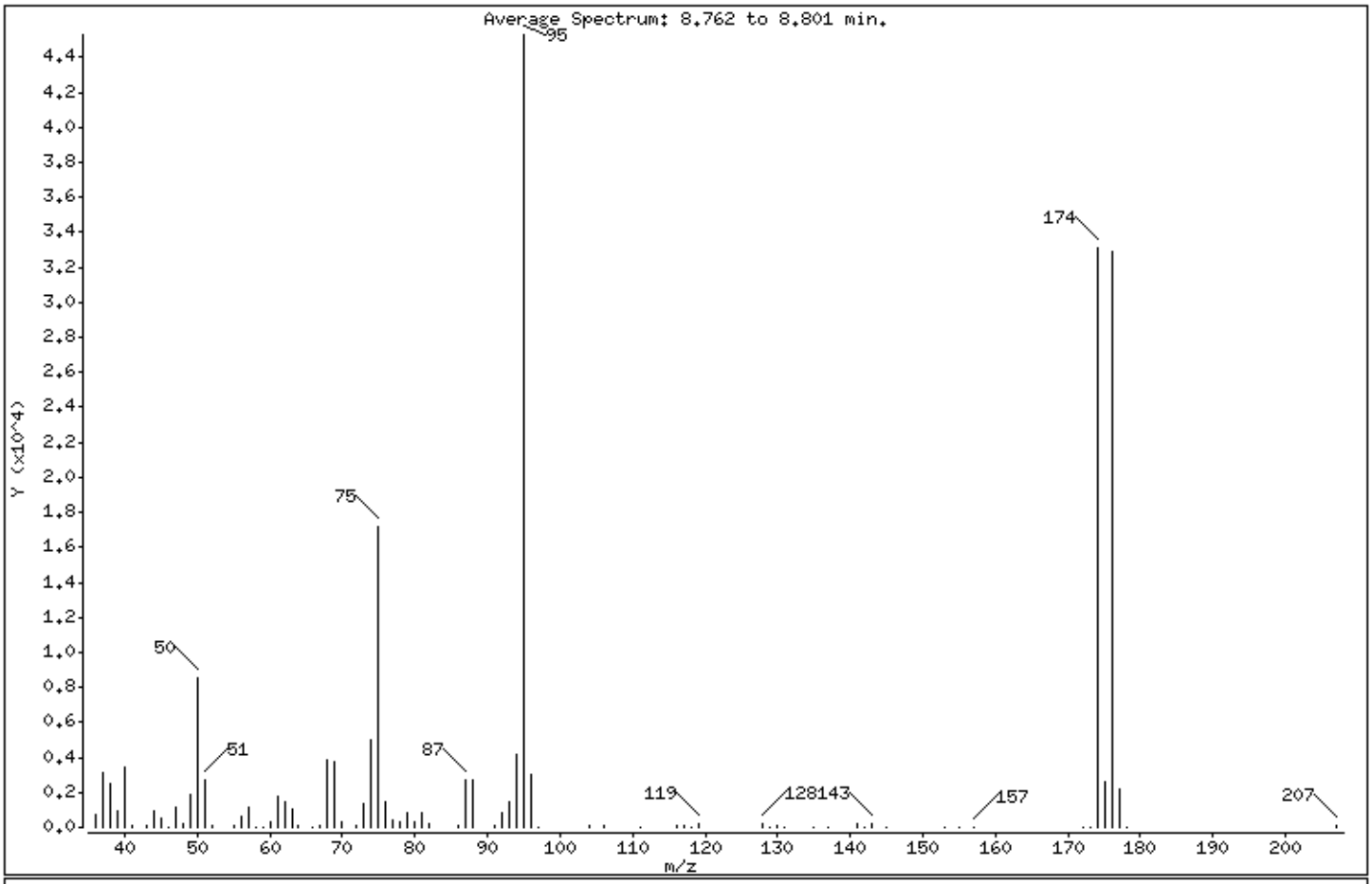
Sample Info: 5ML,BFB10,BFB10

Operator: AM SRC: AM

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.91
75	30.00 - 60.00% of mass 95	37.92
96	5.00 - 9.00% of mass 95	6.58
173	Less than 2.00% of mass 174	0.07 (0.10)
174	Greater than 50.00% of mass 95	73.16
175	5.00 - 9.00% of mass 174	5.75 (7.85)
176	95.00 - 101.00% of mass 174	72.69 (99.35)
177	5.00 - 9.00% of mass 176	4.74 (6.52)

Date : 17-APR-2013 09:05

Client ID: BFB10 Instrument: V1.i

Sample Info: 5ML,BFB10,BFB10

Operator: AM SRC: AM

Column phase: DB-624 Column diameter: 0.25

Data File: V1M1544.D
Spectrum: Average Spectrum: 8.762 to 8.801 min.
Location of Maximum: 95.00
Number of points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	736	60.00	344	86.00	53	135.00	45
37.00	3124	61.00	1720	87.00	2697	137.00	43
38.00	2521	62.00	1479	88.00	2683	141.00	208
39.00	920	63.00	1077	91.00	65	142.00	45
40.00	3455	64.00	65	92.00	791	143.00	233
41.00	95	66.00	20	93.00	1487	145.00	25
43.00	128	67.00	86	94.00	4197	153.00	23
44.00	981	68.00	3846	95.00	45288	155.00	34
45.00	546	69.00	3721	96.00	2980	157.00	41
46.00	51	70.00	262	97.00	42	172.00	40
47.00	1111	72.00	122	104.00	123	173.00	33
48.00	235	73.00	1372	106.00	82	174.00	33136
49.00	1853	74.00	4967	111.00	20	175.00	2602
50.00	8564	75.00	17168	116.00	105	176.00	32920
51.00	2689	76.00	1433	117.00	156	177.00	2147
52.00	124	77.00	427	118.00	35	178.00	37
55.00	147	78.00	273	119.00	186	207.00	108
56.00	575	79.00	818	128.00	163		
57.00	1126	80.00	300	129.00	20		
58.00	29	81.00	832	130.00	113		
59.00	26	82.00	182	131.00	30		

Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1650.D
Lab Smp Id: BFB1T Client Smp ID: BFB1T
Inj Date : 01-MAY-2013 08:18
Operator : AM SRC: AM Inst ID: V1.i
Smp Info : 5ML,BFB1T,BFB1T
Misc Info :
Comment :
Method : \\Avogadro\Organics\V1.I\130501.B\bfb8260.m
Meth Date : 15-Mar-2013 08:02 amarquis Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * Vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
4.688	4.600	(0.000)	95	265088			0.00- 100.00	100.00
4.688	4.600	(0.000)	50	53576			15.00- 40.00	20.21
4.688	4.600	(0.000)	75	106400			30.00- 60.00	40.14
4.688	4.600	(0.000)	96	17648			5.00- 9.00	6.66
4.688	4.600	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
4.688	4.600	(0.000)	174	195456			50.00- 0.00	73.73
4.688	4.600	(0.000)	175	14330			5.00- 9.00	7.33
4.688	4.600	(0.000)	176	186880			95.00- 101.00	95.61
4.688	4.600	(0.000)	177	12262			5.00- 9.00	6.56

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1650.D

Date : 01-MAY-2013 08:18

Client ID: BFB1T

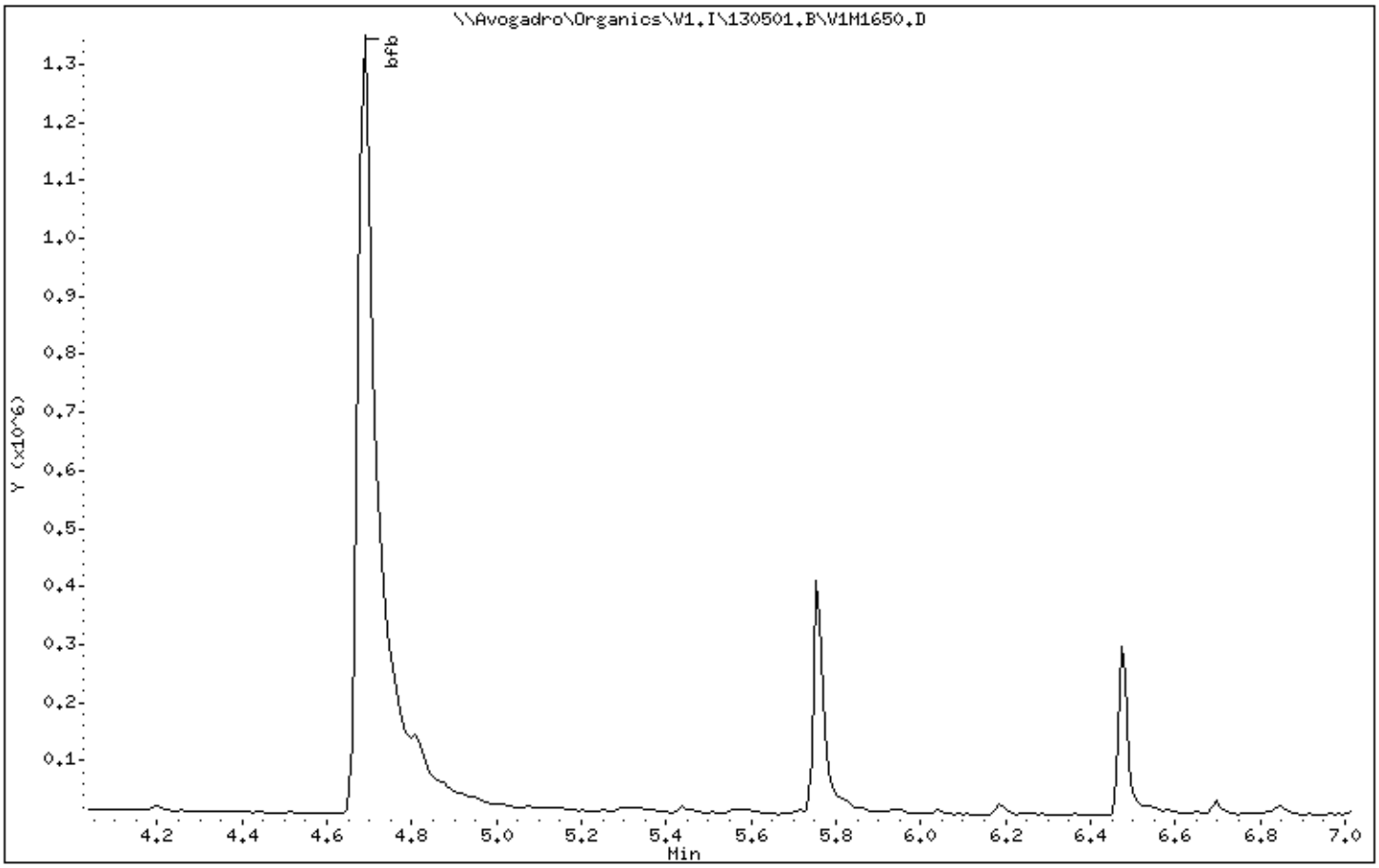
Instrument: V1.i

Sample Info: 5ML,BFB1T,BFB1T

Operator: AM SRC: AM

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1650.D

Date : 01-MAY-2013 08:18

Client ID: BFB1T

Instrument: V1.i

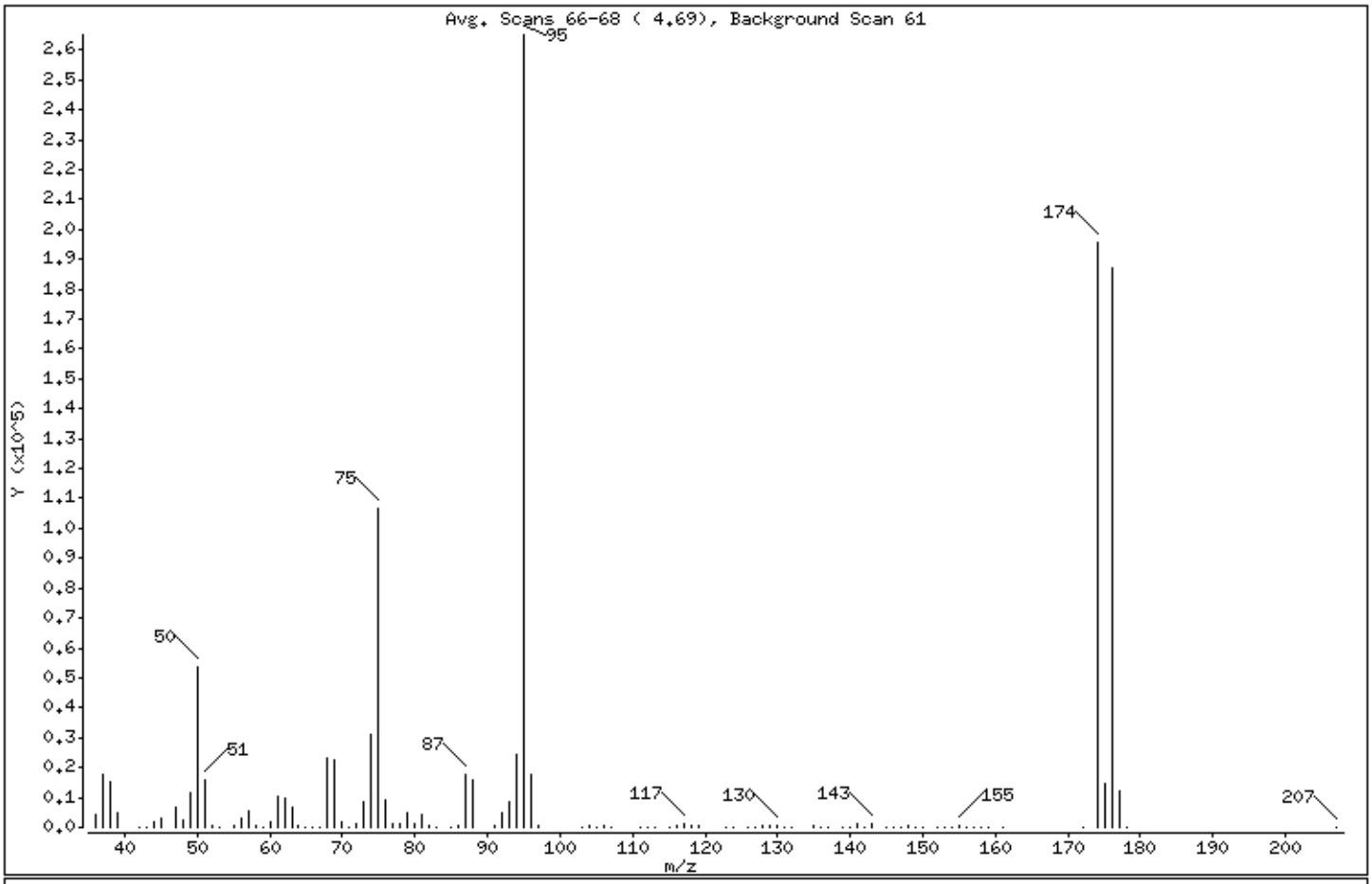
Sample Info: 5ML,BFB1T,BFB1T

Operator: AM SRC: AM

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.21
75	30.00 - 60.00% of mass 95	40.14
96	5.00 - 9.00% of mass 95	6.66
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	73.73
175	5.00 - 9.00% of mass 174	5.41 (7.33)
176	95.00 - 101.00% of mass 174	70.50 (95.61)
177	5.00 - 9.00% of mass 176	4.63 (6.56)

Date : 01-MAY-2013 08:18

Client ID: BFB1T Instrument: V1.i

Sample Info: 5ML,BFB1T,BFB1T

Operator: AM SRC: AM

Column phase: DB-624 Column diameter: 0.25

Data File: V1M1650.D
Spectrum: Avg. Scans 66-68 (4.69), Background Scan 61
Location of Maximum: 95.00
Number of points: 107

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4269	67.00	195	97.00	724	140.00	52
37.00	17816	68.00	23088	103.00	44	141.00	1370
38.00	15262	69.00	22456	104.00	711	142.00	91
39.00	5097	70.00	1855	105.00	212	143.00	1439
42.00	80	71.00	47	106.00	719	145.00	116
43.00	118	72.00	1239	107.00	294	146.00	276
44.00	1535	73.00	8467	111.00	179	147.00	75
45.00	2883	74.00	31208	112.00	34	148.00	586
47.00	6555	75.00	106400	113.00	98	149.00	176
48.00	2310	76.00	8895	115.00	277	150.00	118
49.00	11523	77.00	1507	116.00	620	152.00	36
50.00	53576	78.00	1515	117.00	1132	153.00	153
51.00	15772	79.00	4651	118.00	648	154.00	124
52.00	699	80.00	1016	119.00	761	155.00	426
53.00	110	81.00	4331	123.00	84	156.00	37
55.00	499	82.00	750	124.00	118	157.00	265
56.00	3324	83.00	147	126.00	40	158.00	34
57.00	5670	85.00	45	127.00	95	159.00	174
58.00	320	86.00	353	128.00	680	161.00	53
59.00	161	87.00	17536	129.00	345	172.00	101
60.00	2034	88.00	15651	130.00	827	174.00	195456
61.00	10159	91.00	644	131.00	272	175.00	14330
62.00	10005	92.00	5082	132.00	35	176.00	186880
63.00	6854	93.00	8460	135.00	330	177.00	12262
64.00	679	94.00	24672	136.00	48	178.00	217
65.00	126	95.00	265088	137.00	256	207.00	138
66.00	71	96.00	17648	139.00	68		

Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1680.D
Lab Smp Id: BFB1U Client Smp ID: BFB1U
Inj Date : 02-MAY-2013 07:52
Operator : AM SRC: AM Inst ID: V1.i
Smp Info : 5ML,BFB1U,BFB1U
Misc Info :
Comment :
Method : \\Avogadro\Organics\V1.I\130502.B\bfb8260.m
Meth Date : 15-Mar-2013 08:02 amarquis Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * Vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
4.688	4.600	(0.000)	95	272128			0.00- 100.00	100.00
4.688	4.600	(0.000)	50	55696			15.00- 40.00	20.47
4.688	4.600	(0.000)	75	113176			30.00- 60.00	41.59
4.688	4.600	(0.000)	96	18208			5.00- 9.00	6.69
4.688	4.600	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
4.688	4.600	(0.000)	174	190656			50.00- 0.00	70.06
4.688	4.600	(0.000)	175	13961			5.00- 9.00	7.32
4.688	4.600	(0.000)	176	186944			95.00- 101.00	98.05
4.688	4.600	(0.000)	177	12152			5.00- 9.00	6.50

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1680.D

Date : 02-MAY-2013 07:52

Client ID: BFB1U

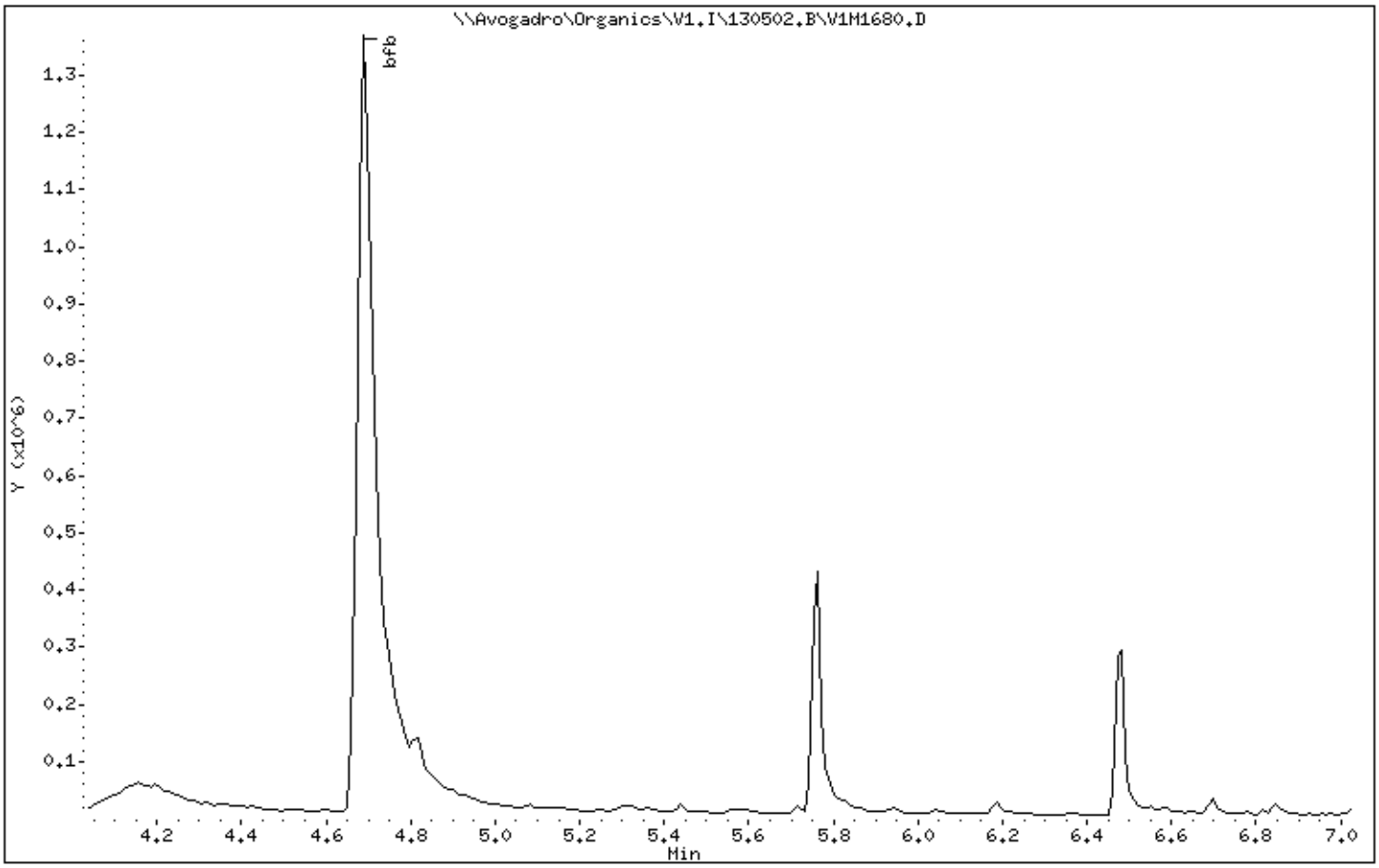
Instrument: V1.i

Sample Info: 5ML,BFB1U,BFB1U

Operator: AM SRC: AM

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1680.D

Date : 02-MAY-2013 07:52

Client ID: BFB1U

Instrument: V1.i

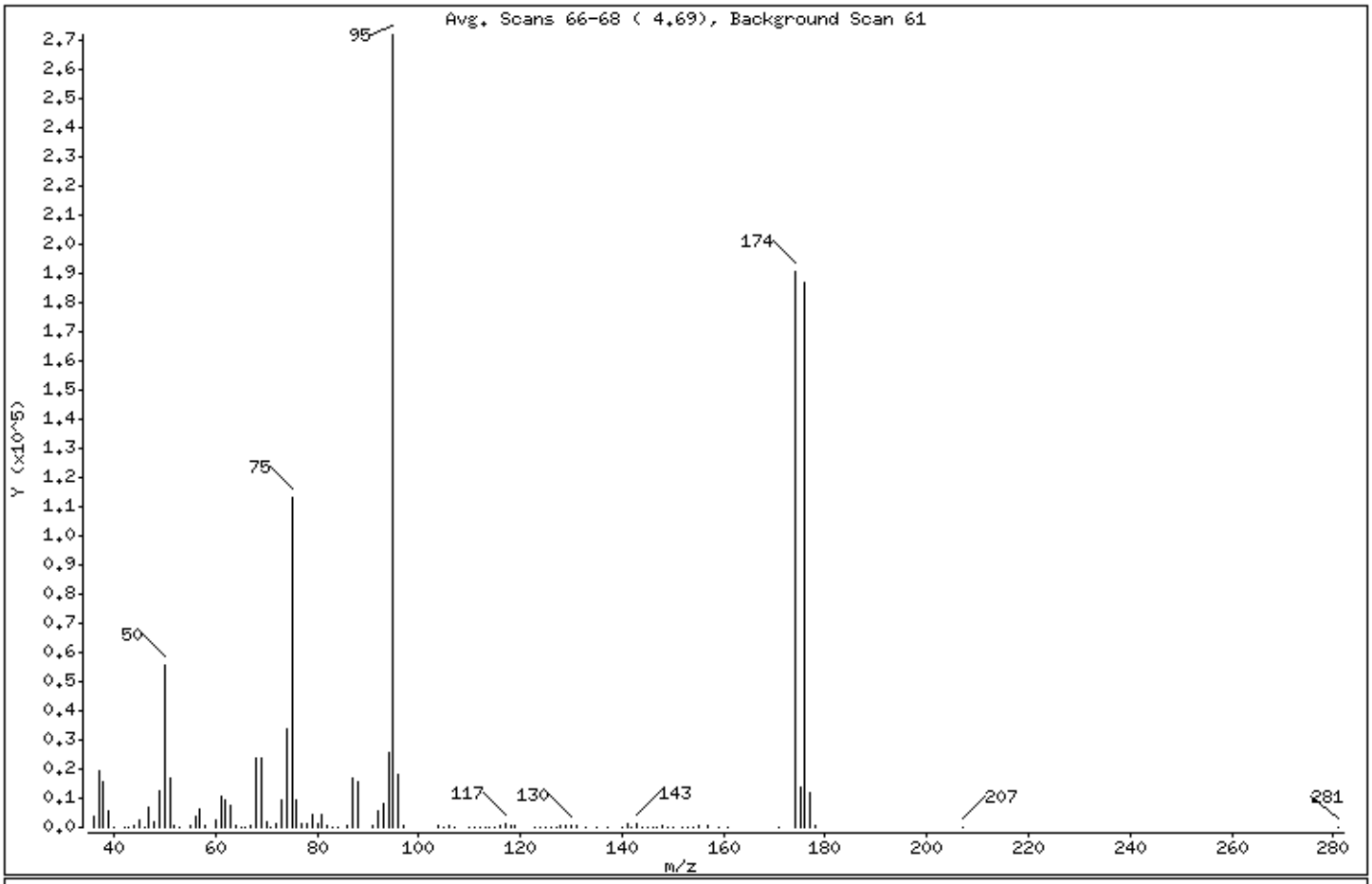
Sample Info: 5ML,BFB1U,BFB1U

Operator: AM SRC: AM

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.47
75	30.00 - 60.00% of mass 95	41.59
96	5.00 - 9.00% of mass 95	6.69
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	70.06
175	5.00 - 9.00% of mass 174	5.13 (7.32)
176	95.00 - 101.00% of mass 174	68.70 (98.05)
177	5.00 - 9.00% of mass 176	4.47 (6.50)

Date : 02-MAY-2013 07:52

Client ID: BFB1U Instrument: V1.i

Sample Info: 5ML,BFB1U,BFB1U

Operator: AM SRC: AM

Column phase: DB-624 Column diameter: 0.25

Data File: V1M1680.D
Spectrum: Avg. Scans 66-68 (4.69), Background Scan 61
Location of Maximum: 95.00
Number of points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3793	67.00	670	104.00	918	142.00	248
37.00	19128	68.00	23552	105.00	27	143.00	1515
38.00	15526	69.00	23616	106.00	696	144.00	111
39.00	5352	70.00	1639	107.00	217	145.00	132
40.00	227	71.00	145	110.00	89	146.00	272
42.00	156	72.00	1038	111.00	78	147.00	132
43.00	80	73.00	9446	112.00	110	148.00	520
44.00	889	74.00	33760	113.00	43	149.00	53
45.00	2625	75.00	113176	114.00	35	150.00	246
46.00	276	76.00	9338	115.00	275	152.00	95
47.00	6962	77.00	1445	116.00	648	153.00	144
48.00	1966	78.00	1112	117.00	1078	154.00	222
49.00	12256	79.00	4505	118.00	572	155.00	321
50.00	55696	80.00	1441	119.00	644	157.00	411
51.00	16872	81.00	4689	123.00	47	159.00	199
52.00	704	82.00	811	124.00	152	161.00	206
53.00	45	83.00	165	125.00	34	171.00	44
55.00	646	84.00	37	126.00	48	174.00	190656
56.00	3631	86.00	340	127.00	40	175.00	13961
57.00	6255	87.00	17200	128.00	650	176.00	186944
58.00	531	88.00	15908	129.00	365	177.00	12152
60.00	2399	91.00	641	130.00	792	178.00	360
61.00	10682	92.00	5758	131.00	385	207.00	34
62.00	9688	93.00	8303	133.00	43	281.00	56
63.00	7197	94.00	25384	135.00	287		
64.00	509	95.00	272128	137.00	240		
65.00	208	96.00	18208	140.00	192		
66.00	28	97.00	586	141.00	1403		

Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V8.I\130417.B\V8B9274.d
Lab Smp Id: BFB10K Client Smp ID: BFB10K
Inj Date : 17-APR-2013 11:11
Operator : V10 SRC: V10 Inst ID: V8.i
Smp Info : 5ML,BFB10K,BFB10K
Misc Info :
Comment :
Method : \\Avogadro\Organics\V8.I\130417.B\BFBSOM_V10.m
Meth Date : 13-Mar-2013 07:47 amarquis Quant Type: ISTD
Cal Date : 01-DEC-2012 00:40 Cal File: V8B5840.d
Als bottle: 100 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
5.306	4.900	(0.000)	95	373795			0.00- 100.00	100.00
5.306	4.900	(0.000)	50	71011			15.00- 40.00	19.00
5.306	4.900	(0.000)	75	182951			30.00- 80.00	48.94
5.306	4.900	(0.000)	96	24553			5.00- 9.00	6.57
5.306	4.900	(0.000)	173	1868			0.00- 2.00	0.60
5.306	4.900	(0.000)	174	309532			50.00- 120.00	82.81
5.306	4.900	(0.000)	175	20973			5.00- 9.00	6.78
5.306	4.900	(0.000)	176	299527			95.00- 101.00	96.77
5.306	4.900	(0.000)	177	19216			5.00- 9.00	6.42

Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9274.d

Date : 17-APR-2013 11:11

Client ID: BFB10K

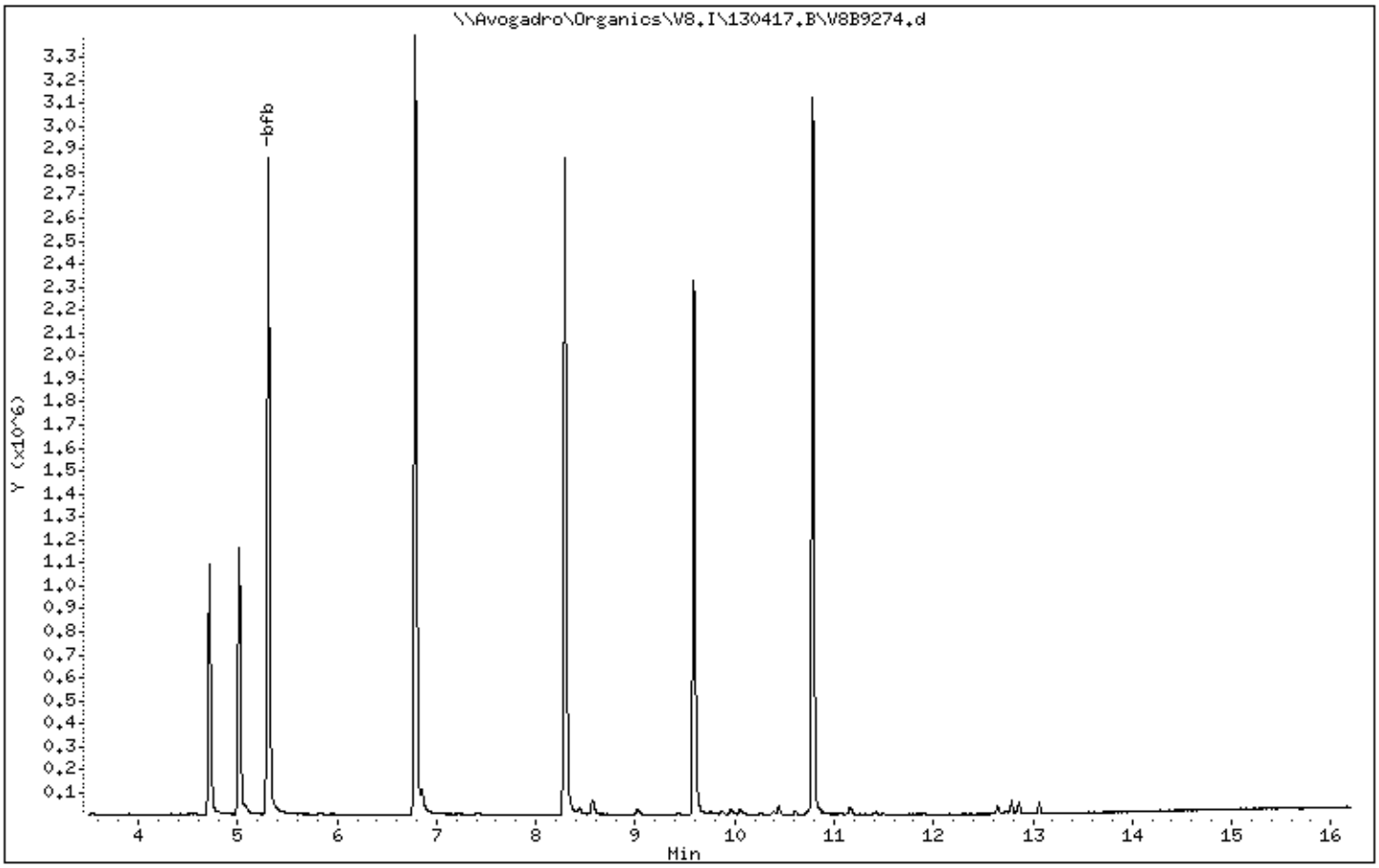
Instrument: V8.i

Sample Info: 5ML,BFB10K,BFB10K

Operator: V10 SRC: V10

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130417.B\V8B9274.d

Date : 17-APR-2013 11:11

Client ID: BFB10K

Instrument: V8.i

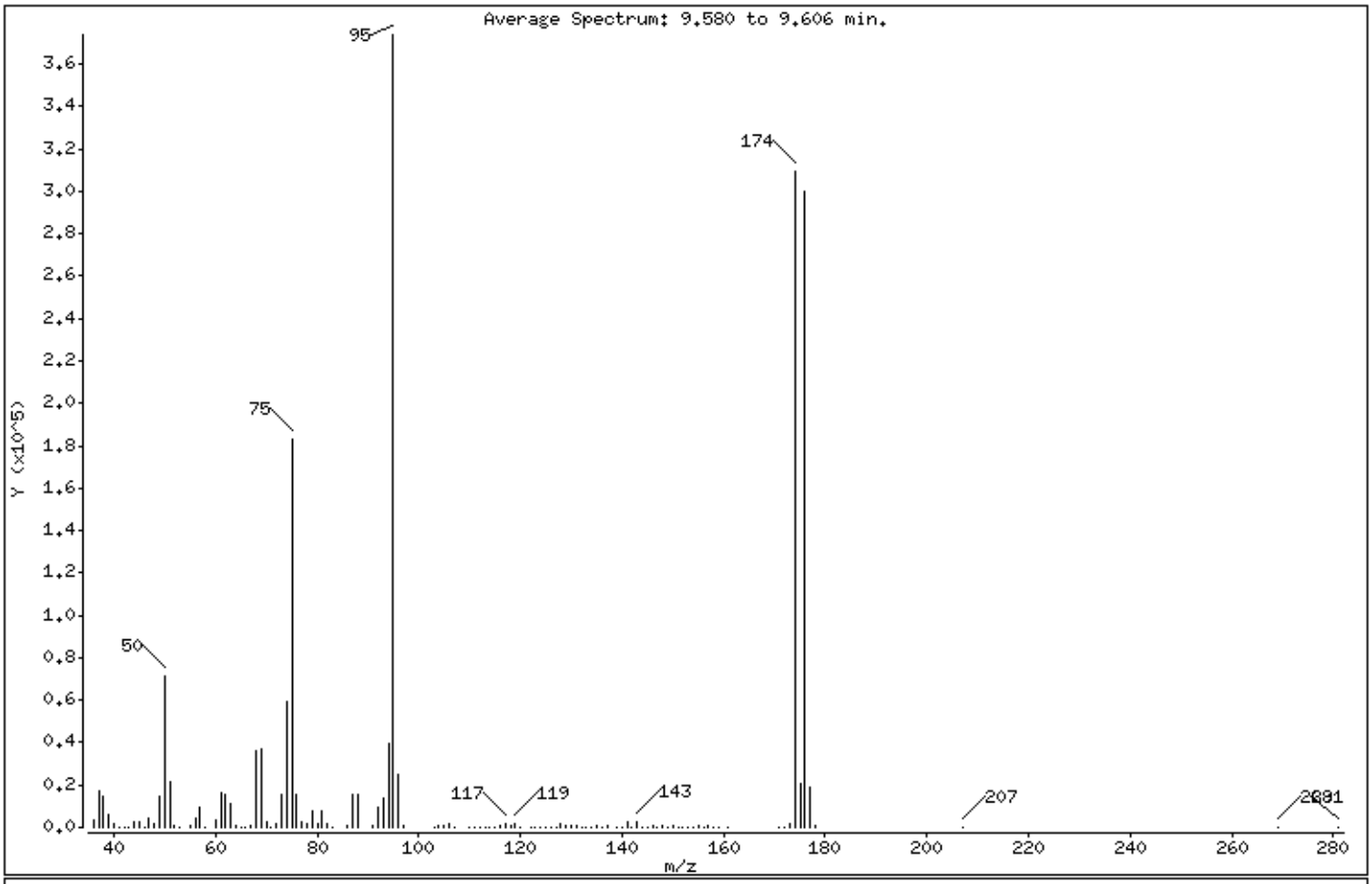
Sample Info: 5ML,BFB10K,BFB10K

Operator: V10 SRC: V10

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.00
75	30.00 - 80.00% of mass 95	48.94
96	5.00 - 9.00% of mass 95	6.57
173	Less than 2.00% of mass 174	0.50 (0.60)
174	50.00 - 120.00% of mass 95	82.81
175	5.00 - 9.00% of mass 174	5.61 (6.78)
176	95.00 - 101.00% of mass 174	80.13 (96.77)
177	5.00 - 9.00% of mass 176	5.14 (6.42)

Date : 17-APR-2013 11:11

Client ID: BFB10K Instrument: V8.i

Sample Info: 5ML,BFB10K,BFB10K

Operator: V10 SRC: V10

Column phase: DB-624 Column diameter: 0.25

Data File: V8B9274.d
Spectrum: Average Spectrum: 9.580 to 9.606 min.
Location of Maximum: 95.00
Number of points: 121

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3032	69.00	37296	111.00	214	144.00	200
37.00	16800	70.00	2756	112.00	121	145.00	304
38.00	14568	71.00	55	113.00	183	146.00	537
39.00	5643	72.00	1728	114.00	26	147.00	196
40.00	2109	73.00	15149	115.00	422	148.00	893
41.00	76	74.00	59128	116.00	1215	149.00	253
42.00	66	75.00	182912	117.00	1883	150.00	470
43.00	212	76.00	15214	118.00	1180	151.00	27
44.00	2921	77.00	2186	119.00	1547	152.00	153
45.00	2908	78.00	1611	120.00	54	153.00	244
46.00	213	79.00	8028	122.00	46	154.00	204
47.00	4485	80.00	2096	123.00	87	155.00	834
48.00	1985	81.00	7818	124.00	216	156.00	91
49.00	14366	82.00	1687	125.00	69	157.00	582
50.00	71008	83.00	169	126.00	53	158.00	25
51.00	21304	86.00	447	127.00	113	159.00	380
52.00	940	87.00	15820	128.00	1299	161.00	338
53.00	11	88.00	15386	129.00	593	171.00	29
55.00	821	91.00	1097	130.00	1120	172.00	293
56.00	4715	92.00	9477	131.00	508	173.00	1868
57.00	9096	93.00	14041	132.00	28	174.00	309504
58.00	421	94.00	39704	133.00	21	175.00	20968
60.00	3068	95.00	373760	134.00	62	176.00	299520
61.00	16225	96.00	24552	135.00	559	177.00	19216
62.00	15859	97.00	640	136.00	32	178.00	523
63.00	11572	103.00	136	137.00	576	207.00	191
64.00	1166	104.00	1261	139.00	93	269.00	14
65.00	186	105.00	480	140.00	233	281.00	12
66.00	33	106.00	1296	141.00	2709		
67.00	905	107.00	344	142.00	388		
68.00	36304	110.00	133	143.00	2868		

Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9530.d
Lab Smp Id: BFB10S Client Smp ID: BFB10S
Inj Date : 02-MAY-2013 07:50
Operator : V10 SRC: V10 Inst ID: V8.i
Smp Info : 5ML,BFB10S,BFB10S
Misc Info :
Comment :
Method : \\Avogadro\Organics\V8.I\130502.B\BFBSOM_V10.m
Meth Date : 13-Mar-2013 07:47 amarquis Quant Type: ISTD
Cal Date : 01-DEC-2012 00:40 Cal File: V8B5840.d
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	REL RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
4.877	4.900	(0.000)	95	2370560			0.00- 100.00	100.00
4.877	4.900	(0.000)	50	476800			15.00- 40.00	20.11
4.877	4.900	(0.000)	75	1214976			30.00- 80.00	51.25
4.877	4.900	(0.000)	96	154496			5.00- 9.00	6.52
4.877	4.900	(0.000)	173	9791			0.00- 2.00	0.52
4.877	4.900	(0.000)	174	1883648			50.00- 120.00	79.46
4.877	4.900	(0.000)	175	133632			5.00- 9.00	7.09
4.877	4.900	(0.000)	176	1847808			95.00- 101.00	98.10
4.877	4.900	(0.000)	177	116808			5.00- 9.00	6.32

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9530.d

Date : 02-MAY-2013 07:50

Client ID: BFB10S

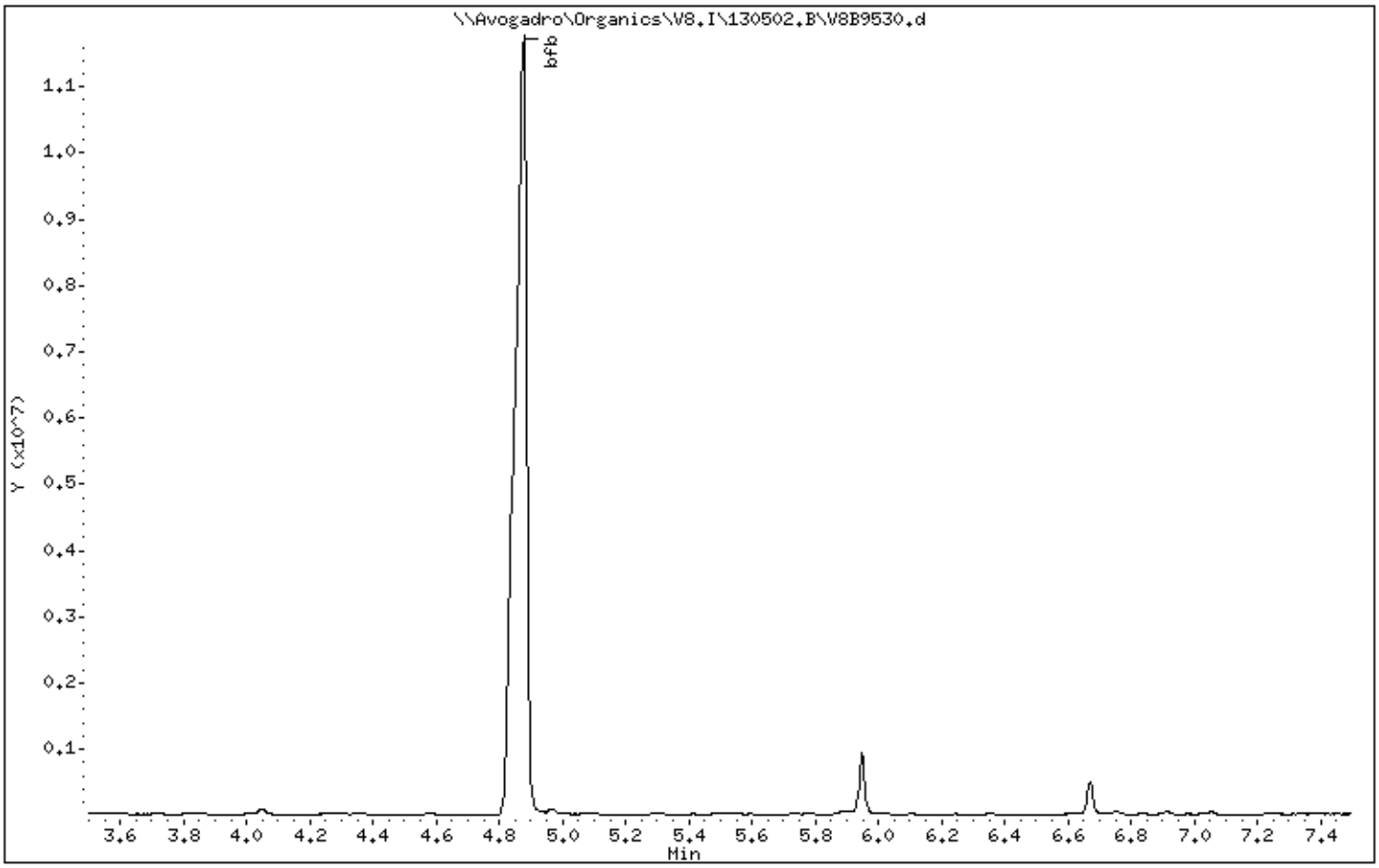
Instrument: V8.i

Sample Info: 5ML,BFB10S,BFB10S

Operator: V10 SRC: V10

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9530.d

Date : 02-MAY-2013 07:50

Client ID: BFB10S

Instrument: V8.i

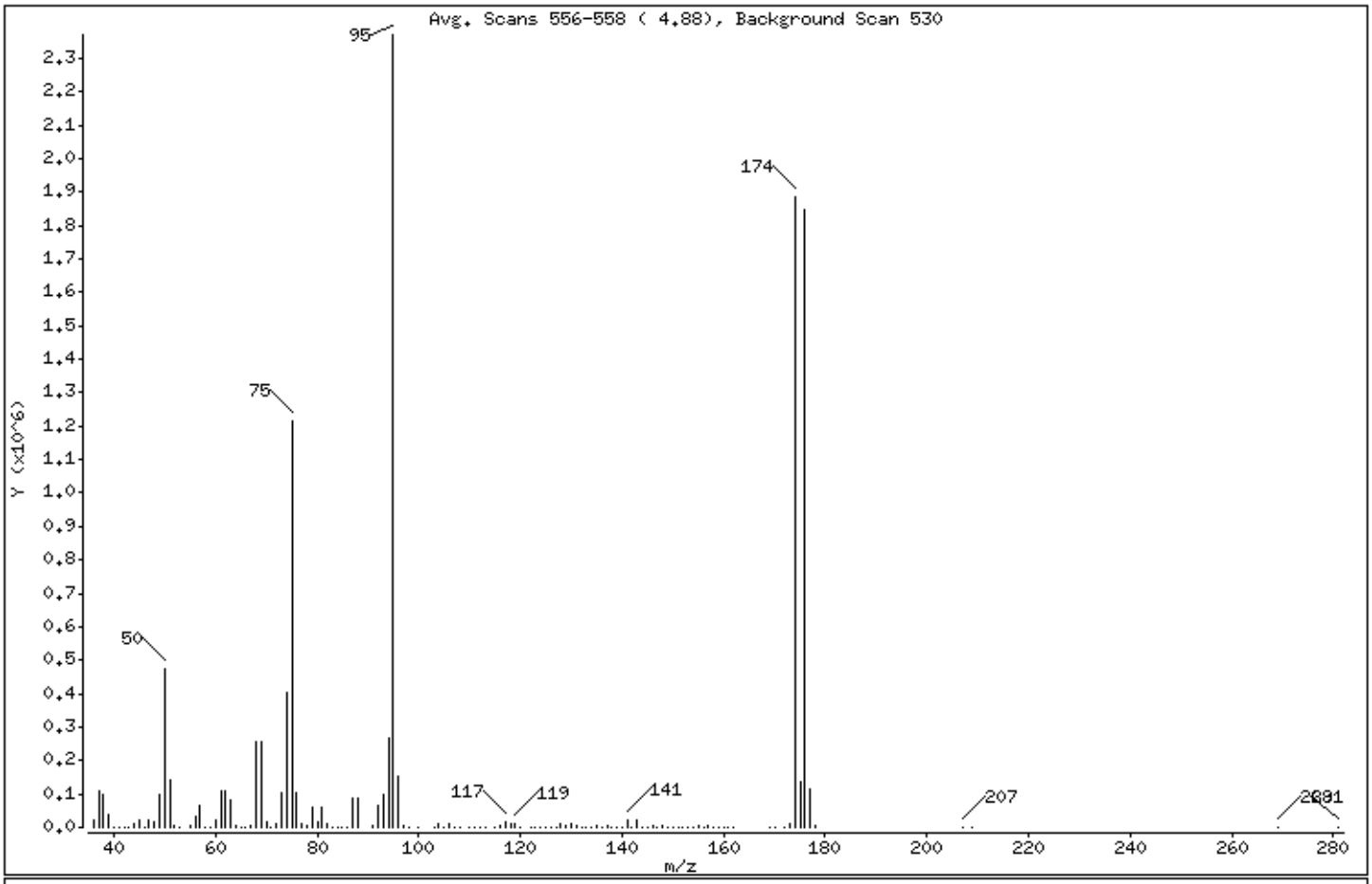
Sample Info: 5ML,BFB10S,BFB10S

Operator: V10 SRC: V10

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.11
75	30.00 - 80.00% of mass 95	51.25
96	5.00 - 9.00% of mass 95	6.52
173	Less than 2.00% of mass 174	0.41 (0.52)
174	50.00 - 120.00% of mass 95	79.46
175	5.00 - 9.00% of mass 174	5.64 (7.09)
176	95.00 - 101.00% of mass 174	77.95 (98.10)
177	5.00 - 9.00% of mass 176	4.93 (6.32)

Date : 02-MAY-2013 07:50

Client ID: BFB10S Instrument: V8.i

Sample Info: 5ML,BFB10S,BFB10S

Operator: V10 SRC: V10

Column phase: DB-624 Column diameter: 0.25

Data File: V8B9530.d
Spectrum: Avg. Scans 556-558 (4.88), Background Scan 530
Location of Maximum: 95.00
Number of points: 131

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	19880	70.00	18320	108.00	182	144.00	1351
37.00	111384	71.00	548	110.00	1115	145.00	1685
38.00	95688	72.00	12078	111.00	1643	146.00	2904
39.00	38624	73.00	103760	112.00	1167	147.00	1474
40.00	1009	74.00	400704	113.00	1481	148.00	4713
41.00	119	75.00	1214976	115.00	2296	149.00	1432
42.00	428	76.00	106056	116.00	7468	150.00	2520
43.00	592	77.00	12128	117.00	14230	151.00	129
44.00	11686	78.00	7255	118.00	8371	152.00	950
45.00	19864	79.00	59600	119.00	11434	153.00	1460
46.00	1323	80.00	16116	120.00	167	154.00	1171
47.00	23416	81.00	60280	122.00	395	155.00	5540
48.00	13865	82.00	13103	123.00	612	156.00	907
49.00	99064	83.00	1929	124.00	1221	157.00	4038
50.00	476800	84.00	711	125.00	630	158.00	549
51.00	143360	85.00	581	126.00	806	159.00	2623
52.00	5934	86.00	2181	127.00	703	160.00	252
53.00	265	87.00	87424	128.00	8314	161.00	2511
55.00	5089	88.00	85664	129.00	3763	162.00	86
56.00	32664	91.00	7314	130.00	8435	169.00	62
57.00	65672	92.00	66000	131.00	3658	170.00	211
58.00	2141	93.00	97448	132.00	422	172.00	1264
59.00	432	94.00	266304	133.00	256	173.00	9791
60.00	21312	95.00	2370560	134.00	411	174.00	1883648
61.00	110560	96.00	154496	135.00	3535	175.00	133632
62.00	109232	97.00	4170	136.00	625	176.00	1847808
63.00	81624	98.00	327	137.00	3397	177.00	116808
64.00	7585	100.00	54	138.00	52	178.00	3055
65.00	1103	103.00	926	139.00	848	207.00	118
66.00	150	104.00	8828	140.00	1341	209.00	55
67.00	5895	105.00	2157	141.00	21408	269.00	74
68.00	254592	106.00	8900	142.00	2685	281.00	53
69.00	257024	107.00	2304	143.00	21056		

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-71443

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-71443

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1655.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1655.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1655.D
Lab Smp Id: MB-71443 Client Smp ID: MB-71443
Inj Date : 01-MAY-2013 10:37
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,MB-71443,MB-71443,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 56 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
16 Methylene Chloride	84	2.753	2.739	(0.599)	3954	1.33360	1(a)
$ 32 Dibromofluoromethane	113	4.024	4.029	(0.876)	97418	50.9351	51
$ 37 1,2-Dichloroethane-d4	102	4.299	4.305	(0.936)	28807	49.3547	49
* 41 Fluorobenzene	96	4.595	4.590	(1.000)	402454	50.0000	
$ 51 Toluene-d8	98	6.013	6.019	(0.805)	356131	47.8410	48
* 60 Chlorobenzene-d5	117	7.471	7.476	(1.000)	291405	50.0000	
$ 70 Bromofluorobenzene	95	8.761	8.757	(1.173)	128719	49.1215	49
* 84 1,4-Dichlorobenzene-d4	152	10.032	10.027	(1.000)	127230	50.0000	
91 Naphthalene	128	12.130	12.125	(1.209)	5423	1.02253	1(a)

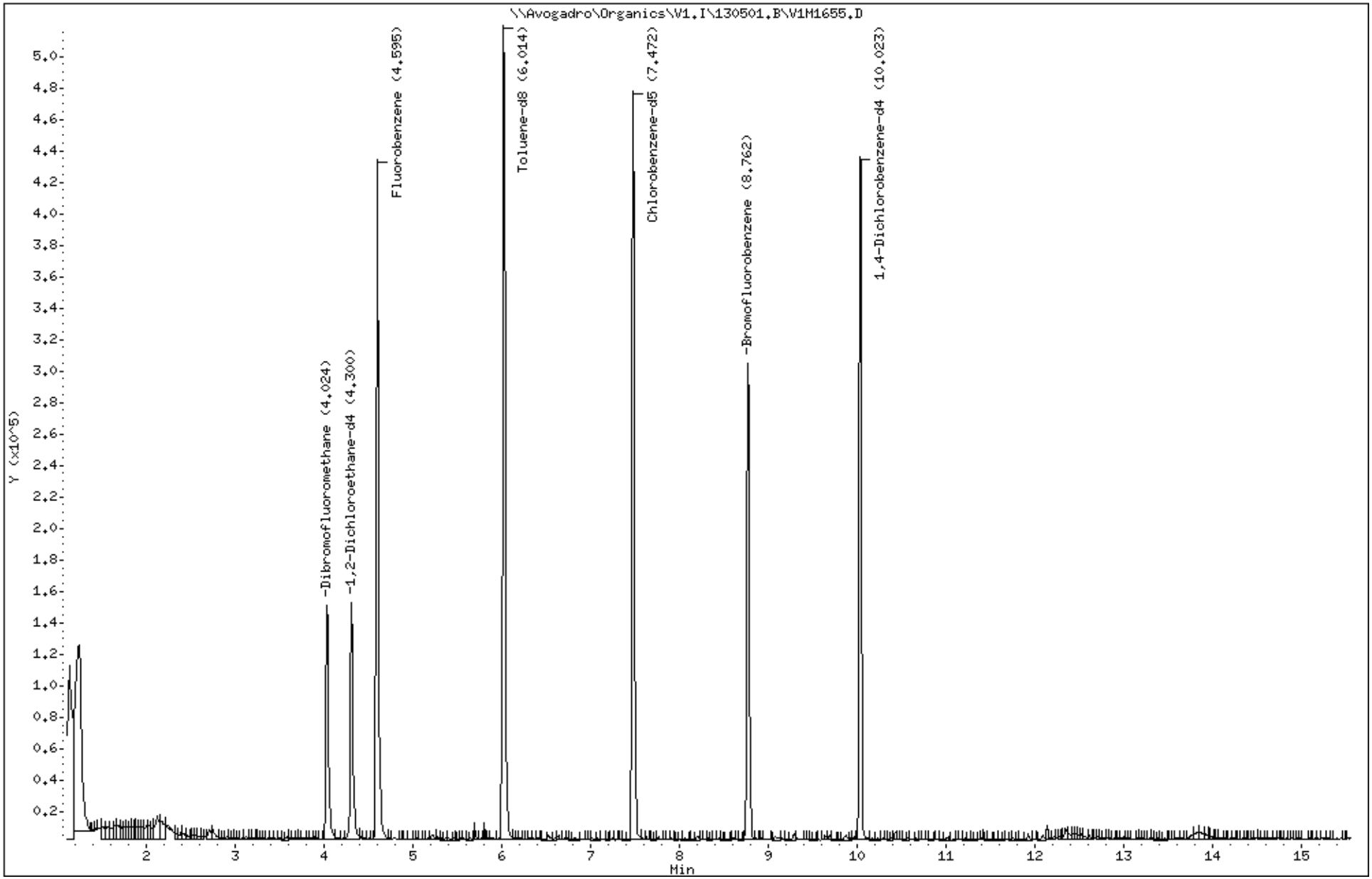
QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1655.D
Date : 01-MAY-2013 10:37
Client ID: MB-71443
Sample Info: 5ML,MB-71443,MB-71443,71443

Instrument: V1.i

Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1655.D

Date : 01-MAY-2013 10:37

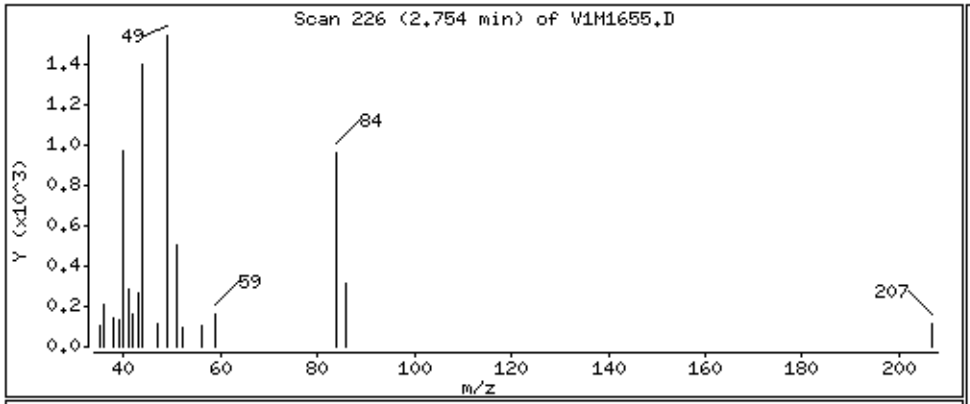
Client ID: MB-71443 Instrument: V1.i

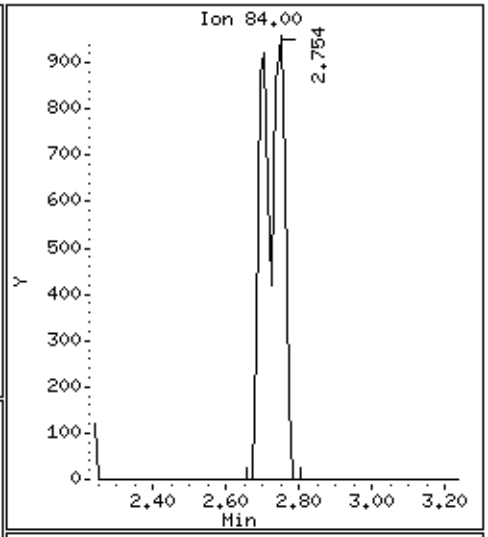
Sample Info: 5ML,MB-71443,MB-71443,71443

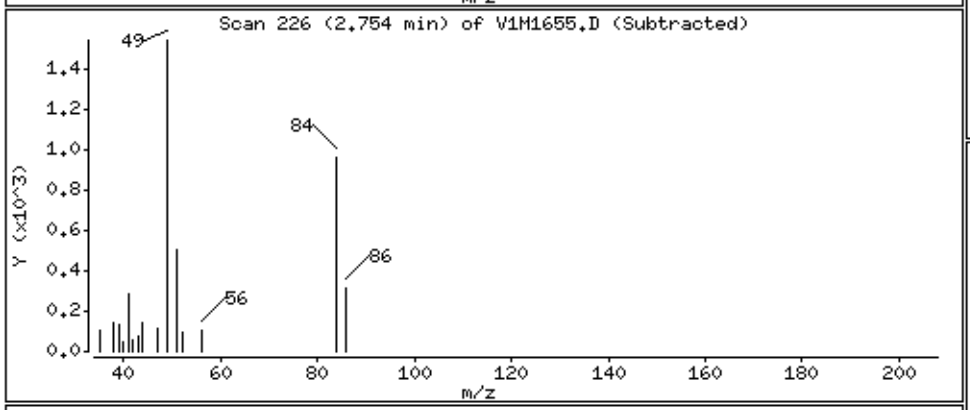
Operator: AM SRC: LIMS

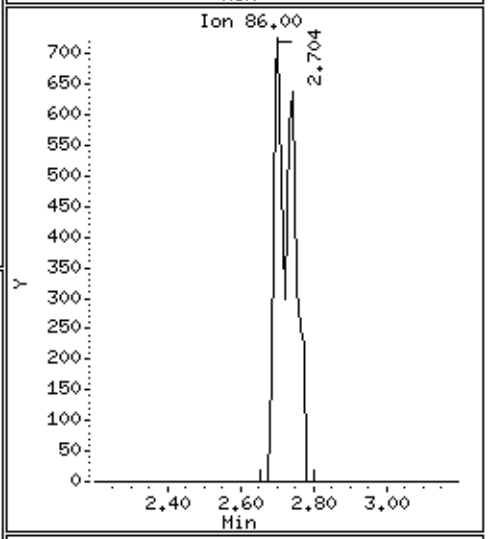
Column phase: DB-624 Column diameter: 0.25

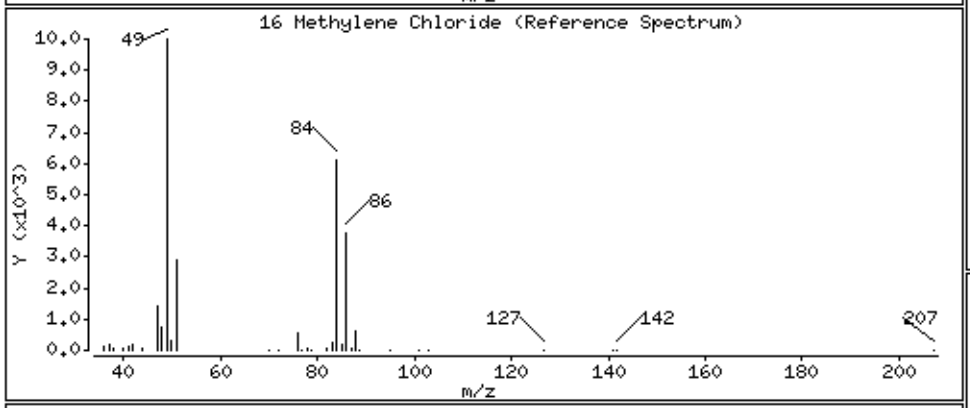
16 Methylene Chloride Concentration: 1 ug/Kg

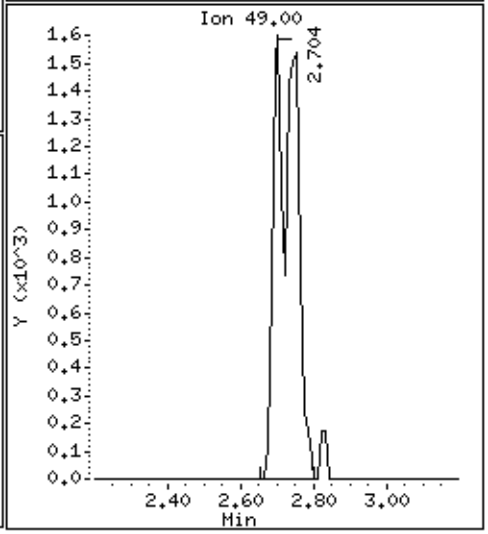


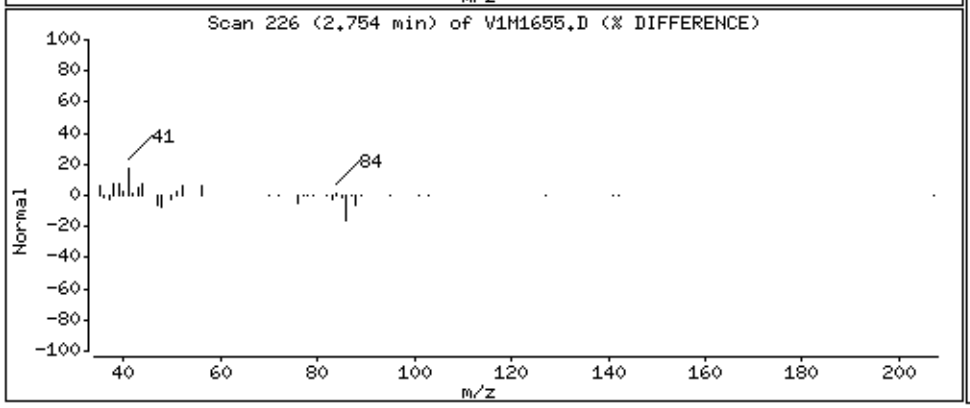












Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1655.D

Date : 01-MAY-2013 10:37

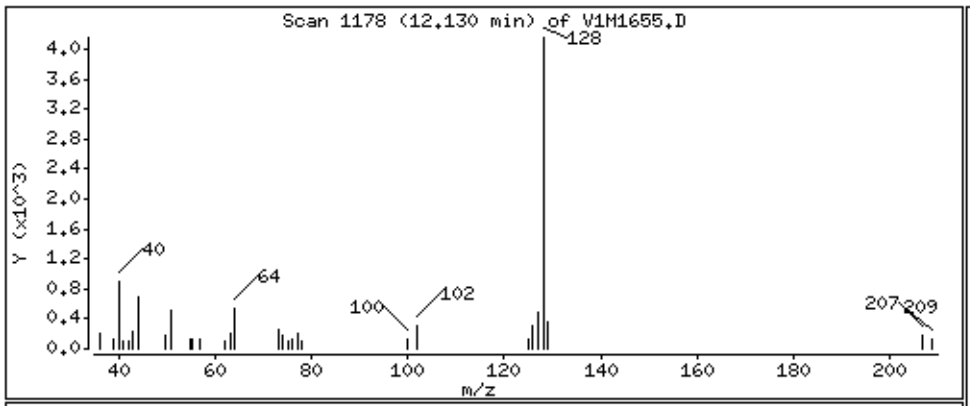
Client ID: MB-71443 Instrument: V1.i

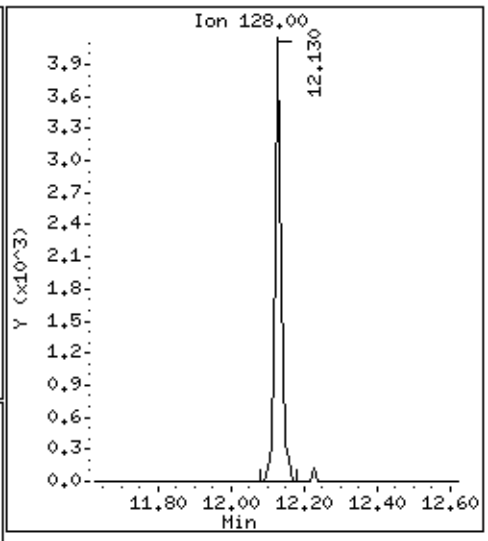
Sample Info: 5ML,MB-71443,MB-71443,71443

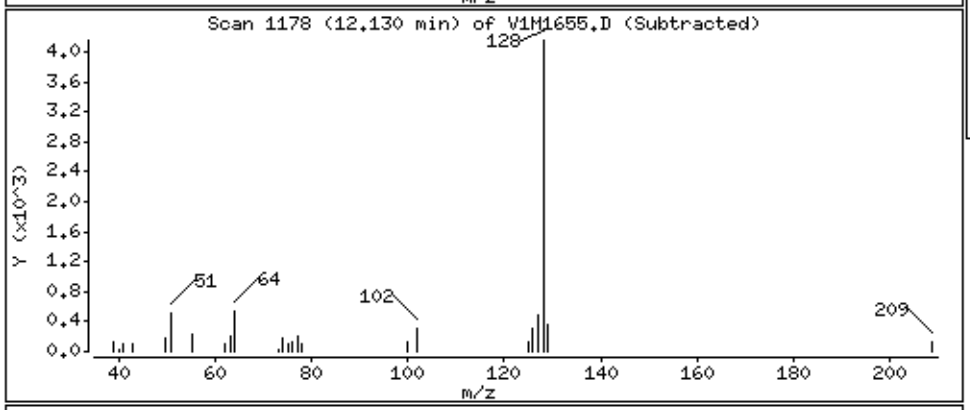
Operator: AM SRC: LIMS

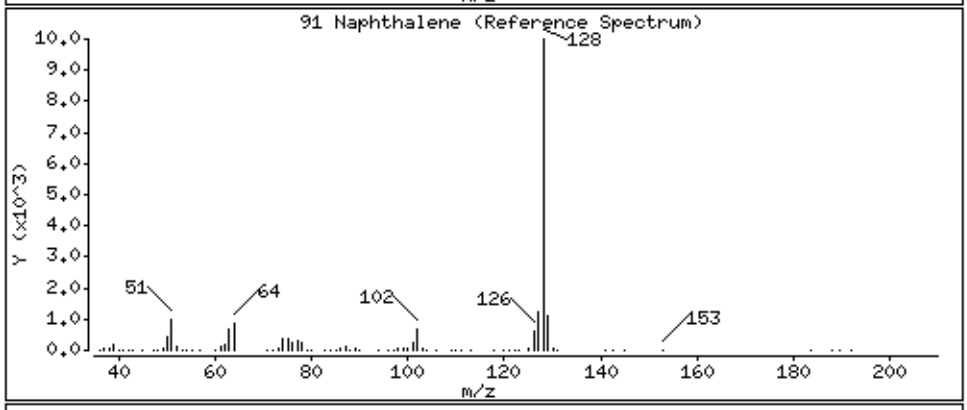
Column phase: DB-624 Column diameter: 0.25

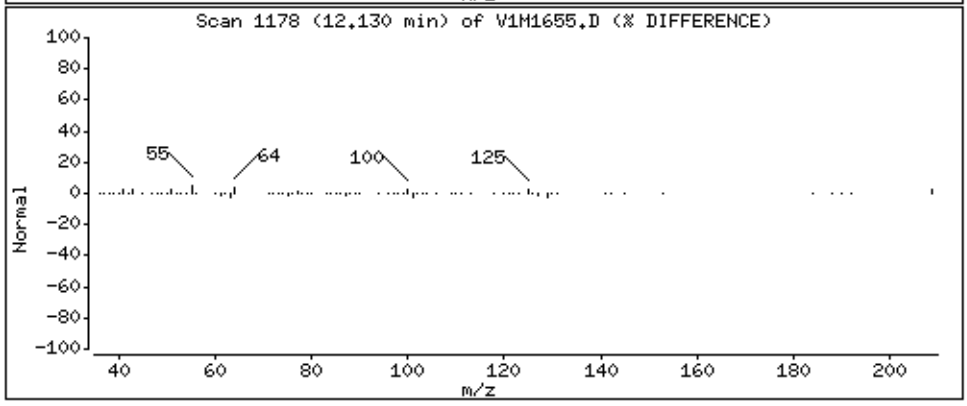
91 Naphthalene Concentration: 1 ug/Kg











1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-71460

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-71460

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1684.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	5.0	U
108-88-3	Toluene	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1684.D
Report Date: 08-May-2013 11:57

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

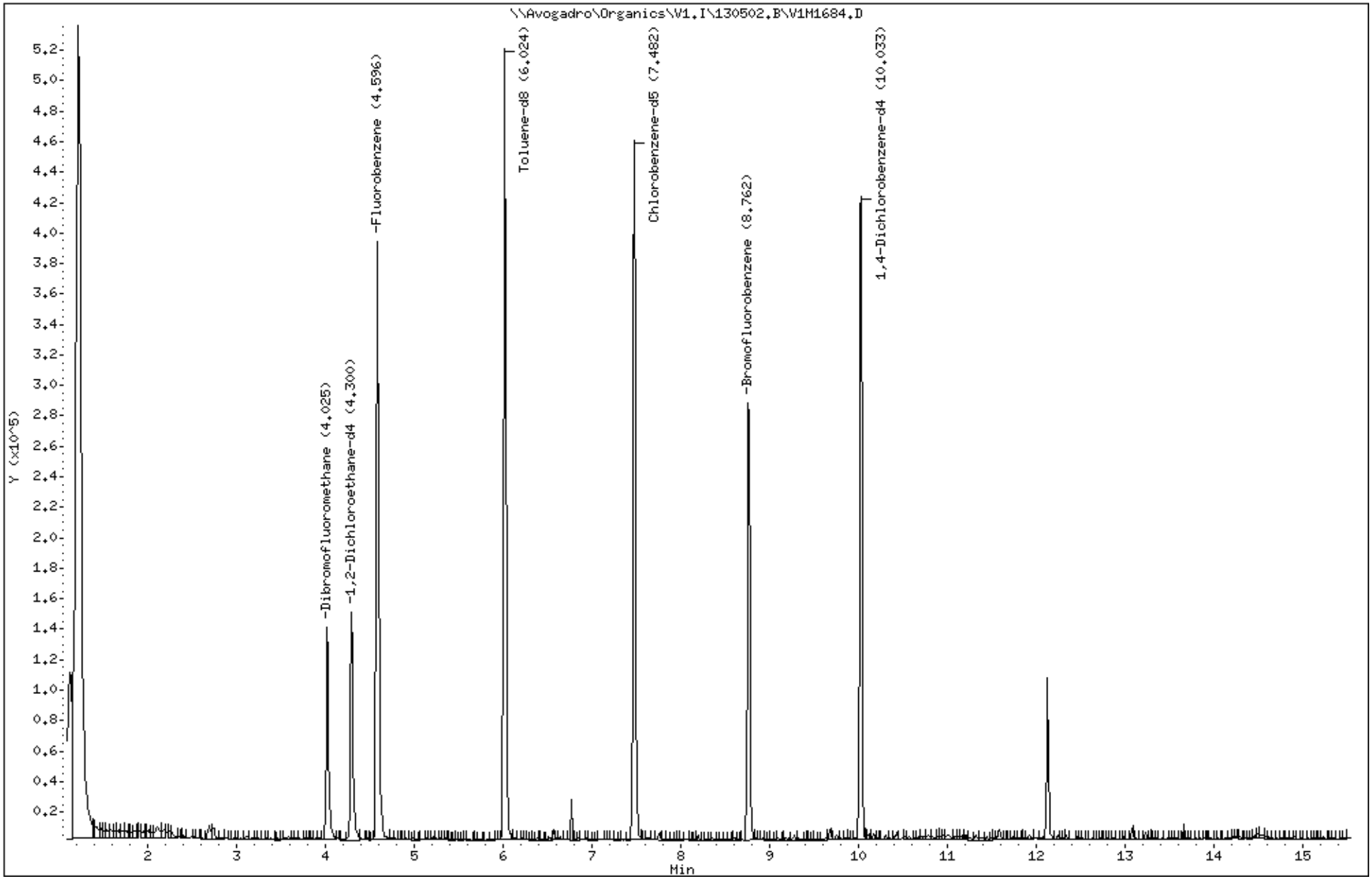
Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1684.D
Lab Smp Id: MB-71460 Client Smp ID: MB-71460
Inj Date : 02-MAY-2013 10:11
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,MB-71460,MB-71460,71460
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 55 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	4.024	4.024	(0.876)	91247	49.6276	50
$ 37 1,2-Dichloroethane-d4	102	4.300	4.300	(0.936)	28230	50.3116	50
* 41 Fluorobenzene	96	4.595	4.585	(1.000)	386892	50.0000	
$ 51 Toluene-d8	98	6.024	6.013	(0.805)	335025	48.4965	48
* 60 Chlorobenzene-d5	117	7.481	7.471	(1.000)	270430	50.0000	
$ 70 Bromofluorobenzene	95	8.762	8.761	(1.171)	123532	50.7985	51
* 84 1,4-Dichlorobenzene-d4	152	10.032	10.032	(1.000)	116136	50.0000	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1684.D
Date : 02-MAY-2013 10:11
Client ID: MB-71460
Instrument: V1.i
Sample Info: 5ML,MB-71460,MB-71460,71460
Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-71469

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-71469

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V8B9536.D

Level: (TRACE/LOW/MED) MED Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	250	U
108-88-3	Toluene	250	U
100-41-4	Ethylbenzene	250	U
179601-23-1	m,p-Xylene	250	U
95-47-6	o-Xylene	250	U
1330-20-7	Xylene (Total)	250	U

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9536.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9536.d
Lab Smp Id: MB-71469 Client Smp ID: MB-71469
Inj Date : 02-MAY-2013 10:56
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,MB-71469,MB-71469,71469
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	5.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

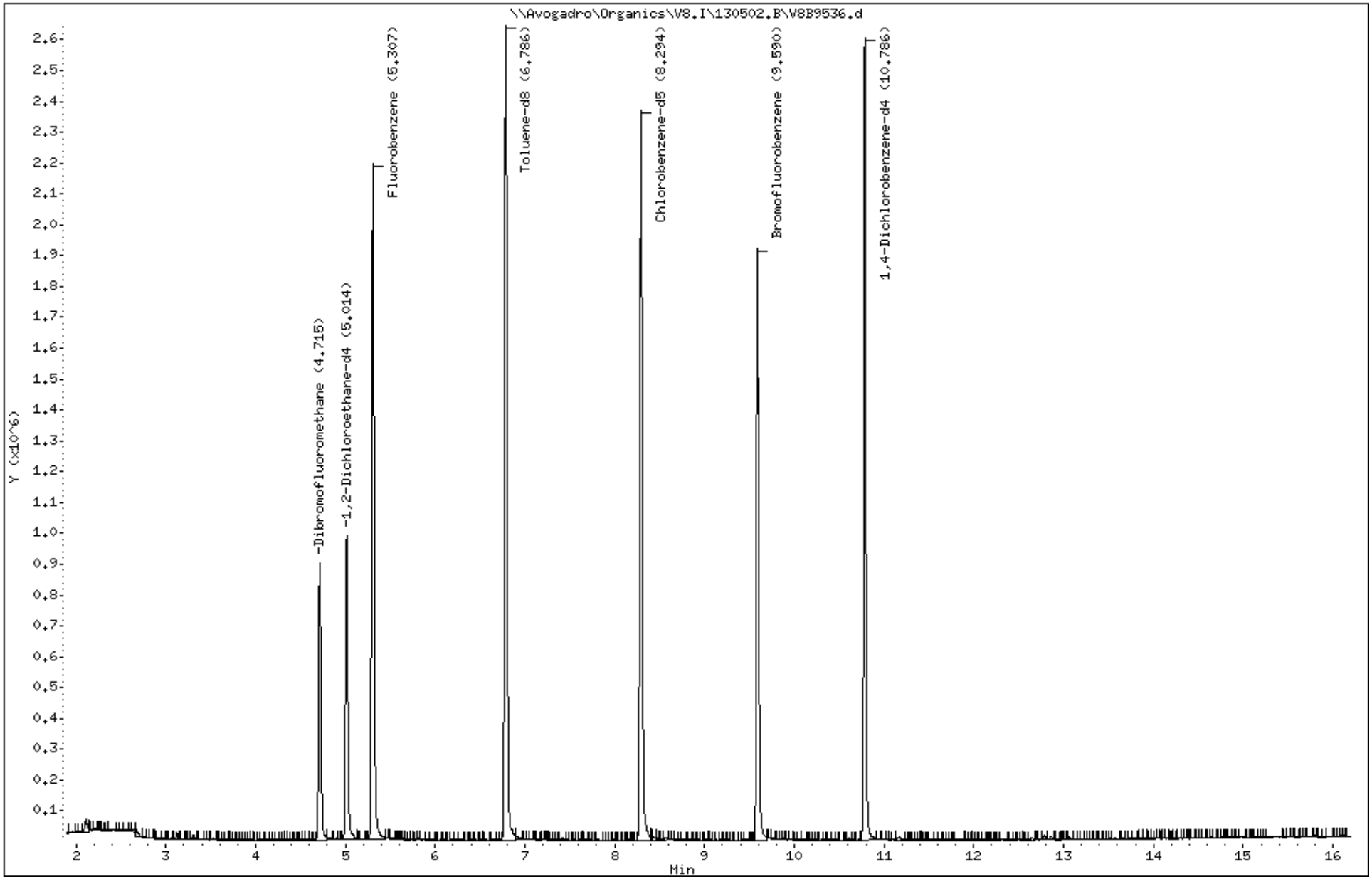
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$	36 Dibromofluoromethane	113	4.715	4.715	(0.889)	500185	54.8136	2700
$	42 1,2-Dichloroethane-d4	102	5.014	5.014	(0.945)	107542	50.9549	2500
*	46 Fluorobenzene	96	5.306	5.306	(1.000)	1801702	50.0000	
$	58 Toluene-d8	98	6.786	6.786	(0.818)	1776647	49.1889	2400
*	68 Chlorobenzene-d5	117	8.294	8.290	(1.000)	1359792	50.0000	
$	79 Bromofluorobenzene	95	9.589	9.589	(1.156)	676154	50.4414	2500
*	92 1,4-Dichlorobenzene-d4	152	10.785	10.782	(1.000)	617938	50.0000	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9536.d
Date : 02-MAY-2013 10:56
Client ID: MB-71469
Sample Info: 5ML,MB-71469,MB-71469,71469

Instrument: V8.i

Operator: V10 SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP1MS

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16BMS

Sample wt/vol: 5.40 (g/mL) G Lab File ID: V1M1687.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	48	
108-88-3	Toluene	46	
100-41-4	Ethylbenzene	48	
179601-23-1	m,p-Xylene	91	
95-47-6	o-Xylene	47	
1330-20-7	Xylene (Total)	140	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1687.D
Report Date: 08-May-2013 11:58

Spectrum Analytical, Inc. RI Division

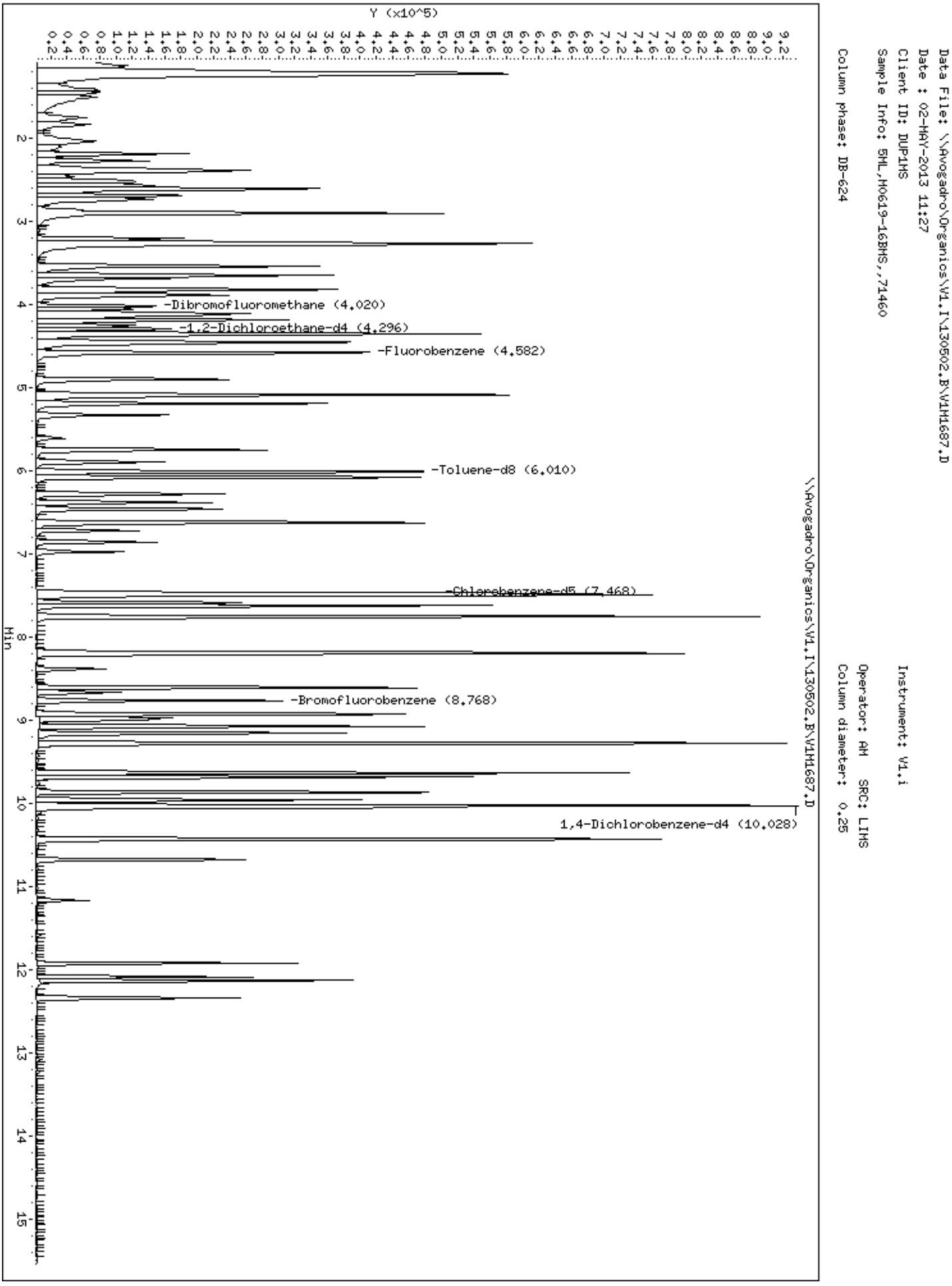
Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1687.D
Lab Smp Id: M0619-16BMS Client Smp ID: DUP1MS
Inj Date : 02-MAY-2013 11:27
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-16BMS,,71460
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 58 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BTEX.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.400	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$	32 Dibromofluoromethane	113	4.020	4.024	(0.876)	92768	50.0000	52
$	37 1,2-Dichloroethane-d4	102	4.295	4.300	(0.936)	27816	50.0000	51
	38 Benzene	78	4.355	4.359	(0.949)	367502	50.0000	45
*	41 Fluorobenzene	96	4.591	4.585	(1.000)	378804	50.0000	
$	51 Toluene-d8	98	6.019	6.013	(0.806)	335924	50.0000	50
	52 Toluene	91	6.078	6.082	(1.324)	326938	50.0000	44
*	60 Chlorobenzene-d5	117	7.467	7.471	(1.000)	264936	50.0000	
	64 Ethylbenzene	106	7.625	7.629	(1.021)	117012	50.0000	46
	65 m,p-Xylene	106	7.753	7.757	(1.038)	285792	100.000	87
	66 o-Xylene	106	8.186	8.190	(1.096)	140345	50.0000	45
$	70 Bromofluorobenzene	95	8.767	8.761	(1.174)	124195	50.0000	52
M	81 Xylene (Total)	106				426137	150.000	130
*	84 1,4-Dichlorobenzene-d4	152	10.028	10.032	(1.000)	118104	50.0000	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Date : 02-MAY-2013 11:27
Client ID: DUP1MS
Sample Info: 5ML,M0619-16BMS,,71460
Column phase: DB-624
Instrument: V1.i
Operator: AM SRC: LIMS
Column diameter: 0.25
Y (x10^5)
-Dibromofluoromethane (4.020)
-1,2-Dichloroethane-d4 (4.296)
-Fluorobenzene (4.582)
-Toluene-d8 (6.010)
-Chlorobenzene-d5 (7.468)
-Bromofluorobenzene (8.768)
1,4-Dichlorobenzene-d4 (10.028)
\\Avogadro\Organics\V1.i\130502.B\V1M1687.D
Min

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP1MSD

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16BMSD

Sample wt/vol: 5.50 (g/mL) G Lab File ID: V1M1688.D

Level: (TRACE/LOW/MED) LOW Date Received: 04/29/2013

% Moisture: not dec. 12 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	48	
108-88-3	Toluene	46	
100-41-4	Ethylbenzene	44	
179601-23-1	m,p-Xylene	90	
95-47-6	o-Xylene	46	
1330-20-7	Xylene (Total)	140	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1688.D
Report Date: 08-May-2013 11:58

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1688.D
Lab Smp Id: M0619-16BMSD Client Smp ID: DUP1MSD
Inj Date : 02-MAY-2013 11:52
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M0619-16BMSD,,71460
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 59 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btex.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.500	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

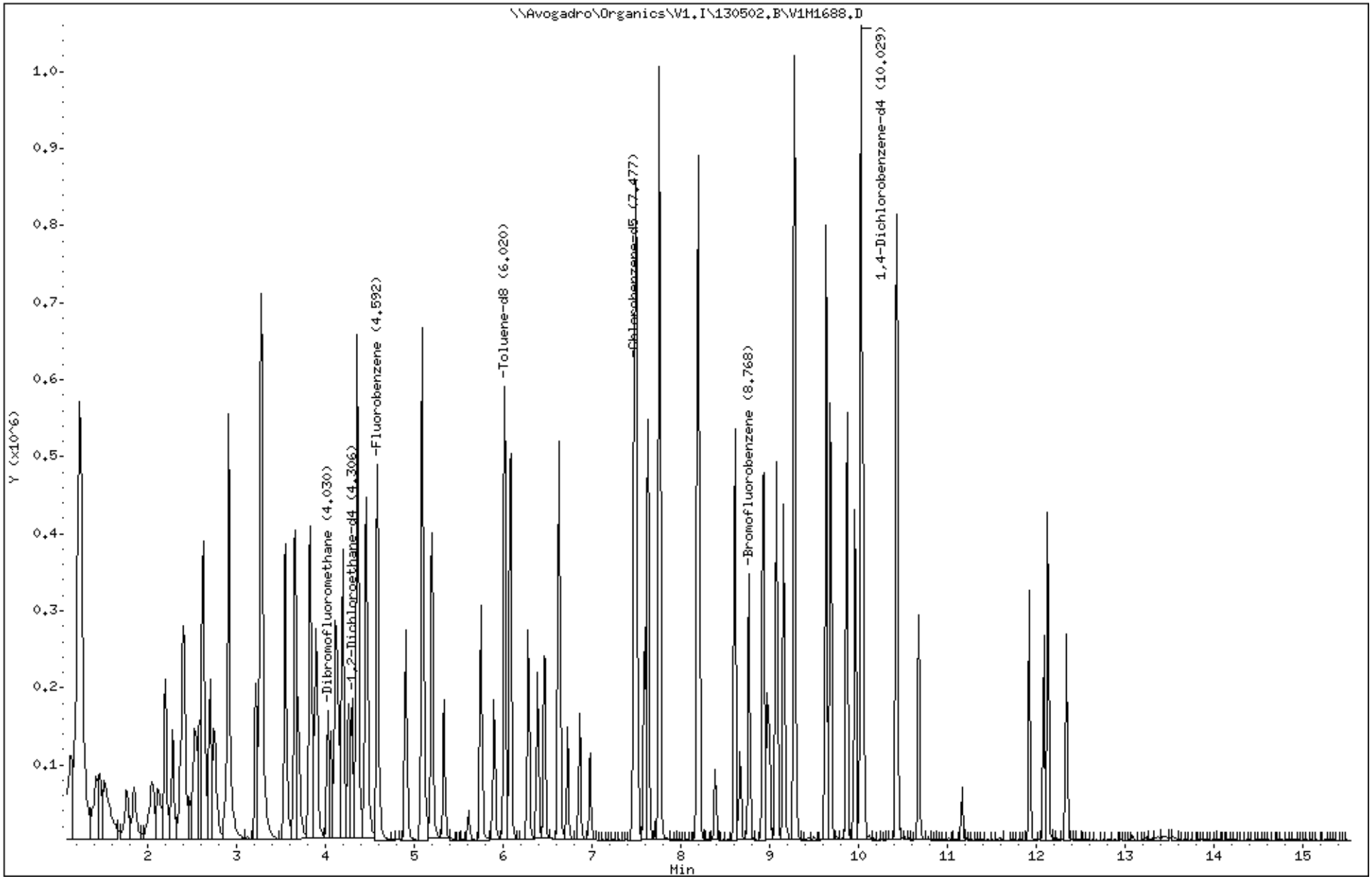
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
$	32 Dibromofluoromethane	113	4.030	4.024	(0.878)	104575	50.0000	52
$	37 1,2-Dichloroethane-d4	102	4.305	4.300	(0.938)	30996	50.0000	51
	38 Benzene	78	4.364	4.359	(0.951)	418450	50.0000	46
*	41 Fluorobenzene	96	4.591	4.585	(1.000)	420247	50.0000	
$	51 Toluene-d8	98	6.019	6.013	(0.805)	367989	50.0000	48
	52 Toluene	91	6.088	6.082	(1.326)	369177	50.0000	45
*	60 Chlorobenzene-d5	117	7.477	7.471	(1.000)	296611	50.0000	
	64 Ethylbenzene	106	7.635	7.629	(1.021)	121735	50.0000	43
	65 m,p-Xylene	106	7.763	7.757	(1.038)	320150	100.000	87
	66 o-Xylene	106	8.196	8.190	(1.096)	157318	50.0000	45
$	70 Bromofluorobenzene	95	8.767	8.761	(1.173)	139830	50.0000	52
M	81 Xylene (Total)	106				477468	150.000	130
*	84 1,4-Dichlorobenzene-d4	152	10.028	10.032	(1.000)	128417	50.0000	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1688.D
Date : 02-MAY-2013 11:52
Client ID: DUP1MSD
Sample Info: 5ML,M0619-16BMSD,,71460

Instrument: V1.i

Operator: AM SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



M0619

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-71443

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-71443

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1652.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	51	
108-88-3	Toluene	51	
100-41-4	Ethylbenzene	52	
179601-23-1	m,p-Xylene	100	
95-47-6	o-Xylene	53	
1330-20-7	Xylene (Total)	160	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1652.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1652.D
Lab Smp Id: LCS-71443 Client Smp ID: LCS-71443
Inj Date : 01-MAY-2013 09:14
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,LCS-71443,LCS-71443,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 53 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.348	1.301	(0.294)	39316	50.0000	54(QM)M6 AM 05/08
2	Chloromethane	50	1.427	1.429	(0.311)	183903	50.0000	47
3	Vinyl Chloride	62	1.535	1.537	(0.335)	139791	50.0000	48
4	Bromomethane	94	1.762	1.764	(0.384)	69224	50.0000	48
5	Chloroethane	64	1.841	1.842	(0.401)	95433	50.0000	49
6	Trichlorofluoromethane	101	2.028	2.020	(0.442)	87759	50.0000	50
127	Ethanol	46	2.116	2.118	(0.461)	67494	5000.00	3600
7	Ether	59	2.195	2.197	(0.478)	111890	50.0000	52(Q)
8	Acrolein	56	2.274	2.276	(0.496)	115263	250.000	230
9	1,1-Dichloroethene	96	2.392	2.394	(0.521)	115433	50.0000	50
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.402	2.404	(0.524)	116543	50.0000	52
11	Acetone	58	2.392	2.384	(0.521)	20420	50.0000	47
12	Iodomethane	142	2.510	2.512	(0.547)	185730	50.0000	51
13	Carbon Disulfide	76	2.540	2.542	(0.554)	328465	50.0000	51
14	Acetonitrile	40	2.579	2.581	(0.562)	133254	500.000	450(Q)
15	Methyl Acetate	43	2.629	2.620	(0.573)	143989	50.0000	49
16	Methylene Chloride	84	2.698	2.739	(0.588)	138608	50.0000	44
17	tert-Butanol	59	2.776	2.778	(0.605)	24236	100.000	90
18	Acrylonitrile	53	2.865	2.867	(0.624)	54441	50.0000	50
20	Methyl tert-butyl ether	73	2.904	2.906	(0.633)	264352	50.0000	51
19	trans-1,2-Dichloroethene	96	2.904	2.906	(0.633)	123471	50.0000	51

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	21 1,1-Dichloroethane	63	3.210	3.211	(0.700)	231612	50.0000	50
	22 Vinyl acetate	43	3.249	3.251	(0.708)	501229	50.0000	51
	23 Diisopropyl Ether	45	3.269	3.271	(0.712)	620761	50.0000	51
	24 Ethyl tert-butyl ether	59	3.545	3.546	(0.772)	381459	50.0000	49
M	27 1,2-dichloroethene, (Total)	100				251498	100.000	100
	25 cis-1,2-Dichloroethene	96	3.653	3.655	(0.796)	128027	50.0000	51
	26 2,2-Dichloropropane	77	3.653	3.655	(0.796)	70515	50.0000	51
	28 2-Butanone	72	3.653	3.655	(0.796)	15019	50.0000	50(Q)
	29 Bromochloromethane	128	3.840	3.842	(0.837)	63330	50.0000	54
	30 Tetrahydrofuran	72	3.880	3.881	(0.845)	25986	100.000	95
	31 Chloroform	83	3.899	3.901	(0.850)	168986	50.0000	50
$	32 Dibromofluoromethane	113	4.027	4.029	(0.878)	102659	50.0000	50
	33 1,1,1-Trichloroethane	97	4.057	4.058	(0.884)	106836	50.0000	51
	34 Cyclohexane	56	4.116	4.118	(0.897)	269377	50.0000	51
	36 Carbon Tetrachloride	117	4.205	4.196	(0.916)	99649	50.0000	49
	35 1,1-Dichloropropene	110	4.195	4.187	(0.914)	53916	50.0000	52
$	37 1,2-Dichloroethane-d4	102	4.303	4.305	(0.938)	33810	50.0000	54
	38 Benzene	78	4.362	4.364	(0.951)	470889	50.0000	51
	39 1,2-Dichloroethane	62	4.362	4.364	(0.951)	116074	50.0000	52
	40 tert-Amyl methyl ether	73	4.461	4.452	(0.972)	286271	50.0000	50
*	41 Fluorobenzene	96	4.589	4.590	(1.000)	427681	50.0000	
	42 Trichloroethene	130	4.914	4.906	(1.071)	120577	50.0000	52
	43 Methylcyclohexane	83	5.091	5.093	(1.109)	205212	50.0000	53
	44 1,2-Dichloropropane	63	5.101	5.093	(1.112)	137382	50.0000	52
	46 Dibromomethane	93	5.199	5.201	(1.133)	63439	50.0000	52
	47 1,4-Dioxane	88	5.219	5.211	(1.137)	16062	1000.00	680
	48 Bromodichloromethane	83	5.347	5.339	(1.165)	126066	50.0000	52
	45 2-Chloroethyl vinyl ether	63	5.623	5.615	(1.225)	18108	50.0000	24
	49 cis-1,3-Dichloropropene	75	5.761	5.753	(1.255)	188507	50.0000	53
	50 4-Methyl-2-pentanone	43	5.909	5.900	(1.288)	144017	50.0000	48
$	51 Toluene-d8	98	6.027	6.019	(0.805)	372754	50.0000	49
	52 Toluene	91	6.086	6.078	(1.326)	421776	50.0000	50
	53 trans-1,3-Dichloropropene	75	6.293	6.284	(1.371)	145971	50.0000	53
	54 1,1,2-Trichloroethane	97	6.470	6.462	(1.410)	87495	50.0000	53
	55 Tetrachloroethene	164	6.637	6.629	(0.887)	89427	50.0000	56
	56 1,3-Dichloropropane	76	6.637	6.629	(0.887)	167159	50.0000	52
	57 2-Hexanone	43	6.736	6.728	(0.900)	103552	50.0000	43
	58 Dibromochloromethane	129	6.874	6.866	(0.918)	99353	50.0000	56
	59 1,2-Dibromoethane	107	6.982	6.974	(0.933)	92571	50.0000	51
*	60 Chlorobenzene-d5	117	7.484	7.476	(1.000)	297502	50.0000	
	63 1-Chlorohexane	91	7.504	7.496	(1.003)	175615	50.0000	53
	61 Chlorobenzene	112	7.514	7.506	(1.004)	290538	50.0000	51
	62 1,1,1,2-Tetrachloroethane	131	7.603	7.594	(1.016)	102919	50.0000	54
	64 Ethylbenzene	106	7.642	7.634	(1.021)	147744	50.0000	52
	65 m,p-Xylene	106	7.770	7.762	(1.038)	382092	100.000	100
	66 o-Xylene	106	8.194	8.185	(1.095)	187328	50.0000	53
	67 Styrene	104	8.213	8.205	(1.097)	318884	50.0000	51
	68 Bromoform	173	8.391	8.382	(1.121)	57329	50.0000	60
	69 Isopropylbenzene	105	8.617	8.609	(1.151)	472722	50.0000	53
	126 trans-1,4-Dichloro-2-butene	75	8.676	8.668	(1.159)	38714	50.0000	60
$	70 Bromofluorobenzene	95	8.775	8.757	(1.172)	135362	50.0000	50
	72 Bromobenzene	156	8.932	8.924	(0.890)	110009	50.0000	50
	71 1,1,2,2-Tetrachloroethane	83	8.942	8.924	(0.891)	126901	50.0000	49
	73 1,2,3-Trichloropropane	75	8.982	8.964	(0.895)	125062	50.0000	50

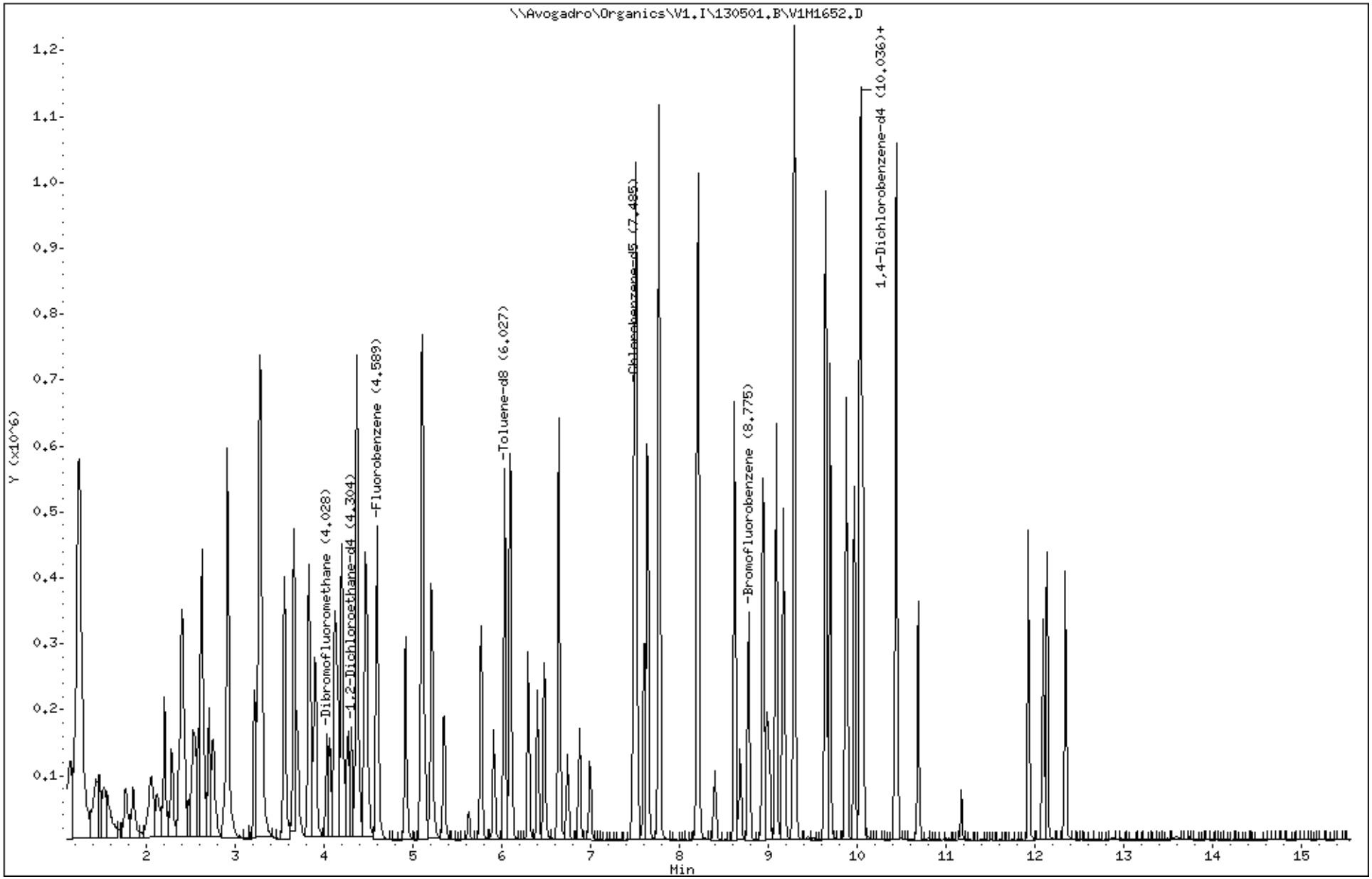
Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1652.D
Report Date: 08-May-2013 11:54

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
74	n-Propylbenzene	120	8.617	8.609	(0.859)	124236	50.0000	52
75	2-Chlorotoluene	126	9.169	9.151	(0.914)	114496	50.0000	52
76	1,3,5-Trimethylbenzene	105	9.287	9.279	(0.925)	376107	50.0000	52
77	4-Chlorotoluene	126	9.287	9.279	(0.925)	117490	50.0000	52
78	tert-Butylbenzene	119	9.642	9.623	(0.961)	392043	50.0000	53
79	1,2,4-Trimethylbenzene	105	9.691	9.683	(0.966)	373214	50.0000	51
M 81	Xylene (Total)	106				569420	150.000	160
80	sec-Butylbenzene	105	9.878	9.860	(0.984)	533317	50.0000	54
82	1,3-Dichlorobenzene	146	9.967	9.958	(0.993)	221432	50.0000	52
83	4-Isopropyltoluene	119	10.026	10.017	(0.999)	416859	50.0000	54
* 84	1,4-Dichlorobenzene-d4	152	10.036	10.027	(1.000)	130761	50.0000	
85	1,4-Dichlorobenzene	146	10.055	10.047	(1.002)	228887	50.0000	52
86	n-Butylbenzene	91	10.439	10.431	(1.040)	390396	50.0000	54
87	1,2-Dichlorobenzene	146	10.430	10.421	(1.039)	209976	50.0000	53
88	1,2-Dibromo-3-chloropropane	75	11.168	11.160	(1.113)	14494	50.0000	56
89	1,2,4-Trichlorobenzene	180	11.927	11.918	(1.188)	131748	50.0000	60
90	Hexachlorobutadiene	225	12.094	12.086	(1.205)	65088	50.0000	66
91	Naphthalene	128	12.134	12.125	(1.209)	306197	50.0000	56
92	1,2,3-Trichlorobenzene	180	12.340	12.342	(1.230)	110520	50.0000	60

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1652.D
Date : 01-MAY-2013 09:14
Client ID: LCS-71443
Instrument: V1.i
Sample Info: 5ML,LCS-71443,LCS-71443,71443
Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-71460

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-71460

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1682.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	51	
108-88-3	Toluene	50	
100-41-4	Ethylbenzene	49	
179601-23-1	m,p-Xylene	99	
95-47-6	o-Xylene	50	
1330-20-7	Xylene (Total)	150	

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1682.D
Report Date: 08-May-2013 11:57

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130502.B\V1M1682.D
Lab Smp Id: LCS-71460 Client Smp ID: LCS-71460
Inj Date : 02-MAY-2013 09:06
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,LCS-71460,LCS-71460,71460
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130502.B\v18260GH.m
Meth Date : 08-May-2013 11:56 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 53 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.295	1.295	(0.283)	22463	50.0000	33(Q)
2	Chloromethane	50	1.433	1.433	(0.313)	209350	50.0000	58
3	Vinyl Chloride	62	1.522	1.522	(0.332)	134741	50.0000	50
4	Bromomethane	94	1.778	1.778	(0.388)	64423	50.0000	47
5	Chloroethane	64	1.867	1.867	(0.407)	87581	50.0000	48
6	Trichlorofluoromethane	101	2.034	2.034	(0.444)	78256	50.0000	48
127	Ethanol	46	2.113	2.113	(0.461)	12066	5000.00	680(Q)
7	Ether	59	2.202	2.202	(0.480)	103138	50.0000	52(Q)
8	Acrolein	56	2.280	2.280	(0.497)	72046	250.000	160
9	1,1-Dichloroethene	96	2.369	2.369	(0.517)	109239	50.0000	50
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.418	2.418	(0.527)	82000	50.0000	39
11	Acetone	58	2.389	2.389	(0.521)	11368	50.0000	28(Q)
12	Iodomethane	142	2.517	2.517	(0.549)	66666	50.0000	20
13	Carbon Disulfide	76	2.527	2.527	(0.551)	229913	50.0000	38
14	Acetonitrile	40	2.615	2.615	(0.570)	94295	500.000	340(Q)
15	Methyl Acetate	43	2.625	2.625	(0.573)	143742	50.0000	52
16	Methylene Chloride	84	2.704	2.704	(0.590)	56687	50.0000	19
17	tert-Butanol	59	2.773	2.773	(0.605)	12168	100.000	49
18	Acrylonitrile	53	2.871	2.871	(0.626)	53174	50.0000	53
20	Methyl tert-butyl ether	73	2.911	2.911	(0.635)	260488	50.0000	54
19	trans-1,2-Dichloroethene	96	2.911	2.911	(0.635)	111983	50.0000	49

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	21 1,1-Dichloroethane	63	3.216	3.216	(0.701)	216326	50.0000	50
	22 Vinyl acetate	43	3.246	3.246	(0.708)	480621	50.0000	52
	23 Diisopropyl Ether	45	3.275	3.275	(0.714)	589345	50.0000	52
	24 Ethyl tert-butyl ether	59	3.541	3.541	(0.772)	391604	50.0000	54
M	27 1,2-dichloroethene, (Total)	100				230155	100.000	100
	25 cis-1,2-Dichloroethene	96	3.649	3.649	(0.796)	118172	50.0000	50
	26 2,2-Dichloropropane	77	3.659	3.659	(0.798)	60655	50.0000	47
	28 2-Butanone	72	3.649	3.649	(0.796)	12627	50.0000	45(Q)
	29 Bromochloromethane	128	3.837	3.837	(0.837)	56551	50.0000	52
	30 Tetrahydrofuran	72	3.876	3.876	(0.845)	23954	100.000	94
	31 Chloroform	83	3.896	3.896	(0.850)	157966	50.0000	50
$	32 Dibromofluoromethane	113	4.024	4.024	(0.878)	95936	50.0000	50
	33 1,1,1-Trichloroethane	97	4.063	4.063	(0.886)	85386	50.0000	43
	34 Cyclohexane	56	4.112	4.112	(0.897)	239880	50.0000	48
	36 Carbon Tetrachloride	117	4.201	4.201	(0.916)	81353	50.0000	43
	35 1,1-Dichloropropene	110	4.191	4.191	(0.914)	49691	50.0000	51
$	37 1,2-Dichloroethane-d4	102	4.300	4.300	(0.938)	30141	50.0000	52
	38 Benzene	78	4.359	4.359	(0.951)	434381	50.0000	51
	39 1,2-Dichloroethane	62	4.359	4.359	(0.951)	103156	50.0000	49
	40 tert-Amyl methyl ether	73	4.457	4.457	(0.972)	287784	50.0000	53
*	41 Fluorobenzene	96	4.585	4.585	(1.000)	399875	50.0000	
	42 Trichloroethene	130	4.900	4.900	(1.069)	109467	50.0000	50
	43 Methylcyclohexane	83	5.088	5.088	(1.110)	178380	50.0000	50
	44 1,2-Dichloropropane	63	5.097	5.097	(1.112)	125178	50.0000	51
	46 Dibromomethane	93	5.196	5.196	(1.133)	56151	50.0000	49
	47 1,4-Dioxane	88	5.206	5.206	(1.135)	8251	1000.00	370
	48 Bromodichloromethane	83	5.334	5.334	(1.163)	108758	50.0000	48
	45 2-Chloroethyl vinyl ether	63	5.610	5.610	(1.223)	17457	50.0000	25
	49 cis-1,3-Dichloropropene	75	5.747	5.747	(1.253)	167776	50.0000	51
	50 4-Methyl-2-pentanone	43	5.895	5.895	(1.286)	141150	50.0000	50
$	51 Toluene-d8	98	6.013	6.013	(0.805)	355334	50.0000	49
	52 Toluene	91	6.082	6.082	(1.326)	387953	50.0000	50
	53 trans-1,3-Dichloropropene	75	6.279	6.279	(1.369)	133172	50.0000	52
	54 1,1,2-Trichloroethane	97	6.466	6.466	(1.410)	79764	50.0000	51
	55 Tetrachloroethene	164	6.634	6.634	(0.888)	79370	50.0000	52
	56 1,3-Dichloropropane	76	6.634	6.634	(0.888)	154152	50.0000	50
	57 2-Hexanone	43	6.723	6.723	(0.900)	100537	50.0000	44
	58 Dibromochloromethane	129	6.870	6.870	(0.920)	81654	50.0000	48
	59 1,2-Dibromoethane	107	6.979	6.979	(0.934)	87645	50.0000	51
*	60 Chlorobenzene-d5	117	7.471	7.471	(1.000)	282359	50.0000	
	63 1-Chlorohexane	91	7.491	7.491	(1.003)	155428	50.0000	50
	61 Chlorobenzene	112	7.501	7.501	(1.004)	256069	50.0000	48
	62 1,1,1,2-Tetrachloroethane	131	7.589	7.589	(1.016)	87972	50.0000	49
	64 Ethylbenzene	106	7.629	7.629	(1.021)	134068	50.0000	49
	65 m,p-Xylene	106	7.757	7.757	(1.038)	346106	100.000	99
	66 o-Xylene	106	8.190	8.190	(1.096)	165858	50.0000	50
	67 Styrene	104	8.200	8.200	(1.098)	287334	50.0000	48
	68 Bromoform	173	8.387	8.387	(1.123)	42017	50.0000	46(T)
	69 Isopropylbenzene	105	8.604	8.604	(1.152)	416412	50.0000	50
	126 trans-1,4-Dichloro-2-butene	75	8.663	8.663	(1.160)	24771	50.0000	41
$	70 Bromofluorobenzene	95	8.761	8.761	(1.173)	125229	50.0000	49
	72 Bromobenzene	156	8.929	8.929	(0.890)	96709	50.0000	48
	71 1,1,2,2-Tetrachloroethane	83	8.929	8.929	(0.890)	114435	50.0000	48
	73 1,2,3-Trichloropropane	75	8.978	8.978	(0.895)	107327	50.0000	46

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
74	n-Propylbenzene	120	8.614	8.614	(0.859)	112424	50.0000	51
75	2-Chlorotoluene	126	9.155	9.155	(0.913)	99418	50.0000	49
76	1,3,5-Trimethylbenzene	105	9.283	9.283	(0.925)	333931	50.0000	51
77	4-Chlorotoluene	126	9.283	9.283	(0.925)	101655	50.0000	49
78	tert-Butylbenzene	119	9.628	9.628	(0.960)	349309	50.0000	51
79	1,2,4-Trimethylbenzene	105	9.687	9.687	(0.966)	342364	50.0000	51
M 81	Xylene (Total)	106				511964	150.000	150
80	sec-Butylbenzene	105	9.865	9.865	(0.983)	474125	50.0000	52
82	1,3-Dichlorobenzene	146	9.963	9.963	(0.993)	194260	50.0000	49
83	4-Isopropyltoluene	119	10.022	10.022	(0.999)	370818	50.0000	52
* 84	1,4-Dichlorobenzene-d4	152	10.032	10.032	(1.000)	120305	50.0000	
85	1,4-Dichlorobenzene	146	10.052	10.052	(1.002)	198369	50.0000	49
86	n-Butylbenzene	91	10.436	10.436	(1.040)	344105	50.0000	52
87	1,2-Dichlorobenzene	146	10.426	10.426	(1.039)	182833	50.0000	50
88	1,2-Dibromo-3-chloropropane	75	11.165	11.165	(1.113)	12682	50.0000	53
89	1,2,4-Trichlorobenzene	180	11.923	11.923	(1.188)	115344	50.0000	57
90	Hexachlorobutadiene	225	12.091	12.091	(1.205)	59418	50.0000	65
91	Naphthalene	128	12.130	12.130	(1.209)	406321	50.0000	81
92	1,2,3-Trichlorobenzene	180	12.347	12.347	(1.231)	97919	50.0000	58

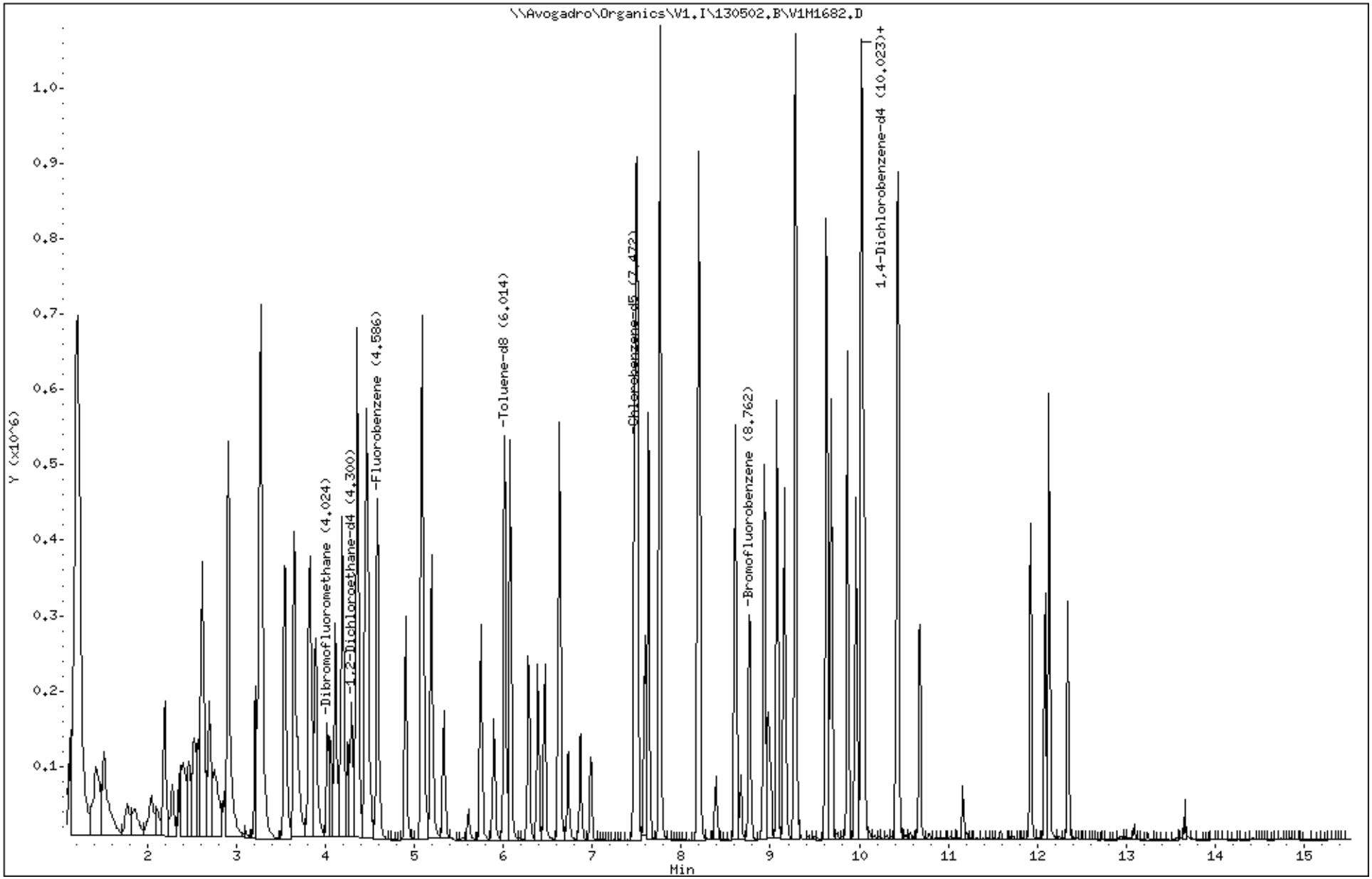
QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\130502.B\V1M1682.D
Date : 02-MAY-2013 09:06
Client ID: LCS-71460
Sample Info: 5ML,LCS-71460,LCS-71460,71460

Instrument: V1.i

Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-71469

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-71469

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V8B9533.D

Level: (TRACE/LOW/MED) MED Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/02/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2600	
108-88-3	Toluene	2200	
100-41-4	Ethylbenzene	2400	
179601-23-1	m,p-Xylene	4700	
95-47-6	o-Xylene	2400	
1330-20-7	Xylene (Total)	7100	

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9533.d
Report Date: 08-May-2013 11:37

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V8.I\130502.B\V8B9533.d
Lab Smp Id: LCS-71469 Client Smp ID: LCS-71469
Inj Date : 02-MAY-2013 09:32
Operator : V10   SRC: LIMS Inst ID: V8.i
Smp Info : 5ML,LCS-71469,LCS-71469,71469
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V8.I\130502.B\v108260Gadd-6lvl.m
Meth Date : 08-May-2013 11:36 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 15:07 Cal File: V8B9281.d
Als bottle: 100 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula:
   Amt * DF * Uf*((Vt+(Ws*M/100))*5000)/(Va*Ws*((100-M)/100))) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Vt	5.000	Methanol extract volume (mL)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.651	1.654	(0.311)	412361	50.0000	56
2	Freon114	85	1.770	1.773	(0.334)	527086	50.0000	54
3	Chloromethane	50	1.824	1.828	(0.344)	556569	50.0000	54
4	Vinyl Chloride	62	1.924	1.924	(0.363)	627479	50.0000	62
5	Bromomethane	94	2.210	2.213	(0.417)	376572	50.0000	54
6	Chloroethane	64	2.300	2.300	(0.434)	378032	50.0000	69
7	Trichlorofluoromethane	101	2.512	2.512	(0.474)	933694	50.0000	75
126	Ethanol	46	2.638	2.638	(0.497)	241112	5000.00	6900(A)
8	Ether	59	2.737	2.737	(0.516)	502839	50.0000	60
9	Acrolein	56	2.840	2.840	(0.536)	662607	250.000	280
10	1,1-Dichloroethene	96	2.927	2.930	(0.552)	507277	50.0000	54
11	1,1,2-Trichloro-1,2,2-Trifluo	101	2.924	2.924	(0.551)	536091	50.0000	57
12	Acetone	58	2.959	2.963	(0.558)	78988	50.0000	56
13	Iodomethane	142	3.059	3.059	(0.577)	414148	50.0000	42
14	Carbon Disulfide	76	3.120	3.123	(0.588)	1612784	50.0000	51
15	Acetonitrile	41	3.210	3.210	(0.605)	1030216	500.000	550(A)
16	Allyl Chloride	39	3.210	3.213	(0.605)	721266	50.0000	60
17	Methyl Acetate	43	3.216	3.217	(0.607)	552169	50.0000	59
18	Methylene Chloride	84	3.303	3.307	(0.623)	623192	50.0000	52

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	19	tert-Butanol	59	3.361	3.364	(0.634)	101492	100.000	100
	20	Acrylonitrile	53	3.493	3.496	(0.659)	229021	50.0000	59
	21	trans-1,2-Dichloroethene	96	3.525	3.528	(0.665)	551315	50.0000	54
	22	Methyl tert-butyl ether	73	3.515	3.519	(0.663)	1712966	50.0000	58
	23	1,1-Dichloroethane	63	3.856	3.856	(0.727)	1127508	50.0000	58
	24	Vinyl acetate	43	3.888	3.885	(0.733)	1804124	50.0000	60
	25	Diisopropyl Ether	45	3.892	3.895	(0.734)	1990029	50.0000	58
	26	2-Chloro-1,3-Butadiene	53	3.933	3.934	(0.742)	897218	50.0000	57
	27	Ethyl tert-butyl ether	59	4.184	4.184	(0.789)	1867807	50.0000	58
	29	2,2-Dichloropropane	77	4.329	4.332	(0.816)	969334	50.0000	62
	28	cis-1,2-Dichloroethene	96	4.326	4.326	(0.816)	608641	50.0000	54
	30	2-Butanone	72	4.329	4.329	(0.816)	76104	50.0000	56
	32	Propionitrile	54	4.371	4.371	(0.824)	816728	500.000	550(A)
	33	Methacrylonitrile	41	4.503	4.503	(0.849)	715975	100.000	120
	34	Bromochloromethane	128	4.525	4.525	(0.853)	286038	50.0000	54
	31	Tetrahydrofuran	72	4.567	4.567	(0.861)	141530	100.000	110
	35	Chloroform	83	4.576	4.580	(0.863)	1146083	50.0000	60
$	36	Dibromofluoromethane	113	4.715	4.715	(0.889)	492357	50.0000	54
	37	1,1,1-Trichloroethane	97	4.753	4.757	(0.896)	987677	50.0000	61
	38	Cyclohexane	56	4.811	4.811	(0.907)	916738	50.0000	54
	39	1,1-Dichloropropene	110	4.892	4.895	(0.922)	265838	50.0000	53
	40	Carbon Tetrachloride	117	4.898	4.898	(0.924)	829087	50.0000	61
	41	Isobutyl Alcohol	43	4.930	4.930	(0.930)	461884	1000.00	1300(A)
$	42	1,2-Dichloroethane-d4	102	5.011	5.014	(0.945)	105693	50.0000	51
	43	Benzene	78	5.075	5.075	(0.957)	2305299	50.0000	52
	44	1,2-Dichloroethane	62	5.078	5.078	(0.958)	986211	50.0000	63
	45	tert-Amyl methyl ether	73	5.146	5.146	(0.970)	1606373	50.0000	56
M	50	1,2-Dichloroethene (Total)	96				1159956	100.000	110
*	46	Fluorobenzene	96	5.303	5.306	(1.000)	1781649	50.0000	
	47	Trichloroethene	130	5.634	5.634	(1.062)	536699	50.0000	52
	48	Methylcyclohexane	83	5.824	5.824	(1.098)	872356	50.0000	55
	49	1,2-Dichloropropane	63	5.840	5.840	(1.101)	615375	50.0000	55
	51	Methyl Methacrylate	69	5.914	5.914	(1.115)	462761	50.0000	56
	52	Dibromomethane	93	5.949	5.950	(1.122)	397813	50.0000	59
	53	1,4-Dioxane	88	5.949	5.950	(1.122)	130669	1000.00	1100(A)
	54	Bromodichloromethane	83	6.081	6.081	(1.147)	892120	50.0000	62
	55	2-Chloroethyl vinyl ether	63	6.512	6.512	(1.228)	5843	50.0000	62(T)
	56	cis-1,3-Dichloropropene	75	6.509	6.509	(1.227)	972441	50.0000	56
	57	4-Methyl-2-pentanone	43	6.647	6.647	(1.253)	545917	50.0000	57
$	58	Toluene-d8	98	6.785	6.786	(0.818)	1813928	50.0000	48
	59	Toluene	91	6.853	6.853	(1.292)	2360477	50.0000	45
	60	trans-1,3-Dichloropropene	75	7.052	7.052	(1.330)	938804	50.0000	59
	61	Ethyl Methacrylate	69	7.133	7.133	(1.345)	615177	50.0000	55
	62	1,1,2-Trichloroethane	97	7.242	7.245	(1.366)	528351	50.0000	56
	63	Tetrachloroethene	164	7.416	7.416	(0.895)	443551	50.0000	48
	64	1,3-Dichloropropane	76	7.422	7.422	(0.895)	943870	50.0000	53
	65	2-Hexanone	43	7.496	7.496	(0.904)	390066	50.0000	52
	66	Dibromochloromethane	129	7.663	7.660	(0.924)	626164	50.0000	54
	67	1,2-Dibromoethane	107	7.798	7.798	(0.941)	563633	50.0000	52
	69	1-Chlorohexane	91	8.284	8.284	(0.999)	740445	50.0000	47
*	68	Chlorobenzene-d5	117	8.290	8.290	(1.000)	1419794	50.0000	
	70	Chlorobenzene	112	8.322	8.322	(1.004)	1507748	50.0000	49
	71	1,1,1,2-Tetrachloroethane	131	8.403	8.406	(1.014)	571035	50.0000	53
	72	Ethylbenzene	106	8.438	8.438	(1.018)	784416	50.0000	48

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	73	m,p-Xylene	106	8.567	8.567	(1.033)	1945838	100.000	94
	74	o-Xylene	106	9.014	9.014	(1.087)	944695	50.0000	48
	75	Styrene	104	9.026	9.027	(1.089)	1585574	50.0000	49
	76	Bromoform	173	9.232	9.232	(1.114)	388582	50.0000	53
	77	Isopropylbenzene	105	9.422	9.422	(1.137)	2465972	50.0000	52
	78	trans-1,4-Dichloro-2-butene	75	9.486	9.486	(1.144)	222654	50.0000	51
$	79	Bromofluorobenzene	95	9.589	9.589	(1.157)	736233	50.0000	53
	80	1,1,2,2-Tetrachloroethane	83	9.731	9.731	(0.902)	743911	50.0000	49
	81	Bromobenzene	156	9.756	9.753	(0.905)	625661	50.0000	47
	82	1,2,3-Trichloropropane	75	9.785	9.785	(0.908)	934407	50.0000	49
	83	n-Propylbenzene	120	9.866	9.866	(0.915)	623755	50.0000	48
	84	2-Chlorotoluene	126	9.959	9.959	(0.924)	584170	50.0000	48
	85	1,3,5-Trimethylbenzene	105	10.049	10.049	(0.932)	2056686	50.0000	50
	86	4-Chlorotoluene	126	10.071	10.072	(0.934)	608348	50.0000	48
M	94	Xylene (Total)	106				2890533	150.000	140
	87	tert-Butylbenzene	119	10.387	10.387	(0.963)	2047041	50.0000	50
	88	1,2,4-Trimethylbenzene	105	10.435	10.435	(0.968)	2104578	50.0000	50
	89	sec-Butylbenzene	105	10.608	10.609	(0.984)	2545728	50.0000	51
	90	1,3-Dichlorobenzene	146	10.721	10.721	(0.994)	1133332	50.0000	49
	91	4-Isopropyltoluene	119	10.753	10.753	(0.997)	2063952	50.0000	52
*	92	1,4-Dichlorobenzene-d4	152	10.782	10.782	(1.000)	720878	50.0000	
	93	1,4-Dichlorobenzene	146	10.808	10.808	(1.002)	1195797	50.0000	49
	95	n-Butylbenzene	91	11.152	11.155	(1.034)	1990653	50.0000	56
	96	1,2-Dichlorobenzene	146	11.171	11.171	(1.036)	1130865	50.0000	50
	97	Hexachloroethane	117	11.415	11.416	(1.059)	411826	50.0000	53
	98	1,2-Dibromo-3-chloropropane	75	11.895	11.895	(1.103)	133455	50.0000	50
	141	1,3,5-Trichlorobenzene	182	12.640	12.641	(2.383)	614638	50.0000	56(A)
	99	1,2,4-Trichlorobenzene	180	12.640	12.641	(1.172)	639410	50.0000	49
	100	Hexachlorobutadiene	225	12.785	12.785	(1.186)	326050	50.0000	51
	101	Naphthalene	128	12.856	12.856	(1.192)	1356478	50.0000	48
	102	1,2,3-Trichlorobenzene	180	13.062	13.062	(1.211)	584152	50.0000	48

QC Flag Legend

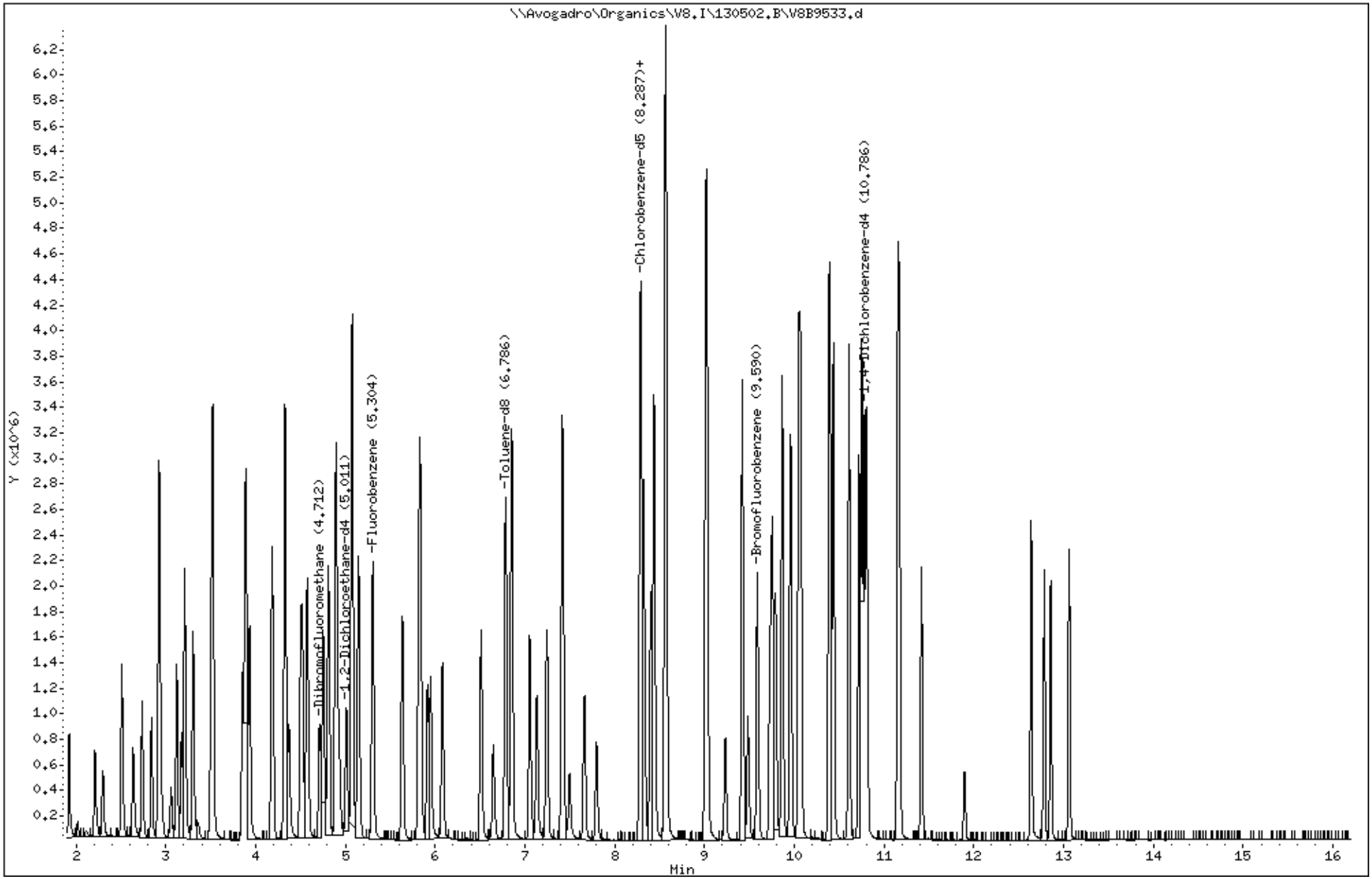
T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\Avogadro\Organics\V8.I\130502.B\V8B9533.d
Date : 02-MAY-2013 09:32
Client ID: LCS-71469
Sample Info: 5ML,LCS-71469,LCS-71469,71469

Instrument: V8.i

Operator: V10 SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSD-71443

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-71443

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M1653.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 05/01/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	50	
108-88-3	Toluene	50	
100-41-4	Ethylbenzene	50	
179601-23-1	m,p-Xylene	100	
95-47-6	o-Xylene	51	
1330-20-7	Xylene (Total)	150	

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1653.D
Report Date: 08-May-2013 11:54

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\130501.B\V1M1653.D
Lab Smp Id: LCSD-71443 Client Smp ID: LCSD-71443
Inj Date : 01-MAY-2013 09:40
Operator : AM SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,LCSD-71443,LCSD-71443,71443
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\130501.B\v18260GH.m
Meth Date : 08-May-2013 11:52 amarquis Quant Type: ISTD
Cal Date : 17-APR-2013 14:50 Cal File: V1M1554.D
Als bottle: 54 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.301	1.301	(0.283)	28209	50.0000	38
2	Chloromethane	50	1.429	1.429	(0.311)	183217	50.0000	47
3	Vinyl Chloride	62	1.537	1.537	(0.335)	132850	50.0000	45
4	Bromomethane	94	1.764	1.764	(0.384)	67505	50.0000	46
5	Chloroethane	64	1.842	1.842	(0.401)	94992	50.0000	48
6	Trichlorofluoromethane	101	2.020	2.020	(0.440)	81315	50.0000	46
127	Ethanol	46	2.118	2.118	(0.461)	80534	5000.00	4200
7	Ether	59	2.197	2.197	(0.479)	110438	50.0000	51(Q)
8	Acrolein	56	2.276	2.276	(0.496)	108750	250.000	220
9	1,1-Dichloroethene	96	2.394	2.394	(0.522)	111880	50.0000	48
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.404	2.404	(0.524)	110107	50.0000	48
11	Acetone	58	2.384	2.384	(0.519)	18887	50.0000	43
12	Iodomethane	142	2.512	2.512	(0.547)	187392	50.0000	51
13	Carbon Disulfide	76	2.542	2.542	(0.554)	270966	50.0000	41
14	Acetonitrile	40	2.581	2.581	(0.562)	126060	500.000	420(Q)
15	Methyl Acetate	43	2.620	2.620	(0.571)	143668	50.0000	48
16	Methylene Chloride	84	2.739	2.739	(0.597)	138078	50.0000	43
17	tert-Butanol	59	2.778	2.778	(0.605)	24665	100.000	91
18	Acrylonitrile	53	2.867	2.867	(0.625)	52911	50.0000	48
20	Methyl tert-butyl ether	73	2.906	2.906	(0.633)	266435	50.0000	51
19	trans-1,2-Dichloroethene	96	2.906	2.906	(0.633)	120722	50.0000	49

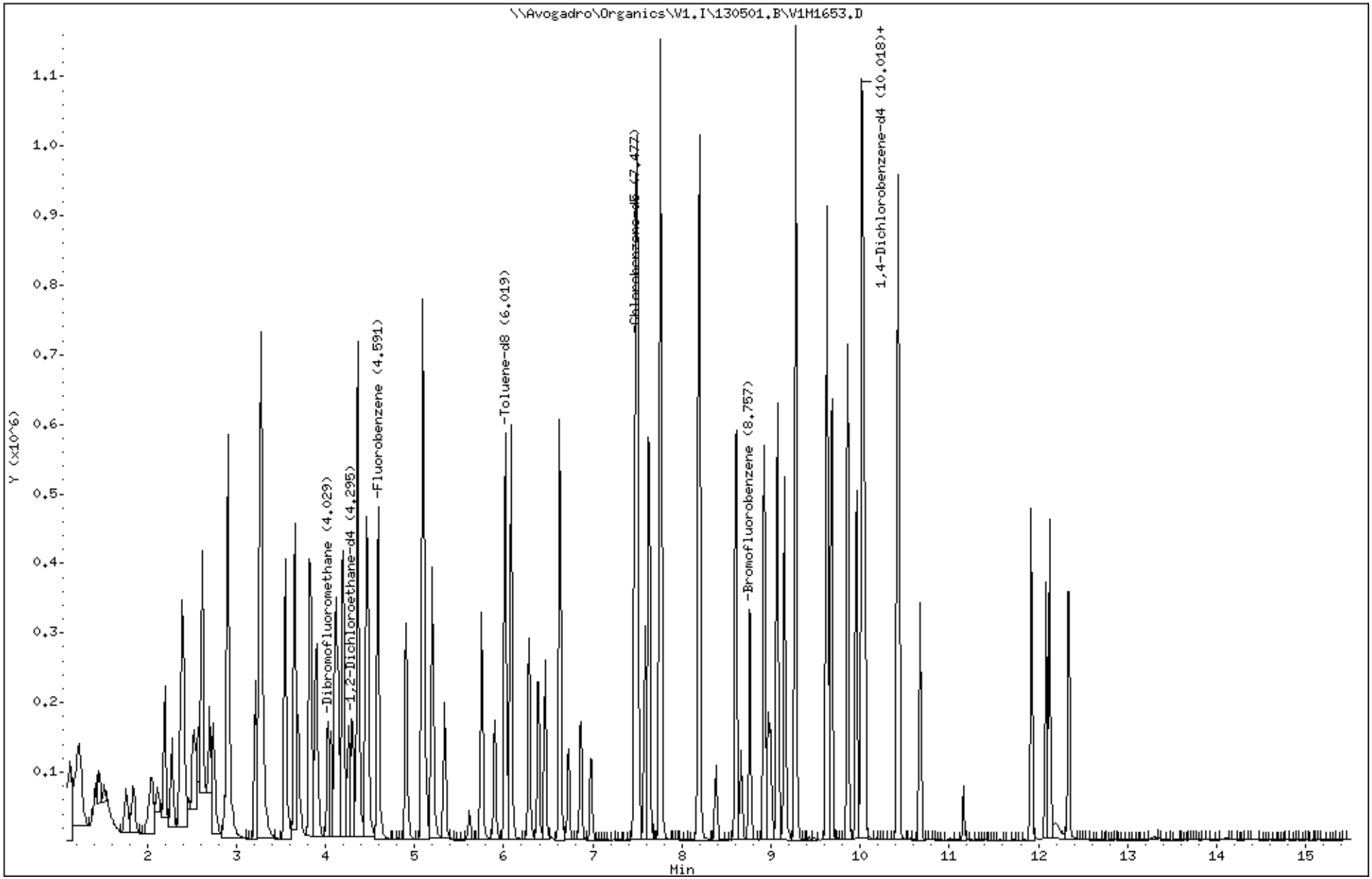
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	21 1,1-Dichloroethane	63	3.211	3.211	(0.700)	234281	50.0000	50
	22 Vinyl acetate	43	3.251	3.251	(0.708)	510856	50.0000	51
	23 Diisopropyl Ether	45	3.271	3.271	(0.713)	631081	50.0000	52
	24 Ethyl tert-butyl ether	59	3.546	3.546	(0.773)	371568	50.0000	48
M	27 1,2-dichloroethene, (Total)	100				250884	100.000	100
	25 cis-1,2-Dichloroethene	96	3.655	3.655	(0.796)	130162	50.0000	51
	26 2,2-Dichloropropane	77	3.655	3.655	(0.796)	70256	50.0000	50
	28 2-Butanone	72	3.655	3.655	(0.796)	13785	50.0000	45(Q)
	29 Bromochloromethane	128	3.842	3.842	(0.837)	62977	50.0000	53
	30 Tetrahydrofuran	72	3.881	3.881	(0.846)	26691	100.000	96
	31 Chloroform	83	3.901	3.901	(0.850)	171542	50.0000	50
$	32 Dibromofluoromethane	113	4.029	4.029	(0.878)	105948	50.0000	52
	33 1,1,1-Trichloroethane	97	4.058	4.058	(0.884)	110418	50.0000	52
	34 Cyclohexane	56	4.118	4.118	(0.897)	262230	50.0000	49
	36 Carbon Tetrachloride	117	4.196	4.196	(0.914)	100839	50.0000	49
	35 1,1-Dichloropropene	110	4.187	4.187	(0.912)	53562	50.0000	51
$	37 1,2-Dichloroethane-d4	102	4.305	4.305	(0.938)	30698	50.0000	49
	38 Benzene	78	4.364	4.364	(0.951)	467001	50.0000	50
	39 1,2-Dichloroethane	62	4.364	4.364	(0.951)	115781	50.0000	51
	40 tert-Amyl methyl ether	73	4.452	4.452	(0.970)	289981	50.0000	50
*	41 Fluorobenzene	96	4.590	4.590	(1.000)	432775	50.0000	
	42 Trichloroethene	130	4.906	4.906	(1.069)	116753	50.0000	50
	43 Methylcyclohexane	83	5.093	5.093	(1.109)	197412	50.0000	51
	44 1,2-Dichloropropane	63	5.093	5.093	(1.109)	135723	50.0000	51
	46 Dibromomethane	93	5.201	5.201	(1.133)	63423	50.0000	51
	47 1,4-Dioxane	88	5.211	5.211	(1.135)	19555	1000.00	820
	48 Bromodichloromethane	83	5.339	5.339	(1.163)	129881	50.0000	53
	45 2-Chloroethyl vinyl ether	63	5.615	5.615	(1.223)	18739	50.0000	25
	49 cis-1,3-Dichloropropene	75	5.753	5.753	(1.253)	192716	50.0000	54
	50 4-Methyl-2-pentanone	43	5.900	5.900	(1.285)	137072	50.0000	45
$	51 Toluene-d8	98	6.019	6.019	(0.805)	383003	50.0000	49
	52 Toluene	91	6.078	6.078	(1.324)	419291	50.0000	50
	53 trans-1,3-Dichloropropene	75	6.284	6.284	(1.369)	148250	50.0000	53
	54 1,1,2-Trichloroethane	97	6.462	6.462	(1.408)	86341	50.0000	51
	55 Tetrachloroethene	164	6.629	6.629	(0.887)	83416	50.0000	51
	56 1,3-Dichloropropane	76	6.629	6.629	(0.887)	165584	50.0000	50
	57 2-Hexanone	43	6.728	6.728	(0.900)	102277	50.0000	41
	58 Dibromochloromethane	129	6.866	6.866	(0.918)	101296	50.0000	55
	59 1,2-Dibromoethane	107	6.974	6.974	(0.933)	95916	50.0000	51
*	60 Chlorobenzene-d5	117	7.476	7.476	(1.000)	304292	50.0000	
	63 1-Chlorohexane	91	7.496	7.496	(1.003)	167341	50.0000	49
	61 Chlorobenzene	112	7.506	7.506	(1.004)	284540	50.0000	49
	62 1,1,1,2-Tetrachloroethane	131	7.594	7.594	(1.016)	99462	50.0000	51
	64 Ethylbenzene	106	7.634	7.634	(1.021)	147177	50.0000	50
	65 m,p-Xylene	106	7.762	7.762	(1.038)	381722	100.000	100
	66 o-Xylene	106	8.185	8.185	(1.095)	184579	50.0000	51
	67 Styrene	104	8.205	8.205	(1.097)	318711	50.0000	50
	68 Bromoform	173	8.382	8.382	(1.121)	54576	50.0000	56
	69 Isopropylbenzene	105	8.609	8.609	(1.151)	463137	50.0000	51
	126 trans-1,4-Dichloro-2-butene	75	8.668	8.668	(1.159)	38169	50.0000	58
$	70 Bromofluorobenzene	95	8.757	8.757	(1.171)	139257	50.0000	51
	72 Bromobenzene	156	8.924	8.924	(0.890)	109249	50.0000	47
	71 1,1,2,2-Tetrachloroethane	83	8.924	8.924	(0.890)	126114	50.0000	46
	73 1,2,3-Trichloropropane	75	8.964	8.964	(0.894)	130304	50.0000	49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	74 n-Propylbenzene	120	8.609	8.609	(0.859)	120736	50.0000	48
	75 2-Chlorotoluene	126	9.151	9.151	(0.913)	112987	50.0000	49
	76 1,3,5-Trimethylbenzene	105	9.279	9.279	(0.925)	369276	50.0000	49
	77 4-Chlorotoluene	126	9.279	9.279	(0.925)	114990	50.0000	48
	78 tert-Butylbenzene	119	9.623	9.623	(0.960)	384319	50.0000	49
	79 1,2,4-Trimethylbenzene	105	9.683	9.683	(0.966)	370263	50.0000	48
M	81 Xylene (Total)	106				566301	150.000	150
	80 sec-Butylbenzene	105	9.860	9.860	(0.983)	516116	50.0000	49
	82 1,3-Dichlorobenzene	146	9.958	9.958	(0.993)	219438	50.0000	49
	83 4-Isopropyltoluene	119	10.017	10.017	(0.999)	408975	50.0000	50
*	84 1,4-Dichlorobenzene-d4	152	10.027	10.027	(1.000)	137585	50.0000	
	85 1,4-Dichlorobenzene	146	10.047	10.047	(1.002)	228188	50.0000	49
	86 n-Butylbenzene	91	10.431	10.431	(1.040)	375949	50.0000	50
	87 1,2-Dichlorobenzene	146	10.421	10.421	(1.039)	210247	50.0000	50
	88 1,2-Dibromo-3-chloropropane	75	11.160	11.160	(1.113)	13971	50.0000	51(Q)
	89 1,2,4-Trichlorobenzene	180	11.918	11.918	(1.189)	129579	50.0000	56
	90 Hexachlorobutadiene	225	12.086	12.086	(1.205)	64218	50.0000	62
	91 Naphthalene	128	12.125	12.125	(1.209)	305686	50.0000	53
	92 1,2,3-Trichlorobenzene	180	12.342	12.342	(1.231)	110175	50.0000	57

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\130501.B\V1M1653.D
Date : 01-MAY-2013 09:40
Client ID: LCSD-71443
Instrument: V1.i
Sample Info: 5ML,LCSD-71443,LCSD-71443,71443
Operator: AM SRC: LIMS
Column phase: DB-624
Column diameter: 0.25



Percent Moisture and Percent Solids Report

Lab Sample ID	Client Sample ID	Analyzed	Percent Moisture	Percent Solids	Validated
M0619-01A	SB-126 (0-2)	05/07/2013	17.450	82.550	Yes
M0619-02A	SB-126 (8-10)	05/07/2013	12.330	87.670	Yes
M0619-03A	SB-126 (10.5-12.5)	05/07/2013	21.925	78.075	Yes
M0619-04A	SB-127 (3-5)	05/07/2013	11.892	88.108	Yes
M0619-05A	SB-127 (8-10)	05/07/2013	8.416	91.584	Yes
M0619-06A	SB-127 (10-12)	05/07/2013	22.016	77.984	Yes
M0619-07A	SB-128 (2-4)	05/07/2013	12.000	88.000	Yes
M0619-08A	SB-128 (10-12)	05/07/2013	11.716	88.284	Yes
M0619-09A	SB-128 (18-20)	05/07/2013	8.595	91.405	Yes
M0619-10A	SB-129 (1-3)	05/07/2013	15.400	84.600	Yes
M0619-11A	SB-129 (8-10)	05/07/2013	10.226	89.774	Yes
M0619-12A	SB-129 (18-20)	05/07/2013	6.667	93.333	Yes
M0619-13A	SB-130 (2-4)	05/07/2013	12.500	87.500	Yes
M0619-14A	SB-130 (15-17)	05/07/2013	15.547	84.453	Yes
M0619-15A	SB-130 (18-20)	05/07/2013	7.546	92.454	Yes
M0619-16A	DUP1	05/07/2013	11.744	88.256	Yes

Spectrum Analytical, Inc. RI Division V1 Injection Log
Volatiles Laboratory

METHOD: 8260C
ICAL DATE: 4-17-13

ANALYST: [illegible]

BATCH: 130417.B

Start: 17-APR-13 09:05
End: 17-APR-13 15:15

Comments:

Standards: BFB MW30303A 2 uL
IS/D MW30404A 400 uL
STD MW30413A ___ uL
ICV MW30415B ___ uL

Reviewed By: [illegible] 4/17/13 Manual Integration: ________ MI Review: ________

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	CBZ	DCB	SURROGATES DFM	DCE	TOL	BFB	DILN	FLG	COMMENTS	pH
V1M1544	09:05	BFB10	BFB10		SL									1			
V1M1546	10:29	VSTD05010	VSTD05010		SL		100	100	100					1			
V1M1547	10:54	VSTD02010	VSTD02010		SL		96	92	93					1			
V1M1549	12:20	VSTD20010	VSTD20010		SL		98	98	96					1			
V1M1550	12:45	VSTD10010	VSTD10010		SL		93	93	93					1			
V1M1554	14:50	VSTD00510	VSTD00510		SL		96	93	94					1			
V1M1555	15:15	VICV05010	VICV05010		SL		92	85	96	102	105	109	111	1	R	MI_1	

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

[illegible] 4-22-13

77

Logbook ID 90.0204-10/12

M0619

Spectrum Analytical, Inc. RI Division V1 Injection Log
Volatiles Laboratory

METHOD: 8260C
ICAL DATE: 4-17-13

ANALYST: [signature]

BATCH: 130501.B

Start: 01-MAY-13 08:18
End: 01-MAY-13 18:40

Comments:

Standards: [illegible] 2 uL
[illegible] 2 uL
[illegible] 2.5 uL
_____ ___ uL

Reviewed By: [signature] 5/6/13 Manual Integration: _____ MI Review: _____

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	CBZ	DCB	SURROGATES DFM	DCE	TOL	BFB	DILN	FLG	COMMENTS	pH
V1M1650	08:18	BFB1T	BFB1T		SL		100	100	100					1		OK	
V1M1651	08:35	VSTD0501T	VSTD0501T		SL		100	100	100					1		OK MI_1	
V1M1652	09:14	LCS-71443	LCS-71443	71443	SL		99	97	95	101	109	98	101	1	R	OK MI_1	
V1M1653	09:40	LCSD-71443	LCSD-71443	71443	SL		101	99	100	103	98	98	102	1	R	OK	
V1M1654	10:11	MB-71443	MB-71443	71443	SL		99	96	95	101	97	98	99	1		NOT USED	
V1M1655	10:37	MB-71443	MB-71443	71443	SL		94	95	93	102	99	96	98	1		OK	
V1M1656	11:02	M0610-01B	SO-WC	71443	SL		71	71	66	104	100	98	97	1		OK	
V1M1657	11:29	M0619-17A	TB	71443	SL		83	81	78	101	96	99	99	1		OK	
V1M1658	11:55	M0619-01B	SB-126 (0-2)	71443	SL		94	89	82	105	101	99	99	1		OK	
V1M1659	12:20	M0619-02B	SB-126 (8-10)	71443	SL		92	92	89	105	105	96	101	1		OK	
V1M1660	12:45	M0619-03B	SB-126 (10.5-12)	71443	SL		89	88	81	104	103	99	100	1	E	BENZENE=684 TCL MEOD UG	
V1M1661	13:10	M0619-04B	SB-127 (3-5)	71443	SL		93	92	91	109	108	98	102	1		OK - NO C.O.	
V1M1662	13:35	M0619-05B	SB-127 (8-10)	71443	SL		93	92	88	104	108	96	102	1		OK	
V1M1663	14:01	M0619-06B	SB-127 (10-12)	71443	SL		95	96	88	105	104	98	106	1	E	TOLUENE=2900 TCL MEOD UG	
V1M1664	14:26	M0619-07B	SB-128 (2-4)	71443	SL		87	86	85	106	108	97	101	1		TCL @ 1X	
V1M1665	14:52	M0619-08B	SB-128 (10-12)	71443	SL		97	89	41*	107	103	105	113	1	E	O-XYLENE=3580 TCL MEOD UG	
V1M1666	15:17	M0619-09B	SB-128 (18-20)	71443	SL		94	97	101	104	107	95	115	1	E	O-XYLENE=1000 TCL MEOD UG	
V1M1667	15:42	M0619-10B	SB-129 (1-3)	71443	SL		91	91	88	110	115*	97	101	1		TCL @ 1X	
V1M1668	16:07	M0619-11B	SB-129 (8-10)	71443	SL		93	91	92	107	107	97	162*	1		OK	
V1M1669	16:33	M0619-12B	SB-129 (18-20)	71443	SL		95	93	95	105	106	99	104	1		OK	
V1M1670	16:58	M0619-13B	SB-130 (2-4)	71443	SL		92	90	87	104	102	99	103	1		OK	
V1M1671	17:24	M0619-14B	SB-130 (15-17)	71443	SL		89	84	78	105	104	104	103	1		OK	
V1M1672	17:49	M0619-15B	SB-130 (18-20)	71443	SL		96	94	92	103	103	97	102	1		OK	
V1M1673	18:15	M0619-16B	DUP1	71443	SL		95	94	89	103	102	97	102	1		OK	
V1M1674	18:40	VBLK	VBLK		SL		91	89	89	101	94	99	102	1		NOT USED	

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence

R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

5-2-13

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INJECTION LOG — VOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division V1 Injection Log
Volatiles Laboratory

METHOD: 8260C
ICAL DATE: 4-17-13
ANALYST:
BATCH: 130502.B
Start: 02-MAY-13 07:52
End: 02-MAY-13 12:18

Comments:

Standards: BFB VW130503A 2 uL
ISTD VW130404A 40 uL
SSD VW130415A 2.5 uL
___ uL

Reviewed By: 5/6/13 Manual Integration: _____ MI Review: _____

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	CBZ	DCB	SURROGATES DFM	DCE	TOL	BFB	DILN	FLG	COMMENTS	pH
V1M1680	07:52	BFB1U	BFB1U		SL									1			
V1M1681	08:09	VSTD0501U	VSTD0501U		SL		100	100	100					1			
V1M1682	09:06	LCS-71460	LCS-71460	71460	SL		98	101	95	101	104	98	99	1	R		
V1M1683	09:46	MB-71460	MB-71460	71460	SL		99	99	96	101	99	99	101	1		INT USED	
V1M1684	10:11	MB-71460	MB-71460	71460	SL		95	96	92	99	101	97	102	1			
V1M1685	10:37	M0619-07B	SB-128 (2-4)	71460	SL	2	90	92	87	101	100	97	101	1			
V1M1686	11:02	M0619-10B	SB-129 (1-3)	71460	SL	2	93	96	92	105	104	99	104	1			
V1M1687	11:27	M0619-16BMS	DUP1MS	71460	SL	2	93	94	94	103	101	99	104	1			
V1M1688	11:52	M0619-16BMSD	DUP1MSD	71460	SL	3	103	106	102	105	102	97	105	1			
V1M1689	12:18	VBLK	VBLK		SL		90	93	92	105	104	98	103	1		INT USED	

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

5-313

[redacted]NSTI[redacted]ENT[redacted] [redacted]ctrun[redacted]lytic[redacted]. RI [redacted]ion

INJECTION LOG

VOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division V10 Injection Log
Volatiles Laboratory

METHOD: 8260W/624 ANALYST: [redacted]
ICAL DATE: 4/7/13

BATCH: 130417.B

Start: 17-APR-13 11:11
End: 17-APR-13 21:53

Comments:

Standards: STD VW130307A 2 uL
ISTD VW130403A [redacted] uL
SURR VW130403A ___ uL
_____ ___ uL

Reviewed By: [redacted] 4/22/13 Manual Integration: _____ MI Review: _____

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	INTERNAL STDS CBZ	INTERNAL STDS DCB	SURROGATES DFM	SURROGATES DCE	SURROGATES TOL	SURROGATES BFB	DILN	FLG	COMMENTS	pH
V8B9274	11:11	BFB10K	BFB10K		AQ									1		OK	
V8B9275	12:22	VSTD05010K	VSTD05010K		AQ		100	100	100					1		OK	
V8B9276	12:49	VSTD02010K	VSTD02010K		AQ		100	99	98					1		OK	
V8B9277	13:17	VSTD00510K	VSTD00510K		AQ		99	98	94					1		OK	
V8B9279	14:12	VSTD00110K	VSTD00110K		AQ		101	98	92					1		OK	
V8B9280	14:39	VSTD20010K	VSTD20010K		AQ		102	105	106					1		OK	
V8B9281	15:07	VSTD10010K	VSTD10010K		AQ		102	103	103					1		OK	
V8B9282	15:35	VICV05010K	VICV05010K		AQ		101	101	100	100	100	101	101	1	ER	RR NEXT DAY	
V8B9283	16:02	LCS-71259	LCS-71259	71259	AQ		102	101	101	100	101	102	101	1	E	OK	
V8B9284	16:30	LCSD-71259	LCSD-71259	71259	AQ		101	100	100	100	97	100	101	1	E	OK	
V8B9285	16:57	MB-71259	MB-71259	71259	AQ		101	99	91	99	96	100	96	1	E	INT OVER	
V8B9286	17:25	MB-71259	MB-71259	71259	AQ		98	97	89	99	100	101	97	1		OK	2
V8B9287	17:52	M0537-02A	TRIP BLANK	71259	AQ	1	98	97	88	100	101	102	97	1		OK	
V8B9288	18:19	M0498-02A	TRIP BLANKS	71259	AQ	1	97	95	88	99	99	102	99	1		OK	
V8B9289	18:46	M0498-01A	ET01 GRAB	71259	AQ	1	96	94	86	100	100	100	98	1		OK	
V8B9290	19:13	M0537-01A	WW #1	71259	AQ	1	94	93	84	100	100	102	97	1		OK	
V8B9291	19:40	M0529-01B	SB67585-01	71259	AQ	1	94	91	86	100	102	102	98	1		OK	
V8B9292	20:06	M0530-01B	SB67594-01	71259	AQ	1	94	93	87	101	100	101	98	1		OK	
V8B9293	20:33	M0477-01C	PTMT	71259	AQ	1	93	91	85	101	98	102	98	10		OK	
V8B9294	21:00	M0477-02C	BET	71259	AQ	1	90	88	81	101	98	102	97	10		OK	
V8B9295	21:27	M0477-03C	POS-T	71259	AQ	1	92	90	82	101	99	102	97	10		OK	2
V8B9296	21:53	VBLK	VBLK		AQ		89	88	80	103	99	103	98	1		INT OVER	

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

4-18-13

INJECTION LOG

VOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division V10 Injection Log
Volatiles Laboratory

METHOD: 8260W/M.S ANALYST: [illegible]
ICAL DATE: 4-15-13

BATCH: 130502.B

Start: 02-MAY-13 07:50
End: 02-MAY-13 15:33

Comments:

Standards: BFB VW130502A 2 uL
ISTD VW130405A 100 uL
STD VW130415A 20 uL
_____ ____ uL

Reviewed By: [illegible] 5/6/13 Manual Integration: _____ MI Review: _____

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	INTERNAL STDS CBZ	INTERNAL STDS DCB	SURROGATES DFM	SURROGATES DCE	SURROGATES TOL	SURROGATES BFB	DILN	FLG	COMMENTS	pH
V8B9530	07:50	BFB10S	BFB10S		AQ									1		OK	
V8B9531	08:08	VSTD05010S	VSTD05010S		AQ		100	100	100					1		OK	
V8B9532	09:05	LCS-71459	LCS-71459	71459	AQ		103	102	99	111	99	96	105	1	ER	INT USED	
V8B9533	09:32	LCS-71469	LCS-71469	71469	SL		106	105	103	109	101	96	105	1	ER	OK	
V8B9534	09:59	LCSD-71459	LCSD-71459	71459	AQ		111	111	108	109	100	96	104	1	ER	OK	
V8B9535	10:29	MB-71459	MB-71459	71459	AQ		109	104	91	110	104	99	100	1	E	INT USED	
V8B9536	10:56	MB-71469	MB-71469	71469	SL		107	101	88	110	102	98	101	1		OK	
V8B9537	11:24	MB-71459	MB-71459	71459	AQ		102	99	85	112	104	98	99	1		OK	
V8B9538	11:52	M0619-17B	TB	71469	SL	1	98	95	90	109	102	97	106	1		OK	
V8B9539	12:19	M0619-03C	SB-126 (10.5-12)	71469	SL	1	98	95	102	108	100	95	112*	1		OK	
V8B9540	12:47	M0619-09C	SB-128 (18-20)	71469	SL	1	117	113	117	103	102	96	109	1		OK	
V8B9541	13:15	M0619-06C	SB-127 (10-12)	71469	SL	1	134	129	124	104	102	97	105	10		OK	
V8B9542	13:43	M0619-08C	SB-128 (10-12)	71469	SL	1	141	137	130	104	104	98	104	10		OK	
V8B9543	14:11	VBLK	VBLK		AQ		146	138	123	103	105	98	101	1		OK	
V8B9544	14:38	M0620-03A	GW42913MY020	71459	AQ	2	145	138	123	103	103	98	100	1		OK	2
V8B9545	15:06	M0620-05A	GW42913MY022	71459	AQ	2	143	137	121	104	102	97	100	1		OK	2
V8B9546	15:33	M0620-02ADL	GW42913MY019DL	71459	AQ	2	141	135	118	105	101	98	99	4		TCE=80 OK	2

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

[illegible] 5-3-13

M0619

Spectrum Analytical, Inc. RI Division: Volatile Organics Low/Medium Level Soil Extraction Log

Date	Lab ID		Analysis	Initial Wt. (g)	Final Wt. (g)	Sample Wt. (g)	Extraction Volume (mL)	Sample Type	Solvent&Lot# by/Date*	Comments/ Time of Encore transfer	Analyst
4-3013	M0596	04B	8260L	NA	NA	5.4	5D	E	DI H2O		
4-3013	M0596	05A	8260L	NA	NA	5.2	5D	E	DI H2O		
5-1-13	MB-71443		8260L	NA	NA	5.0	5D	B	DI H2O		
	LCS-71443			NA	NA	5.0					
	M0610	01D		32.30	43.49	11.2					
	M0619	01B		31.58	42.80	11.2					
		02B		31.33	40.37	9.0					
		03B		31.43	41.42	10.0					
		04B		31.87	41.98	10.1					
		05B		31.88	43.42	11.5					
		06B		31.28	41.04	9.8					
		07B		31.28	42.27	11.0					
		08B		31.62	41.34	9.7					
		09B		31.36	39.03	7.7					
5-1-13	M0619	10B	8260L	31.56	41.04	9.5	5D	B	DI H2O		

*=Date added, if different than Rec. date

Sample Type: A. MeOH Pre-preserved; B. DI H2O/Freeze; C. NaHSO4 Pre-preserved; D. Encore; E. Unpreserved Jars

Logbook ID: 90.0189-12/12

Reviewed By: 5-2-13

M0619

Spectrum Analytical, Inc. RI Division: Volatile Organics Low/Medium Level Soil Extraction Log

Date	Lab ID		Analysis	Initial Wt. (g)	Final Wt. (g)	Sample Wt. (g)	Extraction Volume (mL)	Sample Type	Solvent&Lot# by/Date*	Comments/ Time of Encore transfer	Analyst
5-1-13	M0619	11B	8260L	31.74	41.14	9.8	5.0	B	DI H2O		
		12B		31.44	46.49	9.1					
		13B		31.60	42.10	10.5					
		14B		31.35	43.07	11.7					
		15B		31.70	41.53	9.8					
		16B		31.53	42.38	11.5					
5-1-13	M0619	17A	8260L	NA	NA	5.0	5.0	B	DI H2O	TRIP BLK	
5-2-13	MB-71460		8260L	NA	NA	5.0	5.0	E	DI H2O		
	LCD-71460					5.0					
	M0619	07A				4.8					
		10A				5.1					
		16A MS				5.4					
5-2-13	M0619	16A MSD	8260L	NA	NA	5.5	5.0	E	DI H2O		
5/3/13	MB-71492		SOM	NA	NA	5.0		E			
5/3/13	M0634-01A		SOM	26.04	31.15	5.1	5.0	E	DI H2O		

*=Date added, if different than Rec. date

Sample Type: A. MeOH Pre-preserved; B. DI H2O/Freeze; C. NaHSO4 Pre-preserved; D. Encore; E. Unpreserved Jars

Logbook ID: 90.0189-12/12

Reviewed By: 5-2-13

M0619

Spectrum Analytical, Inc. RI Division: Volatile Organics Low/Medium Level Soil Extraction Log

Date	Lab ID		Analysis	Initial Wt. (g)	Final Wt. (g)	Sample Wt. (g)	Extraction Volume (mL)	Sample Type	Solvent&Lot# by/Date*	Comments/ Time of Encore transfer	Analyst
5-21-13	MB-71469		8260M	NA	NA	5.0	5.0	E	MeOH		
	LCS-71469			NA	NA	5.0	5.0	E			
	M0619	03C		38.18	47.49	9.3	15	A			
		06C		38.15	49.29	11.1					
		08C		38.30	51.14	12.8					
		09C		38.27	45.98	7.7					
5-21-13	M0619	17B	8260M	NA	NA	5	15	A	MeOH		
5/31/13	MB-71491		5OM	NA	NA	5.0	5.0	E	DI H2O	Ottawa sand #0856455	
	M0634	-01A		26.04	31.15	5.1		E			
	M0599	-01C		25.86	31.03	5.2		B			
		-02C		25.78	31.81	6.0					
	M0599	-03C		26.29	~~31.36~~ 31.39	5.1		B			
	M0598	-01B		26.17	31.01	4.8		E			
		-02B		26.13	30.96	4.8					
5/31/13	M0598	-03B	5OM	26.13	30.90	4.8	5.0	E	DI H2O		

*=Date added, if different than Rec. date

Sample Type: A. MeOH Pre-preserved; B. DI H2O/Freeze; C. NaHSO4 Pre-preserved; D. Encore; E. Unpreserved Jars

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Logbook ID: 90.0189-12/12

Reviewed By: 5-31

Spectrum Analytical, Inc. RI Division : VOLATILE SAMPLES RECEIVING LOGBOOK

VOA Log-In Date	Workorder	Client ID	Sample Numbers	Relinquished by:	Received by:	Pres. Used	F/R	Returned to R23
04.29.2013 M0619	M0619	AECOM	01-17			F	F10	
04.29.2013	M0619	AECOM	01-17			M	R10	
4/30/13	M0621	SAIC	01	AED		H	R8	
	5010244	RIRRC	01	AED		H	R9	
	M0623	PEL	01-20			H		
	M0624	PEL	01-07					
	M0609	Environ	01-09					
	M0620	CRA	01-06					
	M0610	Environ	08			H		
	M0610	Environ	01			M	R9	
	M0610	Environ	01			F	F9	
4/30/13	M0627	MITKEM WARWICK	01	AED		H	R9	
5/1/13	M0628	SAIC	01,02,04,06,08,10,12,13,15,17,19	AED		H	R8	
5/1/13	M0629	AECOM	01-11	AED		H	R8	

Logbook ID 90.0191-01/13

Reviewed By: 5-7-13

"Preservative Used" Key				
UA = Unpreserved Aqueous	**H** = HCL	**A** = Air	**M** = MeOH	**E** = Encore
US = Unpreserved Soil	**N** = $NaHSO_4$		**F** = Freeze	**T** = Trace, HCL

* Semivolatile Organics *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM

Project: Bay Ridge Holders, Former MGP

Laboratory Workorder / SDG #: M0619

SW846 8270D, SVOA by GC-MS

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 8270D

IV. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: S6
Instrument Type: GCMS-Semi

Description: HP7890A
Manufacturer: Agilent
Model: 7890A/5973
GC Column used: 30 m X 0.25 mm ID [0.25 um thickness] Rxi-5sil MS capillary column.

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits with the following exceptions. Please note that the acceptance criteria allow one surrogate recovery outside of the QC limits per fraction.

(LCS-71418), recovery is above criteria for Nitrobenzene-d5 at 102% with criteria of (35-100).

SB-127 (10-12) (M0619-06ADL) Surrogate outside of QC limit due to dilution, recovery is below criteria for 2-Fluorobiphenyl at 0% with criteria of (45-105), Nitrobenzene-d5 at 0% with criteria of (35-100) and Terphenyl-d14 at 0% with criteria of (30-125).

SB-128 (10-12) (M0619-08A), recovery is above criteria for Nitrobenzene-d5 at 113% with criteria of (35-100).

SB-128 (10-12) (M0619-08ADL) Surrogate outside of QC limit due to dilution, recovery is below criteria for 2-Fluorobiphenyl at 0% with criteria of (45-105), Nitrobenzene-d5 at 0% with criteria of (35-100) and Terphenyl-d14 at 0% with criteria of (30-125).

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

Matrix spikes were performed on samples: DUP1 (M0619-16AMS) and DUP1 (M0619-16AMSD).

Percent recoveries were within the QC limits.

Replicate RPDs were within the advisory QC limits.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

The following samples were analyzed at dilution:

SB-126 (10.5-12.5) (M0619-03ADL) : Dilution Factor: 20
SB-127 (10-12) (M0619-06ADL) : Dilution Factor: 40
SB-128 (10-12) (M0619-08ADL) : Dilution Factor: 160
SB-128 (18-20) (M0619-09ADL) : Dilution Factor: 20
SB-129 (8-10) (M0619-11ADL) : Dilution Factor: 2

G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

Where needed manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

- M1 peak tailing or fronting
- M2 peak co-elution
- M3 rising or falling baseline
- M4 retention time shift
- M5 miscellaneous - under this category, the justification is explained
- M6 software did not integrate peak
- M7 partial peak integration

Manual integrations were performed on the following:

SB-126 (0-2) (M0619-01A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-126 (8-10) (M0619-02A) Benzo(b)fluoranthene due to M2

SB-126 (10.5-12.5) (M0619-03A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-126 (10.5-12.5) (M0619-03ADL) Benzo(k)fluoranthene due to M2

SB-127 (8-10) (M0619-05A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-127 (10-12) (M0619-06A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-127 (10-12) (M0619-06A) Naphthalene due to M6

SB-128 (2-4) (M0619-07A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-128 (10-12) (M0619-08A) Nitrobenzene-d5 due to M2

SB-128 (10-12) (M0619-08A) Naphthalene due to M6

SB-128 (18-20) (M0619-09A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-128 (18-20) (M0619-09A) Naphthalene due to M6

SB-129 (1-3) (M0619-10A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-129 (8-10) (M0619-11A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-129 (8-10) (M0619-11ADL) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SB-130 (2-4) (M0619-13A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

DUP1 (M0619-16A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed: 

Date: 05/09/13

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.

Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	CLIENT SAMPLE NO.	SDMC1 (NBZ) #	SDMC2 (FBP) #	SDMC3 (TPH) #	SDMC4 (PHL) #	SDMC5 (2FP) #	SDMC6 (TBP) #			TOT OUT
01	MB-71418	99	93	120	93	79	105			0
02	LCS-71418	102 *	91	99	89	98	111			1
03	SB-126 (0-2)	75	75	92						0
04	SB-126 (8-10)	87	82	105						0
05	SB-126 (10.5-12.5)	81	83	90						0
06	SB-127 (3-5)	82	78	99						0
07	SB-127 (8-10)	79	77	100						0
08	SB-127 (10-12)	62	59	73						0
09	SB-128 (2-4)	75	75	94						0
10	SB-128 (10-12)	113 *	83	93						1
11	SB-128 (18-20)	69	81	92						0
12	SB-129 (1-3)	87	87	101						0
13	SB-129 (8-10)	84	84	97						0
14	SB-129 (18-20)	86	81	98						0
15	SB-130 (2-4)	80	81	94						0
16	SB-130 (15-17)	81	79	93						0
17	SB-130 (18-20)	88	83	103						0
18	DUP1	81	81	96						0
19	DUP1MS	74	77	86						0

		QC LIMITS
SDMC1	(NBZ) = Nitrobenzene-d5	(35-100)
SDMC2	(FBP) = 2-Fluorobiphenyl	(45-105)
SDMC3	(TPH) = Terphenyl-d14	(30-125)
SDMC4	(PHL) = Phenol-d5	(40-100)
SDMC5	(2FP) = 2-Fluorophenol	(35-105)
SDMC6	(TBP) = 2,4,6-Tribromophenol	(35-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

som13.05.07.A

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Level: (LOW/MED) LOW

	CLIENT SAMPLE NO.	SDMC1 (NBZ) #	SDMC2 (FBP) #	SDMC3 (TPH) #	SDMC4 (PHL) #	SDMC5 (2FP) #	SDMC6 (TBP) #			TOT OUT
20	DUP1MSD	82	84	94						0
21	SB-126 (10.5-12.5)DL	66	64	74						0
22	SB-128 (18-20)DL	60	61	65						0
23	SB-129 (8-10)DL	71	68	81						0
24	SB-127 (10-12)DL	0 D	0 D	0 D						3
25	SB-128 (10-12)DL	0 D	0 D	0 D						3

			QC LIMITS
SDMC1	(NBZ) =	Nitrobenzene-d5	(35-100)
SDMC2	(FBP) =	2-Fluorobiphenyl	(45-105)
SDMC3	(TPH) =	Terphenyl-d14	(30-125)
SDMC4	(PHL) =	Phenol-d5	(40-100)
SDMC5	(2FP) =	2-Fluorophenol	(35-105)
SDMC6	(TBP) =	2,4,6-Tribromophenol	(35-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

som13.05.07.A

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix Spike - EPA Sample No.: DUP1

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS %REC	#	QC. LIMITS REC.
Naphthalene	3702.4548	0.0000	2624.0435	71		40-105
2-Methylnaphthalene	3702.4548	0.0000	2541.5526	69		45-105
Acenaphthylene	3702.4548	195.5224	2693.6221	67		45-105
Acenaphthene	3702.4548	0.0000	2653.9527	72		45-110
Fluorene	3702.4548	92.2617	2754.8523	72		50-110
Phenanthrene	3702.4548	675.8469	3047.9683	64		50-110
Anthracene	3702.4548	237.3424	2811.3599	70		55-105
Fluoranthene	3702.4548	932.2582	3249.4338	63		55-115
Pyrene	3702.4548	1306.2781	3487.7880	59		45-125
Benzo(a)anthracene	3702.4548	705.7744	3417.2288	73		50-110
Chrysene	3702.4548	788.8374	3440.7049	72		55-110
Benzo(b)fluoranthene	3702.4548	556.0573	3080.6818	68		45-115
Benzo(k)fluoranthene	3702.4548	263.4867	2925.8797	72		45-125
Benzo(a)pyrene	3702.4548	531.3086	2978.9262	66		50-110
Indeno(1,2,3-cd)pyrene	3702.4548	280.5458	3043.7218	75		40-120
Dibenzo(a,h)anthracene	3702.4548	97.7246	2962.2267	77		40-125
Benzo(g,h,i)perylene	3702.4548	365.6938	3067.3933	73		40-125

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Naphthalene	3678.4129	2966.3443	81		13		0-40	40-105
2-Methylnaphthalene	3678.4129	2807.1448	76		11		0-40	45-105
Acenaphthylene	3678.4129	2956.1620	75		11		0-40	45-105
Acenaphthene	3678.4129	2950.8598	80		11		0-40	45-110
Fluorene	3678.4129	2962.1720	78		8		0-40	50-110
Phenanthrene	3678.4129	3512.6268	77		18		0-40	50-110
Anthracene	3678.4129	3057.0692	77		10		0-40	55-105
Fluoranthene	3678.4129	3764.7789	77		21		0-40	55-115
Pyrene	3678.4129	3797.8726	68		14		0-40	45-125
Benzo(a)anthracene	3678.4129	3550.7770	77		5		0-40	50-110
Chrysene	3678.4129	3754.1349	81		12		0-40	55-110
Benzo(b)fluoranthene	3678.4129	3200.3306	72		5		0-40	45-115
Benzo(k)fluoranthene	3678.4129	3292.9732	82		14		0-40	45-125
Benzo(a)pyrene	3678.4129	3221.9666	73		10		0-40	50-110
Indeno(1,2,3-cd)pyrene	3678.4129	3265.6841	81		8		0-40	40-120
Dibenzo(a,h)anthracene	3678.4129	3185.9680	84		8		0-40	40-125
Benzo(g,h,i)perylene	3678.4129	3284.9912	79		8		0-40	40-125

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

* Values outside of QC limits

RPD: 0 out of 17 outside limits

3D - FORM III SV-2

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix Spike - EPA Sample No.: DUP1

Spike Recovery: 0 out of 34 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

CLIENT SAMPLE NO.
LCS-71418

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab Sample ID: LCS-71418 LCS Lot No.: A091525

Date Extracted: 04/30/2013 Date Analyzed (1): 05/02/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Naphthalene	3333.0000	0.0000	3082.0860	92		40 - 105
2-Methylnaphthalene	3333.0000	0.0000	2993.8796	90		45 - 105
Acenaphthylene	3333.0000	0.0000	3026.2244	91		45 - 105
Acenaphthene	3333.0000	0.0000	3035.5099	91		45 - 110
Fluorene	3333.0000	0.0000	3079.4111	92		50 - 110
Phenanthrene	3333.0000	0.0000	3156.2269	95		50 - 110
Anthracene	3333.0000	0.0000	3096.0398	93		55 - 105
Fluoranthene	3333.0000	0.0000	3130.2873	94		55 - 115
Pyrene	3333.0000	0.0000	3187.9852	96		45 - 125
Benzo(a)anthracene	3333.0000	0.0000	3174.5584	95		50 - 110
Chrysene	3333.0000	0.0000	3524.8041	106		55 - 110
Benzo(b)fluoranthene	3333.0000	0.0000	2909.0917	87		45 - 115
Benzo(k)fluoranthene	3333.0000	0.0000	3027.7968	91		45 - 125
Benzo(a)pyrene	3333.0000	0.0000	2970.5611	89		50 - 110
Indeno(1,2,3-cd)pyrene	3333.0000	0.0000	2890.9329	87		40 - 120
Dibenzo(a,h)anthracene	3333.0000	0.0000	2871.5212	86		40 - 125
Benzo(g,h,i)perylene	3333.0000	0.0000	2944.2325	88		40 - 125

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

* Values outside of QC limits

Spike Recovery: 0 out of 17 outside limits

COMMENTS:

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MB-71418

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3562.D Lab Sample ID: MB-71418

Instrument ID: S6 Date Extracted: 04/30/2013

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/02/2013

Level: (LOW/MED) LOW Time Analyzed: 11:26

Extraction: (Type) SONC GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LCS-71418	LCS-71418	S6B3571B.D	05/02/2013
02	SB-126 (0-2)	M0619-01A	S6B3648.D	05/06/2013
03	SB-126 (8-10)	M0619-02A	S6B3649.D	05/06/2013
04	SB-126 (10.5-12.5)	M0619-03A	S6B3650.D	05/06/2013
05	SB-127 (3-5)	M0619-04A	S6B3651.D	05/06/2013
06	SB-127 (8-10)	M0619-05A	S6B3652.D	05/06/2013
07	SB-127 (10-12)	M0619-06A	S6B3653.D	05/06/2013
08	SB-128 (2-4)	M0619-07A	S6B3654.D	05/06/2013
09	SB-128 (10-12)	M0619-08A	S6B3655.D	05/06/2013
10	SB-128 (18-20)	M0619-09A	S6B3656.D	05/06/2013
11	SB-129 (1-3)	M0619-10A	S6B3657.D	05/06/2013
12	SB-129 (8-10)	M0619-11A	S6B3658.D	05/06/2013
13	SB-129 (18-20)	M0619-12A	S6B3659.D	05/06/2013
14	SB-130 (2-4)	M0619-13A	S6B3660.D	05/06/2013
15	SB-130 (15-17)	M0619-14A	S6B3661.D	05/06/2013
16	SB-130 (18-20)	M0619-15A	S6B3662.D	05/06/2013
17	DUP1	M0619-16A	S6B3663.D	05/06/2013
18	DUP1MS	M0619-16AMS	S6B3664.D	05/07/2013
19	DUP1MSD	M0619-16AMSD	S6B3665.D	05/07/2013

COMMENTS:

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

MB-71418

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3562.D Lab Sample ID: MB-71418

Instrument ID: S6 Date Extracted: 04/30/2013

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 05/02/2013

Level: (LOW/MED) LOW Time Analyzed: 11:26

Extraction: (Type) SONC GPC Cleanup: (Y/N) N

20	SB-126 (10.5-12.5)DL	M0619-03ADL	S6B3674.D	05/07/2013
21	SB-128 (18-20)DL	M0619-09ADL	S6B3677.D	05/07/2013
22	SB-129 (8-10)DL	M0619-11ADL	S6B3678.D	05/07/2013
23	SB-127 (10-12)DL	M0619-06ADL	S6B3679.D	05/07/2013
24	SB-128 (10-12)DL	M0619-08ADL	S6B3680.D	05/07/2013

COMMENTS:

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

CLIENT SAMPLE NO.
DFTPP6B

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3260M.D DFTPP Injection Date: 04/17/2013

Instrument ID: S6 DFTPP Injection Time: 12:32

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	36.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	50.7
70	Less than 2.0% of mass 69	0.4 (0.7)1
127	10.0 - 80.0% of mass 198	43.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	31.7
365	Greater than 1.0% of mass 198	4.5
441	Present, but less than mass 443	15.2
442	50.0 - 100% of mass 198	77.8
443	15.0 - 24.0% of mass 442	15.2 (19.5)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0256B	SSTD0256B	S6B3261A.D	04/17/2013	13:22
02	SSTD0806B	SSTD0806B	S6B3262.D	04/17/2013	13:44
03	SSTD0056B	SSTD0056B	S6B3263.D	04/17/2013	14:06
04	SSTD0606B	SSTD0606B	S6B3264.D	04/17/2013	14:28
05	SSTD0106B	SSTD0106B	S6B3265.D	04/17/2013	14:51
06	SSTD0406B	SSTD0406B	S6B3266.D	04/17/2013	15:13

5B - FORM V SV

SEMIVOLATILE ORGANIC INSTRUMENT

PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

CLIENT SAMPLE NO.

DFTPP6M

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3560.D DFTPP Injection Date: 05/02/2013

Instrument ID: S6 DFTPP Injection Time: 9:13

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	41.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	10.0 - 80.0% of mass 198	46.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 60.0% of mass 198	32.3
365	Greater than 1.0% of mass 198	5.6
441	Present, but less than mass 443	15.5
442	50.0 - 100% of mass 198	99.0
443	15.0 - 24.0% of mass 442	19.3 (19.5)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0256M	SSTD0256M	S6B3561D.D	05/02/2013	10:57
02	MB-71418	MB-71418	S6B3562.D	05/02/2013	11:26
03	LCS-71418	LCS-71418	S6B3571B.D	05/02/2013	18:23

5B - FORM V SV

SEMIVOLATILE ORGANIC INSTRUMENT

PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

CLIENT SAMPLE NO.

DFTPP6O

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3640C.D DFTPP Injection Date: 05/06/2013

Instrument ID: S6 DFTPP Injection Time: 14:22

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	56.3
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	10.0 - 80.0% of mass 198	45.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	30.6
365	Greater than 1.0% of mass 198	5.1
441	Present, but less than mass 443	17.9
442	50.0 - 100% of mass 198	94.6
443	15.0 - 24.0% of mass 442	18.7 (19.8)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0256O	SSTD0256O	S6B3641A.D	05/06/2013	15:22
02	SB-126 (0-2)	M0619-01A	S6B3648.D	05/06/2013	18:07
03	SB-126 (8-10)	M0619-02A	S6B3649.D	05/06/2013	18:29
04	SB-126 (10.5-12.5)	M0619-03A	S6B3650.D	05/06/2013	18:51
05	SB-127 (3-5)	M0619-04A	S6B3651.D	05/06/2013	19:14
06	SB-127 (8-10)	M0619-05A	S6B3652.D	05/06/2013	19:36
07	SB-127 (10-12)	M0619-06A	S6B3653.D	05/06/2013	19:58
08	SB-128 (2-4)	M0619-07A	S6B3654.D	05/06/2013	20:20
09	SB-128 (10-12)	M0619-08A	S6B3655.D	05/06/2013	20:42
10	SB-128 (18-20)	M0619-09A	S6B3656.D	05/06/2013	21:04
11	SB-129 (1-3)	M0619-10A	S6B3657.D	05/06/2013	21:26
12	SB-129 (8-10)	M0619-11A	S6B3658.D	05/06/2013	21:49
13	SB-129 (18-20)	M0619-12A	S6B3659.D	05/06/2013	22:11
14	SB-130 (2-4)	M0619-13A	S6B3660.D	05/06/2013	22:33

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

CLIENT SAMPLE NO.
DFTPP6O

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3640C.D DFTPP Injection Date: 05/06/2013

Instrument ID: S6 DFTPP Injection Time: 14:22

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	40.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	56.3
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	10.0 - 80.0% of mass 198	45.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	30.6
365	Greater than 1.0% of mass 198	5.1
441	Present, but less than mass 443	17.9
442	50.0 - 100% of mass 198	94.6
443	15.0 - 24.0% of mass 442	18.7 (19.8)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
15	SB-130 (15-17)	M0619-14A	S6B3661.D	05/06/2013	22:55
16	SB-130 (18-20)	M0619-15A	S6B3662.D	05/06/2013	23:17
17	DUP1	M0619-16A	S6B3663.D	05/06/2013	23:39
18	DUP1MS	M0619-16AMS	S6B3664.D	05/07/2013	0:01
19	DUP1MSD	M0619-16AMSD	S6B3665.D	05/07/2013	0:23

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

CLIENT SAMPLE NO.
DFTPP6P

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Lab File ID: S6B3670.D DFTPP Injection Date: 05/07/2013

Instrument ID: S6 DFTPP Injection Time: 10:12

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	37.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	50.4
70	Less than 2.0% of mass 69	0.4 (0.9)1
127	10.0 - 80.0% of mass 198	43.9
197	Less than 2.0% of mass 198	0.7
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 60.0% of mass 198	31.6
365	Greater than 1.0% of mass 198	4.9
441	Present, but less than mass 443	19.1
442	50.0 - 100% of mass 198	96.9
443	15.0 - 24.0% of mass 442	19.4 (20.0)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0256P	SSTD0256P	S6B3671A.D	05/07/2013	11:26
02	SB-126 (10.5-12.5)DL	M0619-03ADL	S6B3674.D	05/07/2013	12:33
03	SB-128 (18-20)DL	M0619-09ADL	S6B3677.D	05/07/2013	13:38
04	SB-129 (8-10)DL	M0619-11ADL	S6B3678.D	05/07/2013	14:01
05	SB-127 (10-12)DL	M0619-06ADL	S6B3679.D	05/07/2013	15:15
06	SB-128 (10-12)DL	M0619-08ADL	S6B3680.D	05/07/2013	15:36

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256M Date Analyzed: 05/02/2013

Lab File ID (Standard): S6B3561D.D Time Analyzed: 10:57

Instrument ID: S6

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	41868		5.135		207482		6.193		152191		7.65	
	UPPER LIMIT	83736		5.635		414964		6.693		304382		8.15	
	LOWER LIMIT	20934		4.635		103741		5.693		76096		7.15	
	SAMPLE NO.												
01	MB-71418	47014		5.135		228660		6.193		178292		7.650	
02	LCS-71418	71829		5.141		291236		6.198		191296		7.656	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

EPA Sample No.(SSTD020##) SSTD0256M Date Analyzed: 05/02/2013

Lab File ID (Standard): S6B3561D.D Time Analyzed: 10:57

Instrument ID: S6 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	324592		8.89		439665		11.199		432816		12.738	
	UPPER LIMIT	649184		9.39		879330		11.699		865632		13.238	
	LOWER LIMIT	162296		8.39		219833		10.699		216408		12.238	
	SAMPLE NO.												
01	MB-71418	383792		8.890		460236		11.228		439256		12.774	
02	LCS-71418	389503		8.889		539563		11.187		565969		12.720	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256O Date Analyzed: 05/06/2013

Lab File ID (Standard): S6B3641A.D Time Analyzed: 15:22

Instrument ID: S6

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	240932	5.061	991487	6.113	687496	7.57
	UPPER LIMIT	481864	5.561	1982974	6.613	1374992	8.07
	LOWER LIMIT	120466	4.561	495744	5.613	343748	7.07
	SAMPLE NO.						
01	SB-126 (0-2)	311810	5.062	1111508	6.113	733613	7.564
02	SB-126 (8-10)	291949	5.062	1045069	6.113	692797	7.565
03	SB-126 (10.5-12.5)	279337	5.062	1044139	6.119	695606	7.571
04	SB-127 (3-5)	317870	5.068	1142916	6.113	750182	7.565
05	SB-127 (8-10)	298632	5.062	1077970	6.113	705165	7.565
06	SB-127 (10-12)	305651	5.079	1725809	6.166	843598	7.582
07	SB-128 (2-4)	284949	5.067	997538	6.113	670167	7.570
08	SB-128 (10-12)	323058	5.097	1525526	6.213	735996	7.571
09	SB-128 (18-20)	291059	5.067	1408622	6.149	639982	7.570
10	SB-129 (1-3)	292002	5.068	1024271	6.113	673444	7.571
11	SB-129 (8-10)	286736	5.067	1029014	6.119	648003	7.570

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

EPA Sample No.(SSTD020##) SSTD0256O Date Analyzed: 05/06/2013

Lab File ID (Standard): S6B3641A.D Time Analyzed: 15:22

Instrument ID: S6 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	1381864		8.804		1861939		11.102		1702620		12.594	
	UPPER LIMIT	2763728		9.304		3723878		11.602		3405240		13.094	
	LOWER LIMIT	690932		8.304		930970		10.602		851310		12.094	
	SAMPLE NO.												
01	SB-126 (0-2)	1427431		8.804		1660570		11.078		1486165		12.570	
02	SB-126 (8-10)	1348472		8.804		1571289		11.090		1459978		12.576	
03	SB-126 (10.5-12.5)	1511782		8.840		1965419		11.125		1610377		12.629	
04	SB-127 (3-5)	1449053		8.805		1650216		11.078		1544137		12.565	
05	SB-127 (8-10)	1324973		8.804		1582005		11.084		1486715		12.571	
06	SB-127 (10-12)	1365180		8.816		1847319		11.125		1814256		12.647	
07	SB-128 (2-4)	1295712		8.804		1571175		11.084		1570153		12.576	
08	SB-128 (10-12)	1389875		8.804		1699586		11.084		1640416		12.577	
09	SB-128 (18-20)	1207907		8.804		1488007		11.084		1499504		12.582	
10	SB-129 (1-3)	1329876		8.804		1656861		11.084		1576647		12.582	
11	SB-129 (8-10)	1240254		8.810		1611750		11.090		1619652		12.588	

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = 200% of internal standard area

AREA LOWER LIMIT = 50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256O Date Analyzed: 05/06/2013

Lab File ID (Standard): S6B3641A.D Time Analyzed: 15:22

Instrument ID: S6

		IS1 (DCB)			IS2 (NPT)			IS3 (ANT)		
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	240932		5.061		991487		6.113		687496		7.57	
	UPPER LIMIT	481864		5.561		1982974		6.613		1374992		8.07	
	LOWER LIMIT	120466		4.561		495744		5.613		343748		7.07	
	SAMPLE NO.												
12	SB-129 (18-20)	265295		5.068		907769		6.113		614572		7.565	
13	SB-130 (2-4)	249900		5.068		877256		6.113		580768		7.565	
14	SB-130 (15-17)	254358		5.067		908056		6.113		616448		7.570	
15	SB-130 (18-20)	290861		5.067		1008440		6.113		689080		7.570	
16	DUP1	241766		5.061		848527		6.113		559424		7.564	
17	DUP1MS	249599		5.068		891522		6.119		590402		7.571	
18	DUP1MSD	260055		5.067		904665		6.119		588410		7.570	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

EPA Sample No.(SSTD020##) SSTD0256O Date Analyzed: 05/06/2013

Lab File ID (Standard): S6B3641A.D Time Analyzed: 15:22

Instrument ID: S6 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	1381864		8.804		1861939		11.102		1702620		12.594	
	UPPER LIMIT	2763728		9.304		3723878		11.602		3405240		13.094	
	LOWER LIMIT	690932		8.304		930970		10.602		851310		12.094	
	SAMPLE NO.												
12	SB-129 (18-20)	1176077		8.804		1497779		11.067		1453619		12.559	
13	SB-130 (2-4)	1156985		8.804		1482783		11.072		1435289		12.565	
14	SB-130 (15-17)	1186061		8.804		1499278		11.072		1503159		12.565	
15	SB-130 (18-20)	1338033		8.804		1627385		11.072		1563063		12.559	
16	DUP1	1096154		8.804		1403095		11.072		1406429		12.559	
17	DUP1MS	1151048		8.804		1515910		11.072		1452867		12.559	
18	DUP1MSD	1129494		8.810		1506478		11.072		1454081		12.559	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256P Date Analyzed: 05/07/2013

Lab File ID (Standard): S6B3671A.D Time Analyzed: 11:26

Instrument ID: S6

		IS1 (DCB)			IS2 (NPT)			IS3 (ANT)		
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	237184		5		1037783		6.057		758959		7.515	
	UPPER LIMIT	474368		5.5		2075566		6.557		1517918		8.015	
	LOWER LIMIT	118592		4.5		518892		5.557		379480		7.015	
	SAMPLE NO.												
01	SB-126 (10.5-12.5)DL	233268		5.000		985204		6.052		752018		7.509	
02	SB-128 (18-20)DL	277560		5.000		1141334		6.058		850209		7.509	
03	SB-129 (8-10)DL	297298		5.000		1218555		6.057		883858		7.515	
04	SB-127 (10-12)DL	261818		5.000		1103161		6.057		823255		7.515	
05	SB-128 (10-12)DL	281630		5.000		1158206		6.058		865472		7.509	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

EPA Sample No.(SSTD020##) SSTD0256P Date Analyzed: 05/07/2013

Lab File ID (Standard): S6B3671A.D Time Analyzed: 11:26

Instrument ID: S6 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	1609408		8.748		2345703		11.04		2246119		12.509	
	UPPER LIMIT	3218816		9.248		4691406		11.54		4492238		13.009	
	LOWER LIMIT	804704		8.248		1172852		10.54		1123060		12.009	
	SAMPLE NO.												
01	SB-126 (10.5-12.5)DL	1661633		8.748		2535897		11.028		2569800		12.497	
02	SB-128 (18-20)DL	1818873		8.749		2538228		11.040		2543963		12.515	
03	SB-129 (8-10)DL	1826697		8.748		2596043		11.046		2595293		12.526	
04	SB-127 (10-12)DL	1710001		8.754		2418800		11.134		2536143		12.650	
05	SB-128 (10-12)DL	1820028		8.749		2513305		11.081		2558223		12.574	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-126 (0-2)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-01A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3648.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 17 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	400	U
91-57-6	2-Methylnaphthalene	400	U
208-96-8	Acenaphthylene	400	U
83-32-9	Acenaphthene	400	U
86-73-7	Fluorene	400	U
85-01-8	Phenanthrene	240	J
120-12-7	Anthracene	400	U
206-44-0	Fluoranthene	540	
129-00-0	Pyrene	680	
56-55-3	Benzo(a)anthracene	370	J
218-01-9	Chrysene	460	
205-99-2	Benzo(b)fluoranthene	430	
207-08-9	Benzo(k)fluoranthene	230	J
50-32-8	Benzo(a)pyrene	360	J
193-39-5	Indeno(1,2,3-cd)pyrene	210	J
53-70-3	Dibenzo(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	250	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d
Report Date: 07-May-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3648.d
Lab Smp Id: M0619-01A Client Smp ID: SB-126 (0-2)
Inj Date : 06-MAY-2013 18:07
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-01A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

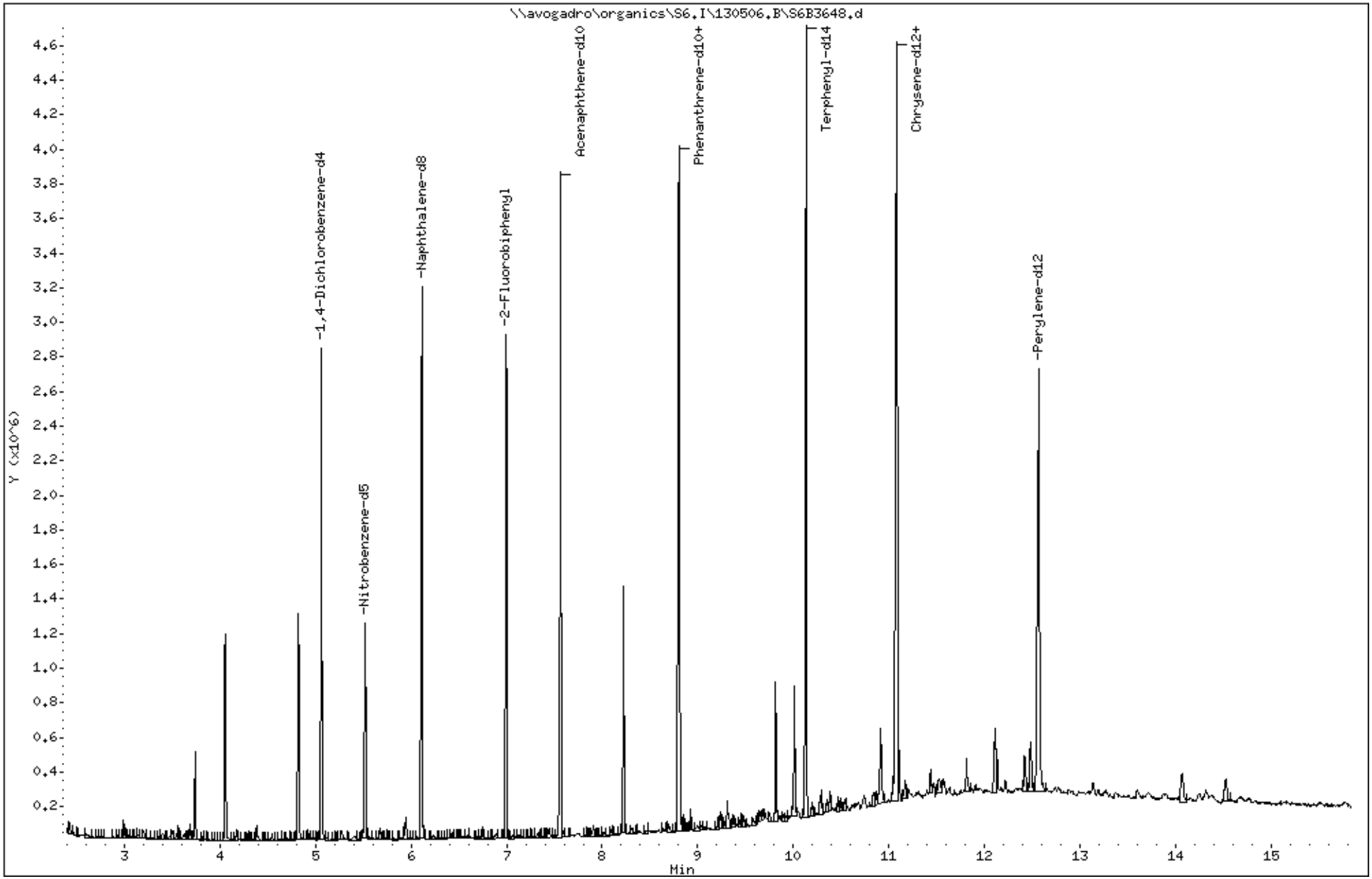
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.061	5.061	(1.000)	311810	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	373753	37.6307	2500	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	1111508	40.0000		
$	41 2-Fluorobiphenyl	172	6.994	7.000	(0.925)	802745	37.4624	2500	
*	48 Acenaphthene-d10	164	7.564	7.570	(1.000)	733613	40.0000		
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1427431	40.0000		
	65 Phenanthrene	178	8.816	8.827	(1.001)	98498	3.01910	200(a)	
	69 Fluoranthene	202	9.814	9.826	(1.115)	267309	6.69494	440(a)	
	71 Pyrene	202	10.008	10.020	(0.903)	295049	8.49796	560(a)	
$	72 Terphenyl-d14	244	10.132	10.138	(0.915)	1148533	46.0972	3000	
	75 Benzo(a)anthracene	228	11.066	11.083	(0.999)	178427	4.66402	310(aH)	
*	76 Chrysene-d12	240	11.078	11.101	(1.000)	1660570	40.0000		
	77 Chrysene	228	11.095	11.125	(1.002)	185225	5.78900	380(a)	
	80 Benzo(b)fluoranthene	252	12.112	12.141	(0.964)	206745	5.32184	350(aM)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.123	12.170	(0.964)	102843	2.82428	190(aQM)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.482	12.517	(0.993)	156457	4.51207	300(a)	
*	83 Perylene-d12	264	12.570	12.593	(1.000)	1486165	40.0000		
	84 Indeno(1,2,3-cd)pyrene	276	14.062	14.115	(1.119)	112956	2.62872	170(a)	
	86 Benzo(g,h,i)perylene	276	14.527	14.579	(1.156)	107537	3.07727	200(a)	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d
Report Date: 07-May-2013 10:01

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d
Date : 06-MAY-2013 18:07
Client ID: SB-126 (0-2)
Instrument: S6.i
Sample Info: M0619-01A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

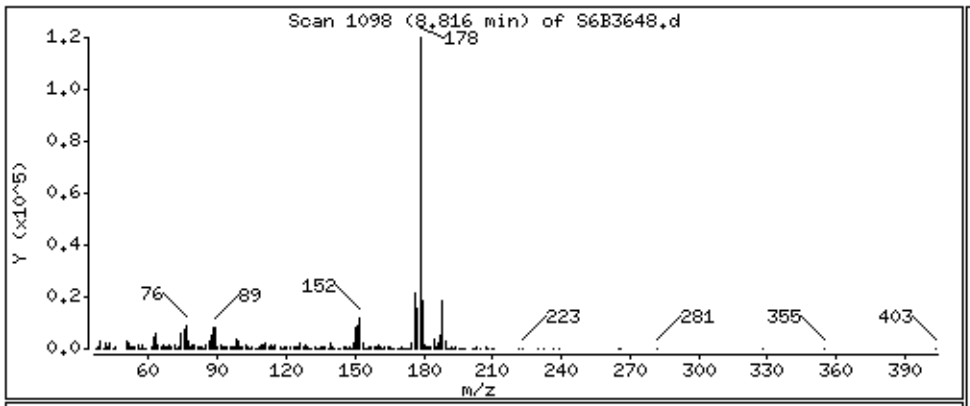
Operator: PK SRC: LIMS

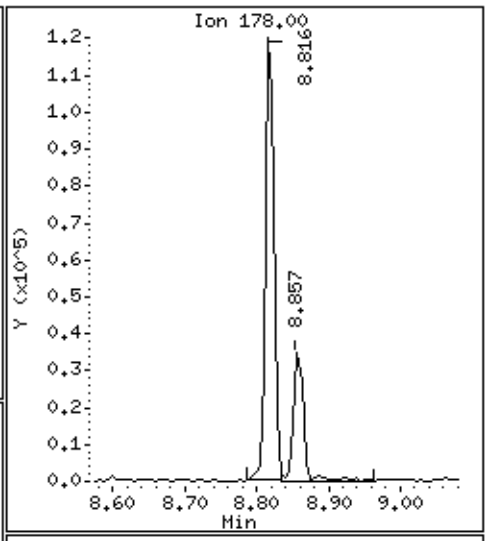
Column phase: Rxi-5Sil MS

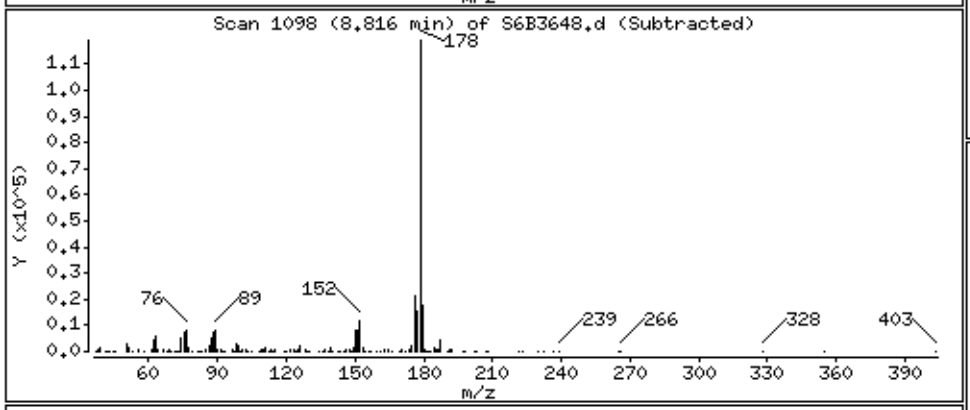
Column diameter: 0.25

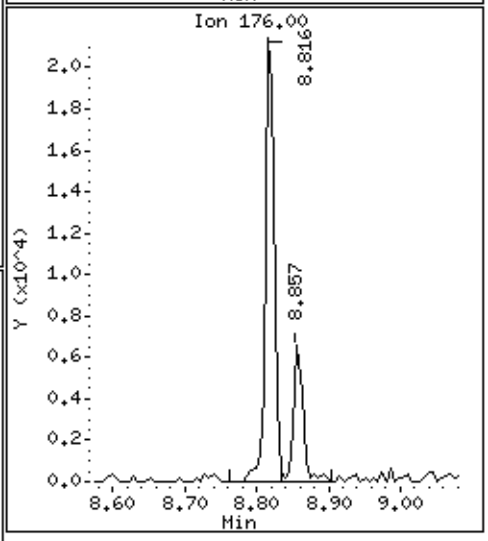
65 Phenanthrene

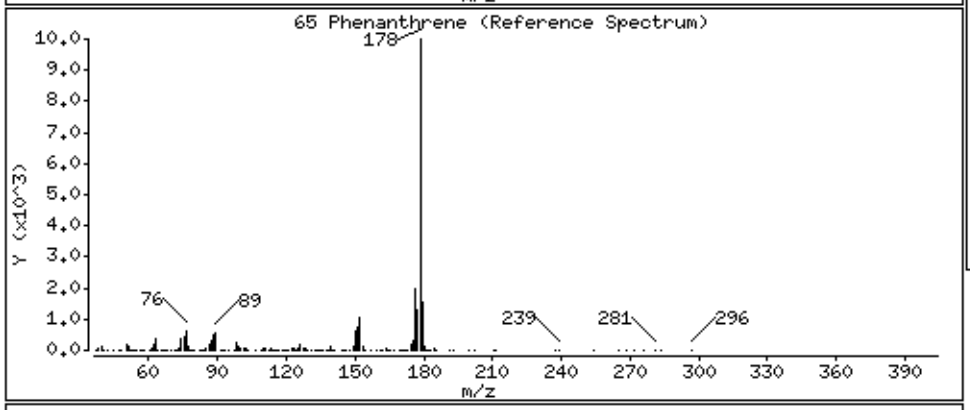
Concentration: 200 ug/Kg

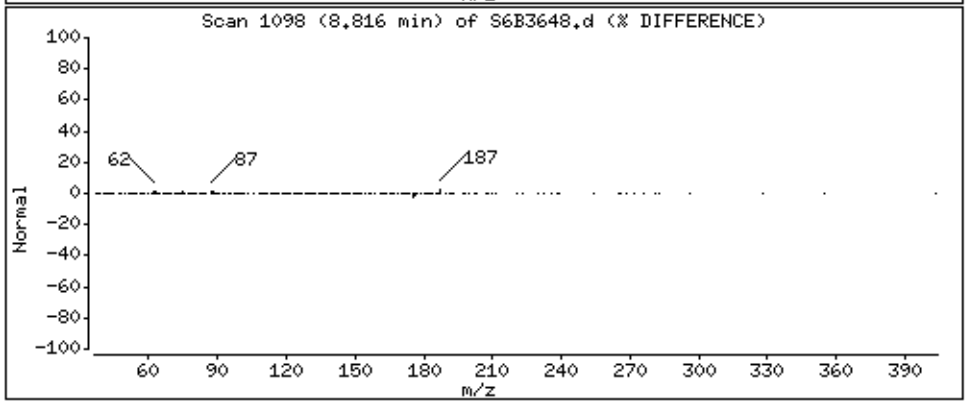












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

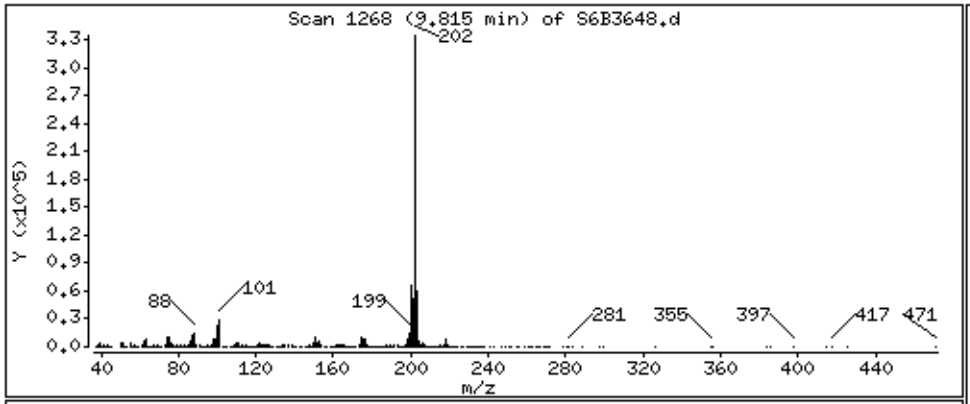
Operator: PK SRC: LIMS

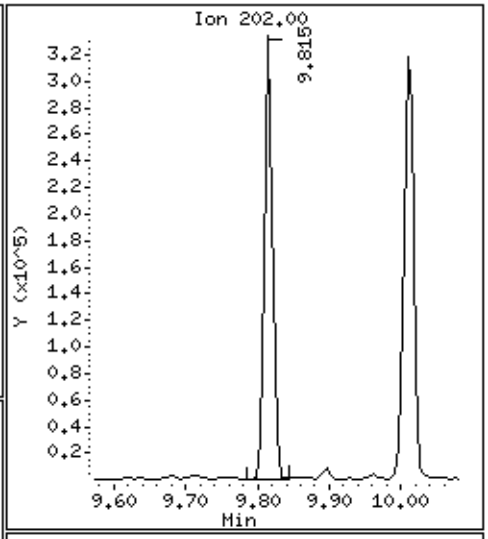
Column phase: Rxi-5Sil MS

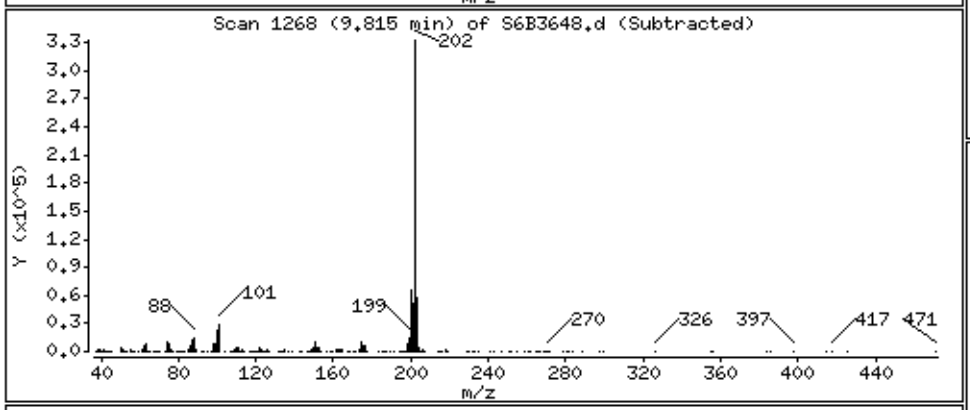
Column diameter: 0.25

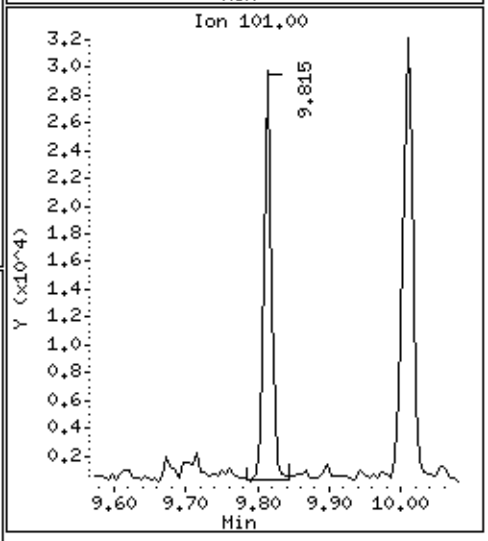
69 Fluoranthene

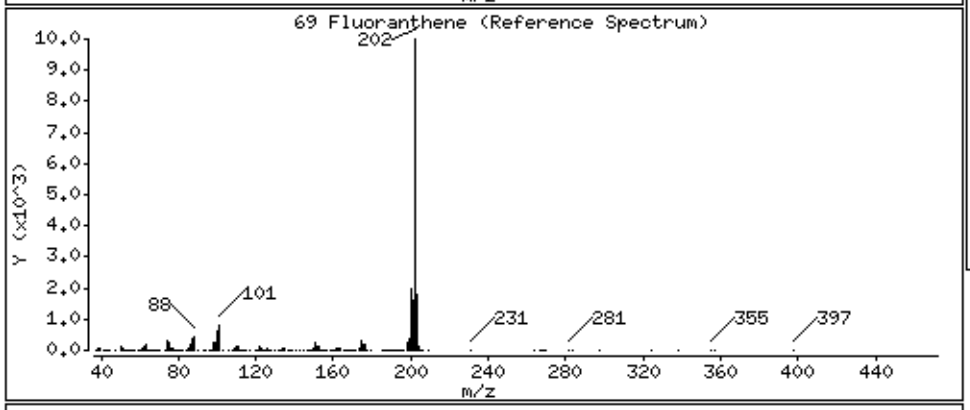
Concentration: 440 ug/Kg

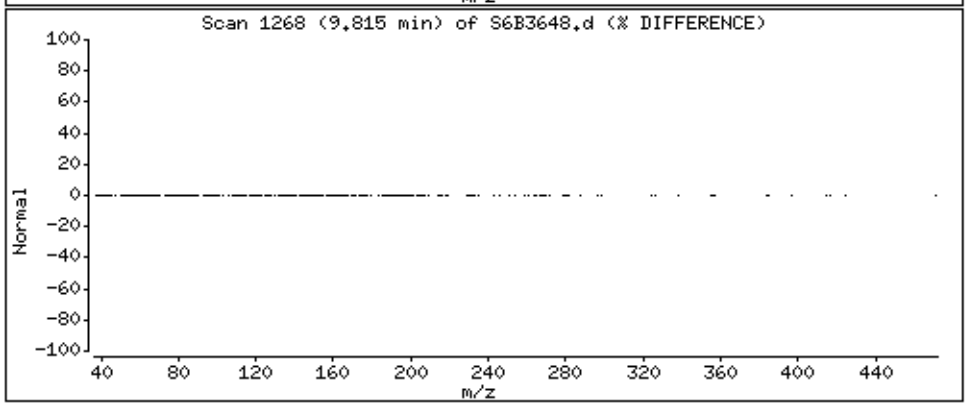












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

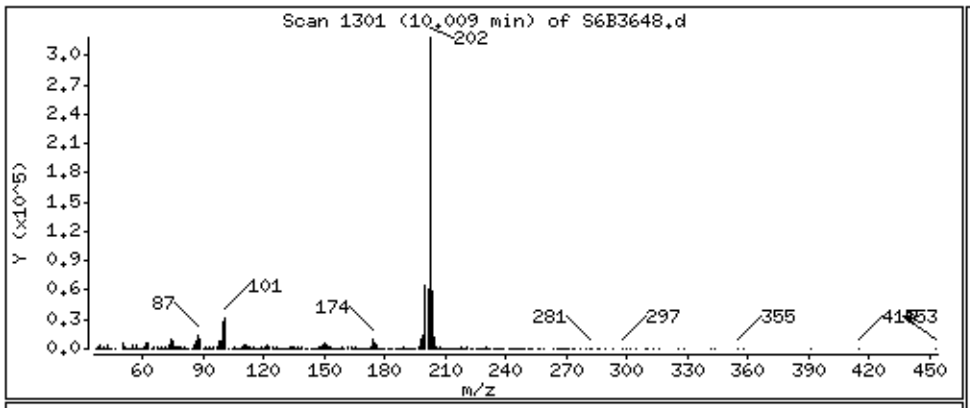
Operator: PK SRC: LIMS

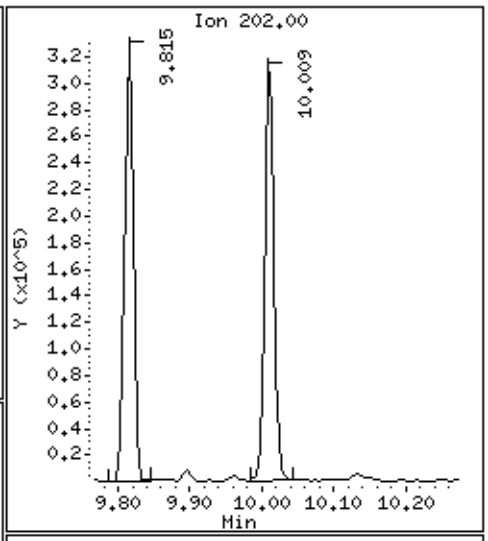
Column phase: Rxi-5Sil MS

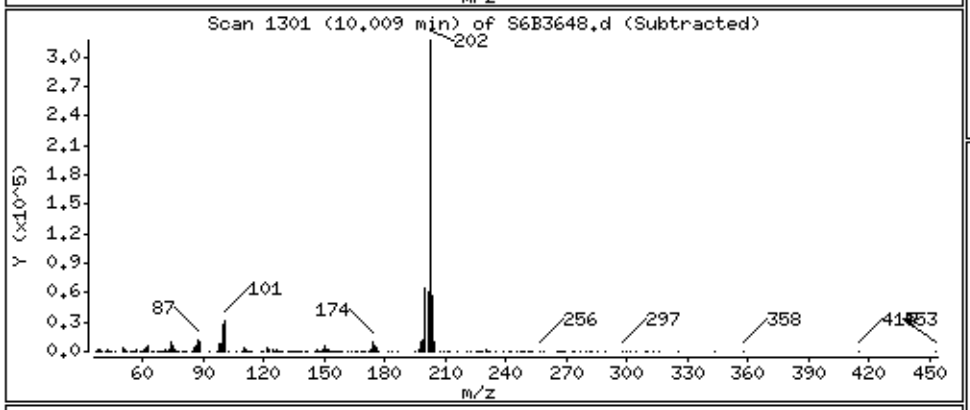
Column diameter: 0.25

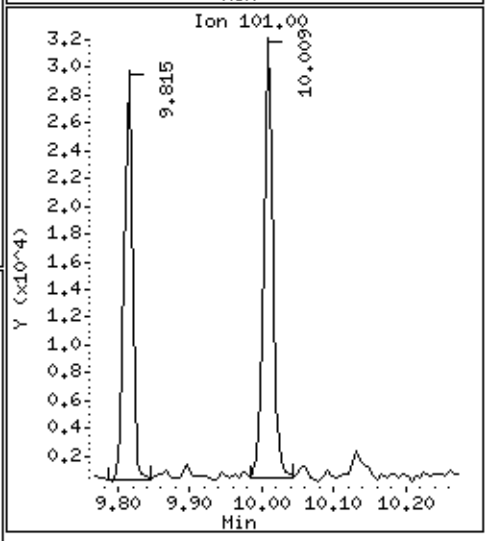
71 Pyrene

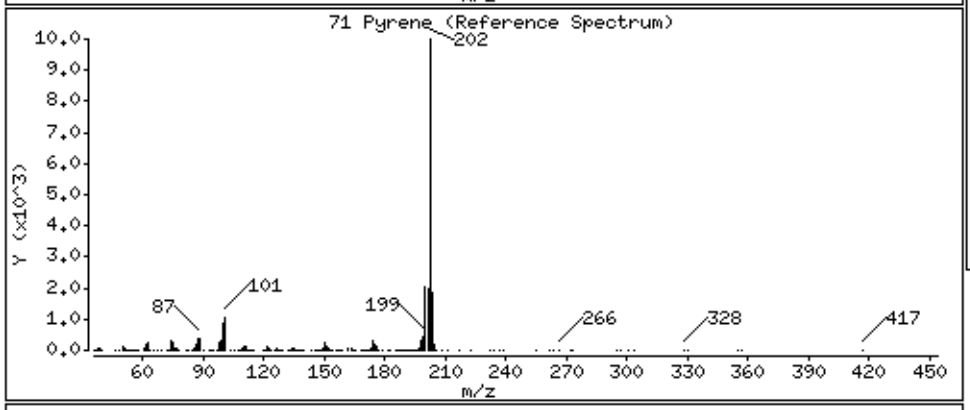
Concentration: 560 ug/Kg

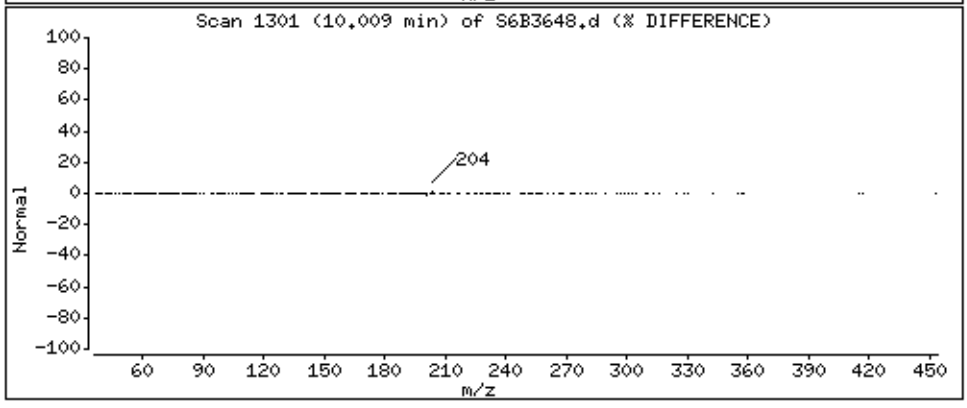












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

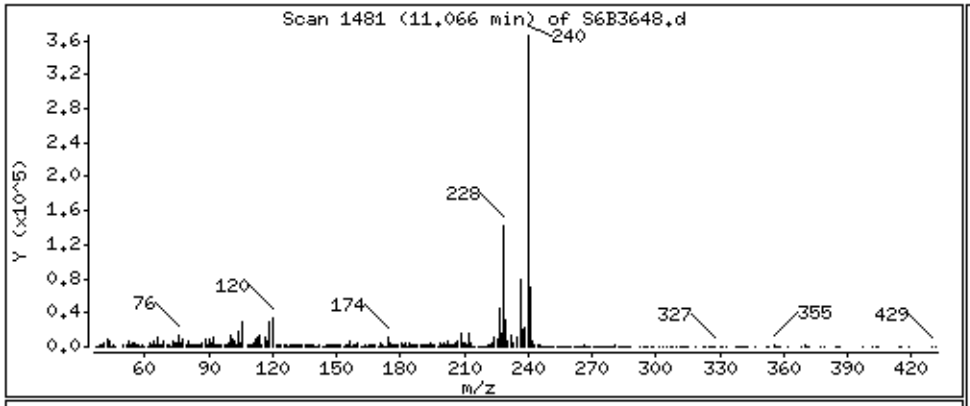
Operator: PK SRC: LIMS

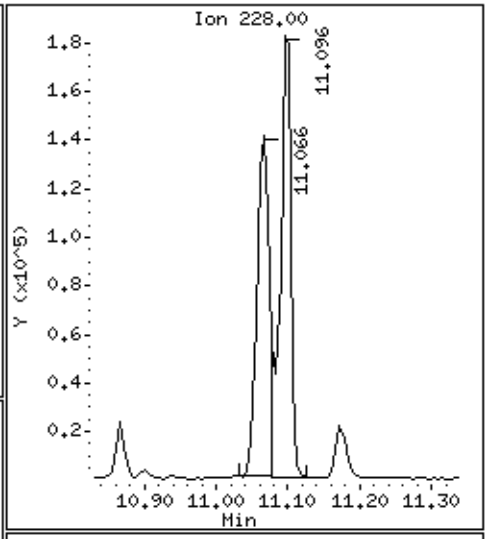
Column phase: Rxi-5Sil MS

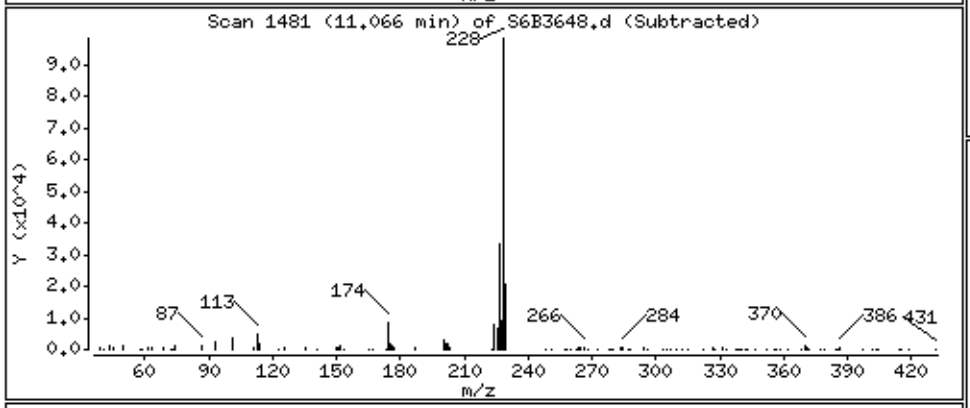
Column diameter: 0.25

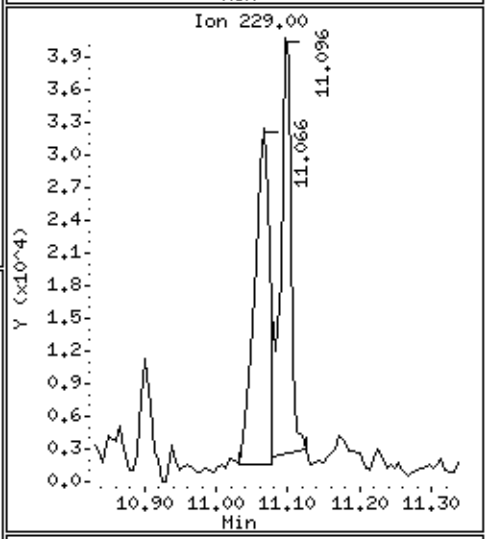
75 Benzo(a)anthracene

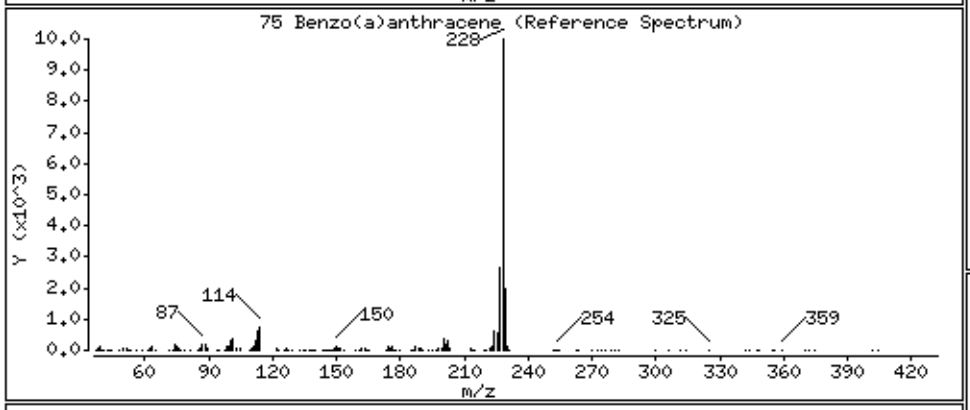
Concentration: 310 ug/Kg

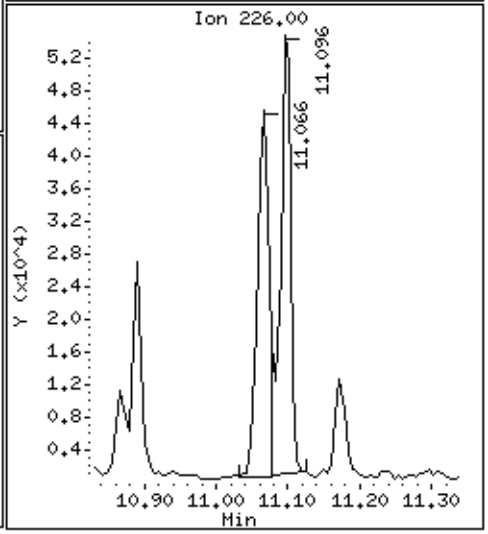


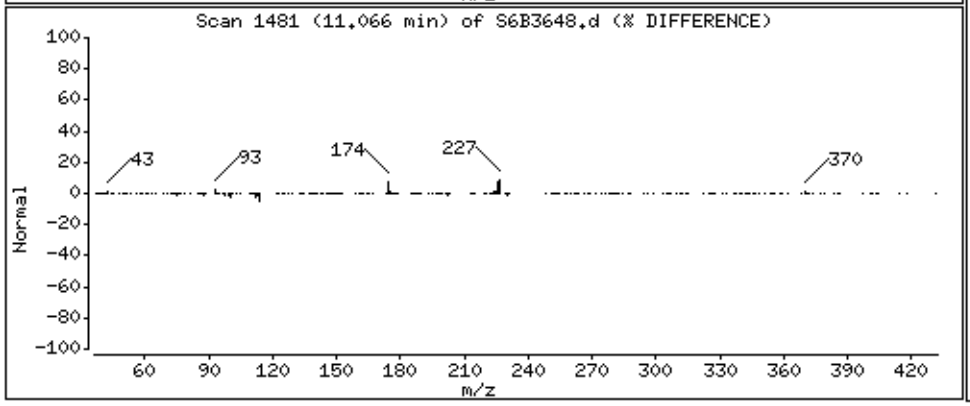












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

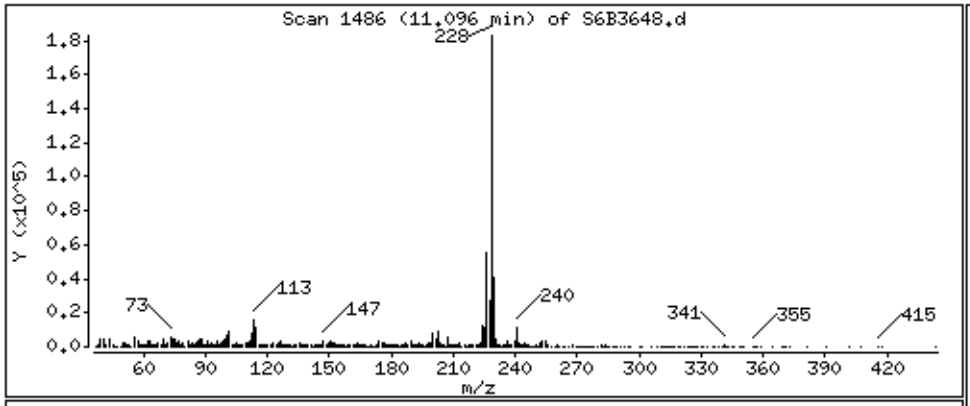
Operator: PK SRC: LIMS

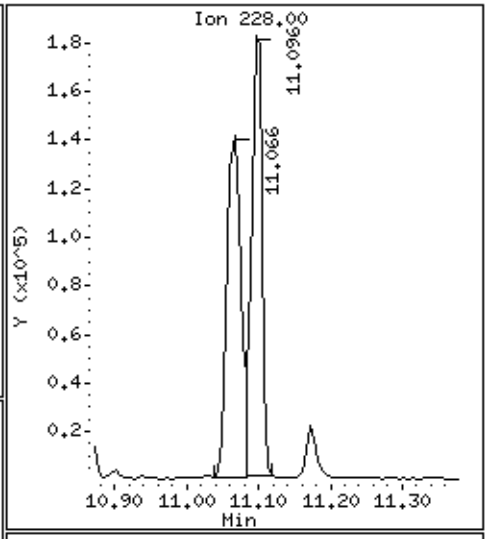
Column phase: Rxi-5Sil MS

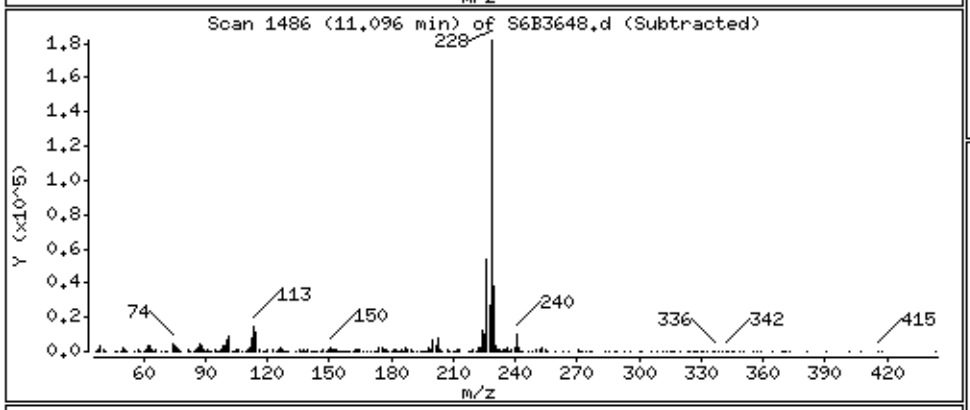
Column diameter: 0.25

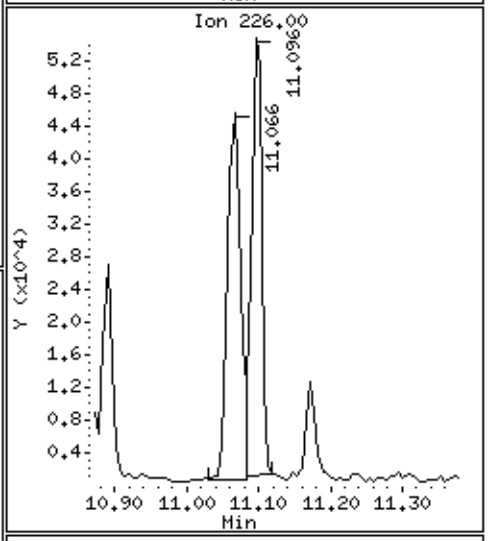
77 Chrysene

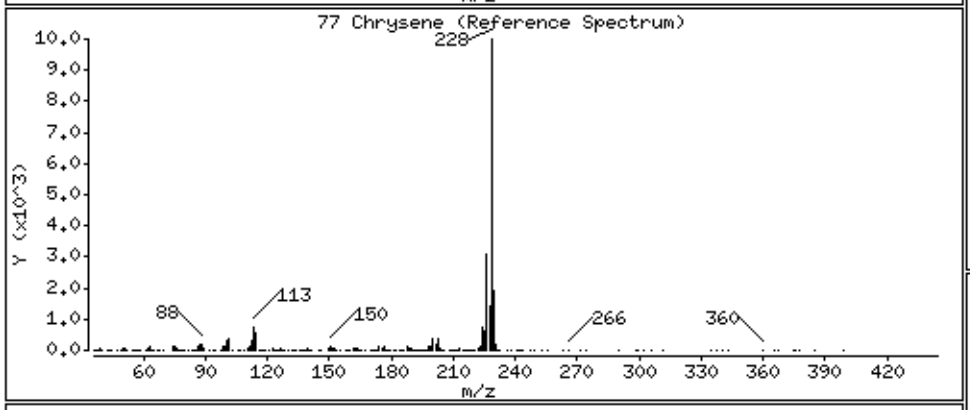
Concentration: 380 ug/Kg

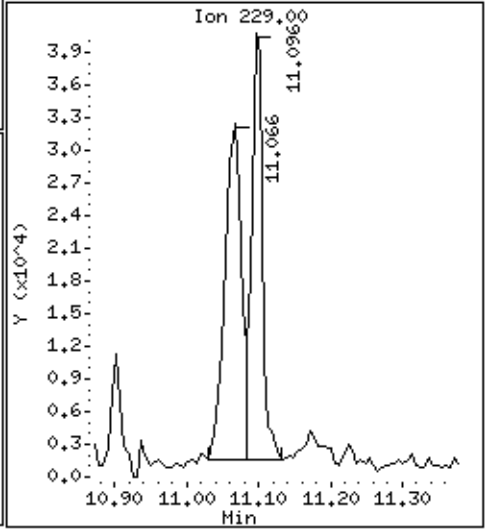


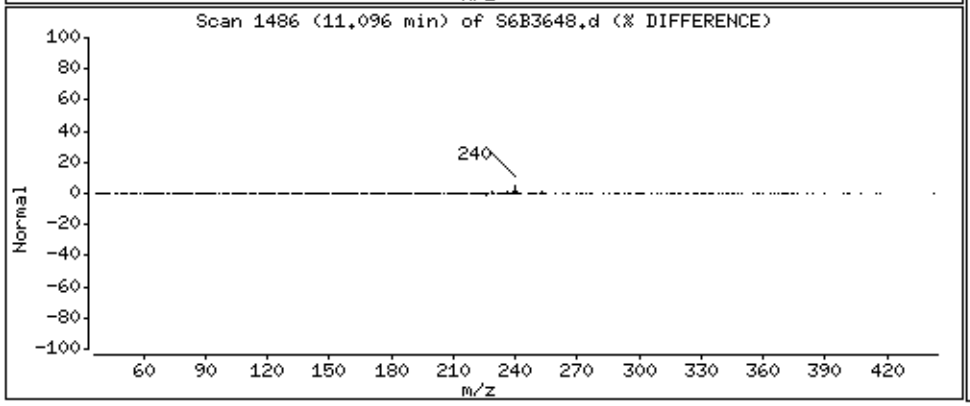












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

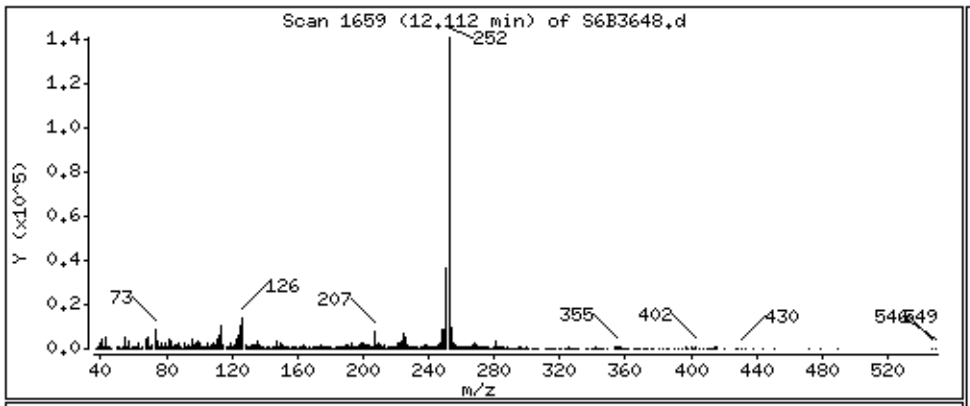
Operator: PK SRC: LIMS

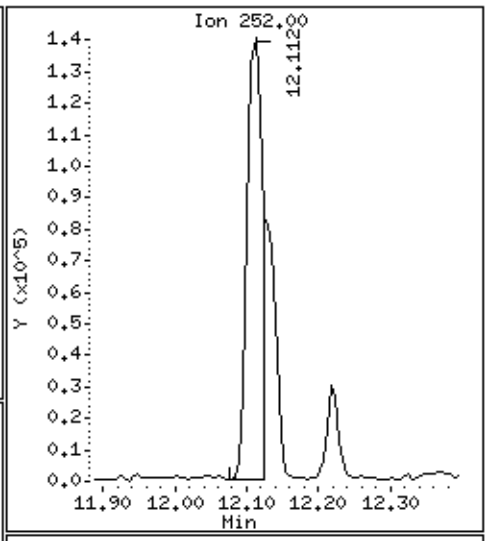
Column phase: Rxi-5Sil MS

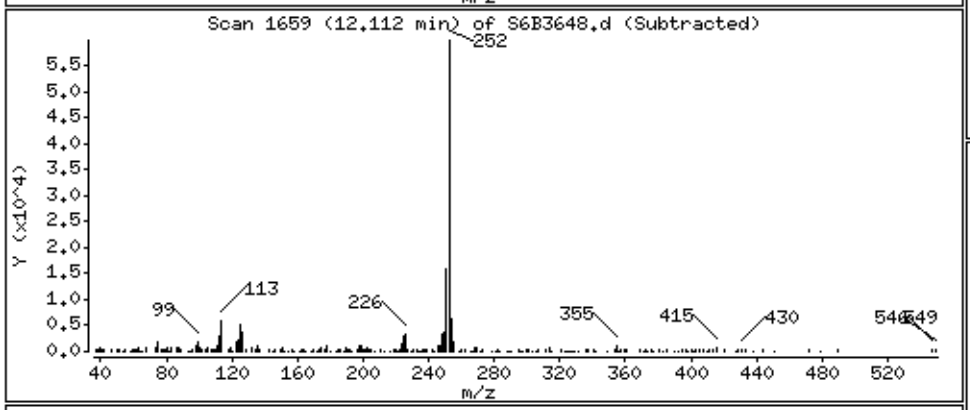
Column diameter: 0.25

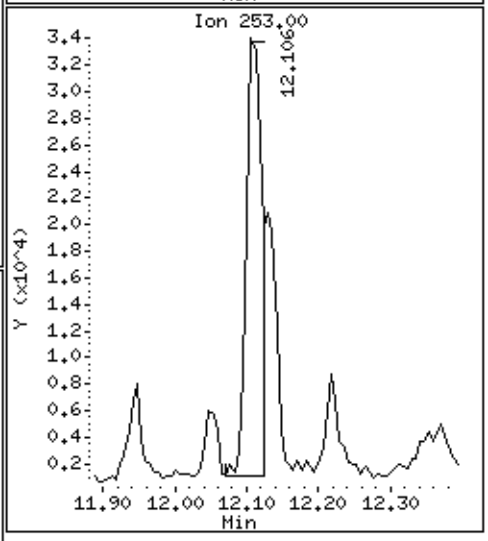
80 Benzo(b)fluoranthene

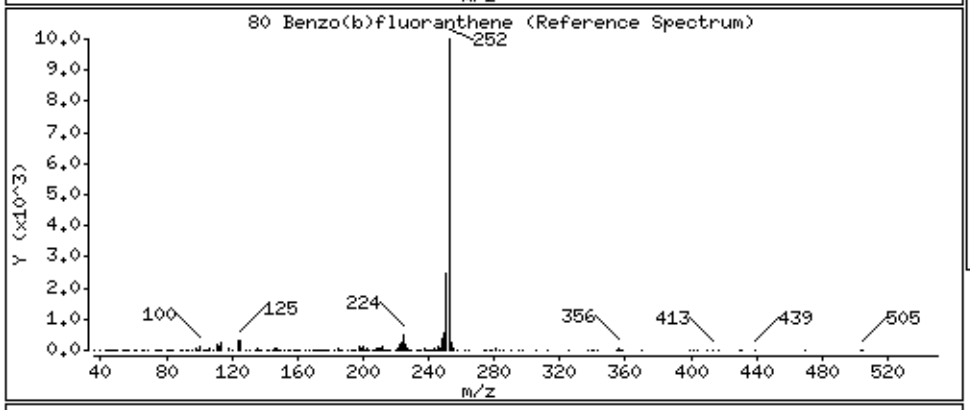
Concentration: 350 ug/Kg

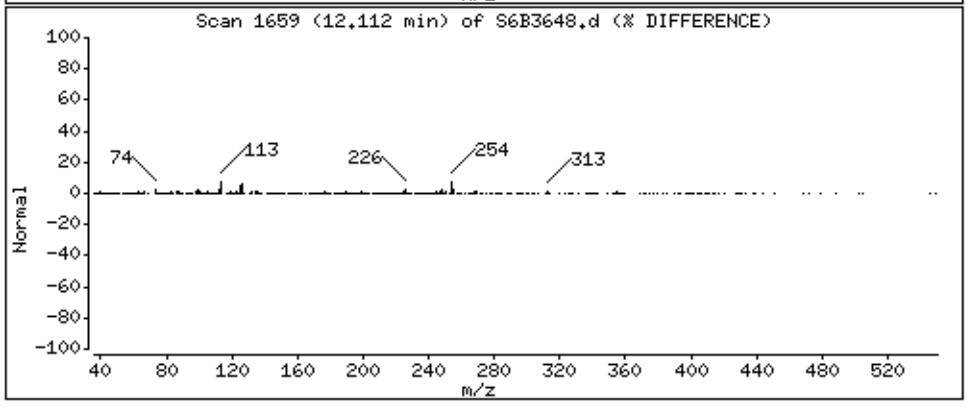












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

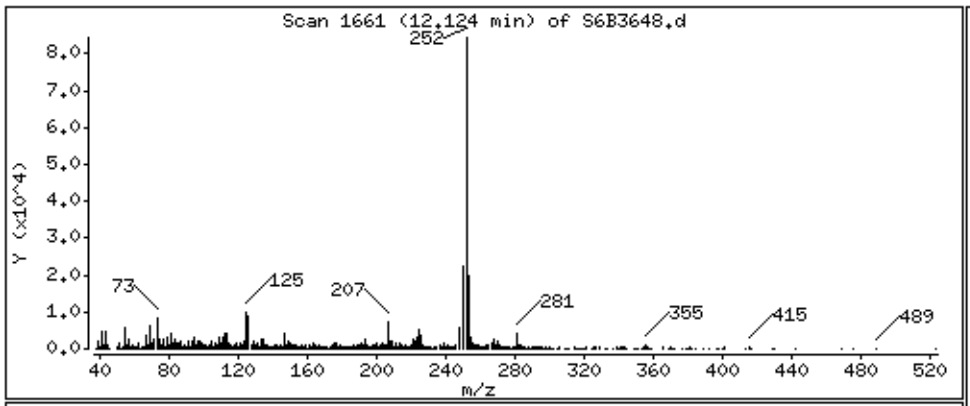
Operator: PK SRC: LIMS

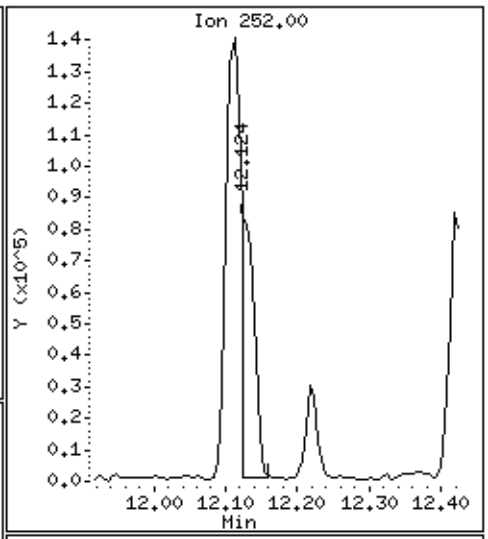
Column phase: Rxi-5Sil MS

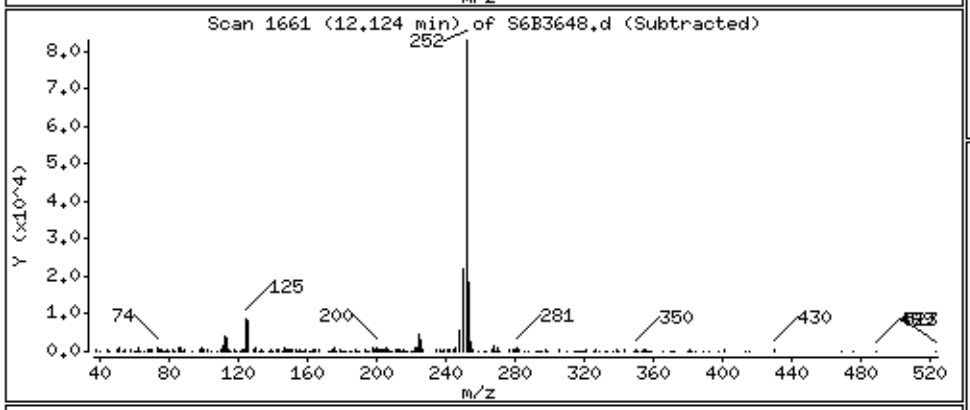
Column diameter: 0.25

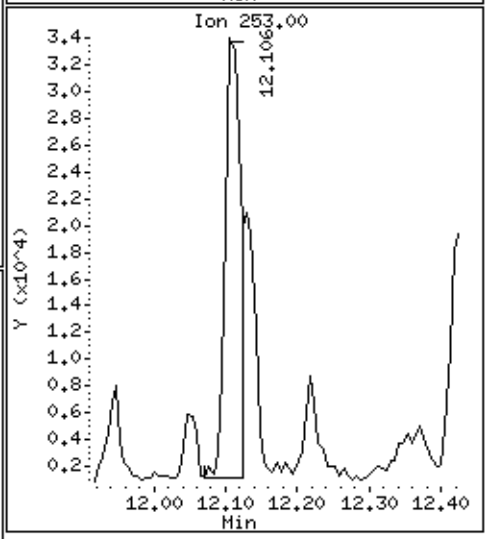
81 Benzo(k)fluoranthene

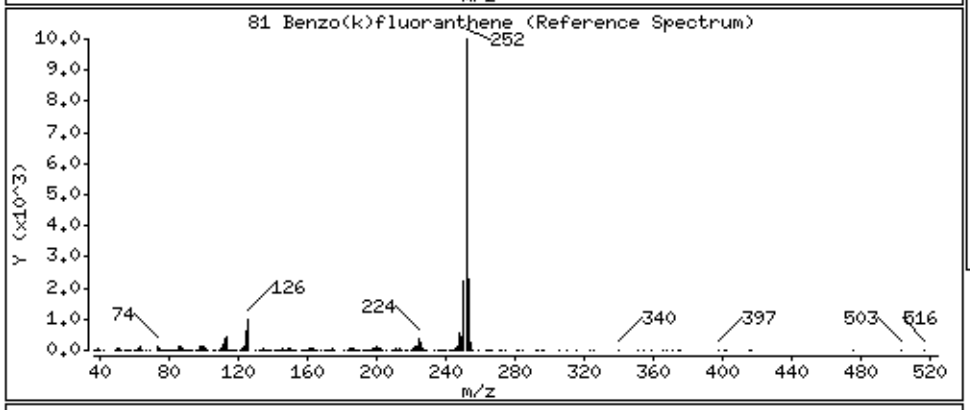
Concentration: 190 ug/Kg

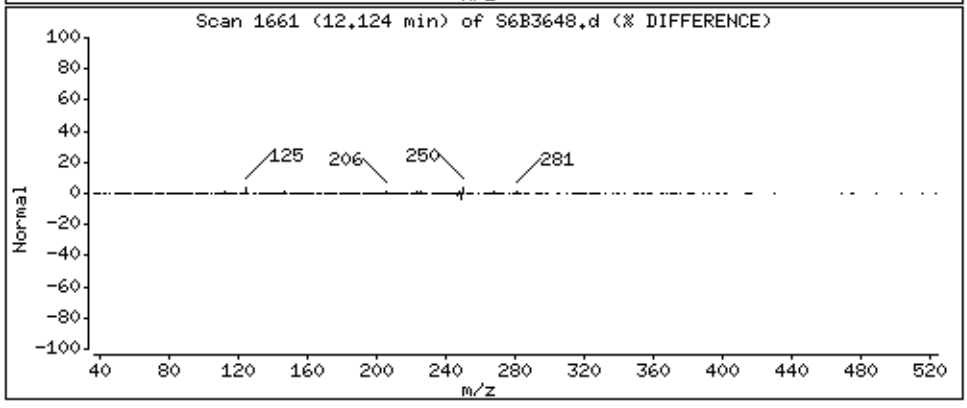












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

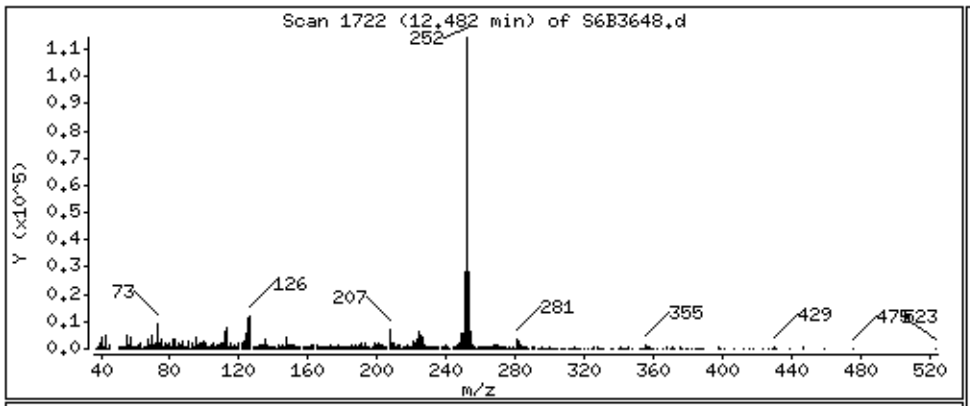
Operator: PK SRC: LIMS

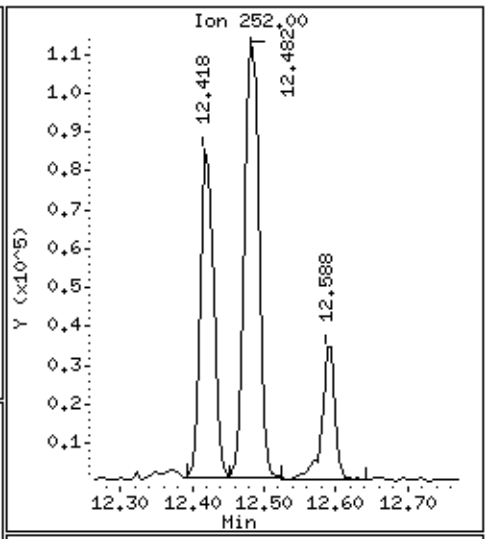
Column phase: Rxi-5Sil MS

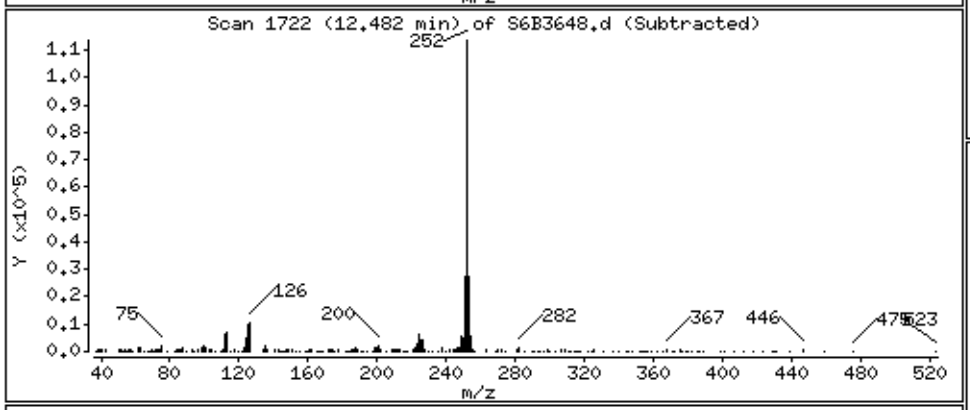
Column diameter: 0.25

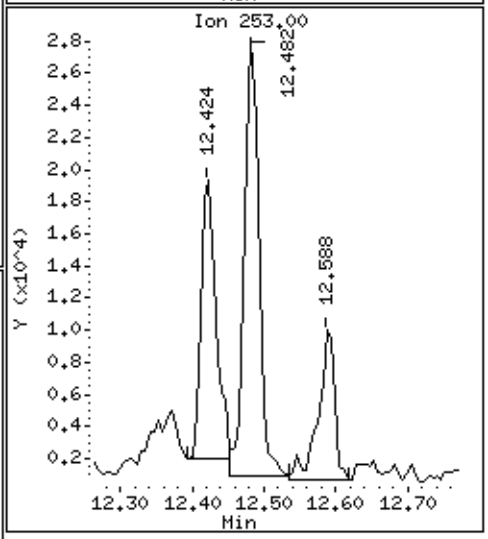
82 Benzo(a)pyrene

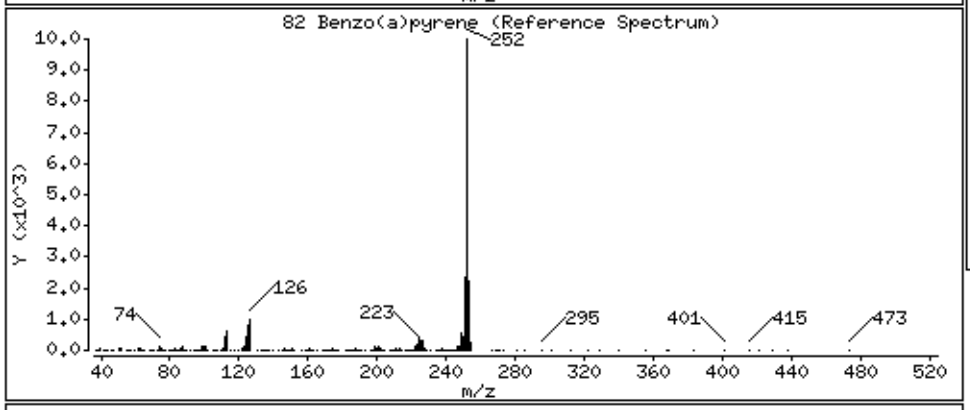
Concentration: 300 ug/Kg

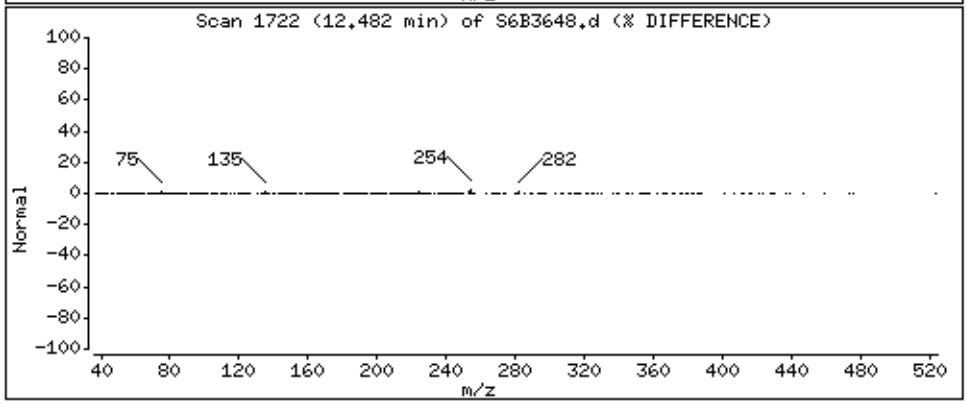












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

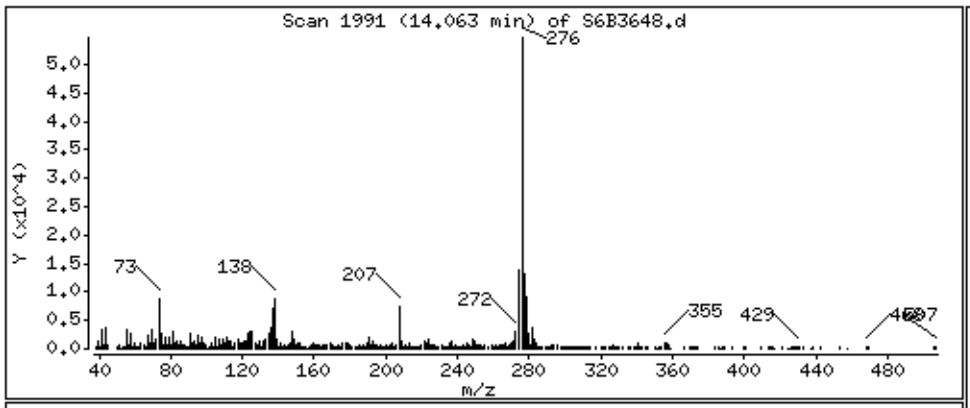
Operator: PK SRC: LIMS

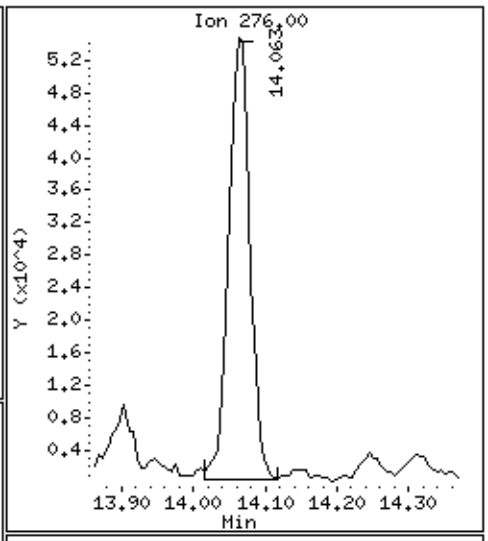
Column phase: Rxi-5Sil MS

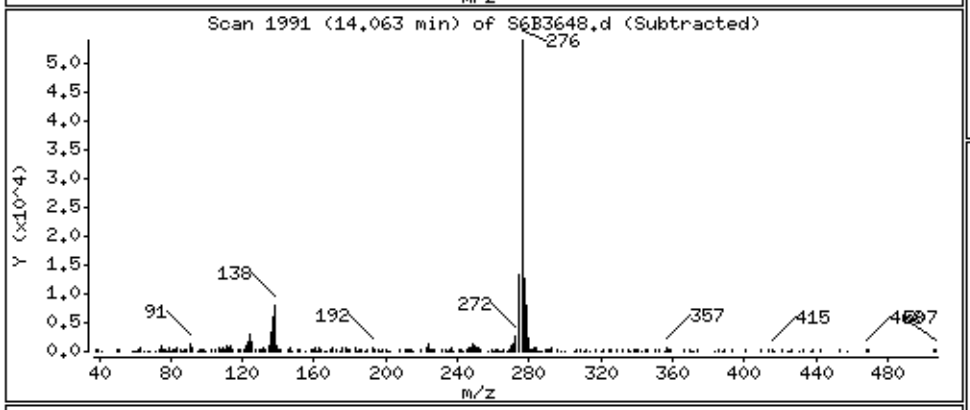
Column diameter: 0.25

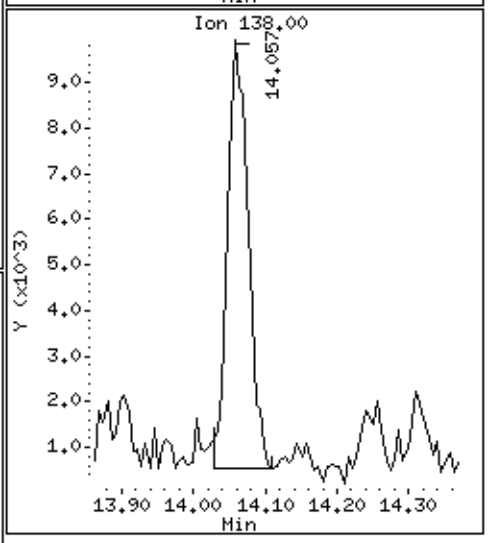
84 Indeno(1,2,3-cd)pyrene

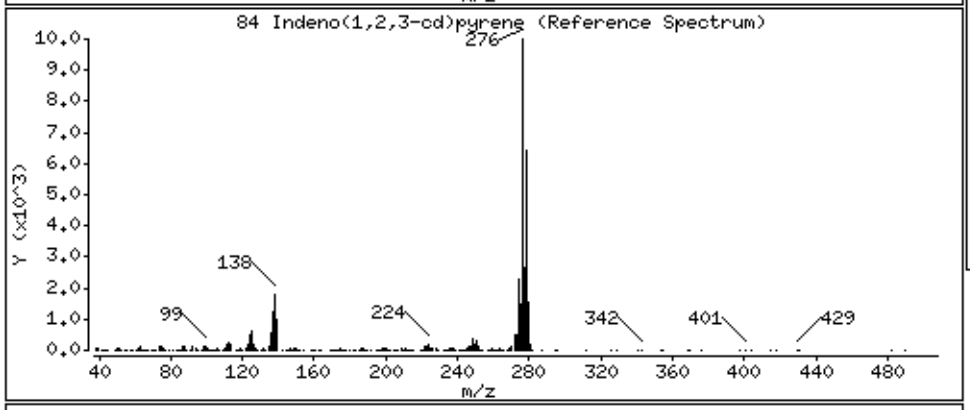
Concentration: 170 ug/Kg

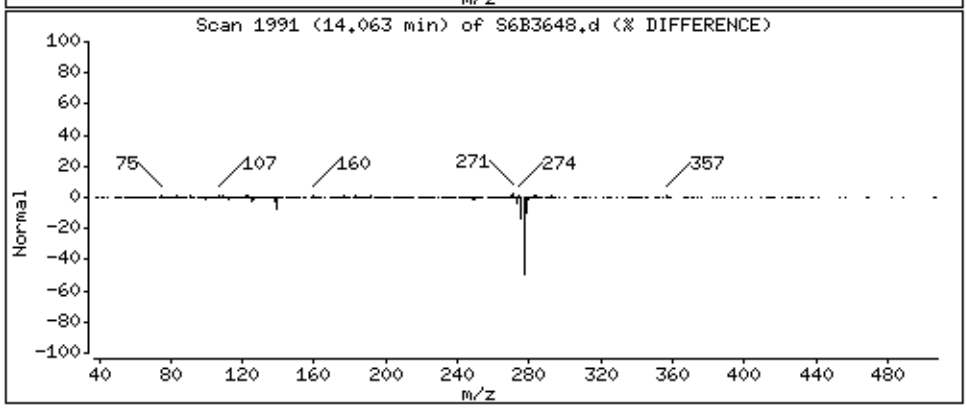












Data File: \\avogadro\organics\S6.I\130506.B\S6B3648.d

Date : 06-MAY-2013 18:07

Client ID: SB-126 (0-2)

Instrument: S6.i

Sample Info: M0619-01A,,71418

Volume Injected (uL): 1.0

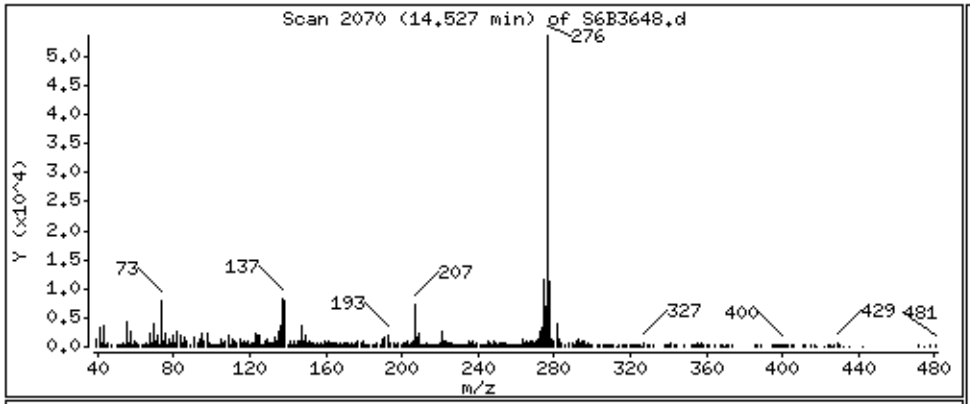
Operator: PK SRC: LIMS

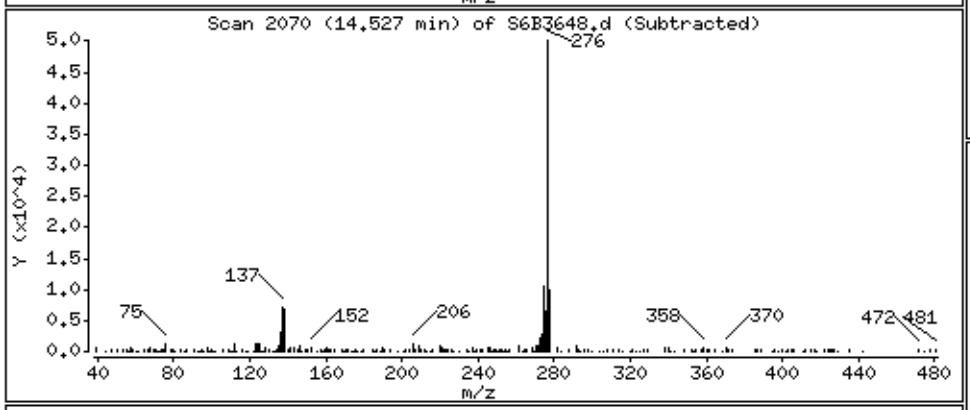
Column phase: Rxi-5Sil MS

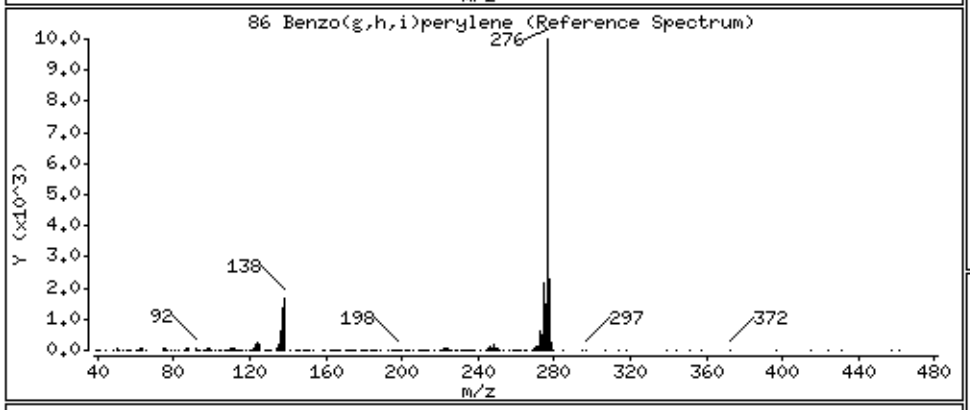
Column diameter: 0.25

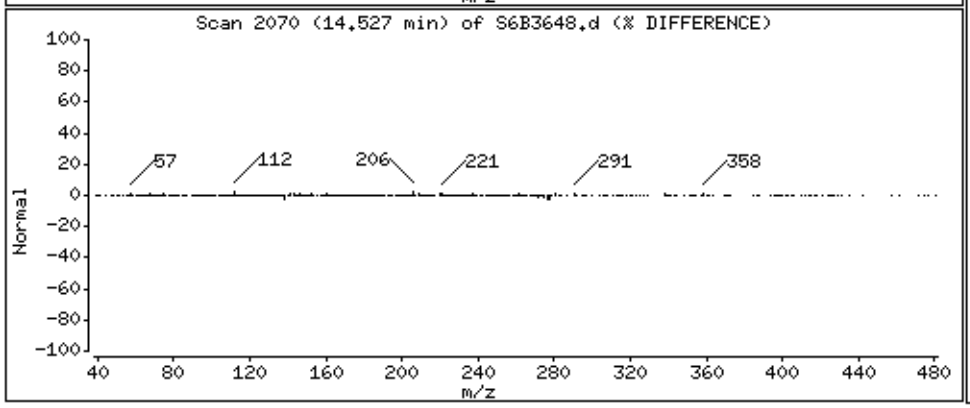
86 Benzo(g,h,i)perylene

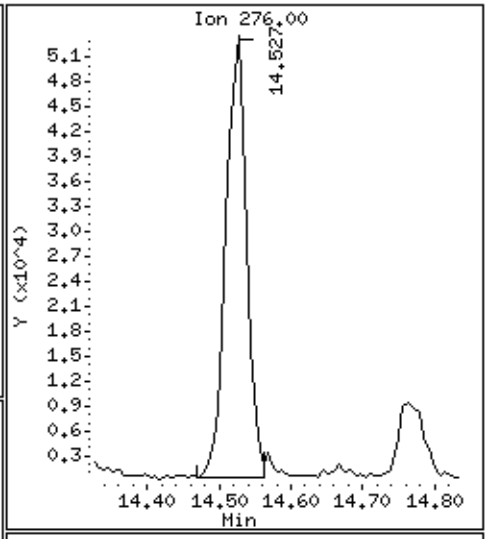
Concentration: 200 ug/Kg

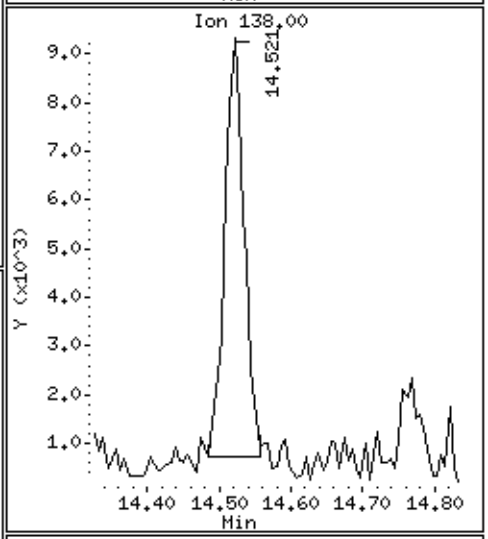


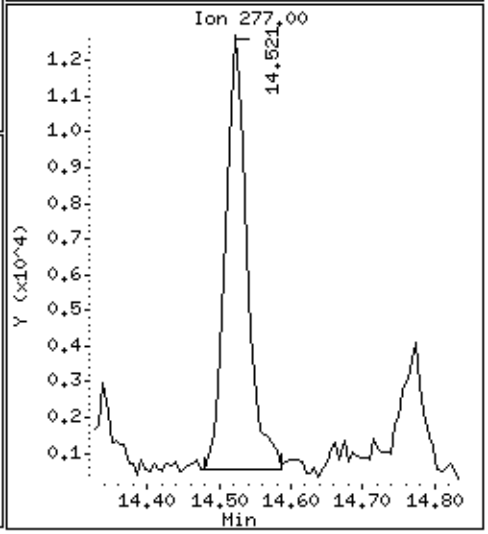












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-126 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-02A

Sample wt/vol: 15.3 (g/mL) G Lab File ID: S6B3649.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	130	J
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	190	J
129-00-0	Pyrene	190	J
56-55-3	Benzo(a)anthracene	110	J
218-01-9	Chrysene	120	J
205-99-2	Benzo(b)fluoranthene	110	J
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	88	J
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3649.d
Lab Smp Id: M0619-02A Client Smp ID: SB-126 (8-10)
Inj Date : 06-MAY-2013 18:29
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-02A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

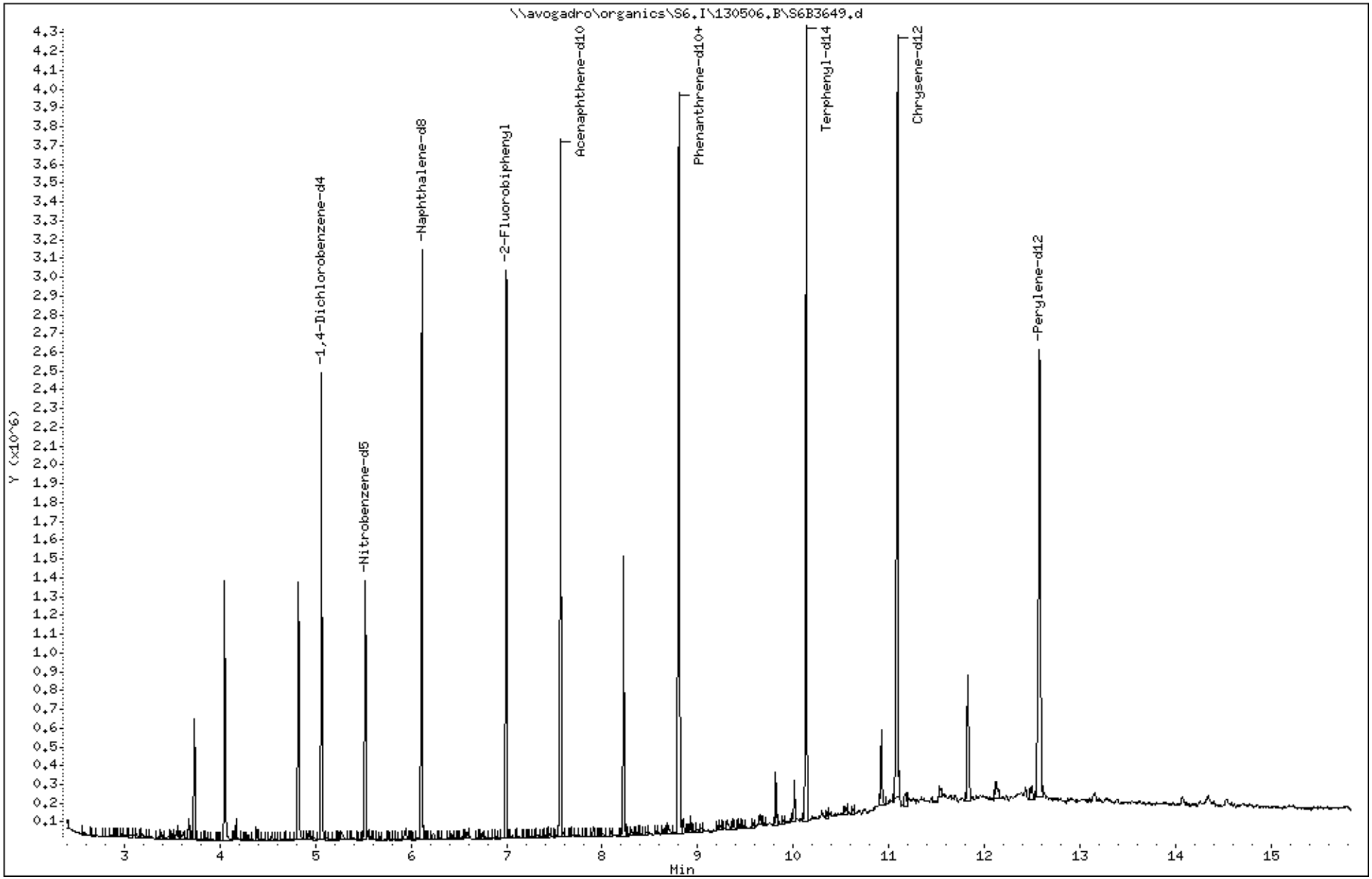
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.061	5.061	(1.000)	291949	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	408185	43.7101	2800	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	1045069	40.0000		
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	831017	41.0667	2700	
*	48 Acenaphthene-d10	164	7.564	7.570	(1.000)	692797	40.0000		
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1348472	40.0000		
	65 Phenanthrene	178	8.816	8.827	(1.001)	55066	1.78668	120(a)	
	69 Fluoranthene	202	9.814	9.826	(1.115)	96378	2.55519	170(a)	
	71 Pyrene	202	10.008	10.020	(0.903)	85097	2.59021	170(a)	
$	72 Terphenyl-d14	244	10.138	10.138	(0.914)	1235715	52.4144	3400	
	75 Benzo(a)anthracene	228	11.072	11.083	(0.998)	52622	1.45368	95(a)	
*	76 Chrysene-d12	240	11.089	11.101	(1.000)	1571289	40.0000		
	77 Chrysene	228	11.107	11.125	(1.002)	48072	1.58780	100(a)	
	80 Benzo(b)fluoranthene	252	12.118	12.141	(0.964)	58821	1.54127	100(aM)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.494	12.517	(0.993)	40074	1.17642	77(a)	
*	83 Perylene-d12	264	12.576	12.593	(1.000)	1459978	40.0000		

Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d
Report Date: 07-May-2013 10:02

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d
Date : 06-MAY-2013 18:29
Client ID: SB-126 (8-10)
Instrument: S6.i
Sample Info: M0619-02A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

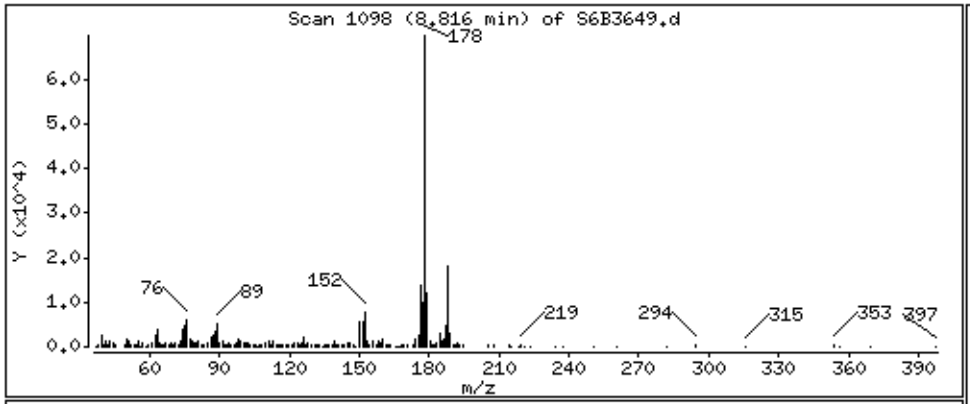
Operator: PK SRC: LIMS

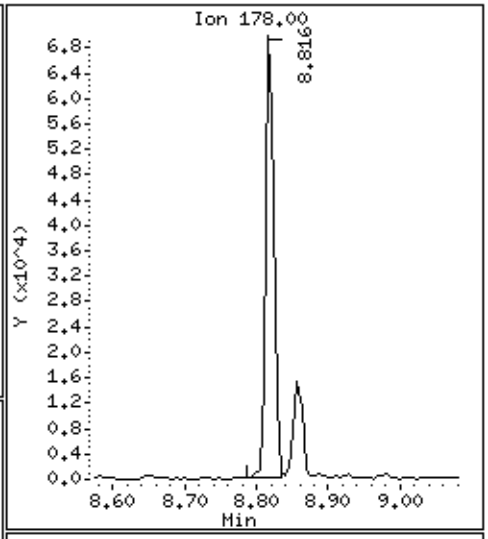
Column phase: Rxi-5Sil MS

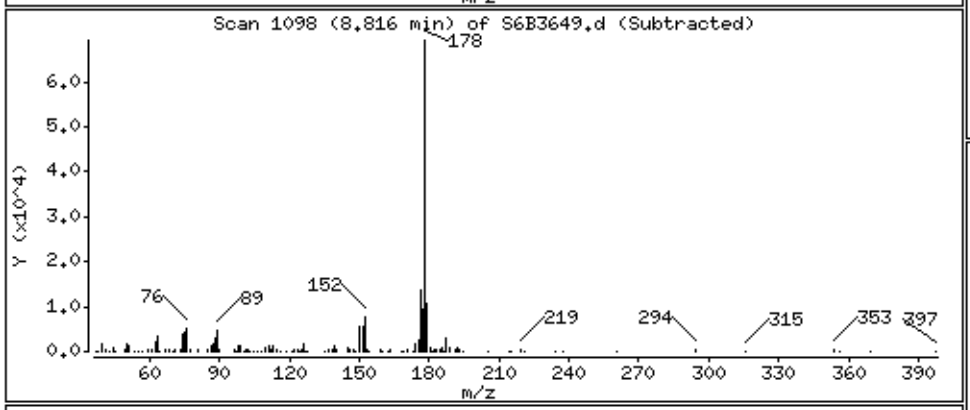
Column diameter: 0.25

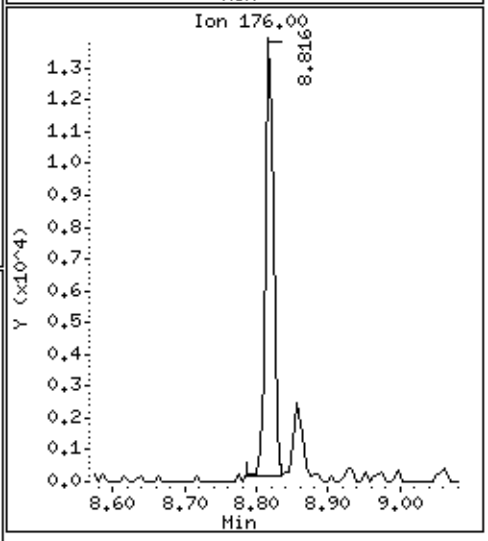
65 Phenanthrene

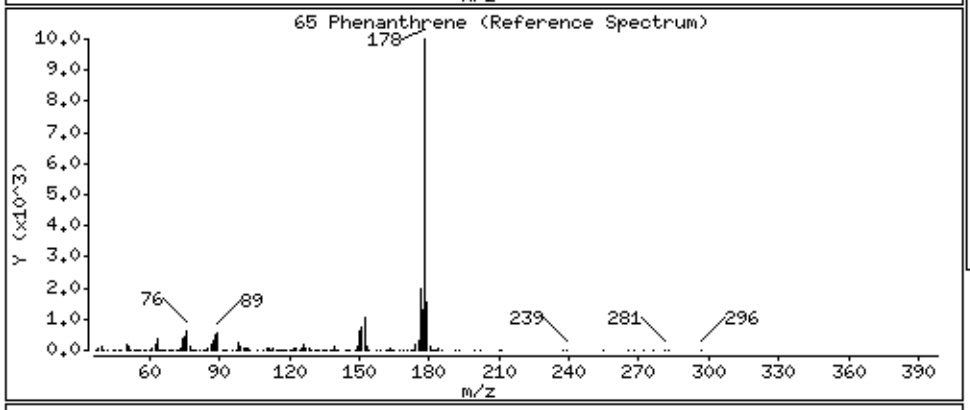
Concentration: 120 ug/Kg

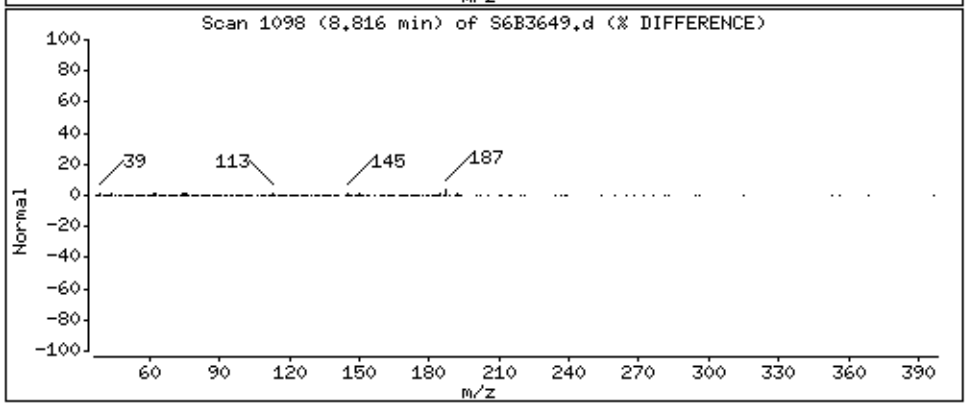












Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

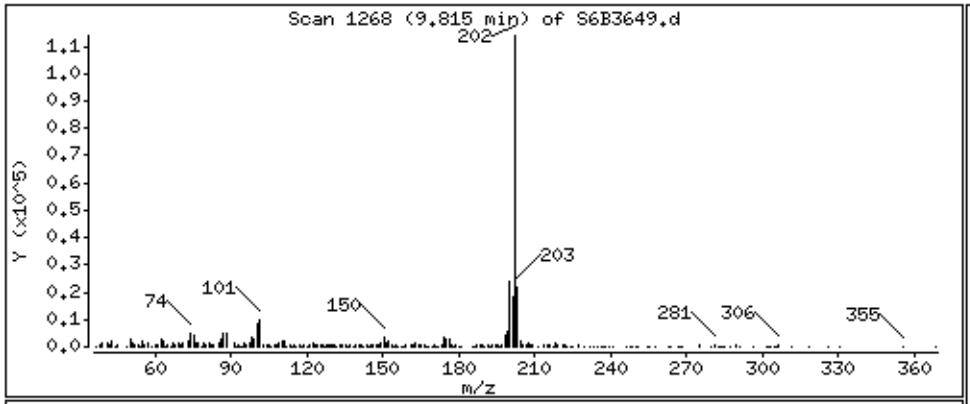
Operator: PK SRC: LIMS

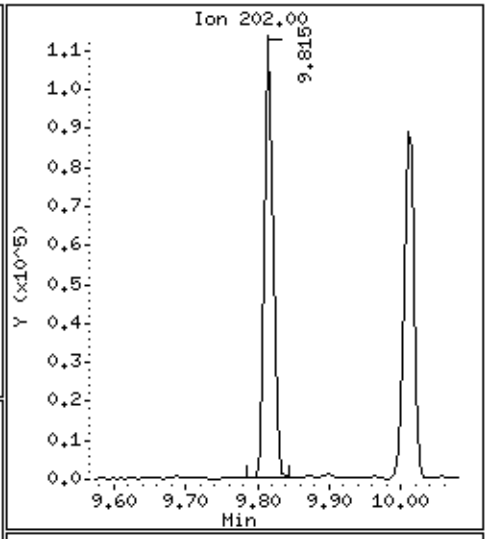
Column phase: Rxi-5Sil MS

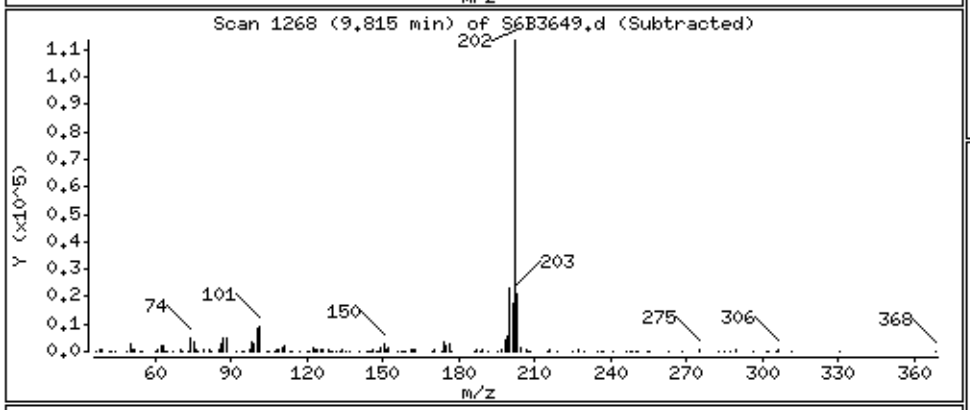
Column diameter: 0.25

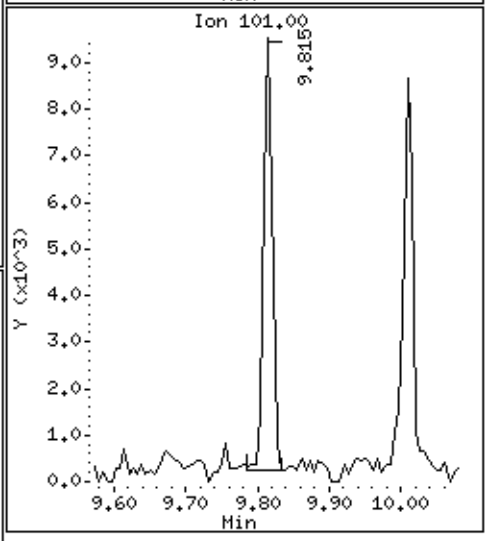
69 Fluoranthene

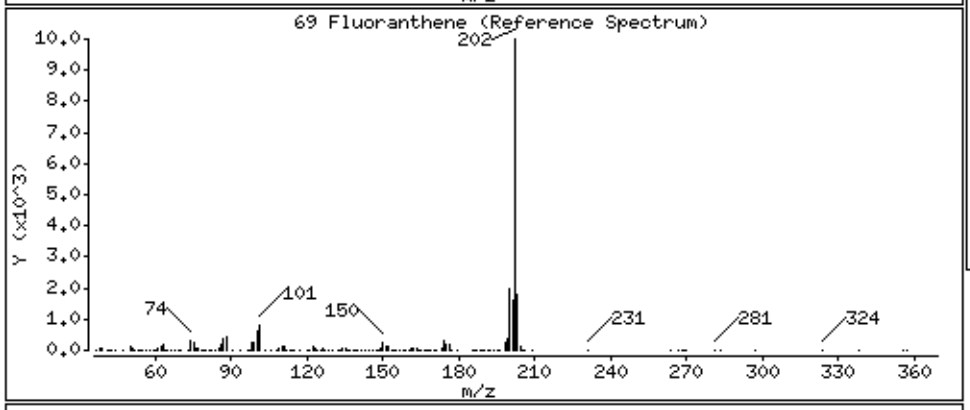
Concentration: 170 ug/Kg

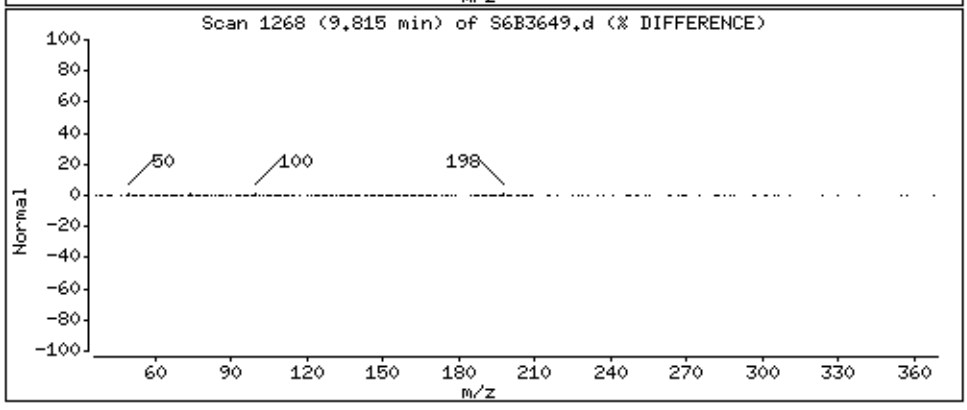












Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

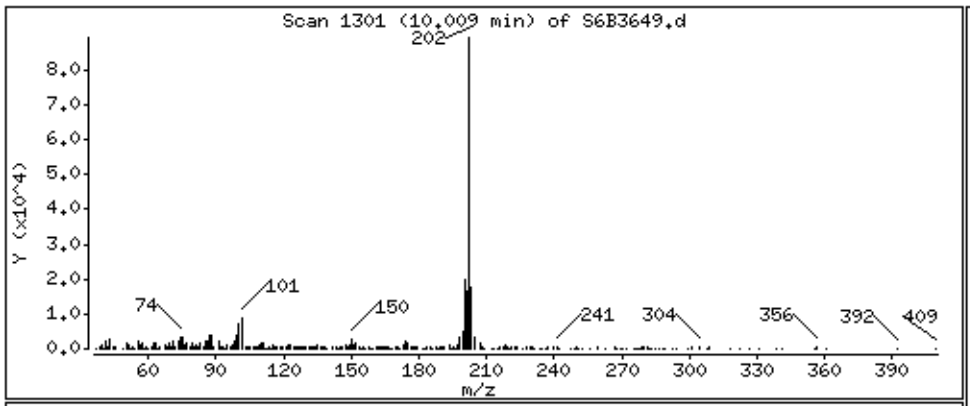
Operator: PK SRC: LIMS

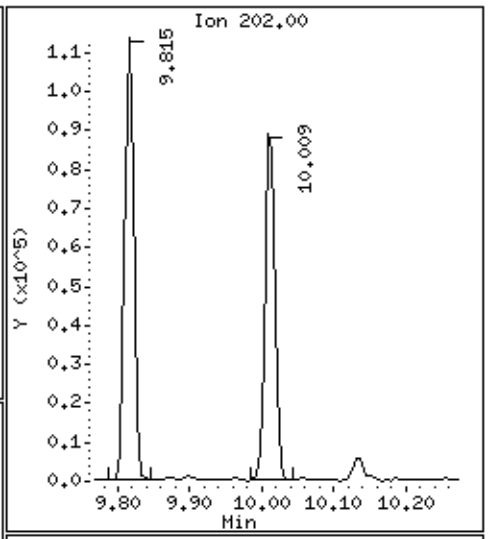
Column phase: Rxi-5Sil MS

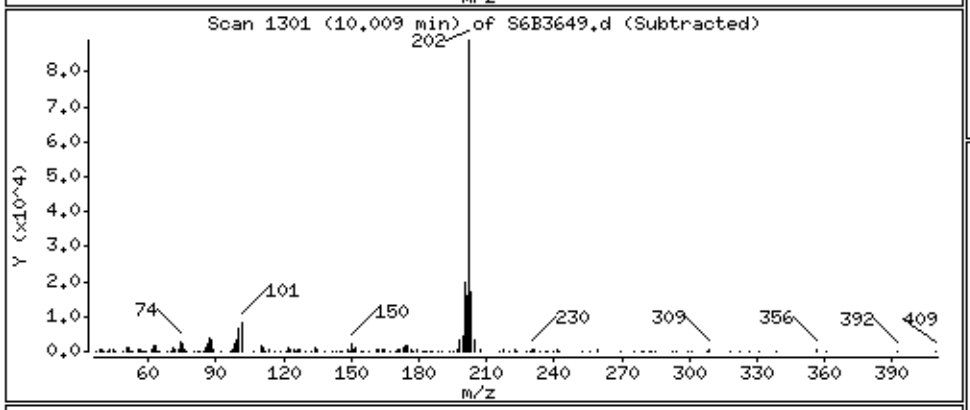
Column diameter: 0.25

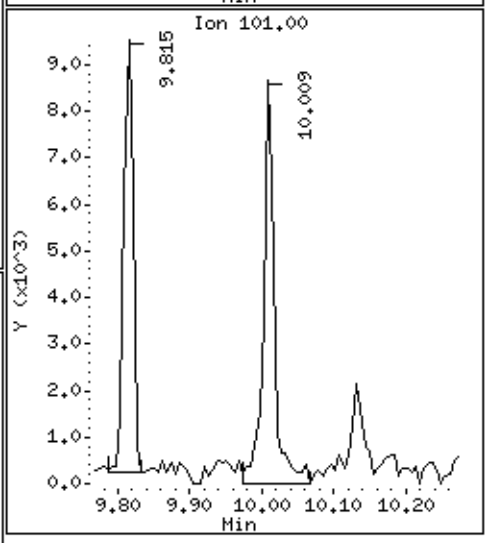
71 Pyrene

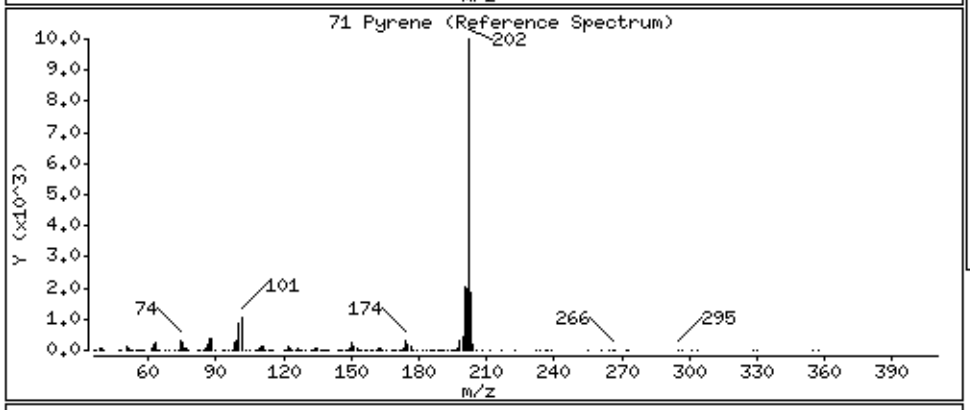
Concentration: 170 ug/Kg

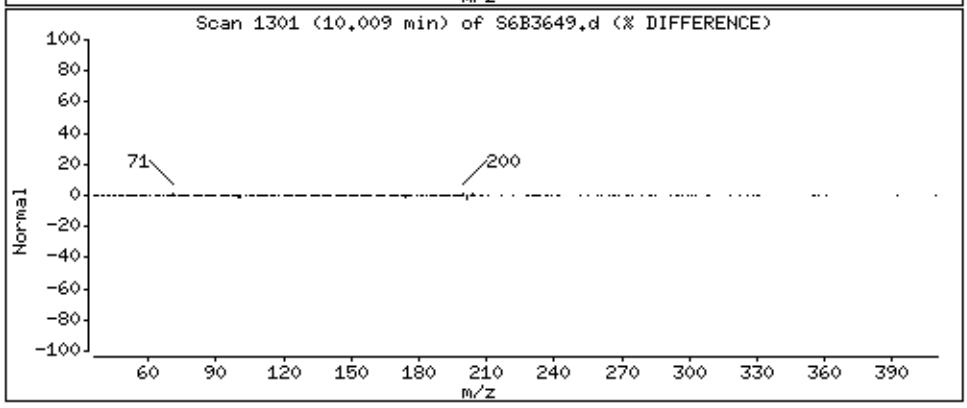












Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

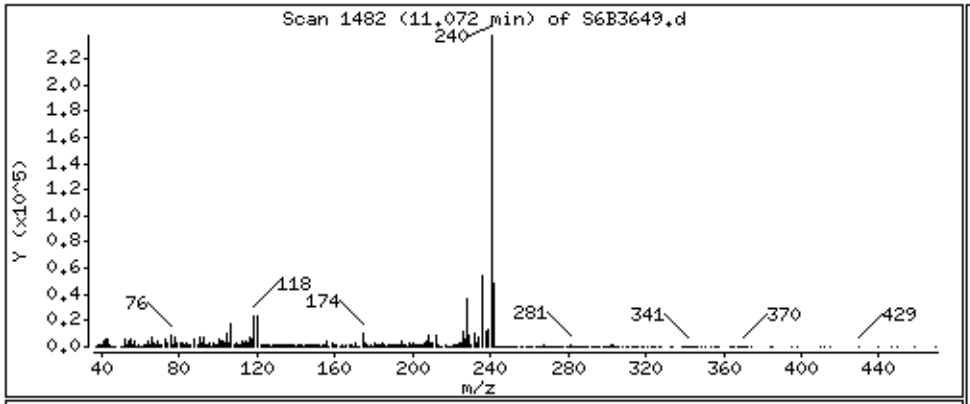
Operator: PK SRC: LIMS

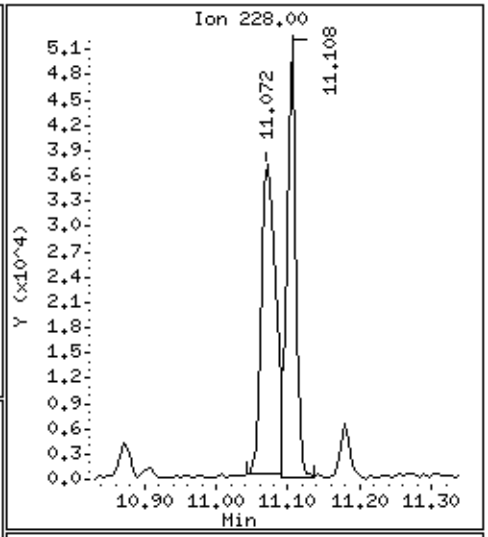
Column phase: Rxi-5Sil MS

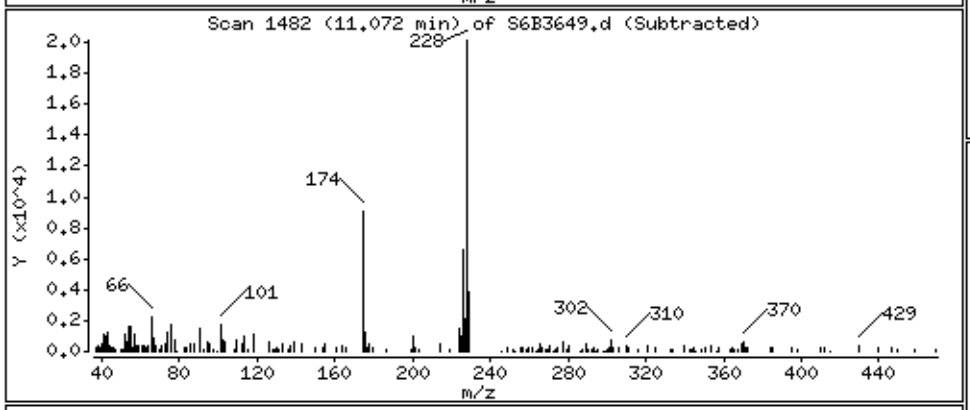
Column diameter: 0.25

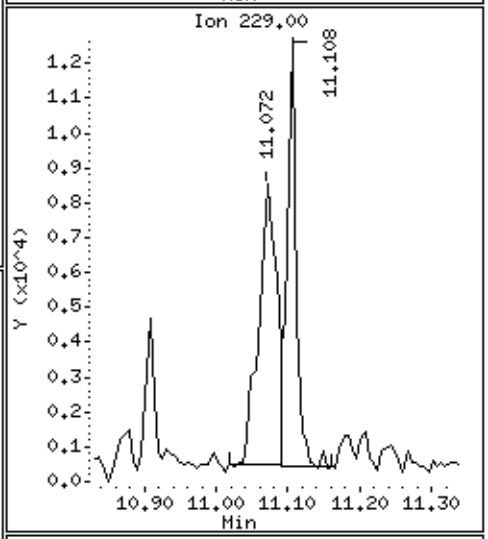
75 Benzo(a)anthracene

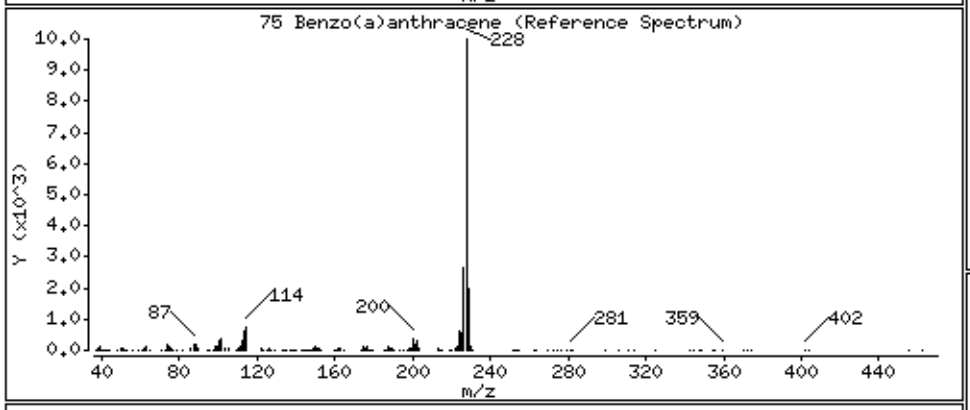
Concentration: 95 ug/Kg

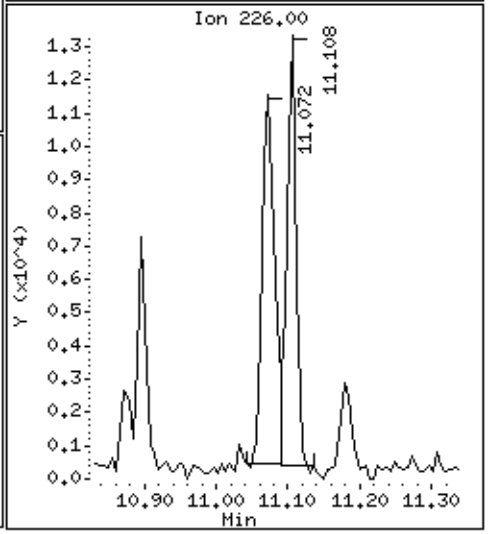


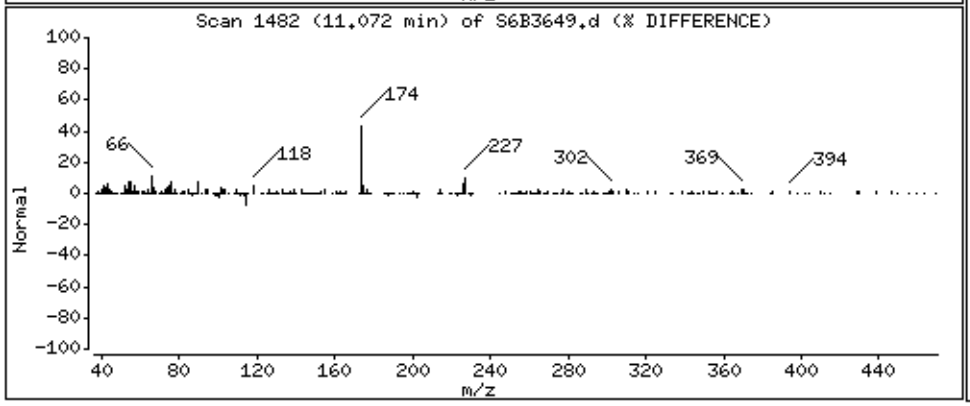












Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

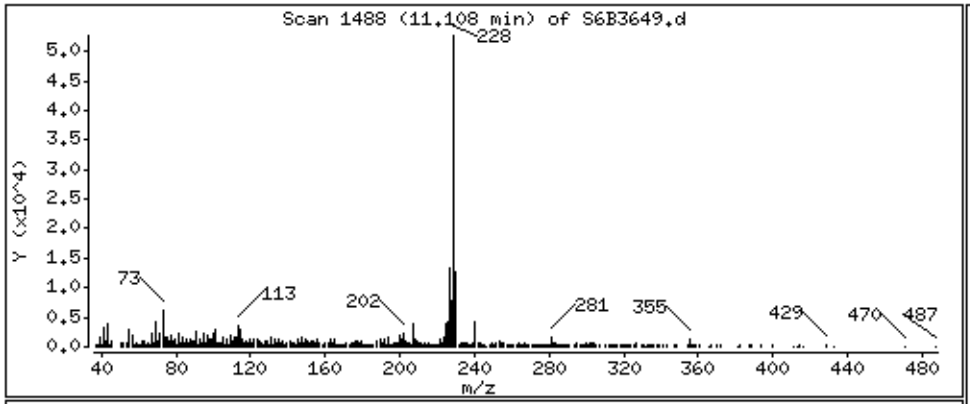
Operator: PK SRC: LIMS

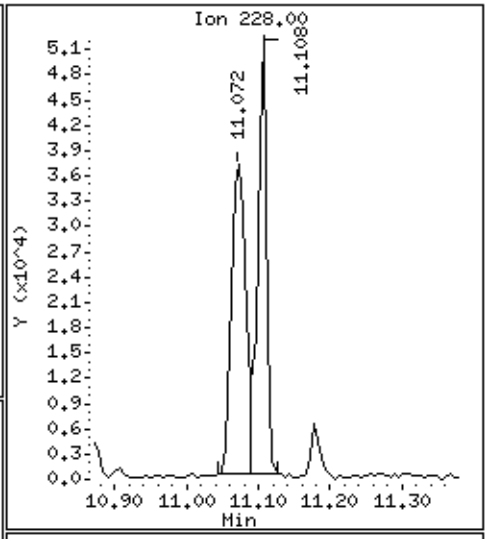
Column phase: Rxi-5Sil MS

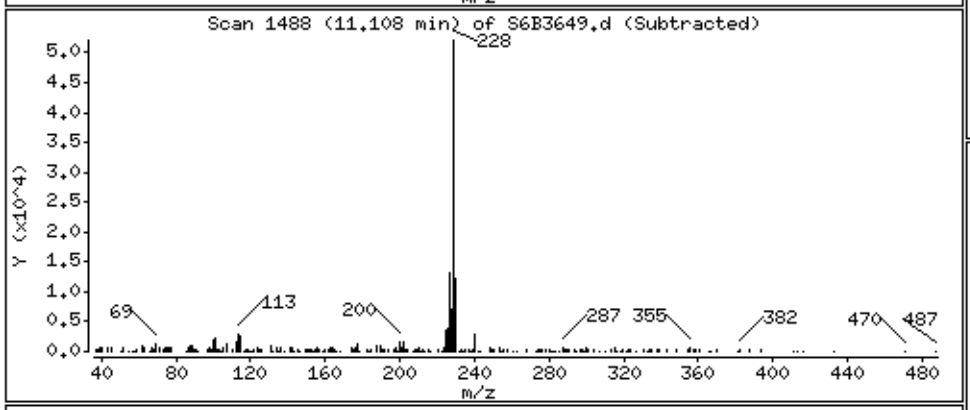
Column diameter: 0.25

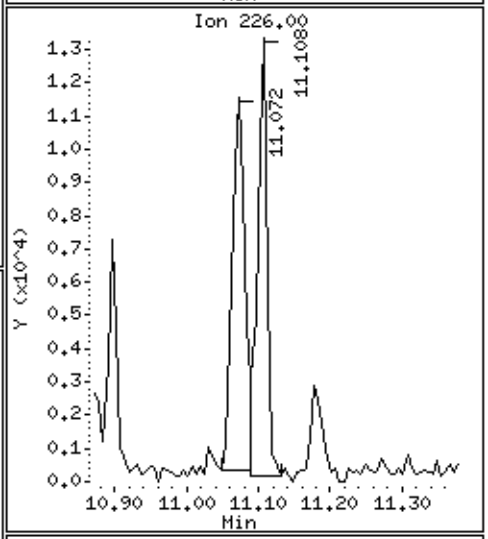
77 Chrysene

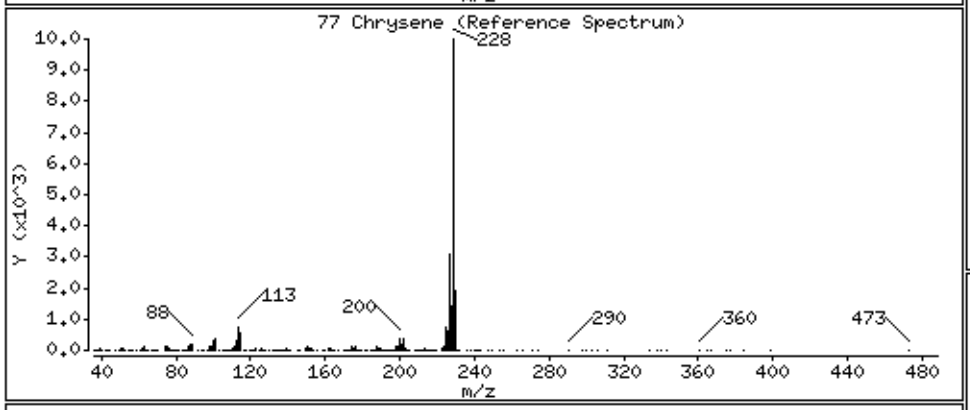
Concentration: 100 ug/Kg

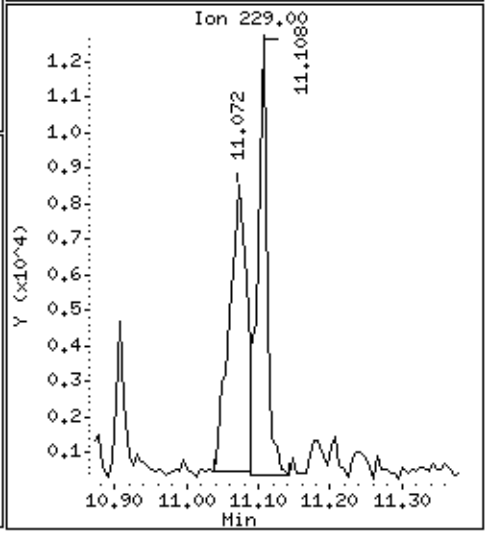


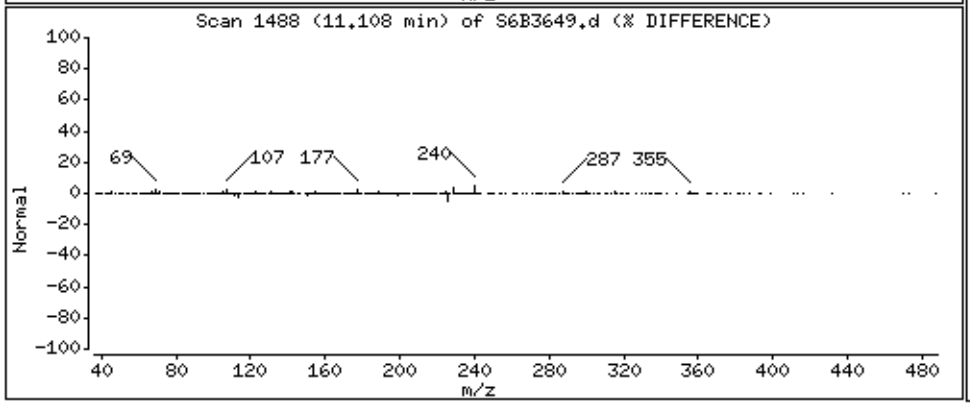












Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

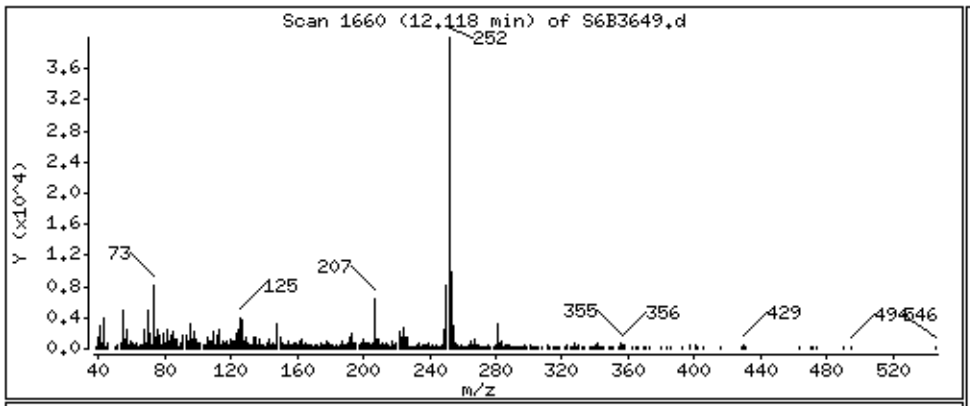
Operator: PK SRC: LIMS

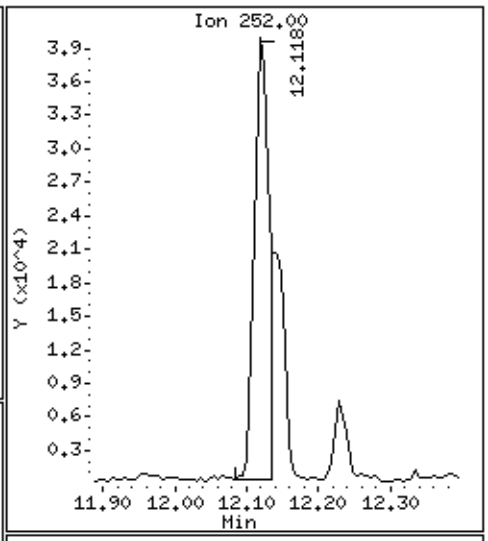
Column phase: Rxi-5Sil MS

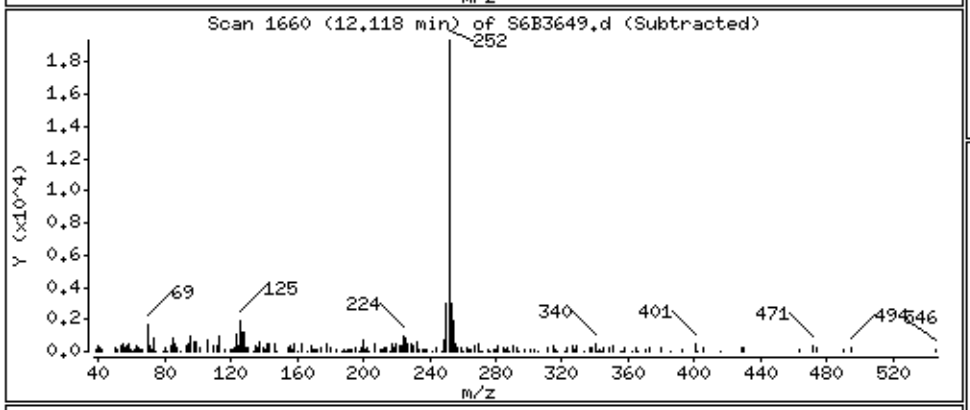
Column diameter: 0.25

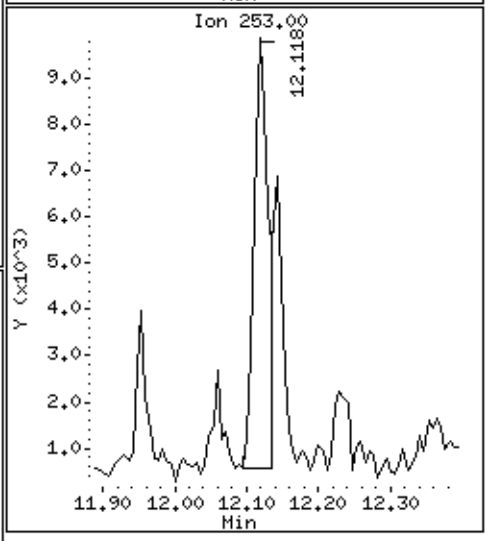
80 Benzo(b)fluoranthene

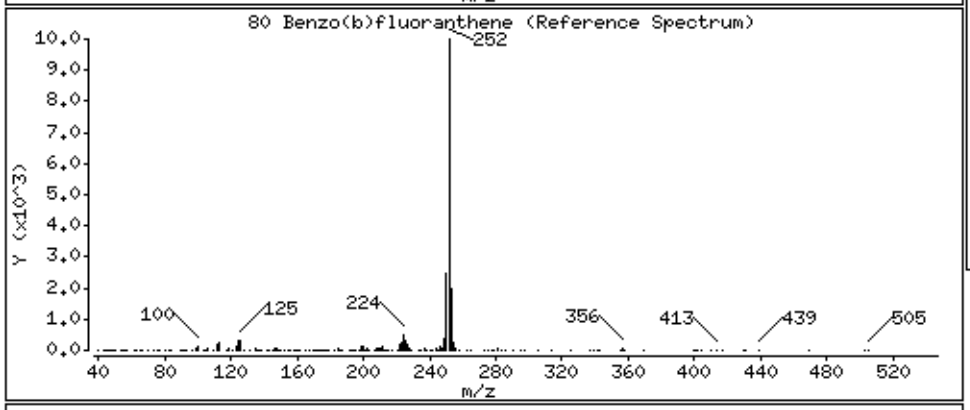
Concentration: 100 ug/Kg

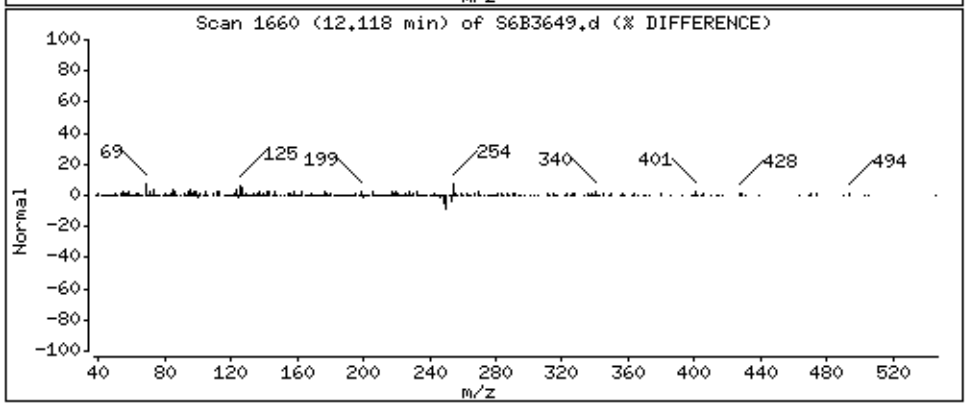












Data File: \\avogadro\organics\S6.I\130506.B\S6B3649.d

Date : 06-MAY-2013 18:29

Client ID: SB-126 (8-10)

Instrument: S6.i

Sample Info: M0619-02A,,71418

Volume Injected (uL): 1.0

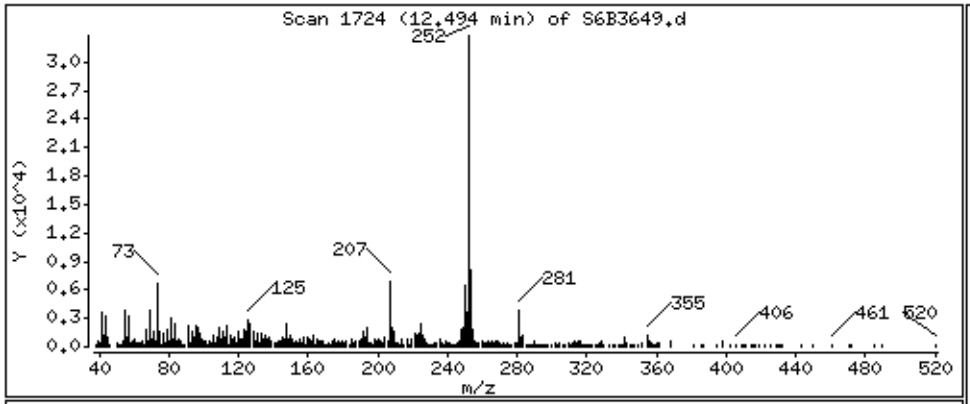
Operator: PK SRC: LIMS

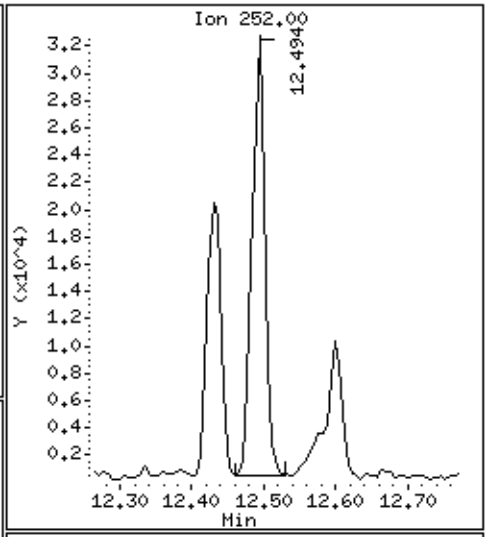
Column phase: Rxi-5Sil MS

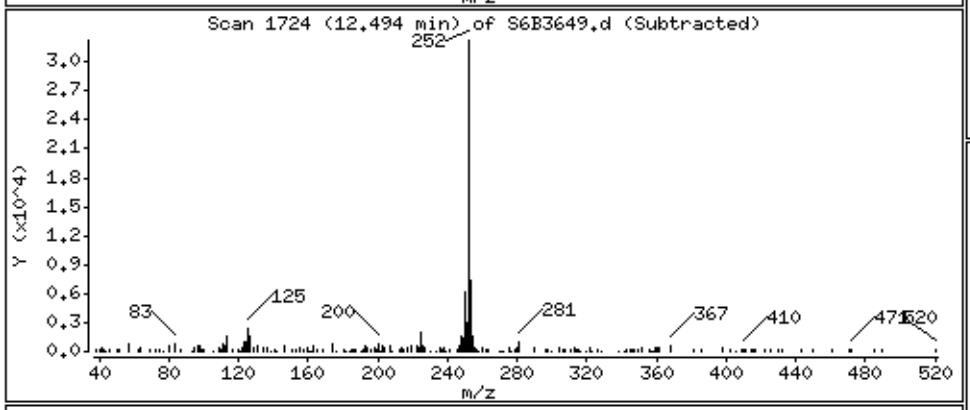
Column diameter: 0.25

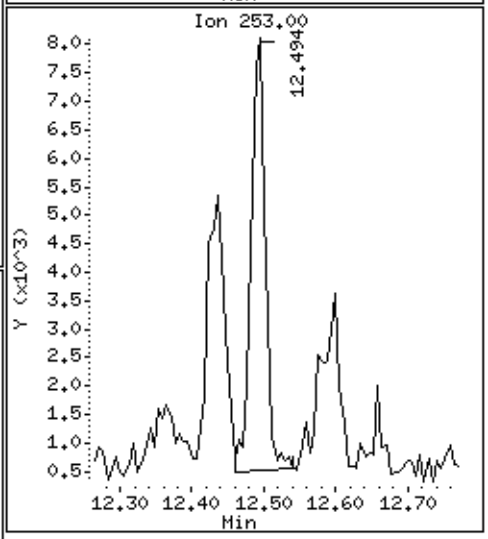
82 Benzo(a)pyrene

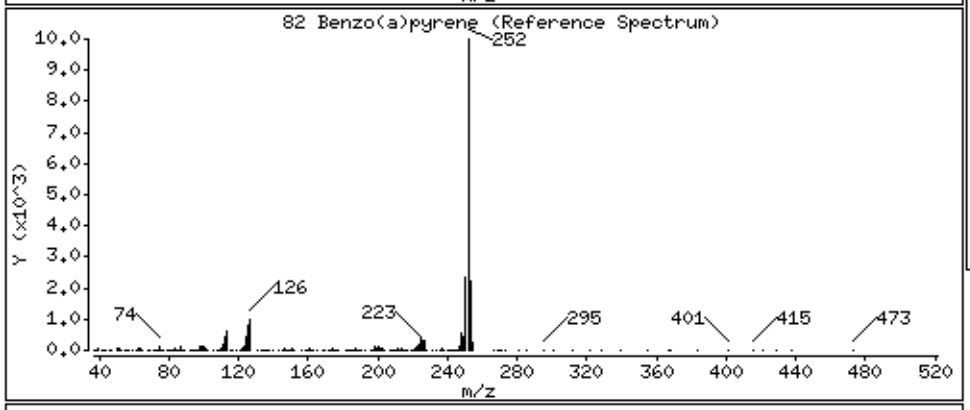
Concentration: 77 ug/Kg

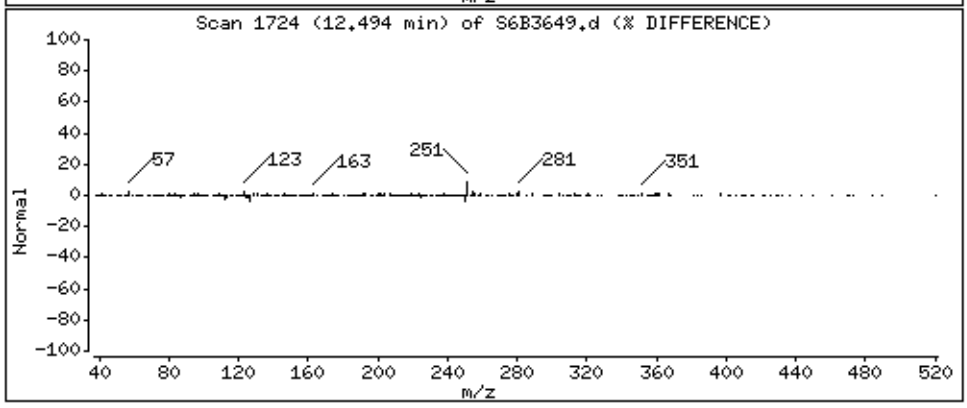












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-126
(10.5-12.5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03A

Sample wt/vol: 15.8 (g/mL) G Lab File ID: S6B3650.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	22000	E
91-57-6	2-Methylnaphthalene	9400	E
208-96-8	Acenaphthylene	2600	
83-32-9	Acenaphthene	7400	E
86-73-7	Fluorene	16000	E
85-01-8	Phenanthrene	53000	E
120-12-7	Anthracene	18000	E
206-44-0	Fluoranthene	36000	E
129-00-0	Pyrene	36000	E
56-55-3	Benzo(a)anthracene	21000	E
218-01-9	Chrysene	19000	E
205-99-2	Benzo(b)fluoranthene	22000	E
207-08-9	Benzo(k)fluoranthene	4300	
50-32-8	Benzo(a)pyrene	17000	E
193-39-5	Indeno(1,2,3-cd)pyrene	6900	E
53-70-3	Dibenzo(a,h)anthracene	2700	
191-24-2	Benzo(g,h,i)perylene	7500	E

Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3650.d
Lab Smp Id: M0619-03A Client Smp ID: SB-126 (10.5-12.5)
Inj Date : 06-MAY-2013 18:51
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-03A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.800	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	5.061	5.061	(1.000)	279337	40.0000	
$ 22 Nitrobenzene-d5	82	5.520	5.519	(0.902)	379142	40.6362	2600
* 31 Naphthalene-d8	136	6.119	6.113	(1.000)	1044139	40.0000	
32 Naphthalene	128	6.142	6.130	(1.004)	6030943	266.448	17000(A)
36 2-Methylnaphthalene	142	6.706	6.700	(1.096)	2019496	116.402	7400(A)
$ 41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	841779	41.4305	2600
46 Acenaphthylene	152	7.453	7.452	(0.984)	857282	32.4720	2000
* 48 Acenaphthene-d10	164	7.570	7.570	(1.000)	695606	40.0000	
49 Acenaphthene	153	7.599	7.599	(1.004)	1632993	91.0080	5800(A)
55 Fluorene	166	8.034	8.022	(1.061)	4220274	192.246	12000(A)
* 64 Phenanthrene-d10	188	8.839	8.804	(1.000)	1511782	40.0000	
65 Phenanthrene	178	8.857	8.827	(1.002)	22776962	659.193	42000(A)
66 Anthracene	178	8.904	8.868	(1.007)	8051525	226.659	14000(AH)
69 Fluoranthene	202	9.867	9.826	(1.116)	18550431	438.685	28000(A)
71 Pyrene	202	10.073	10.020	(0.905)	18194879	442.763	28000(A)
$ 72 Terphenyl-d14	244	10.149	10.138	(0.912)	1321457	44.8111	2800
75 Benzo(a)anthracene	228	11.113	11.083	(0.999)	11715032	258.729	16000(A)
* 76 Chrysene-d12	240	11.125	11.101	(1.000)	1965419	40.0000	
77 Chrysene	228	11.154	11.125	(1.003)	9016641	238.095	15000(AH)

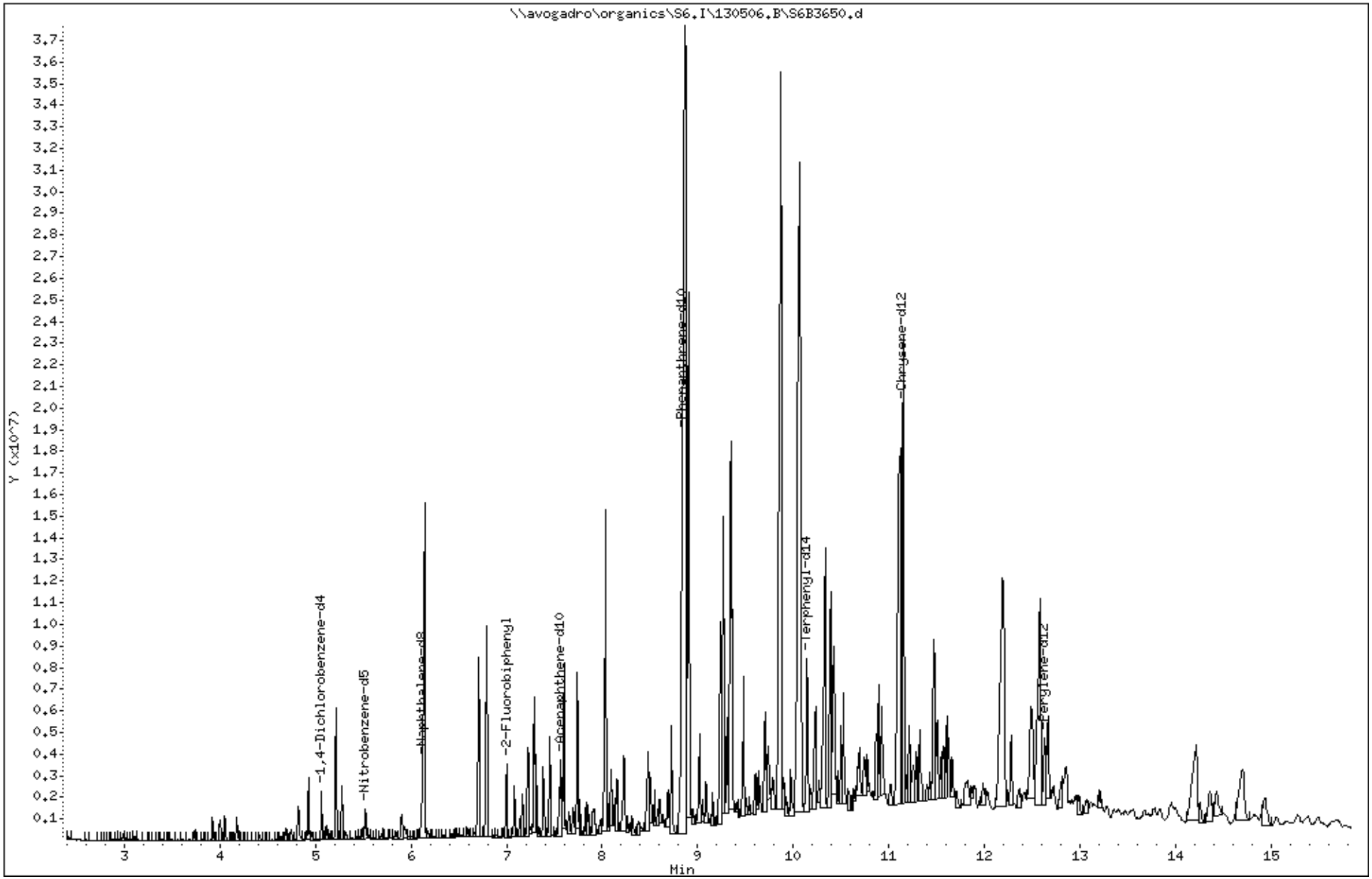
Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d
Report Date: 07-May-2013 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	80 Benzo(b)fluoranthene	252	12.188	12.141	(0.965)	11179909	265.586	17000(AM)M2 PK 05/07
	81 Benzo(k)fluoranthene	252	12.206	12.170	(0.967)	2094683	53.0874	3400(QM)M2 PK 05/07
	82 Benzo(a)pyrene	252	12.582	12.517	(0.996)	7676179	204.298	13000(A)
*	83 Perylene-d12	264	12.629	12.593	(1.000)	1610377	40.0000	
	84 Indeno(1,2,3-cd)pyrene	276	14.215	14.115	(1.126)	3939932	84.6182	5400(A)
	85 Dibenzo(a,h)anthracene	278	14.204	14.133	(1.125)	1295905	33.4197	2100(H)
	86 Benzo(g,h,i)perylene	276	14.697	14.579	(1.164)	3493072	92.2475	5800(A)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d
Date : 06-MAY-2013 18:51
Client ID: SB-126 (10.5-12.5)
Instrument: S6.i
Sample Info: M0619-03A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

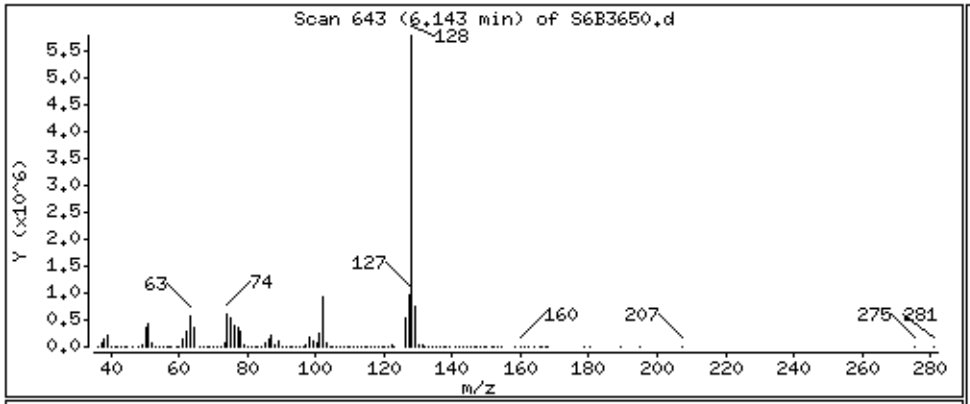
Operator: PK SRC: LIMS

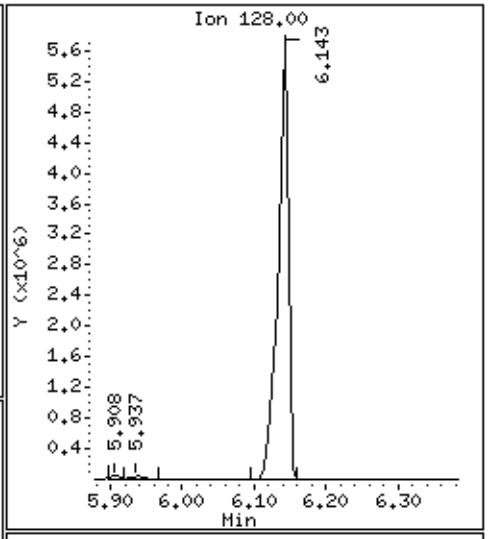
Column phase: Rxi-5Sil MS

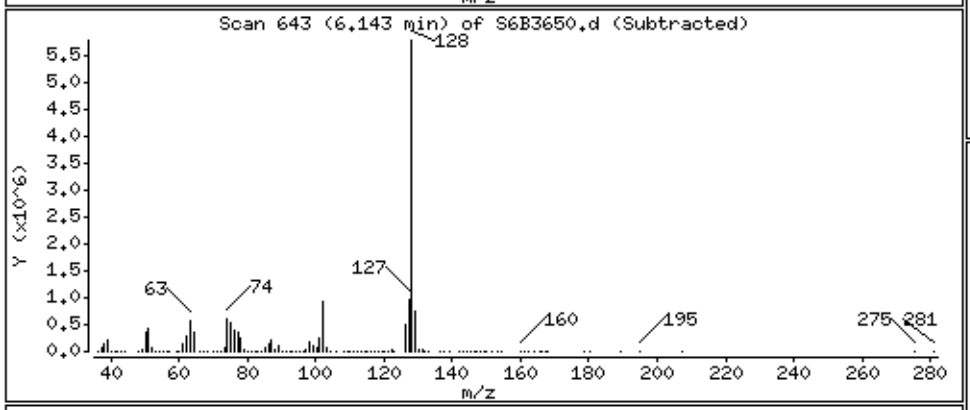
Column diameter: 0.25

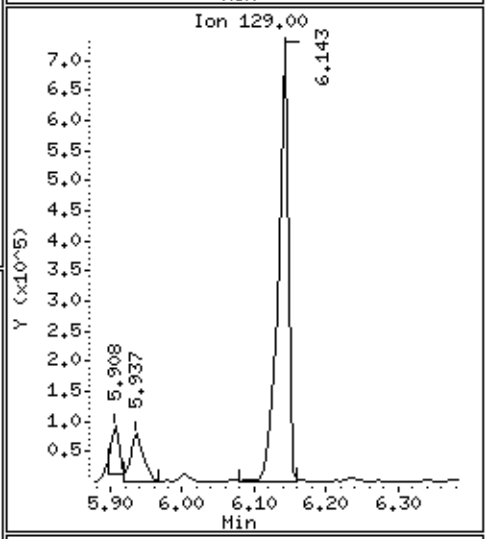
32 Naphthalene

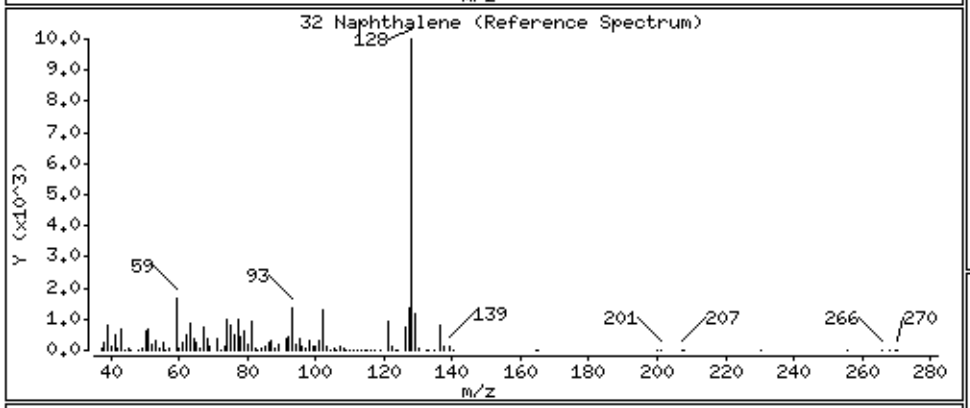
Concentration: 17000 ug/Kg

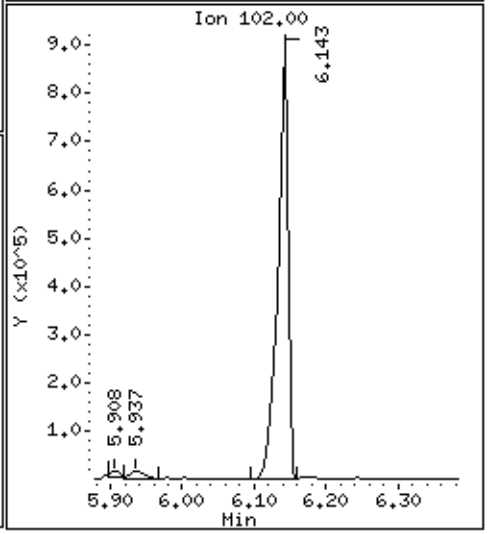


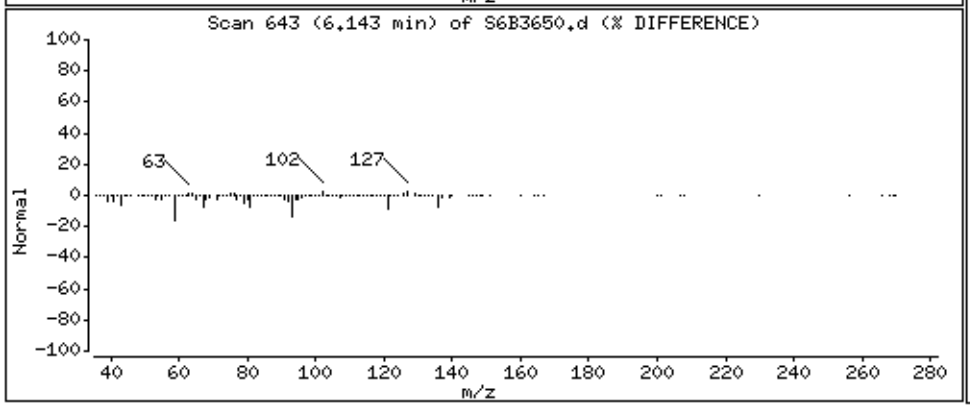












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

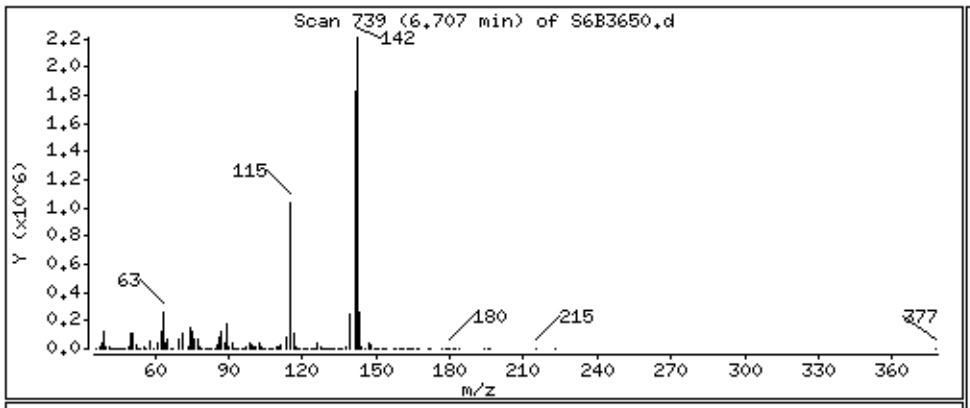
Operator: PK SRC: LIMS

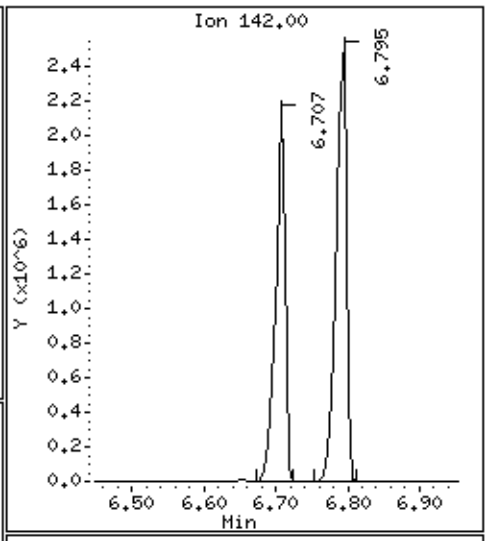
Column phase: Rxi-5Sil MS

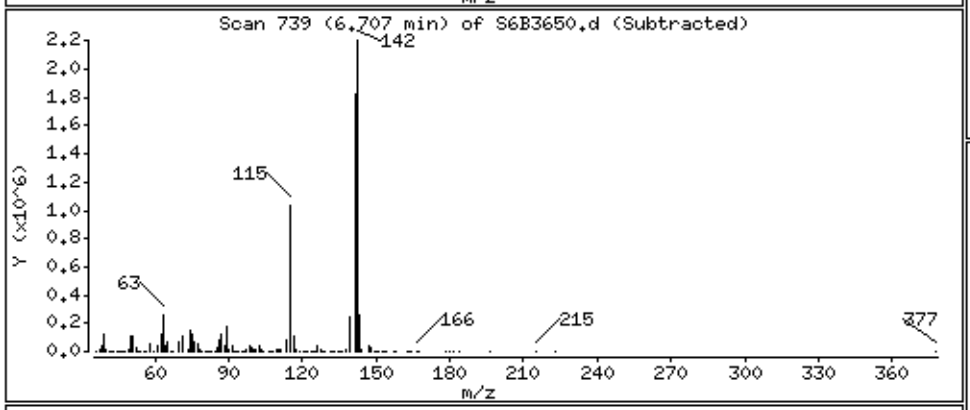
Column diameter: 0.25

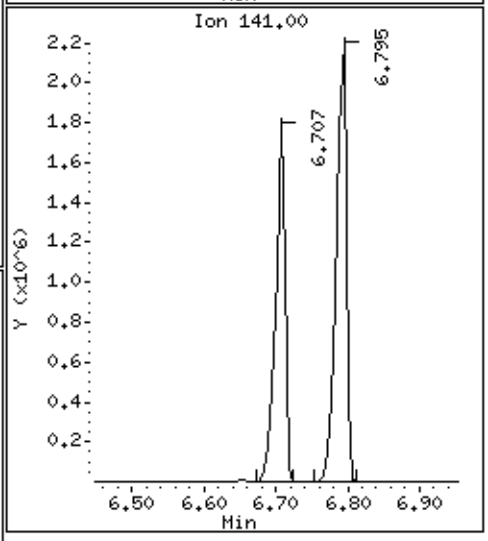
36 2-Methylnaphthalene

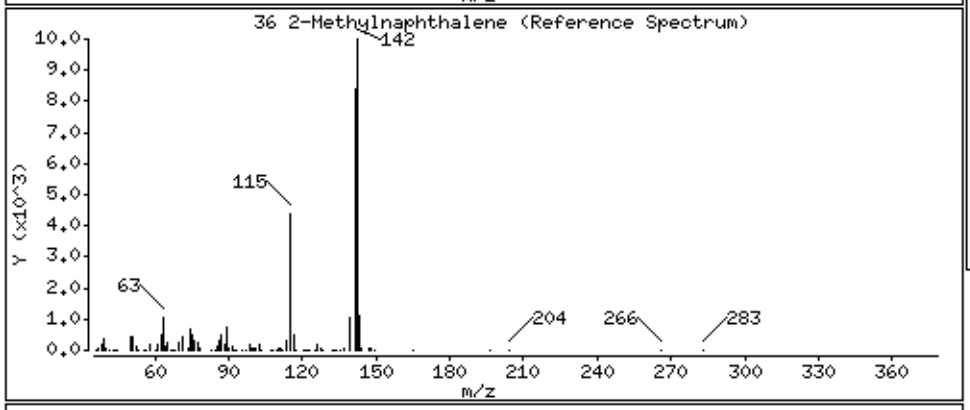
Concentration: 7400 ug/Kg

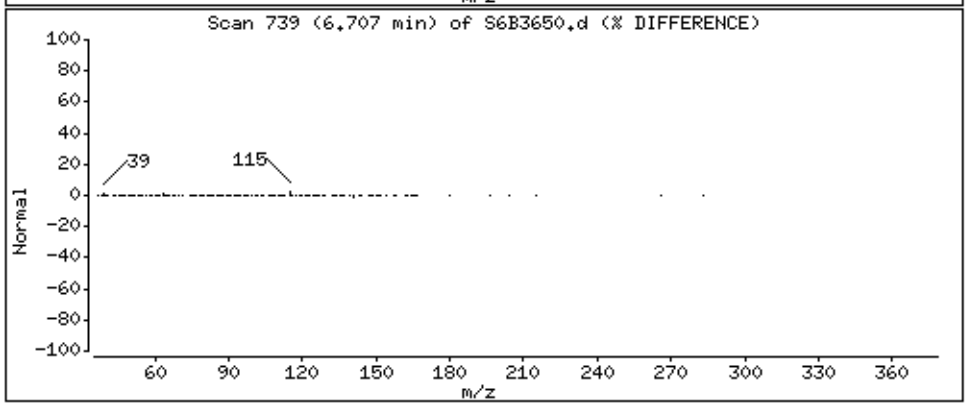












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

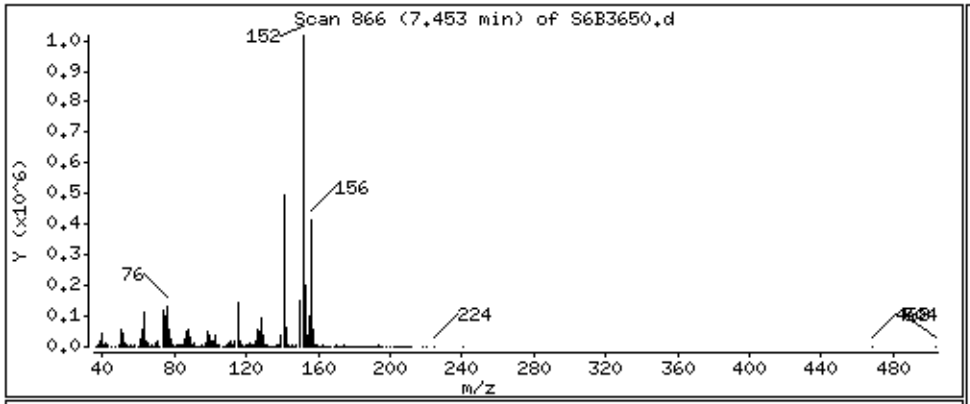
Operator: PK SRC: LIMS

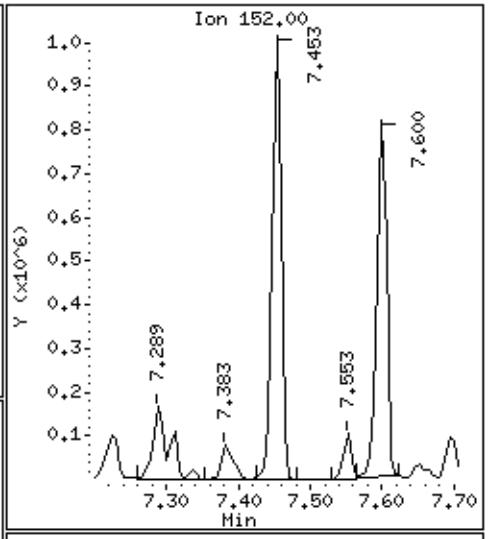
Column phase: Rxi-5Sil MS

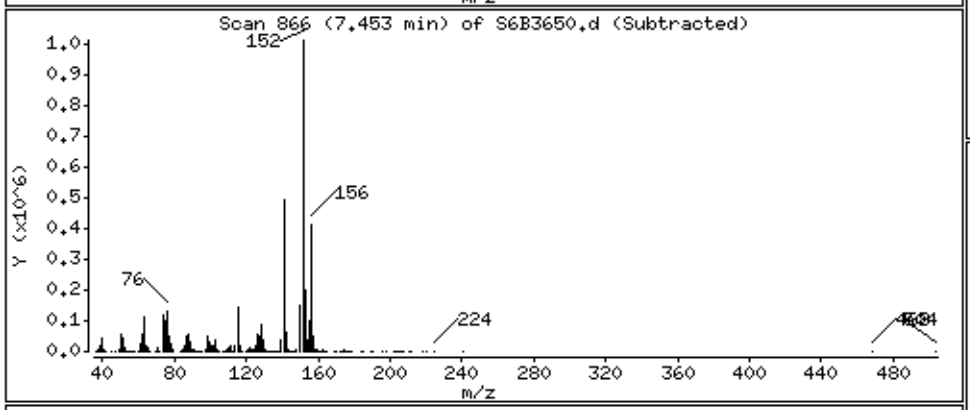
Column diameter: 0.25

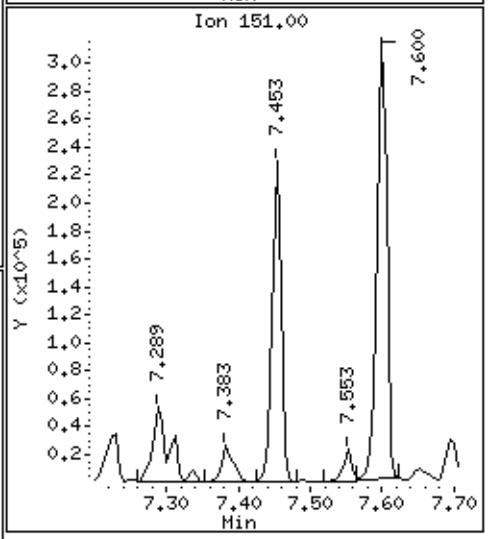
46 Acenaphthylene

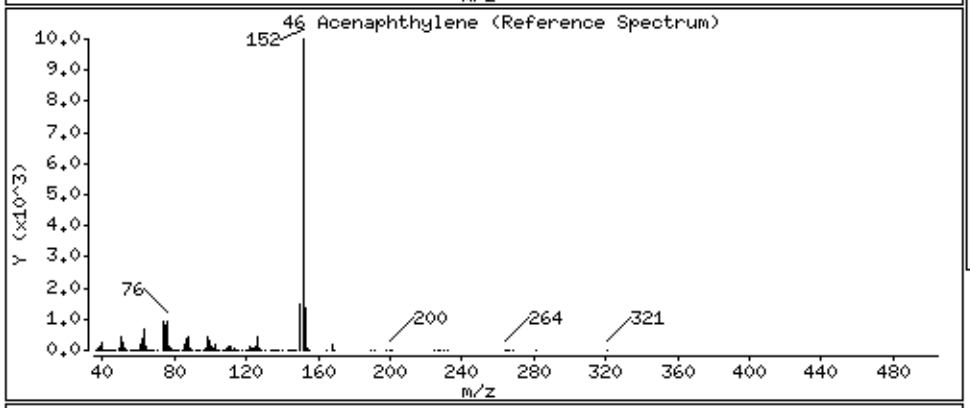
Concentration: 2000 ug/Kg

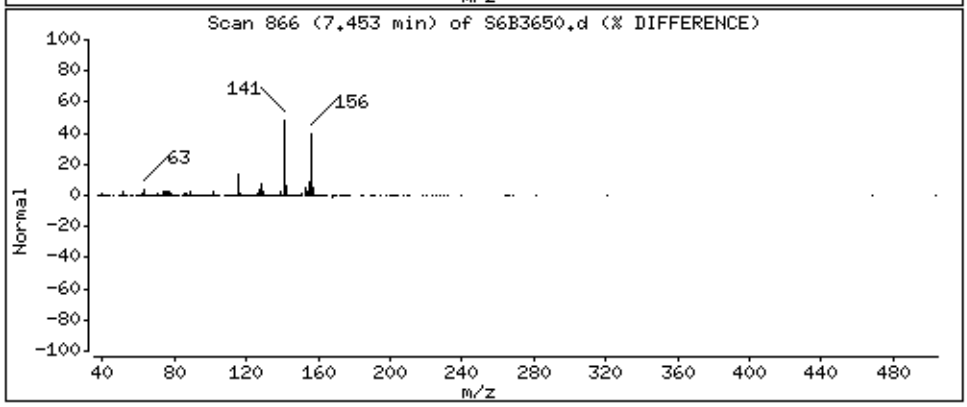












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

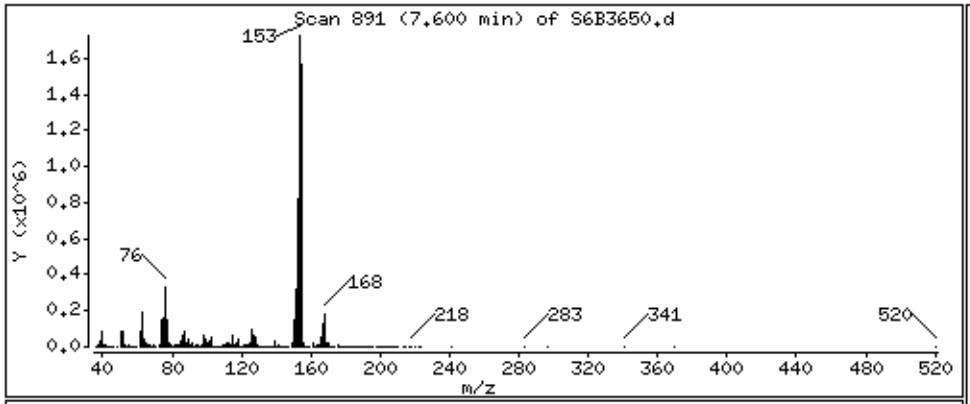
Operator: PK SRC: LIMS

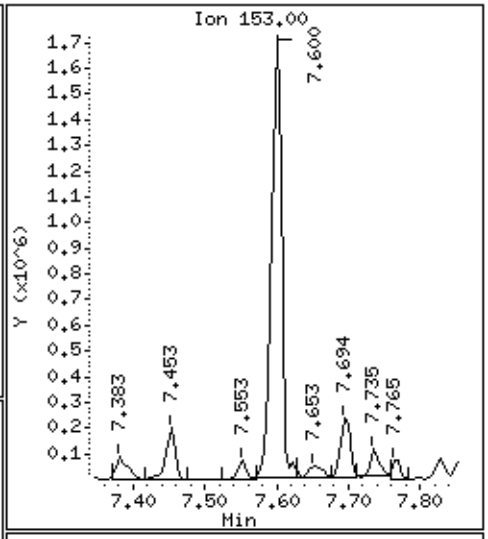
Column phase: Rxi-5Sil MS

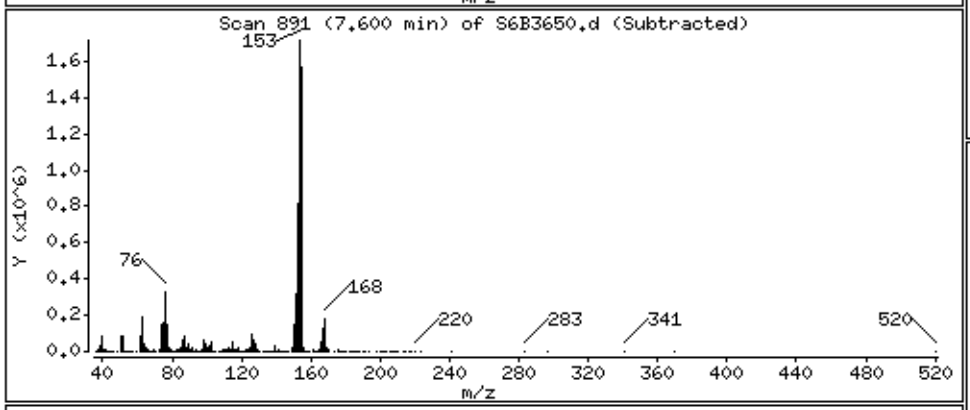
Column diameter: 0.25

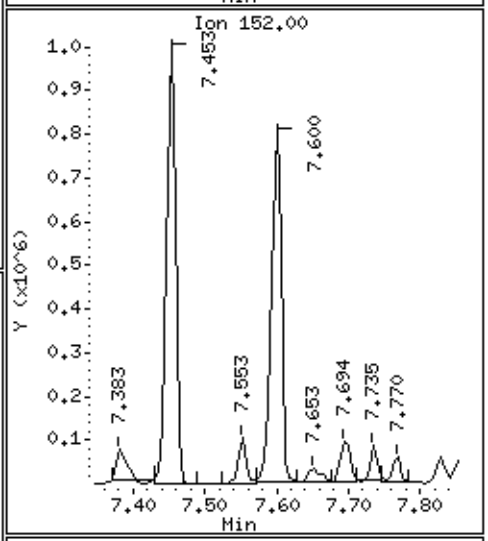
49 Acenaphthene

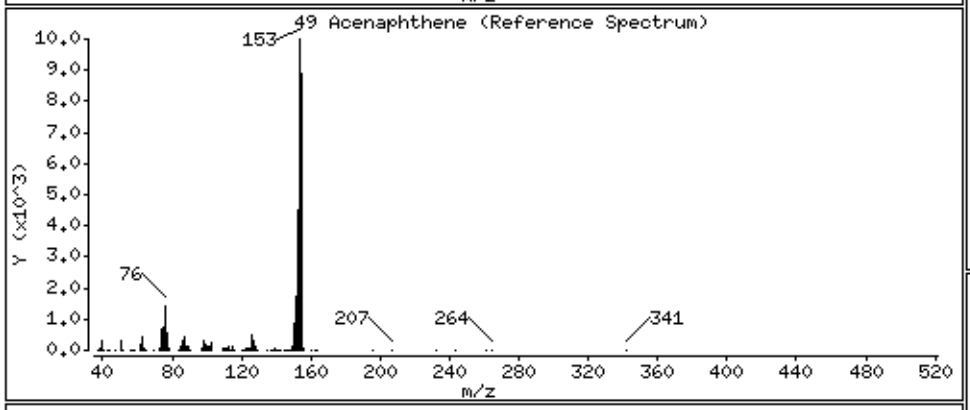
Concentration: 5800 ug/Kg

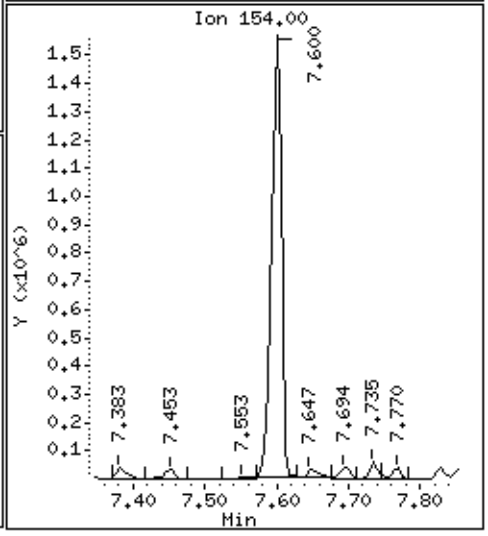


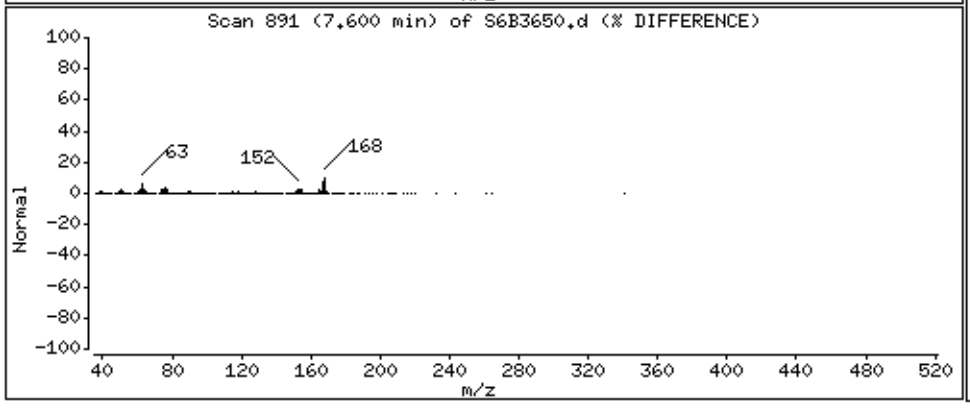












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

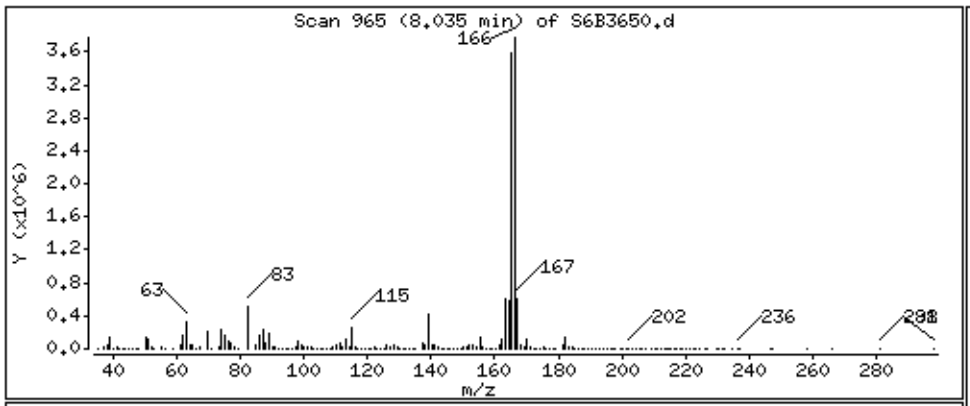
Operator: PK SRC: LIMS

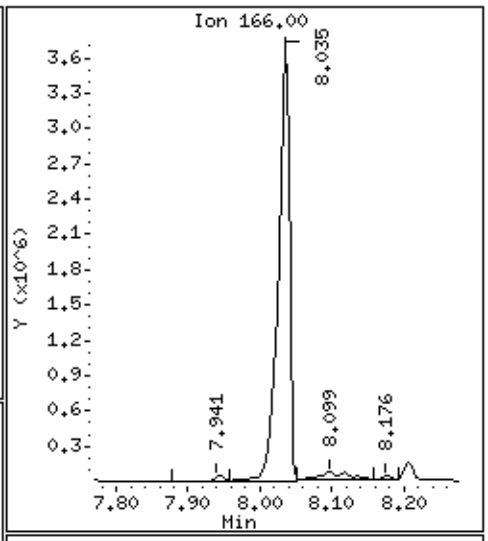
Column phase: Rxi-5Sil MS

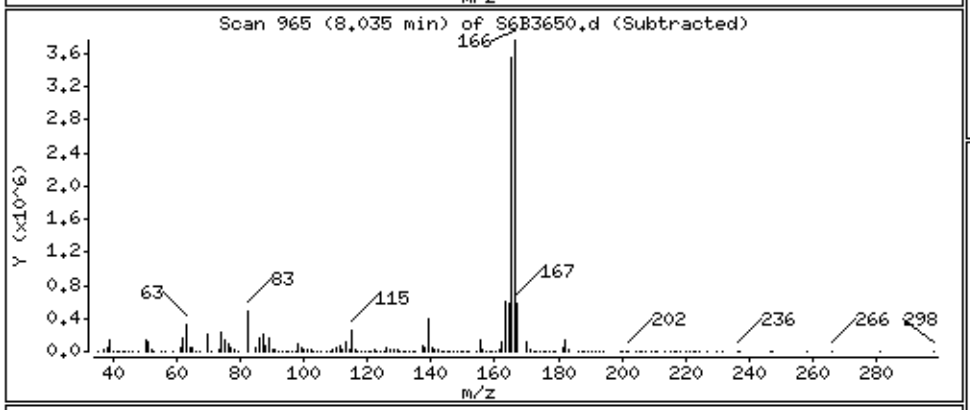
Column diameter: 0.25

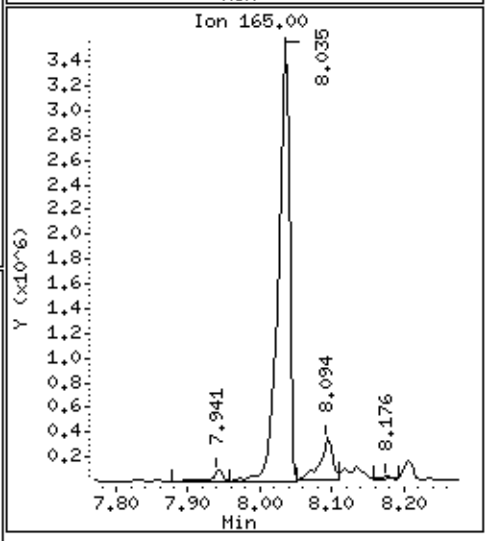
55 Fluorene

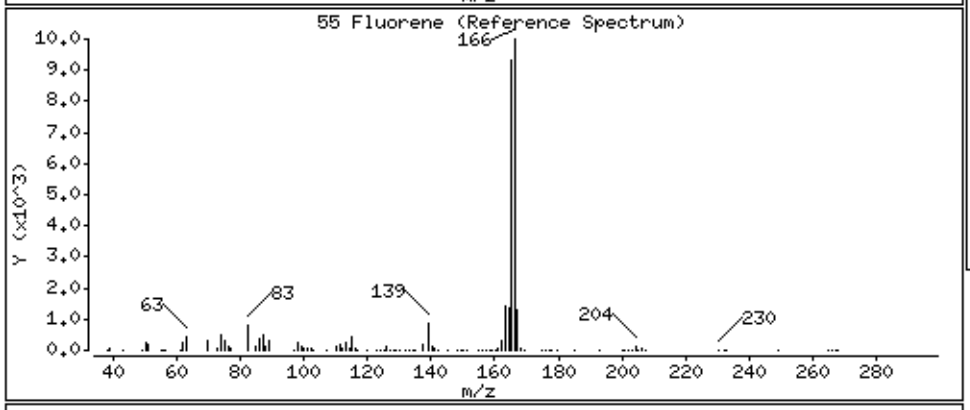
Concentration: 12000 ug/Kg

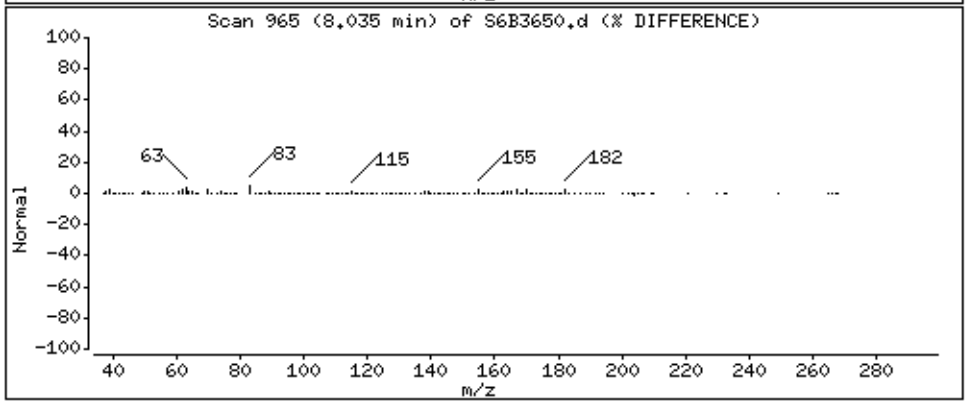












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

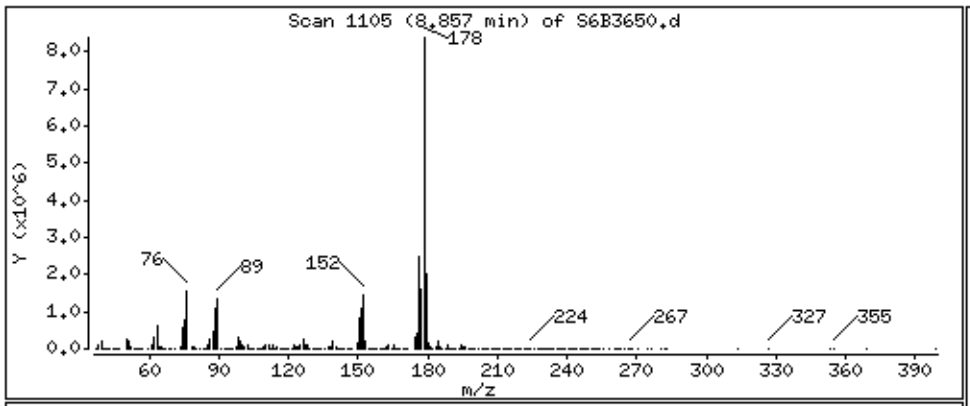
Operator: PK SRC: LIMS

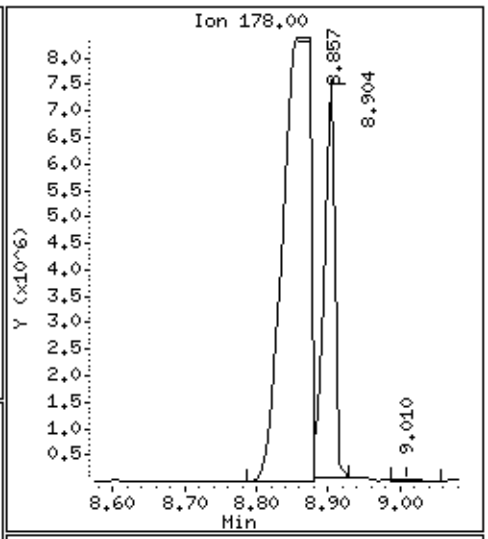
Column phase: Rxi-5Sil MS

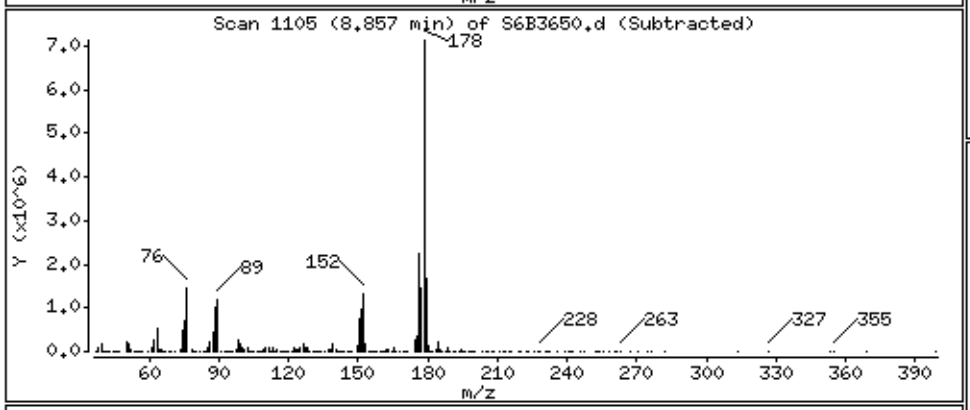
Column diameter: 0.25

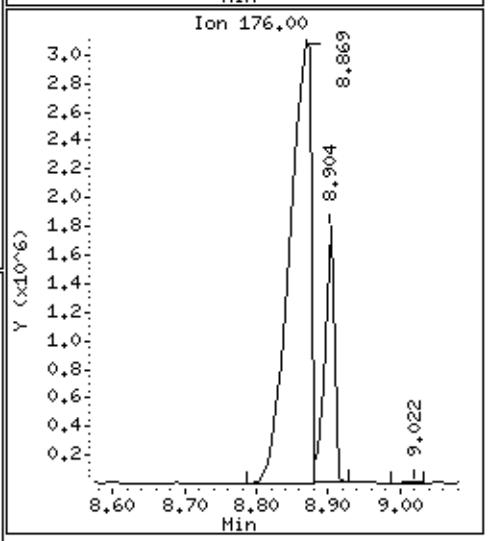
65 Phenanthrene

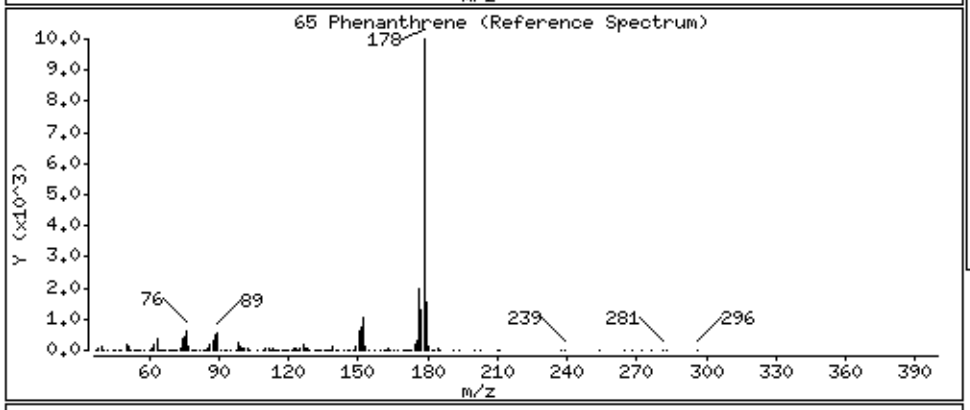
Concentration: 42000 ug/Kg

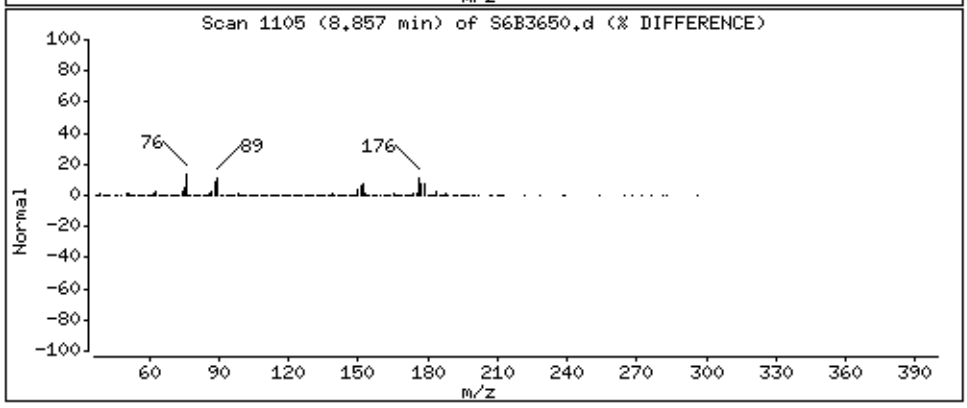












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

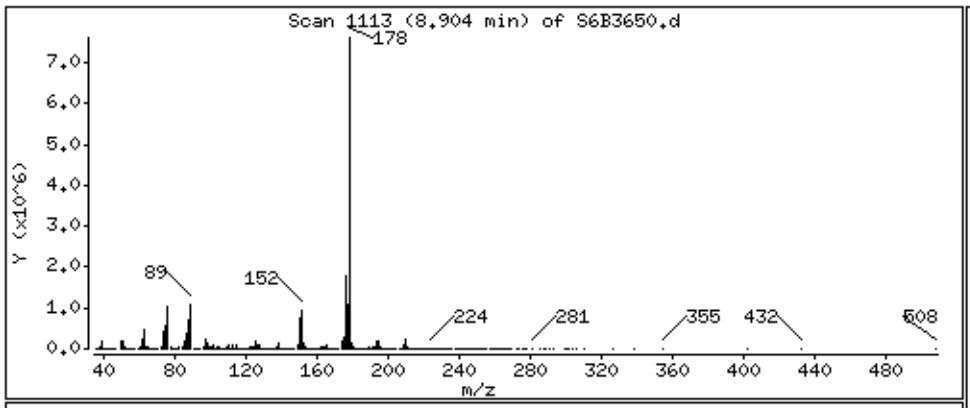
Operator: PK SRC: LIMS

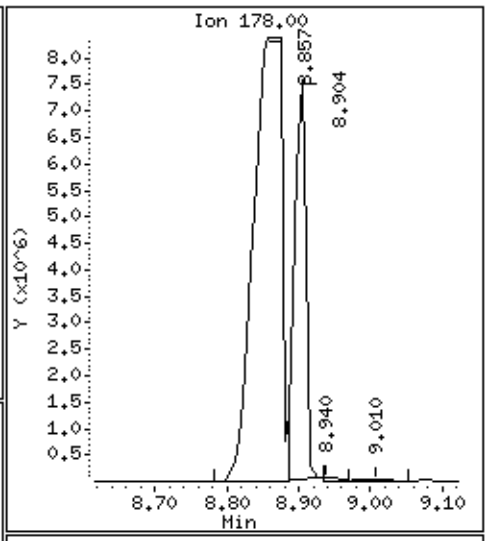
Column phase: Rxi-5Sil MS

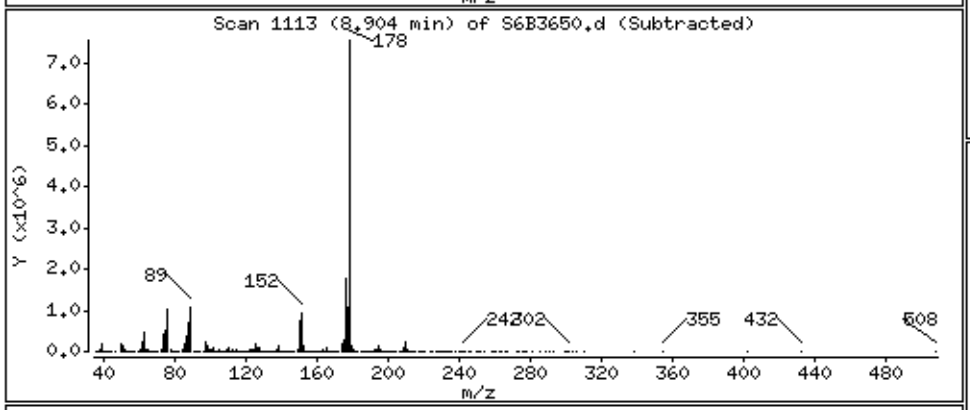
Column diameter: 0.25

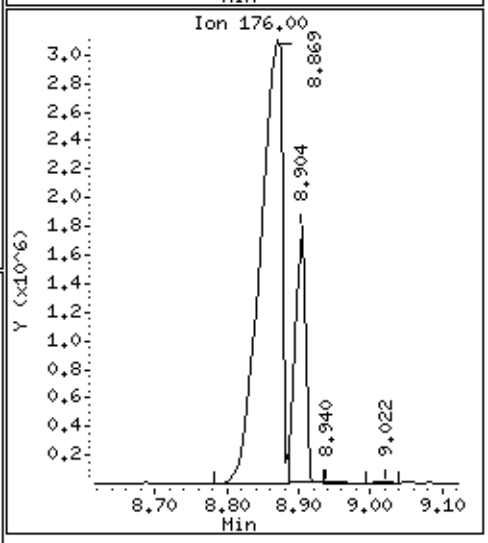
66 Anthracene

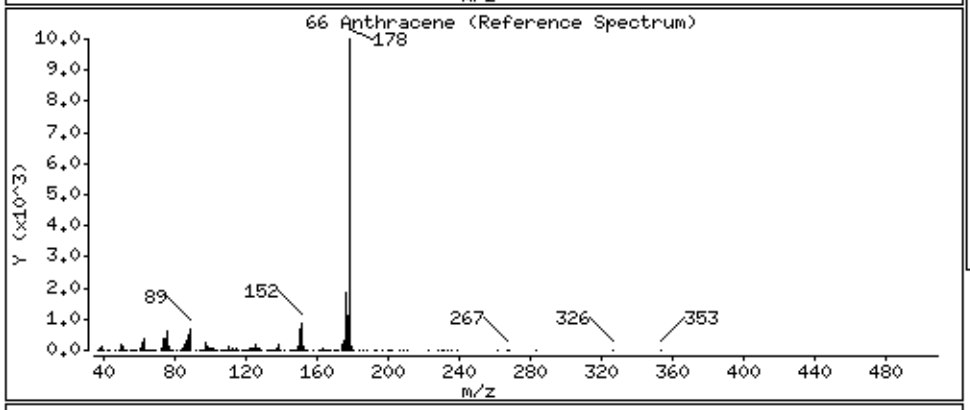
Concentration: 14000 ug/Kg

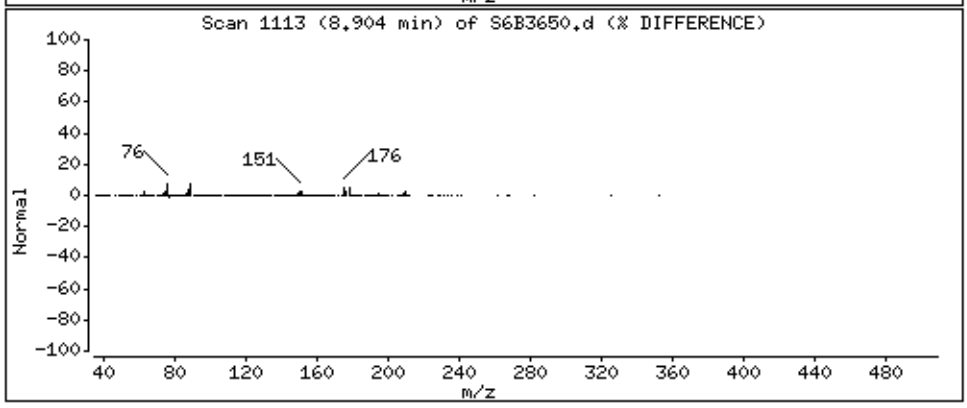












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

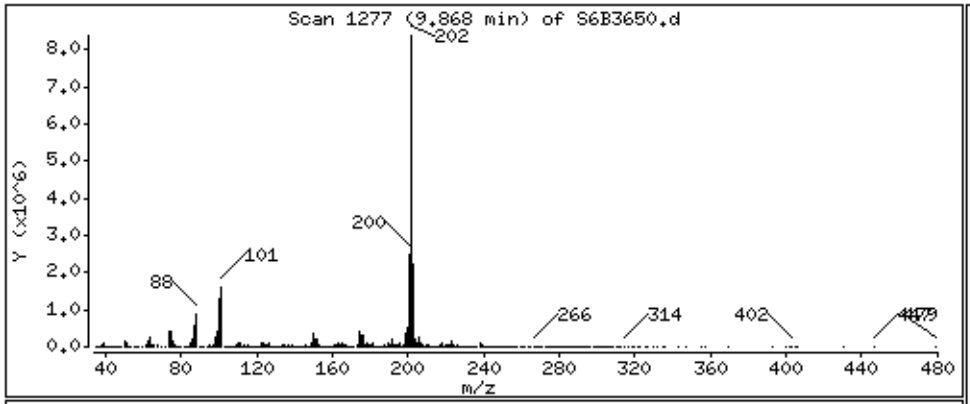
Operator: PK SRC: LIMS

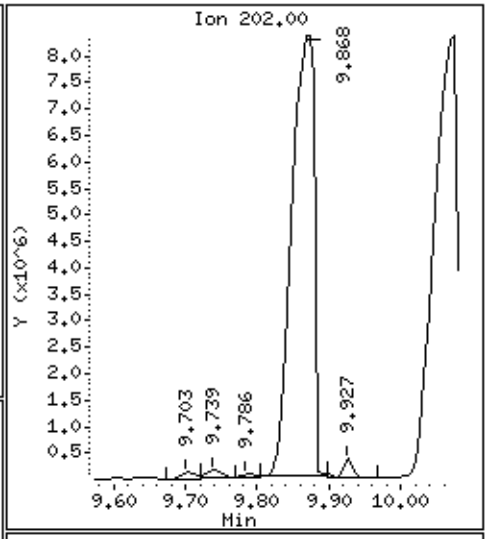
Column phase: Rxi-5Sil MS

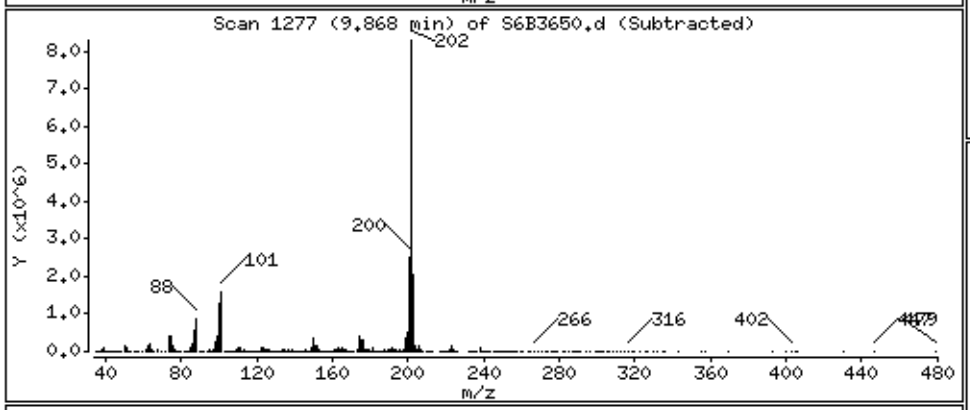
Column diameter: 0.25

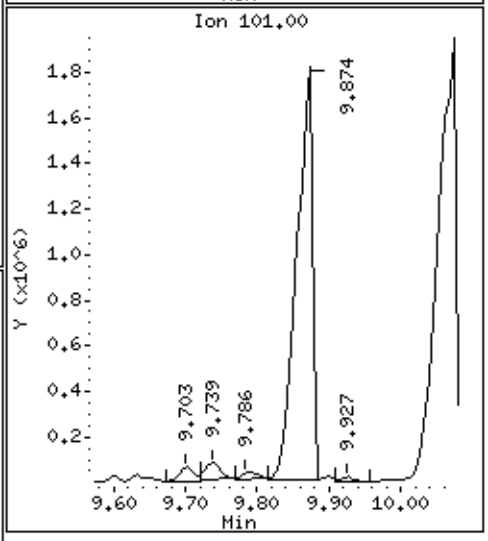
69 Fluoranthene

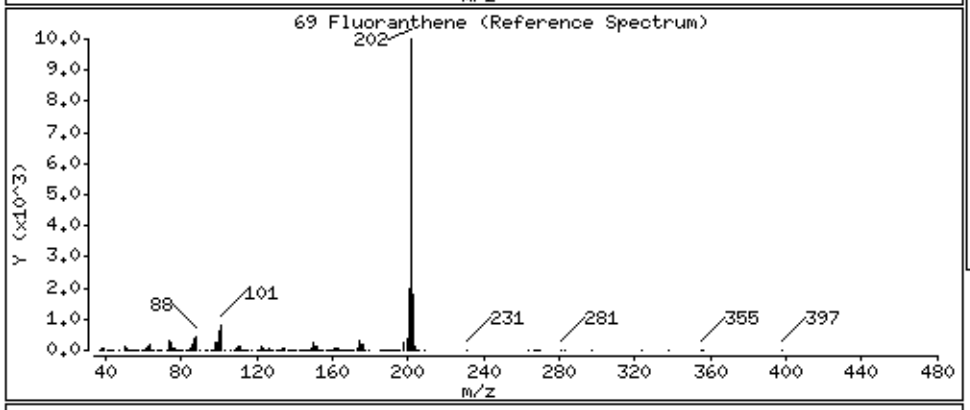
Concentration: 28000 ug/Kg

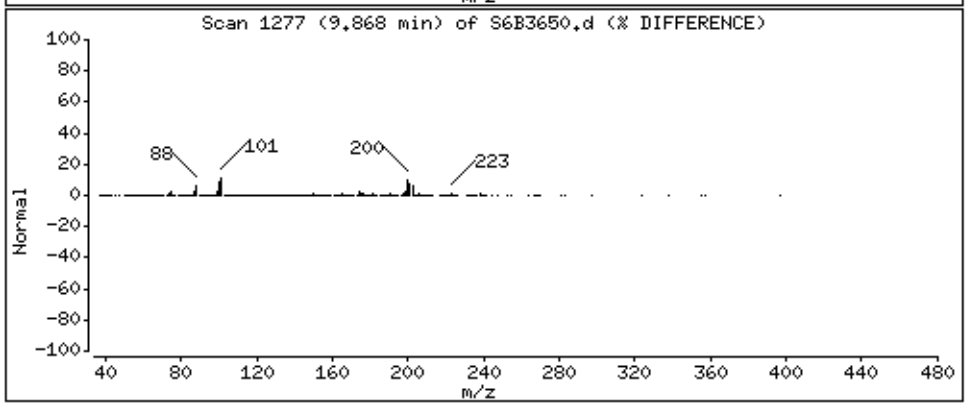












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

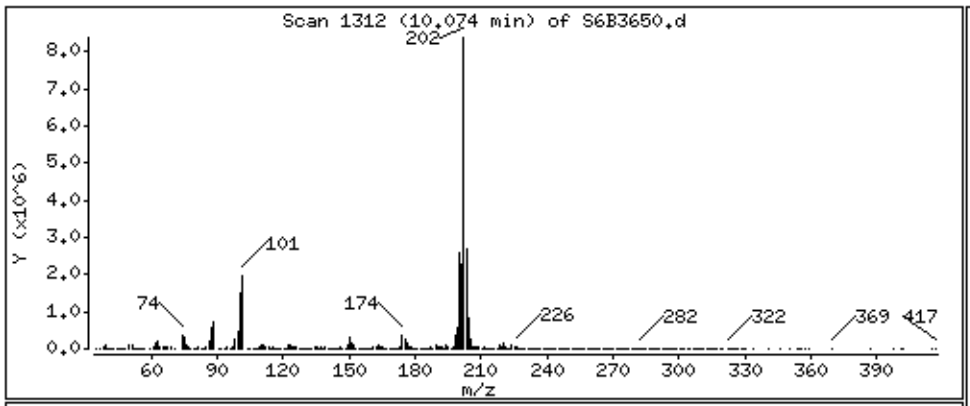
Operator: PK SRC: LIMS

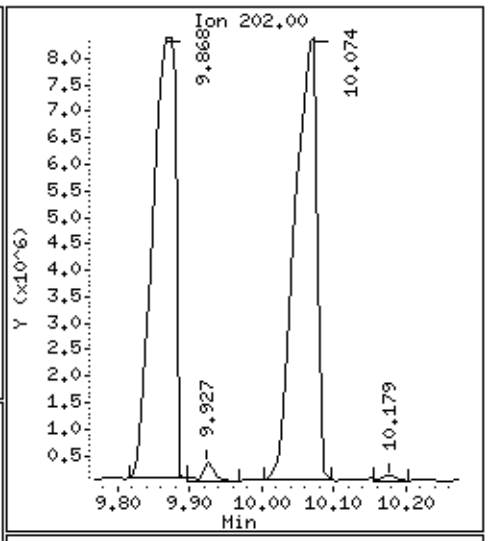
Column phase: Rxi-5Sil MS

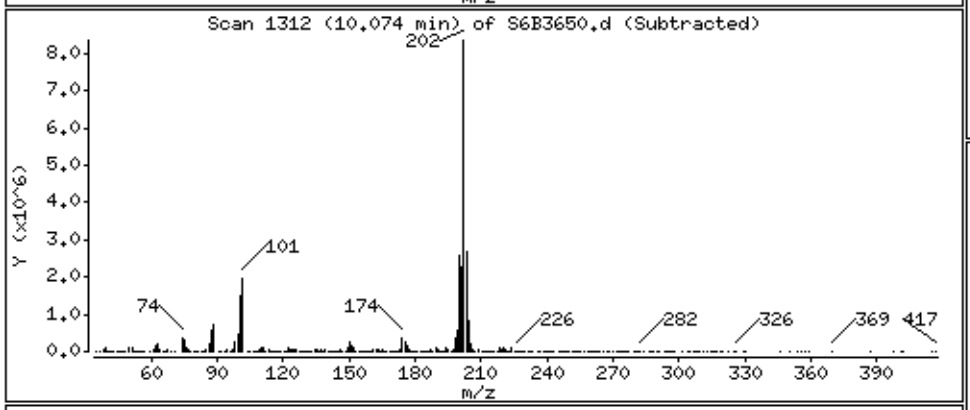
Column diameter: 0.25

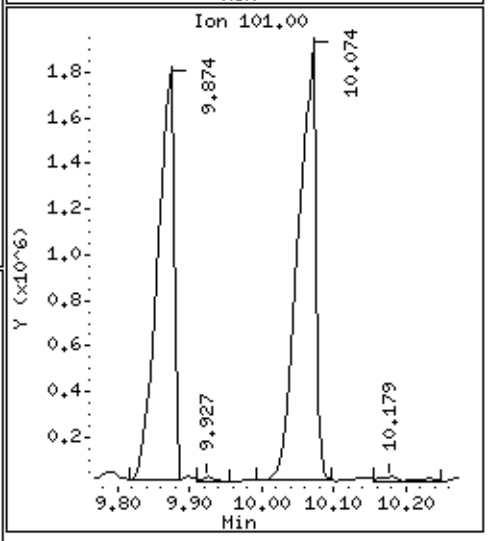
71 Pyrene

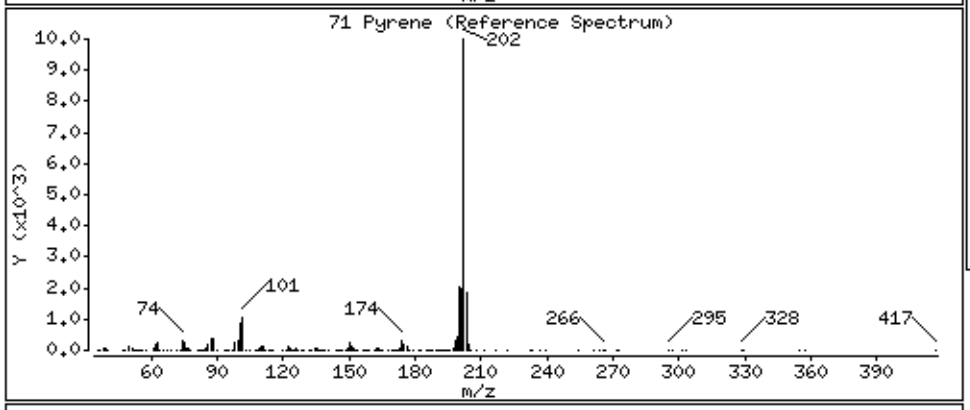
Concentration: 28000 ug/Kg

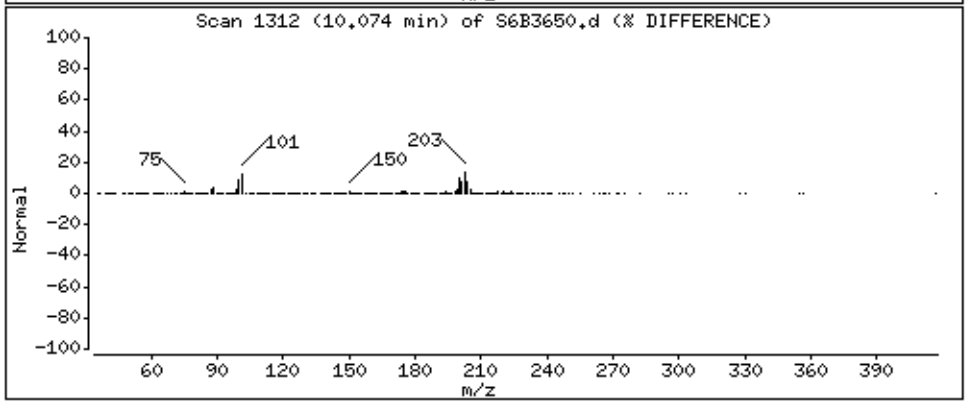












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

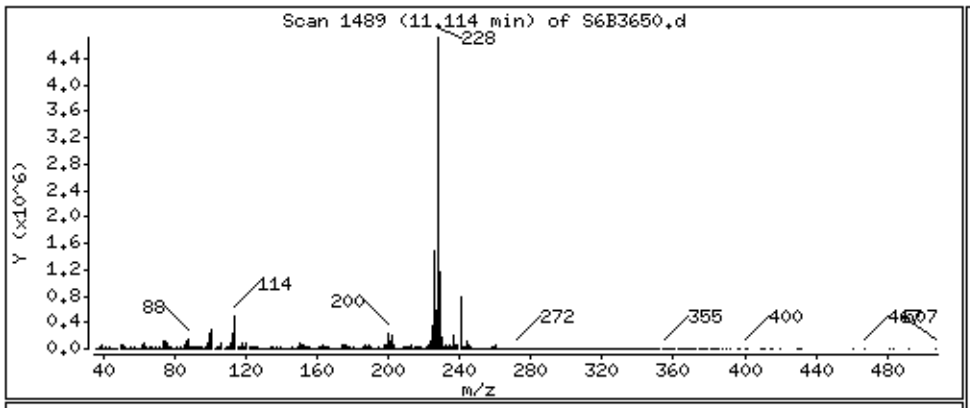
Operator: PK SRC: LIMS

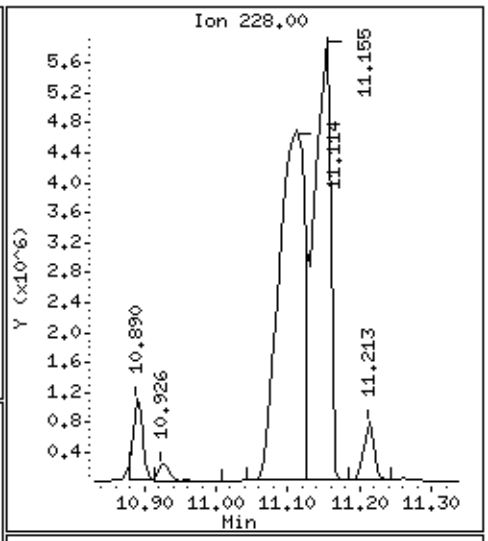
Column phase: Rxi-5Sil MS

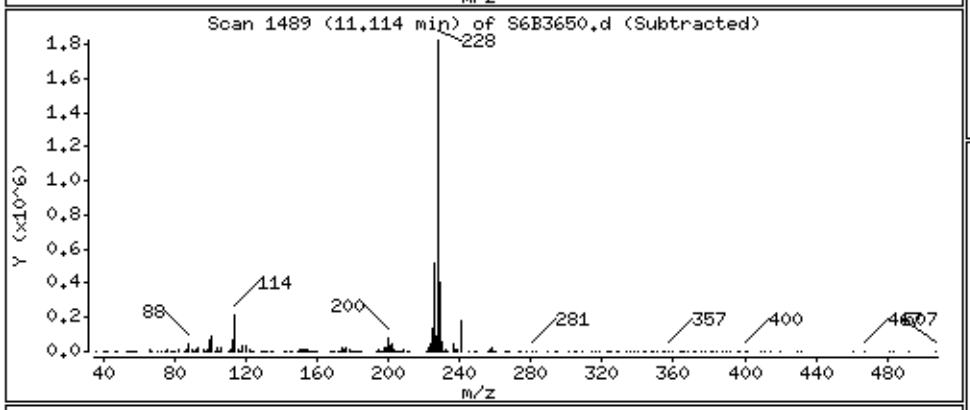
Column diameter: 0.25

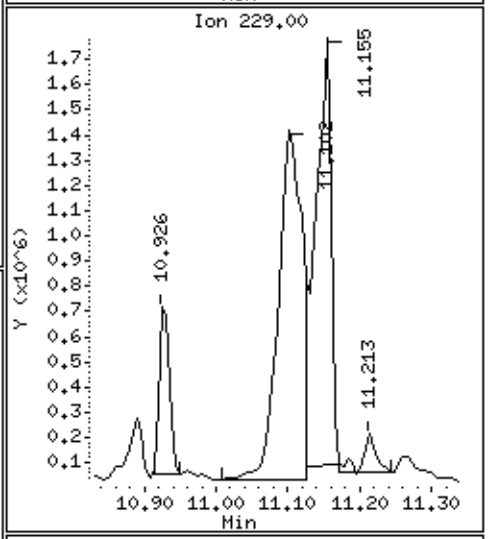
75 Benzo(a)anthracene

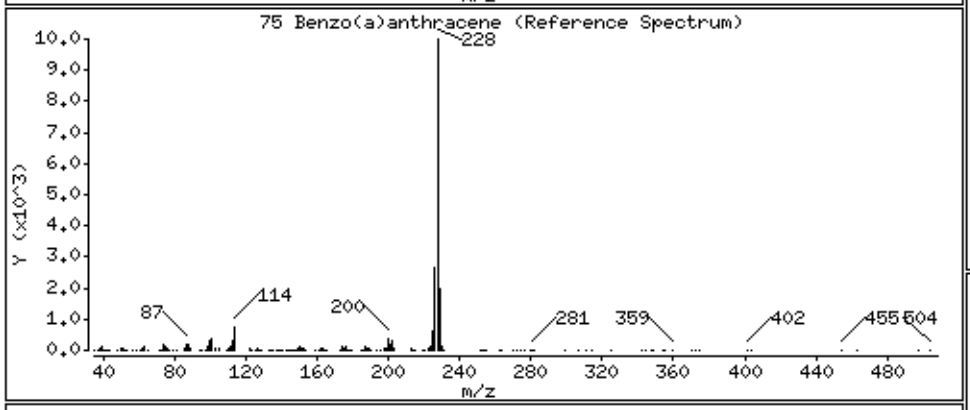
Concentration: 16000 ug/Kg

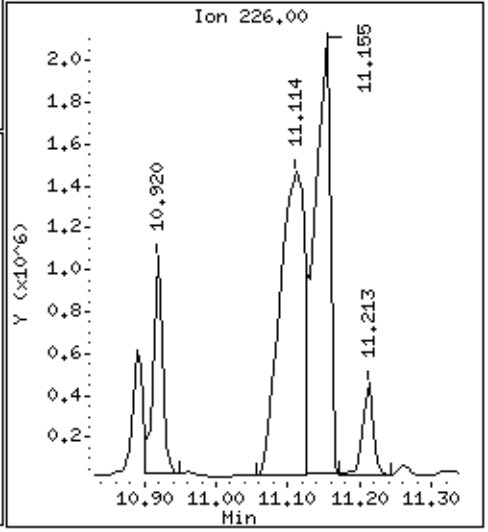


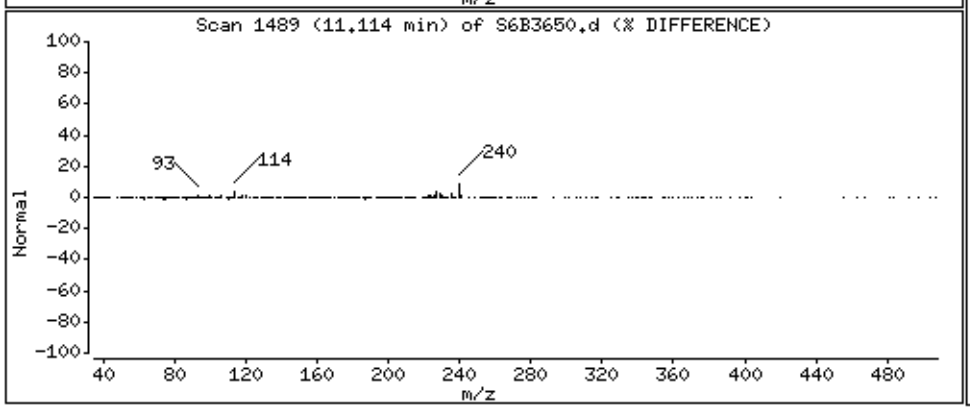












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

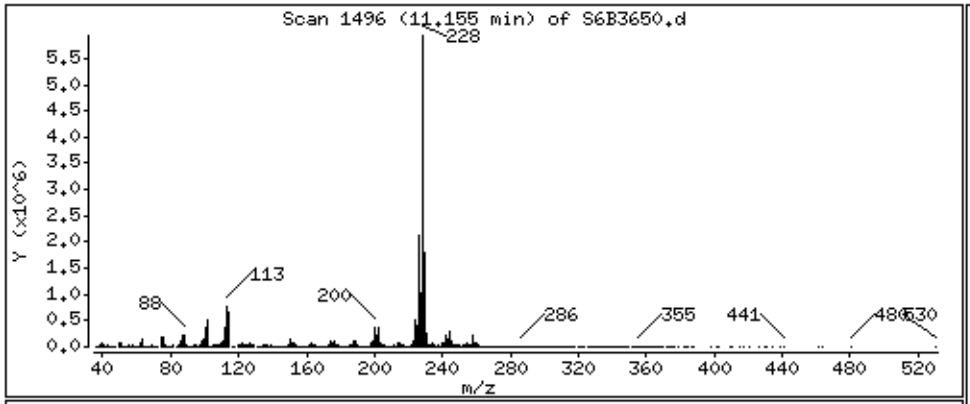
Operator: PK SRC: LIMS

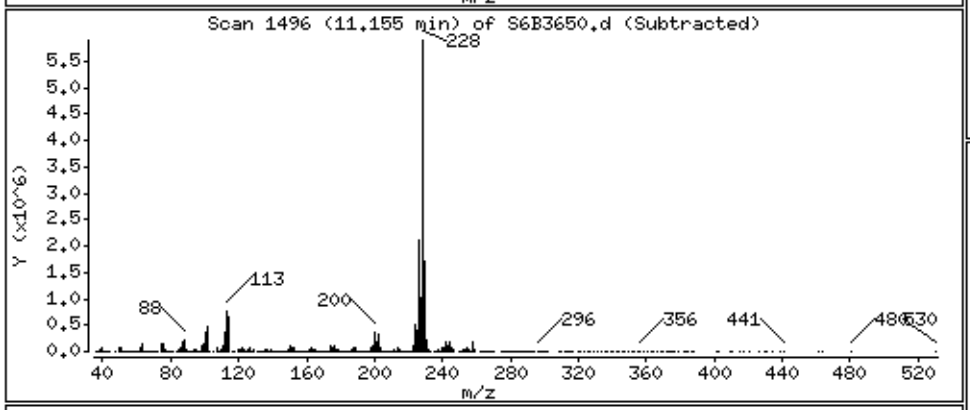
Column phase: Rxi-5Sil MS

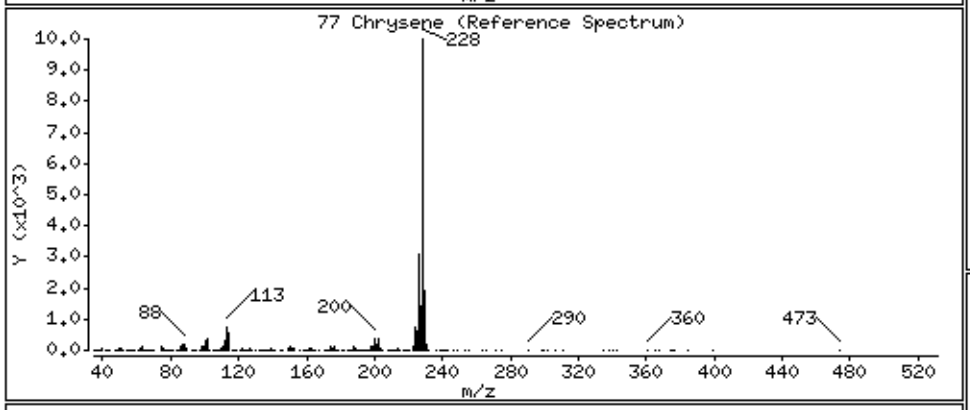
Column diameter: 0.25

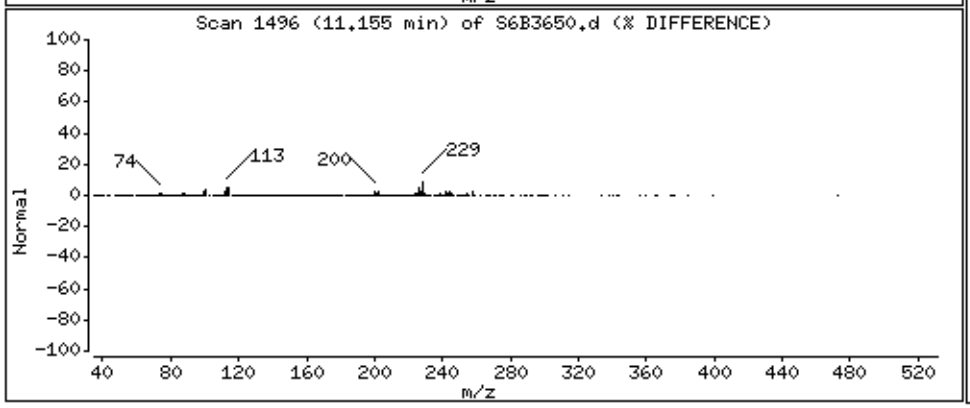
77 Chrysene

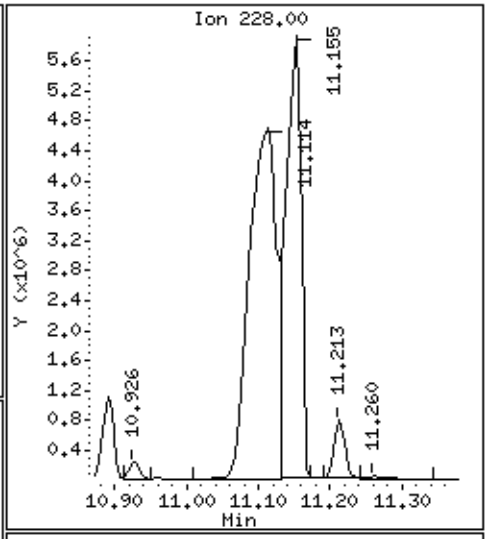
Concentration: 15000 ug/Kg

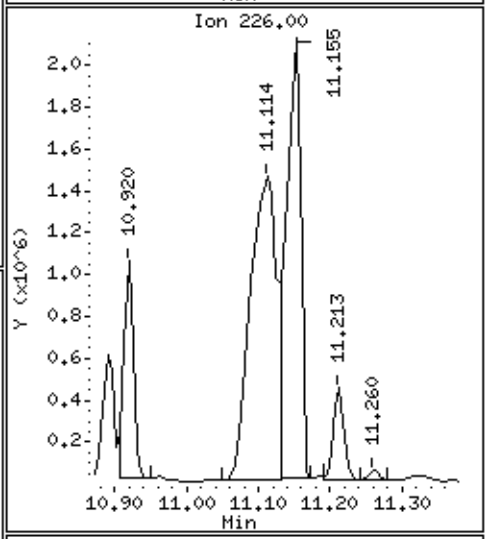


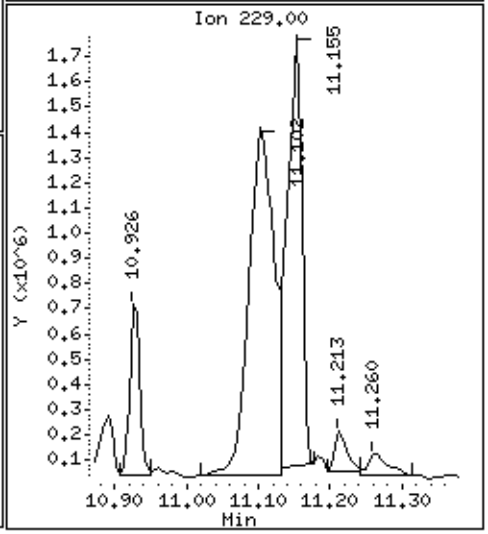












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

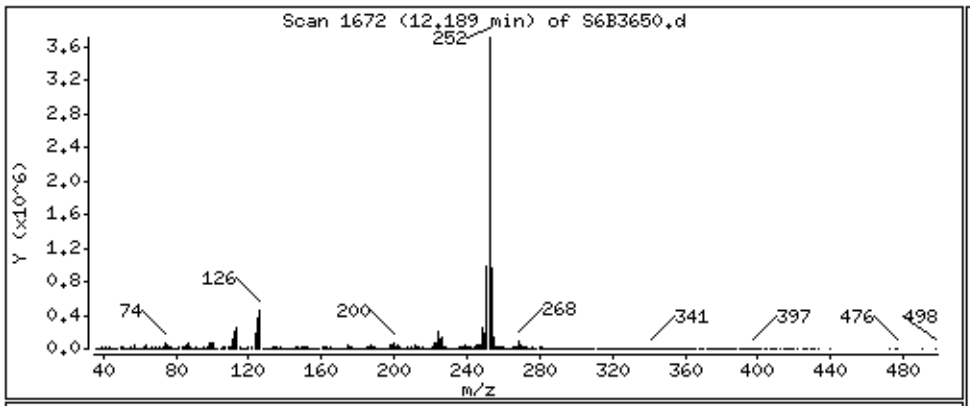
Operator: PK SRC: LIMS

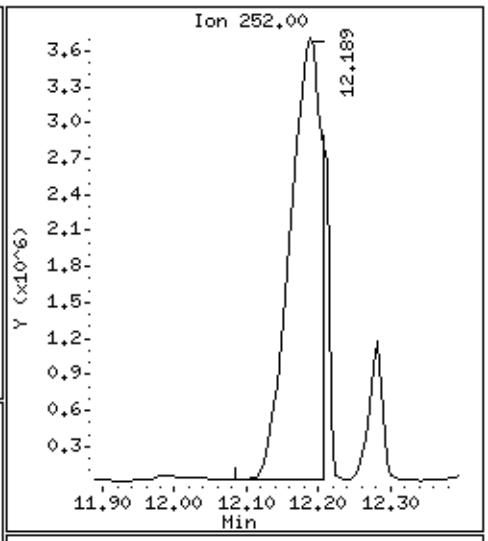
Column phase: Rxi-5Sil MS

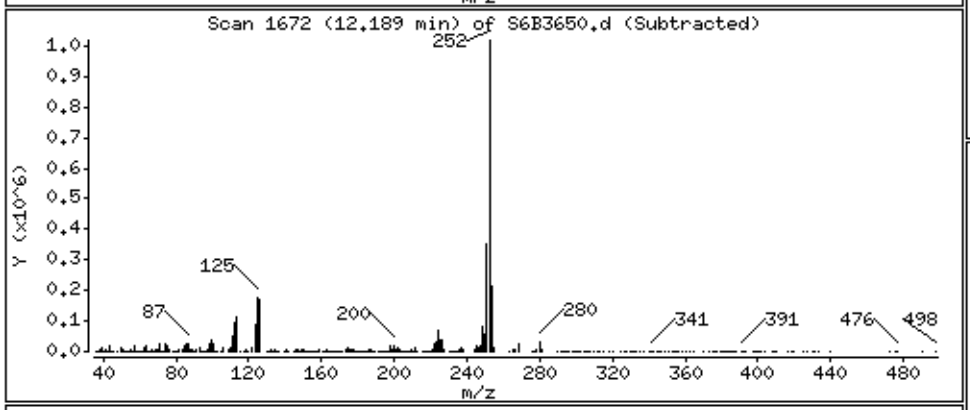
Column diameter: 0.25

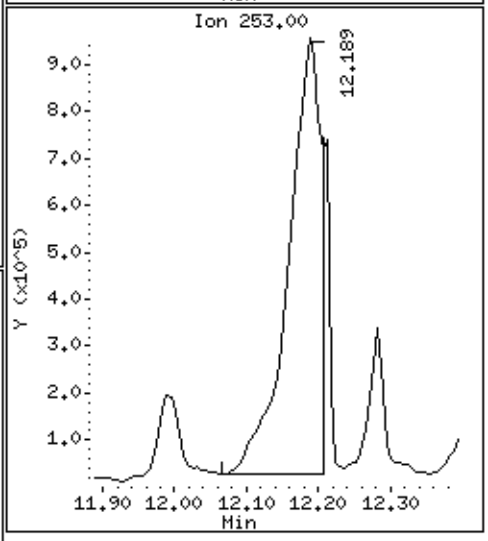
80 Benzo(b)fluoranthene

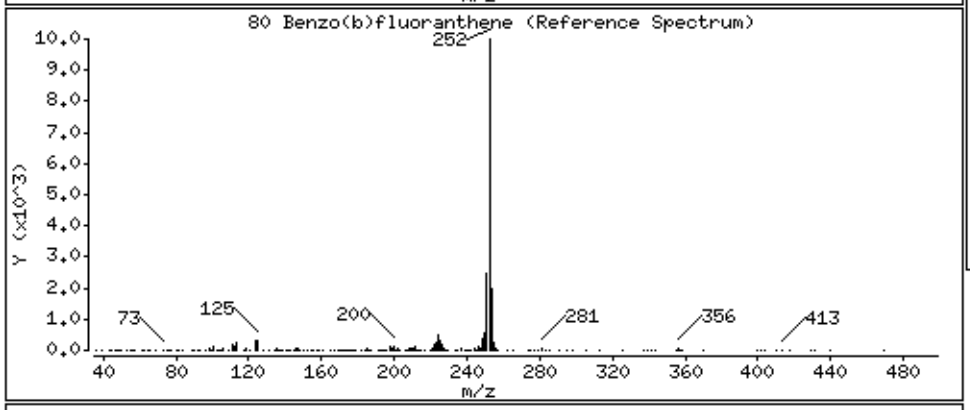
Concentration: 17000 ug/Kg

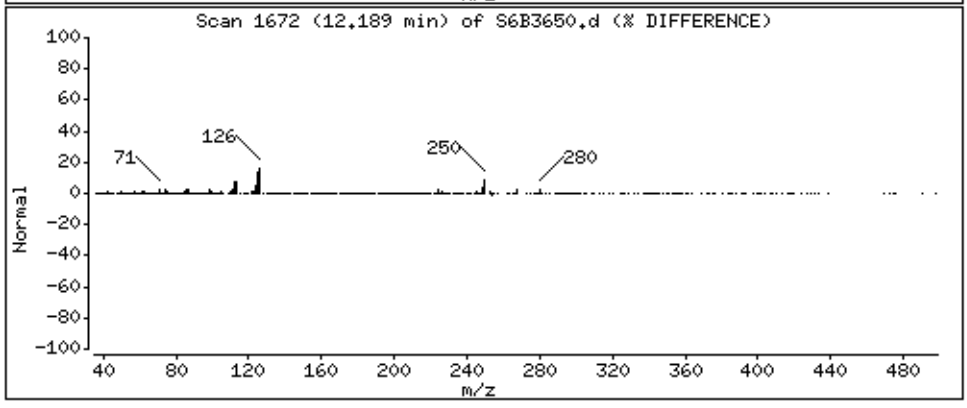












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

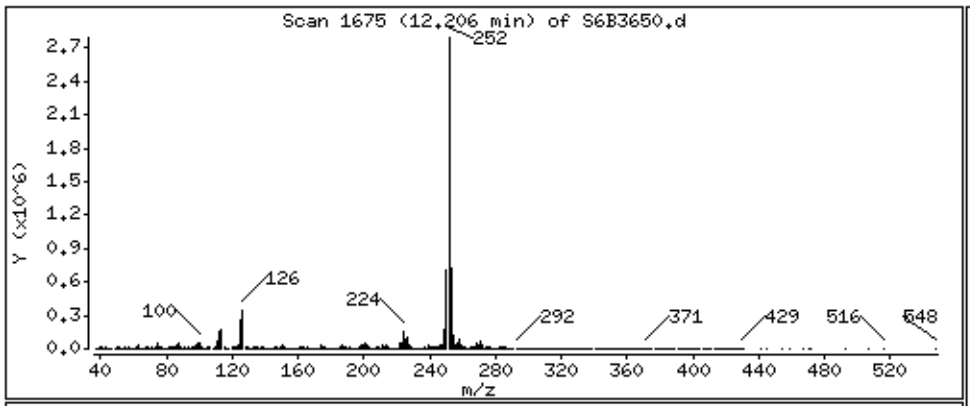
Operator: PK SRC: LIMS

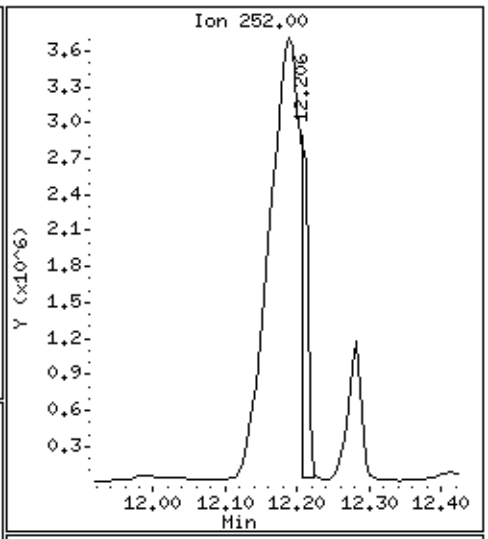
Column phase: Rxi-5Sil MS

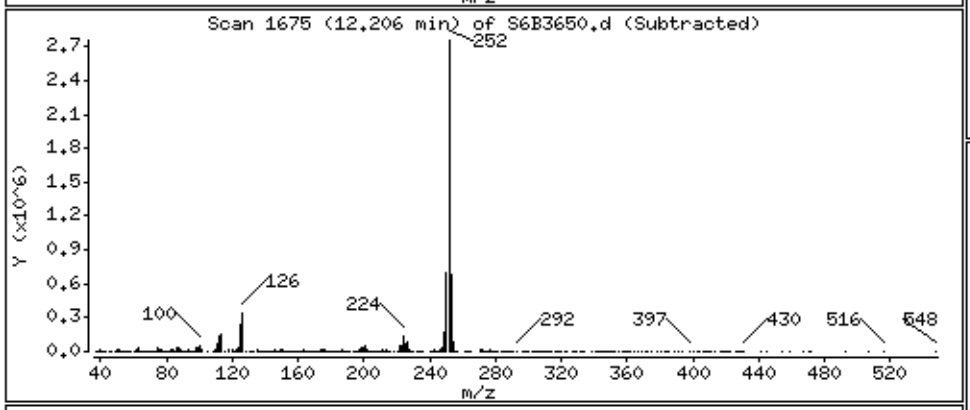
Column diameter: 0.25

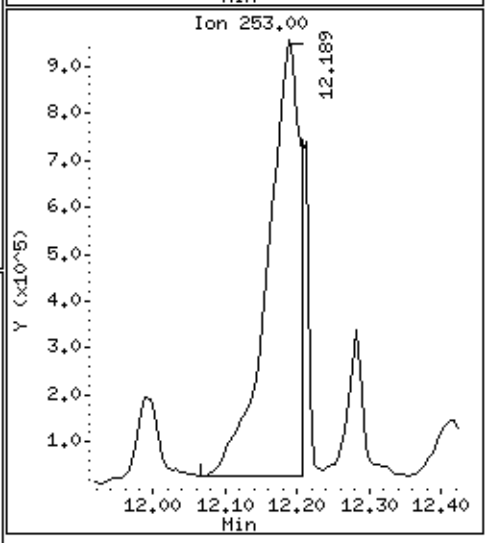
81 Benzo(k)fluoranthene

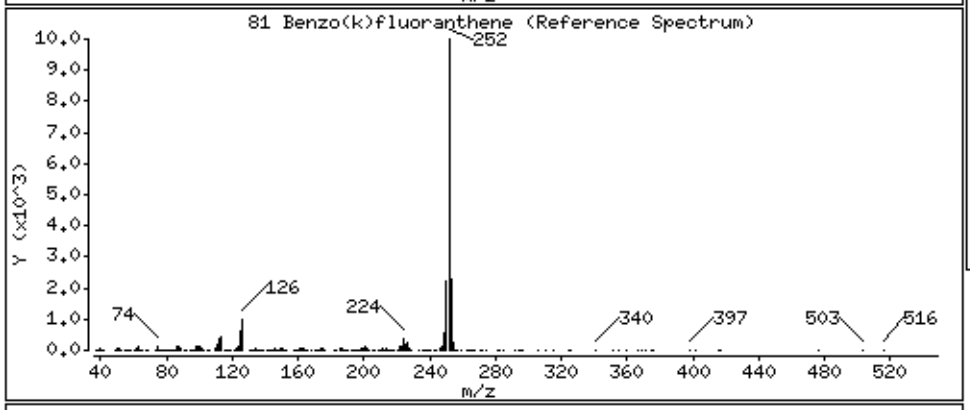
Concentration: 3400 ug/Kg

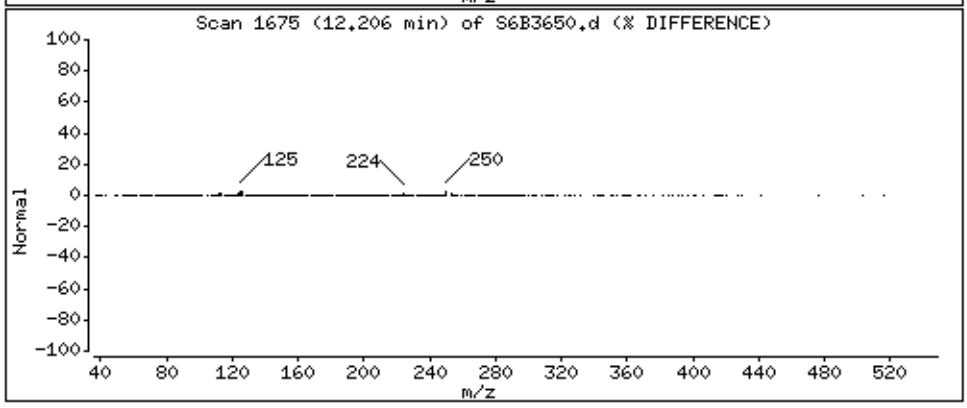












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

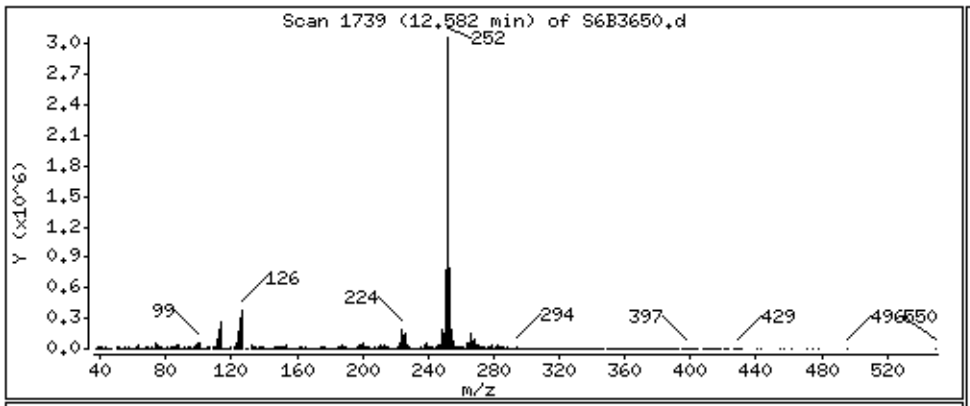
Operator: PK SRC: LIMS

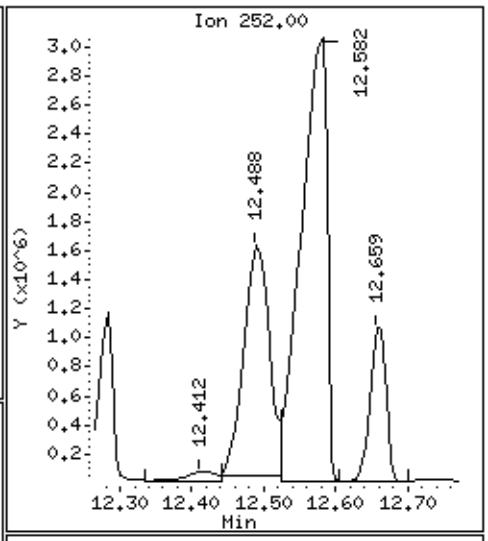
Column phase: Rxi-5Sil MS

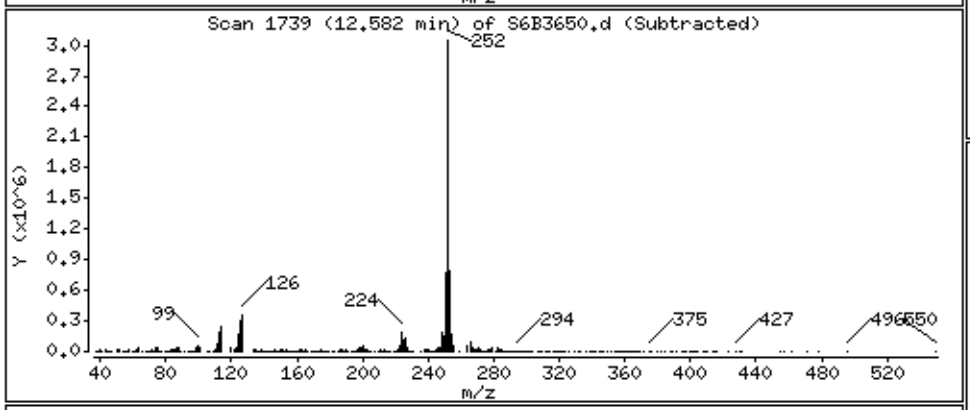
Column diameter: 0.25

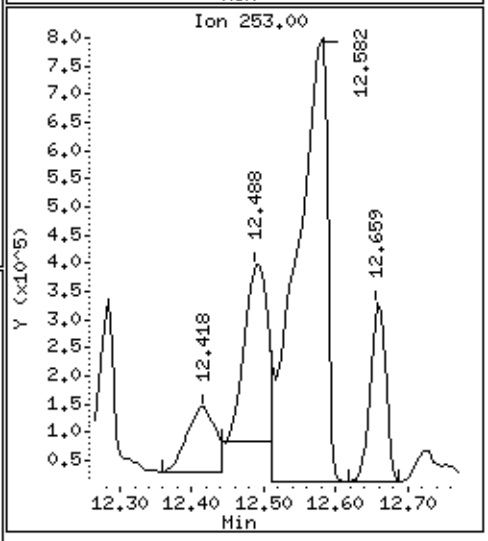
82 Benzo(a)pyrene

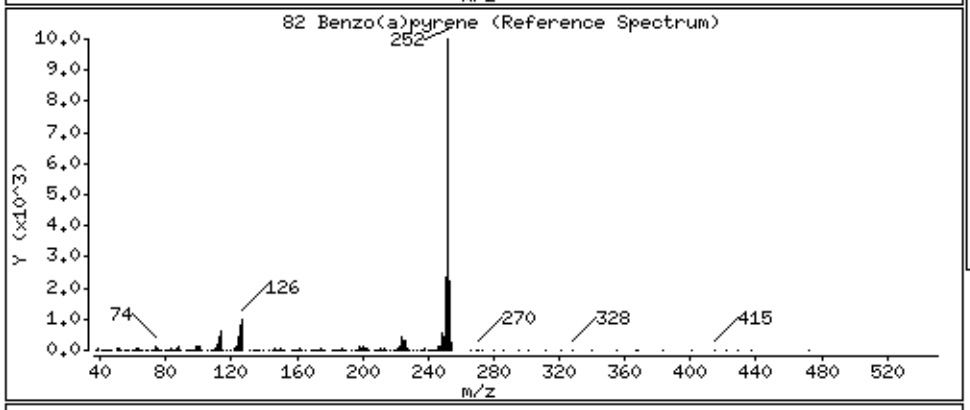
Concentration: 13000 ug/Kg

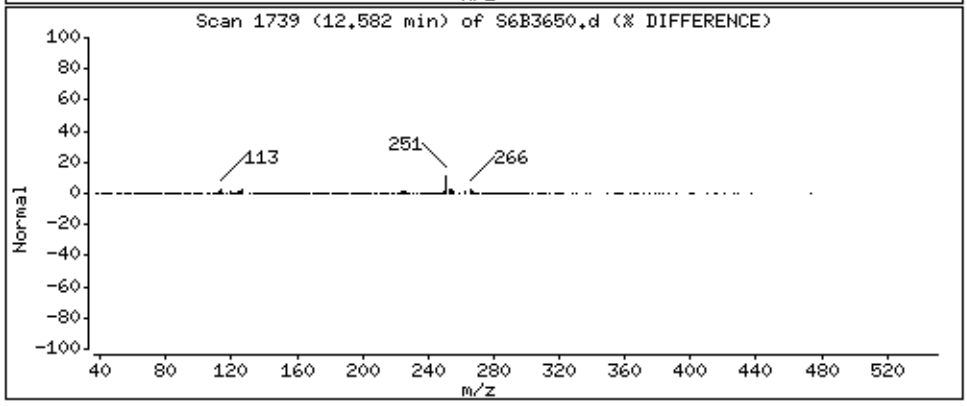












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

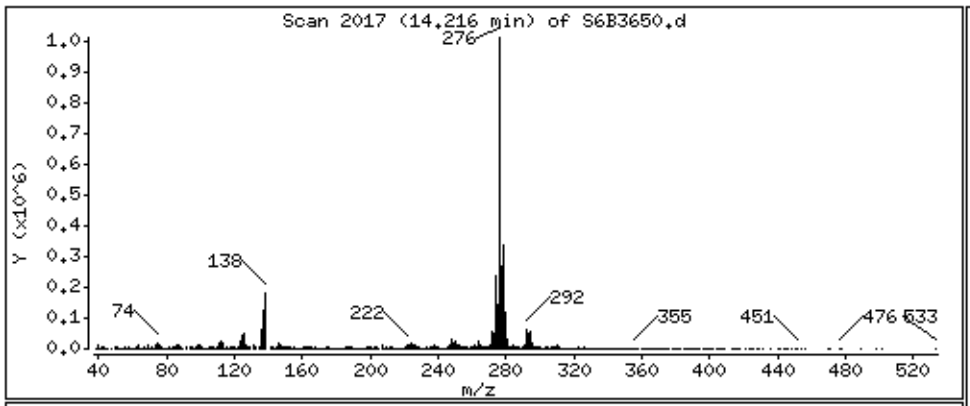
Client ID: SB-126 (10.5-12.5) Instrument: S6.i

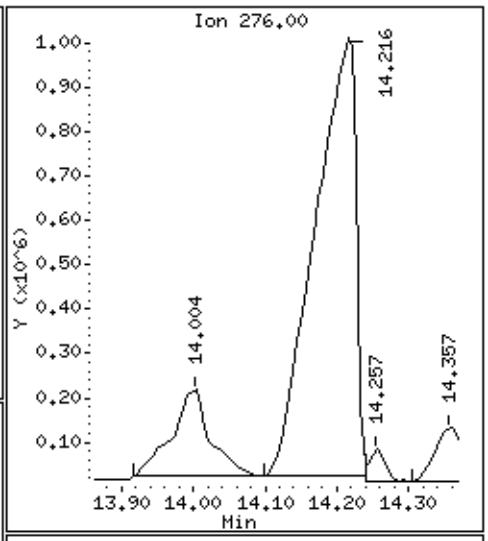
Sample Info: M0619-03A,,71418

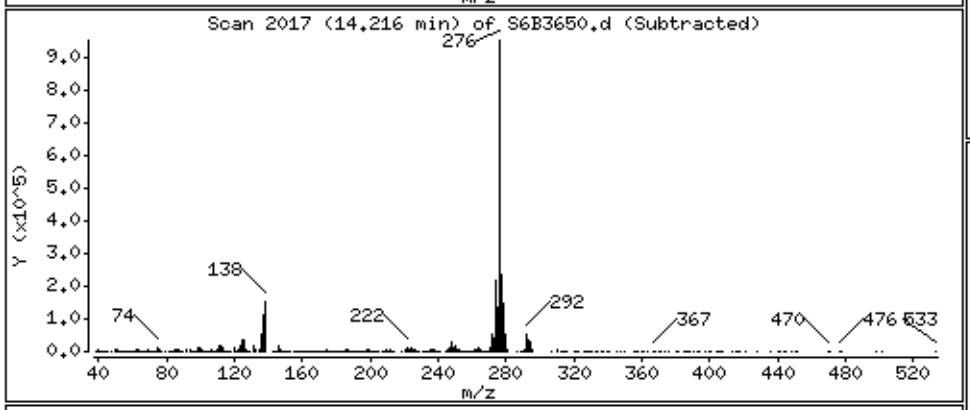
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

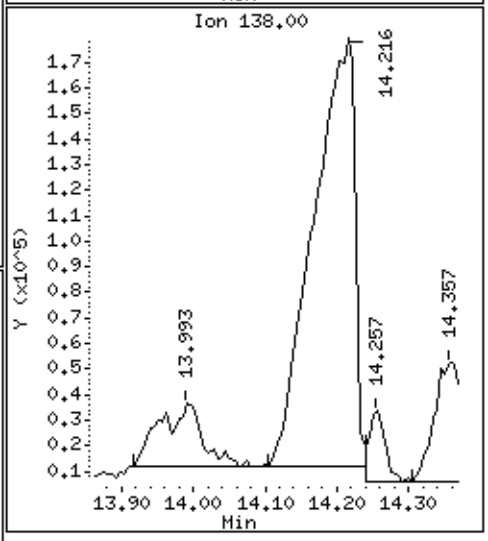
Column phase: Rxi-5Sil MS Column diameter: 0.25

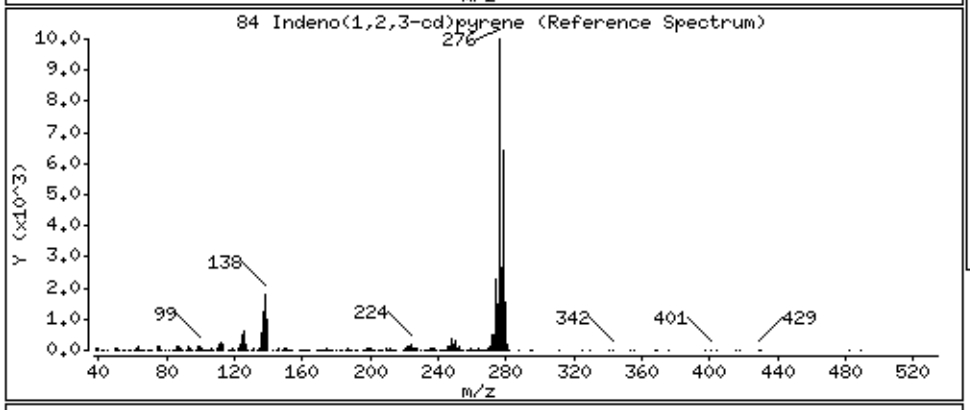
84 Indeno(1,2,3-cd)pyrene Concentration: 5400 ug/Kg

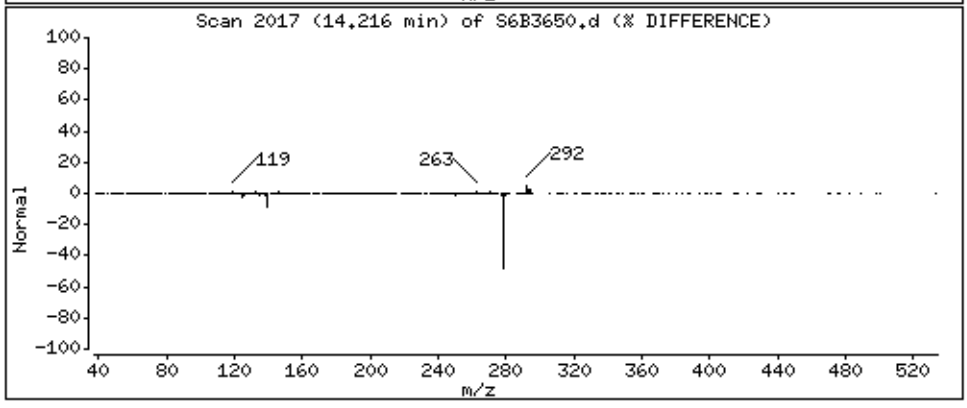












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

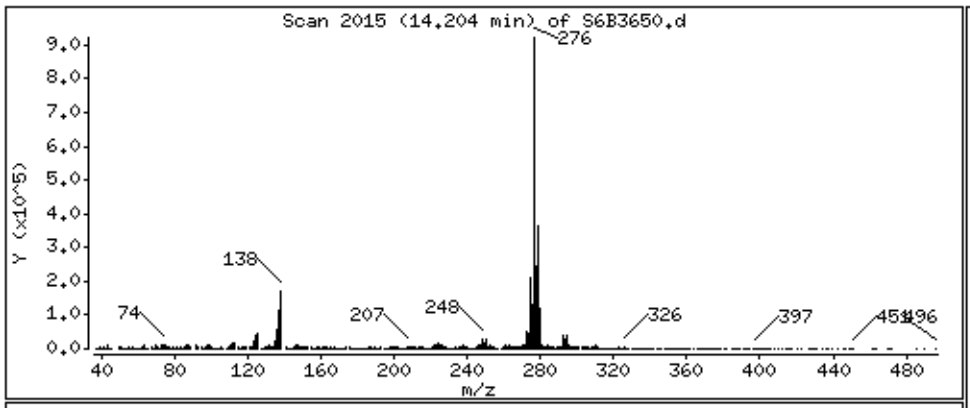
Operator: PK SRC: LIMS

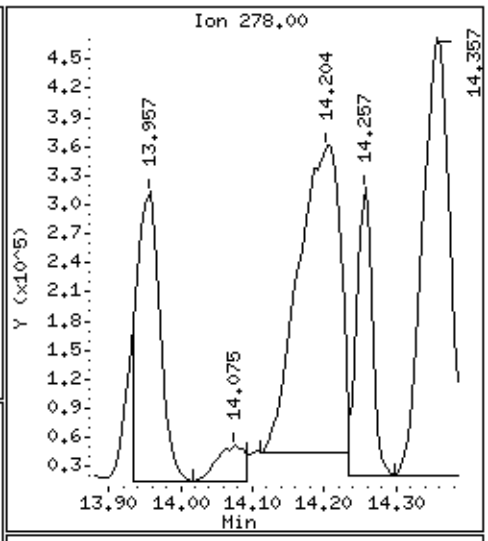
Column phase: Rxi-5Sil MS

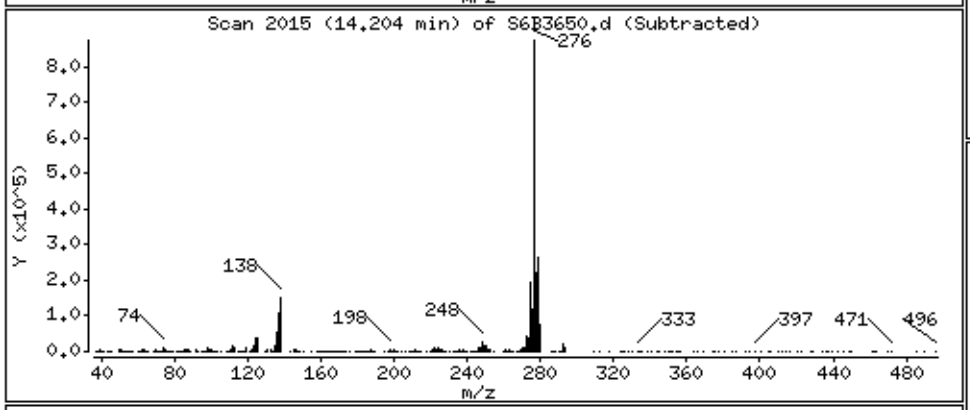
Column diameter: 0.25

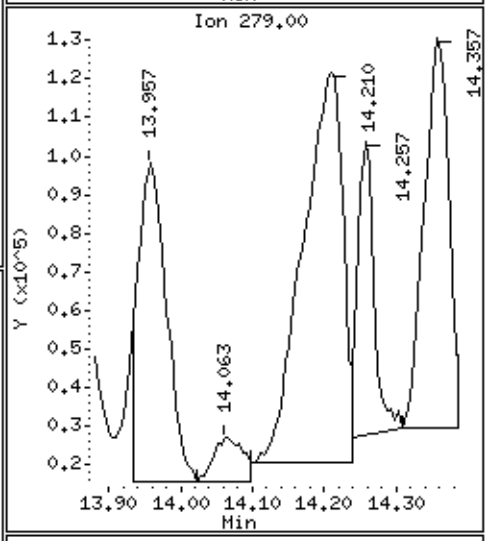
85 Dibenzo(a,h)anthracene

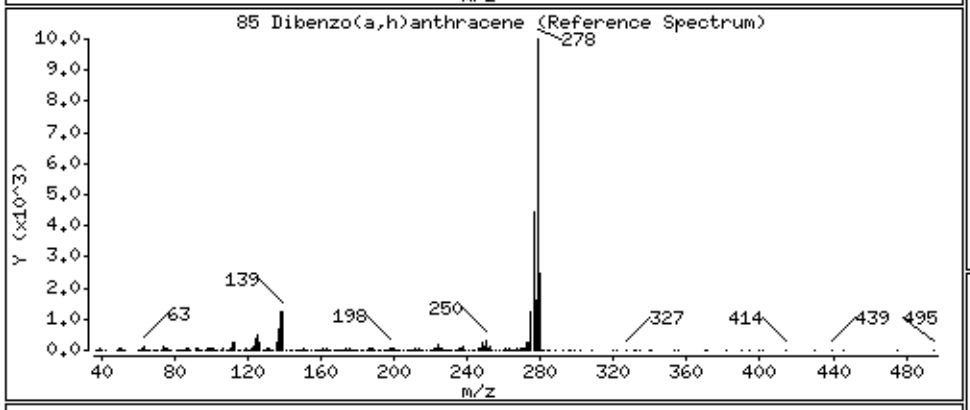
Concentration: 2100 ug/Kg

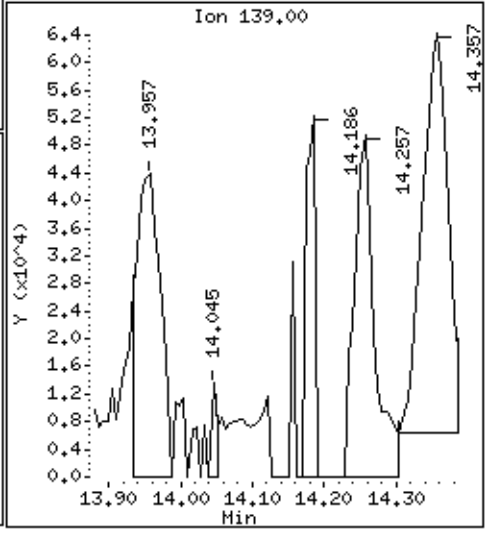


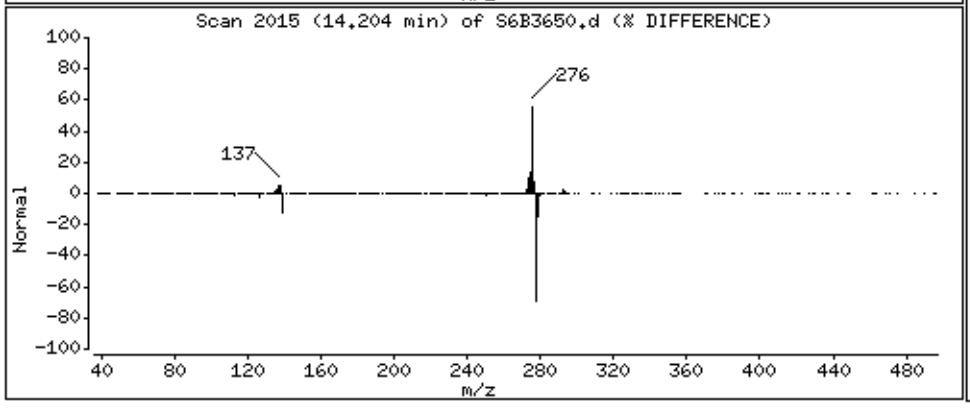












Data File: \\avogadro\organics\S6.I\130506.B\S6B3650.d

Date : 06-MAY-2013 18:51

Client ID: SB-126 (10.5-12.5)

Instrument: S6.i

Sample Info: M0619-03A,,71418

Volume Injected (uL): 1.0

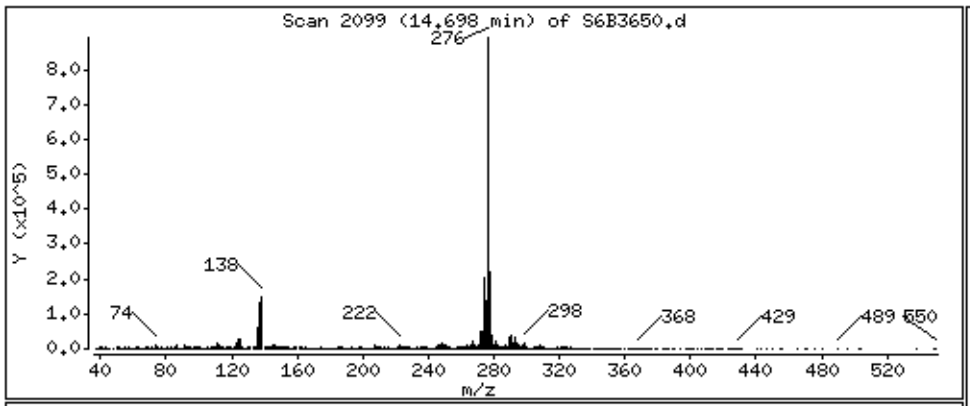
Operator: PK SRC: LIMS

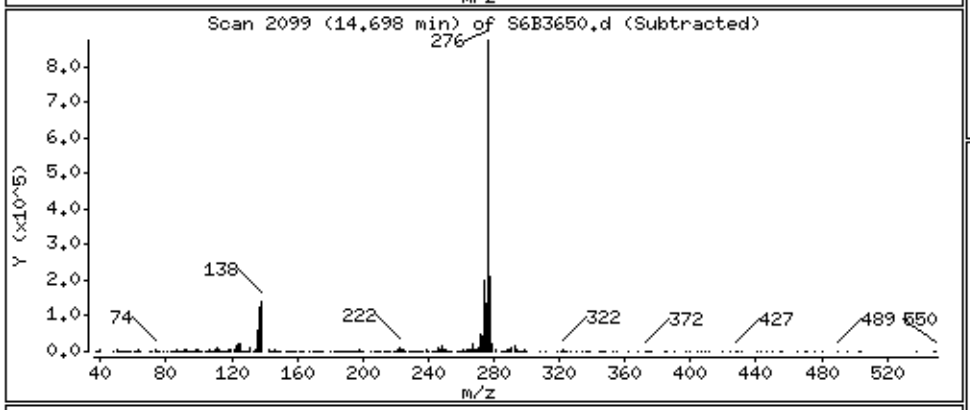
Column phase: Rxi-5Sil MS

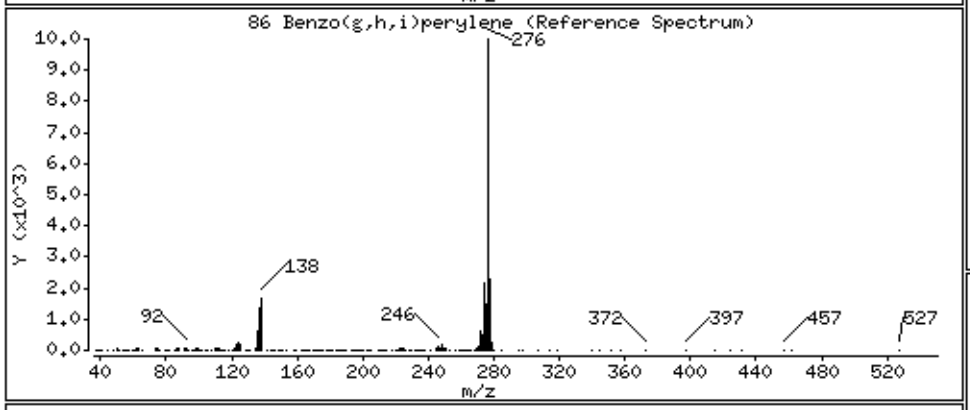
Column diameter: 0.25

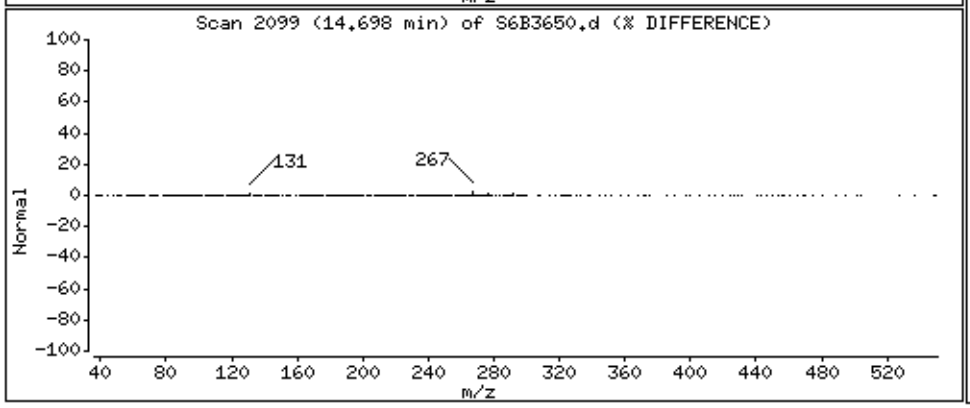
86 Benzo(g,h,i)perylene

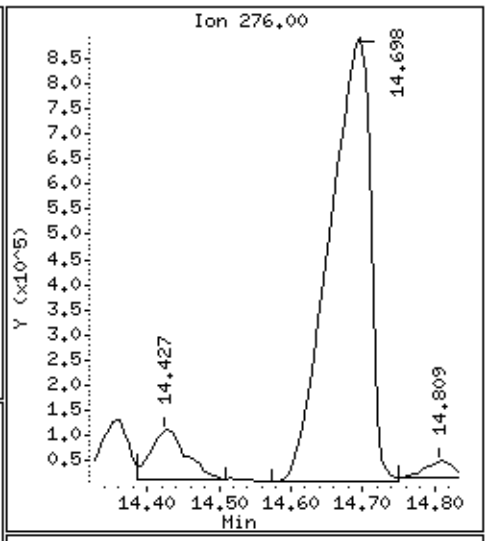
Concentration: 5800 ug/Kg

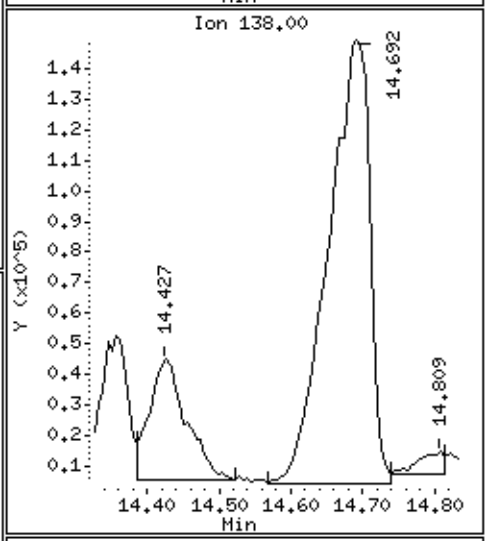


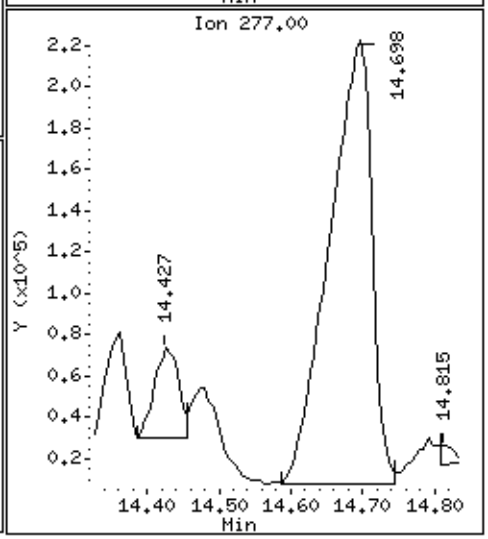












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-126
(10.5-12.5)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-03ADL

Sample wt/vol: 15.8 (g/mL) G Lab File ID: S6B3674.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 20.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	16000	D
91-57-6	2-Methylnaphthalene	7900	DJ
208-96-8	Acenaphthylene	2700	DJ
83-32-9	Acenaphthene	5700	DJ
86-73-7	Fluorene	12000	D
85-01-8	Phenanthrene	57000	D
120-12-7	Anthracene	15000	D
206-44-0	Fluoranthene	38000	D
129-00-0	Pyrene	31000	D
56-55-3	Benzo(a)anthracene	18000	D
218-01-9	Chrysene	19000	D
205-99-2	Benzo(b)fluoranthene	14000	D
207-08-9	Benzo(k)fluoranthene	5100	DJ
50-32-8	Benzo(a)pyrene	12000	D
193-39-5	Indeno(1,2,3-cd)pyrene	5200	DJ
53-70-3	Dibenzo(a,h)anthracene	2000	DJ
191-24-2	Benzo(g,h,i)perylene	5700	DJ

Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d
Report Date: 08-May-2013 10:56

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3674.d
Lab Smp Id: M0619-03ADL Client Smp ID: SB-126 (10.5-12.5)D
Inj Date : 07-MAY-2013 12:33
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : M0619-03ADL,,71418,,20
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130507.B\S6_8270C_N.m
Meth Date : 07-May-2013 13:08 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 4
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	20.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.800	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	12 1,4-Dichlorobenzene-d4	152	4.999	4.999	(1.000)	233268	40.0000	
$	22 Nitrobenzene-d5	82	5.458	5.464	(0.902)	14449	1.64127	2100(a)
*	31 Naphthalene-d8	136	6.051	6.057	(1.000)	985204	40.0000	
	32 Naphthalene	128	6.069	6.075	(1.003)	210310	9.84735	12000(a)
	36 2-Methylnaphthalene	142	6.639	6.645	(1.097)	79281	4.84306	6100(a)
$	41 2-Fluorobiphenyl	172	6.938	6.944	(0.924)	35342	1.60897	2000(a)
	46 Acenaphthylene	152	7.391	7.397	(0.984)	46933	1.64437	2100(a)
*	48 Acenaphthene-d10	164	7.508	7.514	(1.000)	752018	40.0000	
	49 Acenaphthene	153	7.532	7.538	(1.003)	68411	3.52660	4500(a)
	55 Fluorene	166	7.961	7.967	(1.060)	174718	7.36189	9300(a)
*	64 Phenanthrene-d10	188	8.748	8.748	(1.000)	1661633	40.0000	
	65 Phenanthrene	178	8.766	8.771	(1.002)	1332643	35.0901	44000
	66 Anthracene	178	8.807	8.813	(1.007)	350191	8.96922	11000(a)
	69 Fluoranthene	202	9.764	9.770	(1.116)	1094721	23.5535	30000
	71 Pyrene	202	9.958	9.964	(0.903)	1003020	18.9171	24000
$	72 Terphenyl-d14	244	10.070	10.082	(0.913)	70759	1.85968	2400(a)
	75 Benzo(a)anthracene	228	11.010	11.022	(0.998)	648786	11.1052	14000
*	76 Chrysene-d12	240	11.028	11.039	(1.000)	2535897	40.0000	
	77 Chrysene	228	11.045	11.063	(1.002)	582906	11.9297	15000

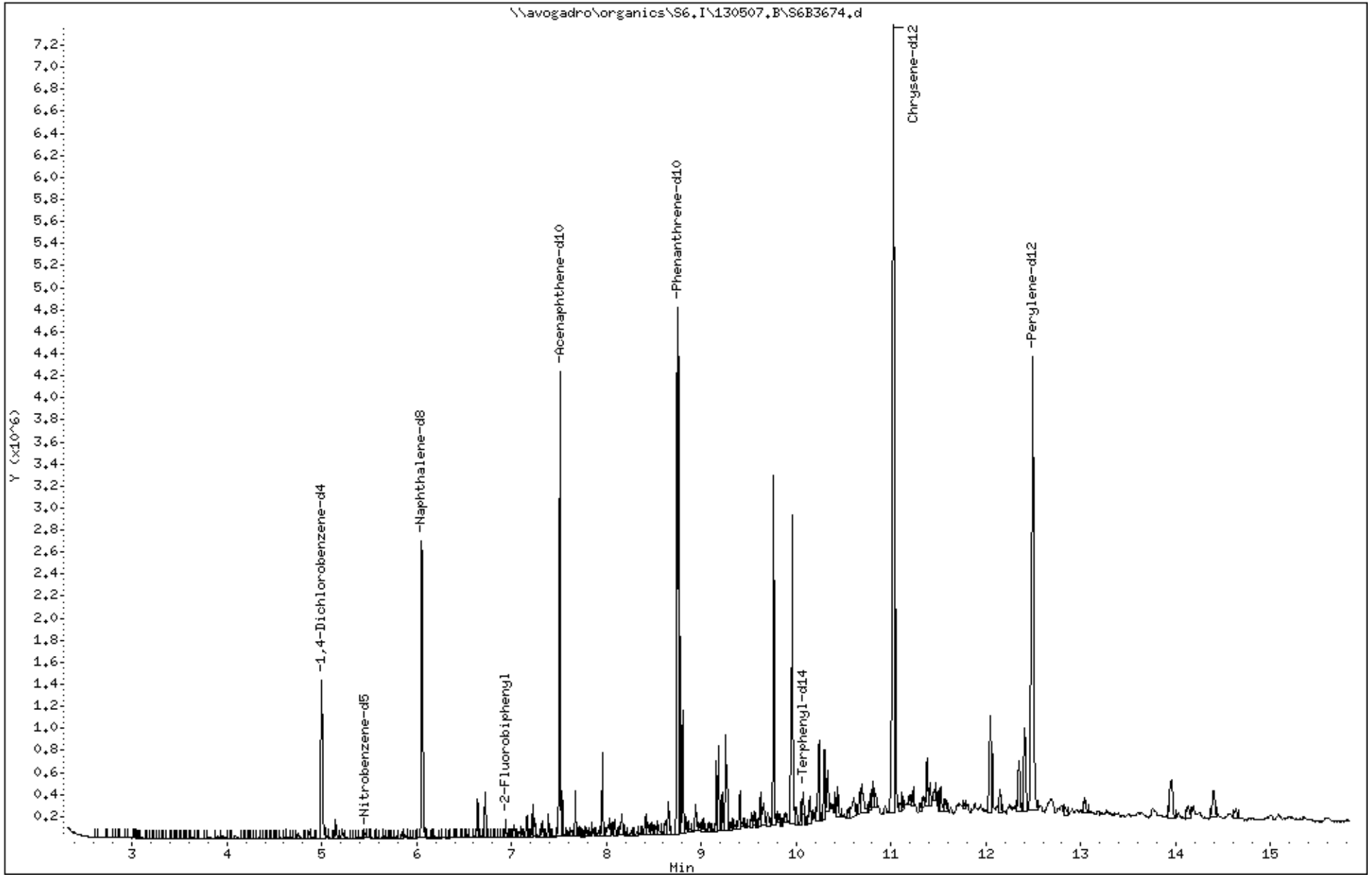
Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d
Report Date: 08-May-2013 10:56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
80	Benzo(b)fluoranthene	252	12.044	12.062	(0.964)	599151	8.91930	11000(a)
81	Benzo(k)fluoranthene	252	12.062	12.097	(0.965)	197606	3.13835	4000(aM)M2 PK 05/08
82	Benzo(a)pyrene	252	12.408	12.432	(0.993)	441722	7.36711	9300(a)
* 83	Perylene-d12	264	12.497	12.508	(1.000)	2569800	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	13.954	13.995	(1.117)	238465	3.20943	4100(a)
85	Dibenzo(a,h)anthracene	278	13.960	14.018	(1.117)	76410	1.23483	1600(a)
86	Benzo(g,h,i)perylene	276	14.394	14.447	(1.152)	211280	3.49650	4400(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d
Date : 07-MAY-2013 12:33
Client ID: SB-126 (10.5-12.5)D
Instrument: S6.i
Sample Info: M0619-03ADL,,71418,,20
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

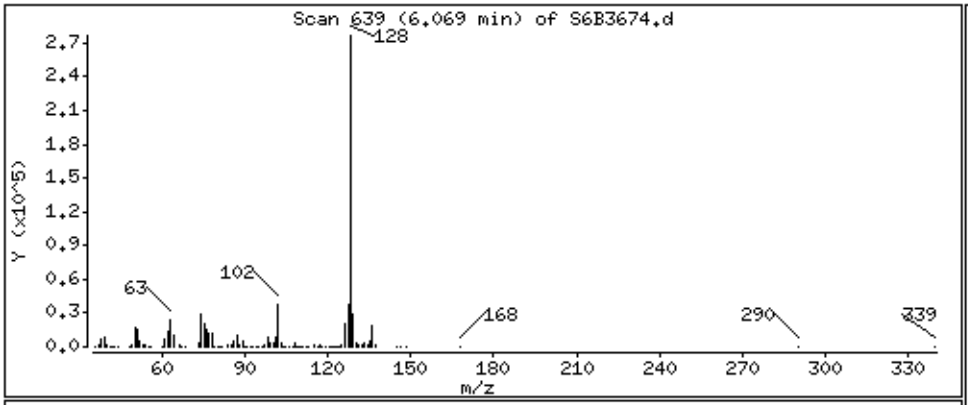
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

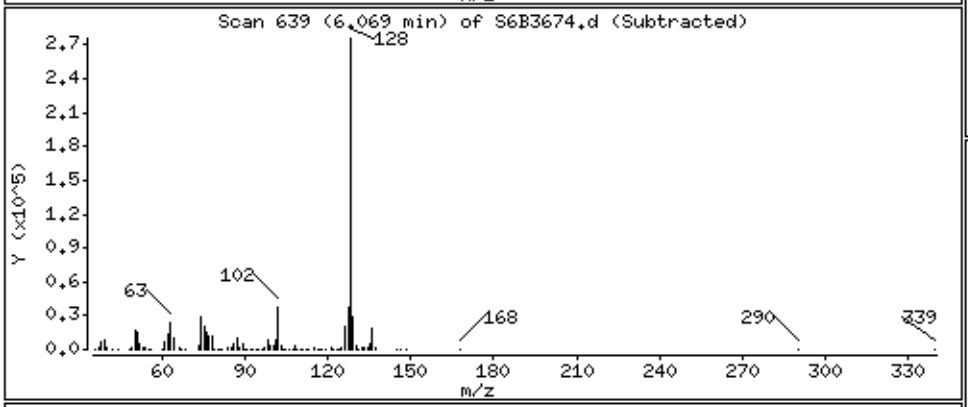
Sample Info: M0619-03ADL,,71418,,20

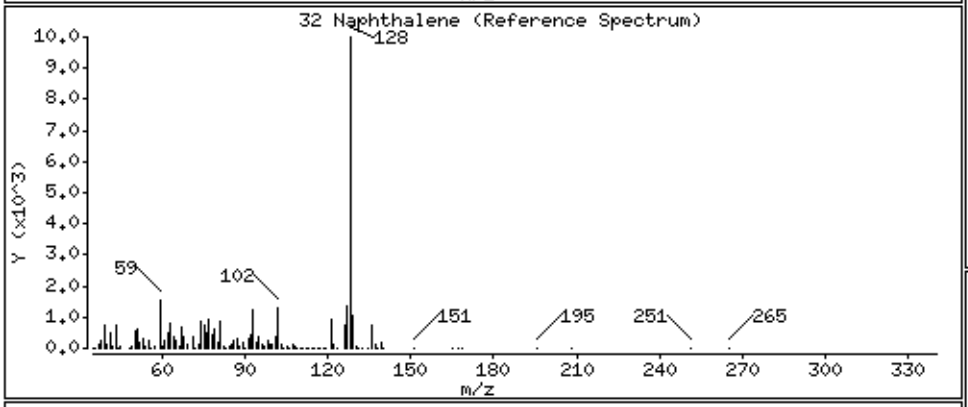
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

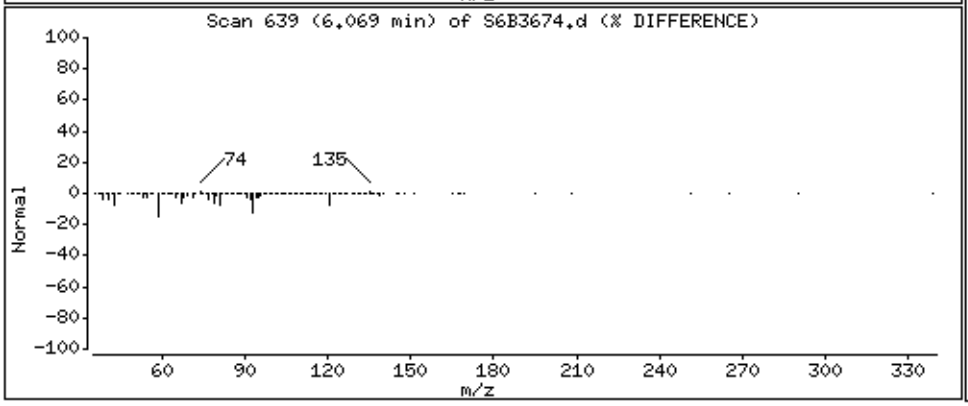
Column phase: Rxi-5Sil MS Column diameter: 0.25

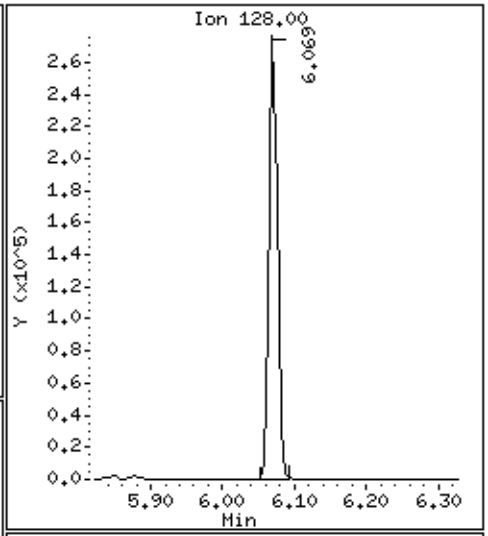
32 Naphthalene Concentration: 12000 ug/Kg

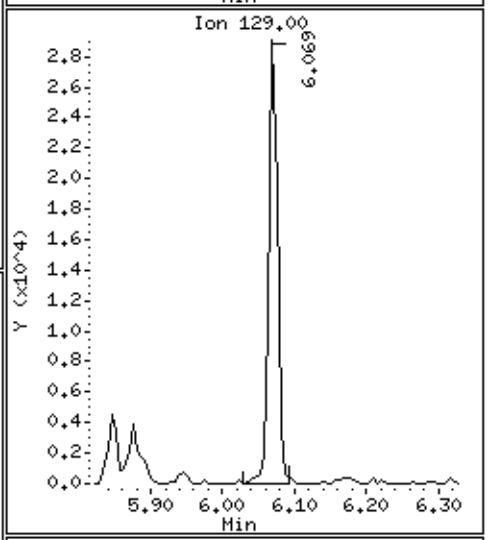


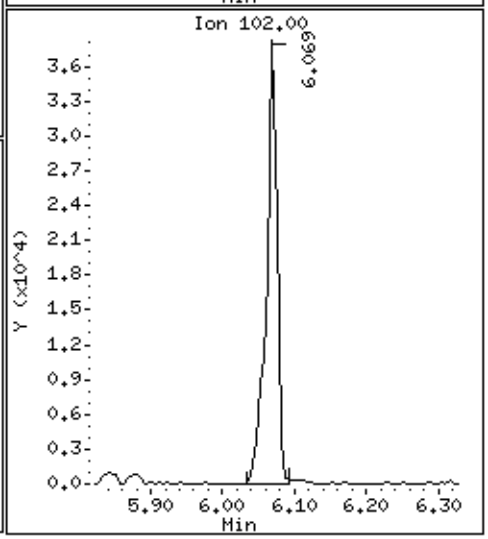












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

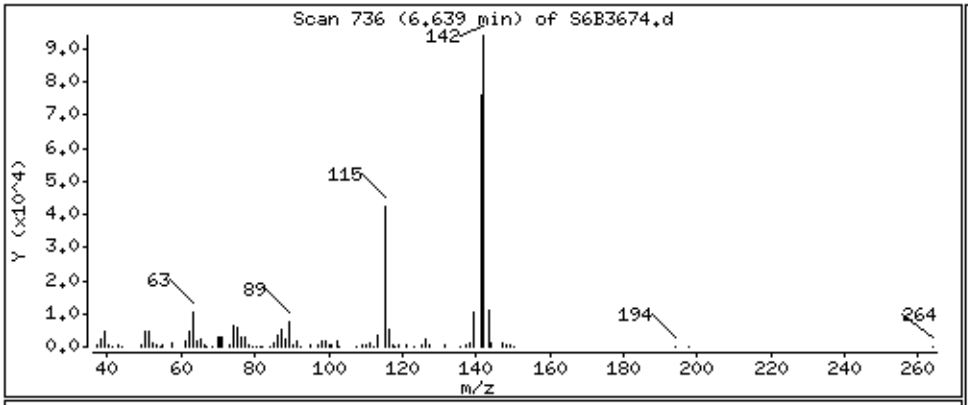
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

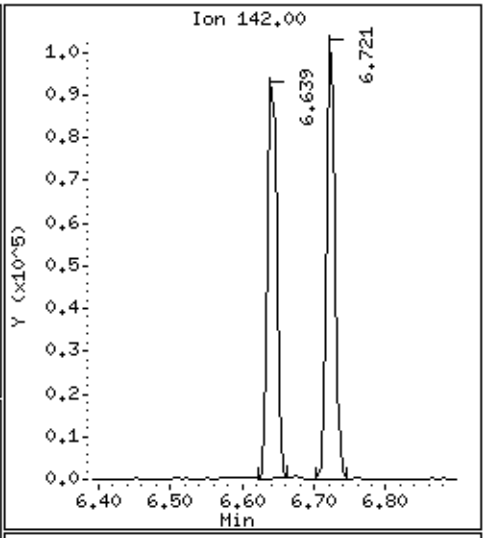
Sample Info: M0619-03ADL,,71418,,20

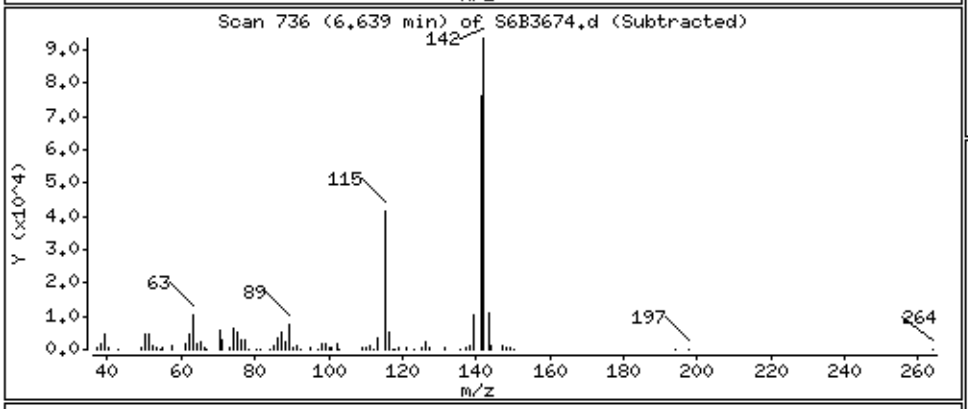
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

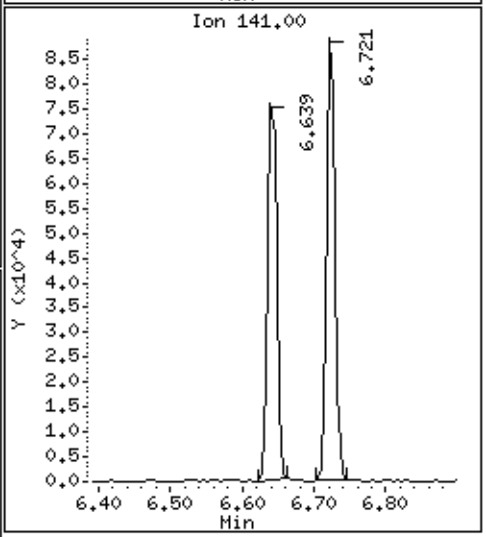
Column phase: Rxi-5Sil MS Column diameter: 0.25

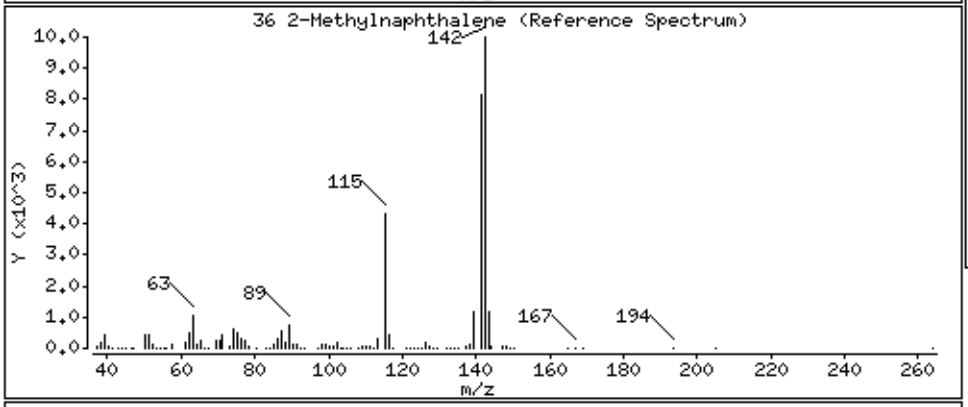
36 2-Methylnaphthalene Concentration: 6100 ug/Kg

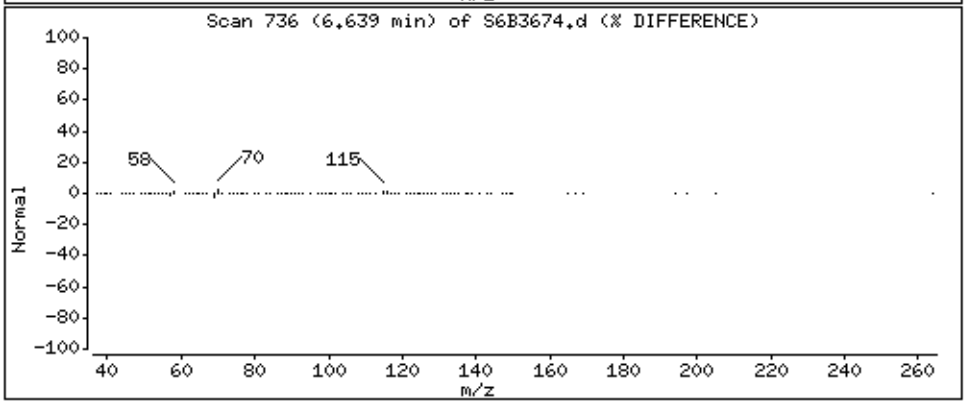












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

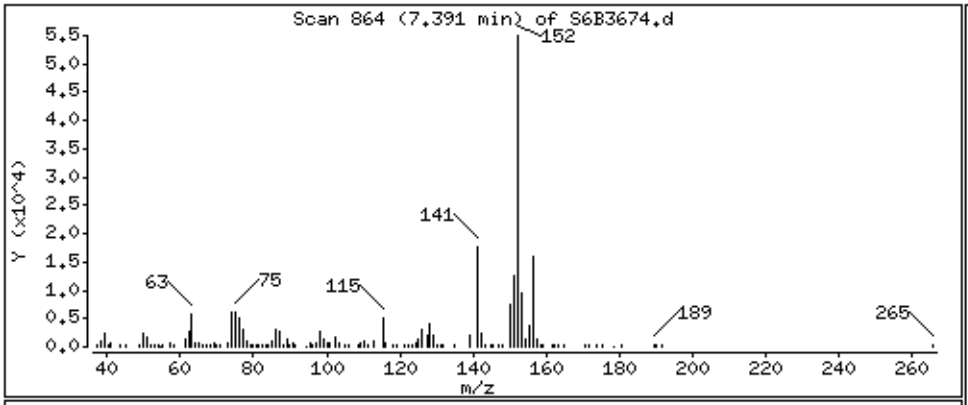
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

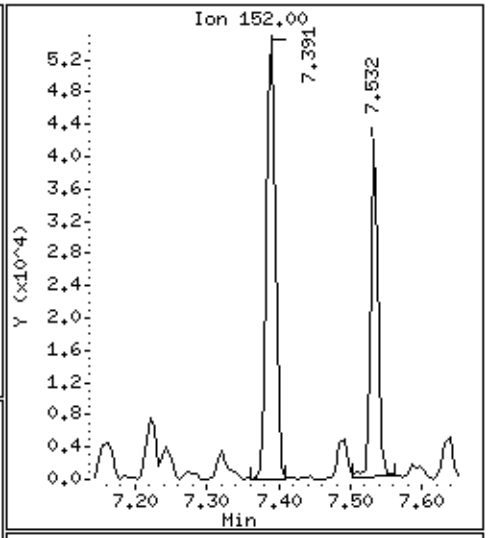
Sample Info: M0619-03ADL,,71418,,20

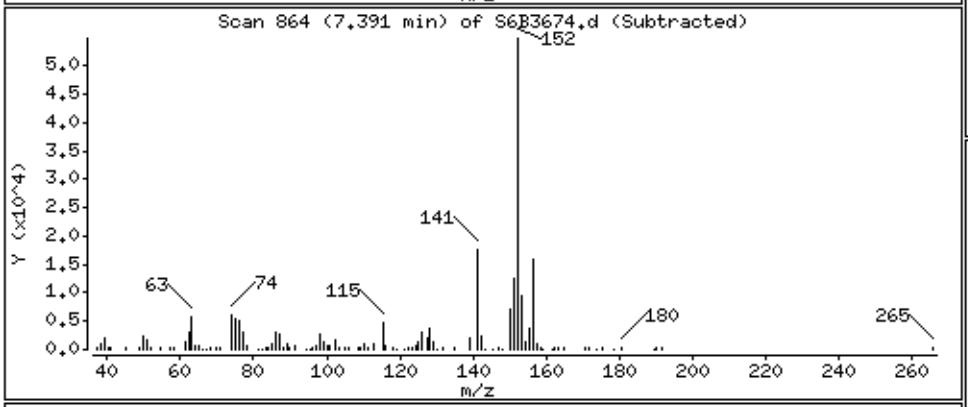
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

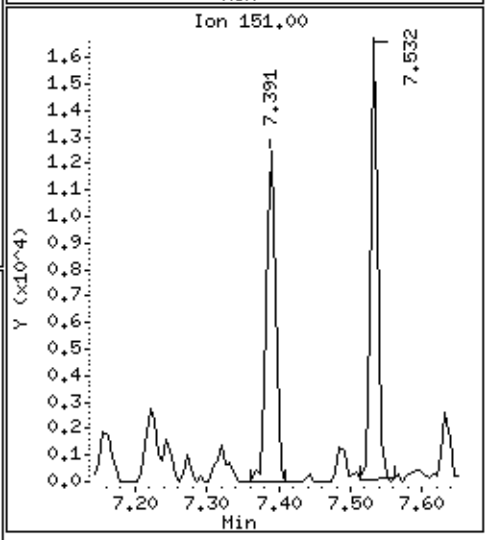
Column phase: Rxi-5Sil MS Column diameter: 0.25

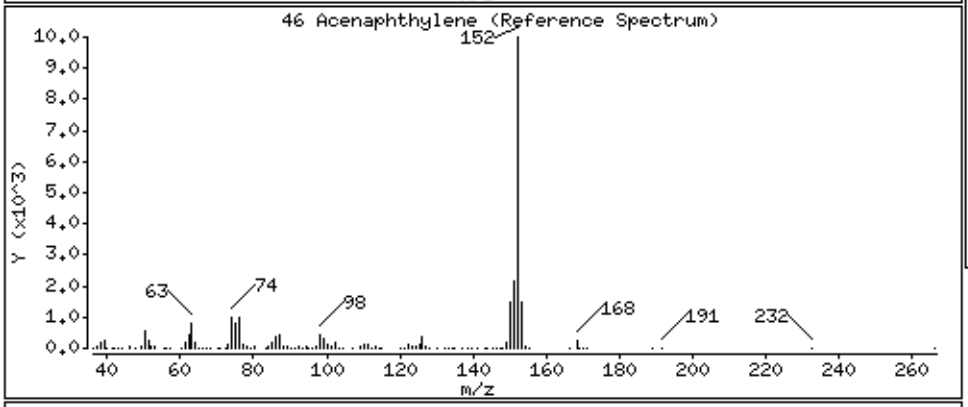
46 Acenaphthylene Concentration: 2100 ug/Kg

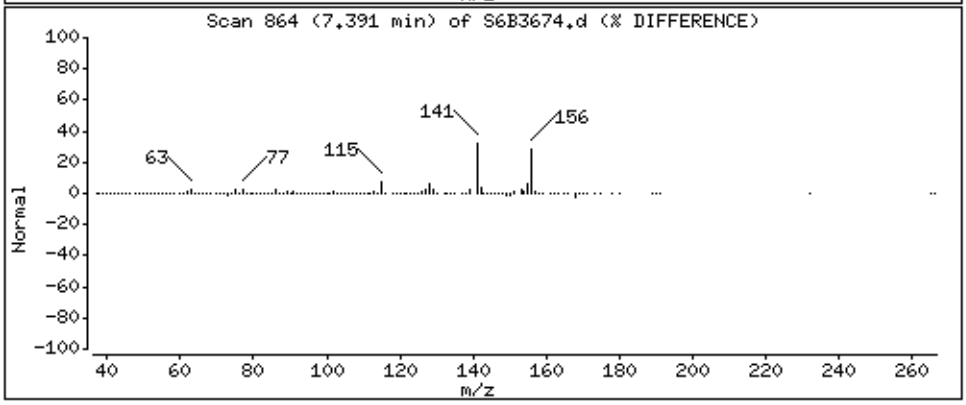












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

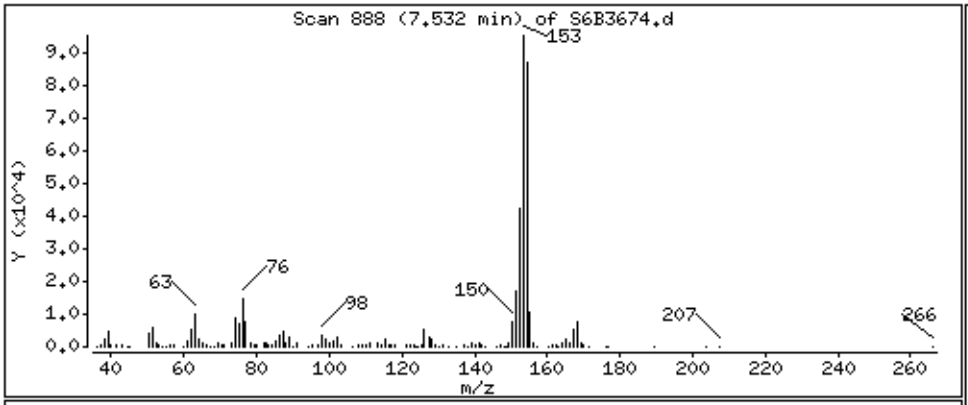
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

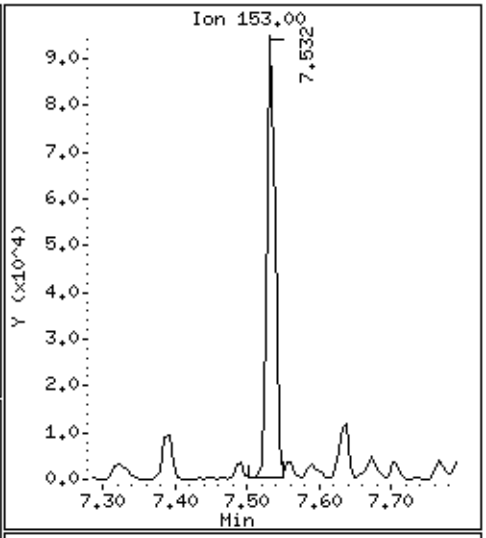
Sample Info: M0619-03ADL,,71418,,20

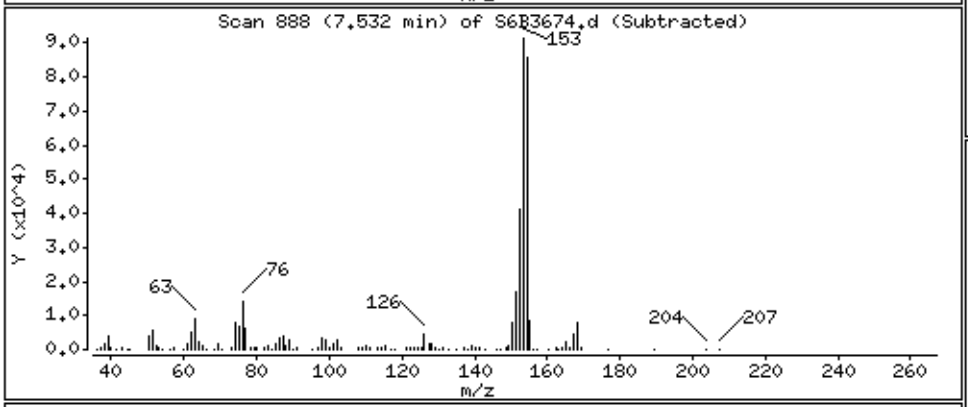
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

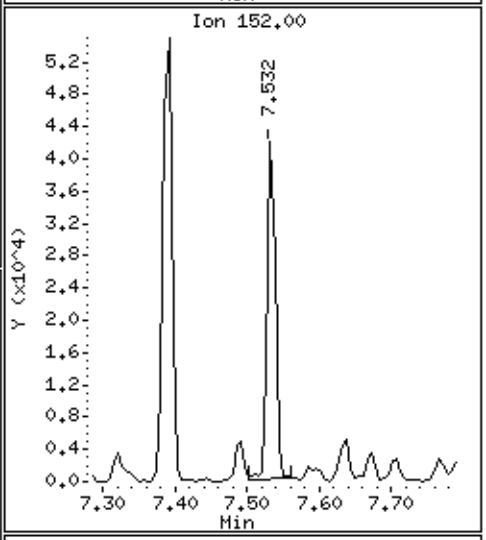
Column phase: Rxi-5Sil MS Column diameter: 0.25

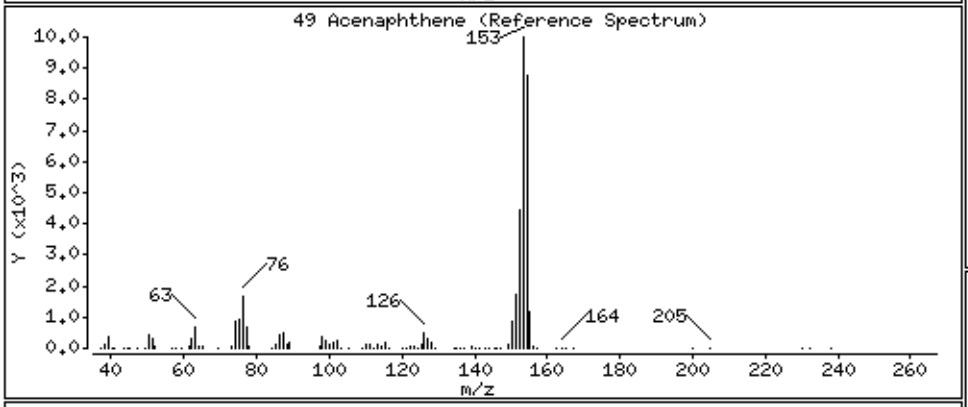
49 Acenaphthene Concentration: 4500 ug/Kg

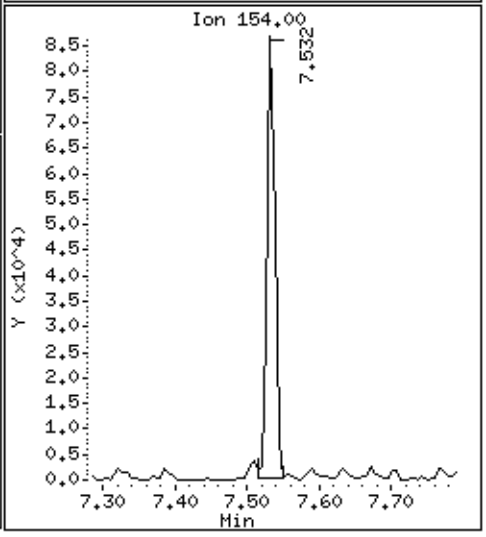


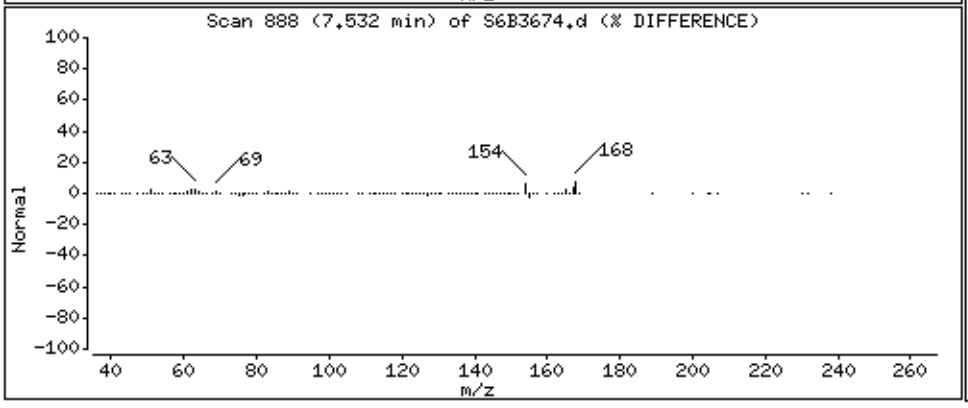












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

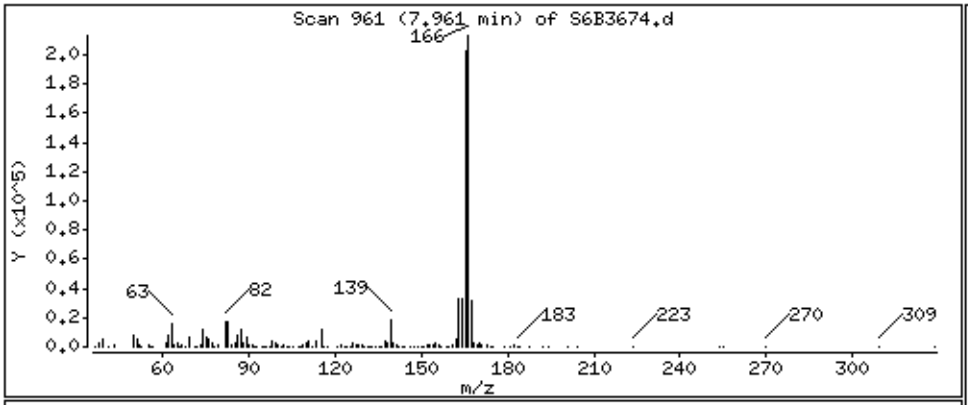
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

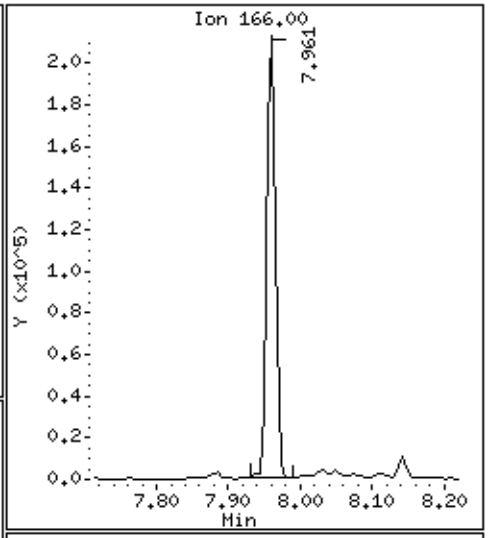
Sample Info: M0619-03ADL,,71418,,20

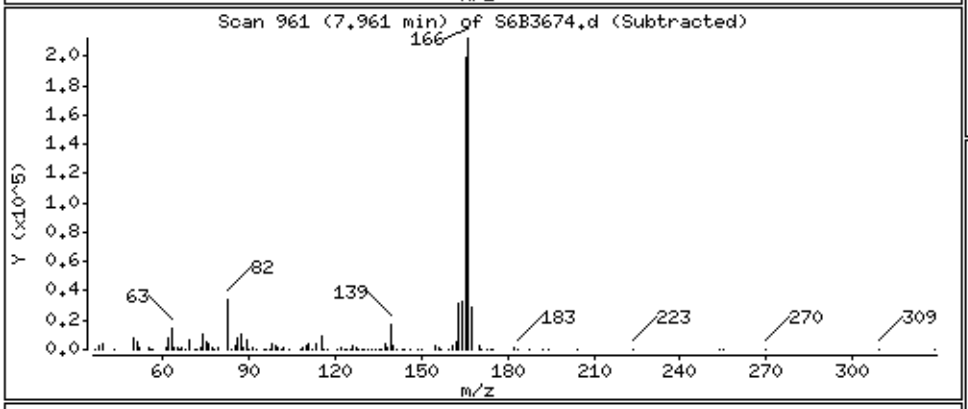
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

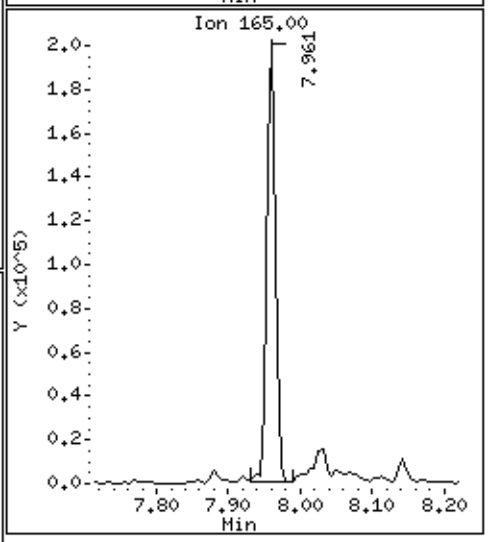
Column phase: Rxi-5Sil MS Column diameter: 0.25

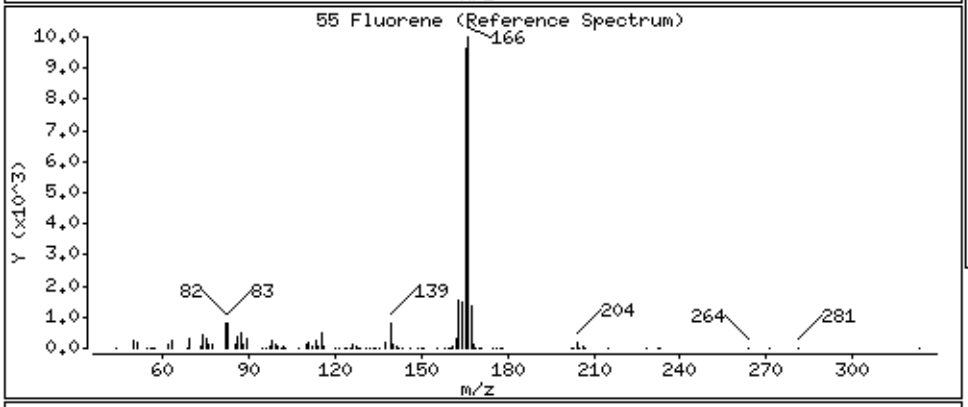
55 Fluorene Concentration: 9300 ug/Kg

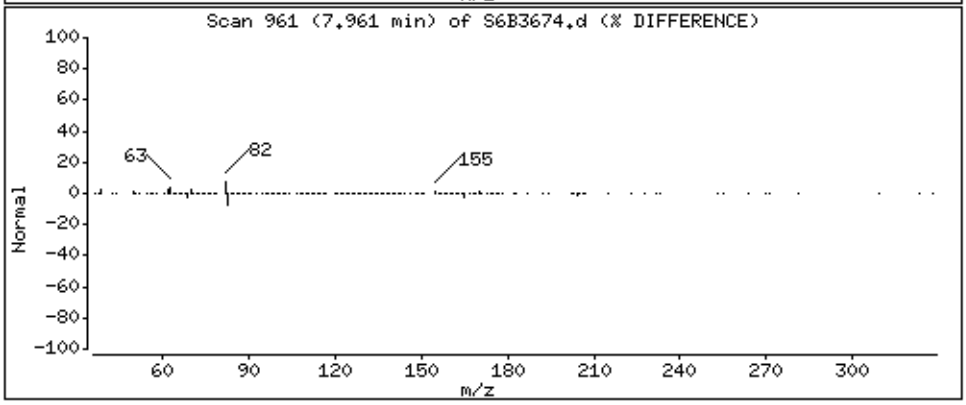












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

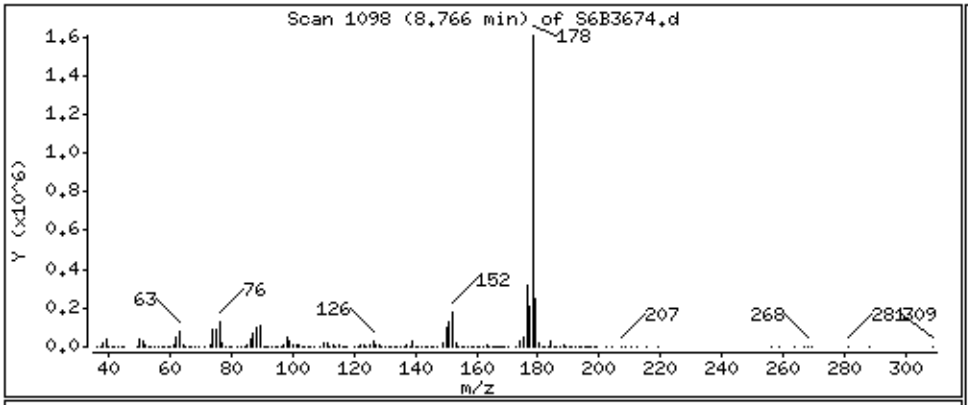
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

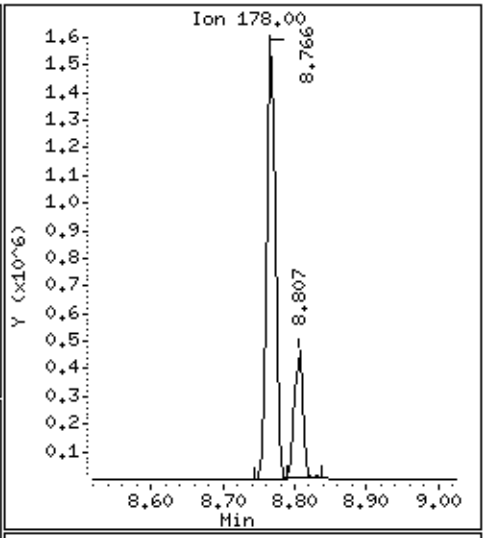
Sample Info: M0619-03ADL,,71418,,20

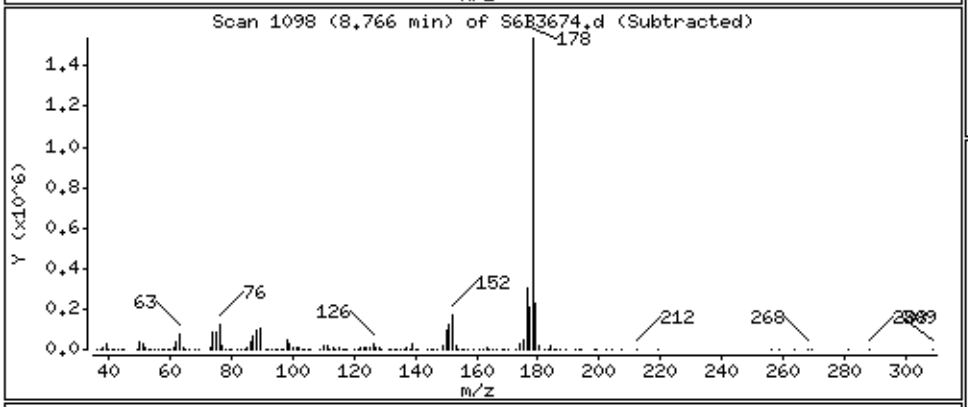
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

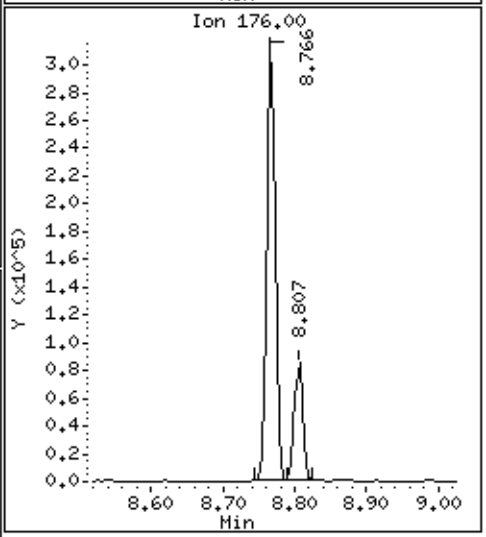
Column phase: Rxi-5Sil MS Column diameter: 0.25

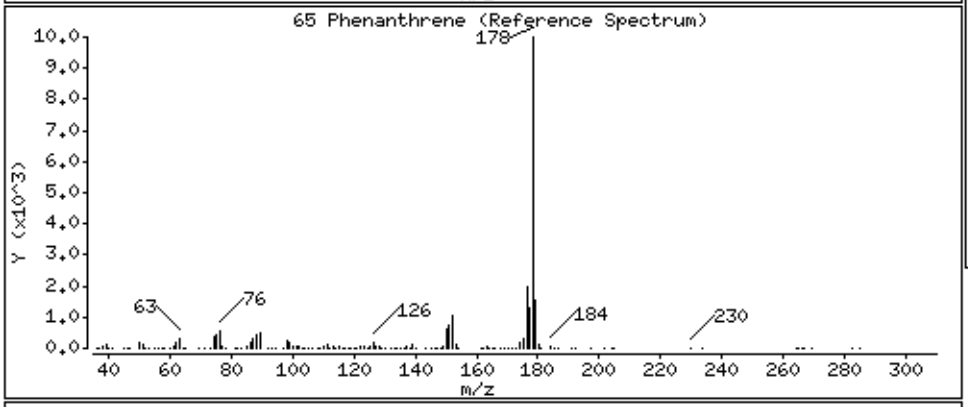
65 Phenanthrene Concentration: 44000 ug/Kg

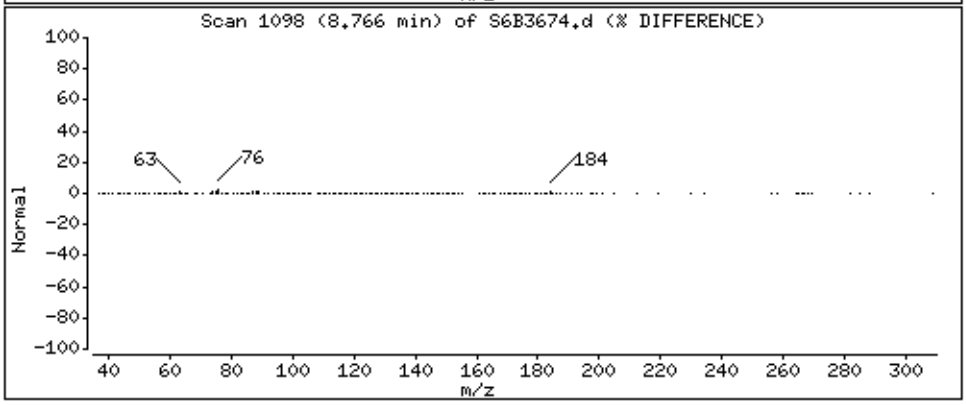












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

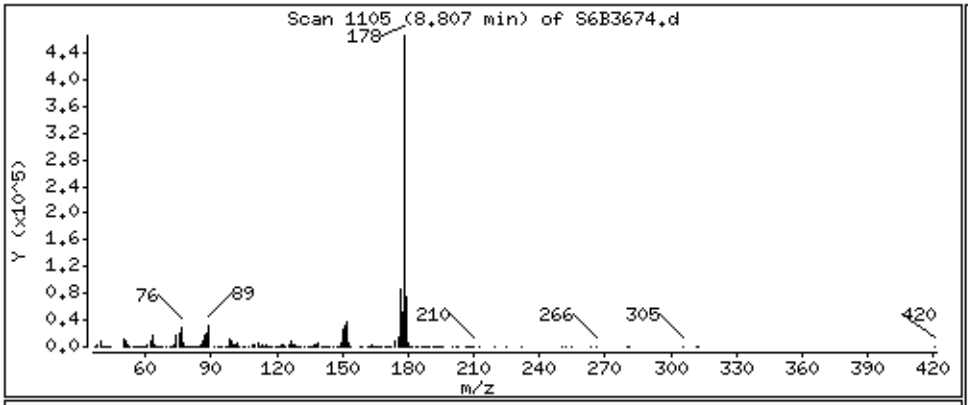
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

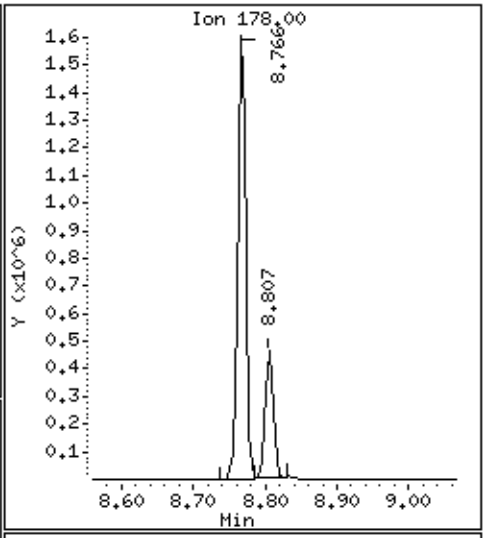
Sample Info: M0619-03ADL,,71418,,20

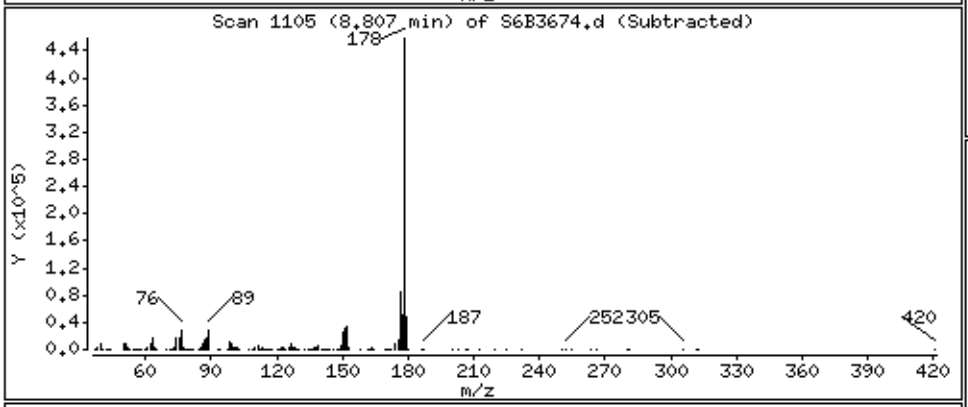
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

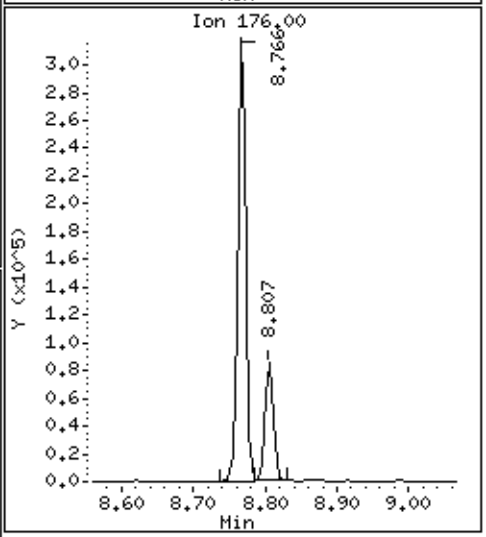
Column phase: Rxi-5Sil MS Column diameter: 0.25

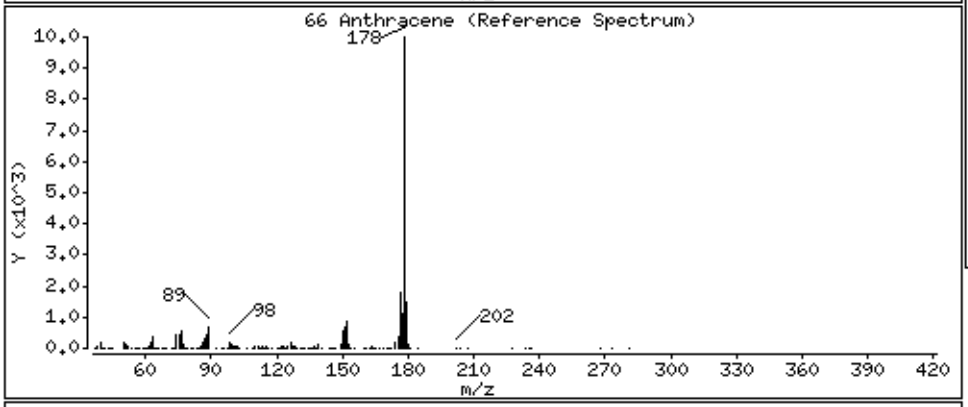
66 Anthracene Concentration: 11000 ug/Kg

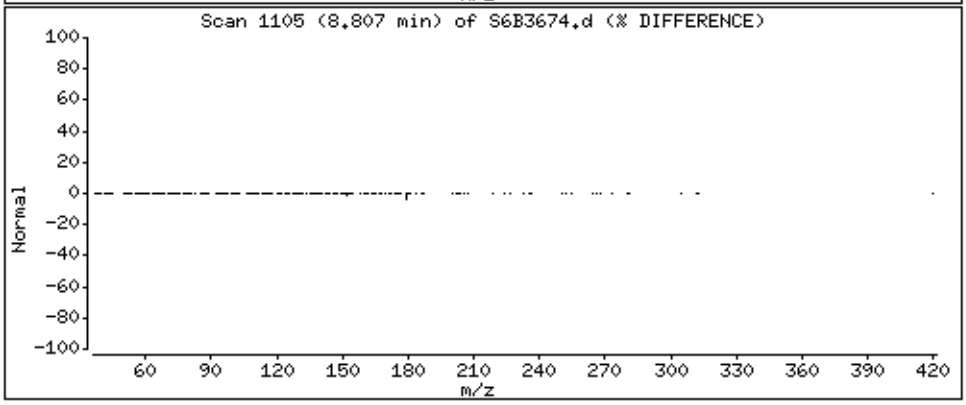












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

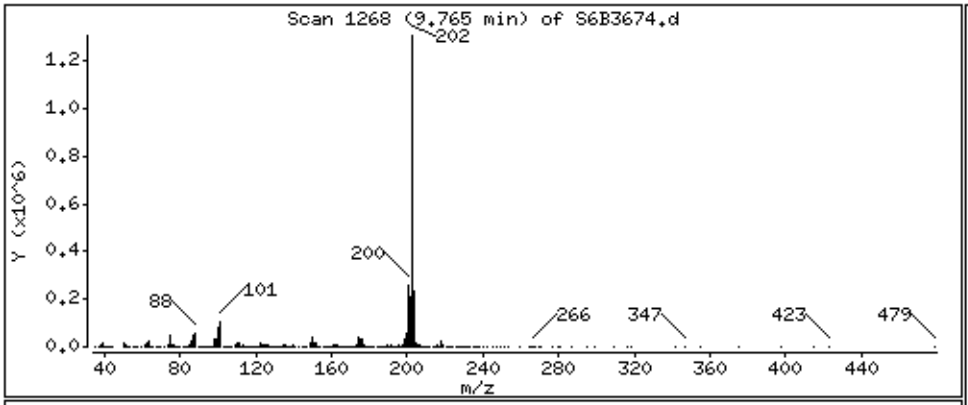
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

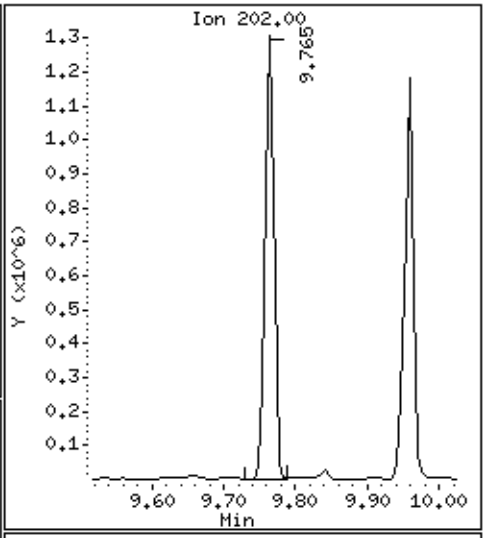
Sample Info: M0619-03ADL,,71418,,20

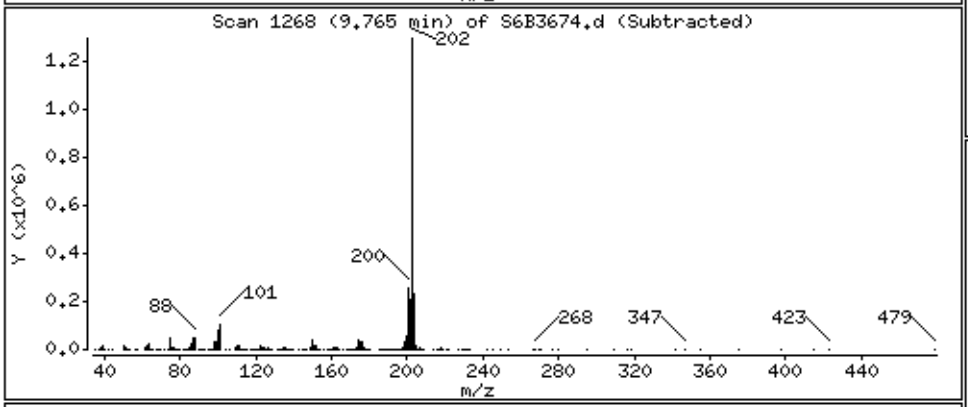
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

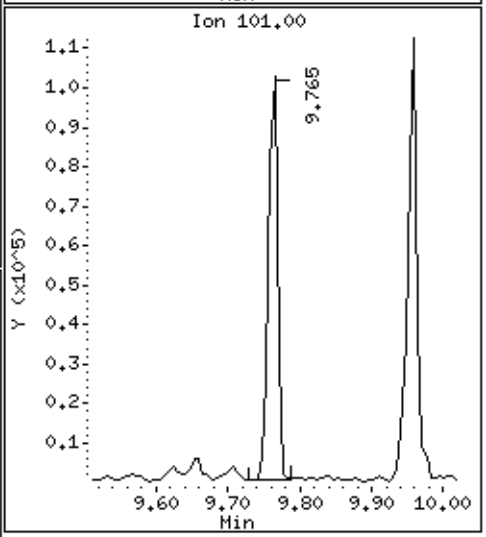
Column phase: Rxi-5Sil MS Column diameter: 0.25

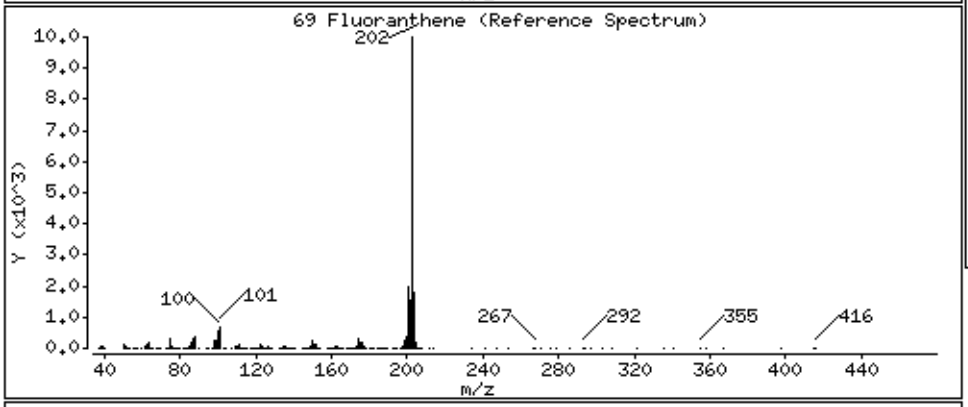
69 Fluoranthene Concentration: 30000 ug/Kg

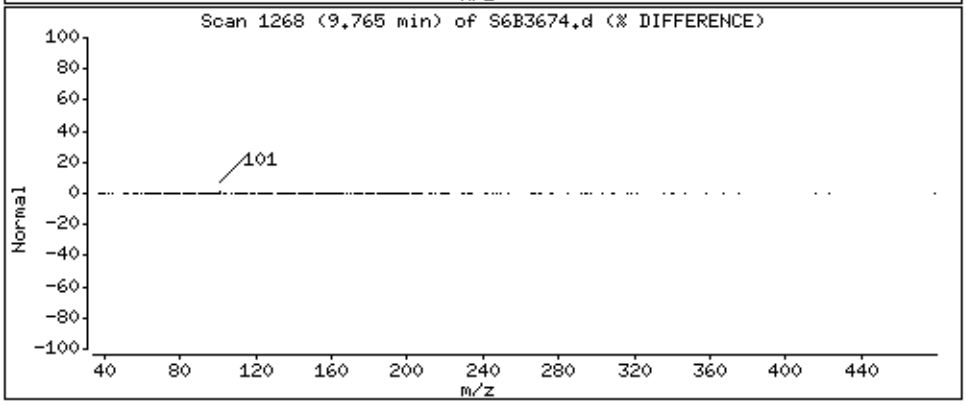












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

Client ID: SB-126 (10.5-12.5)D

Instrument: S6.i

Sample Info: M0619-03ADL,,71418,,20

Volume Injected (uL): 1.0

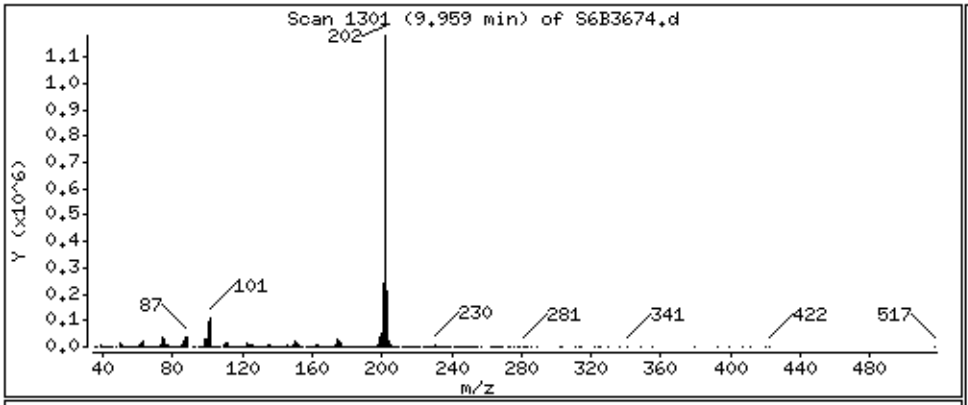
Operator: PK SRC: LIMS

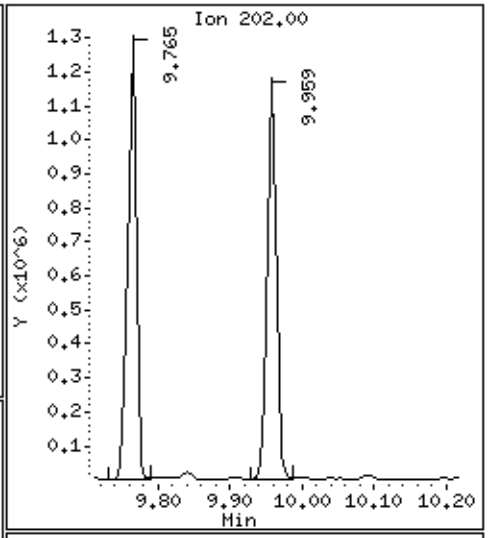
Column phase: Rxi-5Sil MS

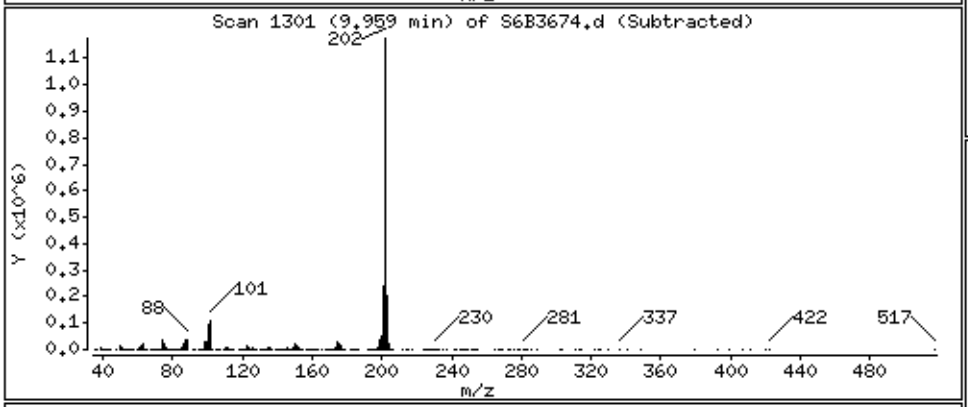
Column diameter: 0.25

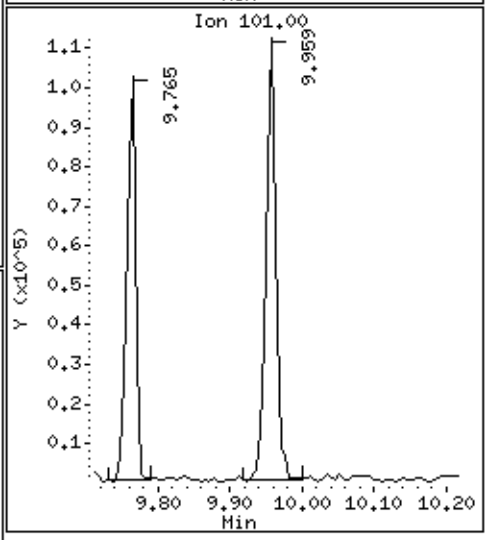
71 Pyrene

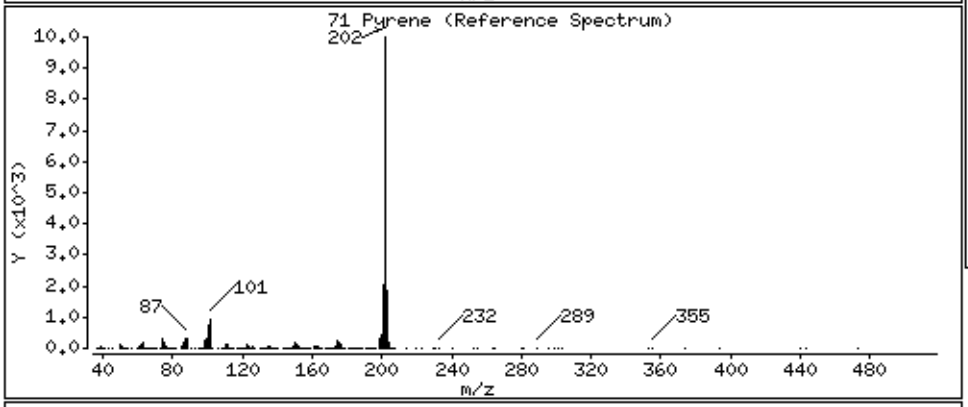
Concentration: 24000 ug/Kg

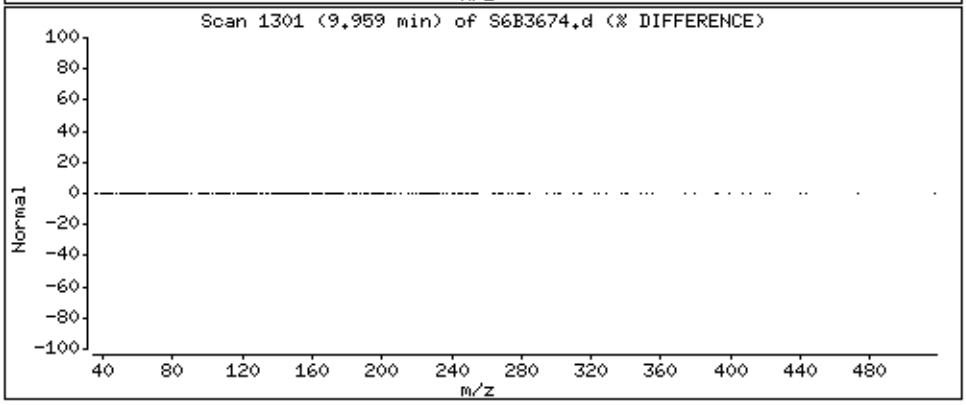












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

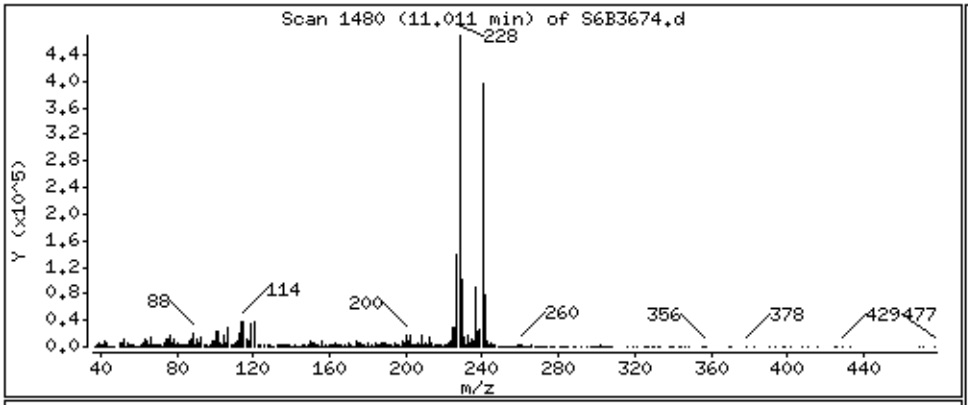
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

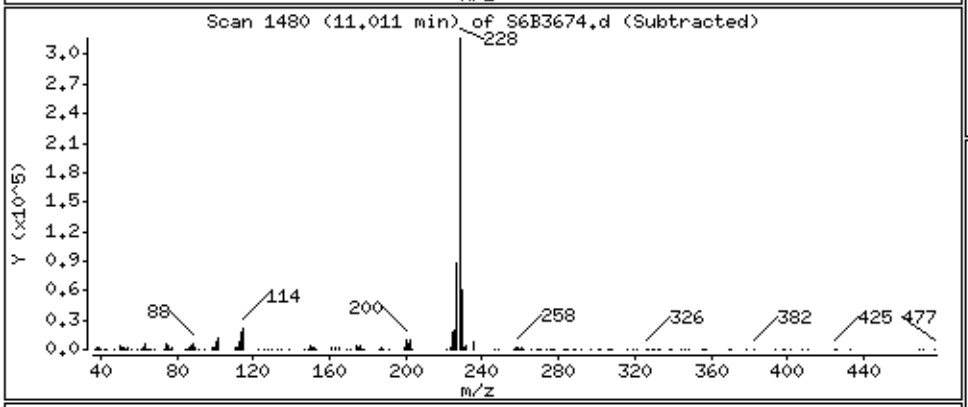
Sample Info: M0619-03ADL,,71418,,20

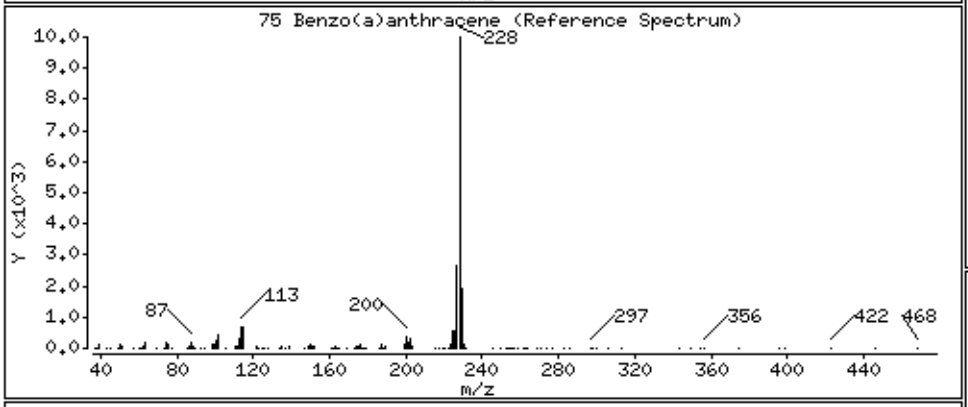
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

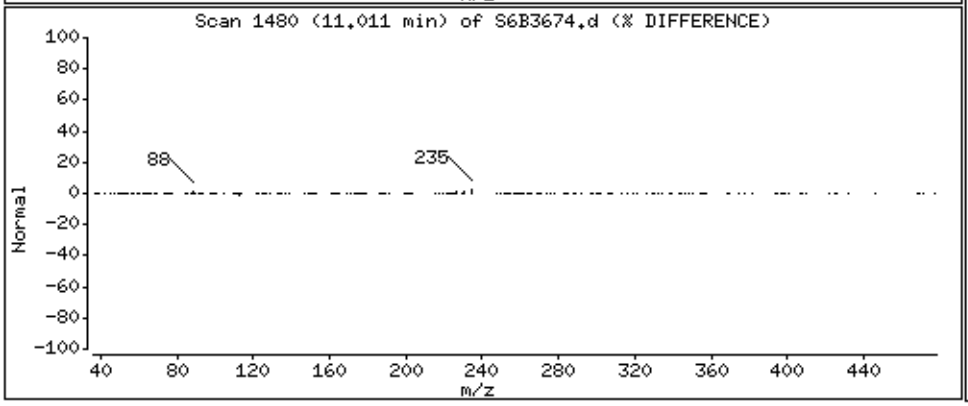
Column phase: Rxi-5Sil MS Column diameter: 0.25

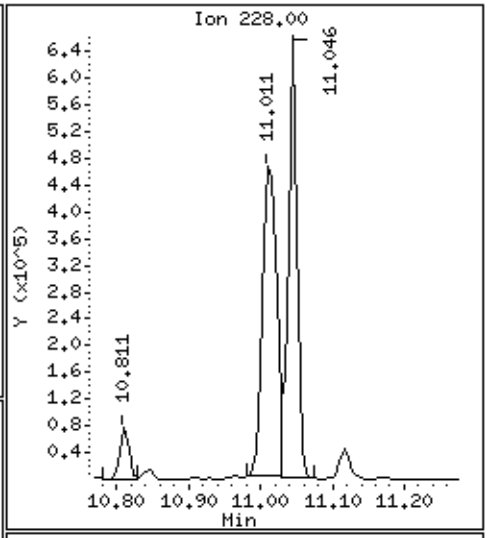
75 Benzo(a)anthracene Concentration: 14000 ug/Kg

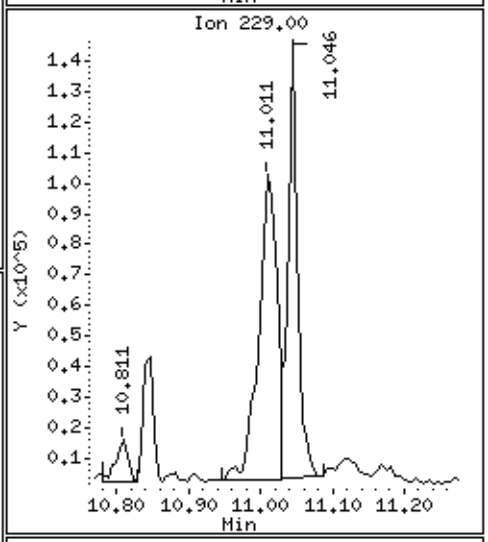


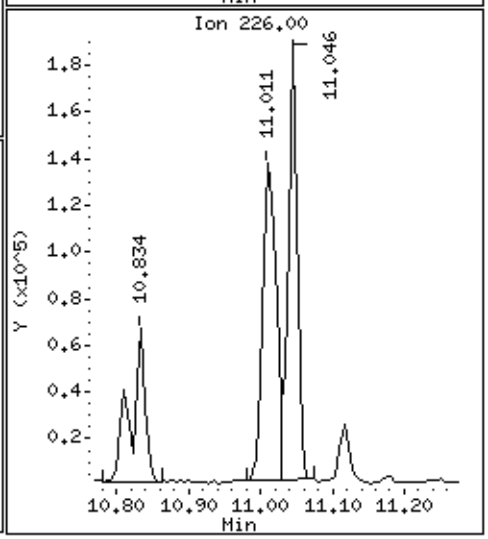












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

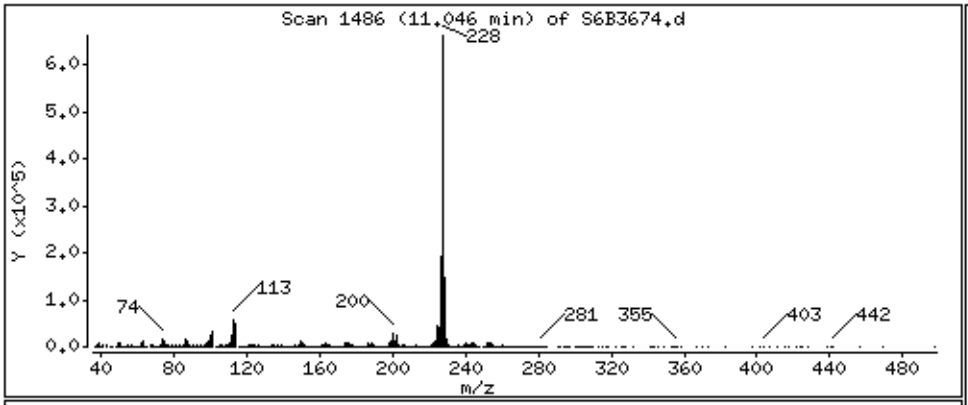
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

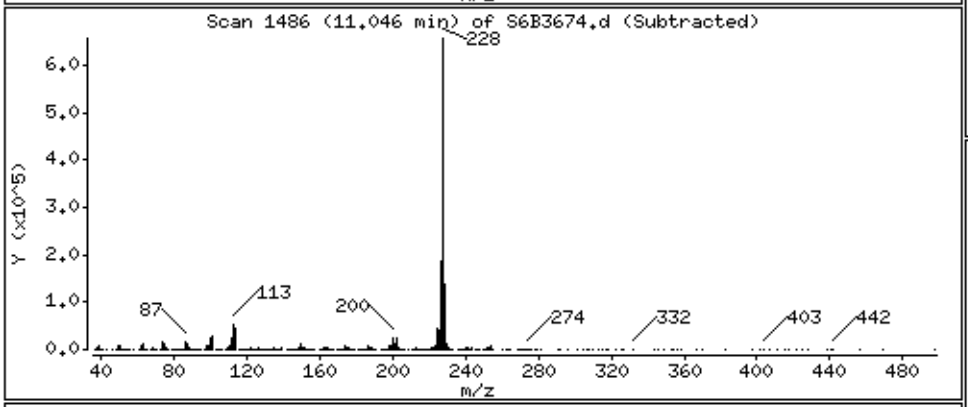
Sample Info: M0619-03ADL,,71418,,20

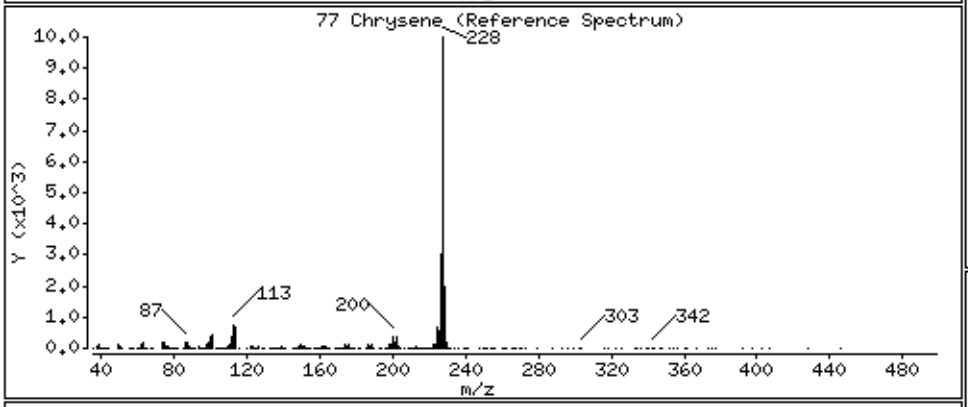
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

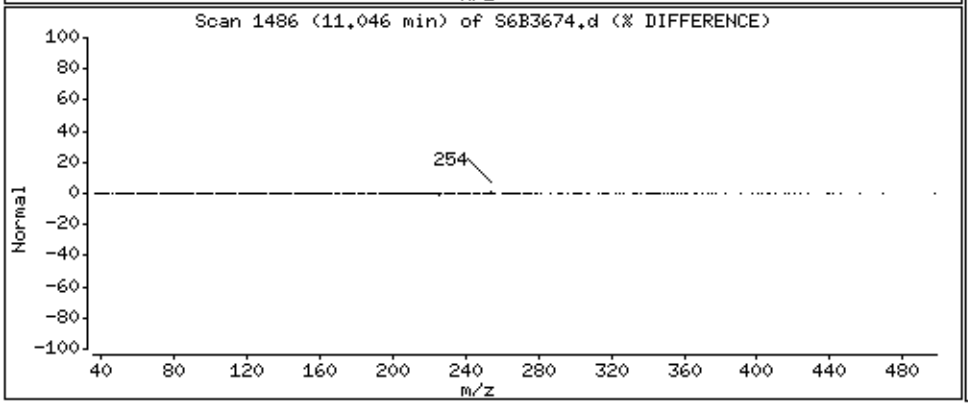
Column phase: Rxi-5Sil MS Column diameter: 0.25

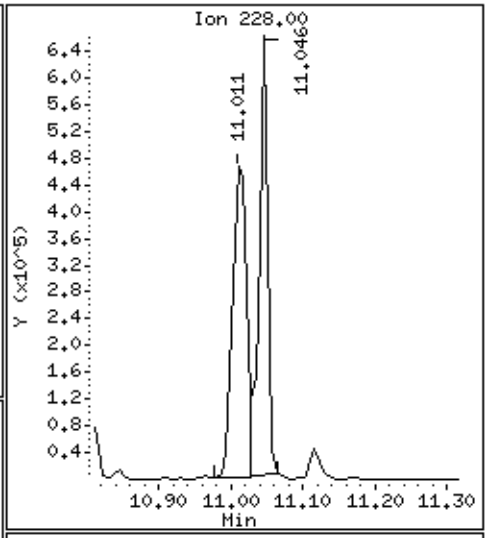
77 Chrysene Concentration: 15000 ug/Kg

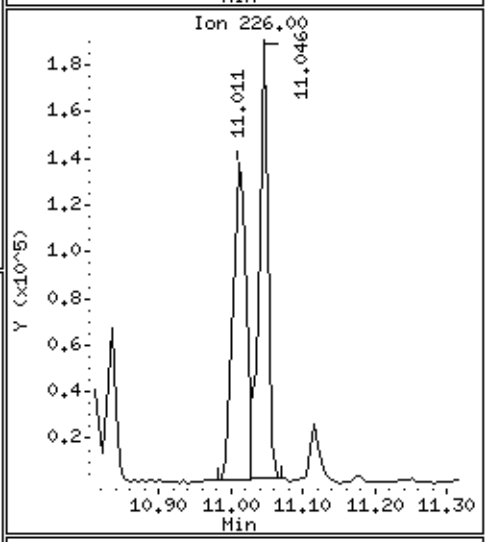


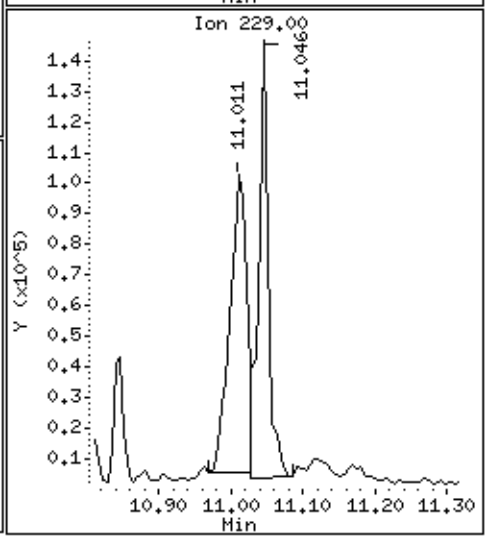












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

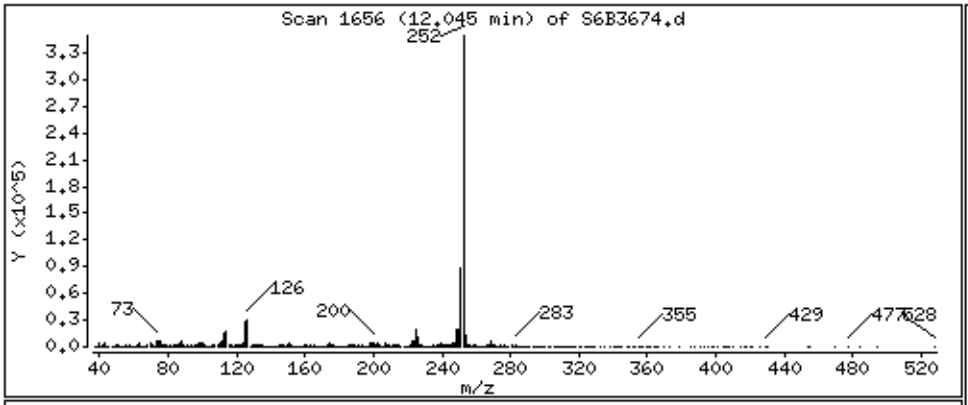
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

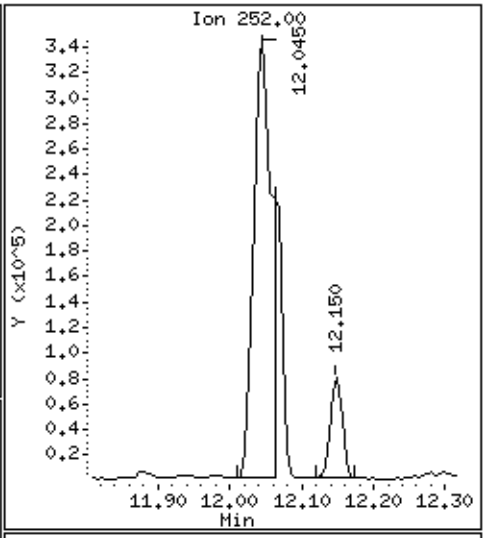
Sample Info: M0619-03ADL,,71418,,20

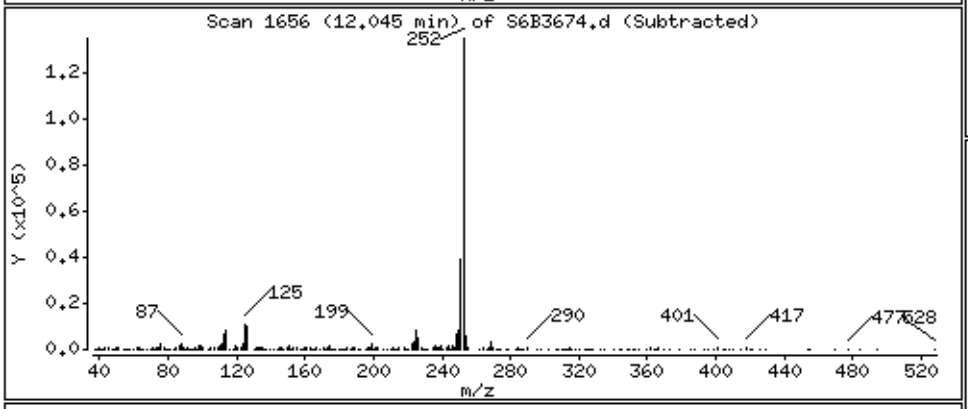
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

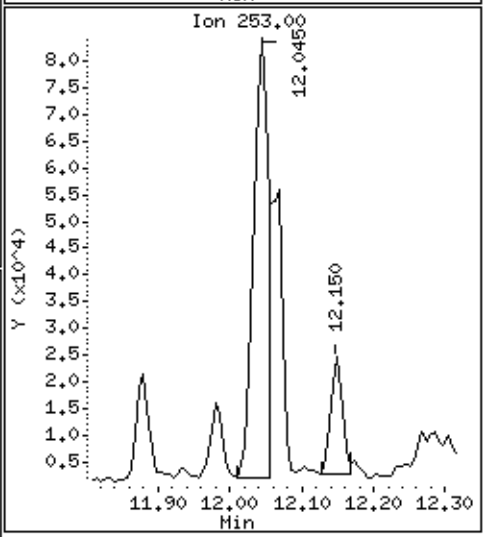
Column phase: Rxi-5Sil MS Column diameter: 0.25

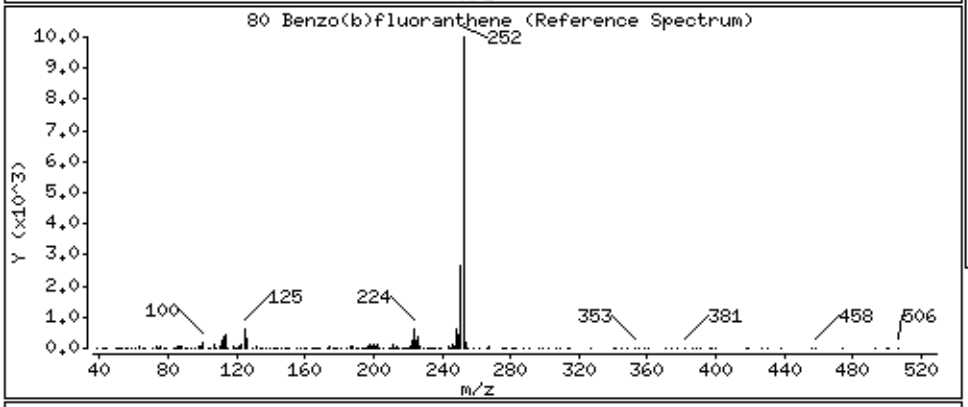
80 Benzo(b)fluoranthene Concentration: 11000 ug/Kg

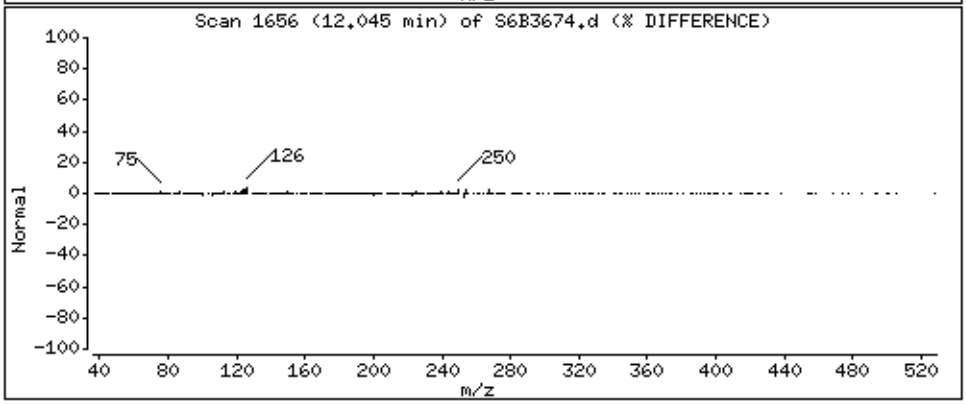












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

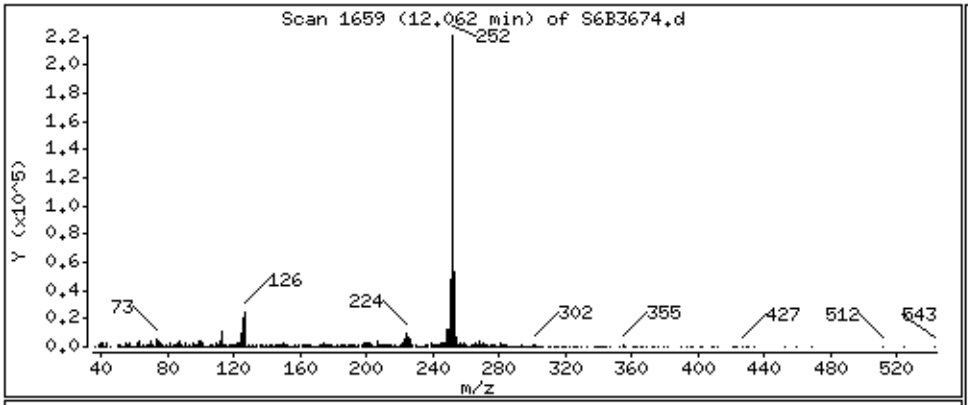
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

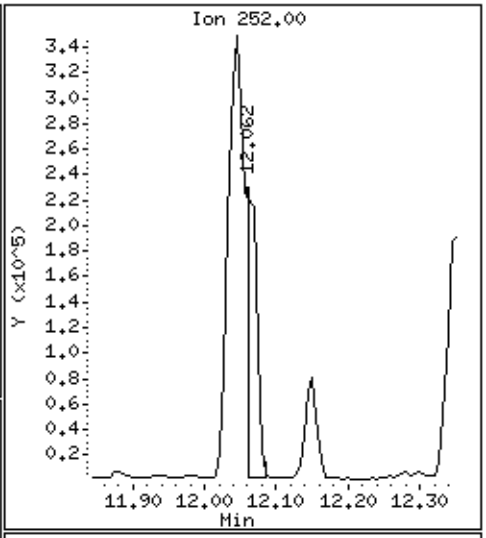
Sample Info: M0619-03ADL,,71418,,20

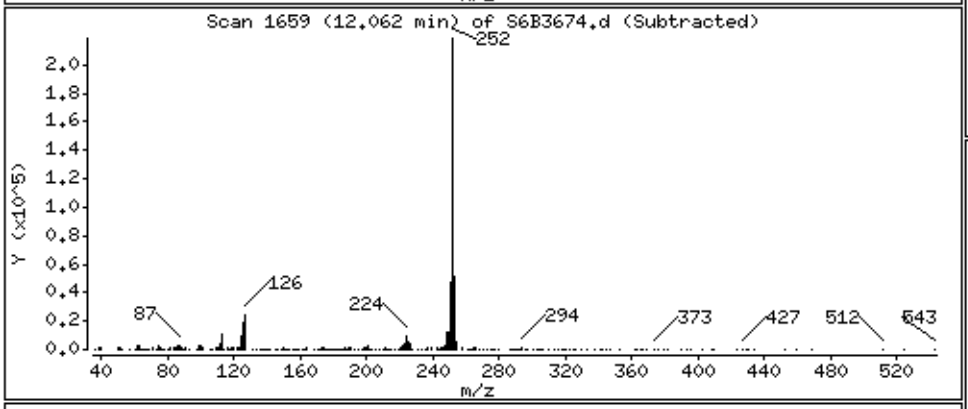
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

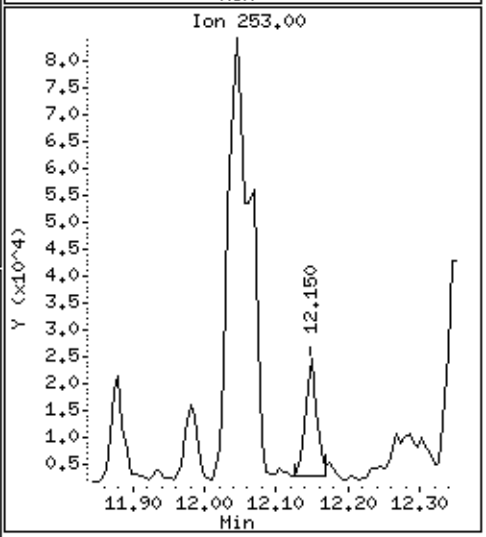
Column phase: Rxi-5Sil MS Column diameter: 0.25

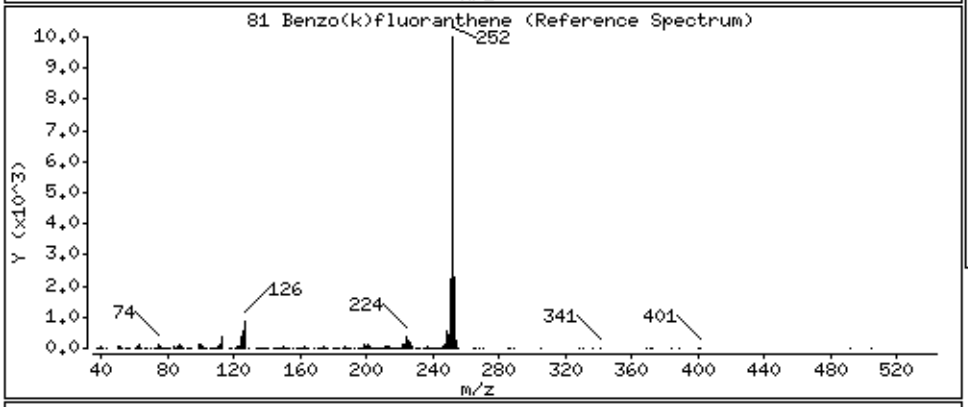
81 Benzo(k)fluoranthene Concentration: 4000 ug/Kg

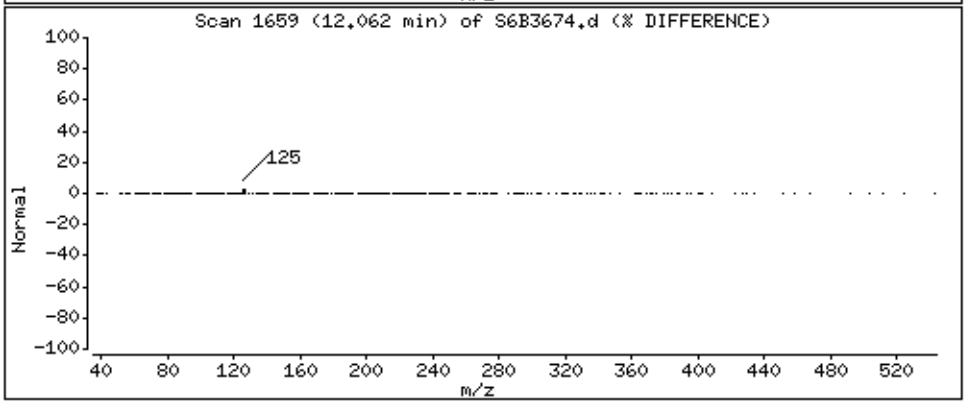












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

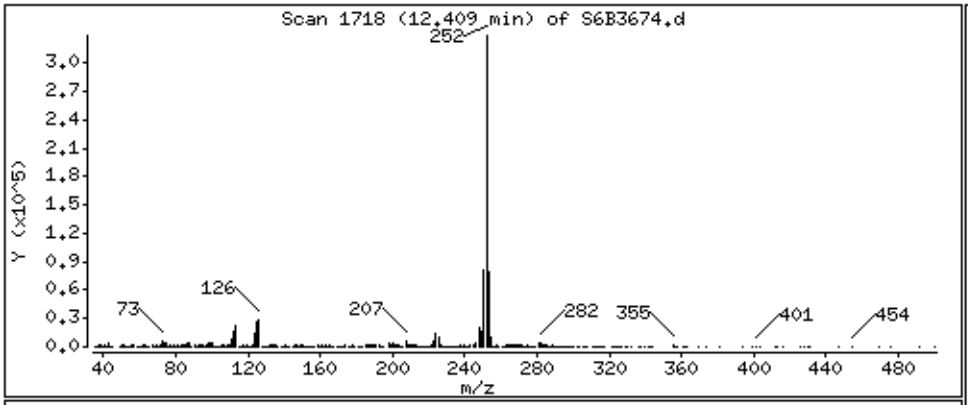
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

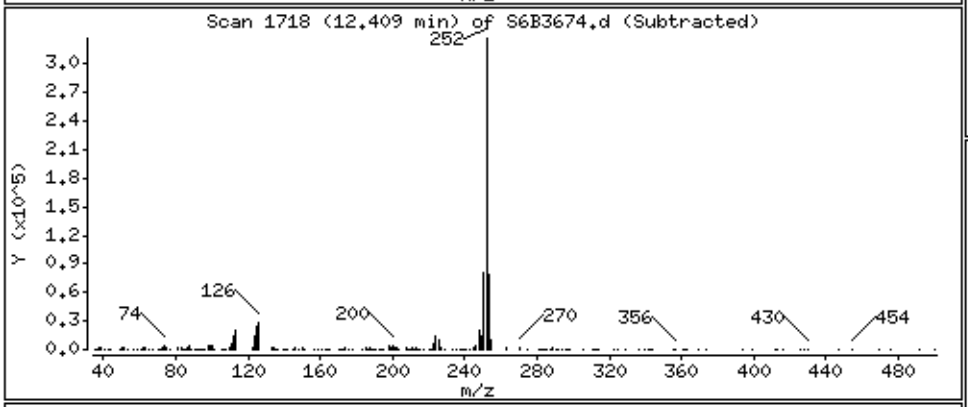
Sample Info: M0619-03ADL,,71418,,20

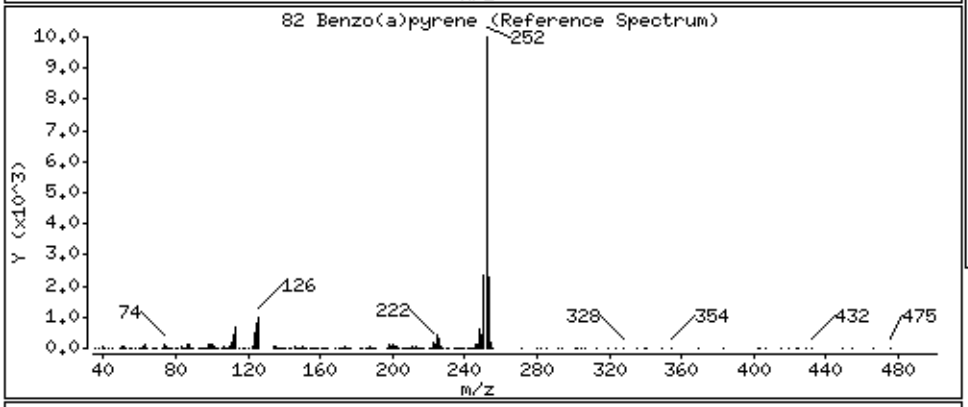
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

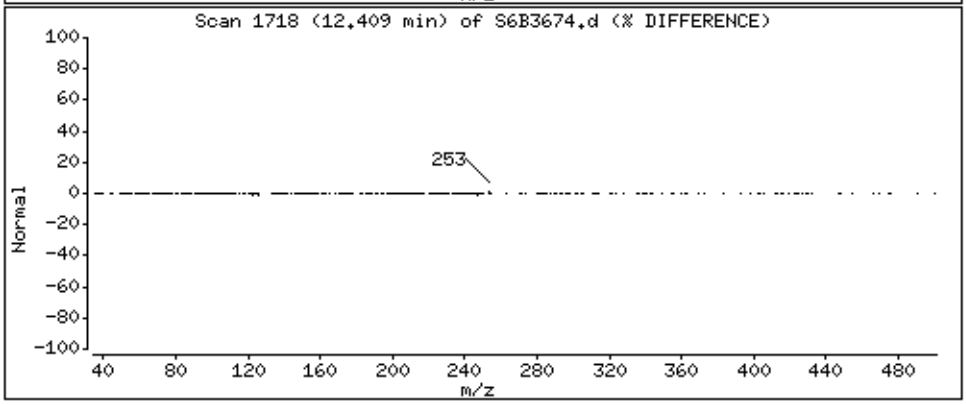
Column phase: Rxi-5Sil MS Column diameter: 0.25

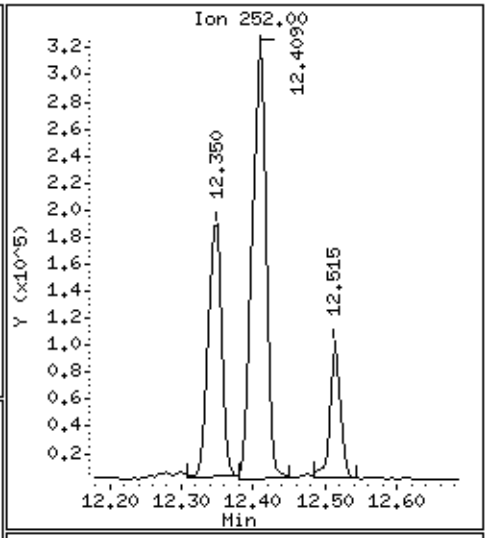
82 Benzo(a)pyrene Concentration: 9300 ug/Kg

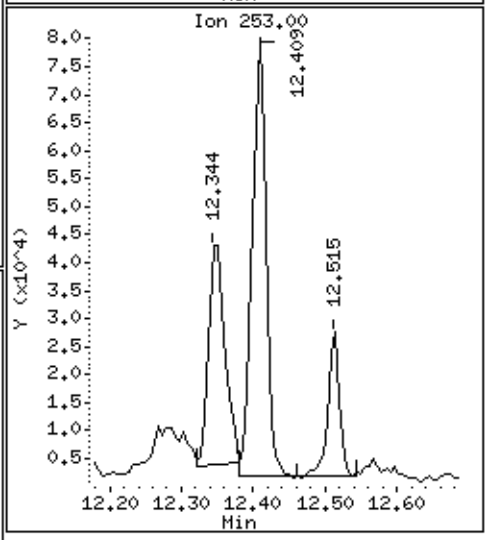












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

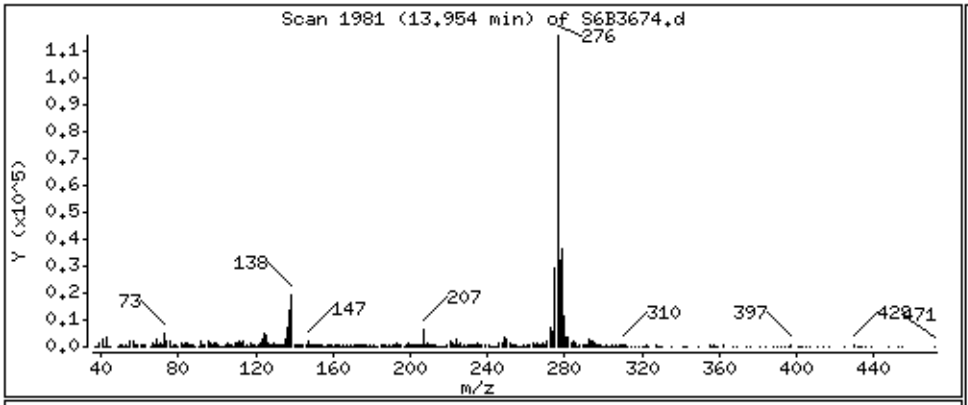
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

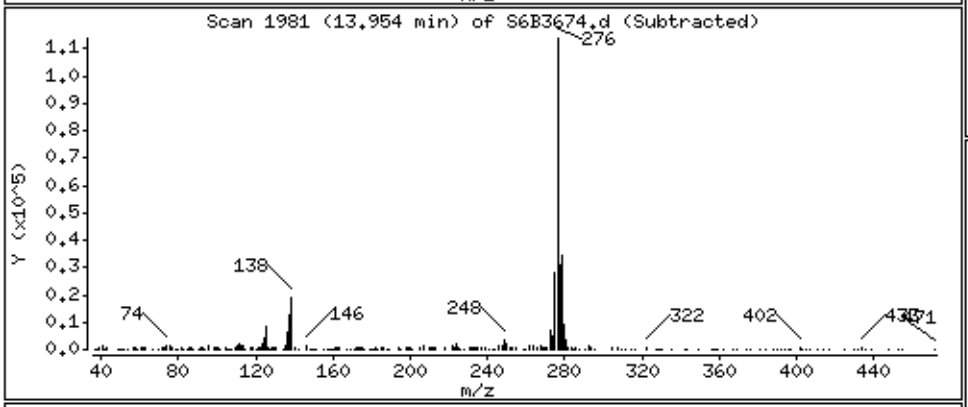
Sample Info: M0619-03ADL,,71418,,20

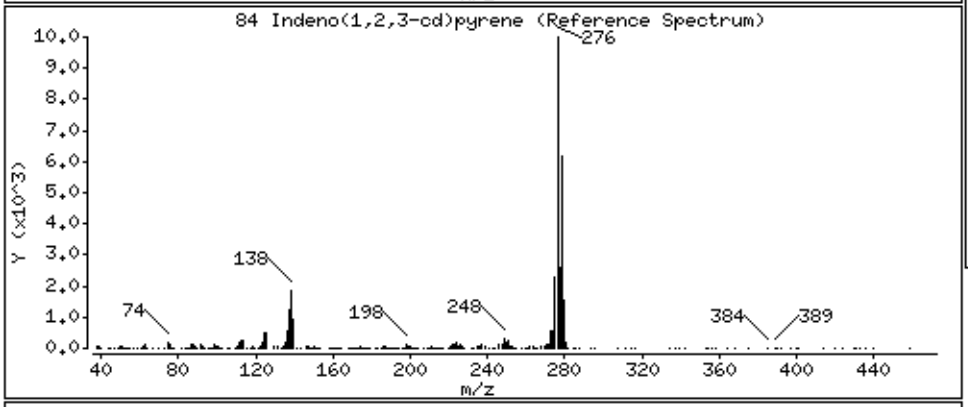
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

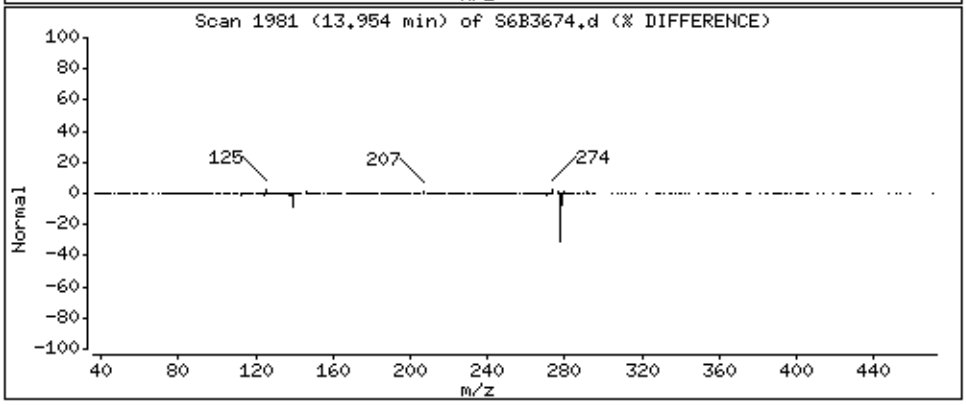
Column phase: Rxi-5Sil MS Column diameter: 0.25

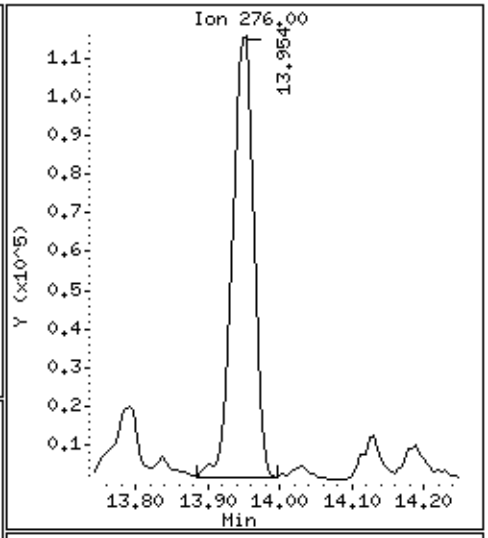
84 Indeno(1,2,3-cd)pyrene Concentration: 4100 ug/Kg

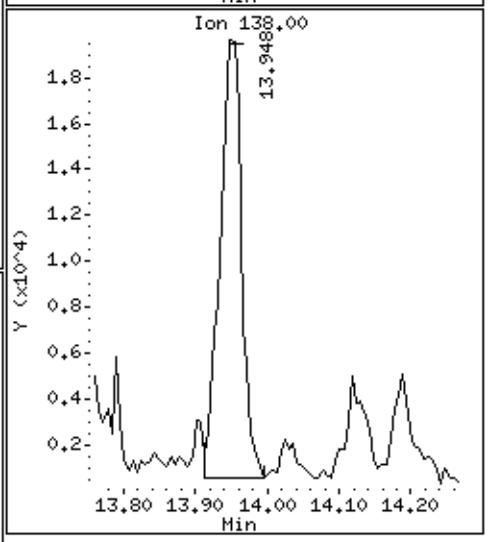












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

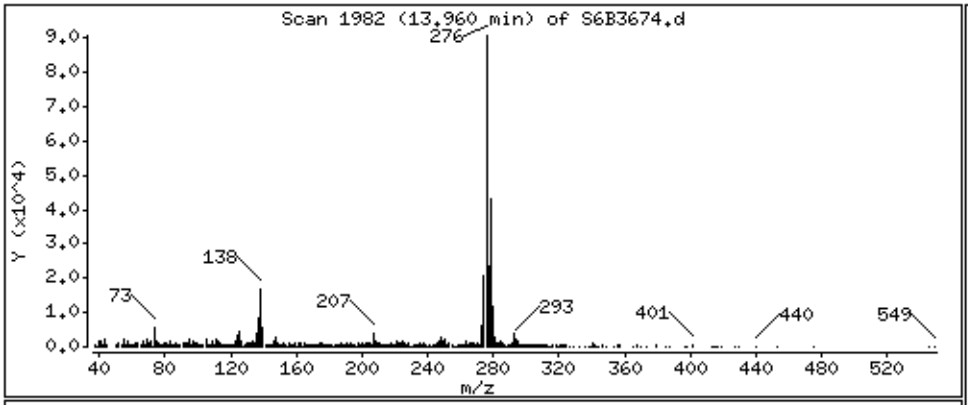
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

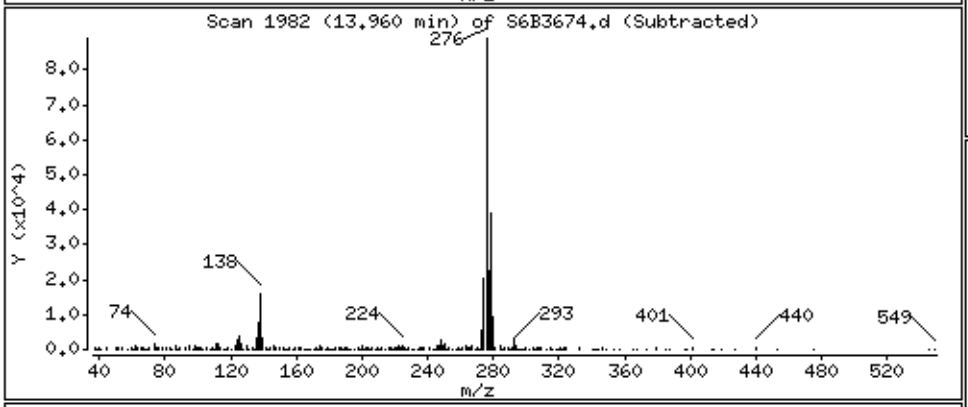
Sample Info: M0619-03ADL,,71418,,20

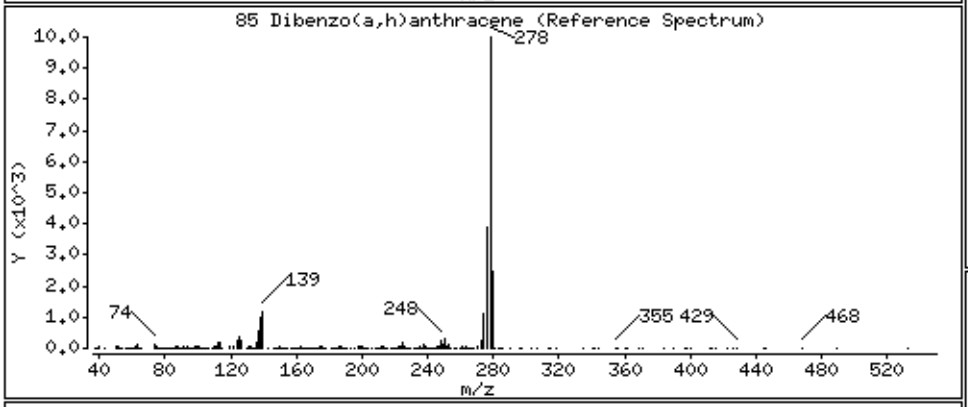
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

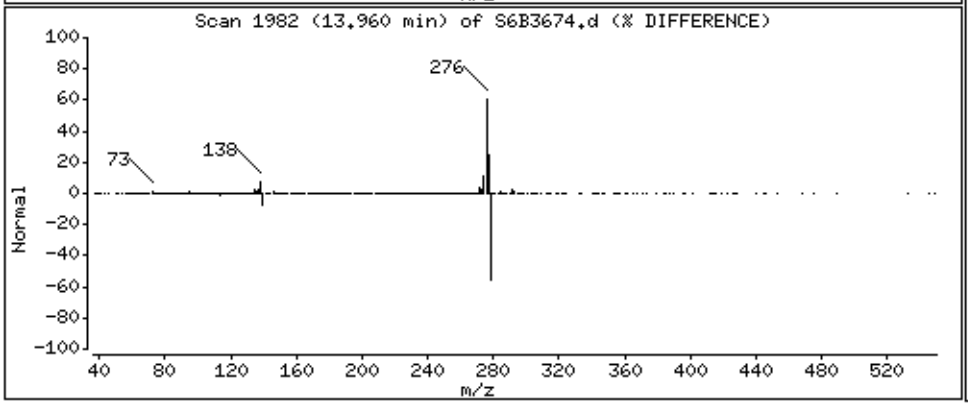
Column phase: Rxi-5Sil MS Column diameter: 0.25

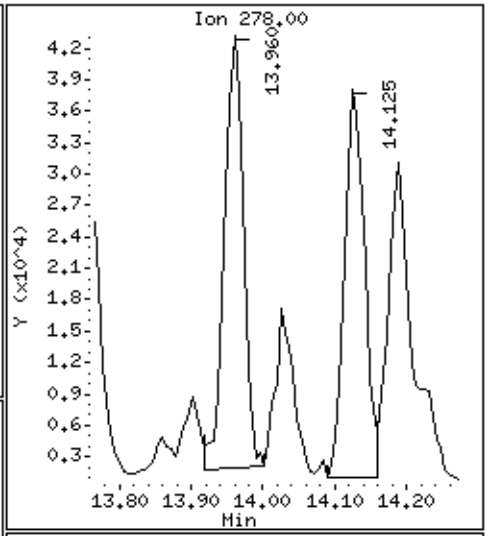
85 Dibenzo(a,h)anthracene Concentration: 1600 ug/Kg

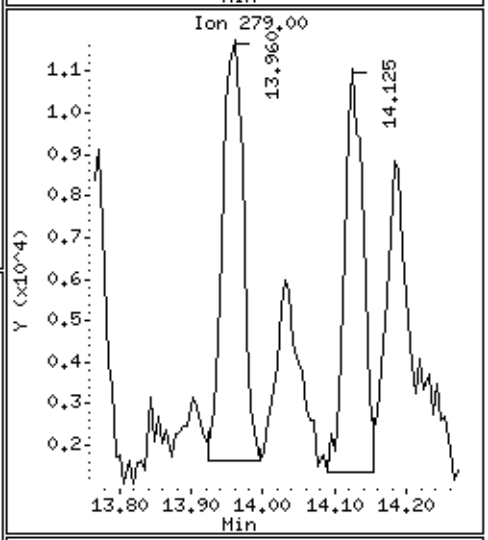


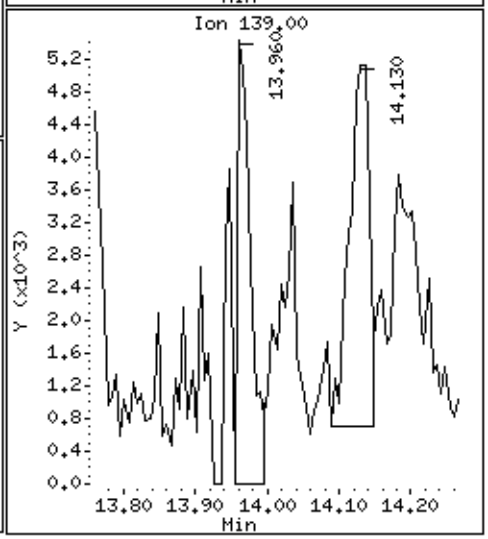












Data File: \\avogadro\organics\S6.I\130507.B\S6B3674.d

Date : 07-MAY-2013 12:33

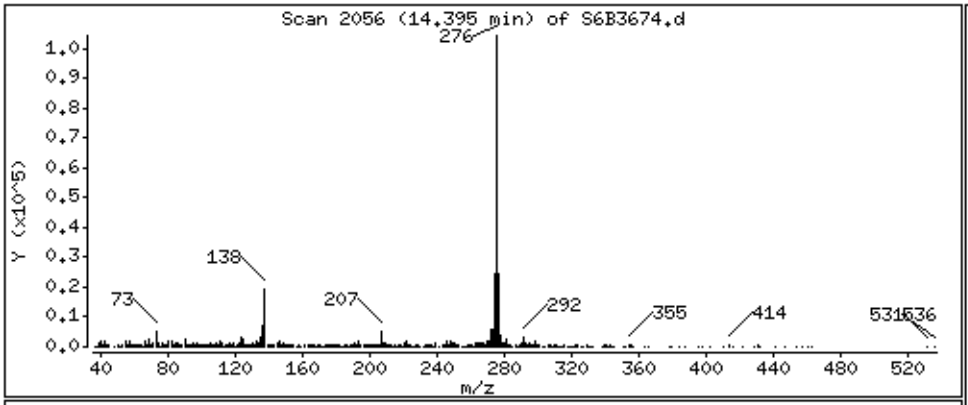
Client ID: SB-126 (10.5-12.5)D Instrument: S6.i

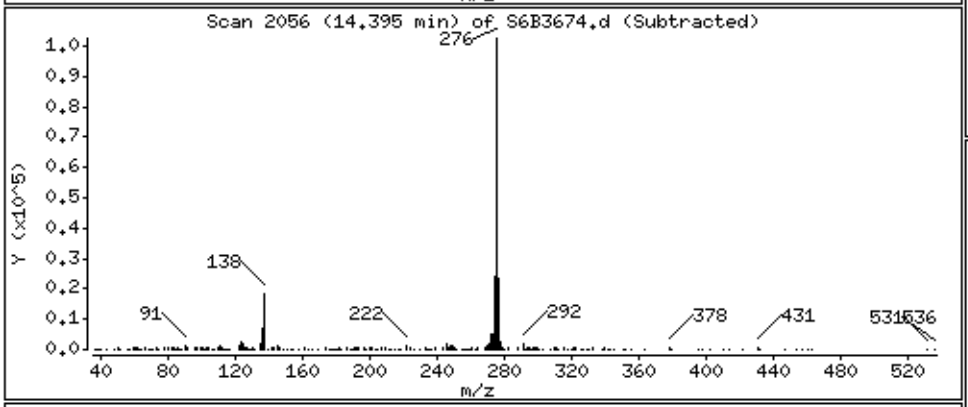
Sample Info: M0619-03ADL,,71418,,20

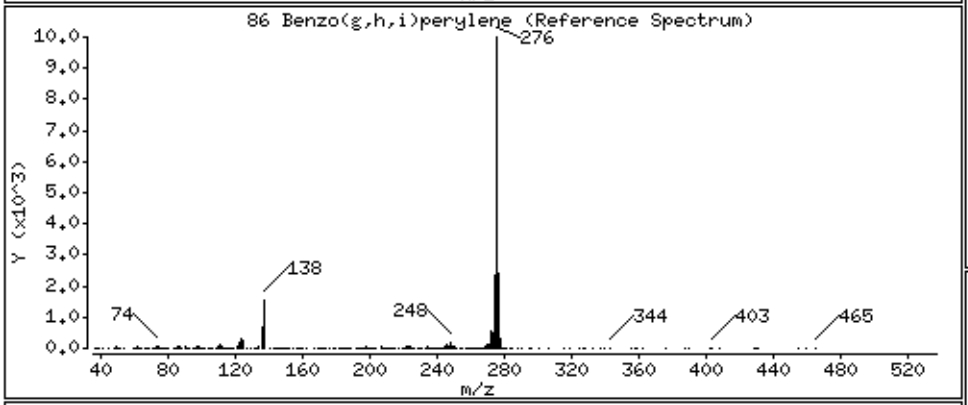
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

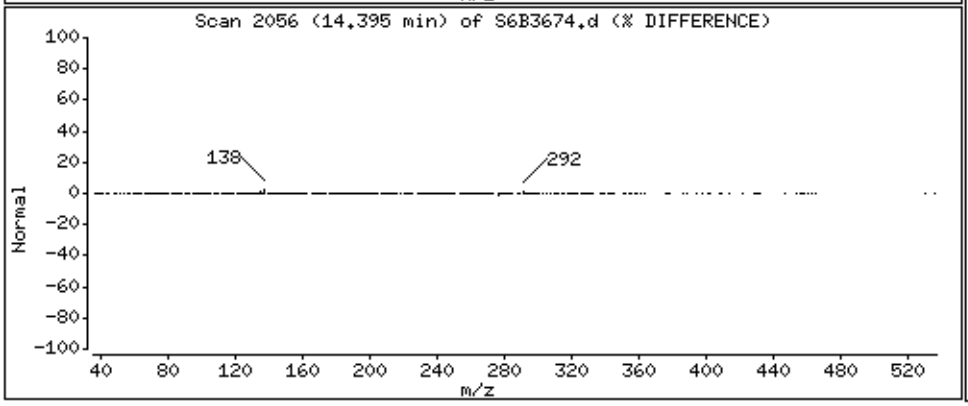
Column phase: Rxi-5Sil MS Column diameter: 0.25

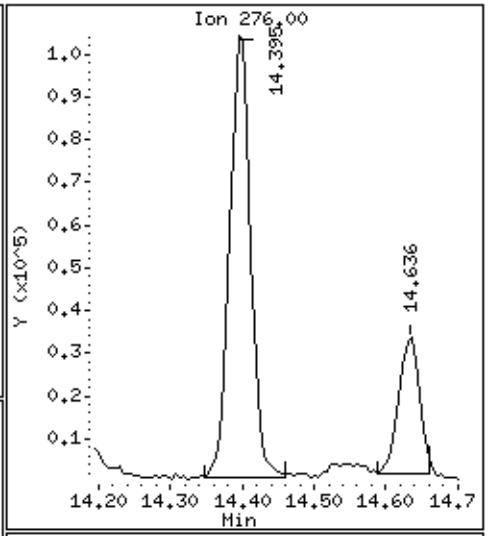
86 Benzo(g,h,i)perylene Concentration: 4400 ug/Kg

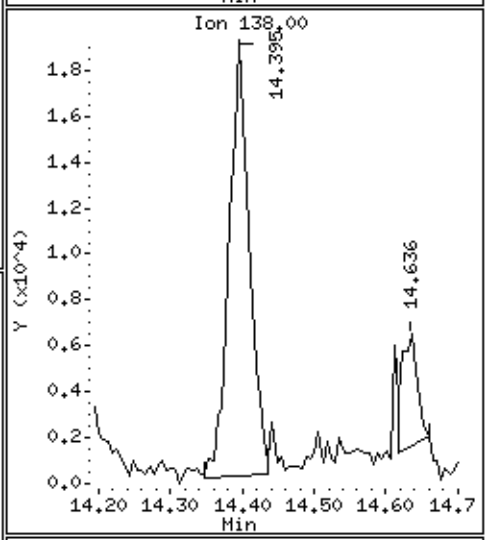


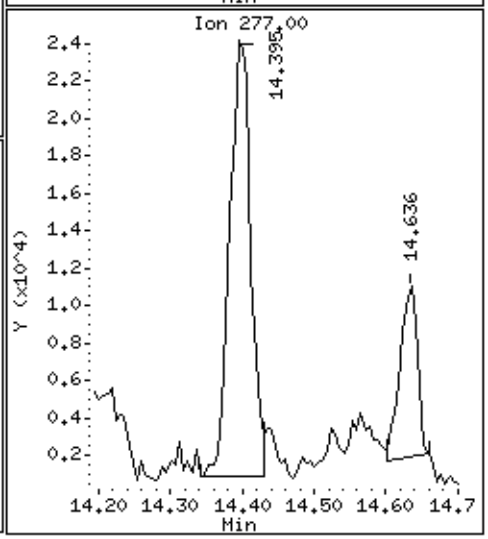












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-127 (3-5)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-04A

Sample wt/vol: 15.5 (g/mL) G Lab File ID: S6B3651.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	360	U
91-57-6	2-Methylnaphthalene	360	U
208-96-8	Acenaphthylene	360	U
83-32-9	Acenaphthene	360	U
86-73-7	Fluorene	360	U
85-01-8	Phenanthrene	210	J
120-12-7	Anthracene	360	U
206-44-0	Fluoranthene	390	
129-00-0	Pyrene	440	
56-55-3	Benzo(a)anthracene	240	J
218-01-9	Chrysene	300	J
205-99-2	Benzo(b)fluoranthene	270	J
207-08-9	Benzo(k)fluoranthene	130	J
50-32-8	Benzo(a)pyrene	210	J
193-39-5	Indeno(1,2,3-cd)pyrene	130	J
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	140	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3651.d
Lab Smp Id: M0619-04A Client Smp ID: SB-127 (3-5)
Inj Date : 06-MAY-2013 19:14
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-04A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

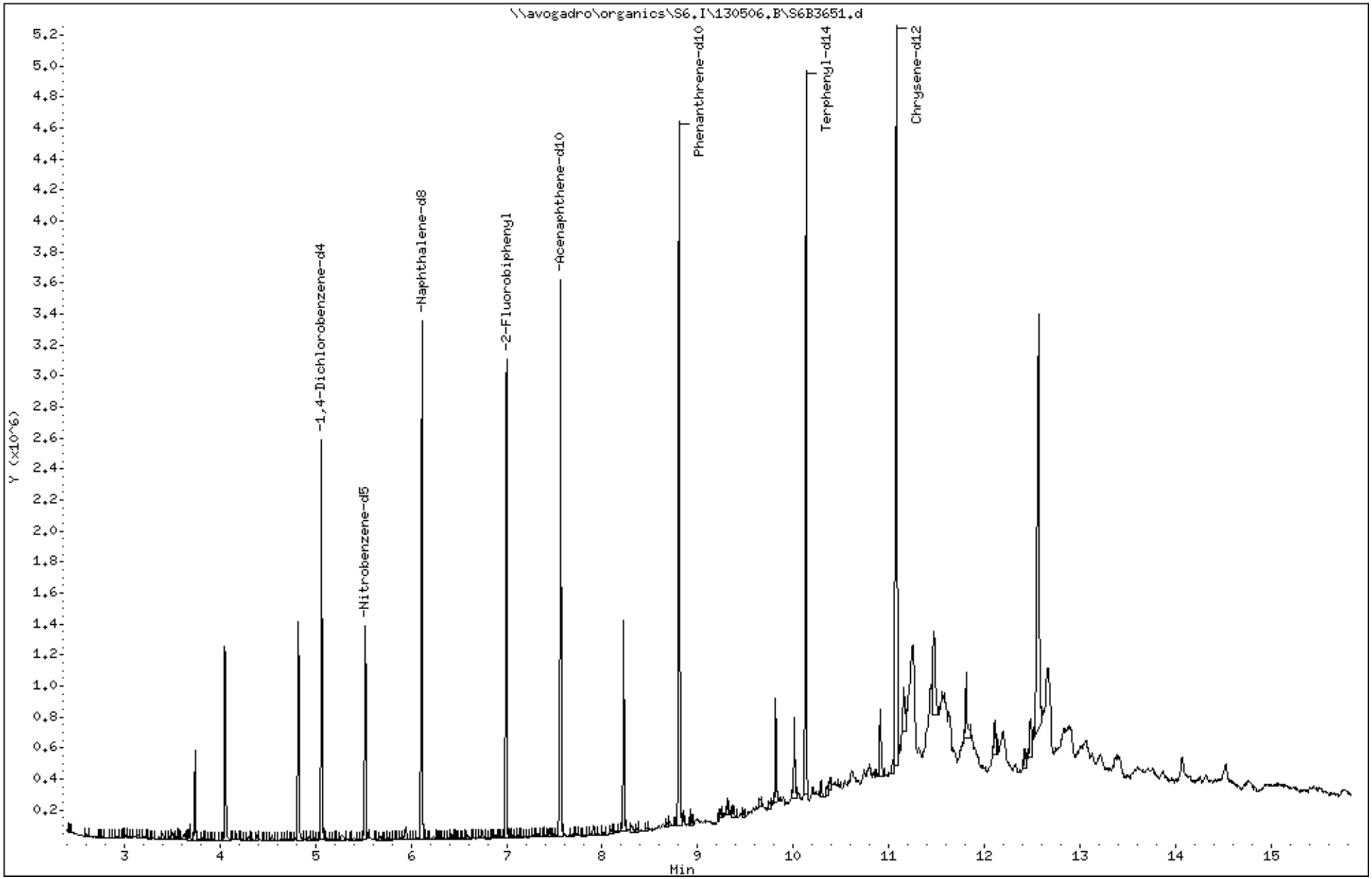
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	317870	40.0000	
$	22 Nitrobenzene-d5	82	5.520	5.519	(0.903)	419525	41.0784	2600
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	1142916	40.0000	
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	855100	39.0244	2500
*	48 Acenaphthene-d10	164	7.564	7.570	(1.000)	750182	40.0000	
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1449053	40.0000	
	65 Phenanthrene	178	8.822	8.827	(1.002)	92854	2.80364	180(a)
	69 Fluoranthene	202	9.815	9.826	(1.115)	217718	5.37153	350(a)
	71 Pyrene	202	10.008	10.020	(0.903)	207910	6.02576	390(a)
$	72 Terphenyl-d14	244	10.132	10.138	(0.915)	1230570	49.6997	3200
	75 Benzo(a)anthracene	228	11.060	11.083	(0.998)	125063	3.28961	210(aH)
*	76 Chrysene-d12	240	11.078	11.101	(1.000)	1650216	40.0000	
	77 Chrysene	228	11.095	11.125	(1.002)	128795	4.05060	260(a)
	80 Benzo(b)fluoranthene	252	12.130	12.141	(0.962)	66253	1.64140	100(aQH)
	81 Benzo(k)fluoranthene	252	12.130	12.170	(0.962)	66253	1.75114	110(aQH)
	82 Benzo(a)pyrene	252	12.482	12.517	(0.990)	103175	2.86376	180(a)
*	83 Perylene-d12	264	12.564	12.593	(1.000)	1544137	40.0000	(H)
	84 Indeno(1,2,3-cd)pyrene	276	14.063	14.115	(1.116)	76260	1.70810	110(aH)
	86 Benzo(g,h,i)perylene	276	14.527	14.579	(1.152)	71514	1.96961	130(aH)

Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d
Report Date: 07-May-2013 10:02

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d
Date : 06-MAY-2013 19:14
Client ID: SB-127 (3-5)
Instrument: S6.i
Sample Info: M0619-04A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

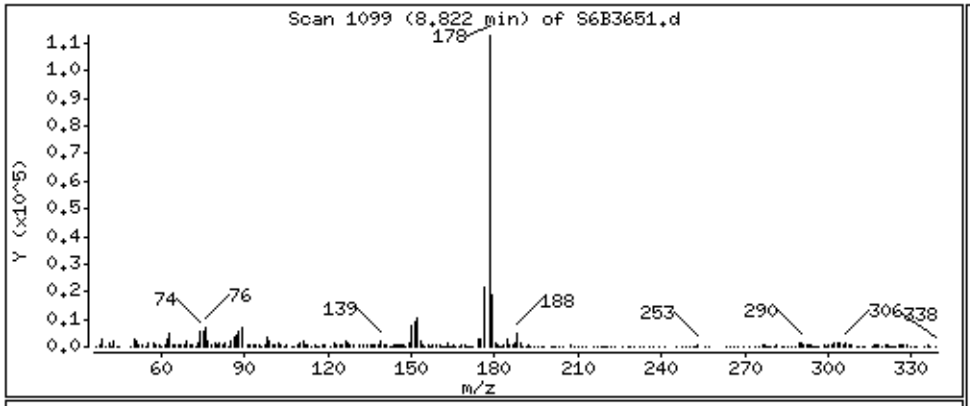
Operator: PK SRC: LIMS

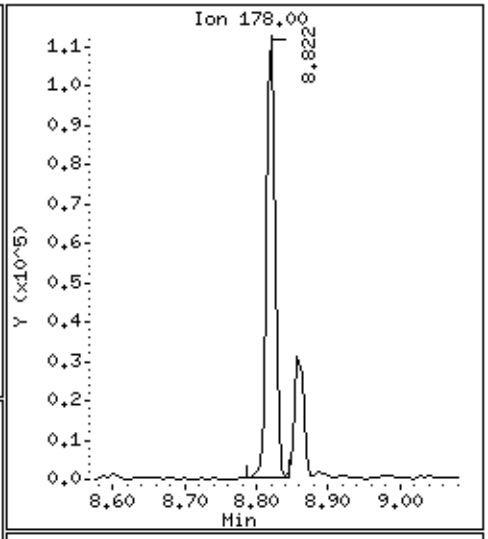
Column phase: Rxi-5Sil MS

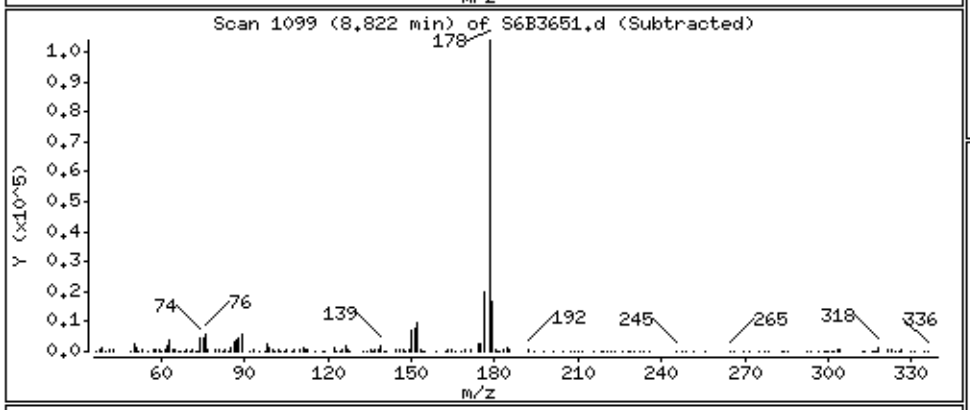
Column diameter: 0.25

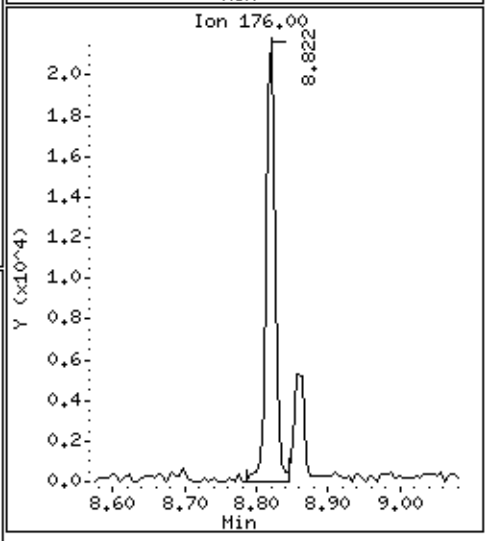
65 Phenanthrene

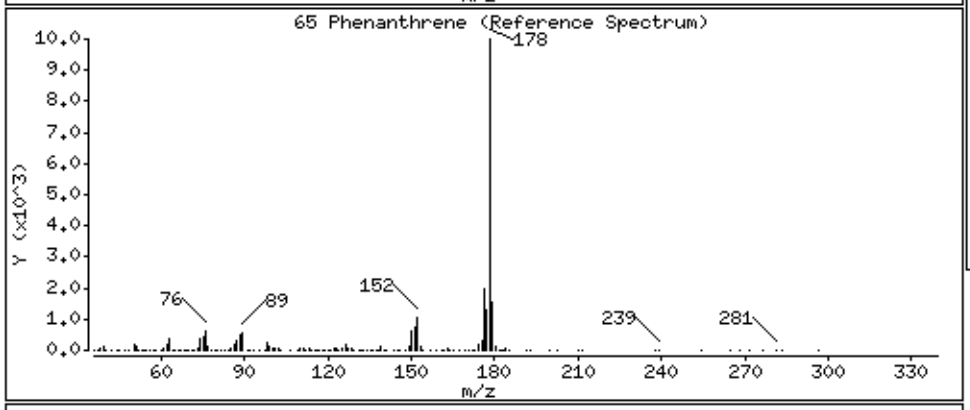
Concentration: 180 ug/Kg

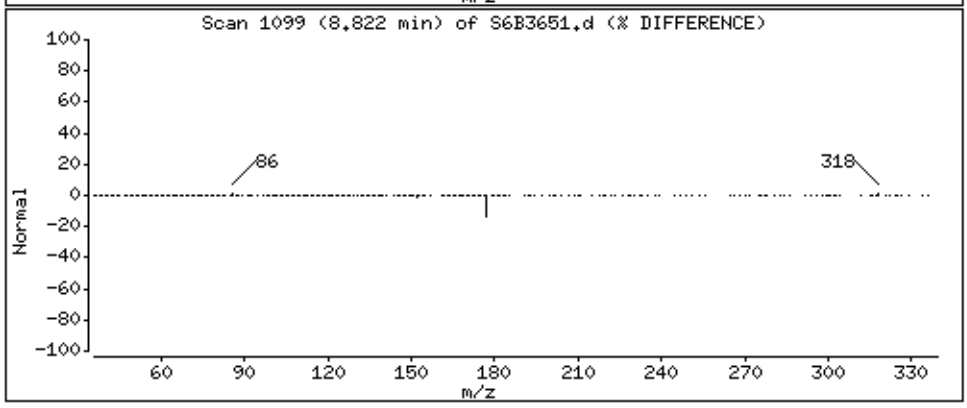












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

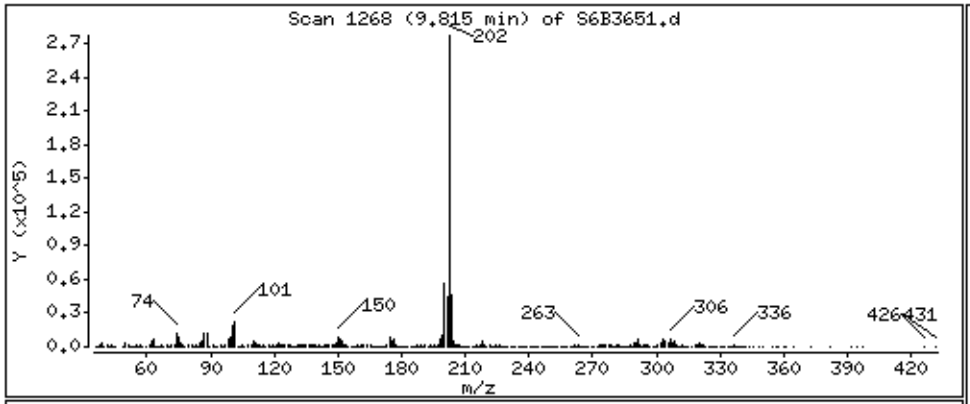
Operator: PK SRC: LIMS

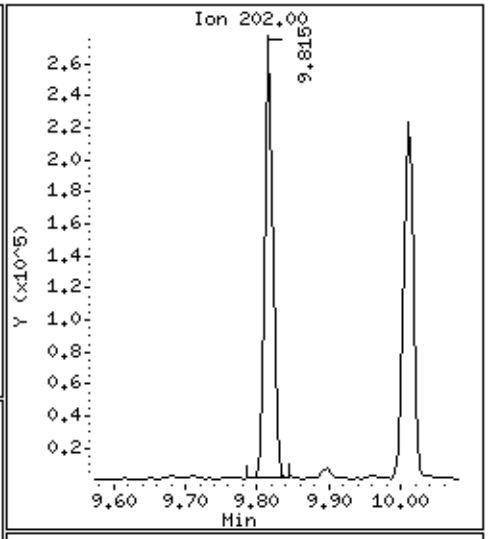
Column phase: Rxi-5Sil MS

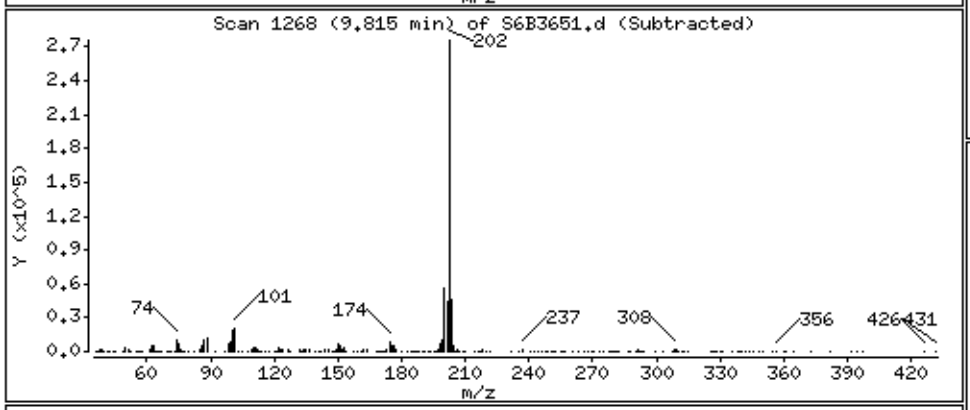
Column diameter: 0.25

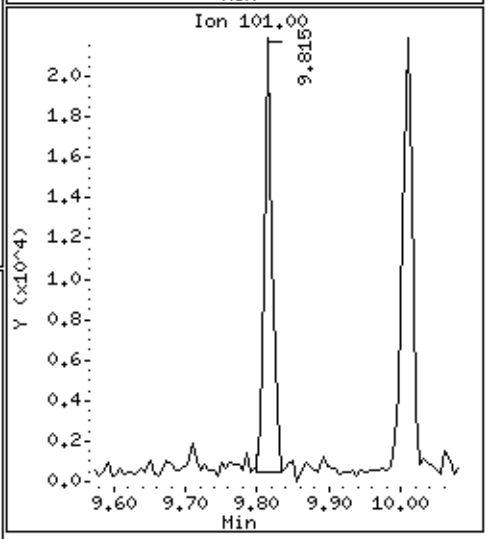
69 Fluoranthene

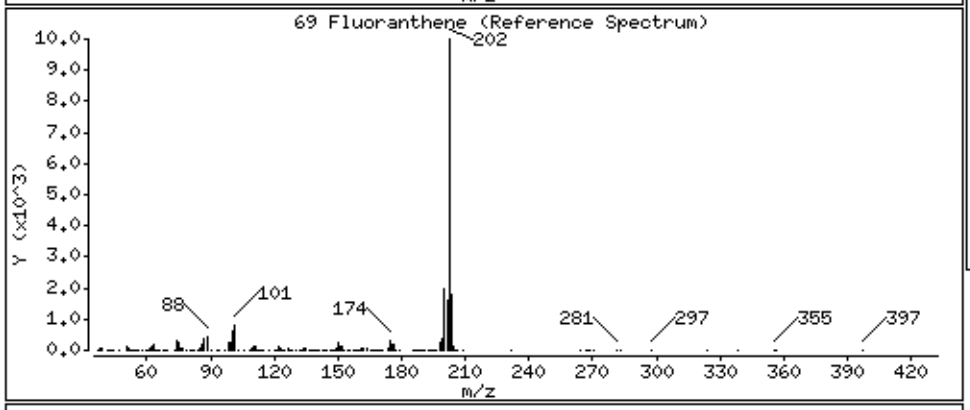
Concentration: 350 ug/Kg

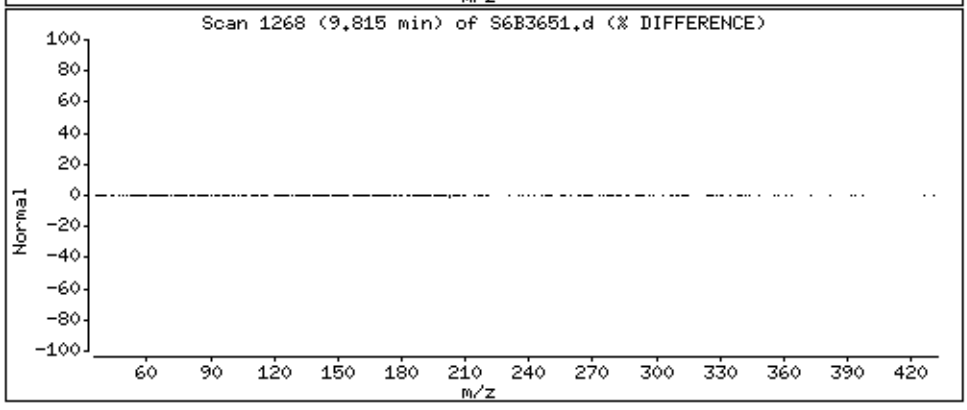












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

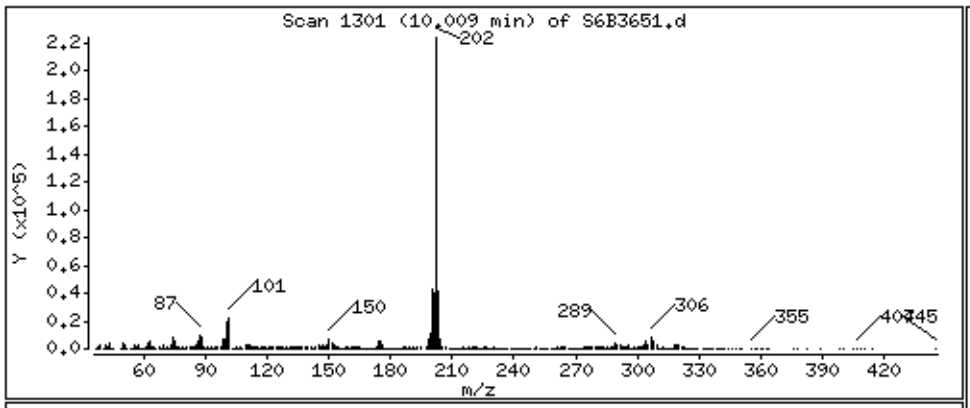
Operator: PK SRC: LIMS

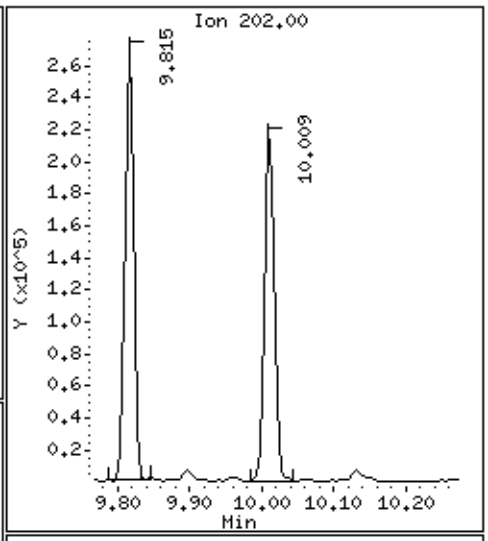
Column phase: Rxi-5Sil MS

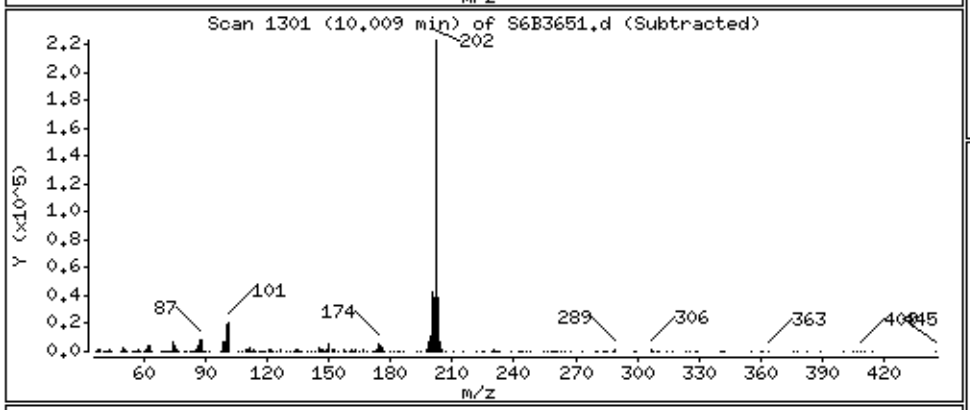
Column diameter: 0.25

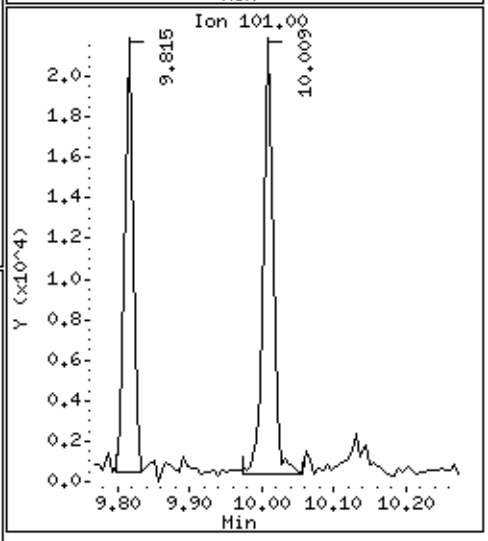
71 Pyrene

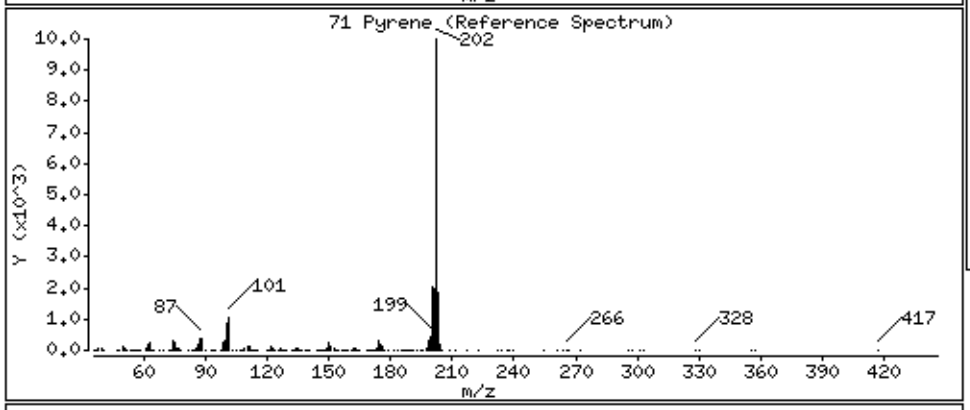
Concentration: 390 ug/Kg

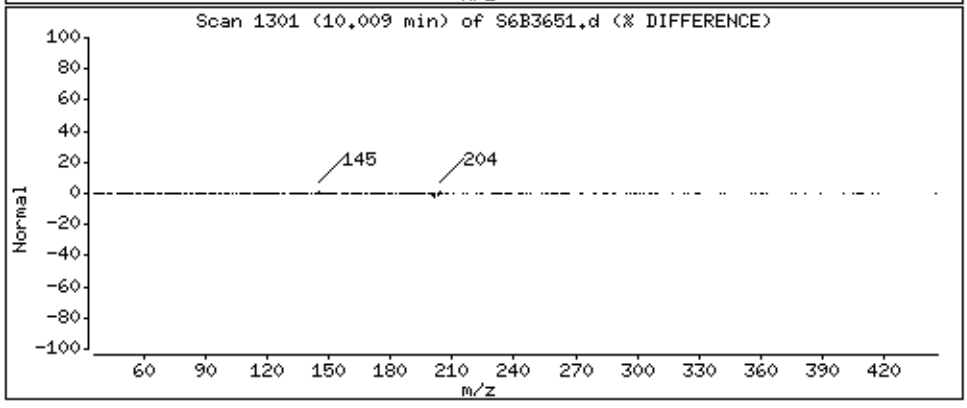












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

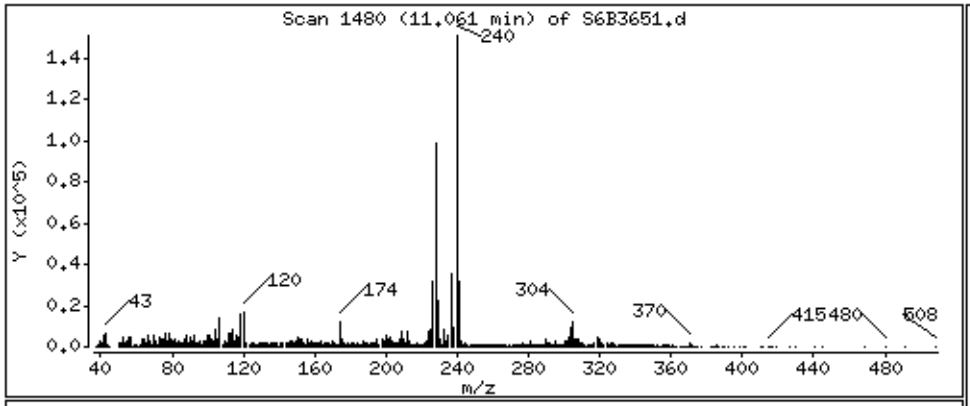
Operator: PK SRC: LIMS

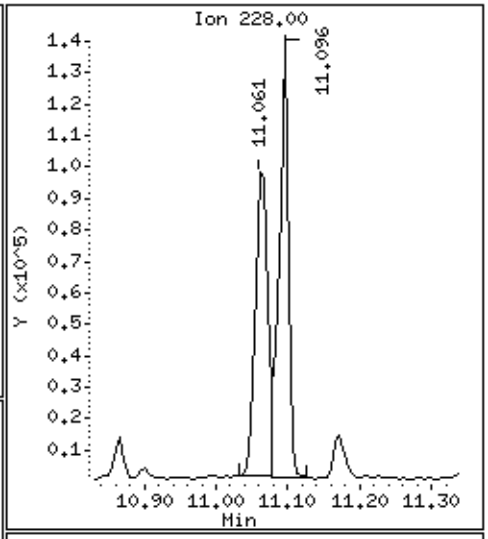
Column phase: Rxi-5Sil MS

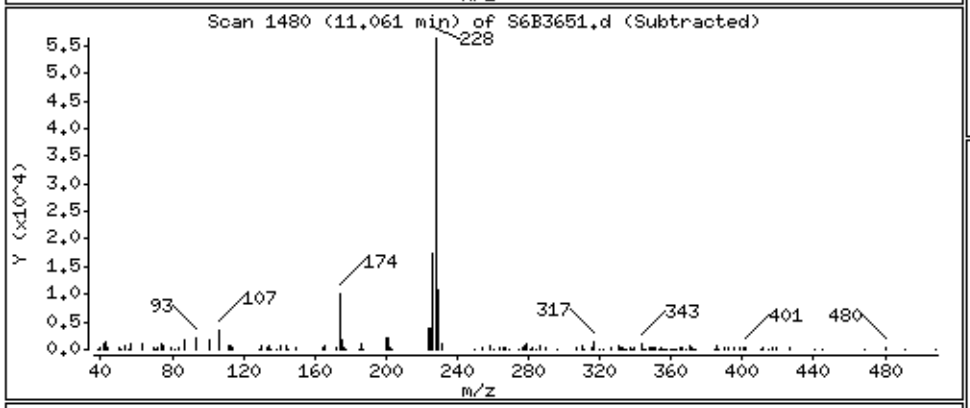
Column diameter: 0.25

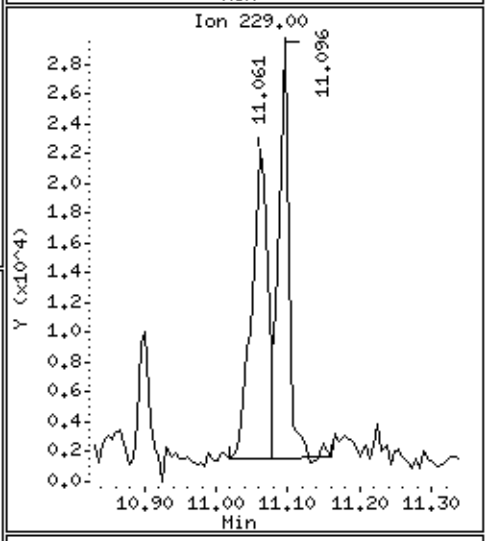
75 Benzo(a)anthracene

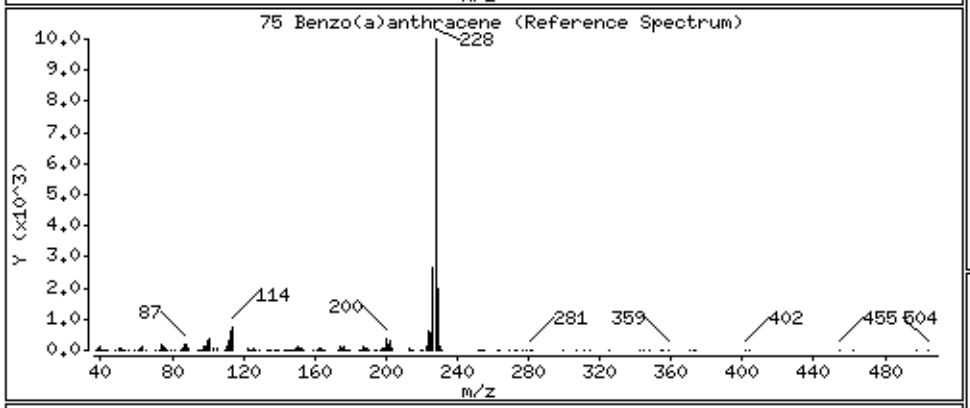
Concentration: 210 ug/Kg

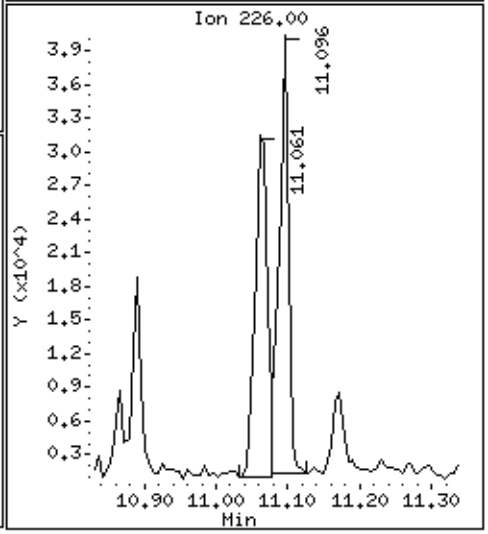


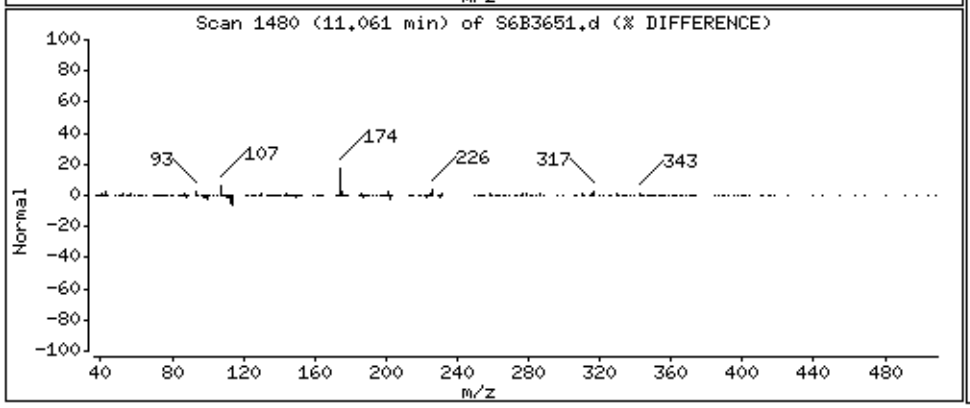












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

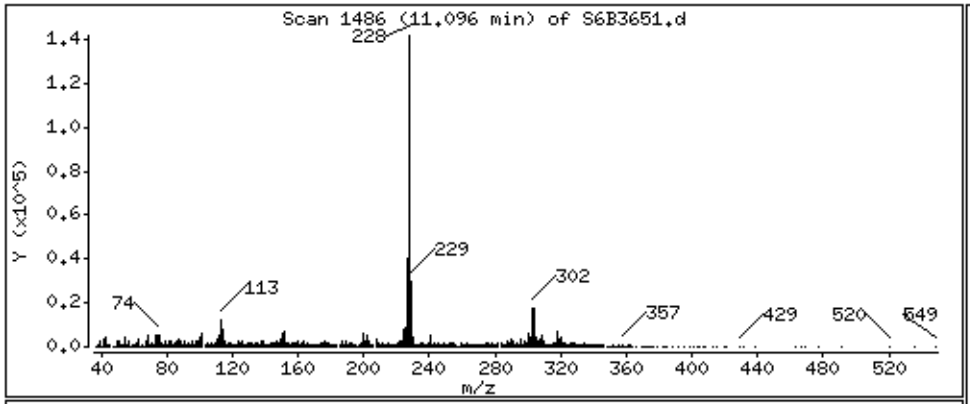
Operator: PK SRC: LIMS

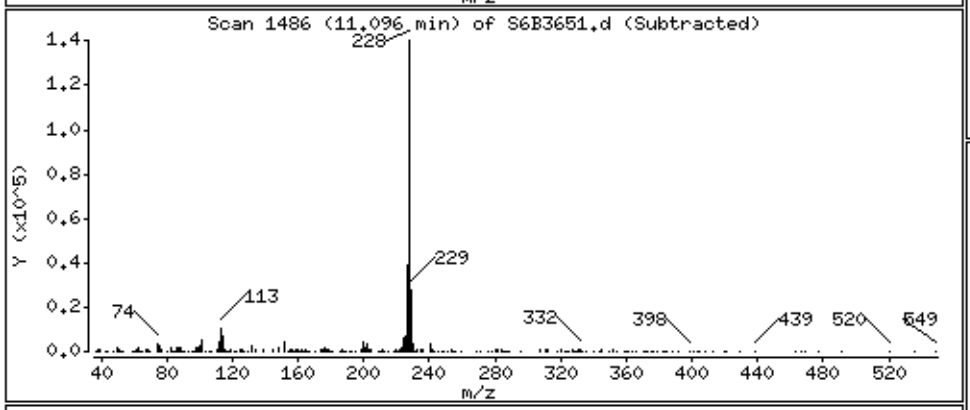
Column phase: Rxi-5Sil MS

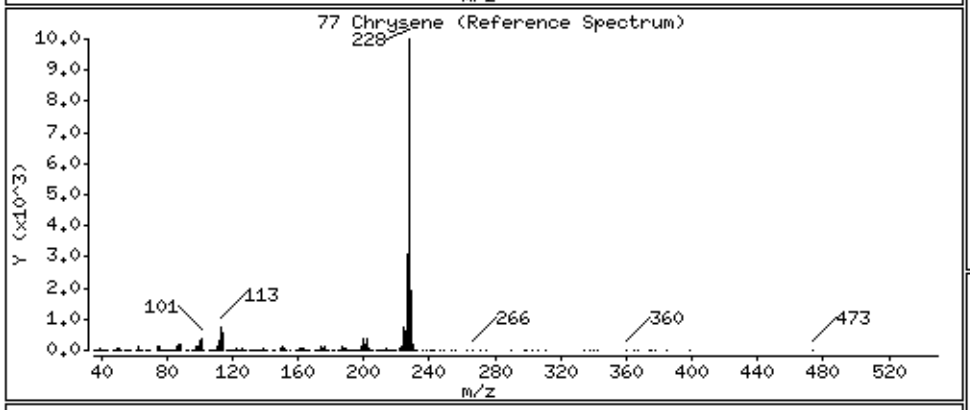
Column diameter: 0.25

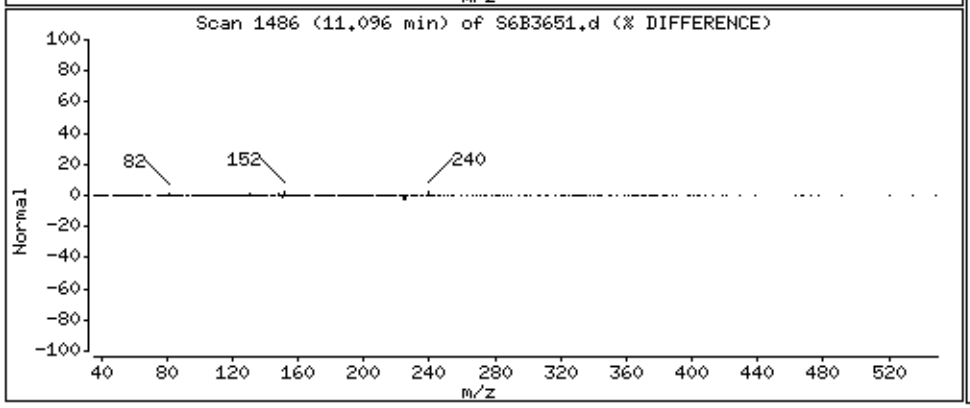
77 Chrysene

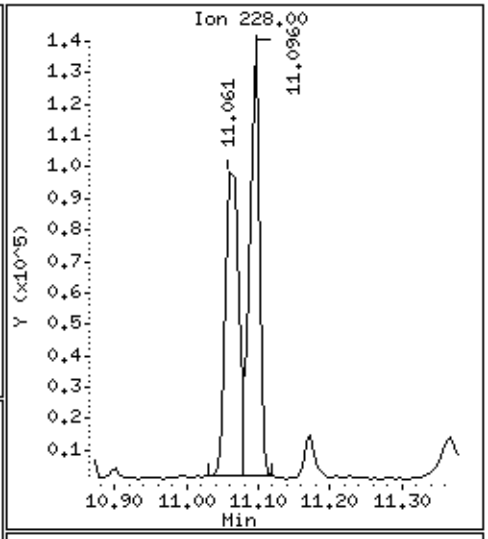
Concentration: 260 ug/Kg

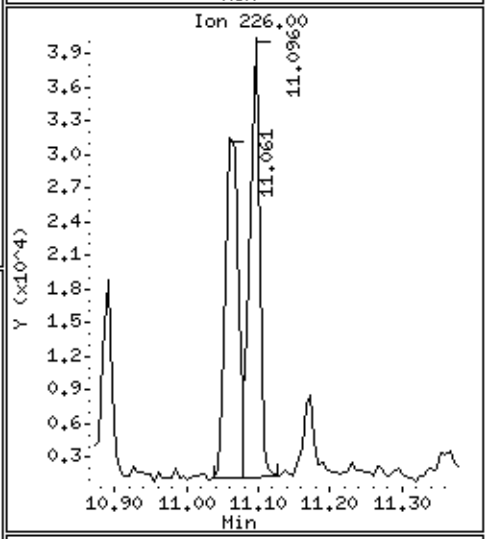


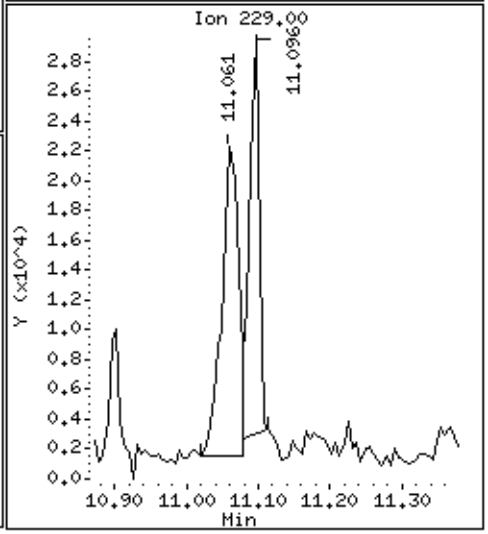












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

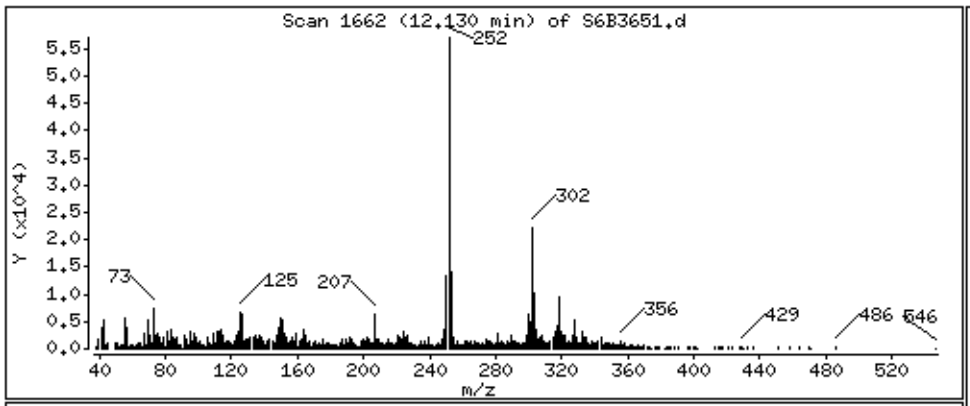
Operator: PK SRC: LIMS

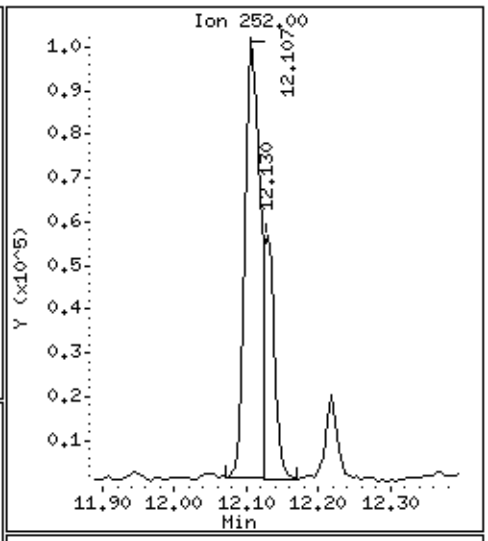
Column phase: Rxi-5Sil MS

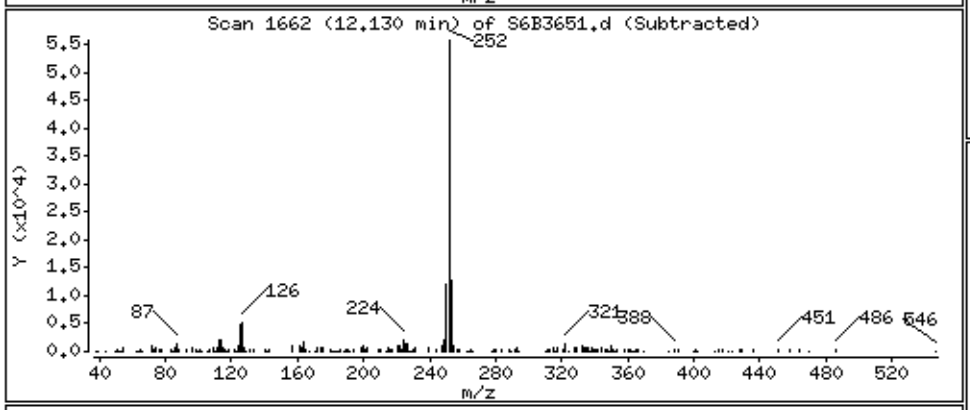
Column diameter: 0.25

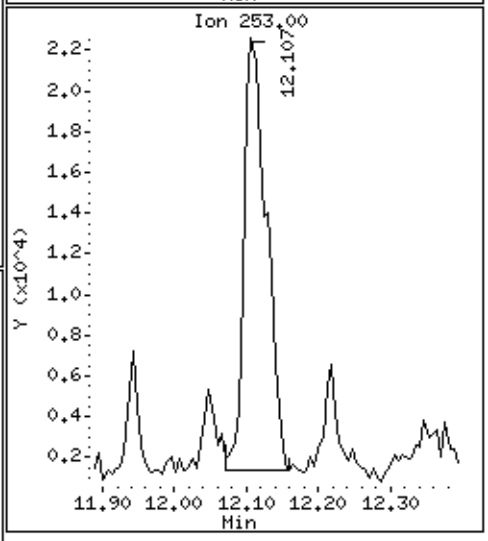
80 Benzo(b)fluoranthene

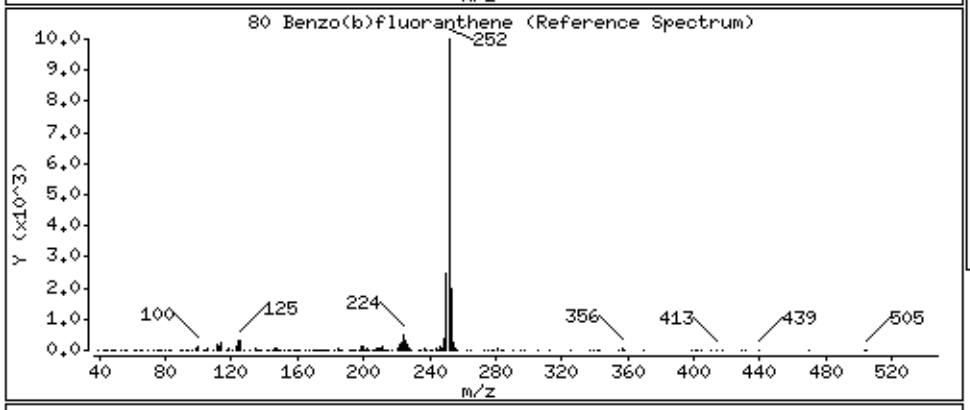
Concentration: 100 ug/Kg

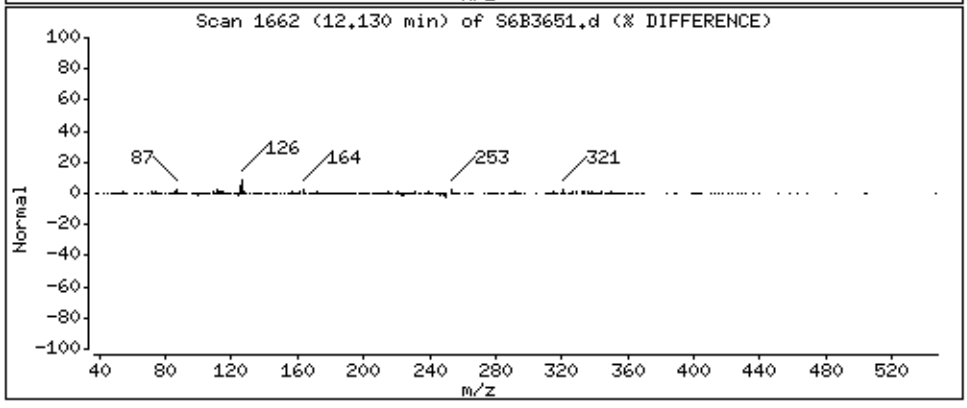












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

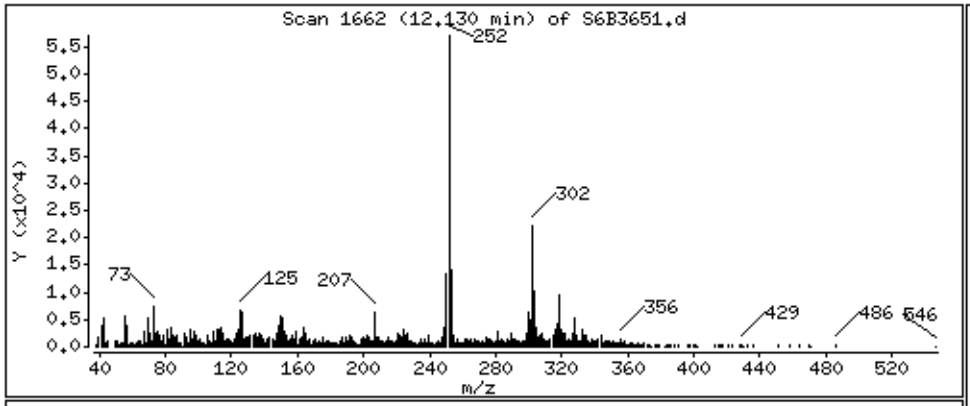
Operator: PK SRC: LIMS

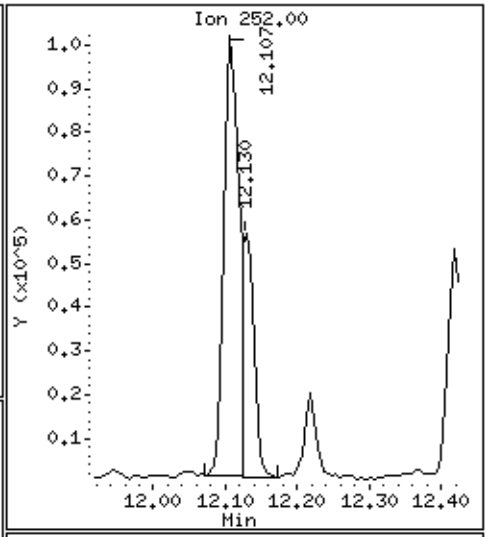
Column phase: Rxi-5Sil MS

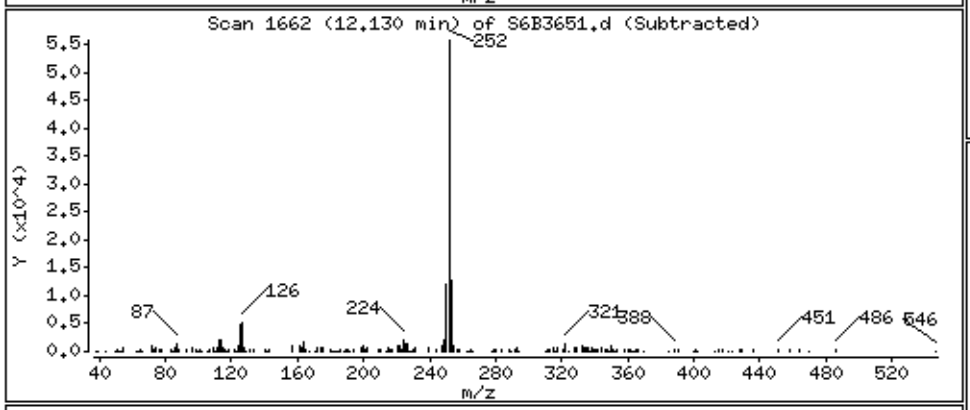
Column diameter: 0.25

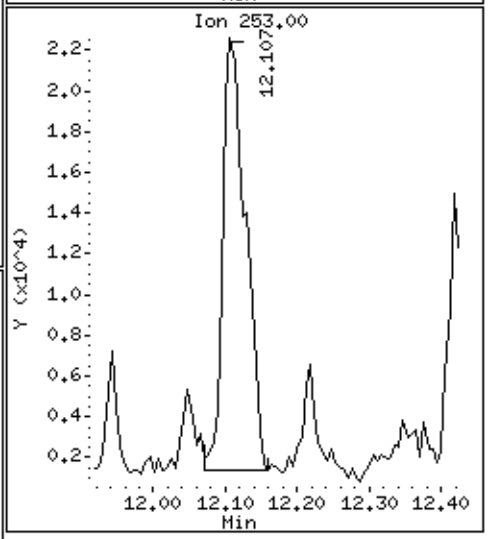
81 Benzo(k)fluoranthene

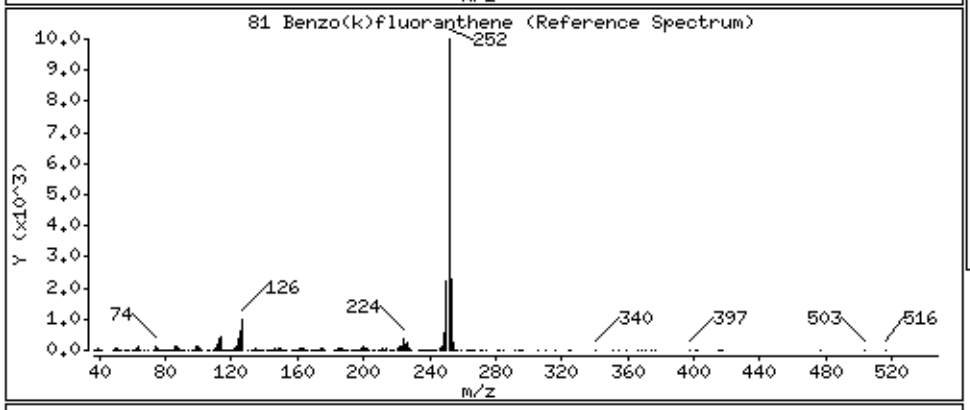
Concentration: 110 ug/Kg

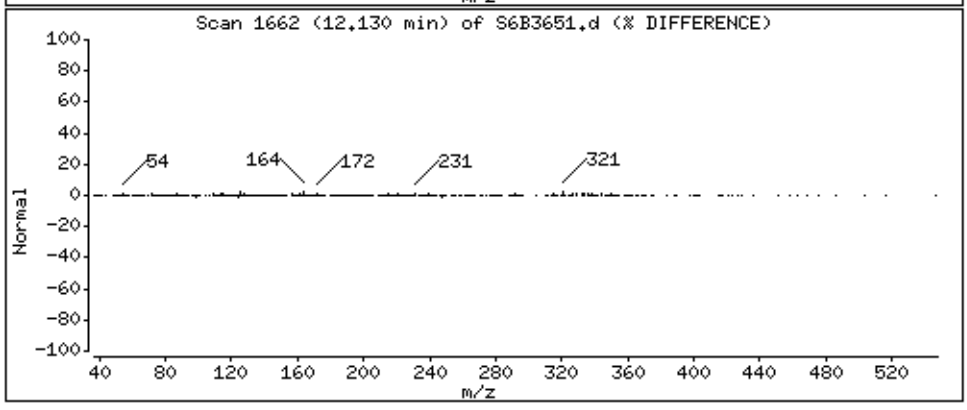












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

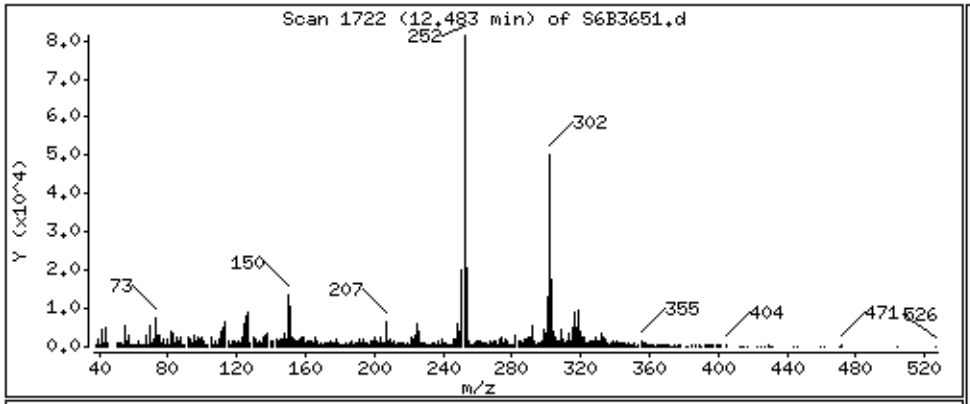
Operator: PK SRC: LIMS

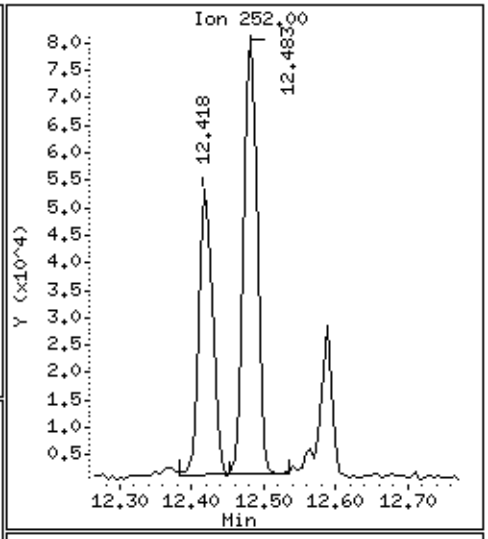
Column phase: Rxi-5Sil MS

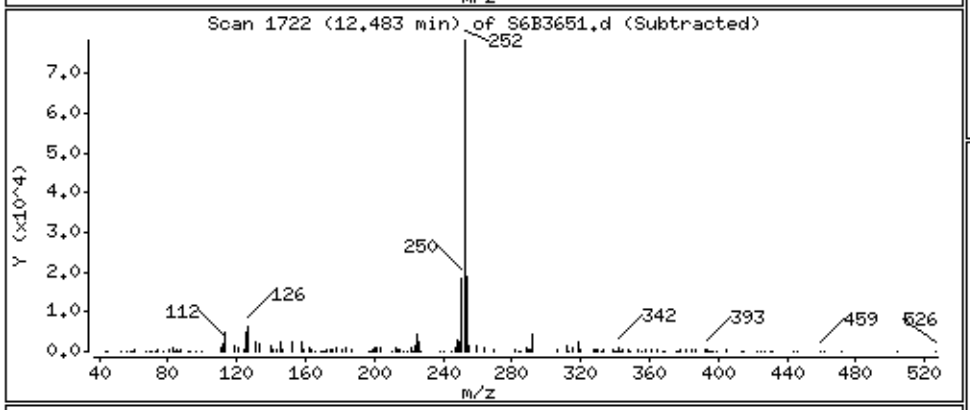
Column diameter: 0.25

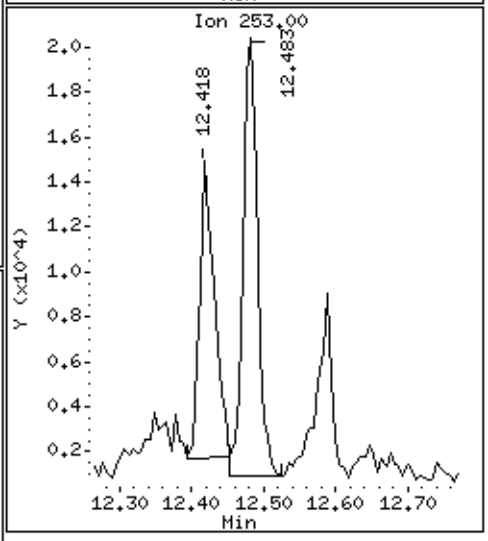
82 Benzo(a)pyrene

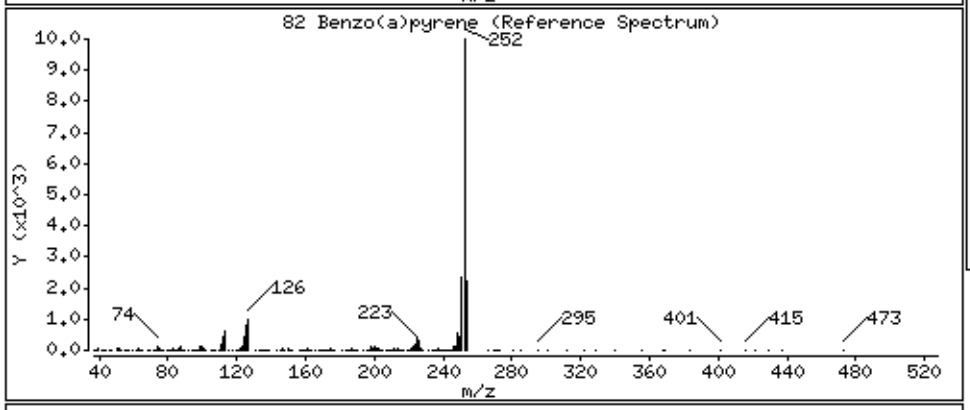
Concentration: 180 ug/Kg

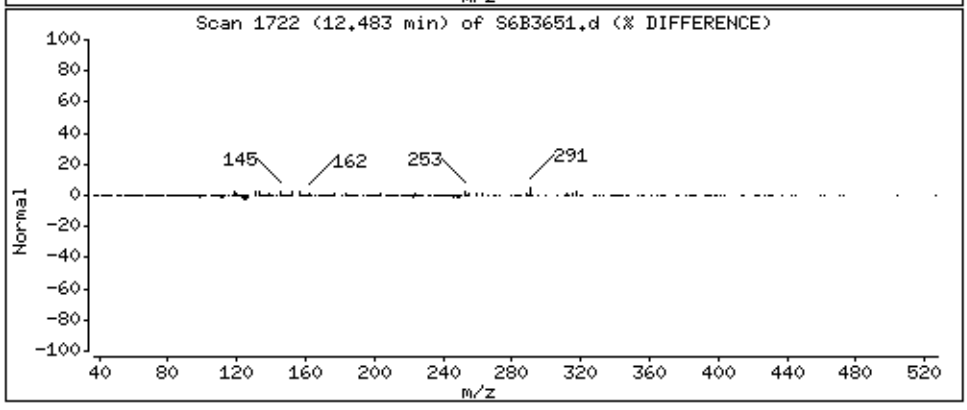












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

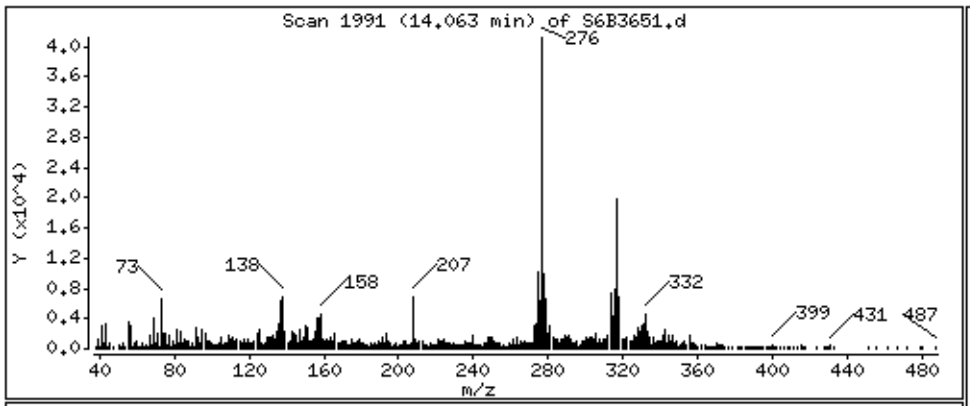
Operator: PK SRC: LIMS

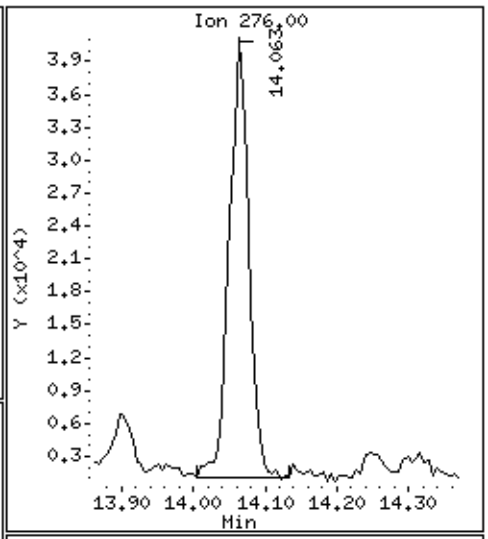
Column phase: Rxi-5Sil MS

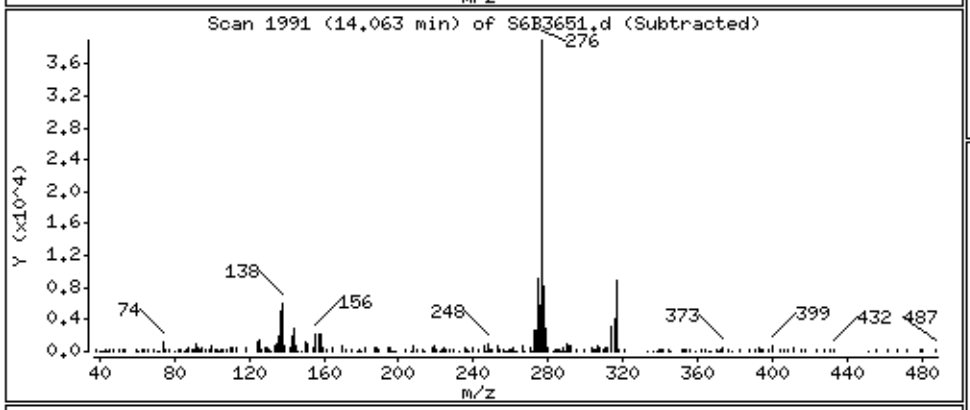
Column diameter: 0.25

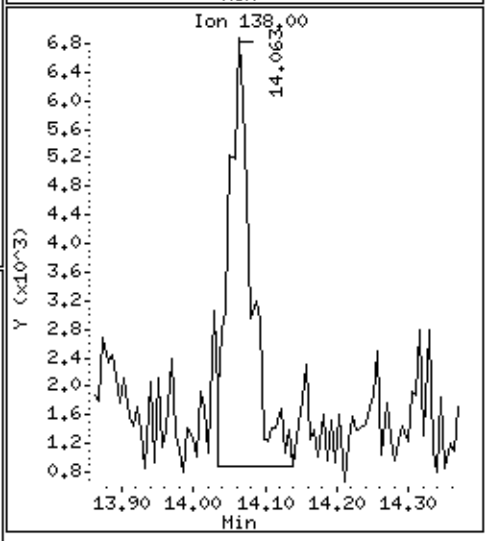
84 Indeno(1,2,3-cd)pyrene

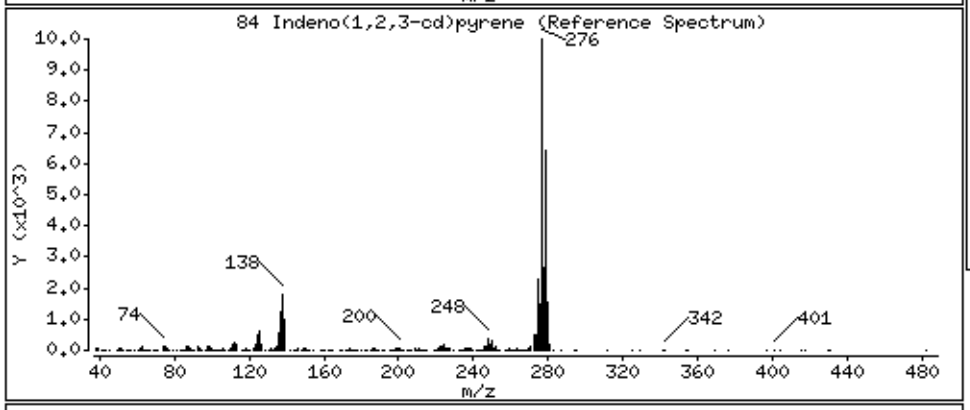
Concentration: 110 ug/Kg

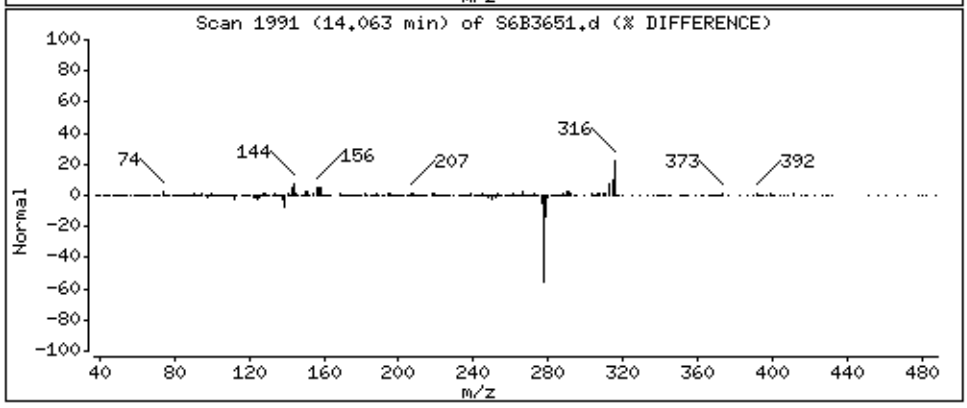












Data File: \\avogadro\organics\S6.I\130506.B\S6B3651.d

Date : 06-MAY-2013 19:14

Client ID: SB-127 (3-5)

Instrument: S6.i

Sample Info: M0619-04A,,71418

Volume Injected (uL): 1.0

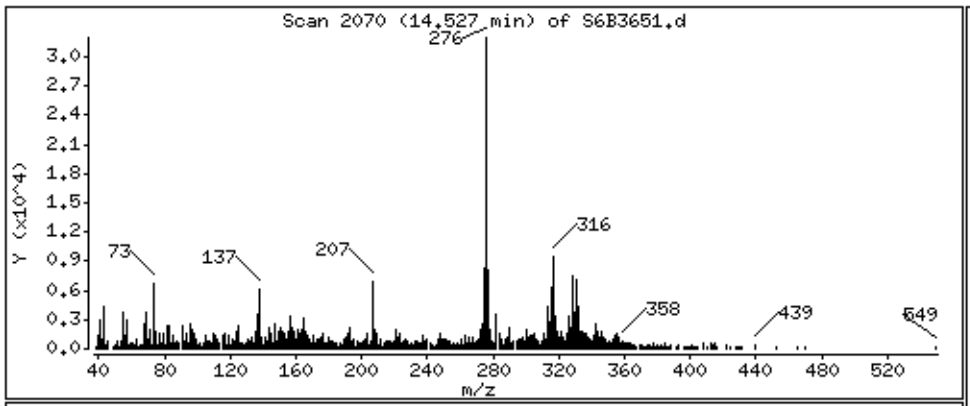
Operator: PK SRC: LIMS

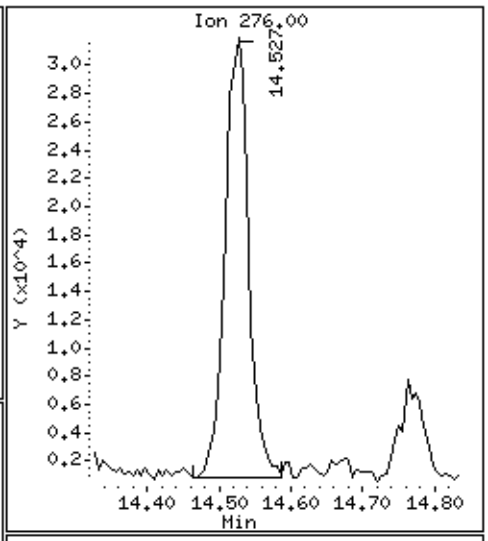
Column phase: Rxi-5Sil MS

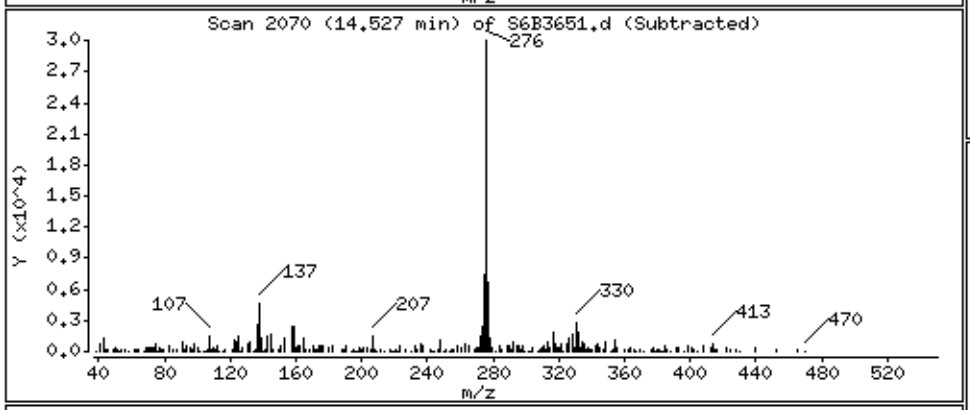
Column diameter: 0.25

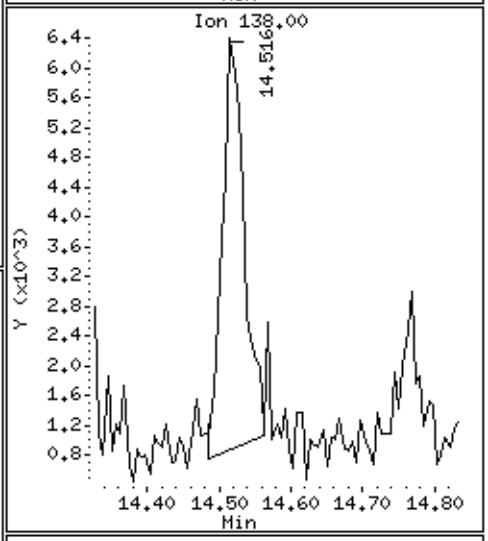
86 Benzo(g,h,i)perylene

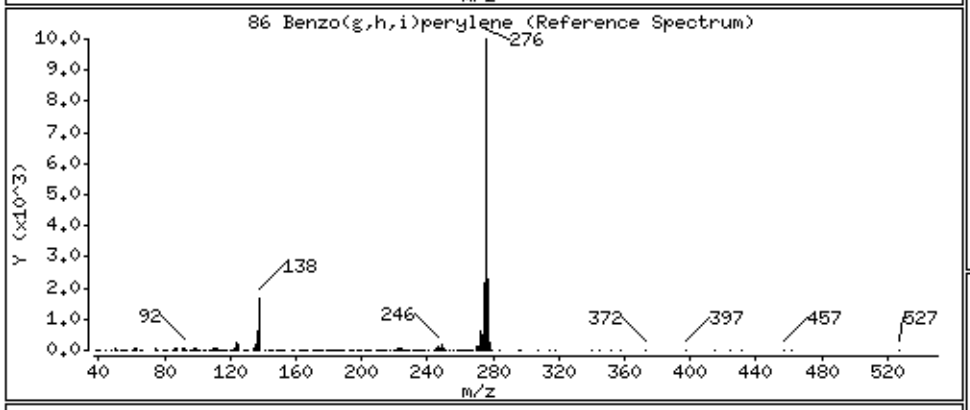
Concentration: 130 ug/Kg

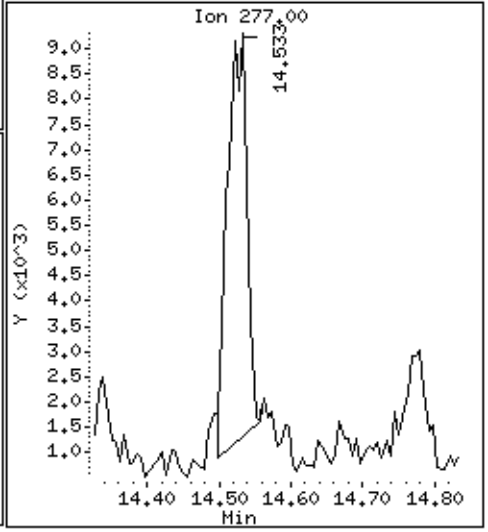


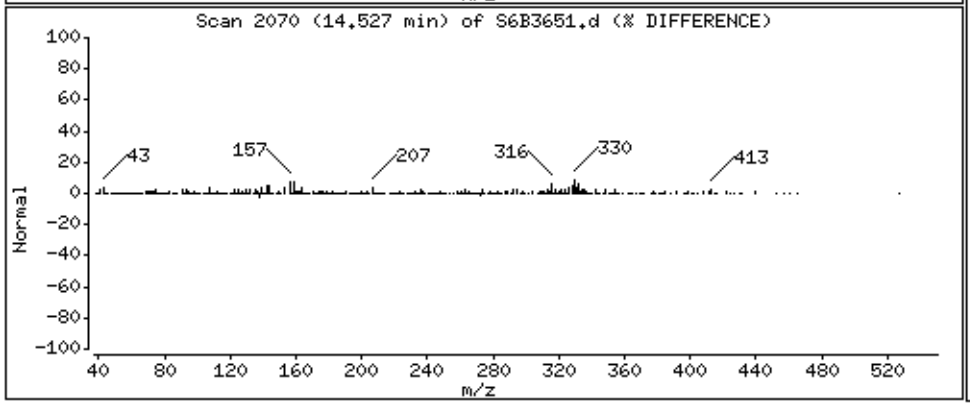












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-127 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-05A

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3652.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 8.4 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	350	U
91-57-6	2-Methylnaphthalene	350	U
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	210	J
120-12-7	Anthracene	350	U
206-44-0	Fluoranthene	280	J
129-00-0	Pyrene	370	
56-55-3	Benzo(a)anthracene	170	J
218-01-9	Chrysene	220	J
205-99-2	Benzo(b)fluoranthene	200	J
207-08-9	Benzo(k)fluoranthene	75	J
50-32-8	Benzo(a)pyrene	160	J
193-39-5	Indeno(1,2,3-cd)pyrene	99	J
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	130	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3652.d
Lab Smp Id: M0619-05A Client Smp ID: SB-127 (8-10)
Inj Date : 06-MAY-2013 19:36
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-05A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

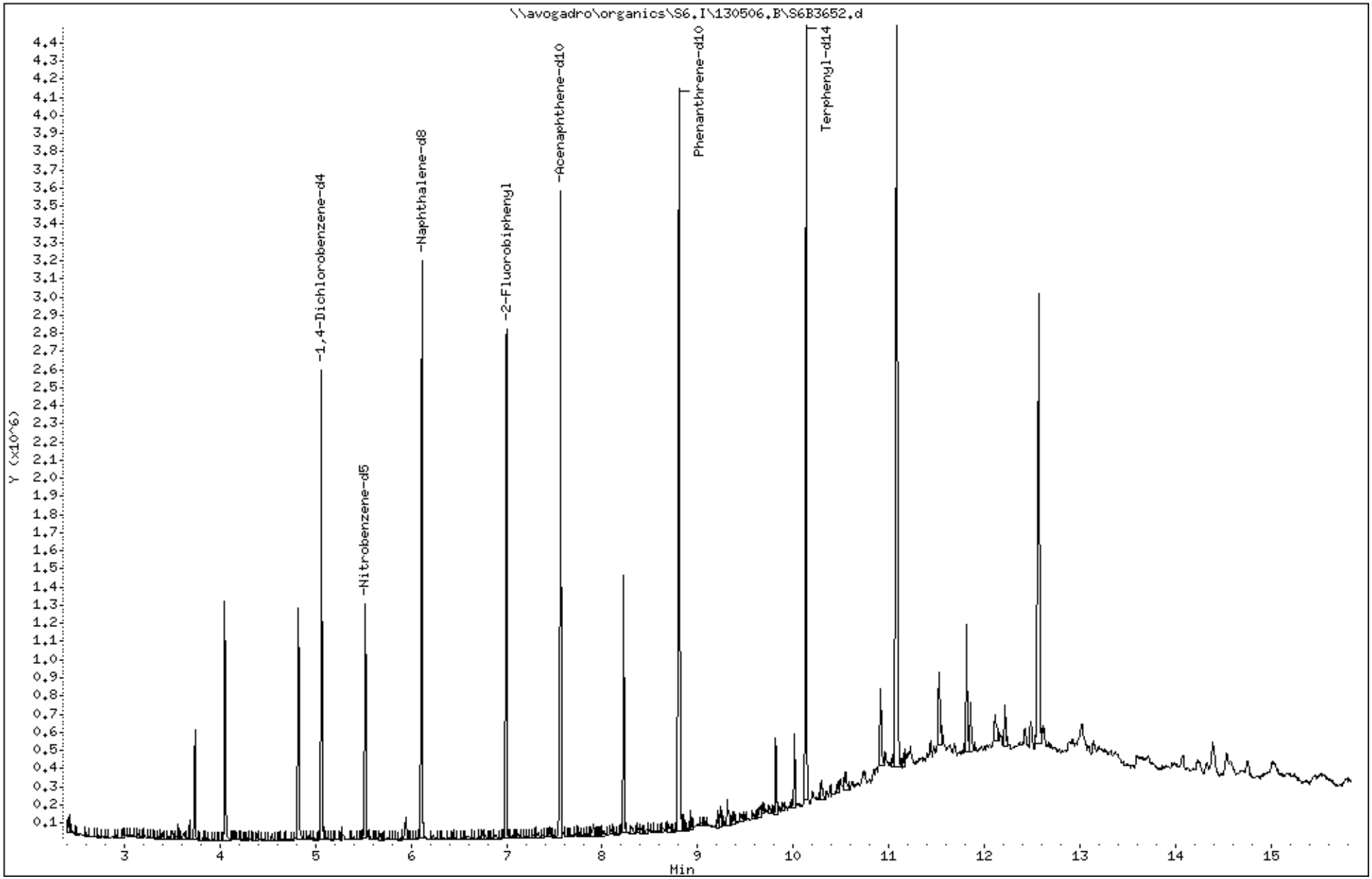
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.061	5.061	(1.000)	298632	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	382103	39.6683	2600	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	1077970	40.0000		
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	795837	38.6384	2500	
*	48 Acenaphthene-d10	164	7.564	7.570	(1.000)	705165	40.0000		
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1324973	40.0000		
	65 Phenanthrene	178	8.821	8.827	(1.002)	88146	2.91073	190(a)	
	69 Fluoranthene	202	9.814	9.826	(1.115)	144675	3.90368	250(a)	
	71 Pyrene	202	10.014	10.020	(0.901)	171727	5.19168	340(a)	
$	72 Terphenyl-d14	244	10.132	10.138	(0.912)	1186601	49.9902	3200	
	75 Benzo(a)anthracene	228	11.095	11.083	(0.998)	107753	2.95650	190(aH)	
*	76 Chrysene-d12	240	11.084	11.101	(1.000)	1582005	40.0000	(H)	
	77 Chrysene	228	11.095	11.125	(0.998)	95583	3.13569	200(aH)	
	80 Benzo(b)fluoranthene	252	12.112	12.141	(0.964)	111523	2.86966	190(aM)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.135	12.170	(0.965)	38684	1.06195	69(aQMH)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.488	12.517	(0.990)	77499	2.23417	140(a)	
*	83 Perylene-d12	264	12.570	12.593	(1.000)	1486715	40.0000	(H)	
	84 Indeno(1,2,3-cd)pyrene	276	14.068	14.115	(1.116)	59744	1.38985	90(aH)	
	86 Benzo(g,h,i)perylene	276	14.532	14.579	(1.152)	66045	1.88924	120(a)	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d
Report Date: 07-May-2013 10:02

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d
Date : 06-MAY-2013 19:36
Client ID: SB-127 (8-10)
Instrument: S6.i
Sample Info: M0619-05A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

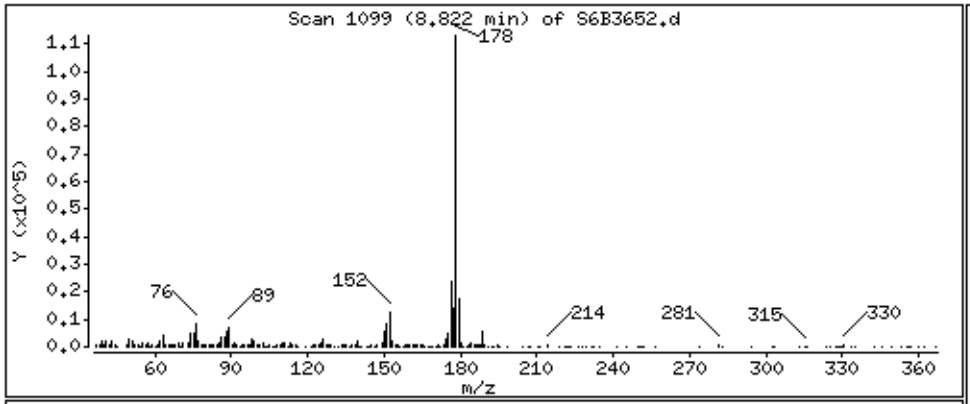
Operator: PK SRC: LIMS

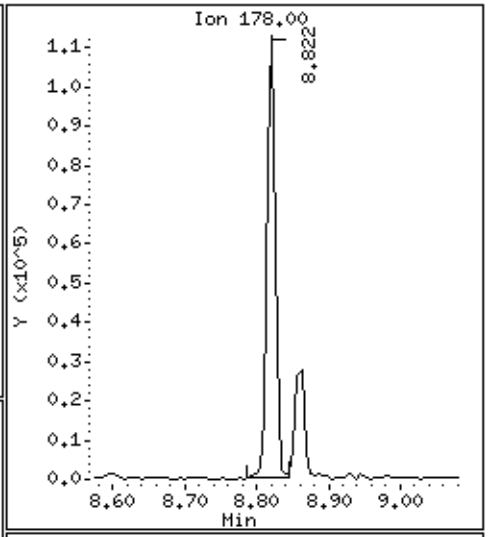
Column phase: Rxi-5Sil MS

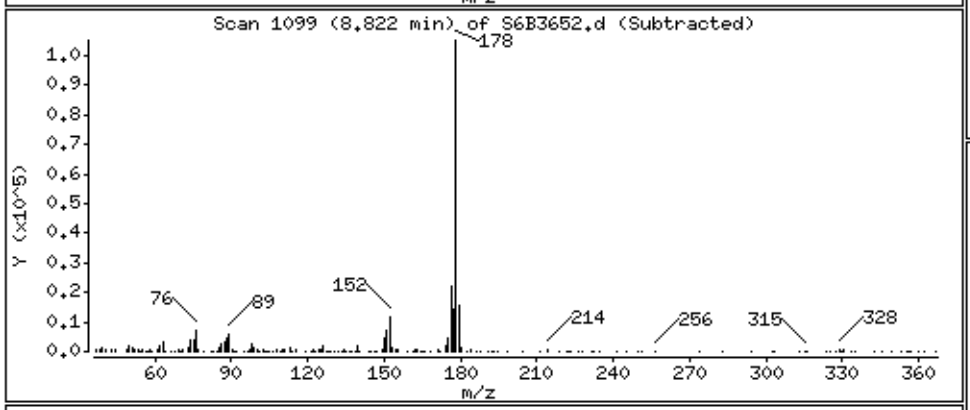
Column diameter: 0.25

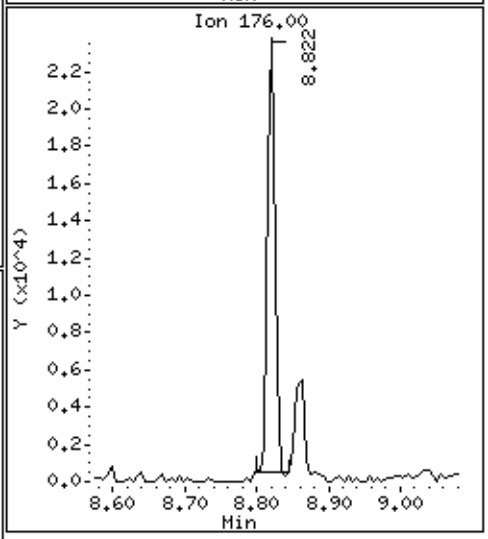
65 Phenanthrene

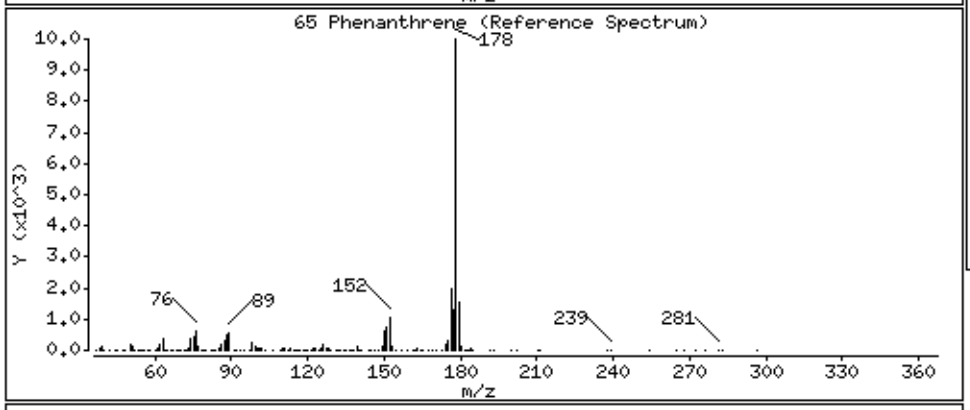
Concentration: 190 ug/Kg

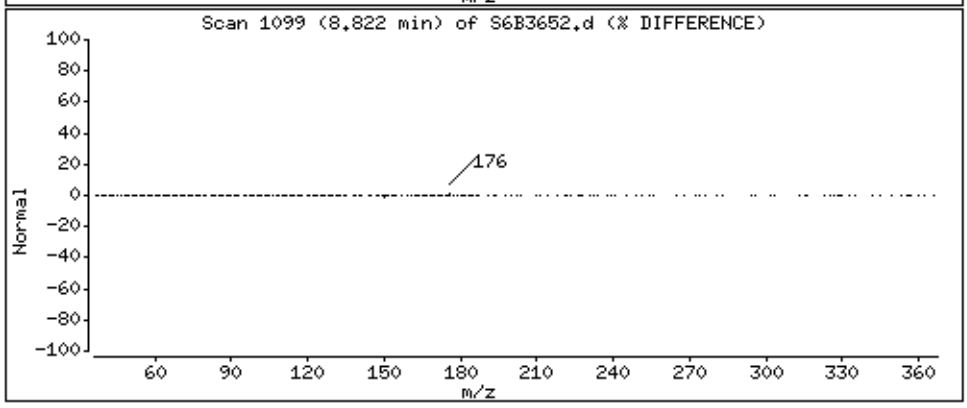












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

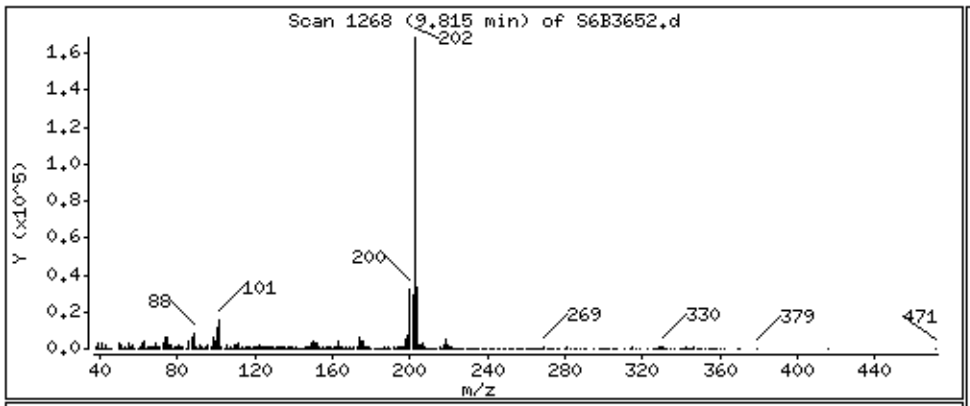
Operator: PK SRC: LIMS

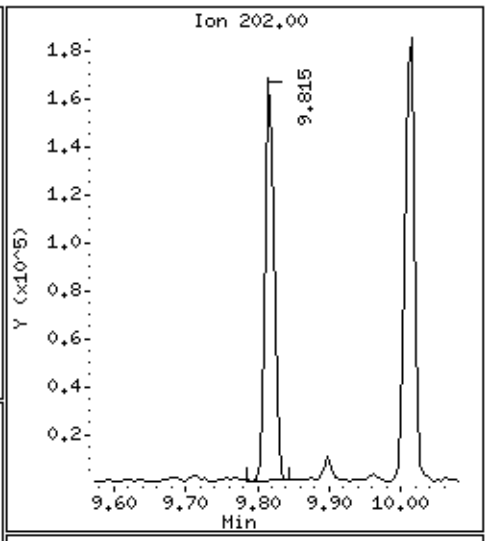
Column phase: Rxi-5Sil MS

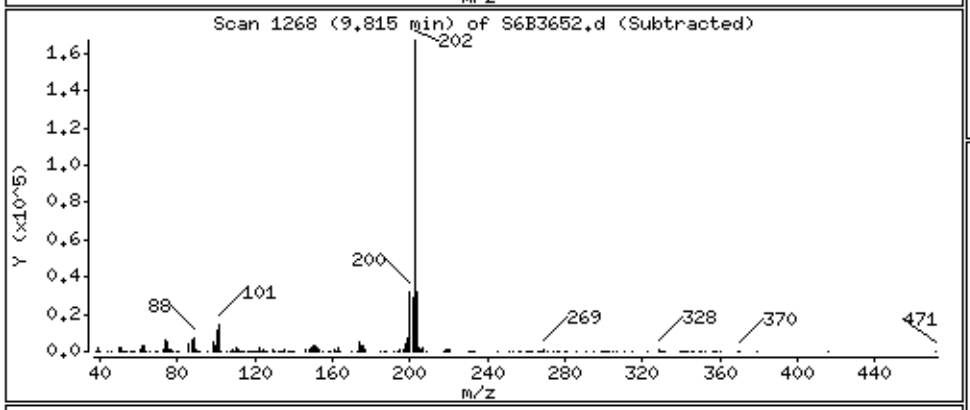
Column diameter: 0.25

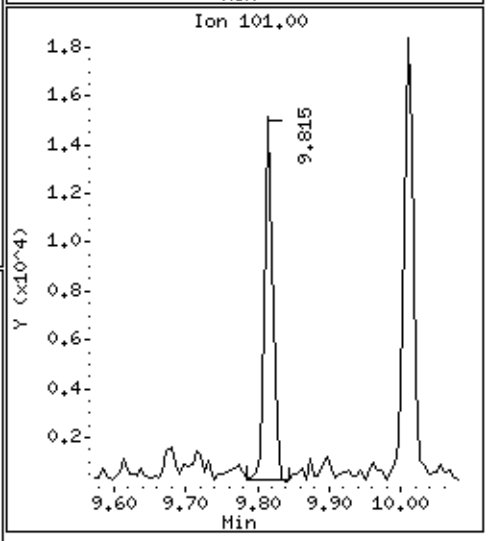
69 Fluoranthene

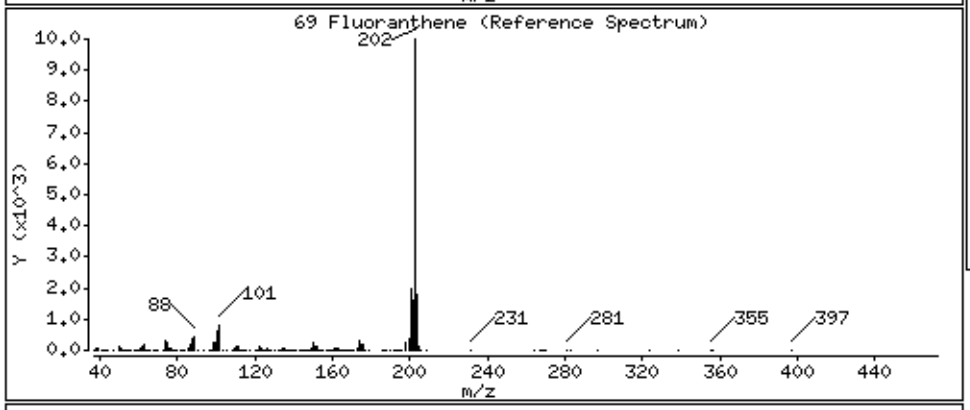
Concentration: 250 ug/Kg

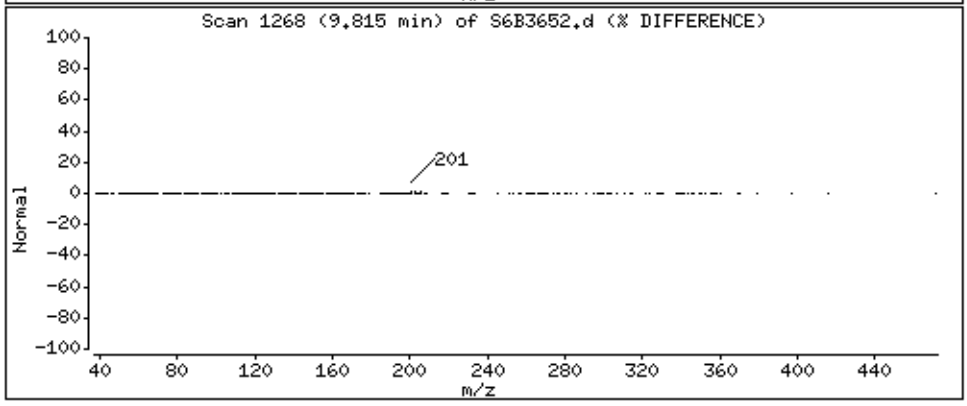












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

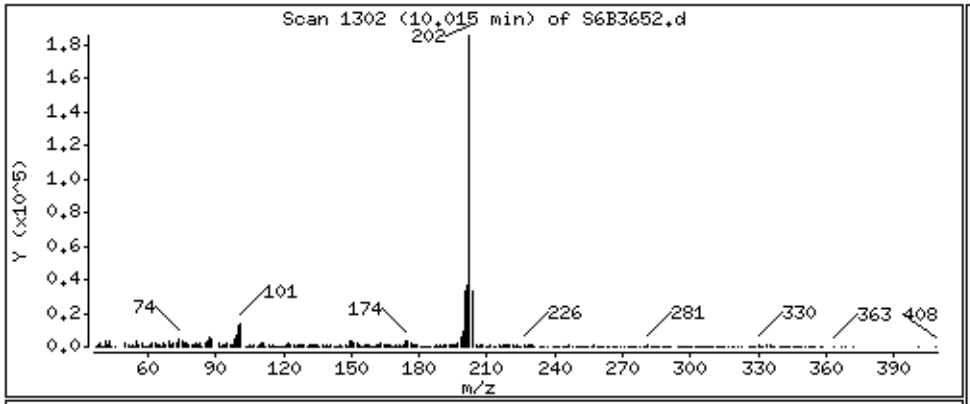
Operator: PK SRC: LIMS

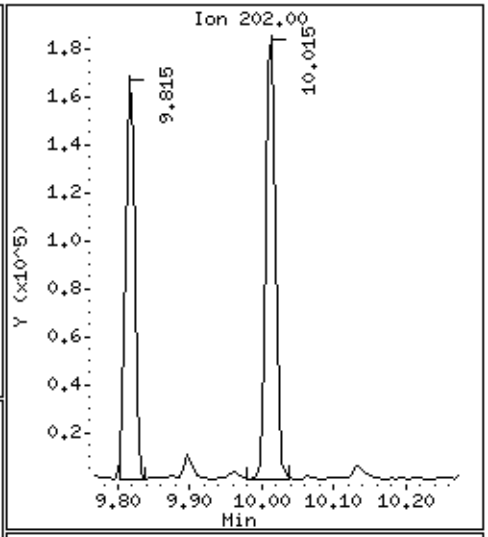
Column phase: Rxi-5Sil MS

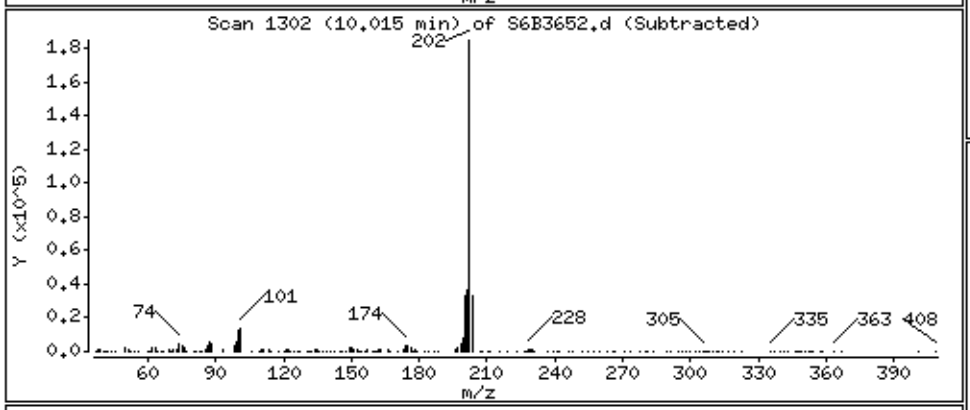
Column diameter: 0.25

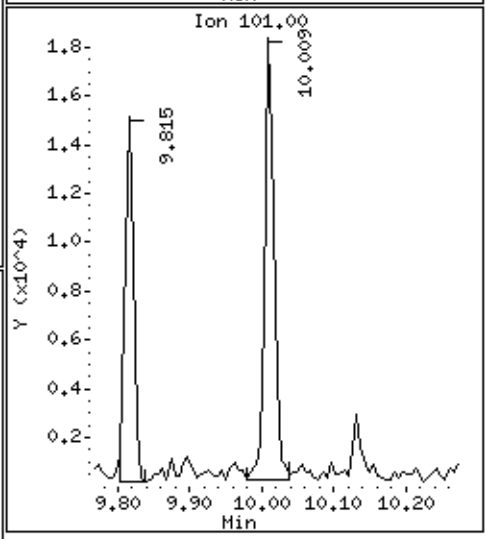
71 Pyrene

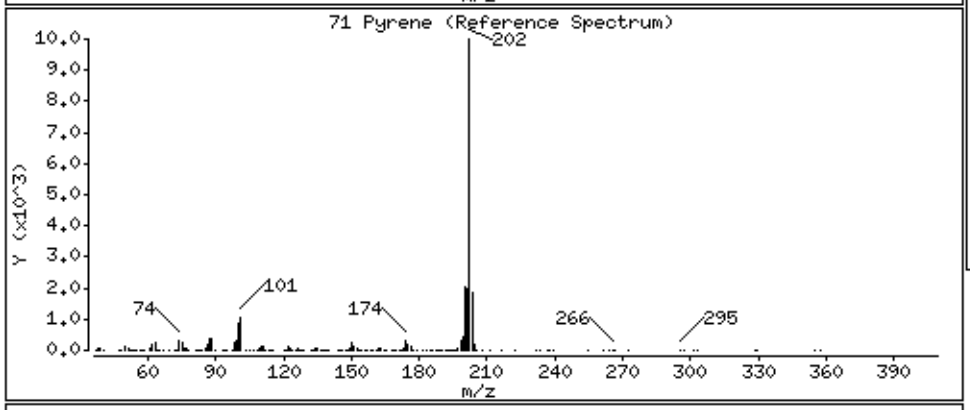
Concentration: 340 ug/Kg

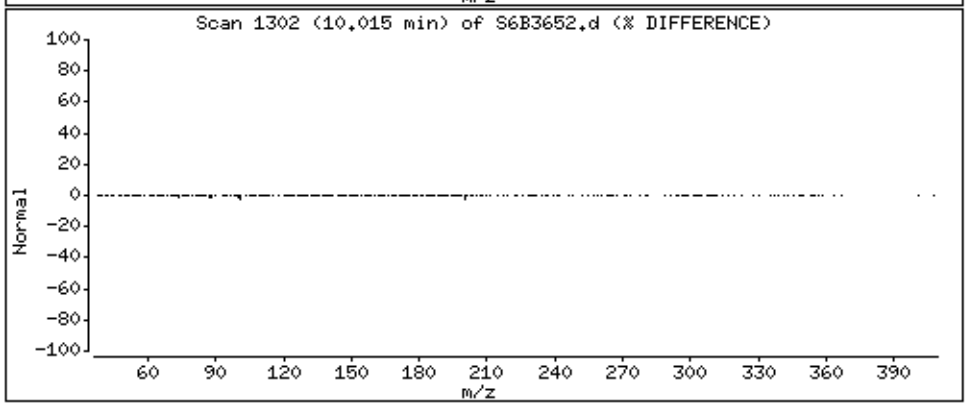












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

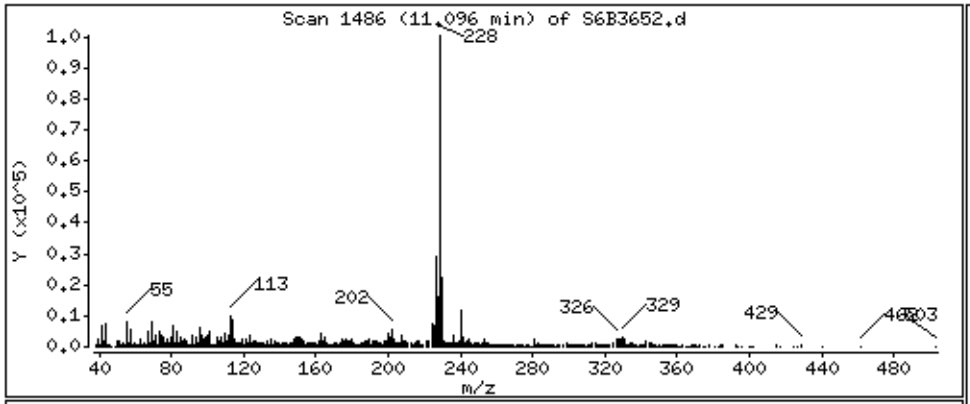
Operator: PK SRC: LIMS

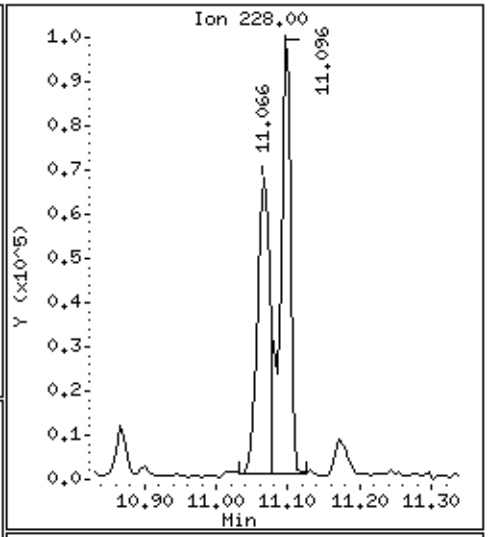
Column phase: Rxi-5Sil MS

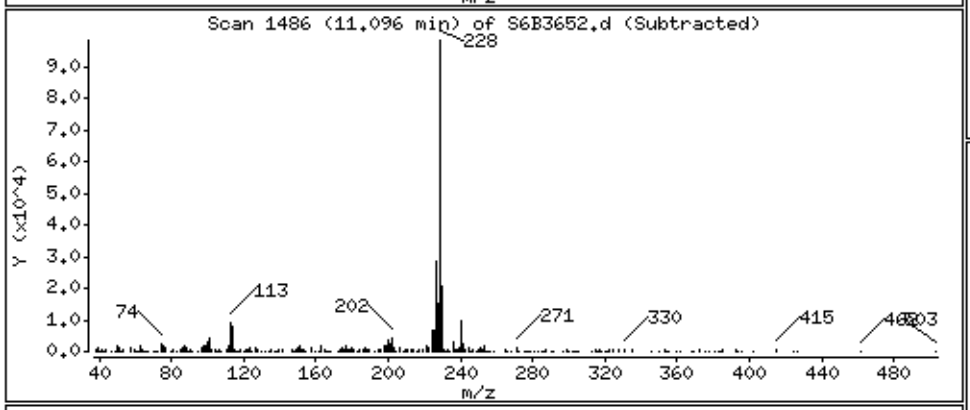
Column diameter: 0.25

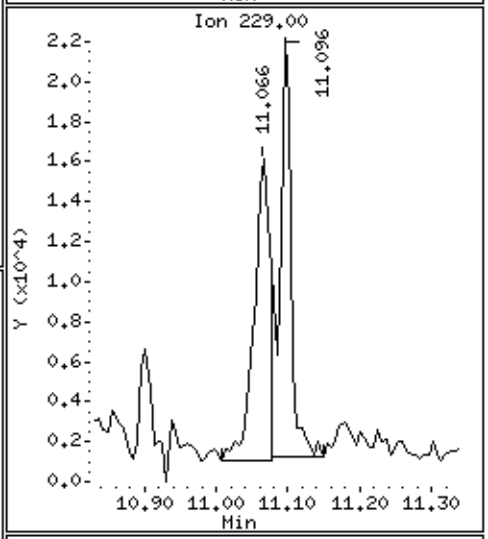
75 Benzo(a)anthracene

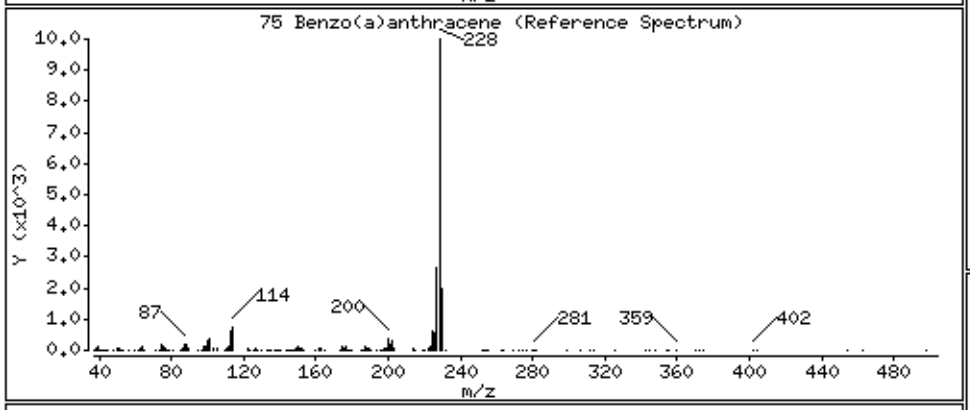
Concentration: 190 ug/Kg

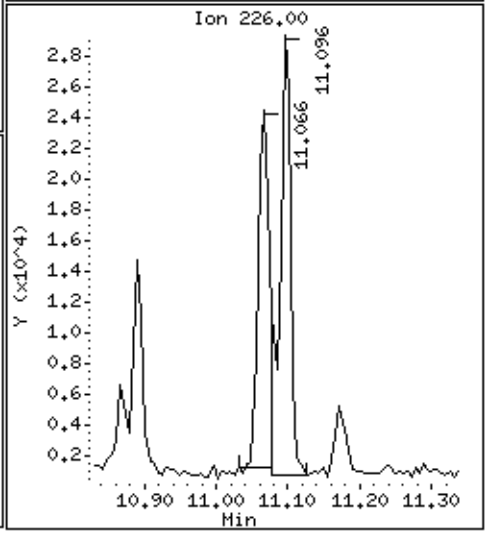


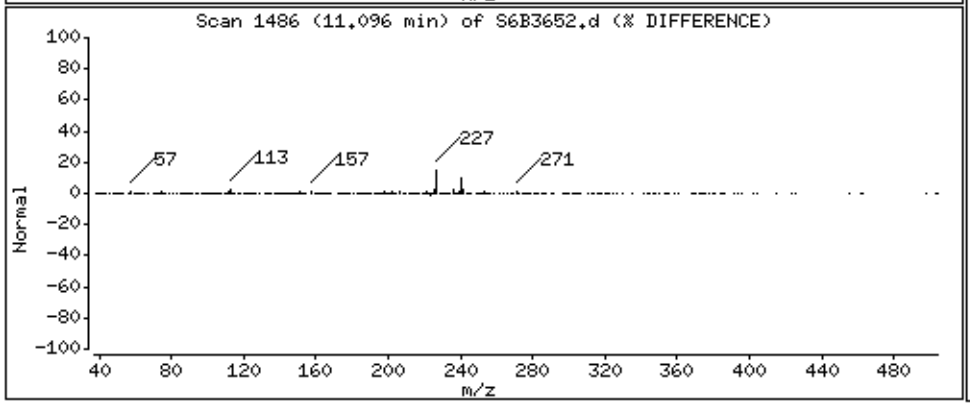












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

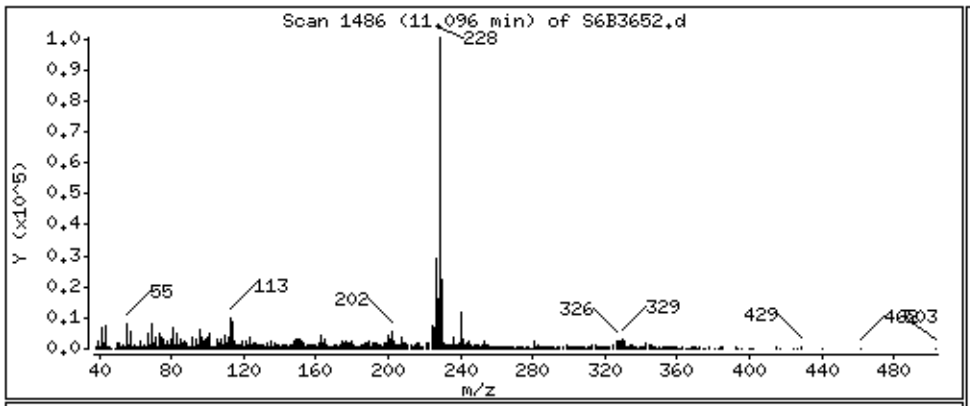
Operator: PK SRC: LIMS

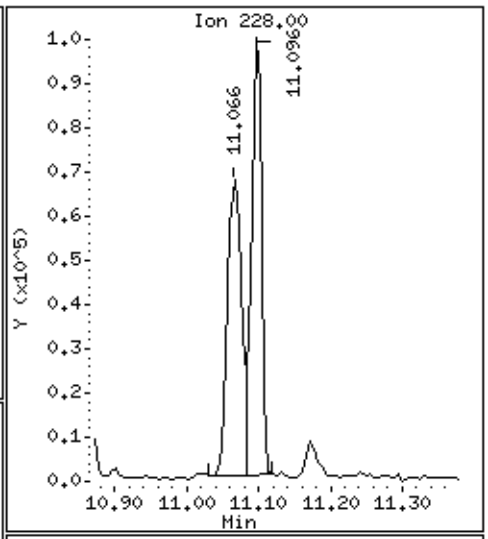
Column phase: Rxi-5Sil MS

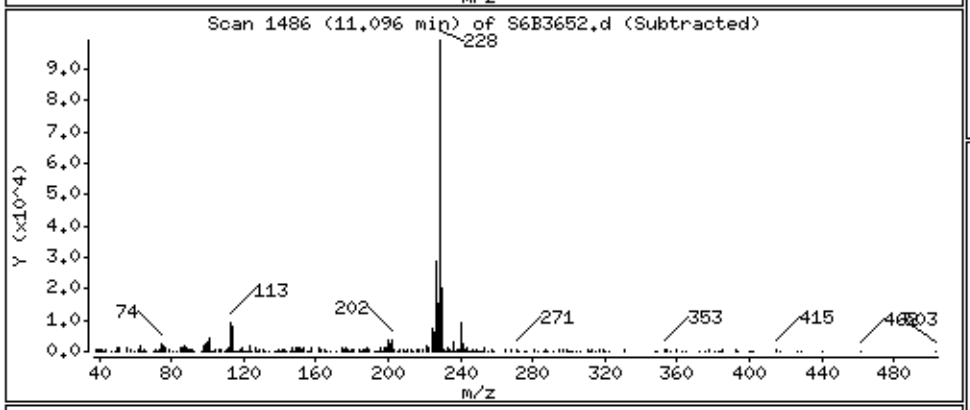
Column diameter: 0.25

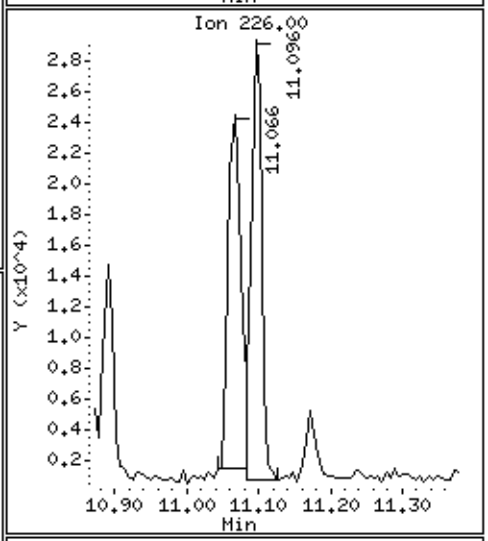
77 Chrysene

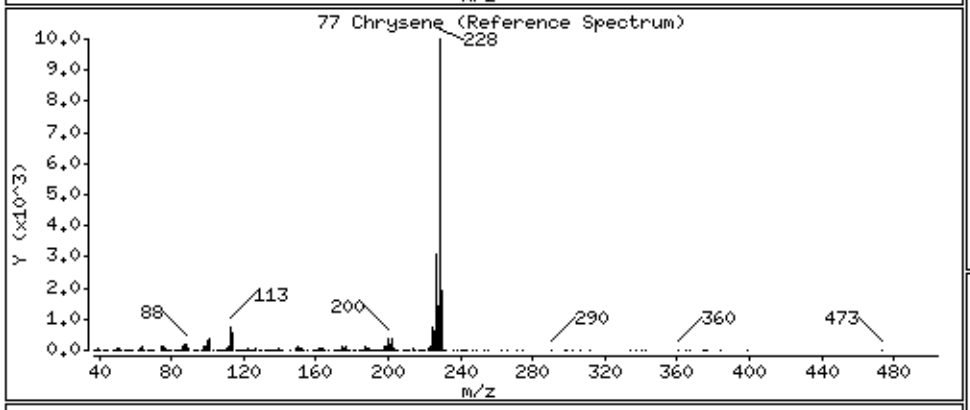
Concentration: 200 ug/Kg

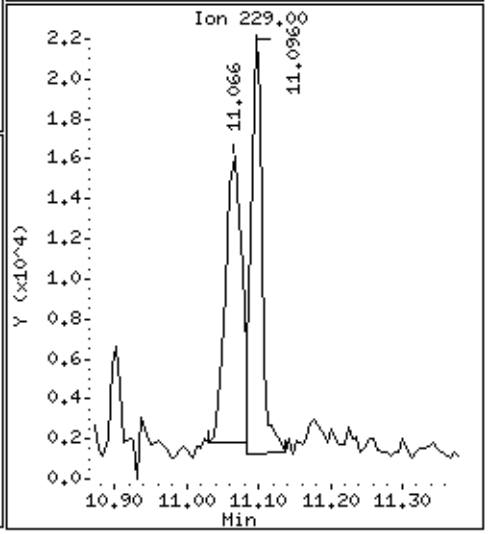


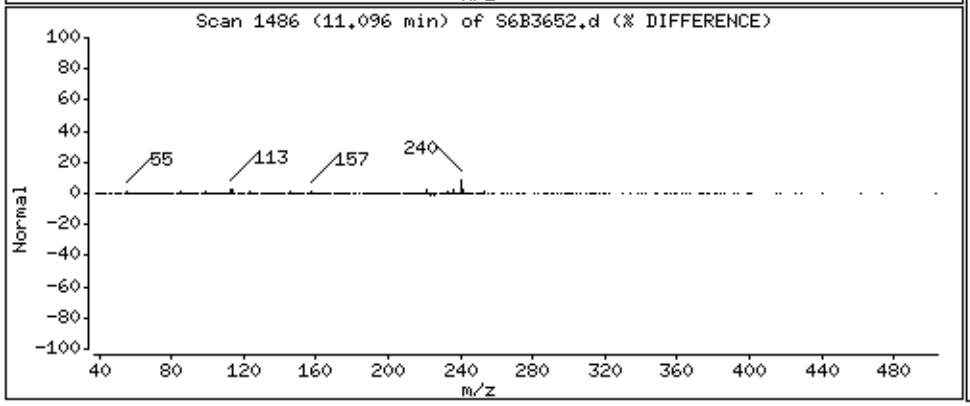












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

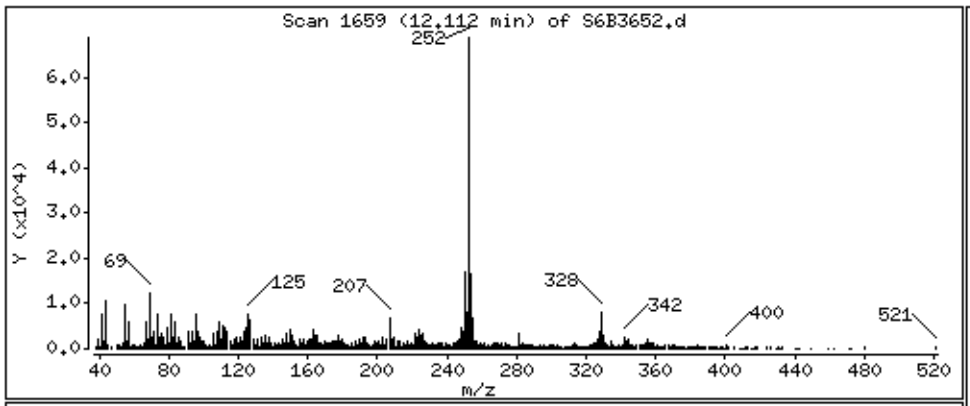
Operator: PK SRC: LIMS

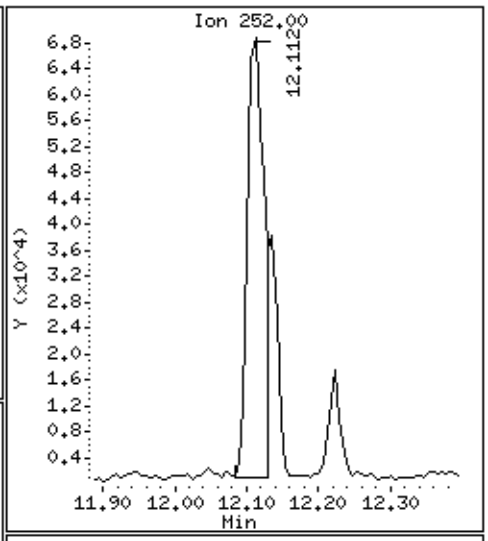
Column phase: Rxi-5Sil MS

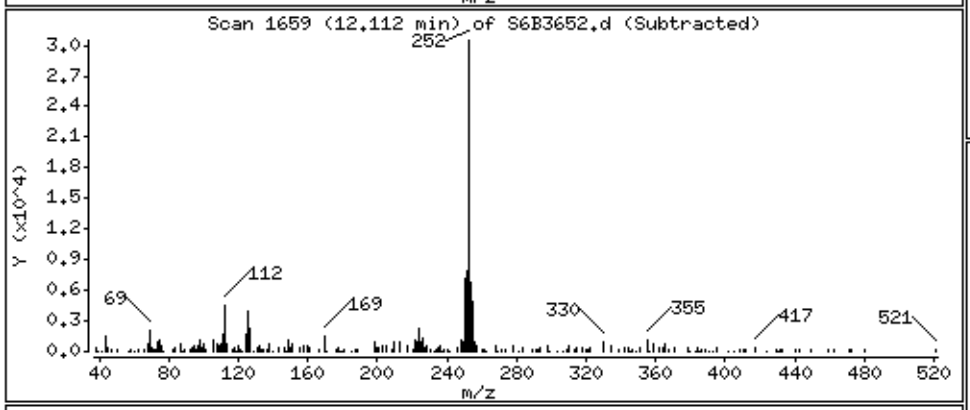
Column diameter: 0.25

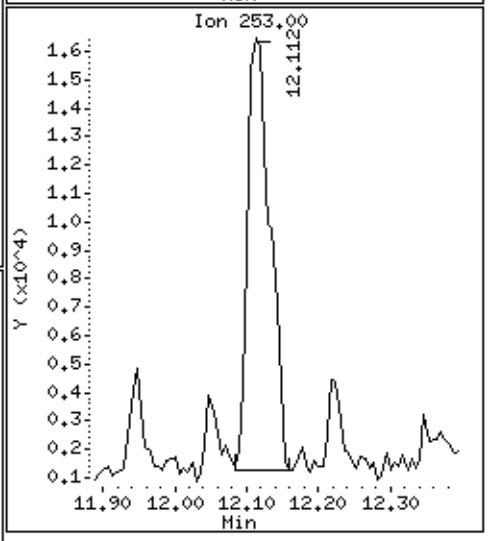
80 Benzo(b)fluoranthene

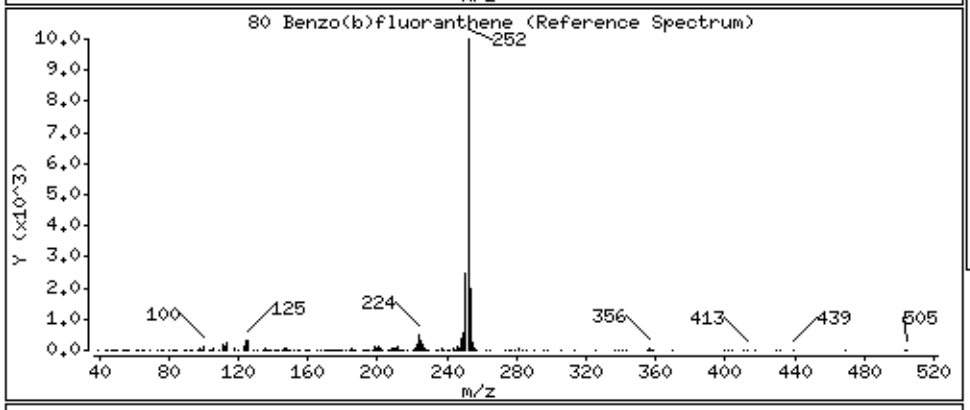
Concentration: 190 ug/Kg

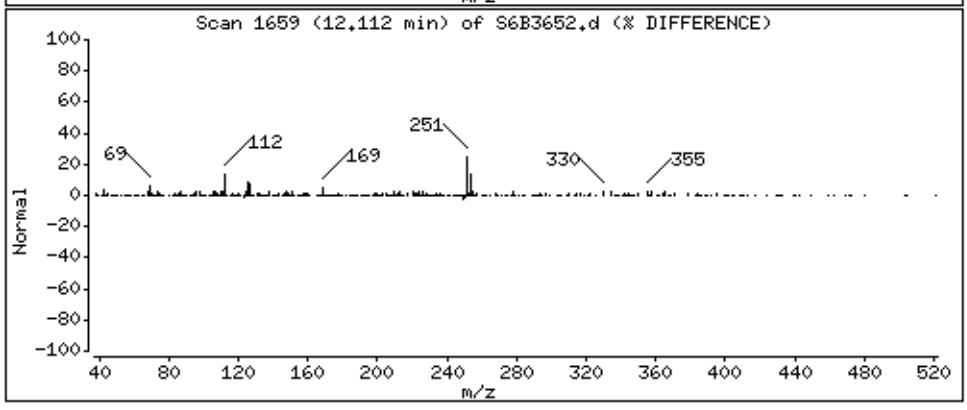












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

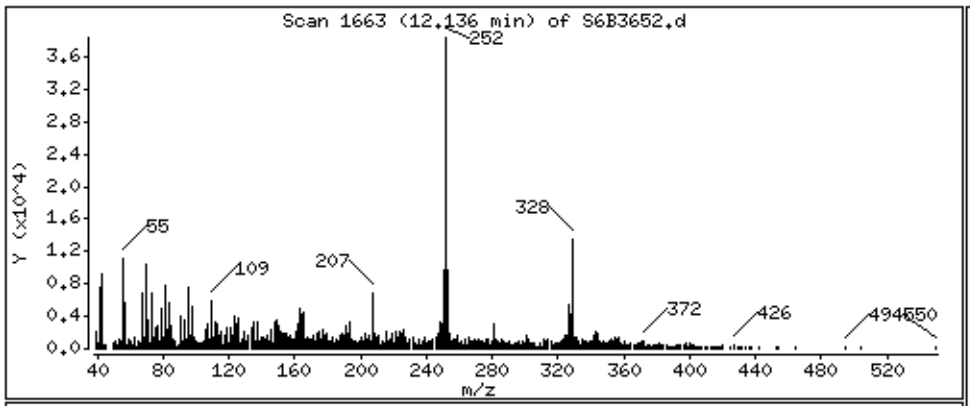
Operator: PK SRC: LIMS

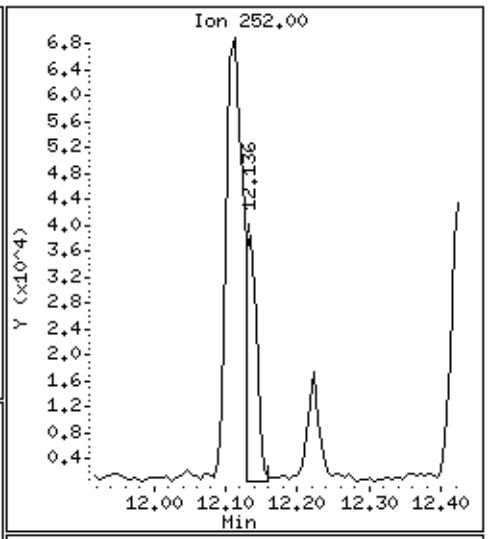
Column phase: Rxi-5Sil MS

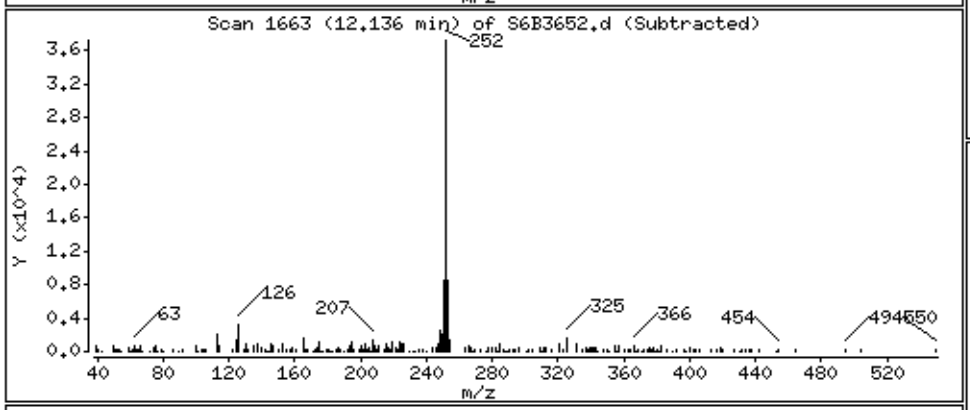
Column diameter: 0.25

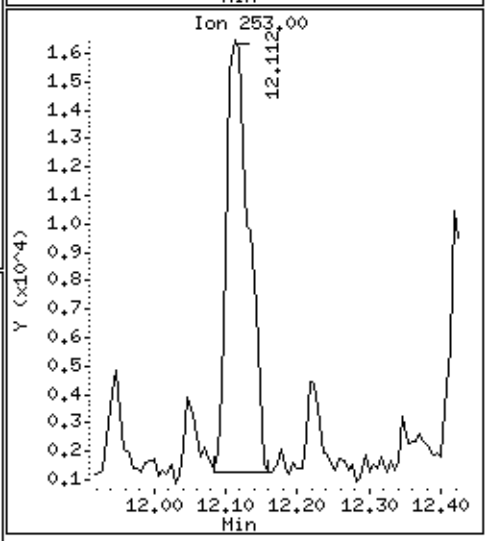
81 Benzo(k)fluoranthene

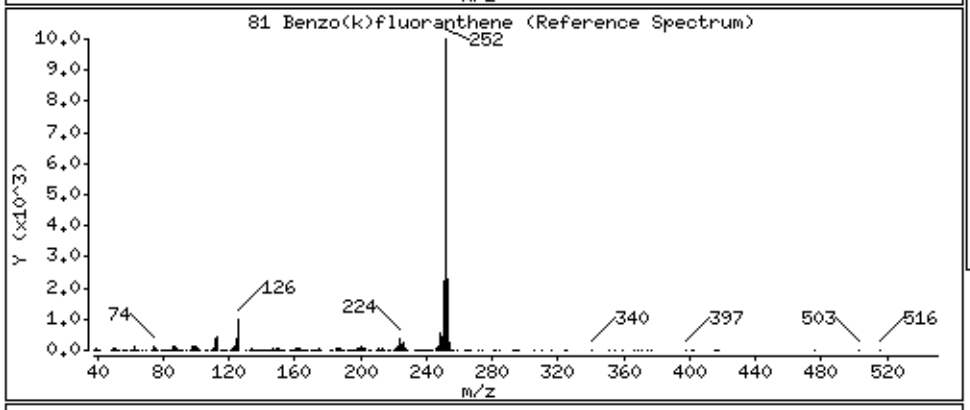
Concentration: 69 ug/Kg

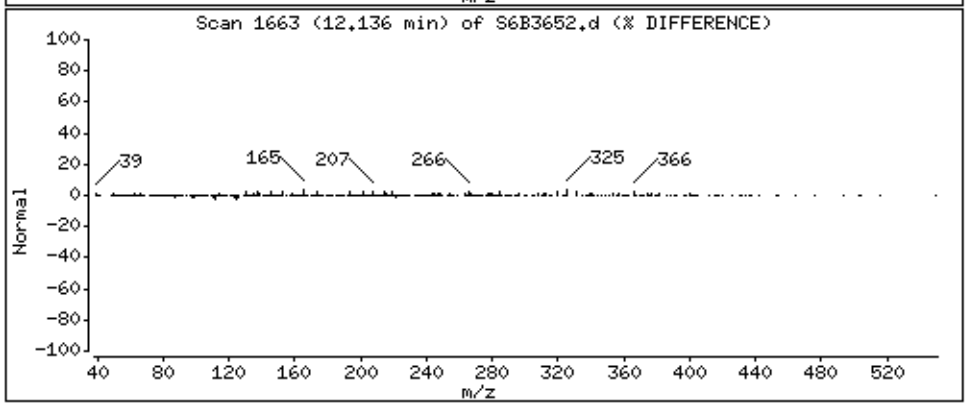












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

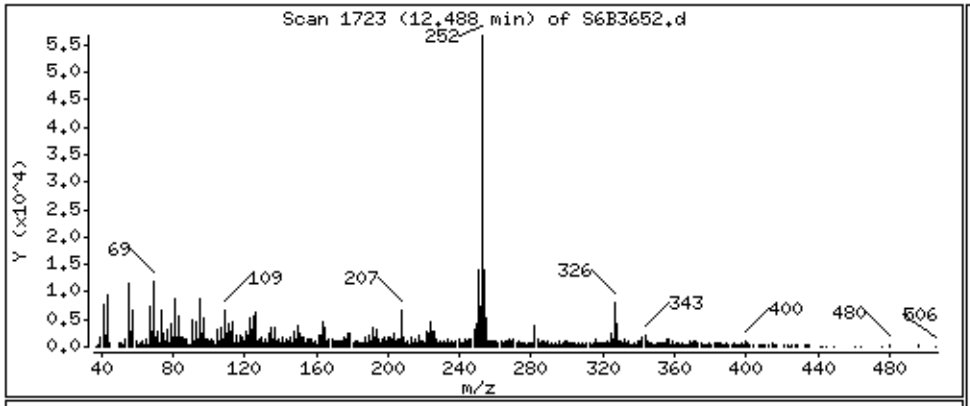
Operator: PK SRC: LIMS

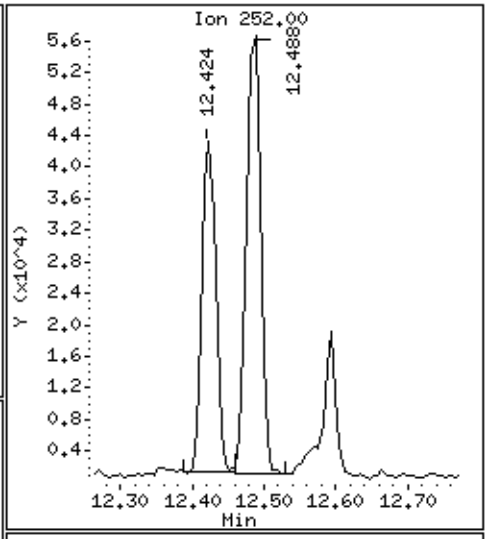
Column phase: Rxi-5Sil MS

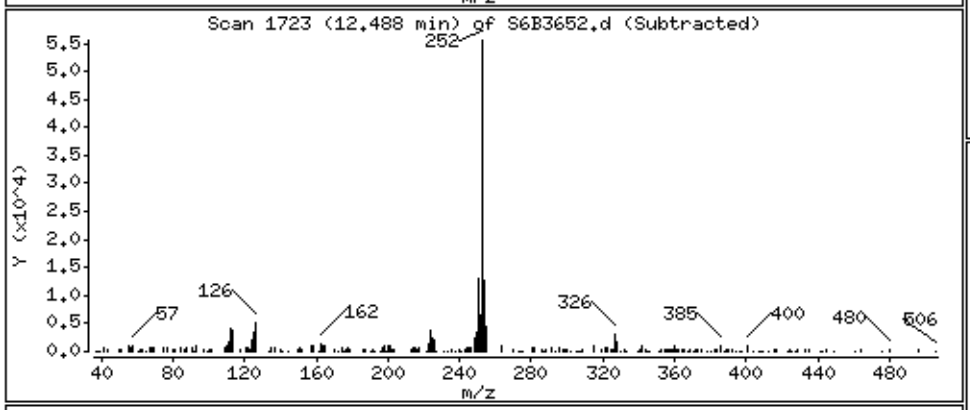
Column diameter: 0.25

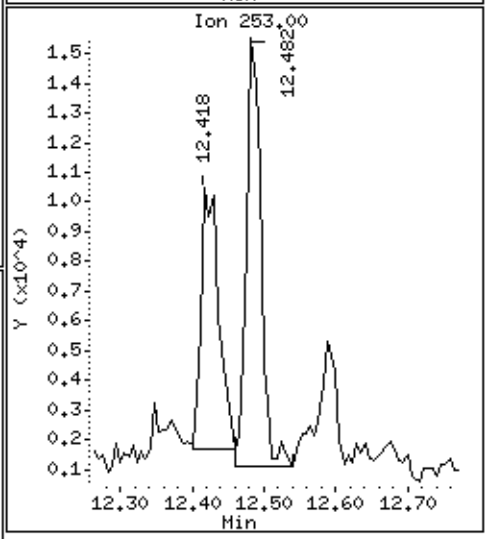
82 Benzo(a)pyrene

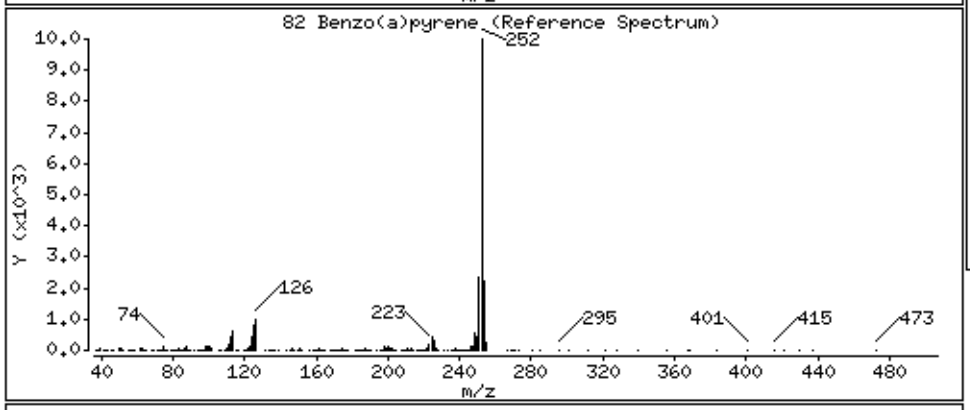
Concentration: 140 ug/Kg

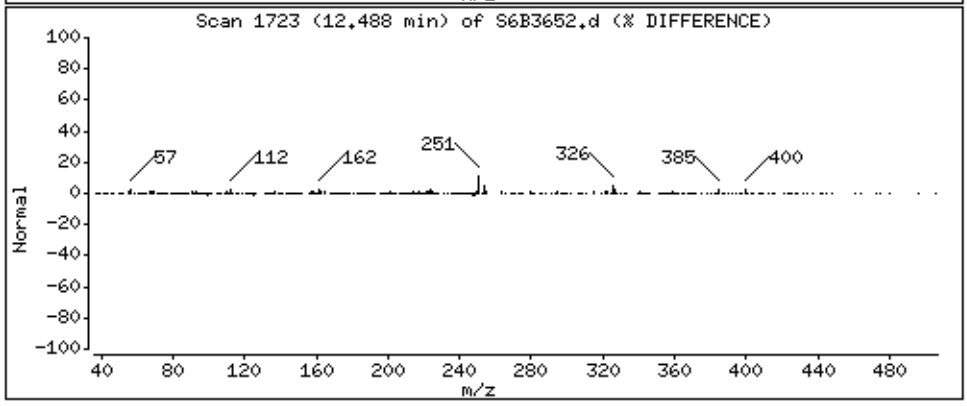












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

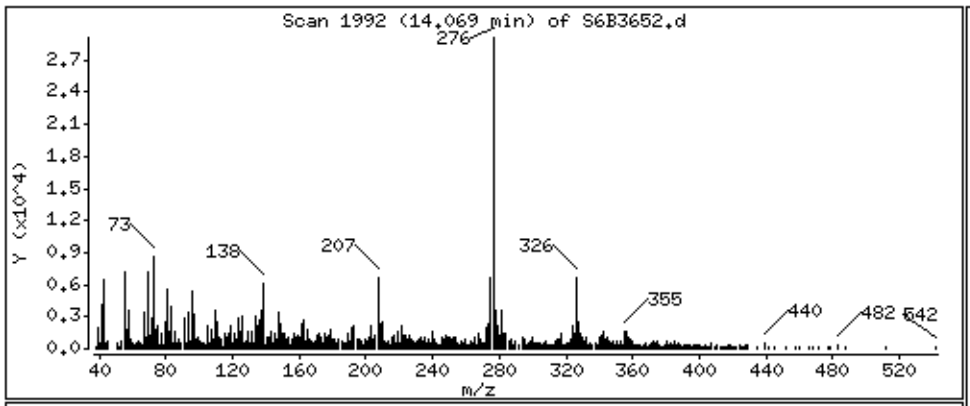
Operator: PK SRC: LIMS

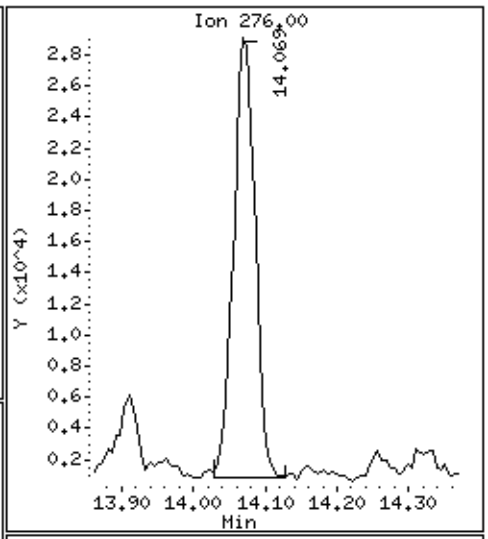
Column phase: Rxi-5Sil MS

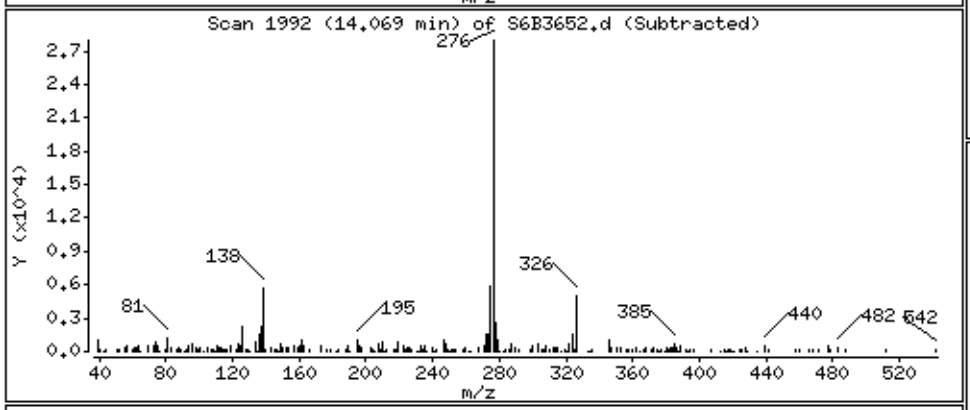
Column diameter: 0.25

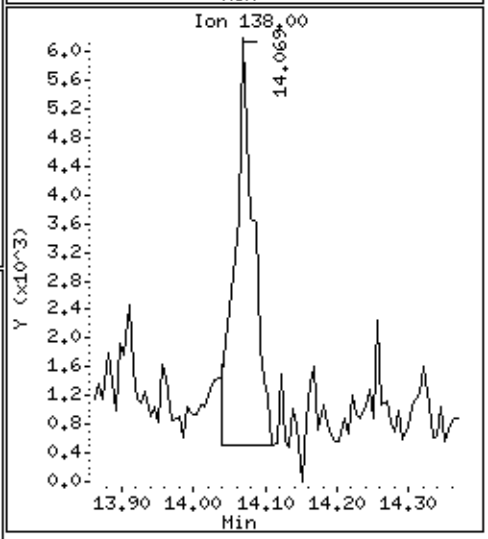
84 Indeno(1,2,3-cd)pyrene

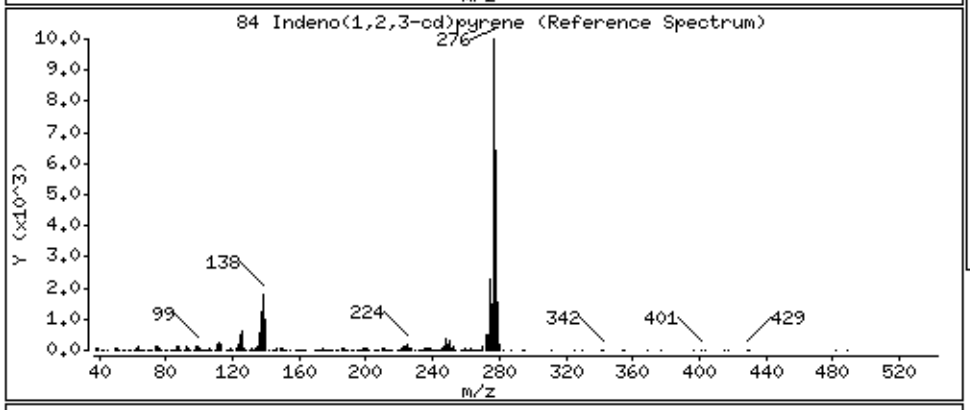
Concentration: 90 ug/Kg

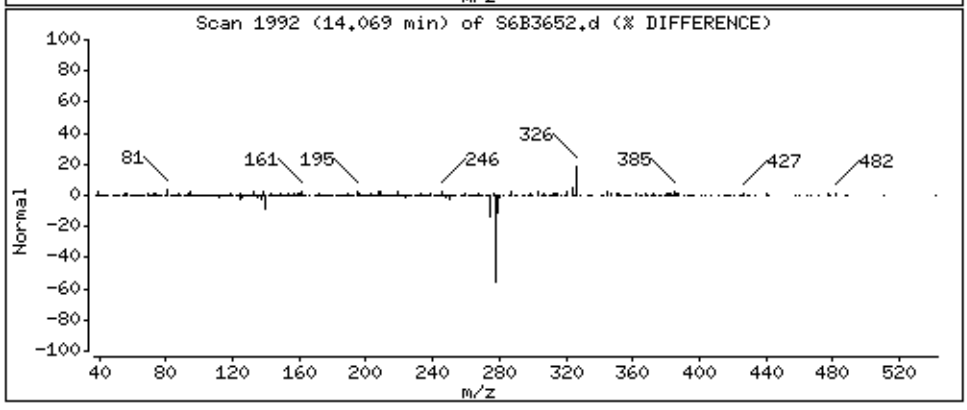












Data File: \\avogadro\organics\S6.I\130506.B\S6B3652.d

Date : 06-MAY-2013 19:36

Client ID: SB-127 (8-10)

Instrument: S6.i

Sample Info: M0619-05A,,71418

Volume Injected (uL): 1.0

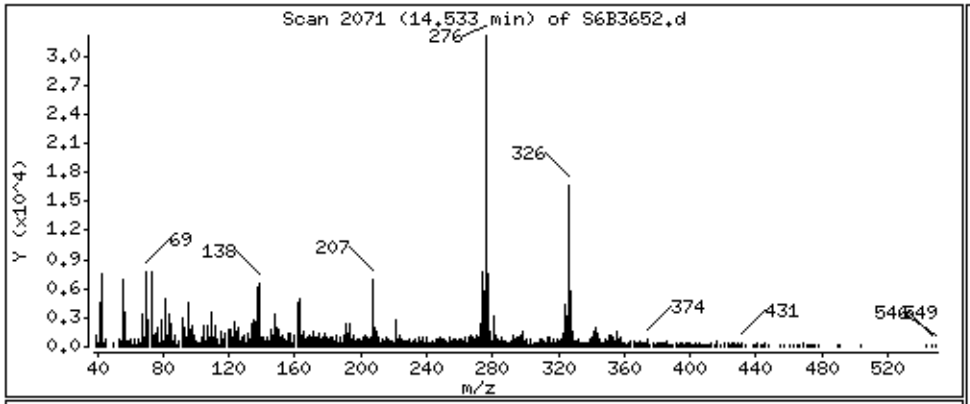
Operator: PK SRC: LIMS

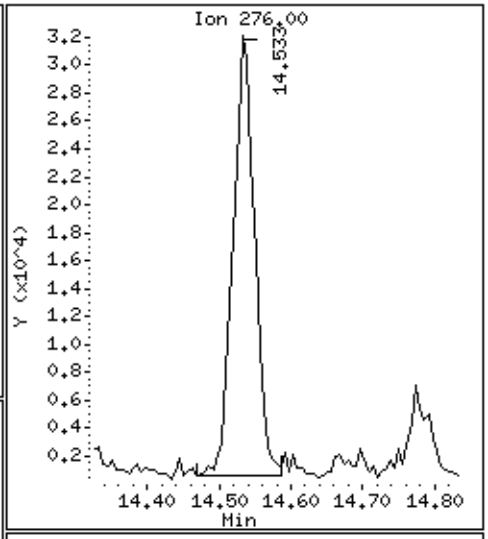
Column phase: Rxi-5Sil MS

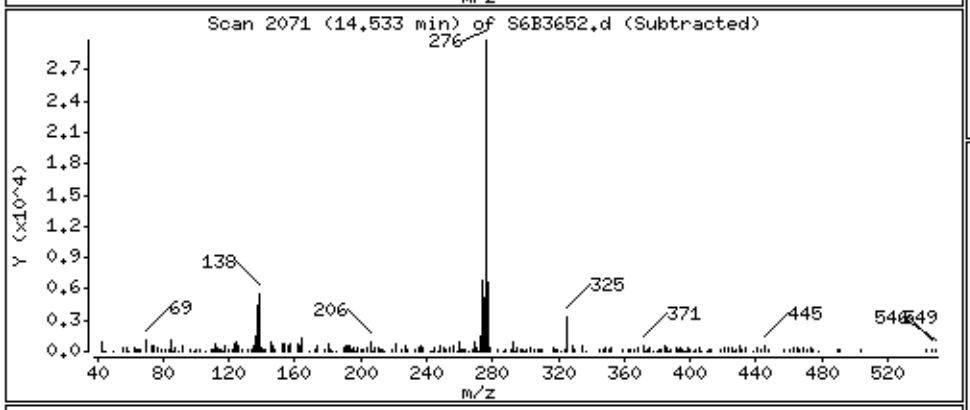
Column diameter: 0.25

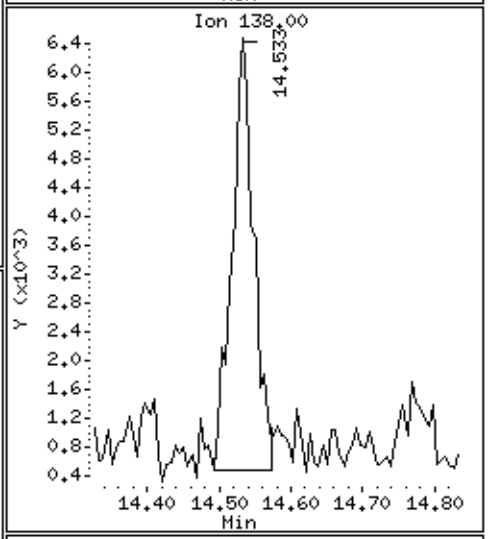
86 Benzo(g,h,i)perylene

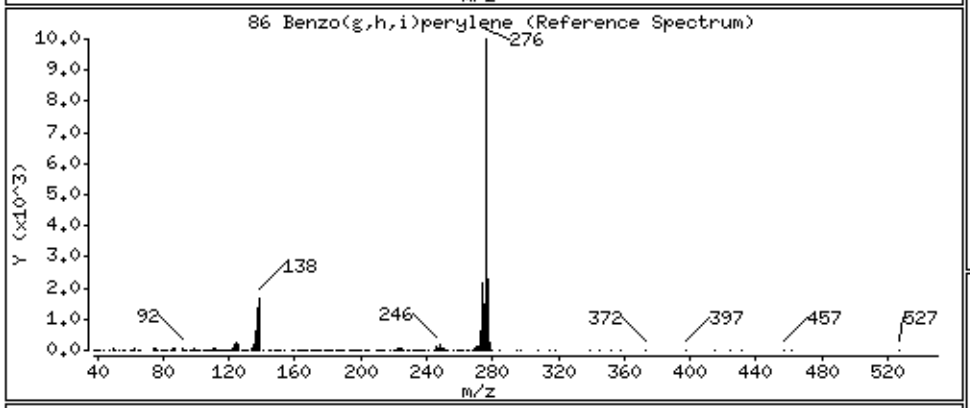
Concentration: 120 ug/Kg

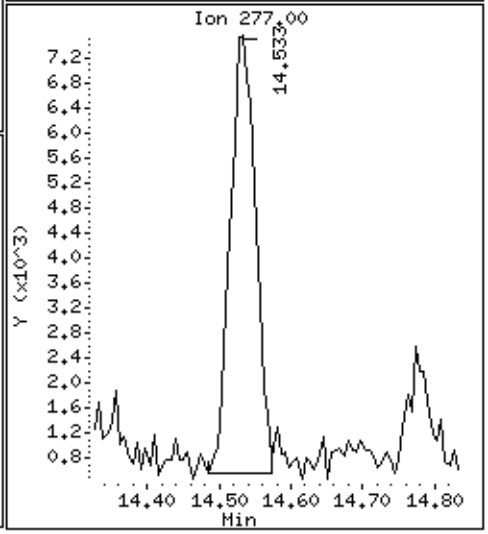


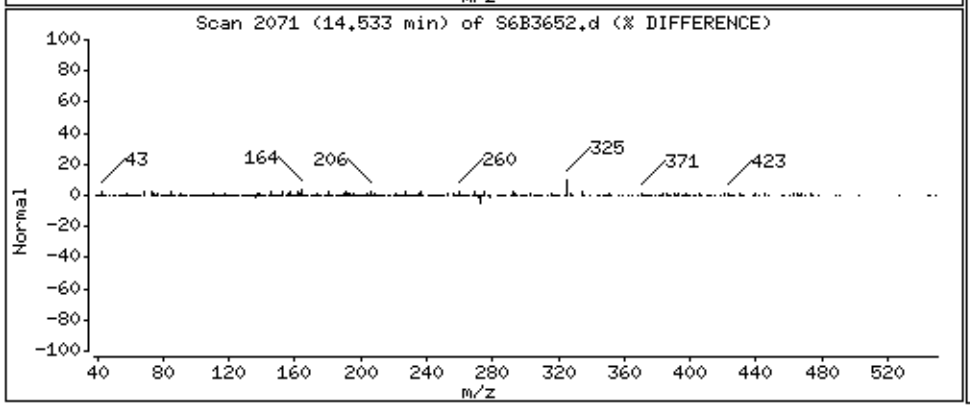












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-127 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06A

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3653.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	84000	E
91-57-6	2-Methylnaphthalene	29000	E
208-96-8	Acenaphthylene	1100	
83-32-9	Acenaphthene	2700	
86-73-7	Fluorene	3900	
85-01-8	Phenanthrene	21000	E
120-12-7	Anthracene	5400	
206-44-0	Fluoranthene	15000	E
129-00-0	Pyrene	15000	E
56-55-3	Benzo(a)anthracene	8100	E
218-01-9	Chrysene	7900	E
205-99-2	Benzo(b)fluoranthene	6100	
207-08-9	Benzo(k)fluoranthene	2600	
50-32-8	Benzo(a)pyrene	5400	
193-39-5	Indeno(1,2,3-cd)pyrene	2400	
53-70-3	Dibenzo(a,h)anthracene	870	
191-24-2	Benzo(g,h,i)perylene	2800	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3653.d
Lab Smp Id: M0619-06A Client Smp ID: SB-127 (10-12)
Inj Date : 06-MAY-2013 19:58
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-06A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	5.079	5.061	(1.000)	305651	40.0000	(H)
$ 22 Nitrobenzene-d5	82	5.537	5.519	(0.910)	476538	30.9011	2000(H)
* 31 Naphthalene-d8	136	6.166	6.113	(1.000)	1725809	40.0000	(H)
32 Naphthalene	128	6.154	6.130	(0.998)	37706952	1007.89	65000(AM)M6 PK 05/07
36 2-Methylnaphthalene	142	6.736	6.700	(1.107)	9917158	345.837	22000(AH)
$ 41 2-Fluorobiphenyl	172	7.006	7.000	(0.924)	727271	29.5152	1900
46 Acenaphthylene	152	7.464	7.452	(0.985)	414927	12.9594	840
* 48 Acenaphthene-d10	164	7.582	7.570	(1.000)	843598	40.0000	
49 Acenaphthene	153	7.611	7.599	(1.004)	697056	32.0325	2100
55 Fluorene	166	8.034	8.022	(1.060)	1239608	46.5617	3000
* 64 Phenanthrene-d10	188	8.816	8.804	(1.000)	1365180	40.0000	
65 Phenanthrene	178	8.851	8.827	(1.004)	8041153	257.712	17000(A)
66 Anthracene	178	8.880	8.868	(1.007)	2095000	65.3099	4200
69 Fluoranthene	202	9.856	9.826	(1.118)	6928338	181.438	12000(A)
71 Pyrene	202	10.055	10.020	(0.904)	7007594	181.428	12000(A)
$ 72 Terphenyl-d14	244	10.155	10.138	(0.913)	1007100	36.3345	2400
75 Benzo(a)anthracene	228	11.113	11.083	(0.999)	4135862	97.1809	6300(A)
* 76 Chrysene-d12	240	11.125	11.101	(1.000)	1847319	40.0000	
77 Chrysene	228	11.154	11.125	(1.003)	3372778	94.7560	6200(AH)

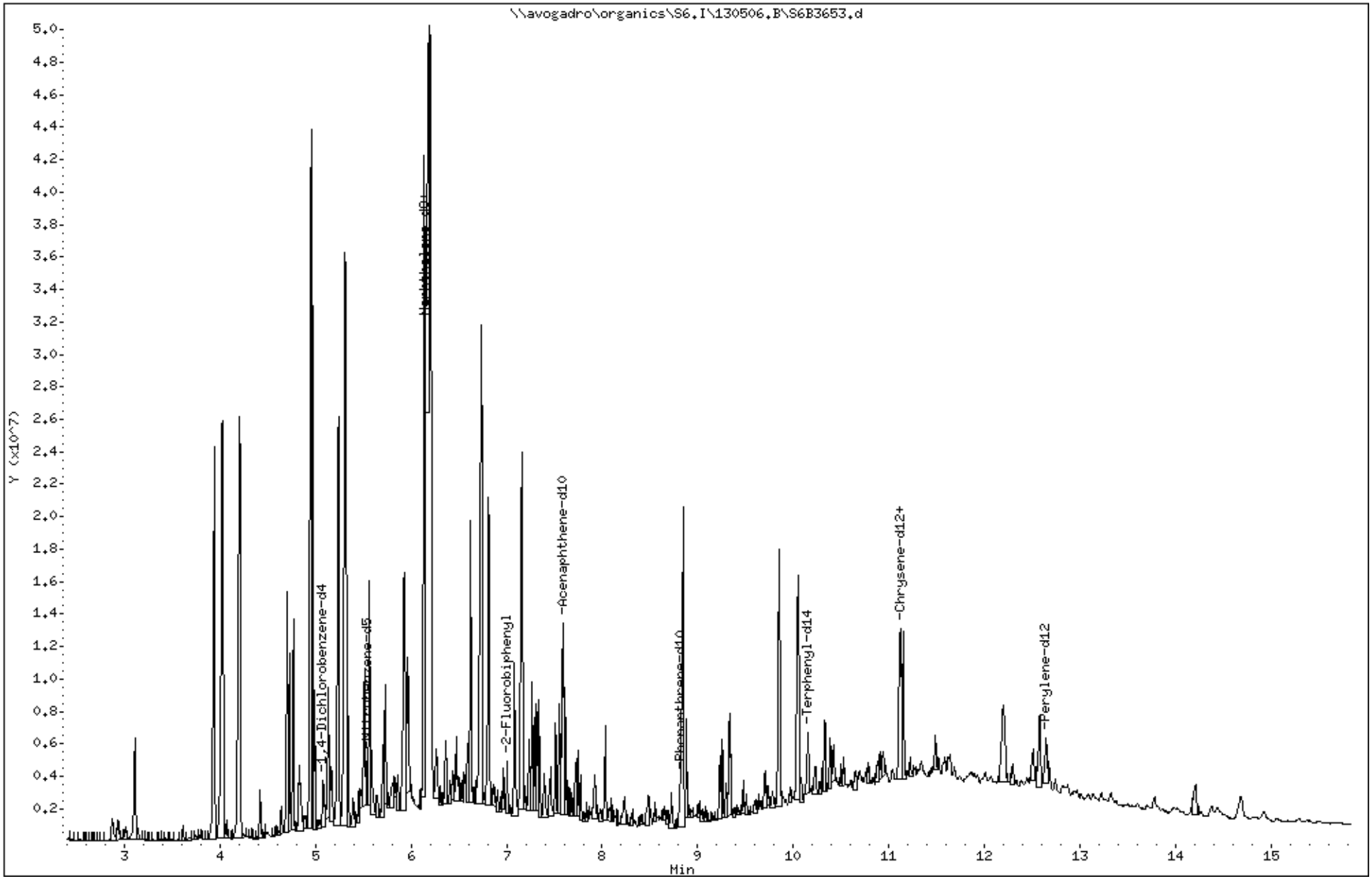
Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d
Report Date: 07-May-2013 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	80 Benzo(b)fluoranthene	252	12.194	12.141	(0.964)	3489902	73.5883	4800(MH)M2 PK 05/07
	81 Benzo(k)fluoranthene	252	12.206	12.170	(0.965)	1403421	31.5711	2000(QM)M2 PK 05/07
	82 Benzo(a)pyrene	252	12.505	12.517	(0.993)	1515087	35.7920	2300(H)
*	83 Perylene-d12	264	12.646	12.593	(1.000)	1814256	40.0000	(H)
	84 Indeno(1,2,3-cd)pyrene	276	14.209	14.115	(1.128)	1510661	28.7986	1900
	85 Dibenzo(a,h)anthracene	278	14.209	14.133	(1.128)	455925	10.4364	680(H)
	86 Benzo(g,h,i)perylene	276	14.679	14.579	(1.166)	1414271	33.1519	2200(H)

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d
Date : 06-MAY-2013 19:58
Client ID: SB-127 (10-12)
Instrument: S6.i
Sample Info: M0619-06A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

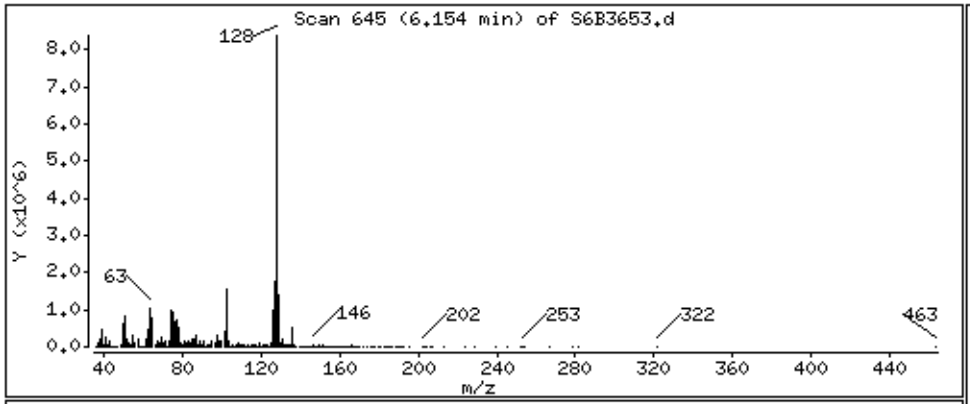
Client ID: SB-127 (10-12) Instrument: S6.i

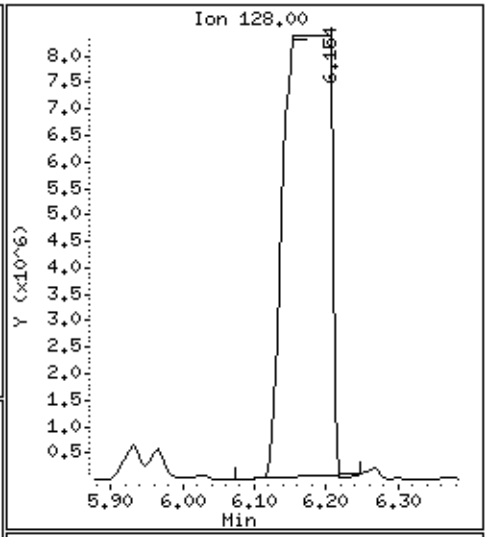
Sample Info: M0619-06A,,71418

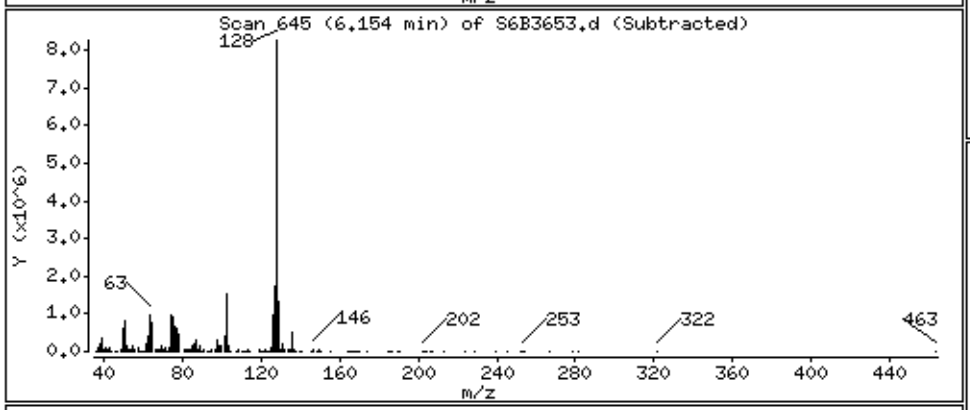
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

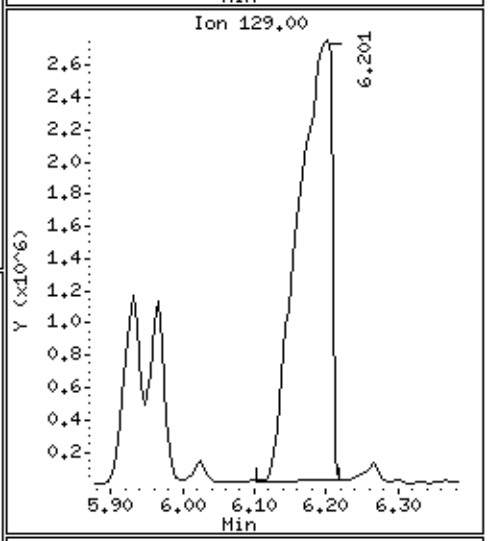
Column phase: Rxi-5Sil MS Column diameter: 0.25

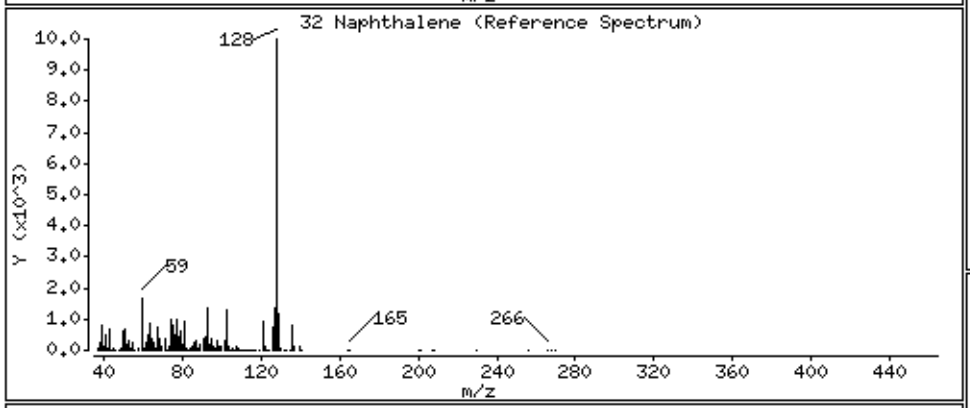
32 Naphthalene Concentration: 65000 ug/Kg

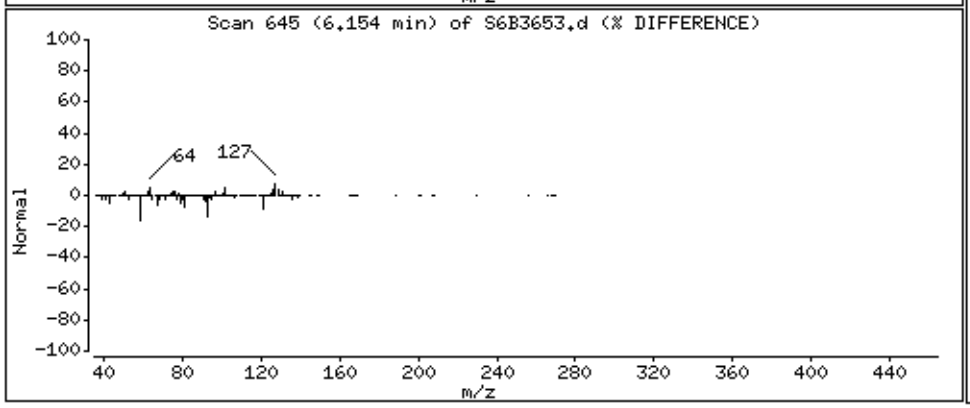


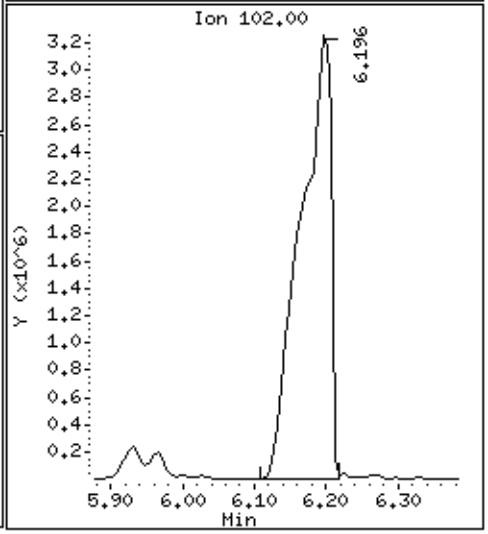












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

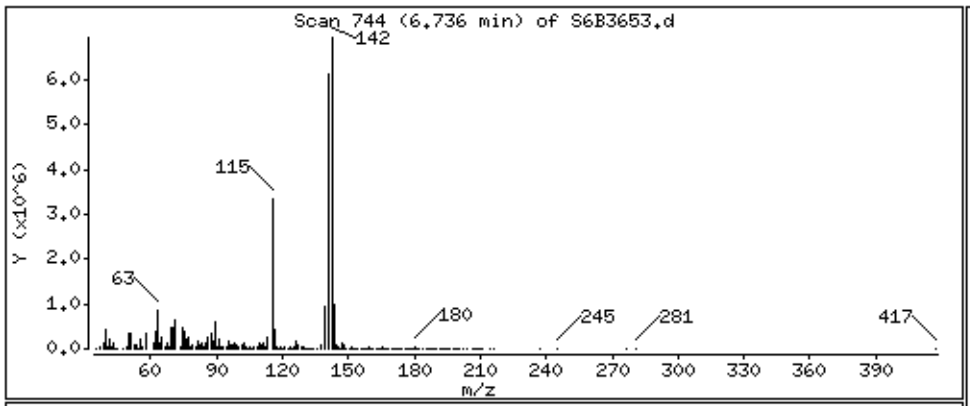
Operator: PK SRC: LIMS

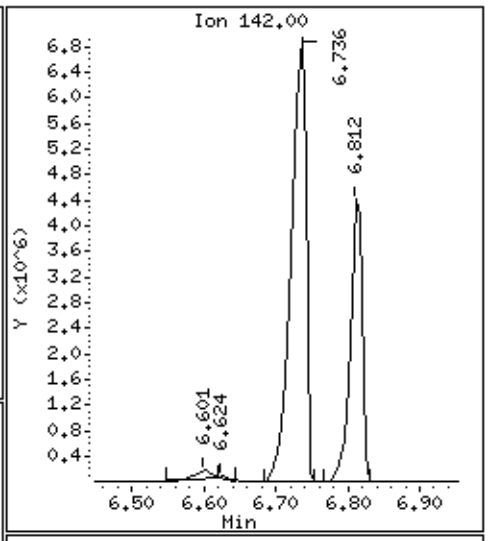
Column phase: Rxi-5Sil MS

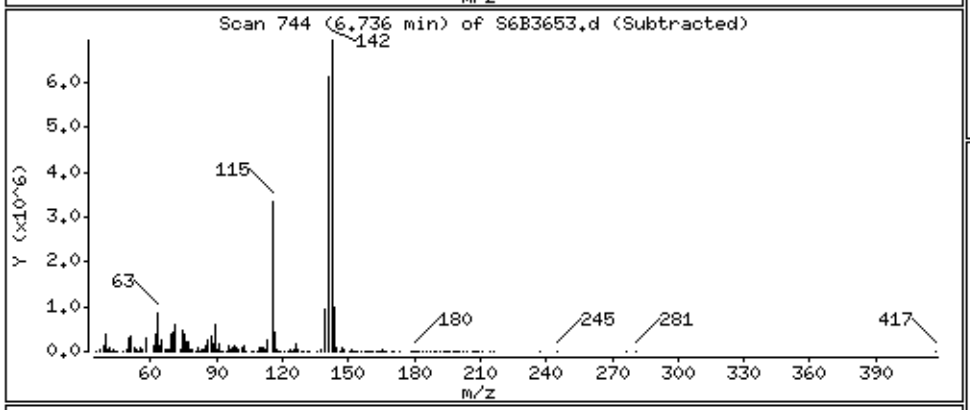
Column diameter: 0.25

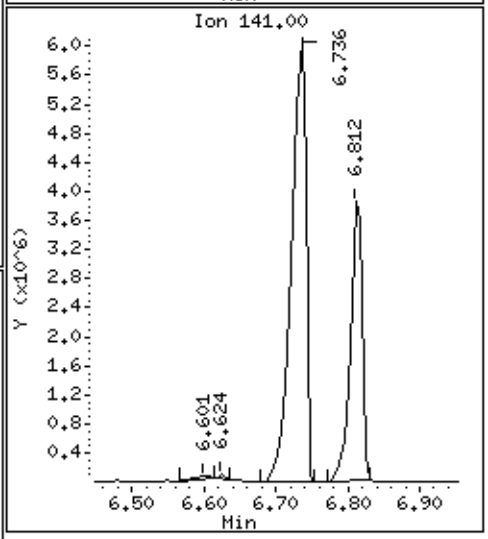
36 2-Methylnaphthalene

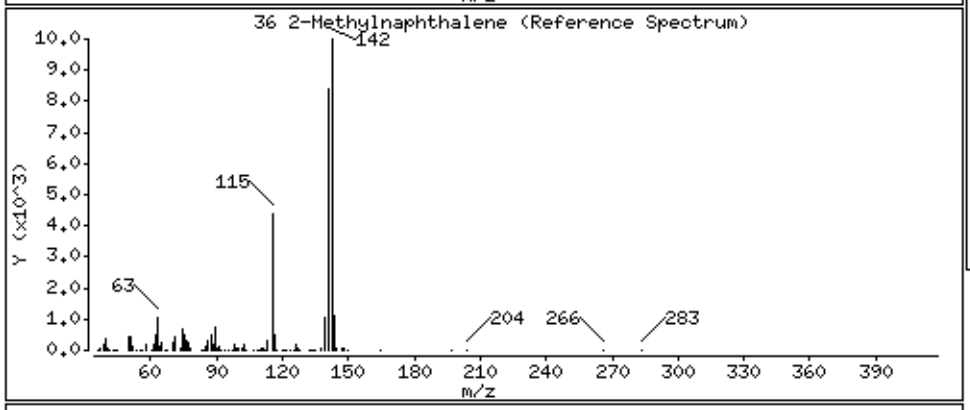
Concentration: 22000 ug/Kg

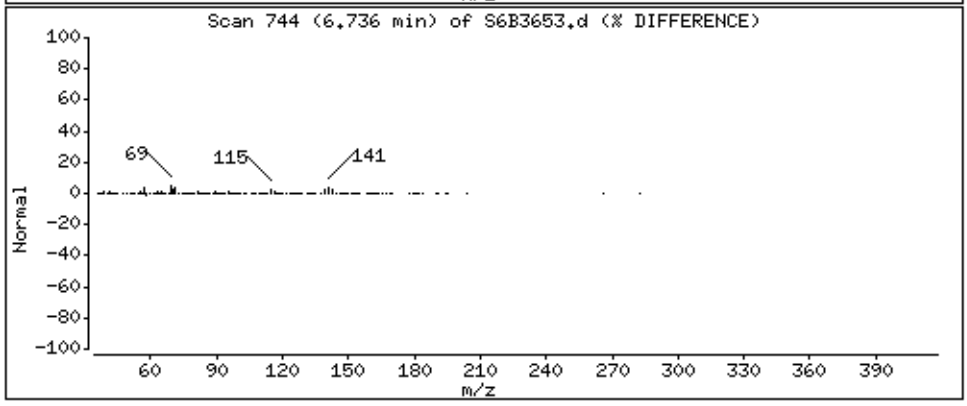












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

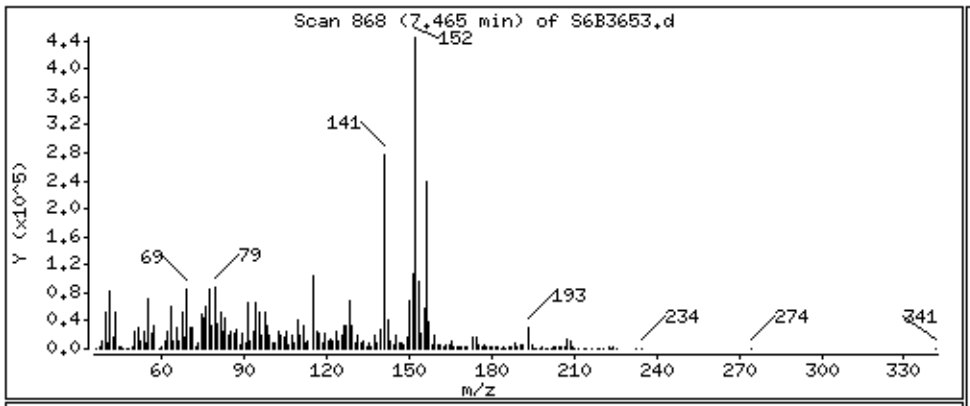
Operator: PK SRC: LIMS

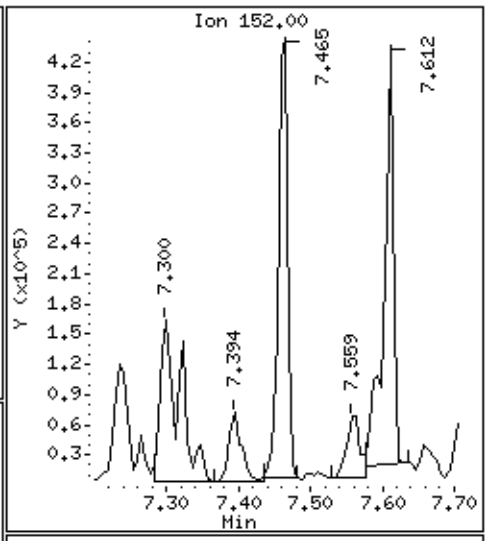
Column phase: Rxi-5Sil MS

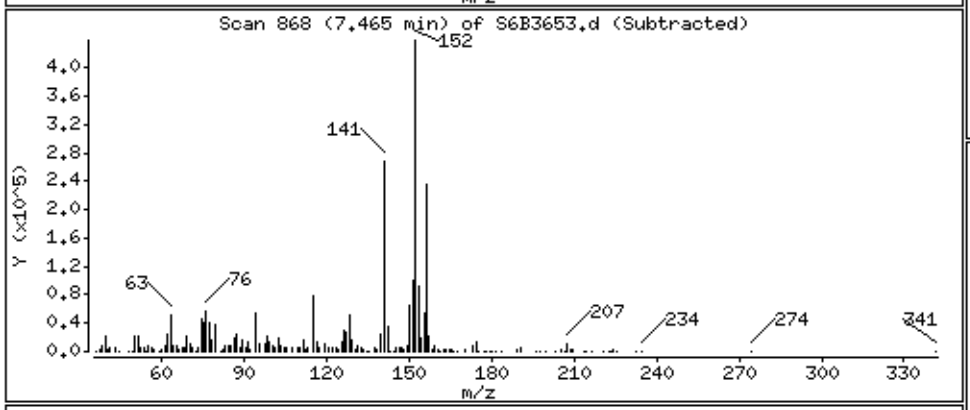
Column diameter: 0.25

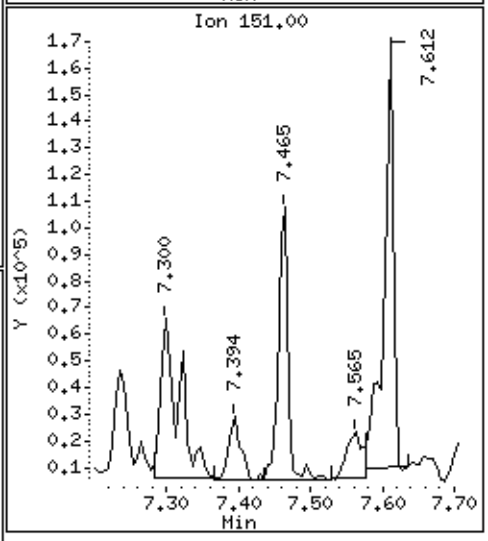
46 Acenaphthylene

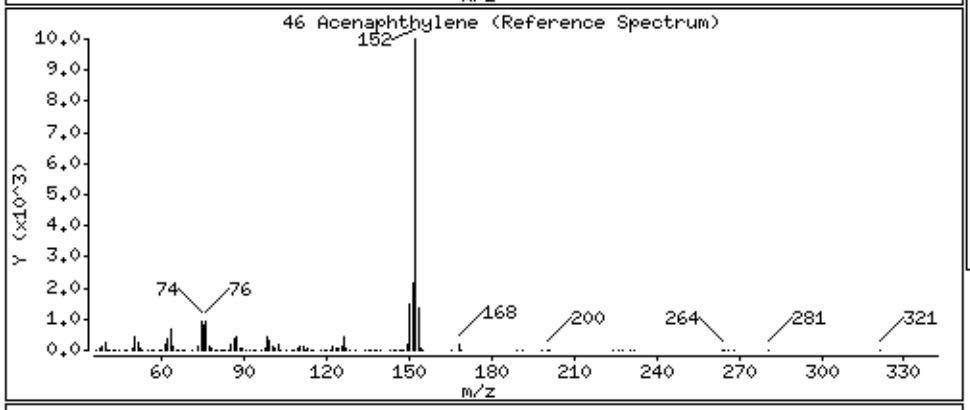
Concentration: 840 ug/Kg

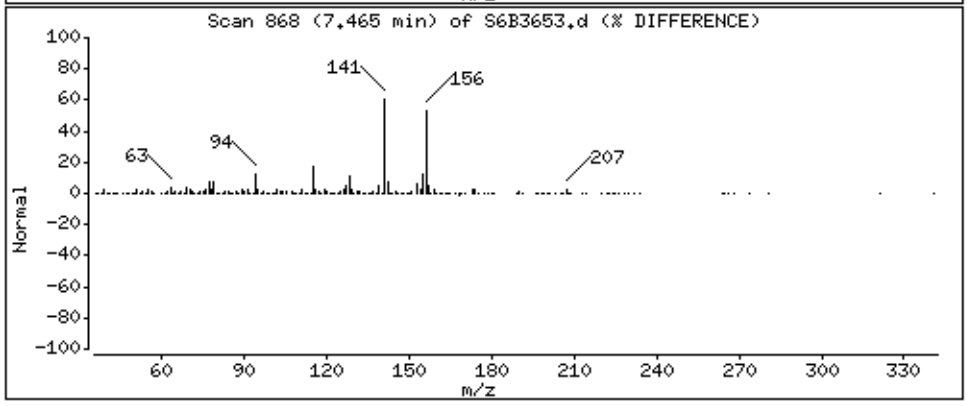












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

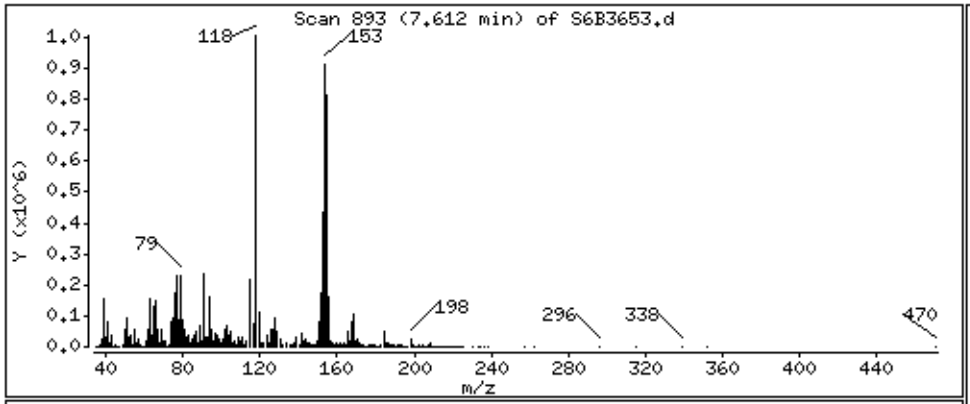
Operator: PK SRC: LIMS

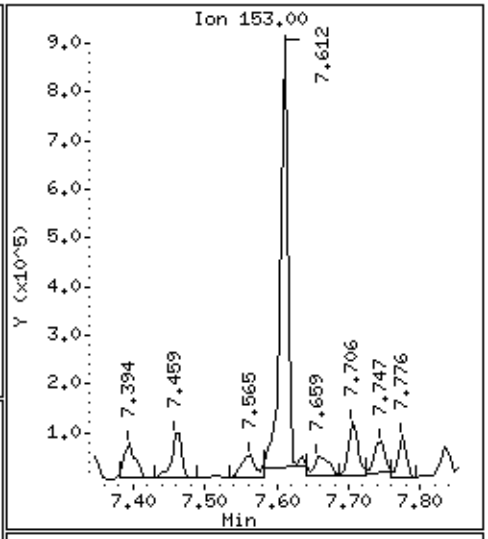
Column phase: Rxi-5Sil MS

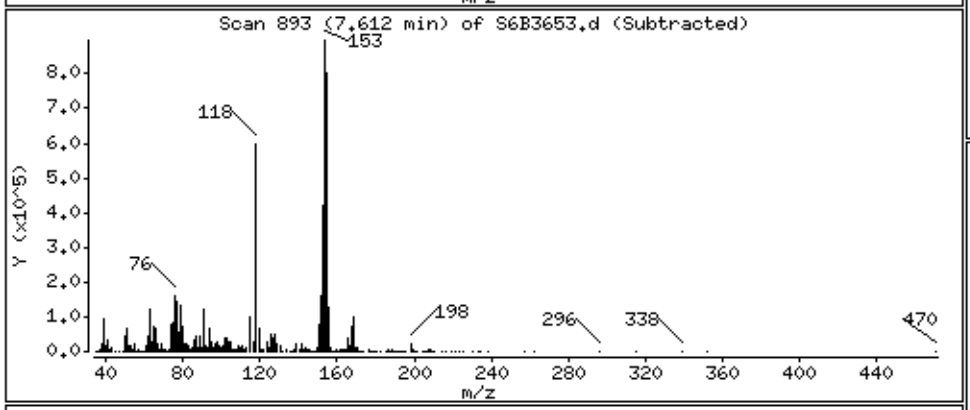
Column diameter: 0.25

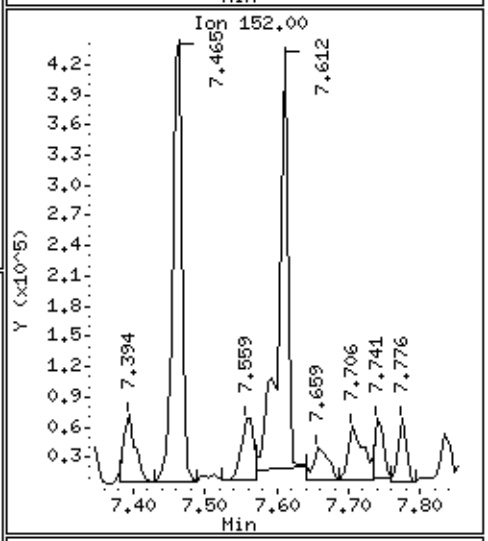
49 Acenaphthene

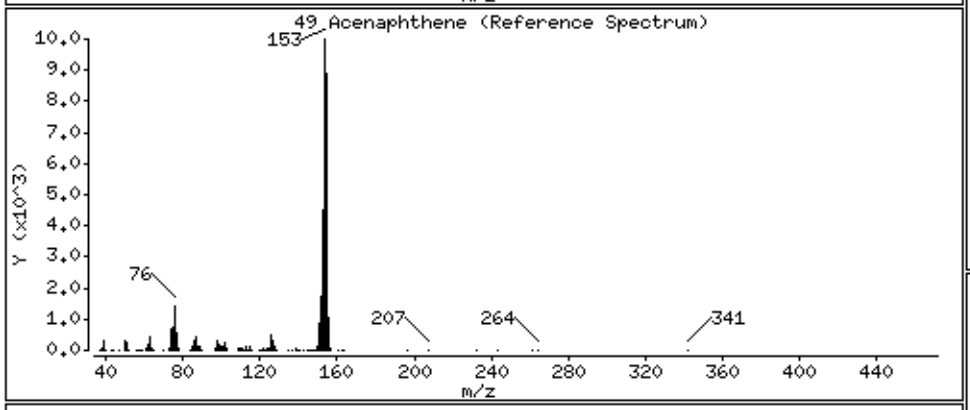
Concentration: 2100 ug/Kg

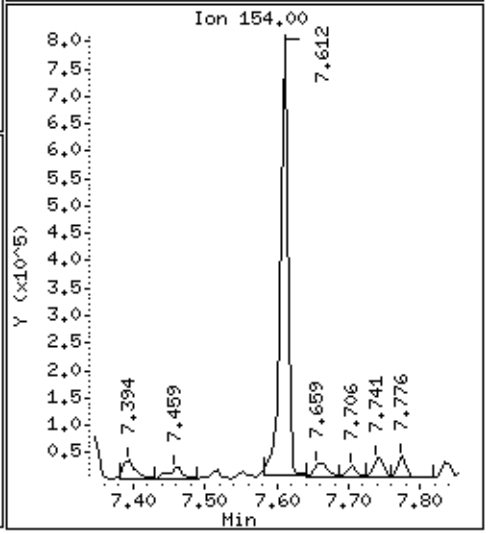


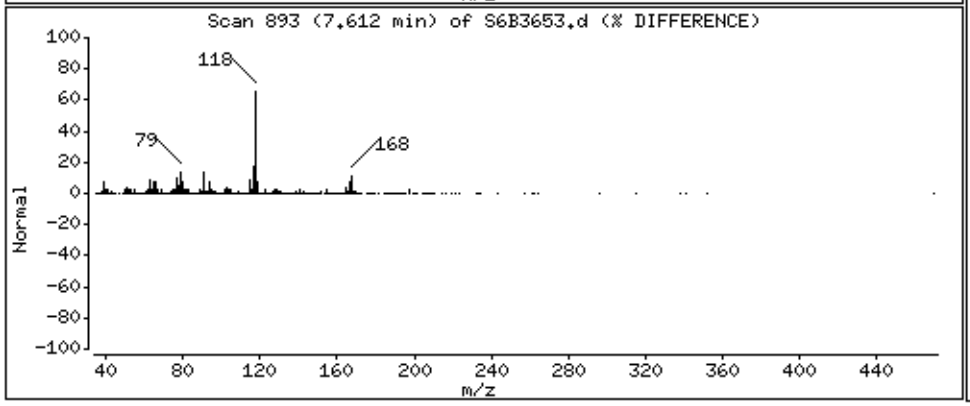












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

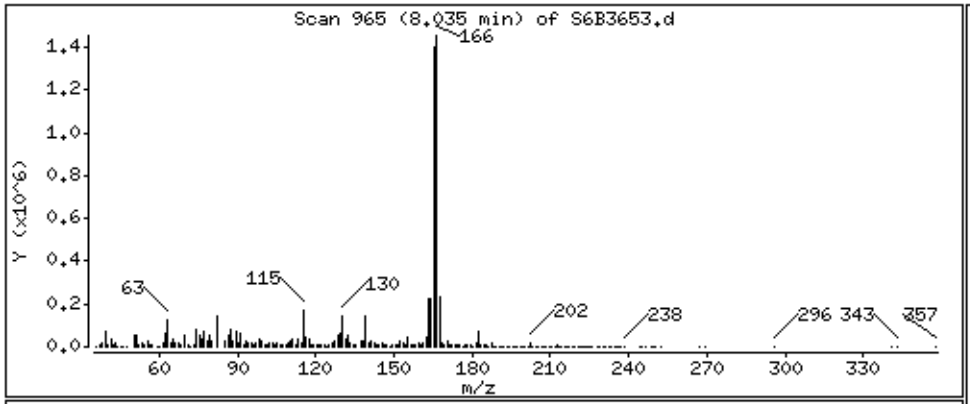
Operator: PK SRC: LIMS

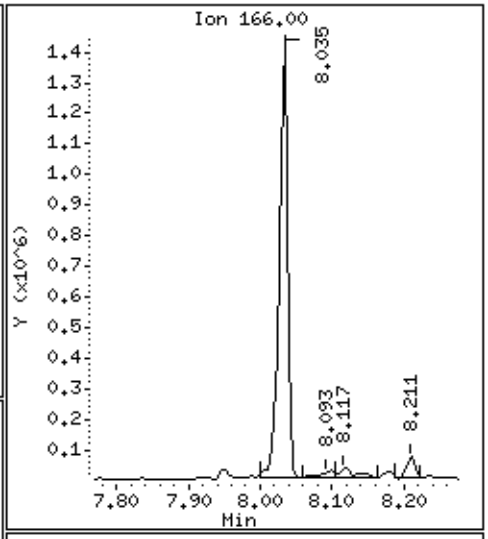
Column phase: Rxi-5Sil MS

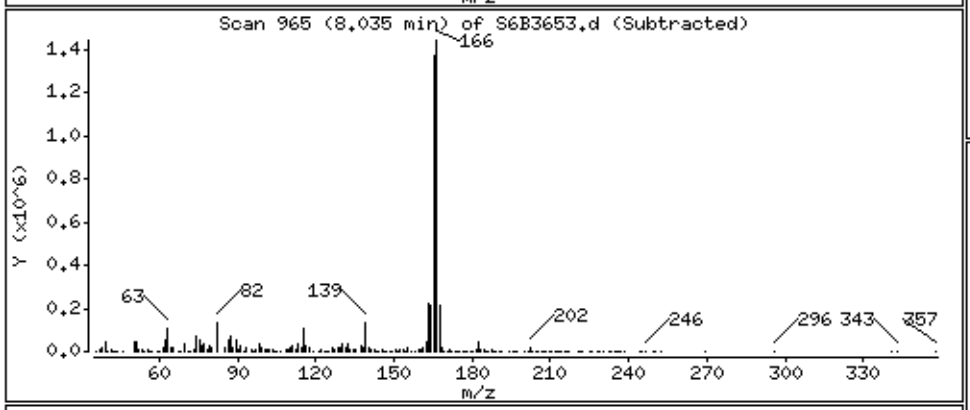
Column diameter: 0.25

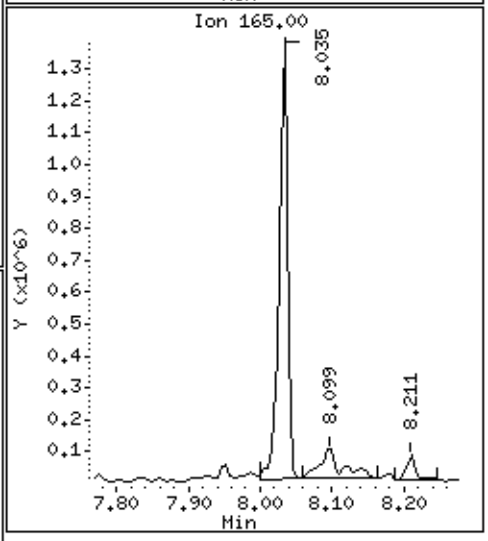
55 Fluorene

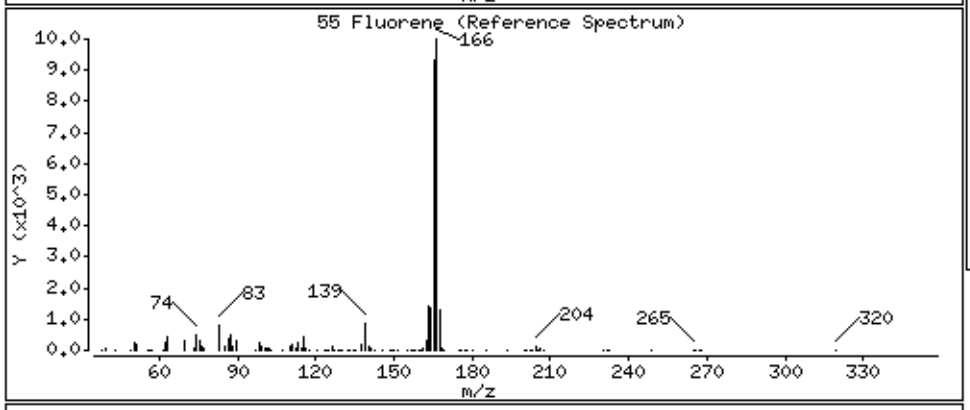
Concentration: 3000 ug/Kg

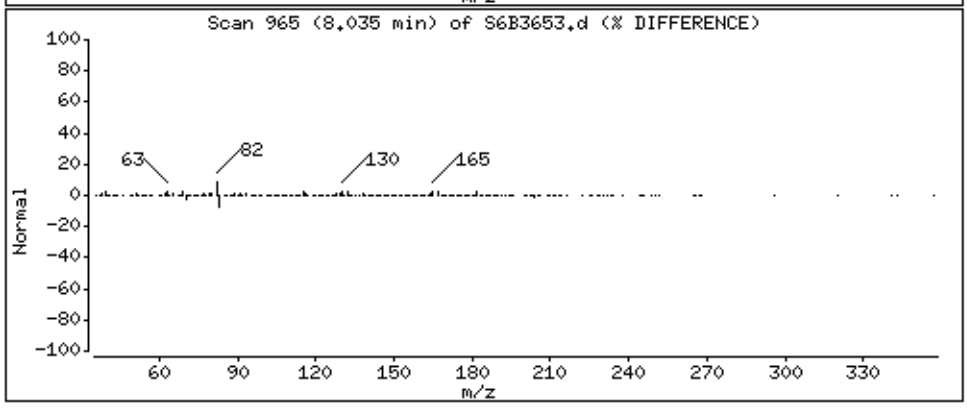












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

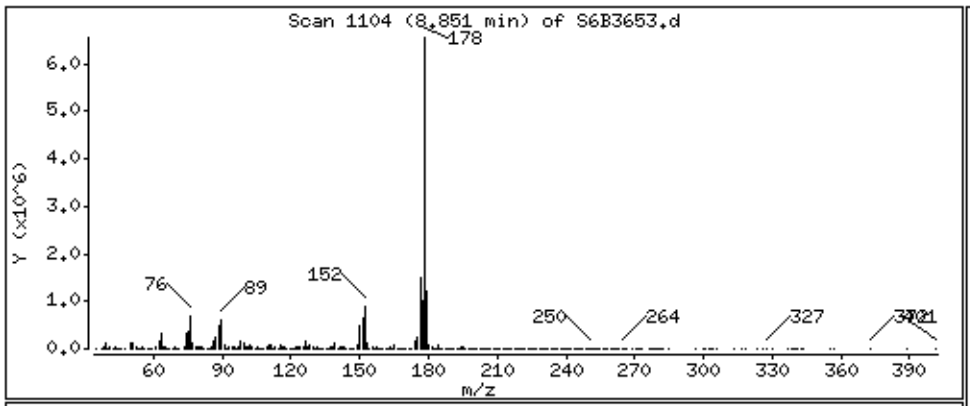
Operator: PK SRC: LIMS

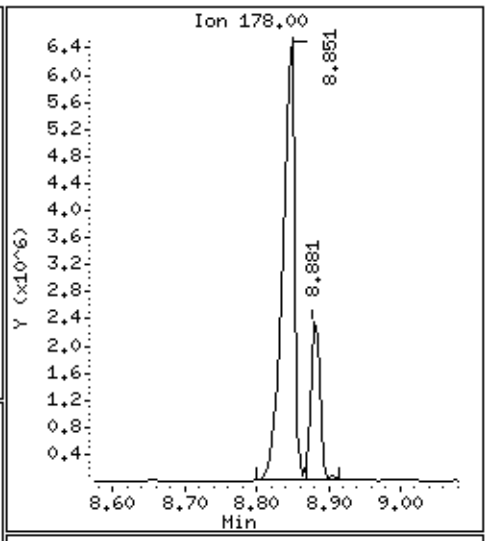
Column phase: Rxi-5Sil MS

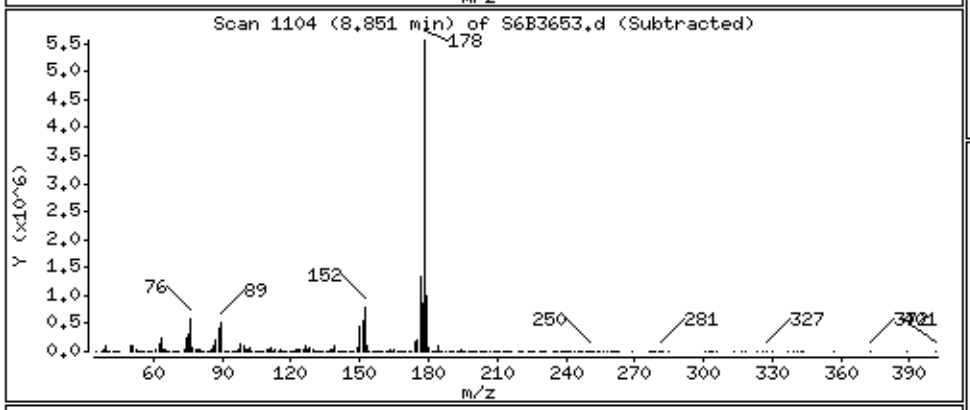
Column diameter: 0.25

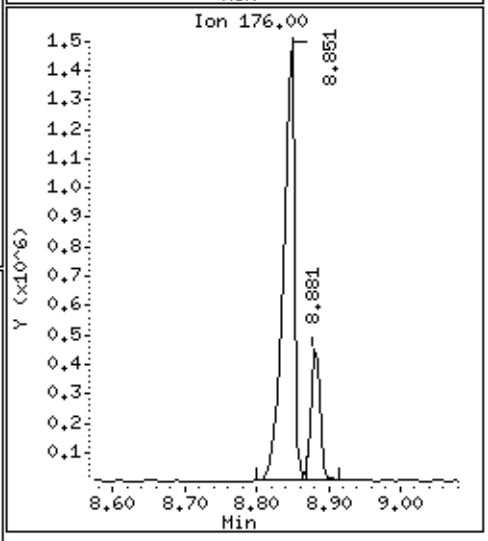
65 Phenanthrene

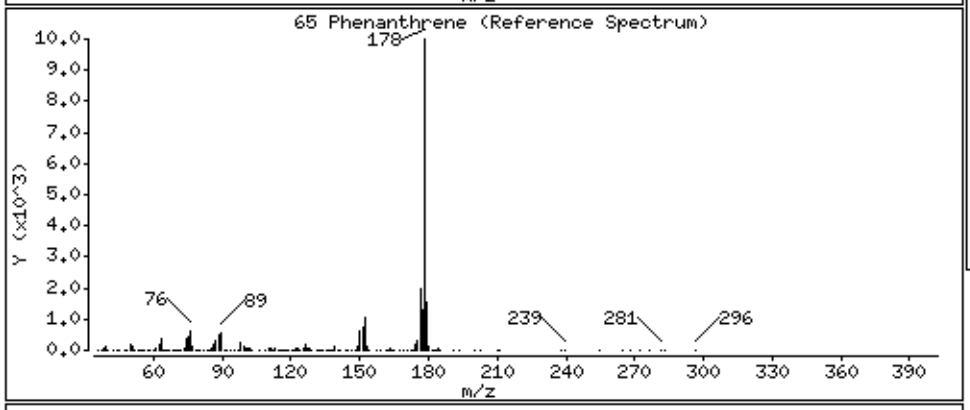
Concentration: 17000 ug/Kg

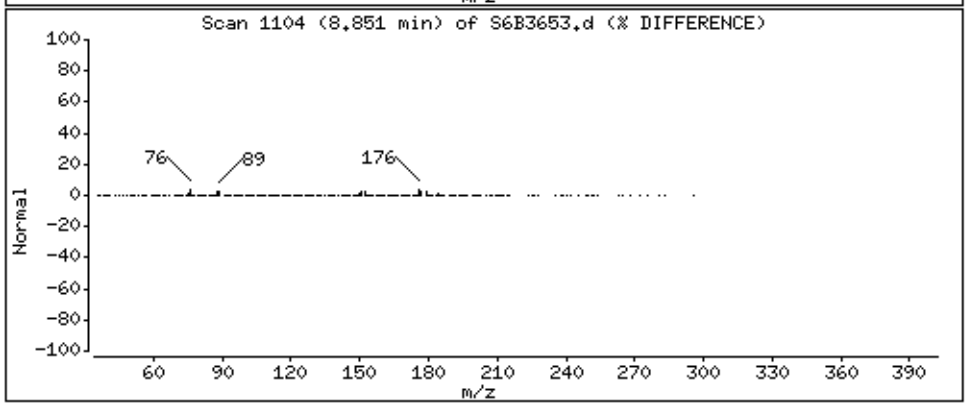












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

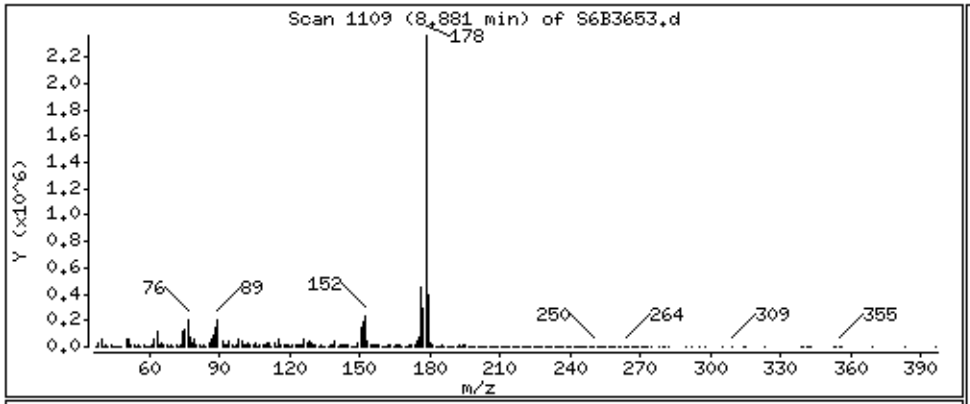
Operator: PK SRC: LIMS

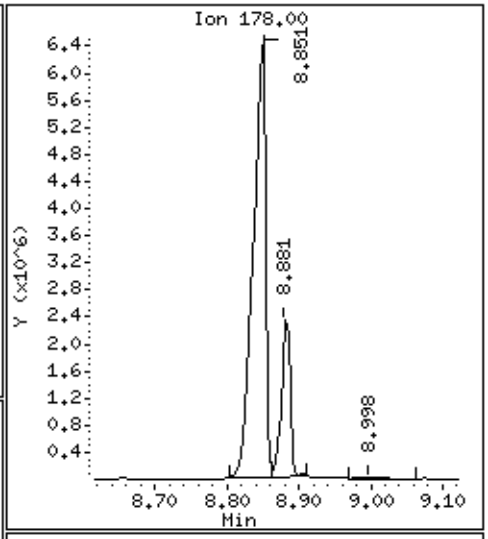
Column phase: Rxi-5Sil MS

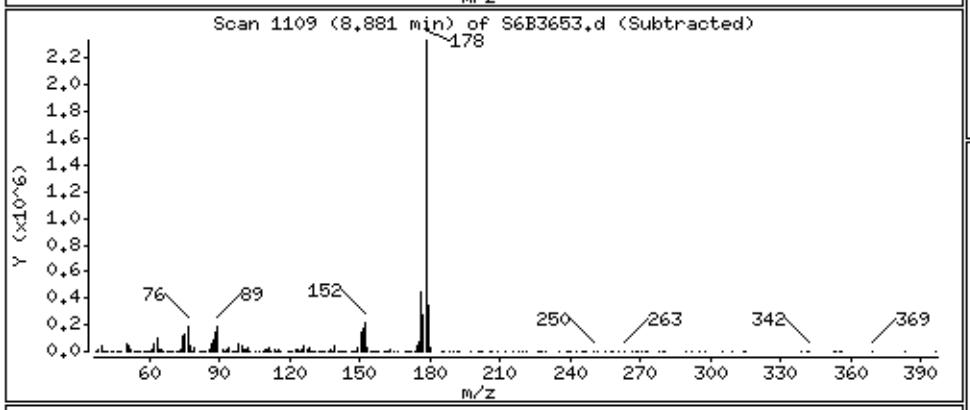
Column diameter: 0.25

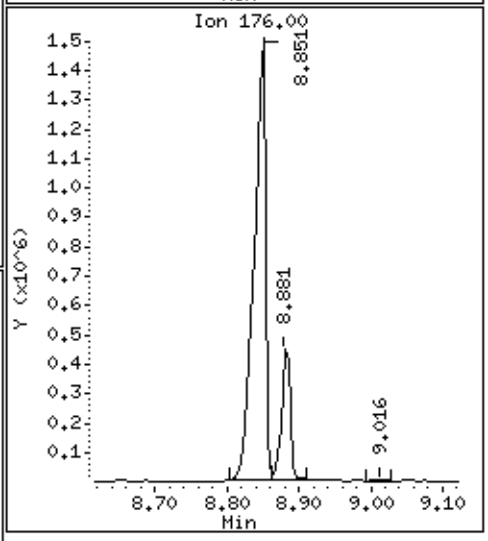
66 Anthracene

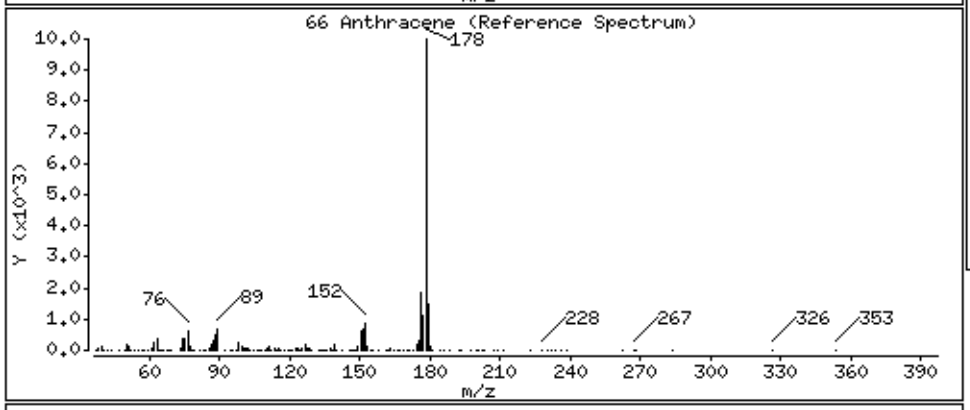
Concentration: 4200 ug/Kg

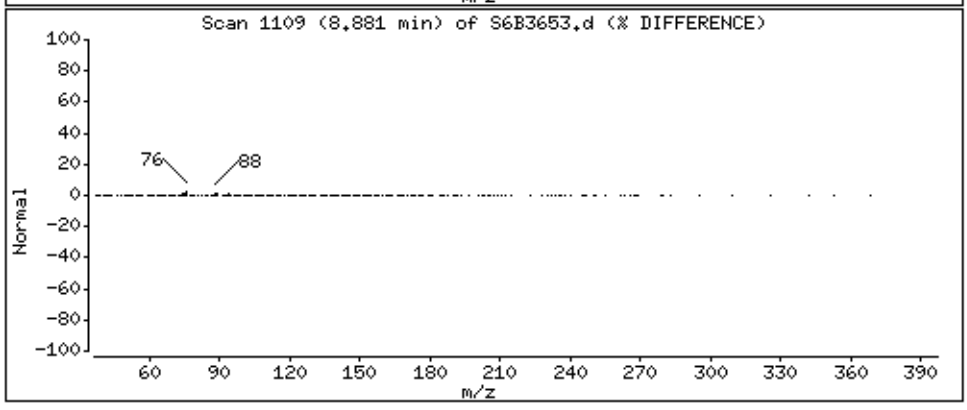












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

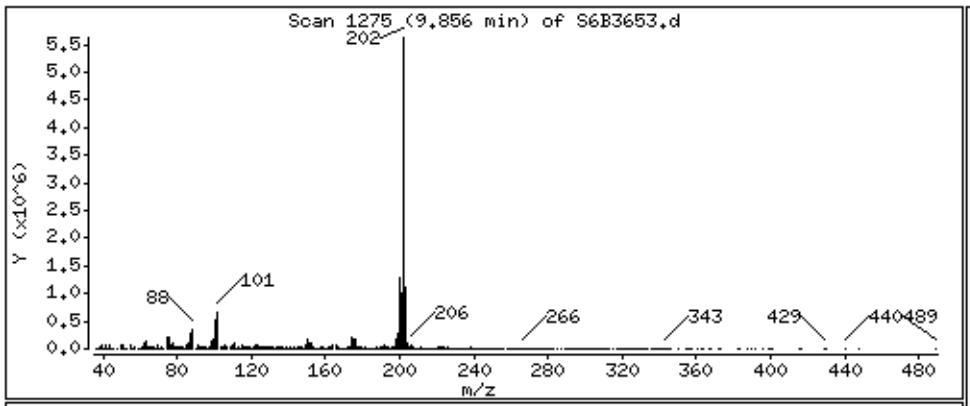
Operator: PK SRC: LIMS

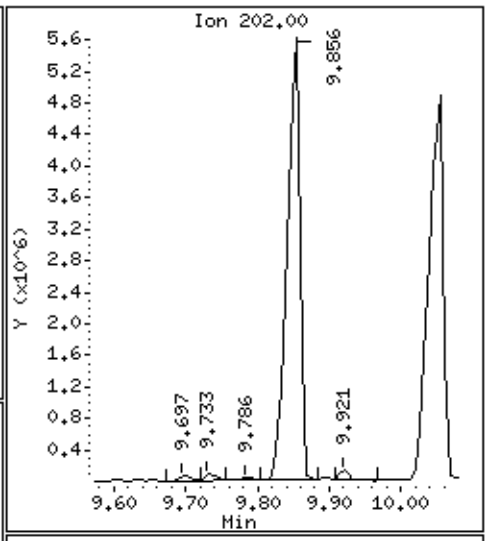
Column phase: Rxi-5Sil MS

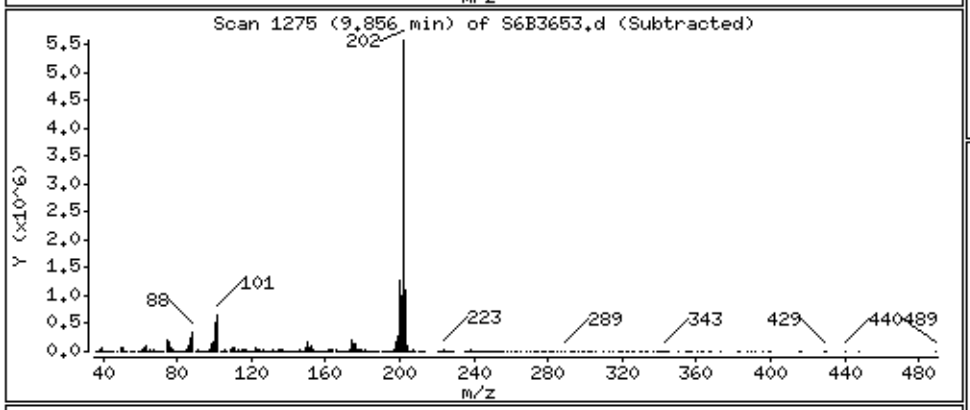
Column diameter: 0.25

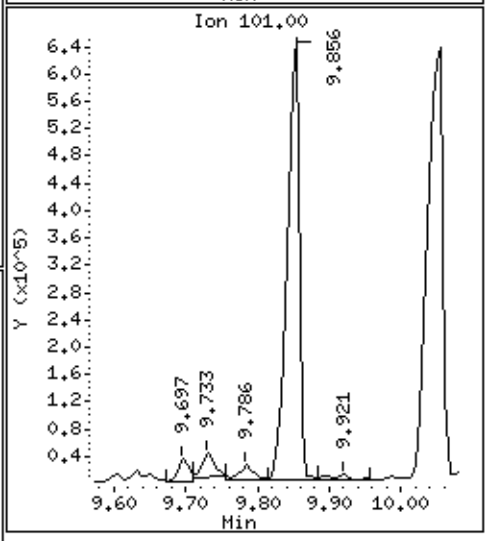
69 Fluoranthene

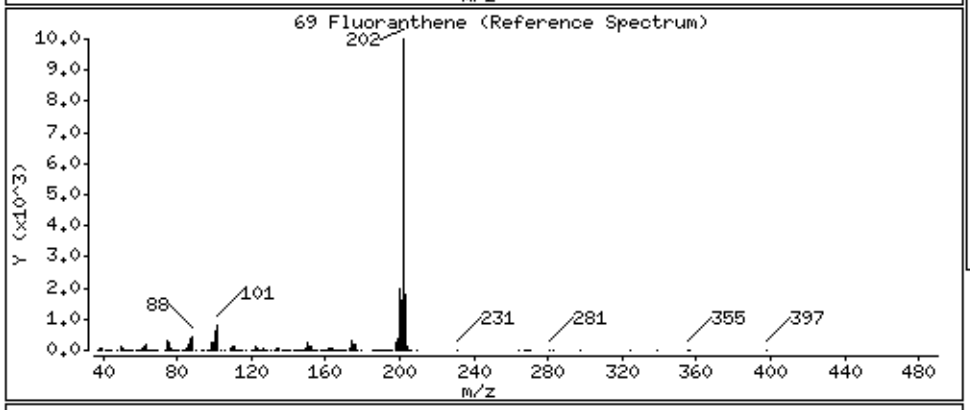
Concentration: 12000 ug/Kg

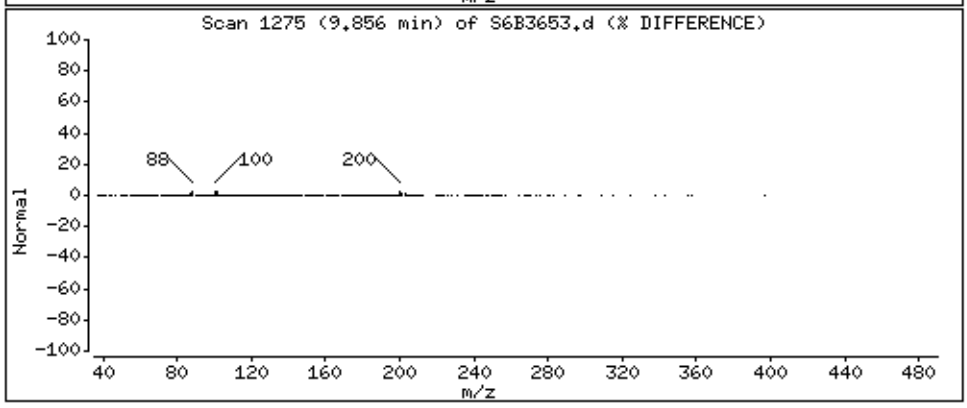












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

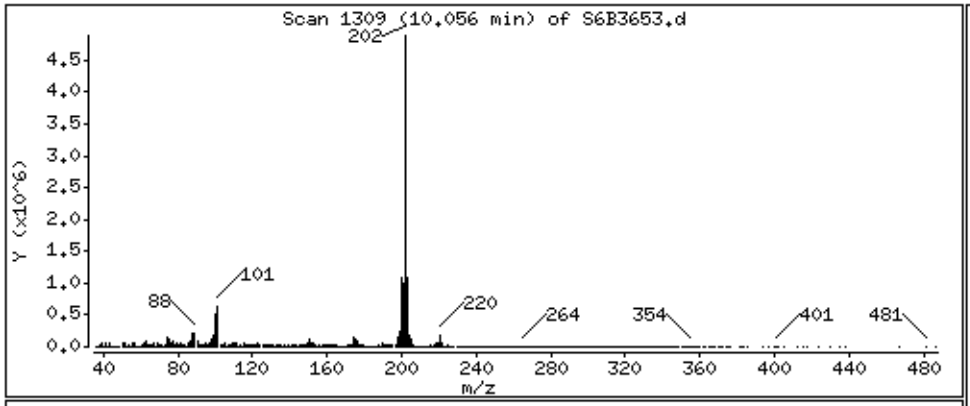
Operator: PK SRC: LIMS

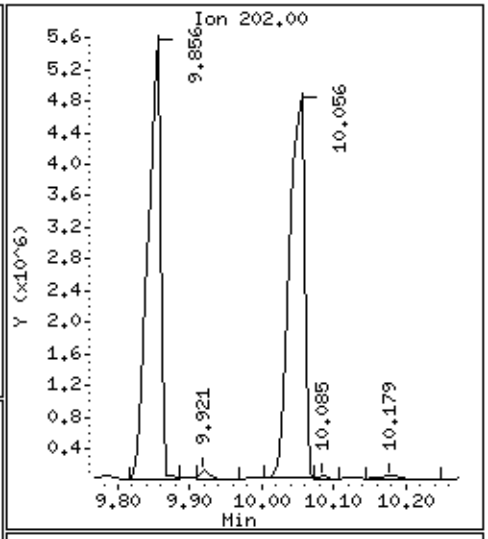
Column phase: Rxi-5Sil MS

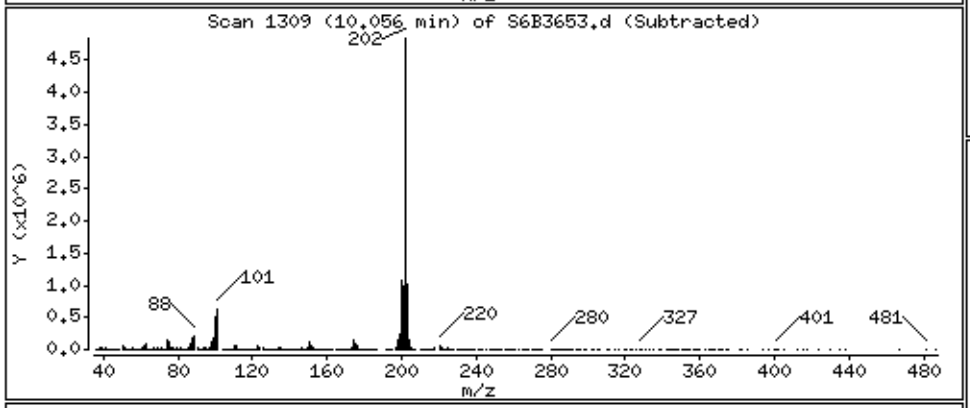
Column diameter: 0.25

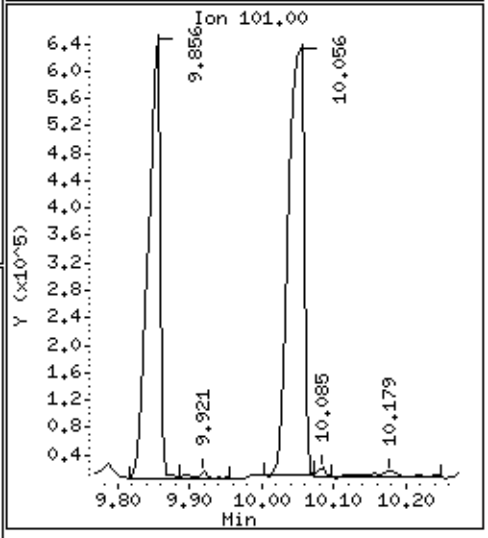
71 Pyrene

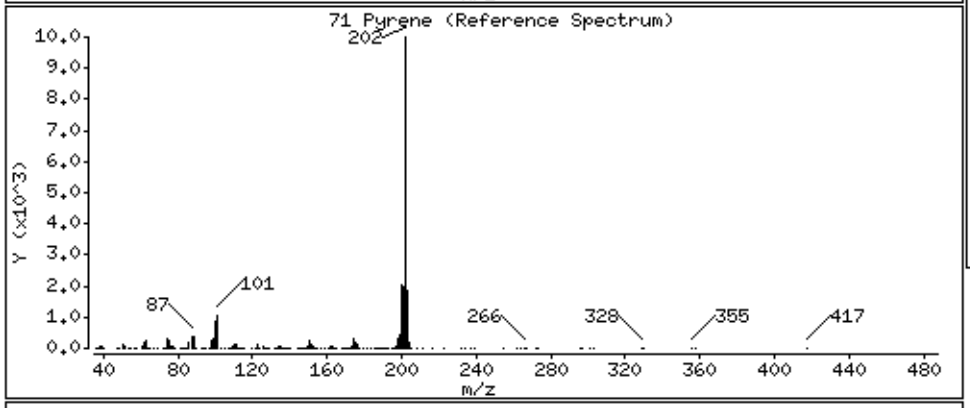
Concentration: 12000 ug/Kg

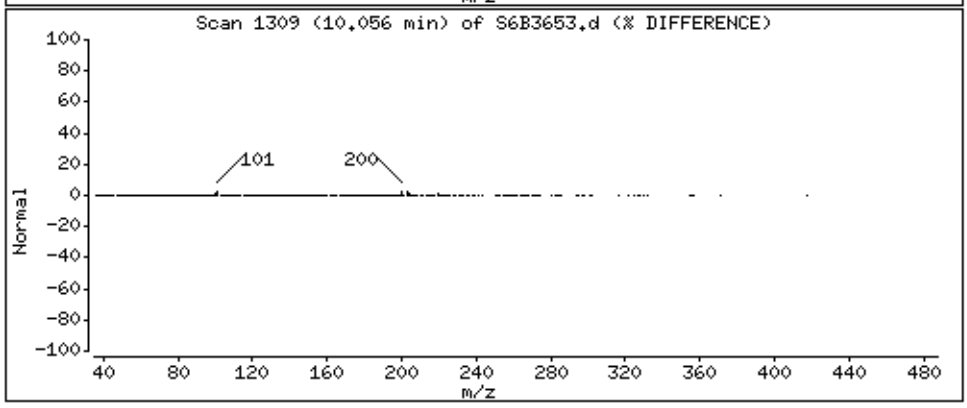












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

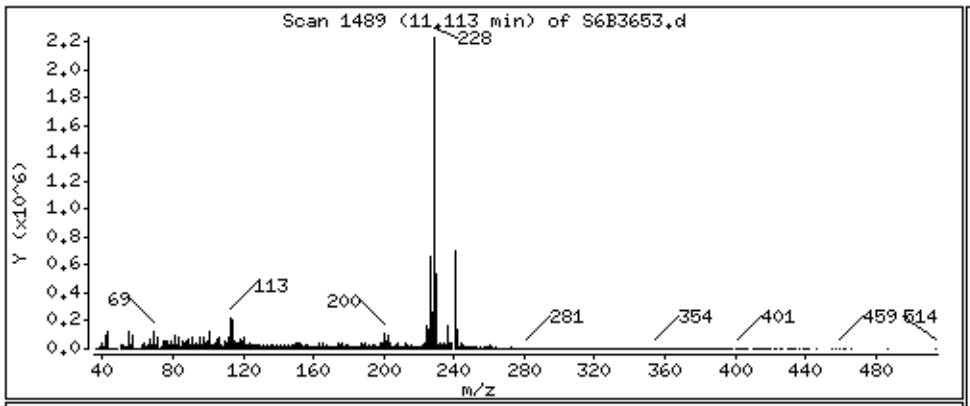
Operator: PK SRC: LIMS

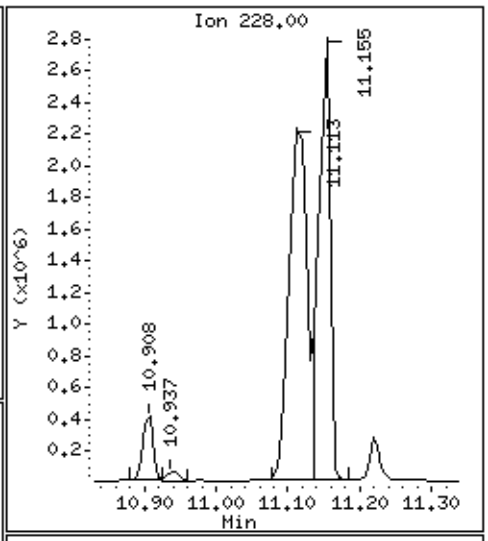
Column phase: Rxi-5Sil MS

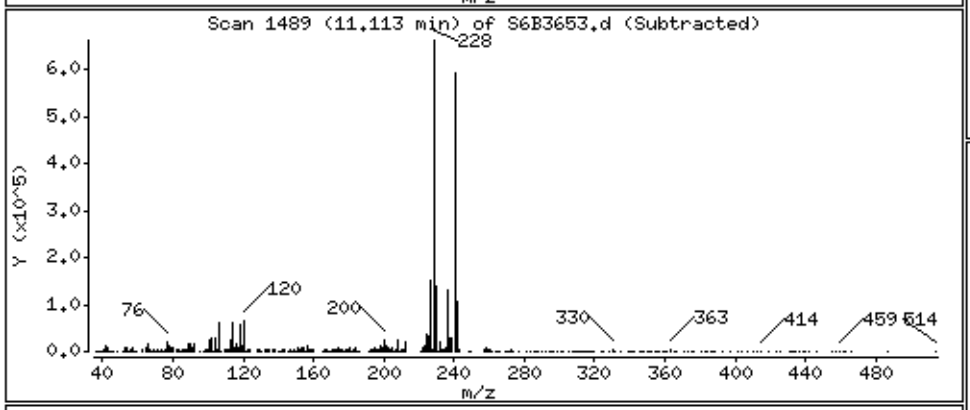
Column diameter: 0.25

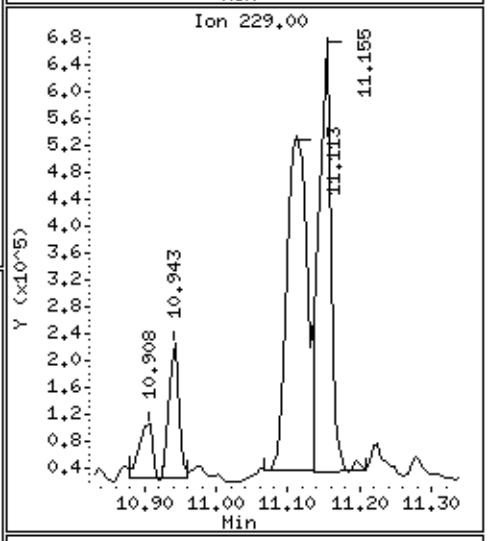
75 Benzo(a)anthracene

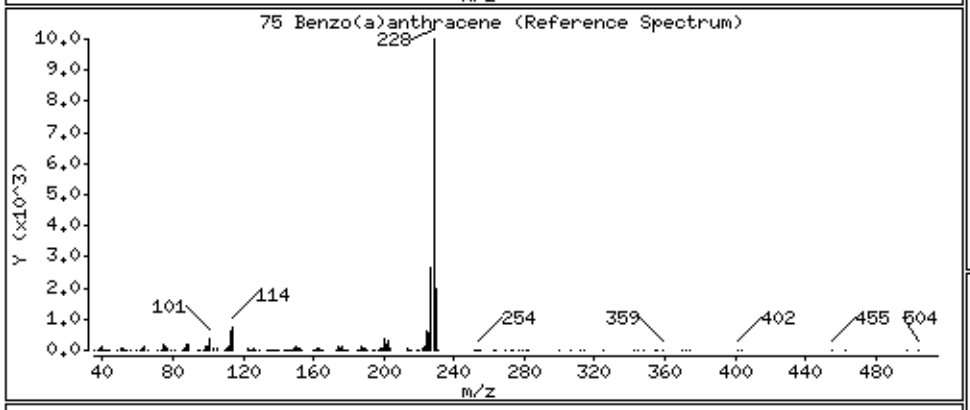
Concentration: 6300 ug/Kg

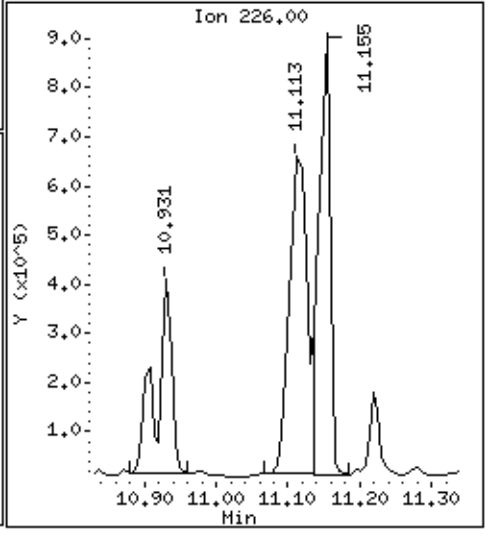


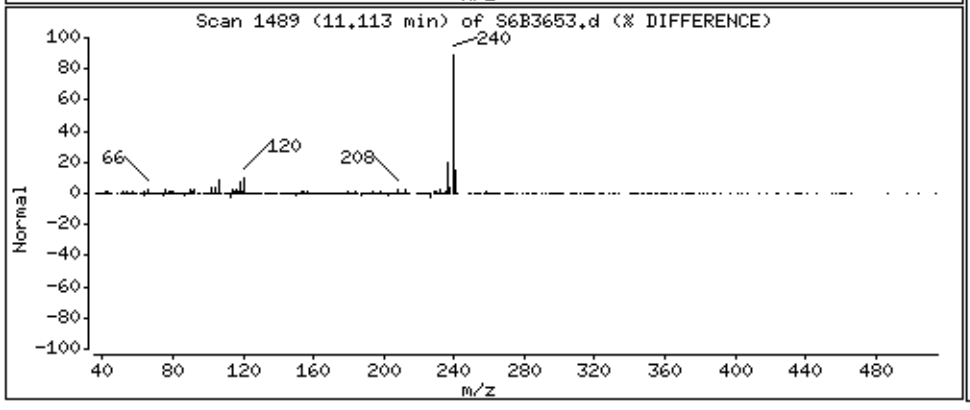












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

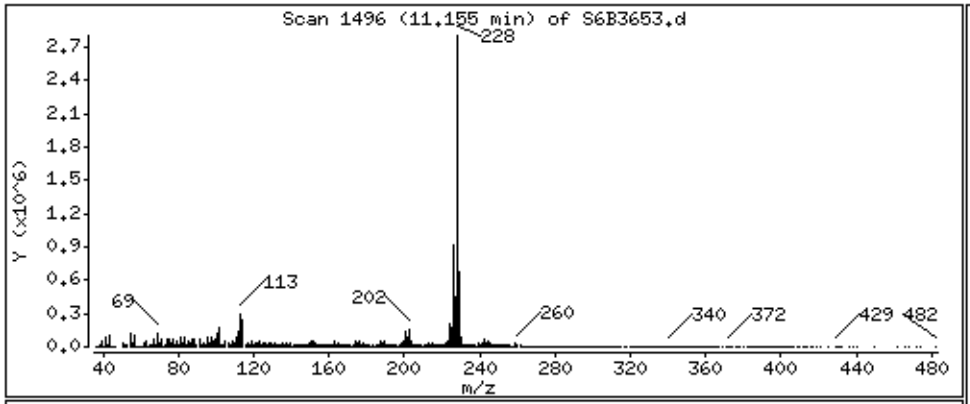
Operator: PK SRC: LIMS

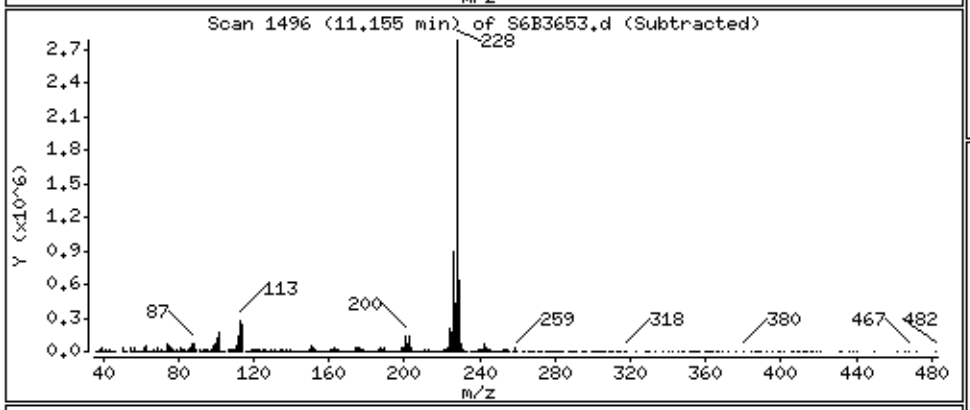
Column phase: Rxi-5Sil MS

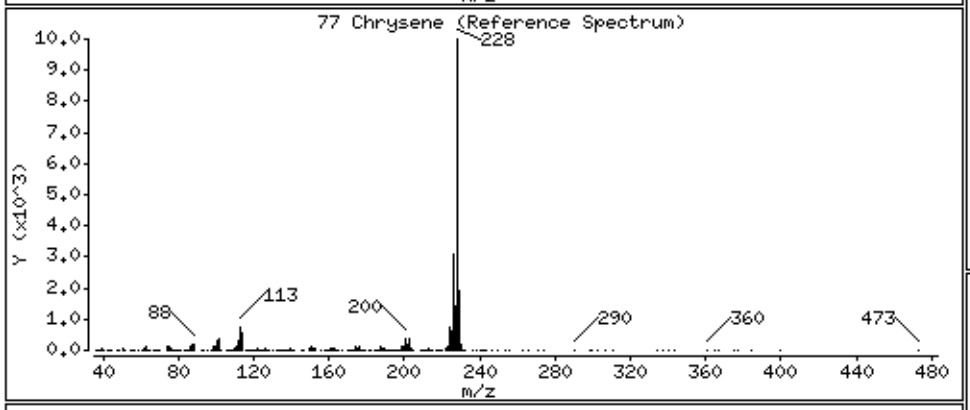
Column diameter: 0.25

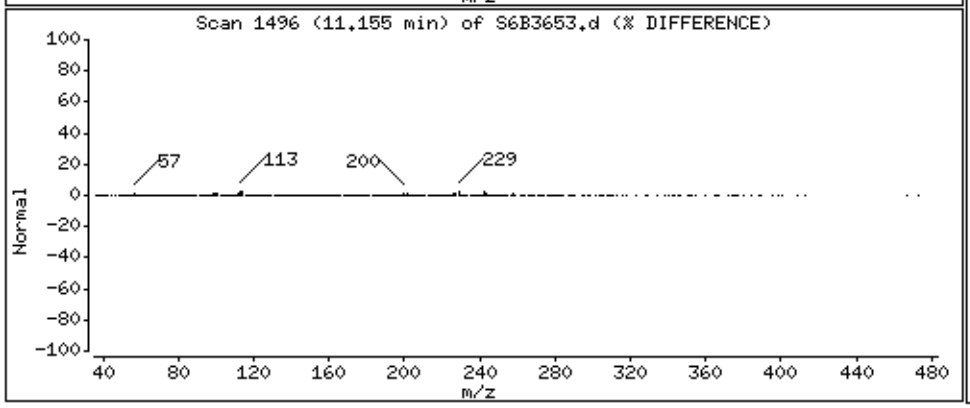
77 Chrysene

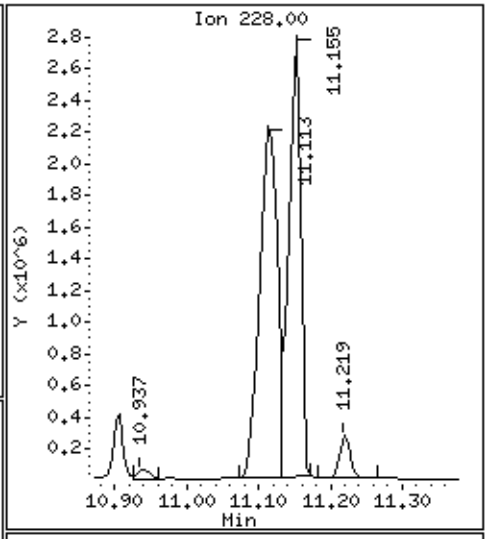
Concentration: 6200 ug/Kg

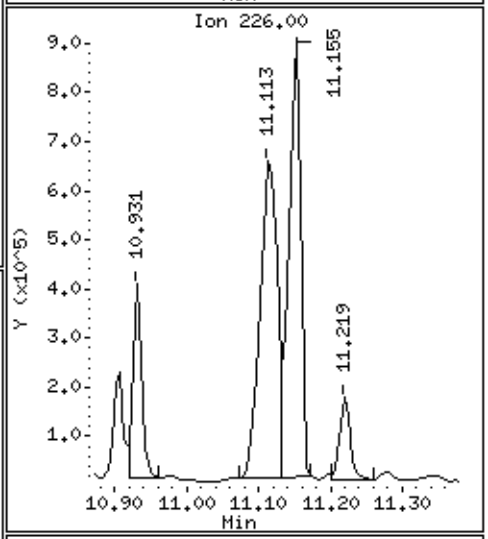


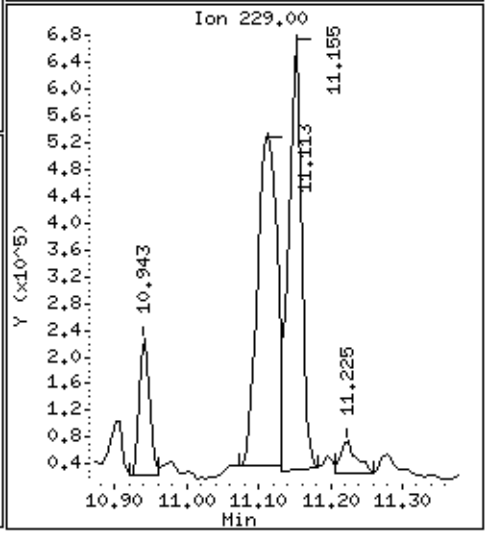












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

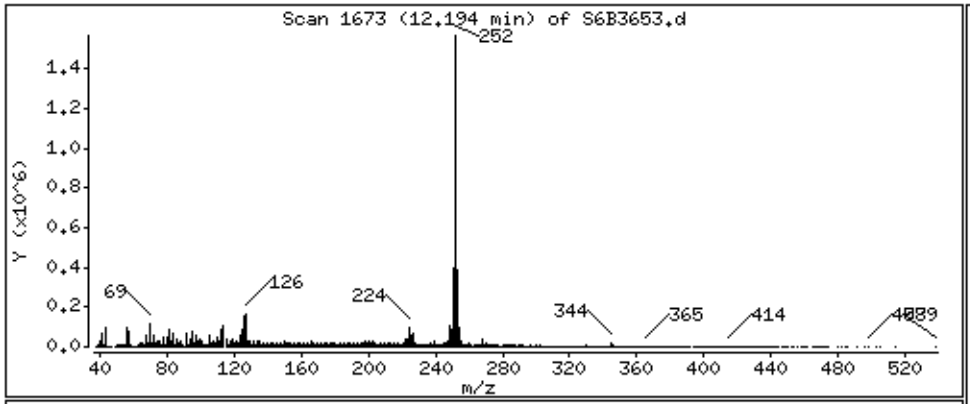
Operator: PK SRC: LIMS

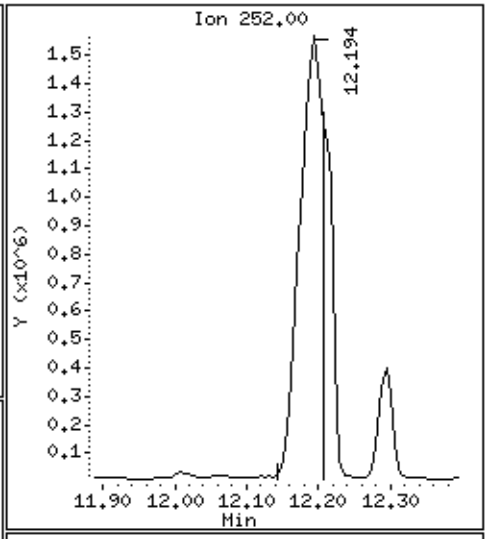
Column phase: Rxi-5Sil MS

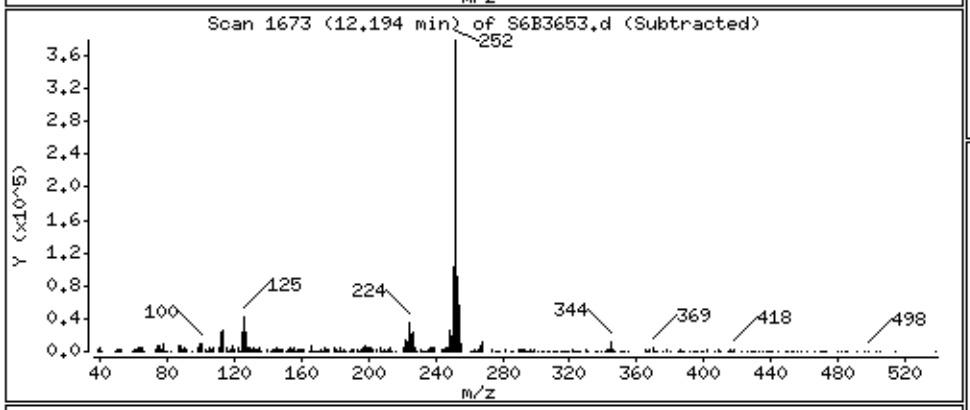
Column diameter: 0.25

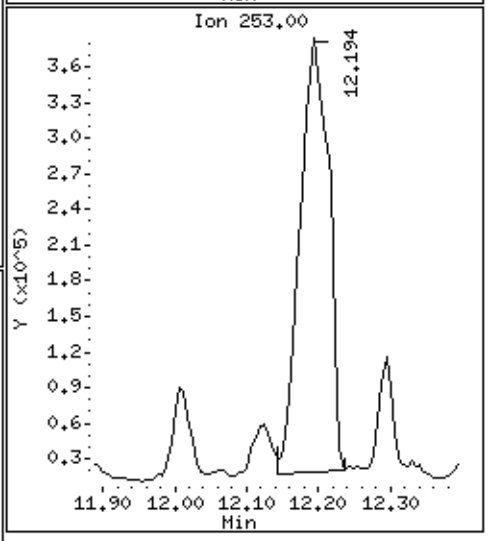
80 Benzo(b)fluoranthene

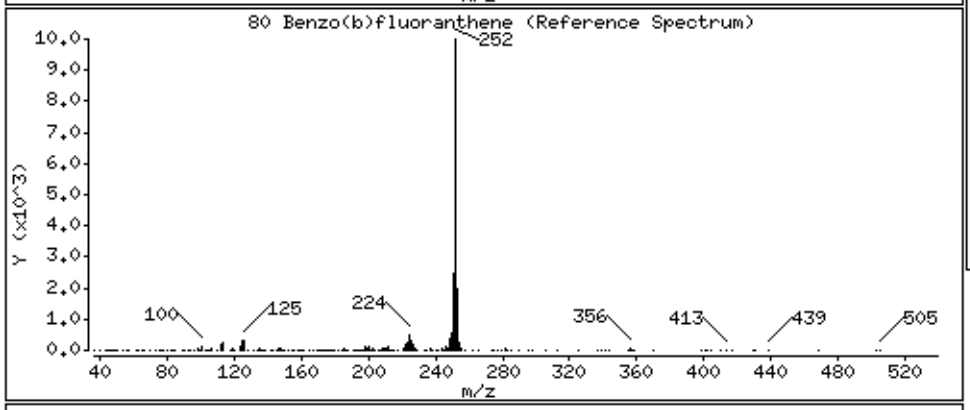
Concentration: 4800 ug/Kg

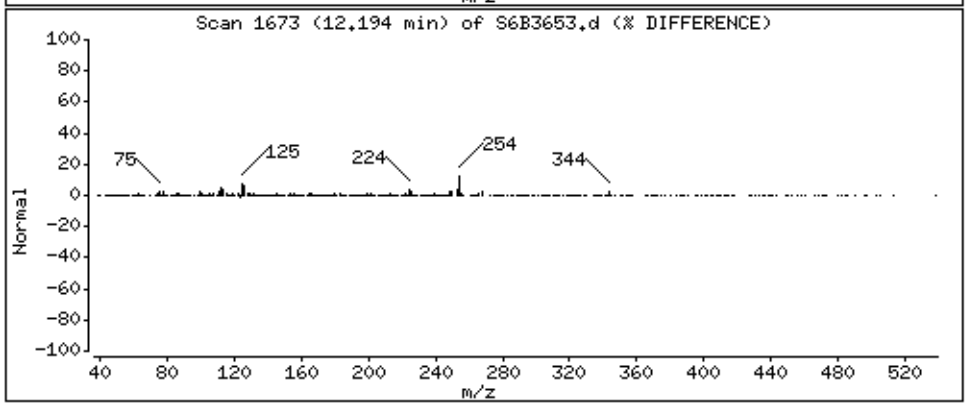












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

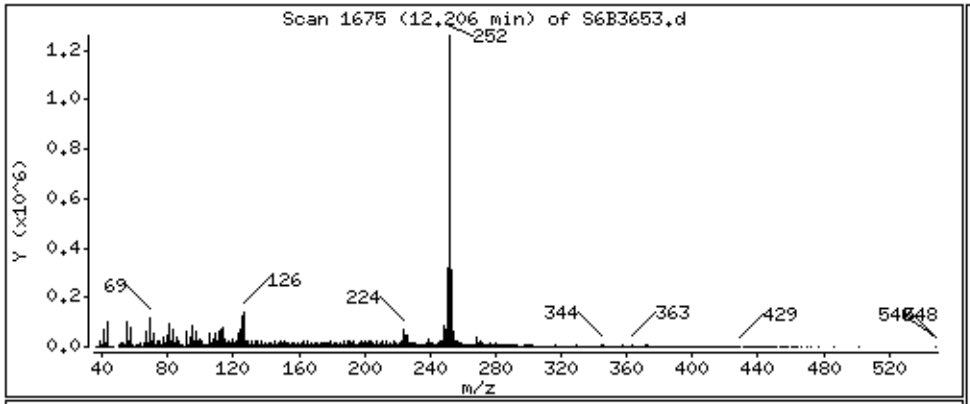
Client ID: SB-127 (10-12) Instrument: S6.i

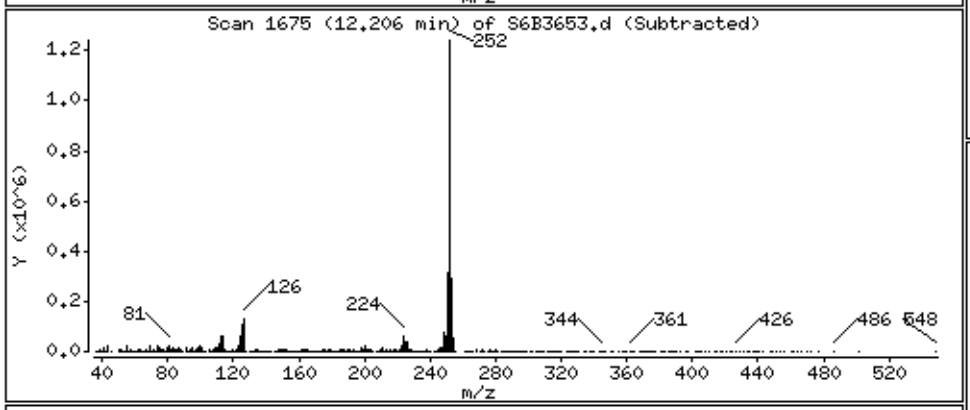
Sample Info: M0619-06A,,71418

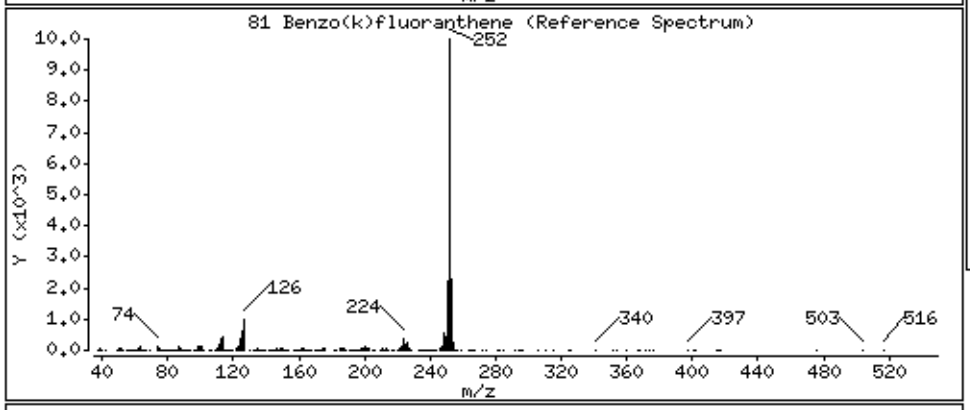
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

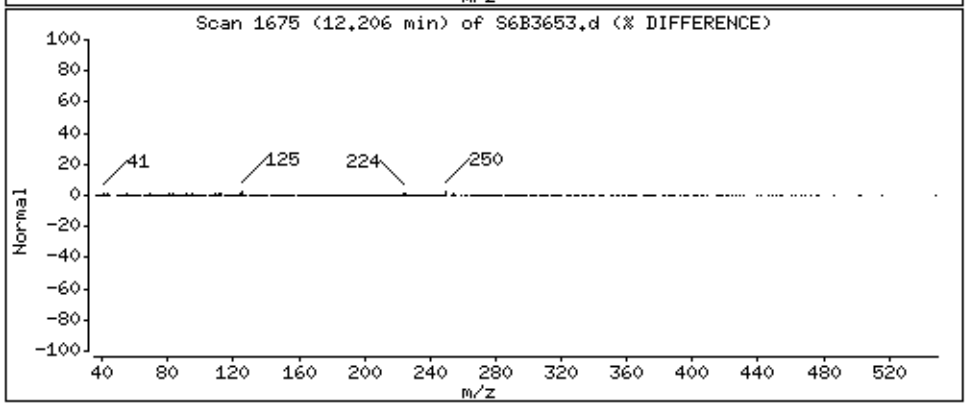
Column phase: Rxi-5Sil MS Column diameter: 0.25

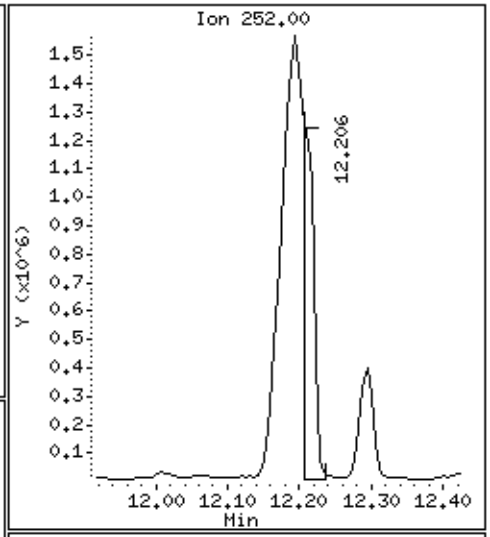
81 Benzo(k)fluoranthene Concentration: 2000 ug/Kg

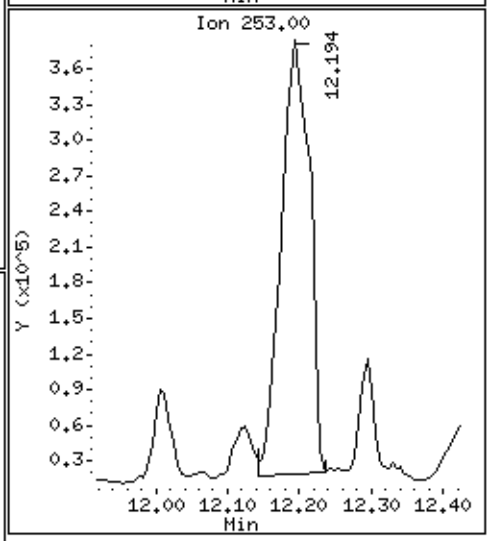












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

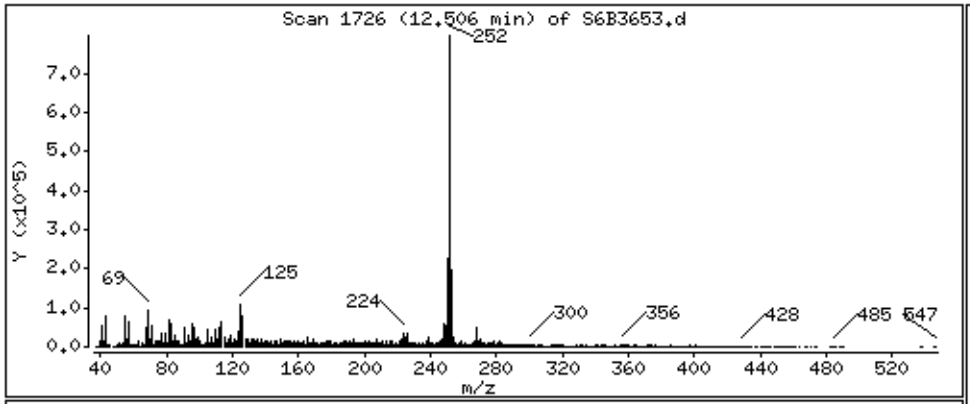
Client ID: SB-127 (10-12) Instrument: S6.i

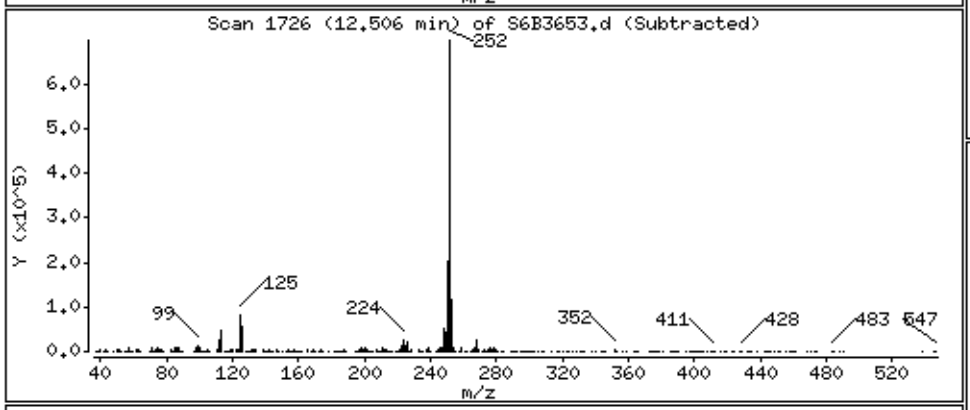
Sample Info: M0619-06A,,71418

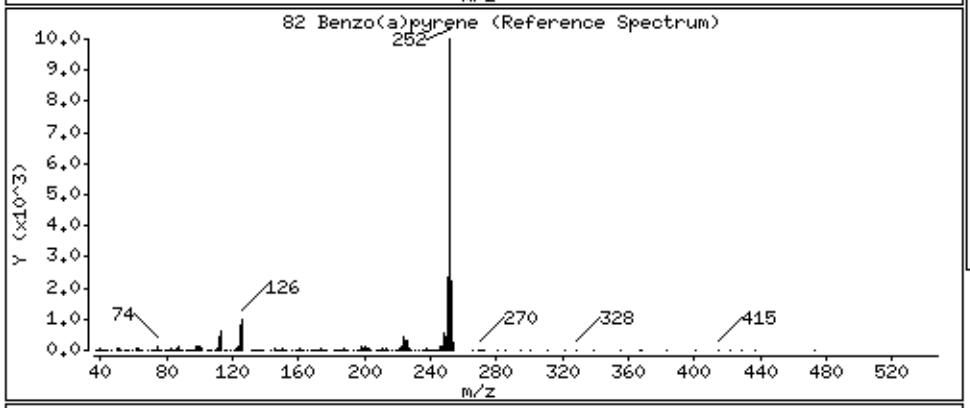
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

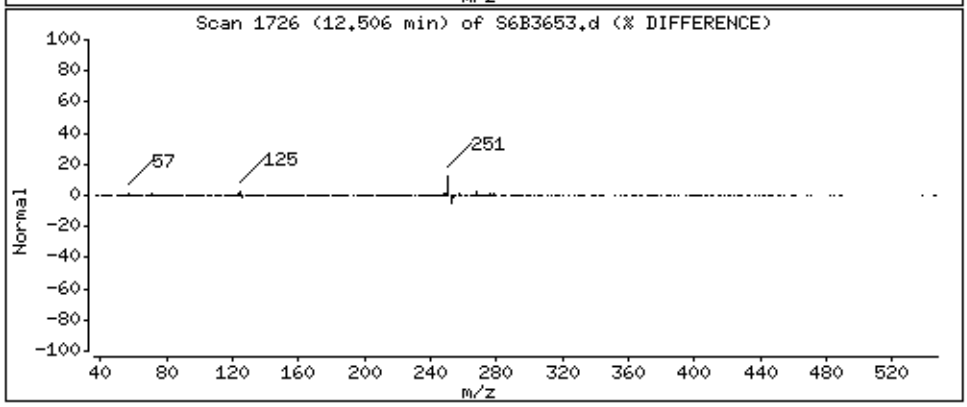
Column phase: Rxi-5Sil MS Column diameter: 0.25

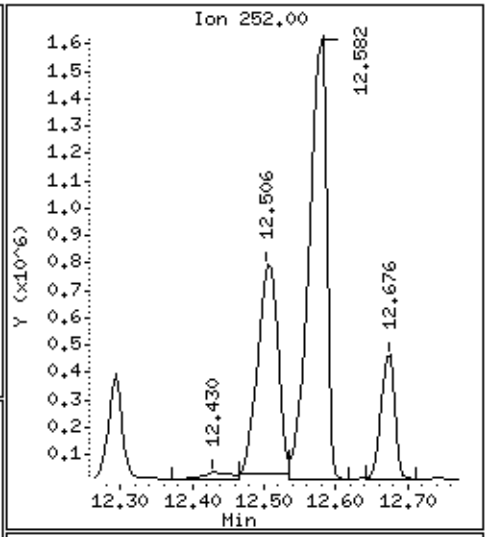
82 Benzo(a)pyrene Concentration: 2300 ug/Kg

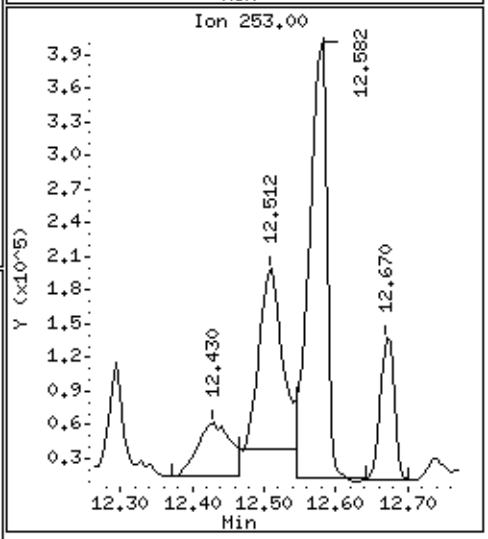












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

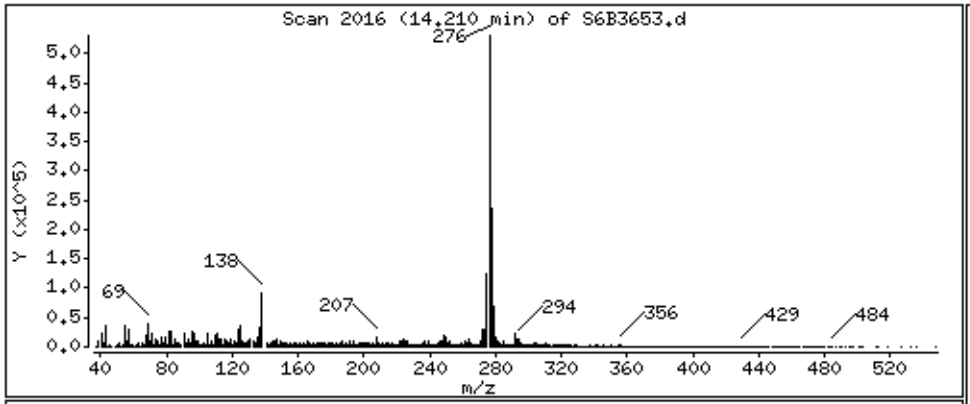
Operator: PK SRC: LIMS

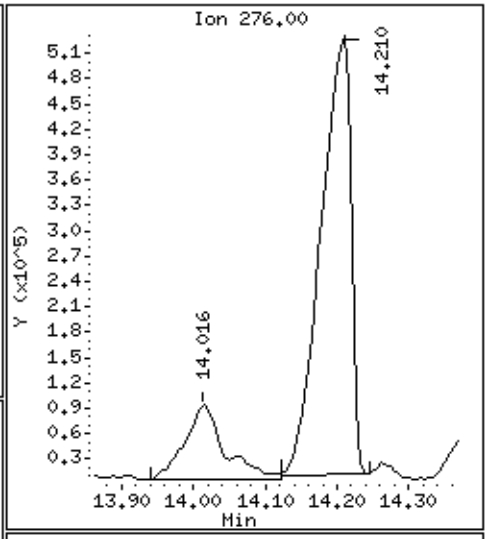
Column phase: Rxi-5Sil MS

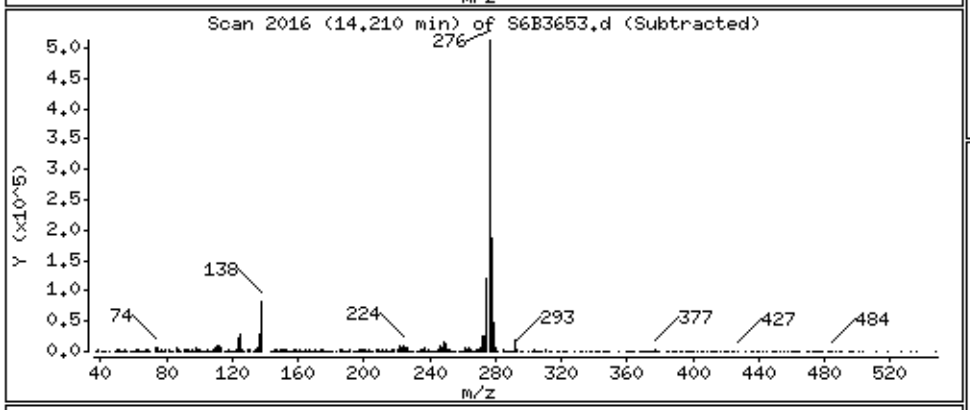
Column diameter: 0.25

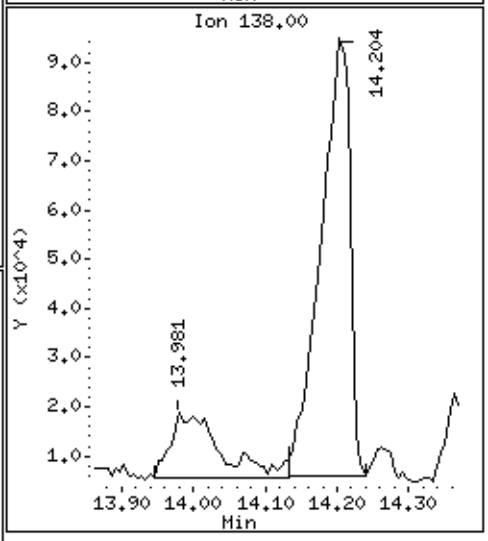
84 Indeno(1,2,3-cd)pyrene

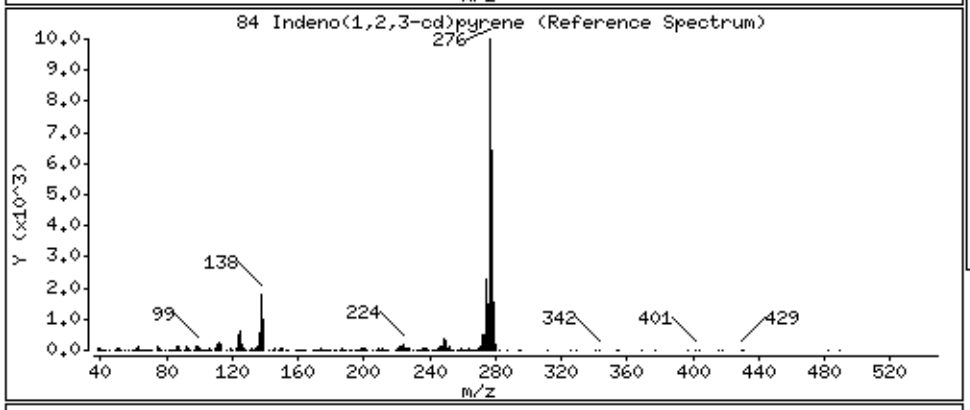
Concentration: 1900 ug/Kg

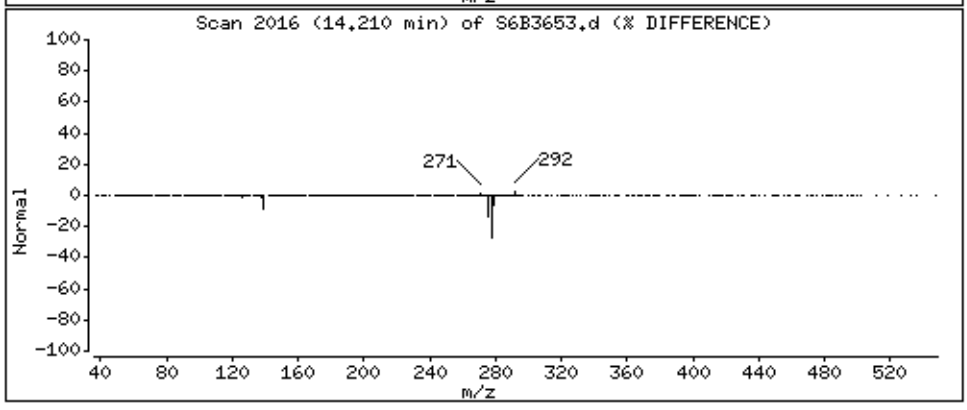












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

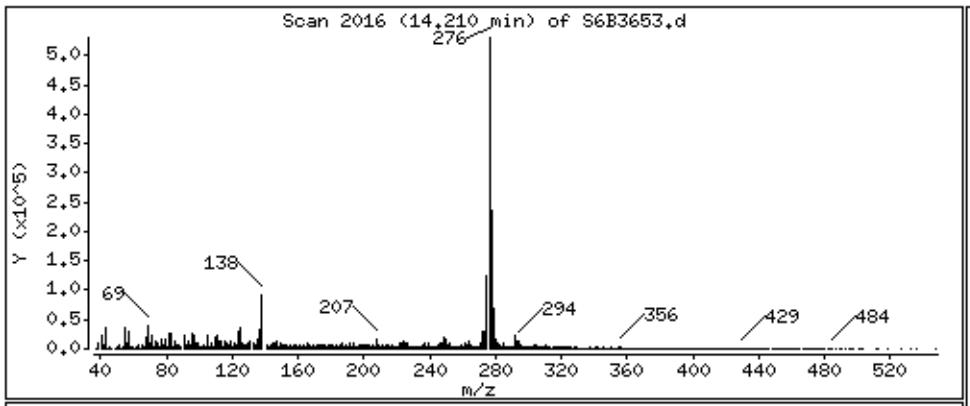
Operator: PK SRC: LIMS

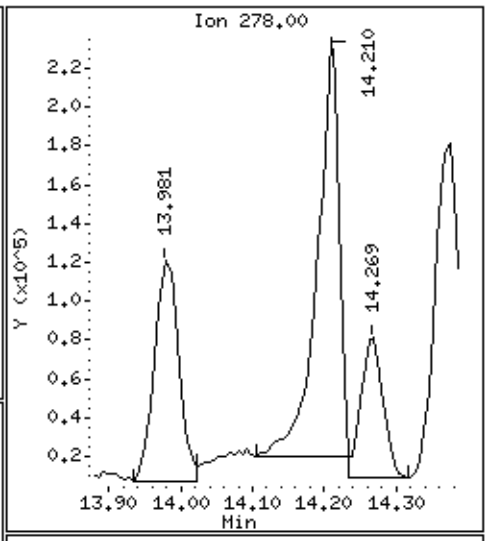
Column phase: Rxi-5Sil MS

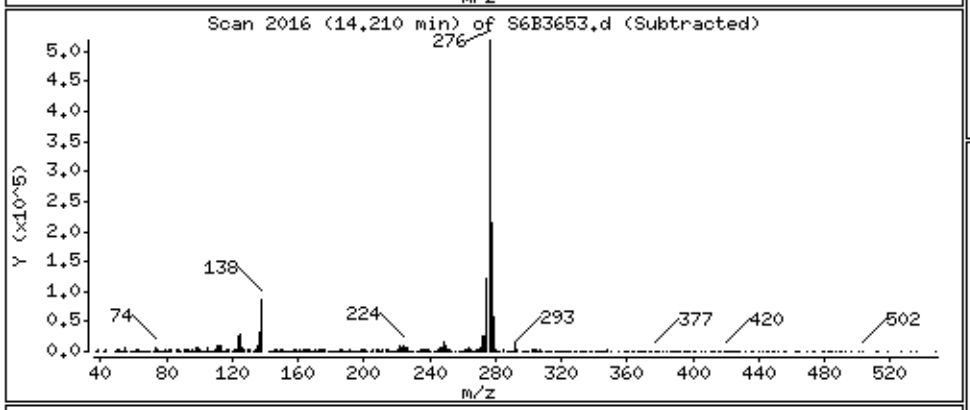
Column diameter: 0.25

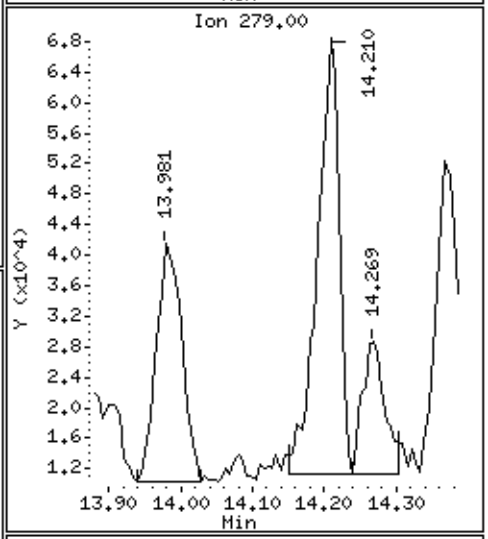
85 Dibenzo(a,h)anthracene

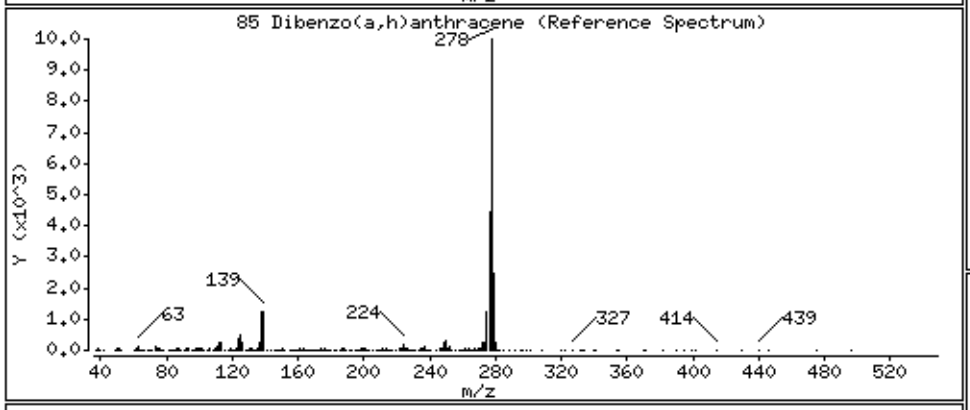
Concentration: 680 ug/Kg

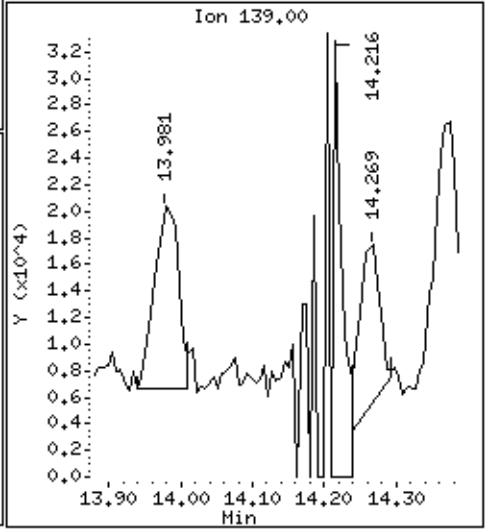


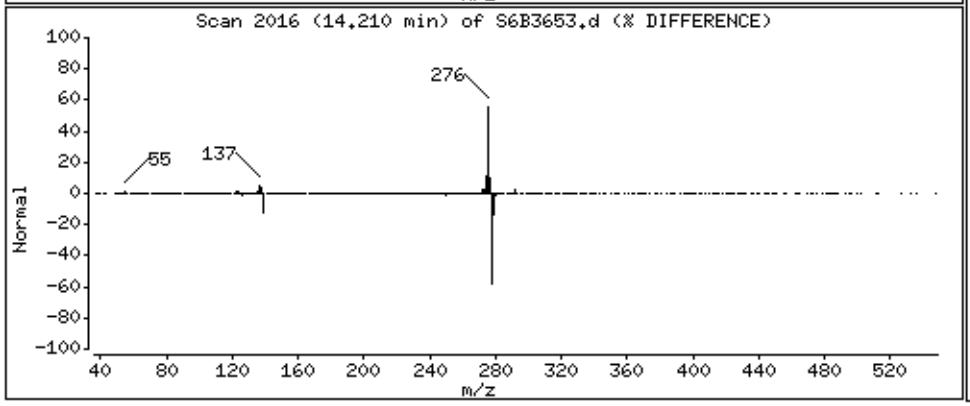












Data File: \\avogadro\organics\S6.I\130506.B\S6B3653.d

Date : 06-MAY-2013 19:58

Client ID: SB-127 (10-12)

Instrument: S6.i

Sample Info: M0619-06A,,71418

Volume Injected (uL): 1.0

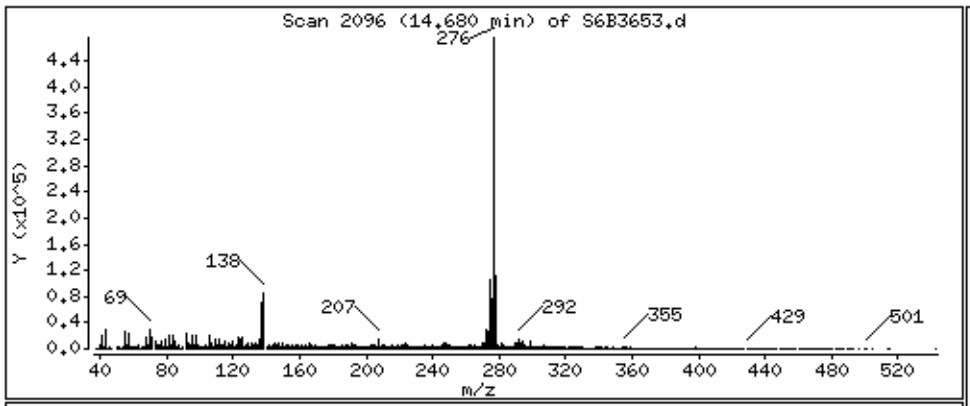
Operator: PK SRC: LIMS

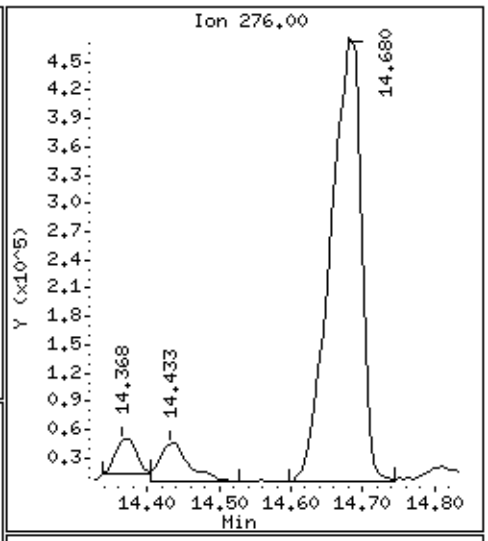
Column phase: Rxi-5Sil MS

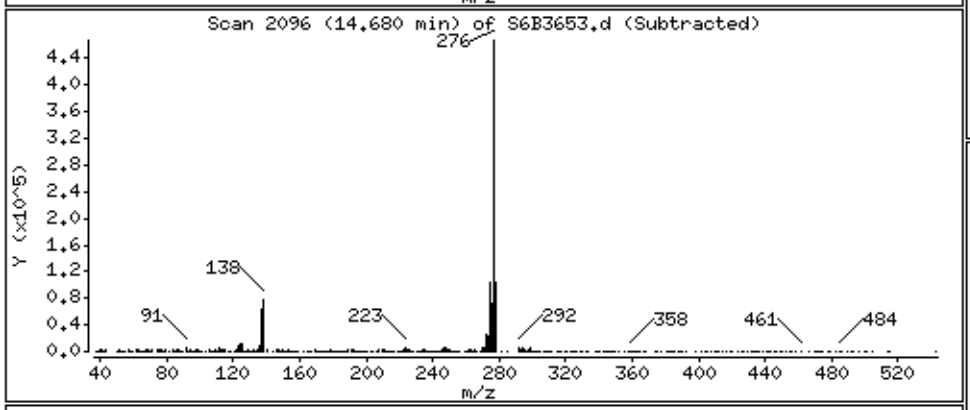
Column diameter: 0.25

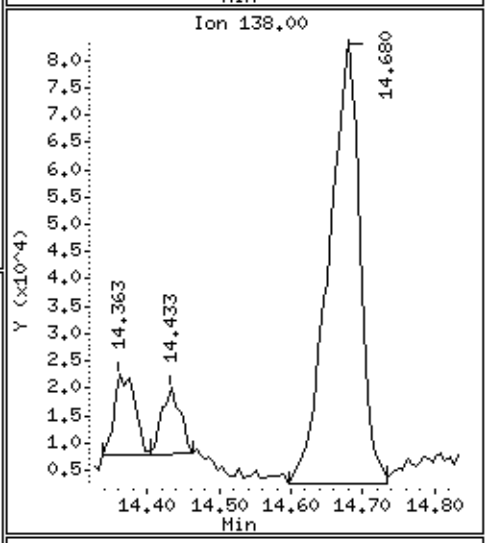
86 Benzo(g,h,i)perylene

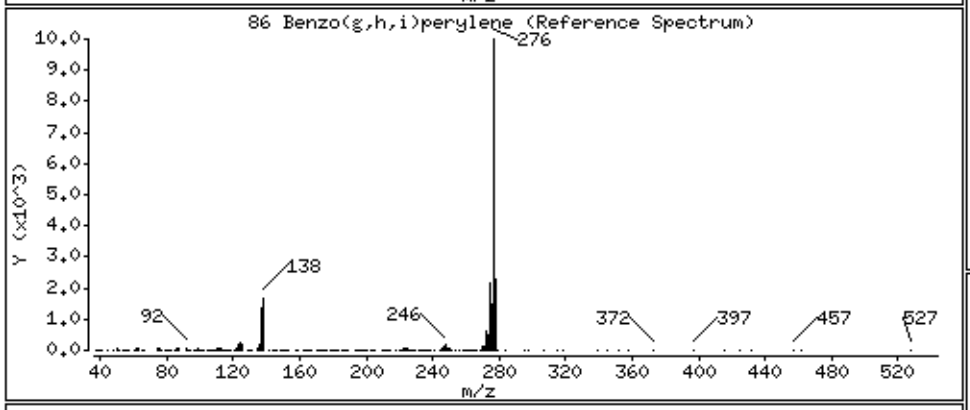
Concentration: 2200 ug/Kg

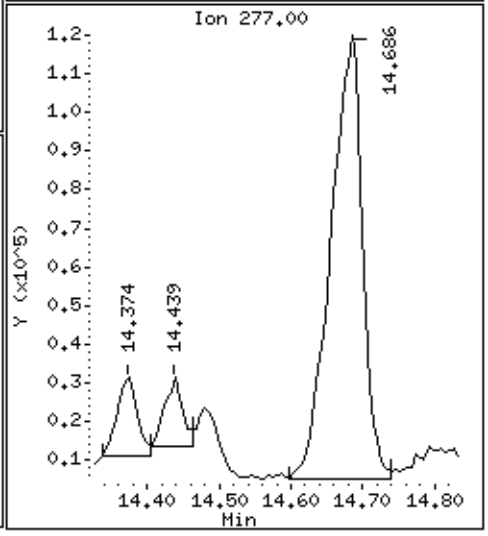


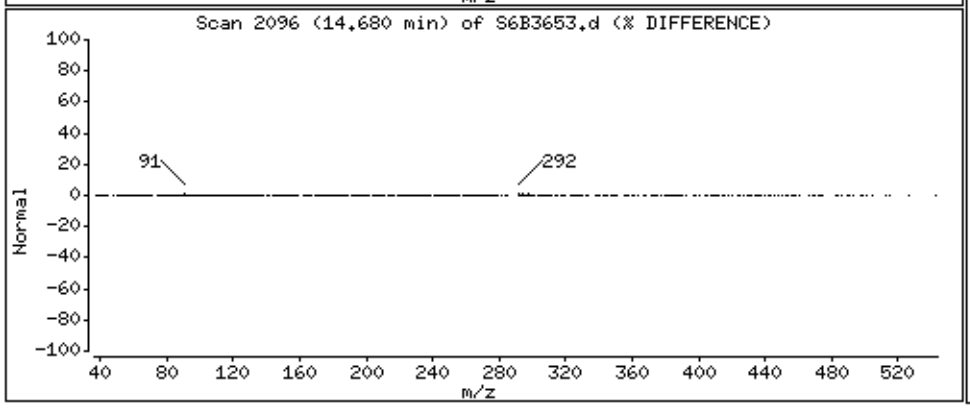












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-127 (10-12)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-06ADL

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3679.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 22 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 40.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	160000	D
91-57-6	2-Methylnaphthalene	28000	D
208-96-8	Acenaphthylene	16000	U
83-32-9	Acenaphthene	16000	U
86-73-7	Fluorene	3400	DJ
85-01-8	Phenanthrene	15000	DJ
120-12-7	Anthracene	3900	DJ
206-44-0	Fluoranthene	11000	DJ
129-00-0	Pyrene	11000	DJ
56-55-3	Benzo(a)anthracene	6200	DJ
218-01-9	Chrysene	6200	DJ
205-99-2	Benzo(b)fluoranthene	4600	DJ
207-08-9	Benzo(k)fluoranthene	16000	U
50-32-8	Benzo(a)pyrene	3900	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	16000	U
53-70-3	Dibenzo(a,h)anthracene	16000	U
191-24-2	Benzo(g,h,i)perylene	2000	DJ

Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d
Report Date: 08-May-2013 10:56

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3679.d
Lab Smp Id: M0619-06ADL Client Smp ID: SB-127 (10-12)DL
Inj Date : 07-MAY-2013 15:15
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-06ADL,,71418,,40
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130507.B\S6_8270C_N.m
Meth Date : 07-May-2013 13:08 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 9
Dil Factor: 40.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	40.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

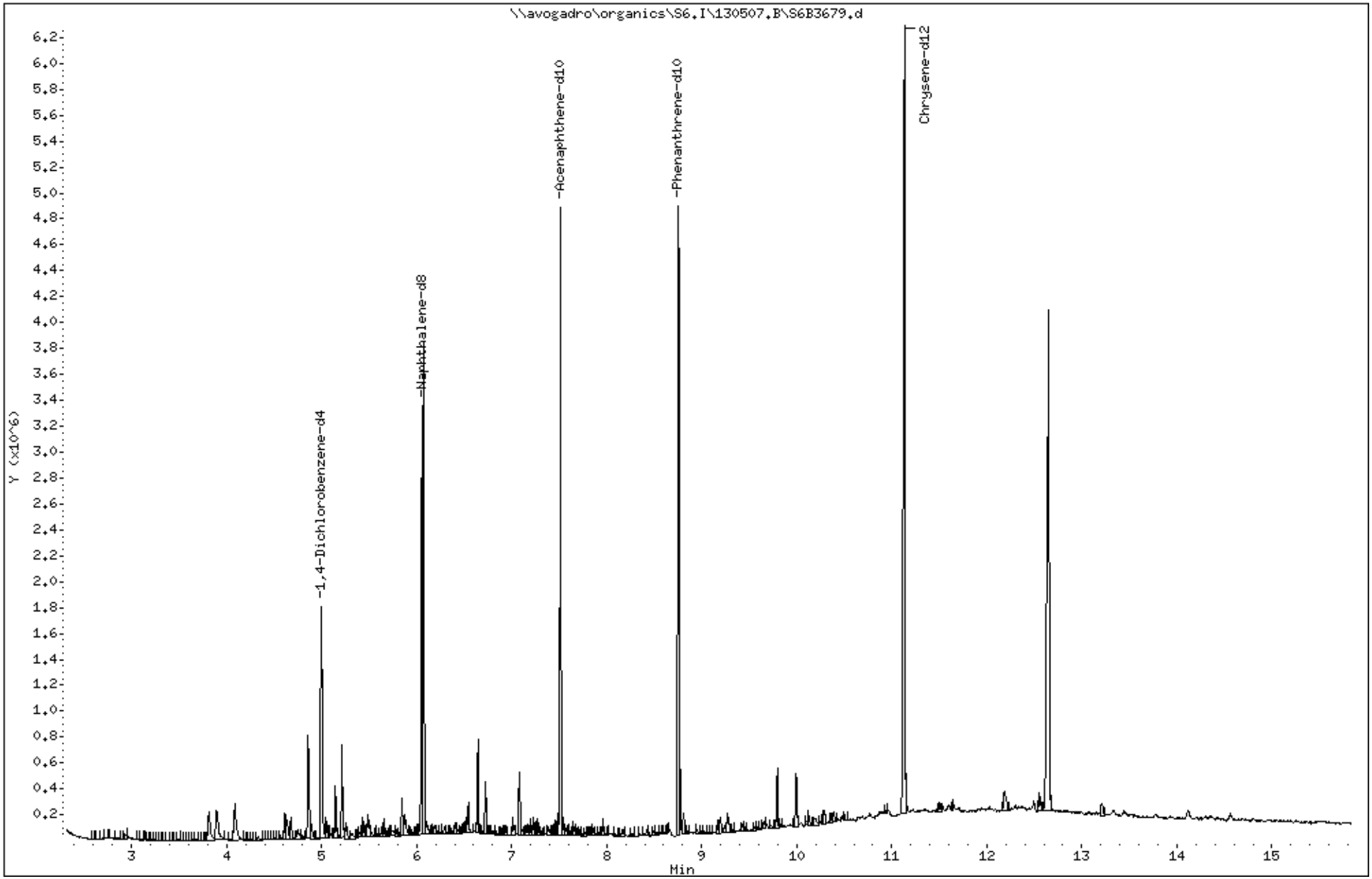
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	4.999	4.999	(1.000)	261818	40.0000	
* 31 Naphthalene-d8	136	6.057	6.057	(1.000)	1103161	40.0000	
32 Naphthalene	128	6.075	6.075	(1.003)	1125194	47.0516	120000
36 2-Methylnaphthalene	142	6.645	6.645	(1.097)	155441	8.48015	22000(a)
* 48 Acenaphthene-d10	164	7.514	7.514	(1.000)	823255	40.0000	
55 Fluorene	166	7.961	7.967	(1.059)	26745	1.02941	2700(a)
* 64 Phenanthrene-d10	188	8.754	8.748	(1.000)	1710001	40.0000	
65 Phenanthrene	178	8.771	8.771	(1.002)	170225	4.35545	11000(a)
66 Anthracene	178	8.813	8.813	(1.007)	46486	1.15694	3000(a)
69 Fluoranthene	202	9.794	9.770	(1.119)	164849	3.44650	9000(a)
71 Pyrene	202	9.994	9.964	(0.898)	162297	3.20914	8300(a)
75 Benzo(a)anthracene	228	11.110	11.022	(0.998)	103728	1.86146	4800(a)
* 76 Chrysene-d12	240	11.133	11.039	(1.000)	2418800	40.0000	
77 Chrysene	228	11.151	11.063	(1.002)	87015	1.86705	4800(aH)
80 Benzo(b)fluoranthene	252	12.185	12.062	(0.971)	91695	1.38314	3600(a)
81 Benzo(k)fluoranthene	252	12.185	12.097	(0.971)	91695	1.47561	3800(aH)
82 Benzo(a)pyrene	252	12.555	12.432	(1.001)	69775	1.17916	3100(aH)
* 83 Perylene-d12	264	12.649	12.508	(1.000)	2536143	40.0000	(H)

Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d
Report Date: 08-May-2013 10:56

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d
Date : 07-MAY-2013 15:15
Client ID: SB-127 (10-12)DL
Instrument: S6.i
Sample Info: M0619-06ADL,,71418,,40
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

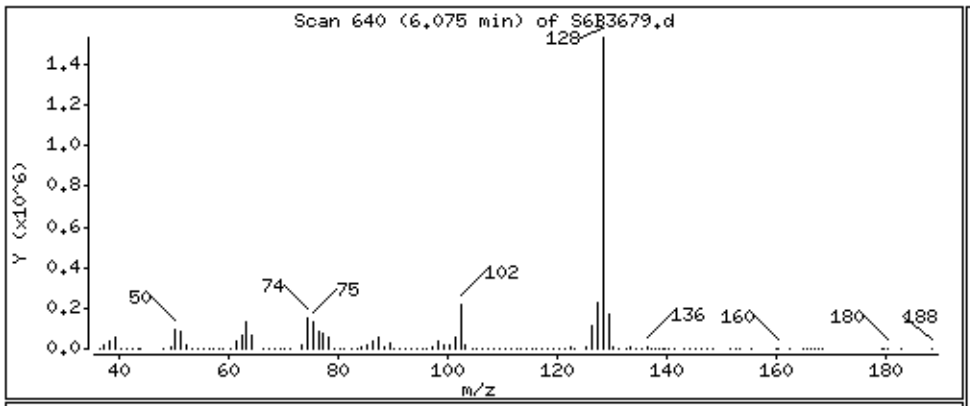
Operator: PK SRC: LIMS

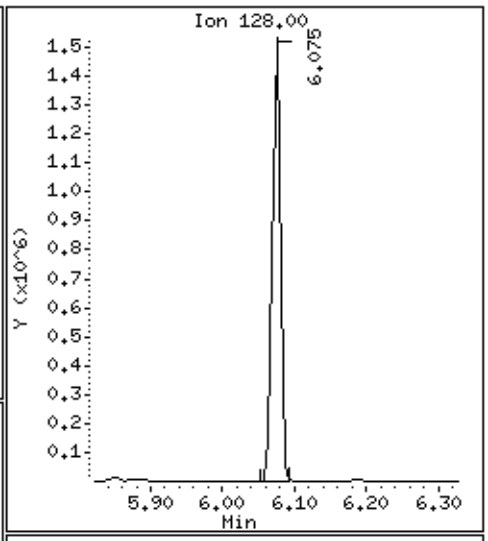
Column phase: Rxi-5Sil MS

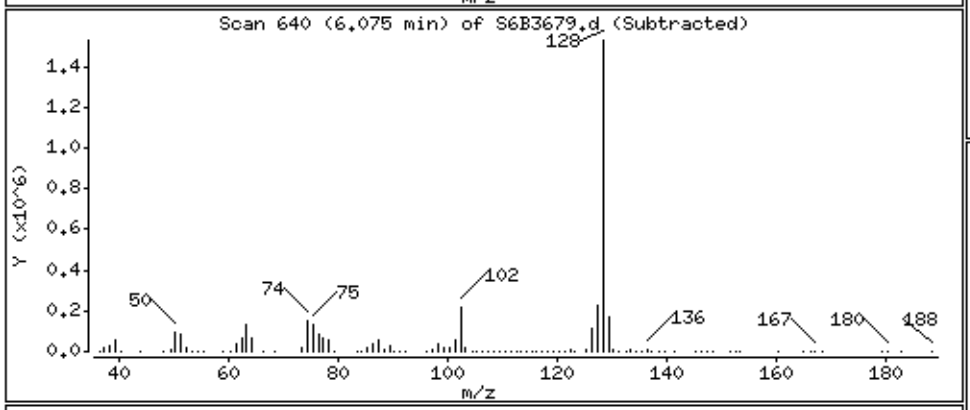
Column diameter: 0.25

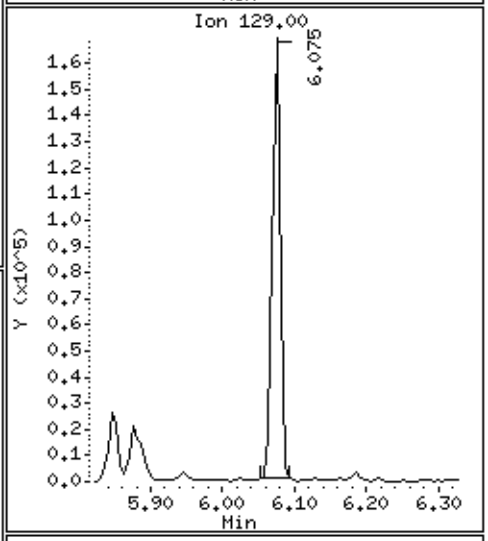
32 Naphthalene

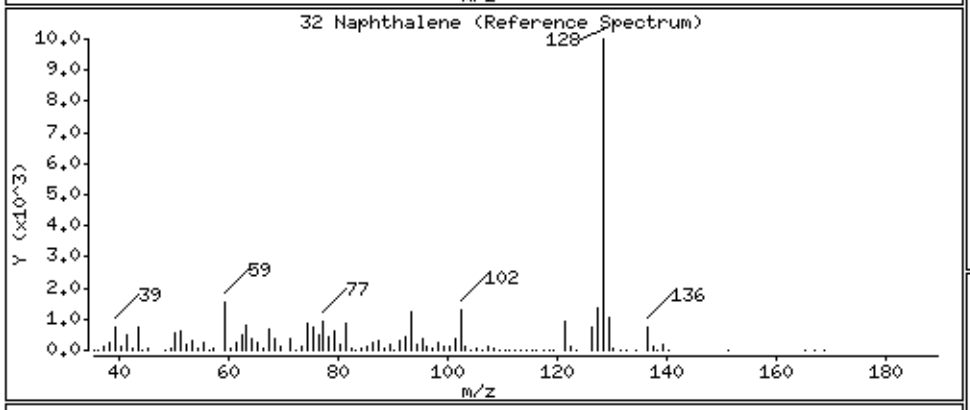
Concentration: 120000 ug/Kg

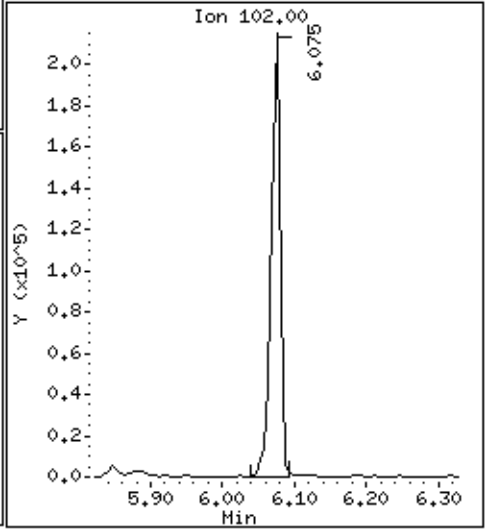


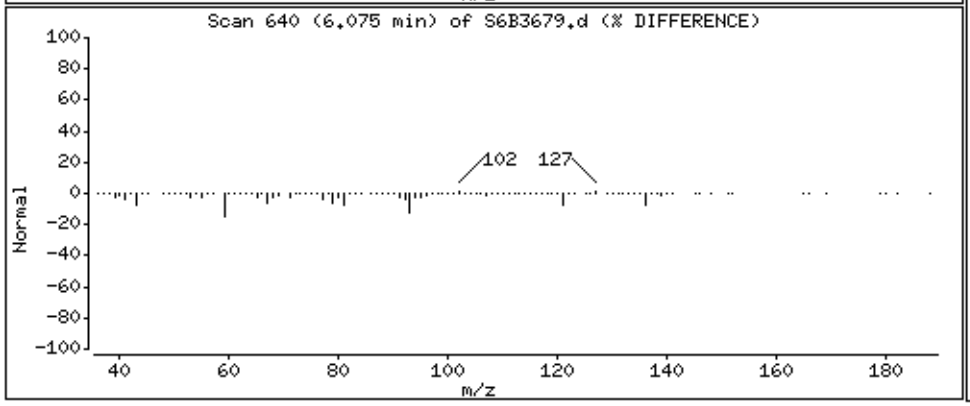












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Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

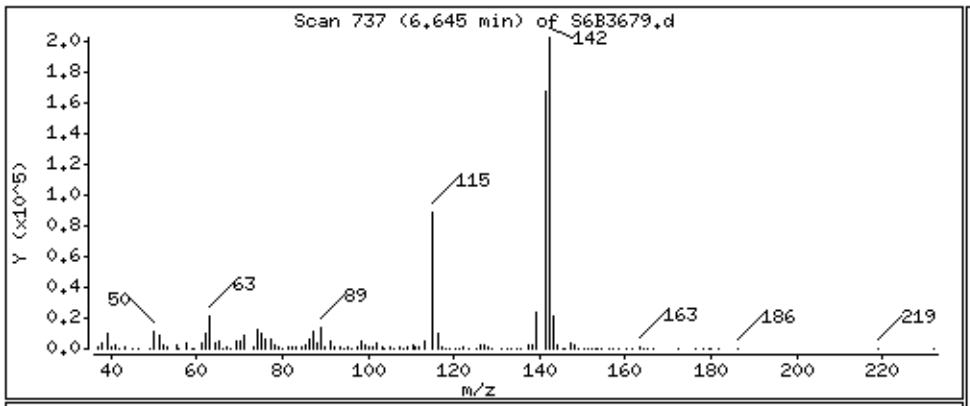
Operator: PK SRC: LIMS

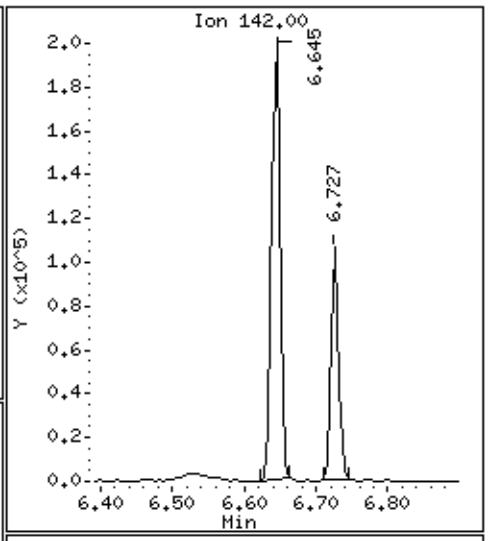
Column phase: Rxi-5Sil MS

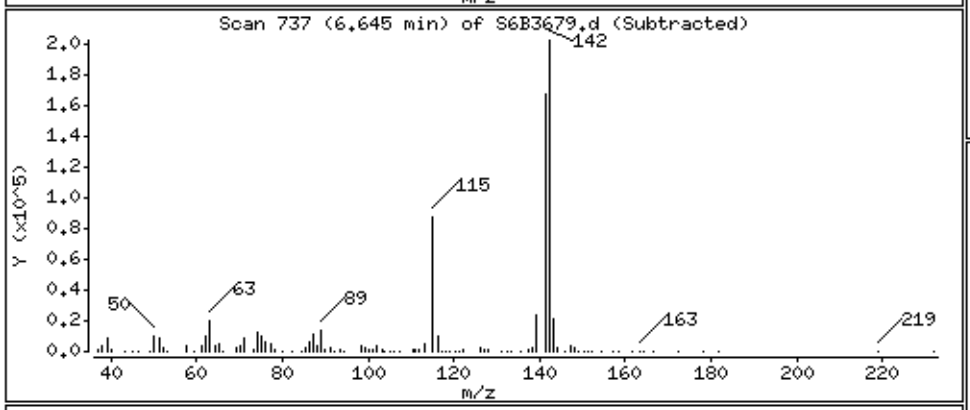
Column diameter: 0.25

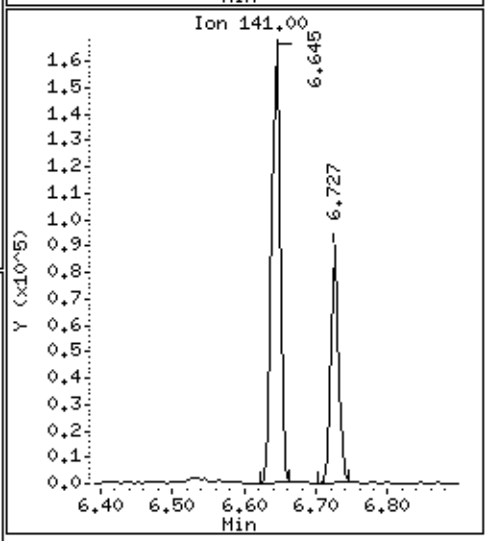
36 2-Methylnaphthalene

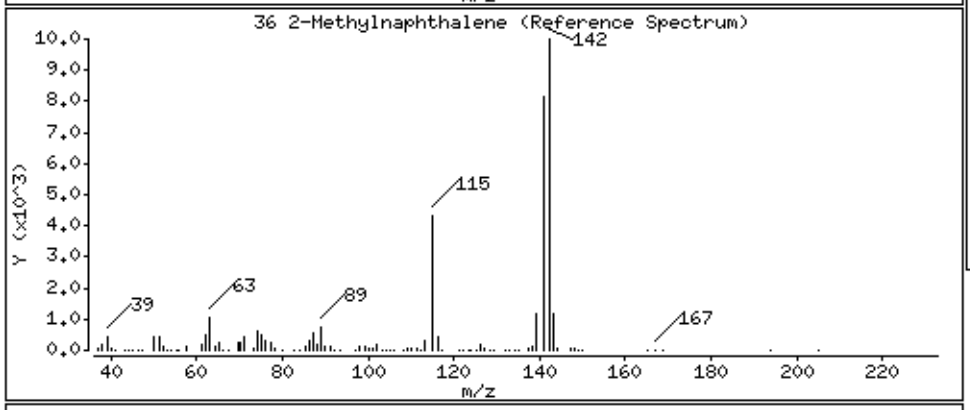
Concentration: 22000 ug/Kg

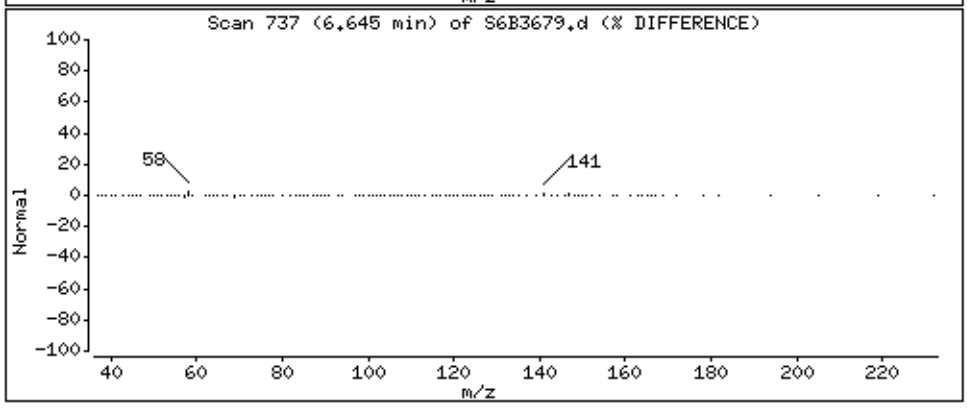












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

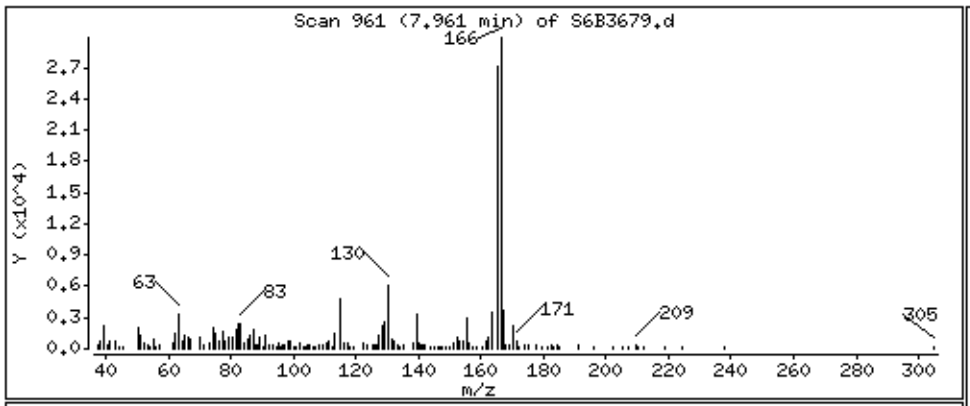
Operator: PK SRC: LIMS

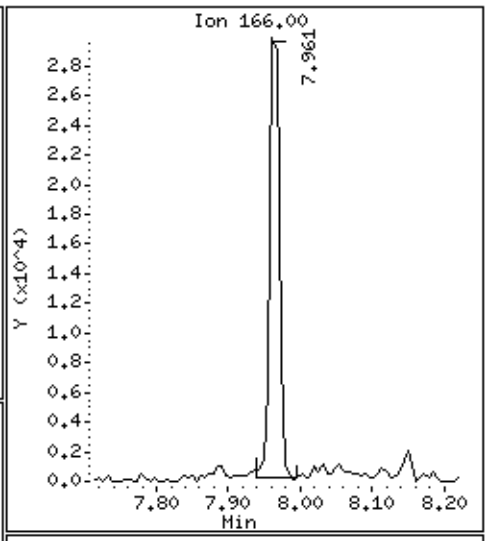
Column phase: Rxi-5Sil MS

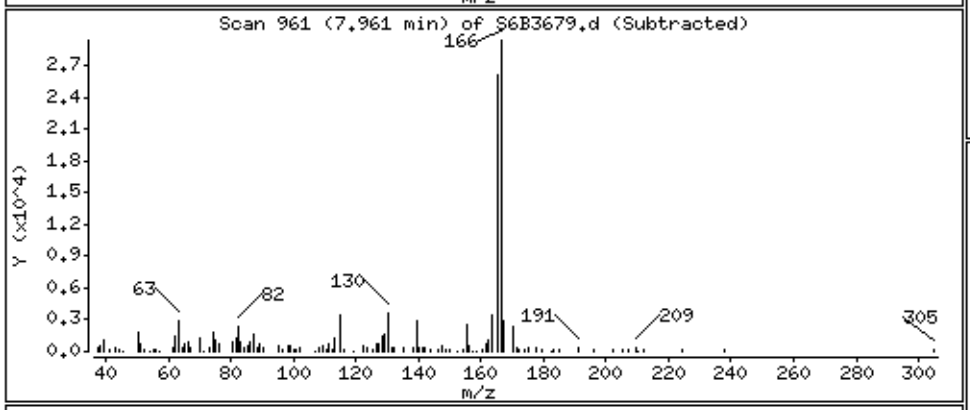
Column diameter: 0.25

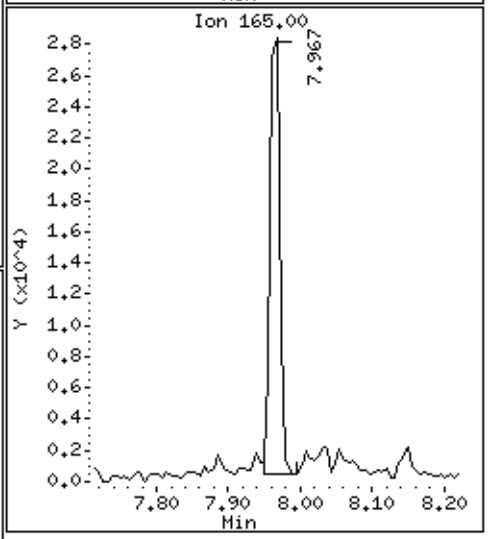
55 Fluorene

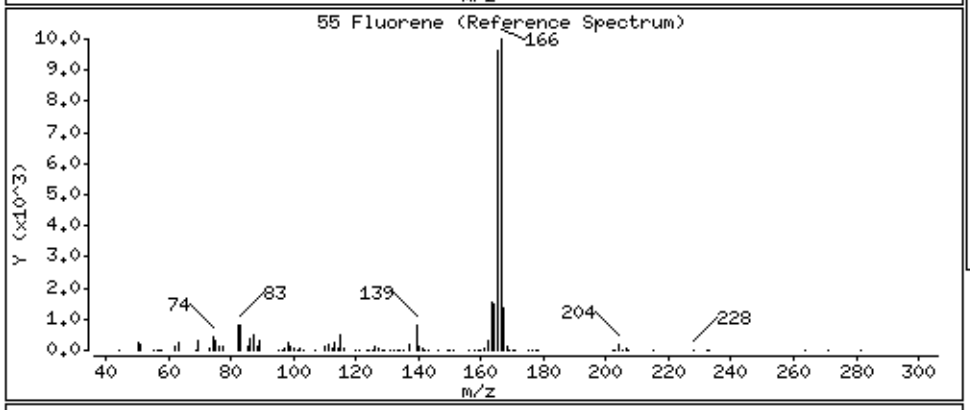
Concentration: 2700 ug/Kg

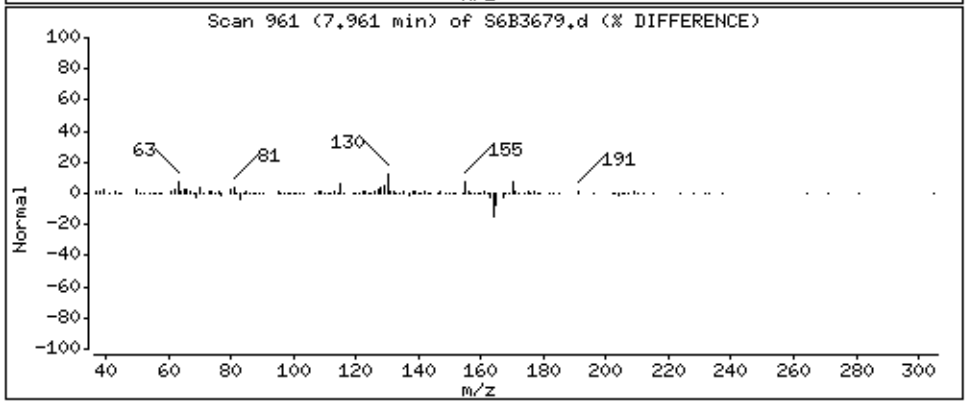












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

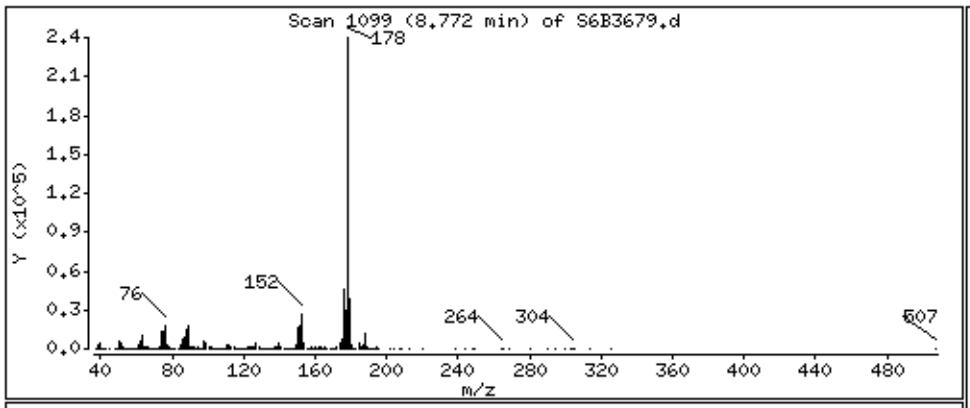
Operator: PK SRC: LIMS

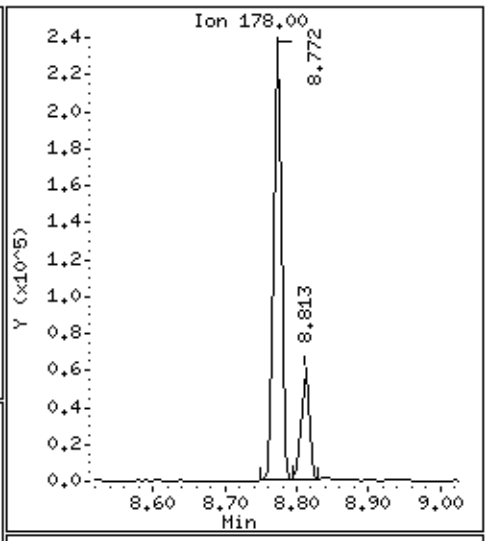
Column phase: Rxi-5Sil MS

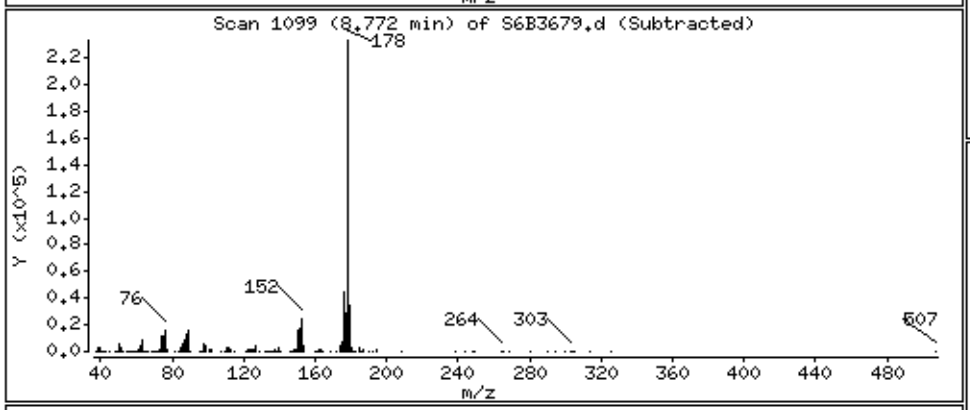
Column diameter: 0.25

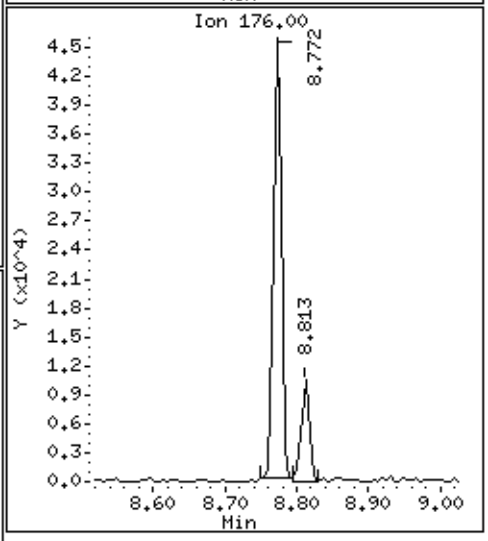
65 Phenanthrene

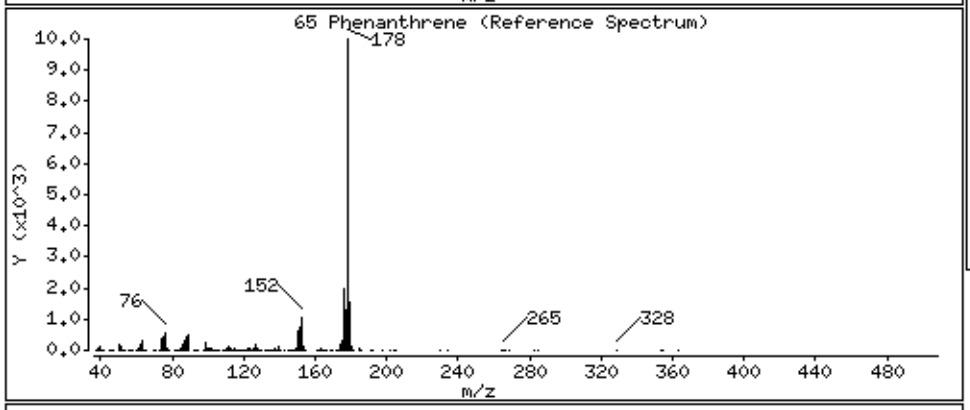
Concentration: 11000 ug/Kg

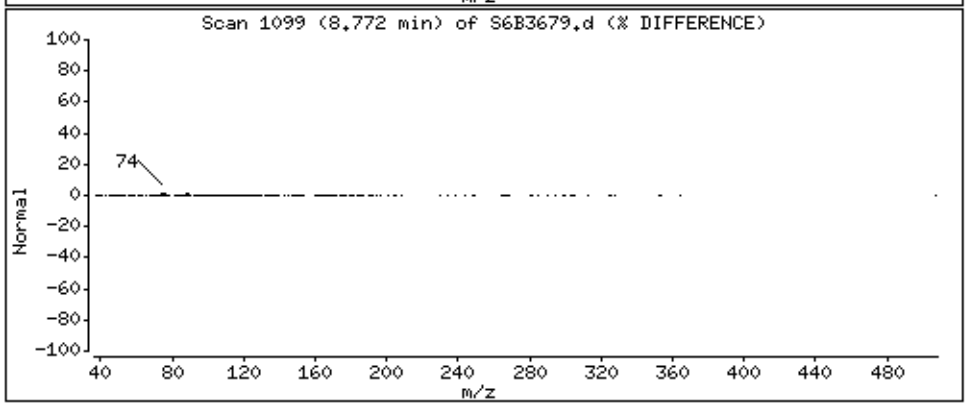












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

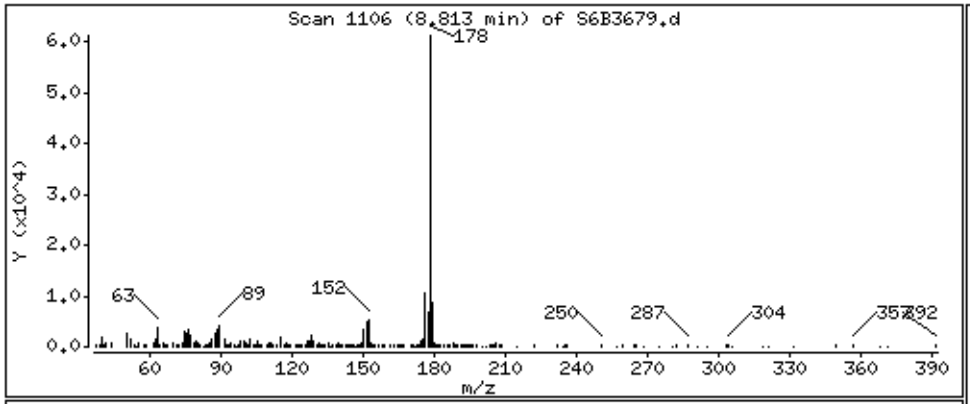
Operator: PK SRC: LIMS

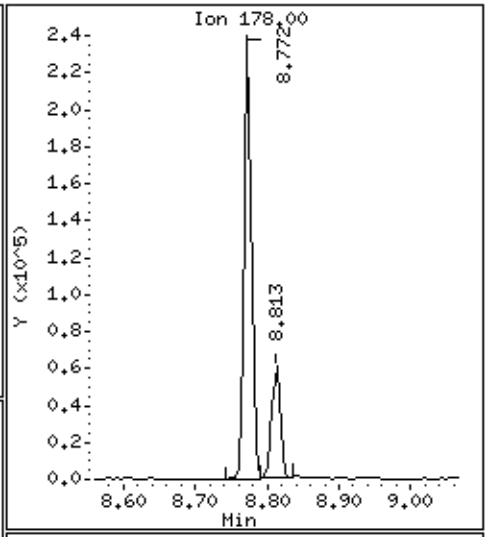
Column phase: Rxi-5Sil MS

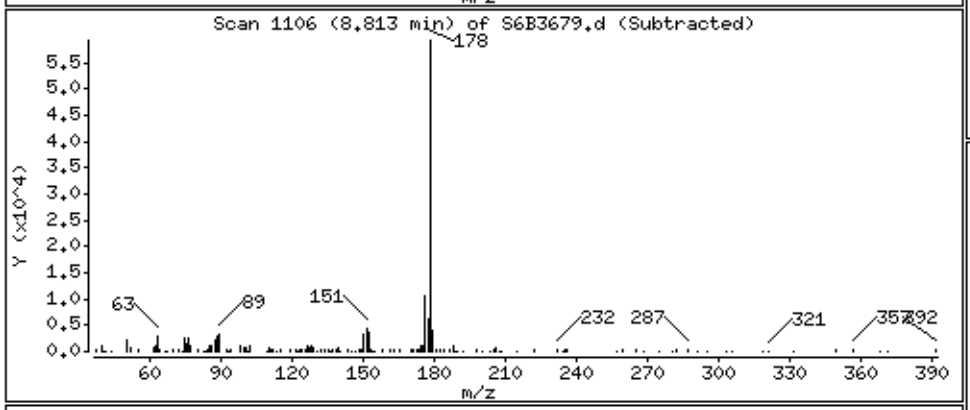
Column diameter: 0.25

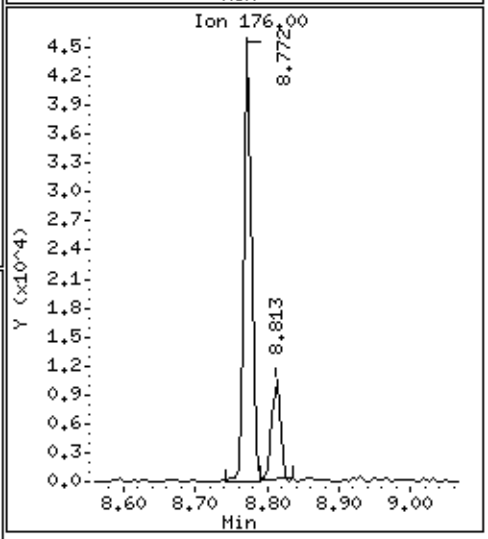
66 Anthracene

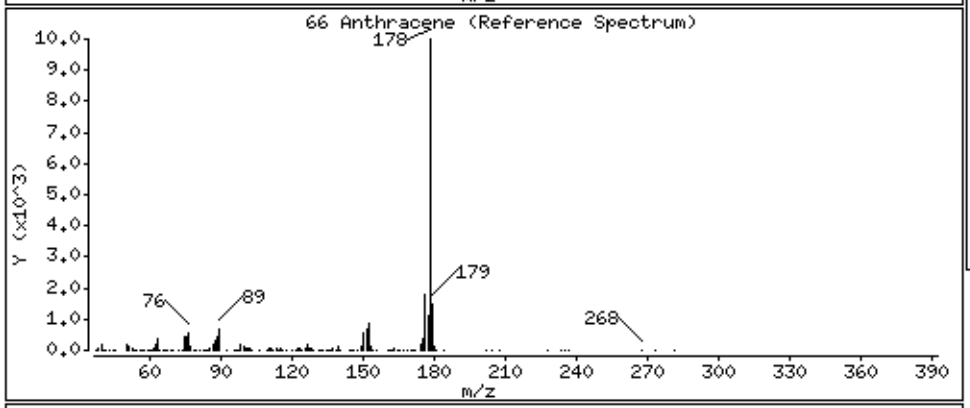
Concentration: 3000 ug/Kg

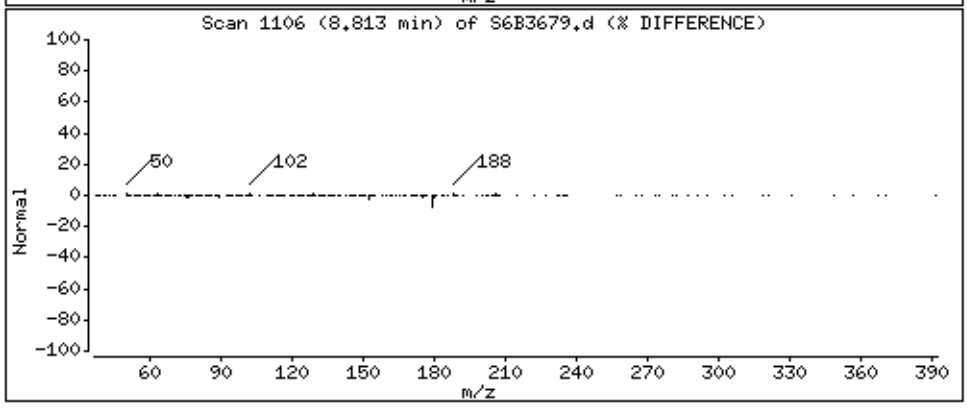












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

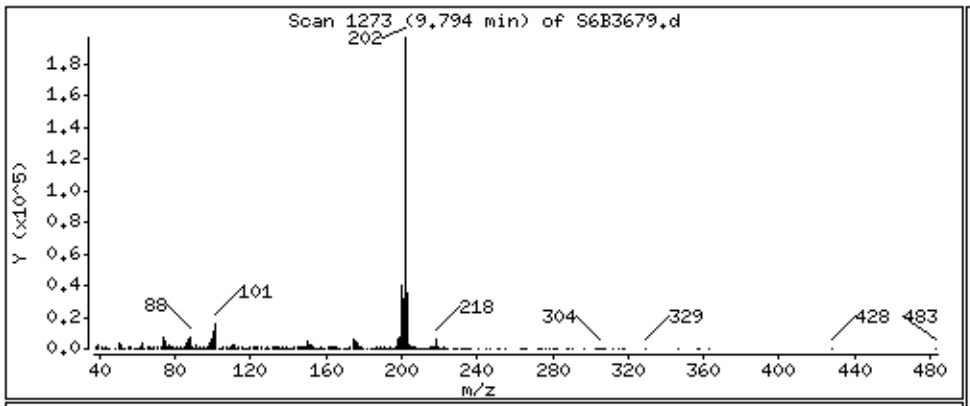
Operator: PK SRC: LIMS

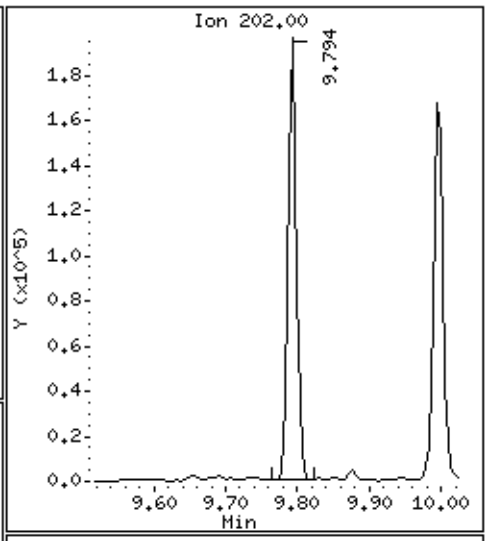
Column phase: Rxi-5Sil MS

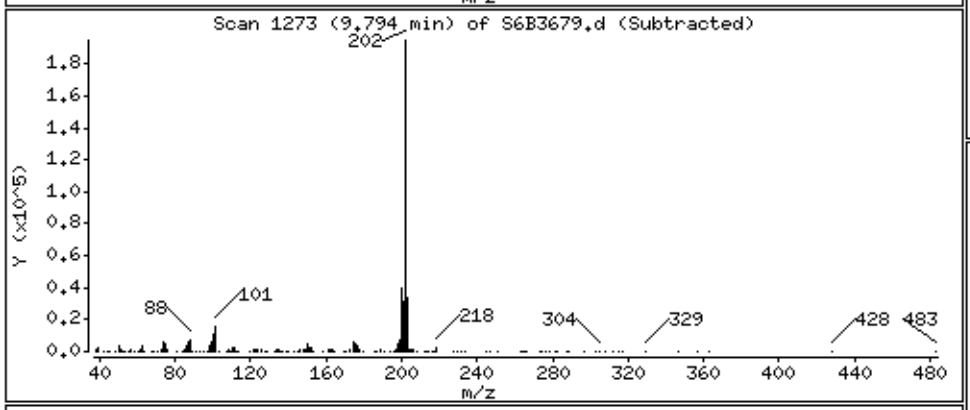
Column diameter: 0.25

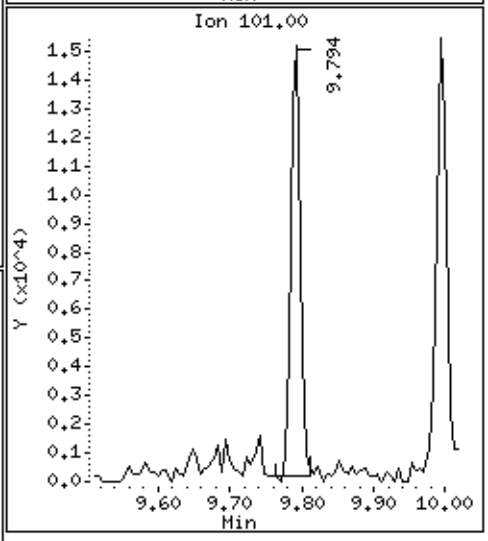
69 Fluoranthene

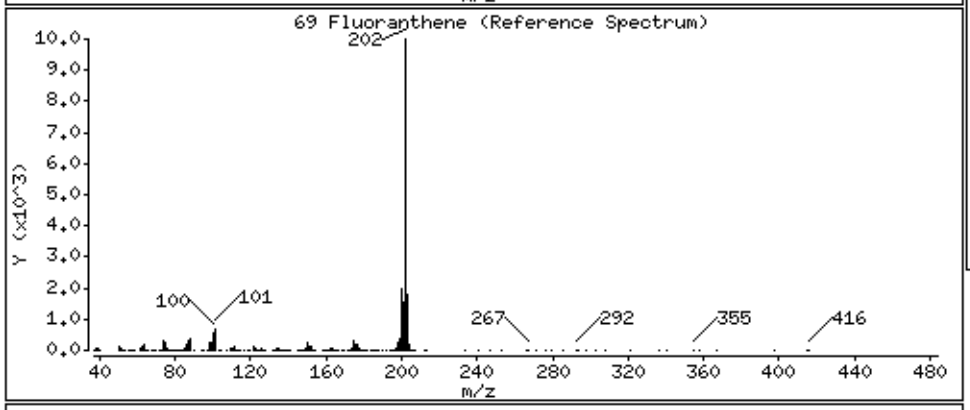
Concentration: 9000 ug/Kg

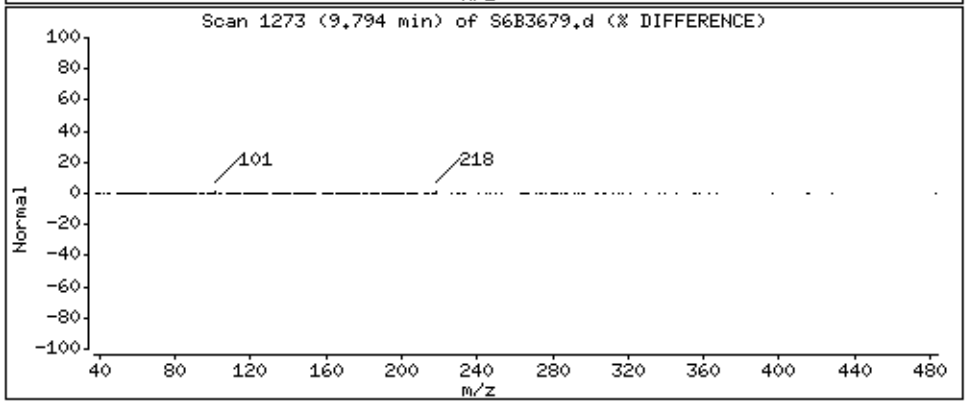












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

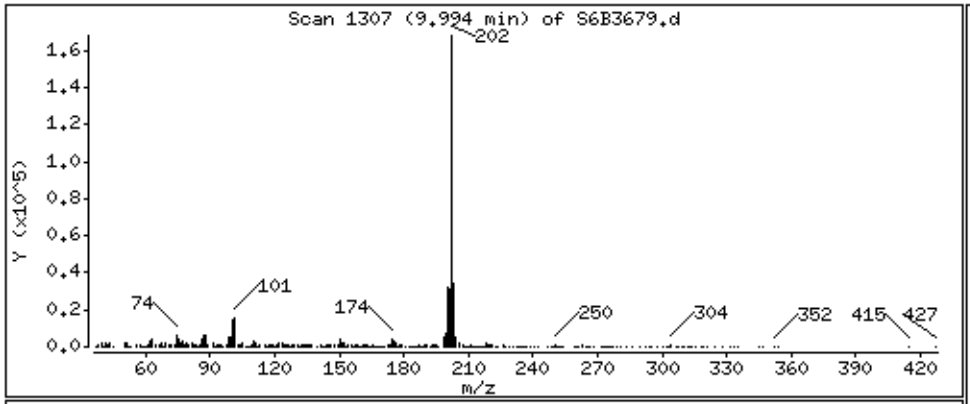
Operator: PK SRC: LIMS

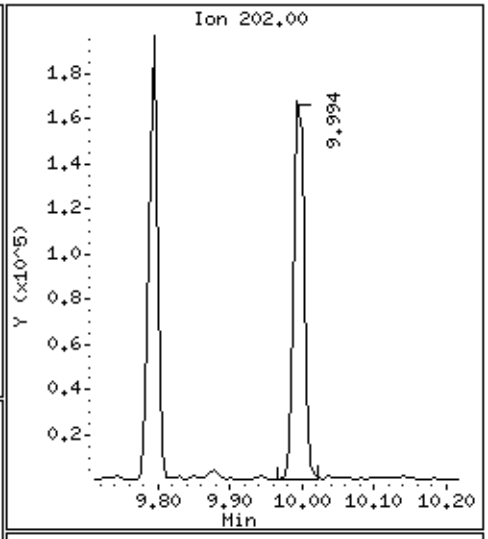
Column phase: Rxi-5Sil MS

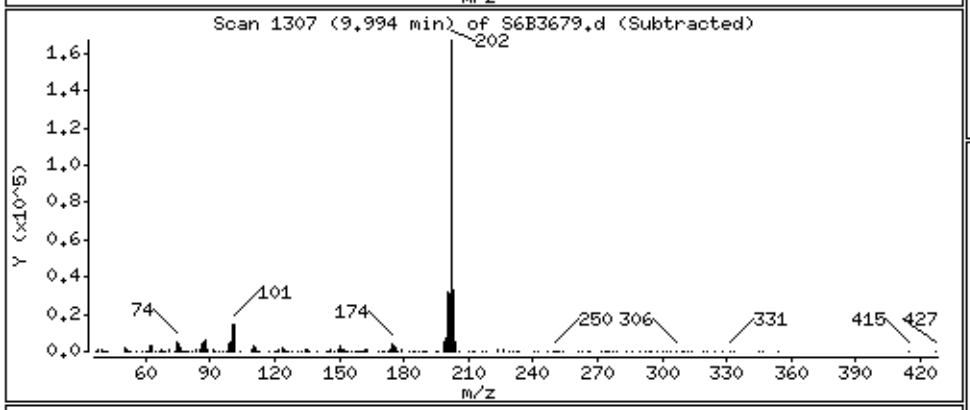
Column diameter: 0.25

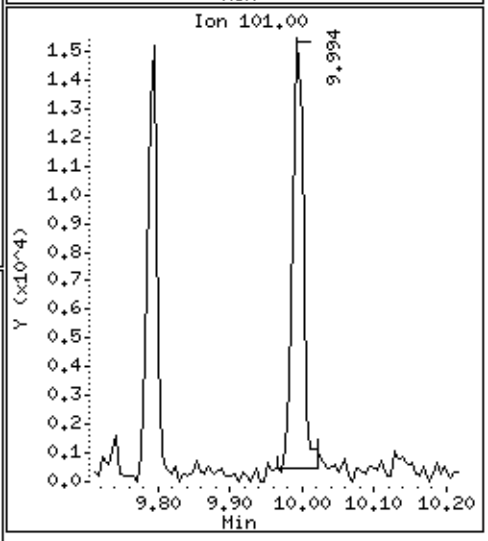
71 Pyrene

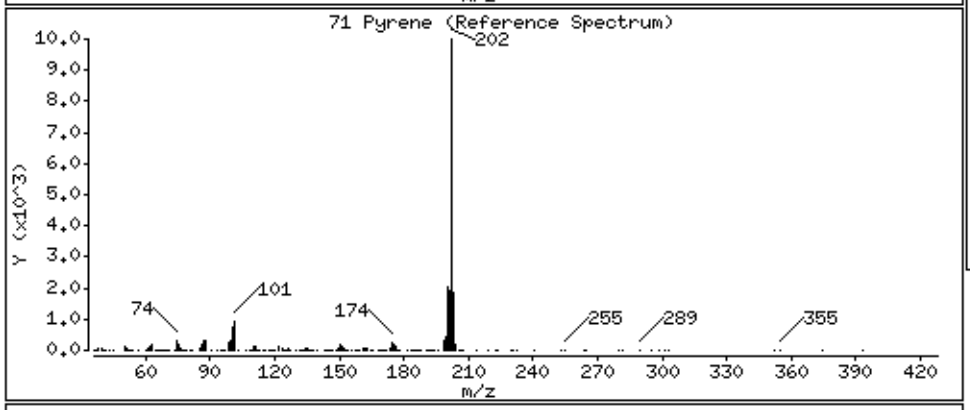
Concentration: 8300 ug/Kg

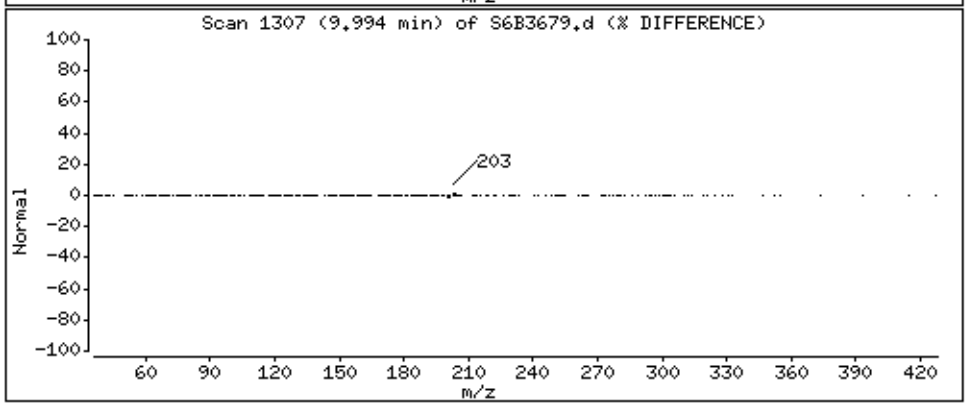












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

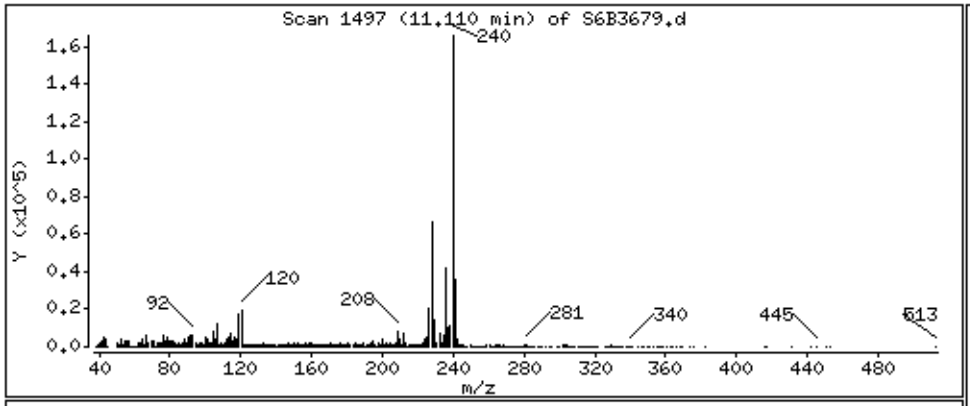
Operator: PK SRC: LIMS

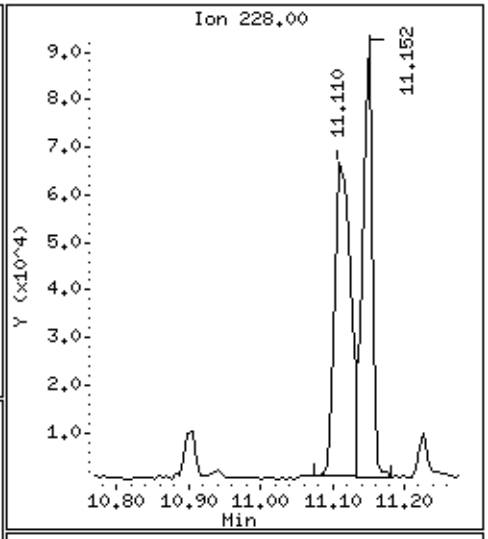
Column phase: Rxi-5Sil MS

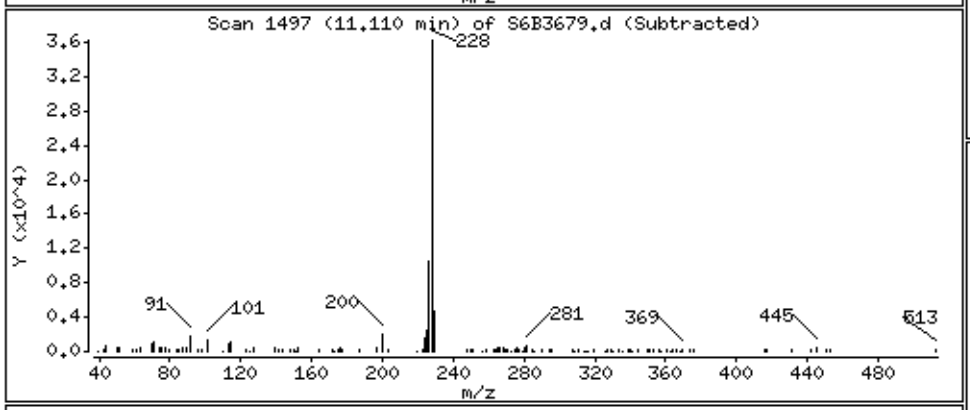
Column diameter: 0.25

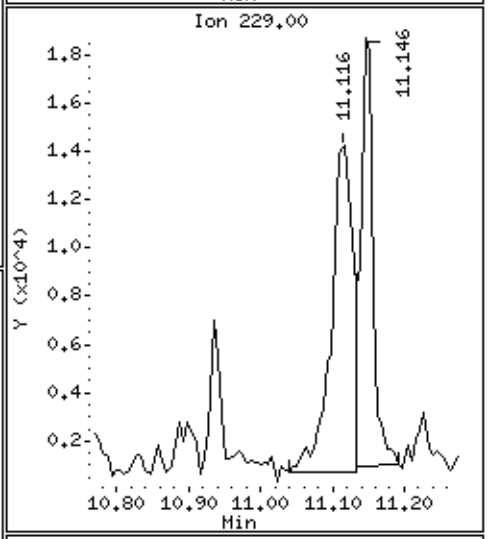
75 Benzo(a)anthracene

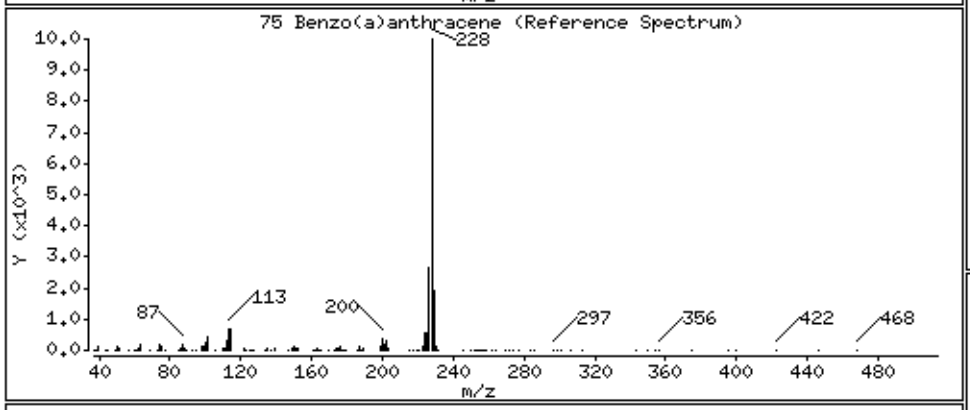
Concentration: 4800 ug/Kg

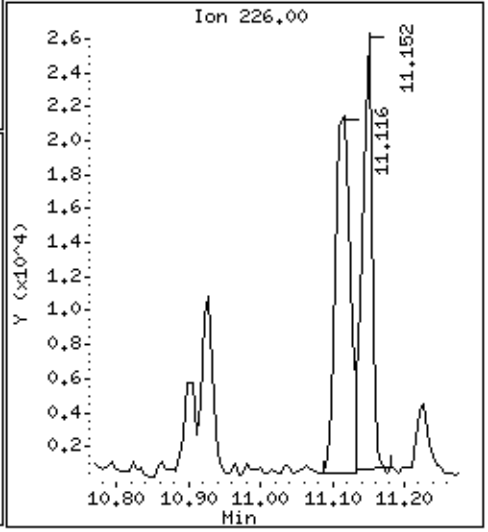


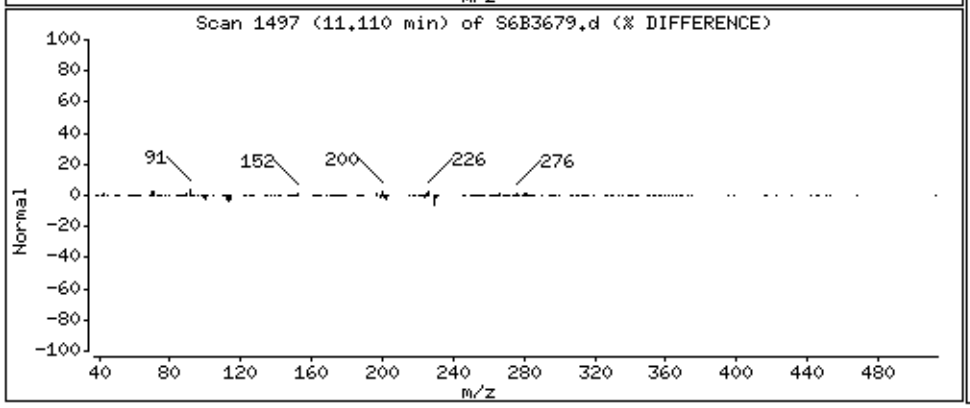












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

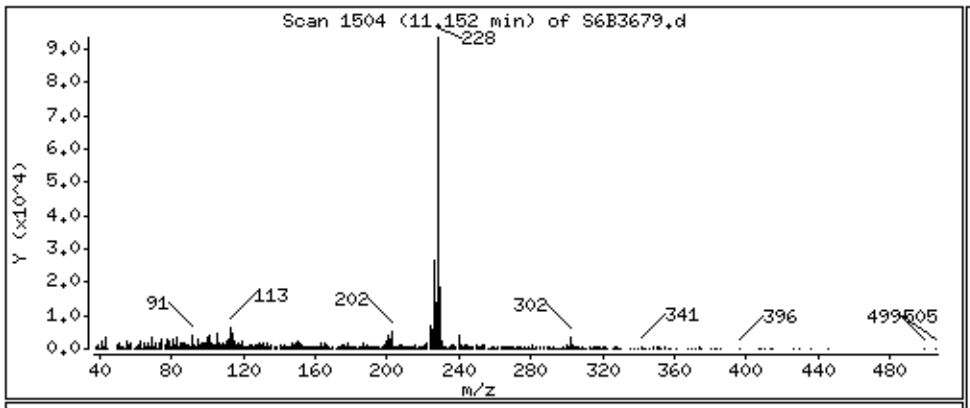
Operator: PK SRC: LIMS

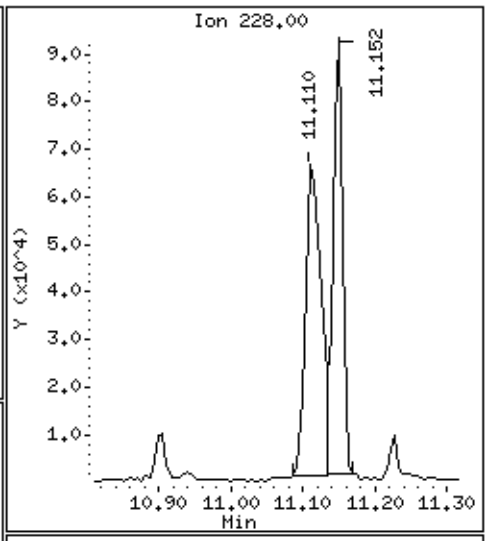
Column phase: Rxi-5Sil MS

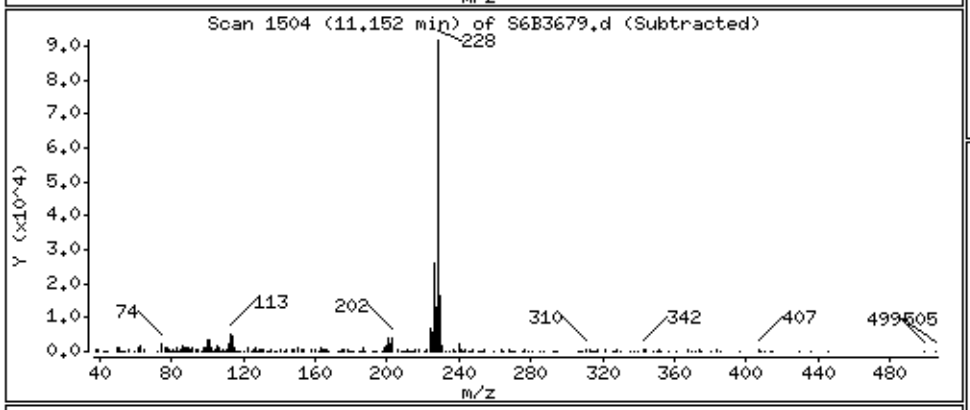
Column diameter: 0.25

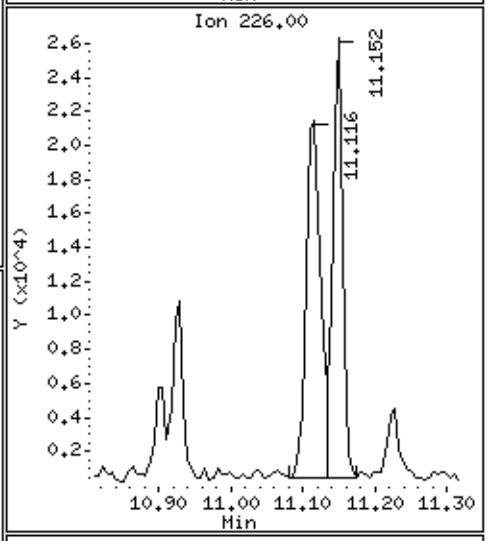
77 Chrysene

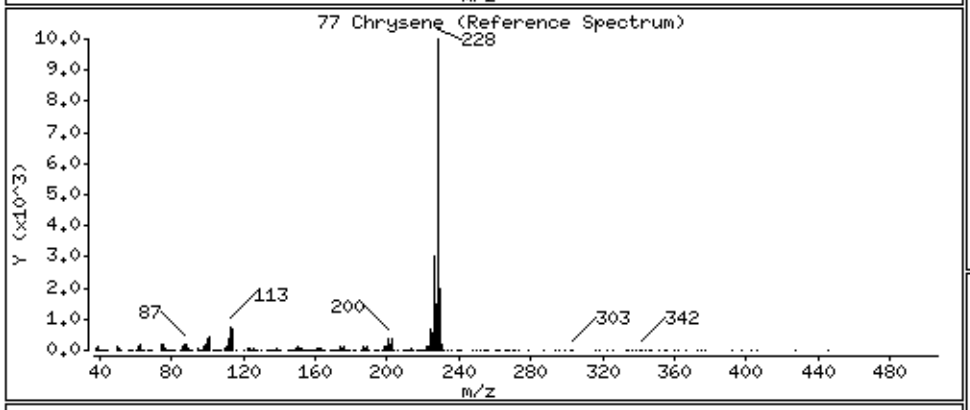
Concentration: 4800 ug/Kg

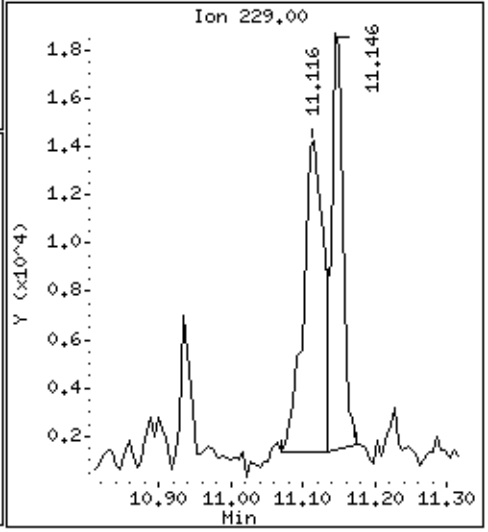


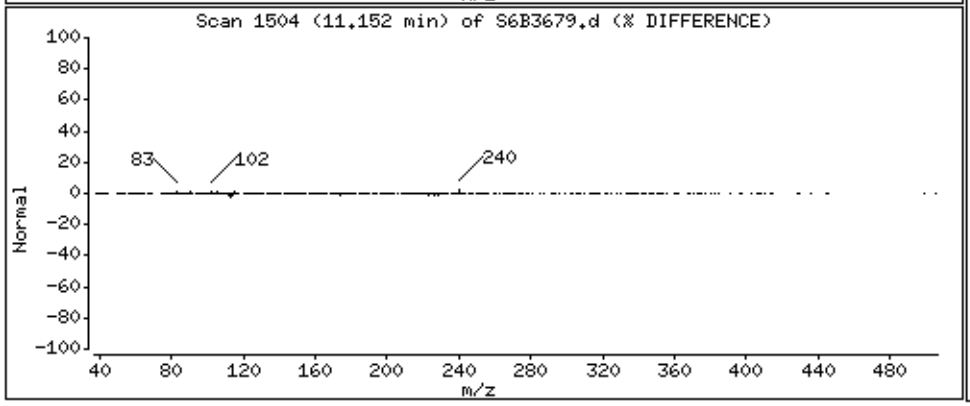












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

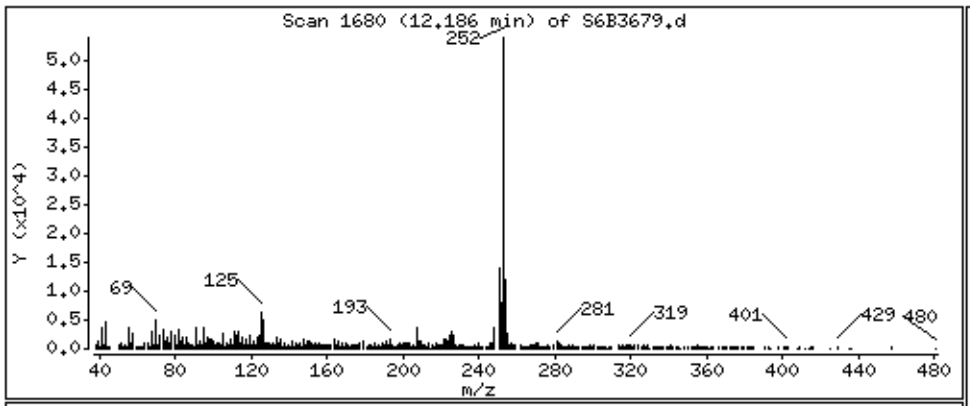
Operator: PK SRC: LIMS

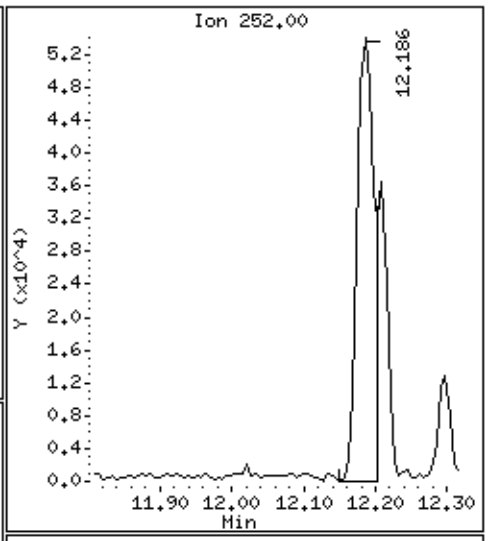
Column phase: Rxi-5Sil MS

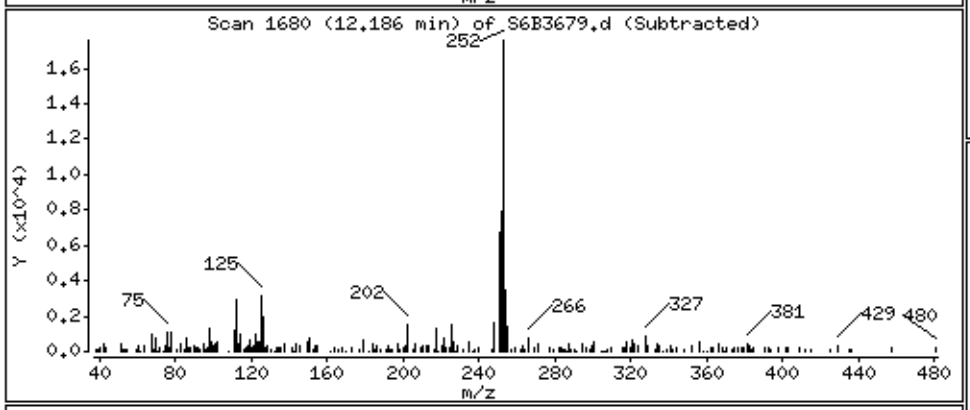
Column diameter: 0.25

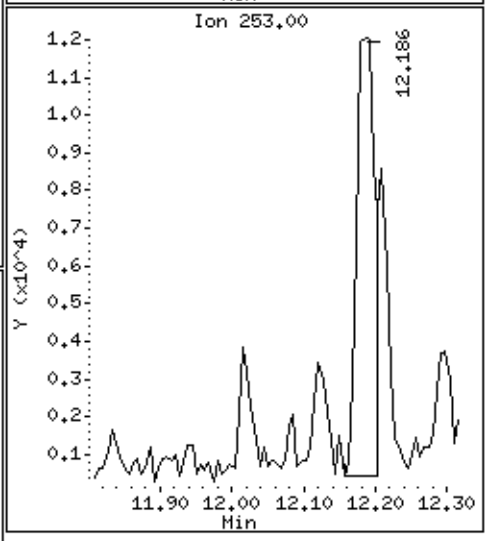
80 Benzo(b)fluoranthene

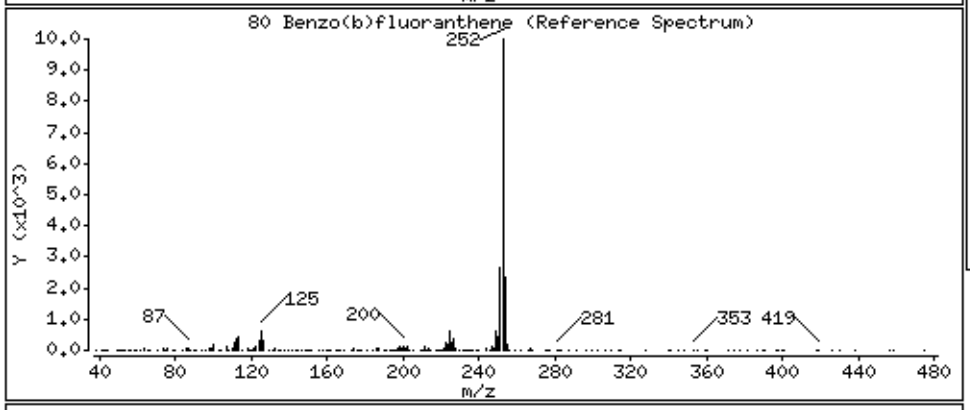
Concentration: 3600 ug/Kg

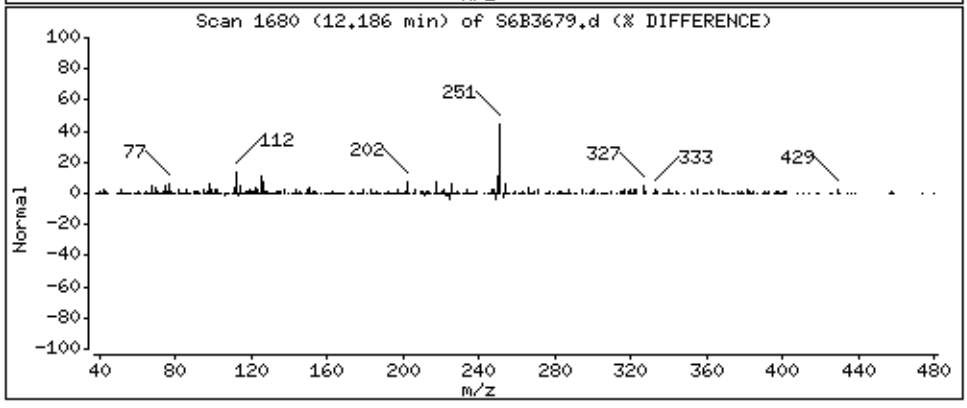












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

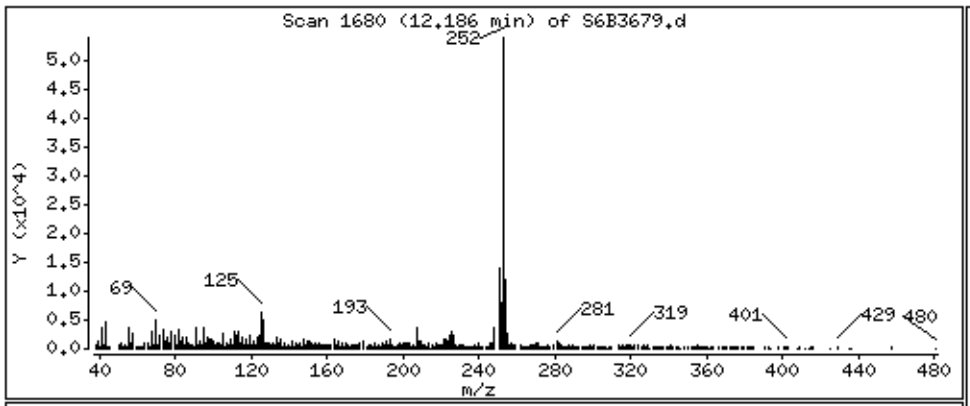
Client ID: SB-127 (10-12)DL Instrument: S6.i

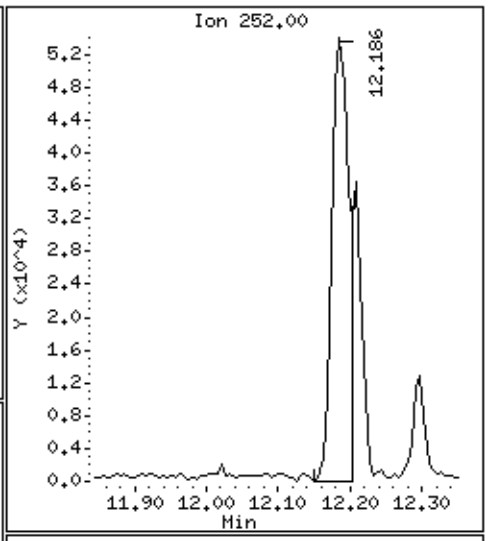
Sample Info: M0619-06ADL,,71418,,40

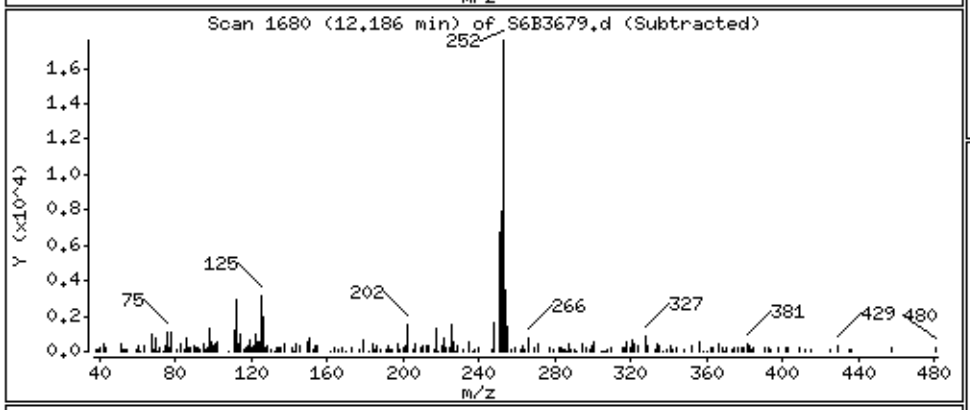
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

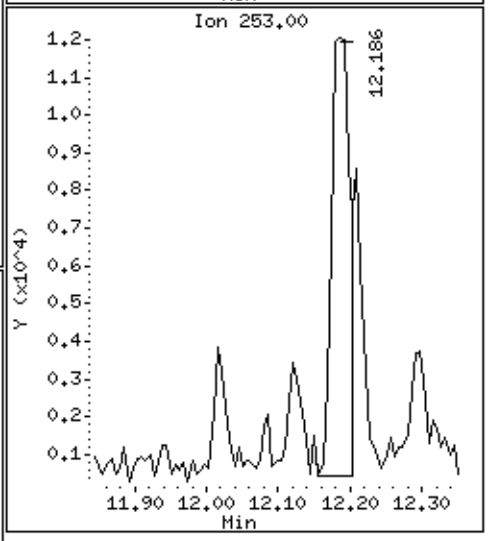
Column phase: Rxi-5Sil MS Column diameter: 0.25

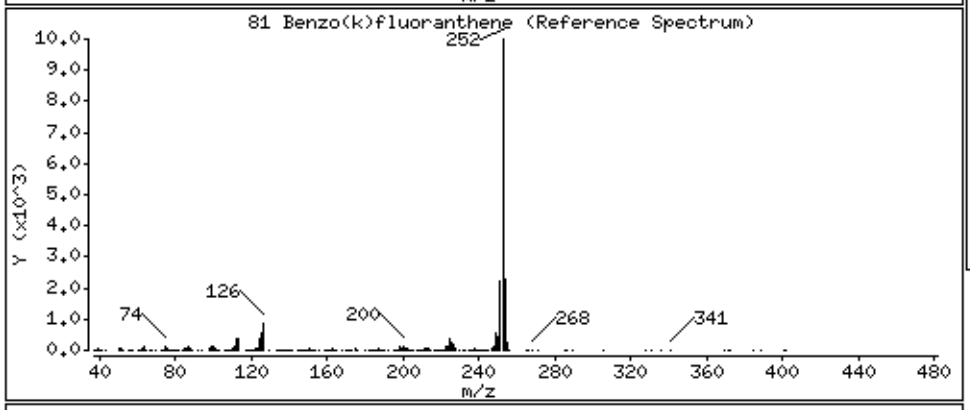
81 Benzo(k)fluoranthene Concentration: 3800 ug/Kg

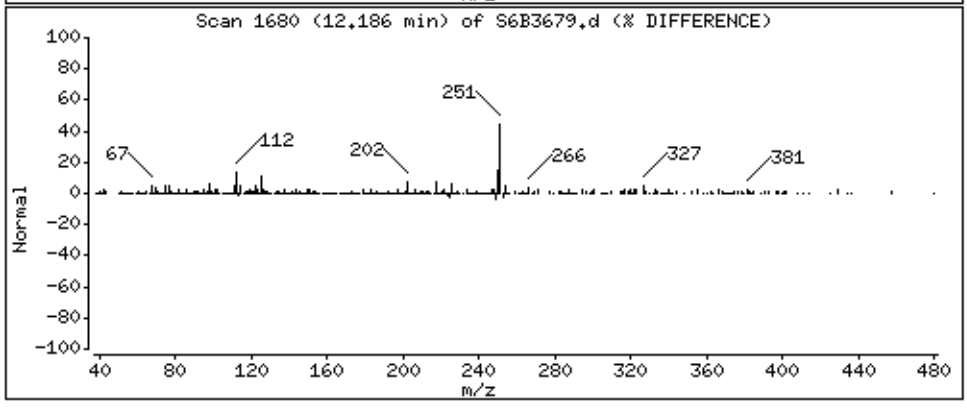












Data File: \\avogadro\organics\S6.I\130507.B\S6B3679.d

Date : 07-MAY-2013 15:15

Client ID: SB-127 (10-12)DL

Instrument: S6.i

Sample Info: M0619-06ADL,,71418,,40

Volume Injected (uL): 1.0

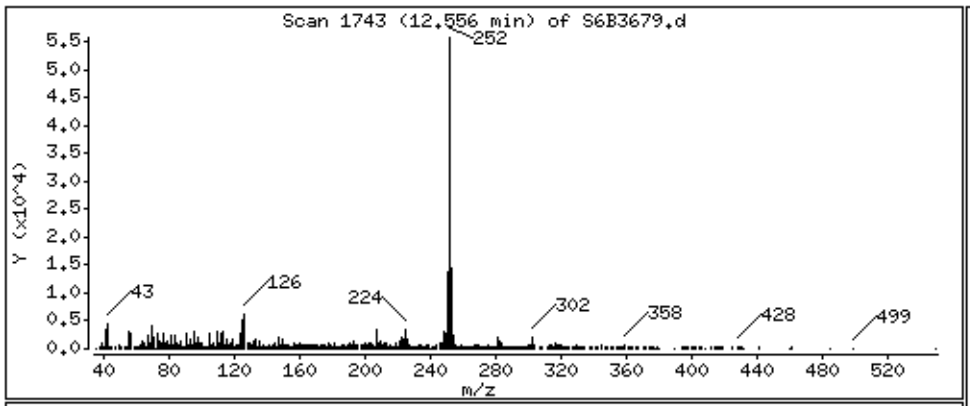
Operator: PK SRC: LIMS

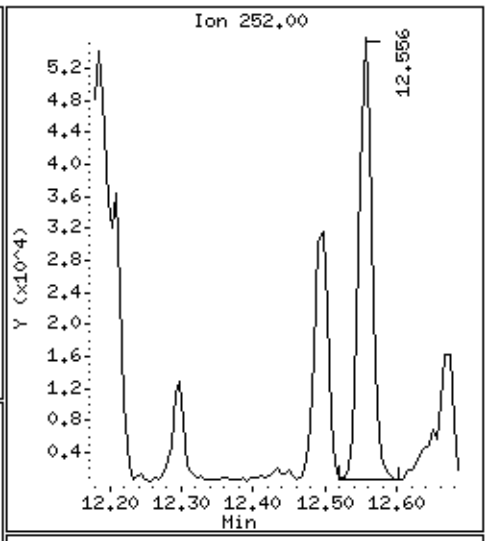
Column phase: Rxi-5Sil MS

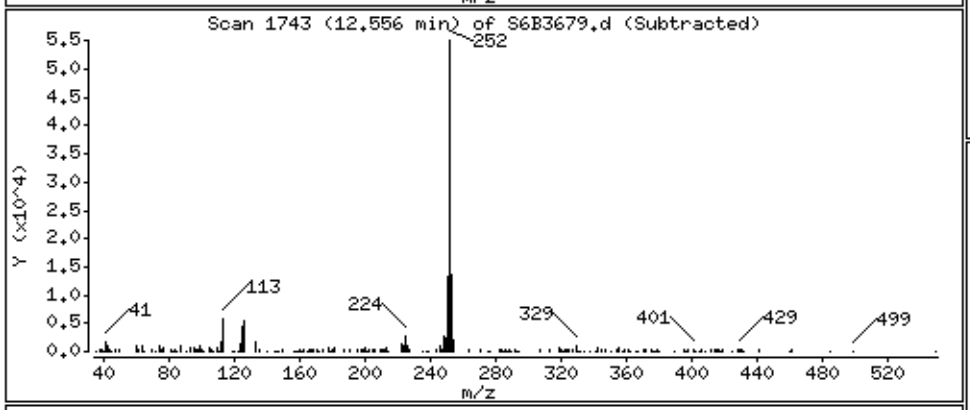
Column diameter: 0.25

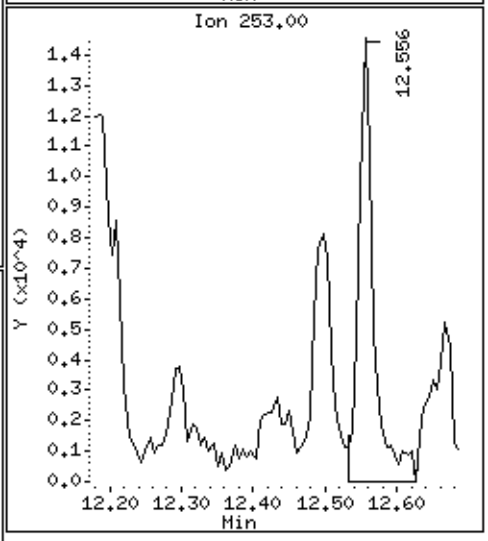
82 Benzo(a)pyrene

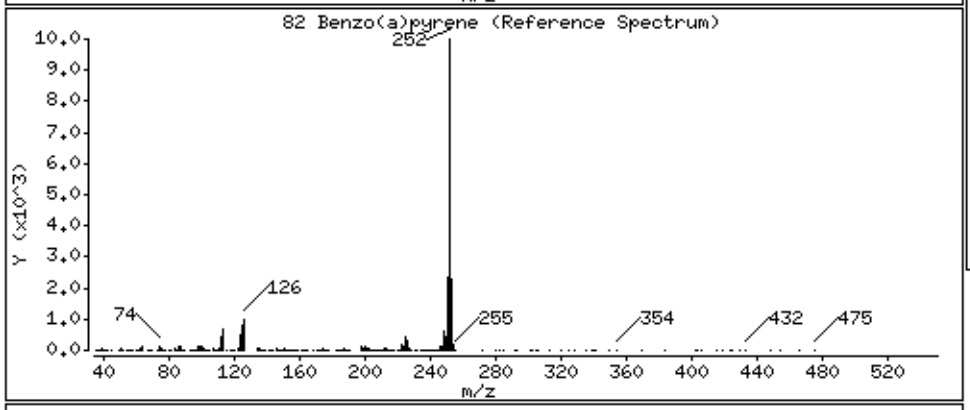
Concentration: 3100 ug/Kg

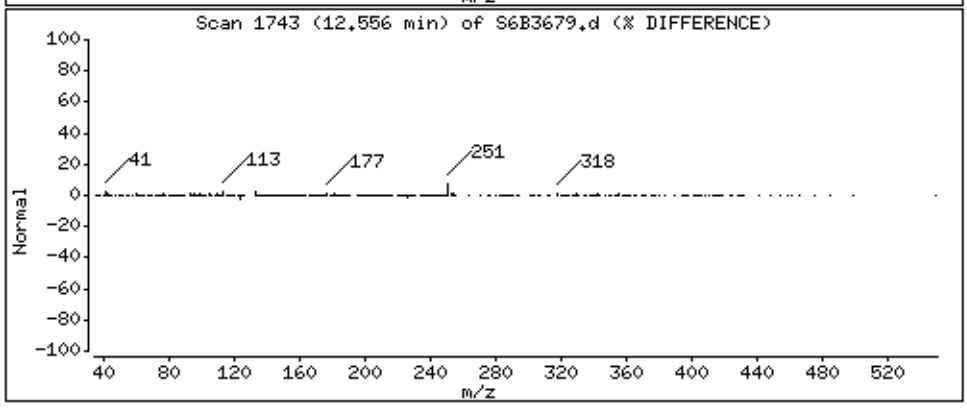












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-07A

Sample wt/vol: 15.2 (g/mL) G Lab File ID: S6B3654.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	150	J
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	300	J
129-00-0	Pyrene	410	
56-55-3	Benzo(a)anthracene	220	J
218-01-9	Chrysene	260	J
205-99-2	Benzo(b)fluoranthene	210	J
207-08-9	Benzo(k)fluoranthene	94	J
50-32-8	Benzo(a)pyrene	180	J
193-39-5	Indeno(1,2,3-cd)pyrene	110	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	130	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3654.d
Lab Smp Id: M0619-07A Client Smp ID: SB-128 (2-4)
Inj Date : 06-MAY-2013 20:20
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-07A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.200	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

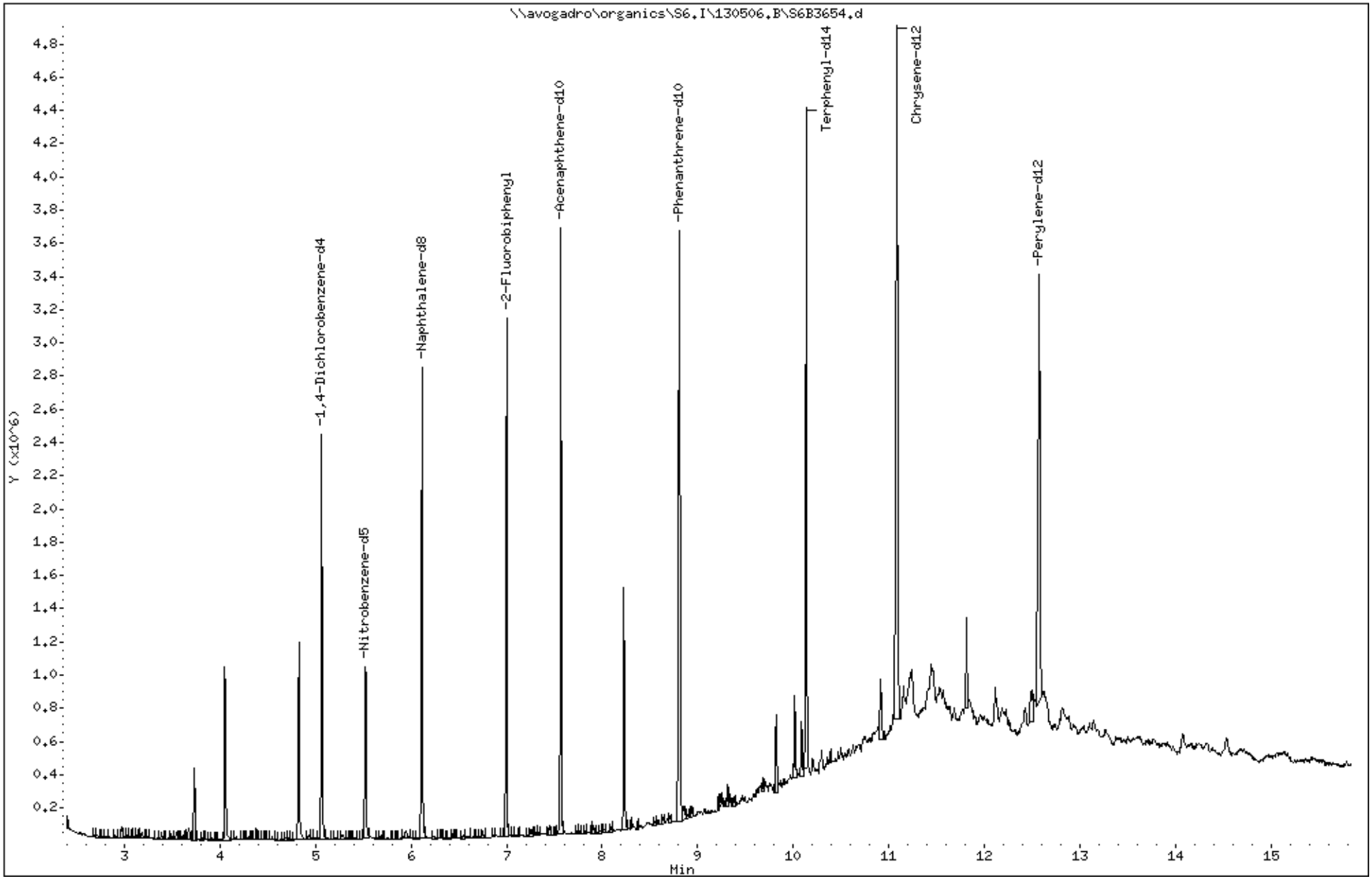
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	284949	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	335607	37.6505	2500	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	997538	40.0000		
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	729770	37.2811	2400	
*	48 Acenaphthene-d10	164	7.570	7.570	(1.000)	670167	40.0000		
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1295712	40.0000		
	65 Phenanthrene	178	8.821	8.827	(1.002)	60643	2.04775	130(a)	
	69 Fluoranthene	202	9.820	9.826	(1.115)	144675	3.99184	260(a)	
	71 Pyrene	202	10.014	10.020	(0.904)	179366	5.46001	360(a)	
$	72 Terphenyl-d14	244	10.138	10.138	(0.915)	1113070	47.2157	3100	
	75 Benzo(a)anthracene	228	11.066	11.083	(0.998)	104220	2.87928	190(a)	
*	76 Chrysene-d12	240	11.084	11.101	(1.000)	1571175	40.0000		
	77 Chrysene	228	11.101	11.125	(1.002)	106632	3.52228	230(a)	
	80 Benzo(b)fluoranthene	252	12.112	12.141	(0.963)	113708	2.77040	180(aM)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.129	12.170	(0.964)	48167	1.25201	82(aQM)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.488	12.517	(0.993)	89020	2.42993	160(a)	
*	83 Perylene-d12	264	12.576	12.593	(1.000)	1570153	40.0000		
	84 Indeno(1,2,3-cd)pyrene	276	14.074	14.115	(1.119)	65717	1.44757	95(a)	
	86 Benzo(g,h,i)perylene	276	14.538	14.579	(1.156)	63364	1.71623	110(a)	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d
Report Date: 07-May-2013 10:02

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d
Date : 06-MAY-2013 20:20
Client ID: SB-128 (2-4)
Instrument: S6.i
Sample Info: M0619-07A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

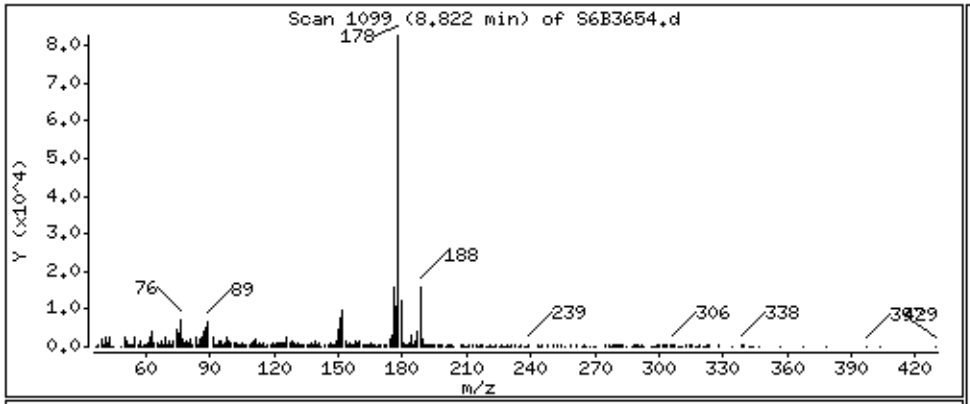
Operator: PK SRC: LIMS

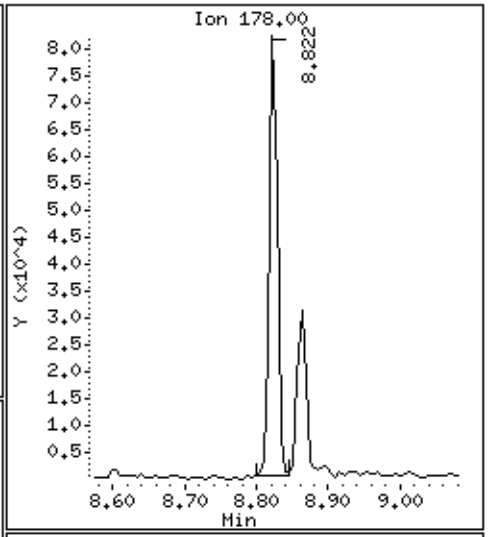
Column phase: Rxi-5Sil MS

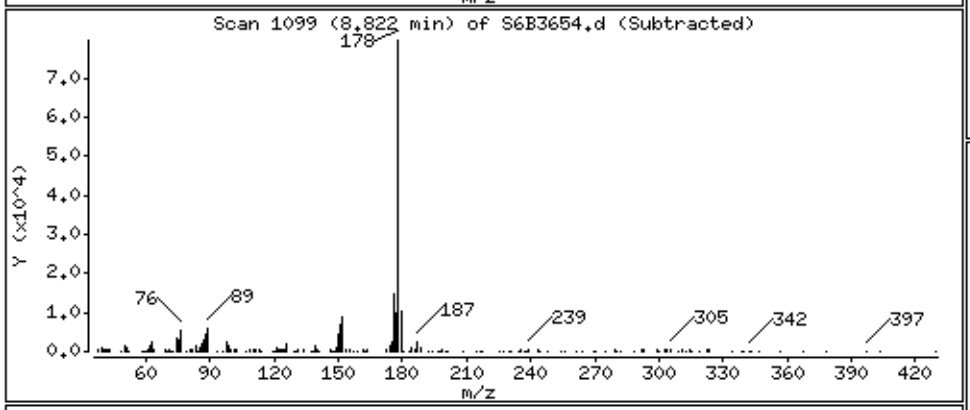
Column diameter: 0.25

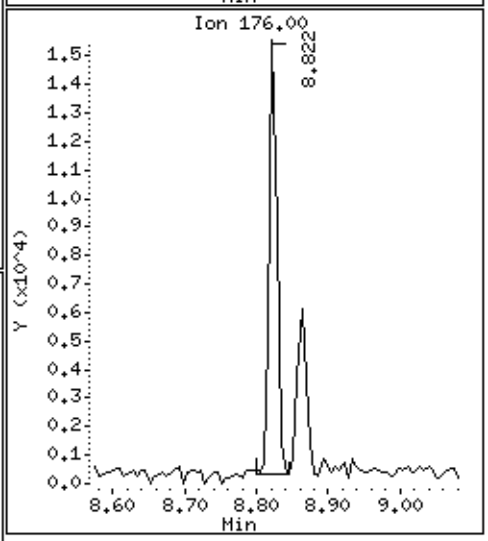
65 Phenanthrene

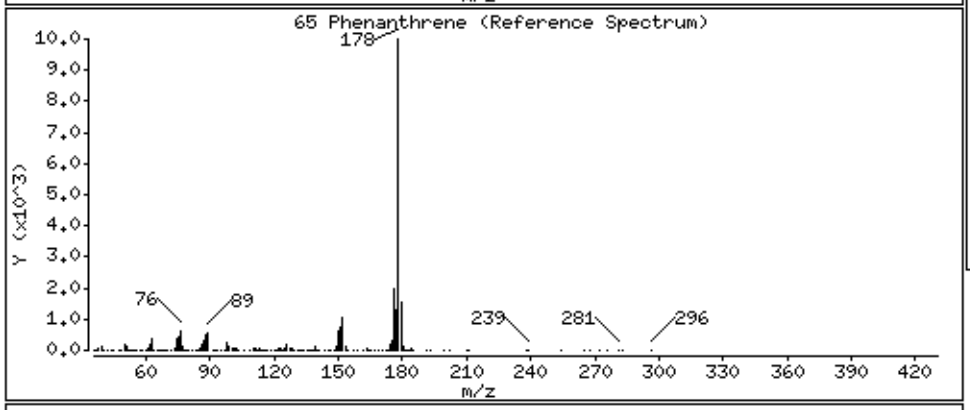
Concentration: 130 ug/Kg

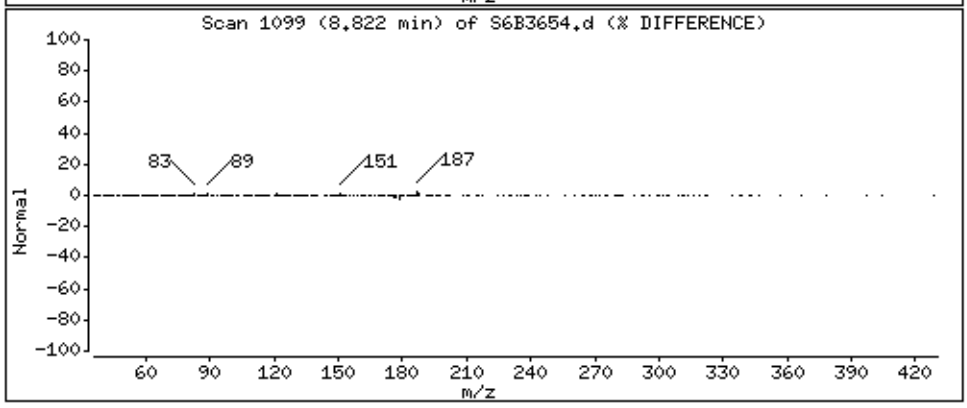












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

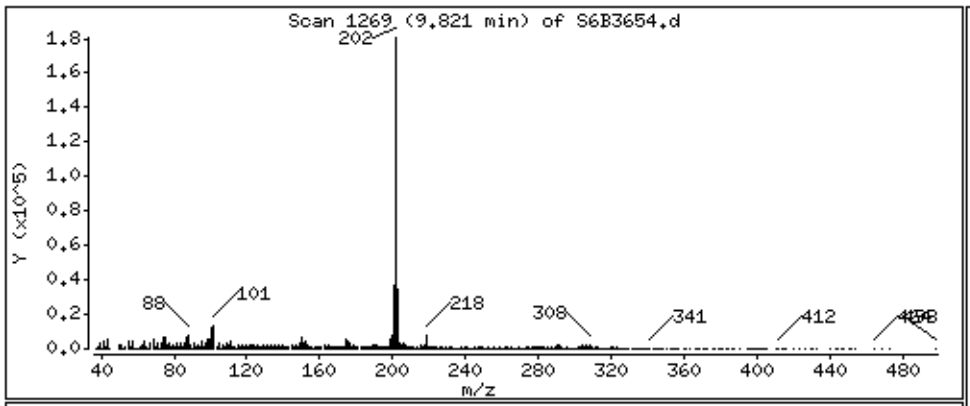
Operator: PK SRC: LIMS

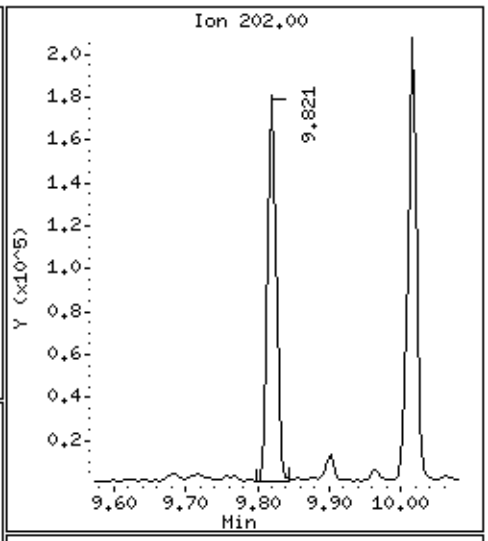
Column phase: Rxi-5Sil MS

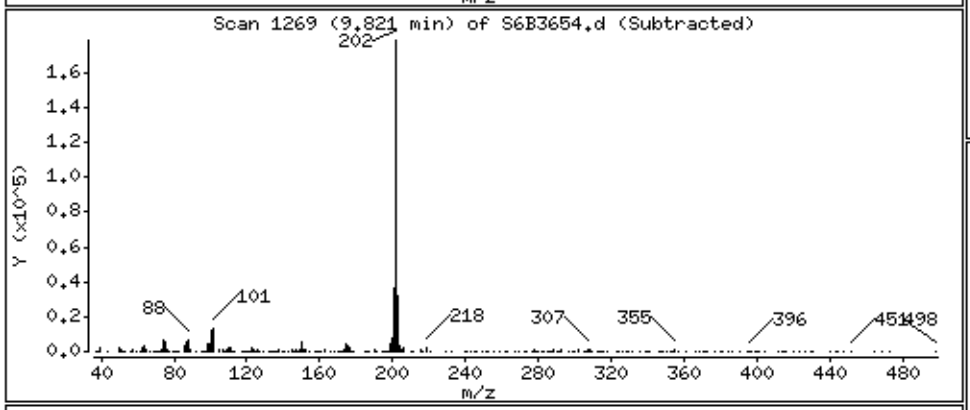
Column diameter: 0.25

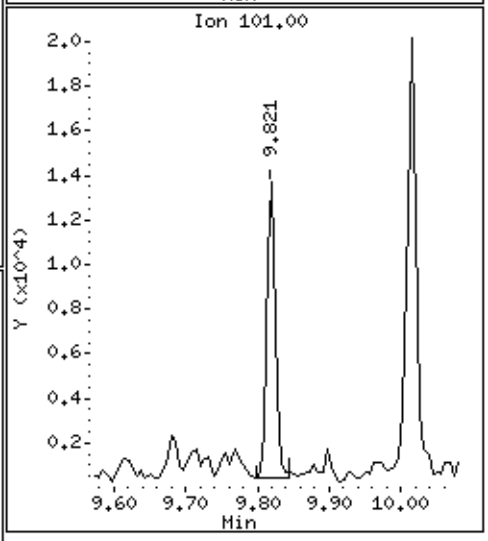
69 Fluoranthene

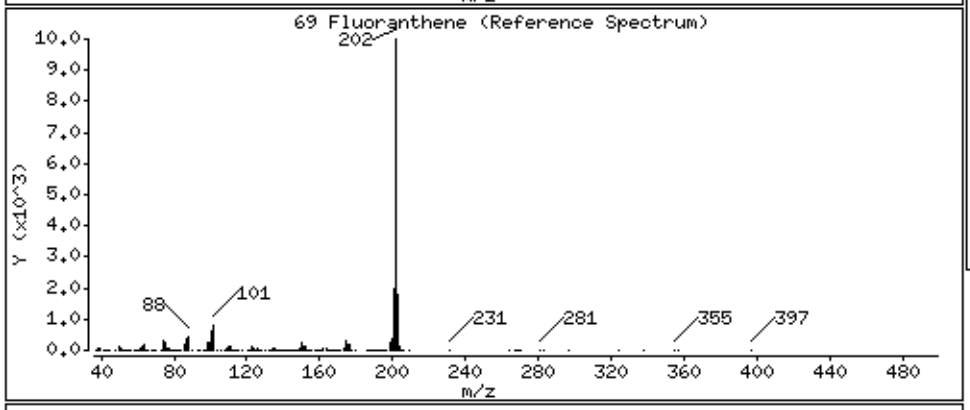
Concentration: 260 ug/Kg

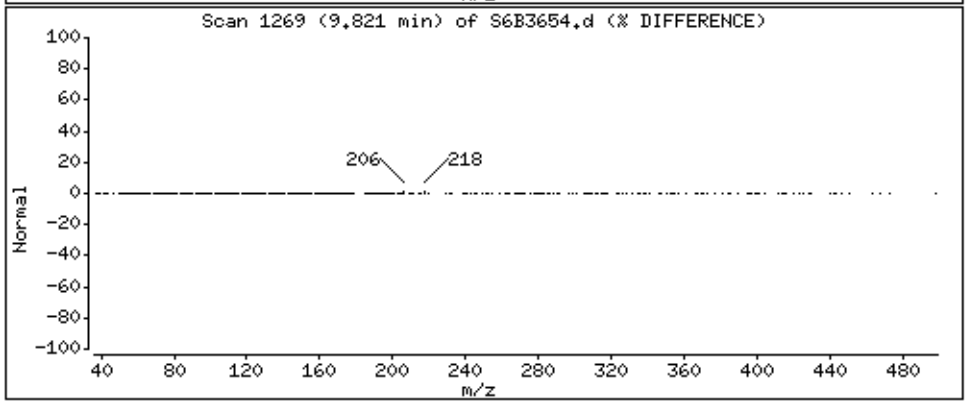












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

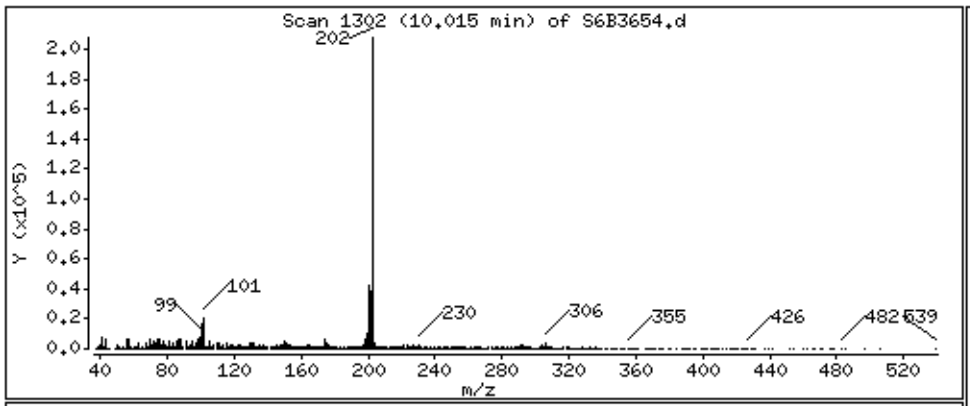
Operator: PK SRC: LIMS

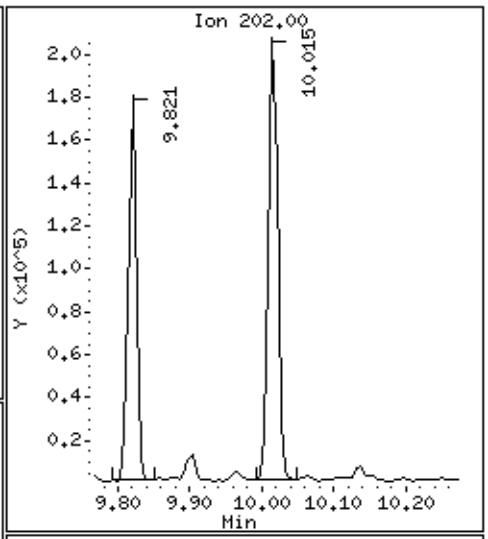
Column phase: Rxi-5Sil MS

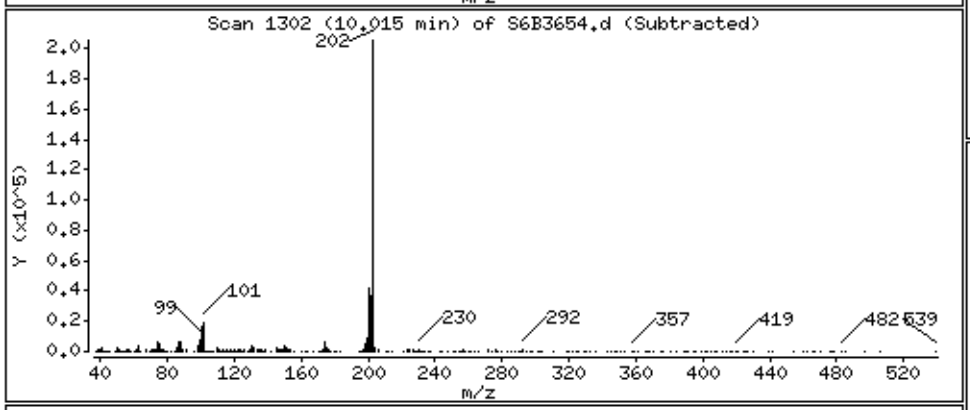
Column diameter: 0.25

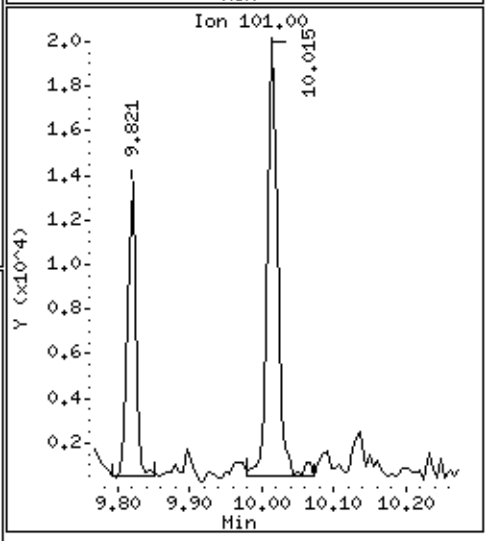
71 Pyrene

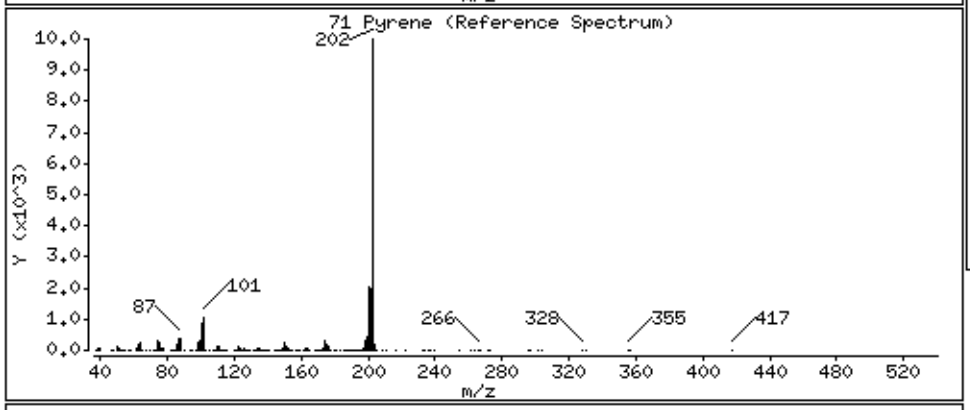
Concentration: 360 ug/Kg

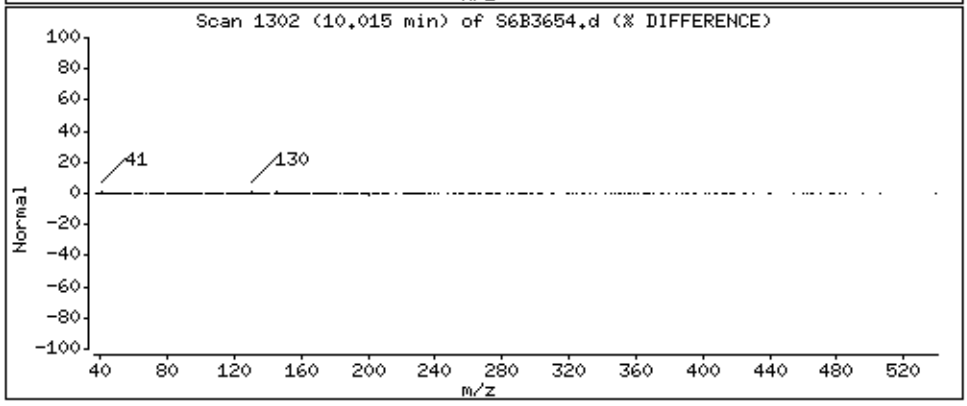












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

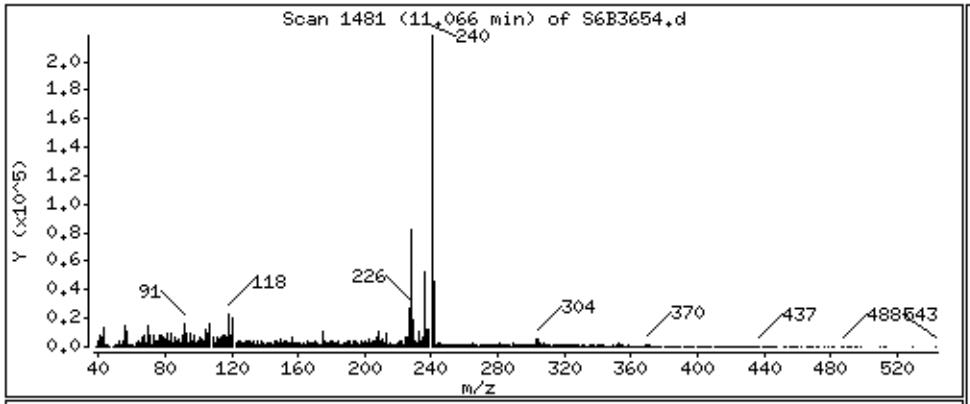
Operator: PK SRC: LIMS

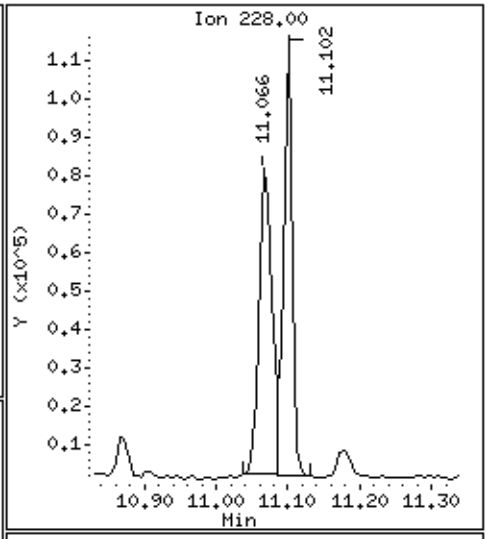
Column phase: Rxi-5Sil MS

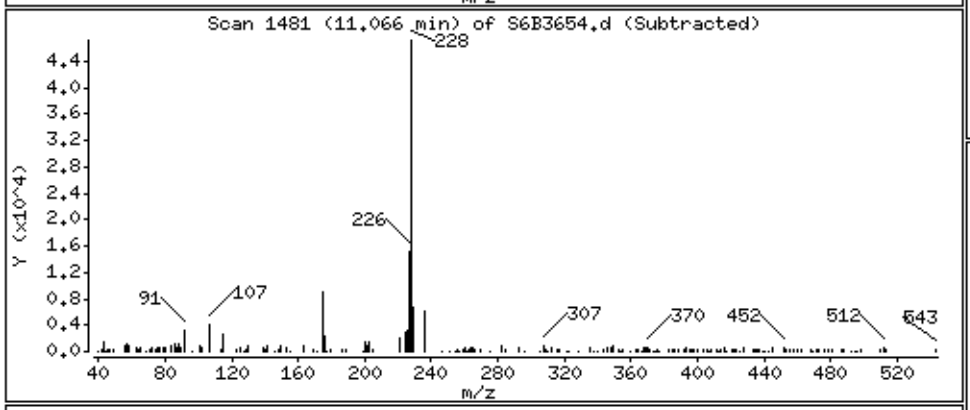
Column diameter: 0.25

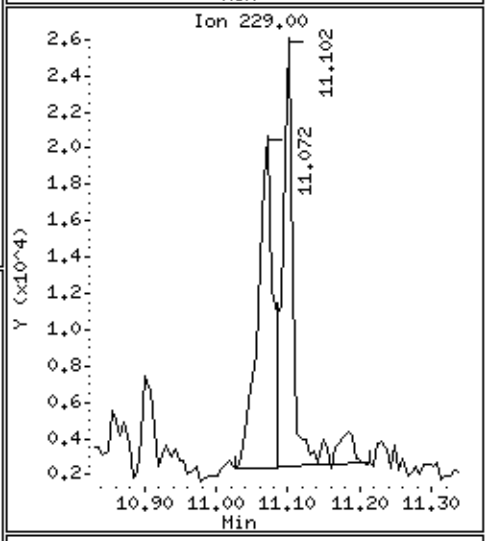
75 Benzo(a)anthracene

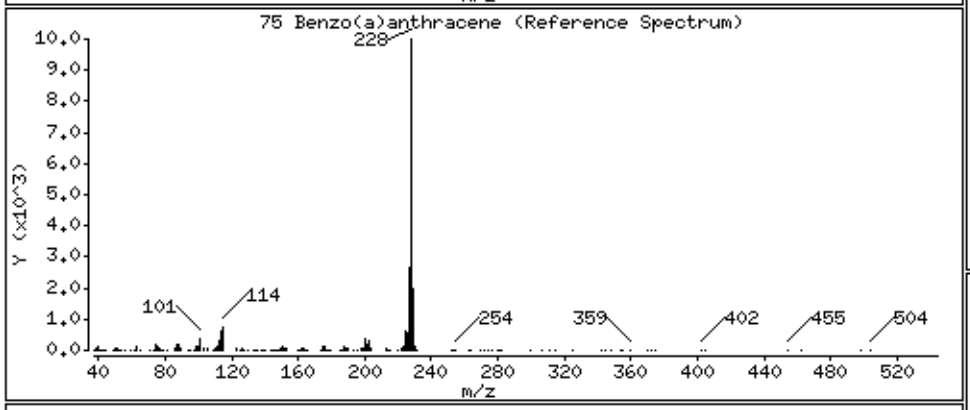
Concentration: 190 ug/Kg

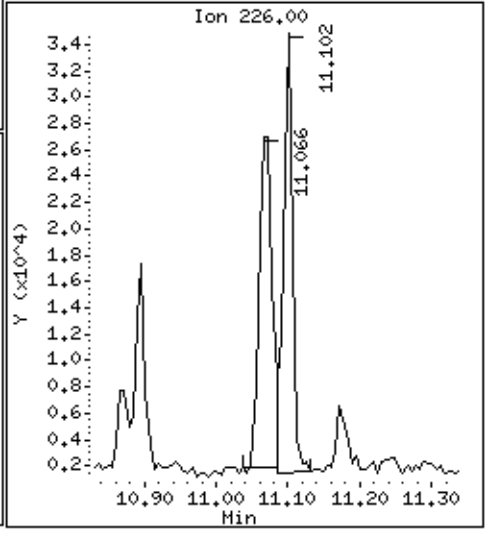


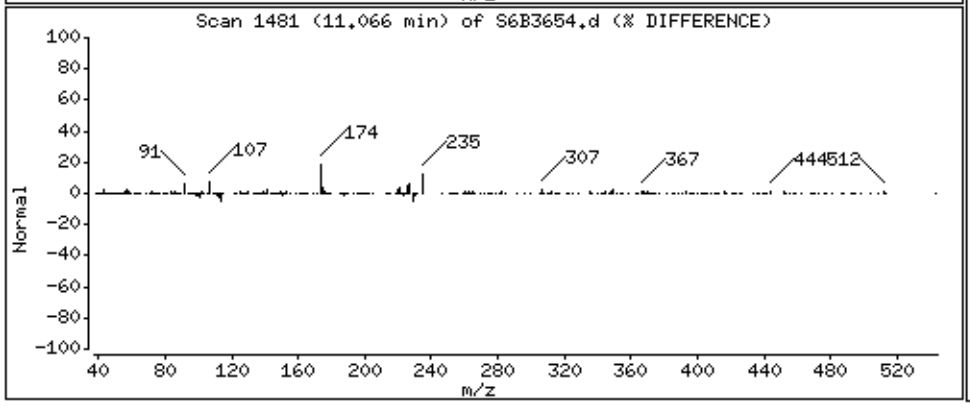












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

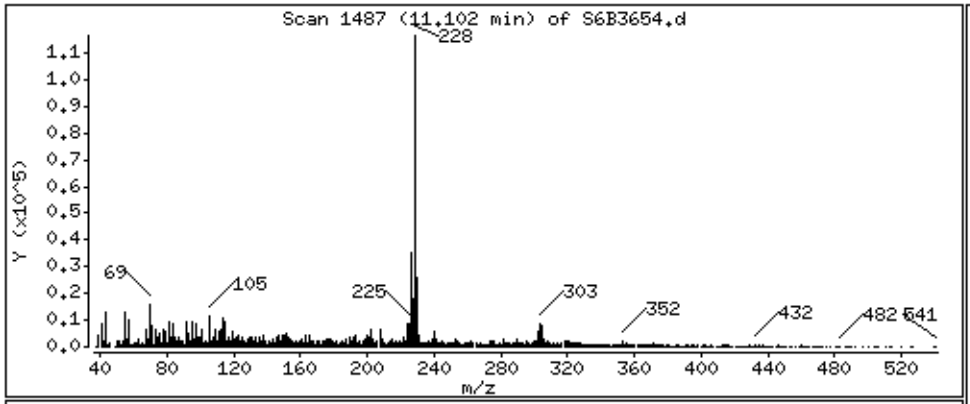
Operator: PK SRC: LIMS

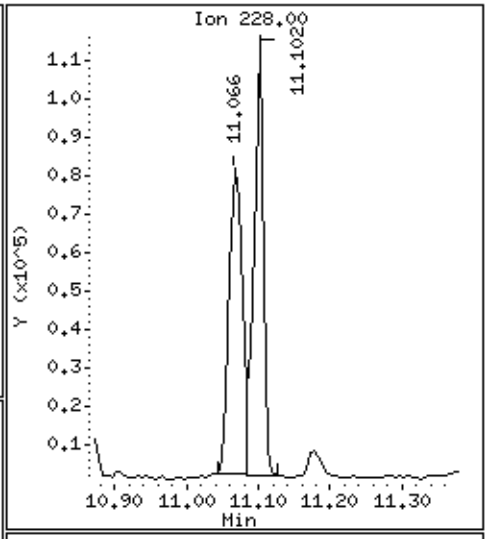
Column phase: Rxi-5Sil MS

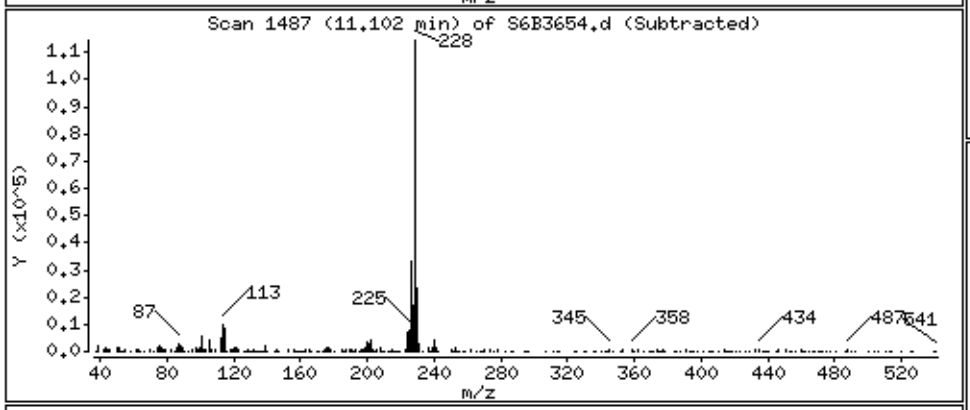
Column diameter: 0.25

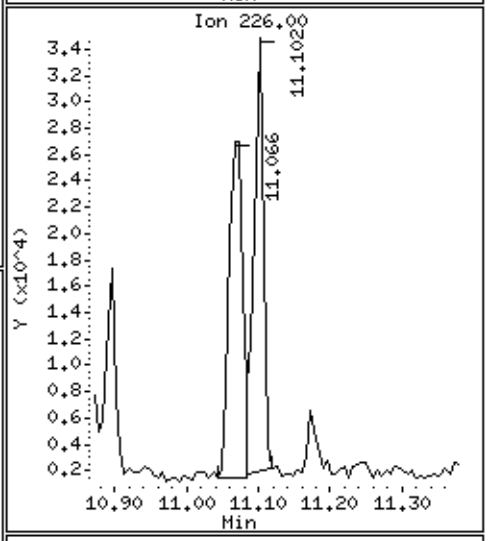
77 Chrysene

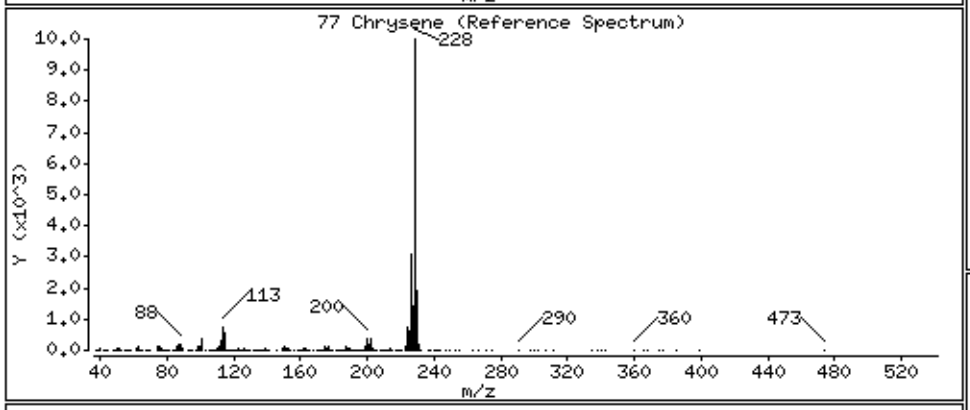
Concentration: 230 ug/Kg

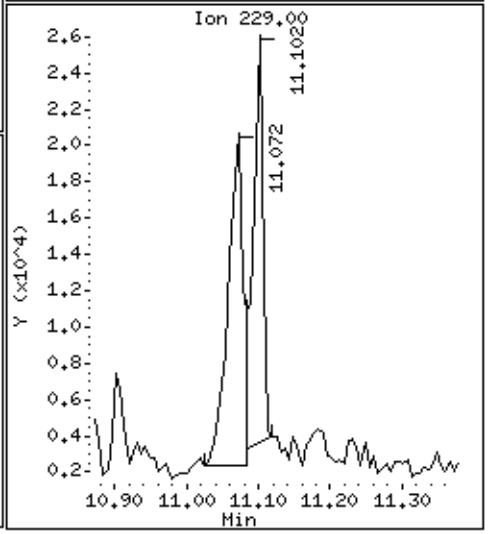


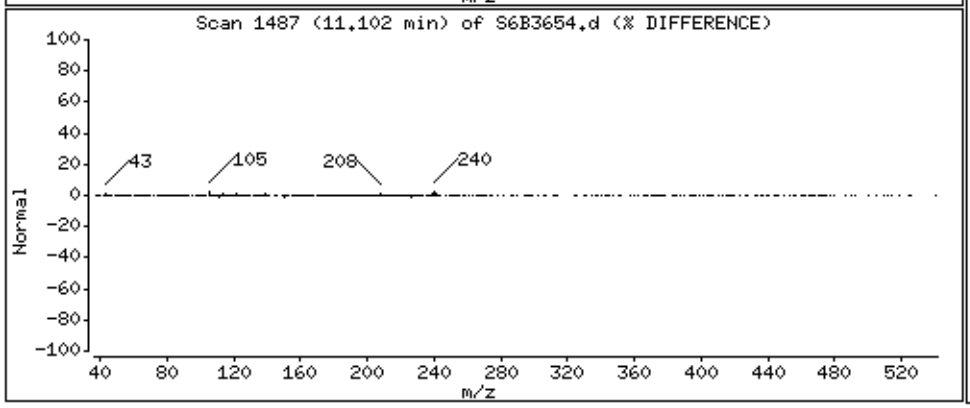












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

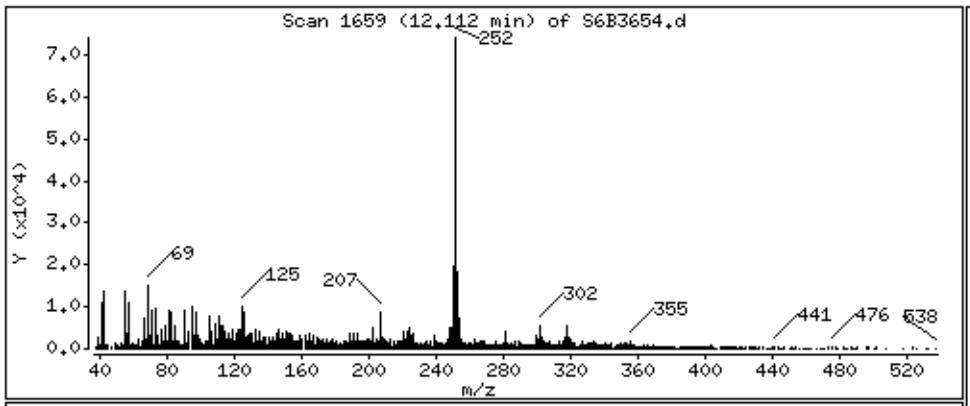
Operator: PK SRC: LIMS

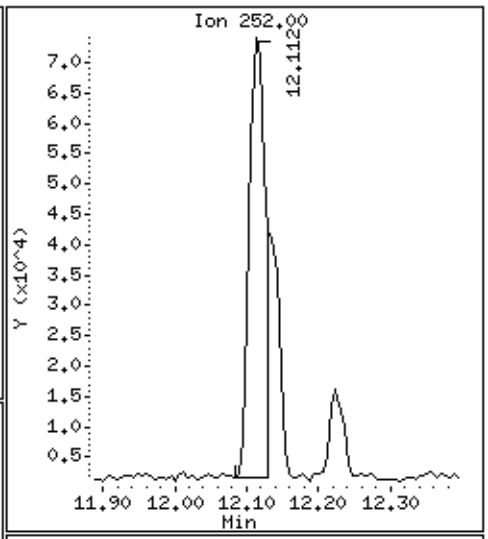
Column phase: Rxi-5Sil MS

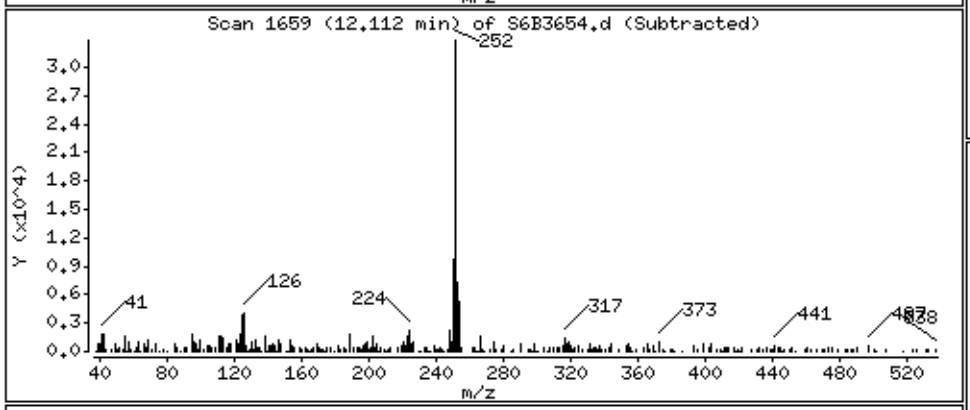
Column diameter: 0.25

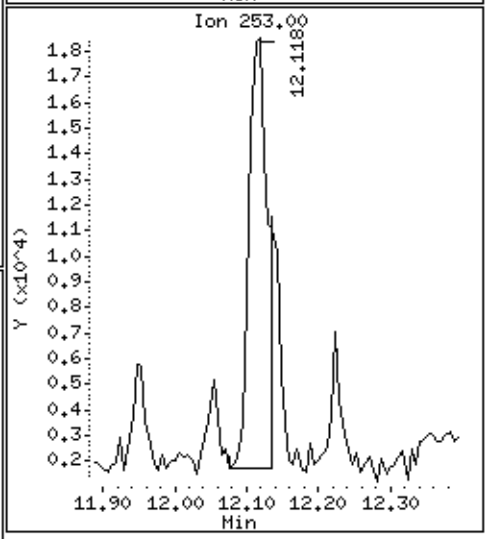
80 Benzo(b)fluoranthene

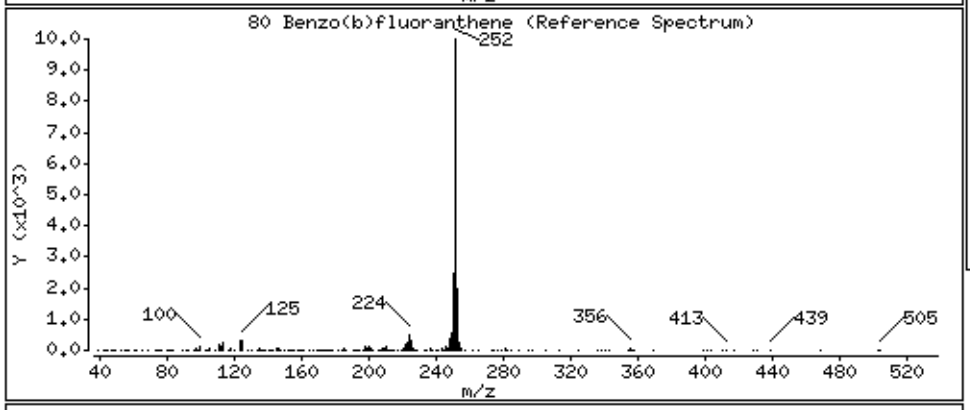
Concentration: 180 ug/Kg

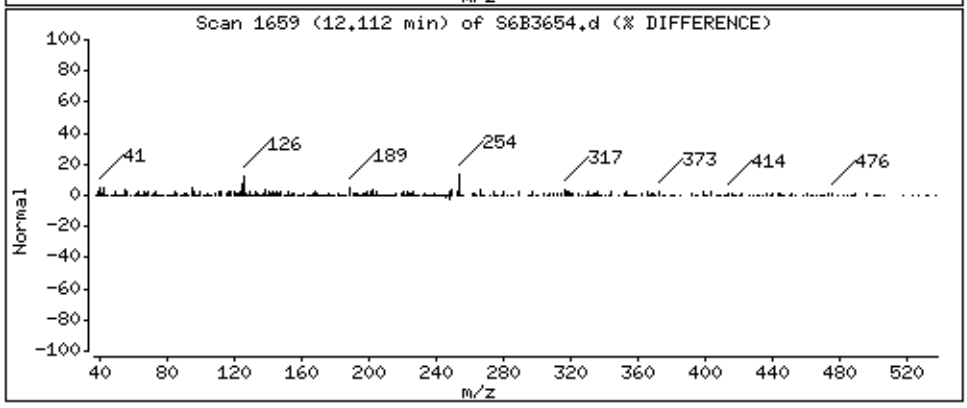












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

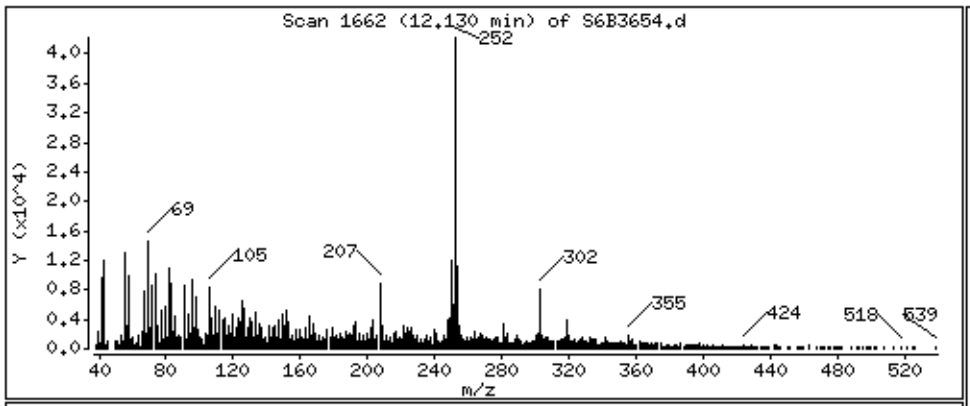
Operator: PK SRC: LIMS

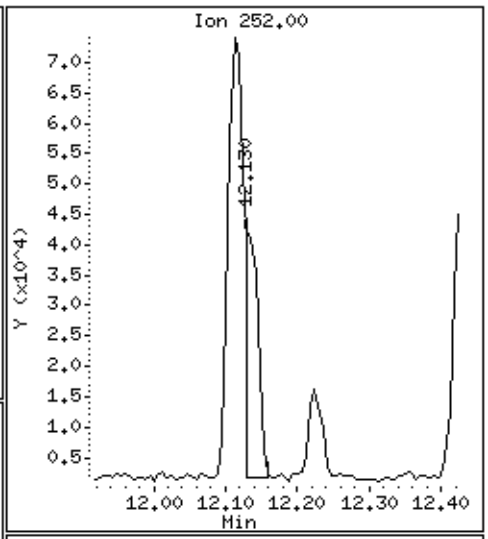
Column phase: Rxi-5Sil MS

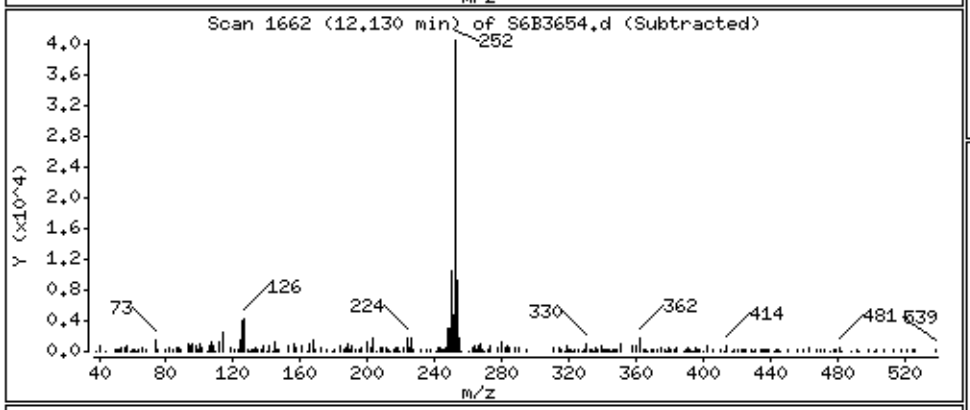
Column diameter: 0.25

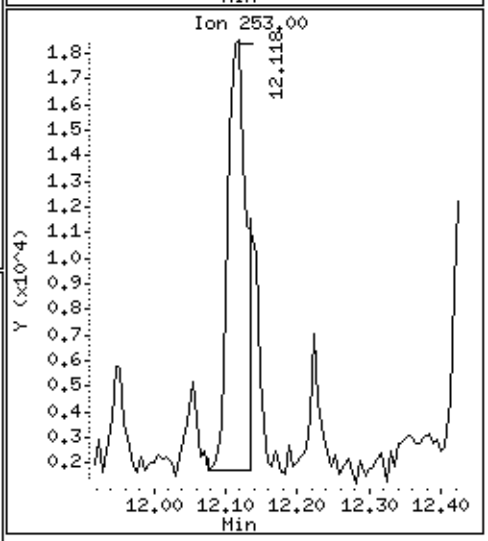
81 Benzo(k)fluoranthene

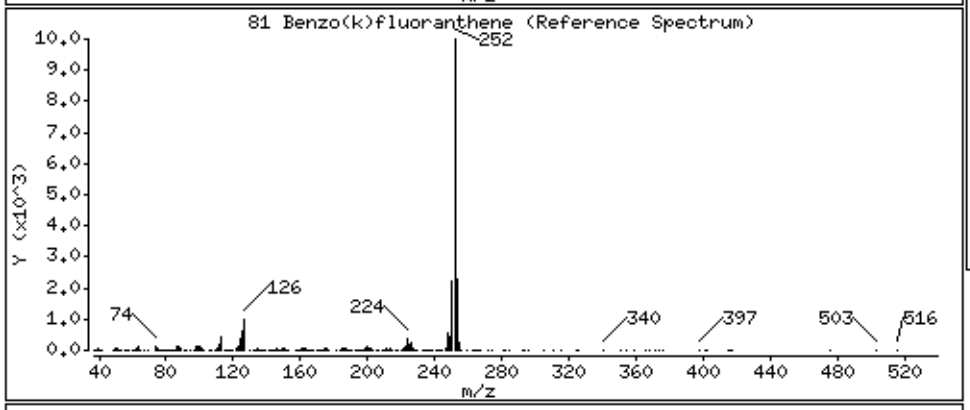
Concentration: 82 ug/Kg

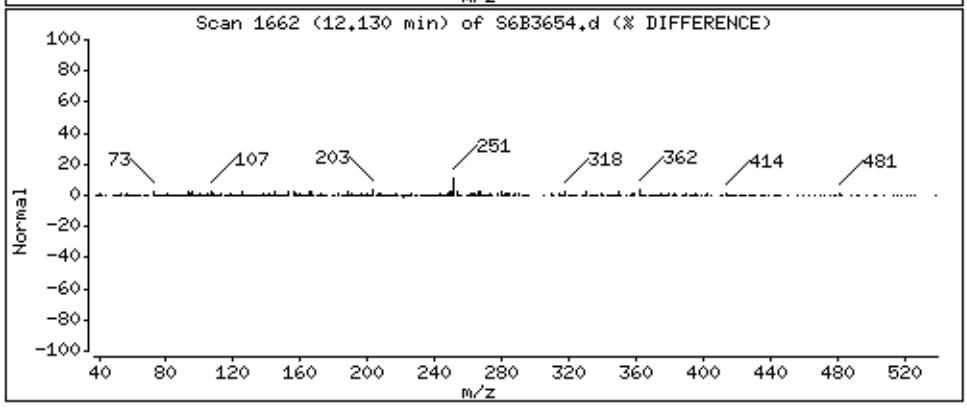












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

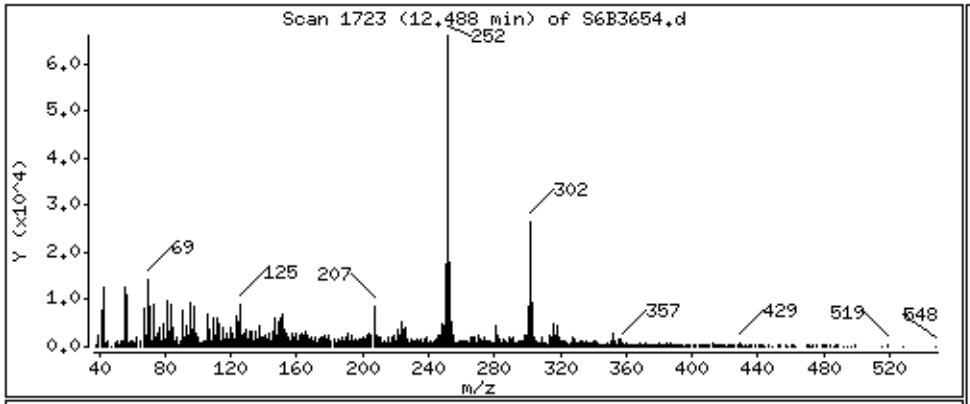
Operator: PK SRC: LIMS

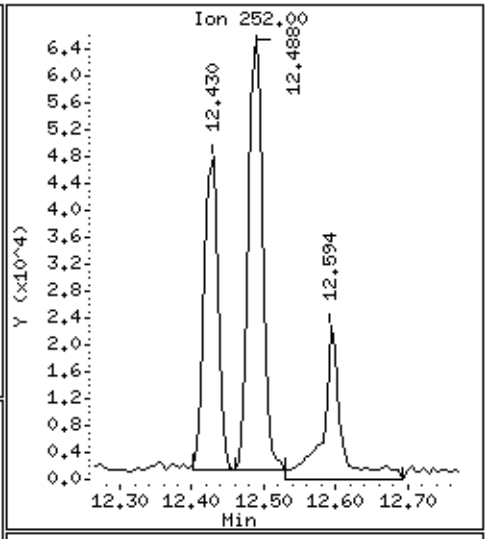
Column phase: Rxi-5Sil MS

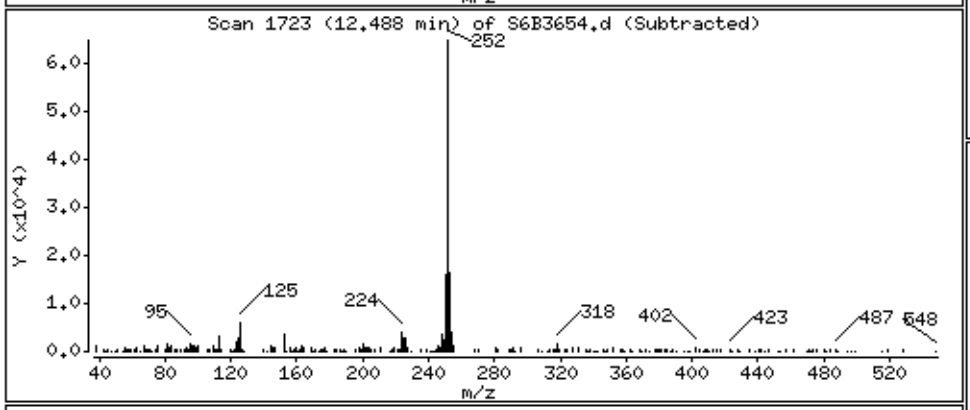
Column diameter: 0.25

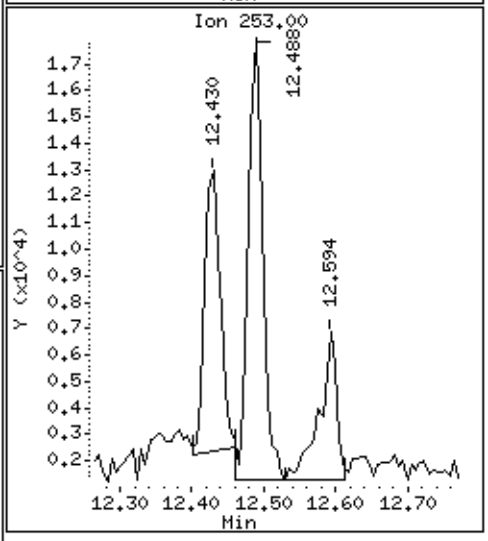
82 Benzo(a)pyrene

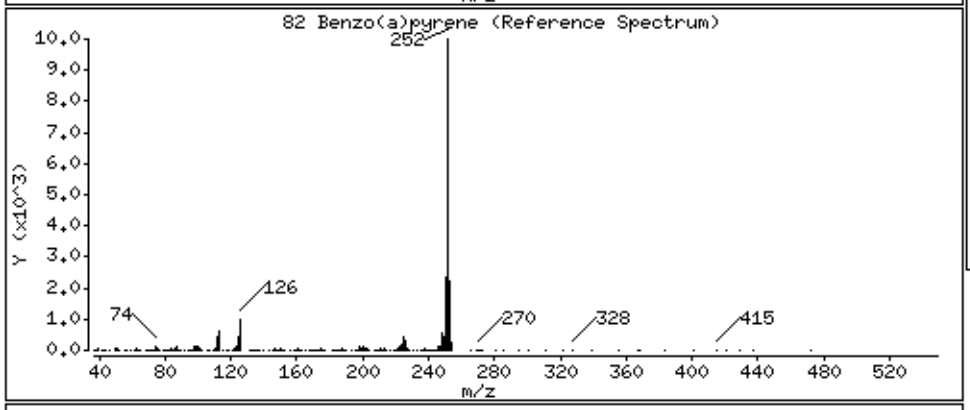
Concentration: 160 ug/Kg

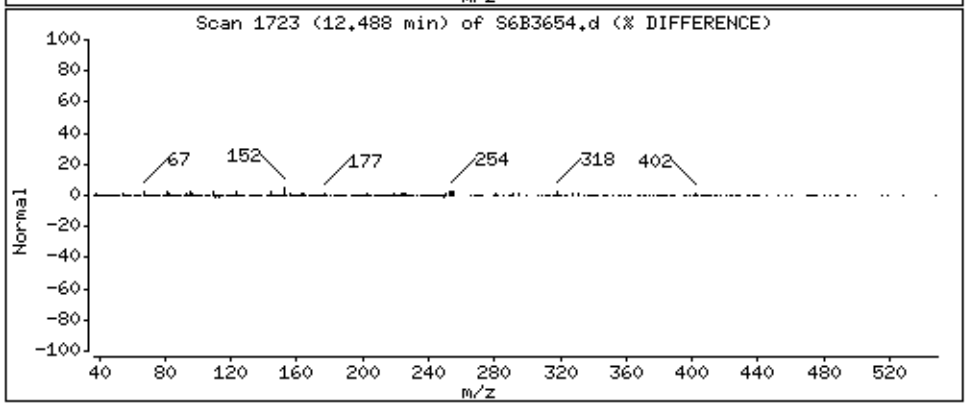












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

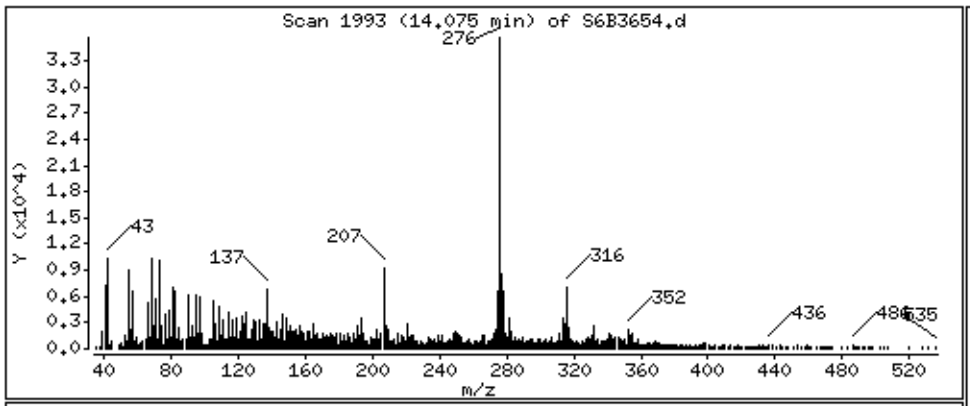
Operator: PK SRC: LIMS

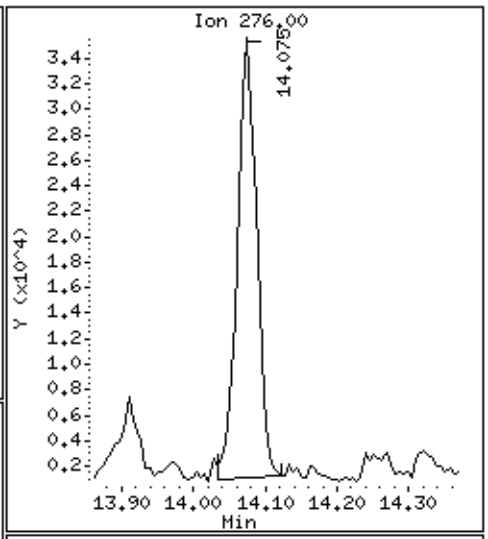
Column phase: Rxi-5Sil MS

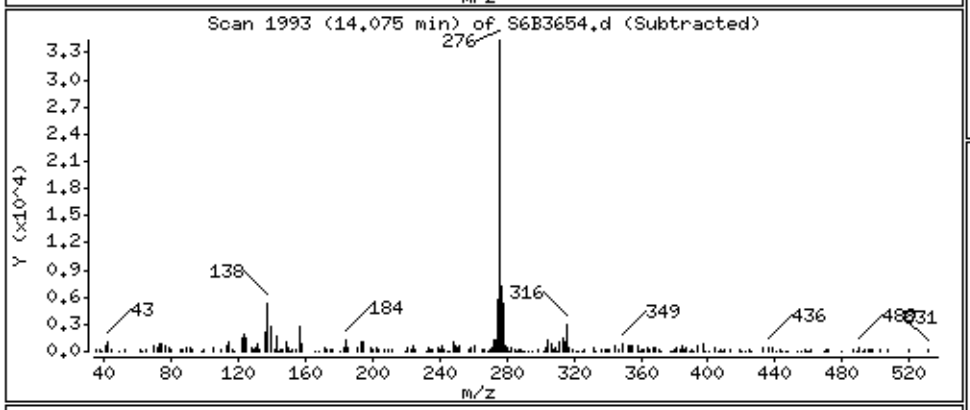
Column diameter: 0.25

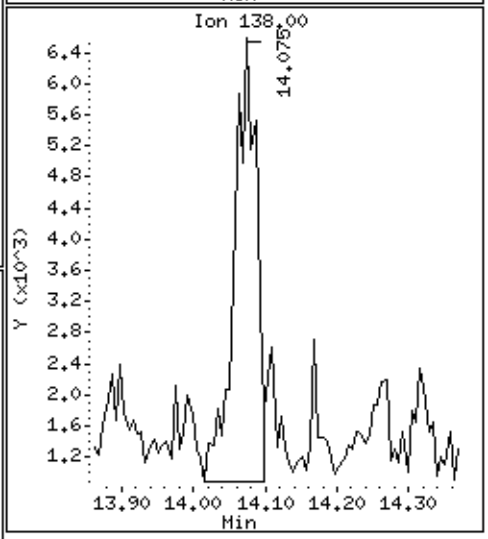
84 Indeno(1,2,3-cd)pyrene

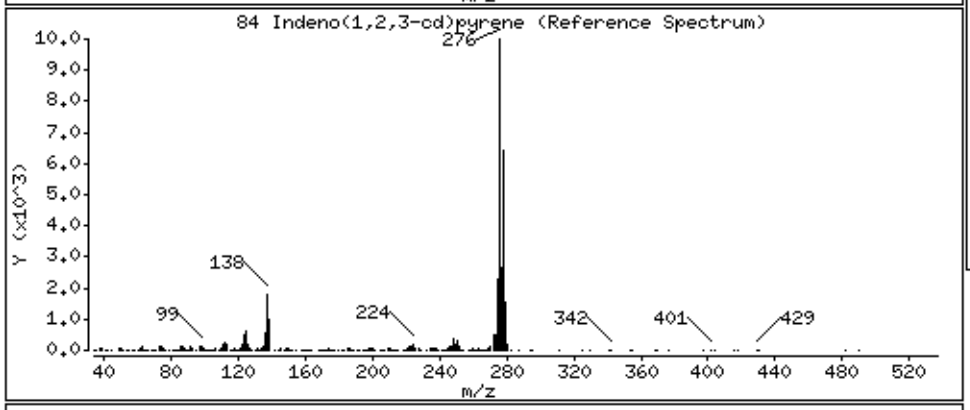
Concentration: 95 ug/Kg

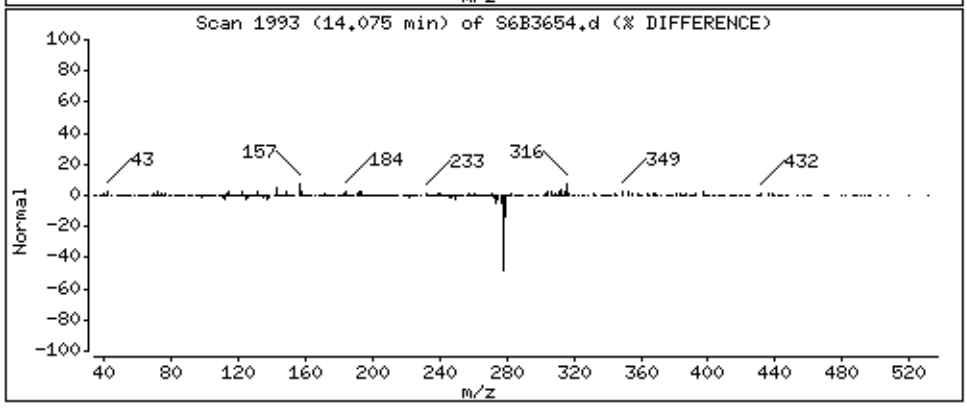












Data File: \\avogadro\organics\S6.I\130506.B\S6B3654.d

Date : 06-MAY-2013 20:20

Client ID: SB-128 (2-4)

Instrument: S6.i

Sample Info: M0619-07A,,71418

Volume Injected (uL): 1.0

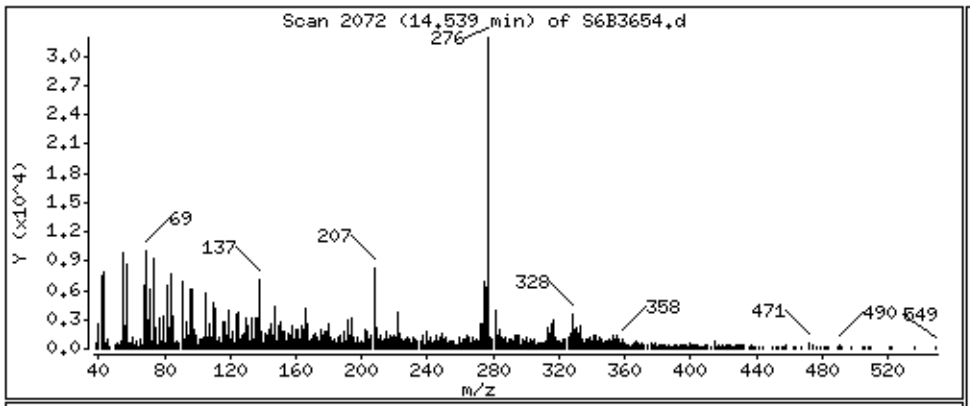
Operator: PK SRC: LIMS

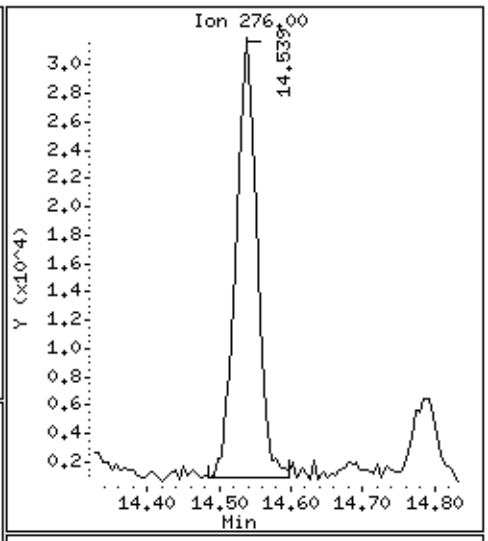
Column phase: Rxi-5Sil MS

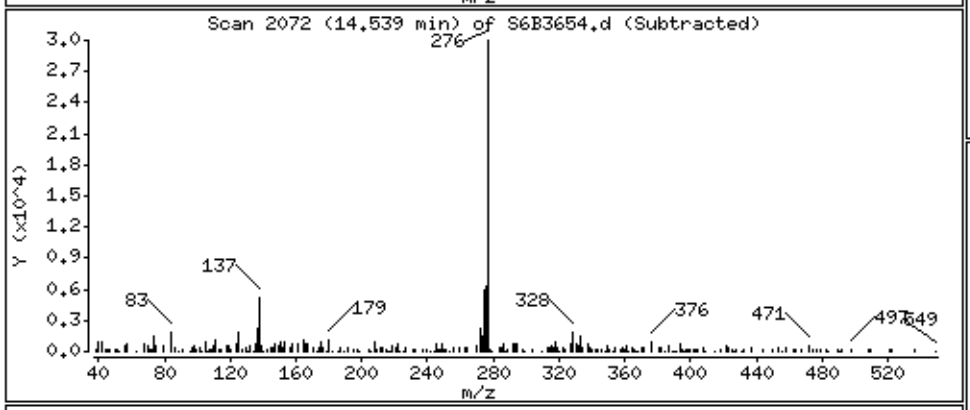
Column diameter: 0.25

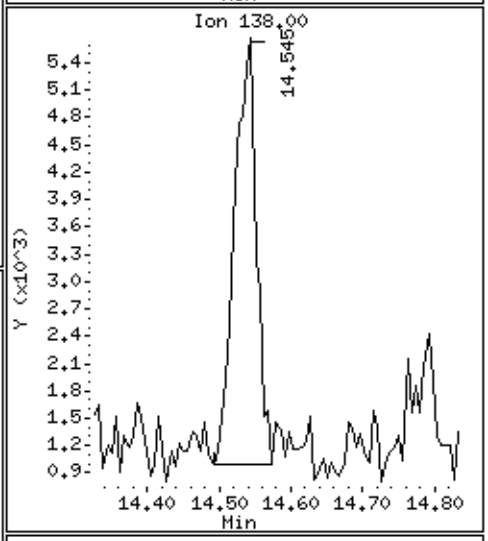
86 Benzo(g,h,i)perylene

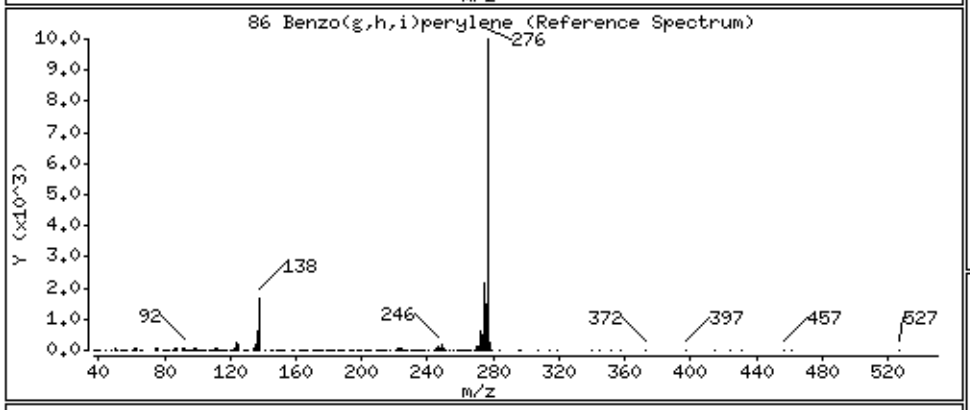
Concentration: 110 ug/Kg

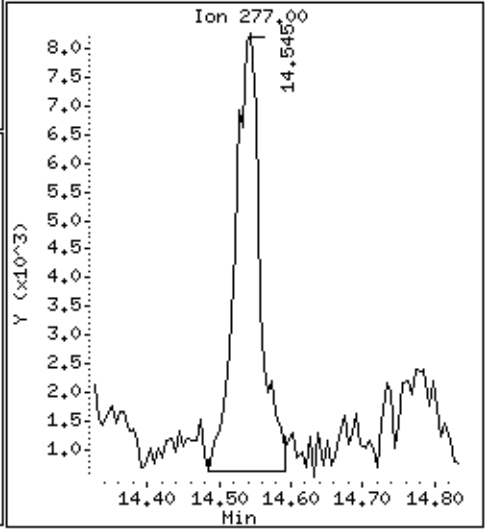


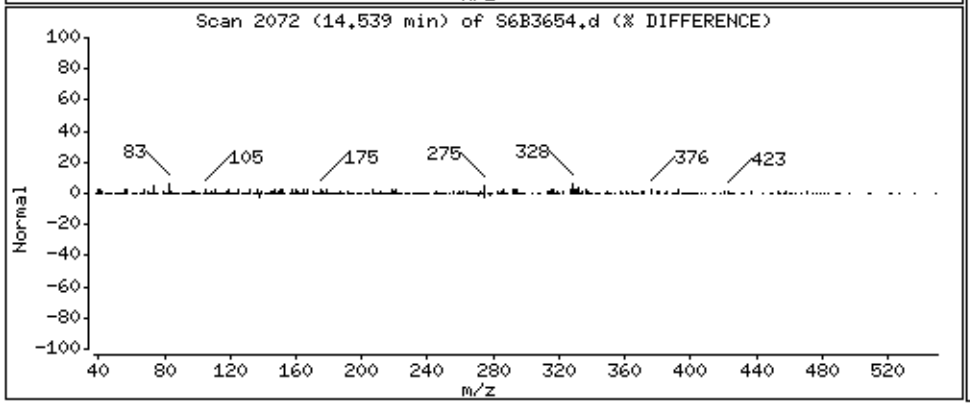












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (10-12)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3655.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	150000	E
91-57-6	2-Methylnaphthalene	47000	E
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	410	
120-12-7	Anthracene	94	J
206-44-0	Fluoranthene	590	
129-00-0	Pyrene	590	
56-55-3	Benzo(a)anthracene	300	J
218-01-9	Chrysene	280	J
205-99-2	Benzo(b)fluoranthene	300	J
207-08-9	Benzo(k)fluoranthene	97	J
50-32-8	Benzo(a)pyrene	220	J
193-39-5	Indeno(1,2,3-cd)pyrene	150	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	170	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3655.d
Lab Smp Id: M0619-08A Client Smp ID: SB-128 (10-12)
Inj Date : 06-MAY-2013 20:42
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-08A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	5.096	5.061	(1.000)	323058	40.0000	(QH)
$ 22 Nitrobenzene-d5	82	5.537	5.519	(0.891)	768385	56.3675	3700(QRMH)
* 31 Naphthalene-d8	136	6.213	6.113	(1.000)	1525526	40.0000	
32 Naphthalene	128	6.160	6.130	(0.991)	64340500	1945.59	130000(AM)M6 PK 05/07
36 2-Methylnaphthalene	142	6.753	6.700	(1.087)	15857186	625.581	41000(A)
$ 41 2-Fluorobiphenyl	172	7.012	7.000	(0.926)	892414	41.5123	2700
* 48 Acenaphthene-d10	164	7.570	7.570	(1.000)	735996	40.0000	
* 64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1389875	40.0000	
65 Phenanthrene	178	8.822	8.827	(1.002)	173361	5.45734	360(a)
66 Anthracene	178	8.863	8.868	(1.007)	41108	1.25874	83(a)
69 Fluoranthene	202	9.820	9.826	(1.115)	305220	7.85100	520(a)
71 Pyrene	202	10.014	10.020	(0.904)	277495	7.80890	520(a)
$ 72 Terphenyl-d14	244	10.138	10.138	(0.915)	1182688	46.3783	3100
75 Benzo(a)anthracene	228	11.072	11.083	(0.999)	154840	3.95455	260(a)
* 76 Chrysene-d12	240	11.084	11.101	(1.000)	1699586	40.0000	
77 Chrysene	228	11.101	11.125	(1.002)	121320	3.70467	240(a)
80 Benzo(b)fluoranthene	252	12.118	12.141	(0.964)	169528	3.95350	260(aH)
81 Benzo(k)fluoranthene	252	12.141	12.170	(0.965)	51870	1.29051	85(a)
82 Benzo(a)pyrene	252	12.488	12.517	(0.993)	112853	2.94854	200(a)

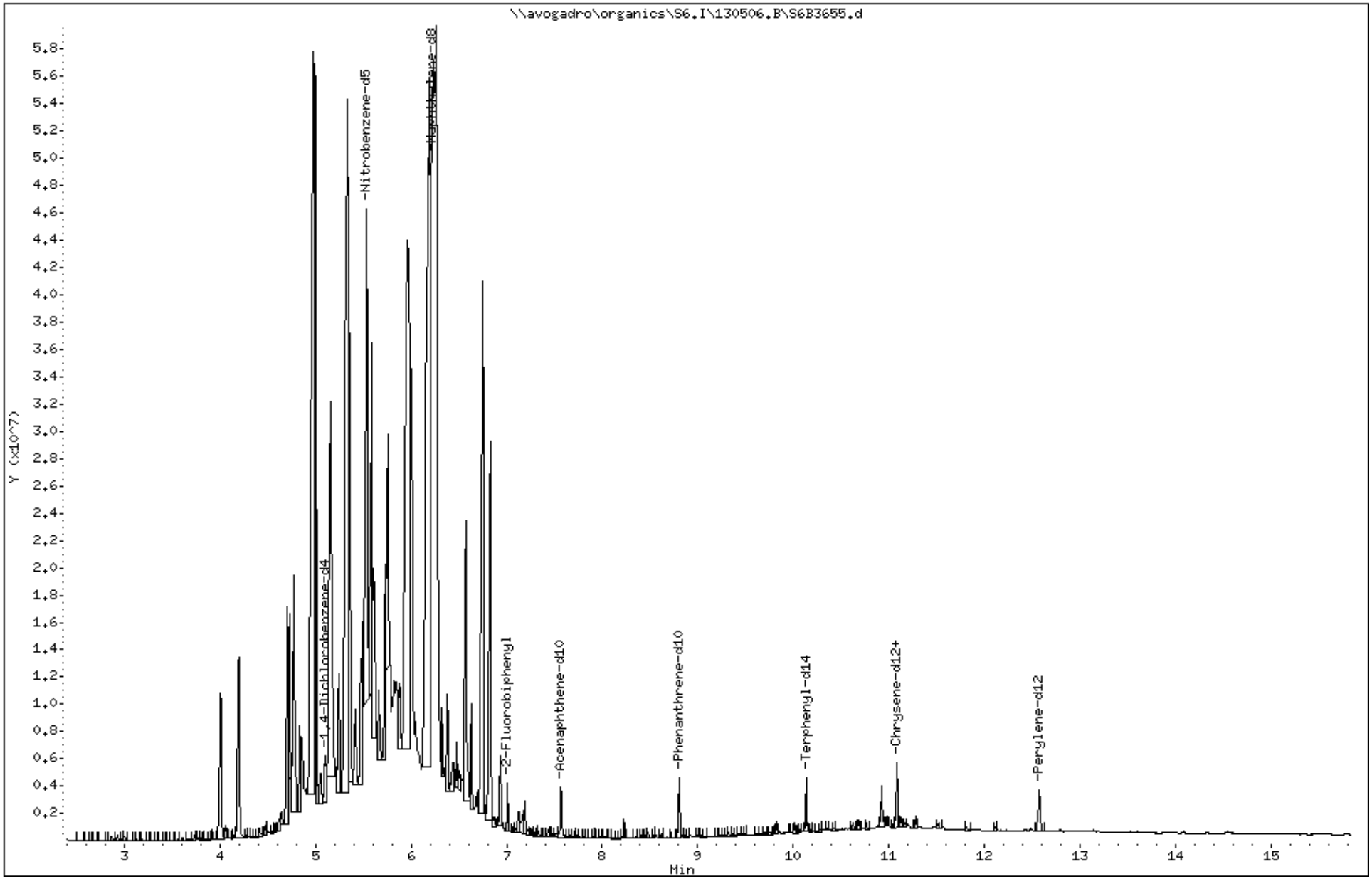
Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d
Report Date: 07-May-2013 10:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 83 Perylene-d12	264	12.576	12.593	(1.000)	1640416	40.0000	
84 Indeno(1,2,3-cd)pyrene	276	14.080	14.115	(1.120)	94866	2.00014	130(a)
86 Benzo(g,h,i)perylene	276	14.544	14.579	(1.157)	89540	2.32133	150(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d
Date : 06-MAY-2013 20:42
Client ID: SB-128 (10-12)
Instrument: S6.i
Sample Info: M0619-08A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

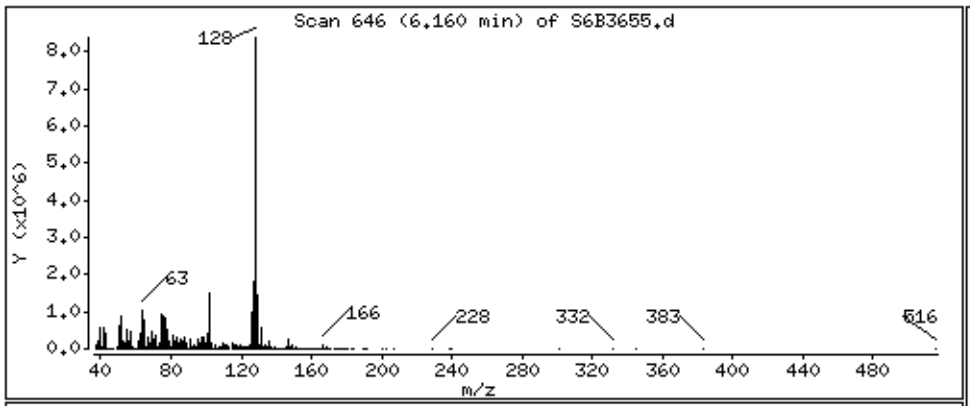
Operator: PK SRC: LIMS

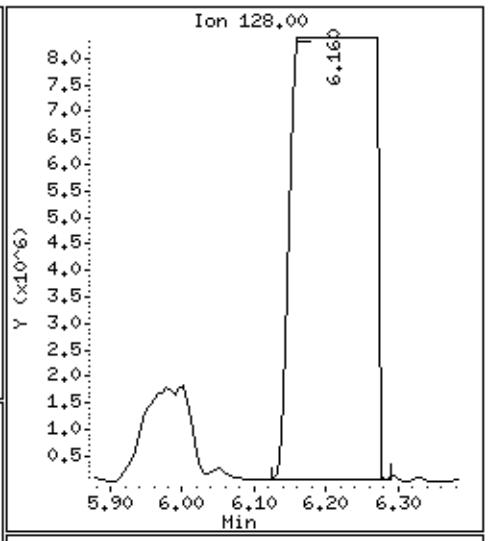
Column phase: Rxi-5Sil MS

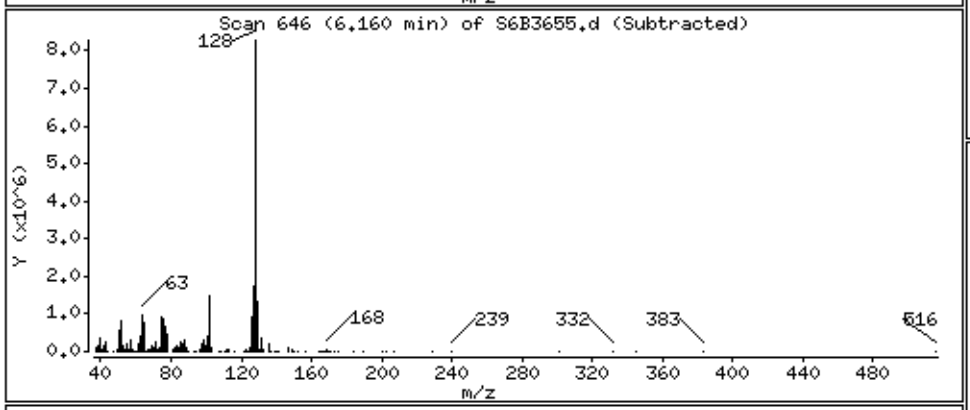
Column diameter: 0.25

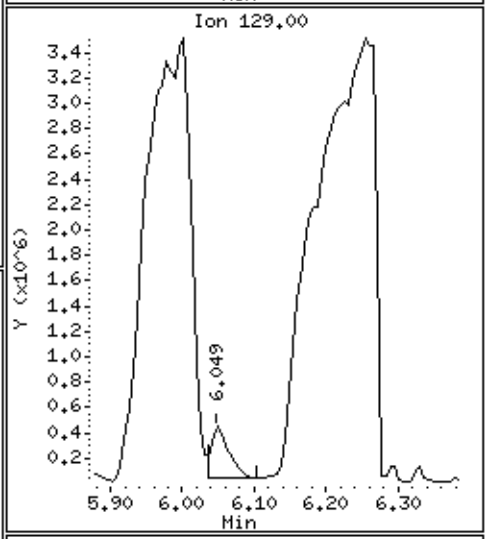
32 Naphthalene

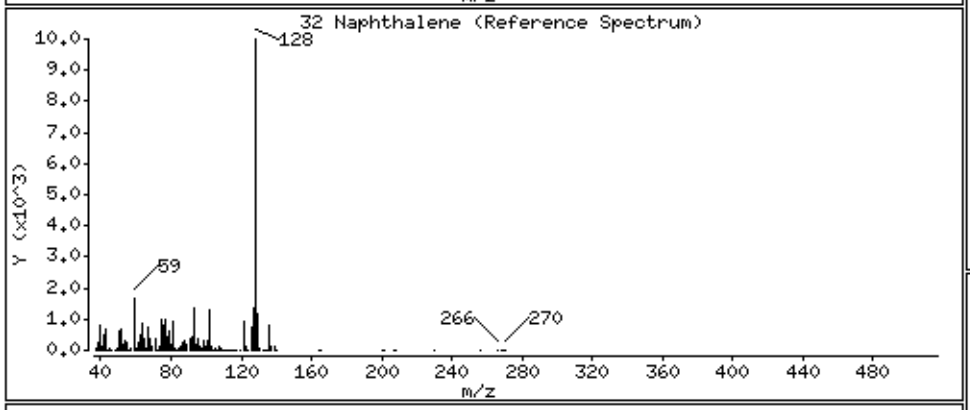
Concentration: 130000 ug/Kg

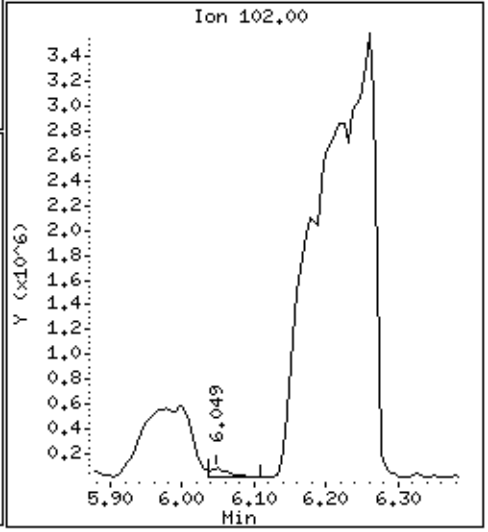


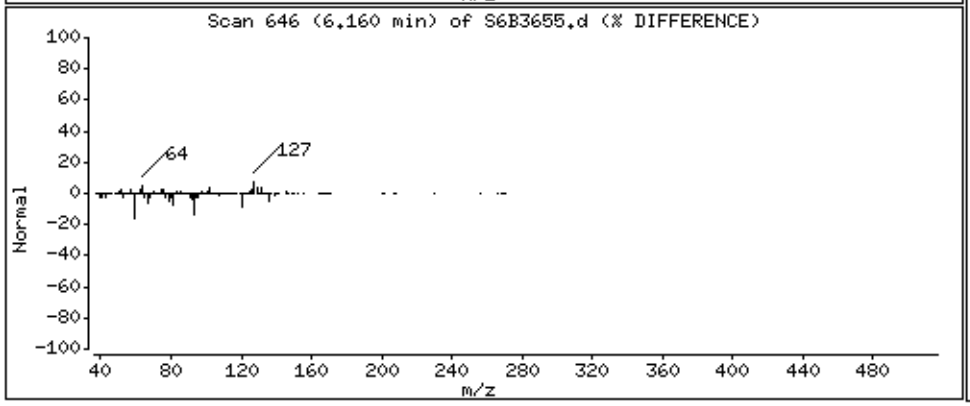












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

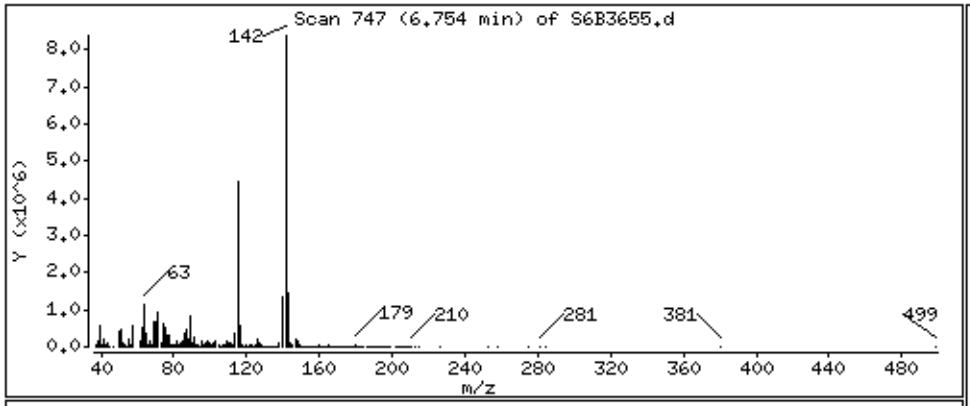
Operator: PK SRC: LIMS

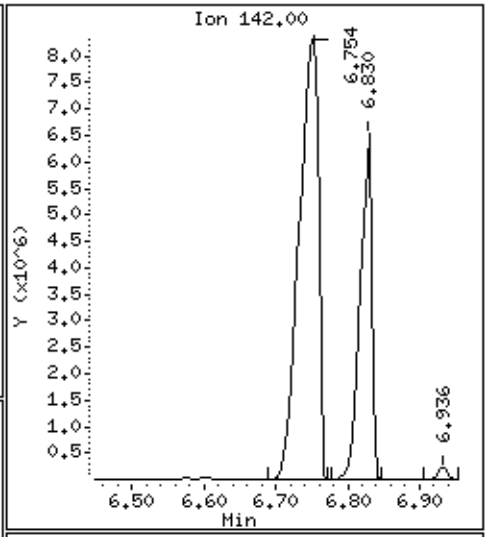
Column phase: Rxi-5Sil MS

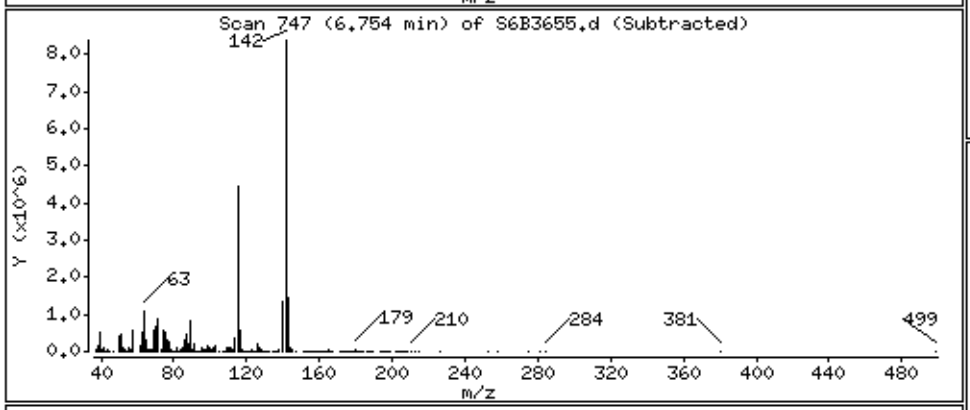
Column diameter: 0.25

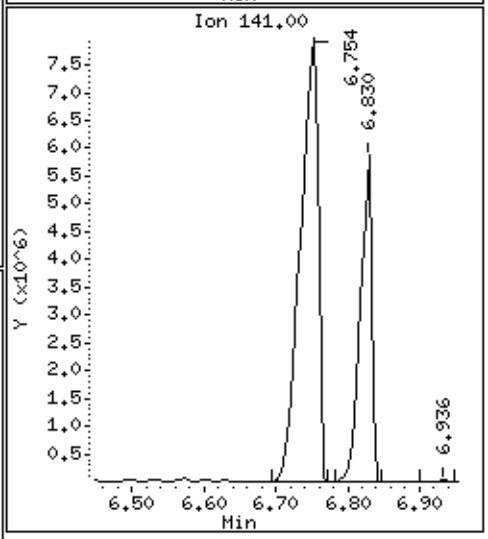
36 2-Methylnaphthalene

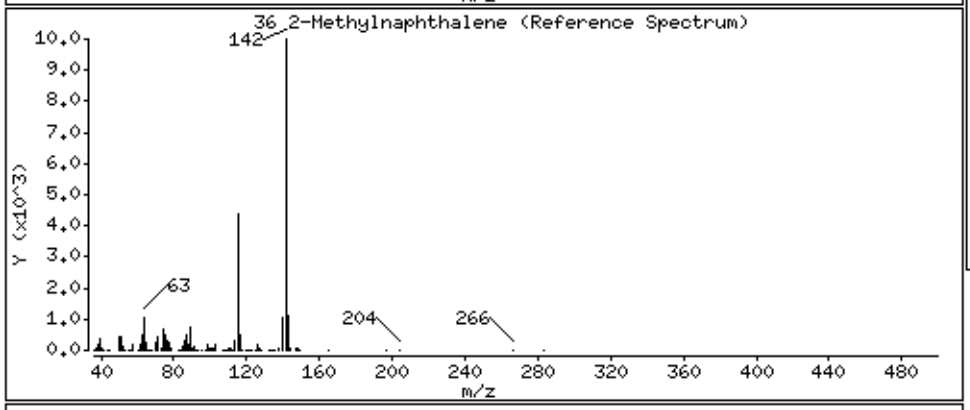
Concentration: 41000 ug/Kg

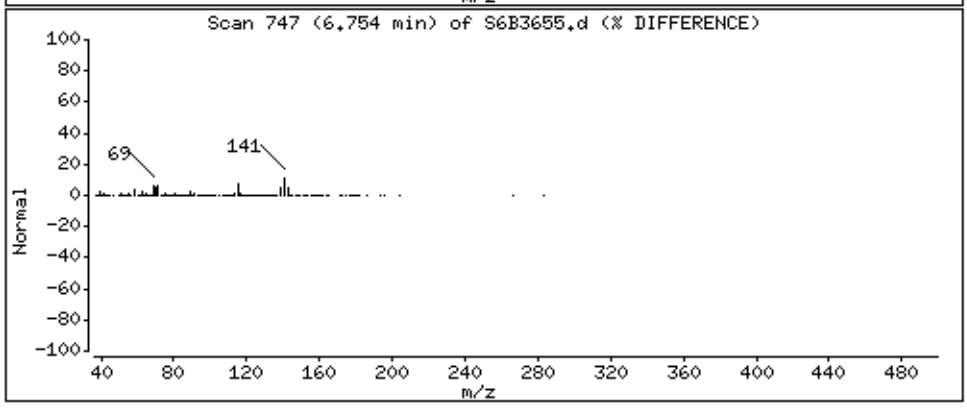












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

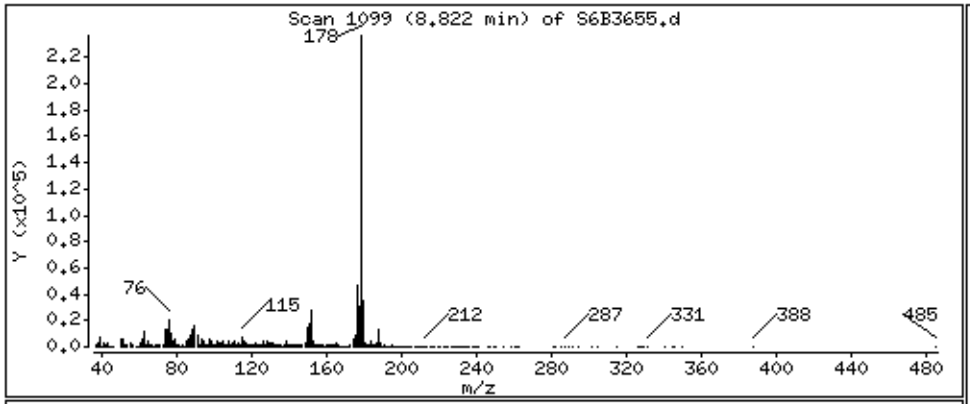
Operator: PK SRC: LIMS

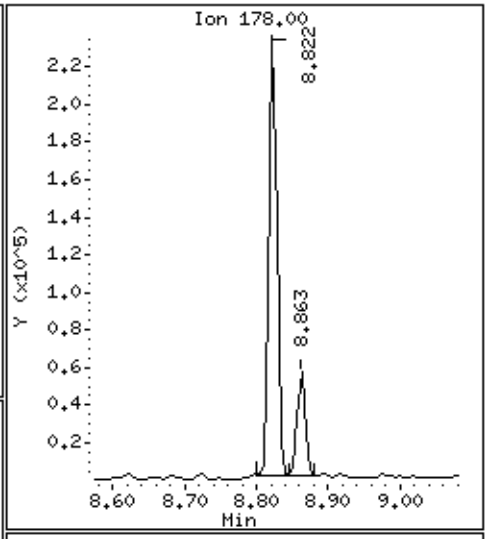
Column phase: Rxi-5Sil MS

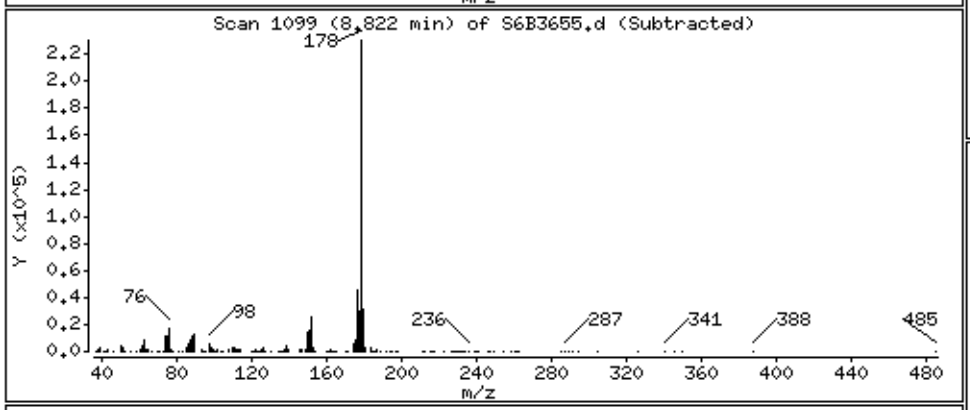
Column diameter: 0.25

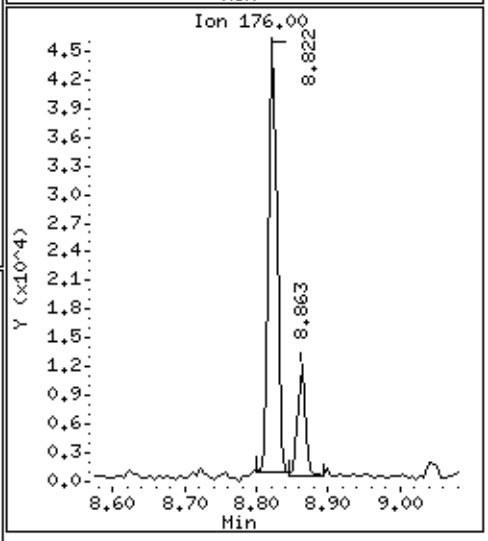
65 Phenanthrene

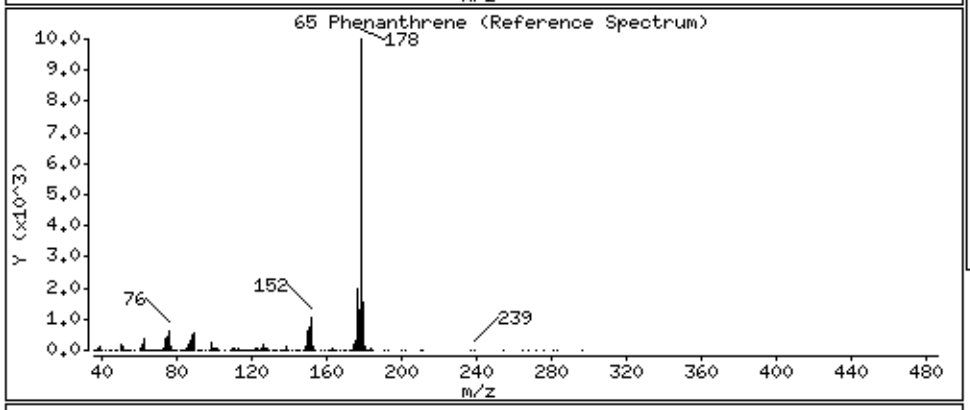
Concentration: 360 ug/Kg

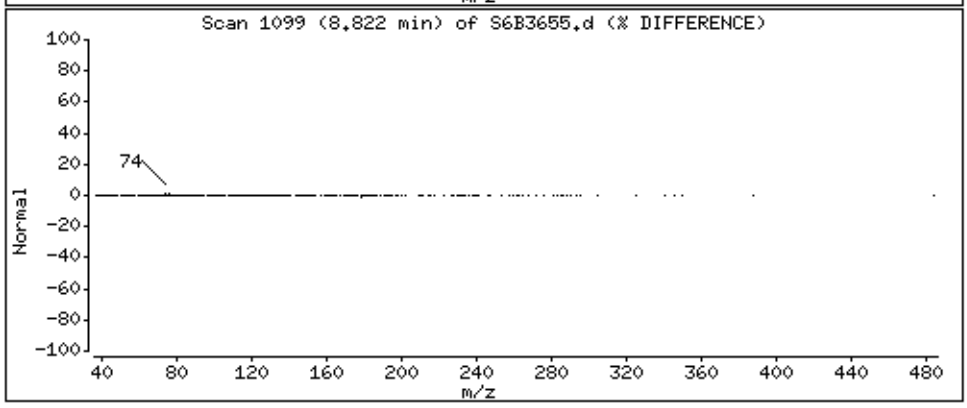












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

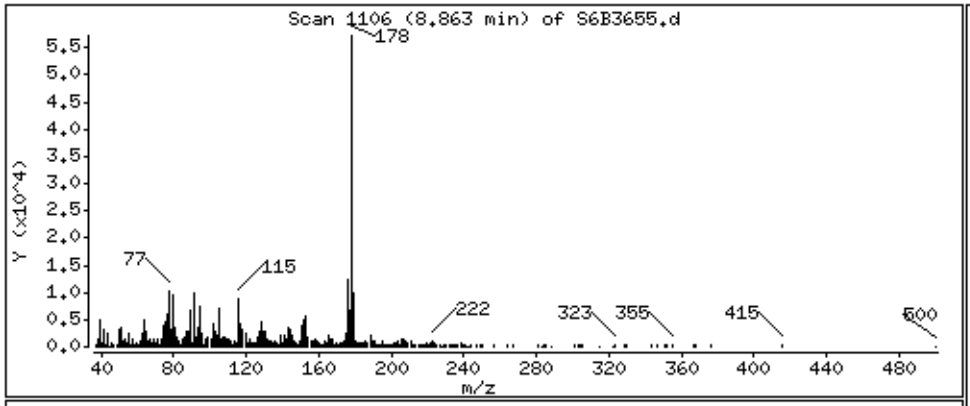
Operator: PK SRC: LIMS

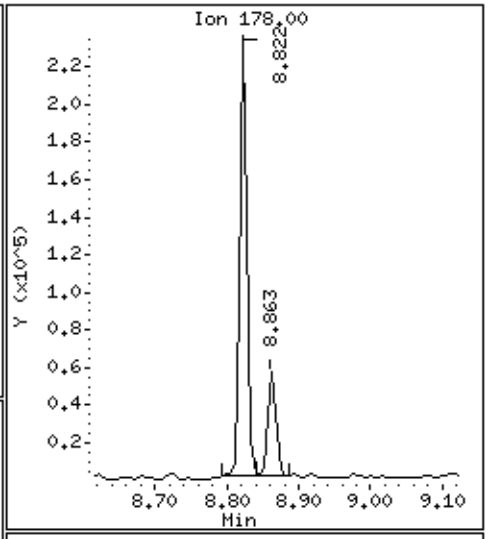
Column phase: Rxi-5Sil MS

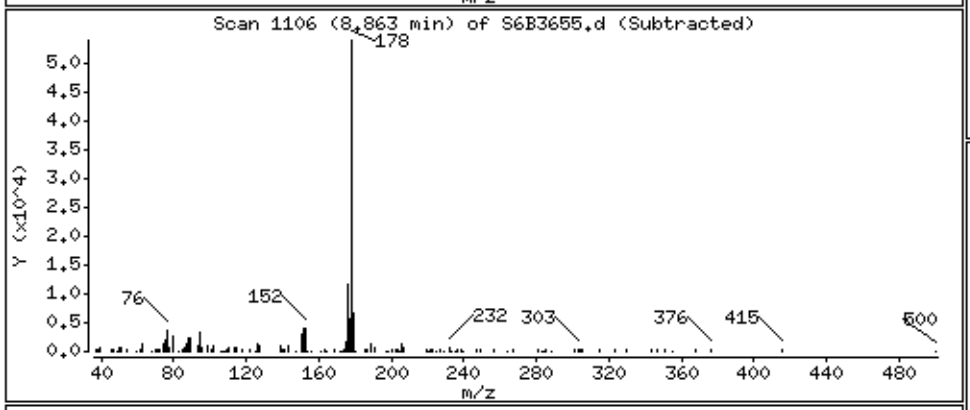
Column diameter: 0.25

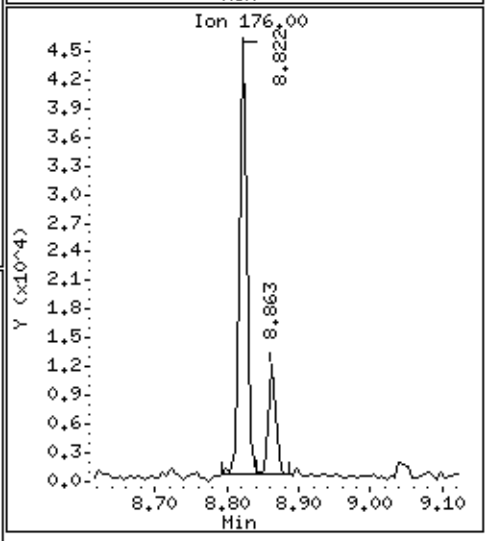
66 Anthracene

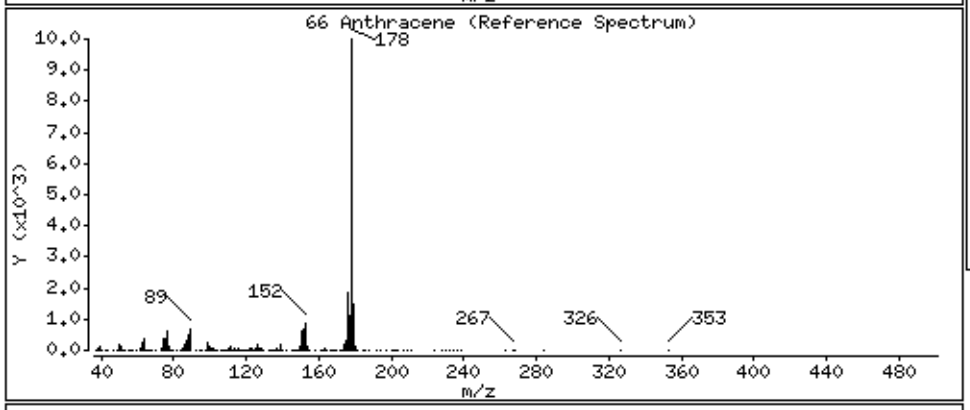
Concentration: 83 ug/Kg

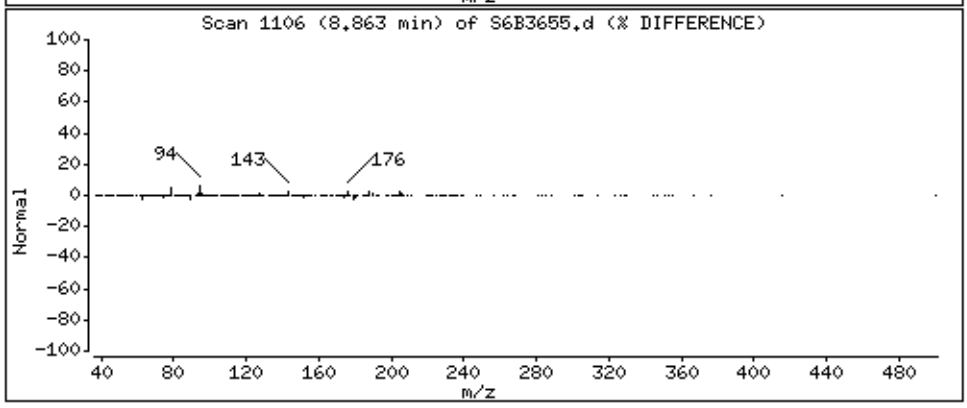












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

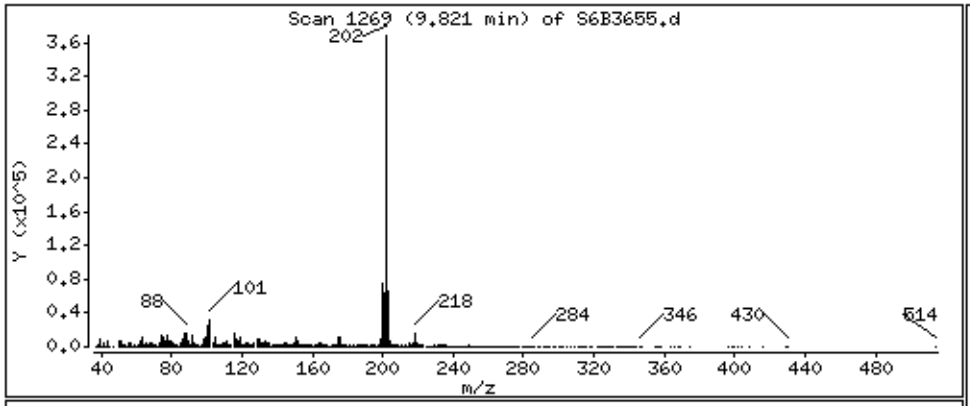
Operator: PK SRC: LIMS

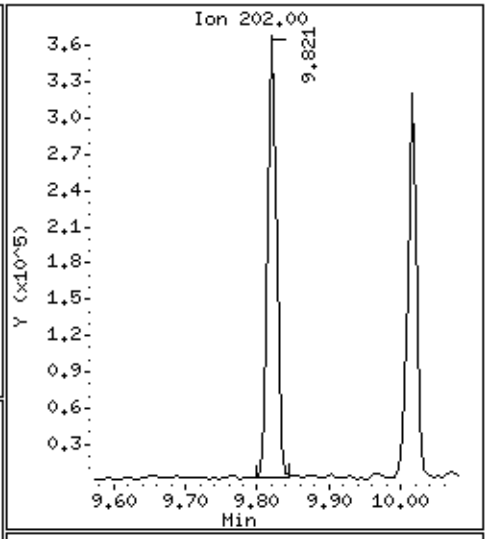
Column phase: Rxi-5Sil MS

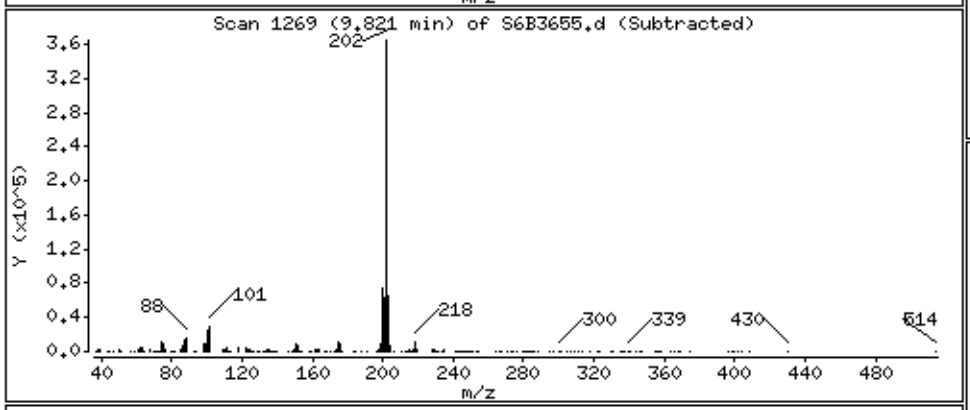
Column diameter: 0.25

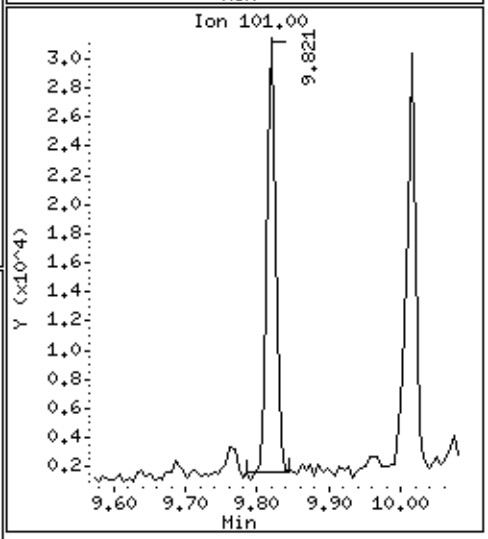
69 Fluoranthene

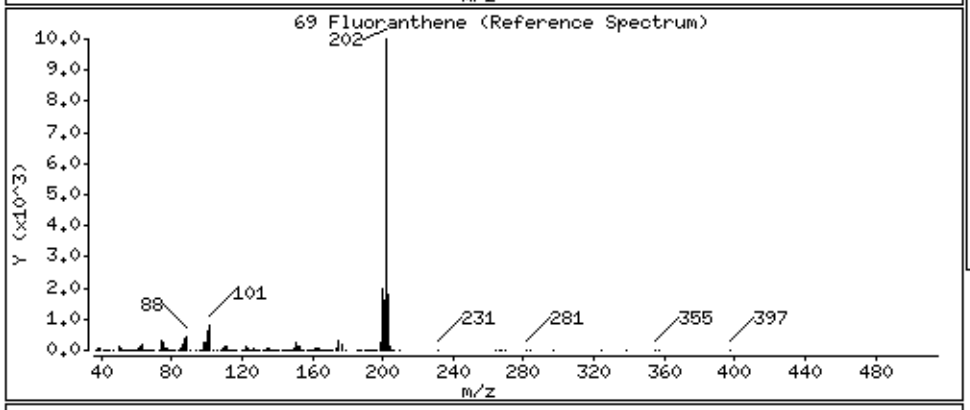
Concentration: 520 ug/Kg

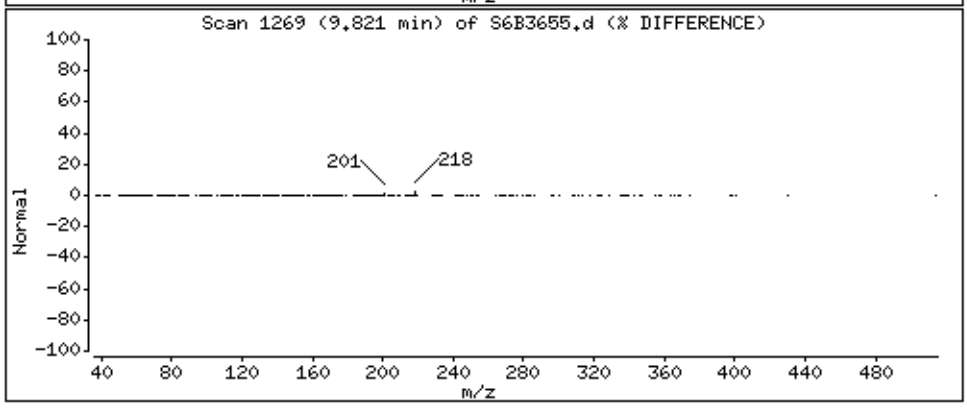












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

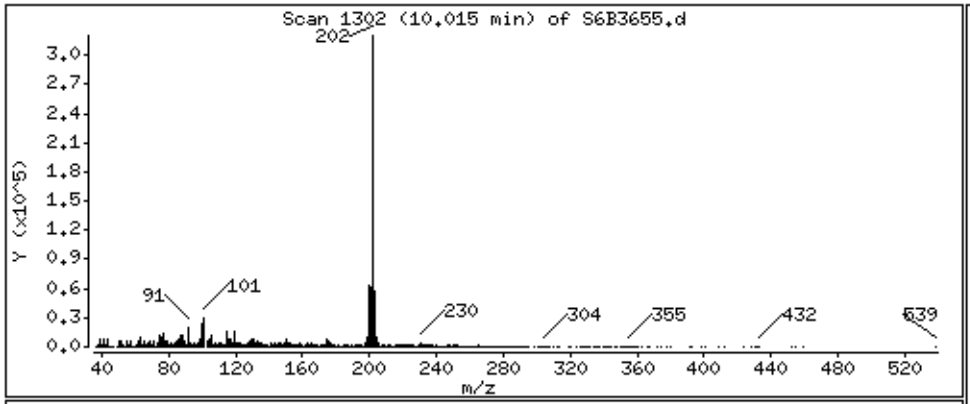
Operator: PK SRC: LIMS

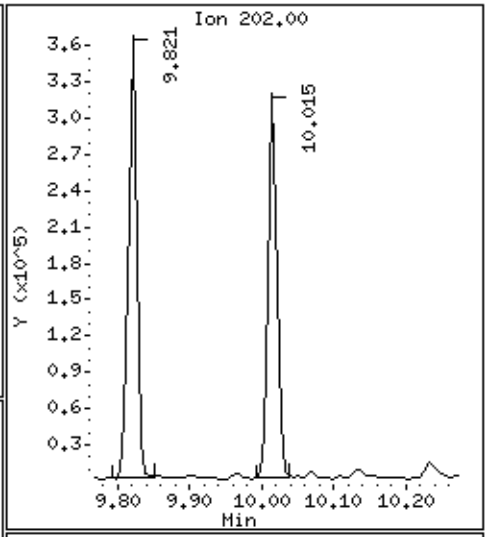
Column phase: Rxi-5Sil MS

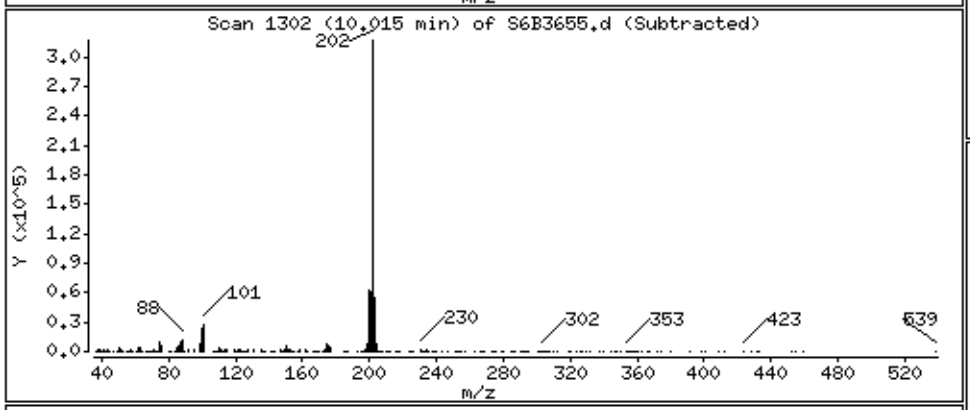
Column diameter: 0.25

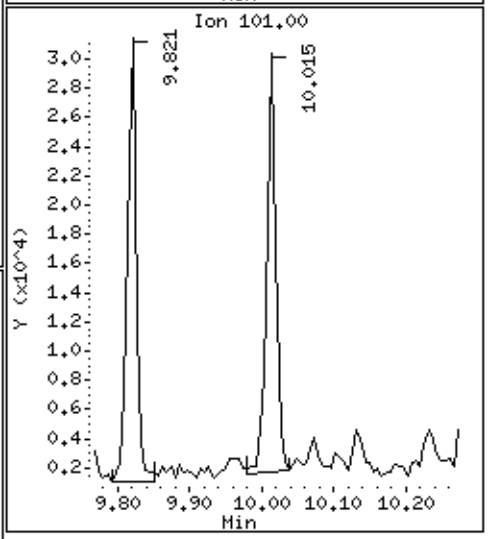
71 Pyrene

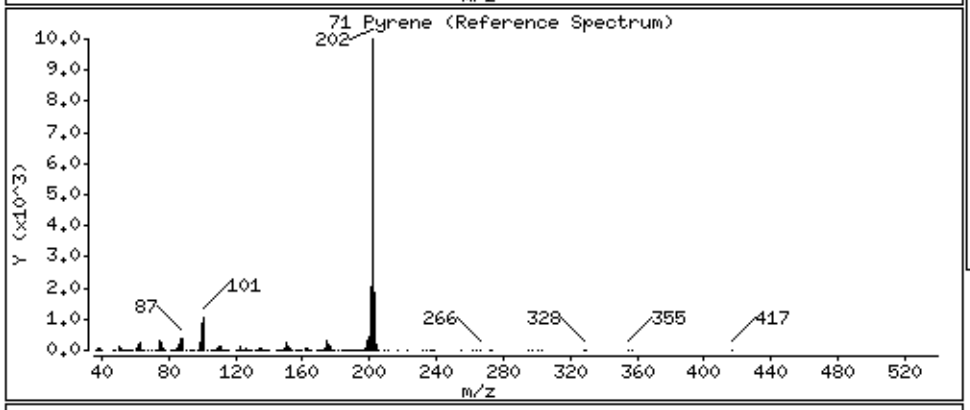
Concentration: 520 ug/Kg

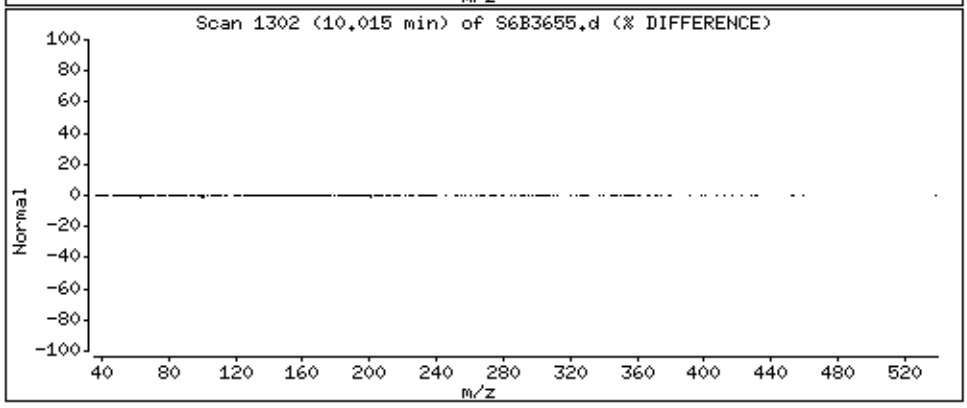












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

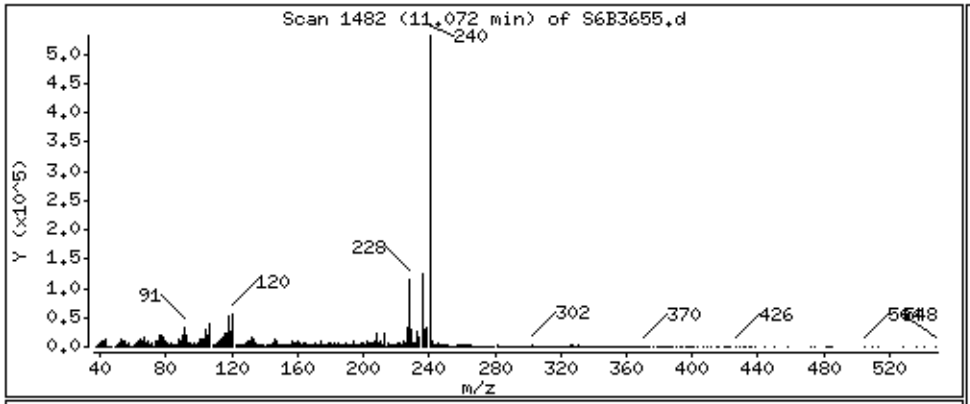
Operator: PK SRC: LIMS

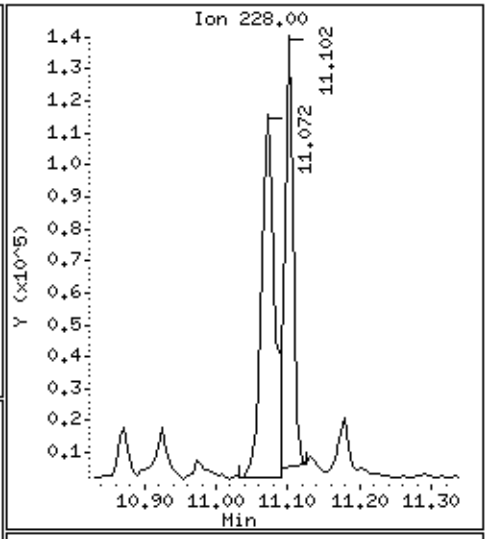
Column phase: Rxi-5Sil MS

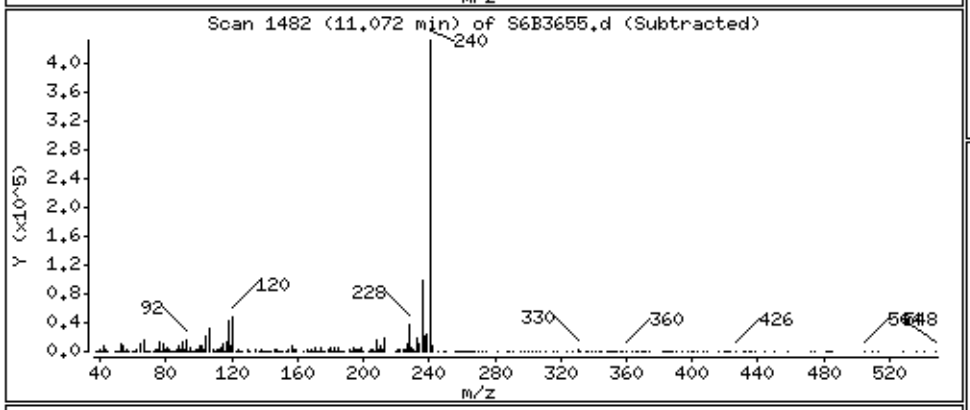
Column diameter: 0.25

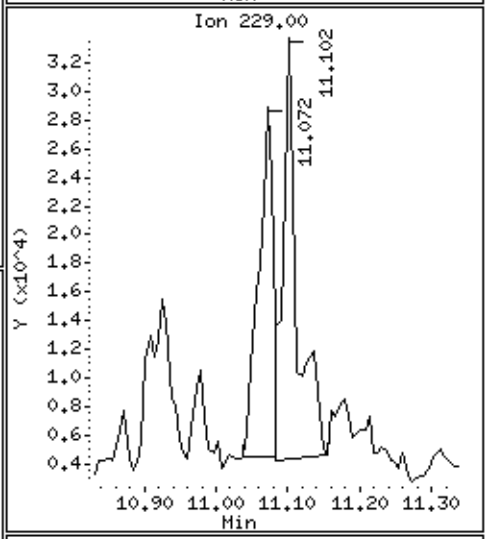
75 Benzo(a)anthracene

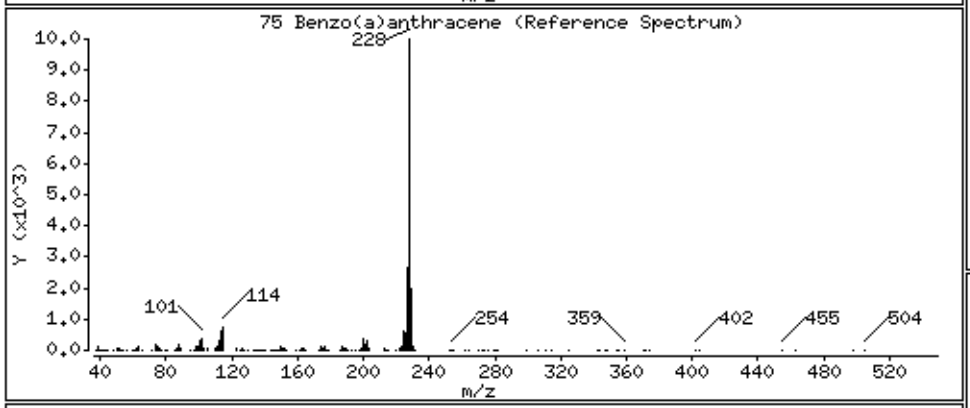
Concentration: 260 ug/Kg

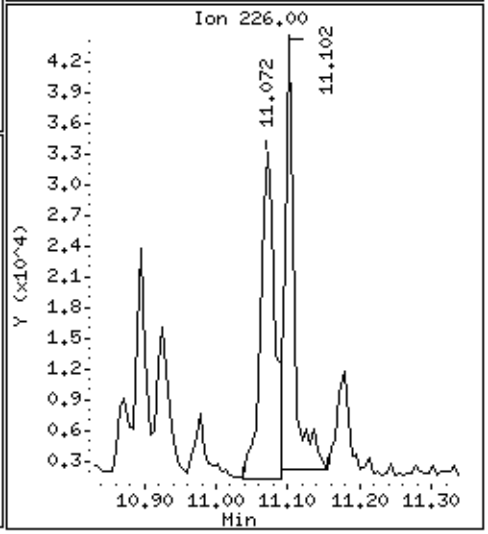


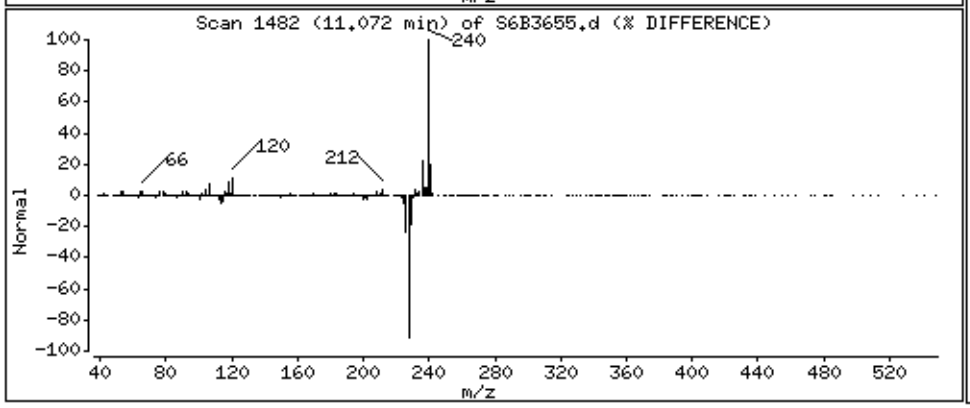












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

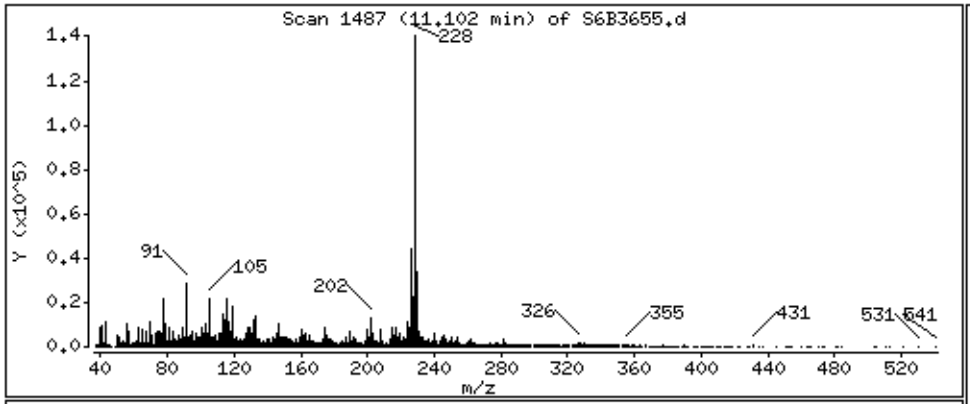
Client ID: SB-128 (10-12) Instrument: S6.i

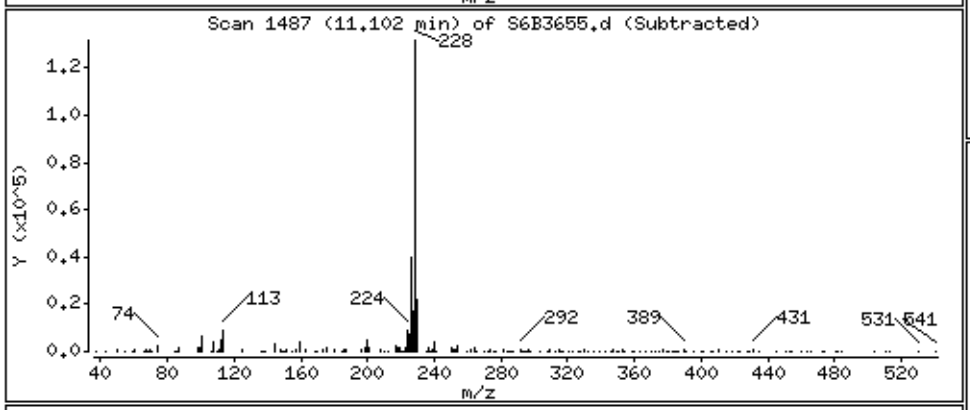
Sample Info: M0619-08A,,71418

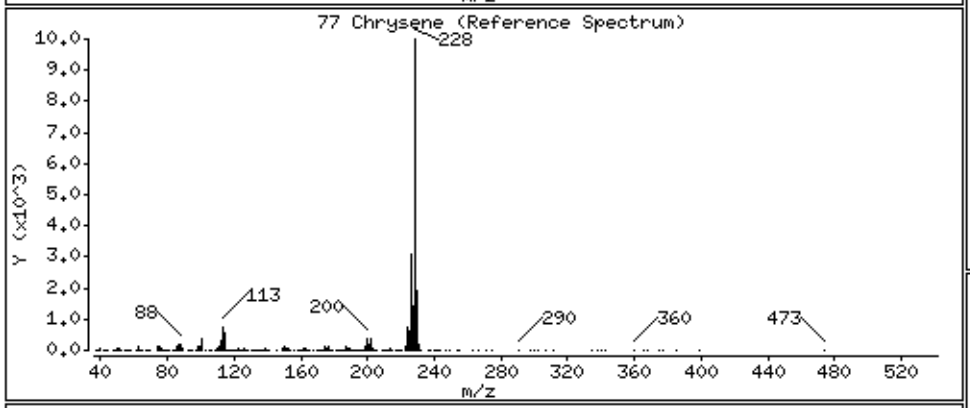
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

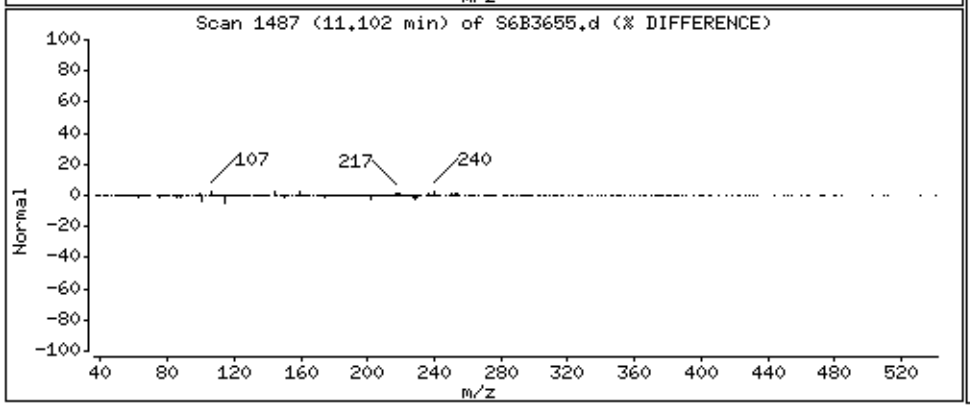
Column phase: Rxi-5Sil MS Column diameter: 0.25

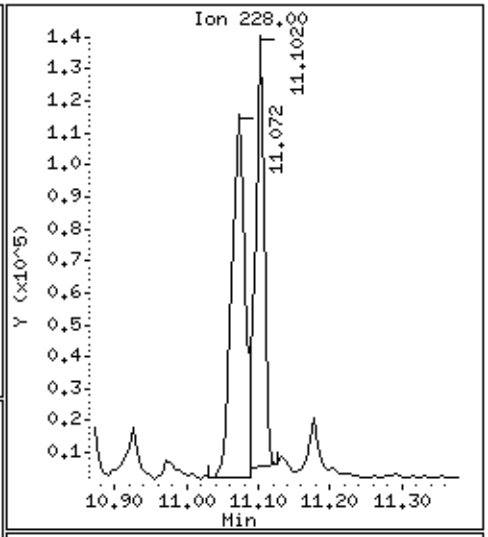
77 Chrysene Concentration: 240 ug/Kg

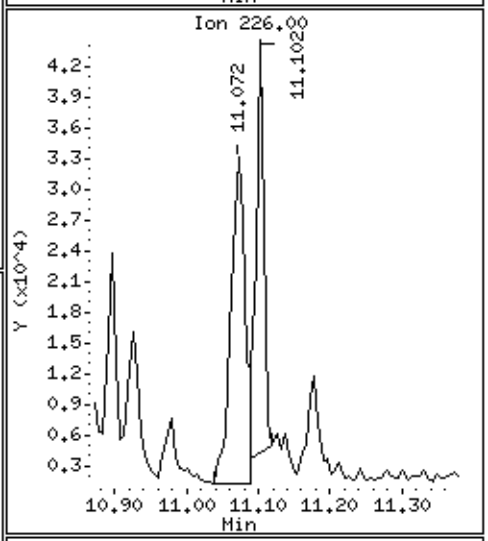


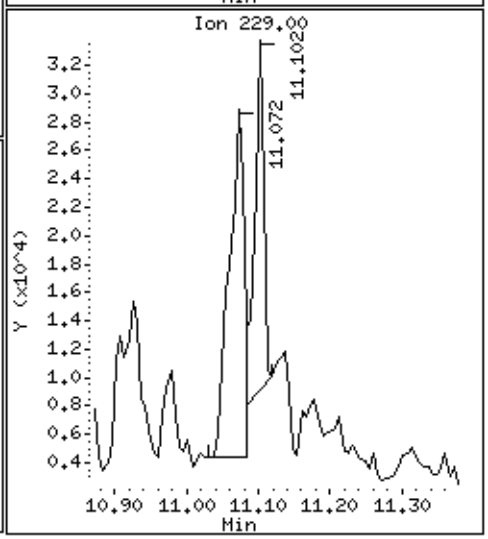












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

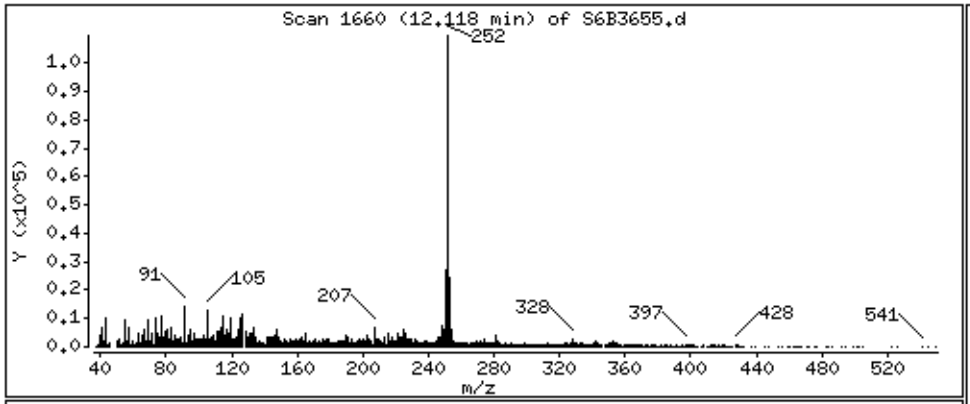
Client ID: SB-128 (10-12) Instrument: S6.i

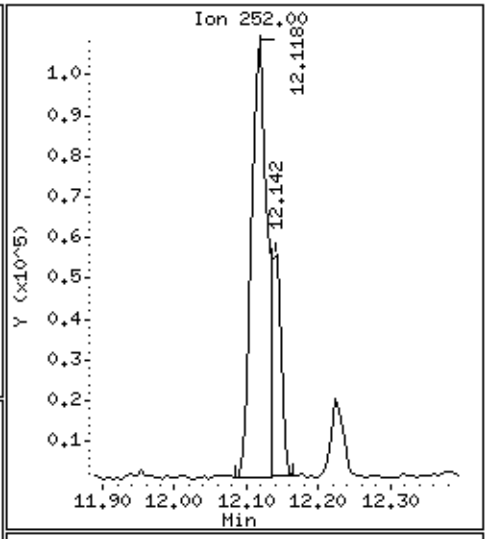
Sample Info: M0619-08A,,71418

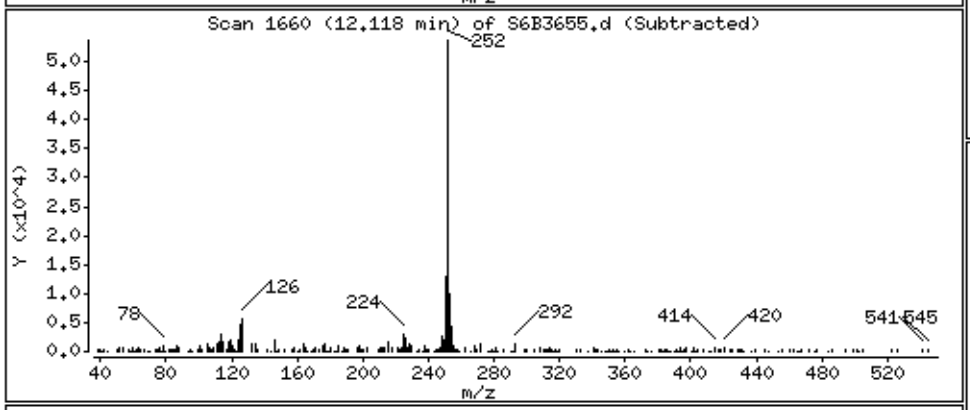
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

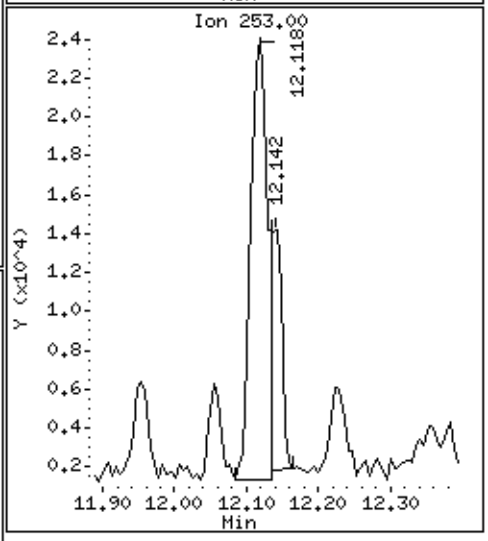
Column phase: Rxi-5Sil MS Column diameter: 0.25

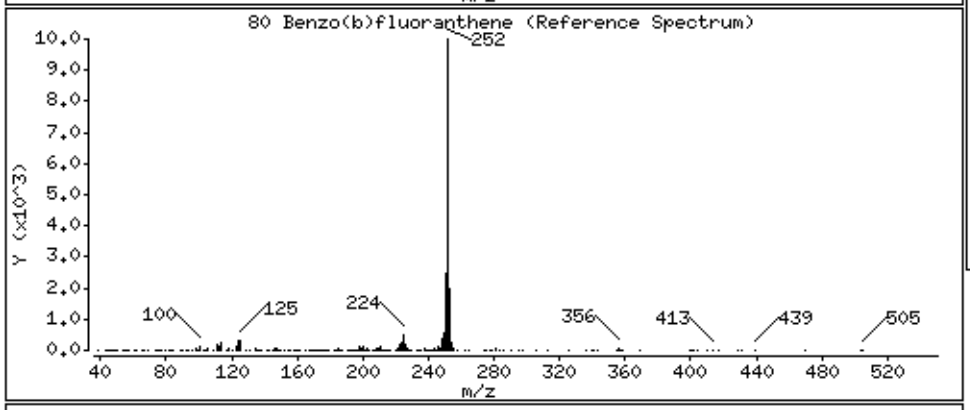
80 Benzo(b)fluoranthene Concentration: 260 ug/Kg

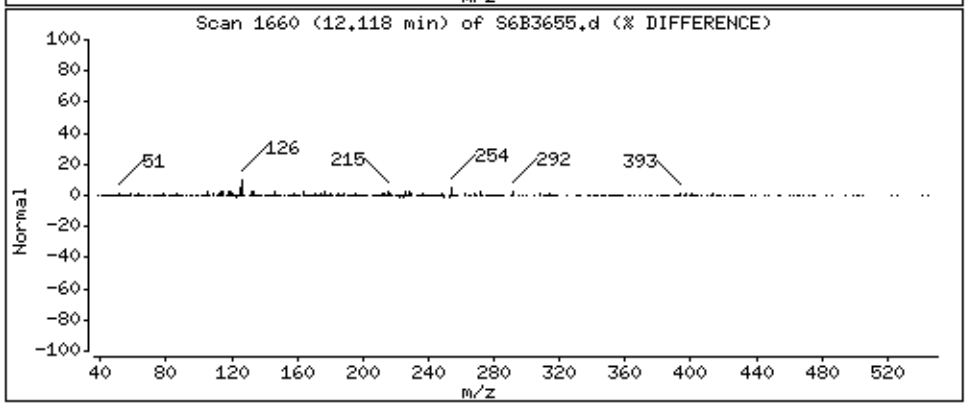












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

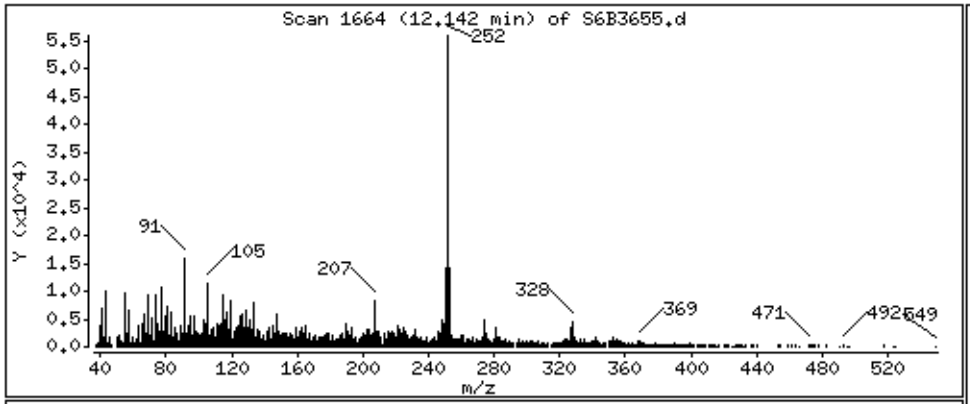
Operator: PK SRC: LIMS

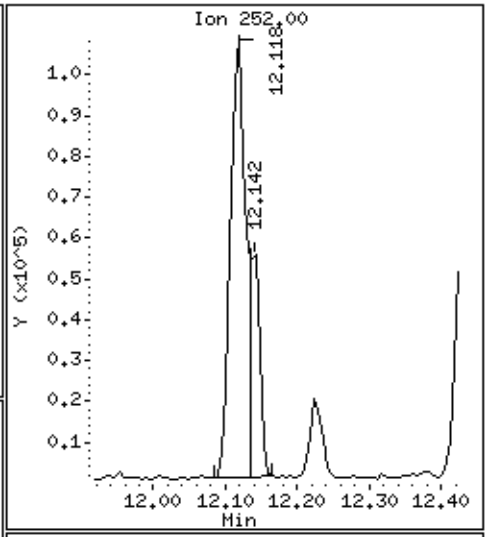
Column phase: Rxi-5Sil MS

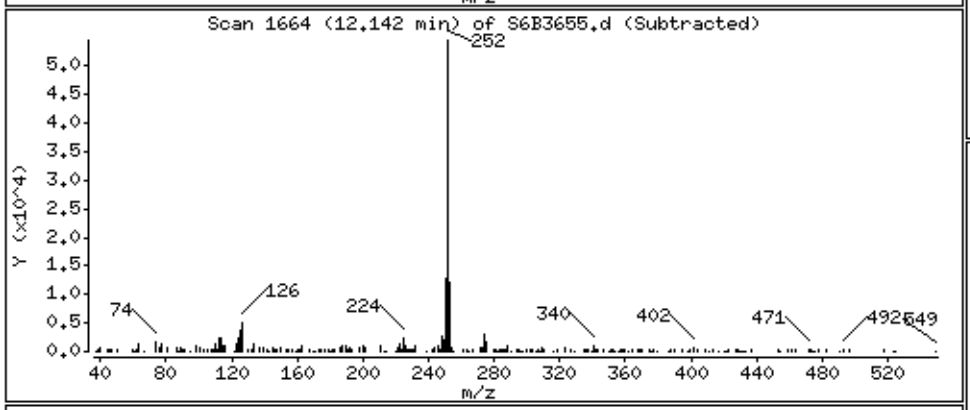
Column diameter: 0.25

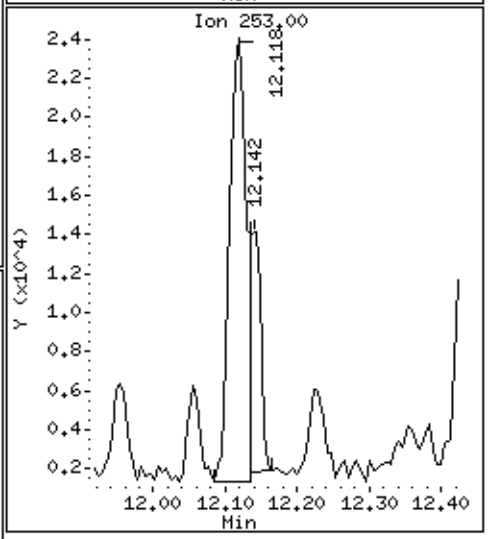
81 Benzo(k)fluoranthene

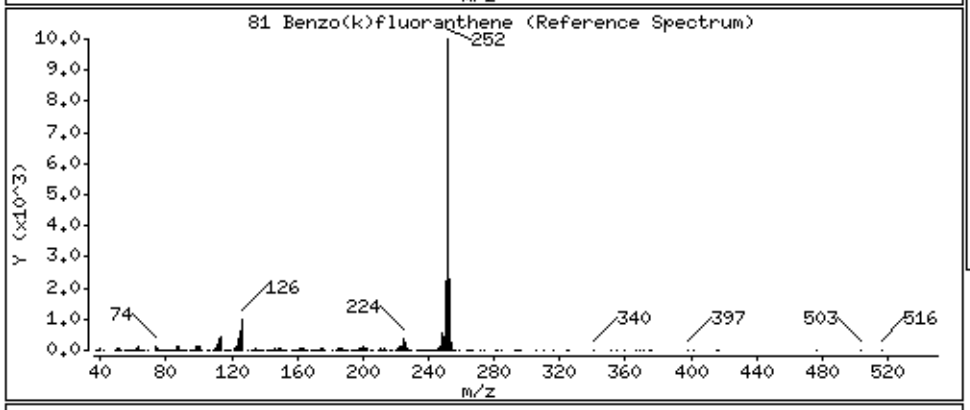
Concentration: 85 ug/Kg

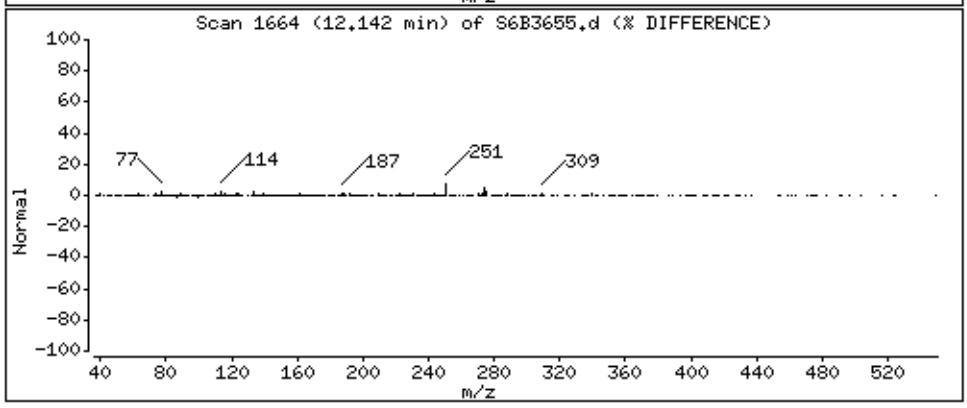












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

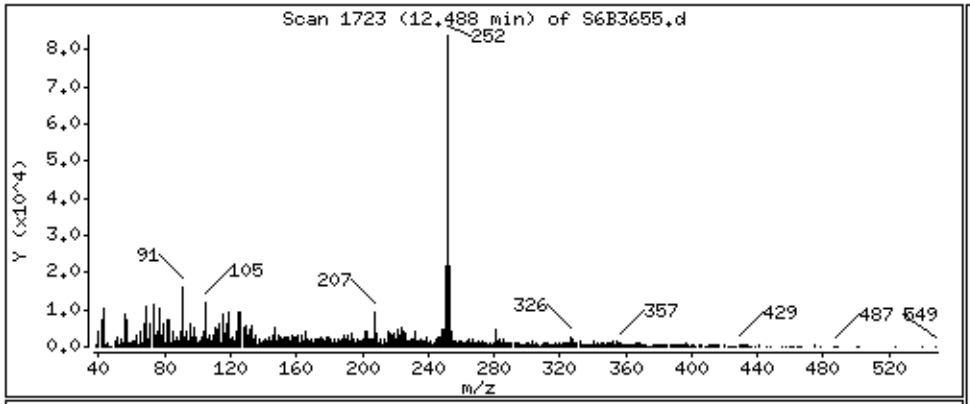
Operator: PK SRC: LIMS

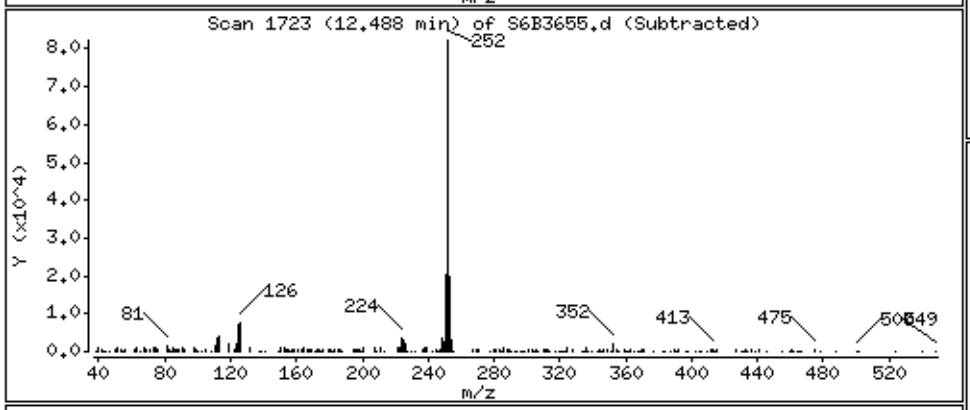
Column phase: Rxi-5Sil MS

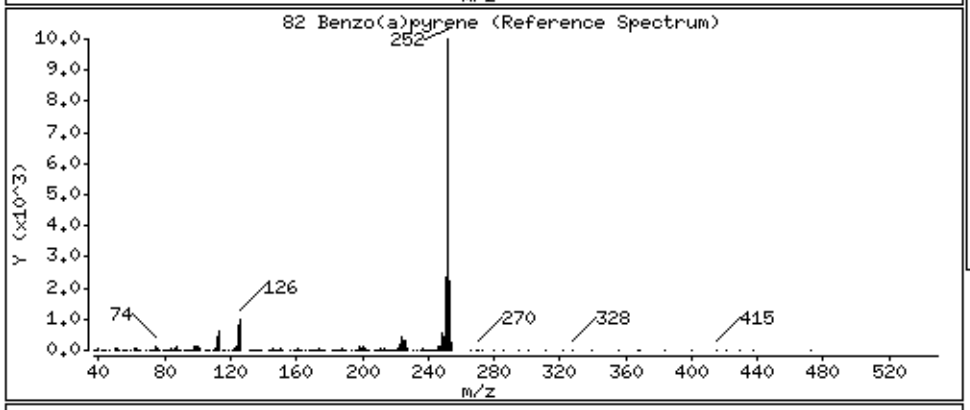
Column diameter: 0.25

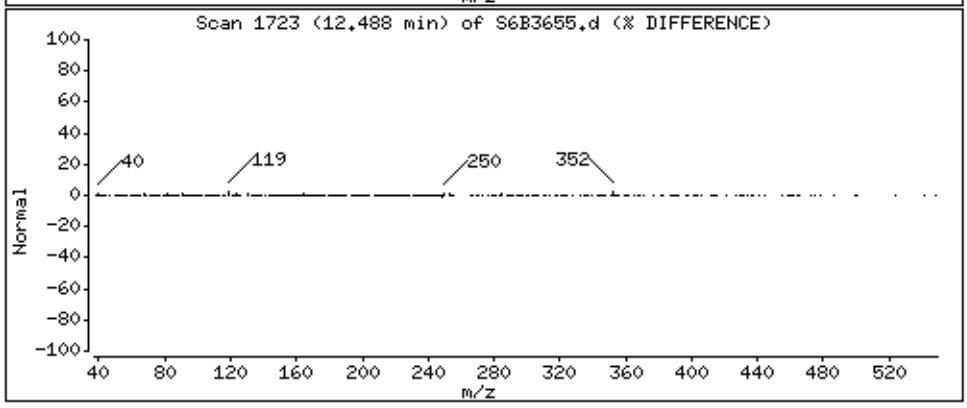
82 Benzo(a)pyrene

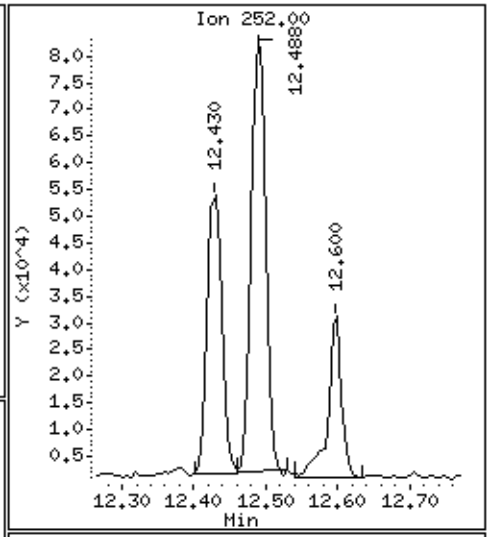
Concentration: 200 ug/Kg

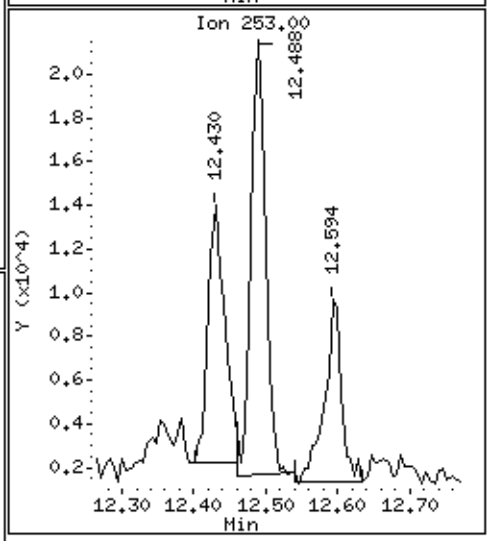












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

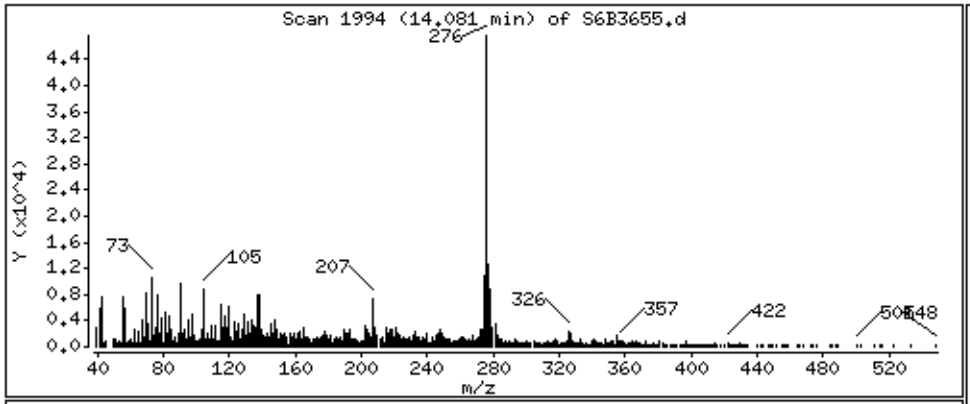
Client ID: SB-128 (10-12) Instrument: S6.i

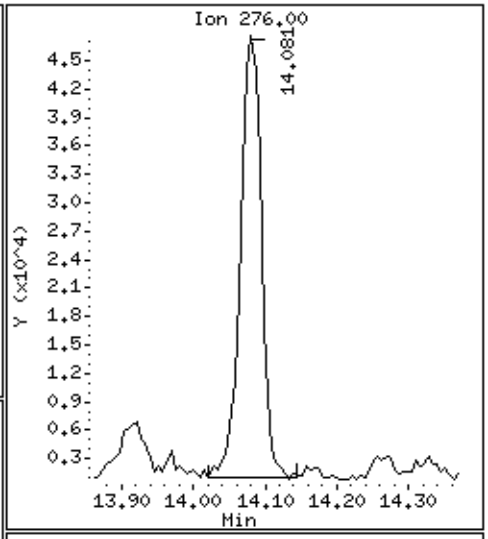
Sample Info: M0619-08A,,71418

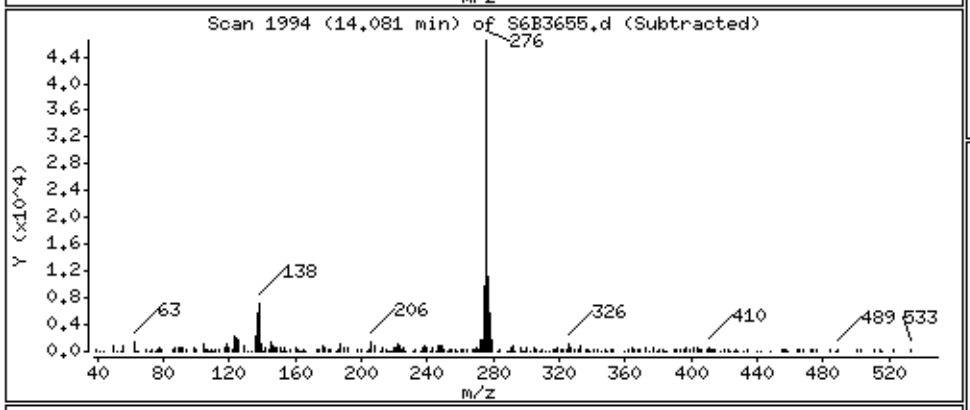
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

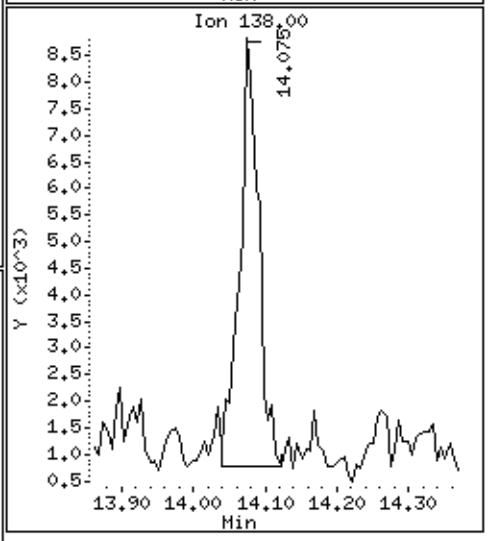
Column phase: Rxi-5Sil MS Column diameter: 0.25

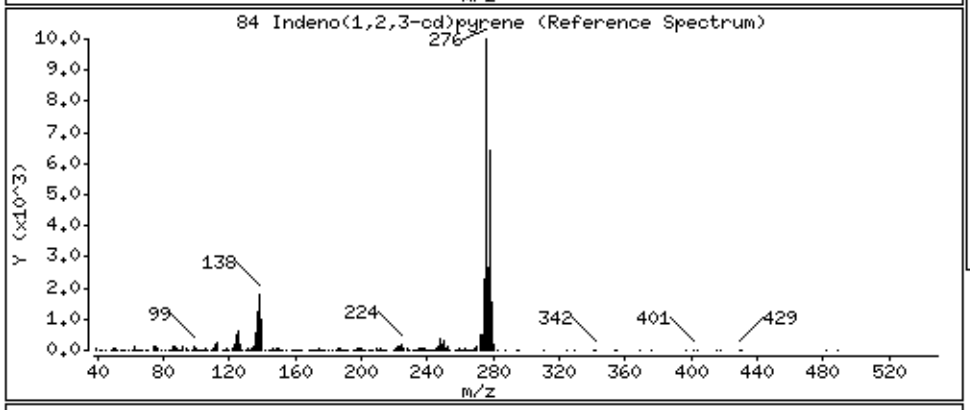
84 Indeno(1,2,3-cd)pyrene Concentration: 130 ug/Kg

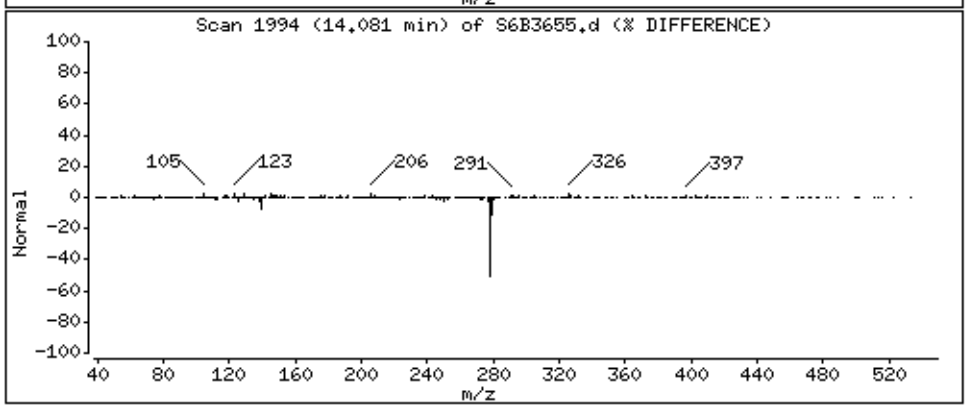












Data File: \\avogadro\organics\S6.I\130506.B\S6B3655.d

Date : 06-MAY-2013 20:42

Client ID: SB-128 (10-12)

Instrument: S6.i

Sample Info: M0619-08A,,71418

Volume Injected (uL): 1.0

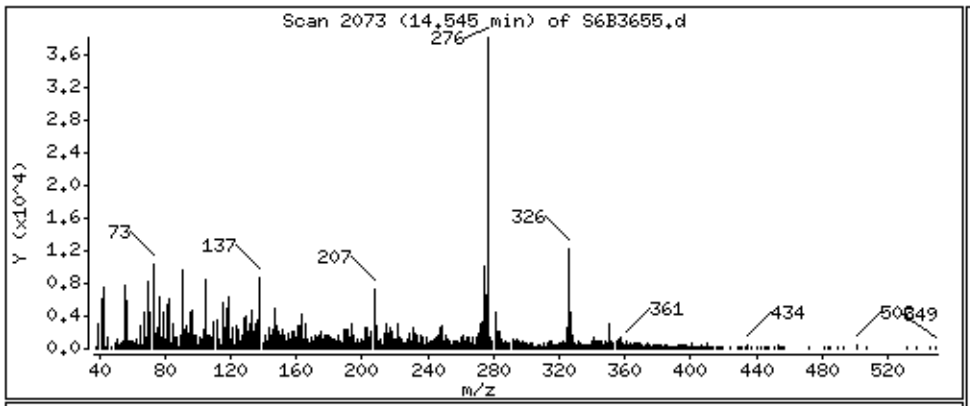
Operator: PK SRC: LIMS

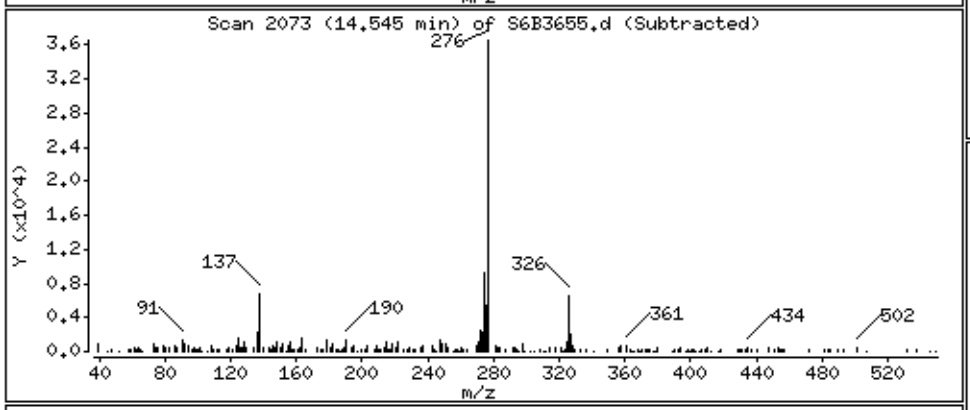
Column phase: Rxi-5Sil MS

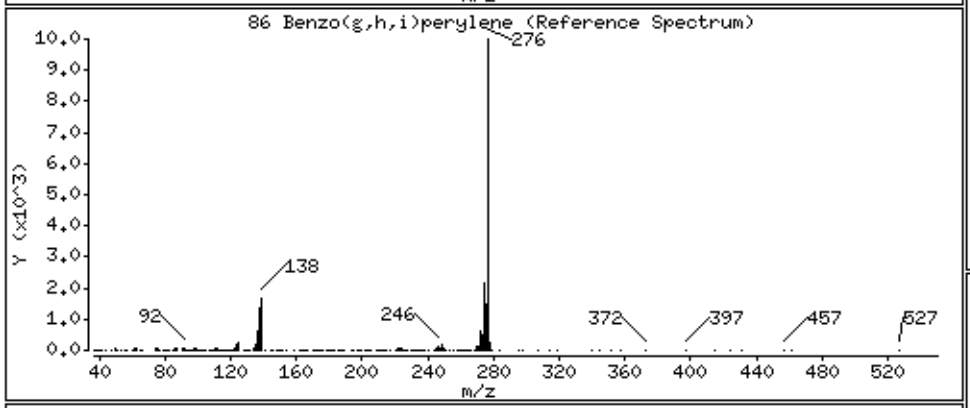
Column diameter: 0.25

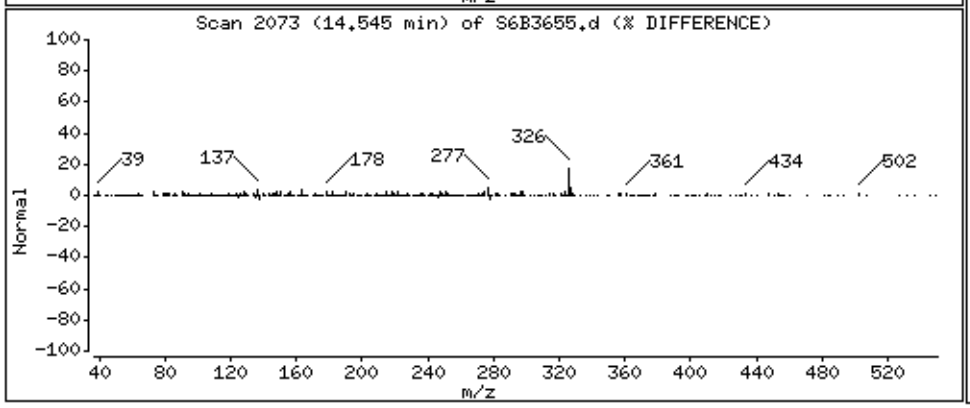
86 Benzo(g,h,i)perylene

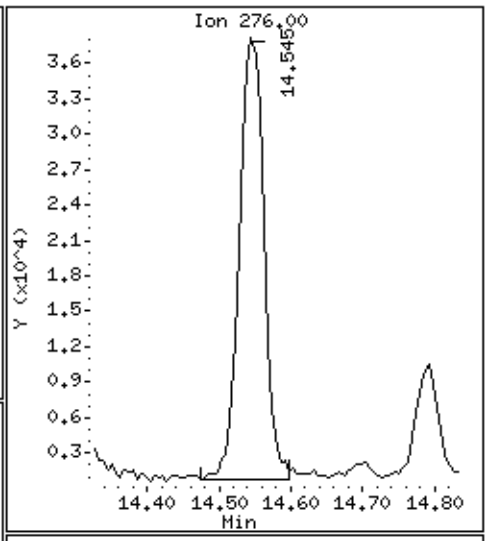
Concentration: 150 ug/Kg

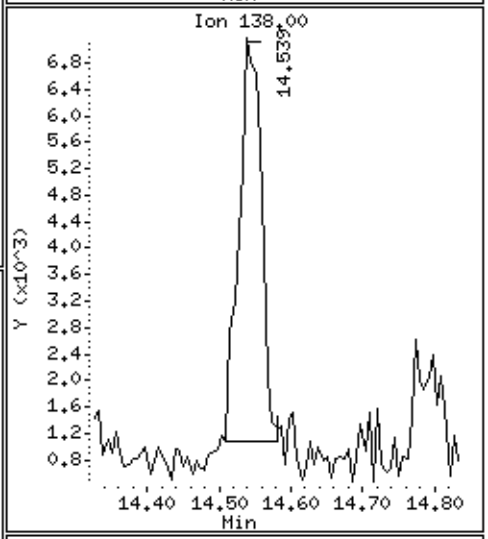


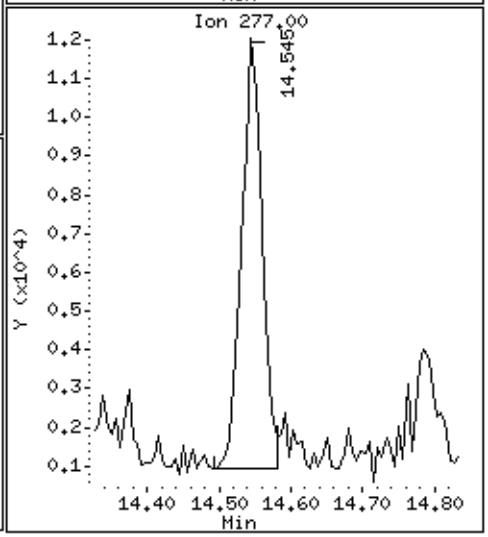












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (10-12)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-08ADL

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3680.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 160.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370000	D
91-57-6	2-Methylnaphthalene	37000	DJ
208-96-8	Acenaphthylene	59000	U
83-32-9	Acenaphthene	59000	U
86-73-7	Fluorene	59000	U
85-01-8	Phenanthrene	59000	U
120-12-7	Anthracene	59000	U
206-44-0	Fluoranthene	59000	U
129-00-0	Pyrene	59000	U
56-55-3	Benzo(a)anthracene	59000	U
218-01-9	Chrysene	59000	U
205-99-2	Benzo(b)fluoranthene	59000	U
207-08-9	Benzo(k)fluoranthene	59000	U
50-32-8	Benzo(a)pyrene	59000	U
193-39-5	Indeno(1,2,3-cd)pyrene	59000	U
53-70-3	Dibenzo(a,h)anthracene	59000	U
191-24-2	Benzo(g,h,i)perylene	59000	U

Data File: \\avogadro\organics\S6.I\130507.B\S6B3680.d
Report Date: 08-May-2013 10:56

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3680.d
Lab Smp Id: M0619-08ADL Client Smp ID: SB-128 (10-12)DL
Inj Date : 07-MAY-2013 15:36
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-08ADL,,71418,,160
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130507.B\S6_8270C_N.m
Meth Date : 07-May-2013 13:08 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 10
Dil Factor: 160.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

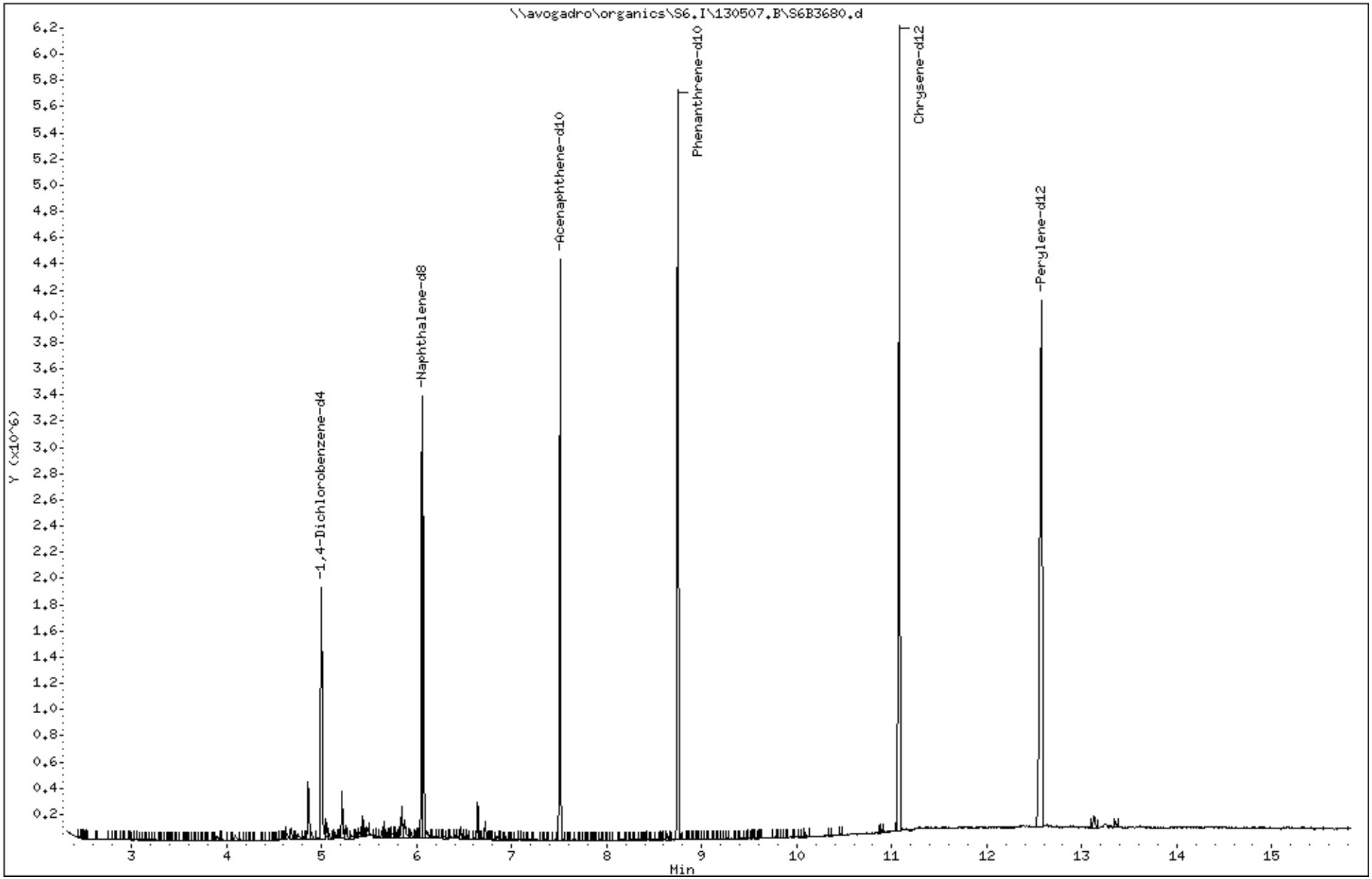
Name	Value	Description
DF	160.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	4.999	4.999	(1.000)	281630	40.0000	
* 31 Naphthalene-d8	136	6.057	6.057	(1.000)	1158206	40.0000	
32 Naphthalene	128	6.075	6.075	(1.003)	773655	30.8139	330000
36 2-Methylnaphthalene	142	6.639	6.645	(1.096)	59815	3.10814	33000(a)
* 48 Acenaphthene-d10	164	7.508	7.514	(1.000)	865472	40.0000	
* 64 Phenanthrene-d10	188	8.748	8.748	(1.000)	1820028	40.0000	
* 76 Chrysene-d12	240	11.081	11.039	(1.000)	2513305	40.0000	
* 83 Perylene-d12	264	12.573	12.508	(1.000)	2558223	40.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\S6.I\130507.B\S6B3680.d
Date : 07-MAY-2013 15:36
Client ID: SB-128 (10-12)DL
Instrument: S6.i
Sample Info: M0619-08ADL,,71418,,160
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3680.d

Date : 07-MAY-2013 15:36

Client ID: SB-128 (10-12)DL

Instrument: S6.i

Sample Info: M0619-08ADL,,71418,,160

Volume Injected (uL): 1.0

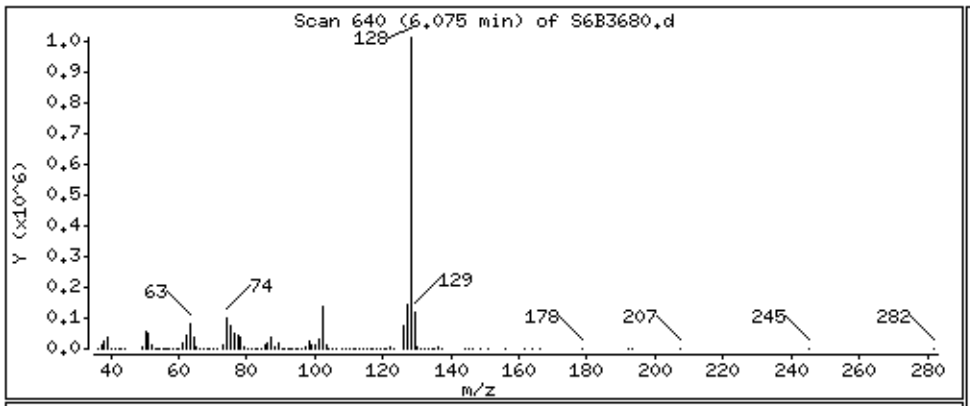
Operator: PK SRC: LIMS

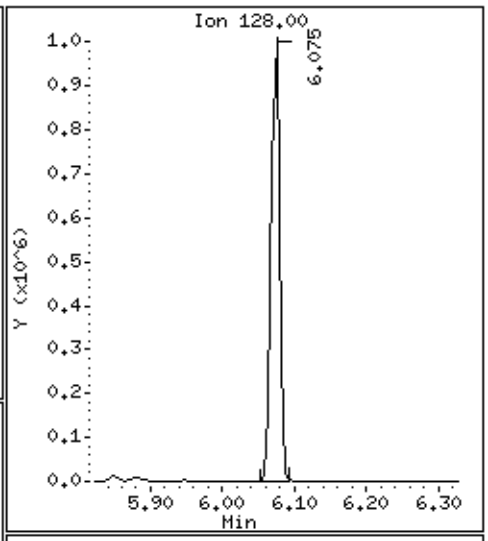
Column phase: Rxi-5Sil MS

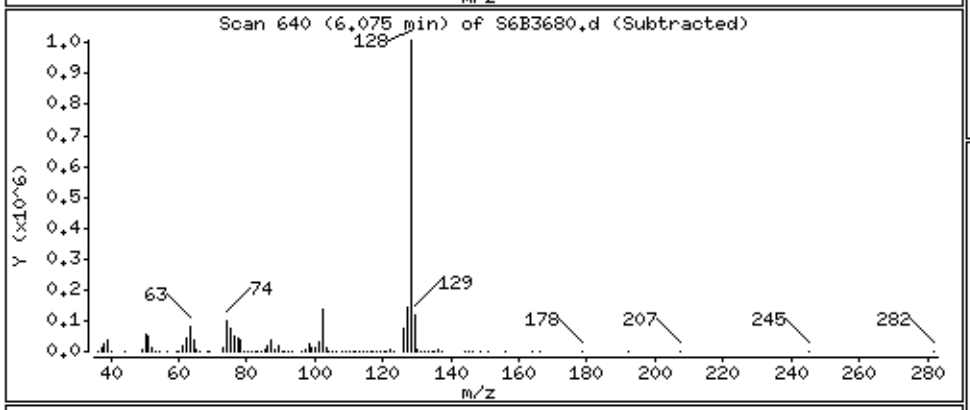
Column diameter: 0.25

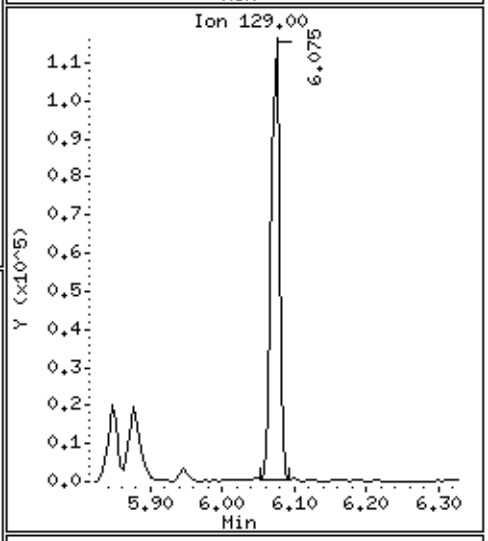
32 Naphthalene

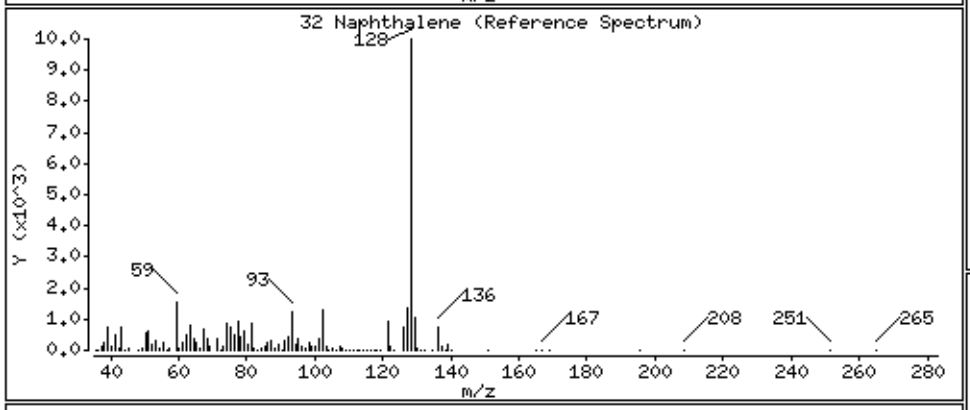
Concentration: 330000 ug/Kg

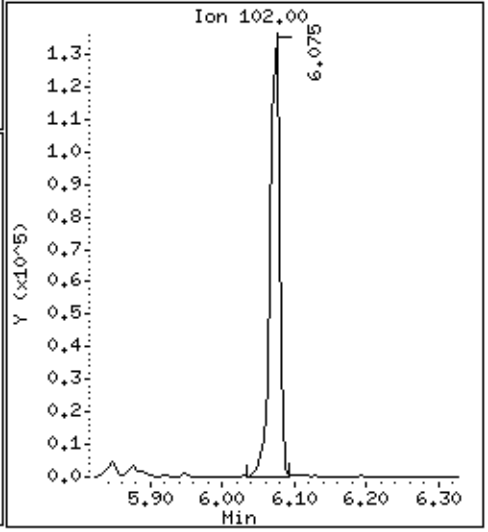


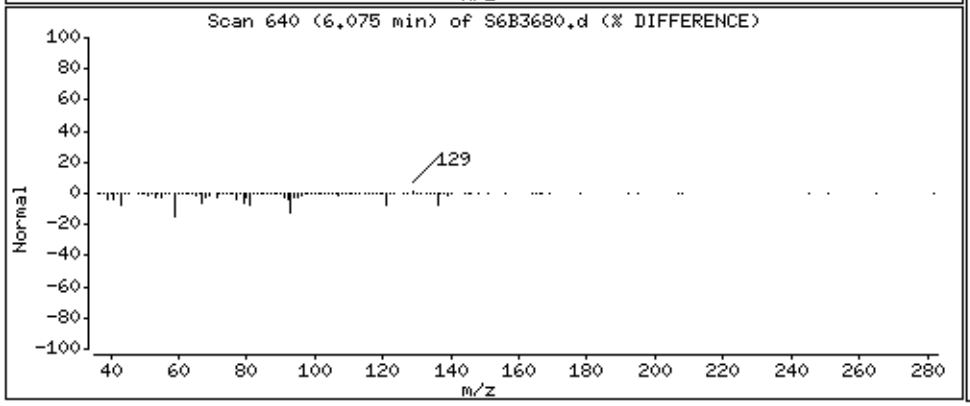












Data File: \\avogadro\organics\S6.I\130507.B\S6B3680.d

Date : 07-MAY-2013 15:36

Client ID: SB-128 (10-12)DL

Instrument: S6.i

Sample Info: M0619-08ADL,,71418,,160

Volume Injected (uL): 1.0

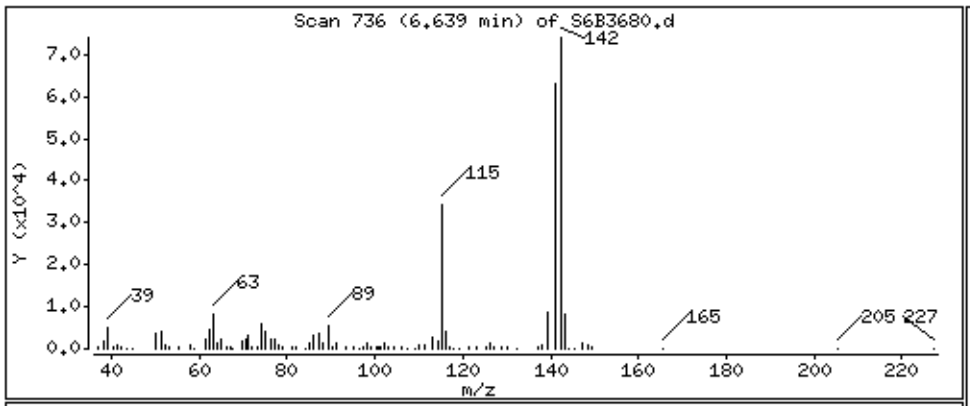
Operator: PK SRC: LIMS

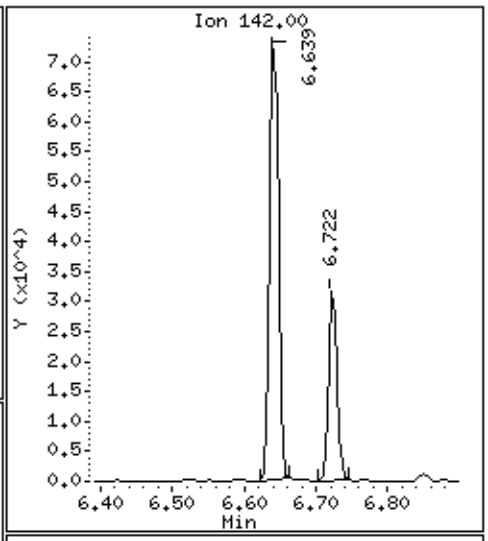
Column phase: Rxi-5Sil MS

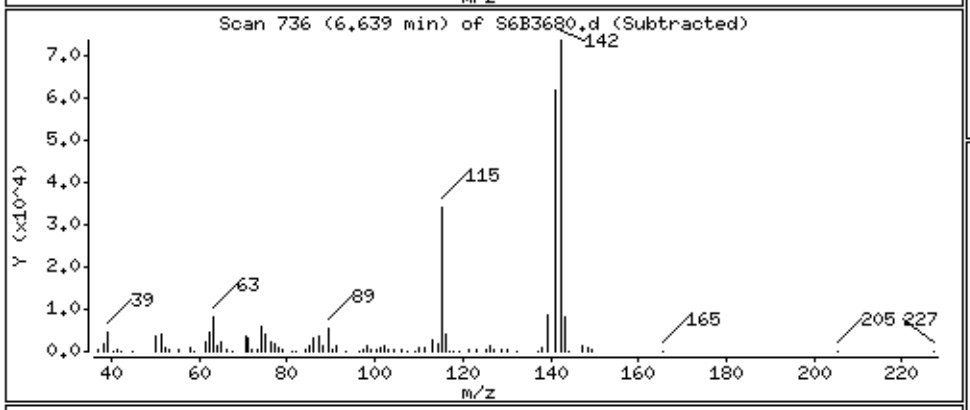
Column diameter: 0.25

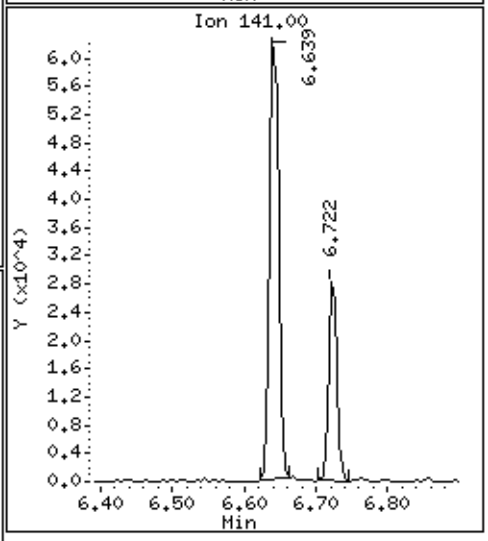
36 2-Methylnaphthalene

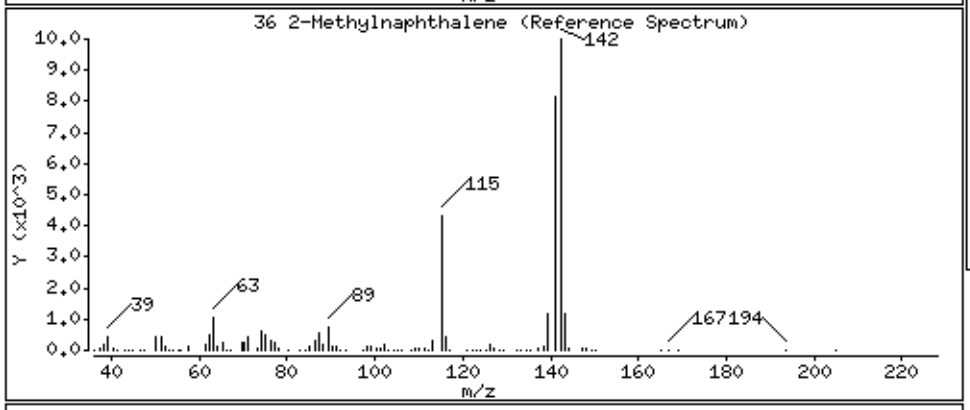
Concentration: 33000 ug/Kg

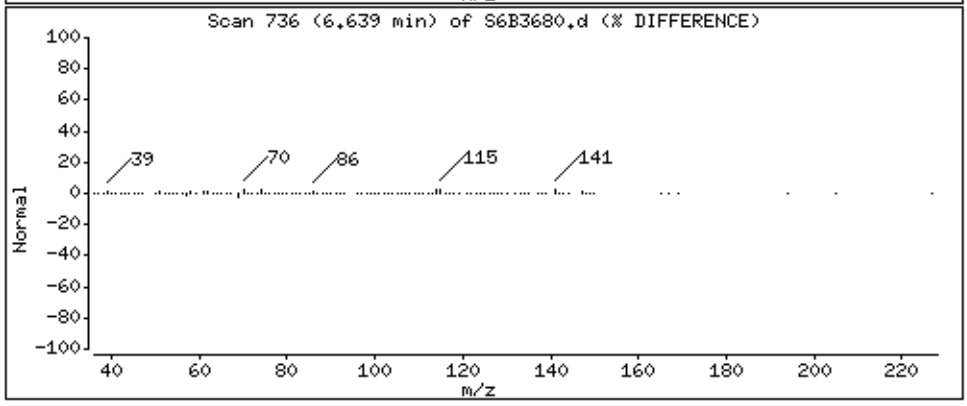












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09A

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3656.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 8.6 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	57000	E
91-57-6	2-Methylnaphthalene	7800	E
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	430	
120-12-7	Anthracene	100	J
206-44-0	Fluoranthene	590	
129-00-0	Pyrene	560	
56-55-3	Benzo(a)anthracene	260	J
218-01-9	Chrysene	290	J
205-99-2	Benzo(b)fluoranthene	270	J
207-08-9	Benzo(k)fluoranthene	120	J
50-32-8	Benzo(a)pyrene	220	J
193-39-5	Indeno(1,2,3-cd)pyrene	140	J
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	180	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3656.d
Lab Smp Id: M0619-09A Client Smp ID: SB-128 (18-20)
Inj Date : 06-MAY-2013 21:04
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : M0619-09A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
* 12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	291059	40.0000		
$ 22 Nitrobenzene-d5	82	5.531	5.519	(0.910)	432691	34.3758	2200	
* 31 Naphthalene-d8	136	6.148	6.113	(1.000)	1408622	40.0000	(H)	
32 Naphthalene	128	6.154	6.130	(1.001)	24639340	806.901	52000(AM)M6 PK 05/07	
36 2-Methylnaphthalene	142	6.712	6.700	(1.104)	2582220	110.325	7200(A)	
$ 41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	761532	40.7386	2600	
* 48 Acenaphthene-d10	164	7.570	7.570	(1.000)	639982	40.0000		
* 64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1207907	40.0000		
65 Phenanthrene	178	8.821	8.827	(1.002)	165483	5.99412	390(a)	
66 Anthracene	178	8.863	8.868	(1.007)	40986	1.44407	94(a)	
69 Fluoranthene	202	9.820	9.826	(1.115)	278663	8.24772	540(a)	
71 Pyrene	202	10.014	10.020	(0.904)	246977	7.93833	520(a)	
$ 72 Terphenyl-d14	244	10.138	10.138	(0.915)	1031420	46.1975	3000	
75 Benzo(a)anthracene	228	11.072	11.083	(0.999)	126981	3.70417	240(a)	
* 76 Chrysene-d12	240	11.084	11.101	(1.000)	1488007	40.0000		
77 Chrysene	228	11.107	11.125	(1.002)	117781	4.10801	270(a)	
80 Benzo(b)fluoranthene	252	12.118	12.141	(0.963)	149719	3.81965	250(aM)M2 PK 05/07	
81 Benzo(k)fluoranthene	252	12.141	12.170	(0.965)	60186	1.63813	110(aQM)M2 PK 05/07	
82 Benzo(a)pyrene	252	12.494	12.517	(0.993)	110318	3.15316	200(a)	

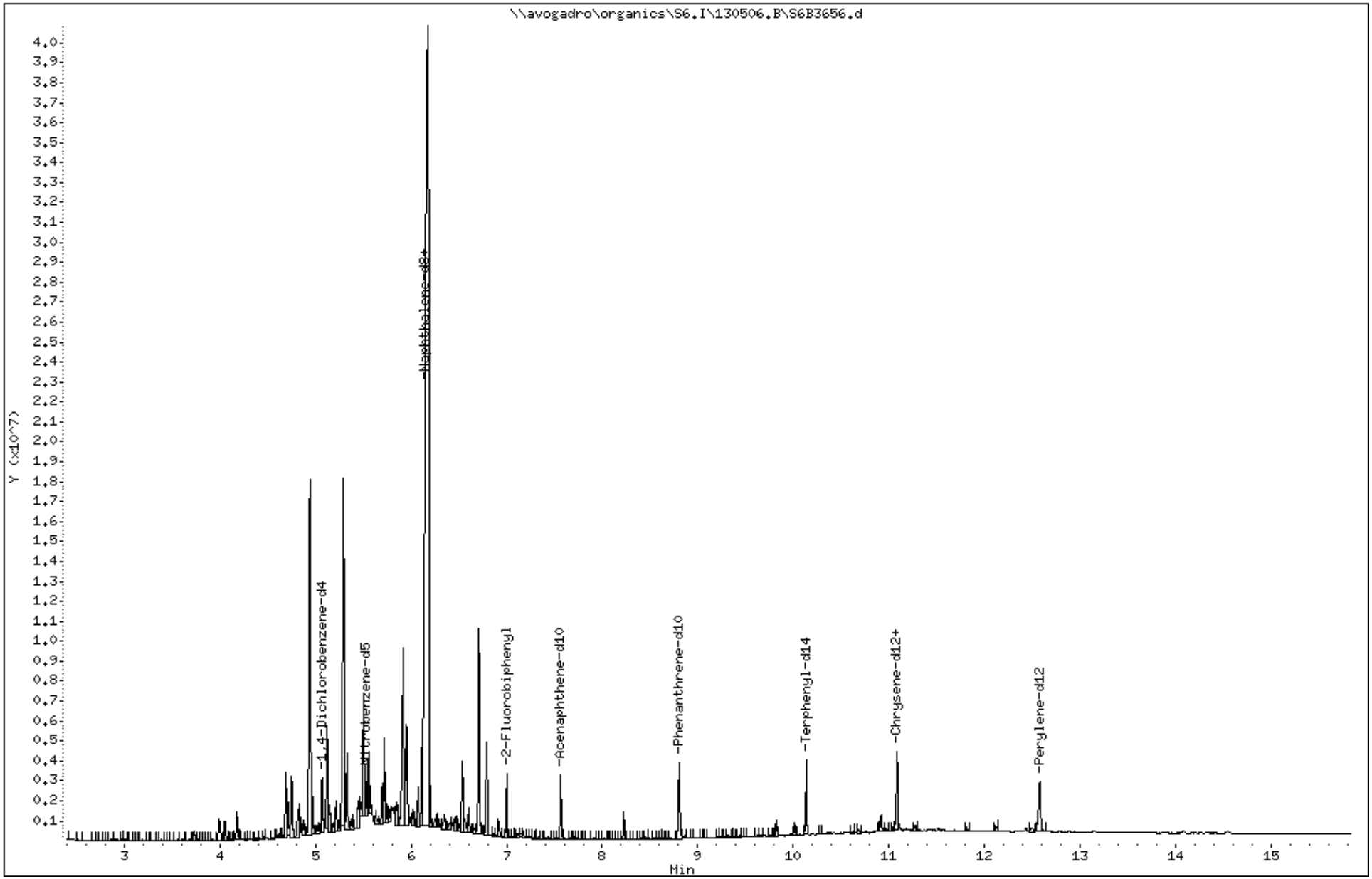
Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d
Report Date: 07-May-2013 10:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 83 Perylene-d12	264	12.582	12.593	(1.000)	1499504	40.0000	
84 Indeno(1,2,3-cd)pyrene	276	14.074	14.115	(1.119)	86870	2.00366	130(a)
86 Benzo(g,h,i)perylene	276	14.544	14.579	(1.156)	87581	2.48391	160(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d
Date : 06-MAY-2013 21:04
Client ID: SB-128 (18-20)
Instrument: S6.i
Sample Info: M0619-09A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

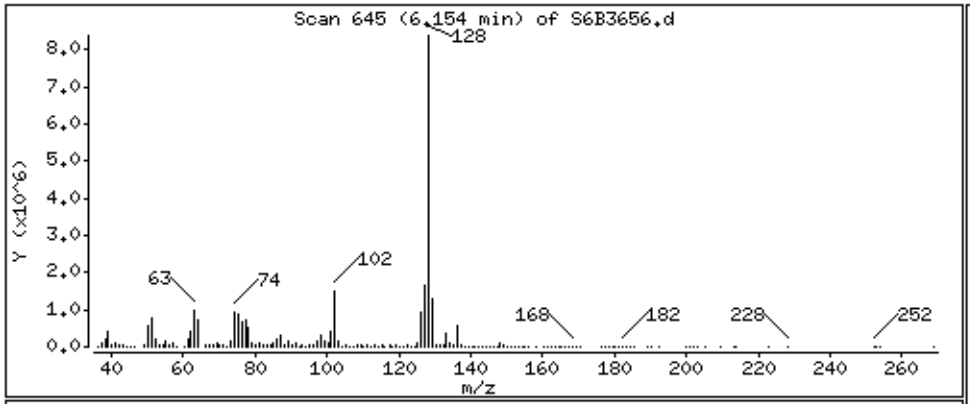
Operator: PK SRC: LIMS

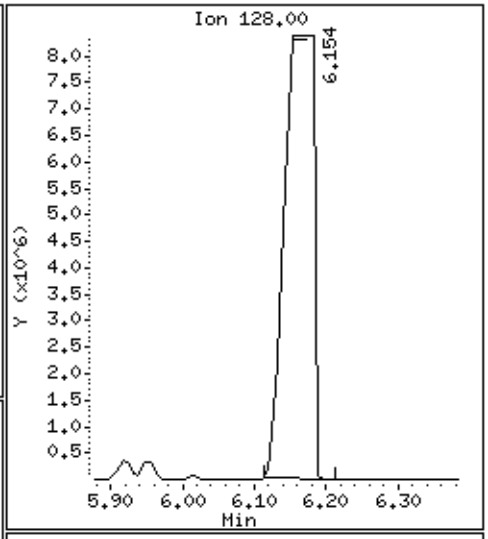
Column phase: Rxi-5Sil MS

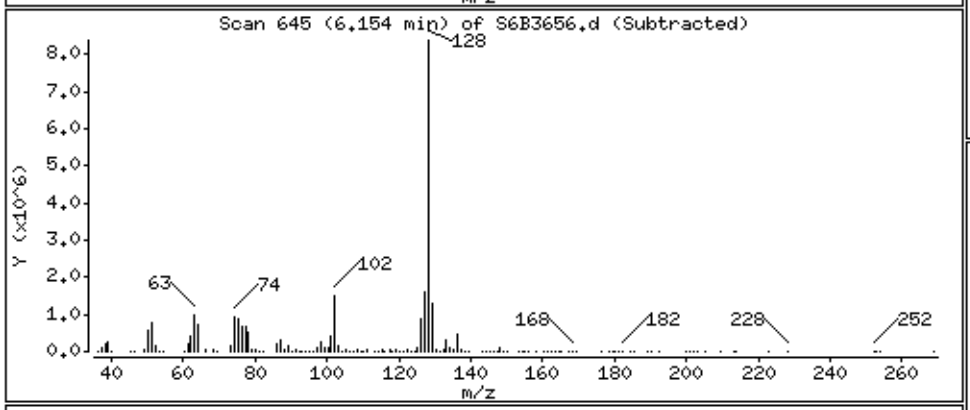
Column diameter: 0.25

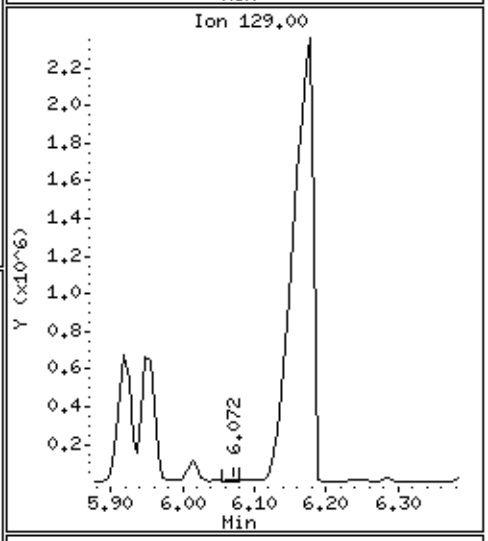
32 Naphthalene

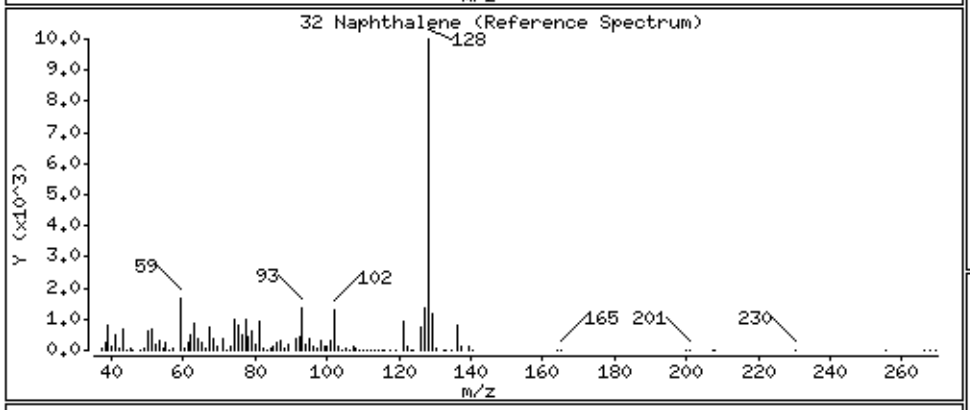
Concentration: 52000 ug/Kg

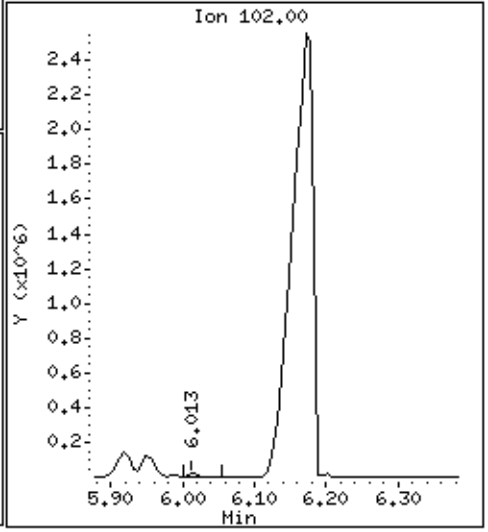


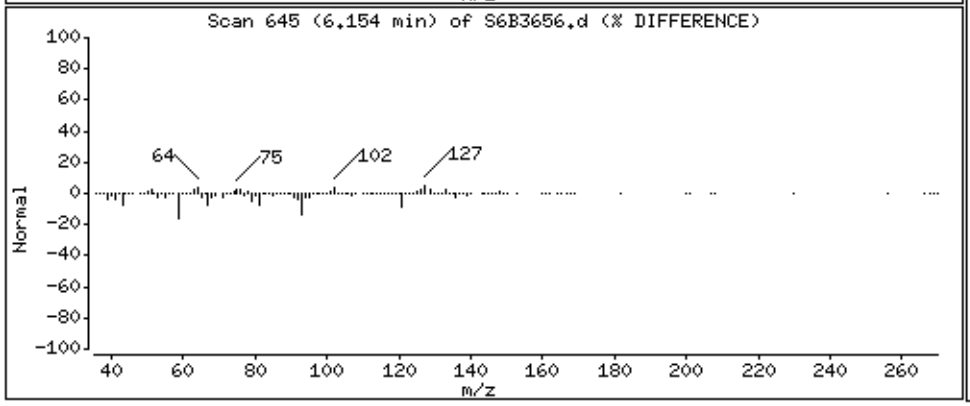












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

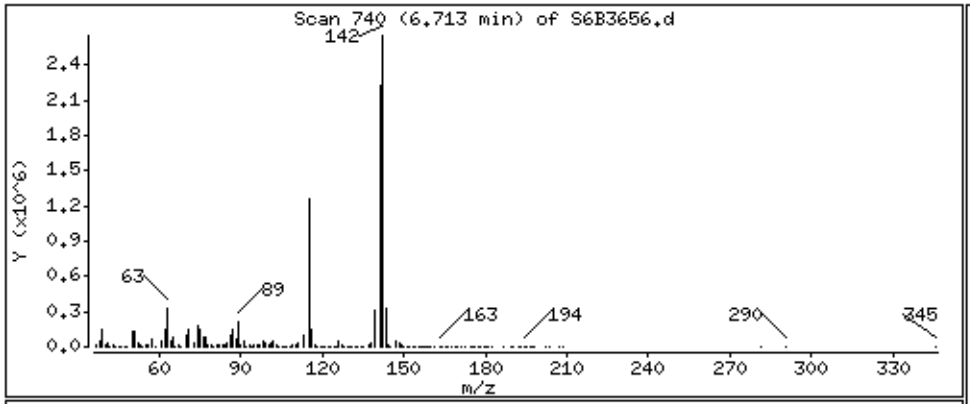
Operator: PK SRC: LIMS

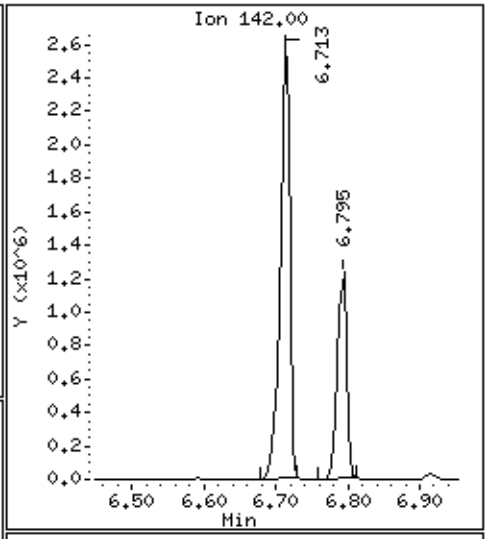
Column phase: Rxi-5Sil MS

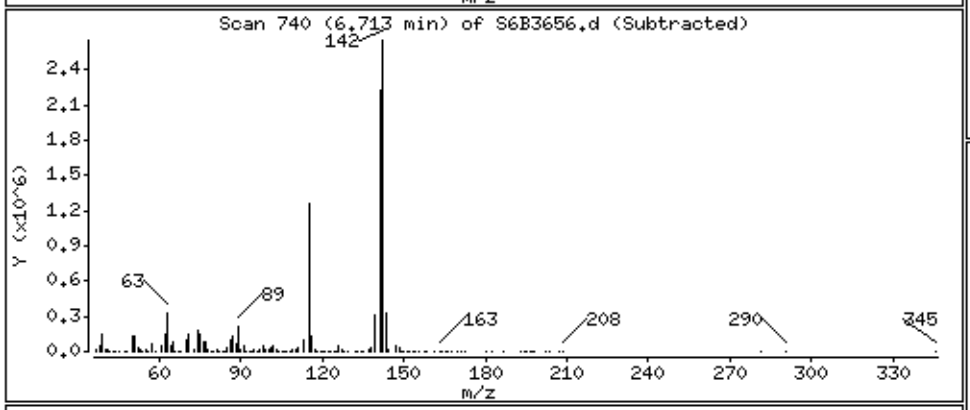
Column diameter: 0.25

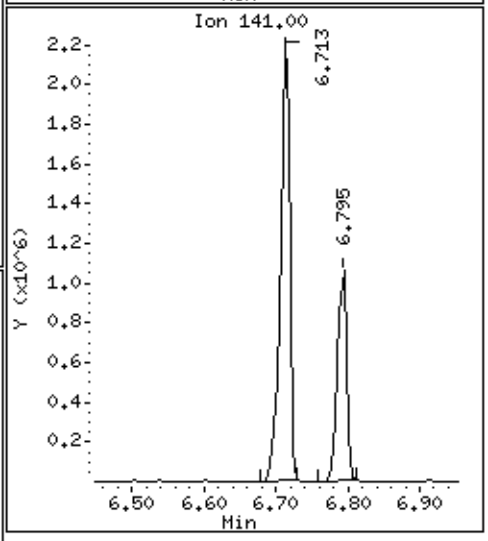
36 2-Methylnaphthalene

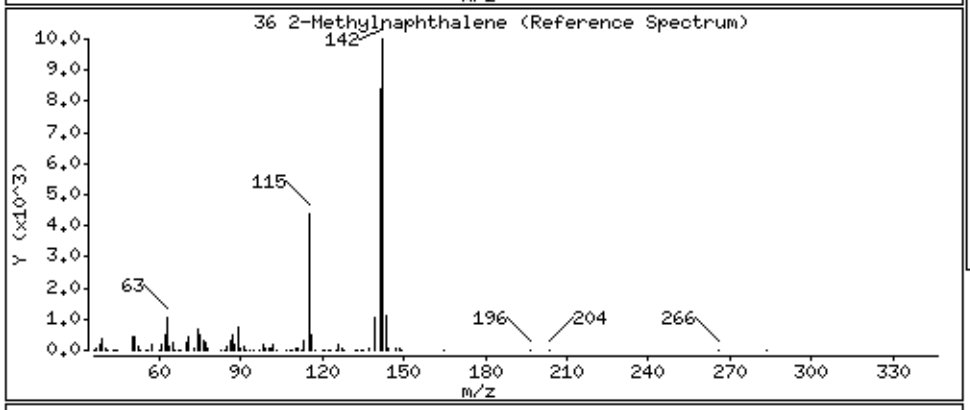
Concentration: 7200 ug/Kg

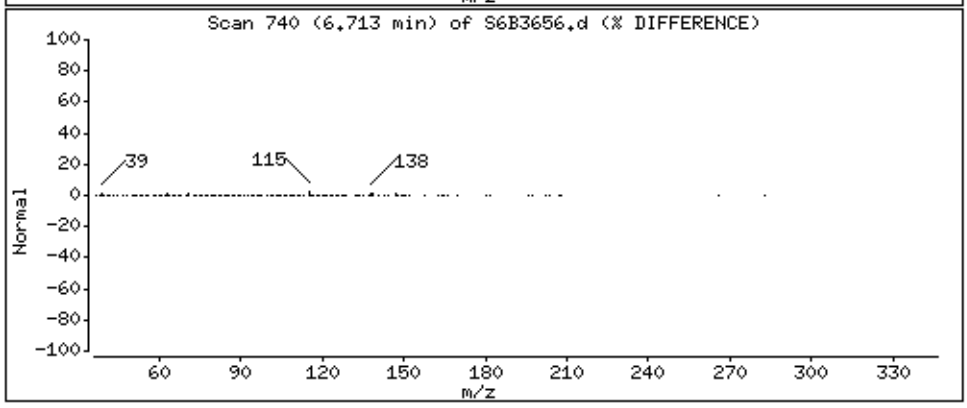












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

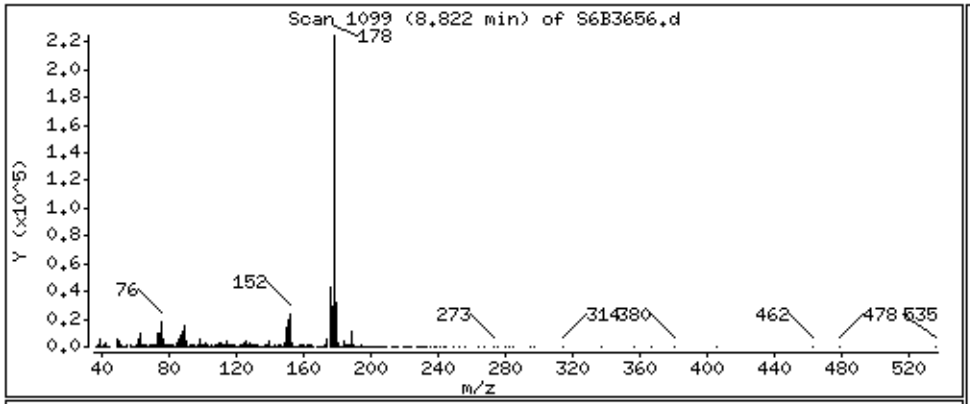
Operator: PK SRC: LIMS

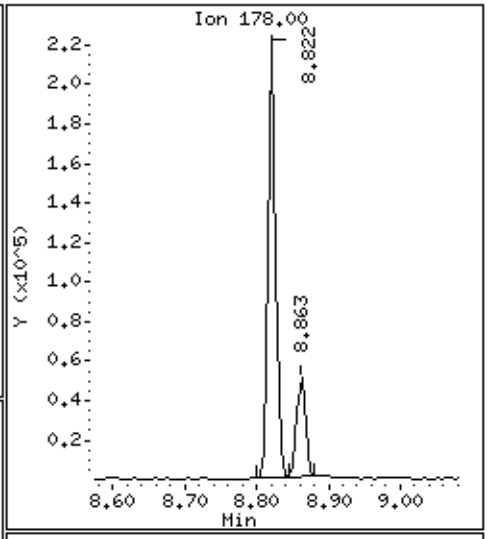
Column phase: Rxi-5Sil MS

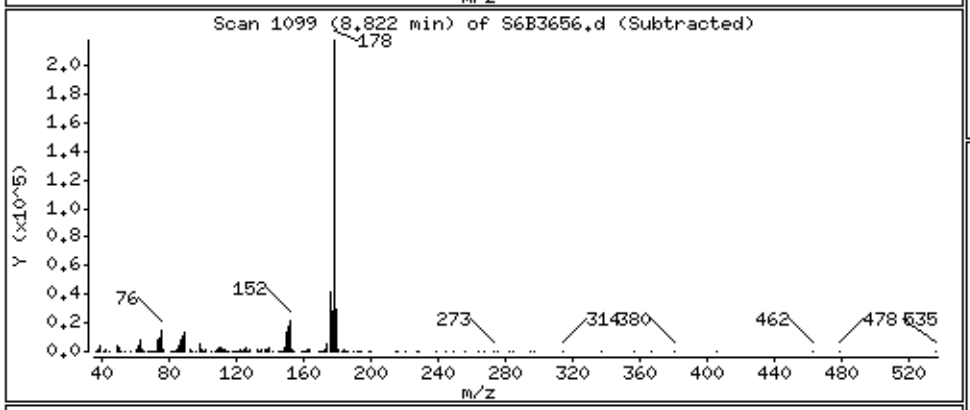
Column diameter: 0.25

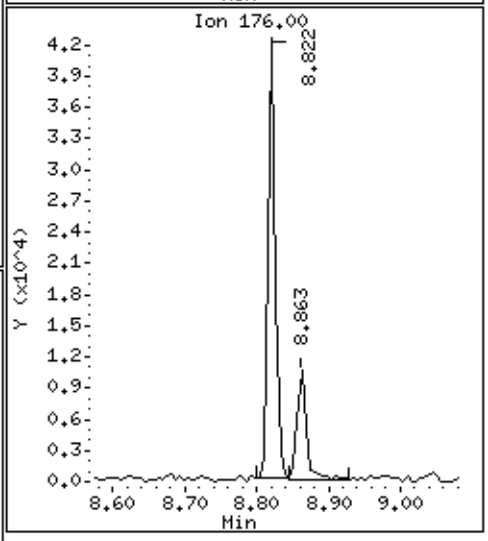
65 Phenanthrene

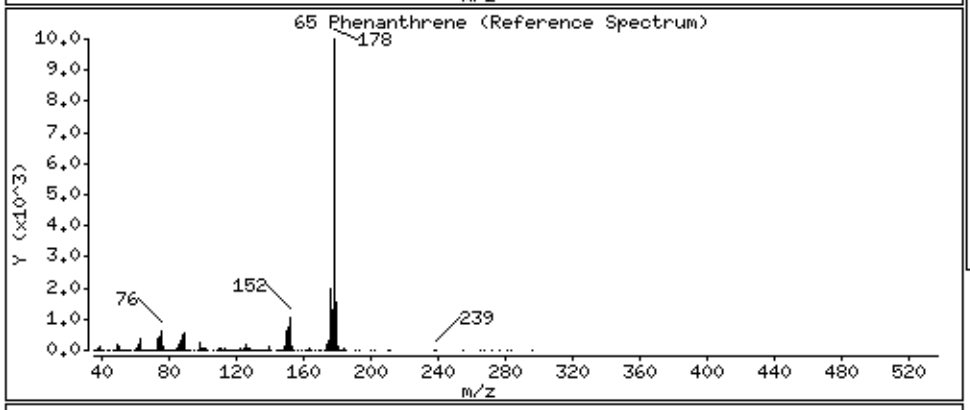
Concentration: 390 ug/Kg

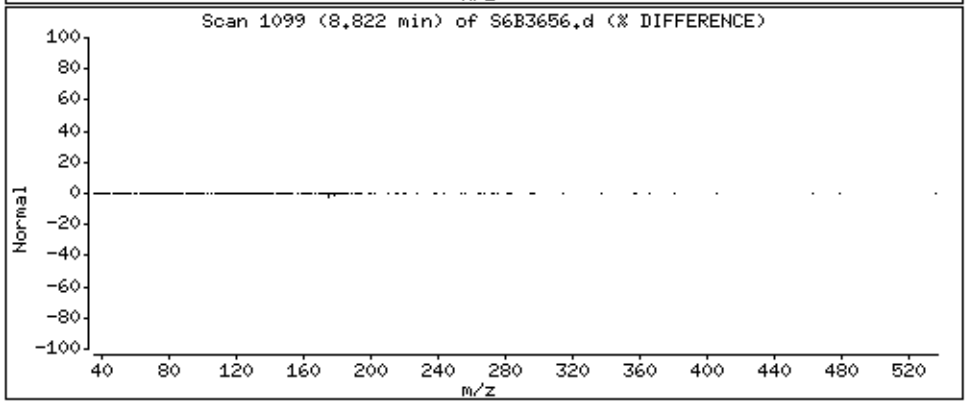












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

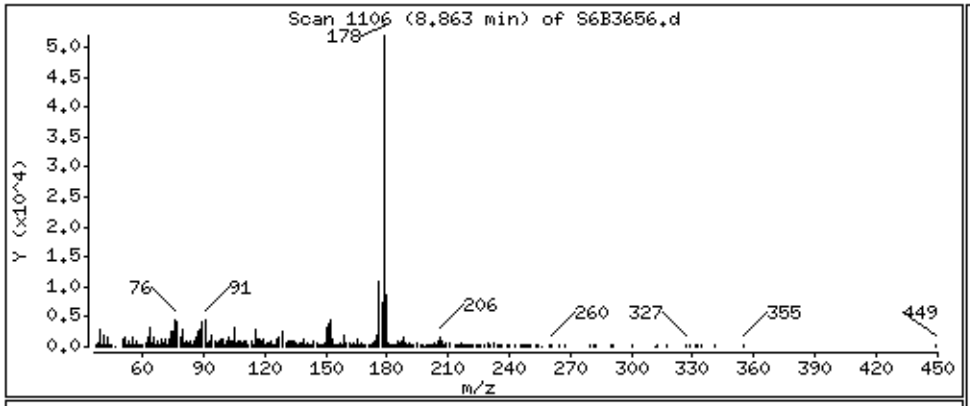
Operator: PK SRC: LIMS

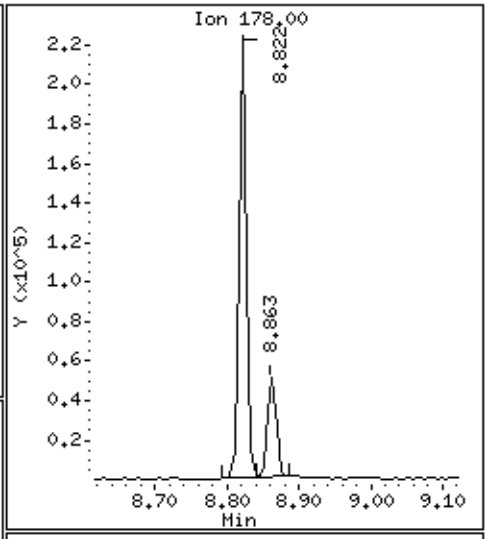
Column phase: Rxi-5Sil MS

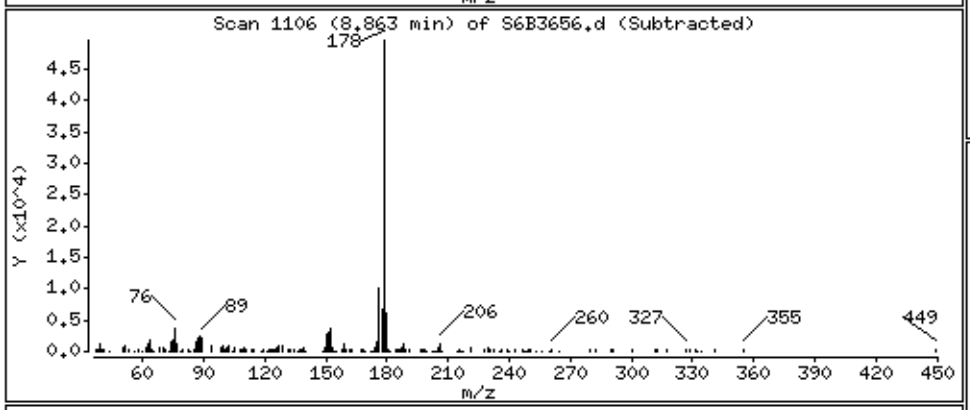
Column diameter: 0.25

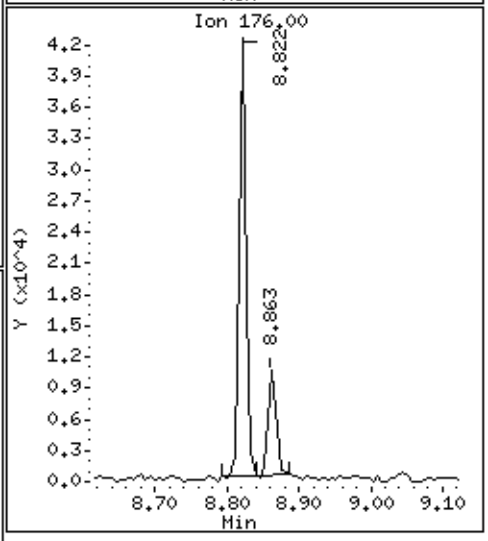
66 Anthracene

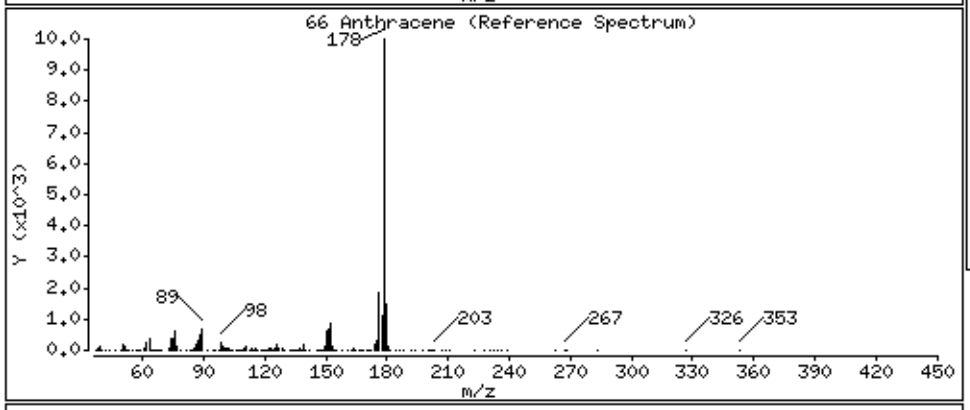
Concentration: 94 ug/Kg

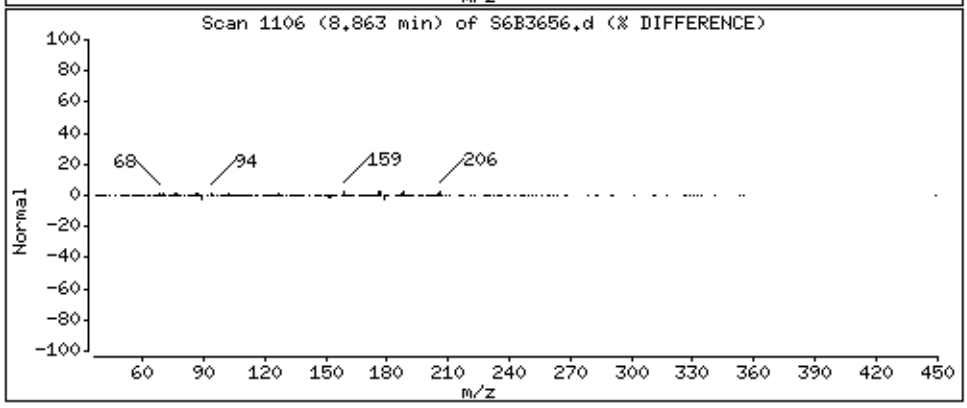












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

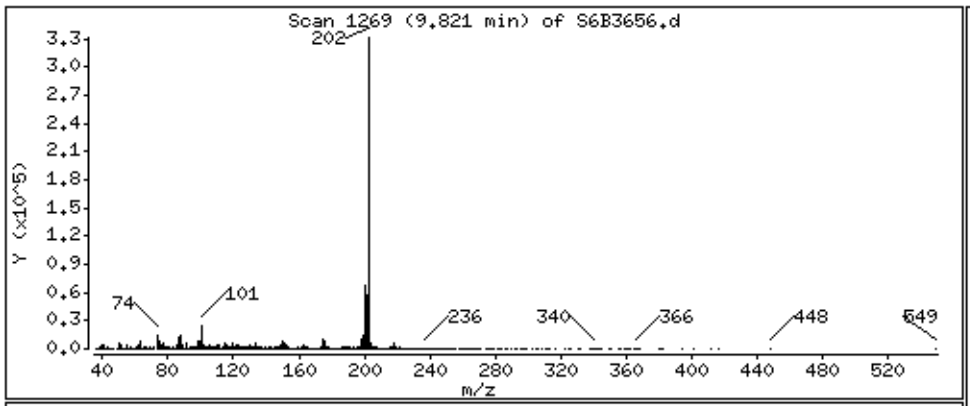
Operator: PK SRC: LIMS

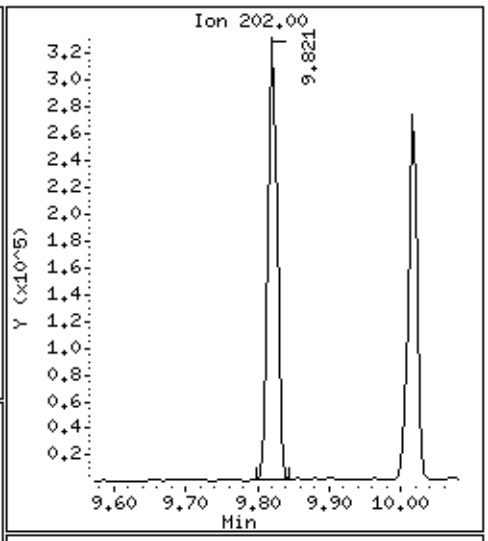
Column phase: Rxi-5Sil MS

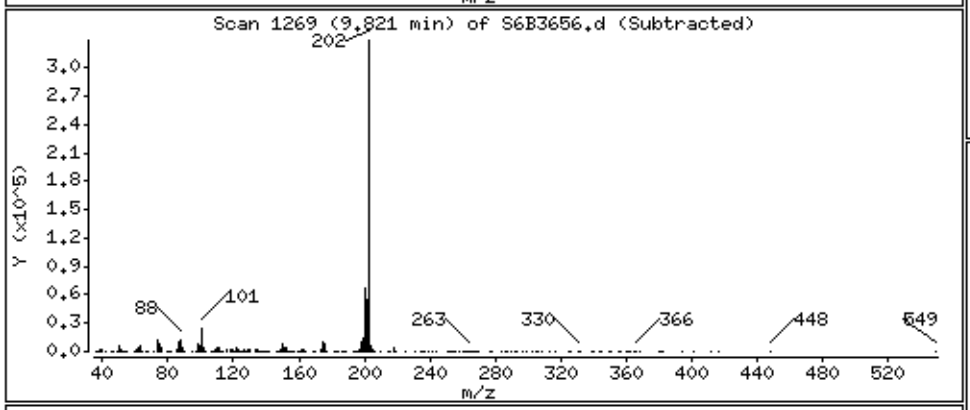
Column diameter: 0.25

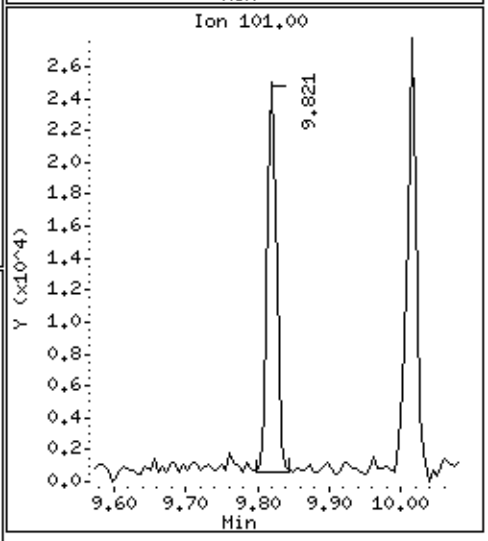
69 Fluoranthene

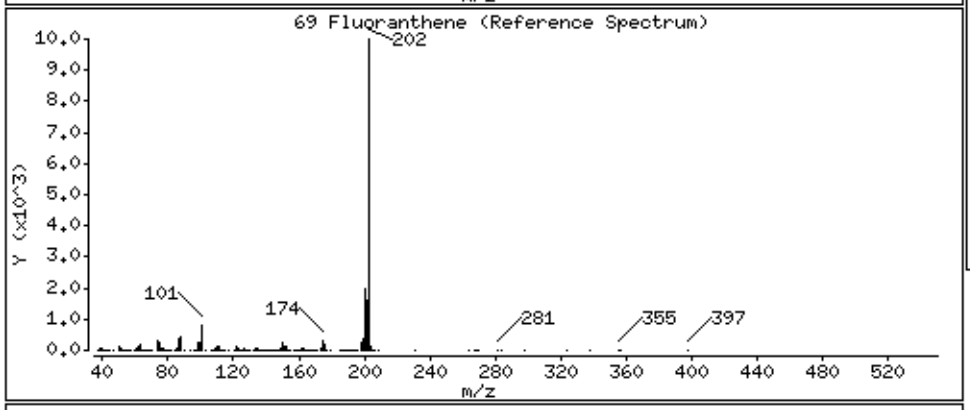
Concentration: 540 ug/Kg

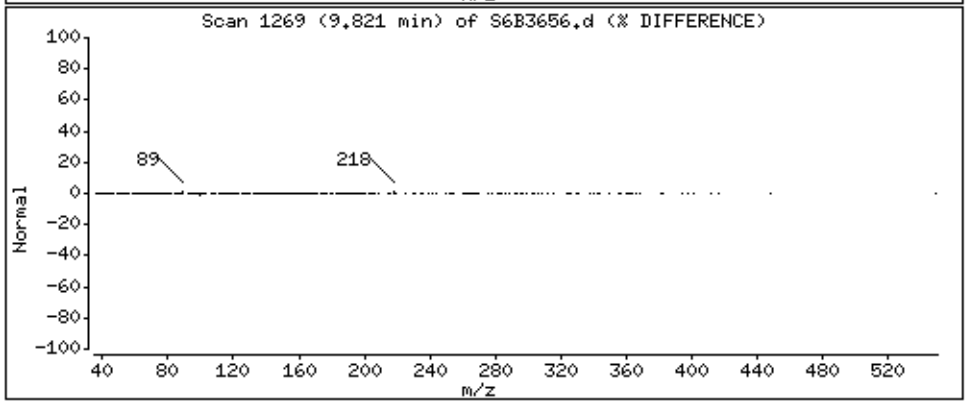












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

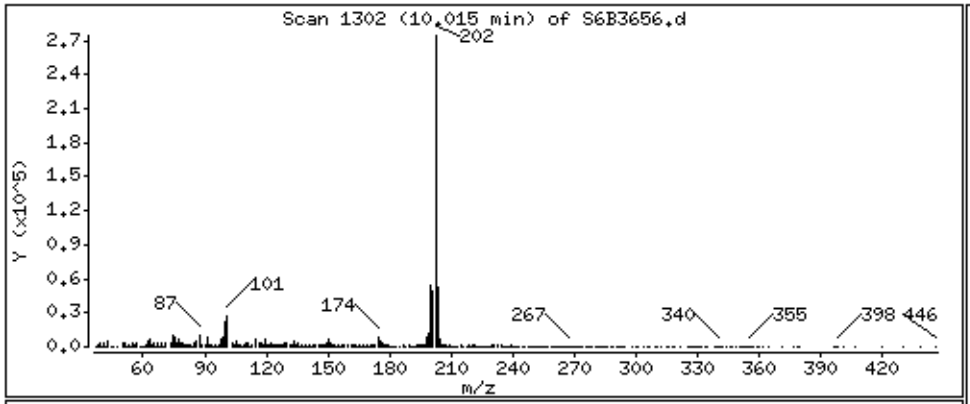
Operator: PK SRC: LIMS

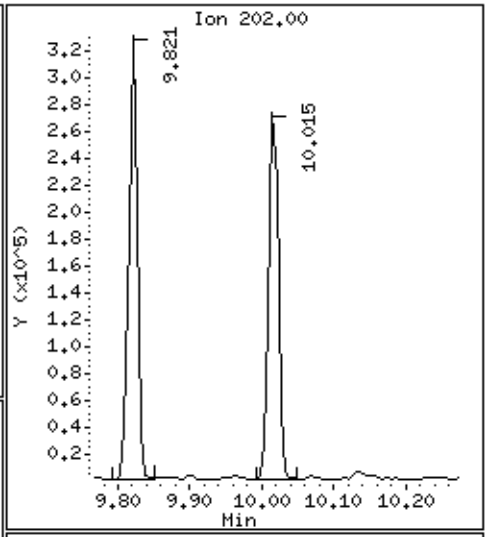
Column phase: Rxi-5Sil MS

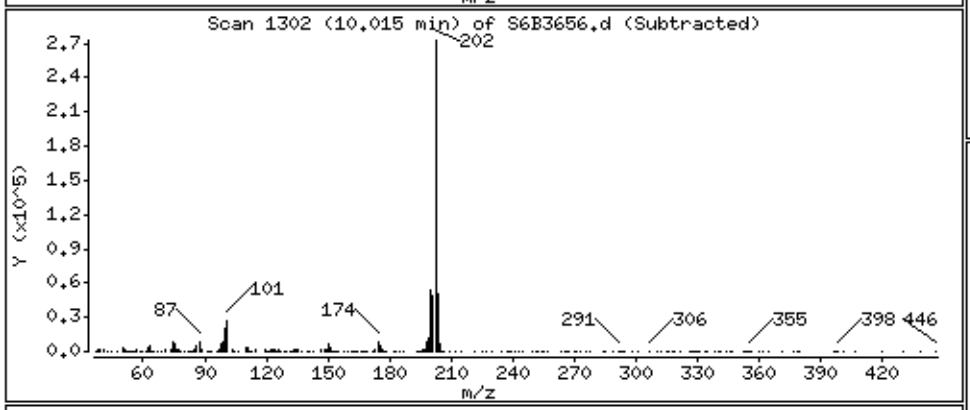
Column diameter: 0.25

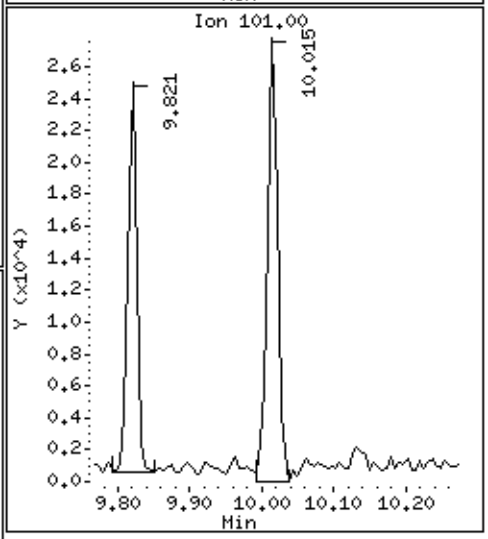
71 Pyrene

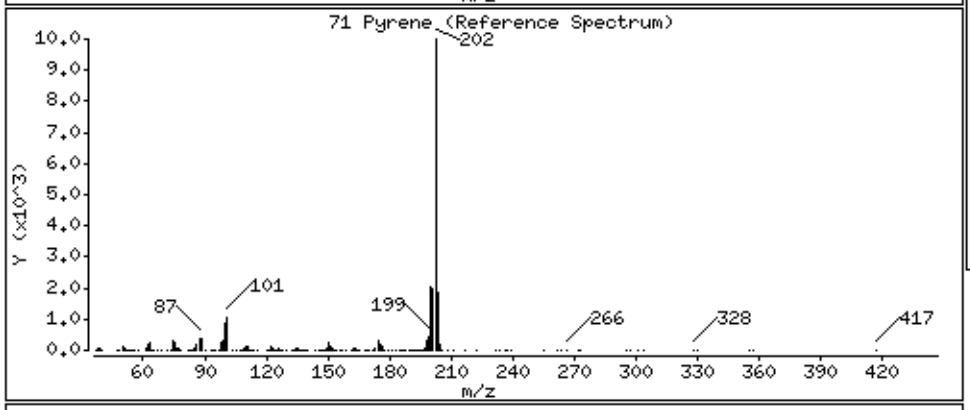
Concentration: 520 ug/Kg

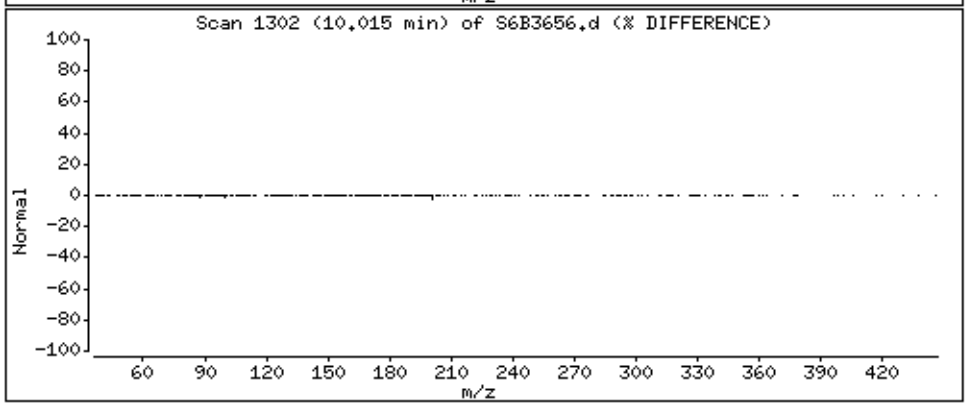












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

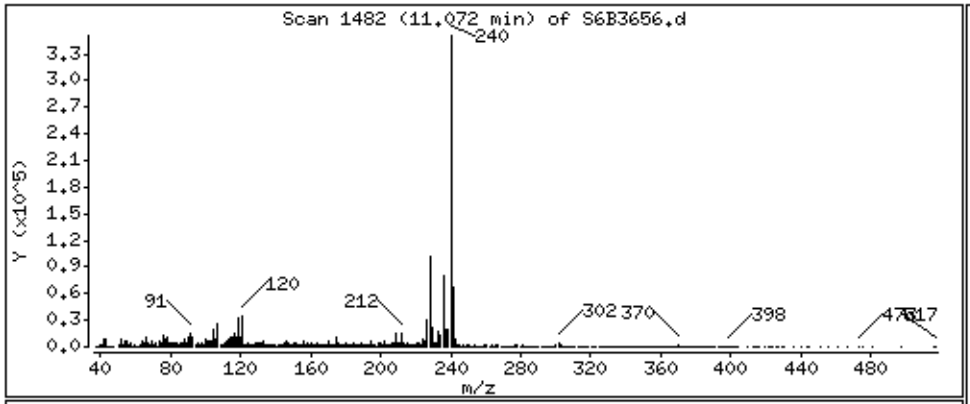
Operator: PK SRC: LIMS

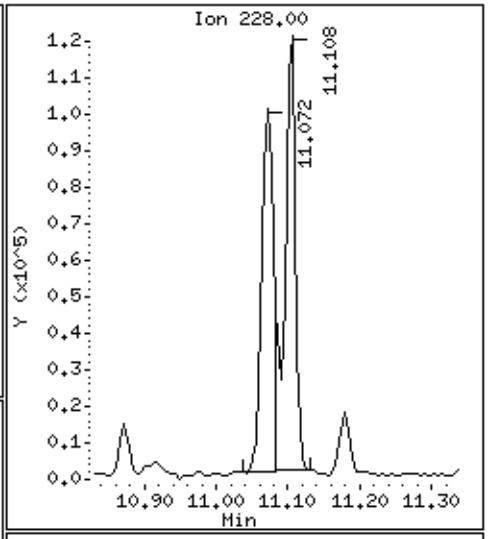
Column phase: Rxi-5Sil MS

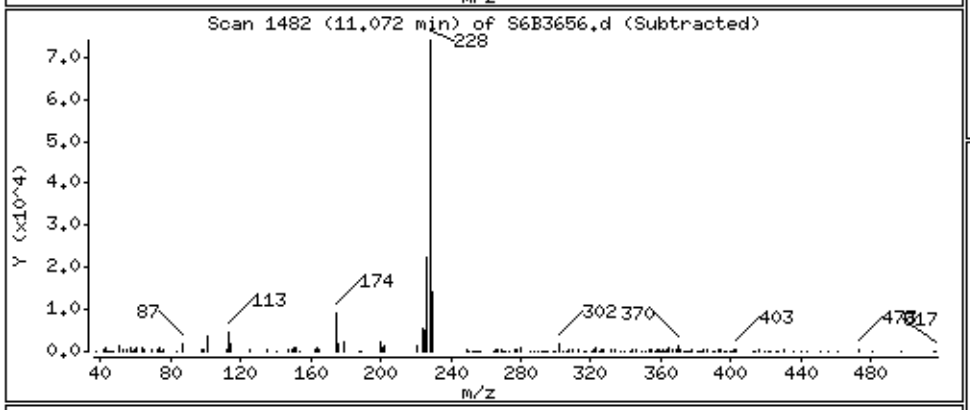
Column diameter: 0.25

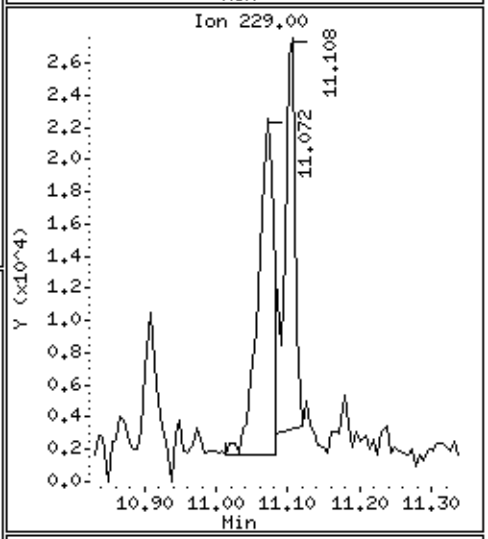
75 Benzo(a)anthracene

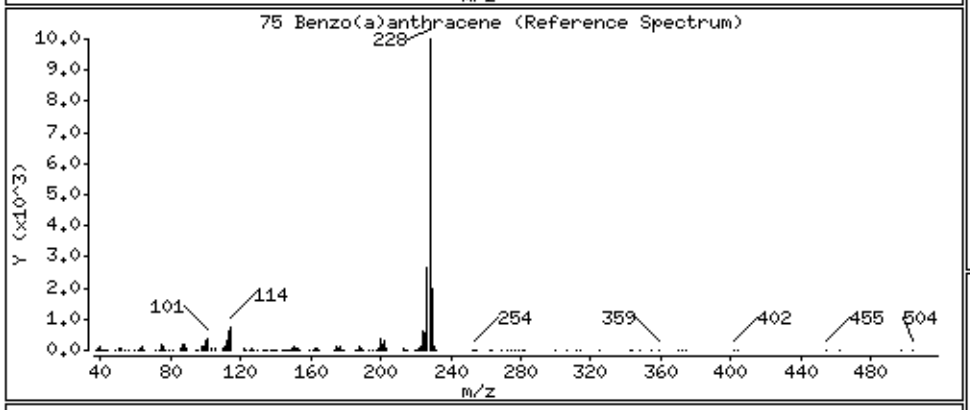
Concentration: 240 ug/Kg

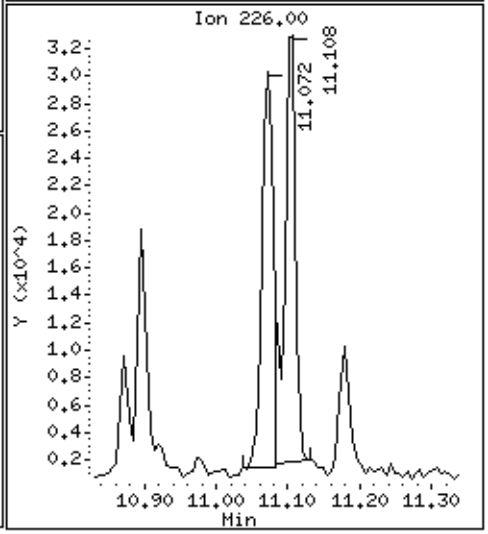


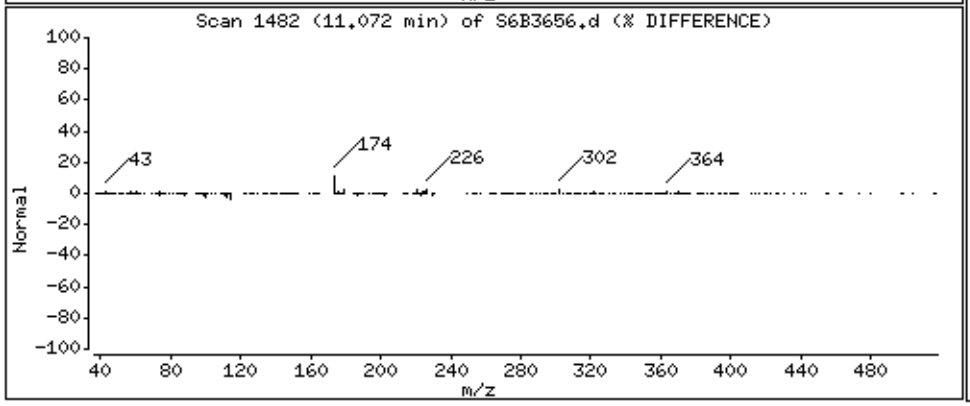












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

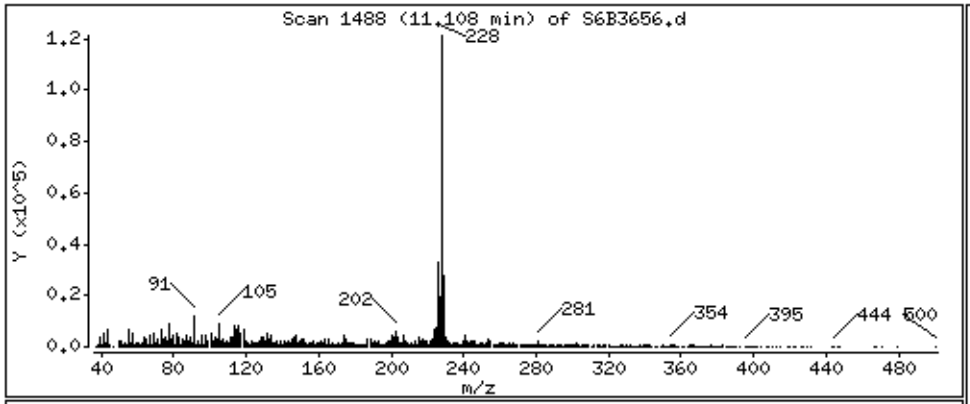
Operator: PK SRC: LIMS

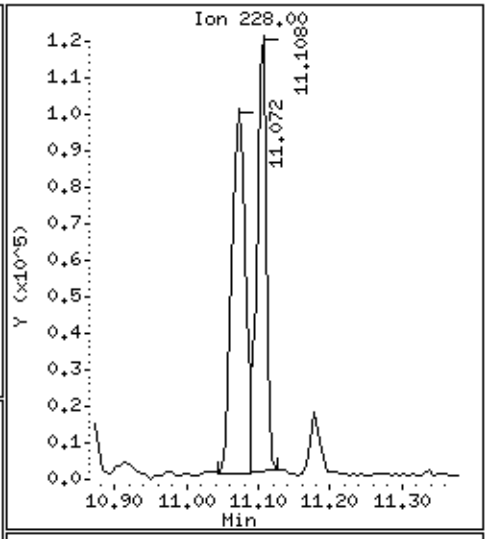
Column phase: Rxi-5Sil MS

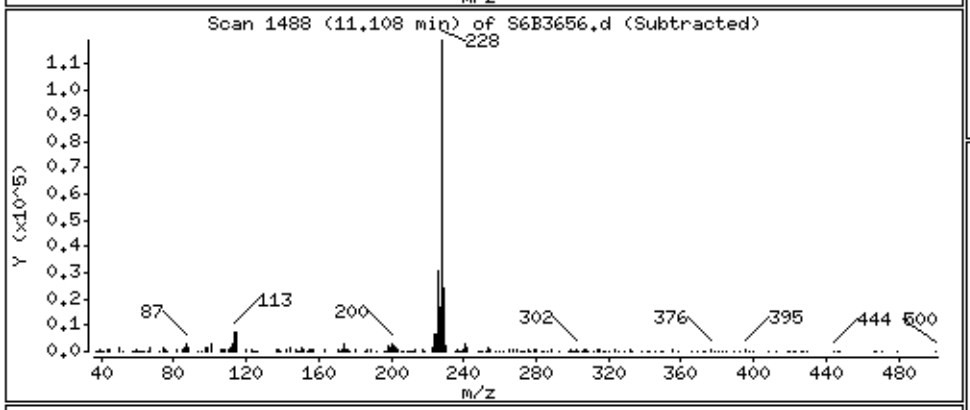
Column diameter: 0.25

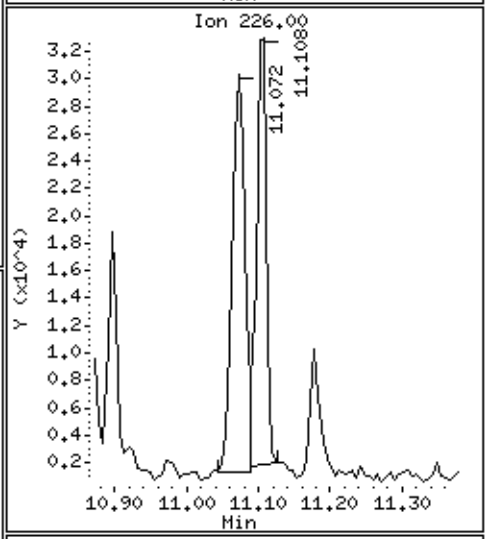
77 Chrysene

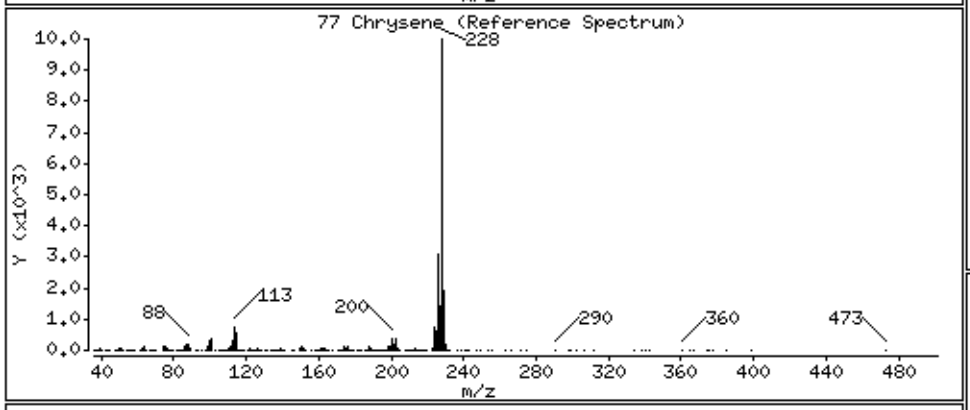
Concentration: 270 ug/Kg

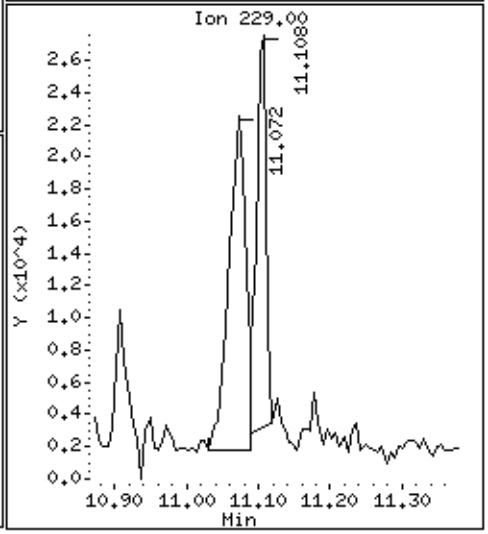


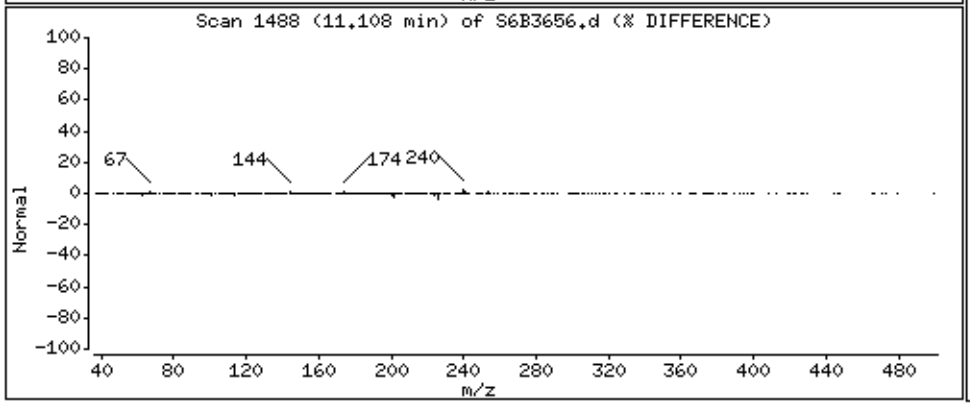












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

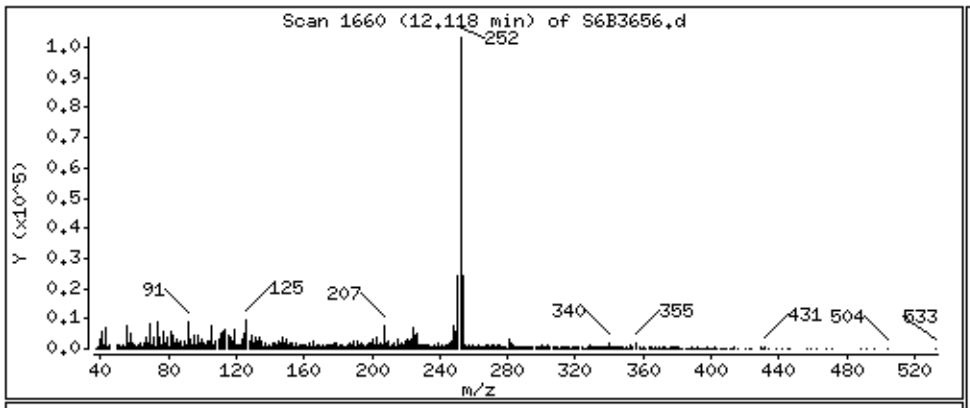
Operator: PK SRC: LIMS

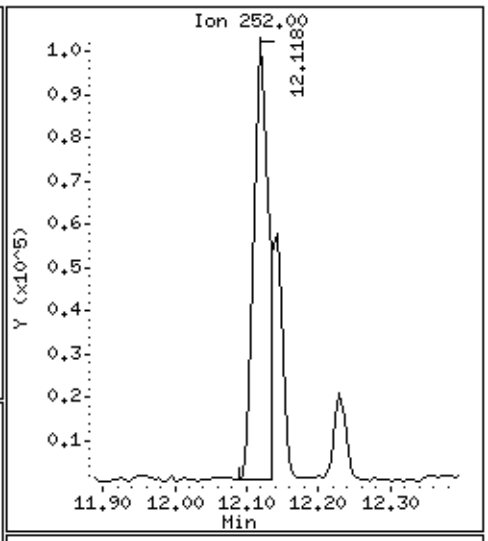
Column phase: Rxi-5Sil MS

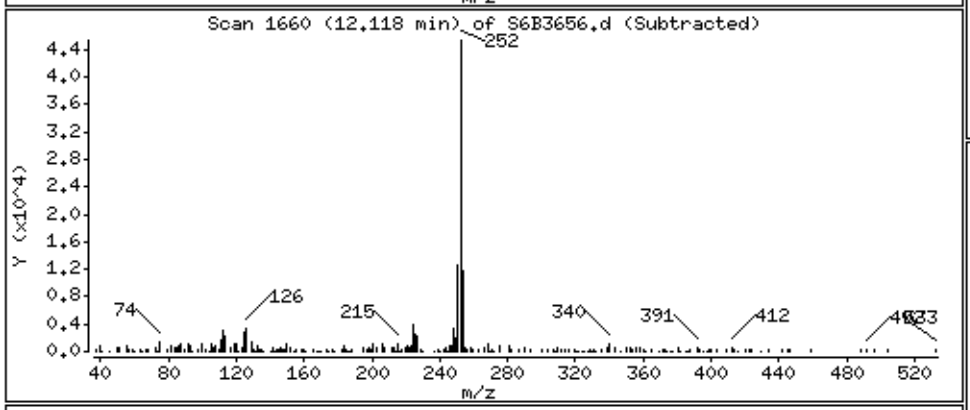
Column diameter: 0.25

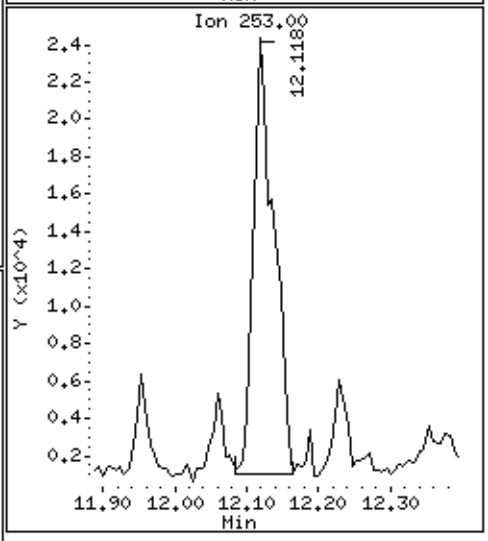
80 Benzo(b)fluoranthene

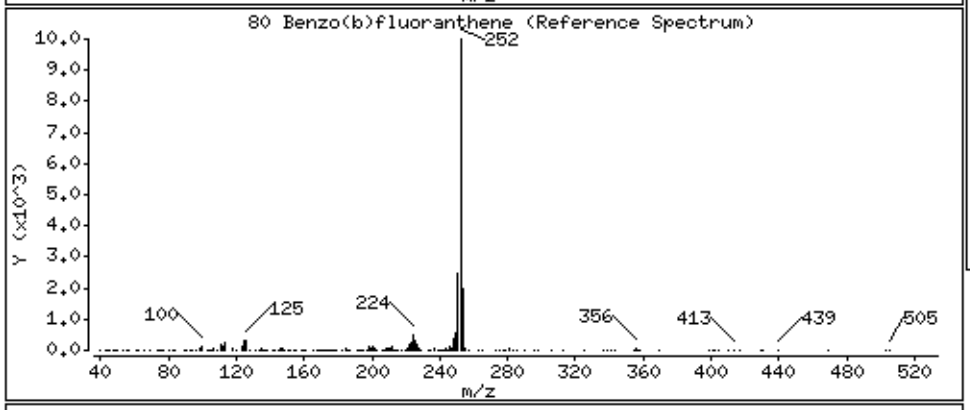
Concentration: 250 ug/Kg

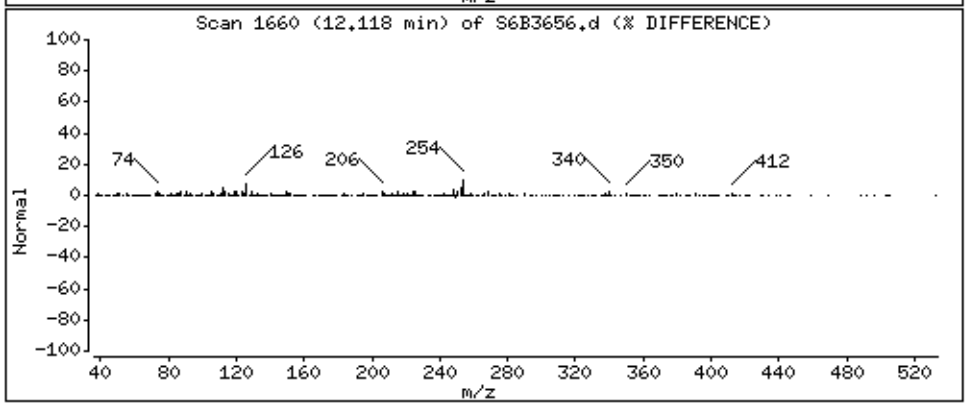












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

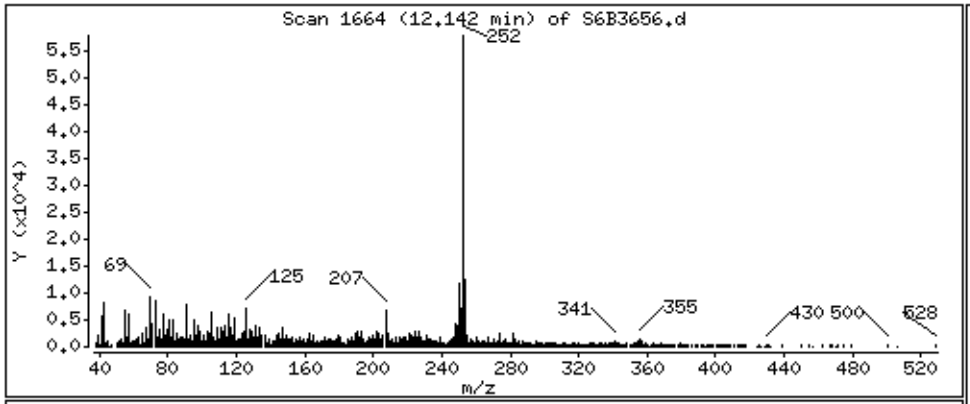
Operator: PK SRC: LIMS

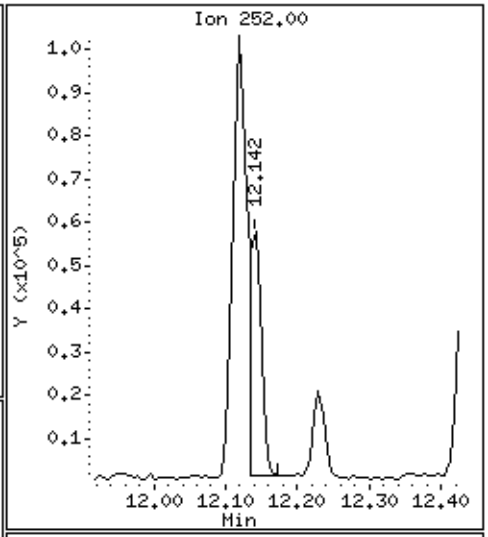
Column phase: Rxi-5Sil MS

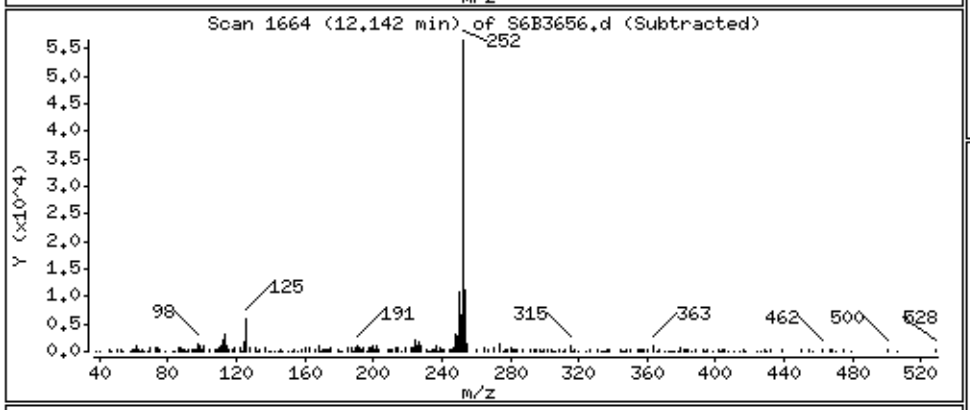
Column diameter: 0.25

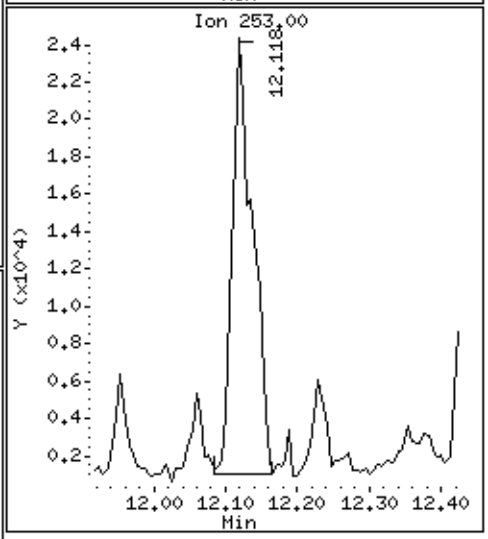
81 Benzo(k)fluoranthene

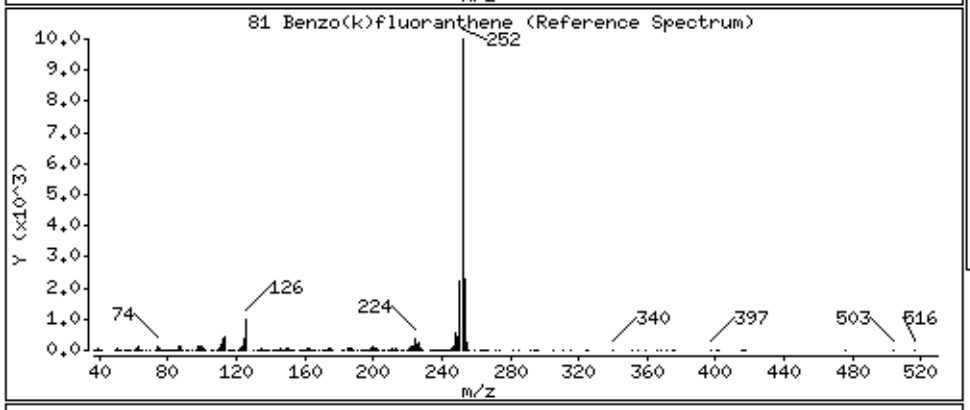
Concentration: 110 ug/Kg

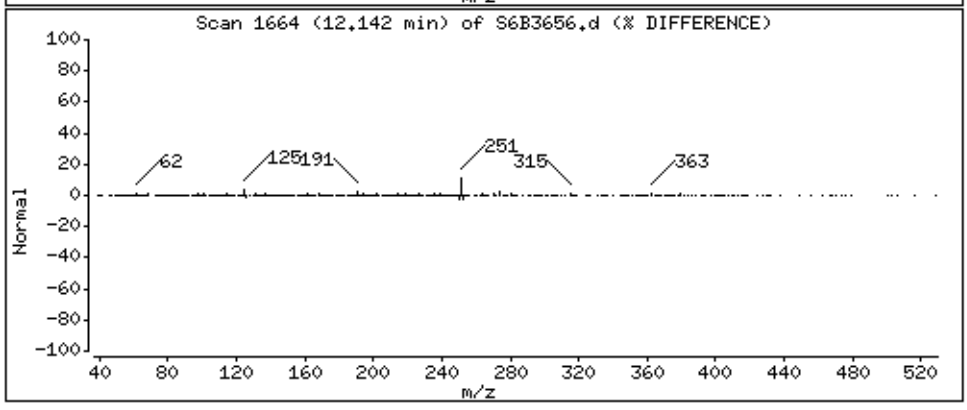












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

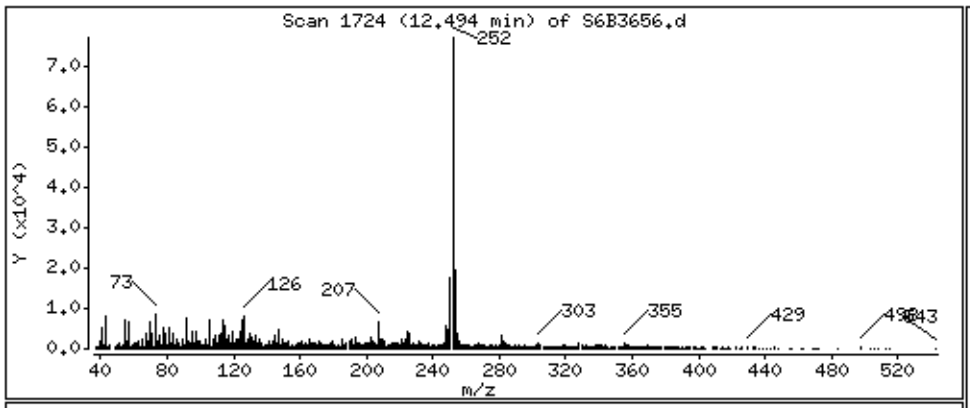
Operator: PK SRC: LIMS

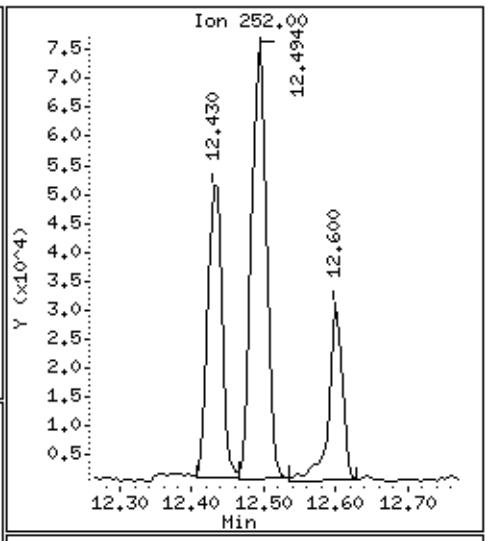
Column phase: Rxi-5Sil MS

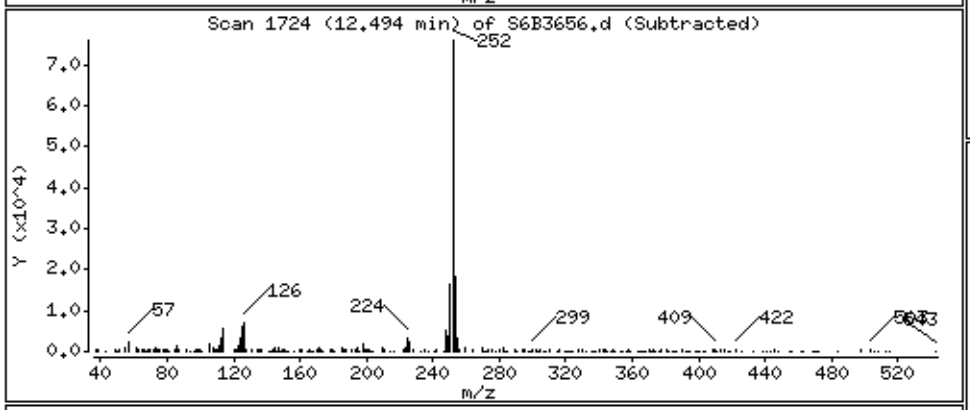
Column diameter: 0.25

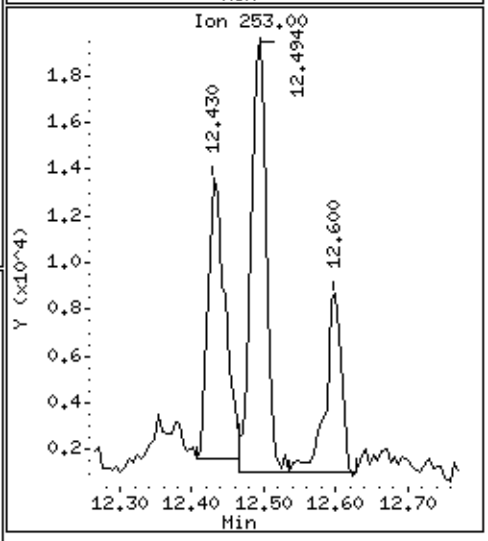
82 Benzo(a)pyrene

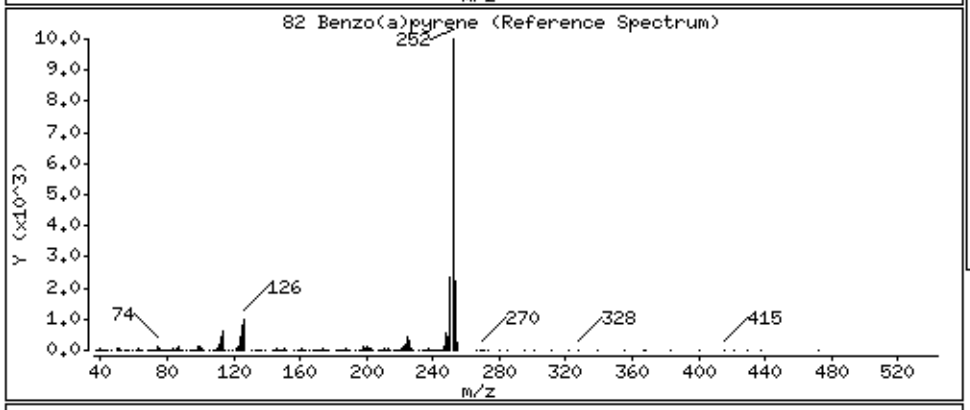
Concentration: 200 ug/Kg

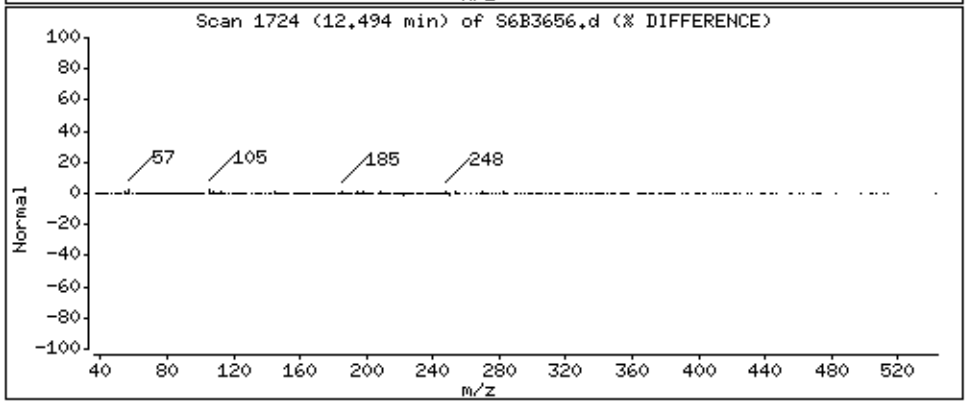












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

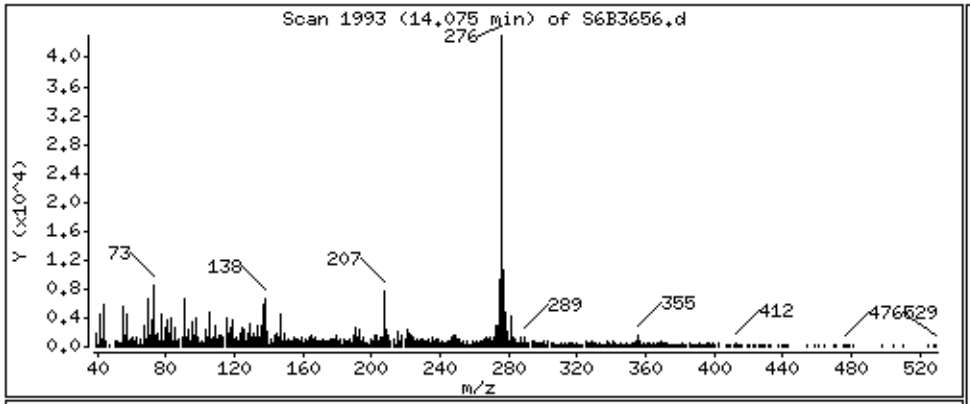
Client ID: SB-128 (18-20) Instrument: S6.i

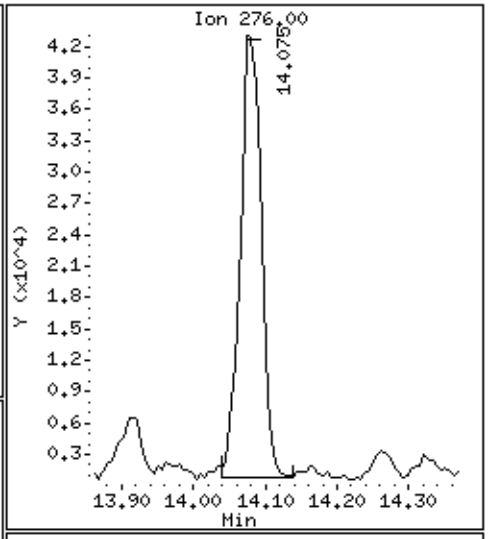
Sample Info: M0619-09A,,71418

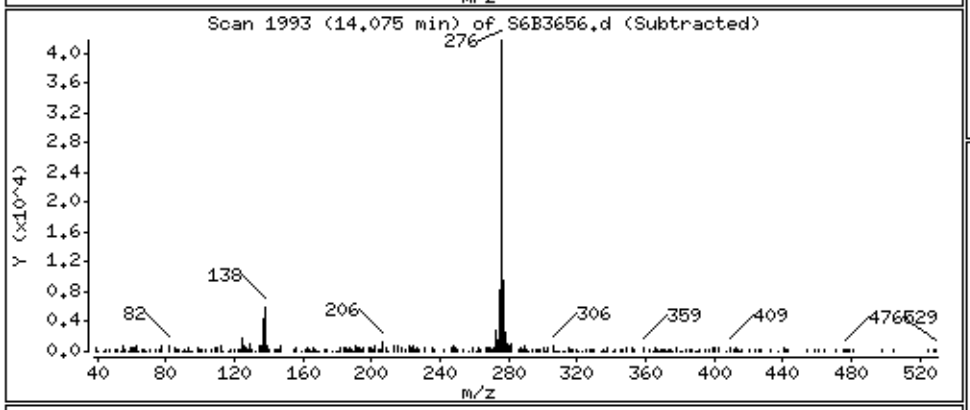
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

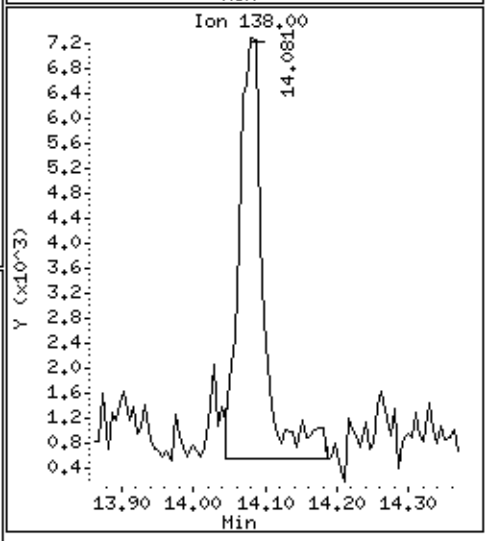
Column phase: Rxi-5Sil MS Column diameter: 0.25

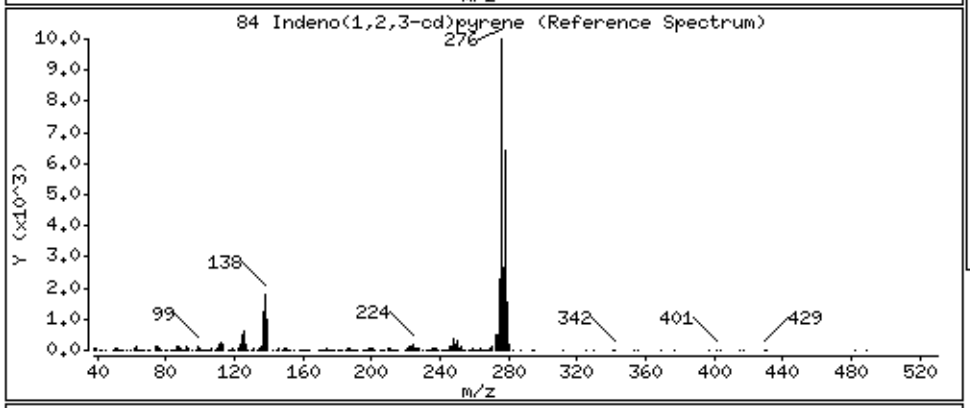
84 Indeno(1,2,3-cd)pyrene Concentration: 130 ug/Kg

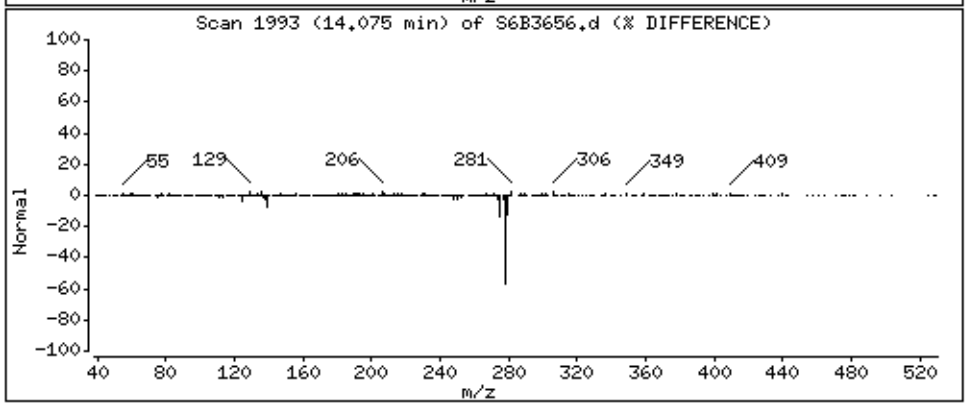












Data File: \\avogadro\organics\S6.I\130506.B\S6B3656.d

Date : 06-MAY-2013 21:04

Client ID: SB-128 (18-20)

Instrument: S6.i

Sample Info: M0619-09A,,71418

Volume Injected (uL): 1.0

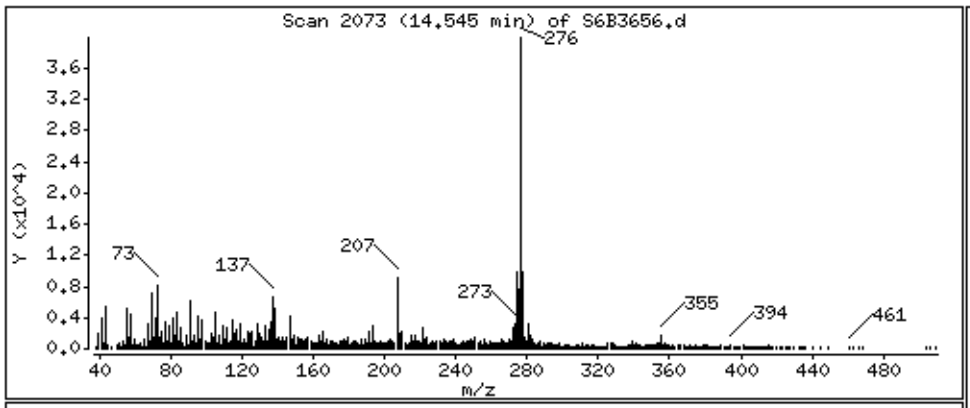
Operator: PK SRC: LIMS

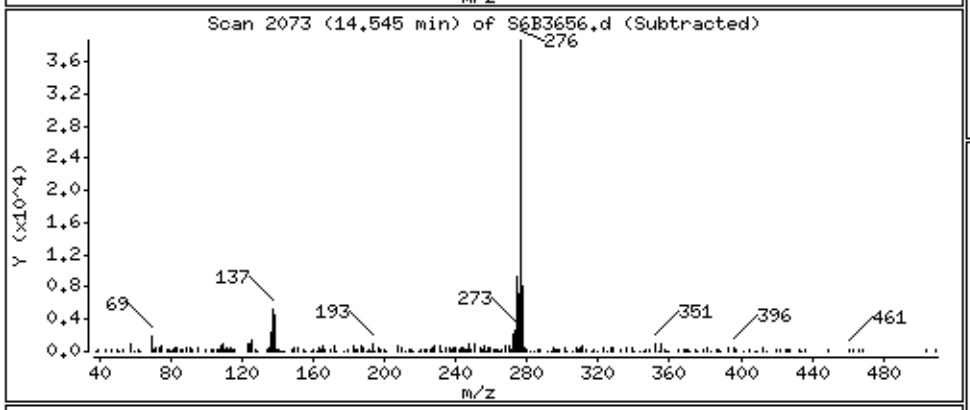
Column phase: Rxi-5Sil MS

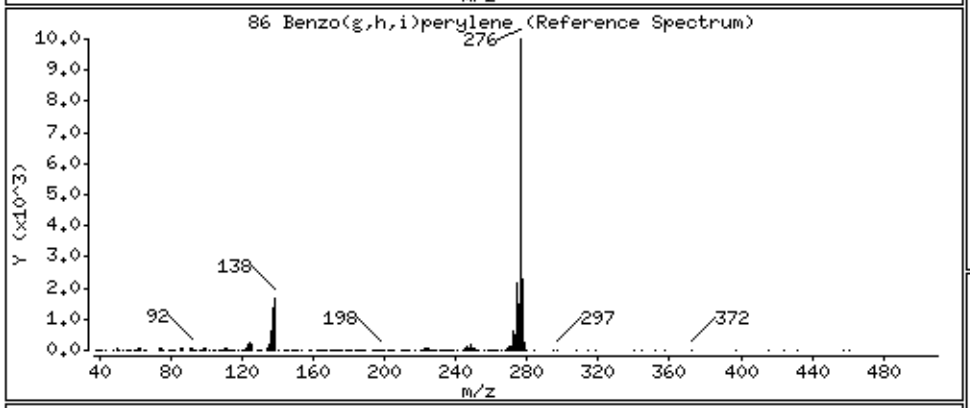
Column diameter: 0.25

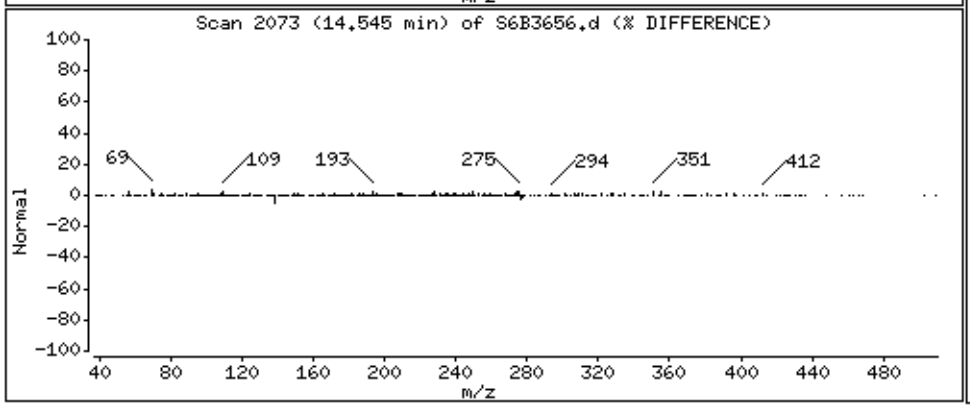
86 Benzo(g,h,i)perylene

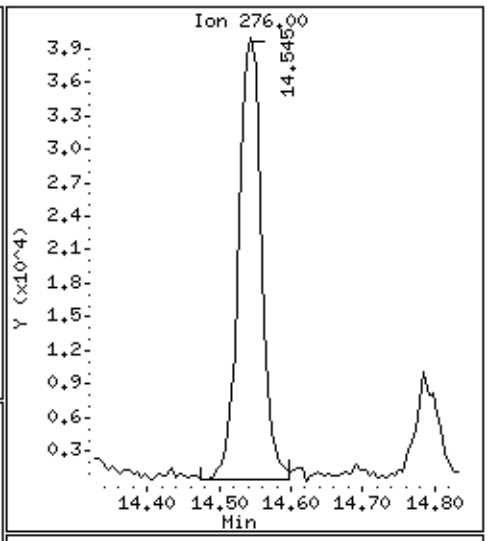
Concentration: 160 ug/Kg

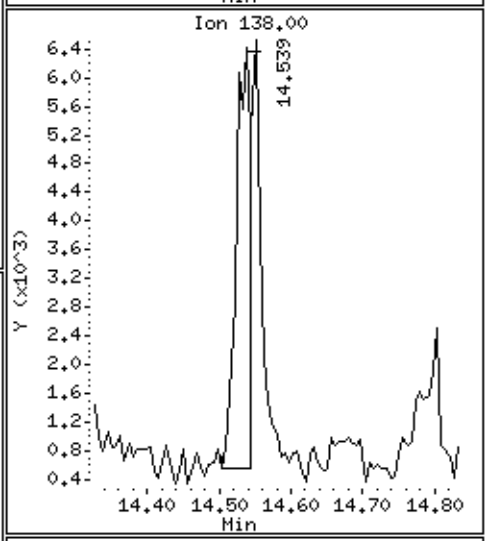


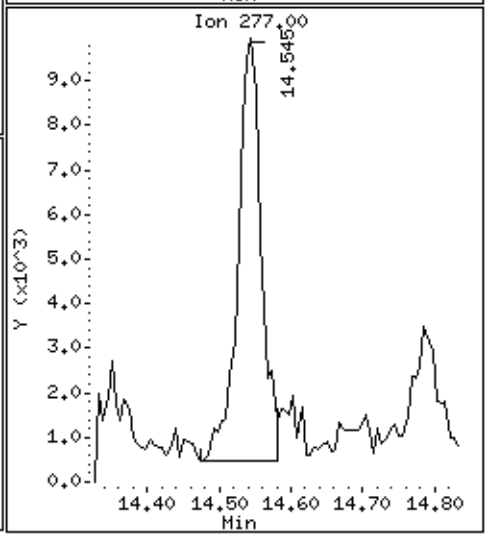












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-128 (18-20)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-09ADL

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3677.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 8.6 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 20.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	70000	D
91-57-6	2-Methylnaphthalene	8100	D
208-96-8	Acenaphthylene	7000	U
83-32-9	Acenaphthene	7000	U
86-73-7	Fluorene	7000	U
85-01-8	Phenanthrene	7000	U
120-12-7	Anthracene	7000	U
206-44-0	Fluoranthene	7000	U
129-00-0	Pyrene	7000	U
56-55-3	Benzo(a)anthracene	7000	U
218-01-9	Chrysene	7000	U
205-99-2	Benzo(b)fluoranthene	7000	U
207-08-9	Benzo(k)fluoranthene	7000	U
50-32-8	Benzo(a)pyrene	7000	U
193-39-5	Indeno(1,2,3-cd)pyrene	7000	U
53-70-3	Dibenzo(a,h)anthracene	7000	U
191-24-2	Benzo(g,h,i)perylene	7000	U

Data File: \\avogadro\organics\S6.I\130507.B\S6B3677.d
Report Date: 08-May-2013 10:56

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3677.d
Lab Smp Id: M0619-09ADL Client Smp ID: SB-128 (18-20)DL
Inj Date : 07-MAY-2013 13:38
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-09ADL,,71418,,20
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130507.B\S6_8270C_N.m
Meth Date : 07-May-2013 13:08 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 7
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

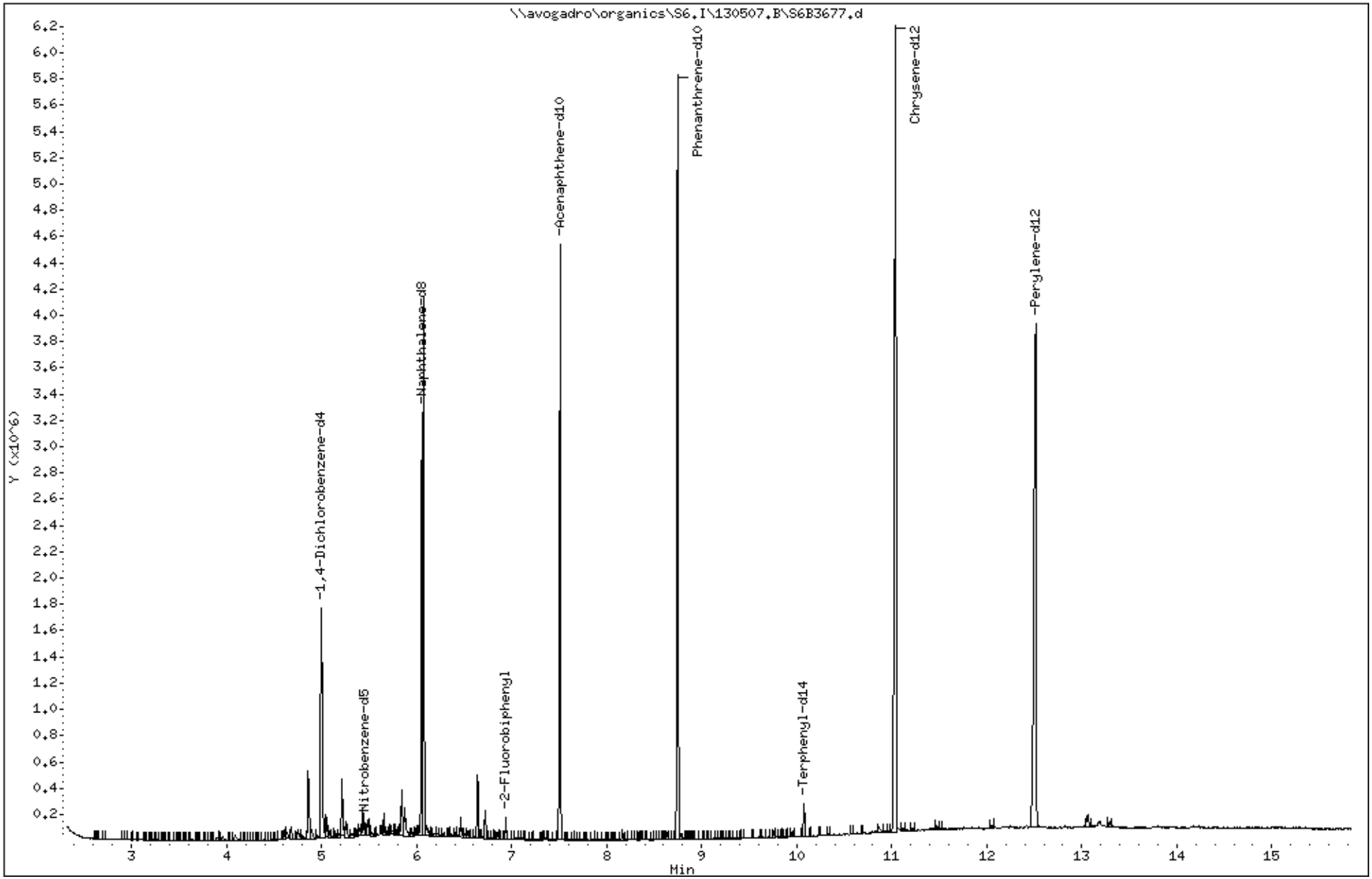
Name	Value	Description
DF	20.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	4.999	4.999	(1.000)	277560	40.0000	
$ 22 Nitrobenzene-d5	82	5.458	5.464	(0.901)	15395	1.50951	2000(a)
* 31 Naphthalene-d8	136	6.057	6.057	(1.000)	1141334	40.0000	
32 Naphthalene	128	6.075	6.075	(1.003)	1219584	49.2929	64000
36 2-Methylnaphthalene	142	6.639	6.645	(1.096)	107689	5.67852	7400(a)
$ 41 2-Fluorobiphenyl	172	6.938	6.944	(0.924)	37674	1.51706	2000(a)
* 48 Acenaphthene-d10	164	7.508	7.514	(1.000)	850209	40.0000	
* 64 Phenanthrene-d10	188	8.748	8.748	(1.000)	1818873	40.0000	
$ 72 Terphenyl-d14	244	10.076	10.082	(0.913)	62068	1.62977	2100(a)
* 76 Chrysene-d12	240	11.040	11.039	(1.000)	2538228	40.0000	
* 83 Perylene-d12	264	12.514	12.508	(1.000)	2543963	40.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\S6.I\130507.B\S6B3677.d
Date : 07-MAY-2013 13:38
Client ID: SB-128 (18-20)DL
Instrument: S6.i
Sample Info: M0619-09ADL,,71418,,20
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3677.d

Date : 07-MAY-2013 13:38

Client ID: SB-128 (18-20)DL

Instrument: S6.i

Sample Info: M0619-09ADL,,71418,,20

Volume Injected (uL): 1.0

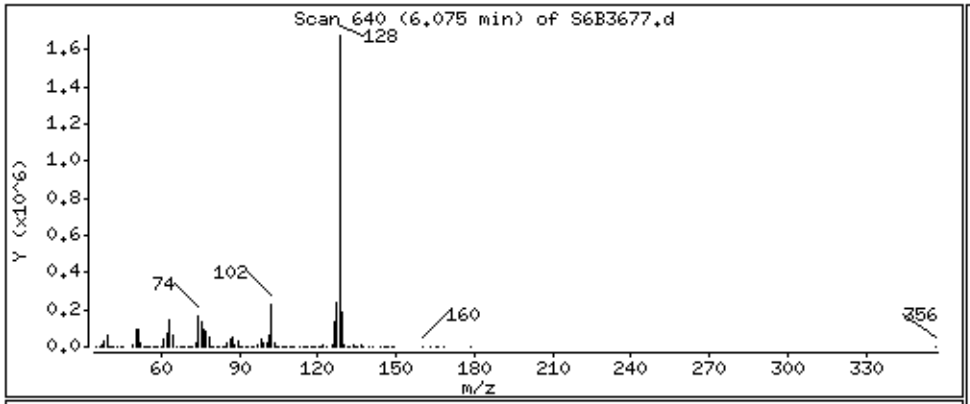
Operator: PK SRC: LIMS

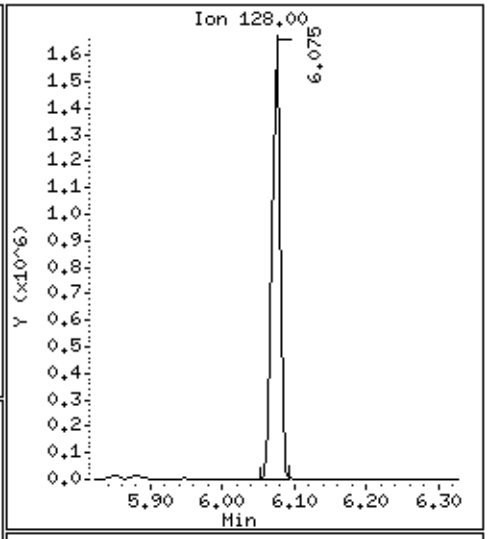
Column phase: Rxi-5Sil MS

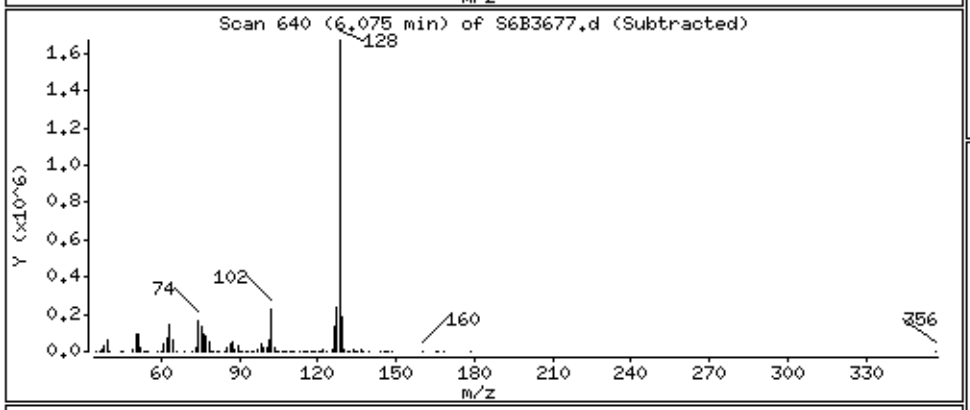
Column diameter: 0.25

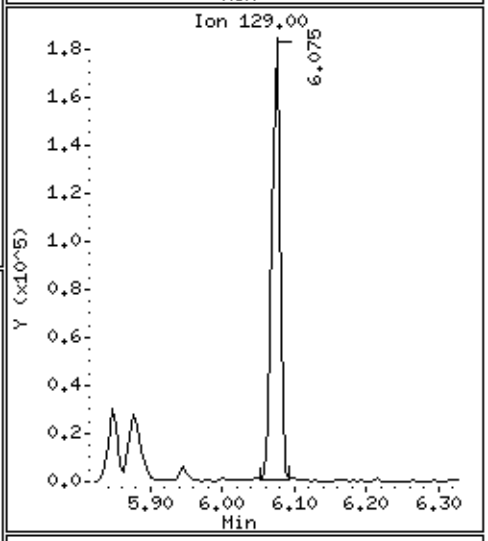
32 Naphthalene

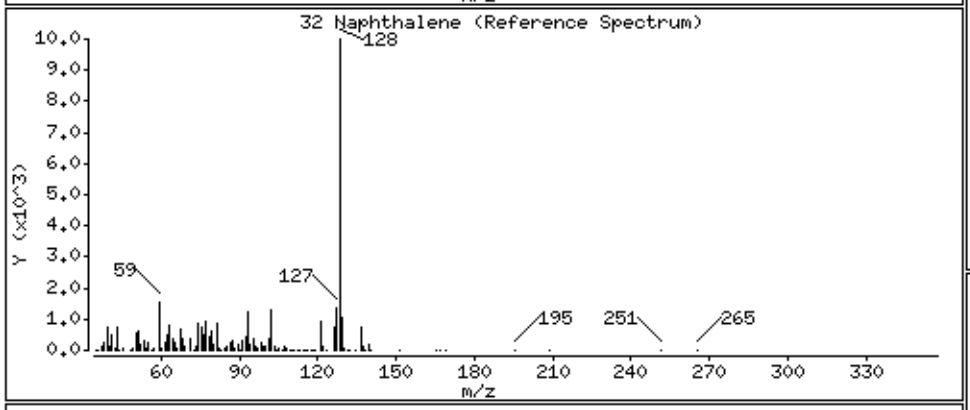
Concentration: 64000 ug/Kg

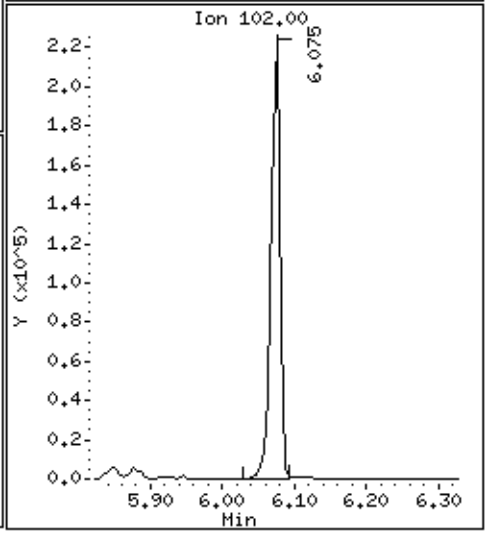


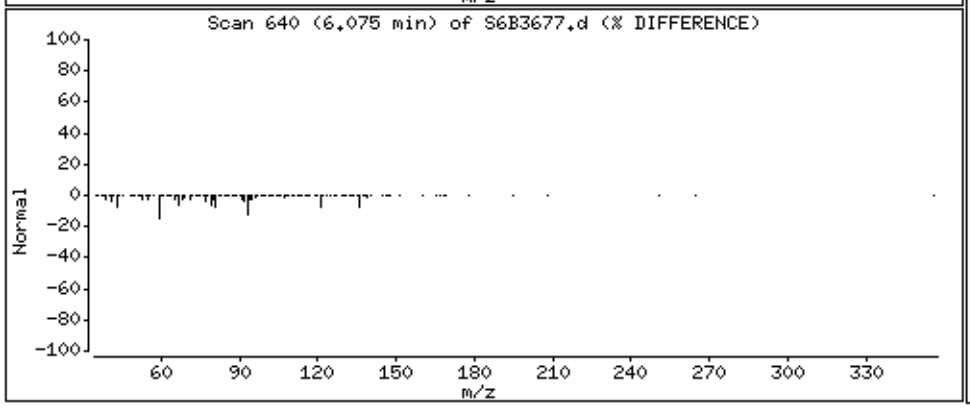












Data File: \\avogadro\organics\S6.I\130507.B\S6B3677.d

Date : 07-MAY-2013 13:38

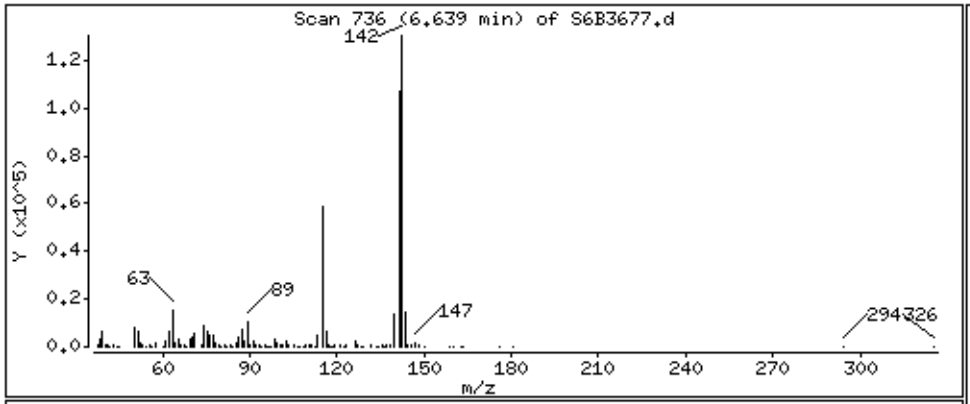
Client ID: SB-128 (18-20)DL Instrument: S6.i

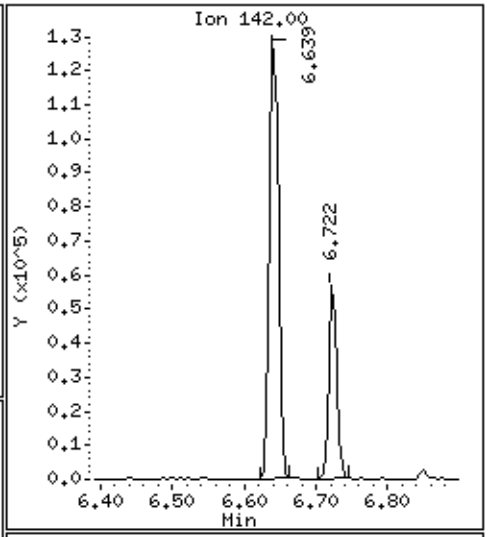
Sample Info: M0619-09ADL,,71418,,20

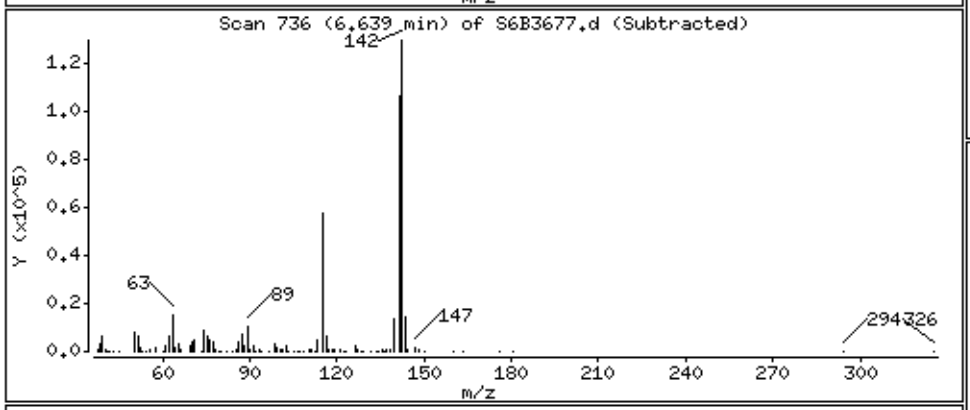
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

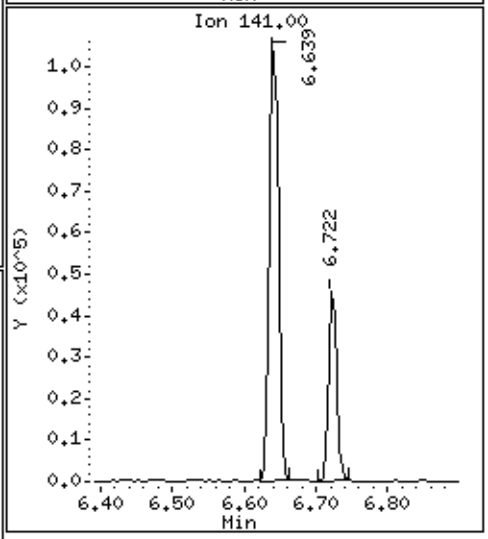
Column phase: Rxi-5Sil MS Column diameter: 0.25

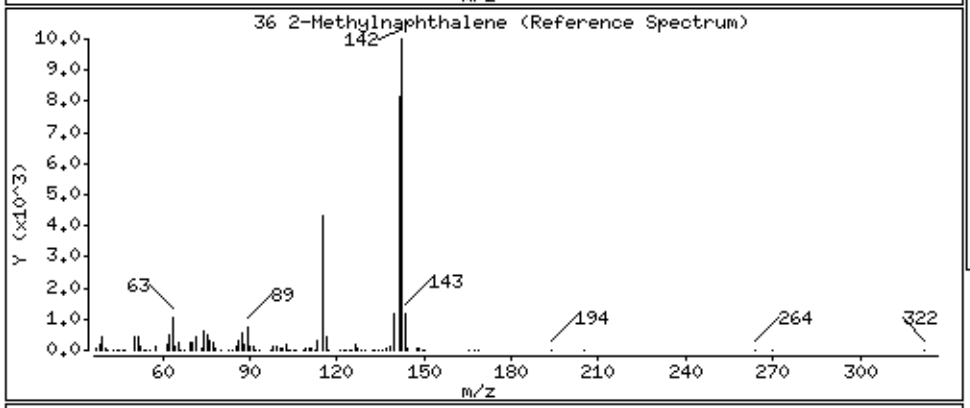
36 2-Methylnaphthalene Concentration: 7400 ug/Kg

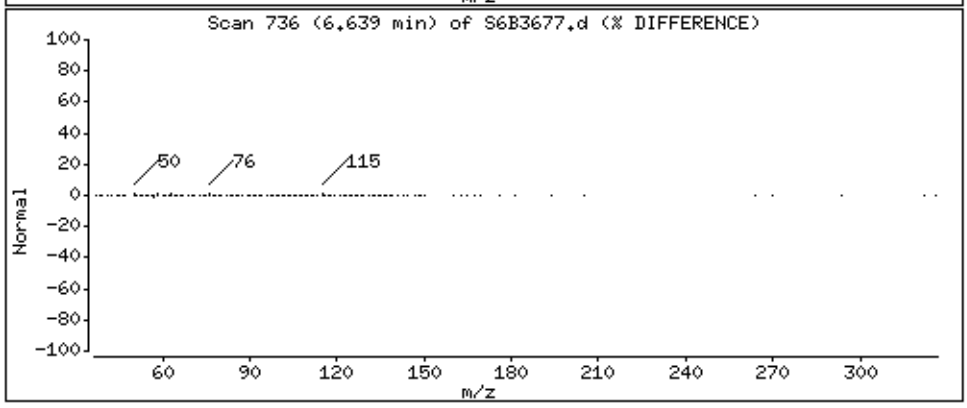












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-129 (1-3)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-10A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3657.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 15 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	390	U
91-57-6	2-Methylnaphthalene	390	U
208-96-8	Acenaphthylene	390	U
83-32-9	Acenaphthene	120	J
86-73-7	Fluorene	150	J
85-01-8	Phenanthrene	2700	
120-12-7	Anthracene	150	J
206-44-0	Fluoranthene	3500	
129-00-0	Pyrene	2800	
56-55-3	Benzo(a)anthracene	980	
218-01-9	Chrysene	1600	
205-99-2	Benzo(b)fluoranthene	1400	
207-08-9	Benzo(k)fluoranthene	620	
50-32-8	Benzo(a)pyrene	890	
193-39-5	Indeno(1,2,3-cd)pyrene	570	
53-70-3	Dibenzo(a,h)anthracene	180	J
191-24-2	Benzo(g,h,i)perylene	600	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3657.d
Lab Smp Id: M0619-10A Client Smp ID: SB-129 (1-3)
Inj Date : 06-MAY-2013 21:26
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-10A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	292002	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	398185	43.5051	2900	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	1024271	40.0000		
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	856521	43.5434	2900	
*	48 Acenaphthene-d10	164	7.570	7.570	(1.000)	673444	40.0000		
	49 Acenaphthene	153	7.588	7.599	(1.002)	26670	1.53525	100(a)	
	55 Fluorene	166	8.017	8.022	(1.059)	41575	1.95619	130(a)	
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1329876	40.0000		
	65 Phenanthrene	178	8.827	8.827	(1.003)	1031220	33.9270	2200	
	66 Anthracene	178	8.863	8.868	(1.007)	59722	1.91121	130(a)	
	69 Fluoranthene	202	9.826	9.826	(1.116)	1657484	44.5581	3000	
	71 Pyrene	202	10.020	10.020	(0.904)	1244800	35.9328	2400	
$	72 Terphenyl-d14	244	10.138	10.138	(0.915)	1254237	50.4524	3300	
	75 Benzo(a)anthracene	228	11.072	11.083	(0.999)	479253	12.5555	830	
*	76 Chrysene-d12	240	11.084	11.101	(1.000)	1656861	40.0000		
	77 Chrysene	228	11.107	11.125	(1.002)	655172	20.5225	1400	
	80 Benzo(b)fluoranthene	252	12.124	12.141	(0.964)	757412	18.3777	1200(M)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.147	12.170	(0.965)	303990	7.86910	520(aQM)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.500	12.517	(0.993)	419854	11.4133	760	

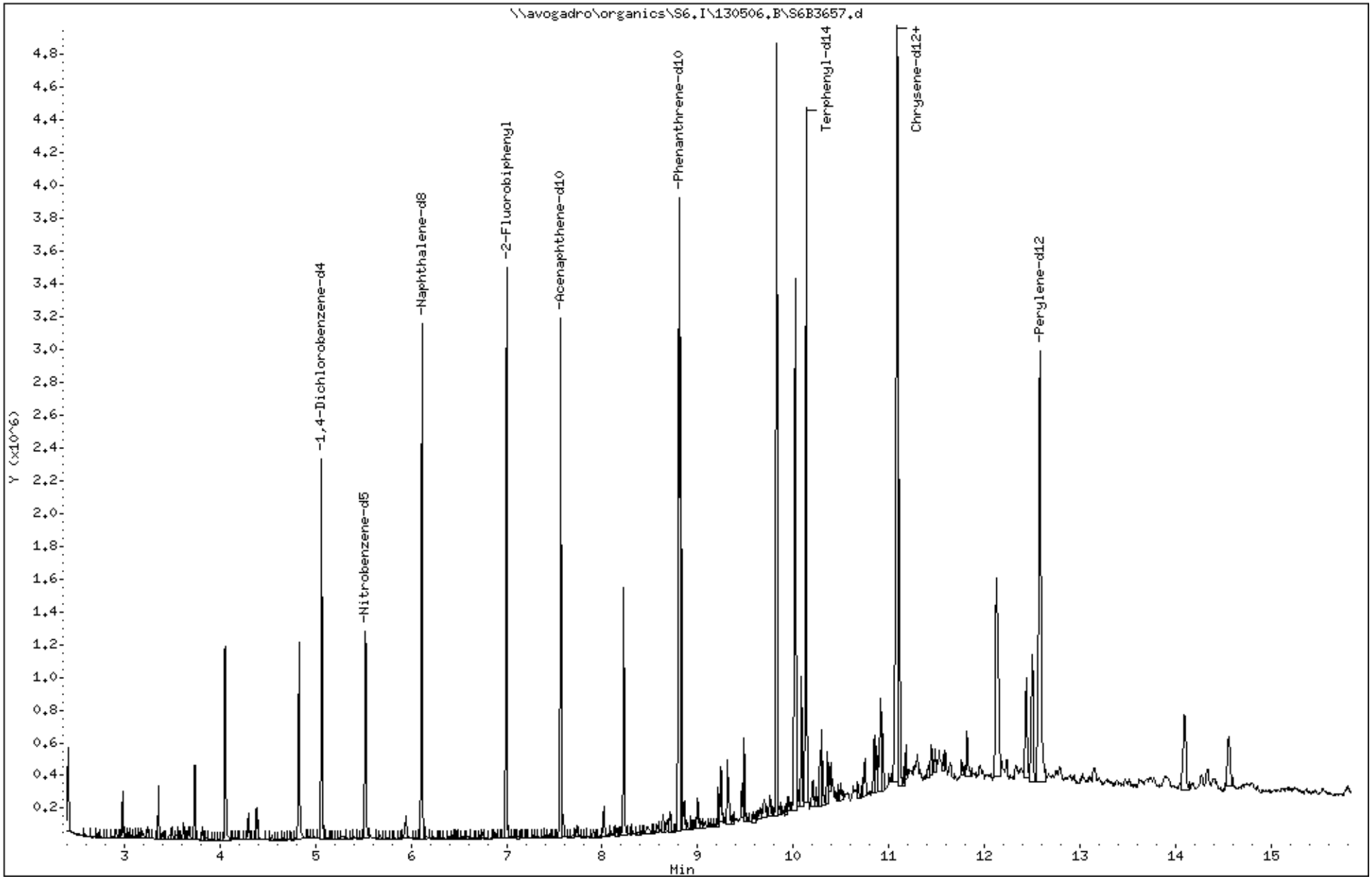
Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d
Report Date: 07-May-2013 10:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 83 Perylene-d12	264	12.582	12.593	(1.000)	1576647	40.0000	
84 Indeno(1,2,3-cd)pyrene	276	14.092	14.115	(1.120)	329581	7.22987	480(a)
85 Dibenzo(a,h)anthracene	278	14.104	14.133	(1.121)	89534	2.35836	160(a)
86 Benzo(g,h,i)perylene	276	14.556	14.579	(1.157)	284936	7.68577	510(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d
Date : 06-MAY-2013 21:26
Client ID: SB-129 (1-3)
Instrument: S6.i
Sample Info: M0619-10A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

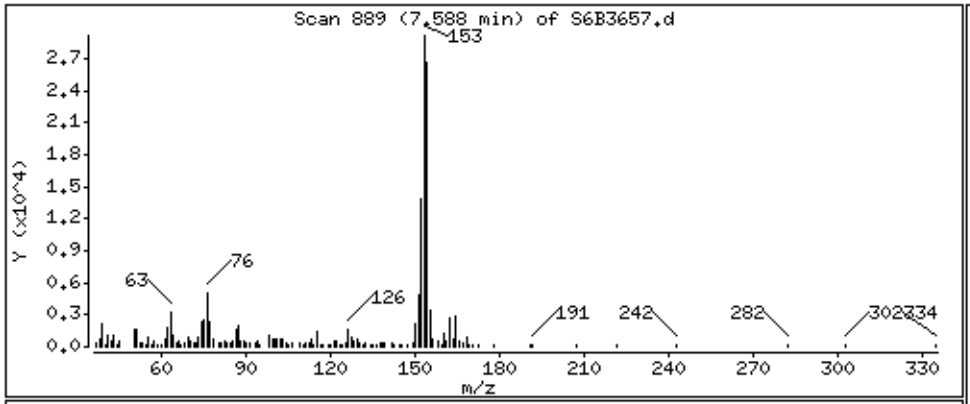
Operator: PK SRC: LIMS

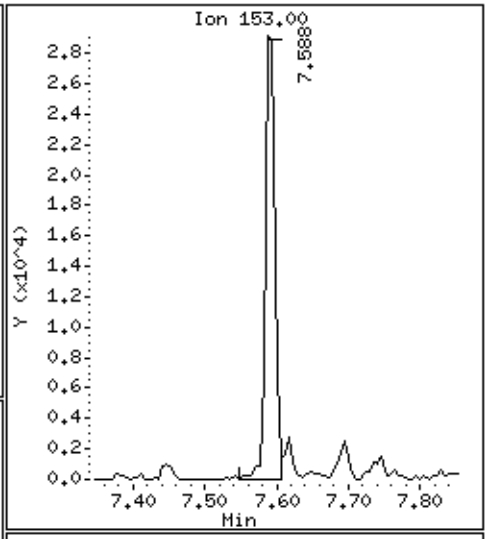
Column phase: Rxi-5Sil MS

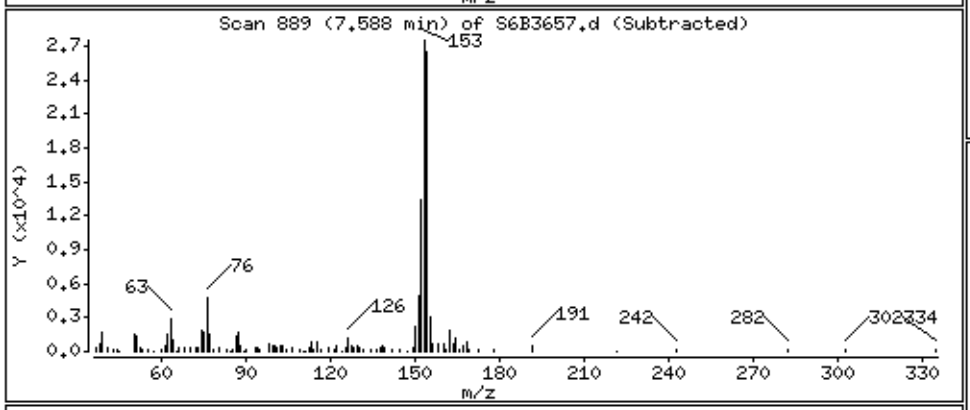
Column diameter: 0.25

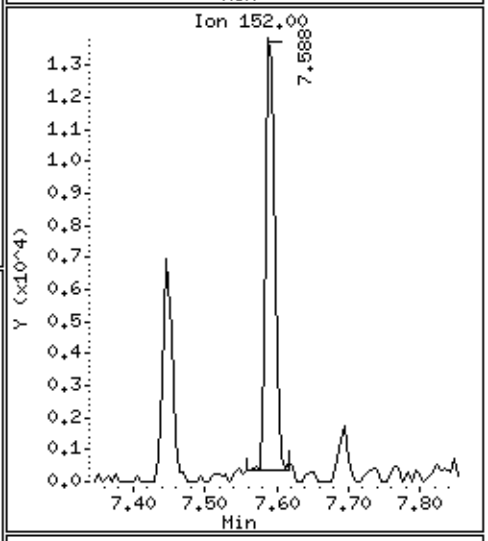
49 Acenaphthene

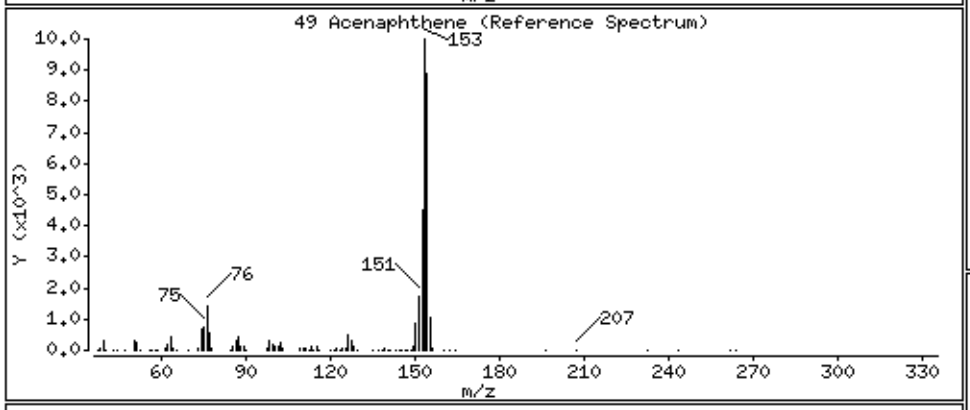
Concentration: 100 ug/Kg

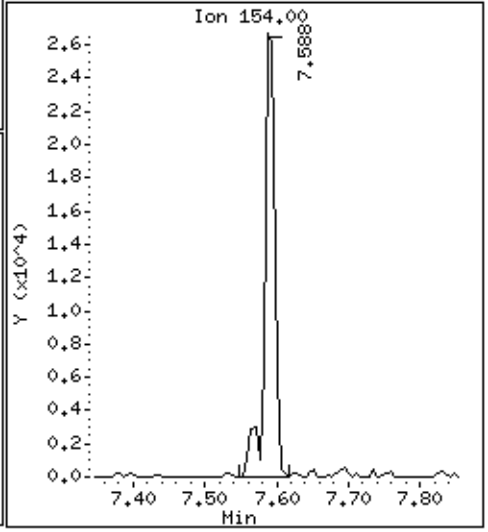


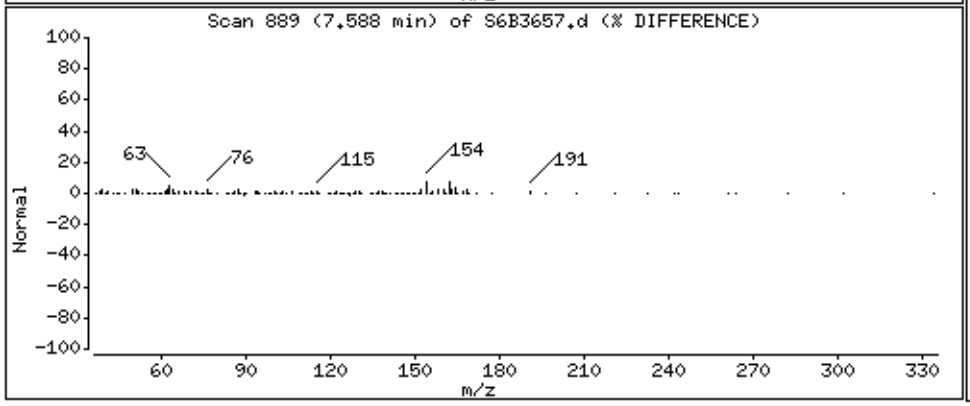












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

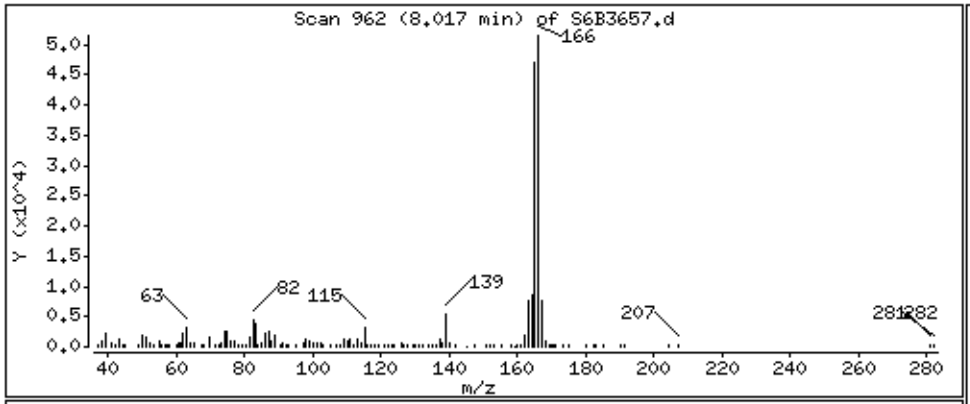
Operator: PK SRC: LIMS

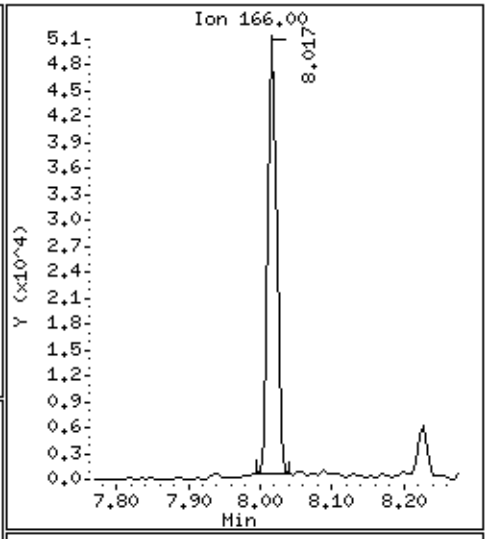
Column phase: Rxi-5Sil MS

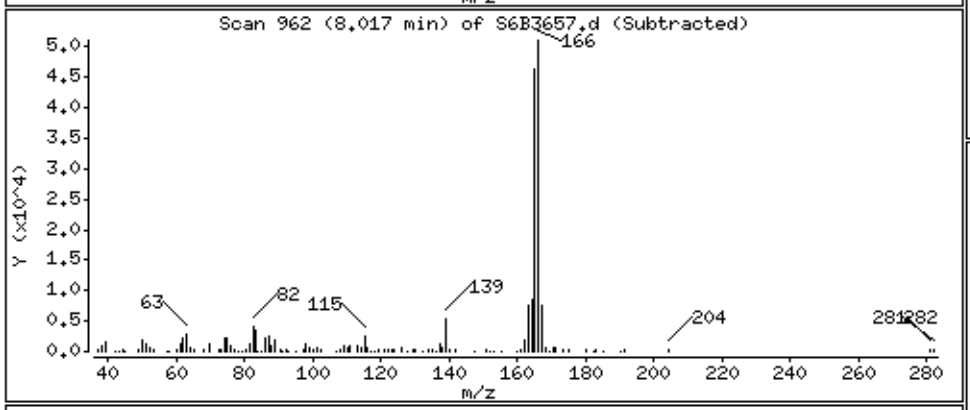
Column diameter: 0.25

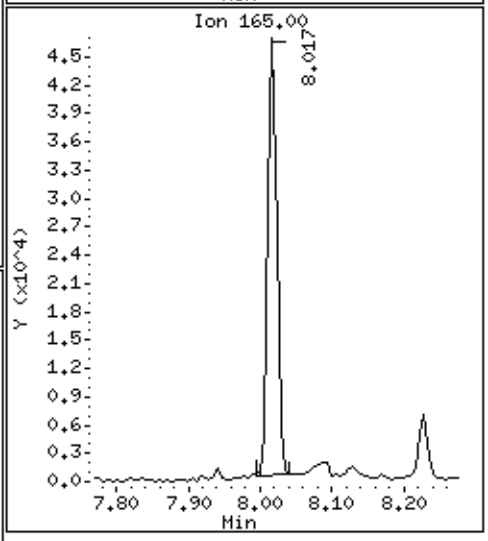
55 Fluorene

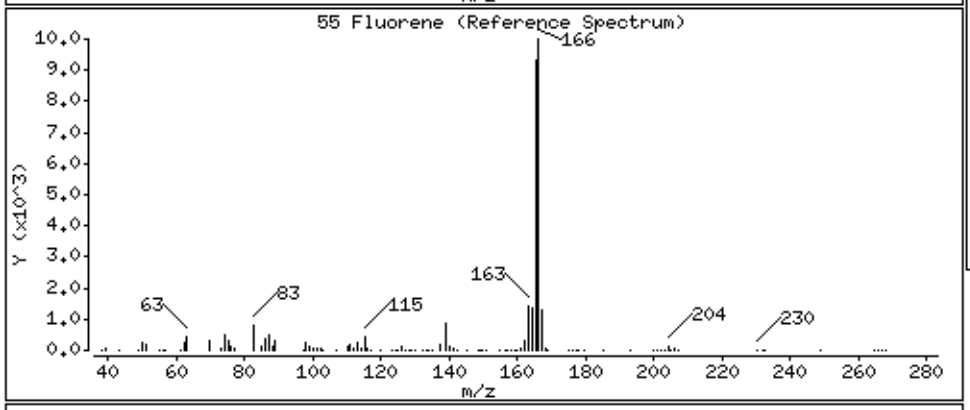
Concentration: 130 ug/Kg

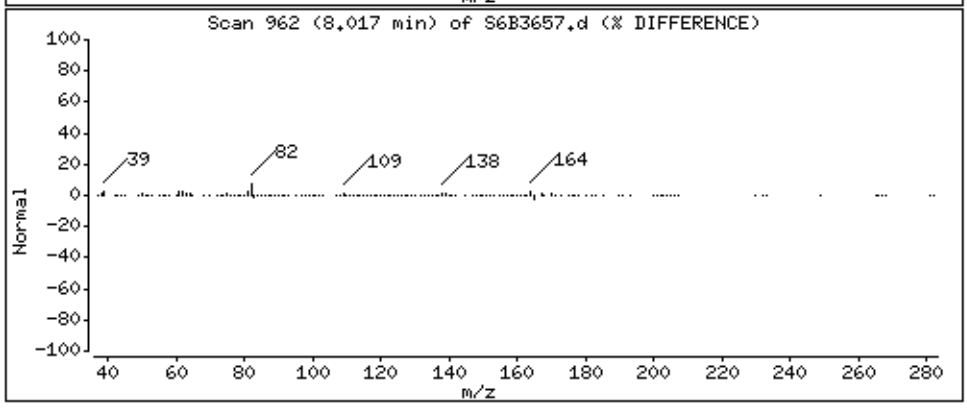












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

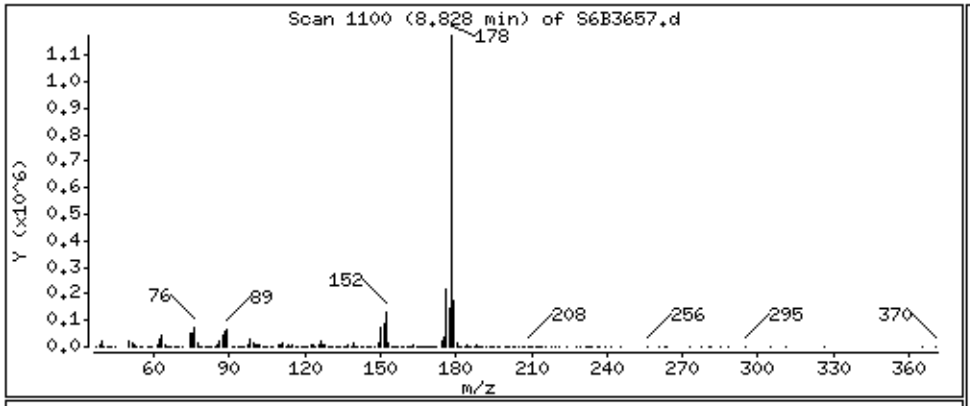
Operator: PK SRC: LIMS

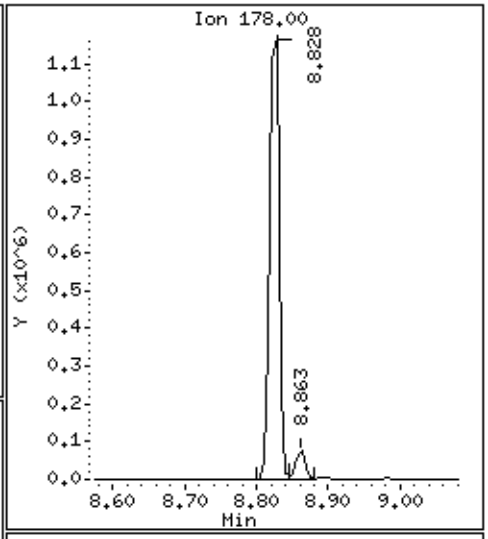
Column phase: Rxi-5Sil MS

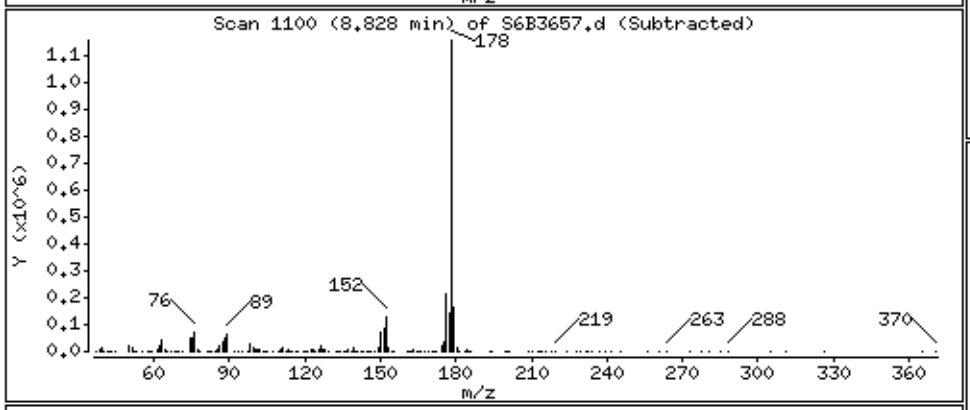
Column diameter: 0.25

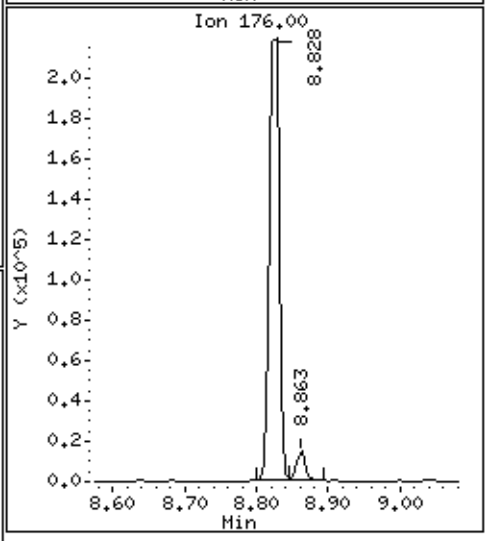
65 Phenanthrene

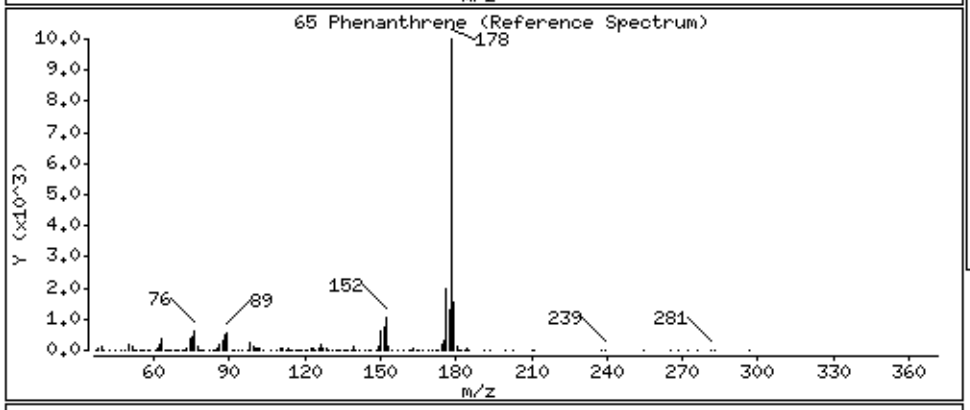
Concentration: 2200 ug/Kg

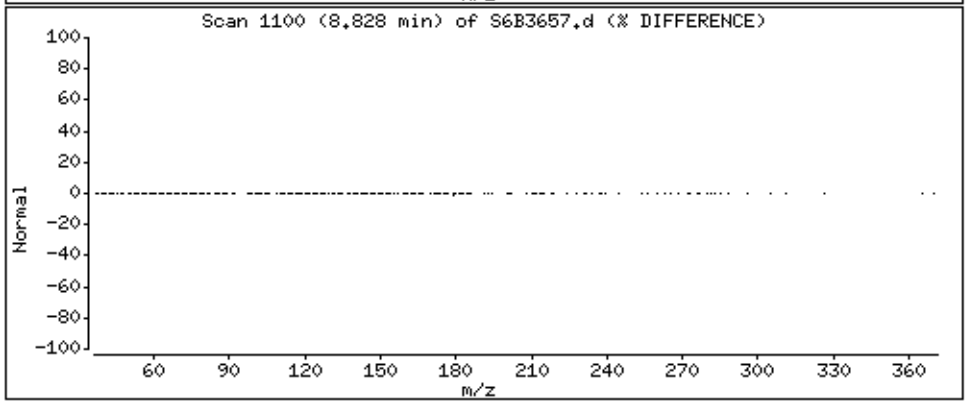












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

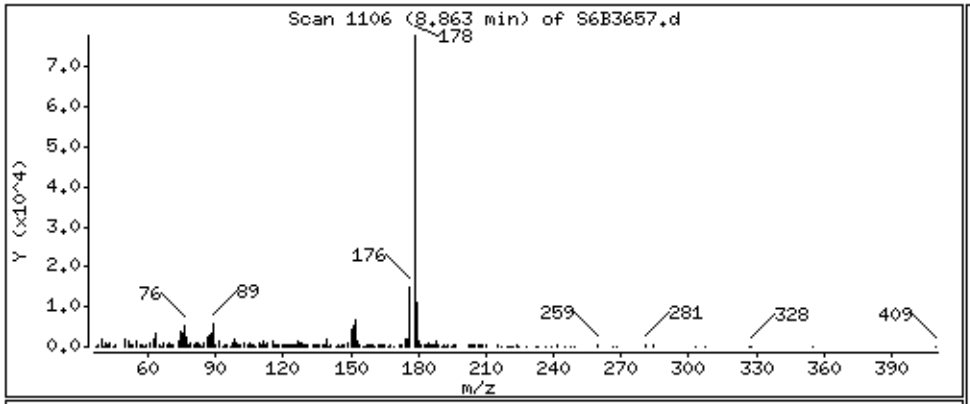
Operator: PK SRC: LIMS

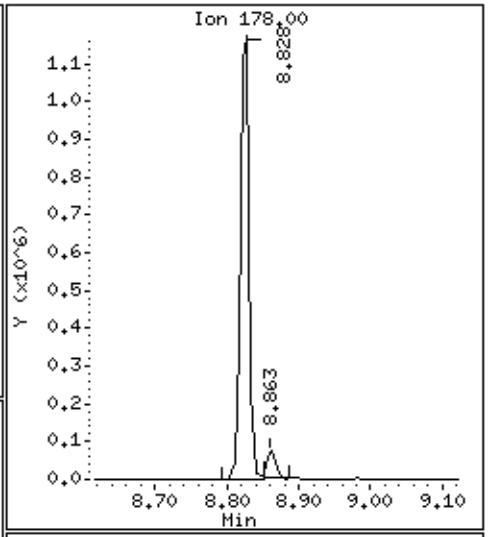
Column phase: Rxi-5Sil MS

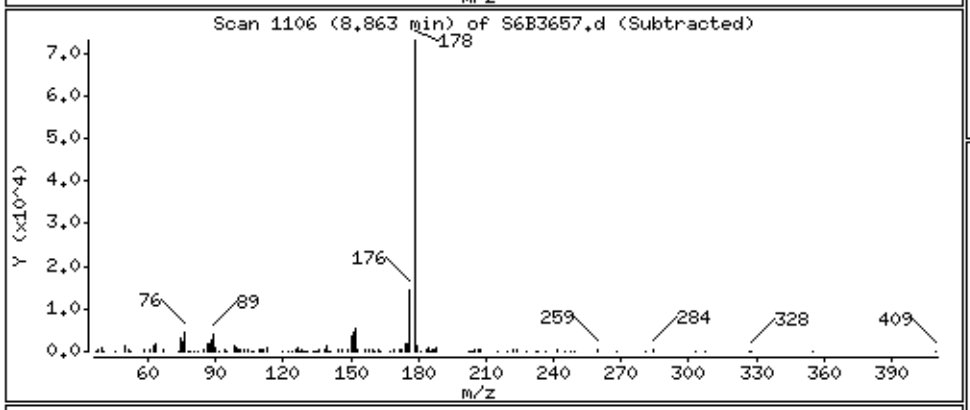
Column diameter: 0.25

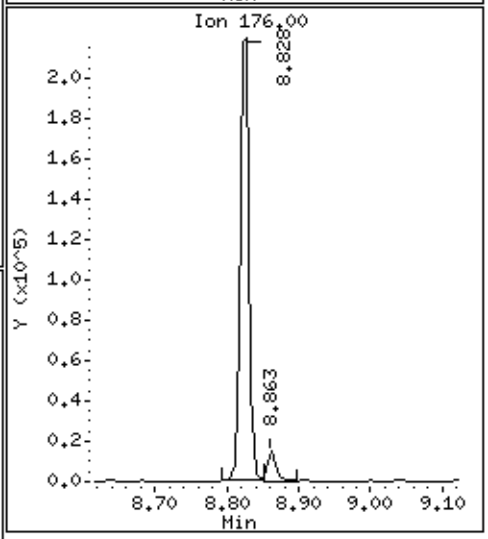
66 Anthracene

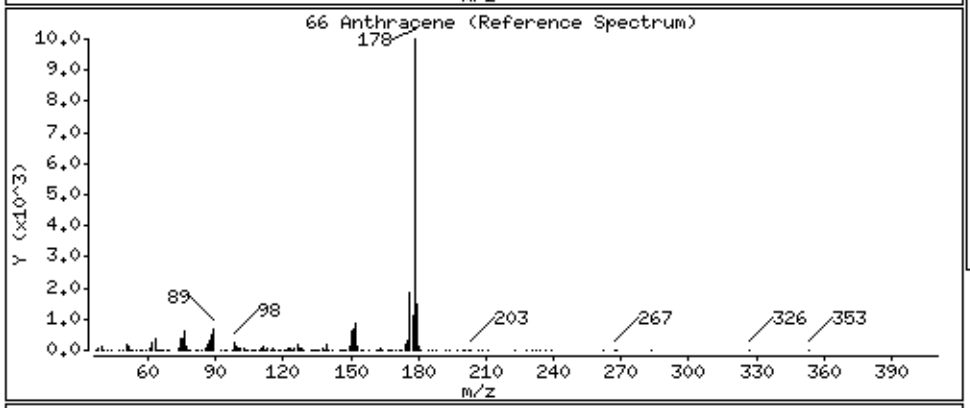
Concentration: 130 ug/Kg

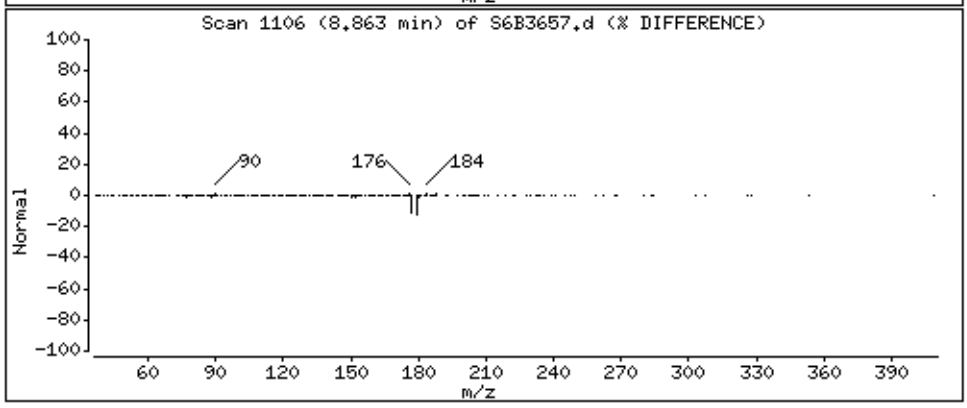












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

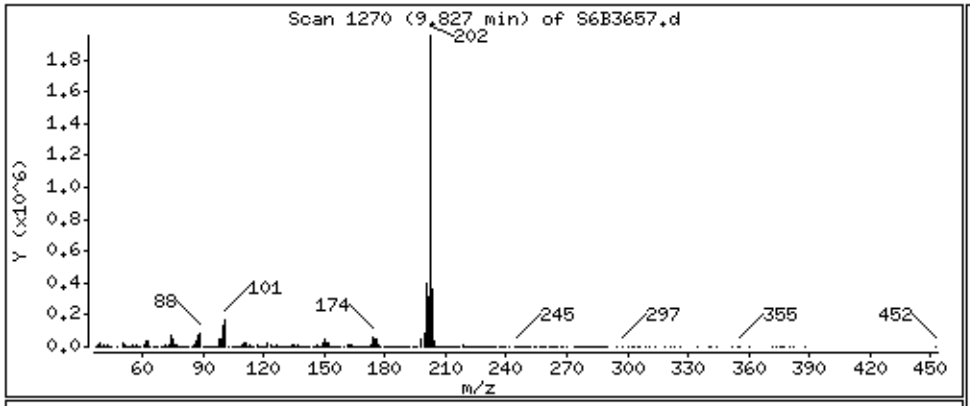
Operator: PK SRC: LIMS

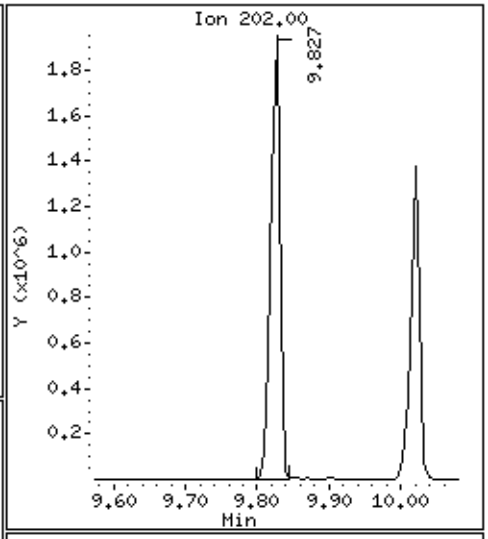
Column phase: Rxi-5Sil MS

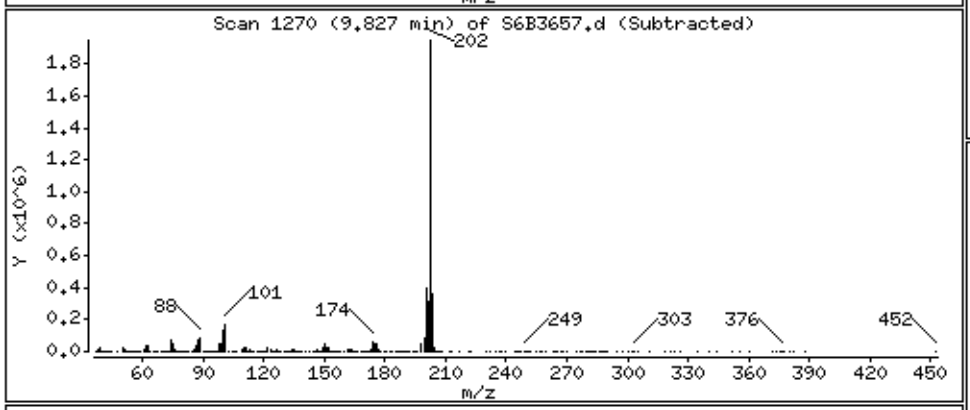
Column diameter: 0.25

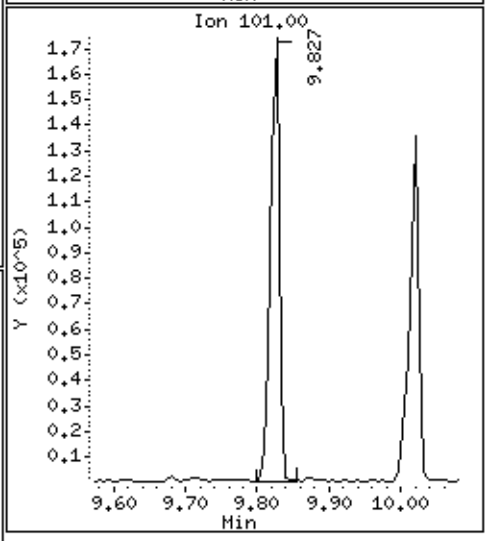
69 Fluoranthene

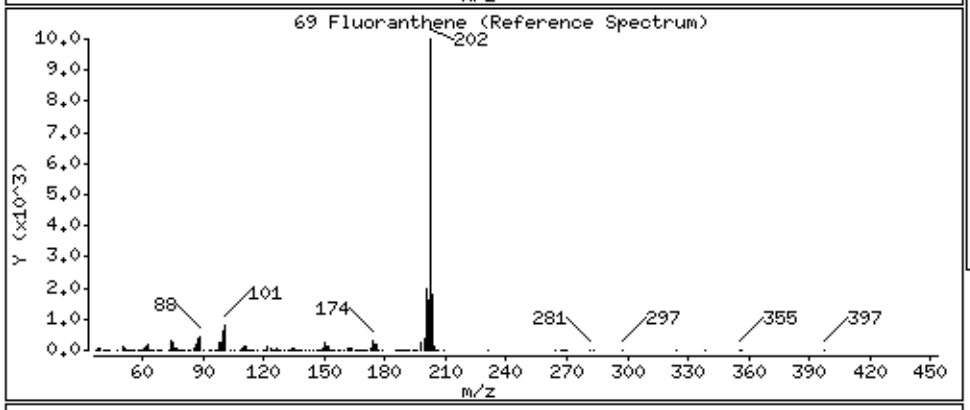
Concentration: 3000 ug/Kg

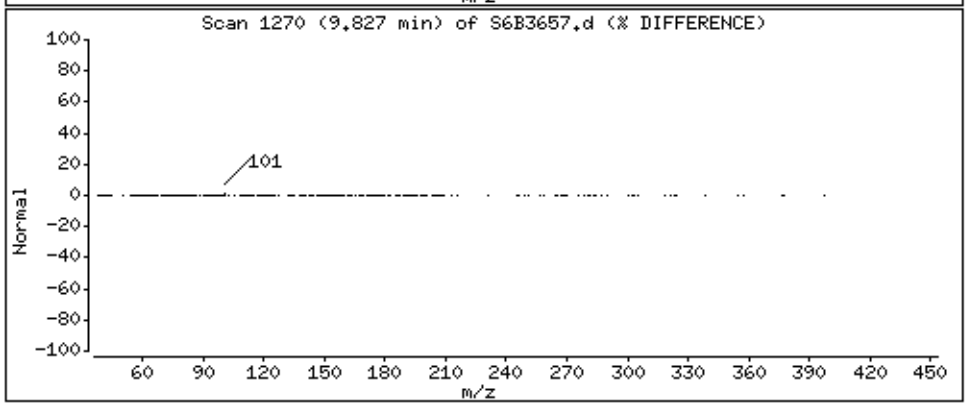












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

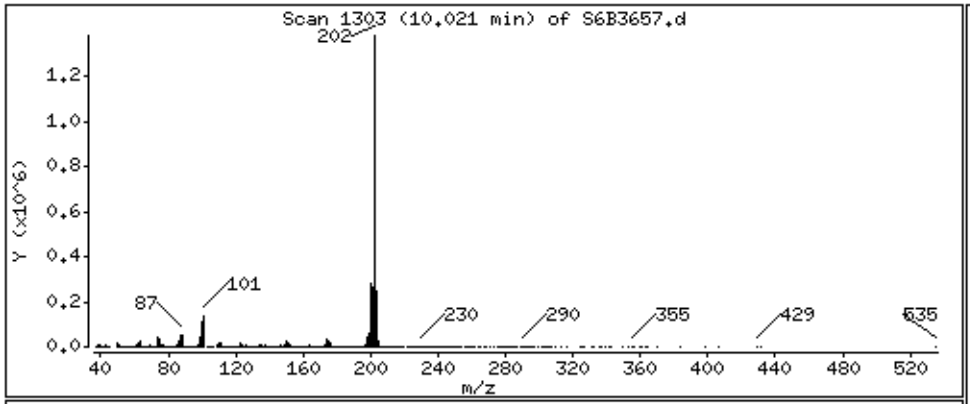
Operator: PK SRC: LIMS

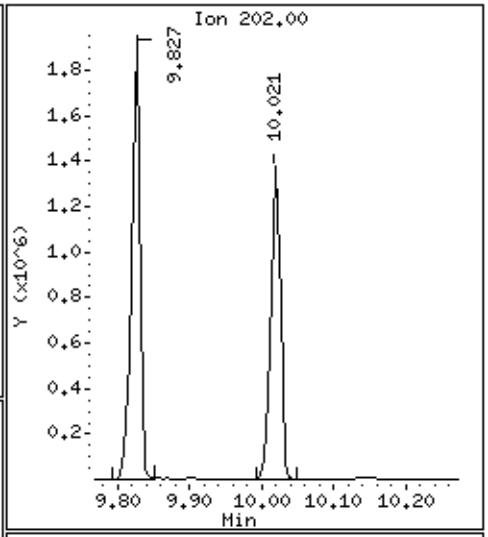
Column phase: Rxi-5Sil MS

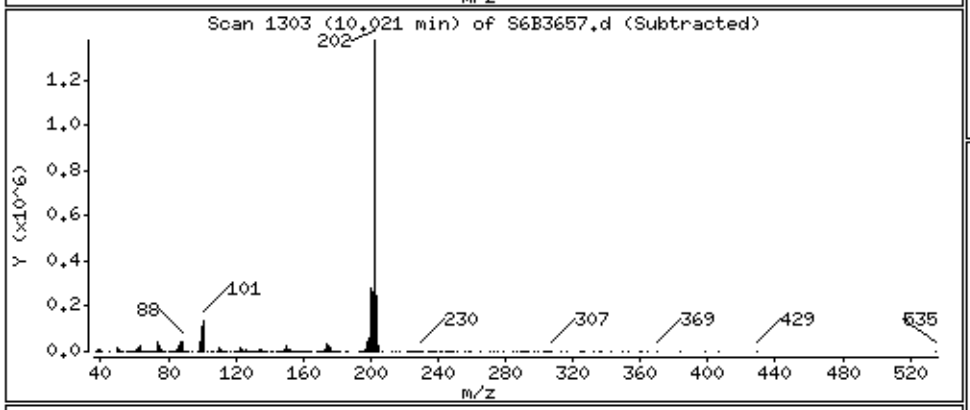
Column diameter: 0.25

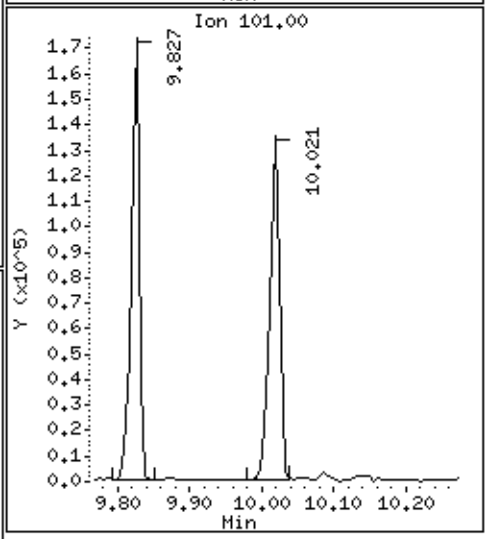
71 Pyrene

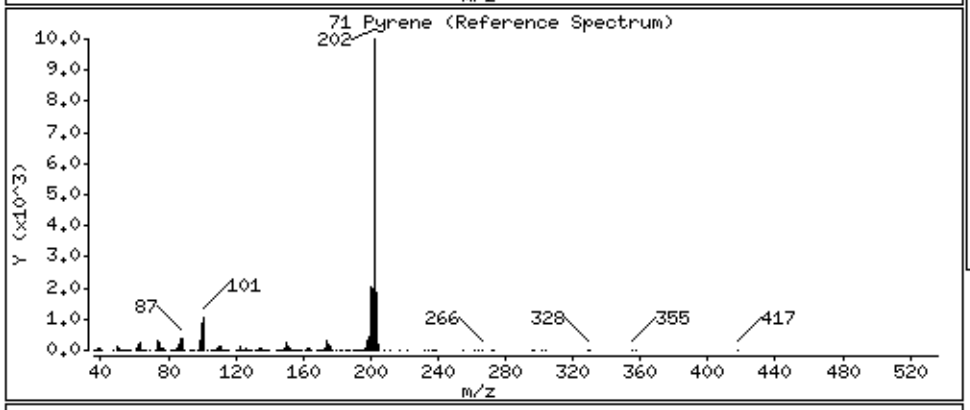
Concentration: 2400 ug/Kg

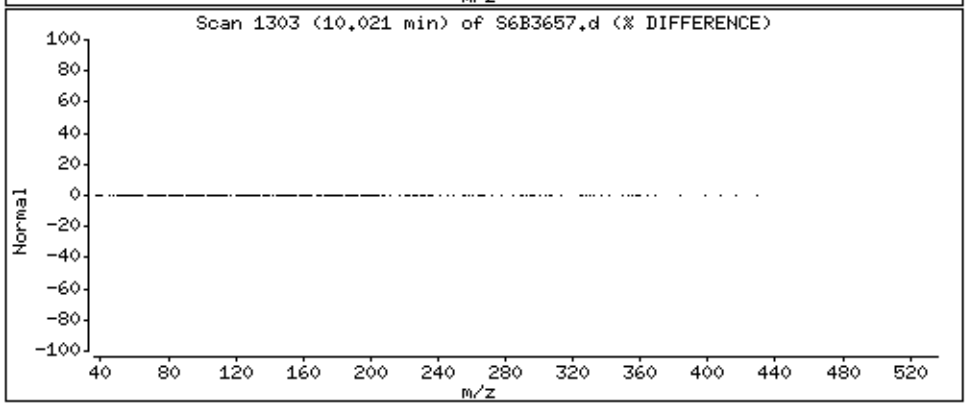












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

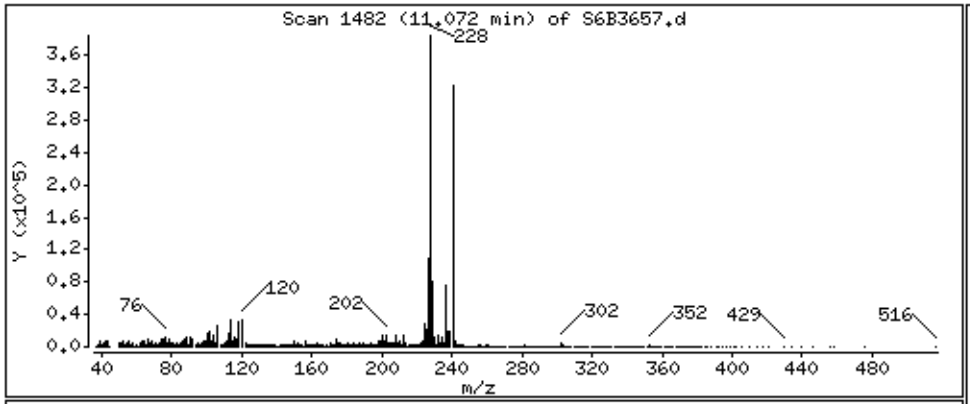
Operator: PK SRC: LIMS

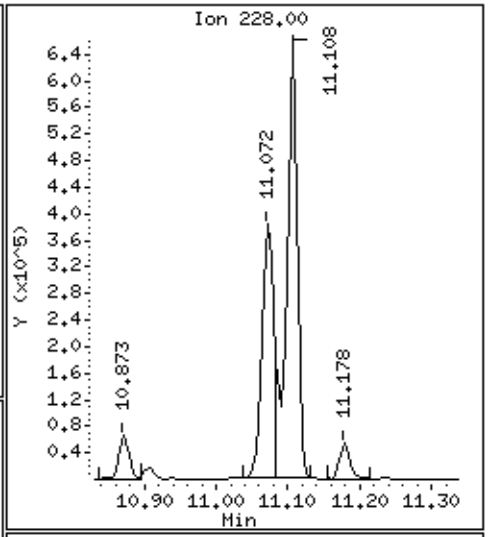
Column phase: Rxi-5Sil MS

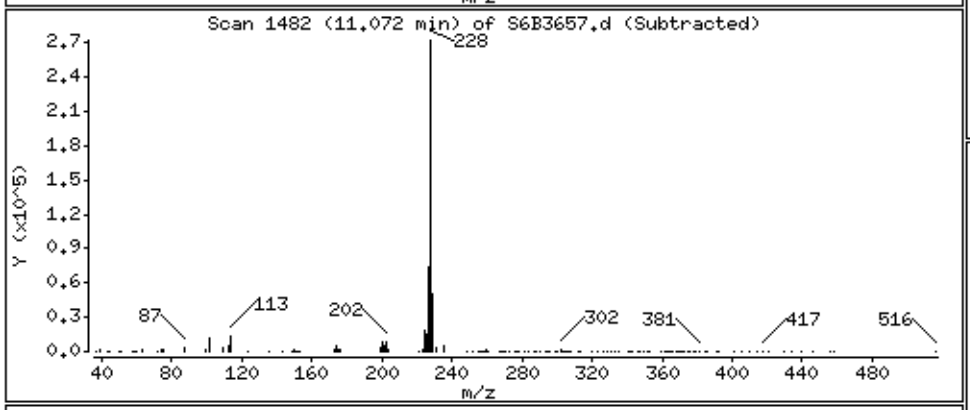
Column diameter: 0.25

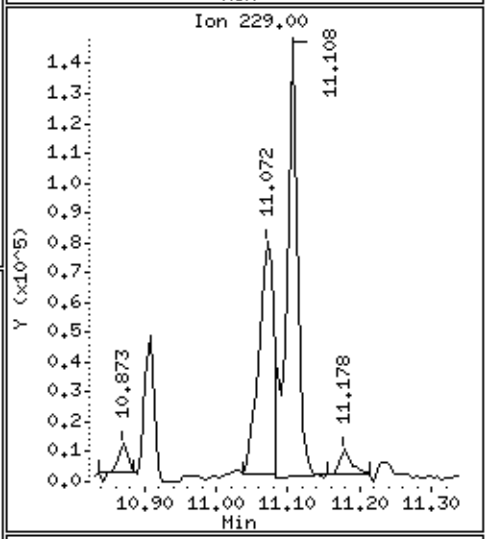
75 Benzo(a)anthracene

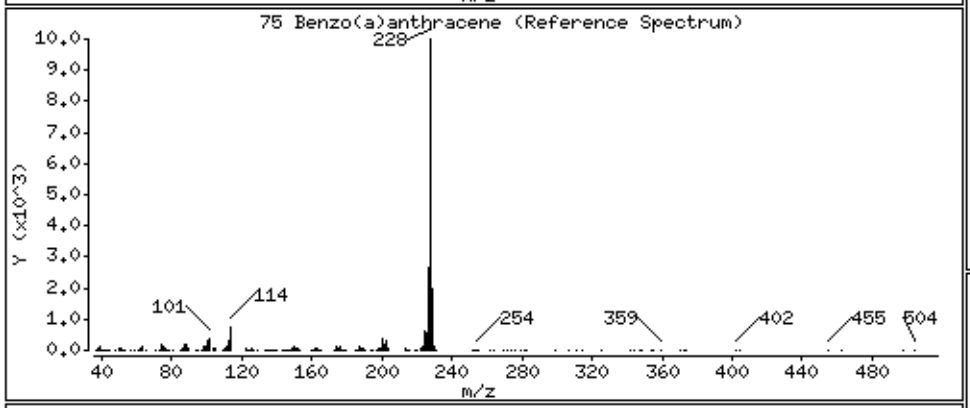
Concentration: 830 ug/Kg

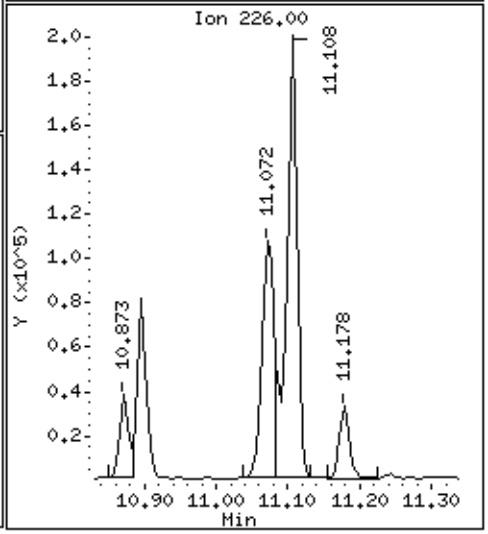


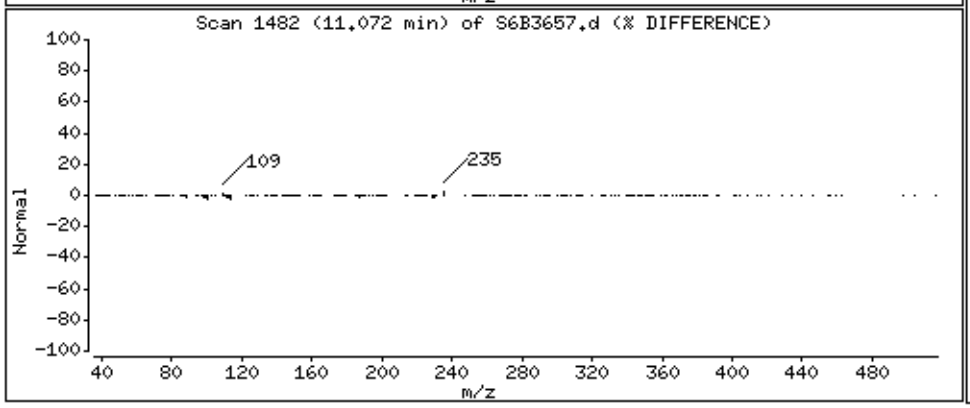












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

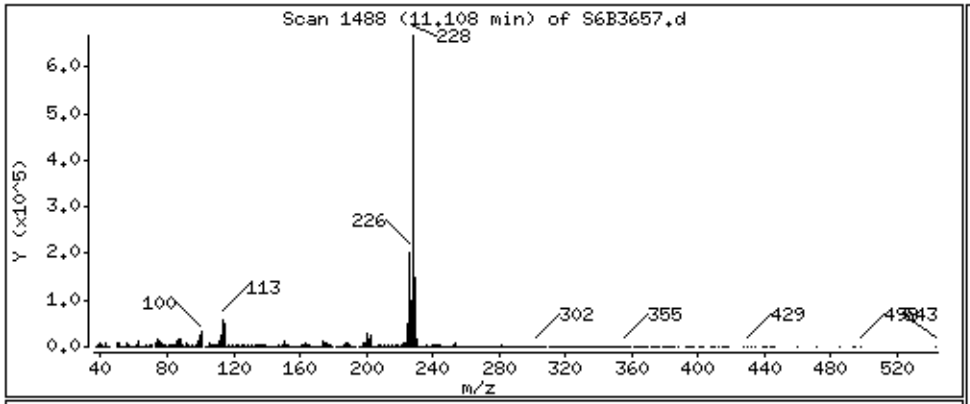
Operator: PK SRC: LIMS

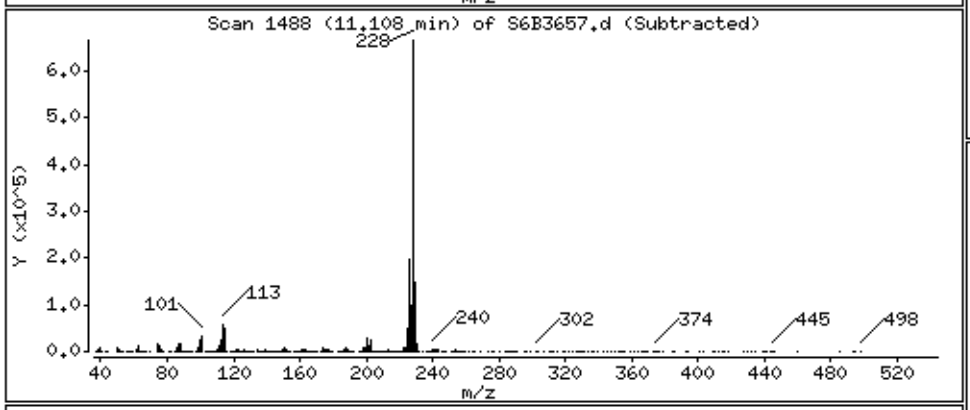
Column phase: Rxi-5Sil MS

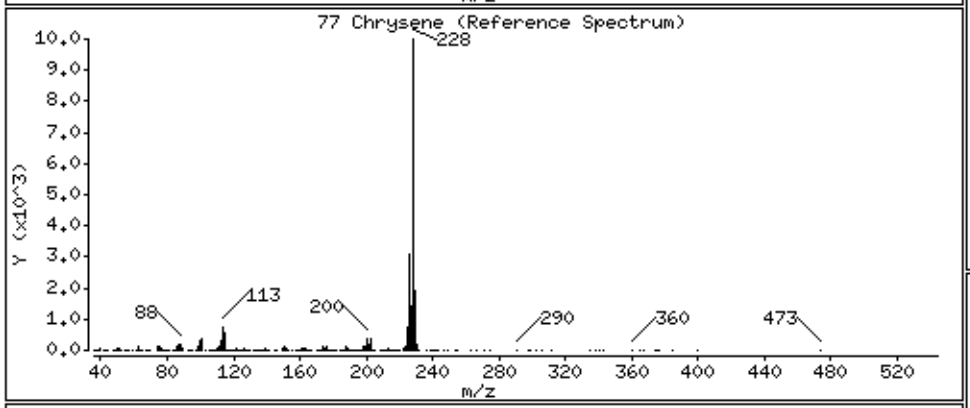
Column diameter: 0.25

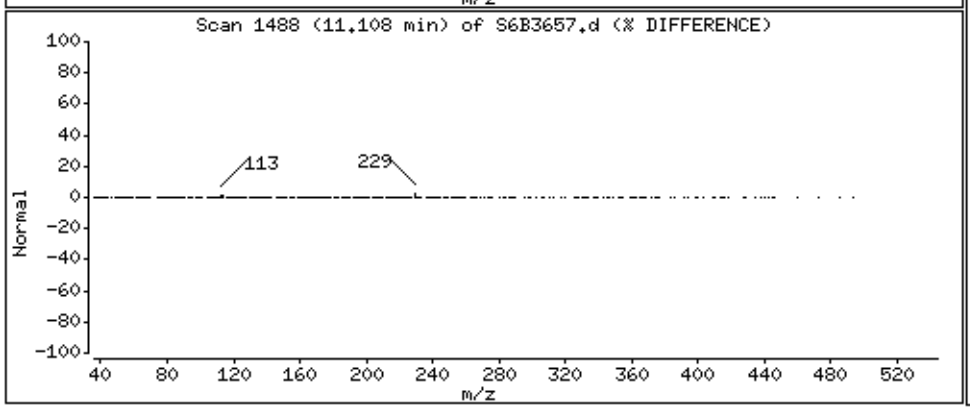
77 Chrysene

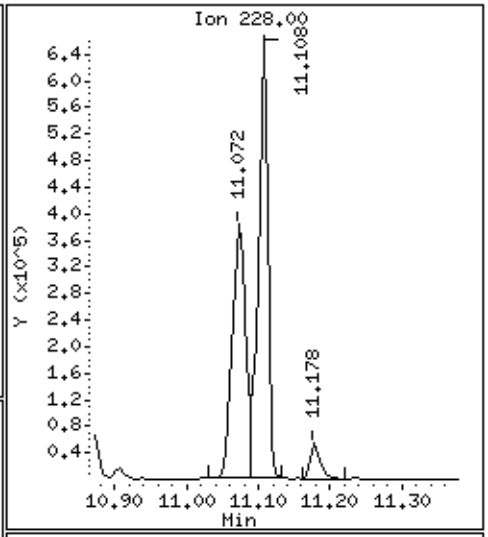
Concentration: 1400 ug/Kg

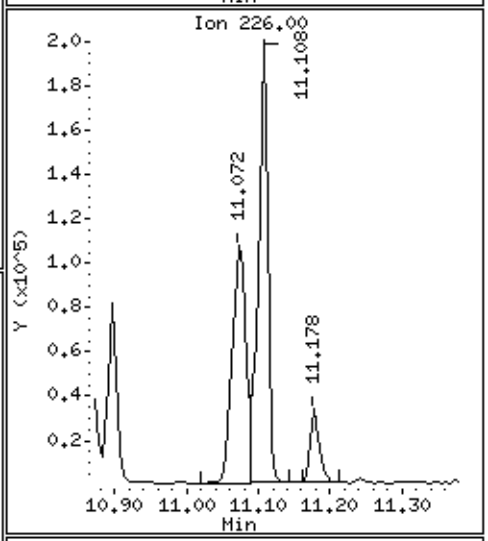


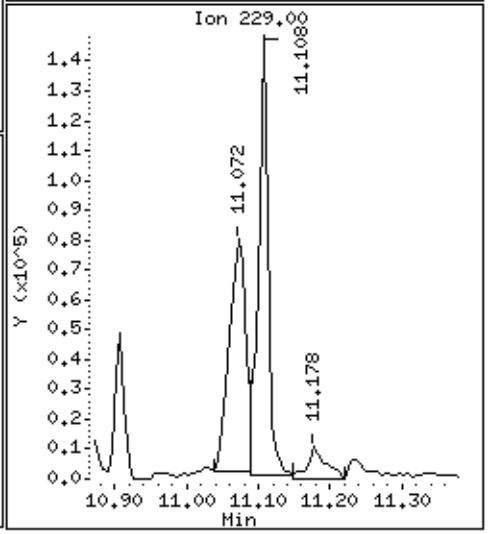












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

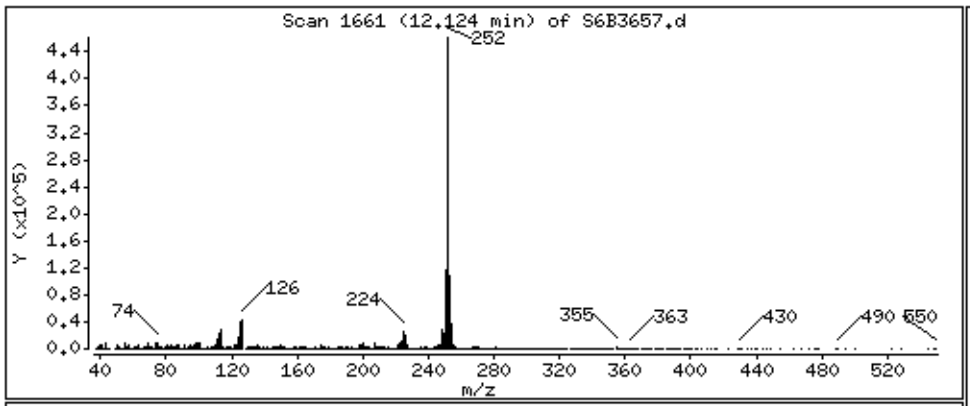
Operator: PK SRC: LIMS

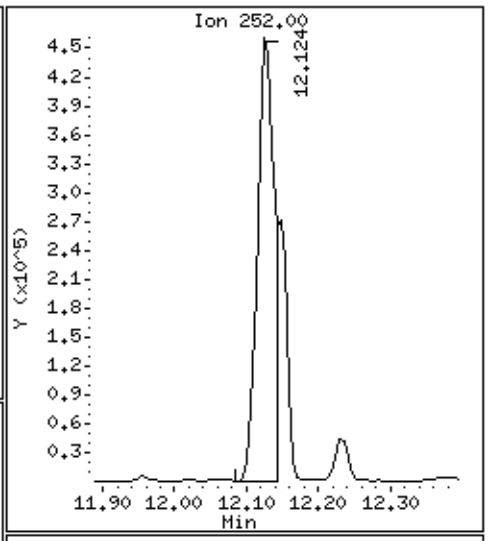
Column phase: Rxi-5Sil MS

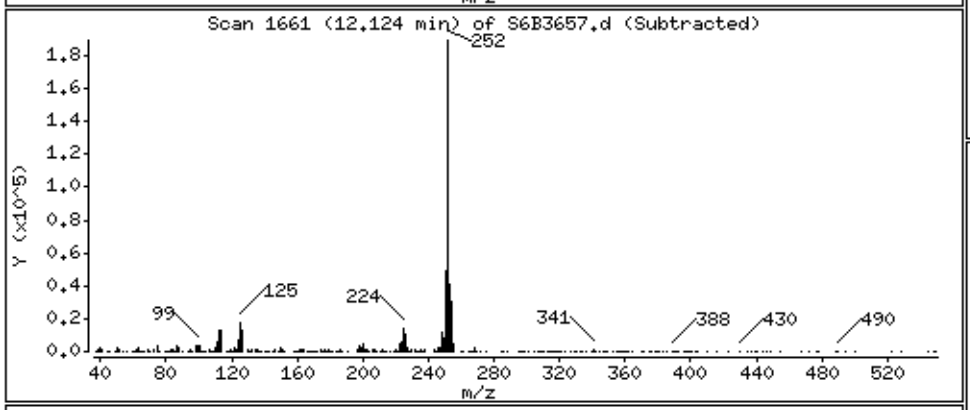
Column diameter: 0.25

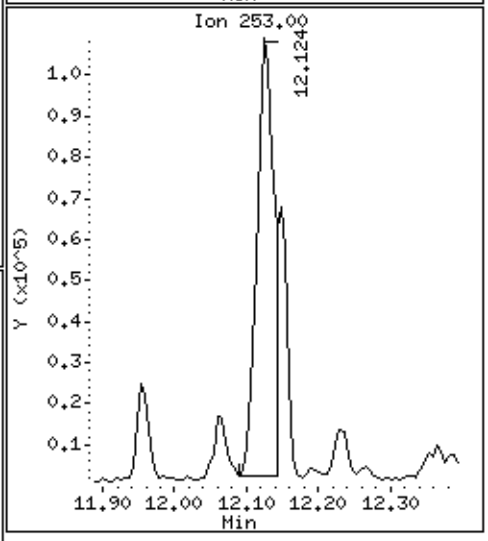
80 Benzo(b)fluoranthene

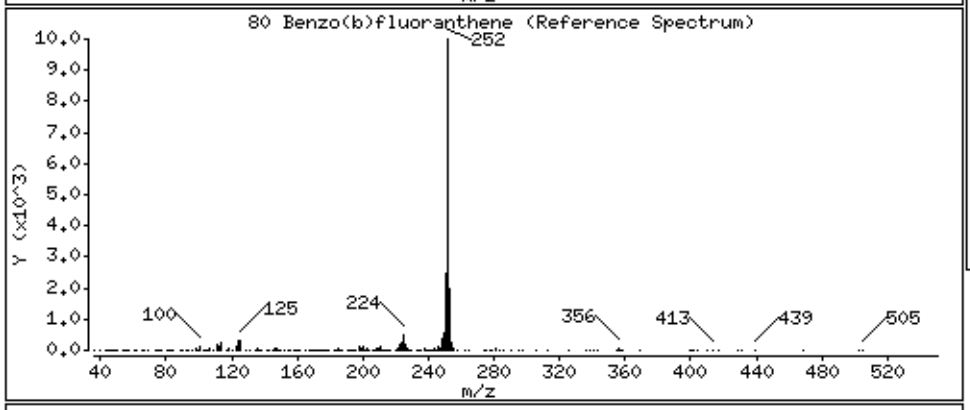
Concentration: 1200 ug/Kg

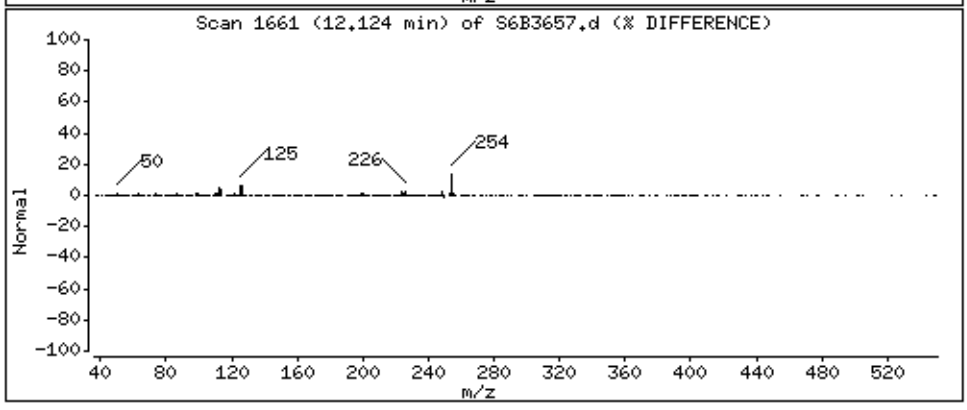












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

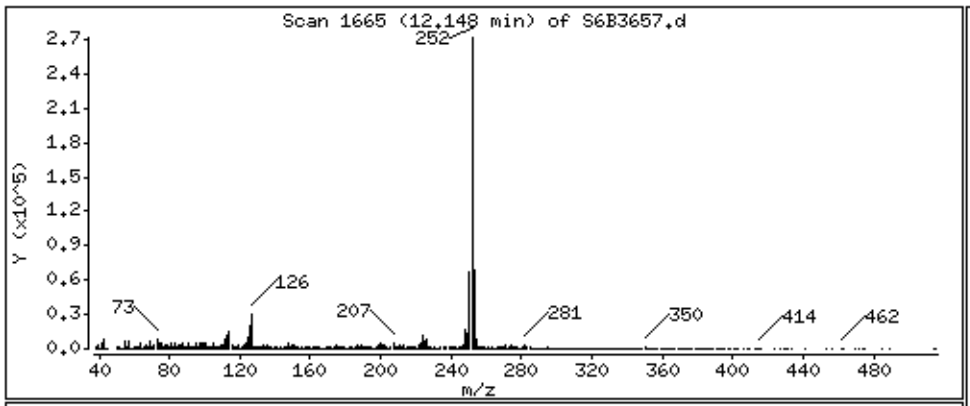
Operator: PK SRC: LIMS

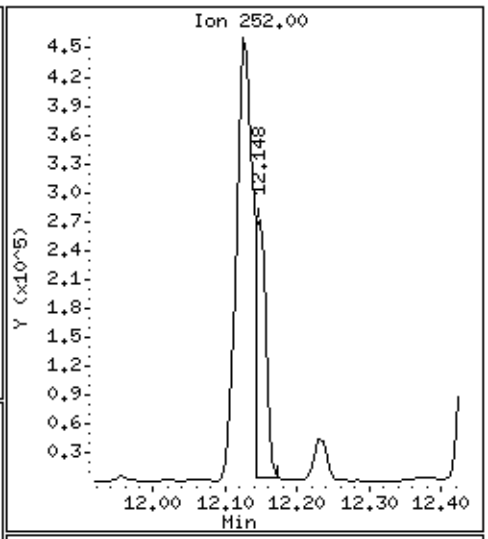
Column phase: Rxi-5Sil MS

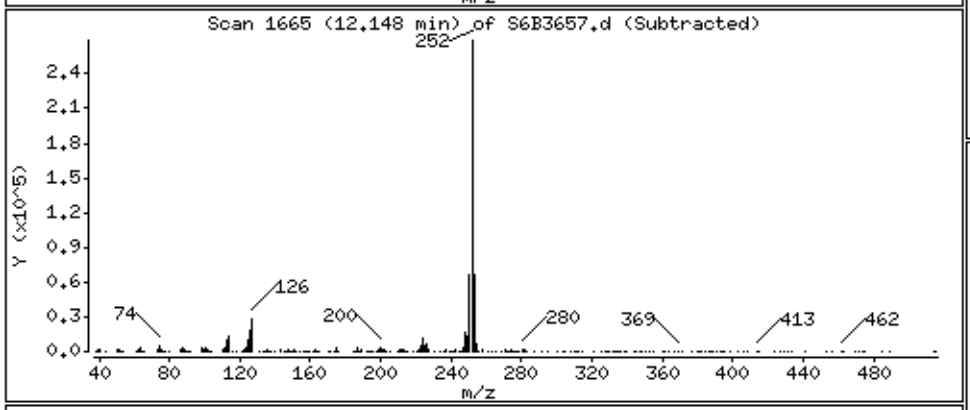
Column diameter: 0.25

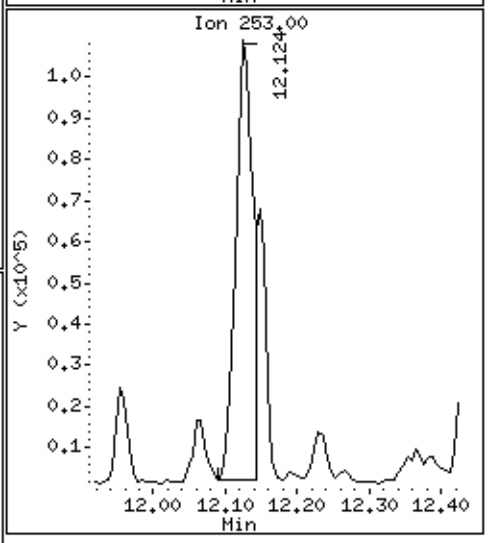
81 Benzo(k)fluoranthene

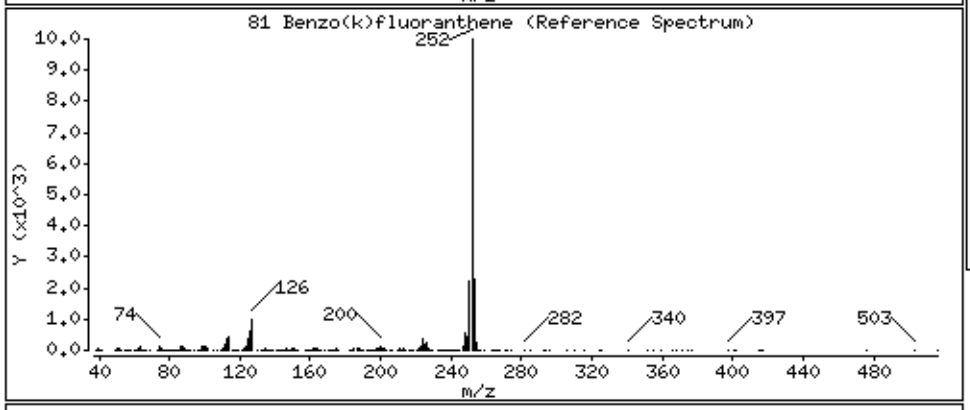
Concentration: 520 ug/Kg

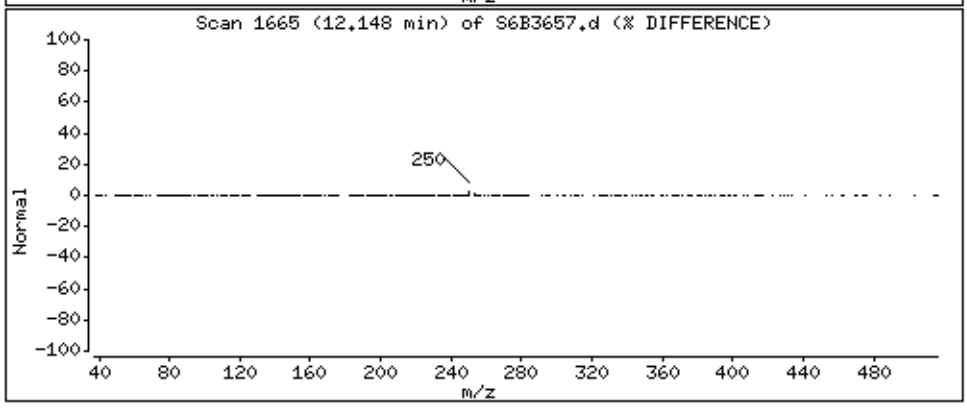












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

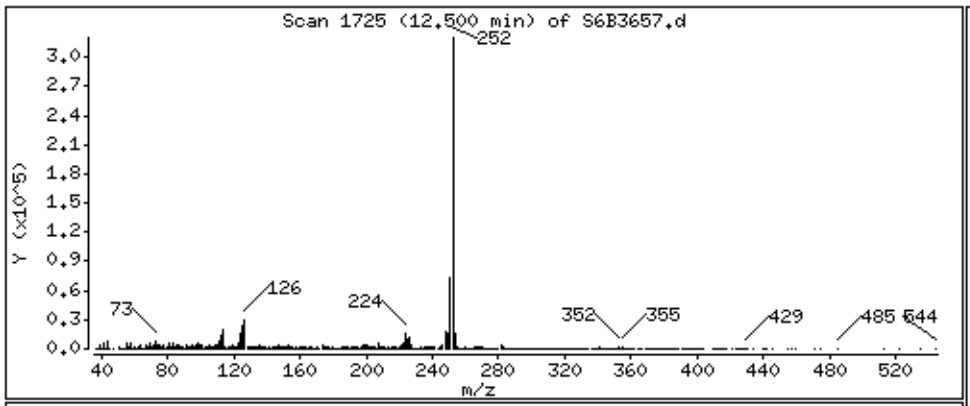
Client ID: SB-129 (1-3) Instrument: S6.i

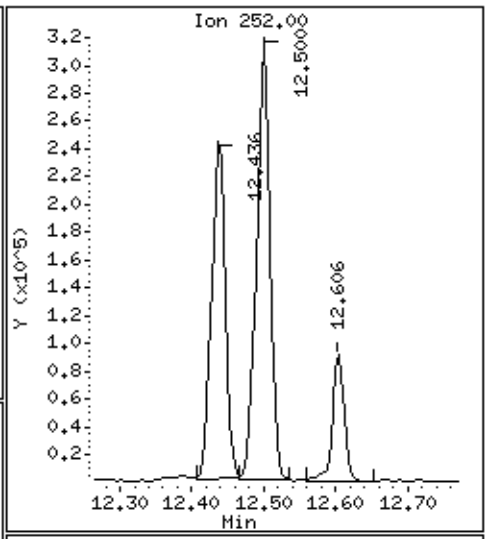
Sample Info: M0619-10A,,71418

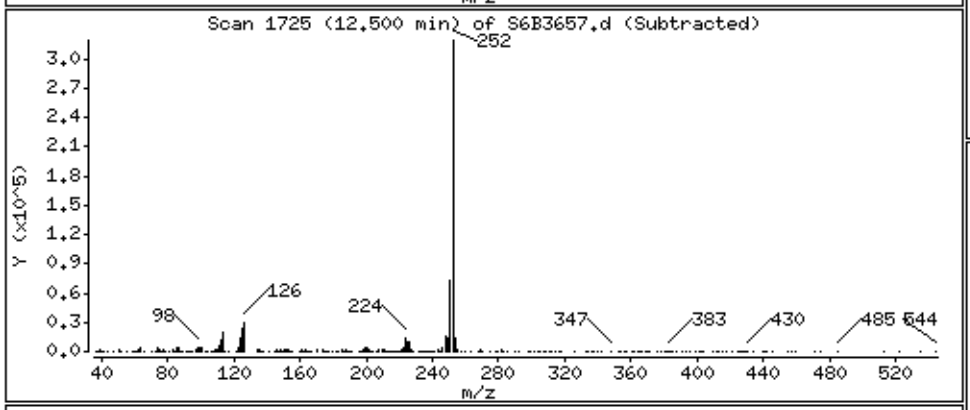
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

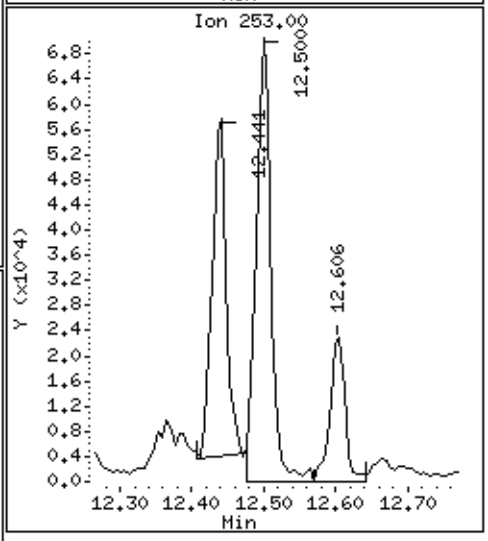
Column phase: Rxi-5Sil MS Column diameter: 0.25

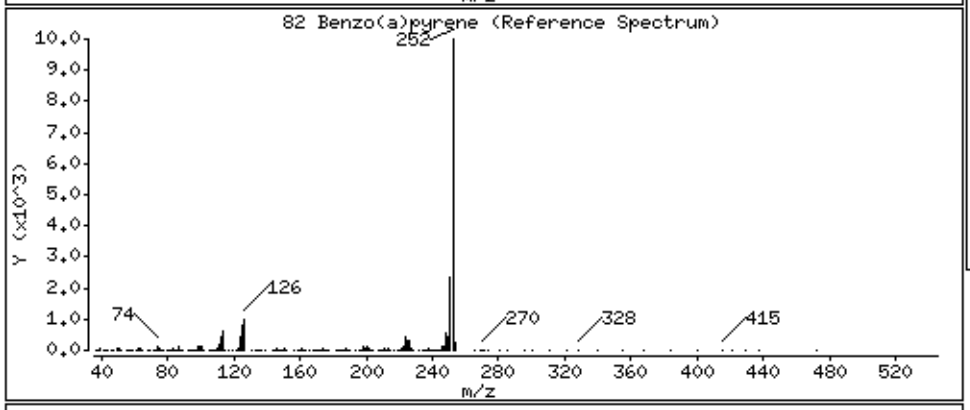
82 Benzo(a)pyrene Concentration: 760 ug/Kg

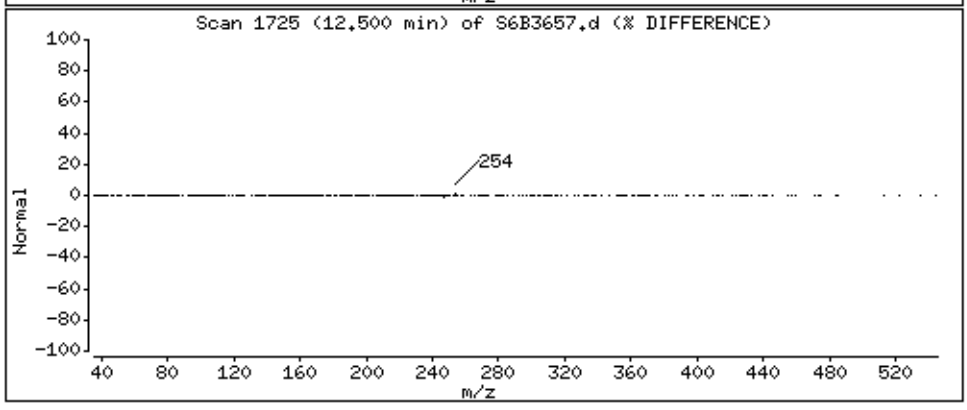












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

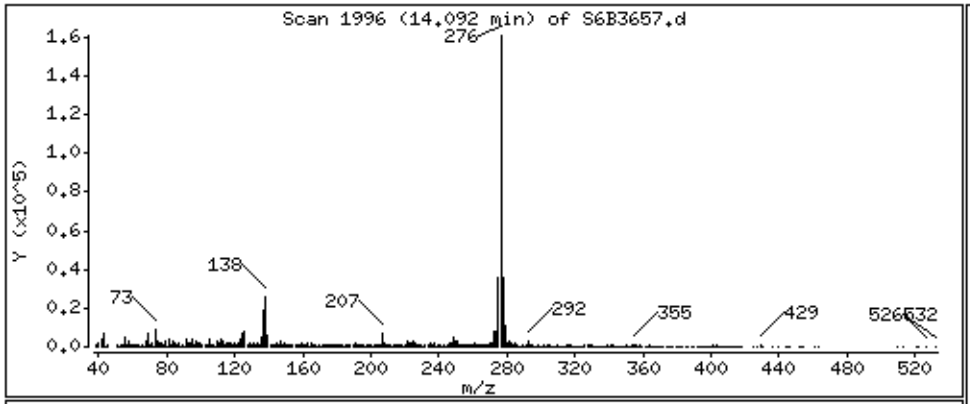
Client ID: SB-129 (1-3) Instrument: S6.i

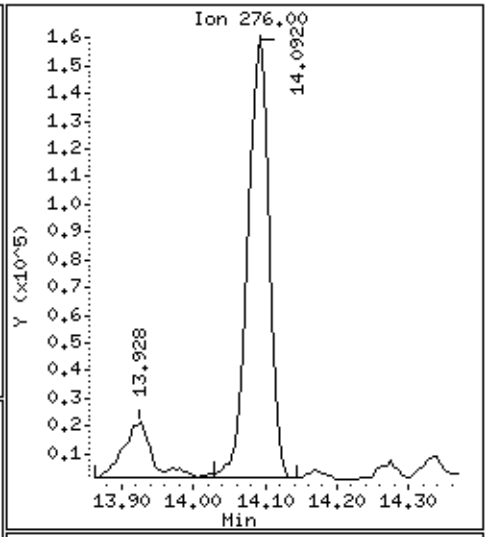
Sample Info: M0619-10A,,71418

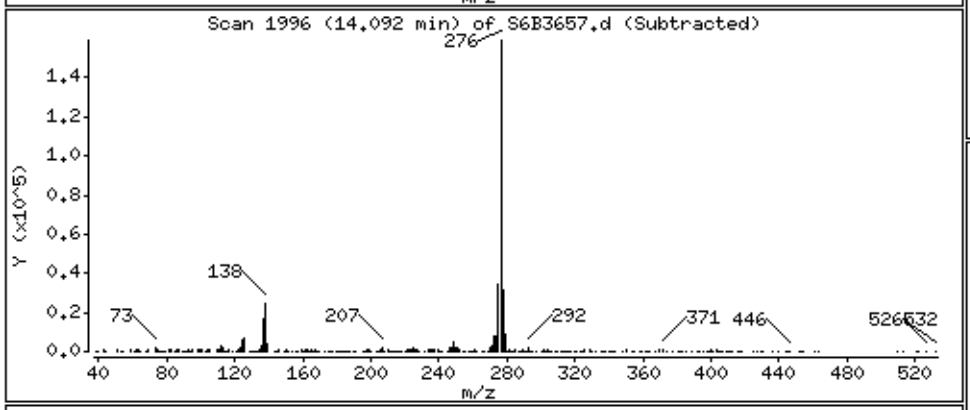
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

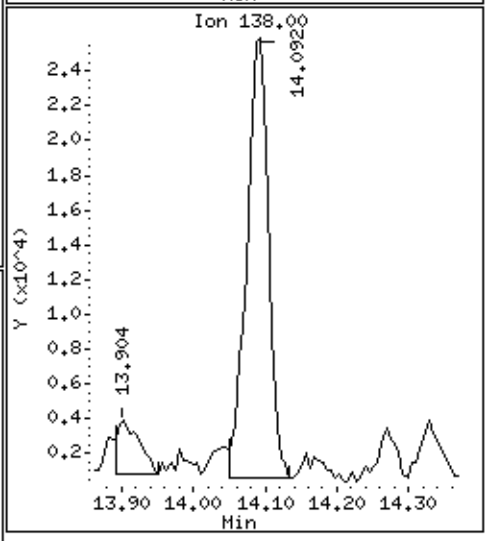
Column phase: Rxi-5Sil MS Column diameter: 0.25

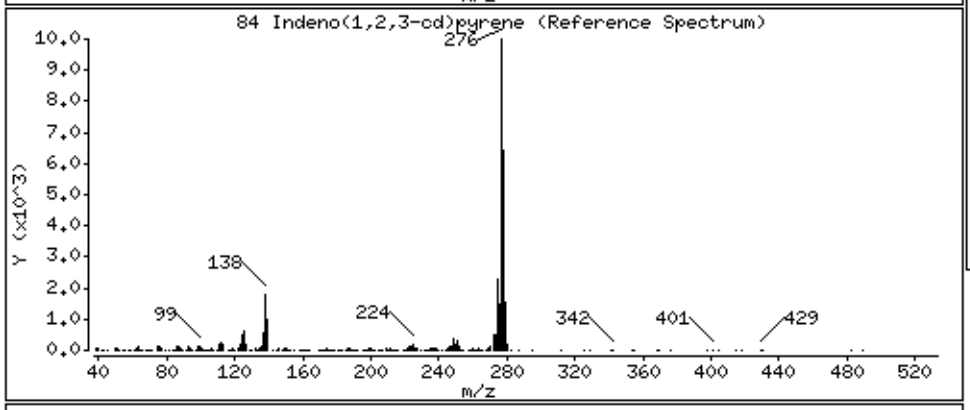
84 Indeno(1,2,3-cd)pyrene Concentration: 480 ug/Kg

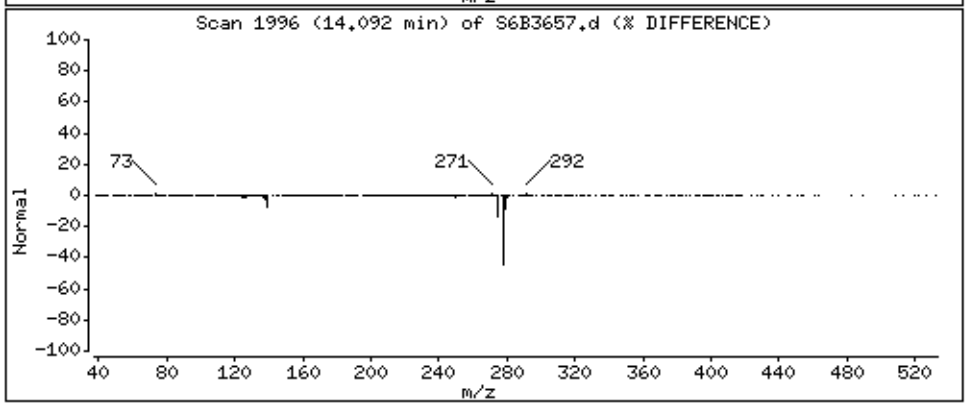












Data File: \\avogadro\organics\S6.I\130506.B\S6B3657.d

Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

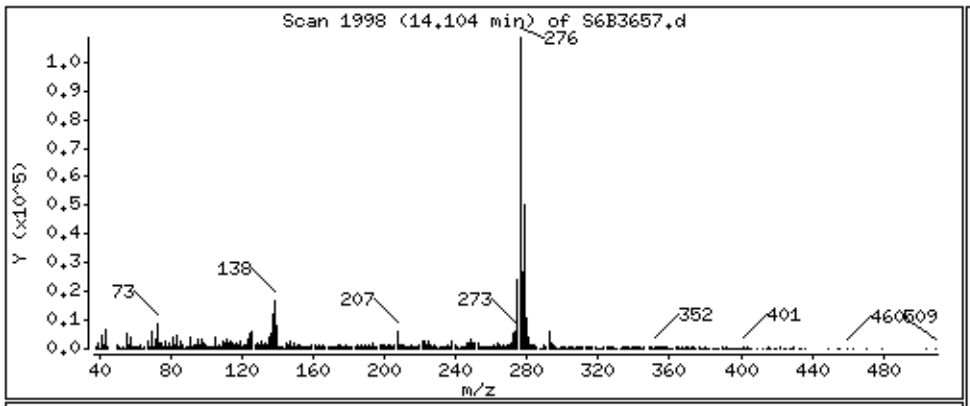
Operator: PK SRC: LIMS

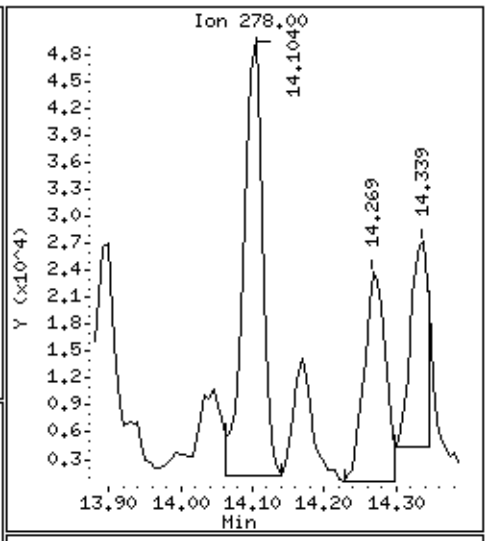
Column phase: Rxi-5Sil MS

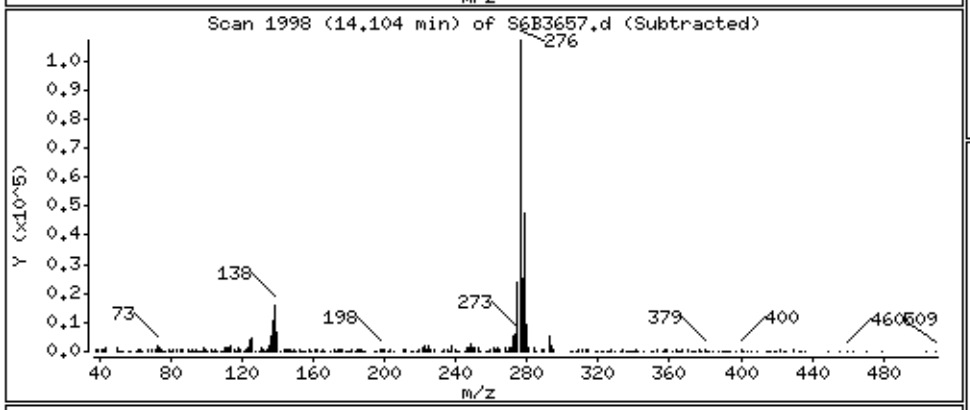
Column diameter: 0.25

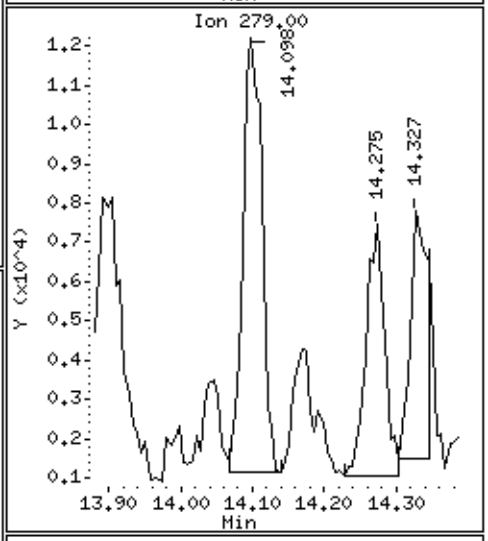
85 Dibenzo(a,h)anthracene

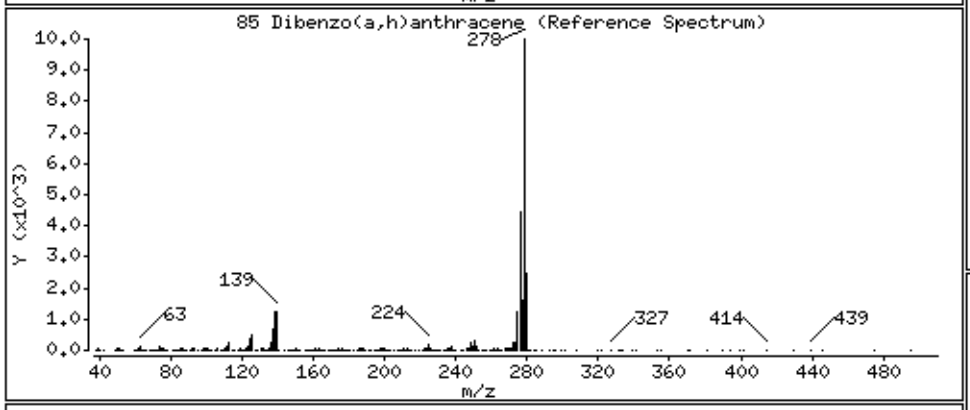
Concentration: 160 ug/Kg

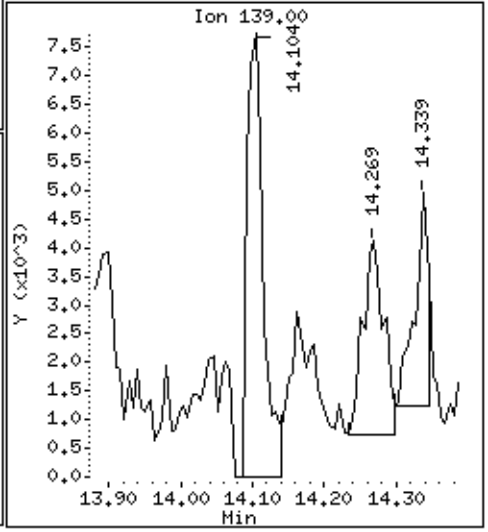


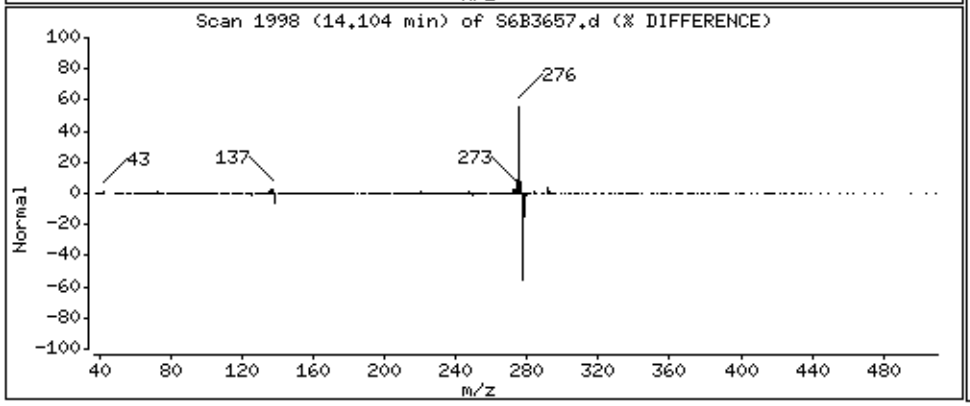












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Date : 06-MAY-2013 21:26

Client ID: SB-129 (1-3)

Instrument: S6.i

Sample Info: M0619-10A,,71418

Volume Injected (uL): 1.0

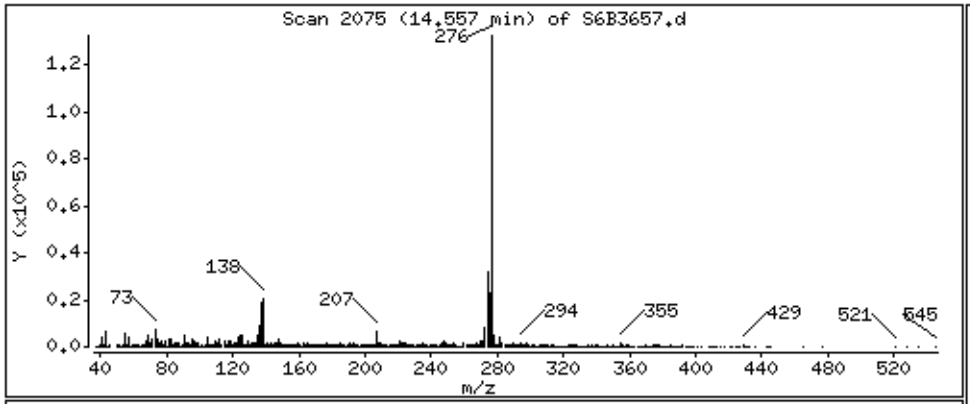
Operator: PK SRC: LIMS

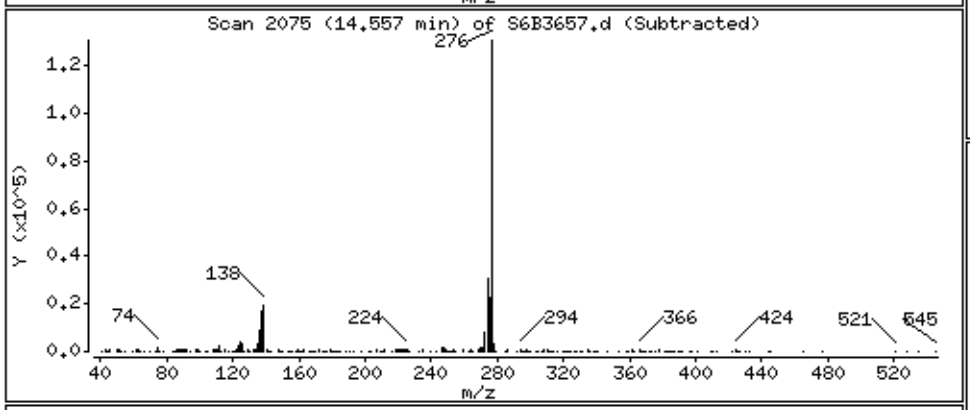
Column phase: Rxi-5Sil MS

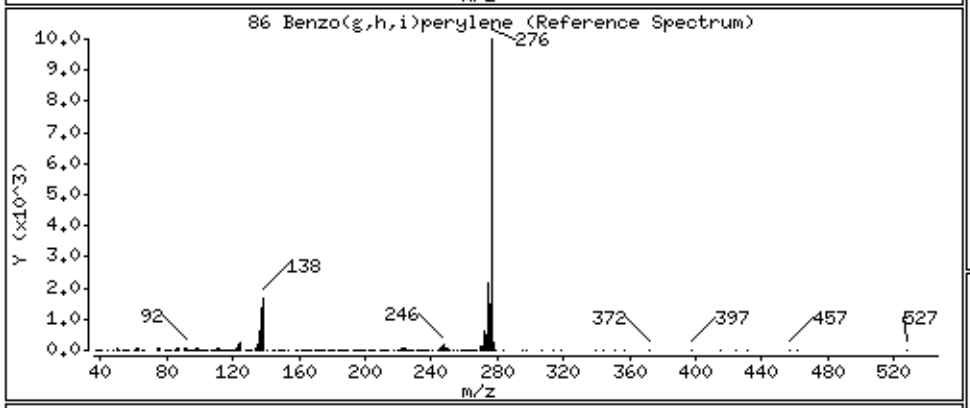
Column diameter: 0.25

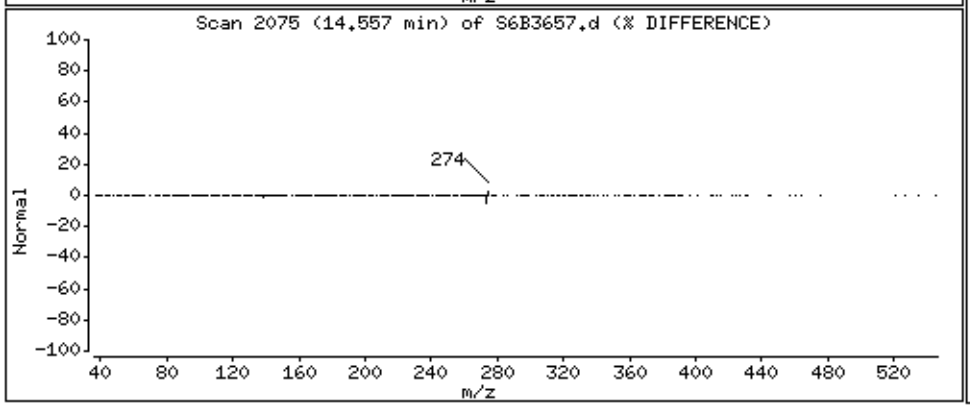
86 Benzo(g,h,i)perylene

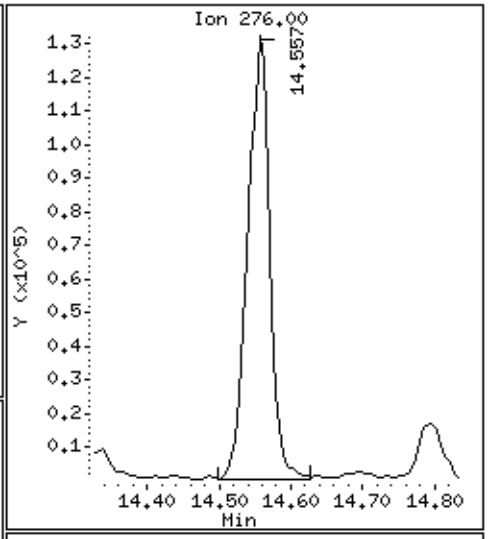
Concentration: 510 ug/Kg

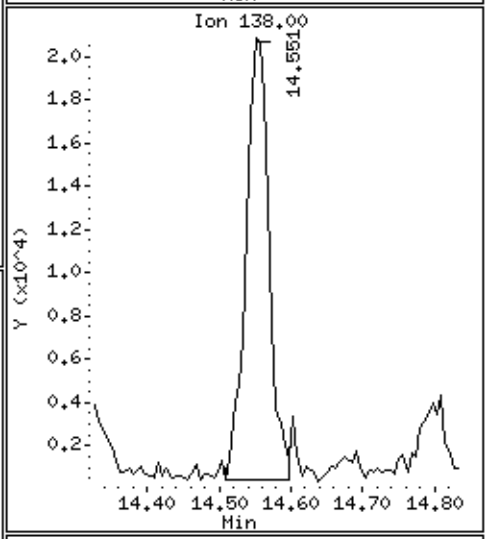


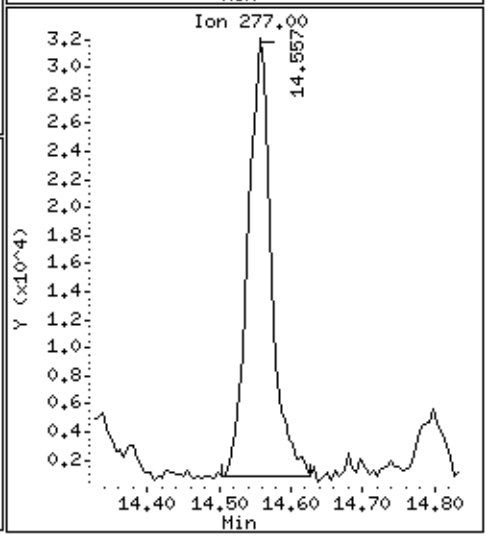












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-129 (8-10)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-11A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3658.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 10 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	6700	E
91-57-6	2-Methylnaphthalene	7400	E
208-96-8	Acenaphthylene	530	
83-32-9	Acenaphthene	300	J
86-73-7	Fluorene	1100	
85-01-8	Phenanthrene	4000	
120-12-7	Anthracene	770	
206-44-0	Fluoranthene	1300	
129-00-0	Pyrene	2400	
56-55-3	Benzo(a)anthracene	820	
218-01-9	Chrysene	960	
205-99-2	Benzo(b)fluoranthene	470	
207-08-9	Benzo(k)fluoranthene	220	J
50-32-8	Benzo(a)pyrene	570	
193-39-5	Indeno(1,2,3-cd)pyrene	240	J
53-70-3	Dibenzo(a,h)anthracene	90	J
191-24-2	Benzo(g,h,i)perylene	350	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3658.d
Lab Smp Id: M0619-11A Client Smp ID: SB-129 (8-10)
Inj Date : 06-MAY-2013 21:49
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-11A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	286736	40.0000	
$ 22 Nitrobenzene-d5	82	5.525	5.519	(0.903)	386456	42.0289	2800
* 31 Naphthalene-d8	136	6.119	6.113	(1.000)	1029014	40.0000	
32 Naphthalene	128	6.142	6.130	(1.004)	2039801	91.4434	6000(A)
36 2-Methylnaphthalene	142	6.706	6.700	(1.096)	1706573	99.8115	6600(A)
$ 41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	790572	41.7686	2800
46 Acenaphthylene	152	7.452	7.452	(0.984)	176619	7.18141	480(a)
* 48 Acenaphthene-d10	164	7.570	7.570	(1.000)	648003	40.0000	
49 Acenaphthene	153	7.593	7.599	(1.003)	68575	4.10249	270(a)
55 Fluorene	166	8.022	8.022	(1.060)	315862	15.4454	1000
* 64 Phenanthrene-d10	188	8.810	8.804	(1.000)	1240254	40.0000	
65 Phenanthrene	178	8.827	8.827	(1.002)	1541931	54.3951	3600
66 Anthracene	178	8.868	8.868	(1.007)	304107	10.4352	690
69 Fluoranthene	202	9.832	9.826	(1.116)	598410	17.2495	1100
71 Pyrene	202	10.026	10.020	(0.904)	1073656	31.8599	2100
$ 72 Terphenyl-d14	244	10.138	10.138	(0.914)	1178110	48.7165	3200
75 Benzo(a)anthracene	228	11.078	11.083	(0.999)	414189	11.1547	740
* 76 Chrysene-d12	240	11.089	11.101	(1.000)	1611750	40.0000	
77 Chrysene	228	11.107	11.125	(1.002)	405743	13.0651	860

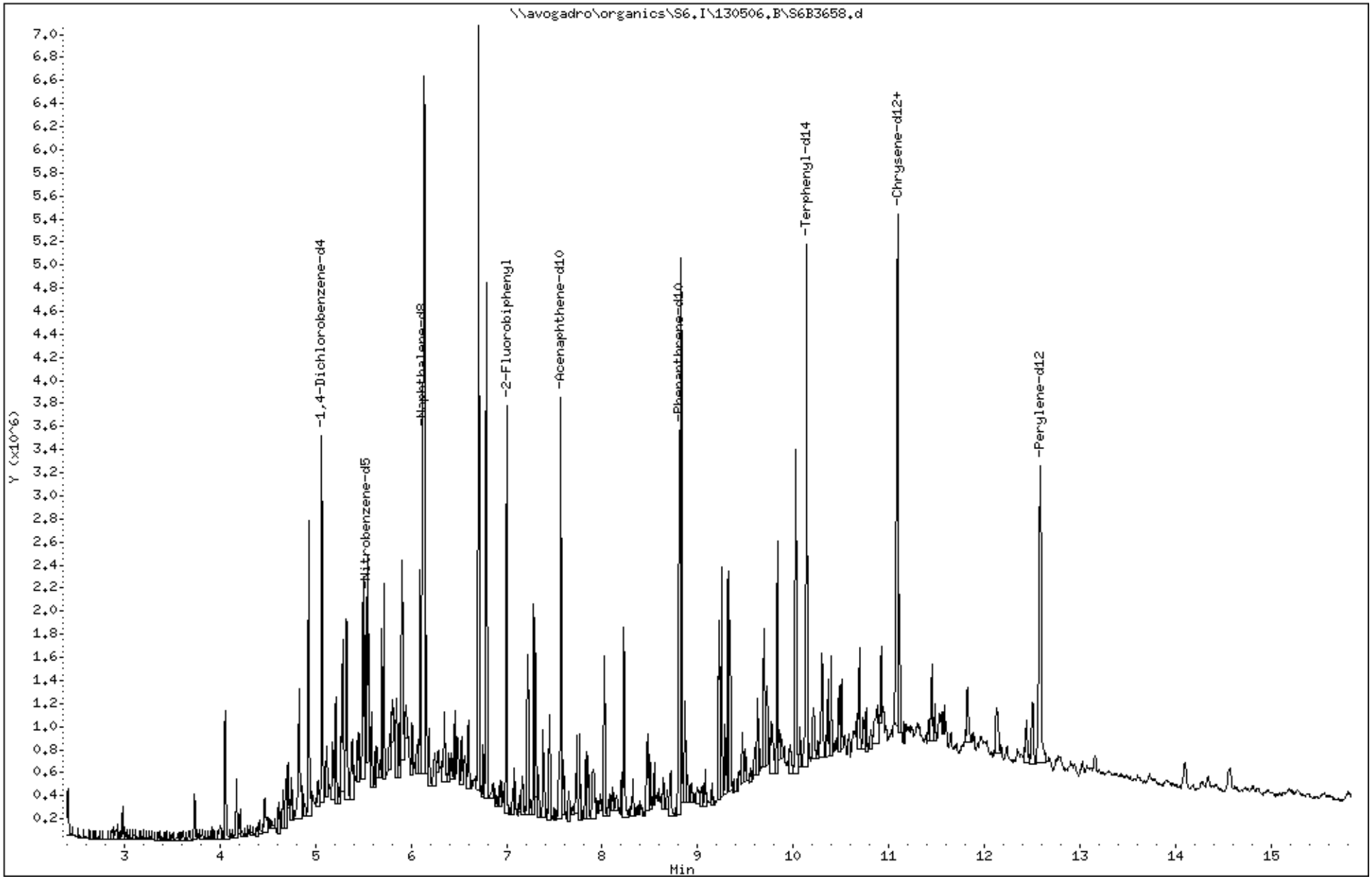
Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d
Report Date: 07-May-2013 10:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)	
	80 Benzo(b)fluoranthene	252	12.129	12.141	(0.964)	269343	6.36177	420(aM)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.141	12.170	(0.965)	116444	2.93424	190(aQM)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.505	12.517	(0.993)	293850	7.77591	510(a)	
*	83 Perylene-d12	264	12.588	12.593	(1.000)	1619652	40.0000		
	84 Indeno(1,2,3-cd)pyrene	276	14.098	14.115	(1.120)	152173	3.24952	220(a)	
	85 Dibenzo(a,h)anthracene	278	14.104	14.133	(1.120)	47641	1.22156	81(a)	
	86 Benzo(g,h,i)perylene	276	14.562	14.579	(1.157)	179237	4.70631	310(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d
Date : 06-MAY-2013 21:49
Client ID: SB-129 (8-10)
Instrument: S6.i
Sample Info: M0619-11A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

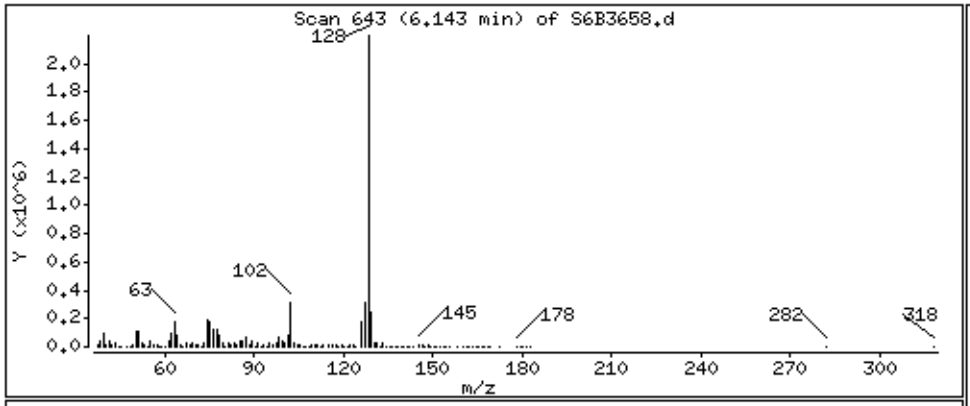
Operator: PK SRC: LIMS

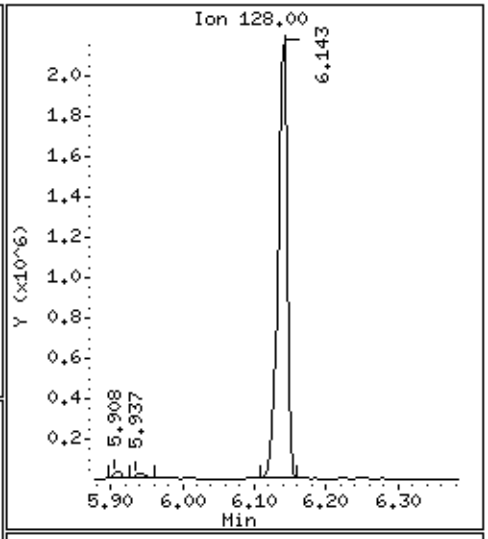
Column phase: Rxi-5Sil MS

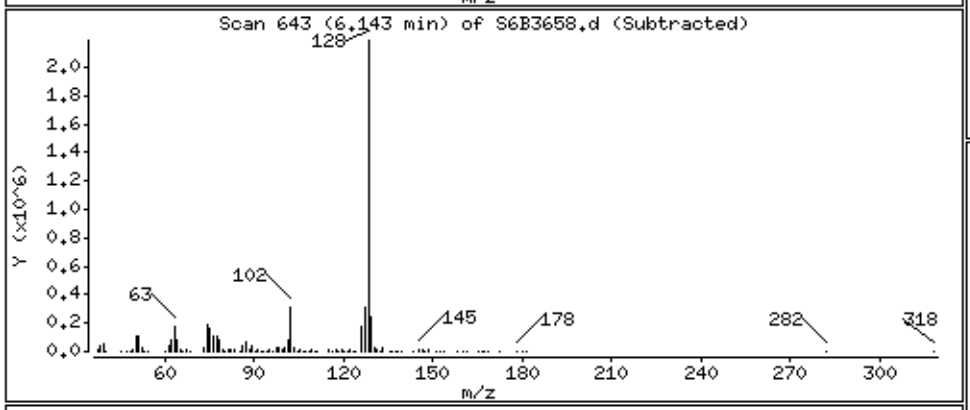
Column diameter: 0.25

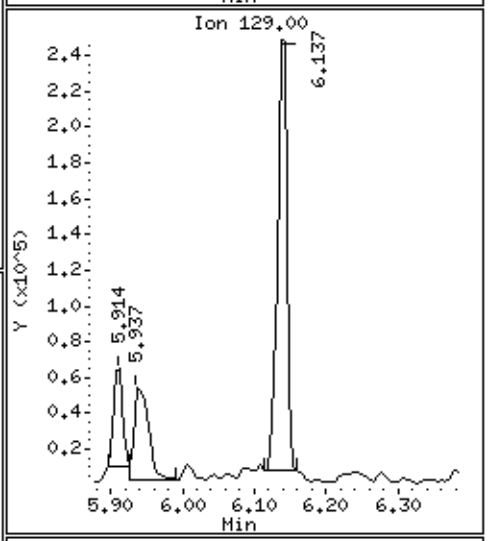
32 Naphthalene

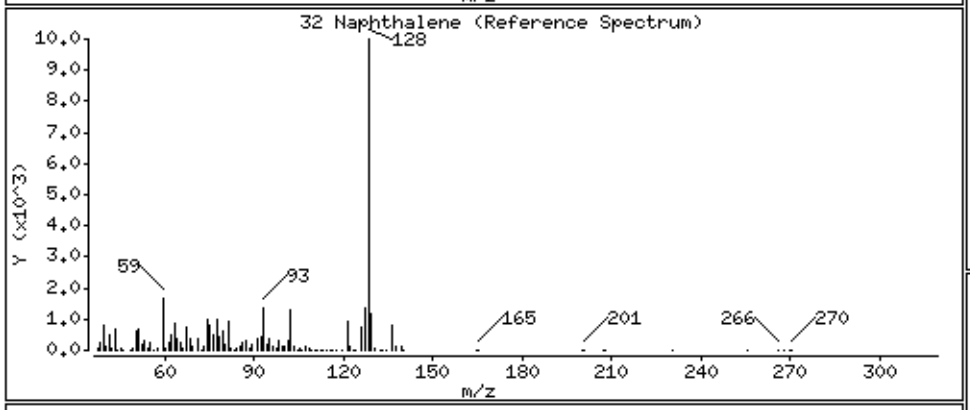
Concentration: 6000 ug/Kg

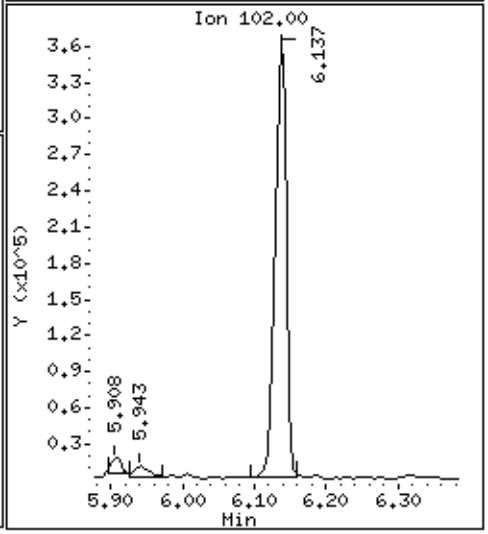


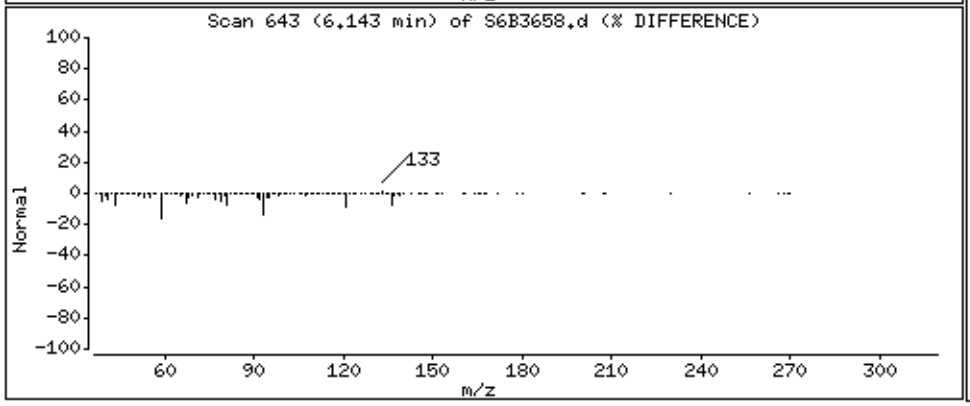












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

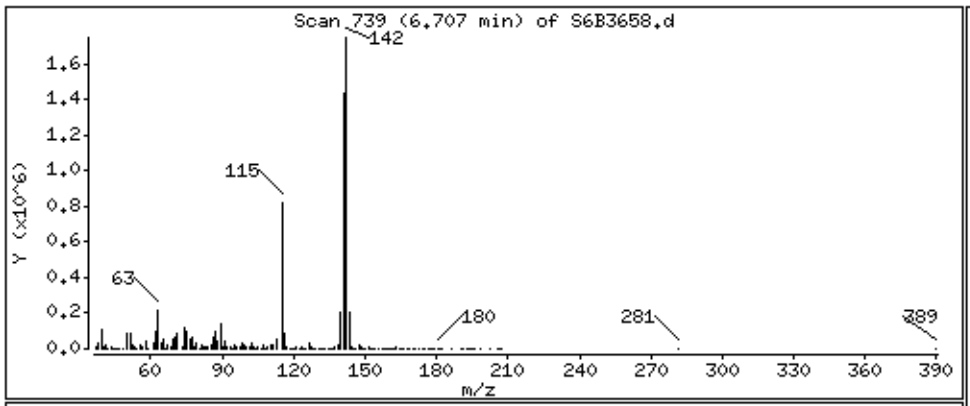
Operator: PK SRC: LIMS

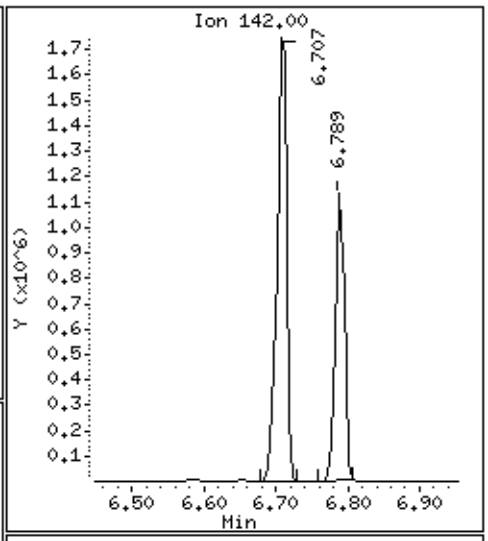
Column phase: Rxi-5Sil MS

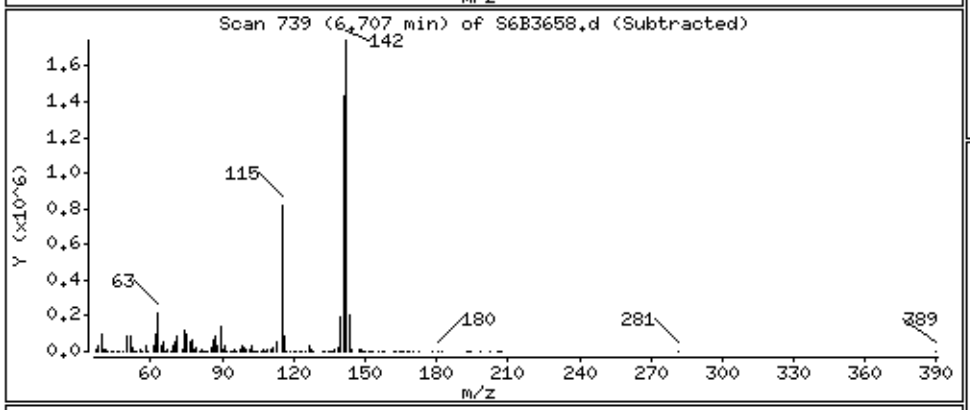
Column diameter: 0.25

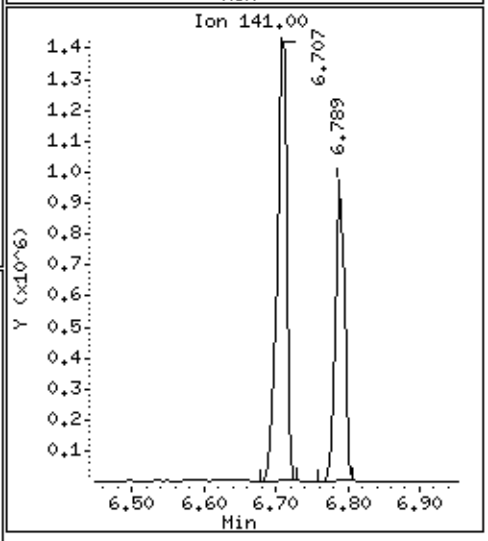
36 2-Methylnaphthalene

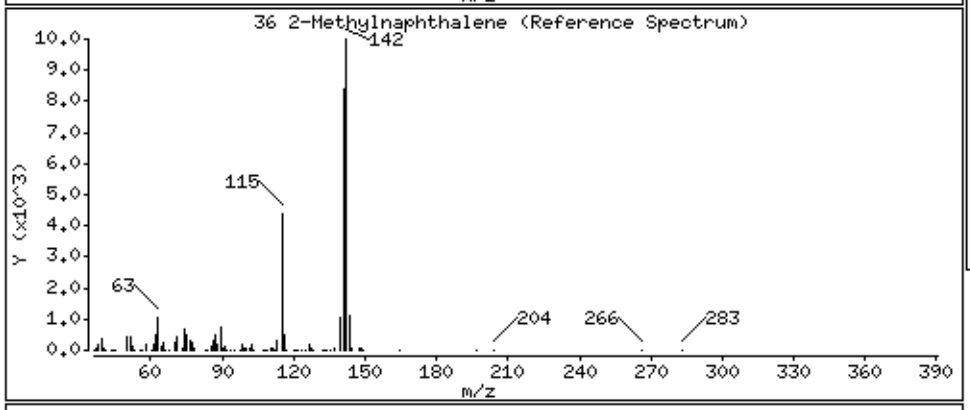
Concentration: 6600 ug/Kg

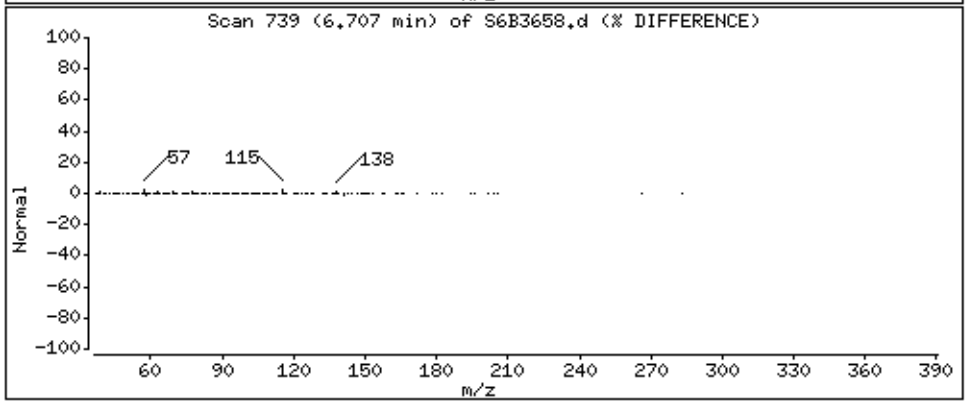












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

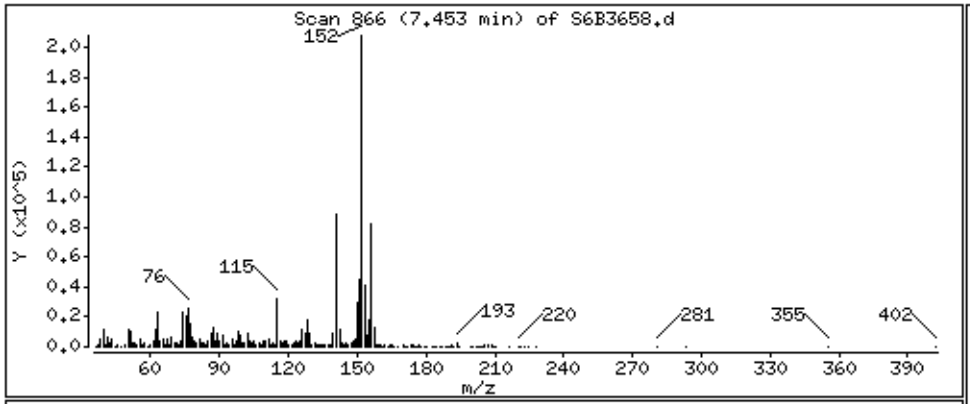
Operator: PK SRC: LIMS

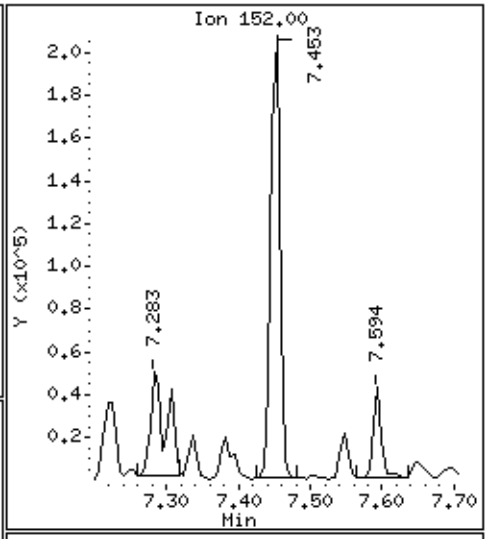
Column phase: Rxi-5Sil MS

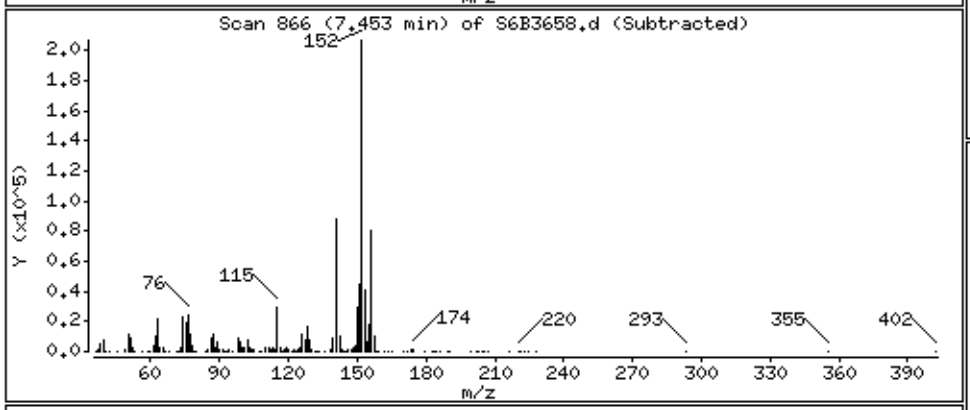
Column diameter: 0.25

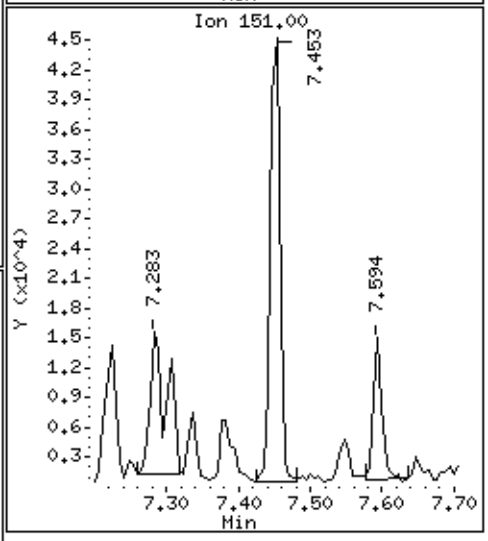
46 Acenaphthylene

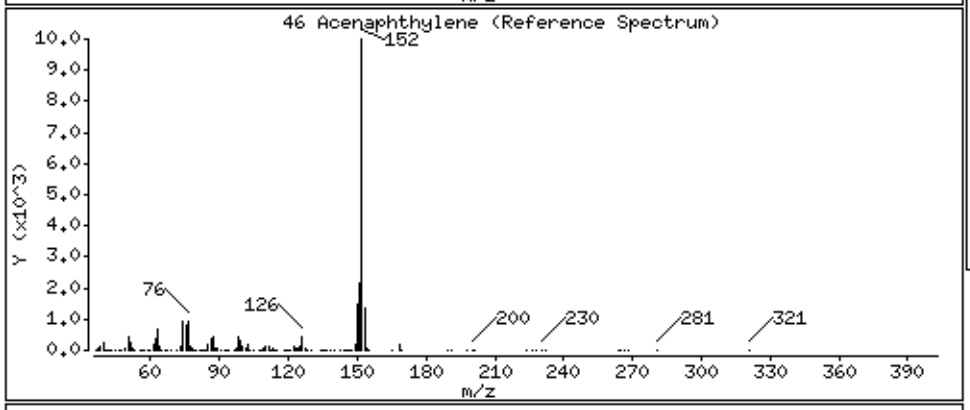
Concentration: 480 ug/Kg

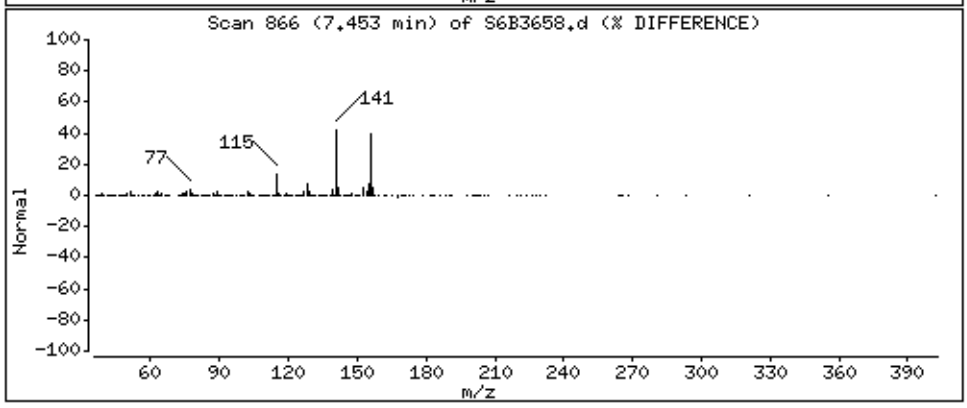












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

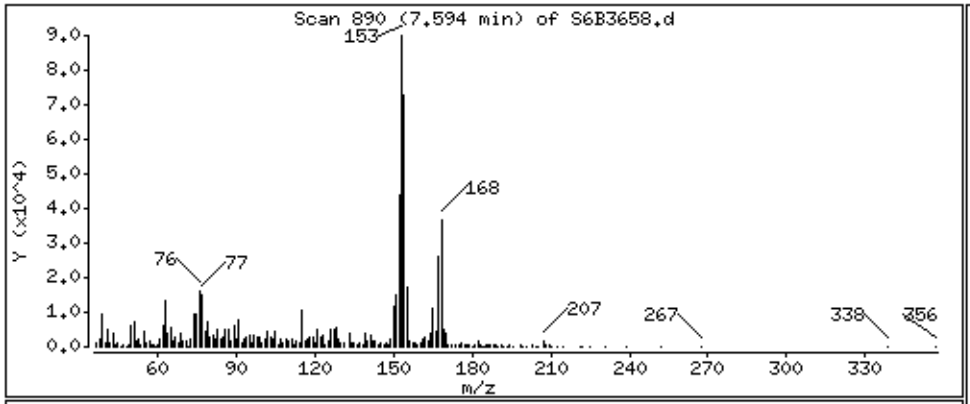
Operator: PK SRC: LIMS

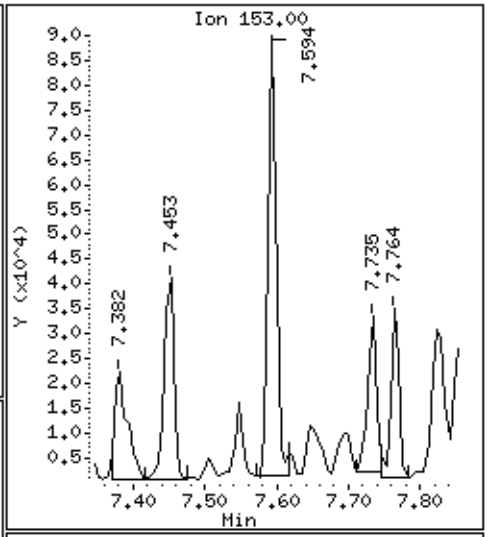
Column phase: Rxi-5Sil MS

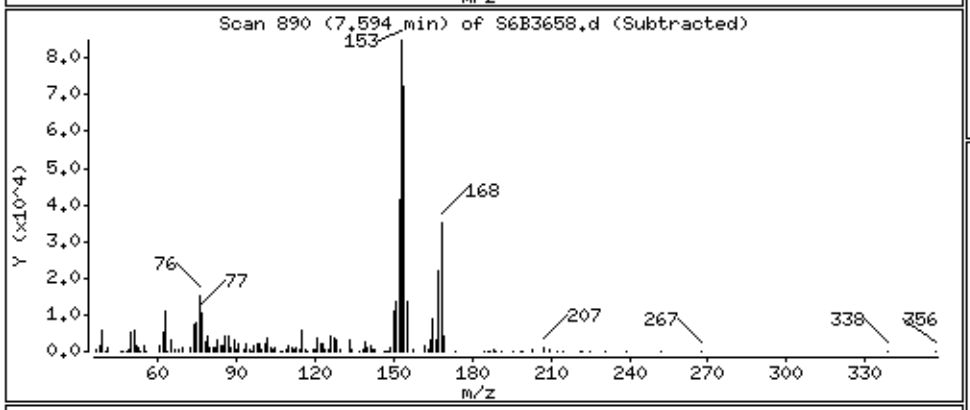
Column diameter: 0.25

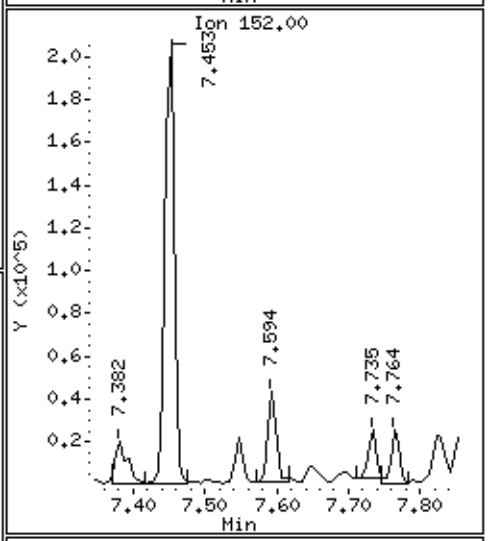
49 Acenaphthene

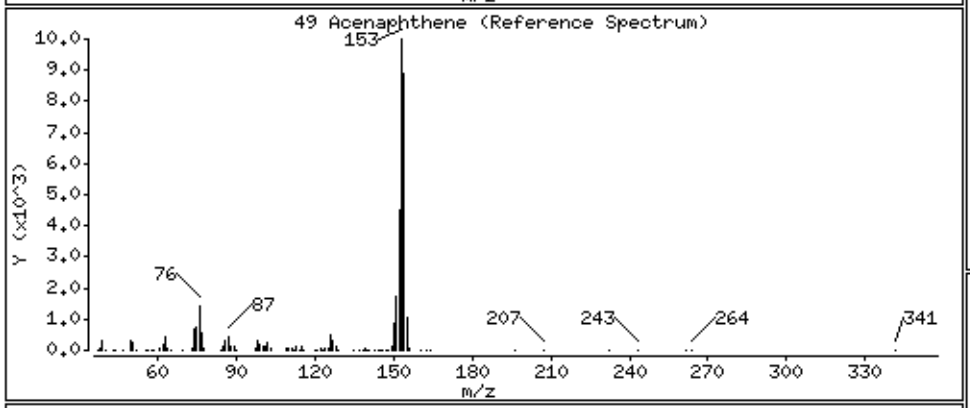
Concentration: 270 ug/Kg

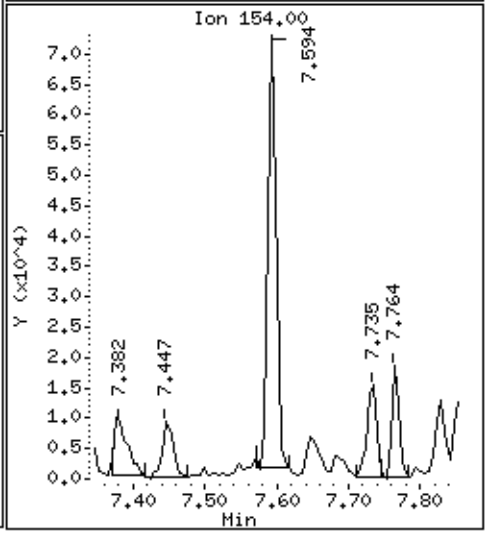


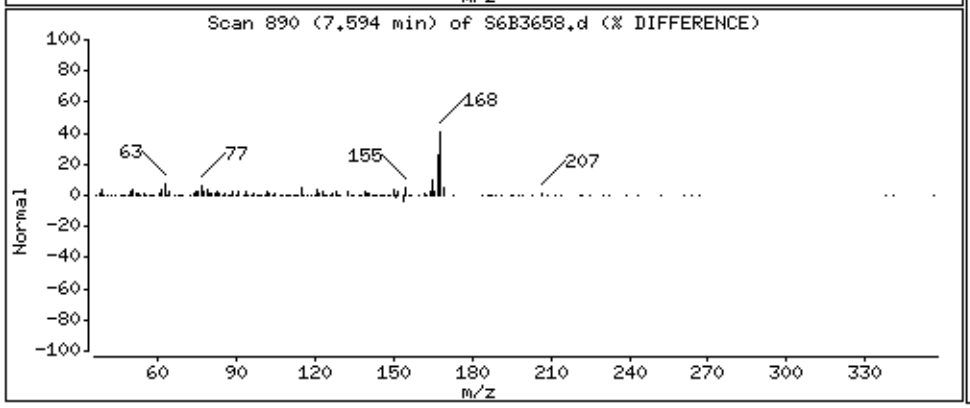












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

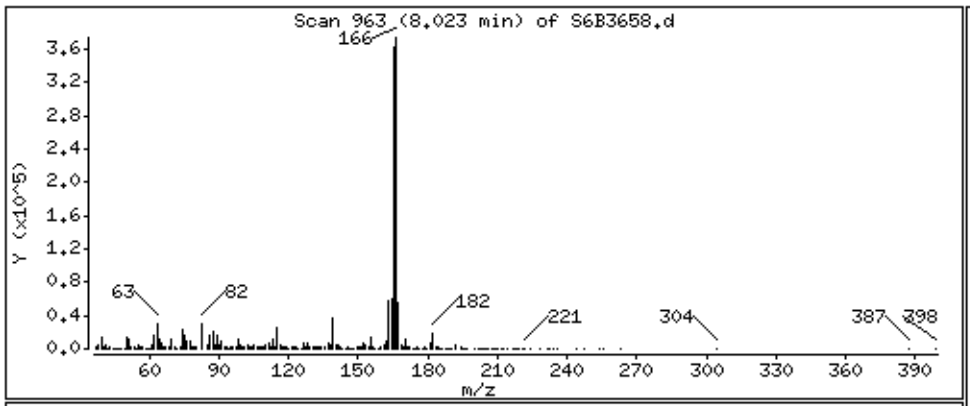
Operator: PK SRC: LIMS

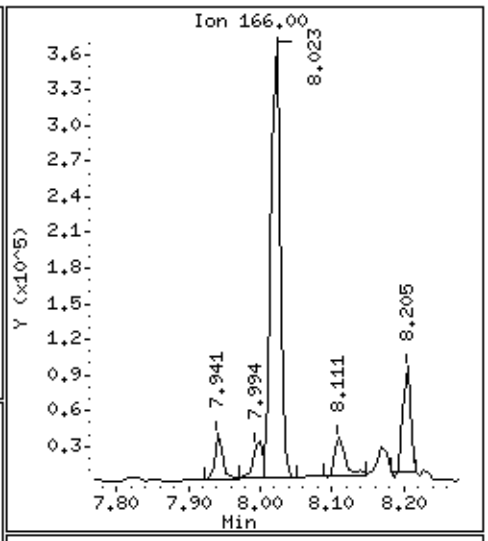
Column phase: Rxi-5Sil MS

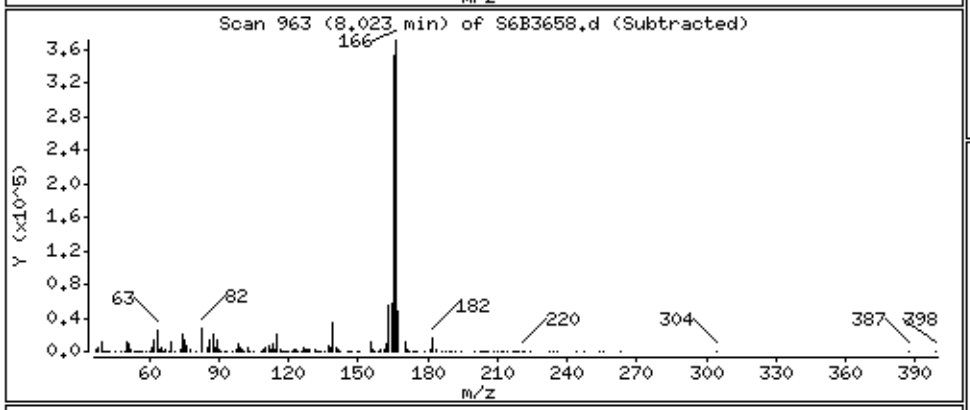
Column diameter: 0.25

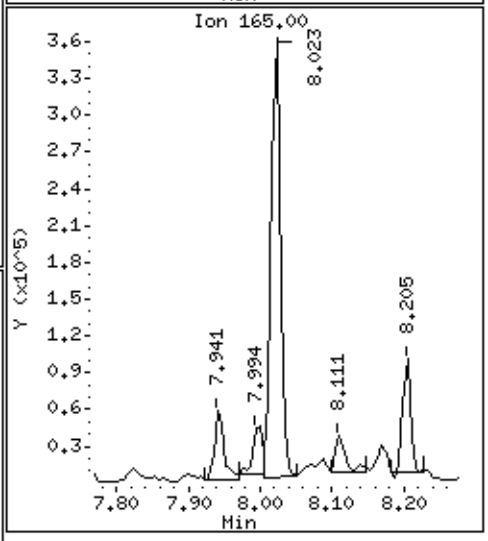
55 Fluorene

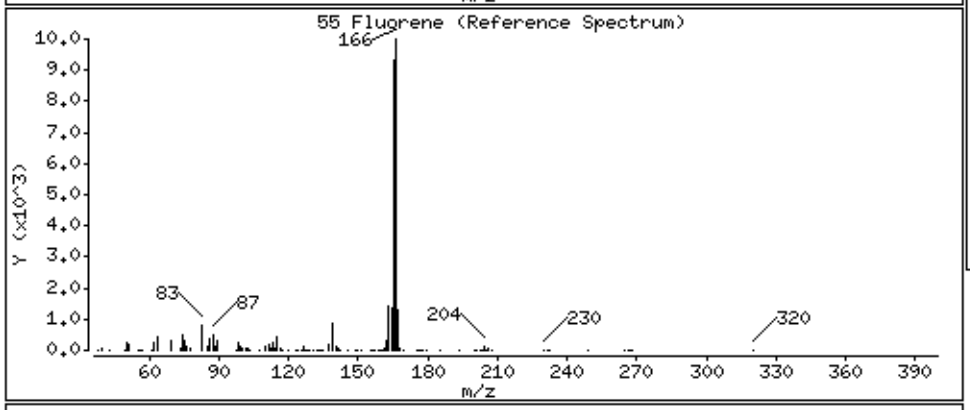
Concentration: 1000 ug/Kg

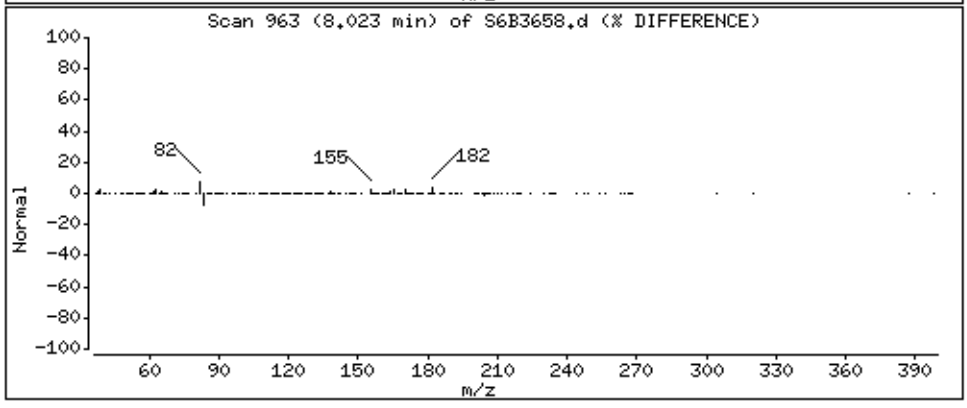












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

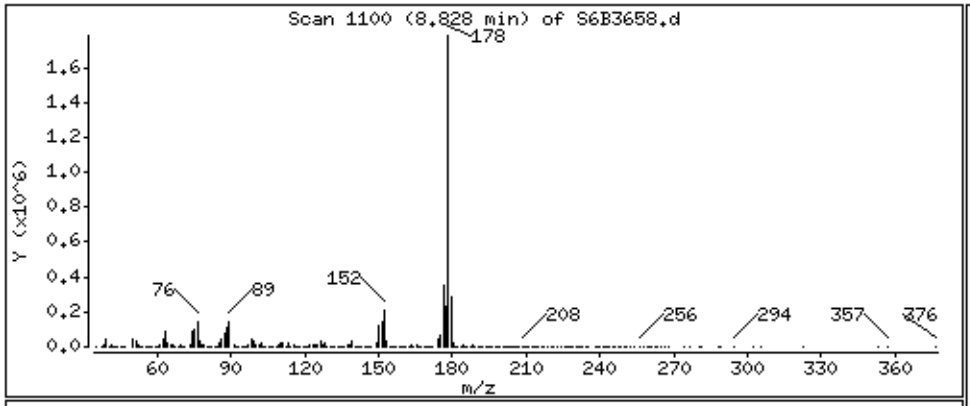
Operator: PK SRC: LIMS

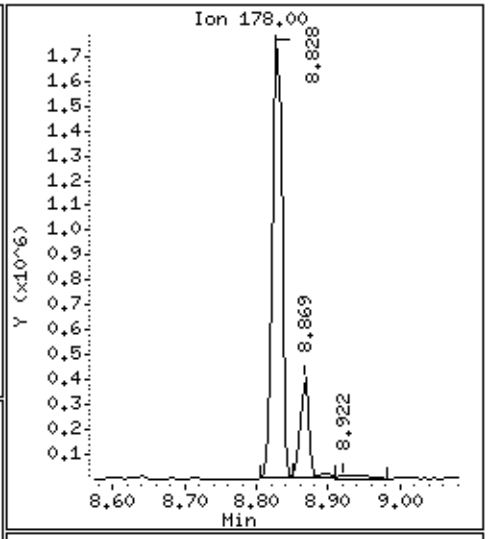
Column phase: Rxi-5Sil MS

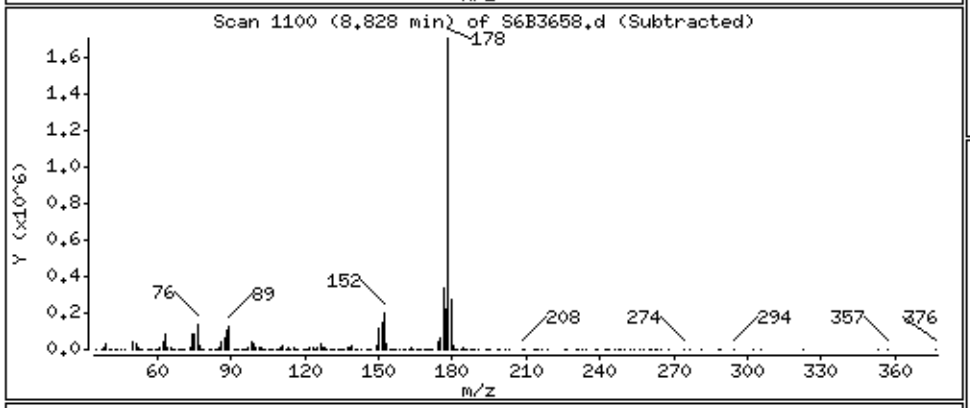
Column diameter: 0.25

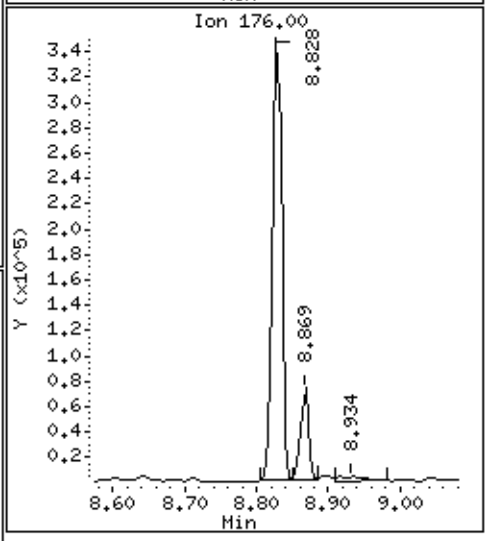
65 Phenanthrene

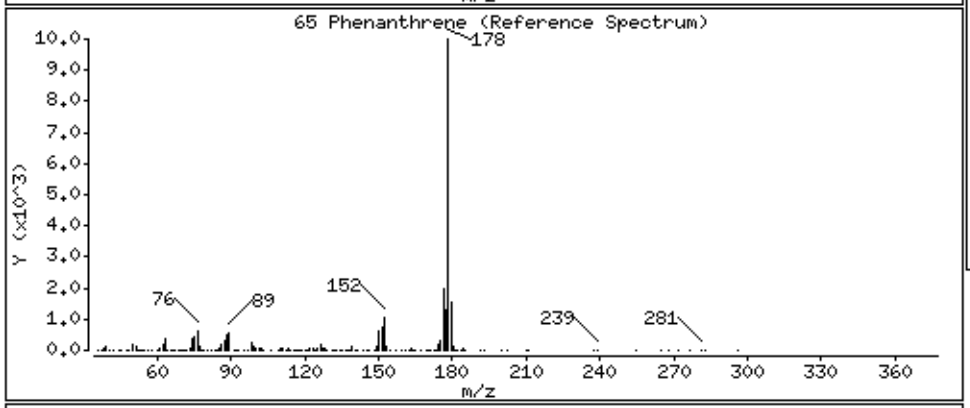
Concentration: 3600 ug/Kg

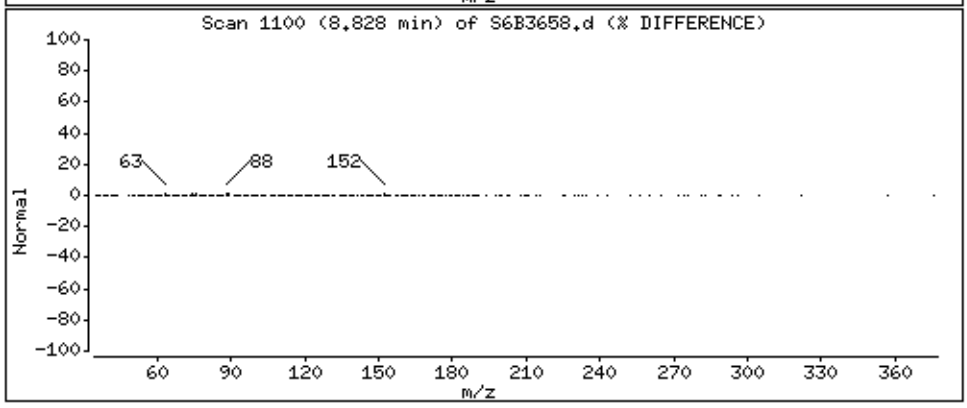












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

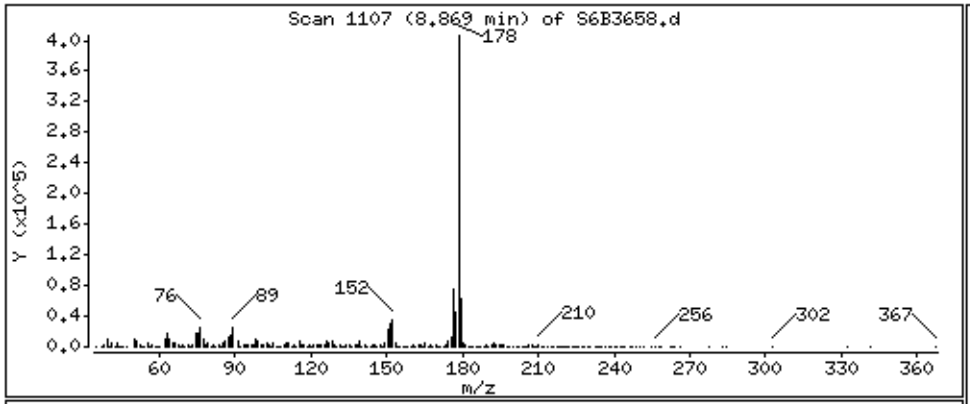
Operator: PK SRC: LIMS

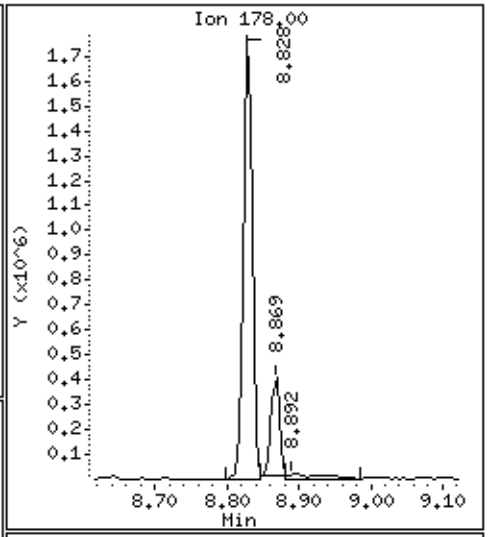
Column phase: Rxi-5Sil MS

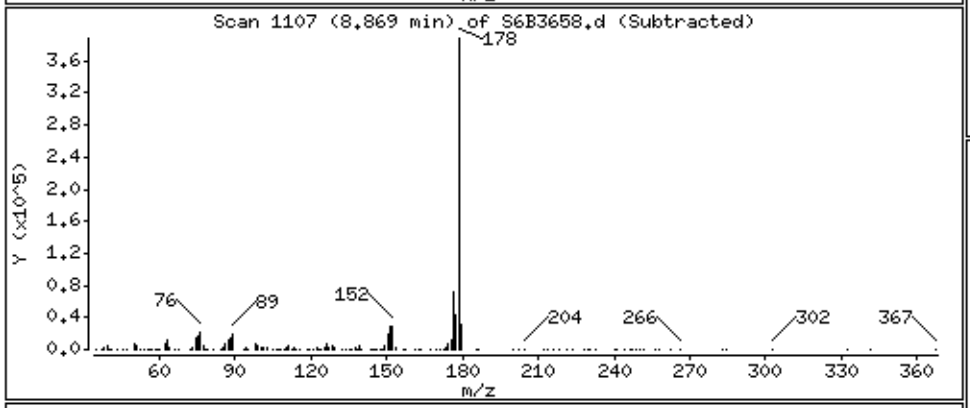
Column diameter: 0.25

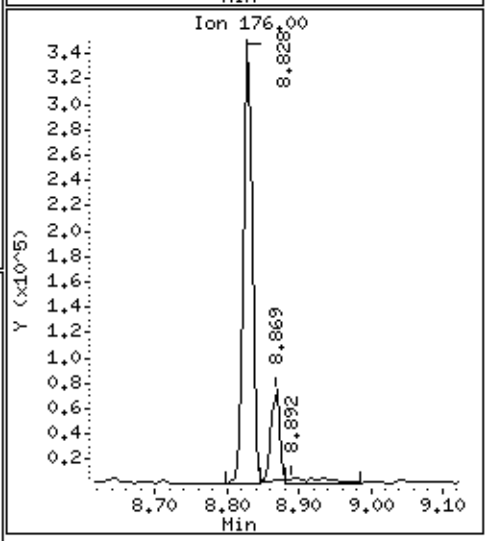
66 Anthracene

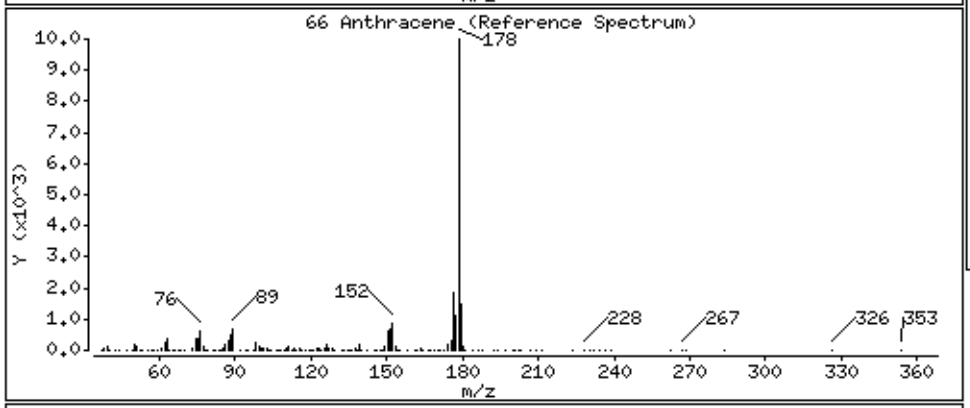
Concentration: 690 ug/Kg

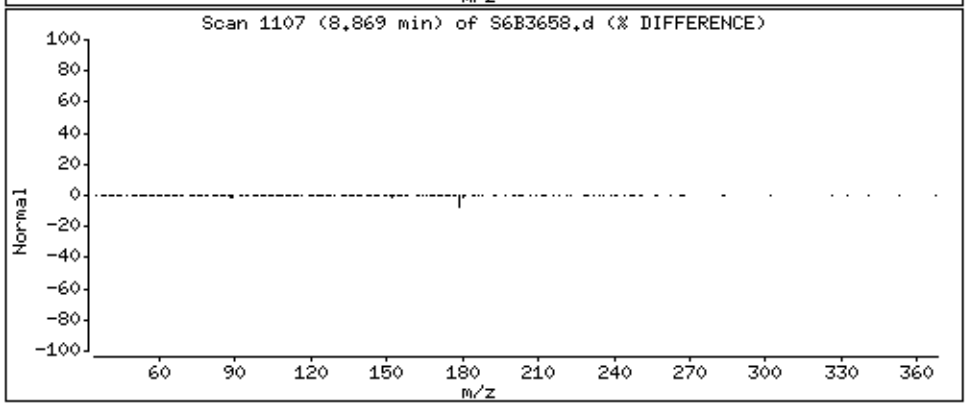












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

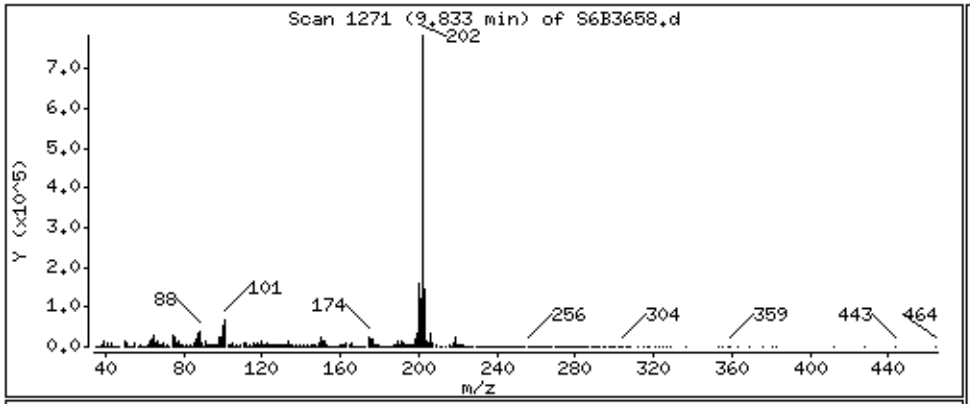
Operator: PK SRC: LIMS

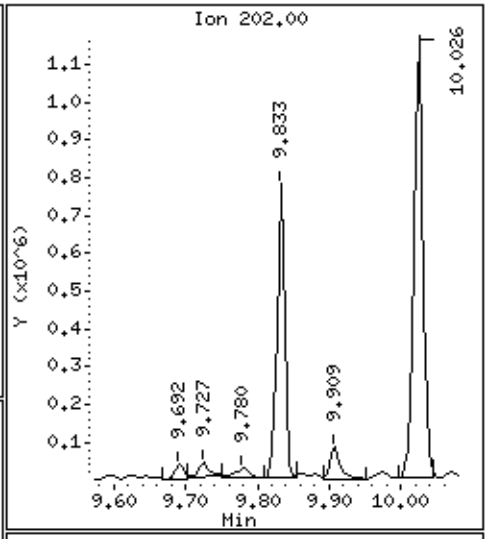
Column phase: Rxi-5Sil MS

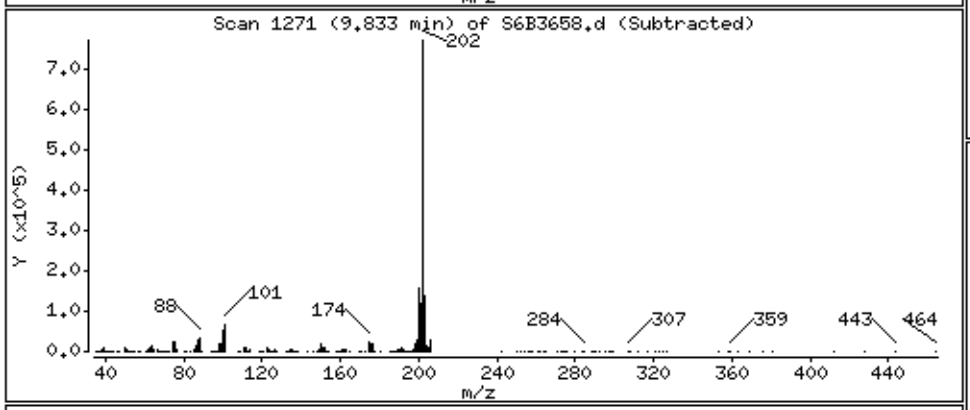
Column diameter: 0.25

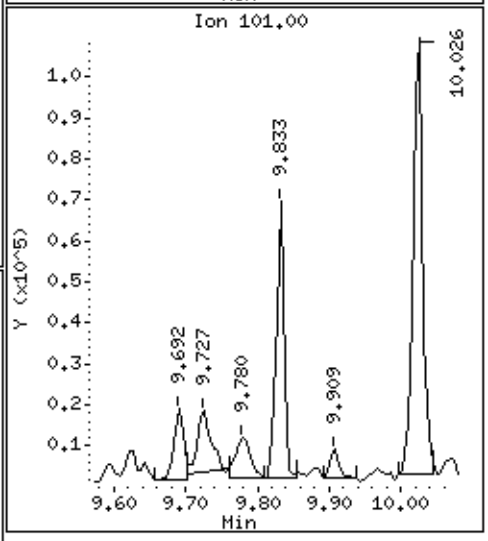
69 Fluoranthene

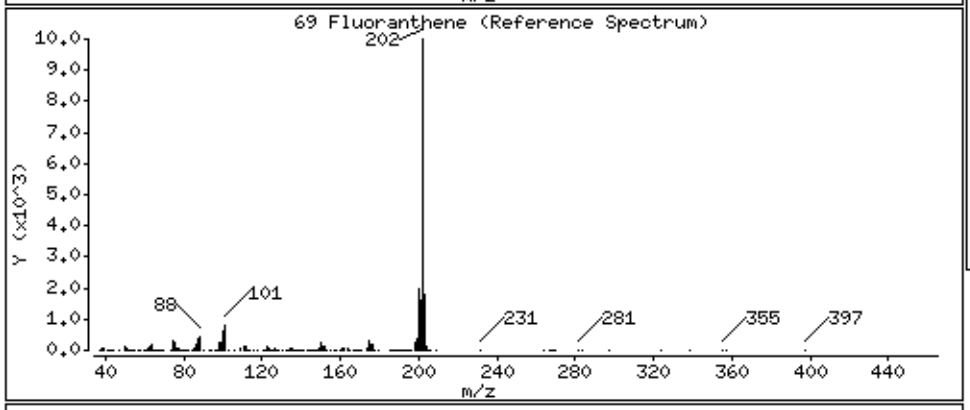
Concentration: 1100 ug/Kg

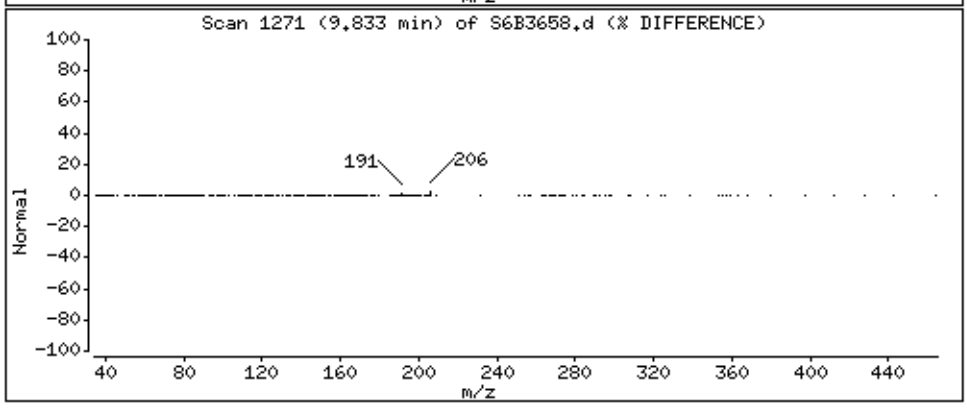












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

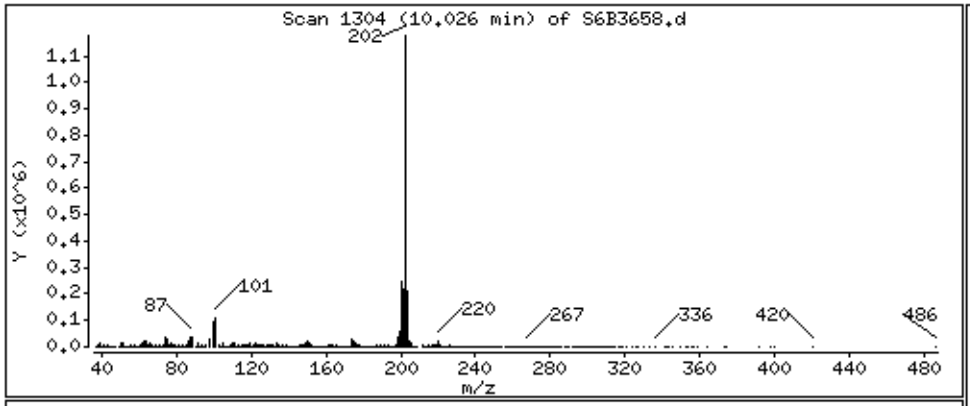
Operator: PK SRC: LIMS

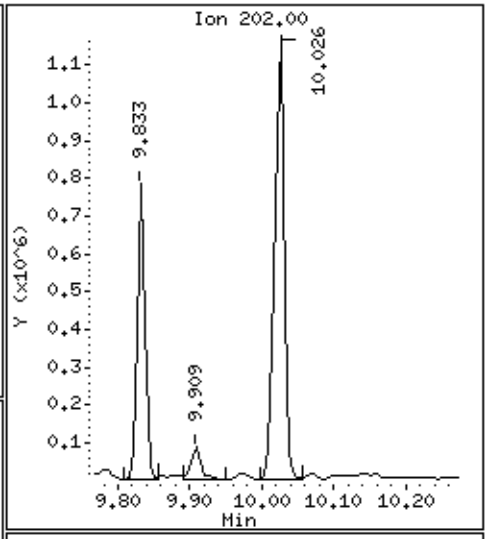
Column phase: Rxi-5Sil MS

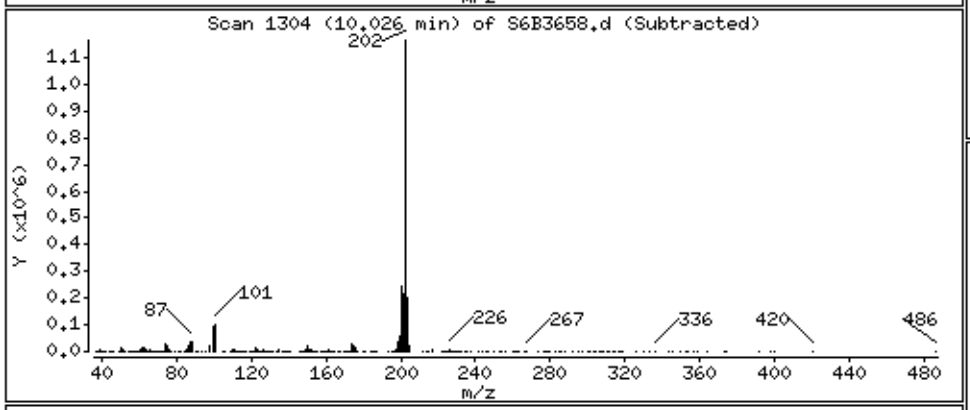
Column diameter: 0.25

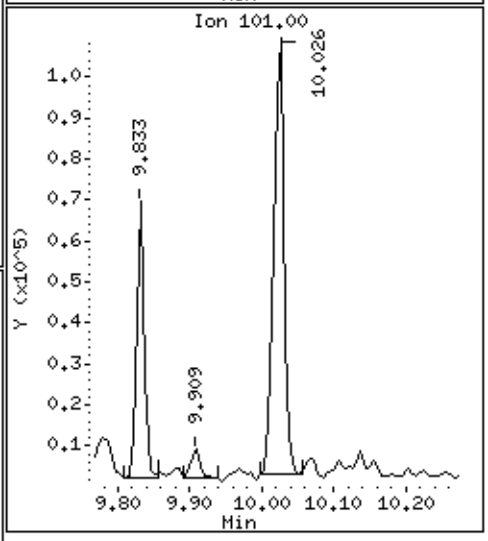
71 Pyrene

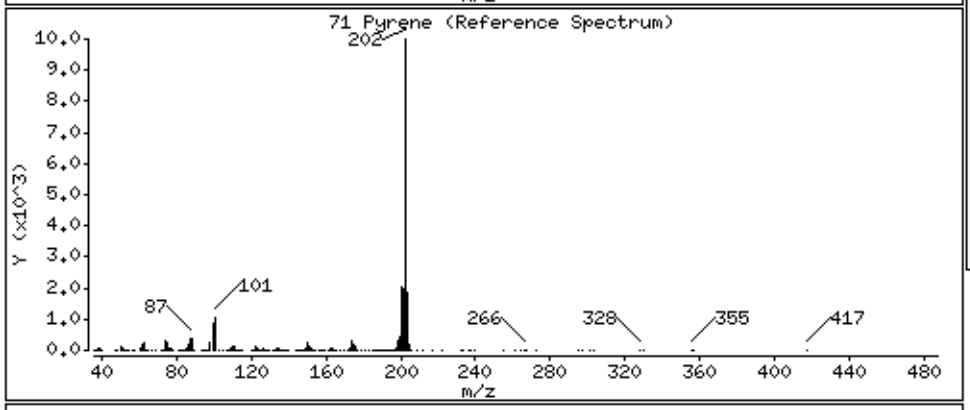
Concentration: 2100 ug/Kg

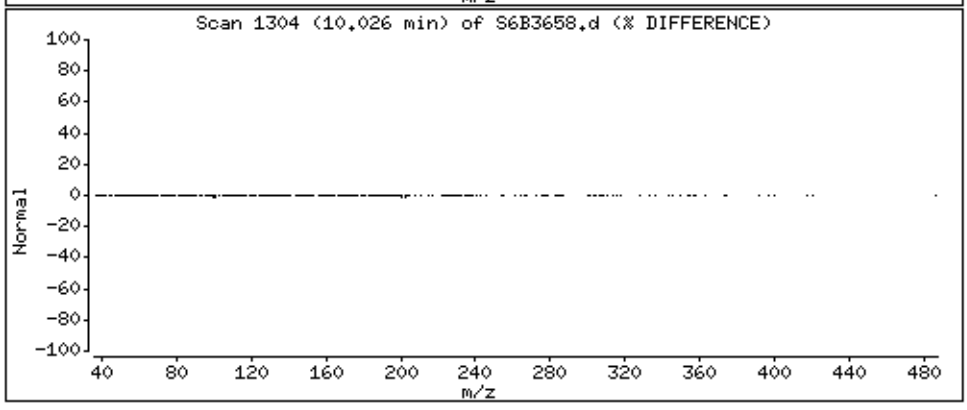












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

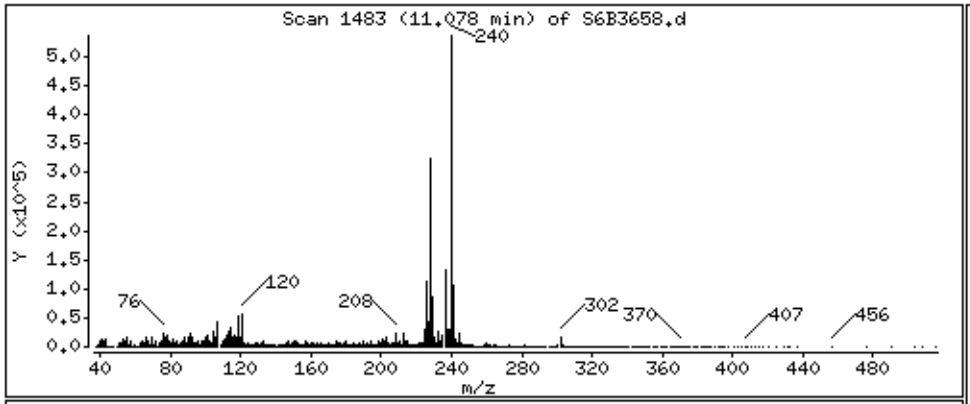
Operator: PK SRC: LIMS

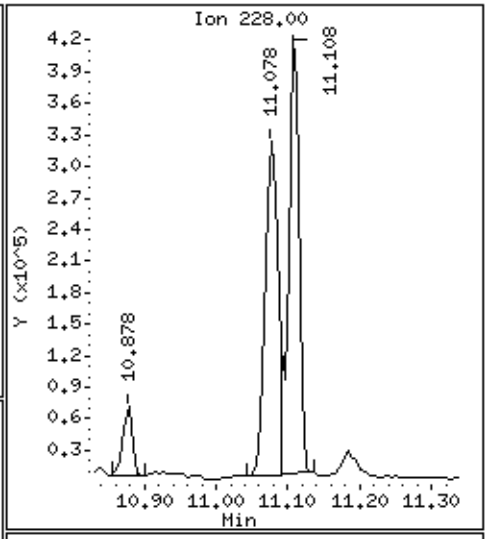
Column phase: Rxi-5Sil MS

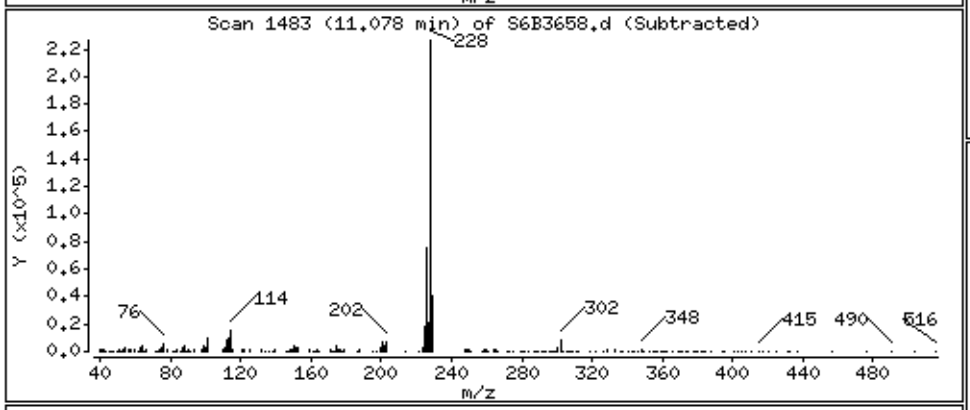
Column diameter: 0.25

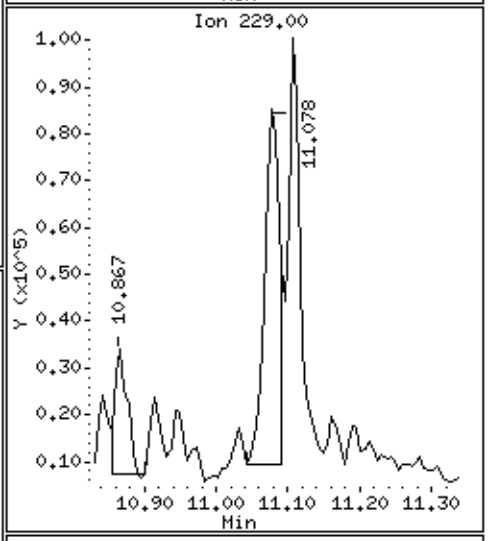
75 Benzo(a)anthracene

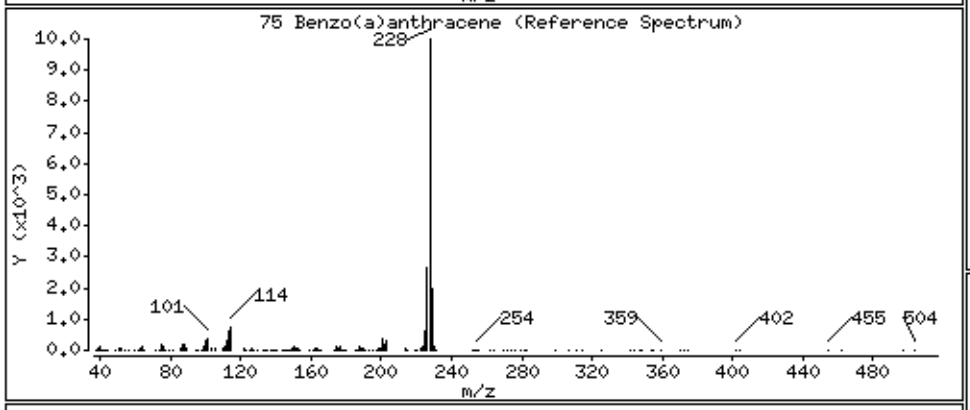
Concentration: 740 ug/Kg

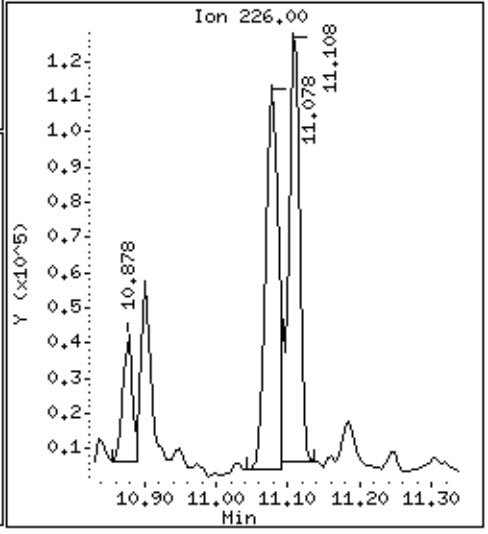


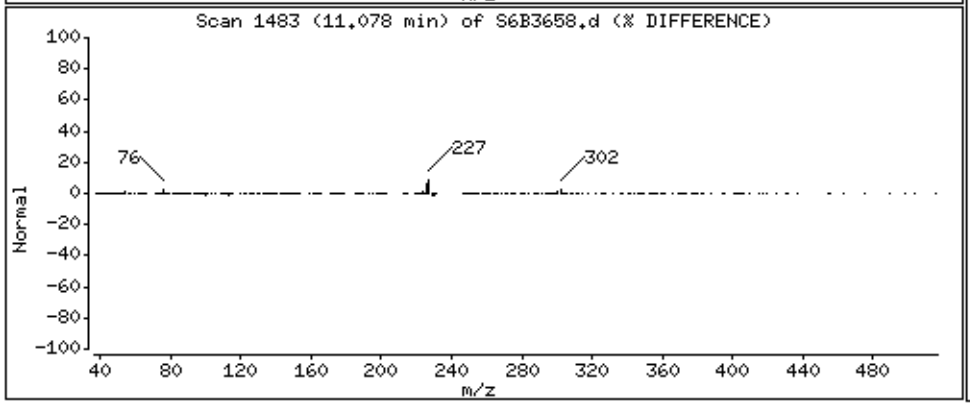












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

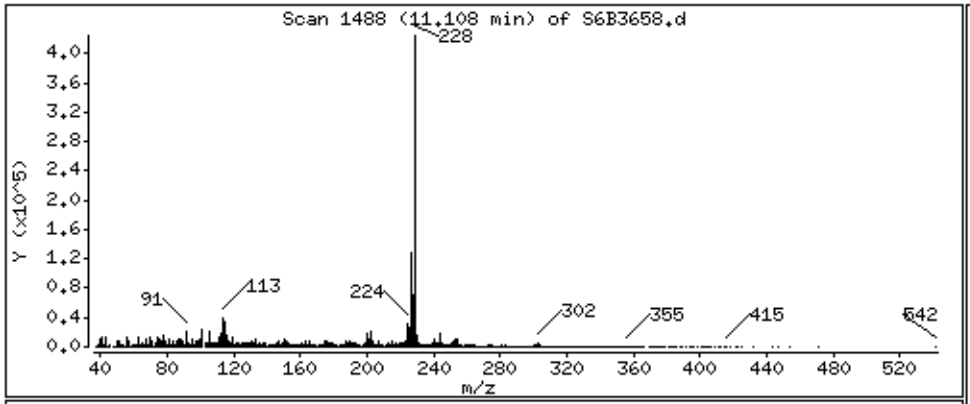
Operator: PK SRC: LIMS

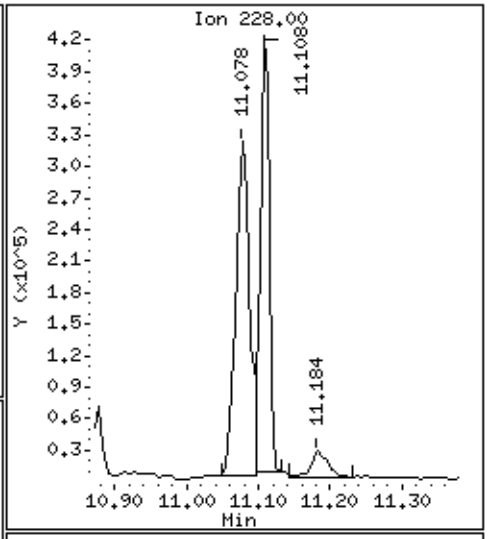
Column phase: Rxi-5Sil MS

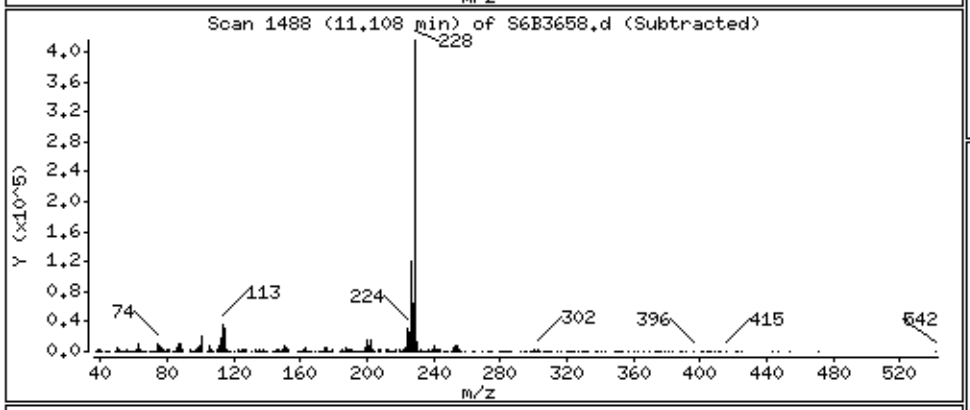
Column diameter: 0.25

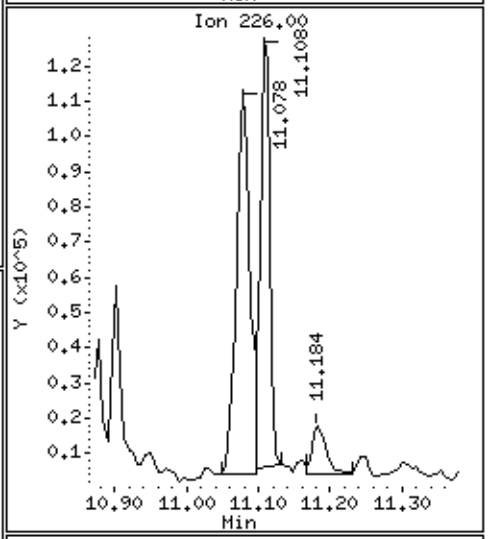
77 Chrysene

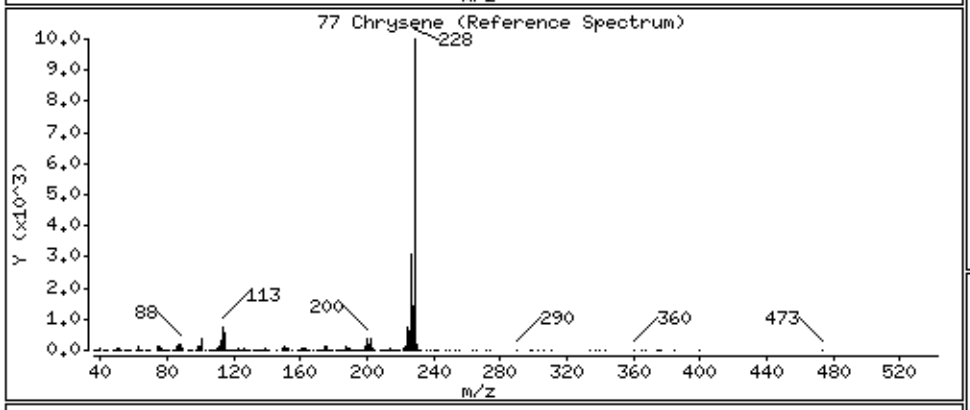
Concentration: 860 ug/Kg

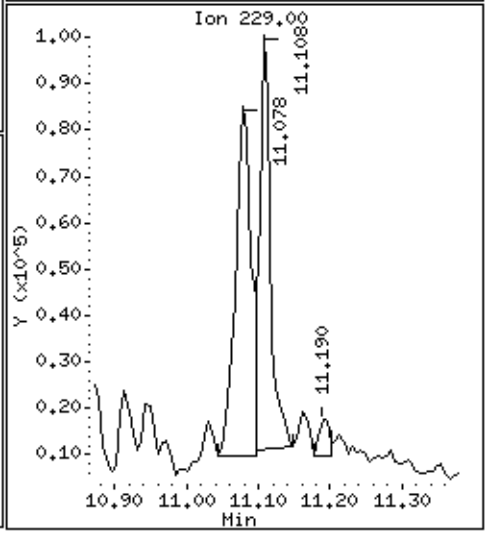


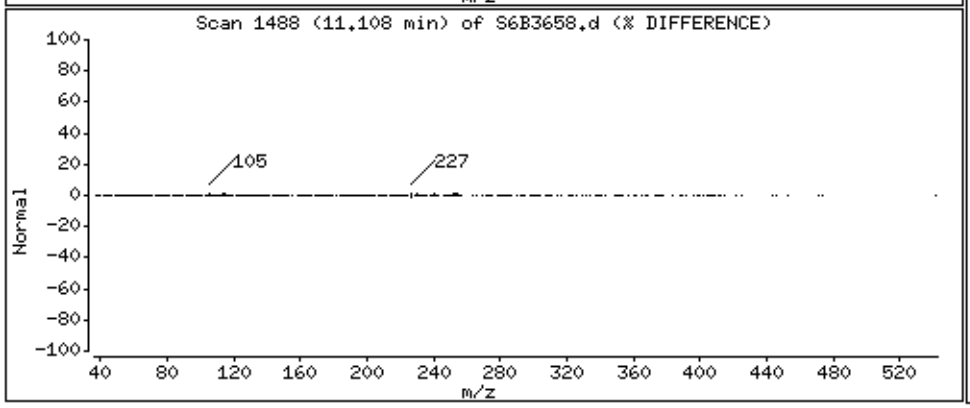












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

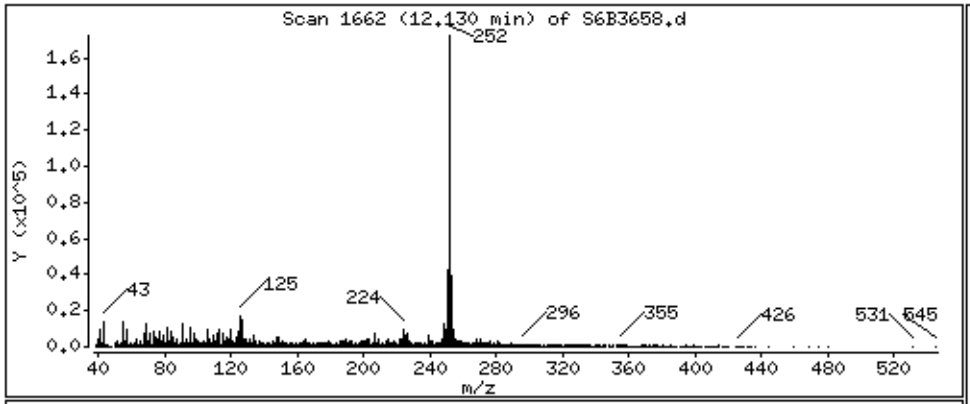
Operator: PK SRC: LIMS

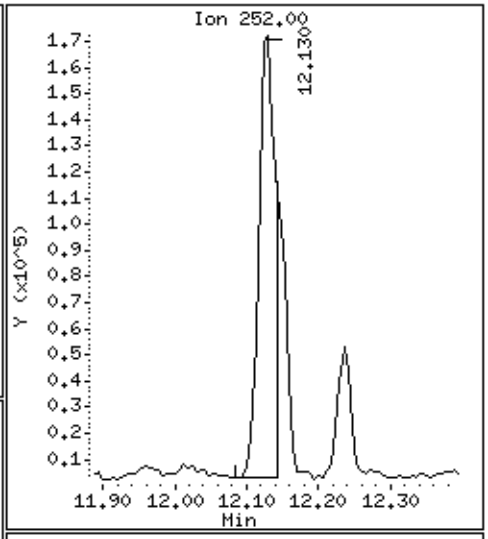
Column phase: Rxi-5Sil MS

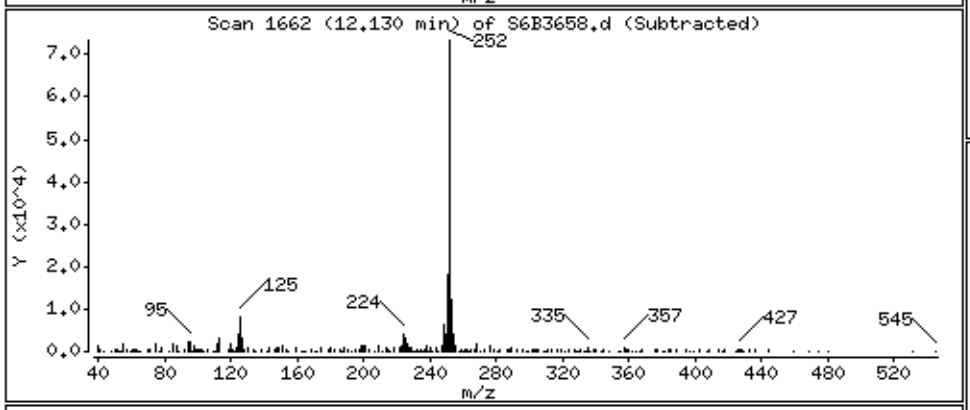
Column diameter: 0.25

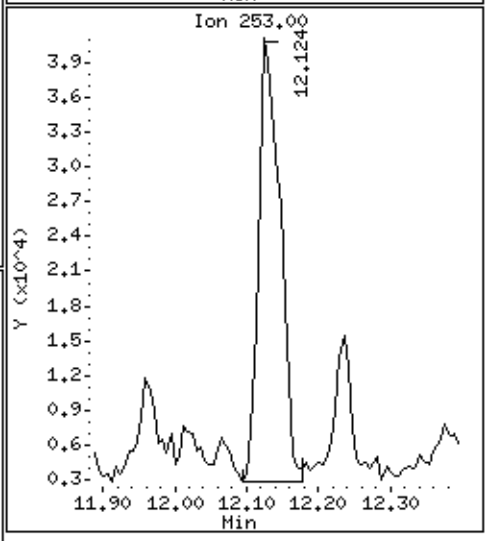
80 Benzo(b)fluoranthene

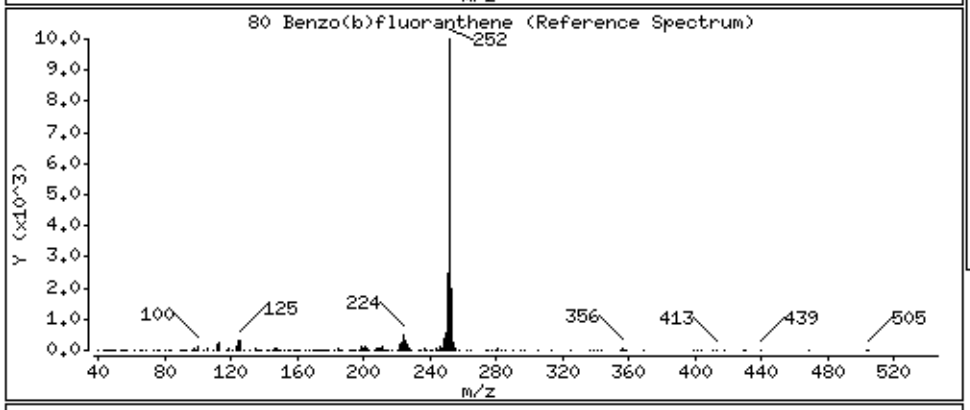
Concentration: 420 ug/Kg

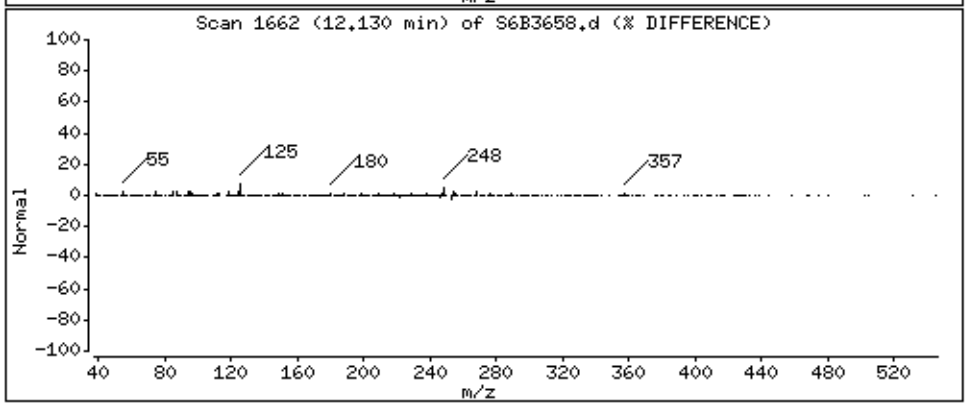












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

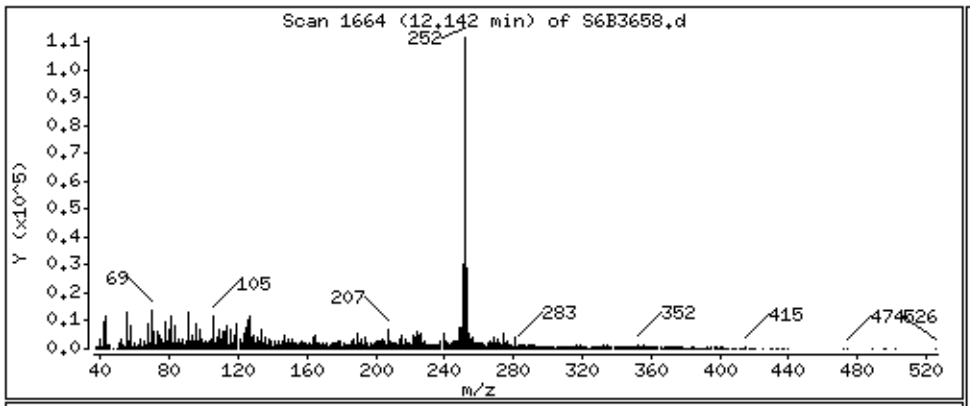
Operator: PK SRC: LIMS

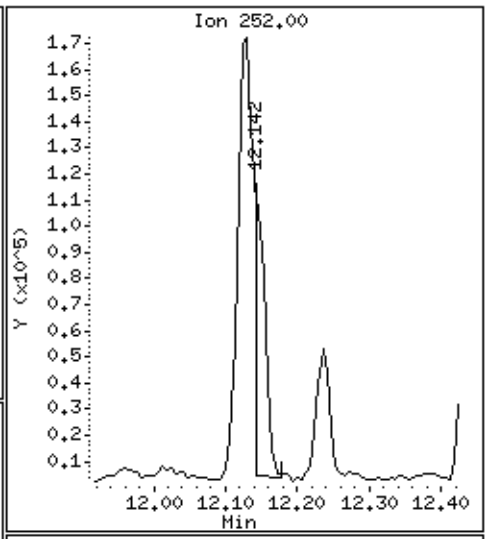
Column phase: Rxi-5Sil MS

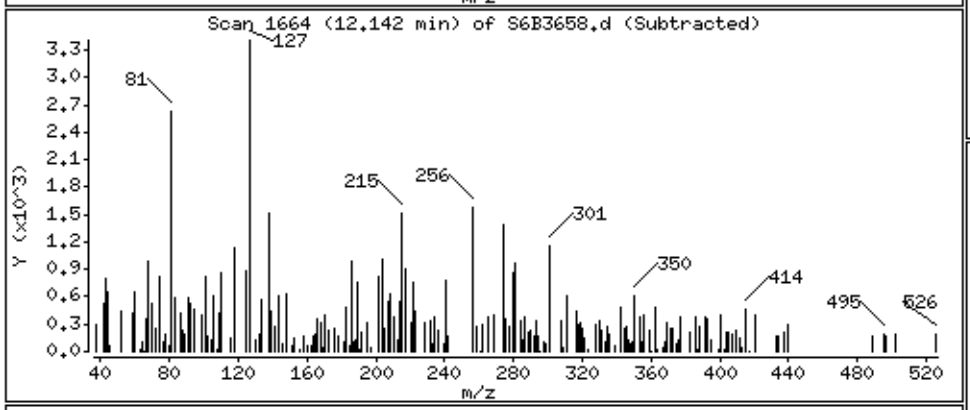
Column diameter: 0.25

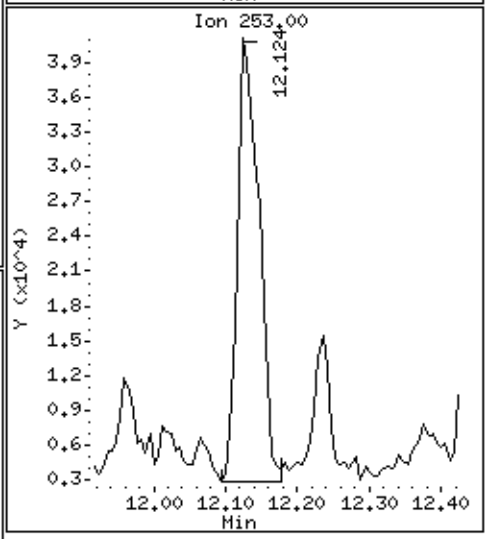
81 Benzo(k)fluoranthene

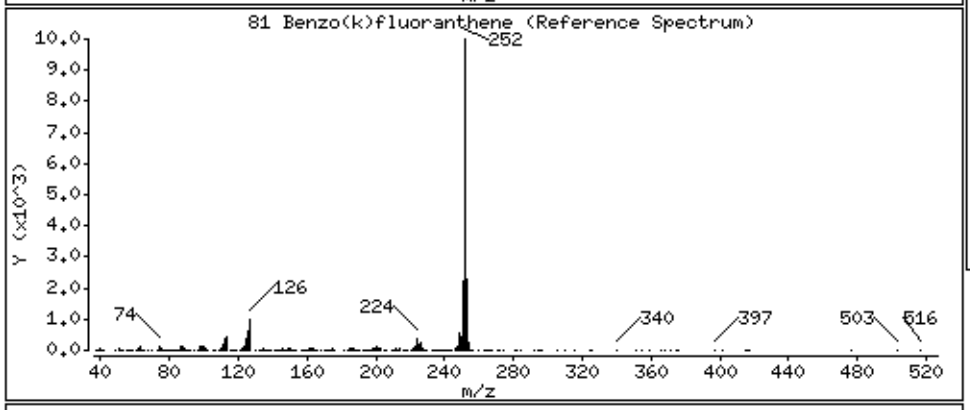
Concentration: 190 ug/Kg

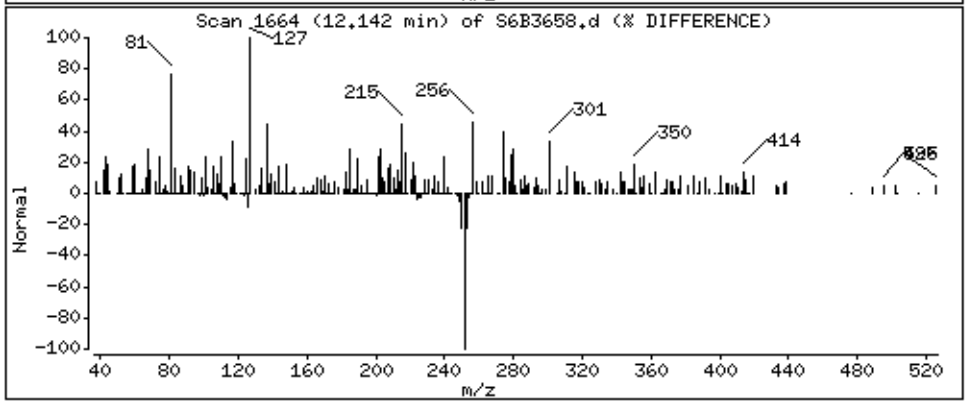












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

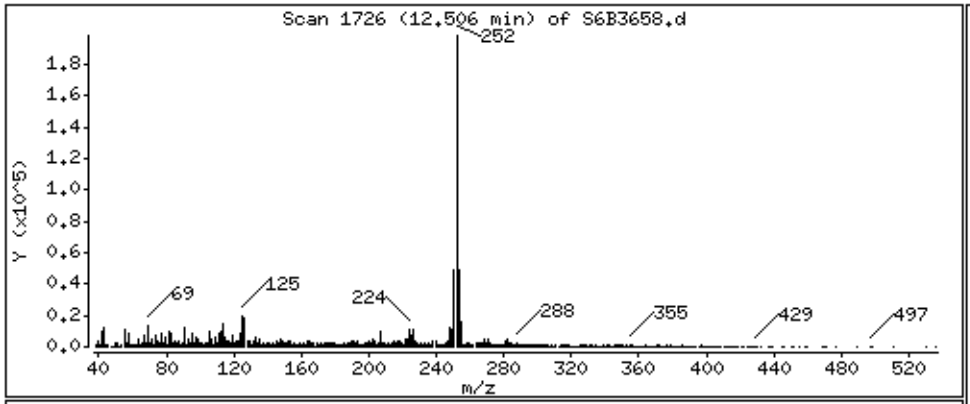
Operator: PK SRC: LIMS

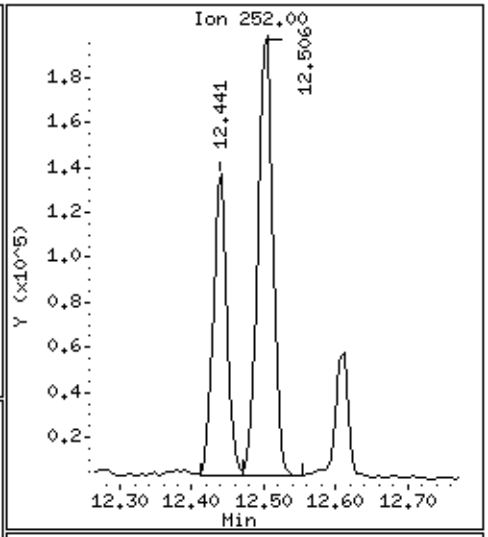
Column phase: Rxi-5Sil MS

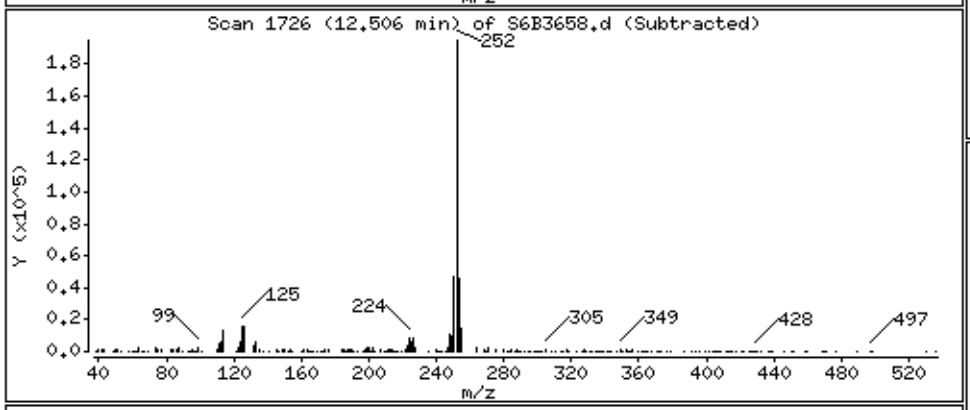
Column diameter: 0.25

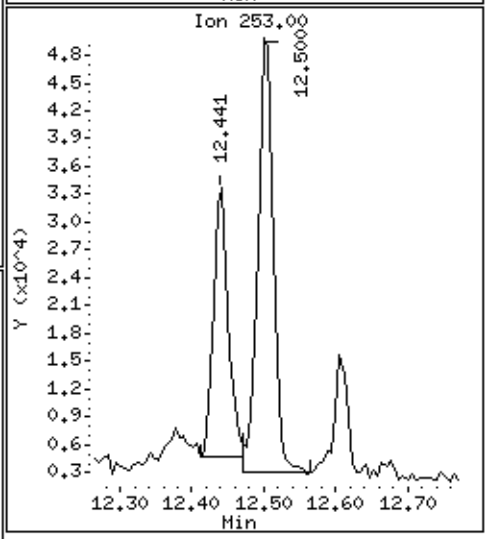
82 Benzo(a)pyrene

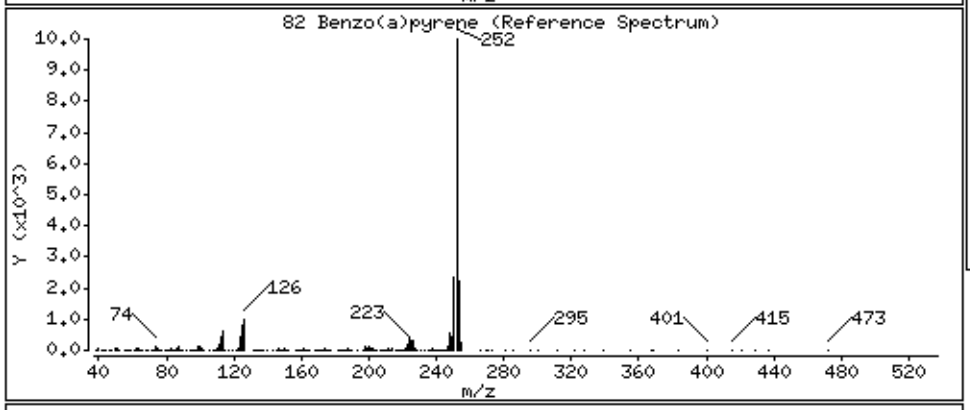
Concentration: 510 ug/Kg

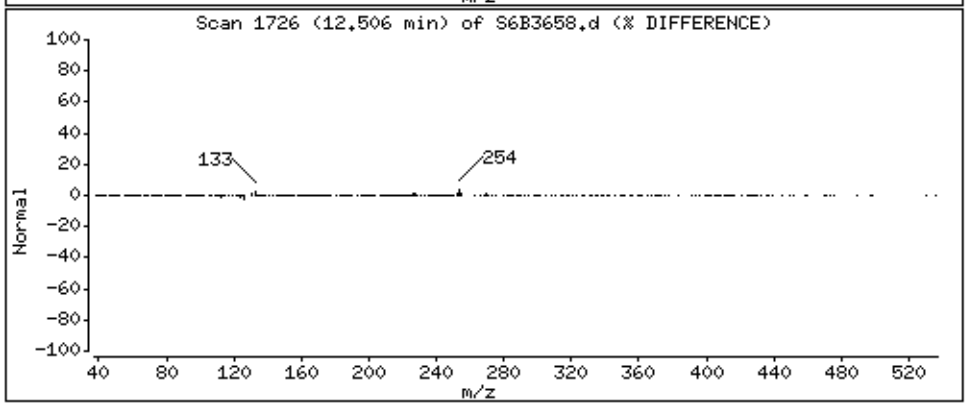












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

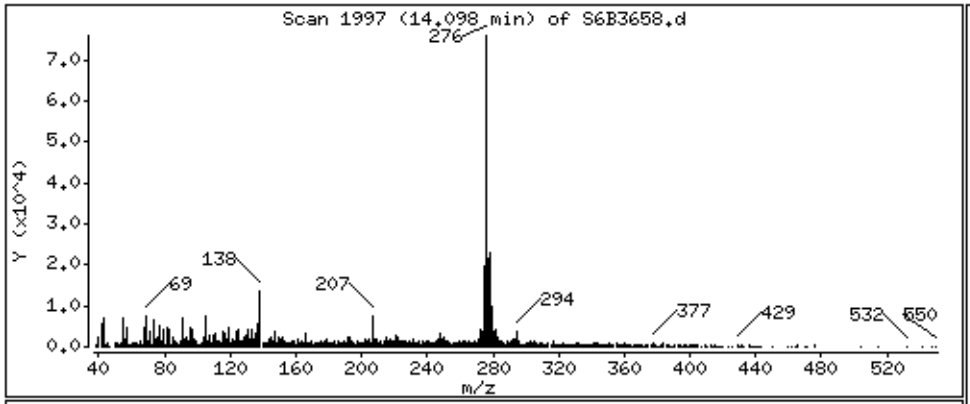
Operator: PK SRC: LIMS

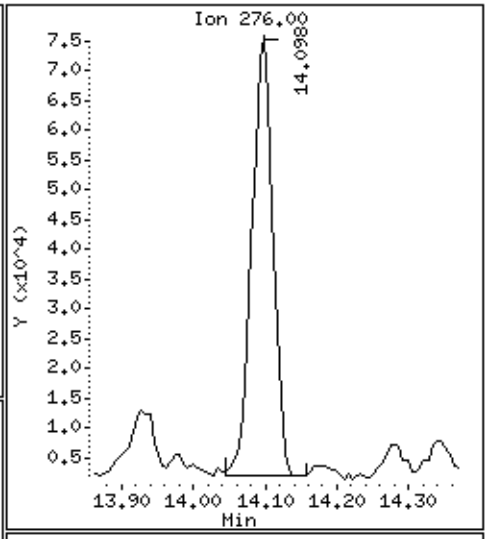
Column phase: Rxi-5Sil MS

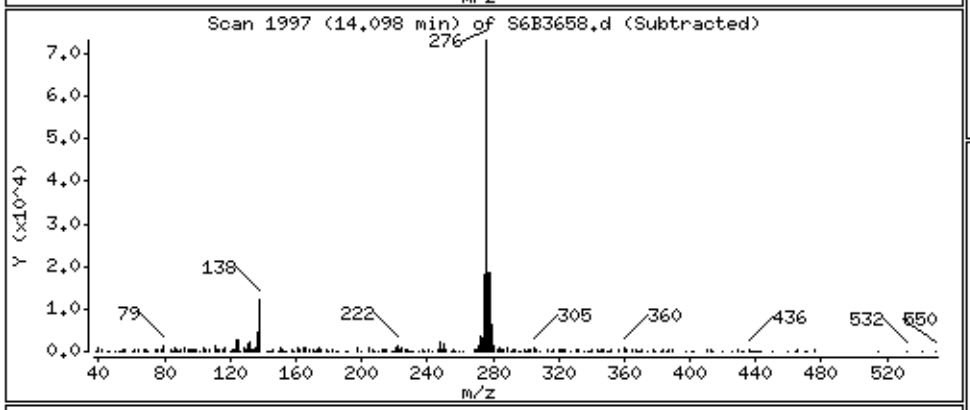
Column diameter: 0.25

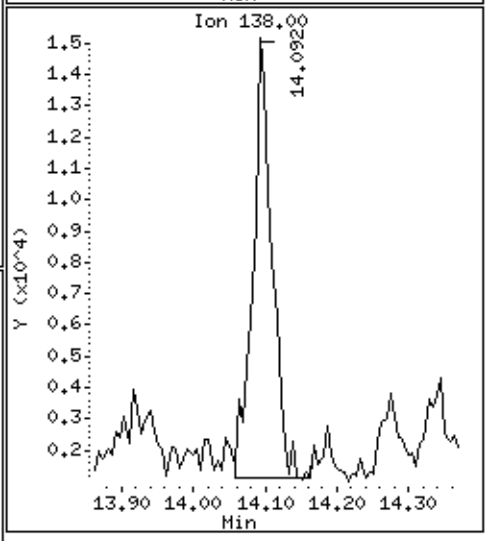
84 Indeno(1,2,3-cd)pyrene

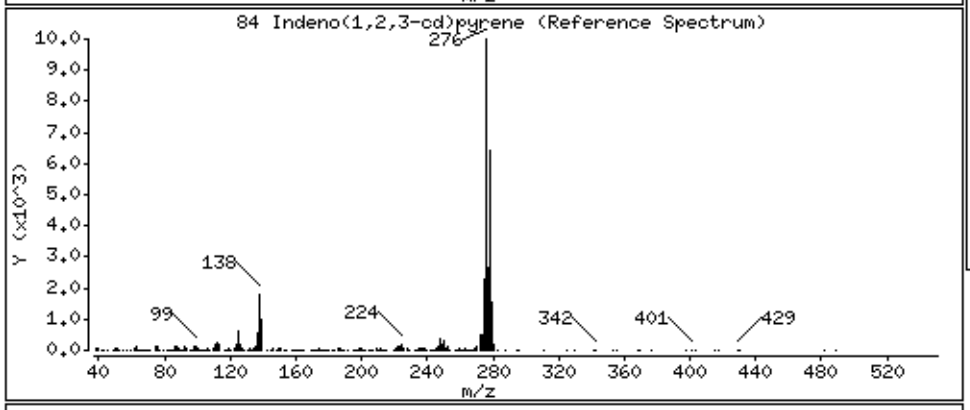
Concentration: 220 ug/Kg

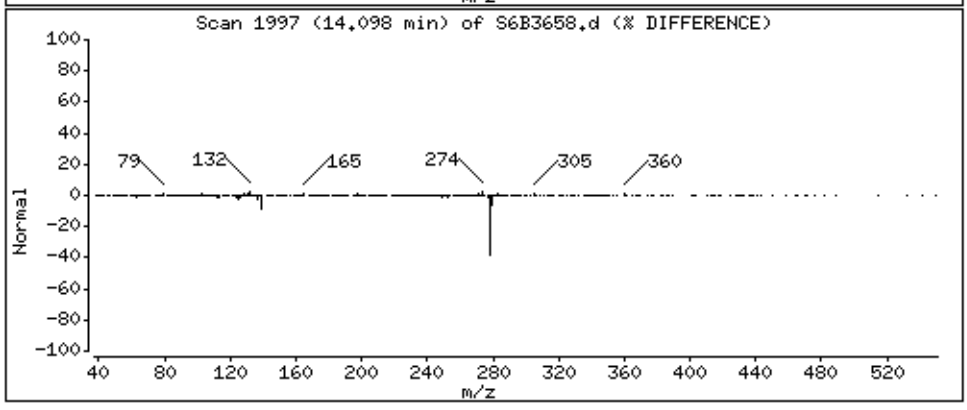












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

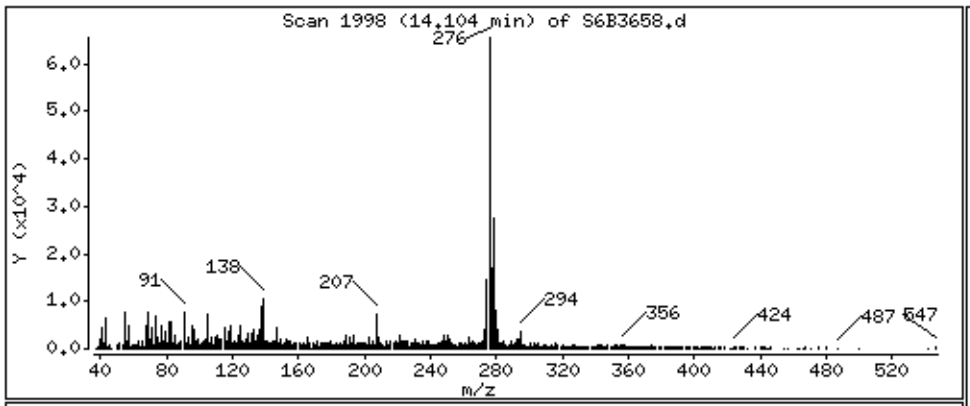
Operator: PK SRC: LIMS

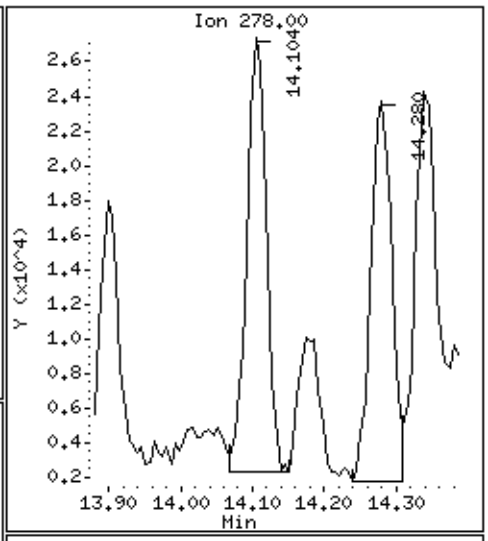
Column phase: Rxi-5Sil MS

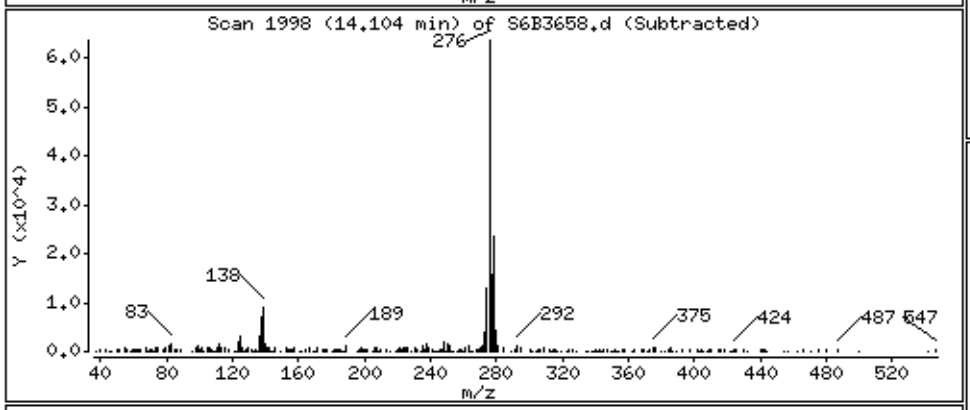
Column diameter: 0.25

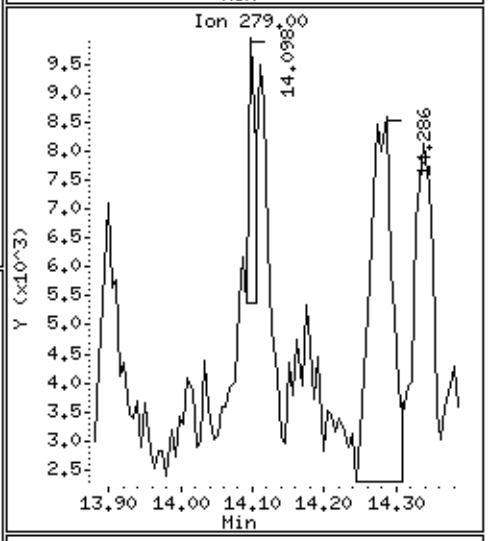
85 Dibenzo(a,h)anthracene

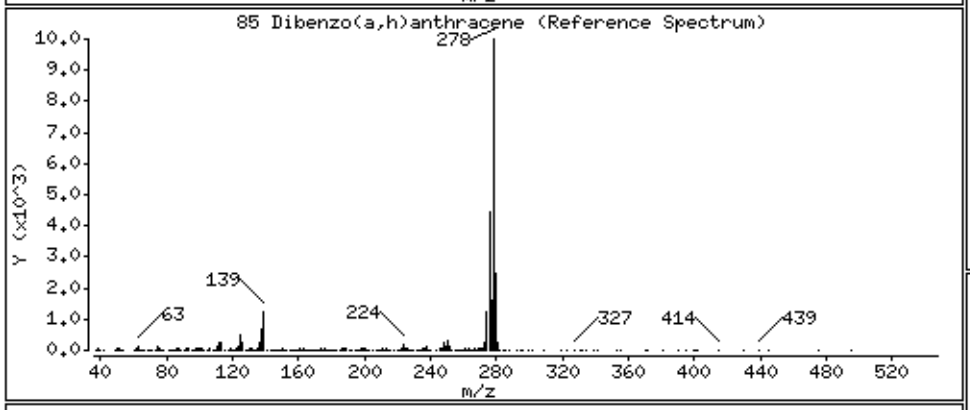
Concentration: 81 ug/Kg

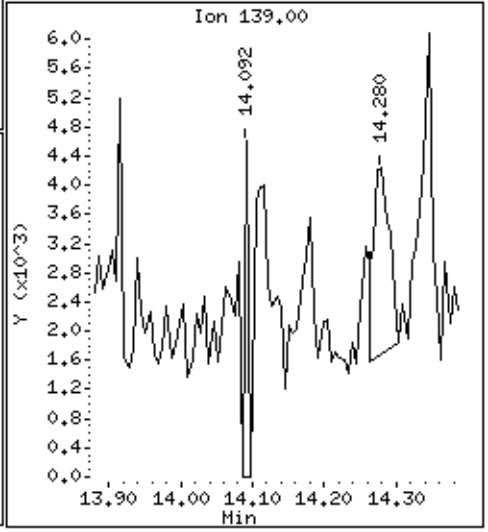


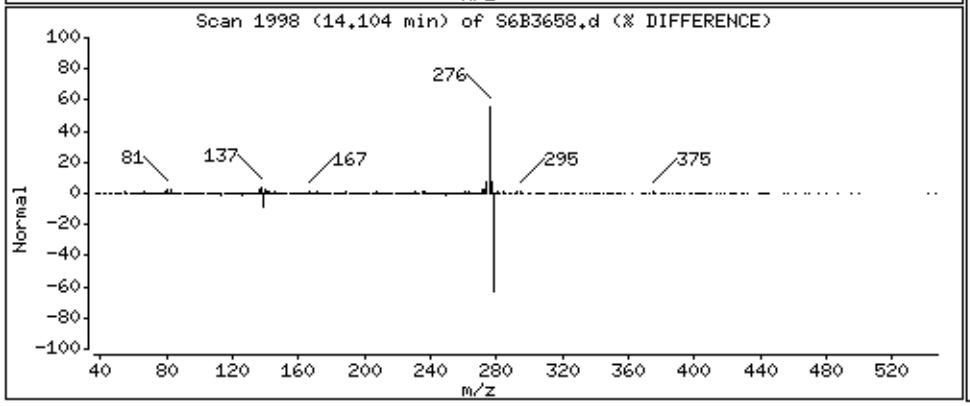












Data File: \\avogadro\organics\S6.I\130506.B\S6B3658.d

Date : 06-MAY-2013 21:49

Client ID: SB-129 (8-10)

Instrument: S6.i

Sample Info: M0619-11A,,71418

Volume Injected (uL): 1.0

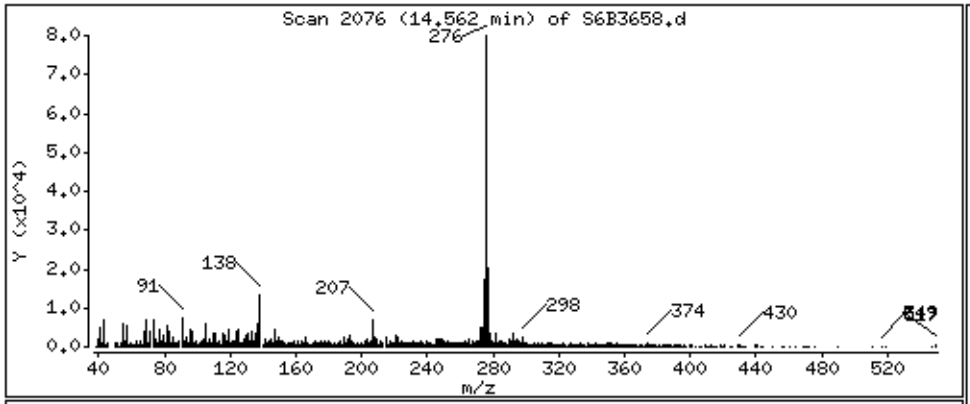
Operator: PK SRC: LIMS

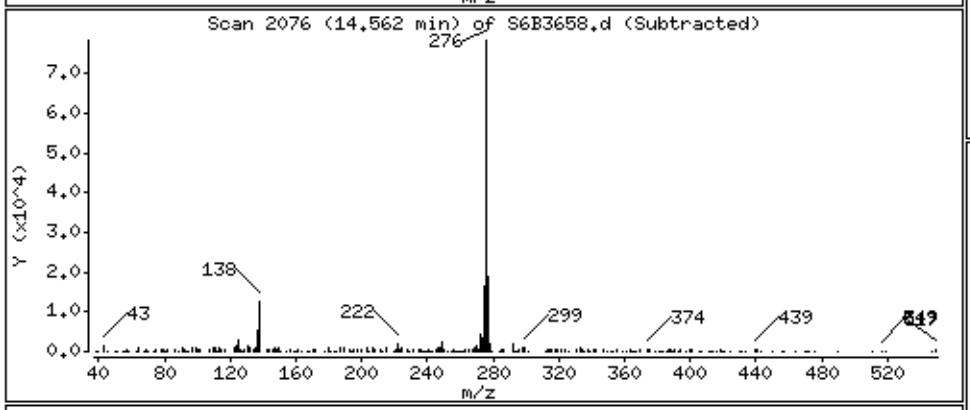
Column phase: Rxi-5Sil MS

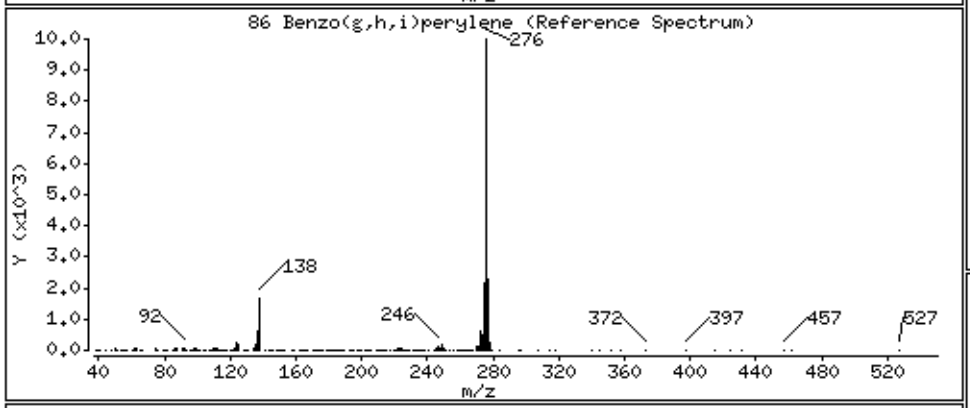
Column diameter: 0.25

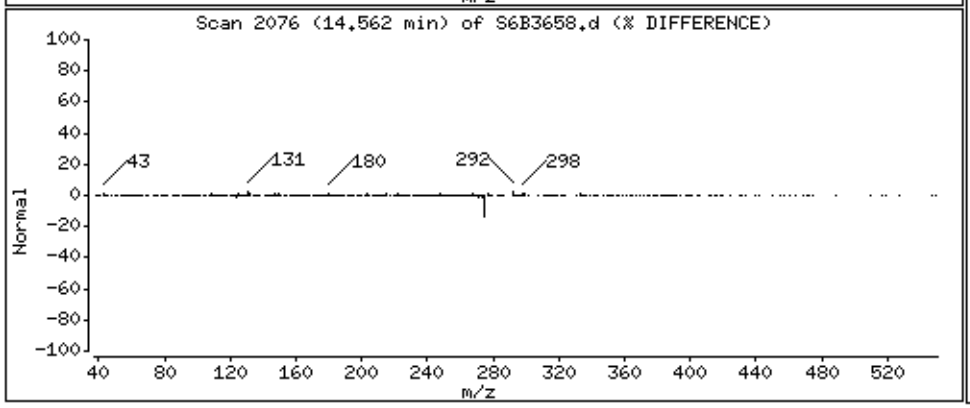
86 Benzo(g,h,i)perylene

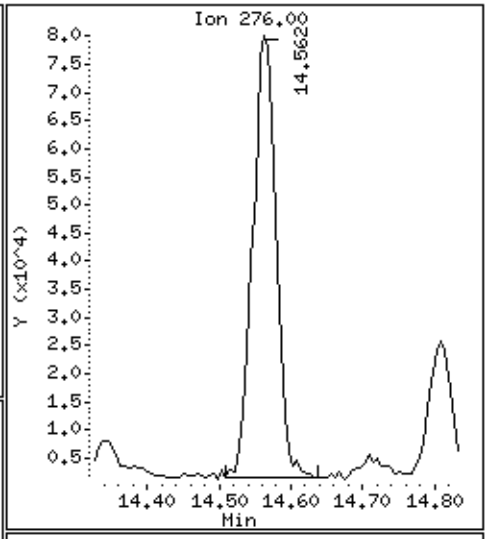
Concentration: 310 ug/Kg

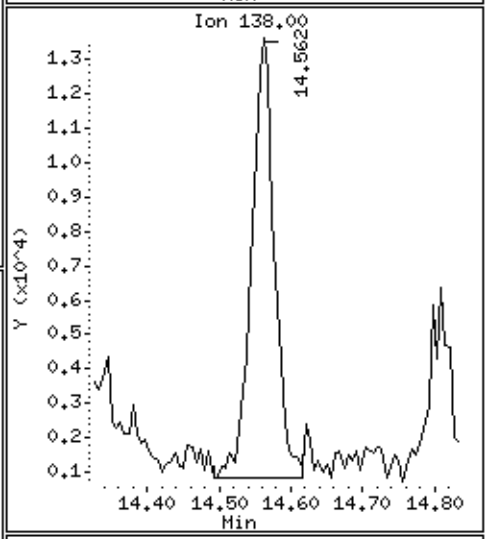


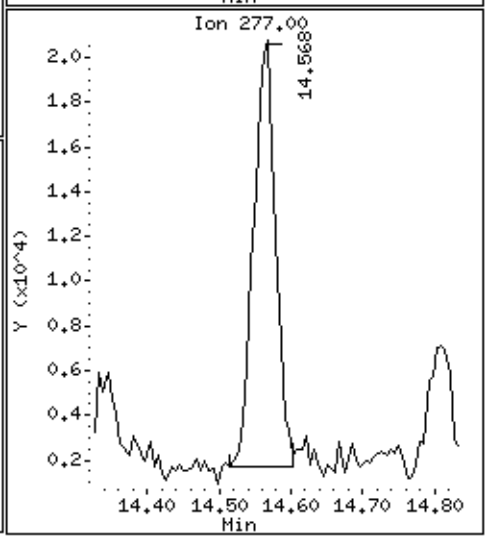












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-129 (8-10)DL

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-11ADL

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3678.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 10 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	5800	D
91-57-6	2-Methylnaphthalene	6600	D
208-96-8	Acenaphthylene	490	DJ
83-32-9	Acenaphthene	260	DJ
86-73-7	Fluorene	1000	D
85-01-8	Phenanthrene	3500	D
120-12-7	Anthracene	610	DJ
206-44-0	Fluoranthene	1200	D
129-00-0	Pyrene	1900	D
56-55-3	Benzo(a)anthracene	710	DJ
218-01-9	Chrysene	840	D
205-99-2	Benzo(b)fluoranthene	430	DJ
207-08-9	Benzo(k)fluoranthene	180	DJ
50-32-8	Benzo(a)pyrene	490	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	210	DJ
53-70-3	Dibenzo(a,h)anthracene	730	U
191-24-2	Benzo(g,h,i)perylene	290	DJ

Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d
Report Date: 08-May-2013 10:56

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3678.d
Lab Smp Id: M0619-11ADL Client Smp ID: SB-129 (8-10)DL
Inj Date : 07-MAY-2013 14:01
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-11ADL,,71418,,2
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130507.B\S6_8270C_N.m
Meth Date : 07-May-2013 13:08 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 8
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	2.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	12 1,4-Dichlorobenzene-d4	152	4.999	4.999	(1.000)	297298	40.0000	
$	22 Nitrobenzene-d5	82	5.458	5.464	(0.901)	194415	17.8548	2400
*	31 Naphthalene-d8	136	6.057	6.057	(1.000)	1218555	40.0000	
	32 Naphthalene	128	6.075	6.075	(1.003)	1033551	39.1266	5200
	36 2-Methylnaphthalene	142	6.645	6.645	(1.097)	906501	44.7713	5900
$	41 2-Fluorobiphenyl	172	6.944	6.944	(0.924)	437499	16.9465	2200
	46 Acenaphthylene	152	7.391	7.397	(0.984)	110391	3.29079	440(a)
*	48 Acenaphthene-d10	164	7.514	7.514	(1.000)	883858	40.0000	
	49 Acenaphthene	153	7.538	7.538	(1.003)	40614	1.78136	240(a)
	55 Fluorene	166	7.961	7.967	(1.059)	189458	6.79220	900(a)
*	64 Phenanthrene-d10	188	8.748	8.748	(1.000)	1826697	40.0000	
	65 Phenanthrene	178	8.766	8.771	(1.002)	982011	23.5210	3100
	66 Anthracene	178	8.807	8.813	(1.007)	178779	4.16519	550(a)
	69 Fluoranthene	202	9.770	9.770	(1.117)	398763	7.80434	1000(a)
	71 Pyrene	202	9.964	9.964	(0.902)	707820	13.0403	1700
$	72 Terphenyl-d14	244	10.088	10.082	(0.913)	784509	20.1407	2700
	75 Benzo(a)anthracene	228	11.034	11.022	(0.999)	288989	4.83199	640(a)
*	76 Chrysene-d12	240	11.045	11.039	(1.000)	2596043	40.0000	
	77 Chrysene	228	11.063	11.063	(1.002)	283454	5.66672	750(a)

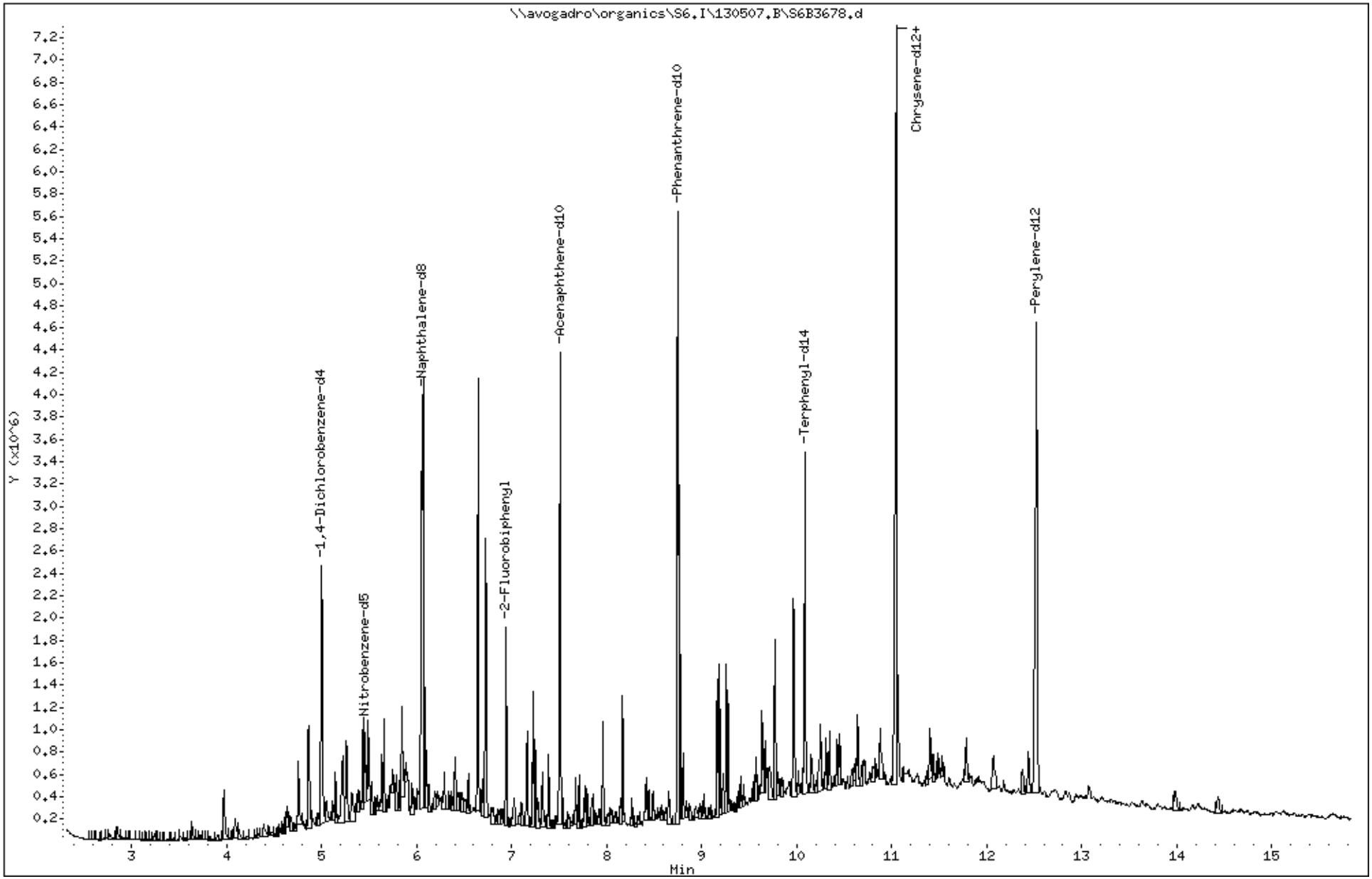
Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d
Report Date: 08-May-2013 10:56

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)	
	80 Benzo(b)fluoranthene	252	12.068	12.062	(0.963)	199938	2.94715	390(aM)M2 PK 05/08	
	81 Benzo(k)fluoranthene	252	12.085	12.097	(0.965)	75750	1.19123	160(aQM)M2 PK 05/08	
	82 Benzo(a)pyrene	252	12.438	12.432	(0.993)	200622	3.31314	440(a)	
*	83 Perylene-d12	264	12.526	12.508	(1.000)	2595293	40.0000		
	84 Indeno(1,2,3-cd)pyrene	276	13.977	13.995	(1.116)	106391	1.41782	190(a)	
	86 Benzo(g,h,i)perylene	276	14.430	14.447	(1.152)	119132	1.95216	260(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d
Date : 07-MAY-2013 14:01
Client ID: SB-129 (8-10)DL
Instrument: S6.i
Sample Info: M0619-11ADL,,71418,,2
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

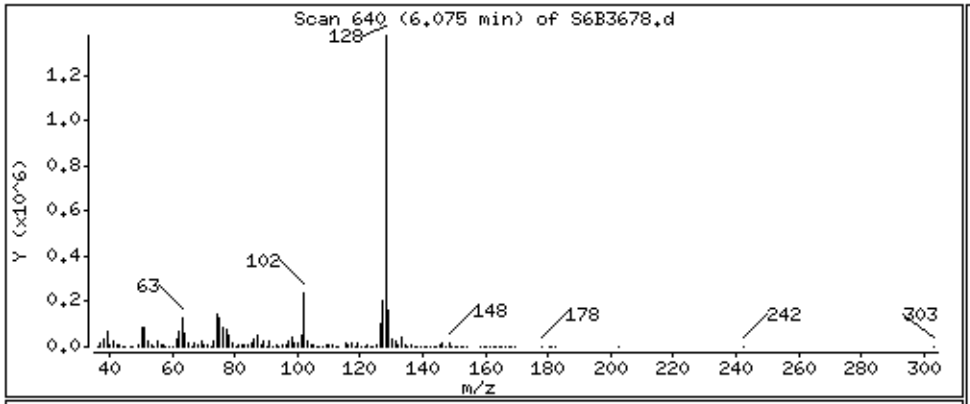
Operator: PK SRC: LIMS

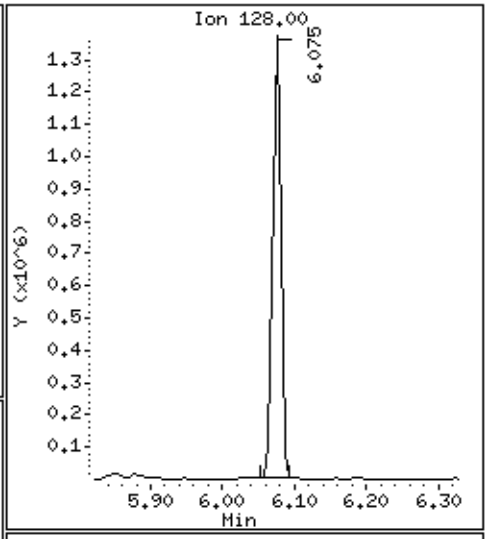
Column phase: Rxi-5Sil MS

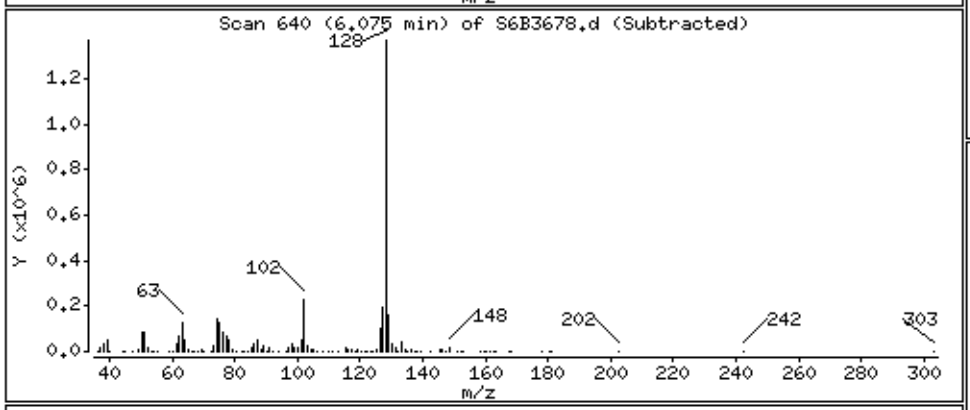
Column diameter: 0.25

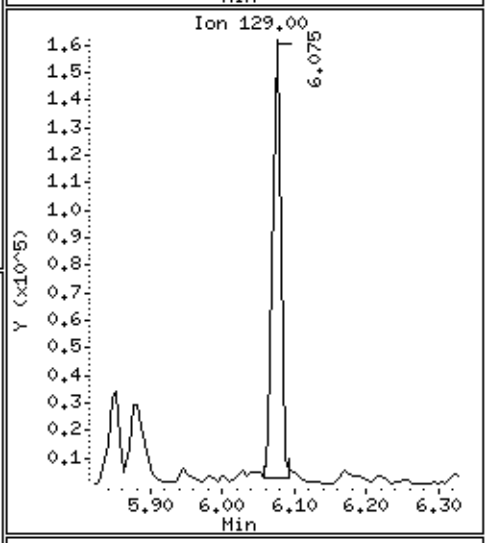
32 Naphthalene

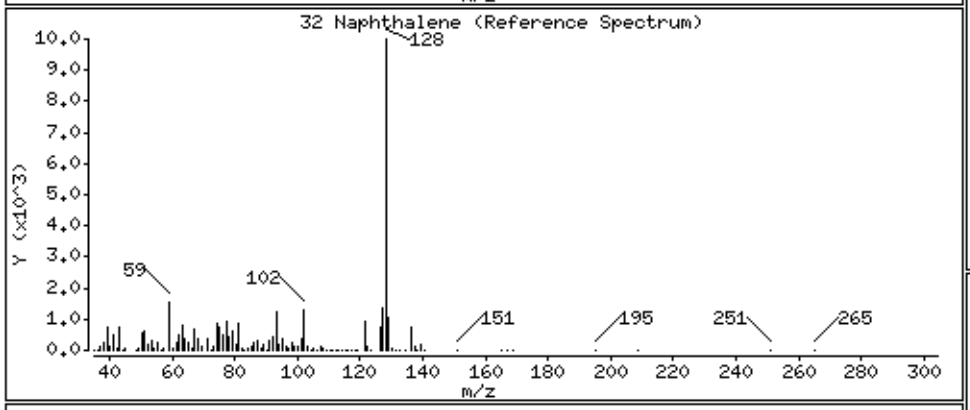
Concentration: 5200 ug/Kg

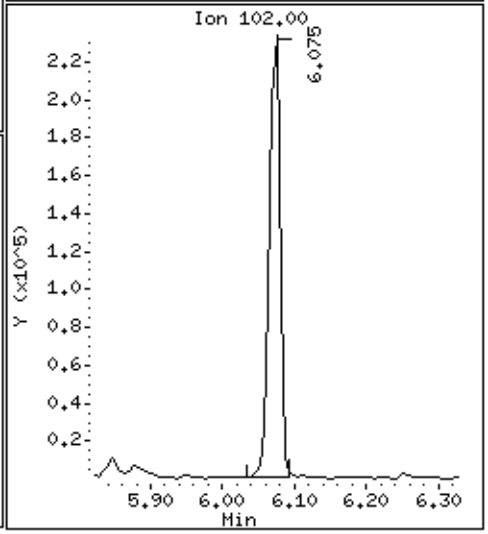


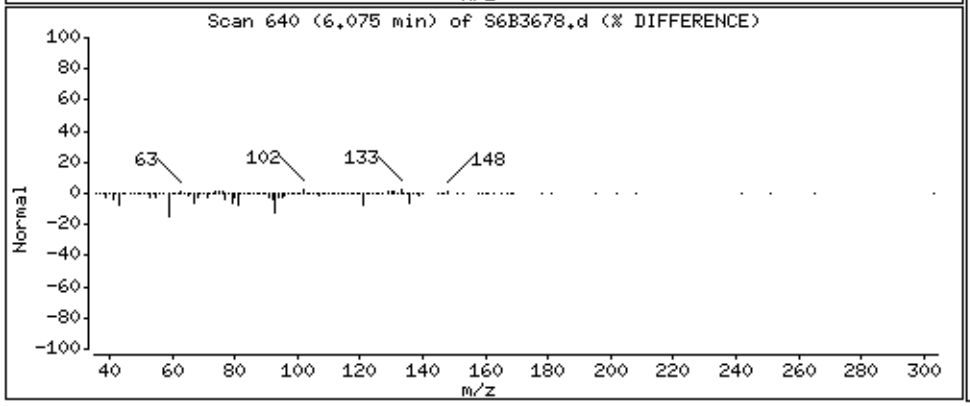












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

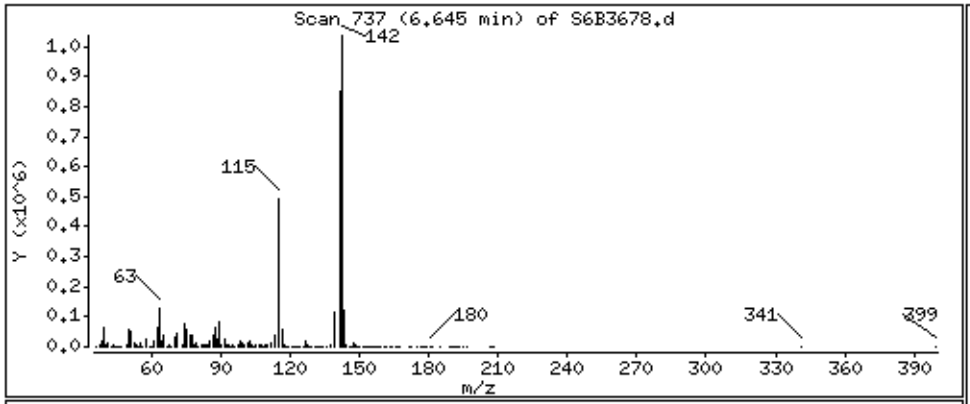
Operator: PK SRC: LIMS

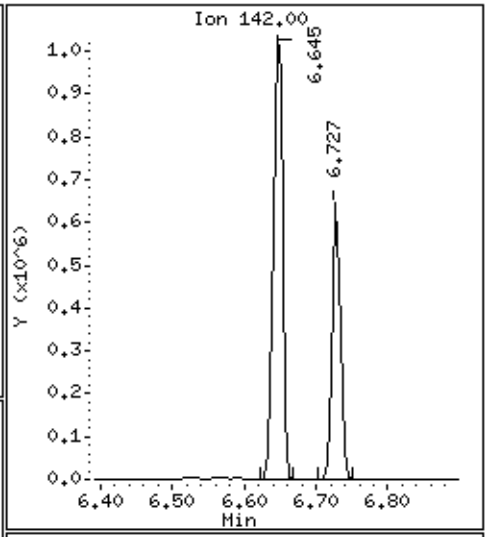
Column phase: Rxi-5Sil MS

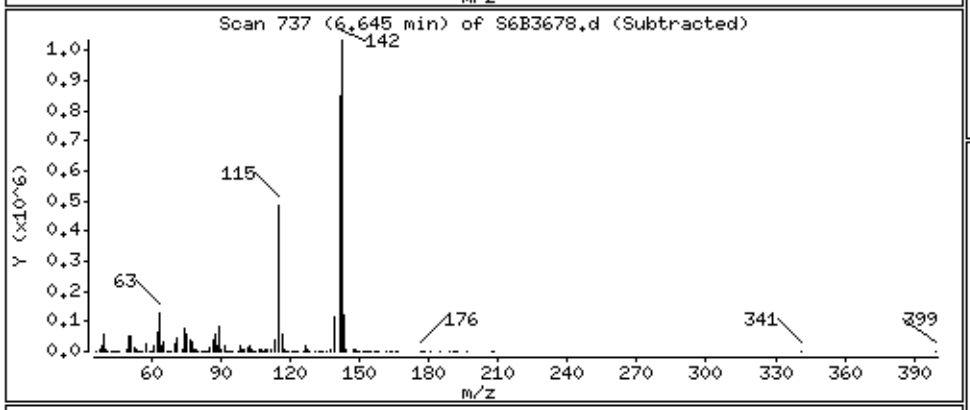
Column diameter: 0.25

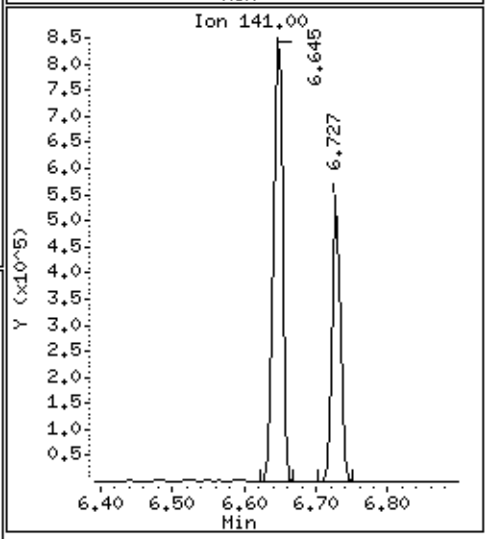
36 2-Methylnaphthalene

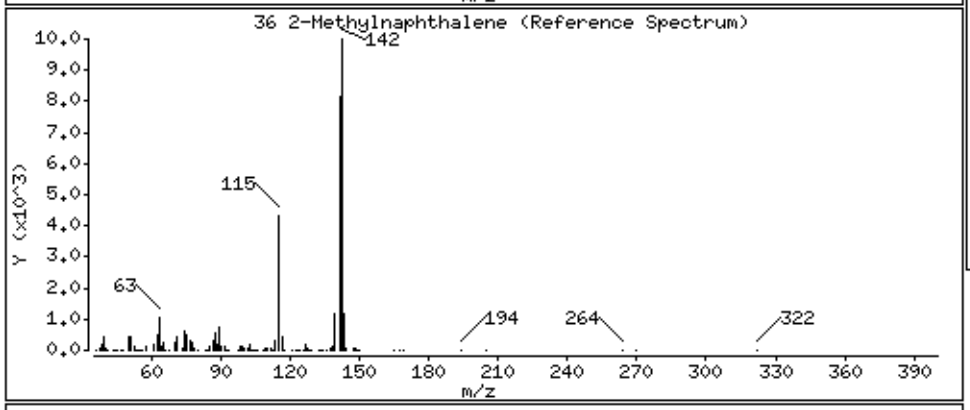
Concentration: 5900 ug/Kg

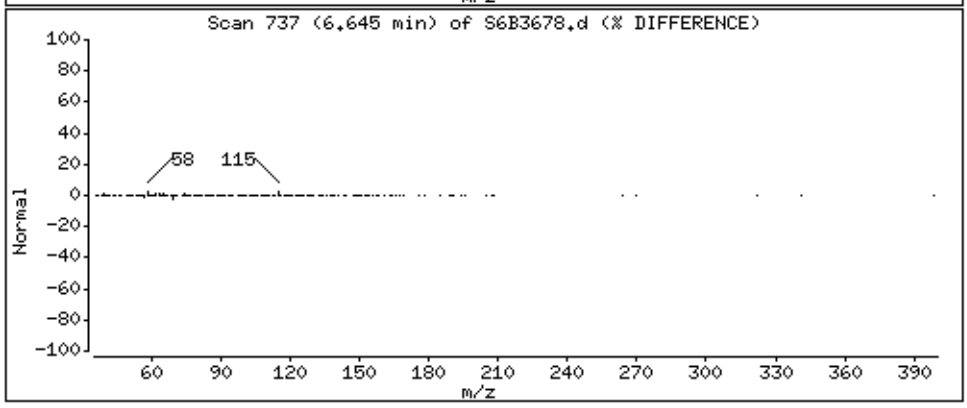












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

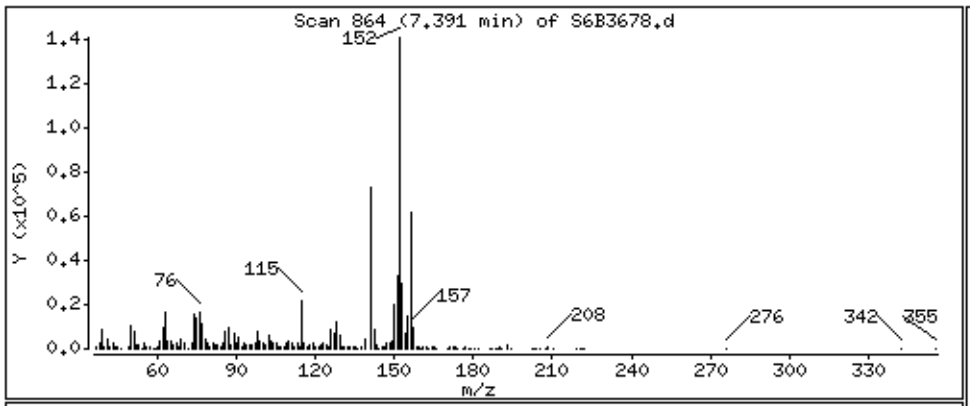
Operator: PK SRC: LIMS

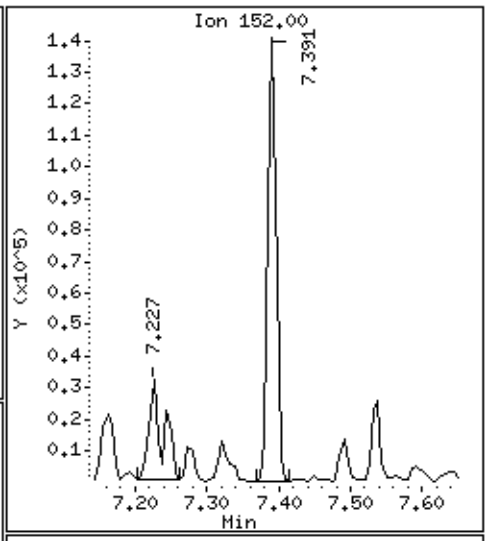
Column phase: Rxi-5Sil MS

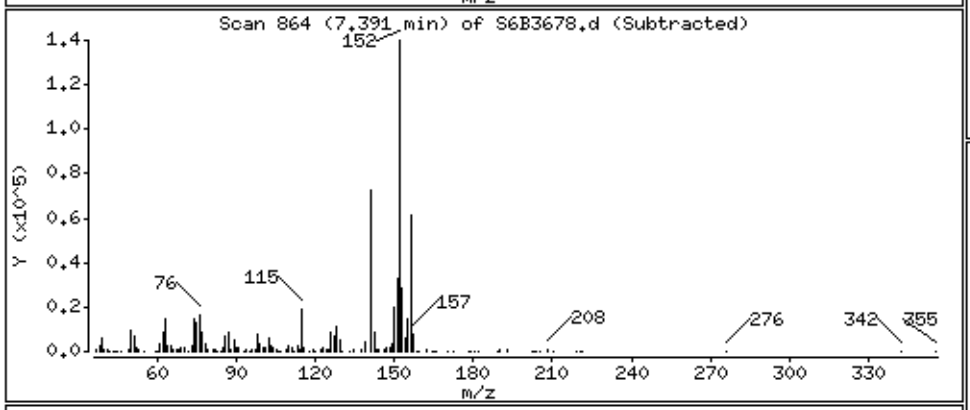
Column diameter: 0.25

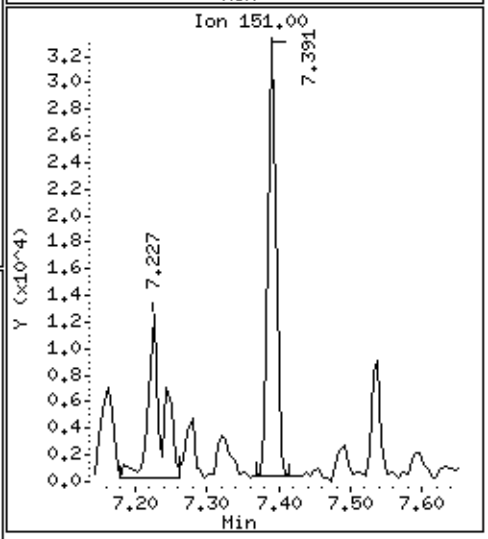
46 Acenaphthylene

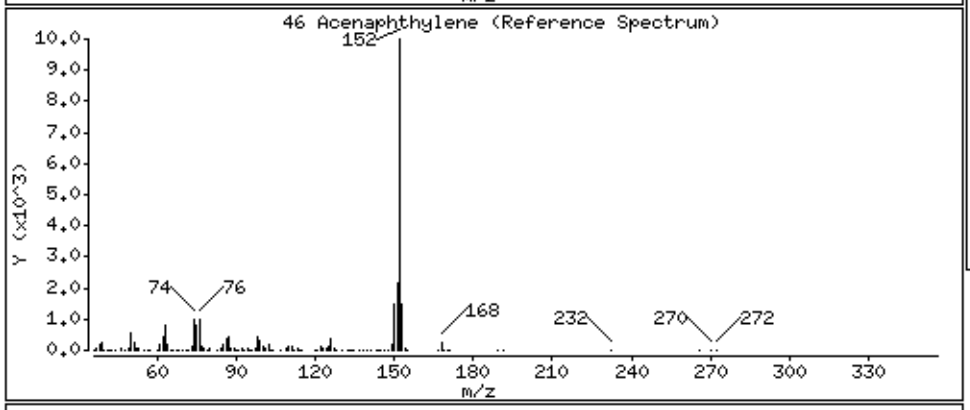
Concentration: 440 ug/Kg

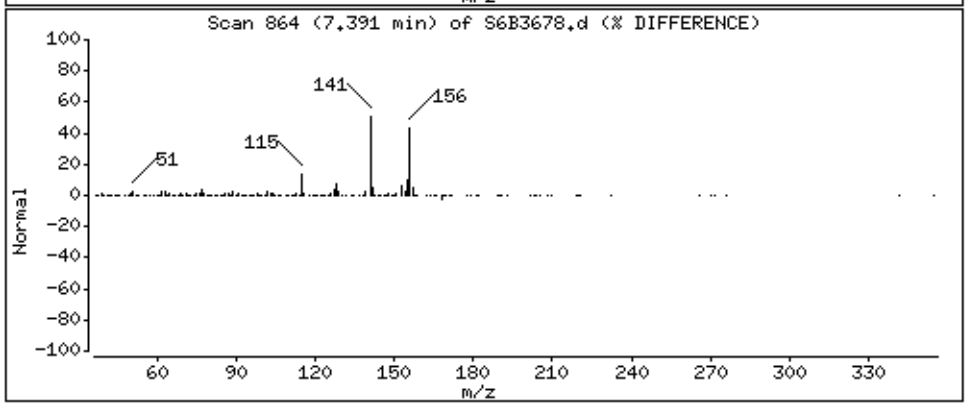












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

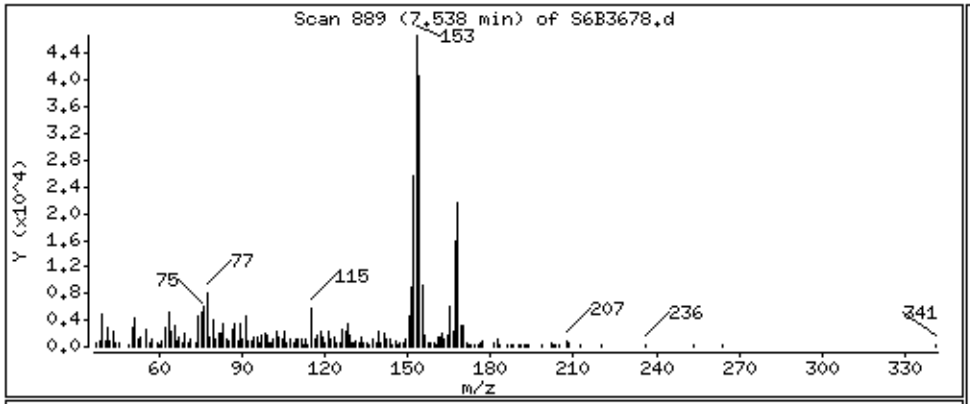
Operator: PK SRC: LIMS

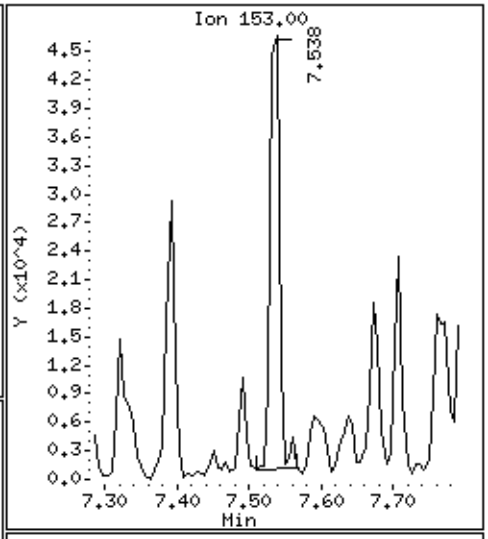
Column phase: Rxi-5Sil MS

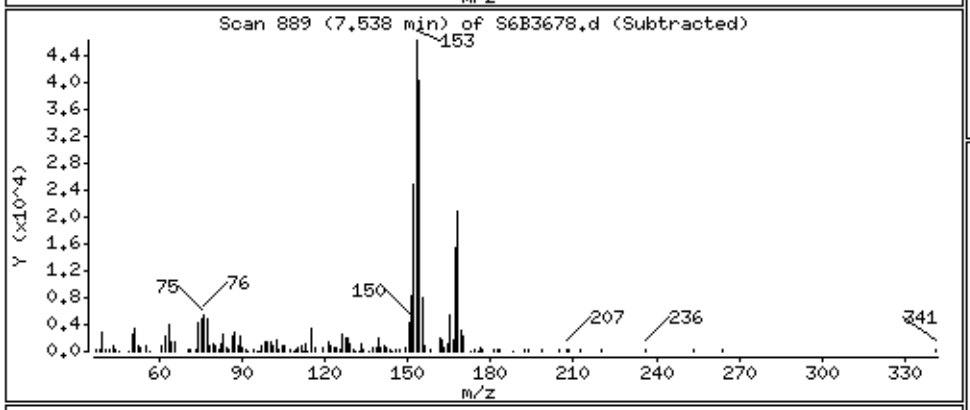
Column diameter: 0.25

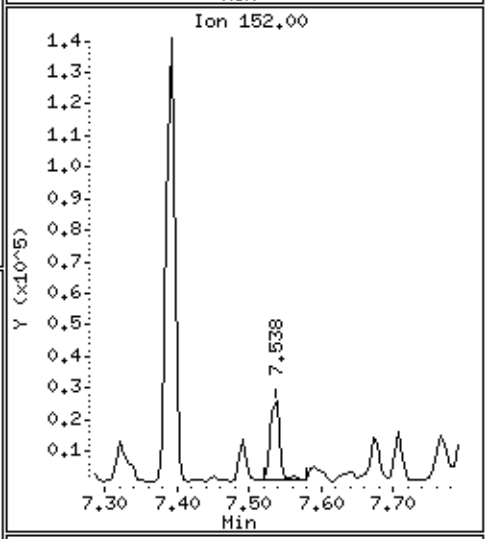
49 Acenaphthene

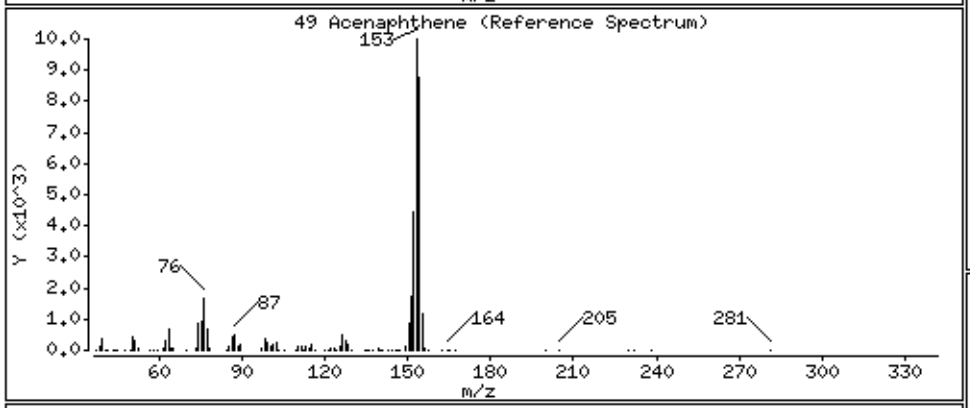
Concentration: 240 ug/Kg

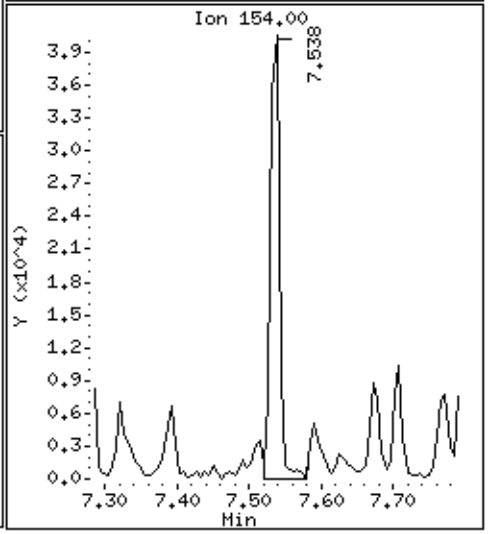


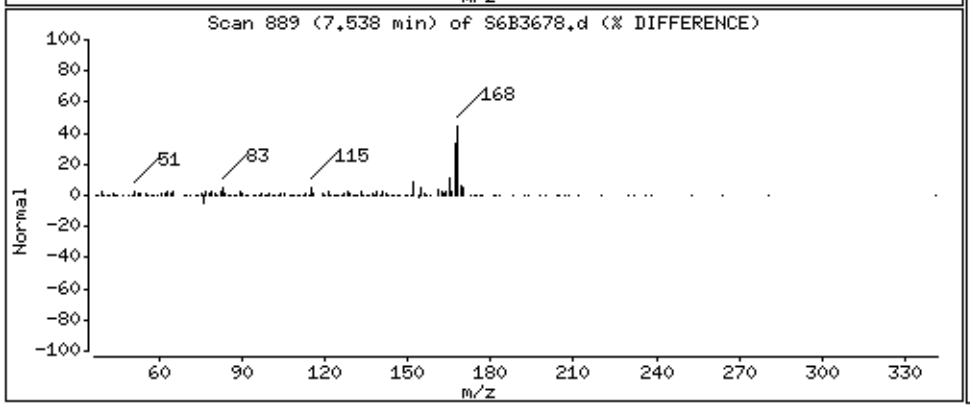












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

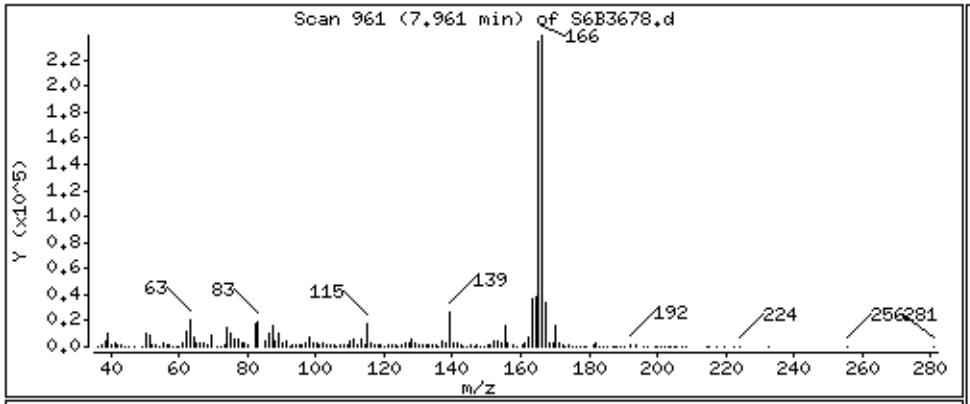
Operator: PK SRC: LIMS

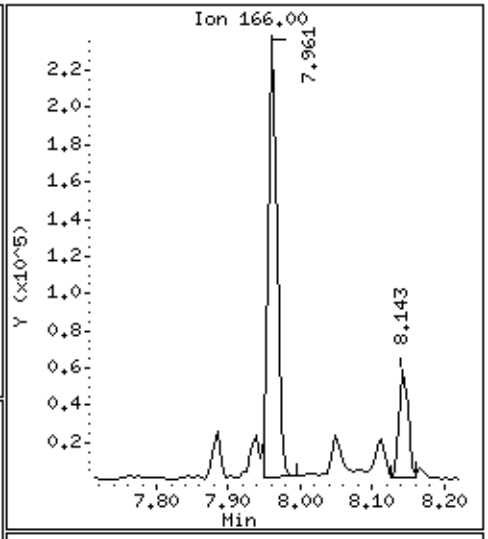
Column phase: Rxi-5Sil MS

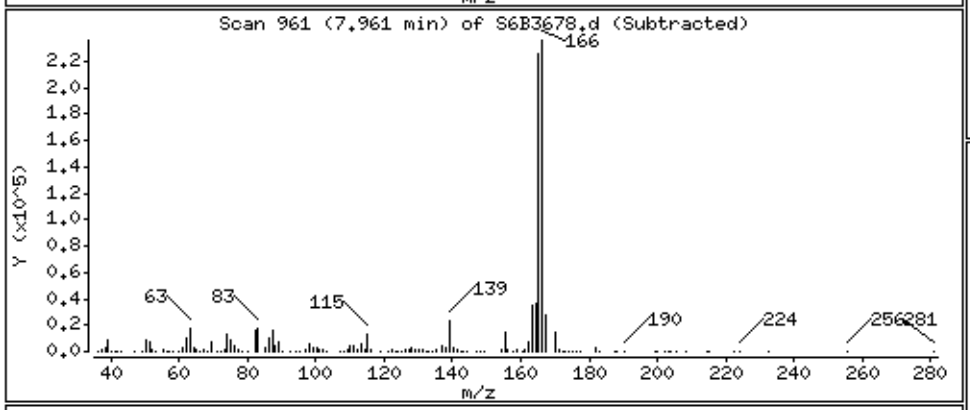
Column diameter: 0.25

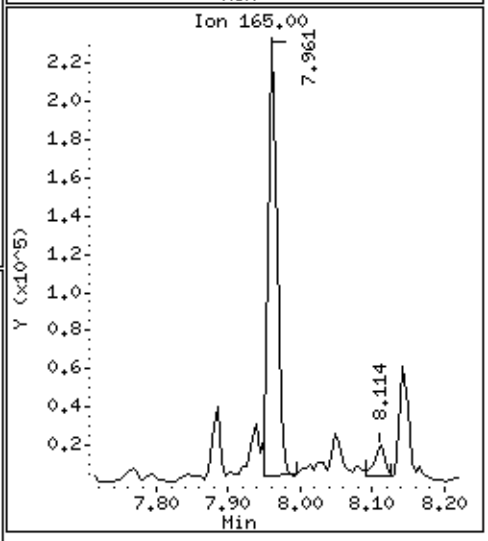
55 Fluorene

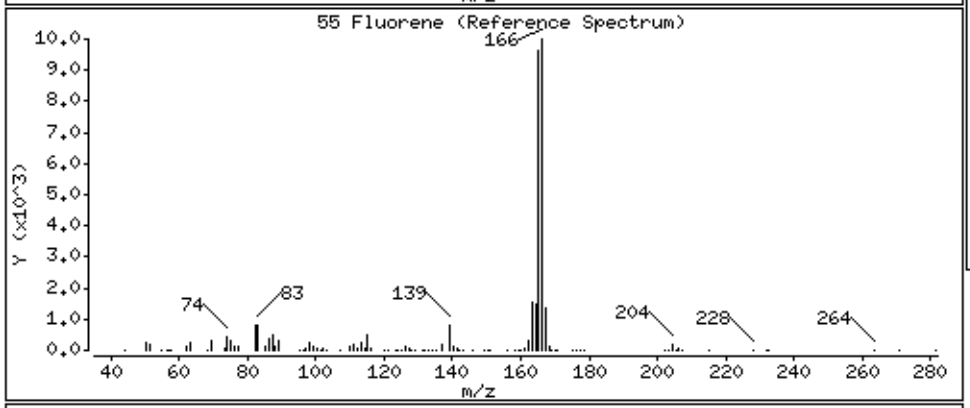
Concentration: 900 ug/Kg

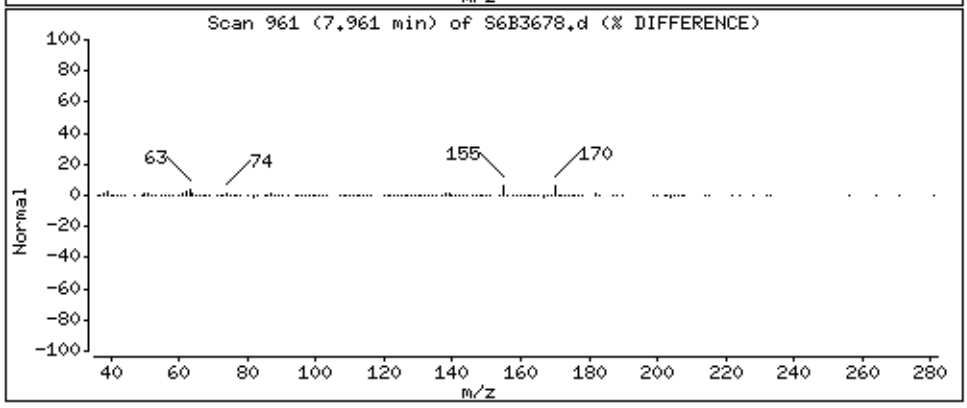












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

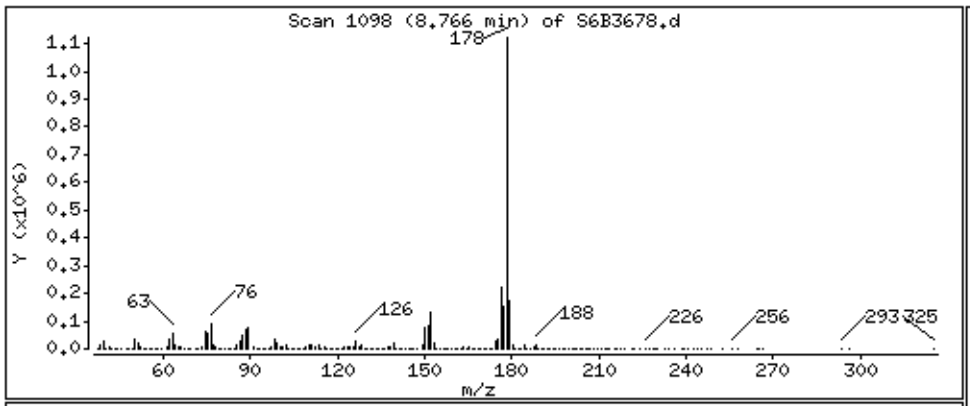
Operator: PK SRC: LIMS

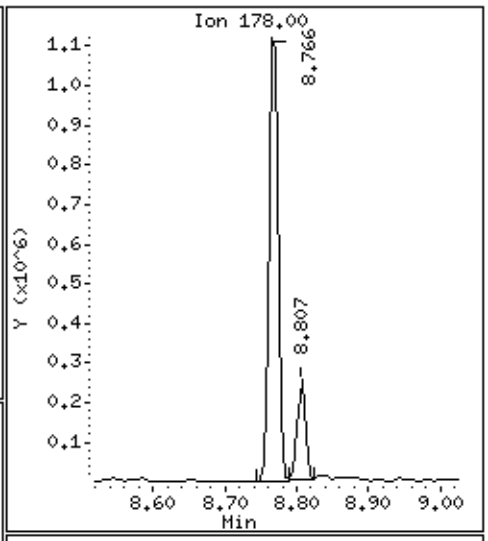
Column phase: Rxi-5Sil MS

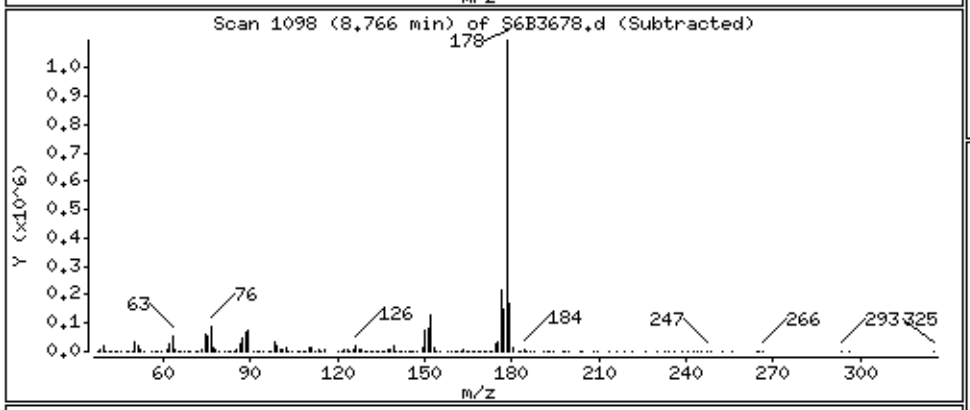
Column diameter: 0.25

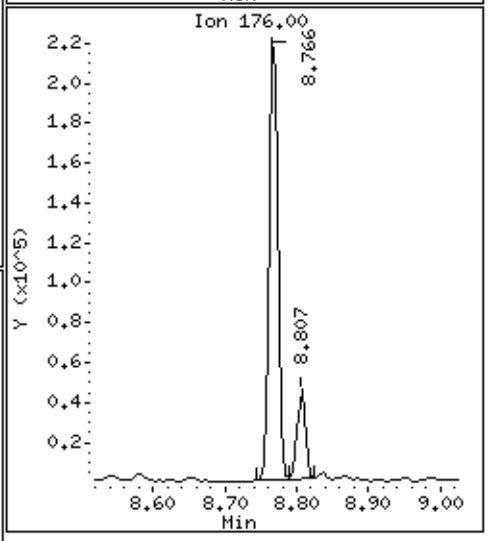
65 Phenanthrene

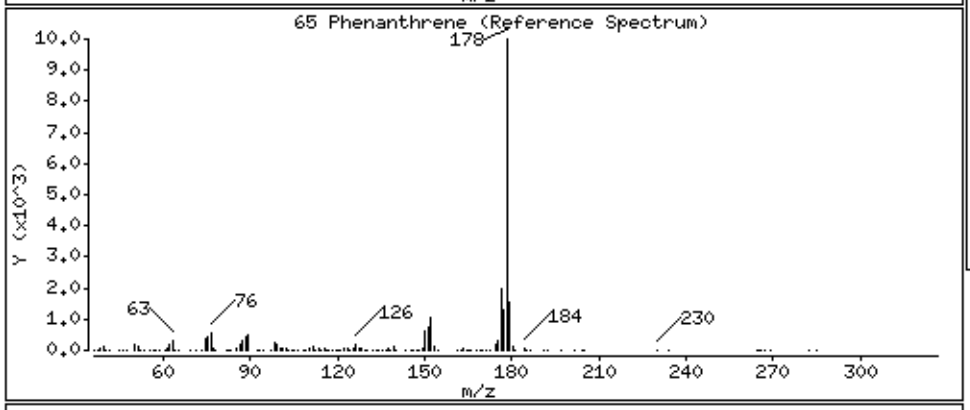
Concentration: 3100 ug/Kg

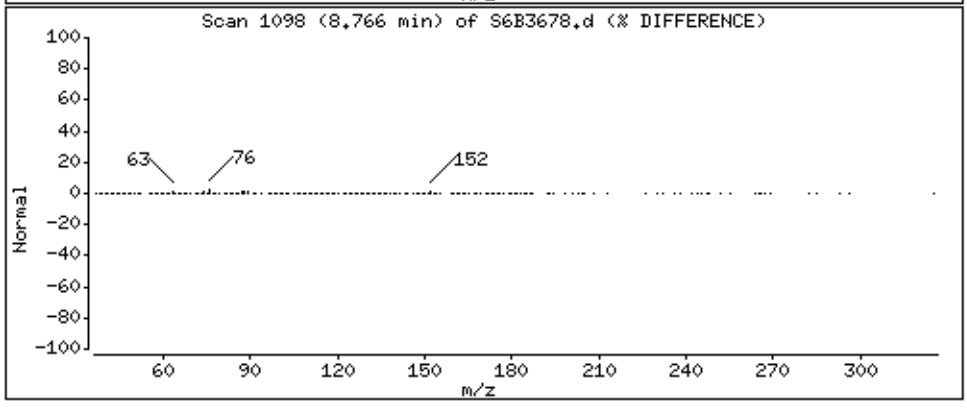












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

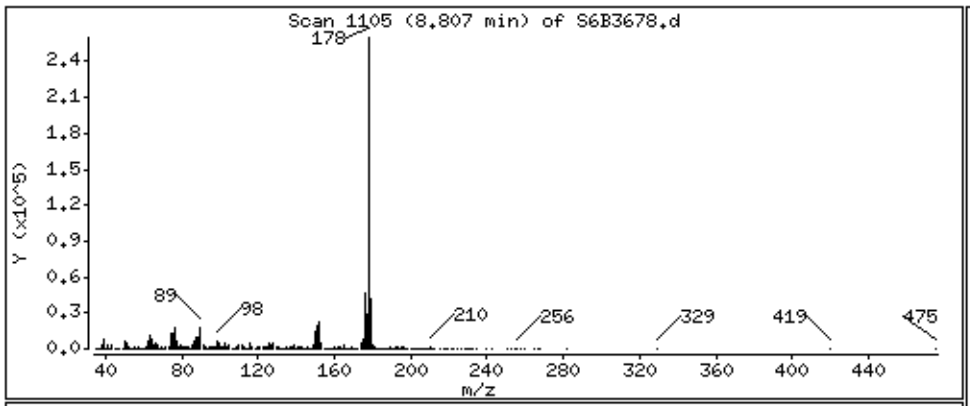
Operator: PK SRC: LIMS

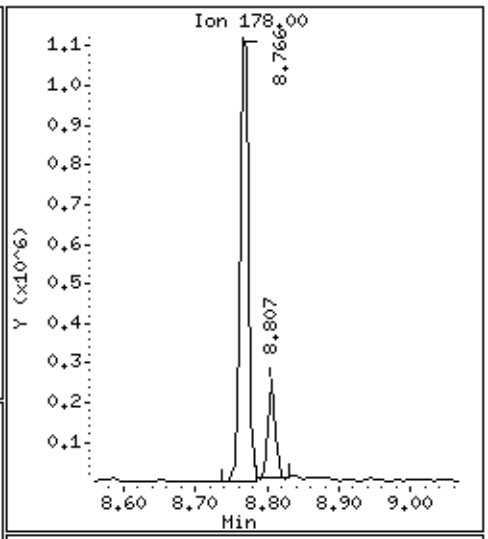
Column phase: Rxi-5Sil MS

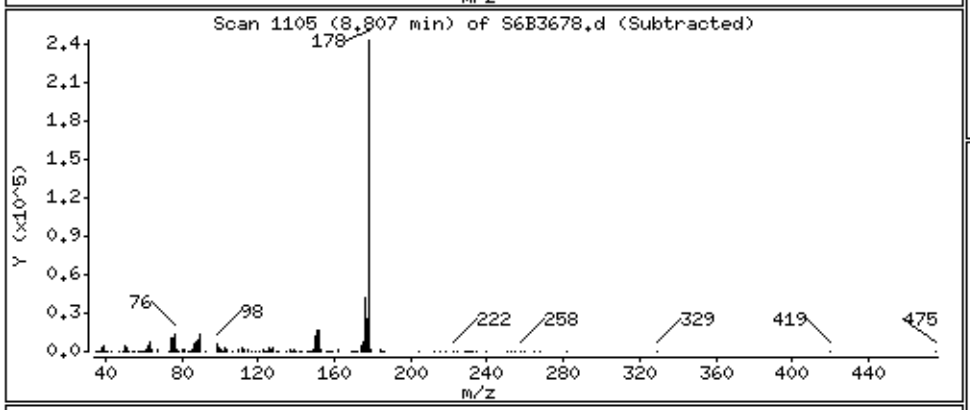
Column diameter: 0.25

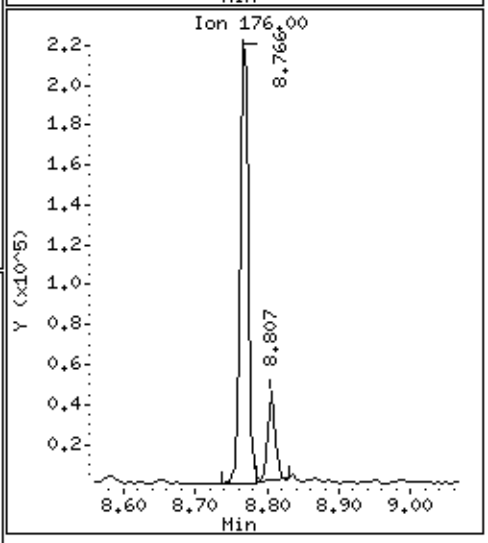
66 Anthracene

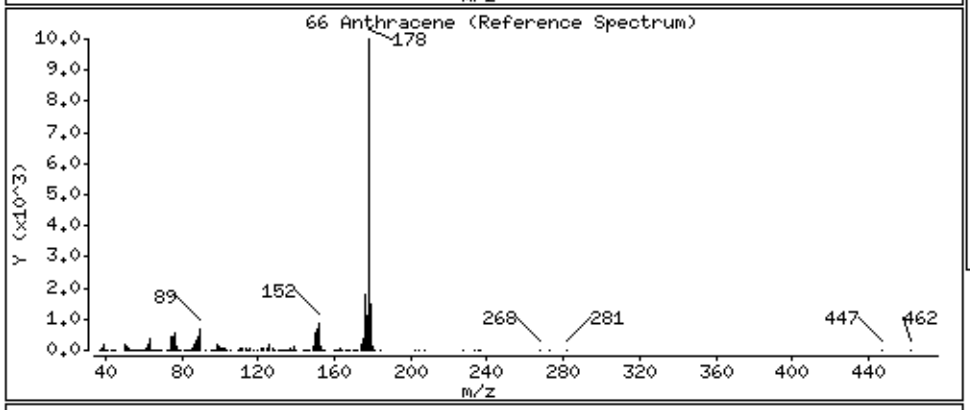
Concentration: 550 ug/Kg

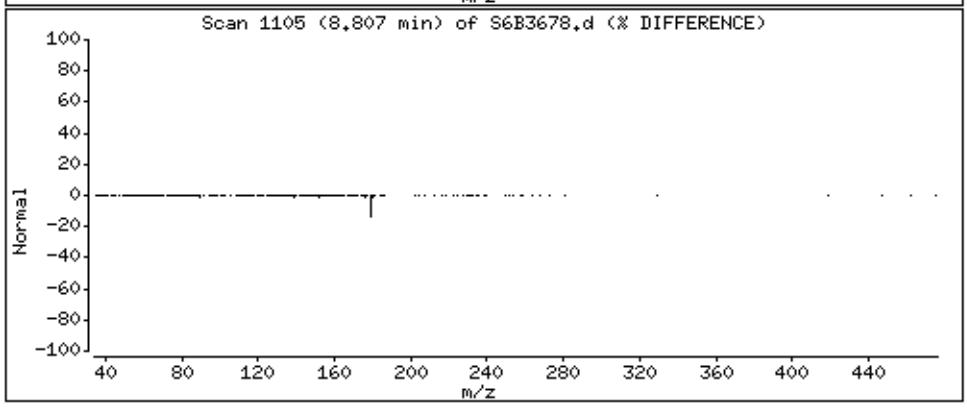












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

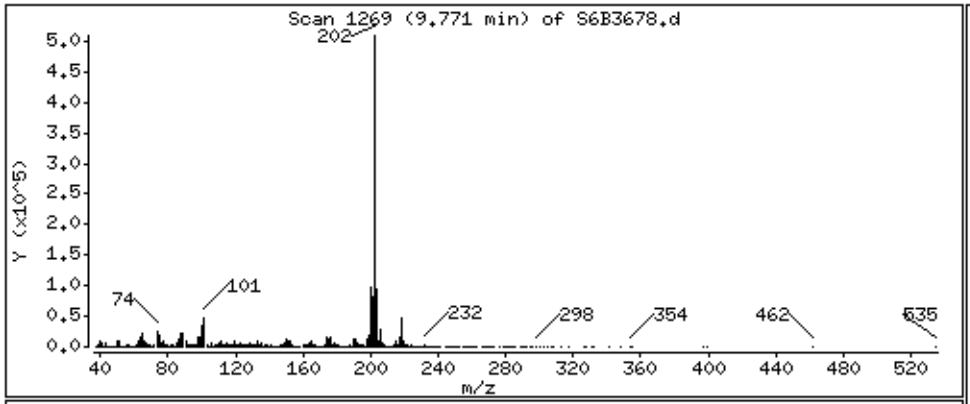
Operator: PK SRC: LIMS

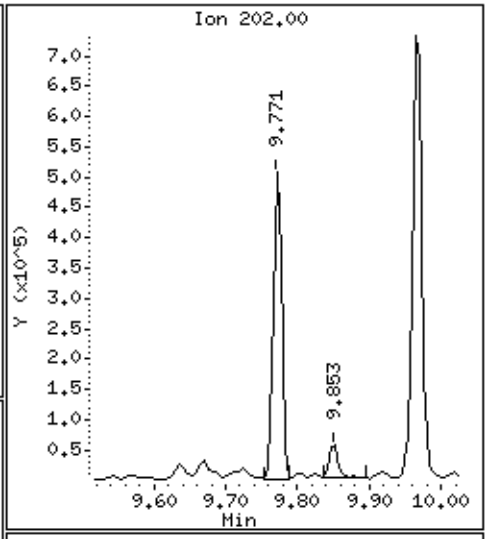
Column phase: Rxi-5Sil MS

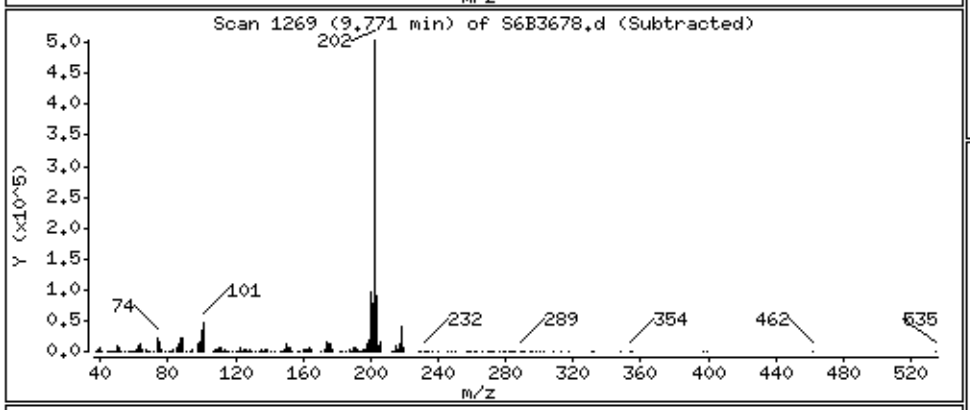
Column diameter: 0.25

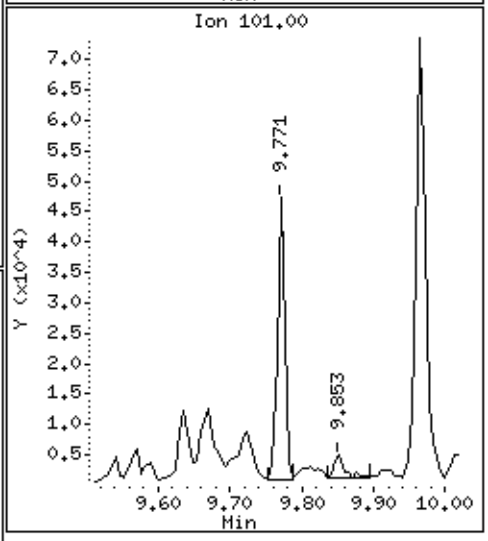
69 Fluoranthene

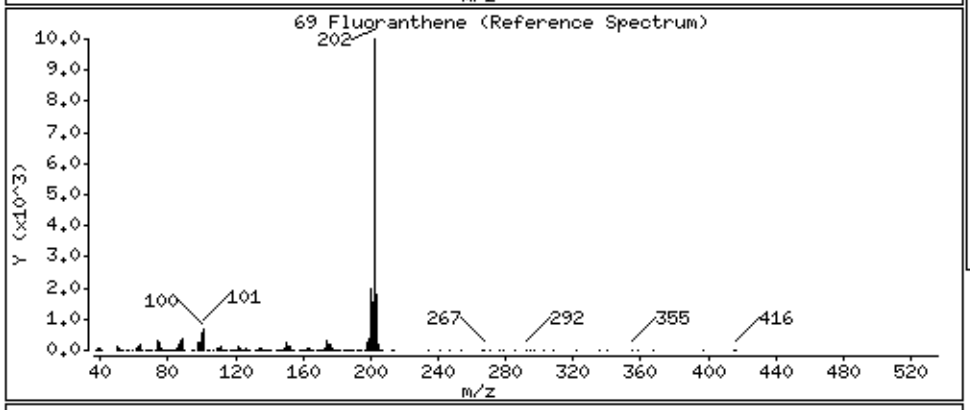
Concentration: 1000 ug/Kg

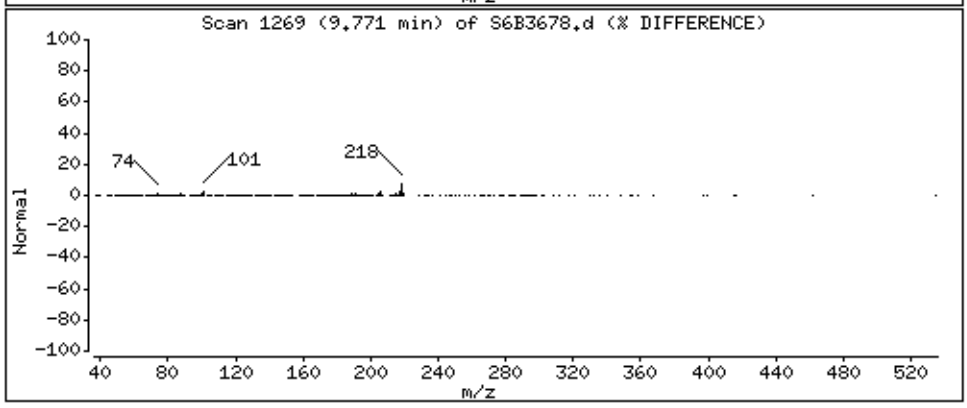












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

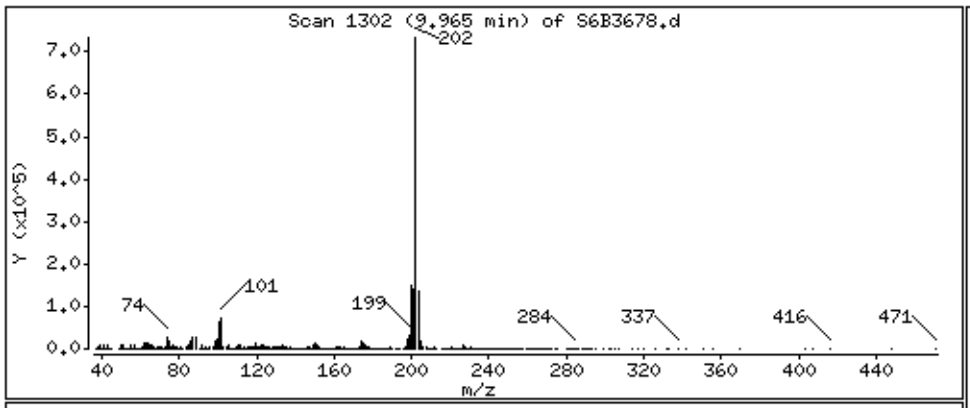
Operator: PK SRC: LIMS

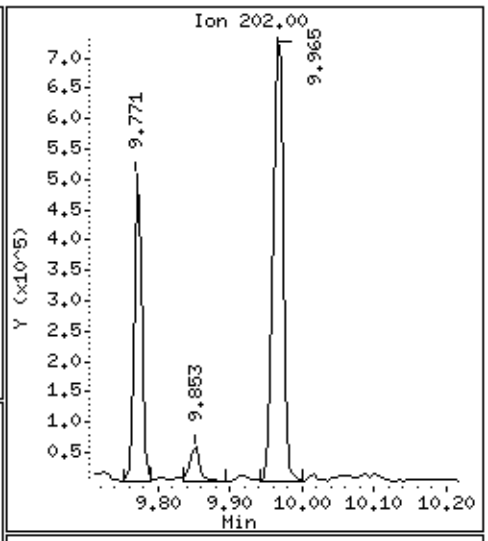
Column phase: Rxi-5Sil MS

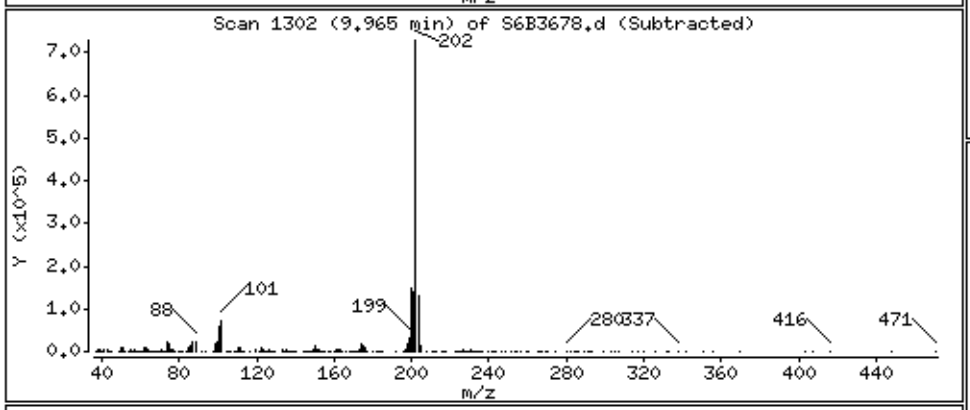
Column diameter: 0.25

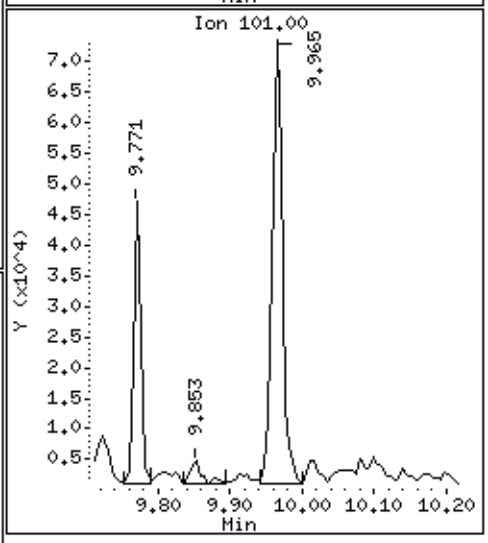
71 Pyrene

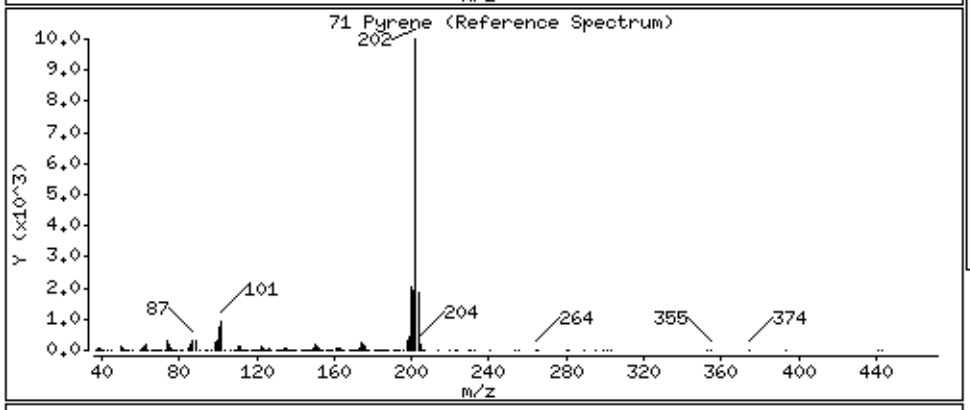
Concentration: 1700 ug/Kg

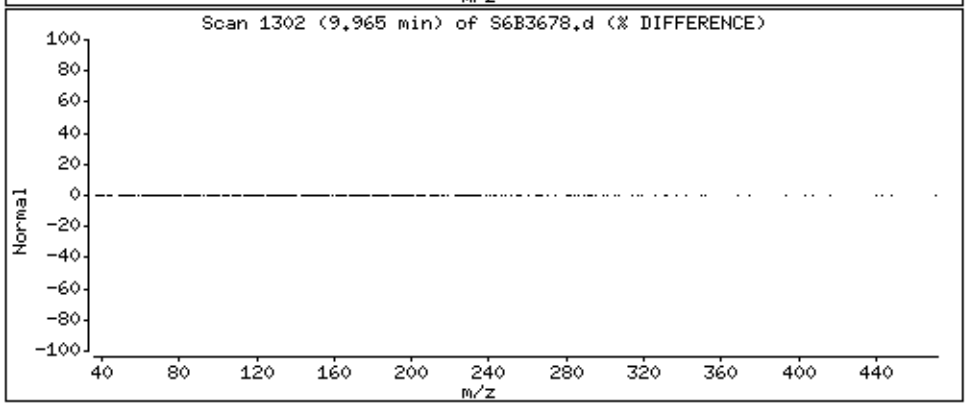












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

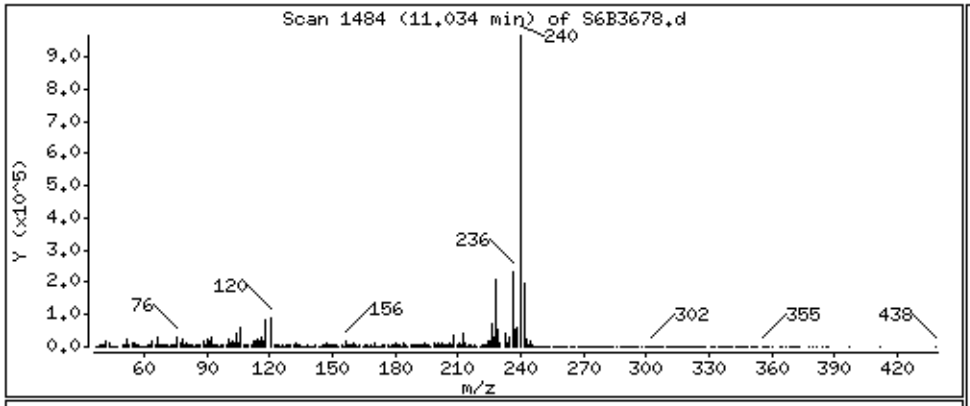
Client ID: SB-129 (8-10)DL | Instrument: S6.i

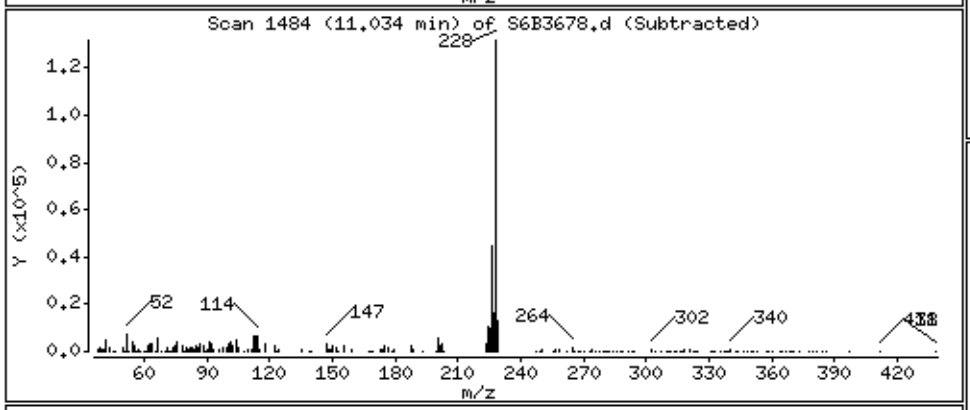
Sample Info: M0619-11ADL,,71418,,2

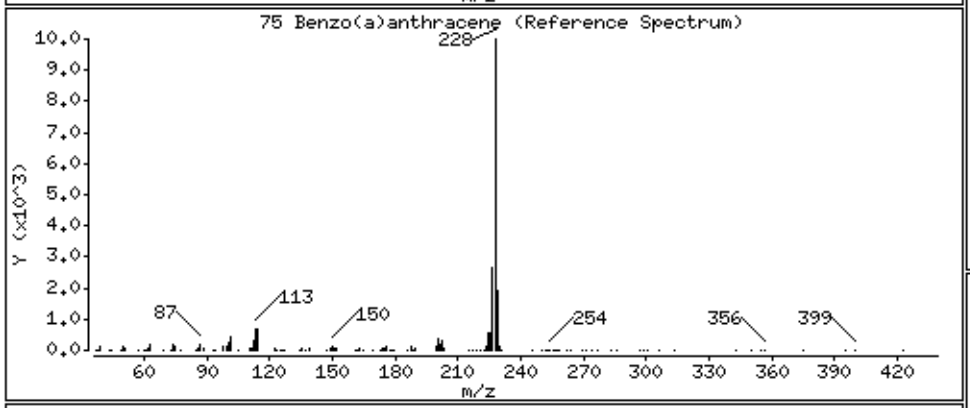
Volume Injected (uL): 1.0 | Operator: PK SRC: LIMS

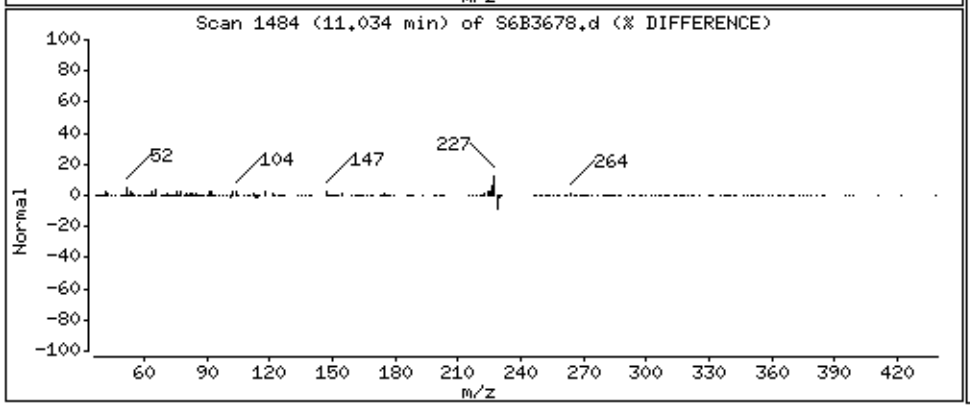
Column phase: Rxi-5Sil MS | Column diameter: 0.25

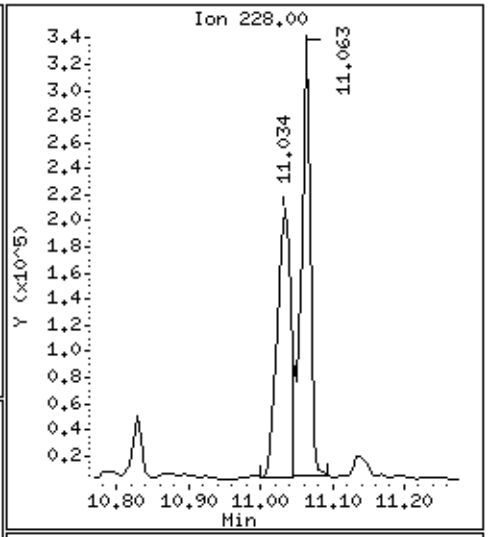
75 Benzo(a)anthracene | Concentration: 640 ug/Kg

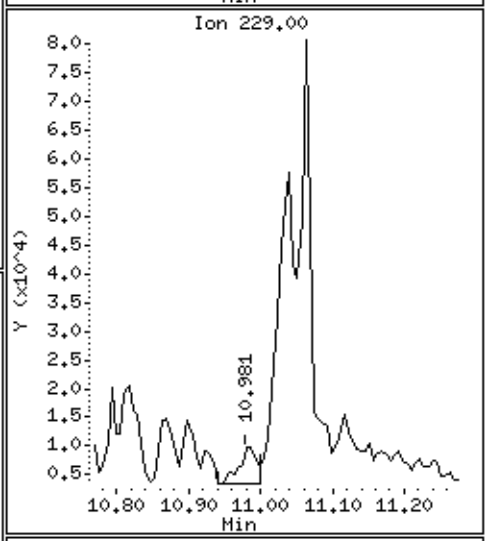


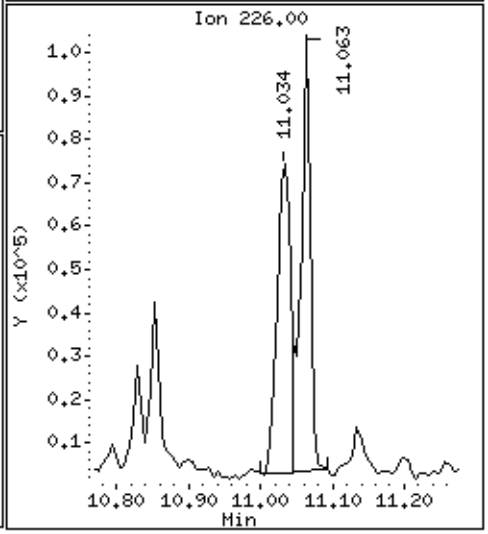












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

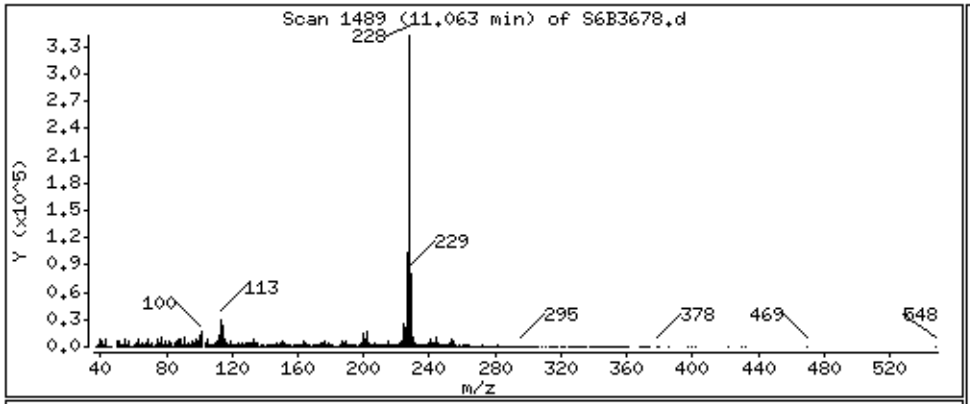
Operator: PK SRC: LIMS

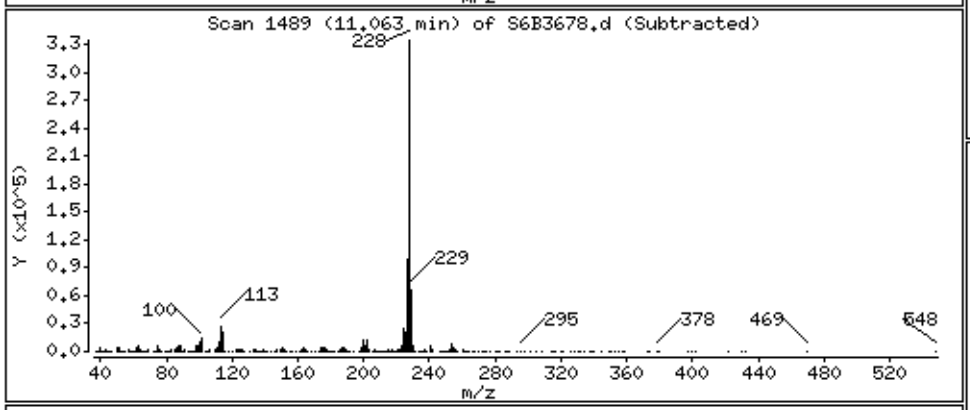
Column phase: Rxi-5Sil MS

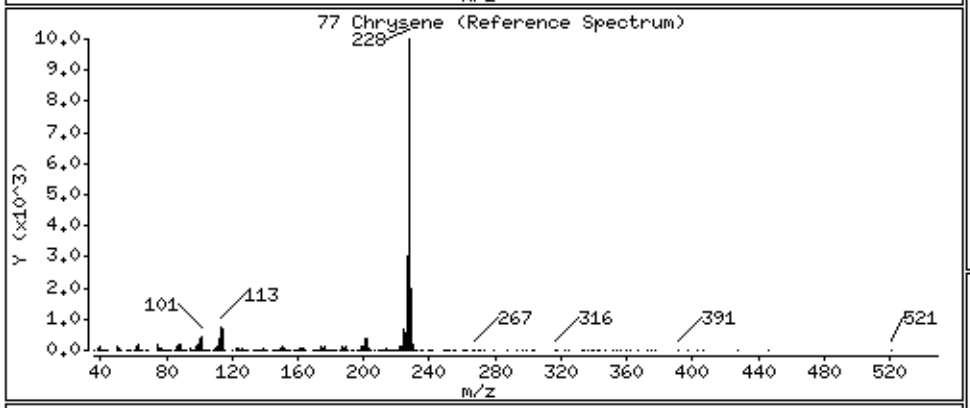
Column diameter: 0.25

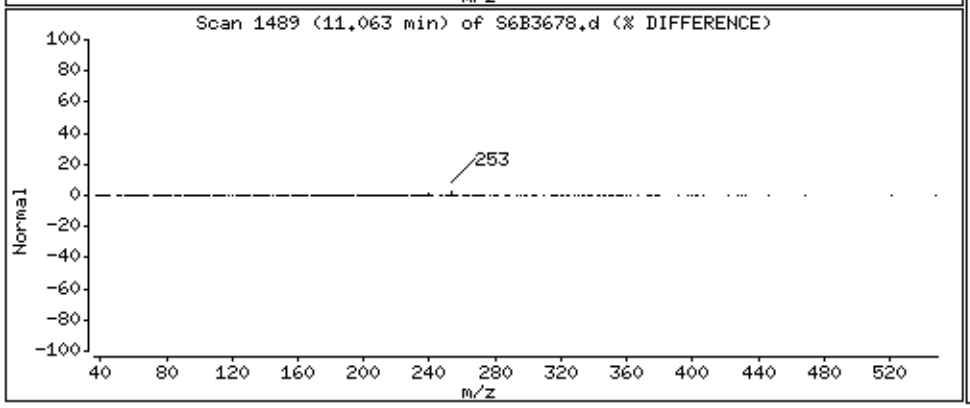
77 Chrysene

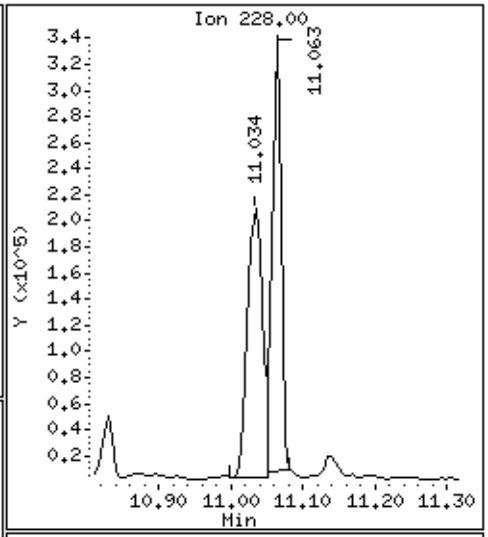
Concentration: 750 ug/Kg

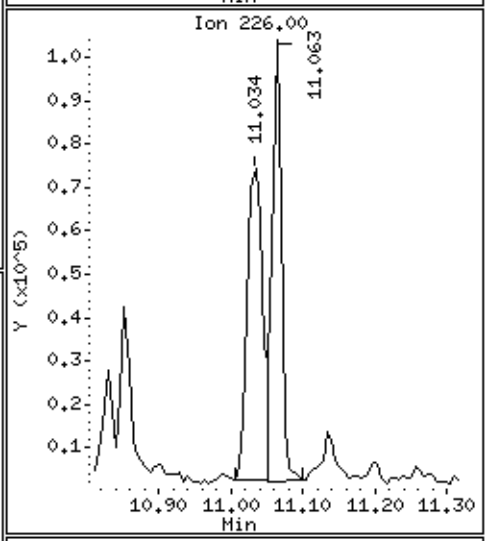


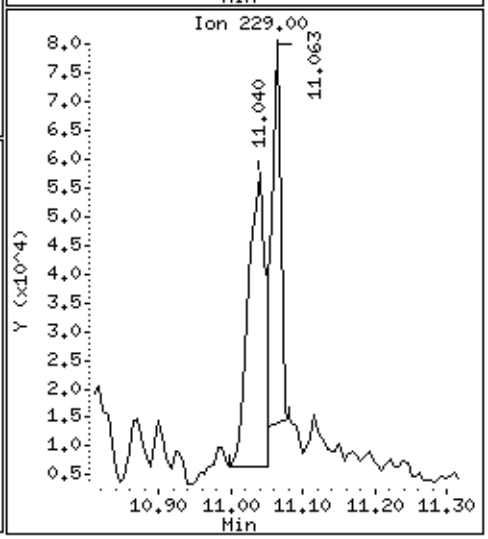












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

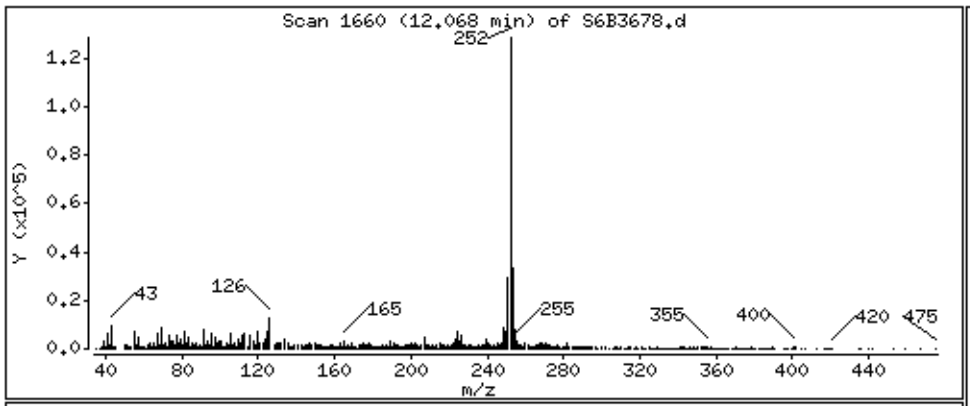
Operator: PK SRC: LIMS

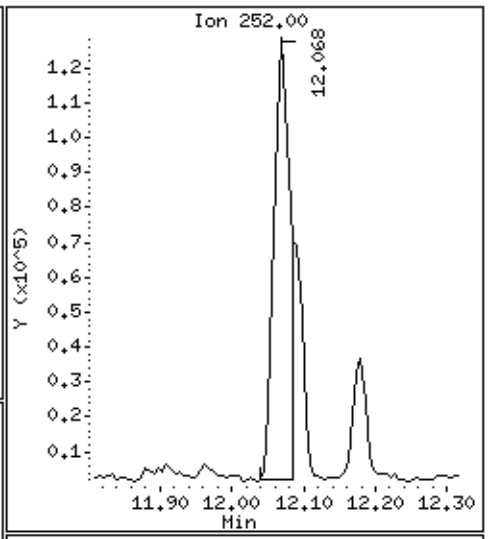
Column phase: Rxi-5Sil MS

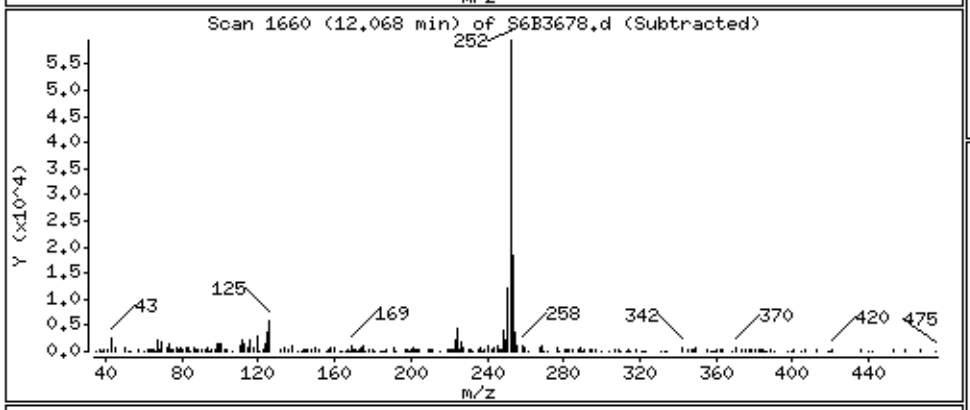
Column diameter: 0.25

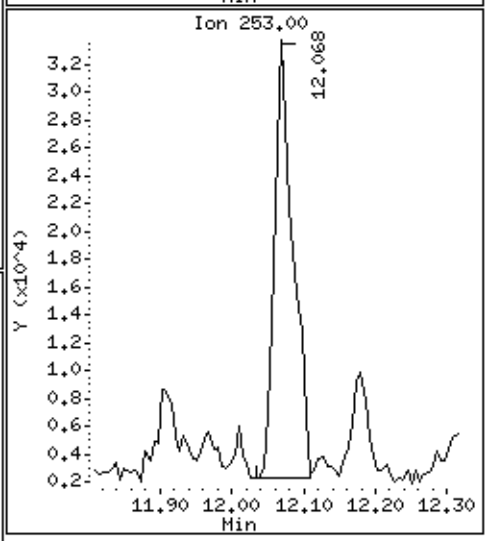
80 Benzo(b)fluoranthene

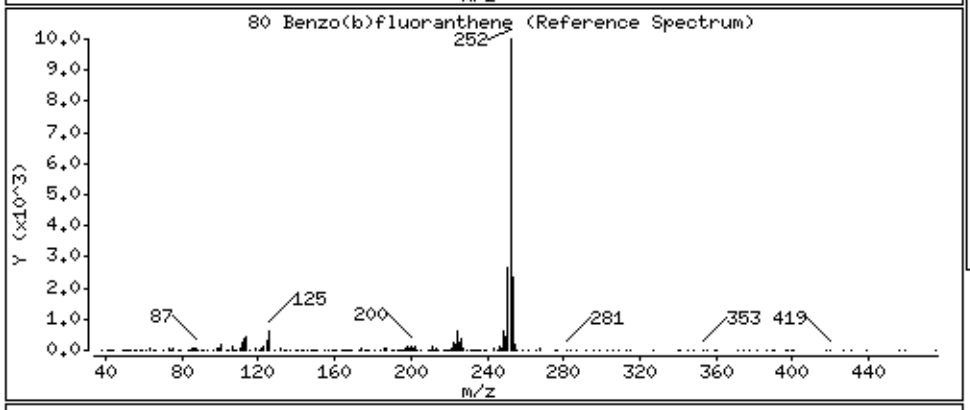
Concentration: 390 ug/Kg

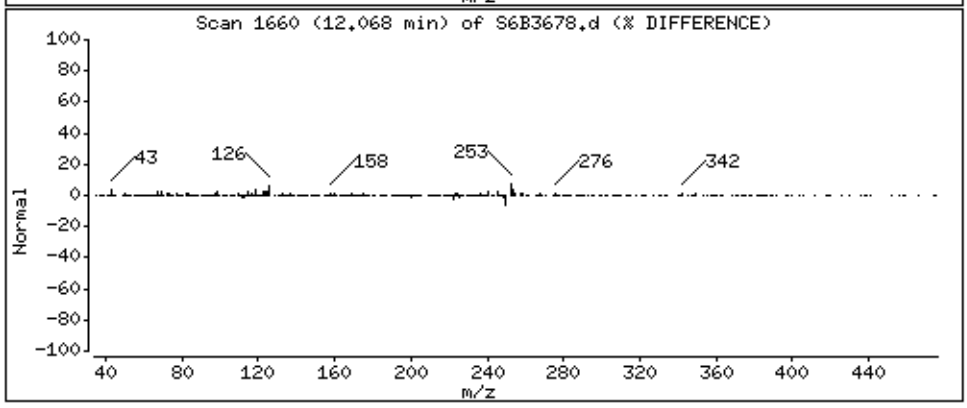












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

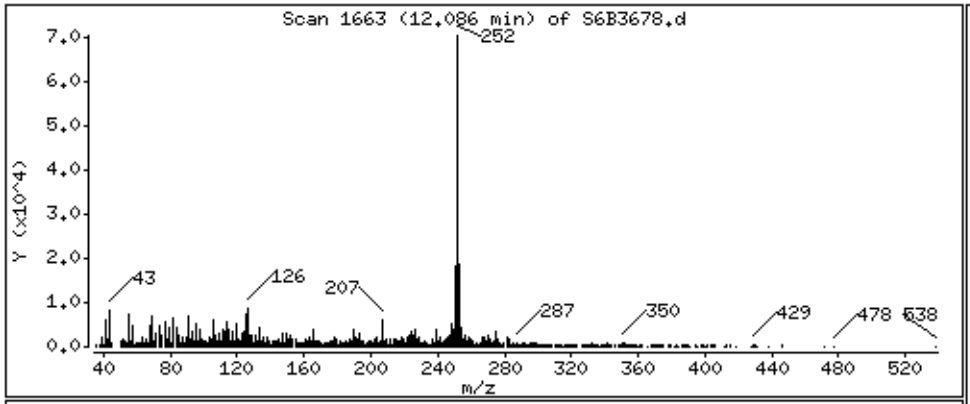
Operator: PK SRC: LIMS

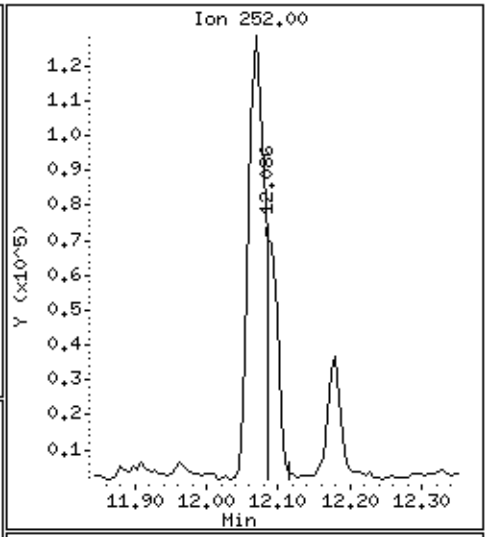
Column phase: Rxi-5Sil MS

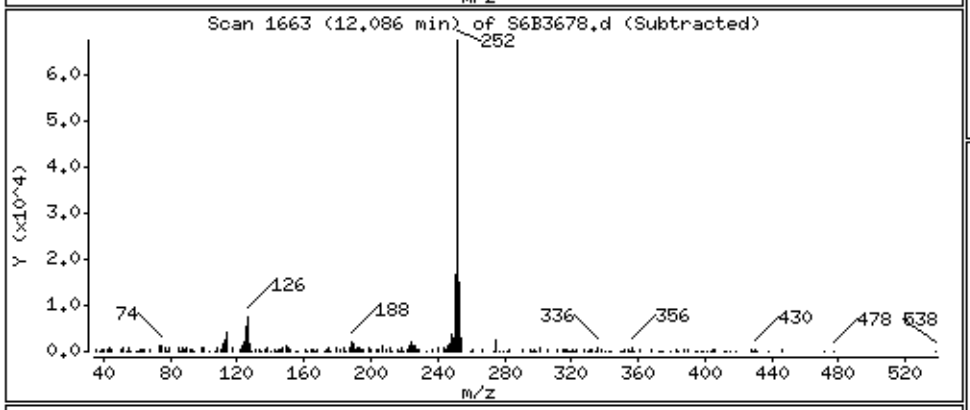
Column diameter: 0.25

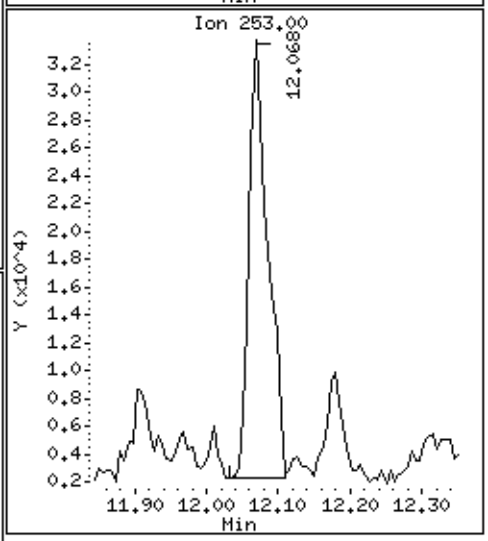
81 Benzo(k)fluoranthene

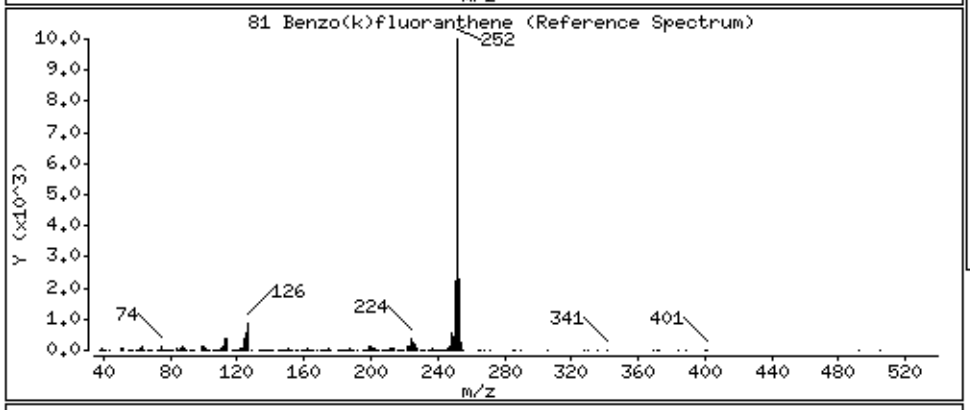
Concentration: 160 ug/Kg

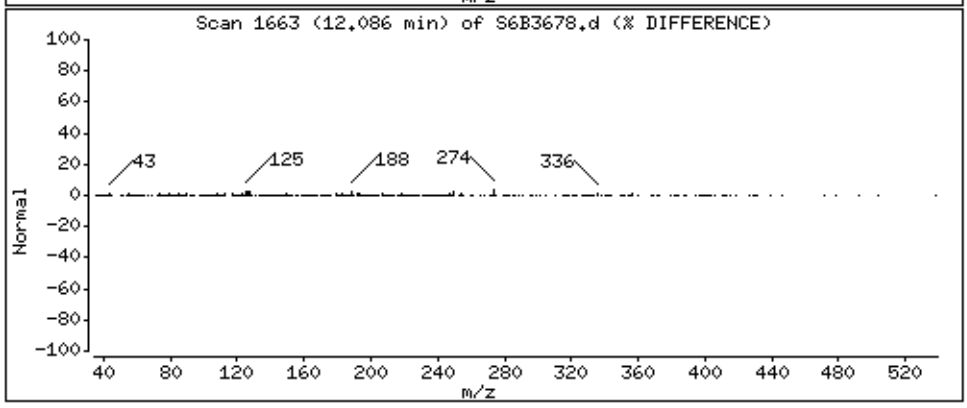












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

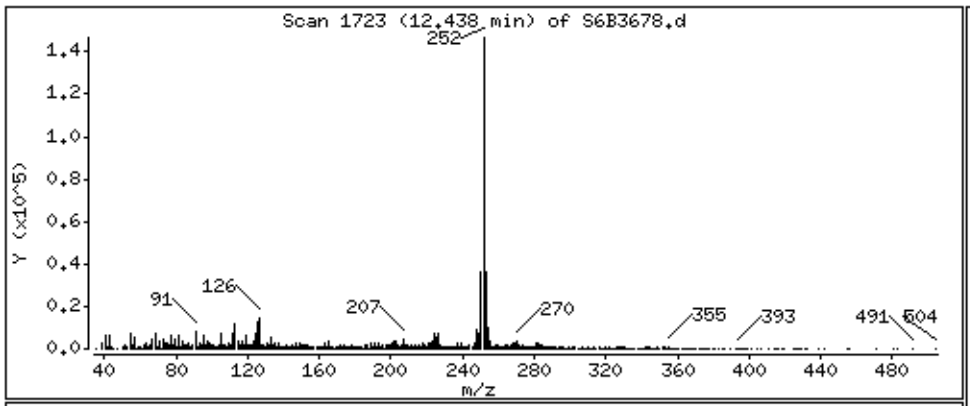
Operator: PK SRC: LIMS

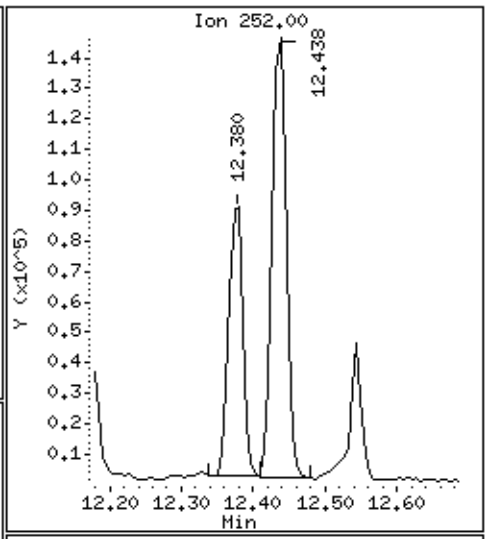
Column phase: Rxi-5Sil MS

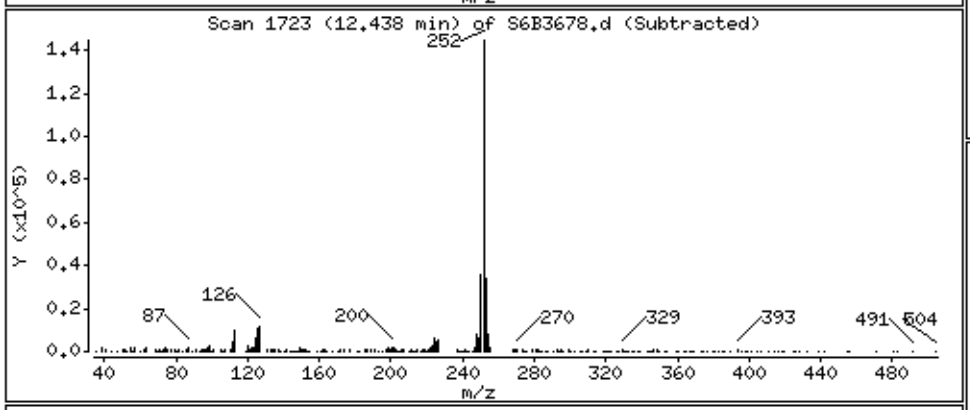
Column diameter: 0.25

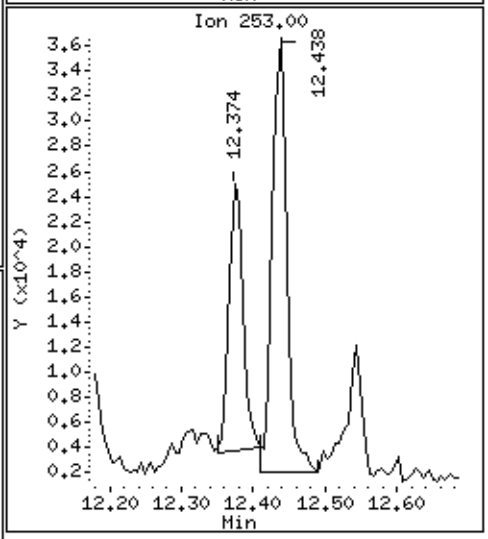
82 Benzo(a)pyrene

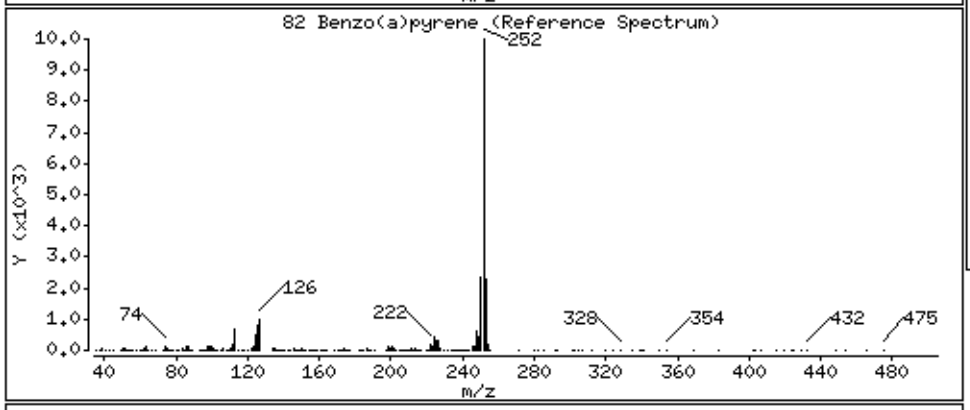
Concentration: 440 ug/Kg

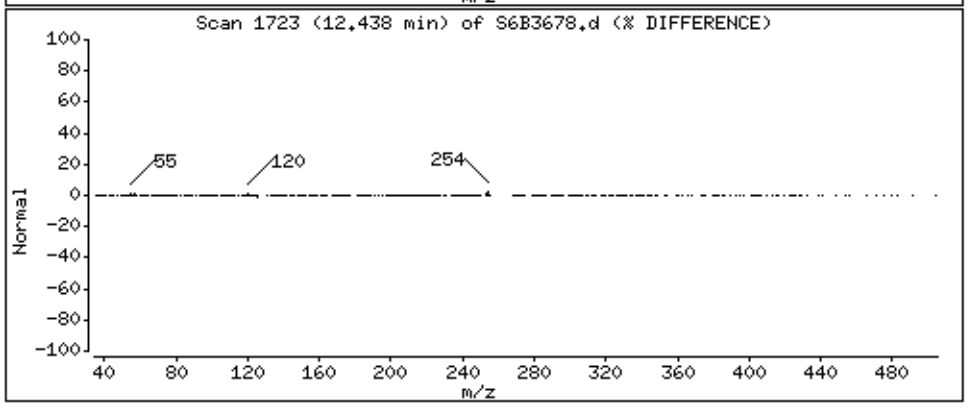












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

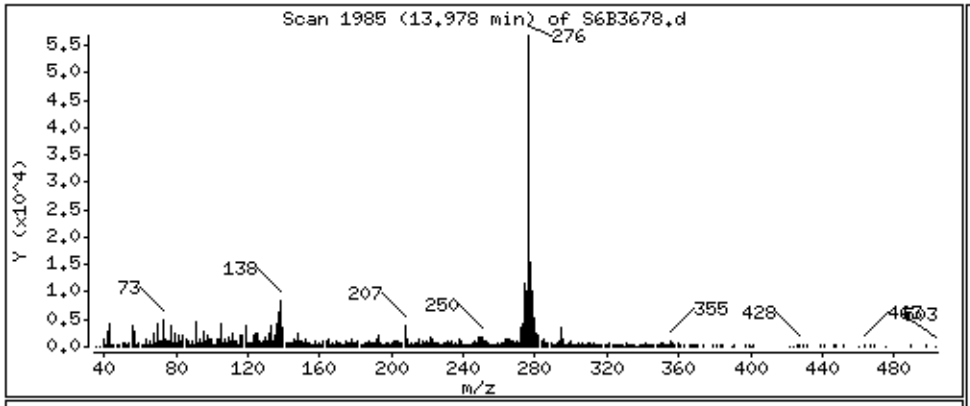
Operator: PK SRC: LIMS

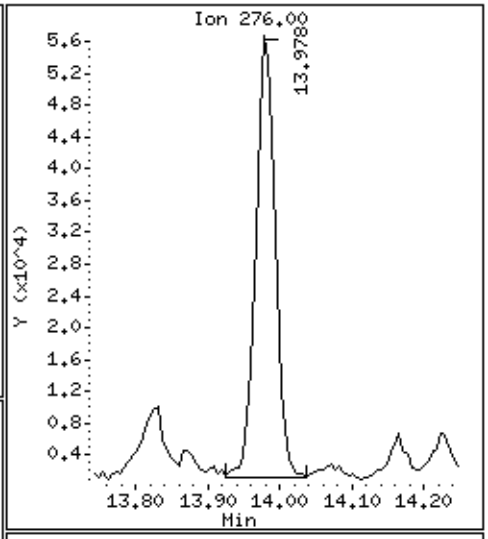
Column phase: Rxi-5Sil MS

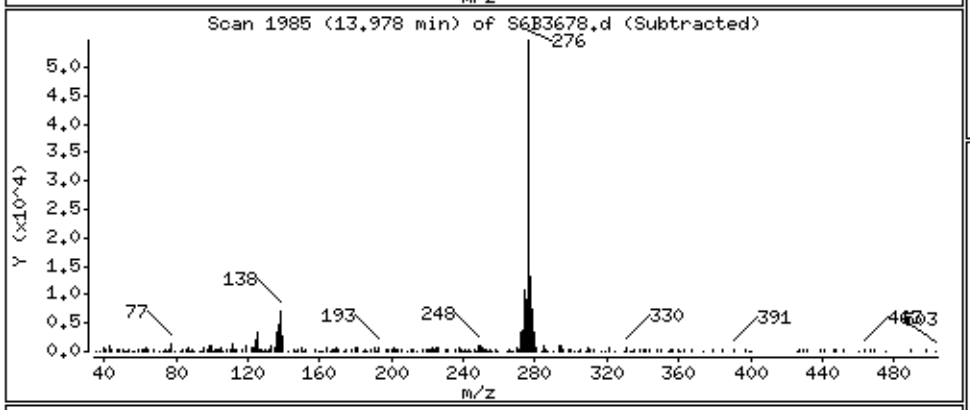
Column diameter: 0.25

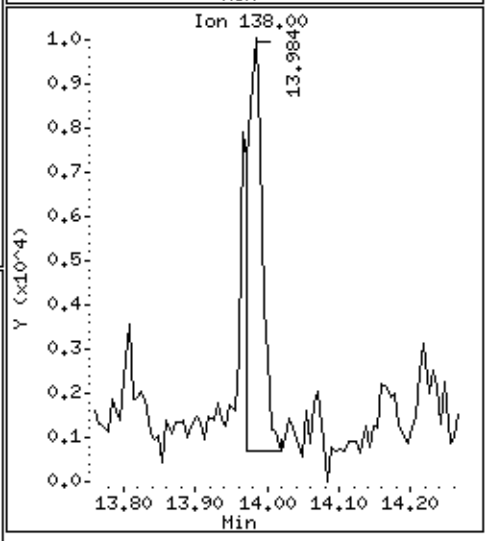
84 Indeno(1,2,3-cd)pyrene

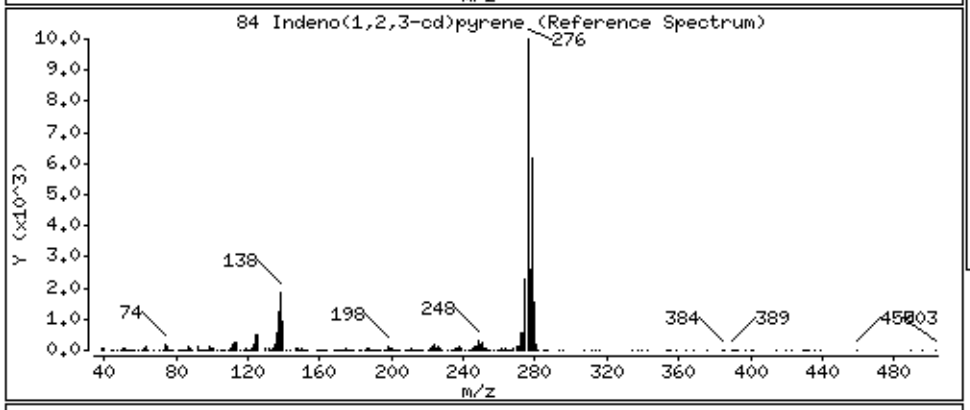
Concentration: 190 ug/Kg

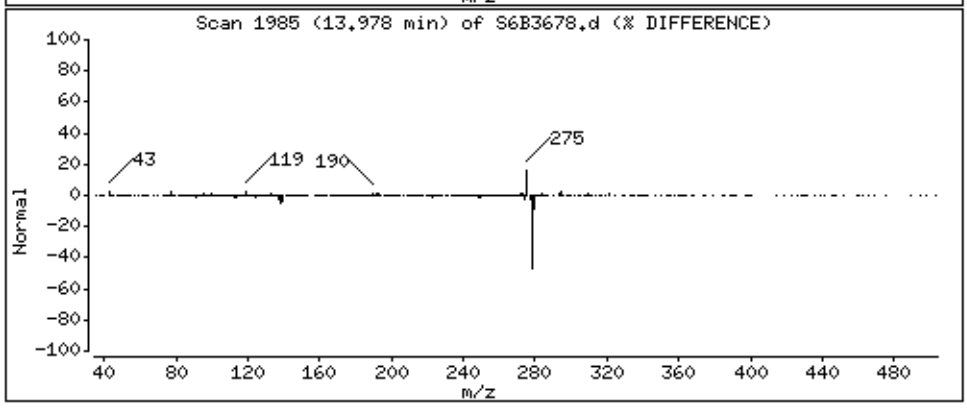












Data File: \\avogadro\organics\S6.I\130507.B\S6B3678.d

Date : 07-MAY-2013 14:01

Client ID: SB-129 (8-10)DL

Instrument: S6.i

Sample Info: M0619-11ADL,,71418,,2

Volume Injected (uL): 1.0

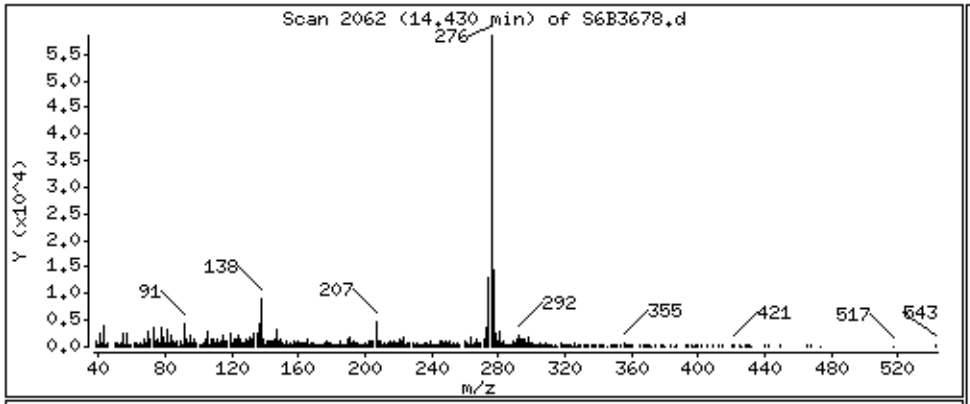
Operator: PK SRC: LIMS

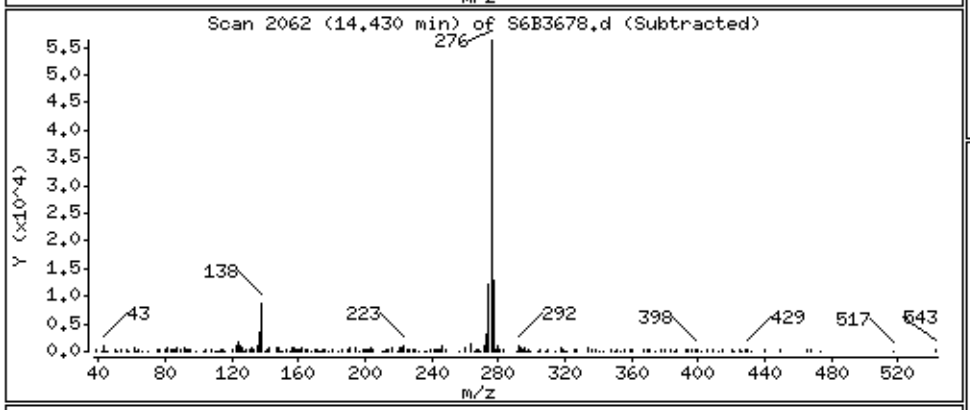
Column phase: Rxi-5Sil MS

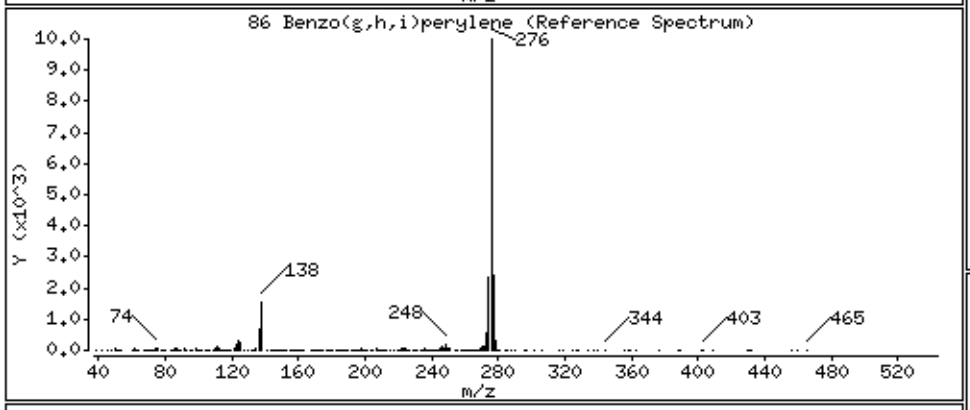
Column diameter: 0.25

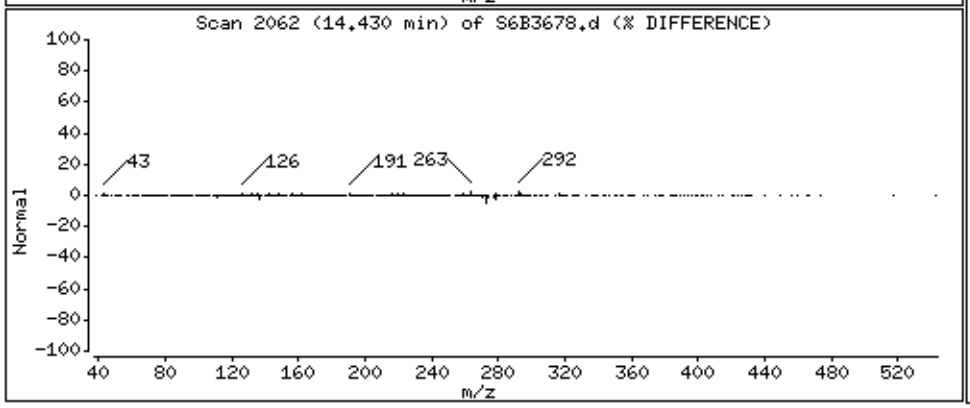
86 Benzo(g,h,i)perylene

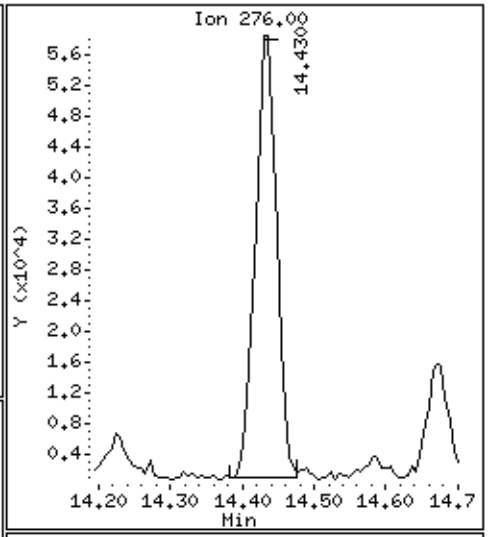
Concentration: 260 ug/Kg

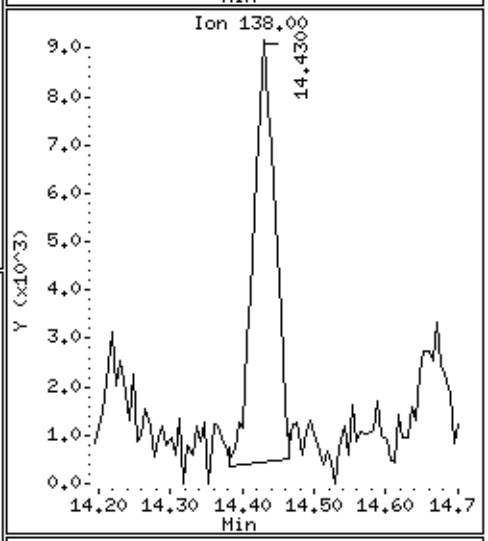


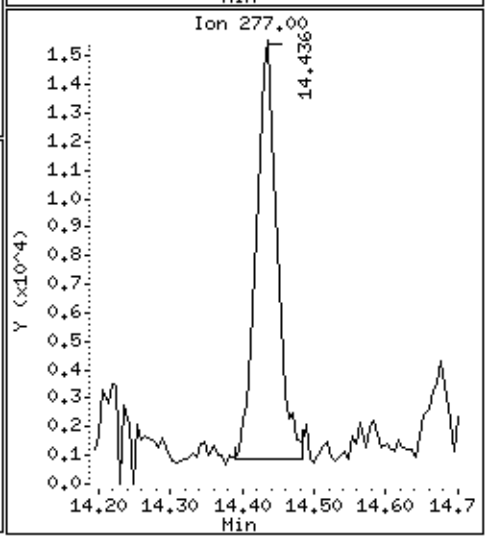












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-129 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-12A

Sample wt/vol: 15.3 (g/mL) G Lab File ID: S6B3659.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 6.7 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	350	U
91-57-6	2-Methylnaphthalene	350	U
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

Data File: \\avogadro\organics\S6.I\130506.B\S6B3659.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

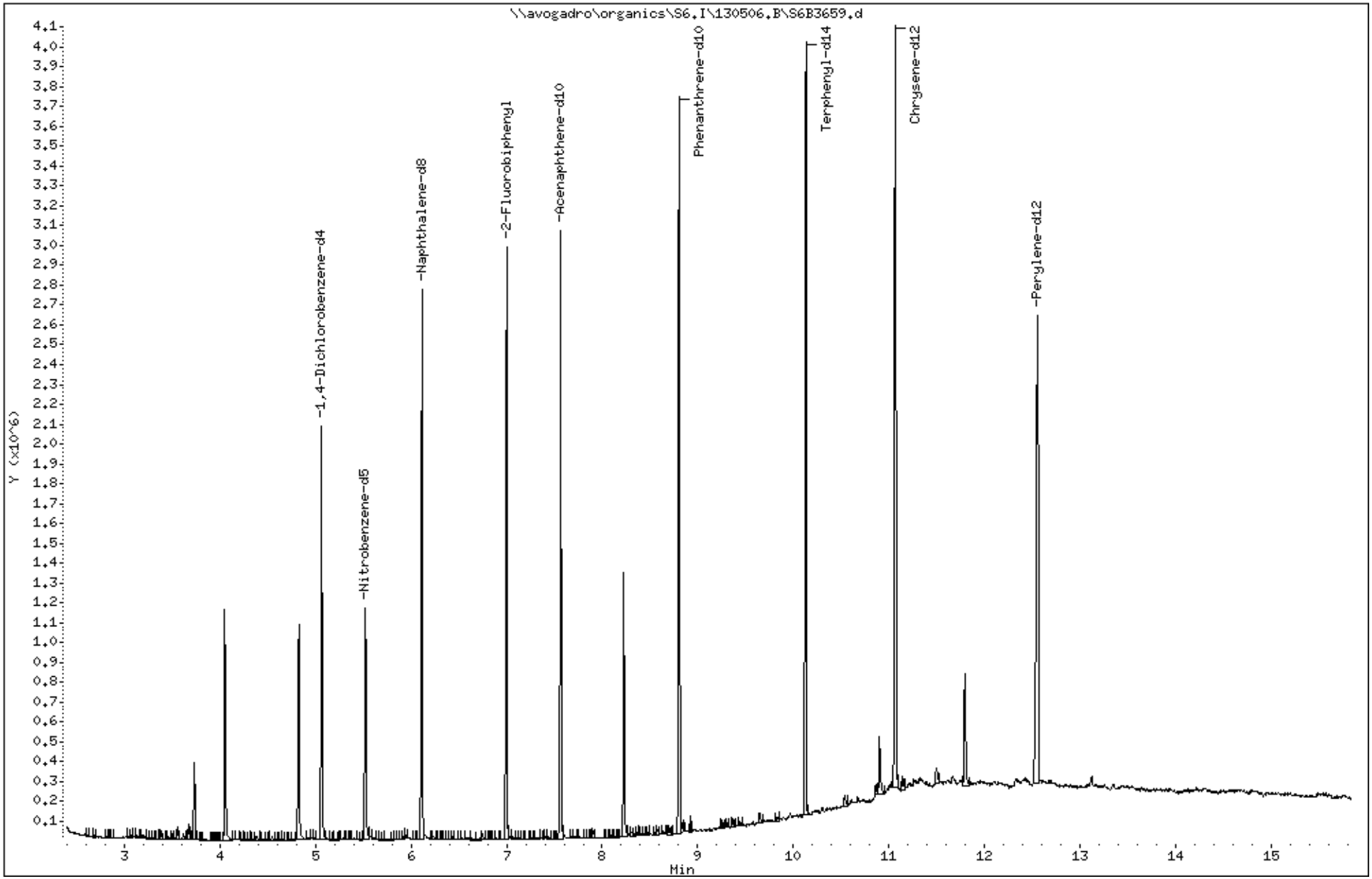
Data file : \\avogadro\organics\S6.I\130506.B\S6B3659.d
Lab Smp Id: M0619-12A Client Smp ID: SB-129 (18-20)
Inj Date : 06-MAY-2013 22:11
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-12A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	265295	40.0000	
$ 22 Nitrobenzene-d5	82	5.520	5.519	(0.903)	347769	42.8731	2800
* 31 Naphthalene-d8	136	6.113	6.113	(1.000)	907769	40.0000	
$ 41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	725864	40.4360	2600
* 48 Acenaphthene-d10	164	7.564	7.570	(1.000)	614572	40.0000	
* 64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1176077	40.0000	
$ 72 Terphenyl-d14	244	10.132	10.138	(0.916)	1105468	49.1911	3200
* 76 Chrysene-d12	240	11.066	11.101	(1.000)	1497779	40.0000	
* 83 Perylene-d12	264	12.558	12.593	(1.000)	1453619	40.0000	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3659.d
Date : 06-MAY-2013 22:11
Client ID: SB-129 (18-20)
Instrument: S6.i
Sample Info: M0619-12A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-130 (2-4)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-13A

Sample wt/vol: 15.1 (g/mL) G Lab File ID: S6B3660.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 13 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	120	J
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	480	
120-12-7	Anthracene	150	J
206-44-0	Fluoranthene	650	
129-00-0	Pyrene	940	
56-55-3	Benzo(a)anthracene	440	
218-01-9	Chrysene	540	
205-99-2	Benzo(b)fluoranthene	440	
207-08-9	Benzo(k)fluoranthene	150	J
50-32-8	Benzo(a)pyrene	380	
193-39-5	Indeno(1,2,3-cd)pyrene	200	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	270	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d
Report Date: 07-May-2013 10:02

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3660.d
Lab Smp Id: M0619-13A Client Smp ID: SB-130 (2-4)
Inj Date : 06-MAY-2013 22:33
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : M0619-13A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.100	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	249900	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	314727	40.1492	2600	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	877256	40.0000		
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	687949	40.5545	2700	
	46 Acenaphthylene	152	7.447	7.452	(0.984)	35413	1.60661	110(a)	
*	48 Acenaphthene-d10	164	7.564	7.570	(1.000)	580768	40.0000		
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1156985	40.0000		
	65 Phenanthrene	178	8.822	8.827	(1.002)	166414	6.29315	420(a)	
	66 Anthracene	178	8.863	8.868	(1.007)	53440	1.96573	130(a)	
	69 Fluoranthene	202	9.814	9.826	(1.115)	279065	8.62314	570(a)	
	71 Pyrene	202	10.008	10.020	(0.904)	386456	12.4652	820	
$	72 Terphenyl-d14	244	10.132	10.138	(0.915)	1048391	47.1231	3100	
	75 Benzo(a)anthracene	228	11.060	11.083	(0.999)	197575	5.78377	380(aH)	
*	76 Chrysene-d12	240	11.072	11.101	(1.000)	1482783	40.0000		
	77 Chrysene	228	11.095	11.125	(1.002)	203067	7.10759	470(a)	
	80 Benzo(b)fluoranthene	252	12.106	12.141	(0.964)	220233	5.86998	390(aM)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.129	12.170	(0.965)	70384	2.00140	130(aQMH)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.476	12.517	(0.990)	168036	5.01777	330(a)	
*	83 Perylene-d12	264	12.564	12.593	(1.000)	1435289	40.0000	(H)	

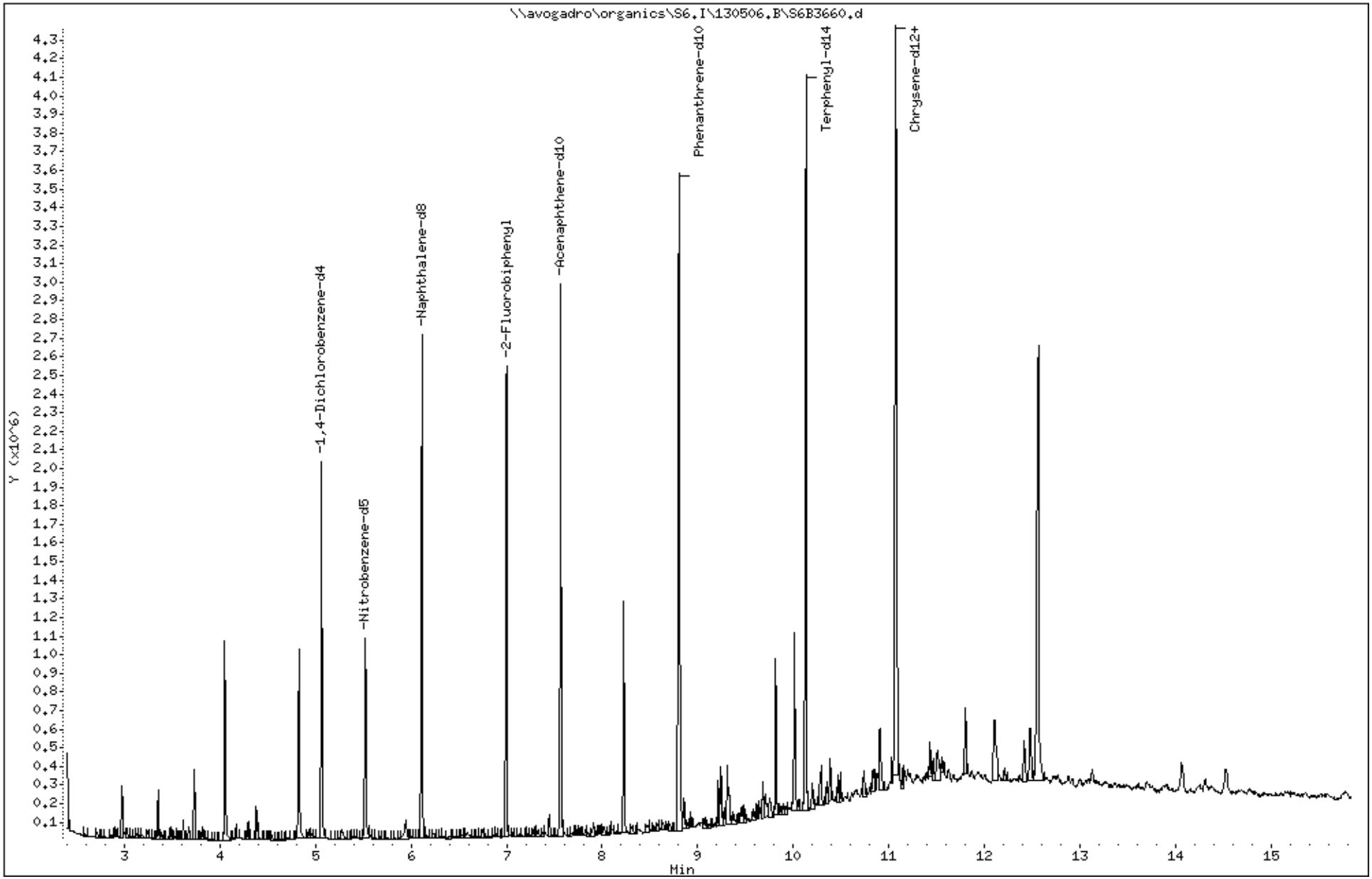
Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d
Report Date: 07-May-2013 10:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
84 Indeno(1,2,3-cd)pyrene	276	14.063	14.115	(1.116)	108947	2.62530	170(aH)
86 Benzo(g,h,i)perylene	276	14.527	14.579	(1.152)	119295	3.53474	230(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d
Date : 06-MAY-2013 22:33
Client ID: SB-130 (2-4)
Instrument: S6.i
Sample Info: M0619-13A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



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Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

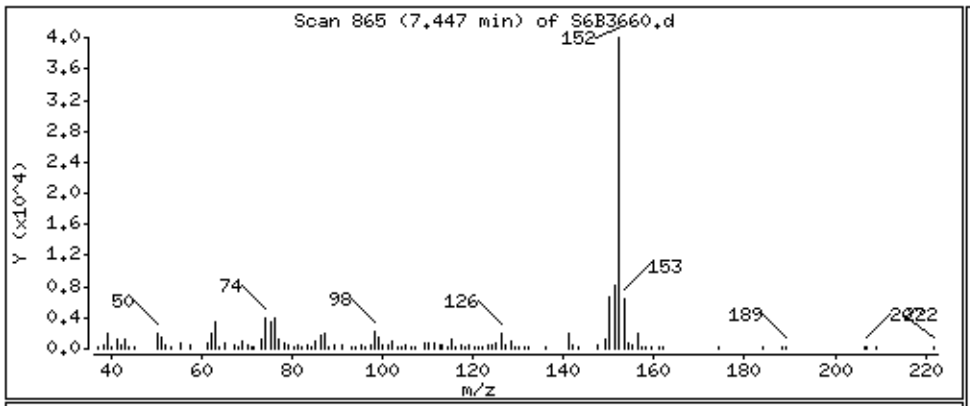
Operator: PK SRC: LIMS

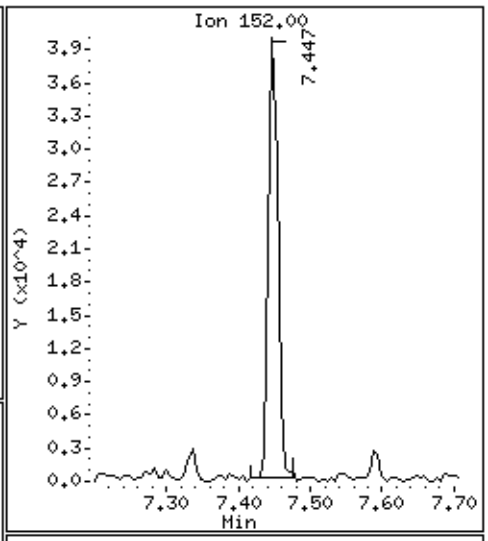
Column phase: Rxi-5Sil MS

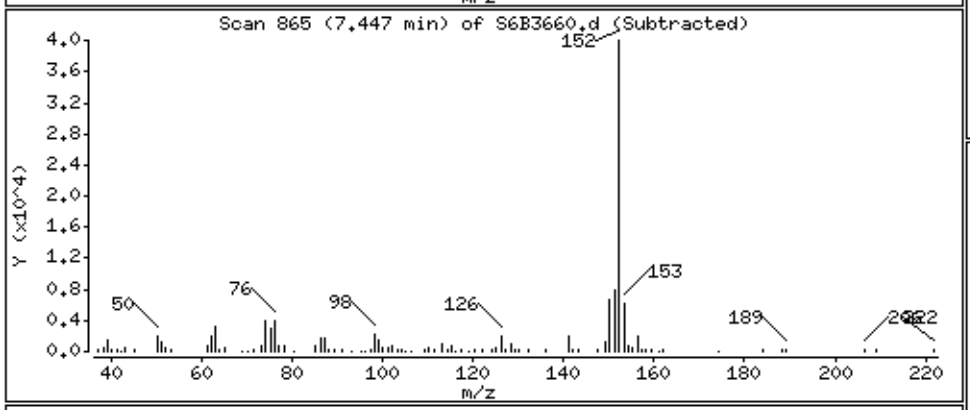
Column diameter: 0.25

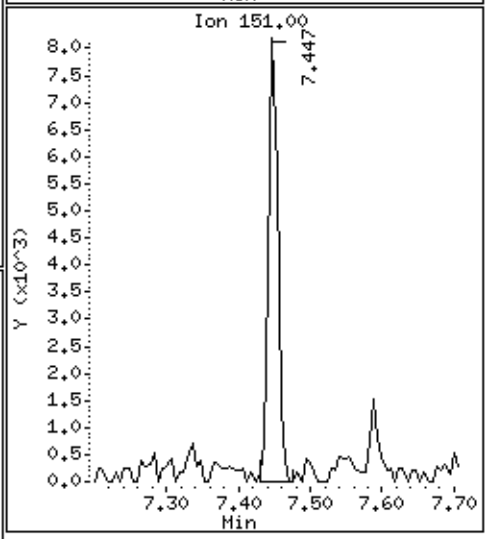
46 Acenaphthylene

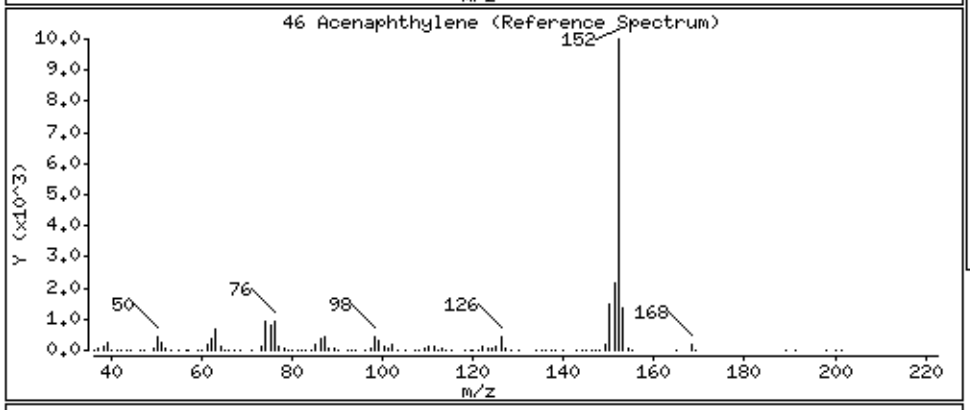
Concentration: 110 ug/Kg

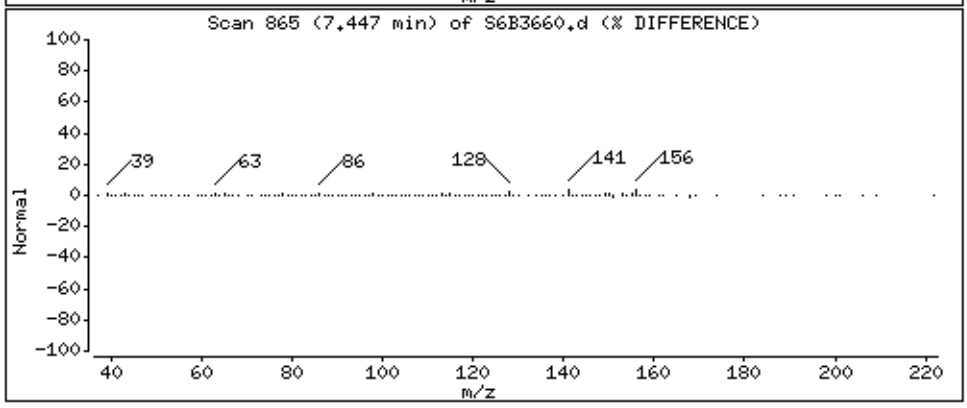












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

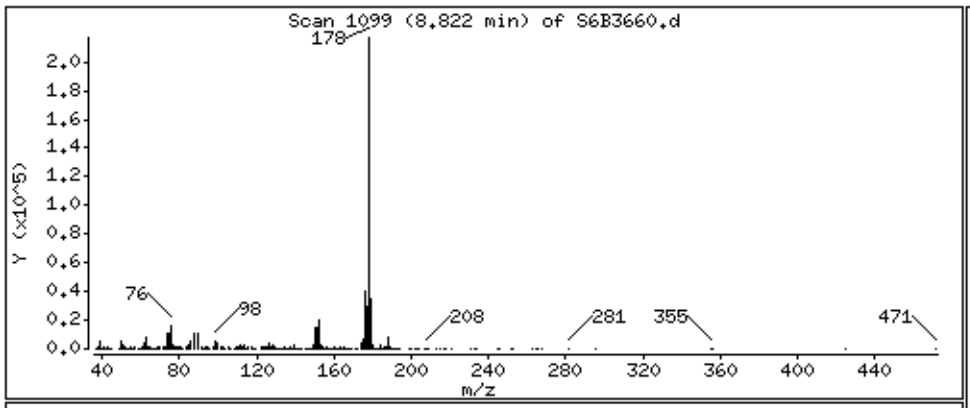
Operator: PK SRC: LIMS

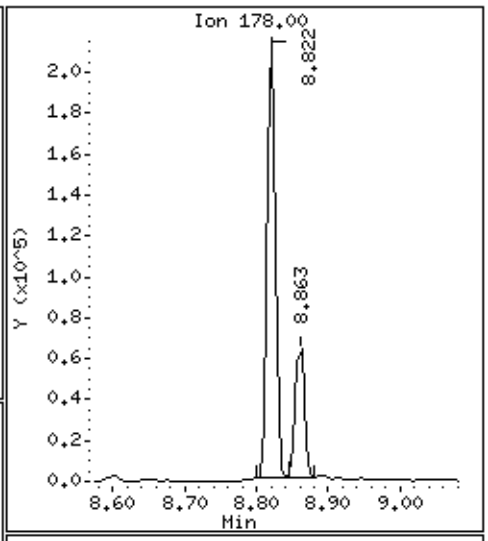
Column phase: Rxi-5Sil MS

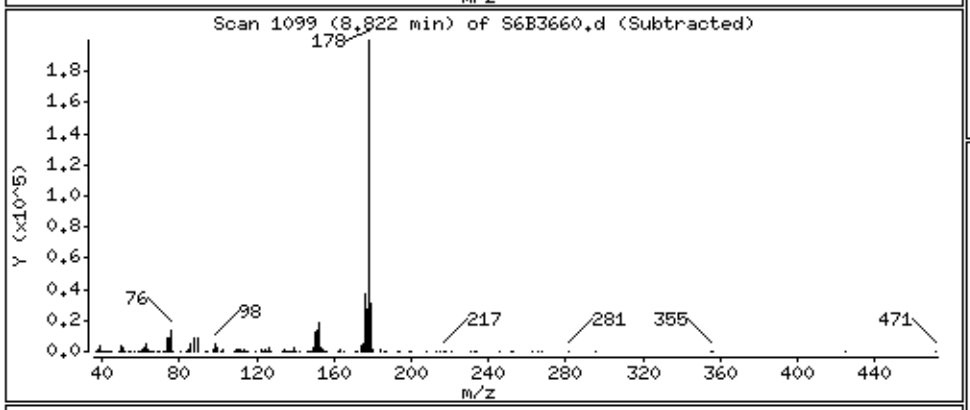
Column diameter: 0.25

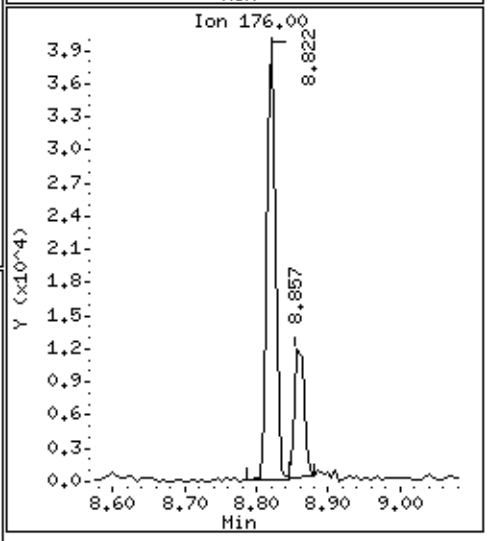
65 Phenanthrene

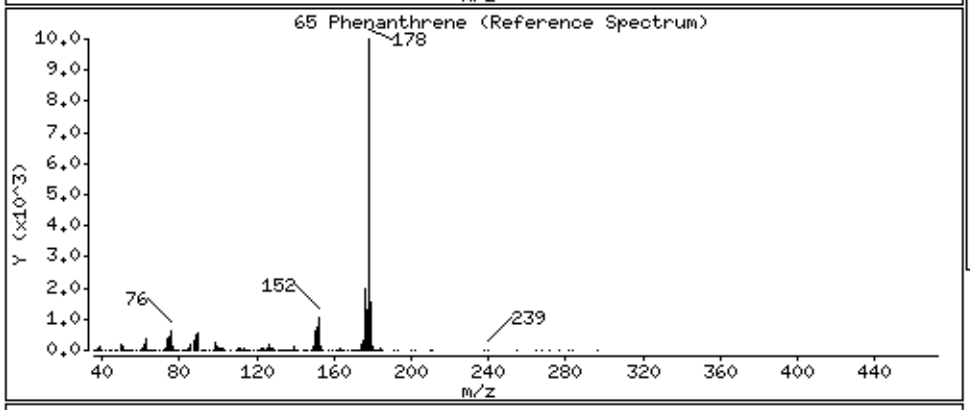
Concentration: 420 ug/Kg

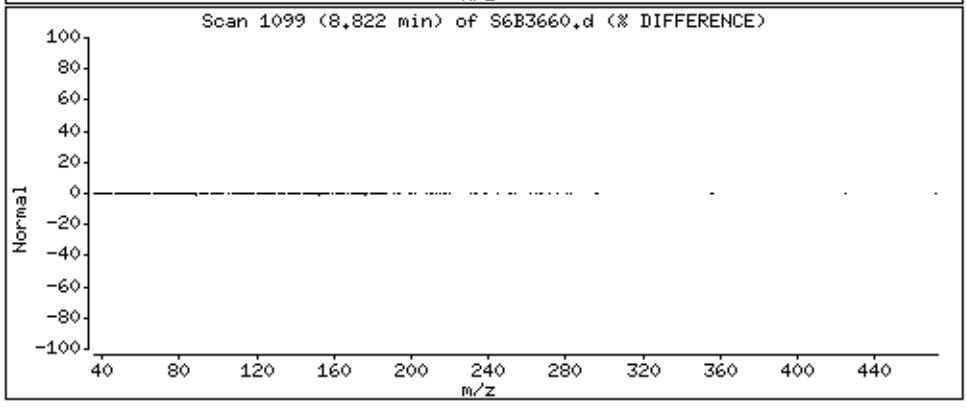












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

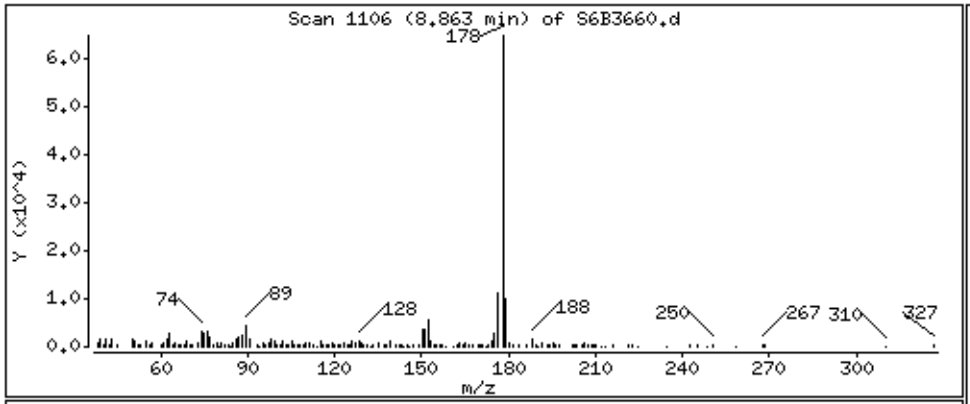
Operator: PK SRC: LIMS

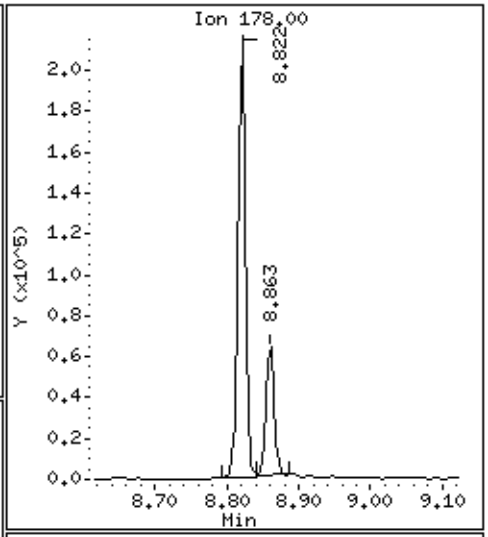
Column phase: Rxi-5Sil MS

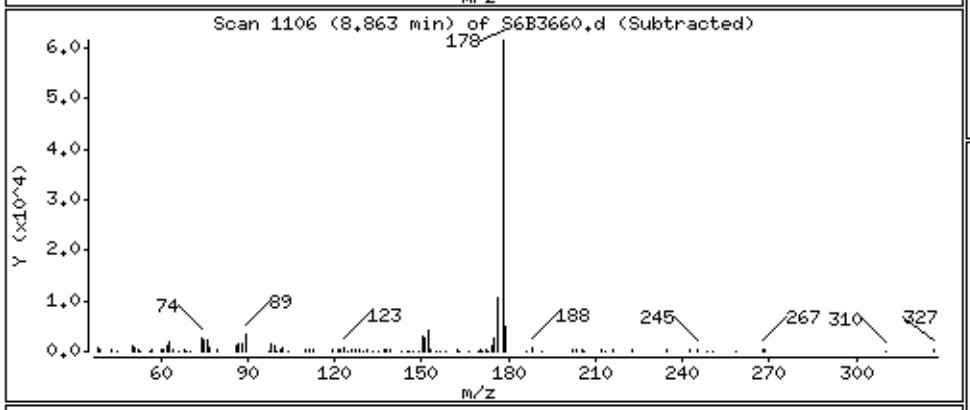
Column diameter: 0.25

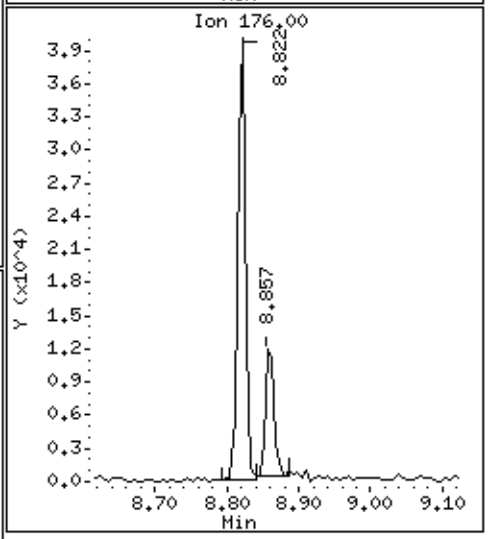
66 Anthracene

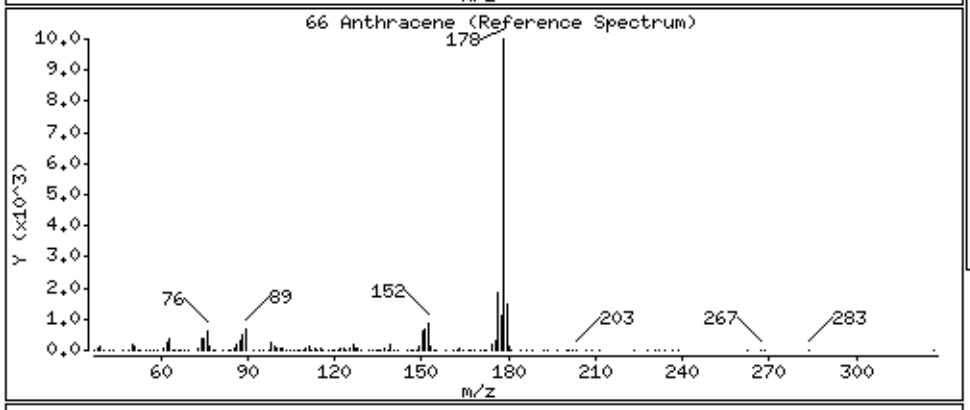
Concentration: 130 ug/Kg

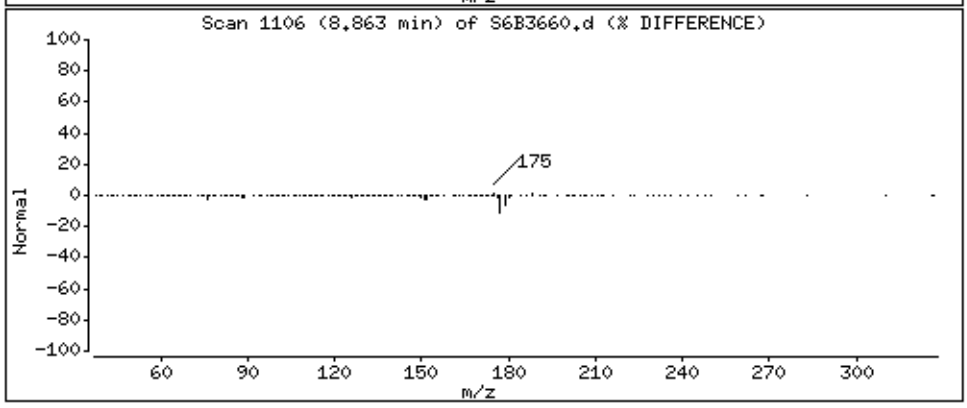












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

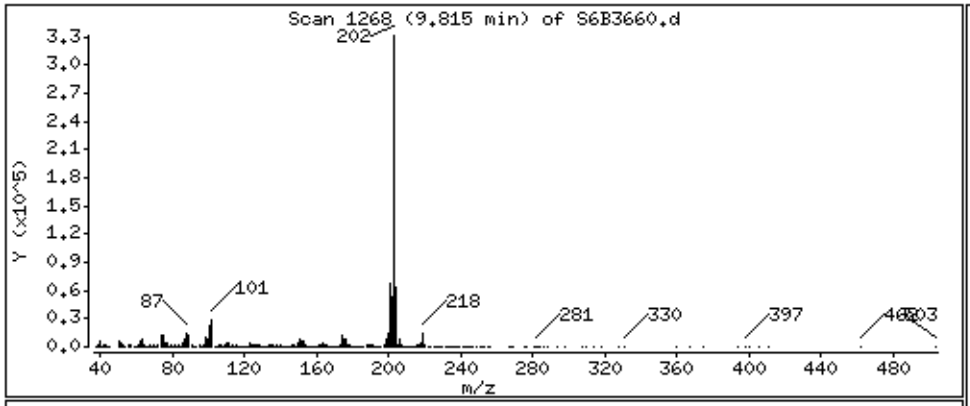
Client ID: SB-130 (2-4) Instrument: S6.i

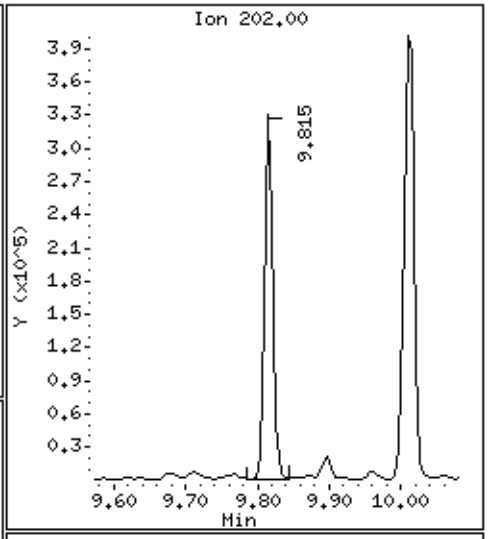
Sample Info: M0619-13A,,71418

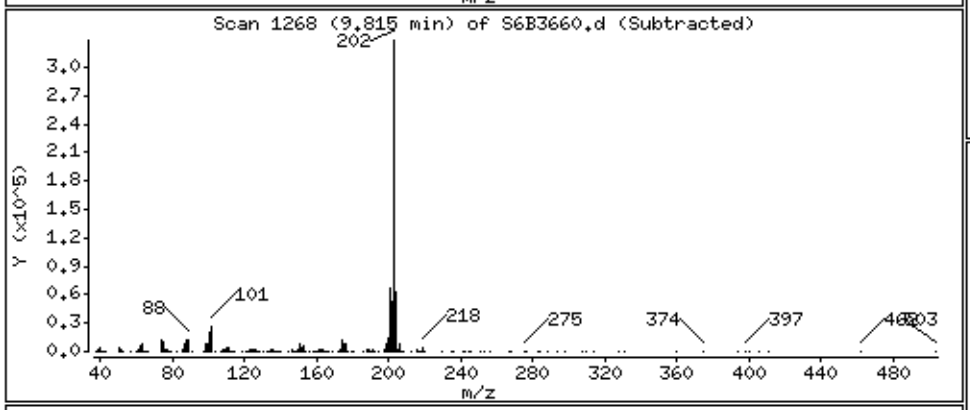
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

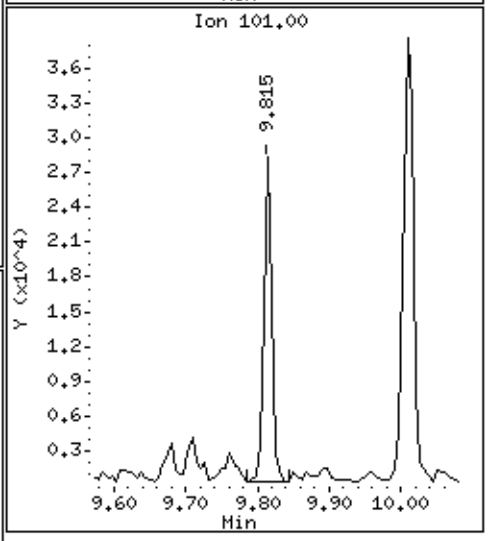
Column phase: Rxi-5Sil MS Column diameter: 0.25

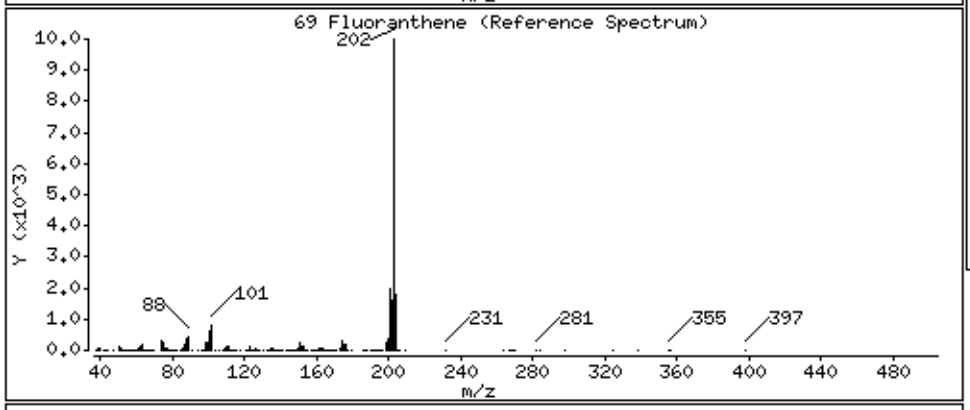
69 Fluoranthene Concentration: 570 ug/Kg

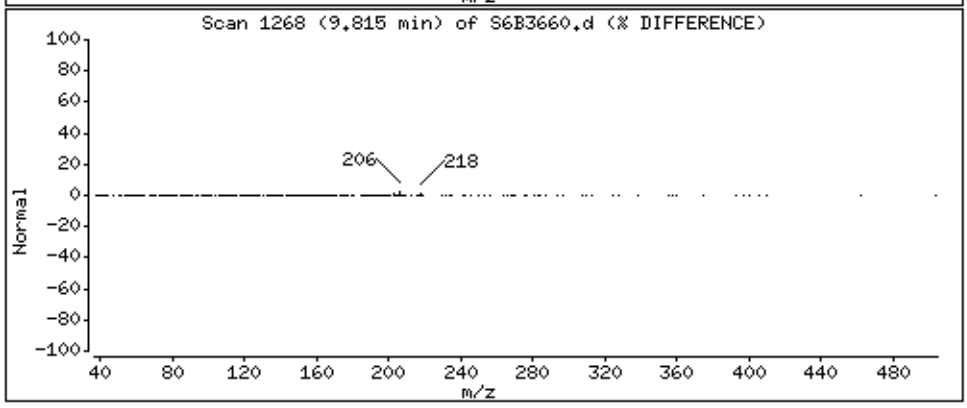












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

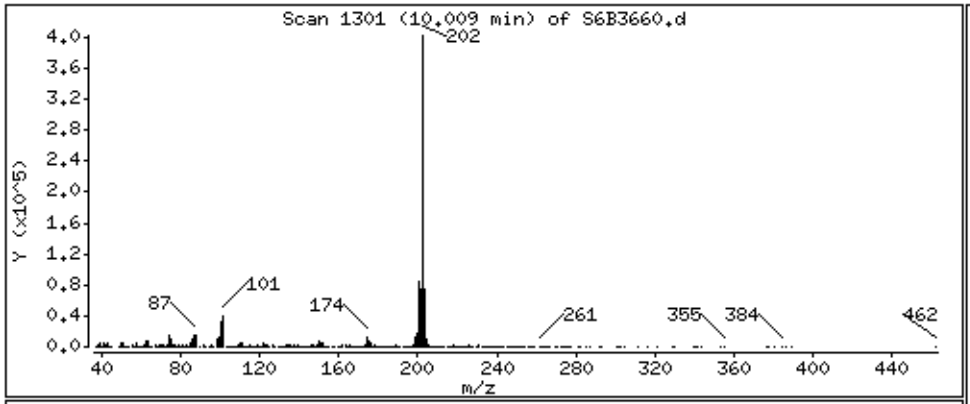
Operator: PK SRC: LIMS

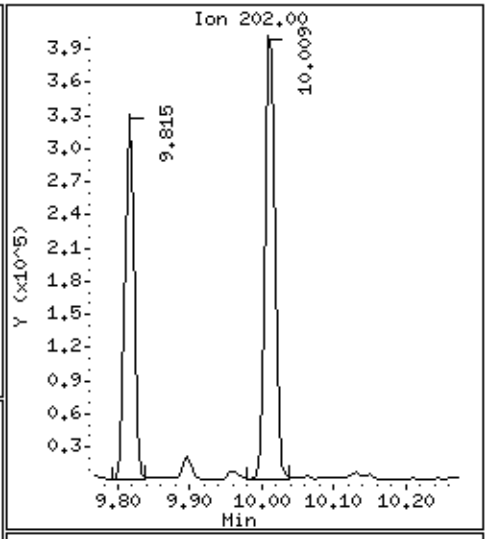
Column phase: Rxi-5Sil MS

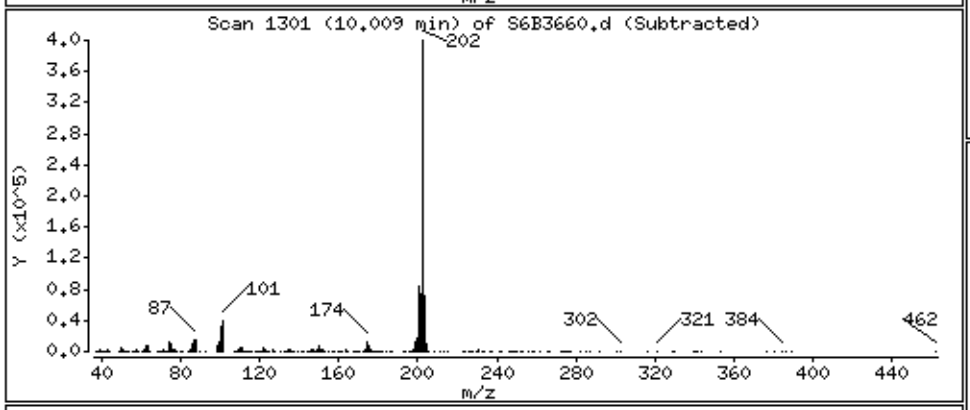
Column diameter: 0.25

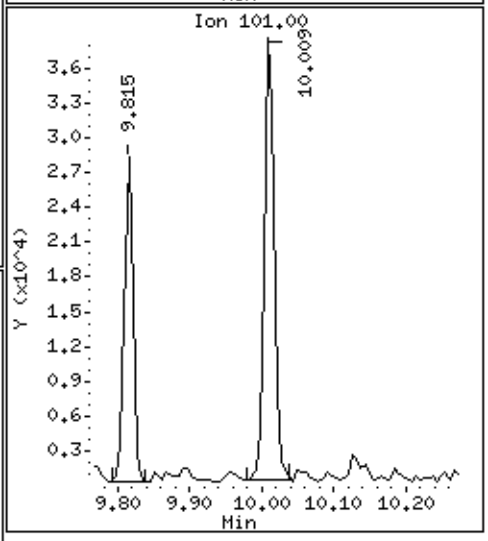
71 Pyrene

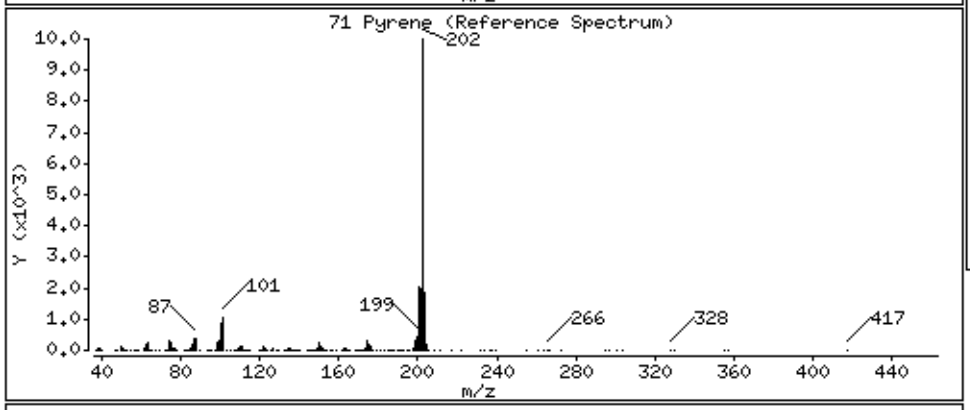
Concentration: 820 ug/Kg

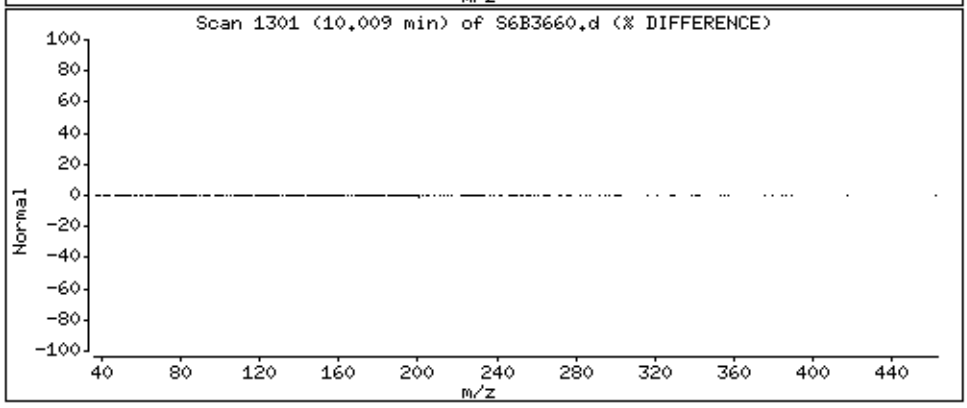












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

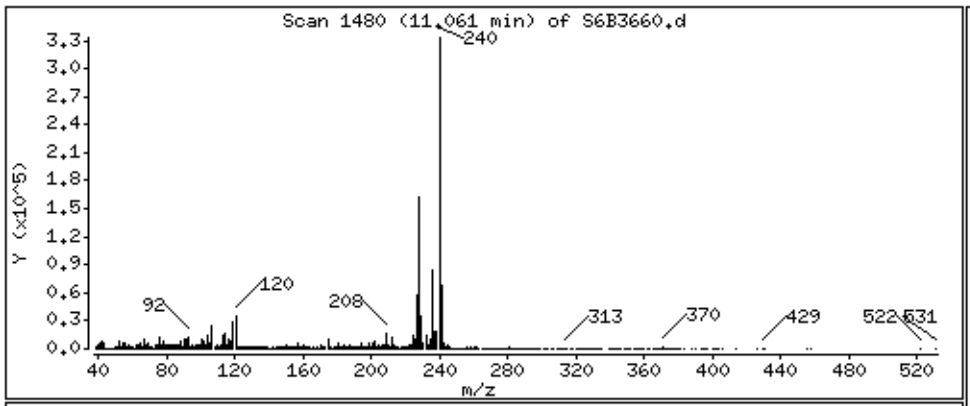
Operator: PK SRC: LIMS

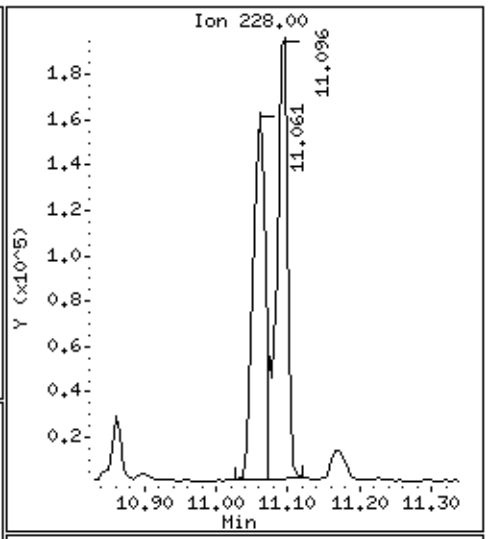
Column phase: Rxi-5Sil MS

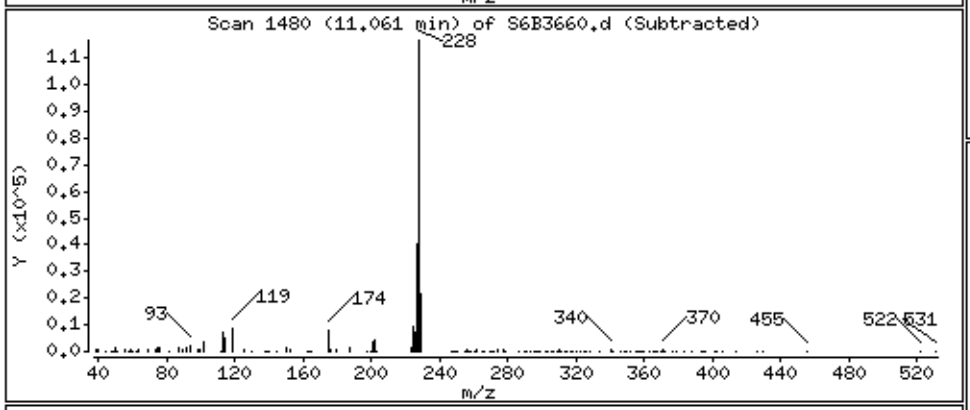
Column diameter: 0.25

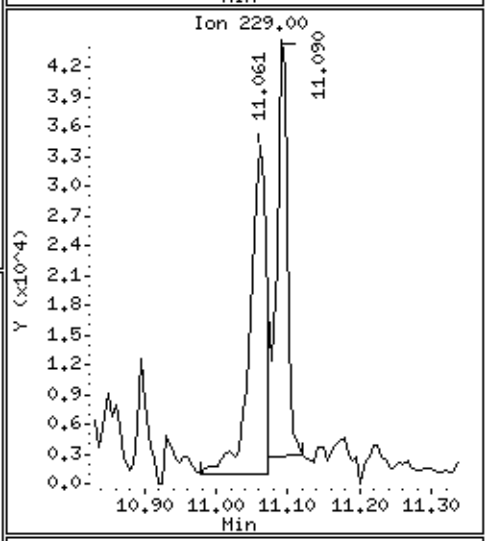
75 Benzo(a)anthracene

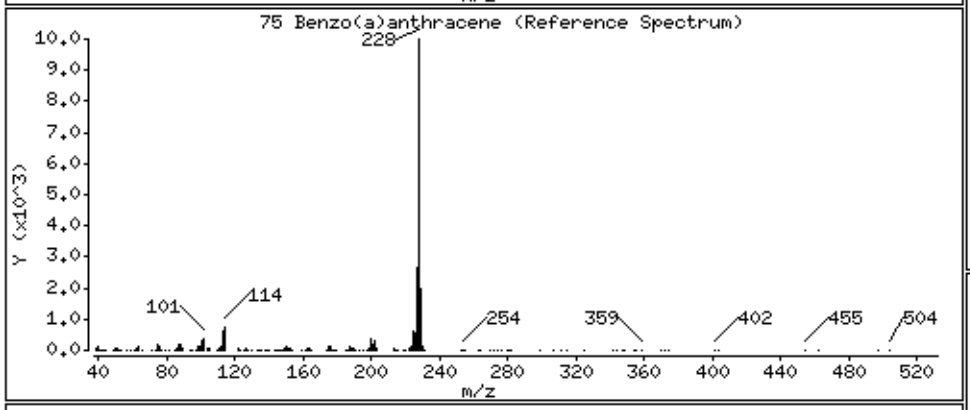
Concentration: 380 ug/Kg

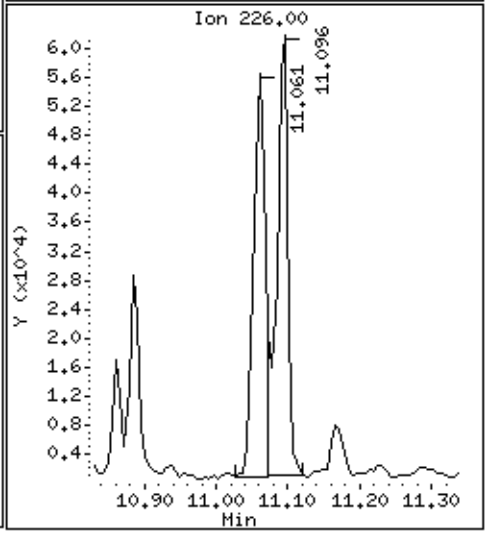


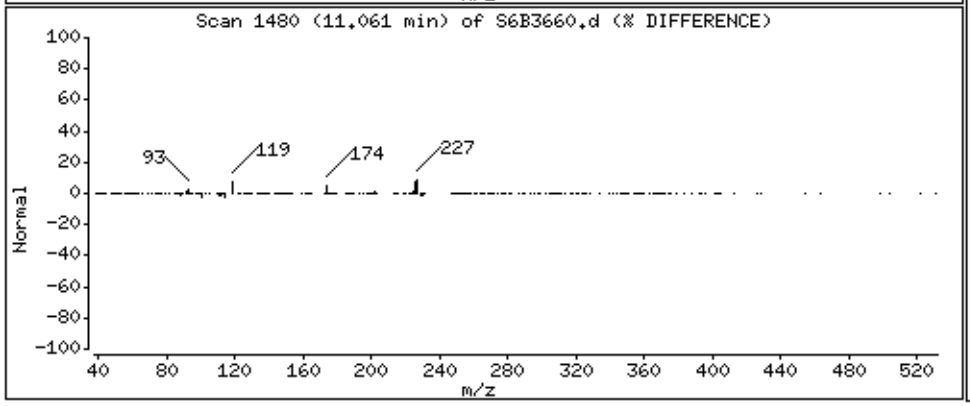












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

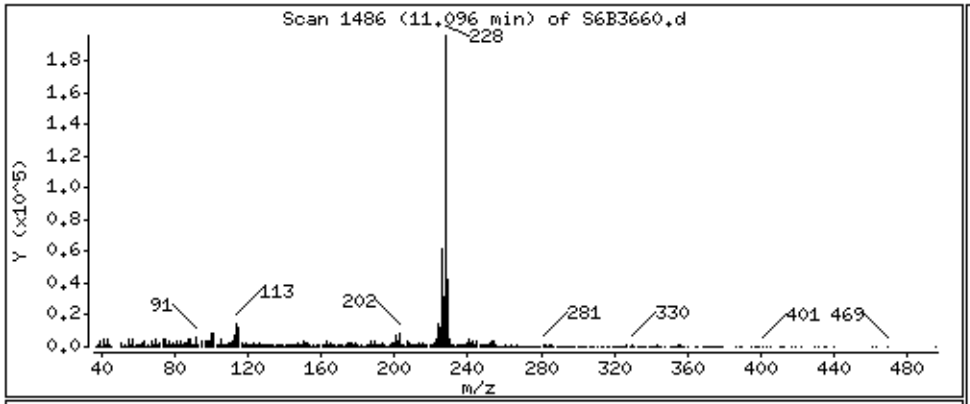
Operator: PK SRC: LIMS

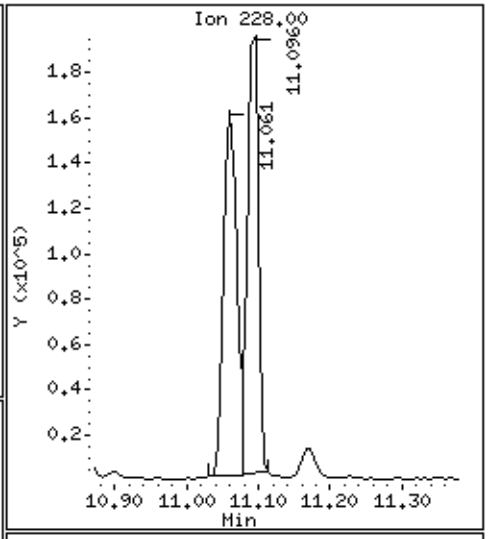
Column phase: Rxi-5Sil MS

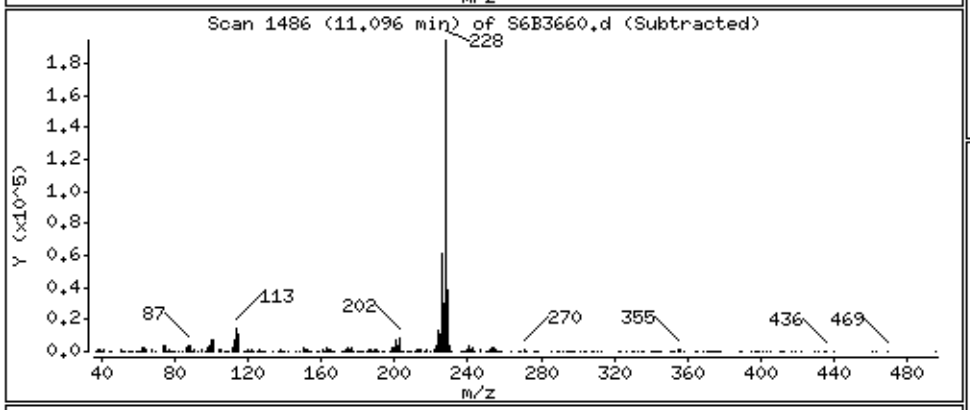
Column diameter: 0.25

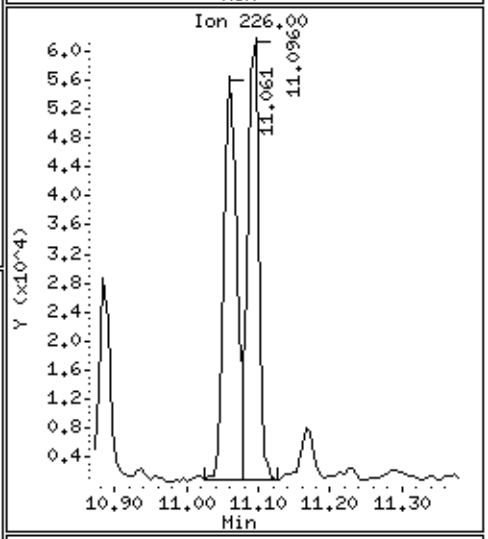
77 Chrysene

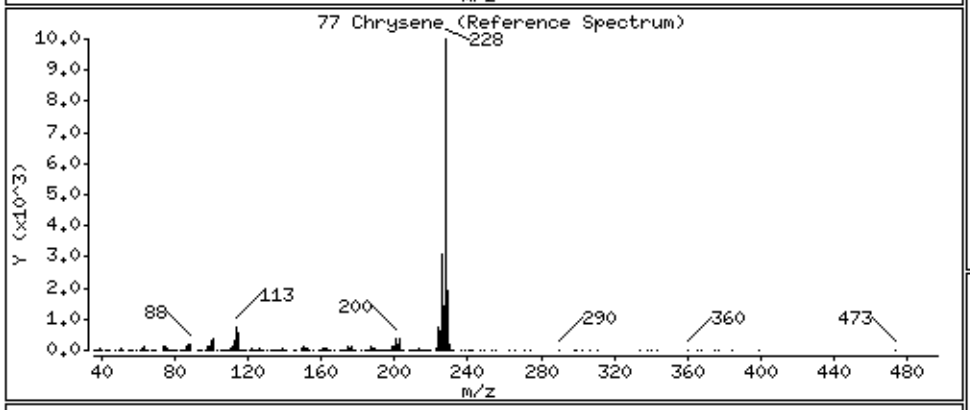
Concentration: 470 ug/Kg

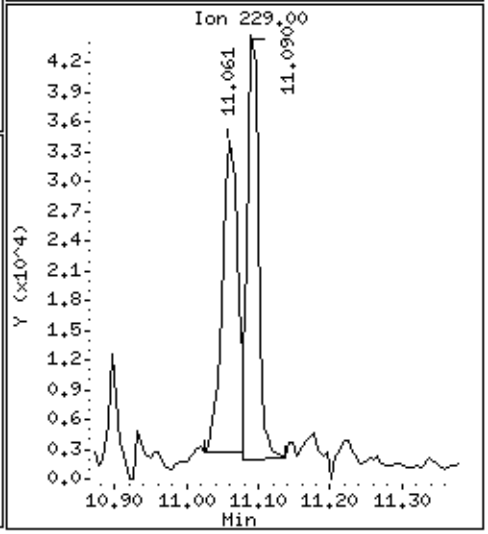


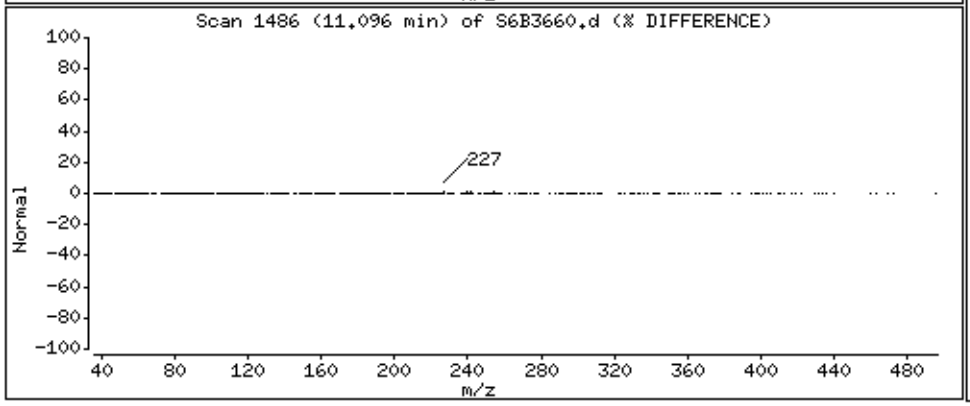












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

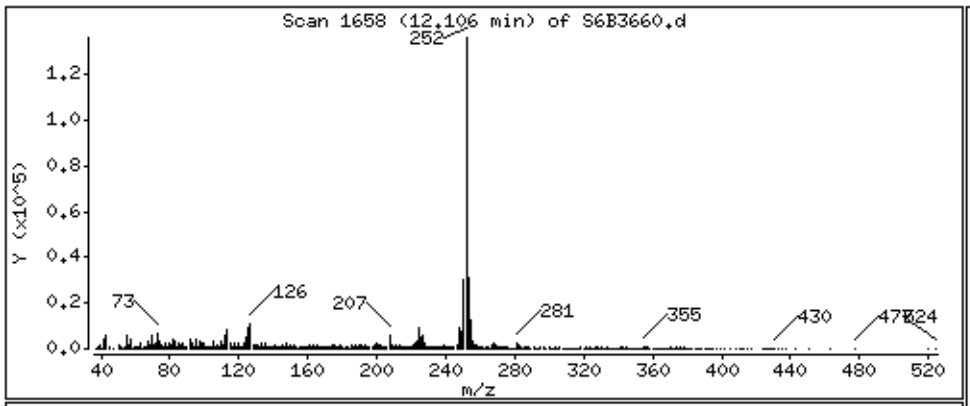
Operator: PK SRC: LIMS

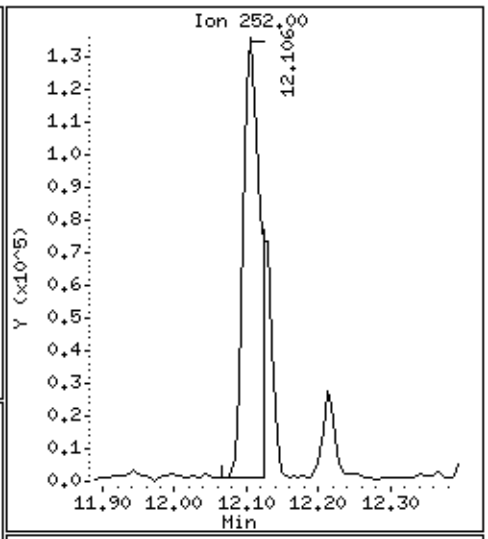
Column phase: Rxi-5Sil MS

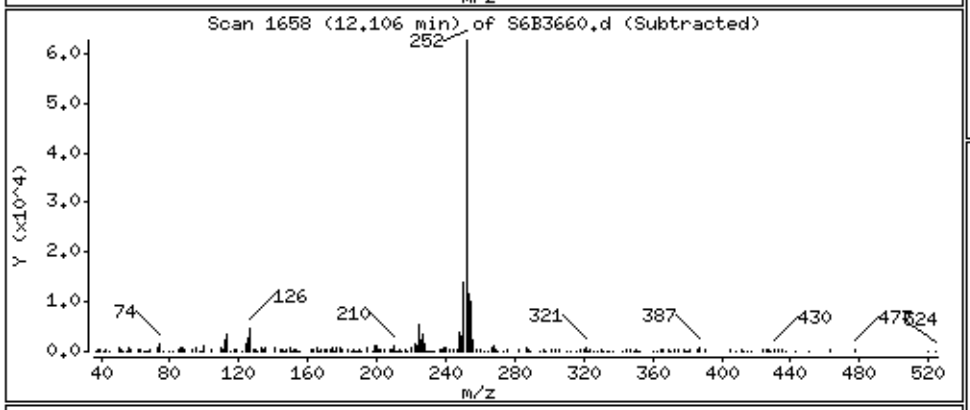
Column diameter: 0.25

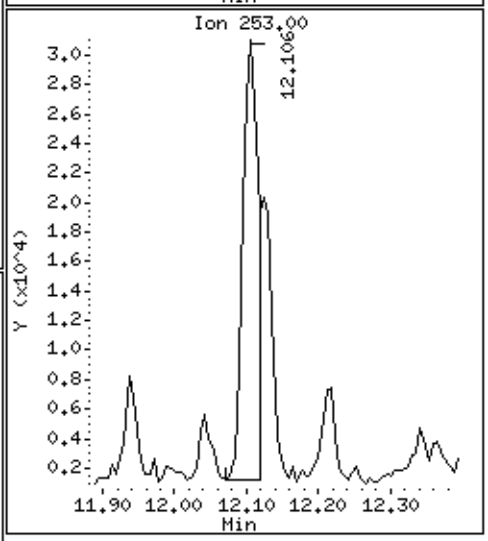
80 Benzo(b)fluoranthene

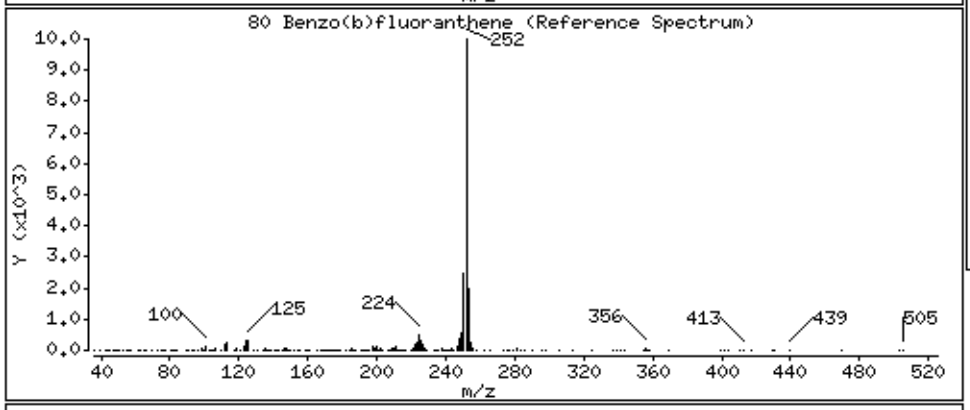
Concentration: 390 ug/Kg

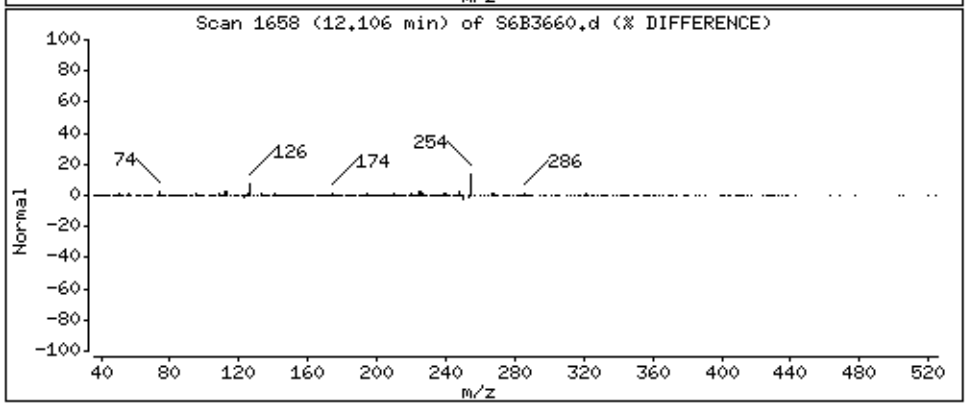












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

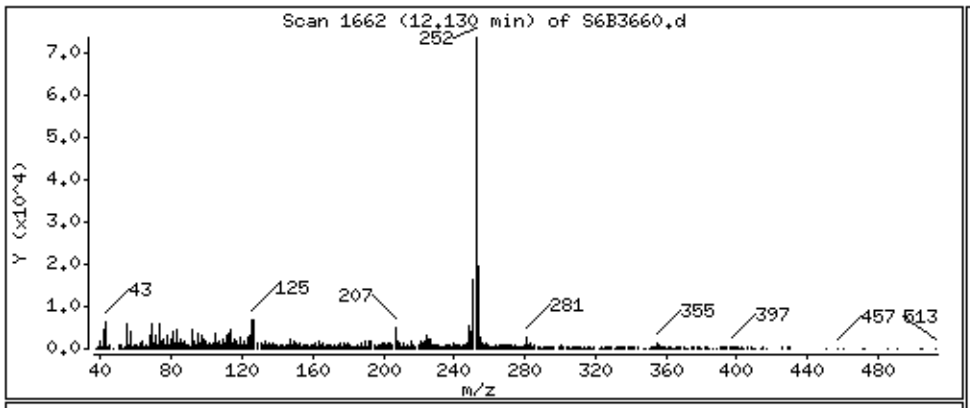
Operator: PK SRC: LIMS

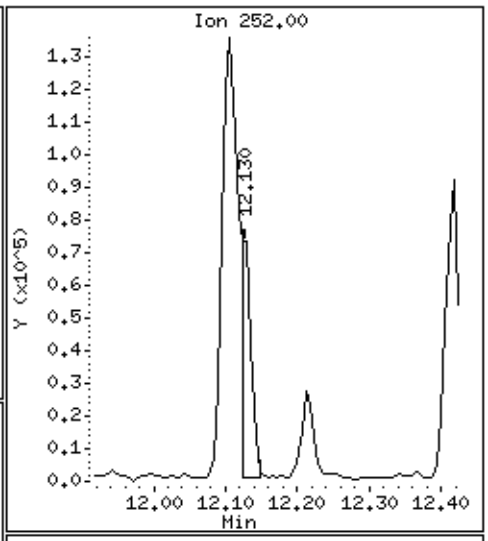
Column phase: Rxi-5Sil MS

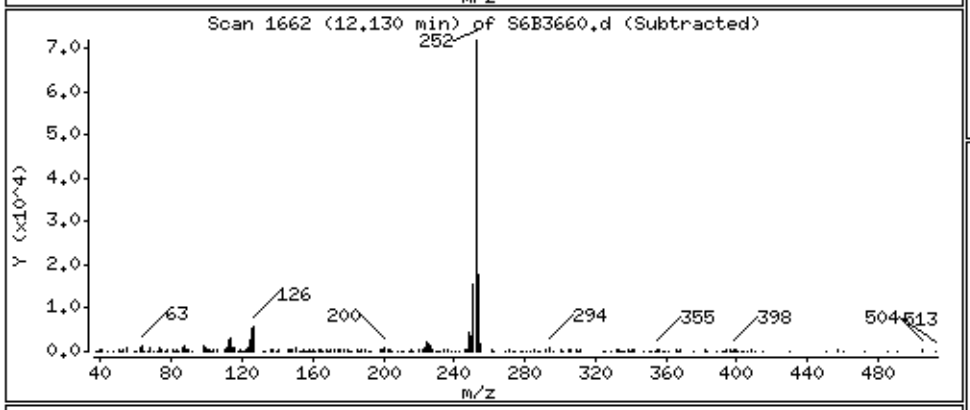
Column diameter: 0.25

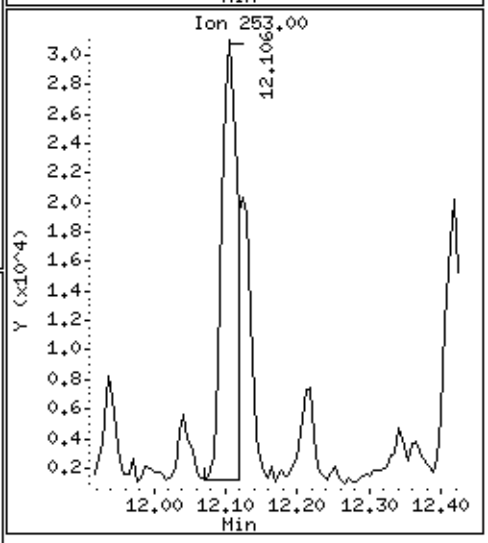
81 Benzo(k)fluoranthene

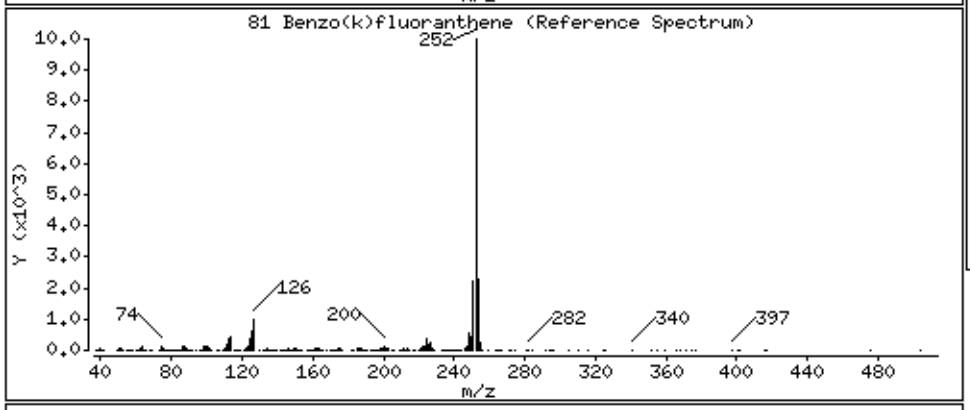
Concentration: 130 ug/Kg

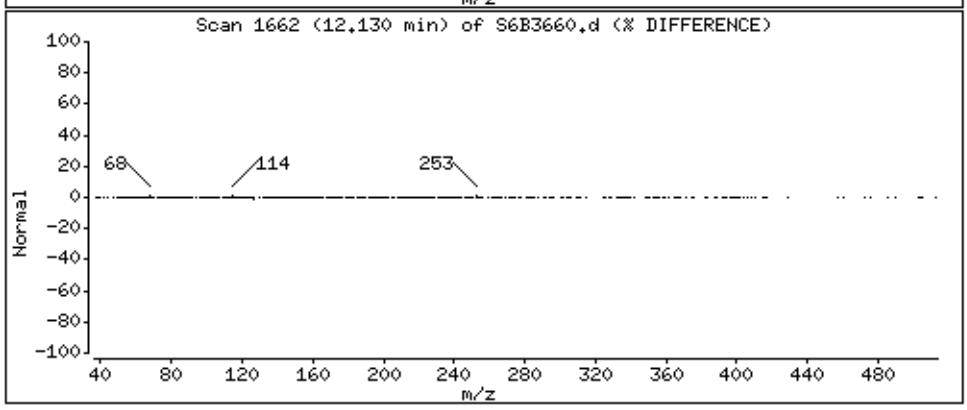












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

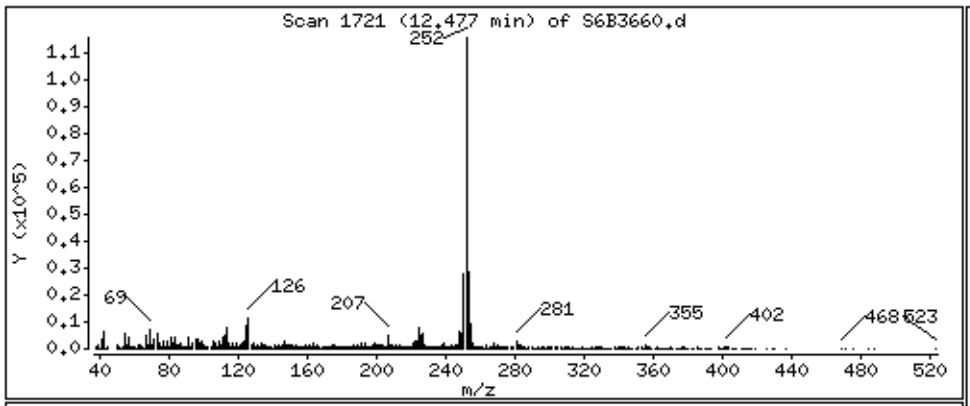
Operator: PK SRC: LIMS

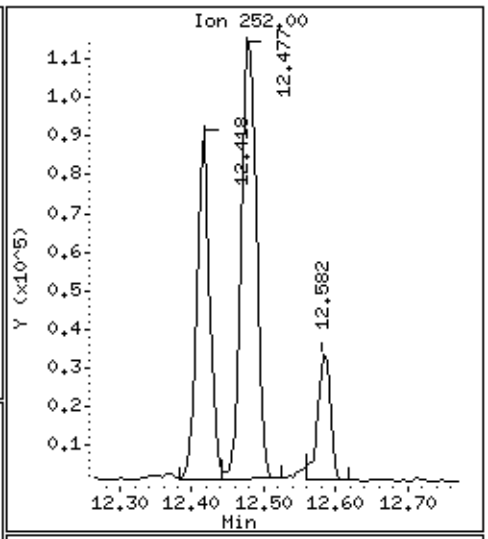
Column phase: Rxi-5Sil MS

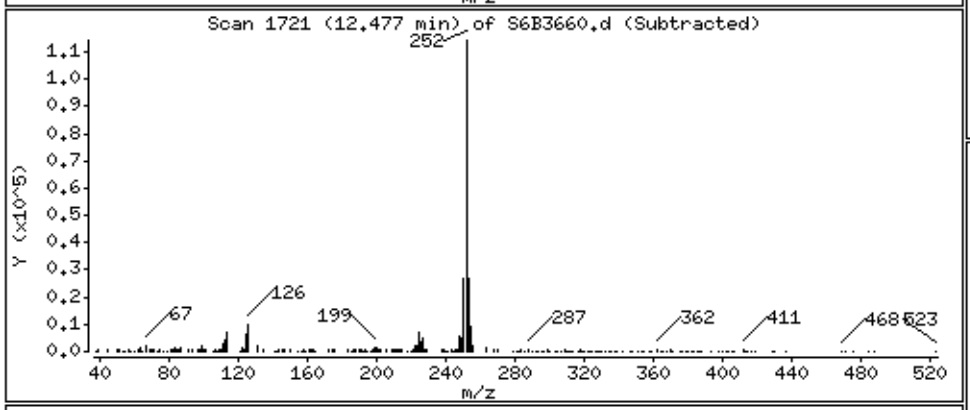
Column diameter: 0.25

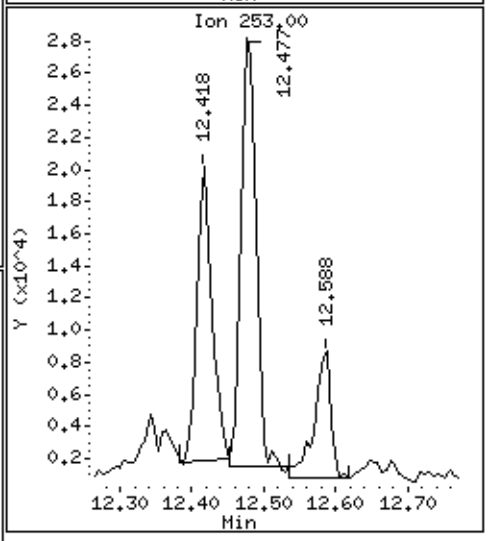
82 Benzo(a)pyrene

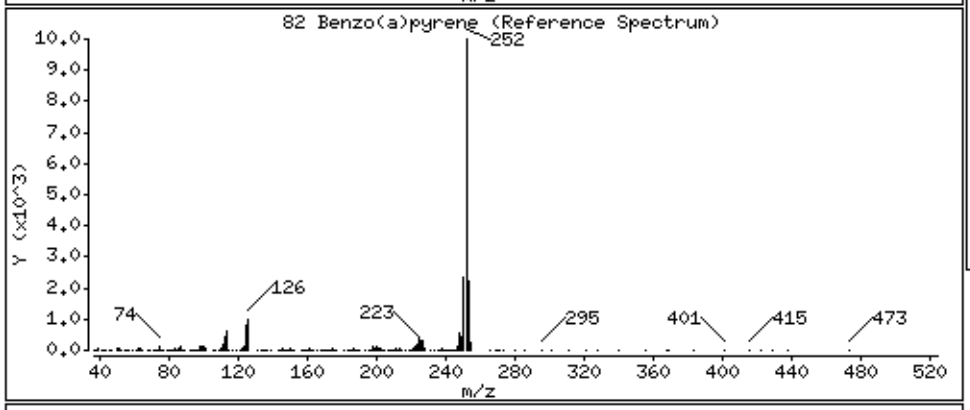
Concentration: 330 ug/Kg

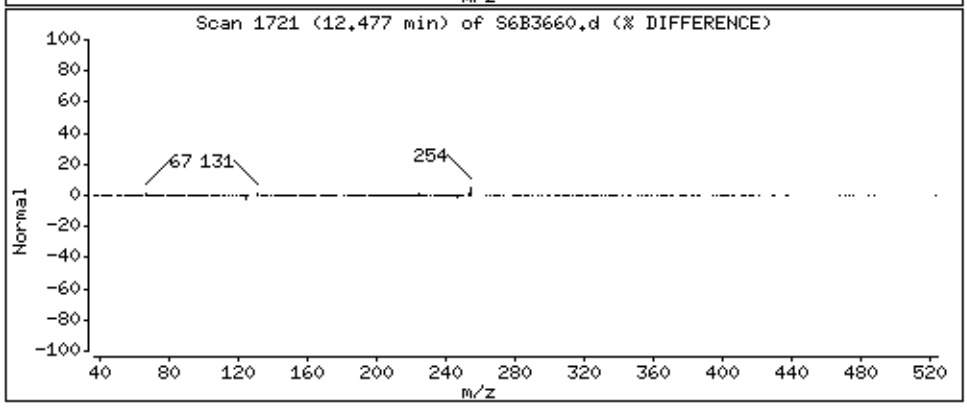












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

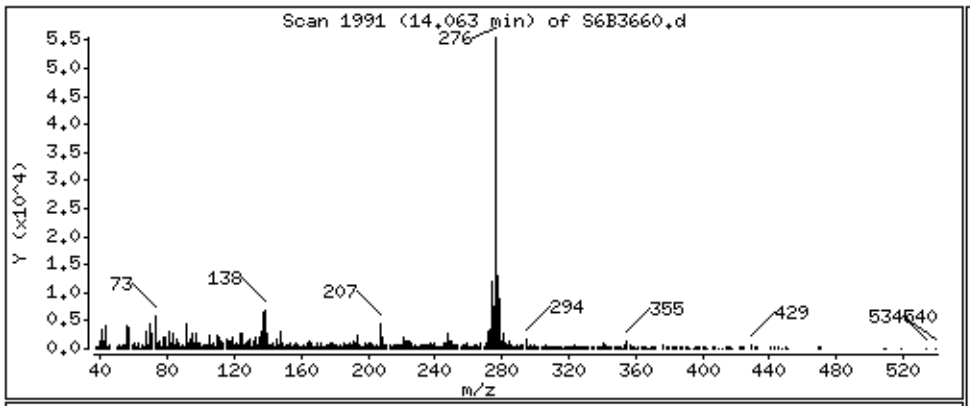
Operator: PK SRC: LIMS

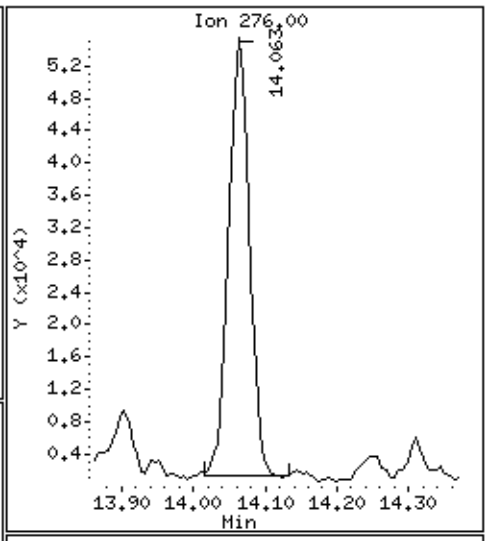
Column phase: Rxi-5Sil MS

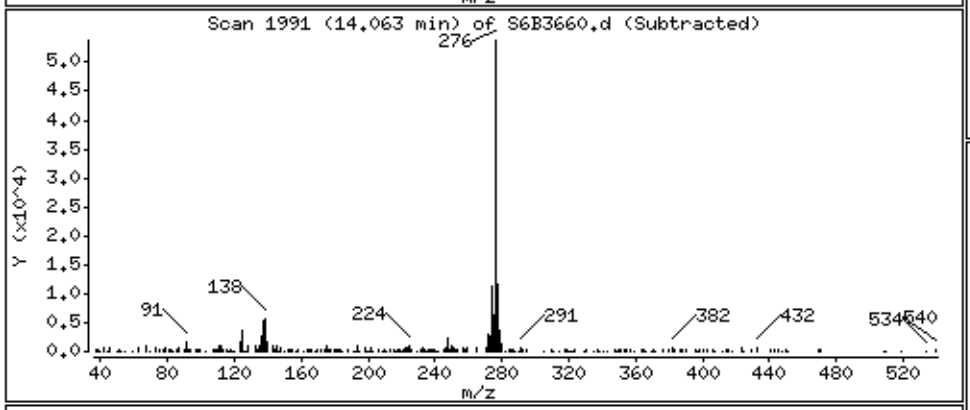
Column diameter: 0.25

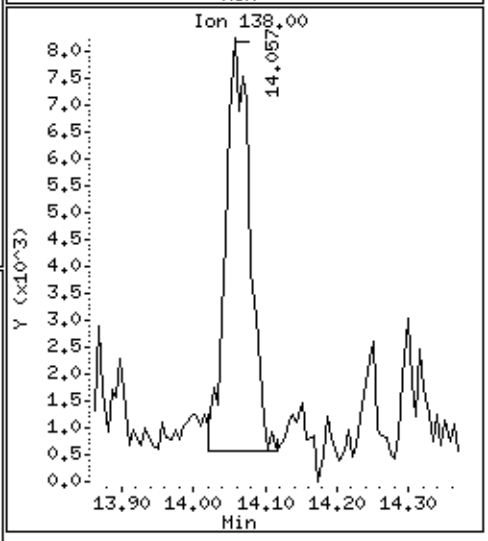
84 Indeno(1,2,3-cd)pyrene

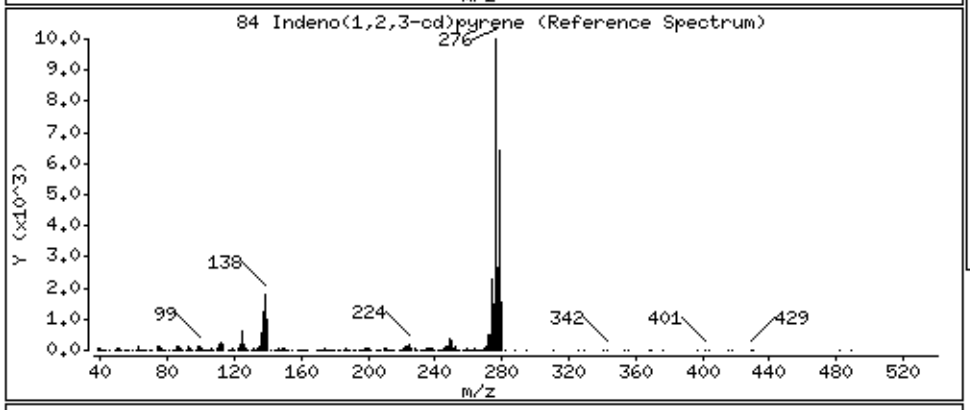
Concentration: 170 ug/Kg

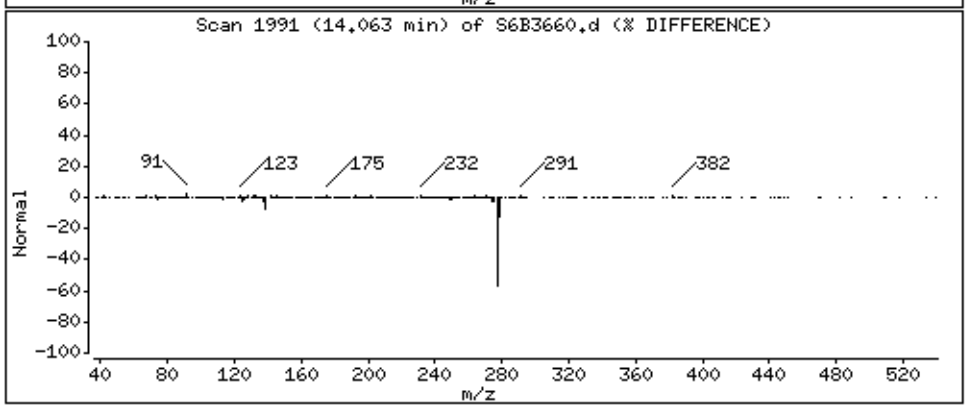












Data File: \\avogadro\organics\S6.I\130506.B\S6B3660.d

Date : 06-MAY-2013 22:33

Client ID: SB-130 (2-4)

Instrument: S6.i

Sample Info: M0619-13A,,71418

Volume Injected (uL): 1.0

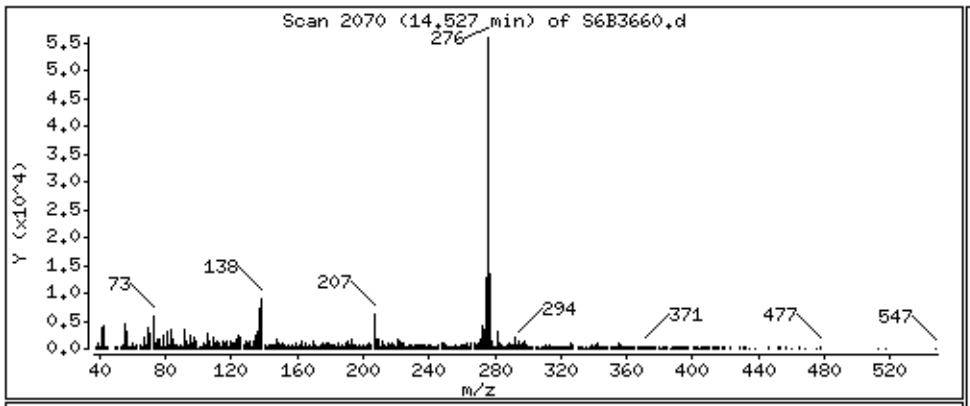
Operator: PK SRC: LIMS

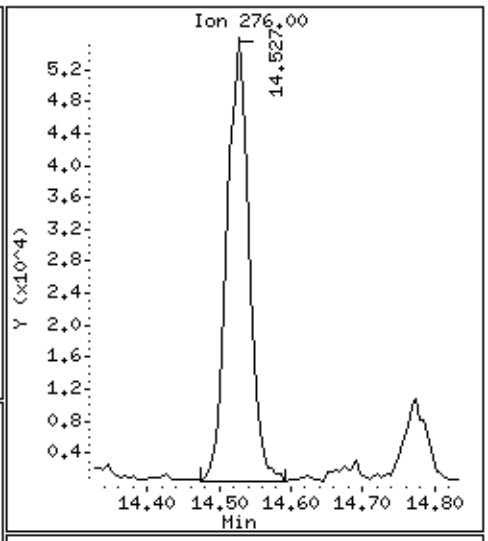
Column phase: Rxi-5Sil MS

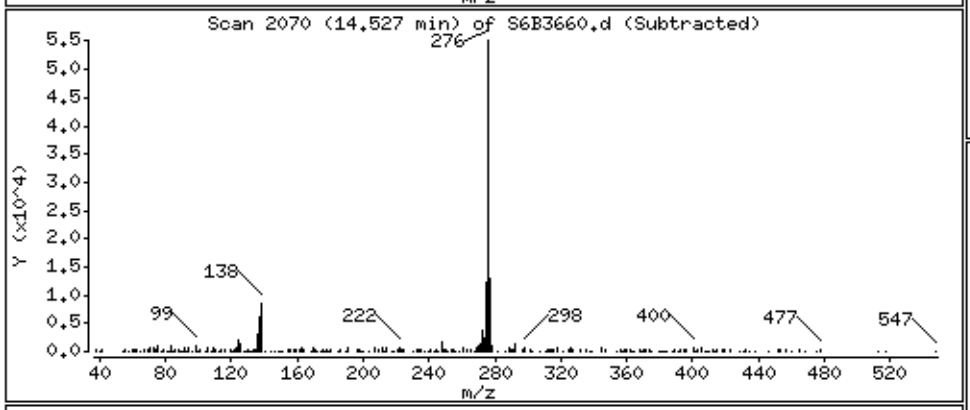
Column diameter: 0.25

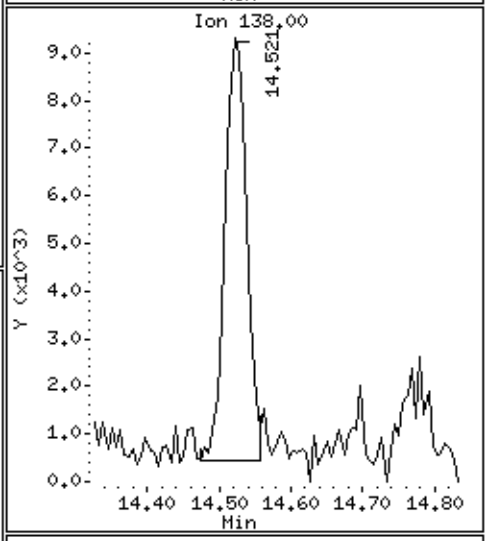
86 Benzo(g,h,i)perylene

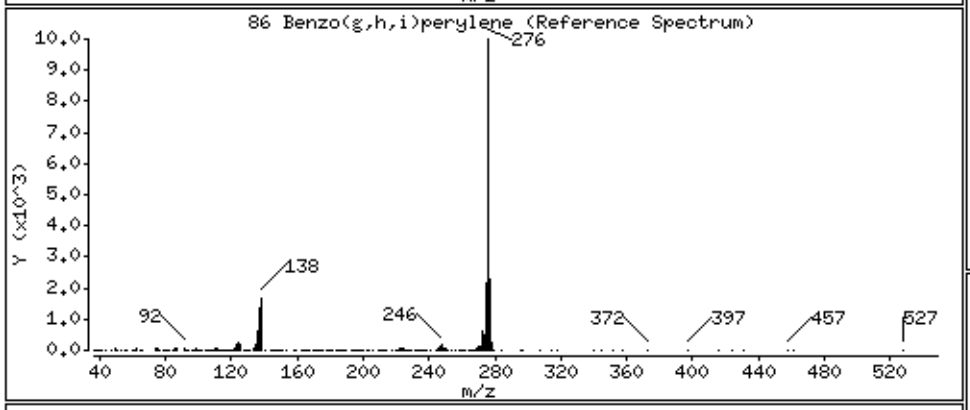
Concentration: 230 ug/Kg

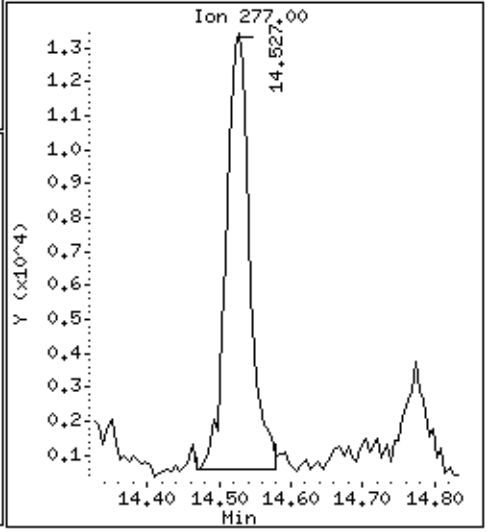


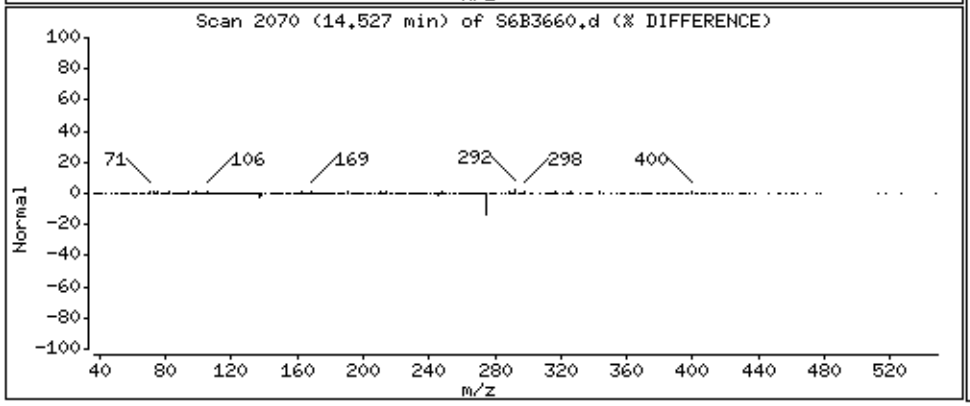












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-130 (15-17)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-14A

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S6B3661.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 16 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	240	J
91-57-6	2-Methylnaphthalene	87	J
208-96-8	Acenaphthylene	390	U
83-32-9	Acenaphthene	390	U
86-73-7	Fluorene	390	U
85-01-8	Phenanthrene	84	J
120-12-7	Anthracene	390	U
206-44-0	Fluoranthene	180	J
129-00-0	Pyrene	180	J
56-55-3	Benzo(a)anthracene	170	J
218-01-9	Chrysene	200	J
205-99-2	Benzo(b)fluoranthene	330	J
207-08-9	Benzo(k)fluoranthene	160	J
50-32-8	Benzo(a)pyrene	270	J
193-39-5	Indeno(1,2,3-cd)pyrene	230	J
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	270	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d
Report Date: 07-May-2013 10:03

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3661.d
Lab Smp Id: M0619-14A Client Smp ID: SB-130 (15-17)
Inj Date : 06-MAY-2013 22:55
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-14A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	254358	40.0000	
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	328132	40.4395	2700
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	908056	40.0000	
	32 Naphthalene	128	6.130	6.130	(1.003)	60824	3.08993	200(aQ)
	36 2-Methylnaphthalene	142	6.700	6.700	(1.096)	16715	1.10782	74(a)
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	706998	39.2652	2600
*	48 Acenaphthene-d10	164	7.570	7.570	(1.000)	616448	40.0000	
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1186061	40.0000	
	65 Phenanthrene	178	8.821	8.827	(1.002)	28993	1.06953	71(a)
	69 Fluoranthene	202	9.814	9.826	(1.115)	74595	2.24849	150(a)
	71 Pyrene	202	10.008	10.020	(0.904)	70429	2.24671	150(a)
$	72 Terphenyl-d14	244	10.132	10.138	(0.915)	1042626	46.3484	3100
	75 Benzo(a)anthracene	228	11.060	11.083	(0.999)	75977	2.19967	150(aH)
*	76 Chrysene-d12	240	11.072	11.101	(1.000)	1499278	40.0000	
	77 Chrysene	228	11.089	11.125	(1.002)	73494	2.54408	170(a)
	80 Benzo(b)fluoranthene	252	12.106	12.141	(0.964)	162567	4.13734	280(aH)
	81 Benzo(k)fluoranthene	252	12.124	12.170	(0.965)	76669	2.08169	140(a)
	82 Benzo(a)pyrene	252	12.476	12.517	(0.993)	121609	3.46743	230(a)
*	83 Perylene-d12	264	12.564	12.593	(1.000)	1503159	40.0000	

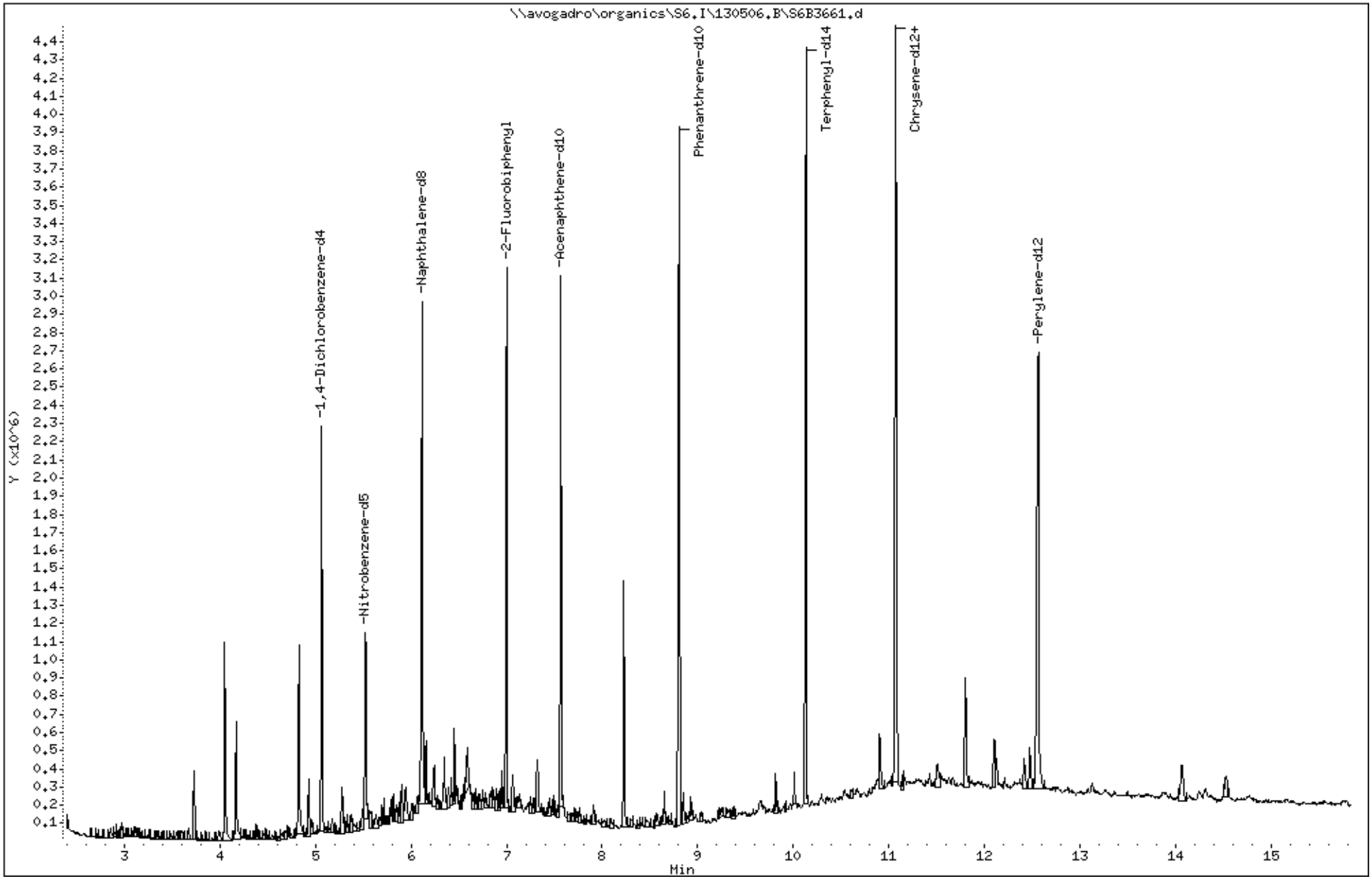
Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d
Report Date: 07-May-2013 10:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
84 Indeno(1,2,3-cd)pyrene	276	14.062	14.115	(1.119)	127214	2.92707	200(a)
86 Benzo(g,h,i)perylene	276	14.527	14.579	(1.156)	119844	3.39067	230(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d
Date : 06-MAY-2013 22:55
Client ID: SB-130 (15-17)
Instrument: S6.i
Sample Info: M0619-14A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

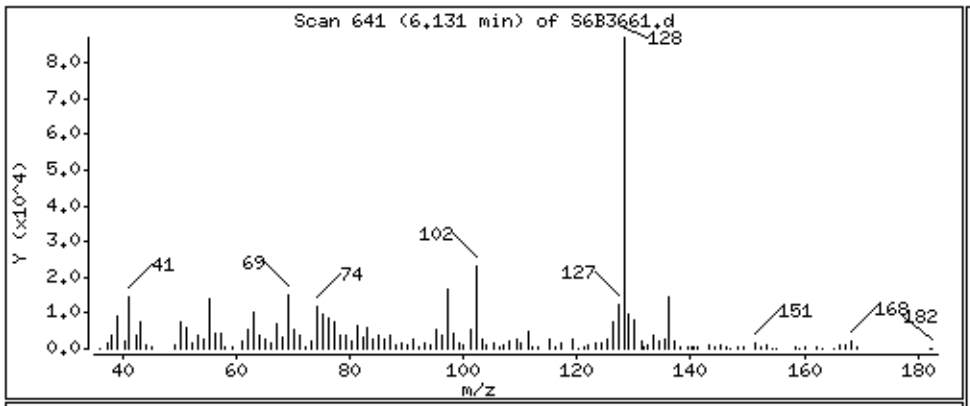
Operator: PK SRC: LIMS

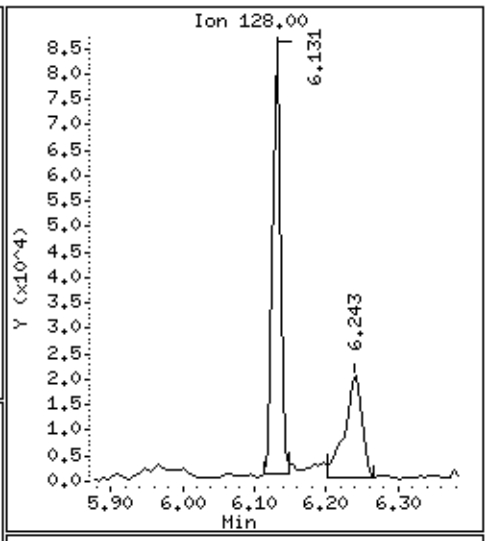
Column phase: Rxi-5Sil MS

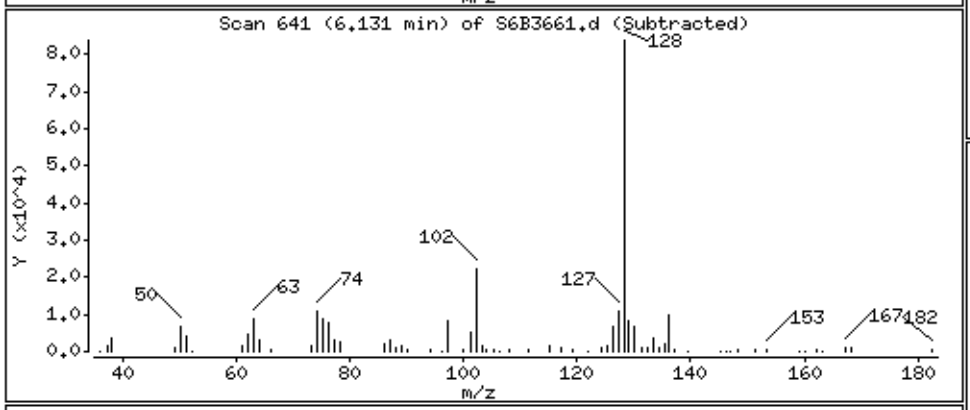
Column diameter: 0.25

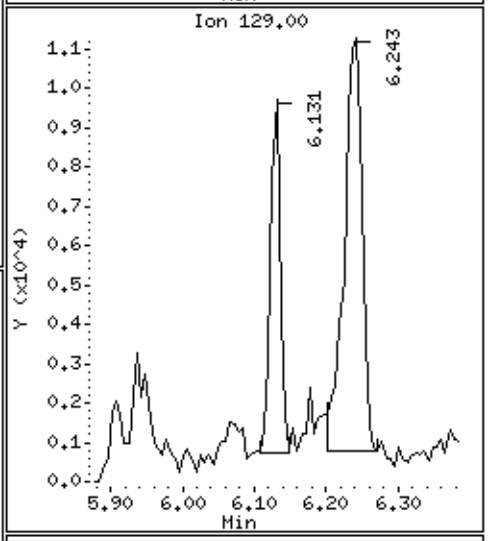
32 Naphthalene

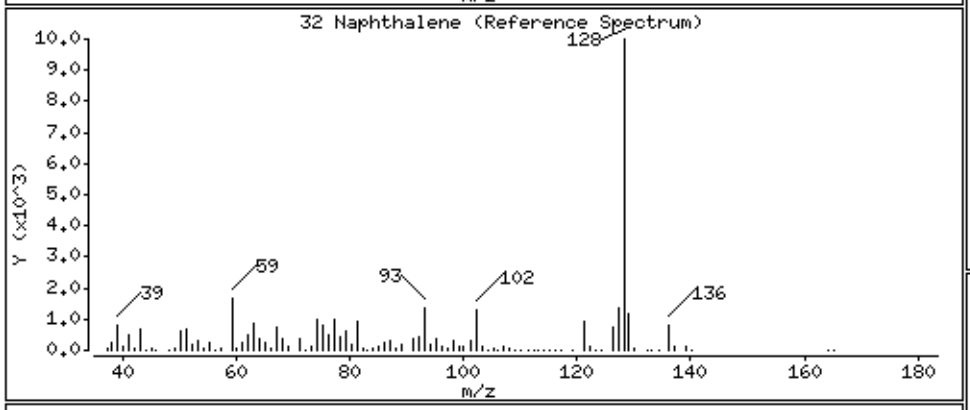
Concentration: 200 ug/Kg

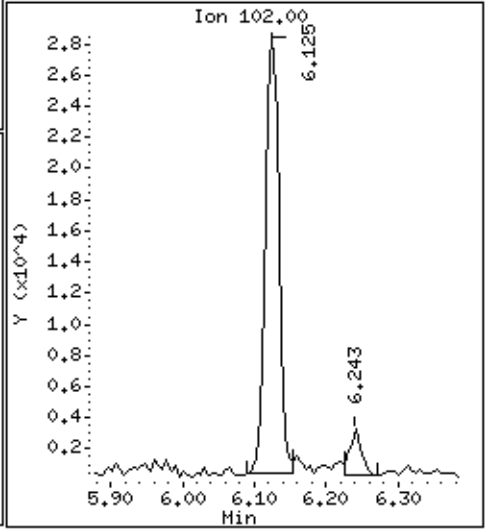


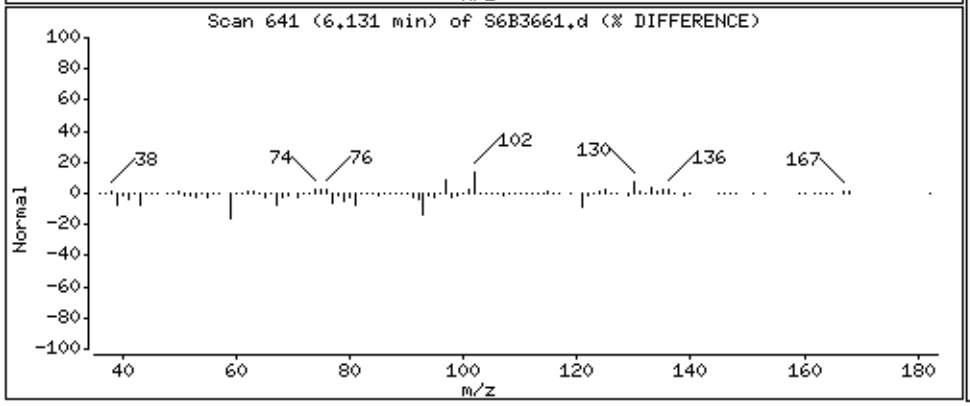












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

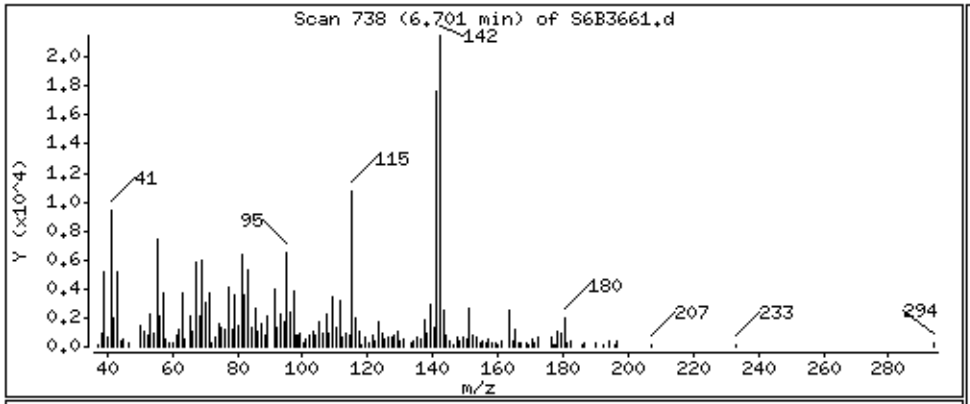
Operator: PK SRC: LIMS

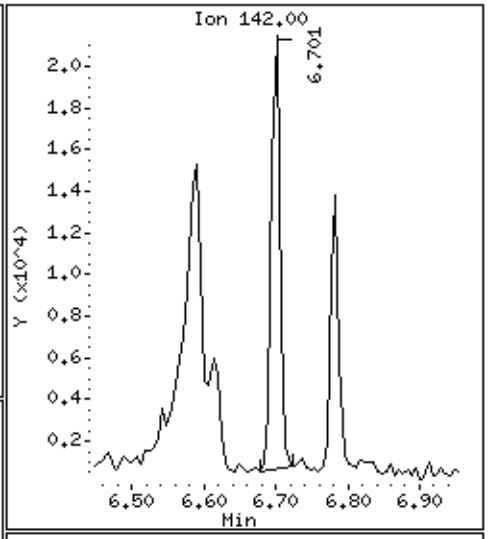
Column phase: Rxi-5Sil MS

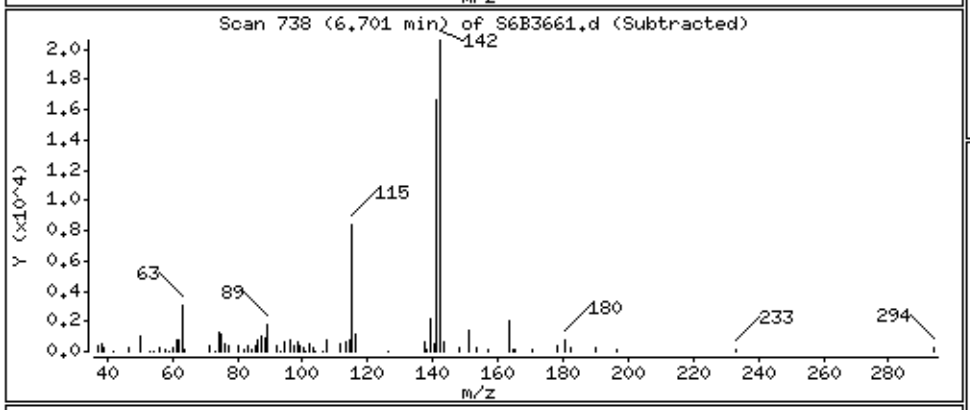
Column diameter: 0.25

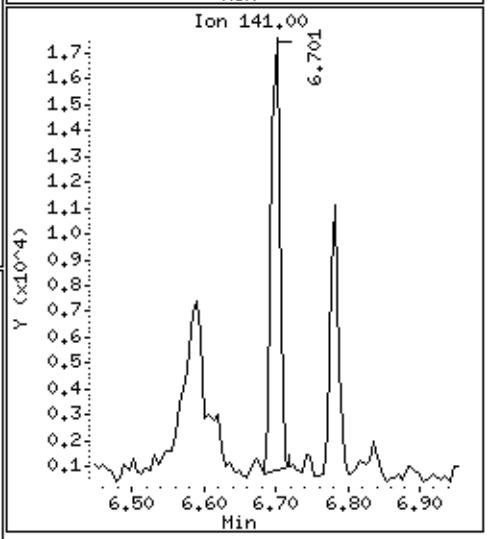
36 2-Methylnaphthalene

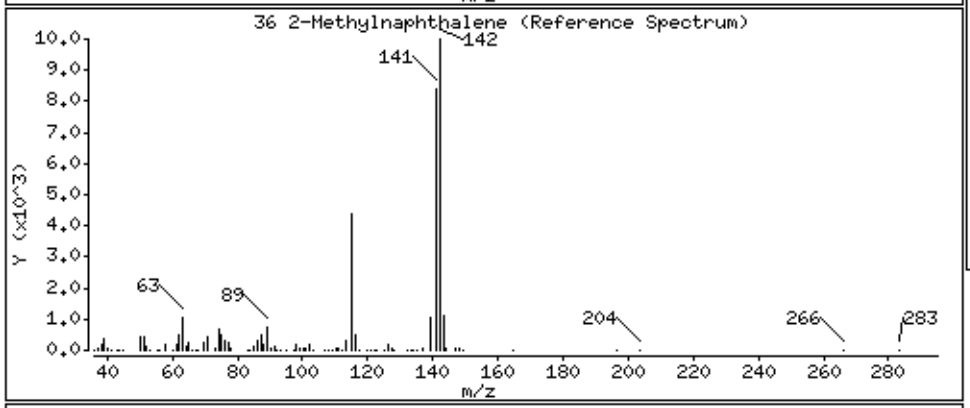
Concentration: 74 ug/Kg

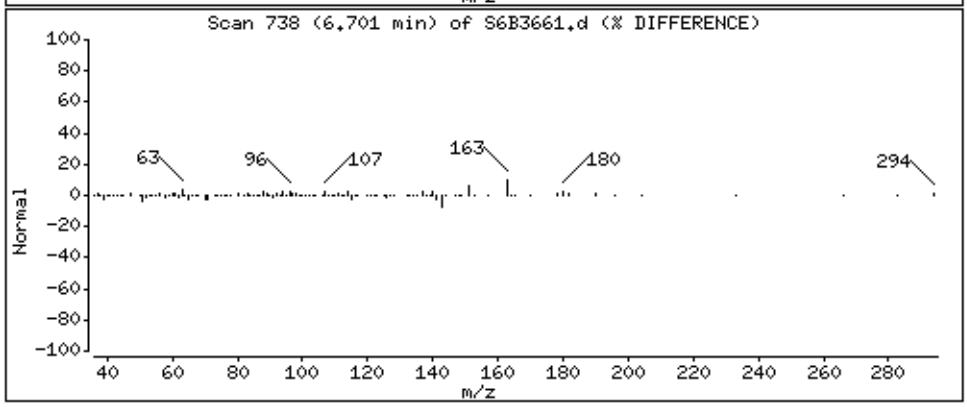












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

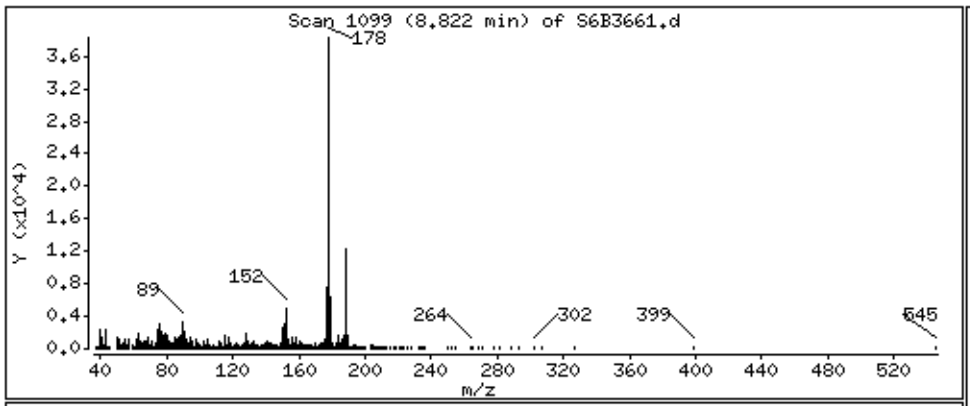
Operator: PK SRC: LIMS

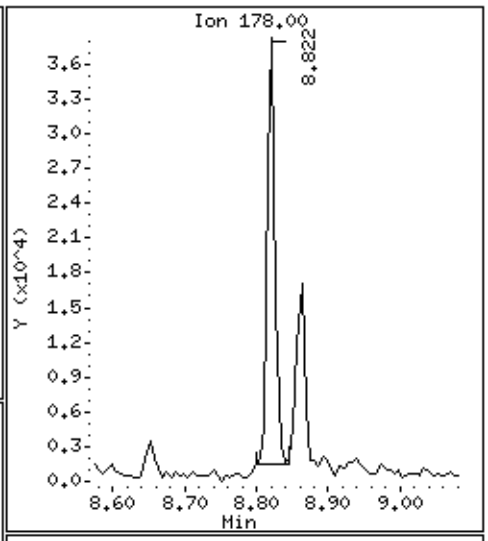
Column phase: Rxi-5Sil MS

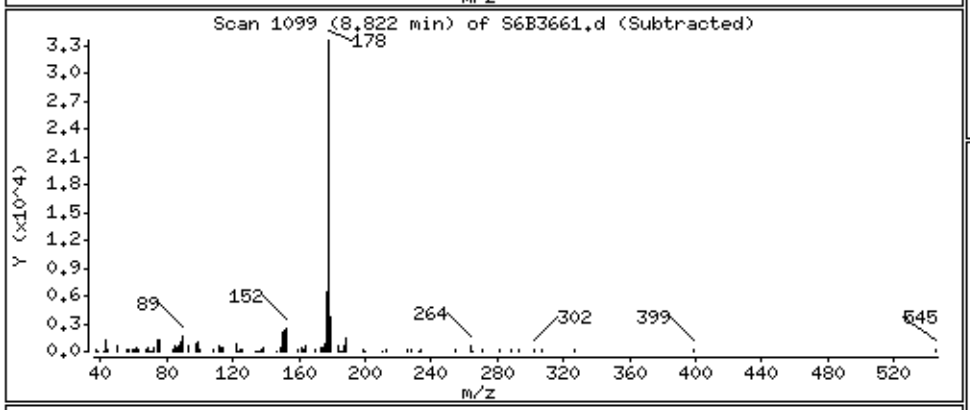
Column diameter: 0.25

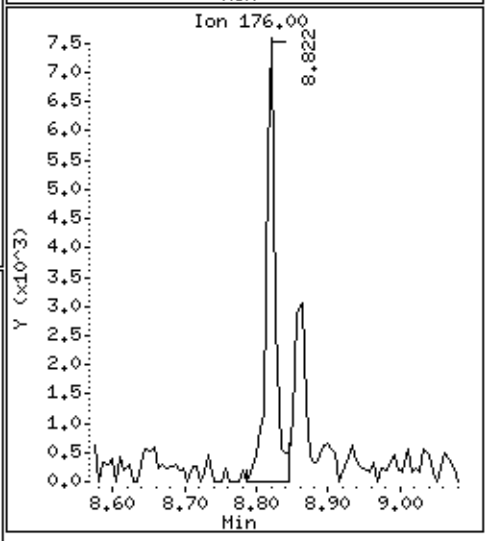
65 Phenanthrene

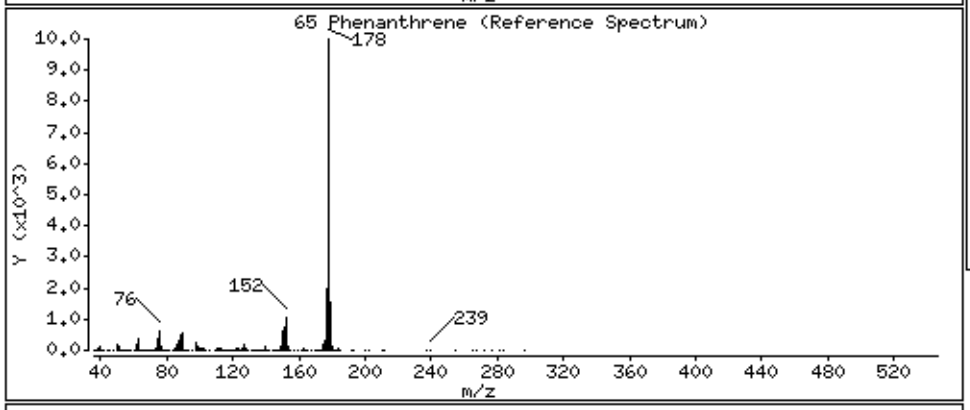
Concentration: 71 ug/Kg

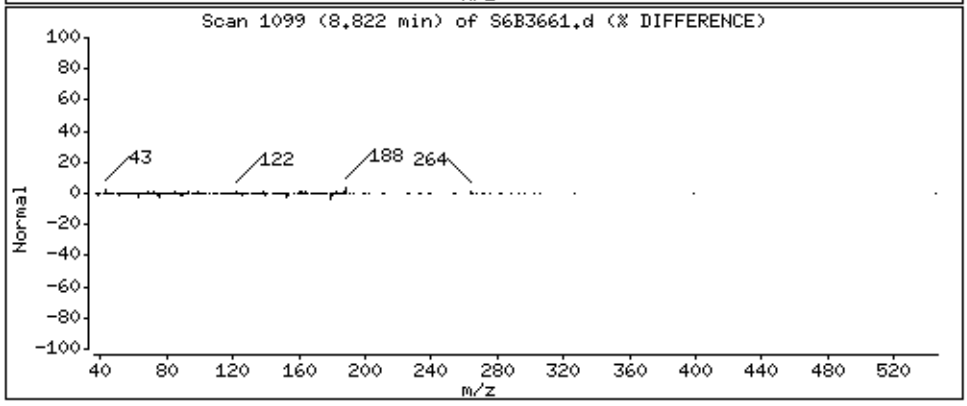












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

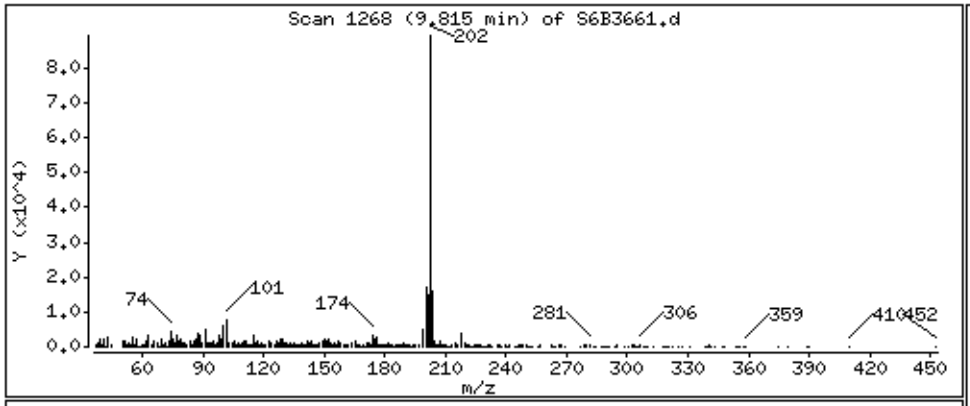
Operator: PK SRC: LIMS

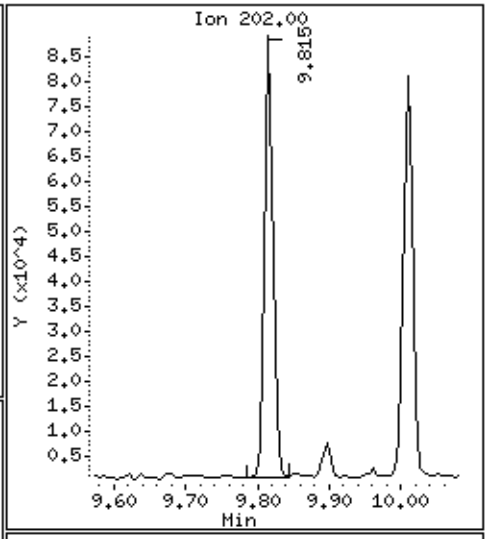
Column phase: Rxi-5Sil MS

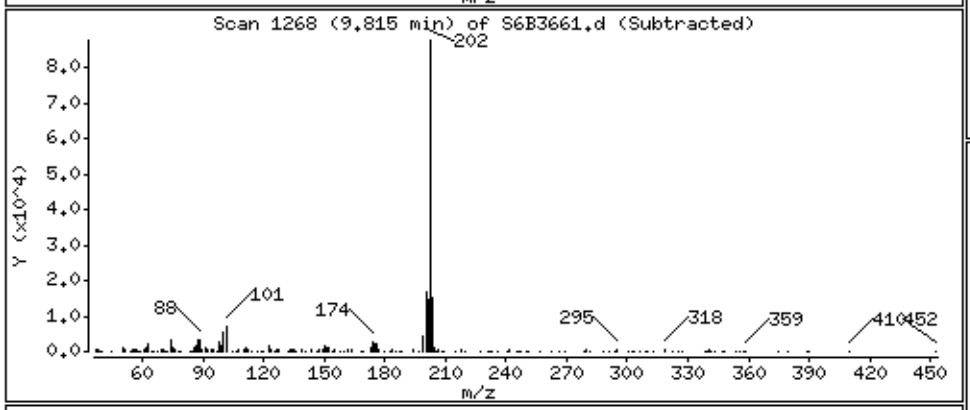
Column diameter: 0.25

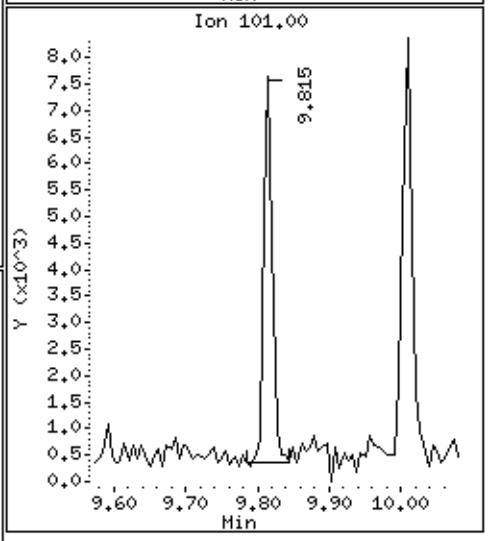
69 Fluoranthene

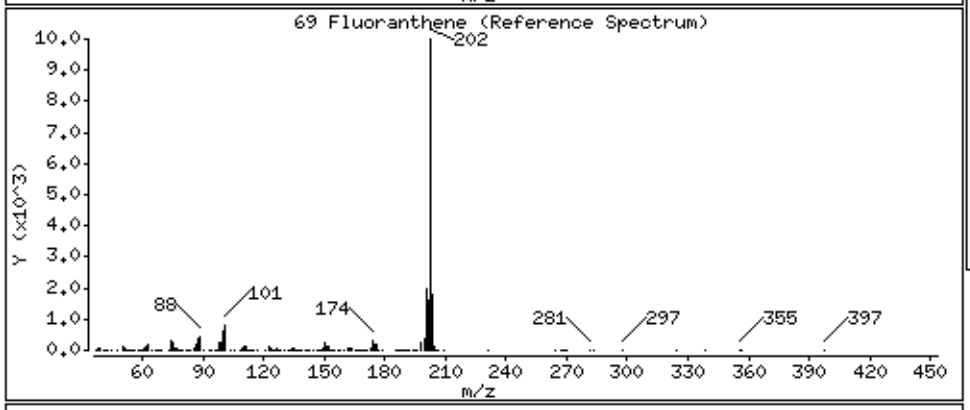
Concentration: 150 ug/Kg

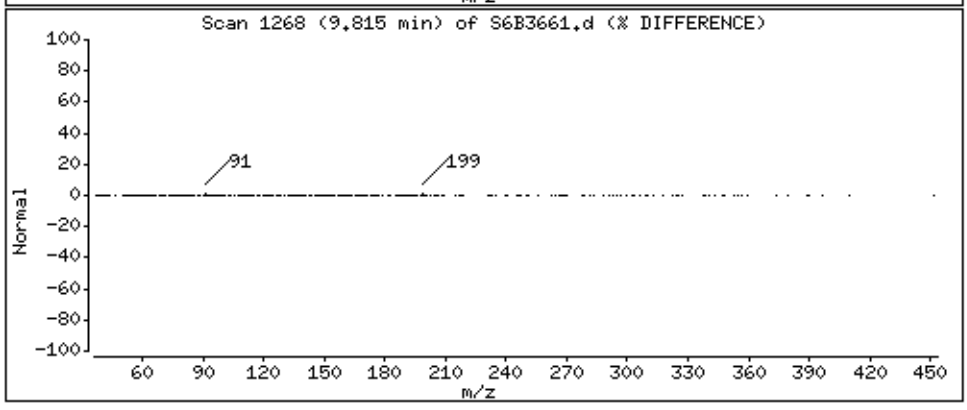












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

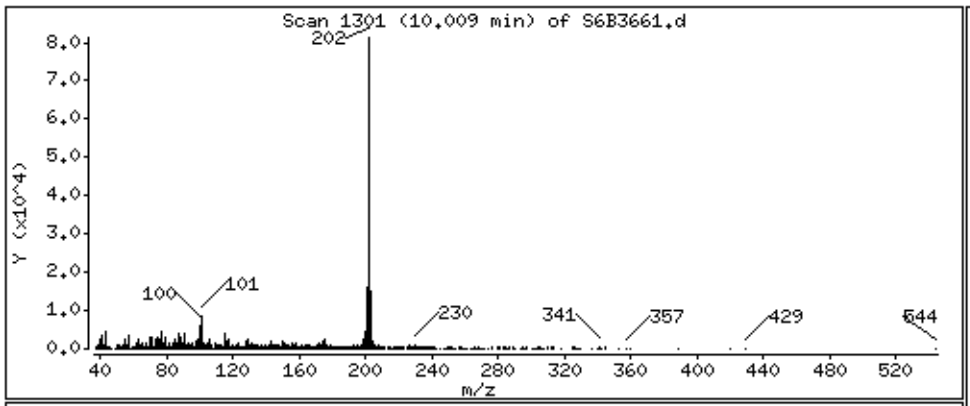
Operator: PK SRC: LIMS

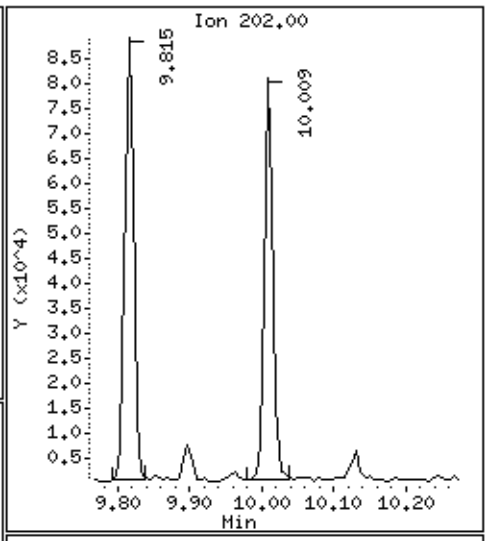
Column phase: Rxi-5Sil MS

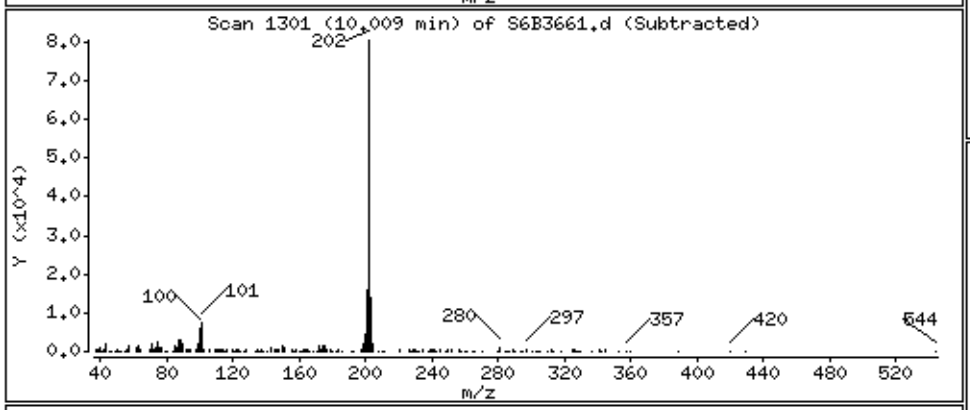
Column diameter: 0.25

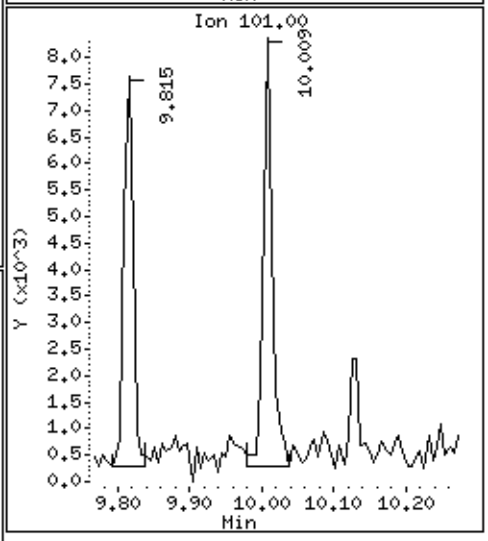
71 Pyrene

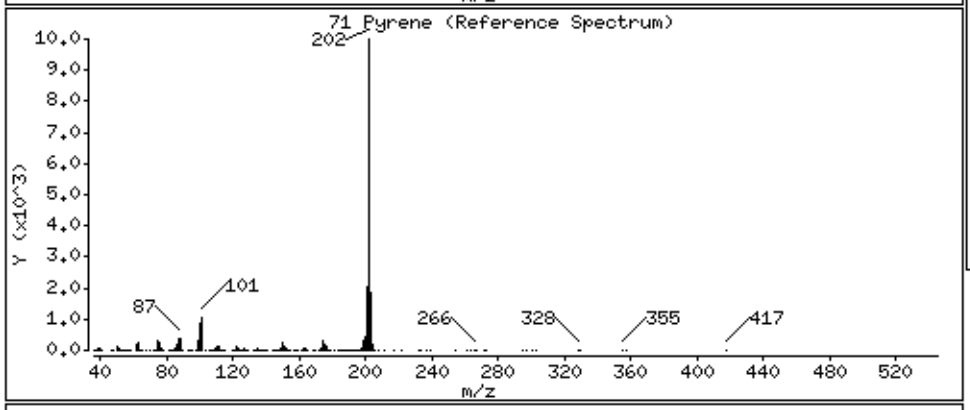
Concentration: 150 ug/Kg

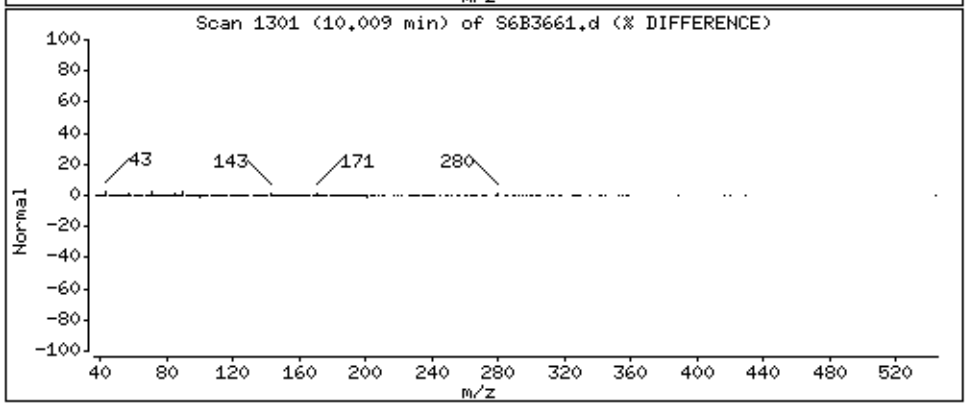












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

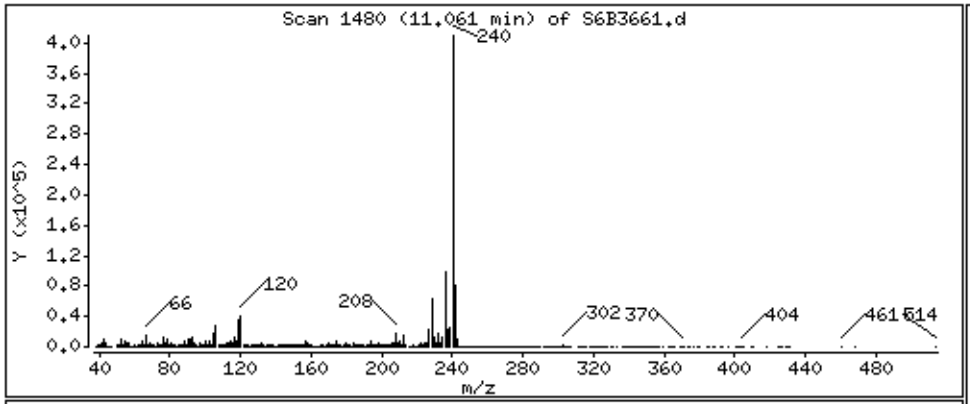
Operator: PK SRC: LIMS

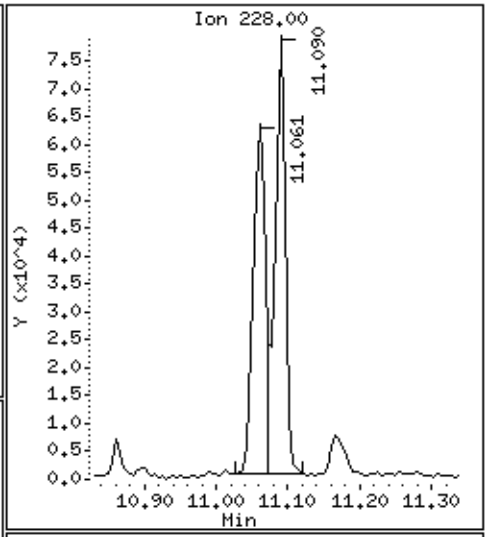
Column phase: Rxi-5Sil MS

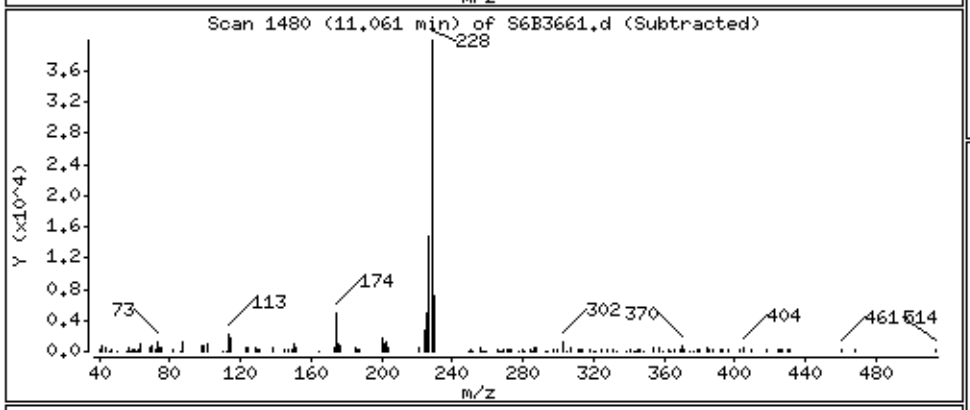
Column diameter: 0.25

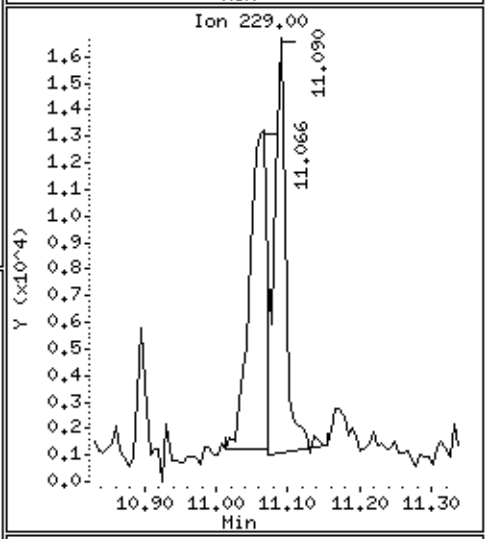
75 Benzo(a)anthracene

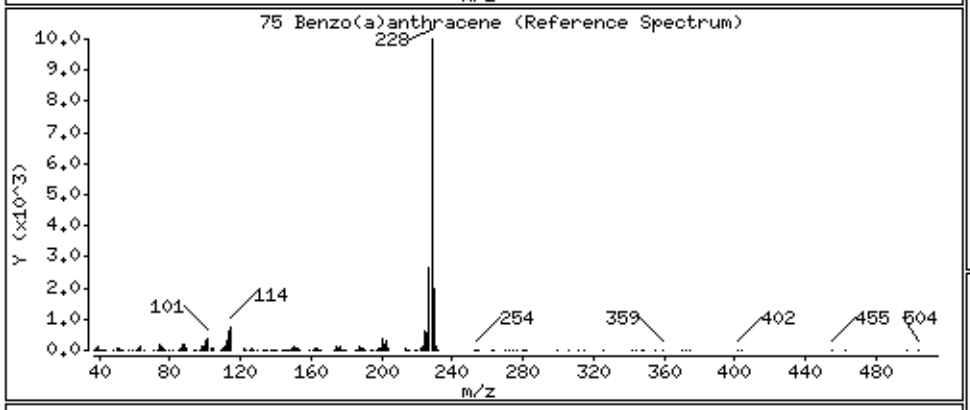
Concentration: 150 ug/Kg

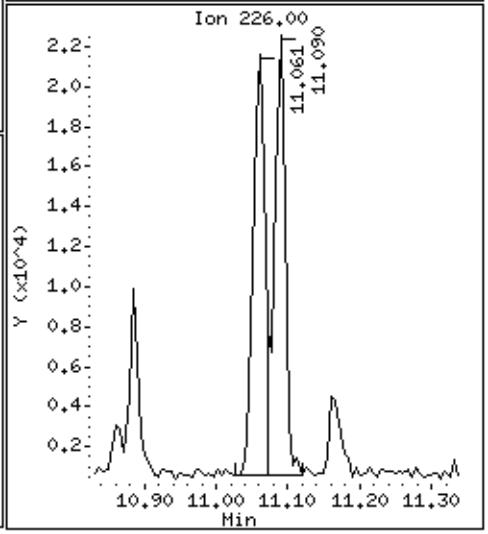


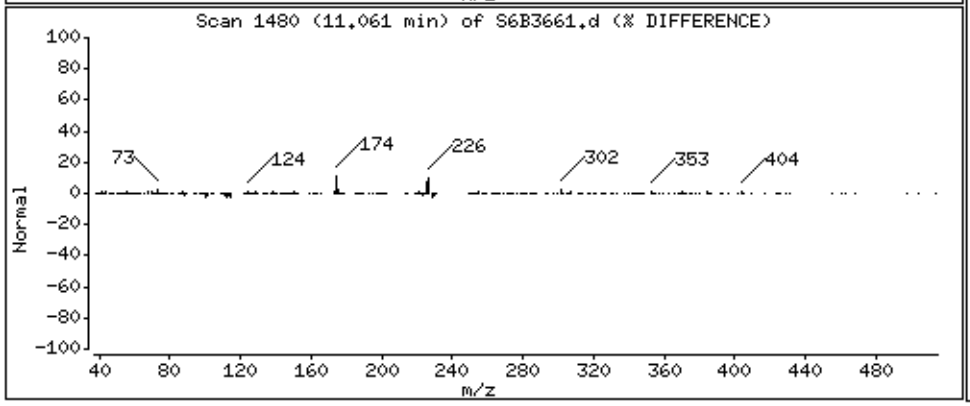












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

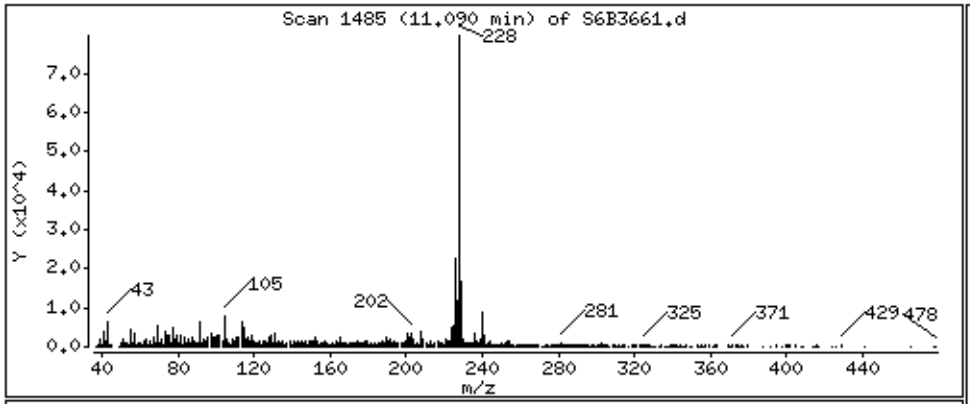
Operator: PK SRC: LIMS

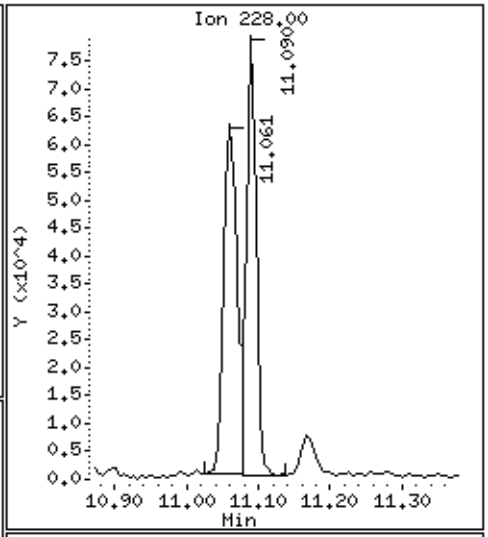
Column phase: Rxi-5Sil MS

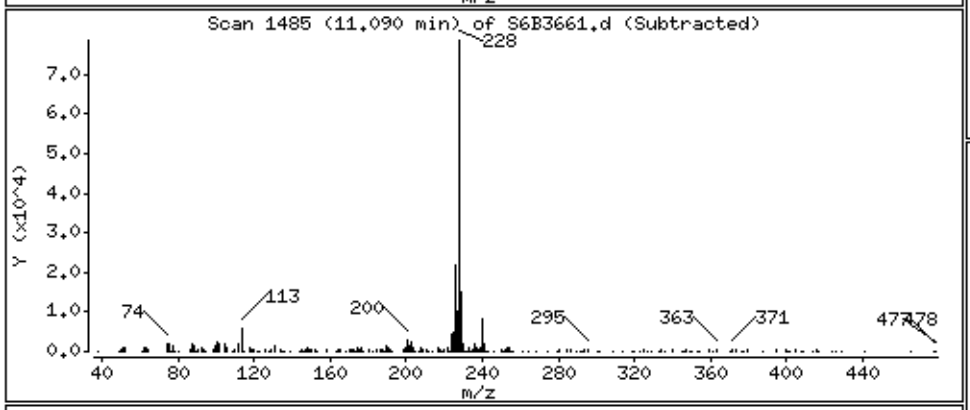
Column diameter: 0.25

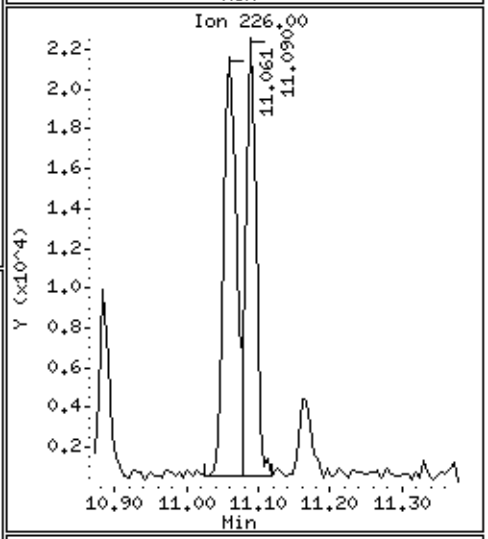
77 Chrysene

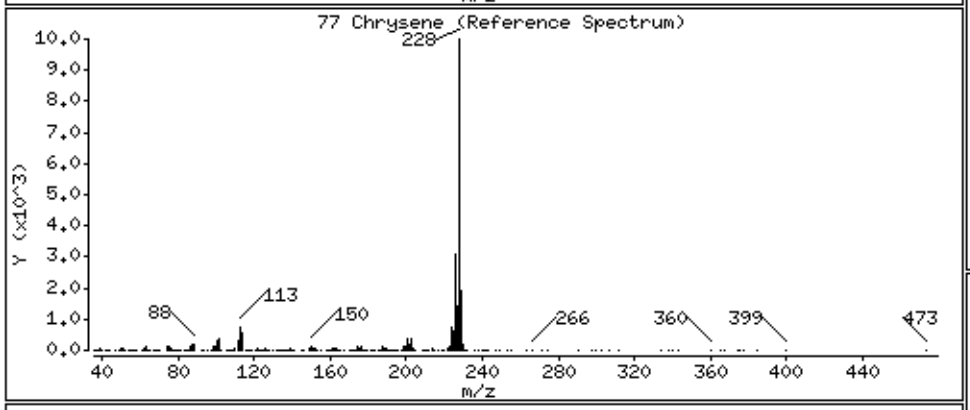
Concentration: 170 ug/Kg

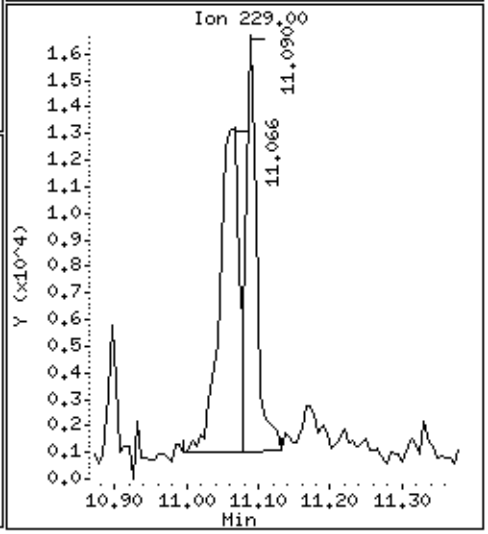


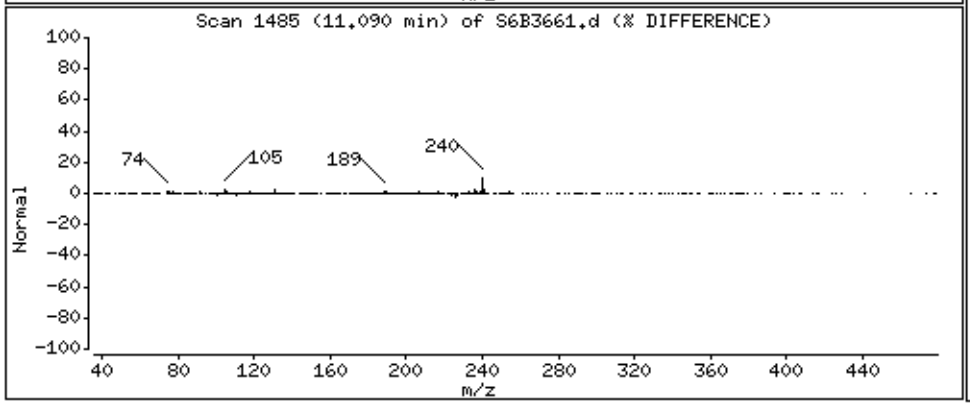












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

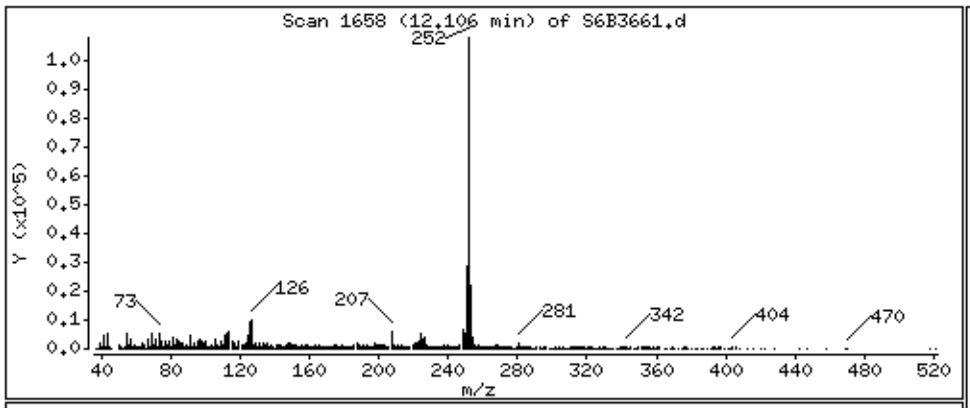
Operator: PK SRC: LIMS

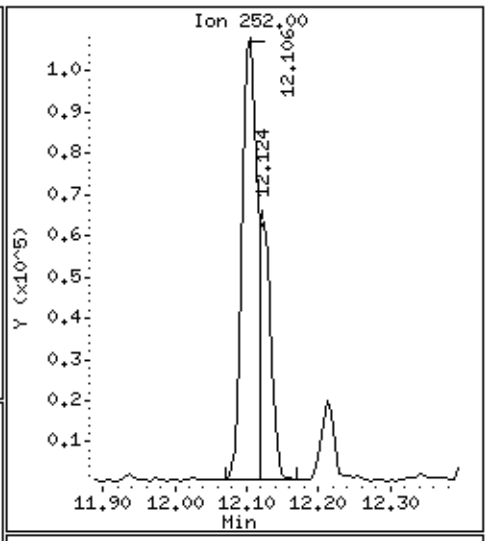
Column phase: Rxi-5Sil MS

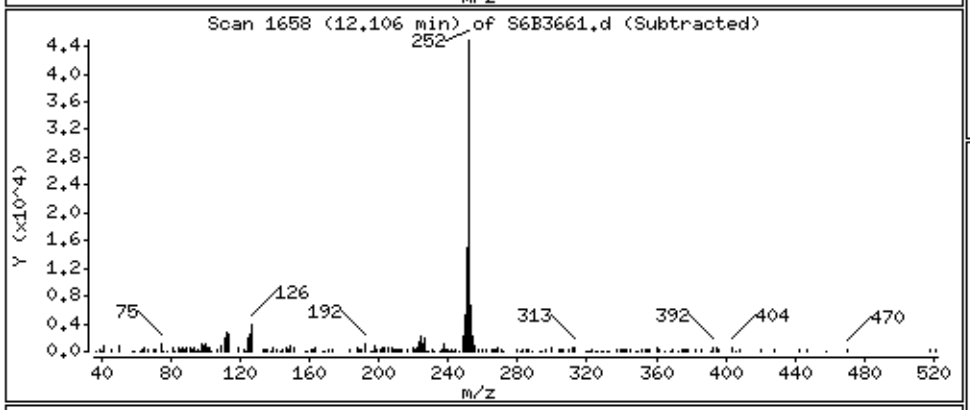
Column diameter: 0.25

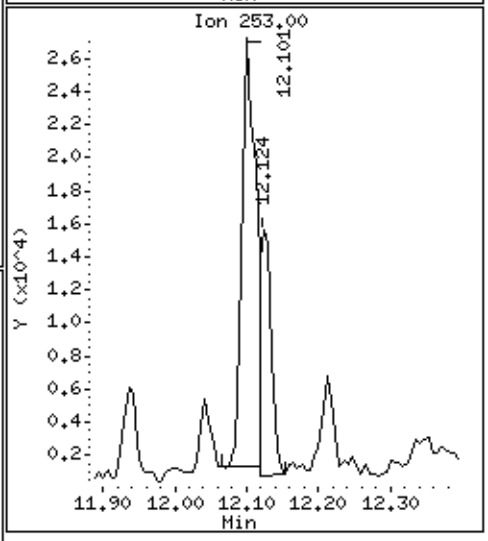
80 Benzo(b)fluoranthene

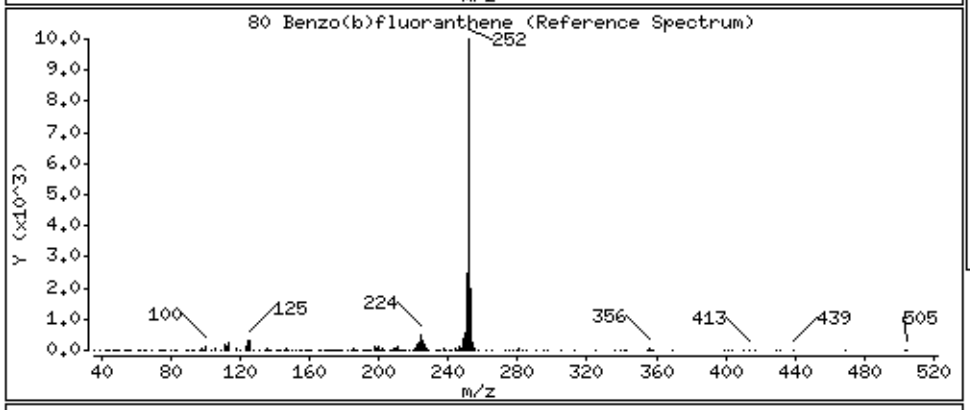
Concentration: 280 ug/Kg

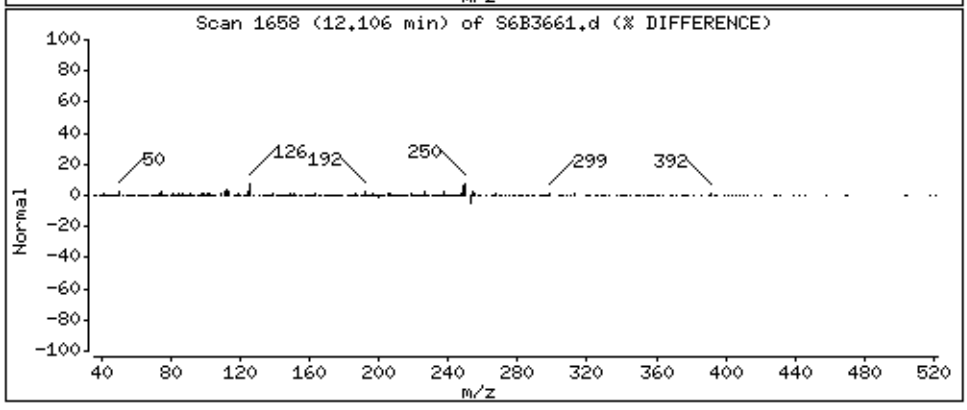












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

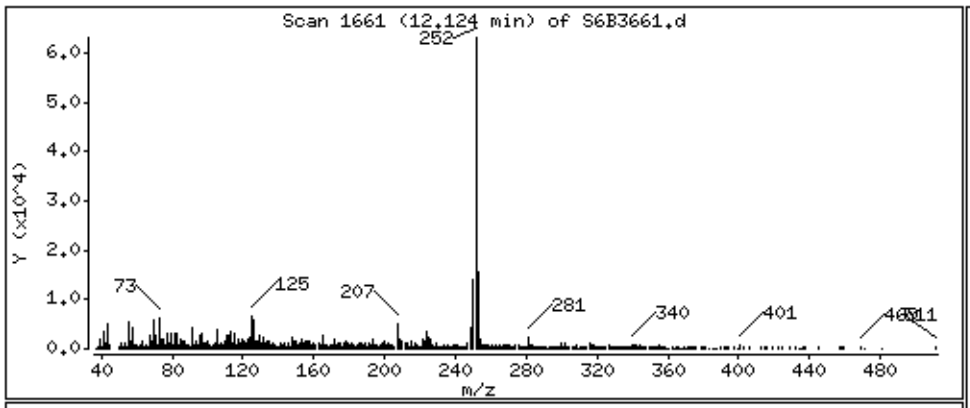
Client ID: SB-130 (15-17) Instrument: S6.i

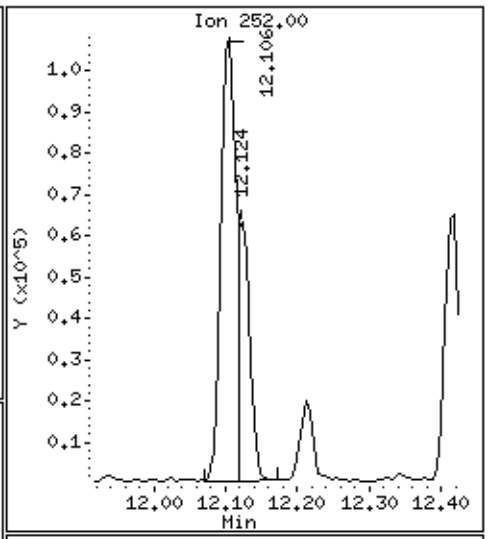
Sample Info: M0619-14A,,71418

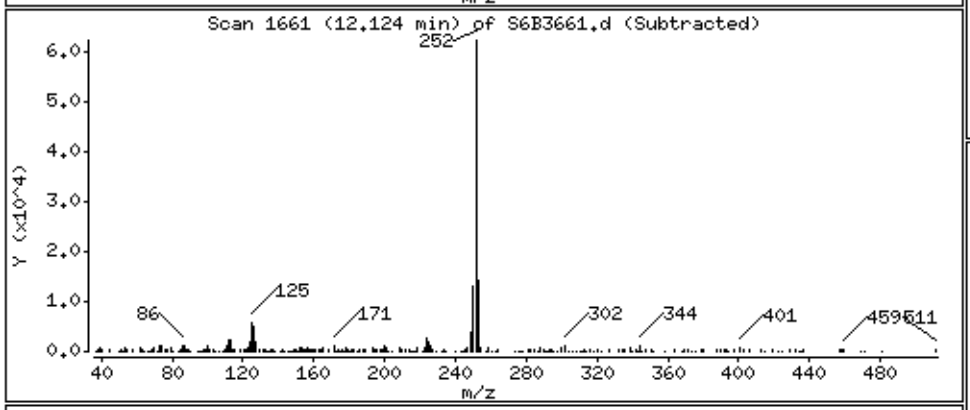
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

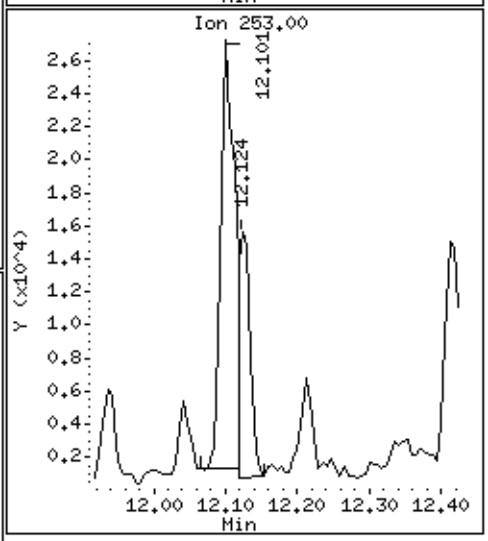
Column phase: Rxi-5Sil MS Column diameter: 0.25

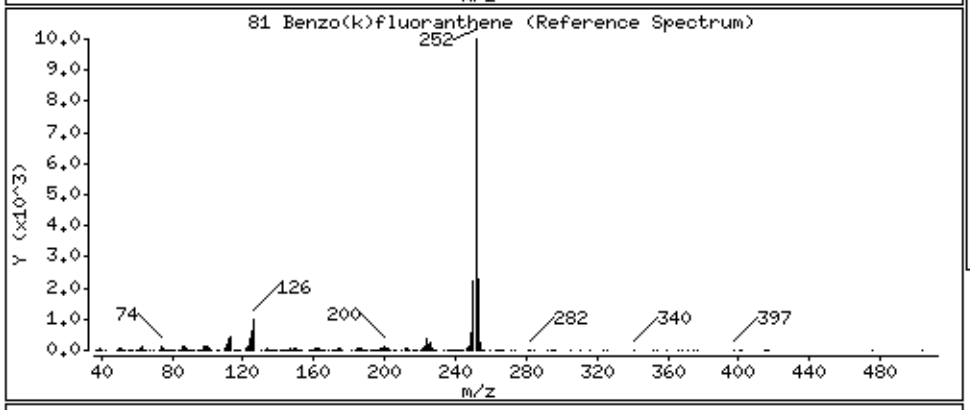
81 Benzo(k)fluoranthene Concentration: 140 ug/Kg

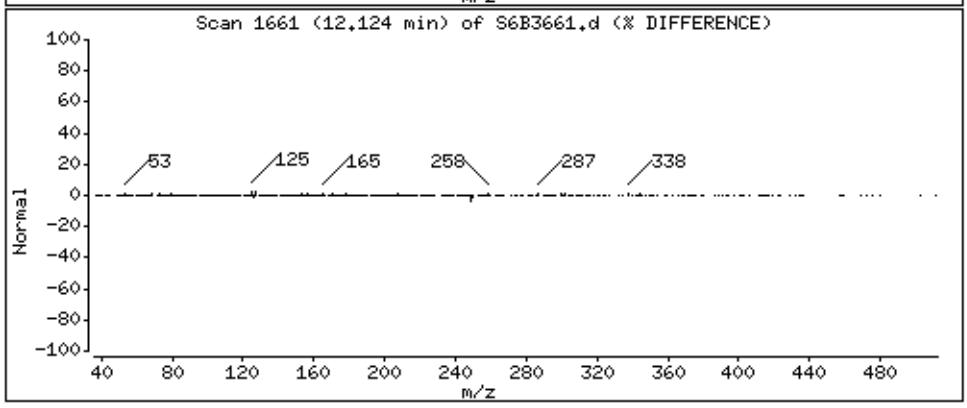












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

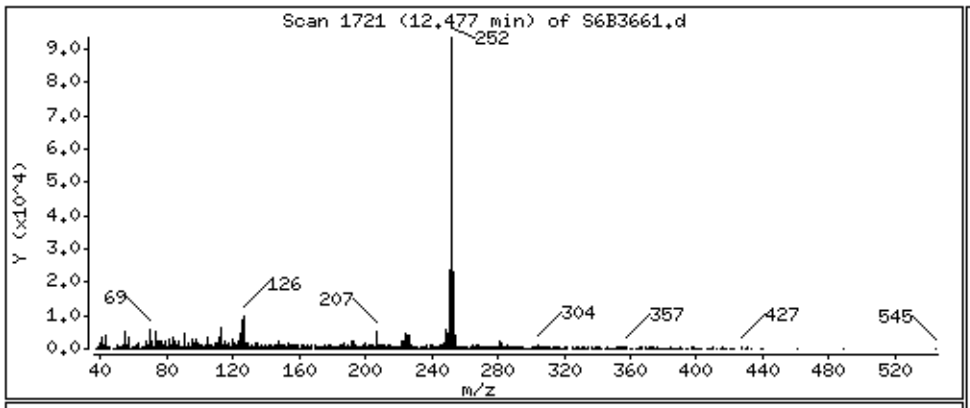
Operator: PK SRC: LIMS

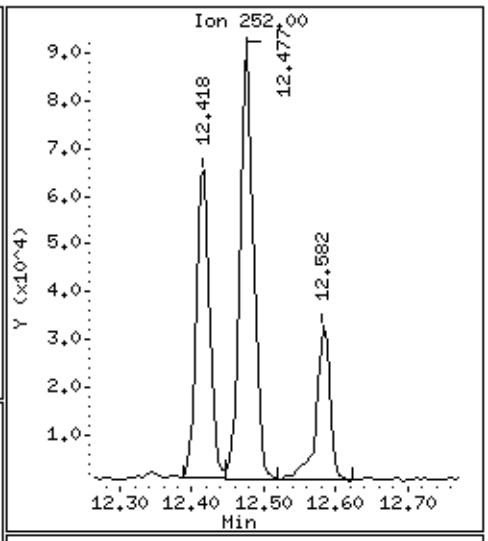
Column phase: Rxi-5Sil MS

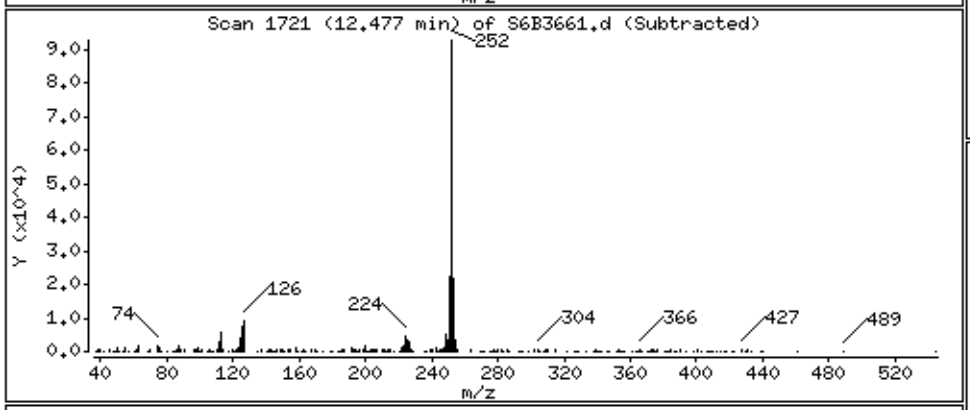
Column diameter: 0.25

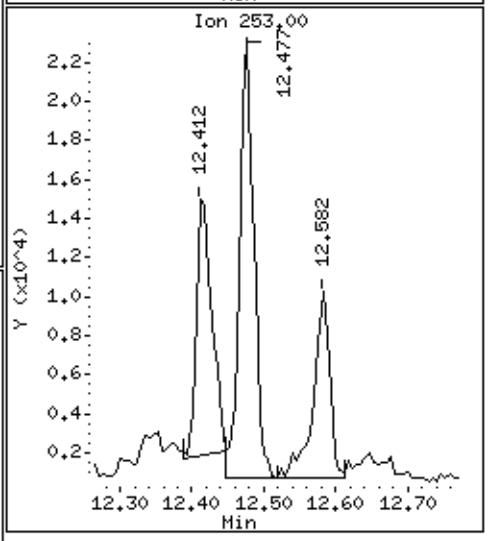
82 Benzo(a)pyrene

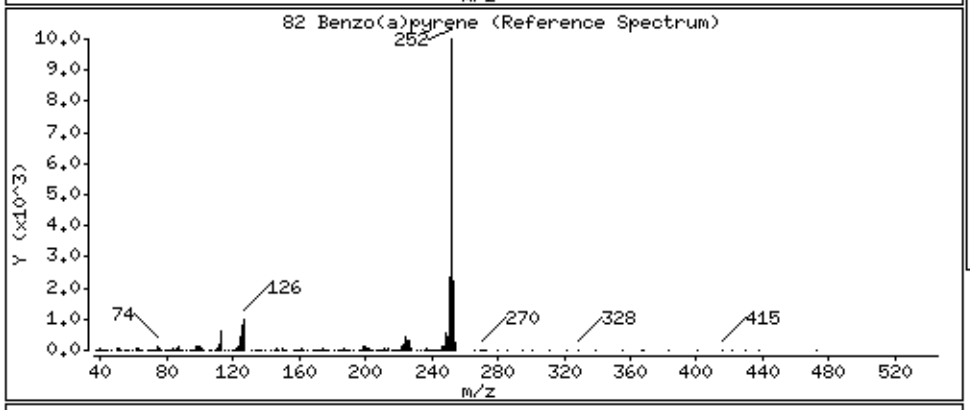
Concentration: 230 ug/Kg

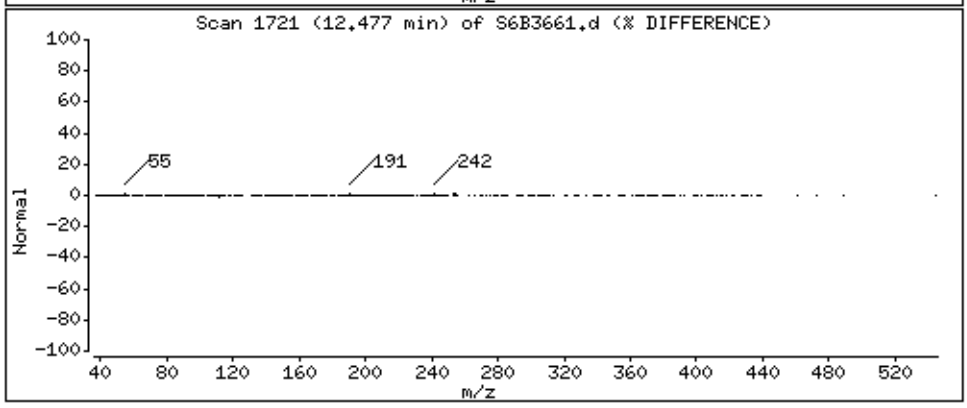












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

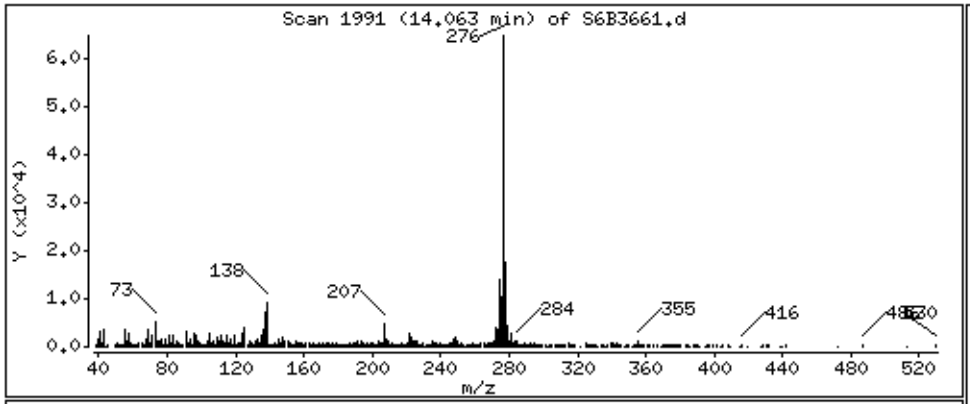
Operator: PK SRC: LIMS

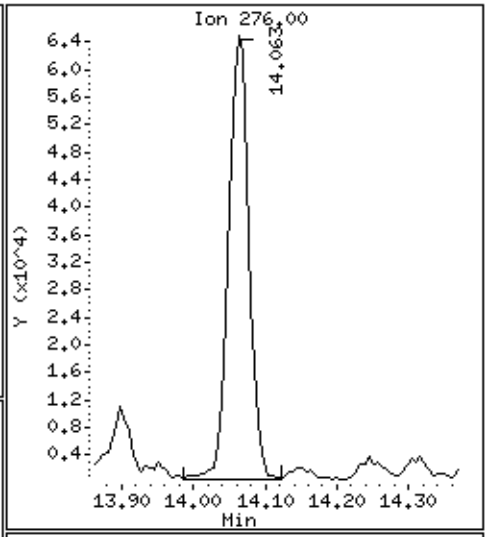
Column phase: Rxi-5Sil MS

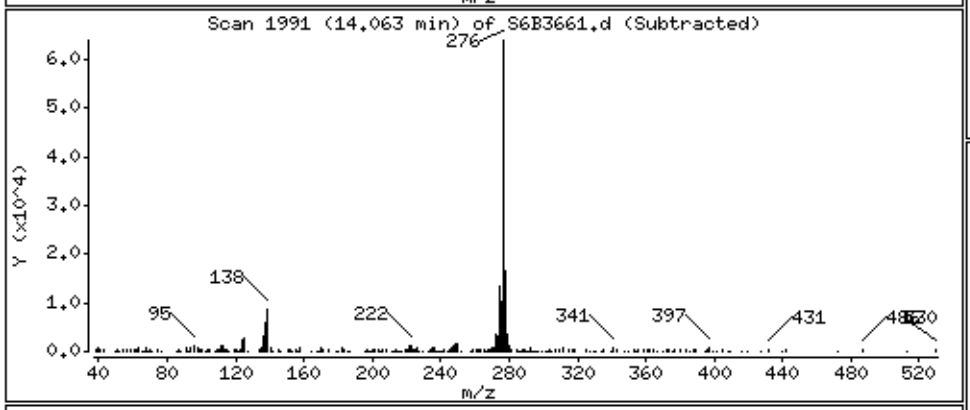
Column diameter: 0.25

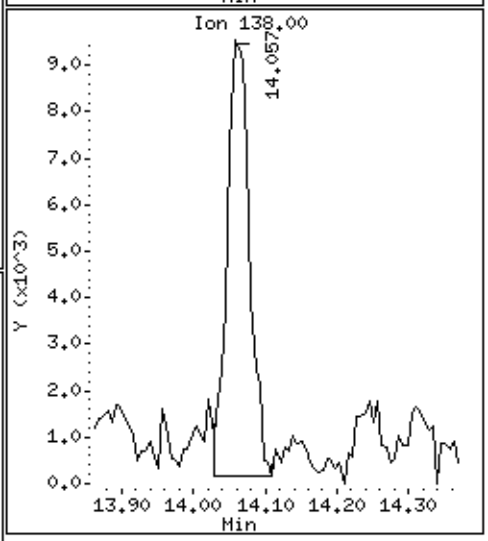
84 Indeno(1,2,3-cd)pyrene

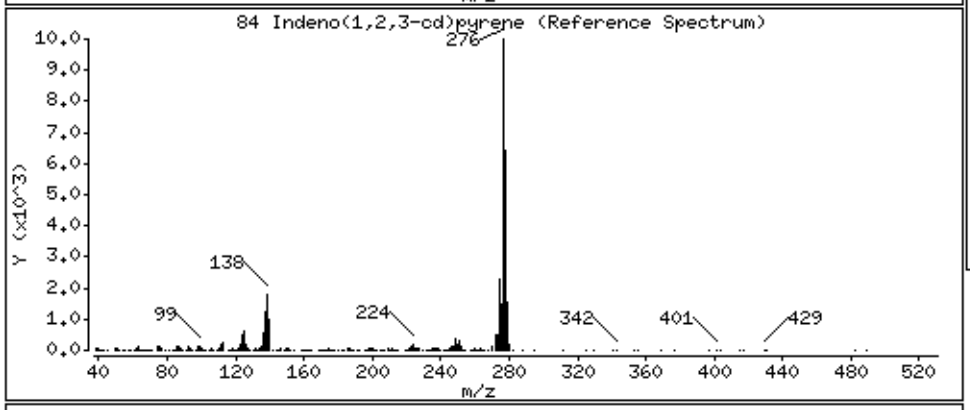
Concentration: 200 ug/Kg

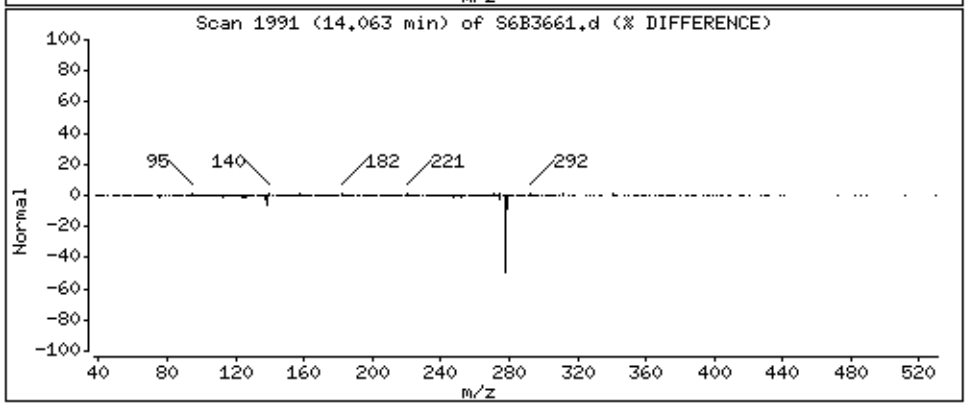












Data File: \\avogadro\organics\S6.I\130506.B\S6B3661.d

Date : 06-MAY-2013 22:55

Client ID: SB-130 (15-17)

Instrument: S6.i

Sample Info: M0619-14A,,71418

Volume Injected (uL): 1.0

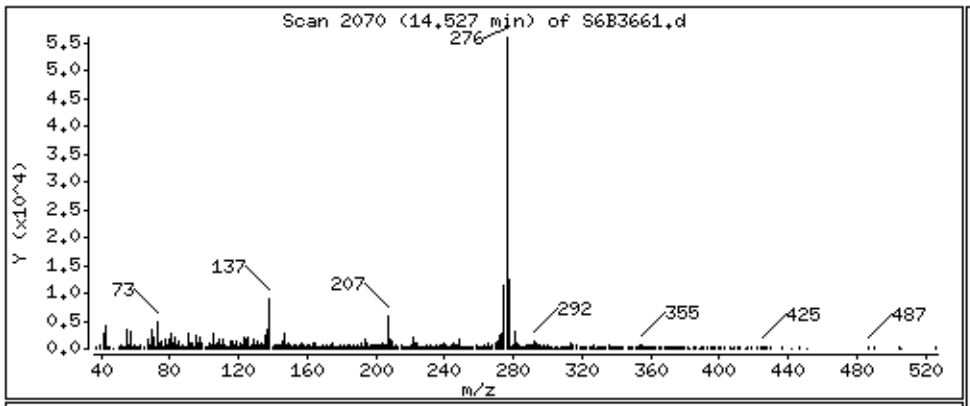
Operator: PK SRC: LIMS

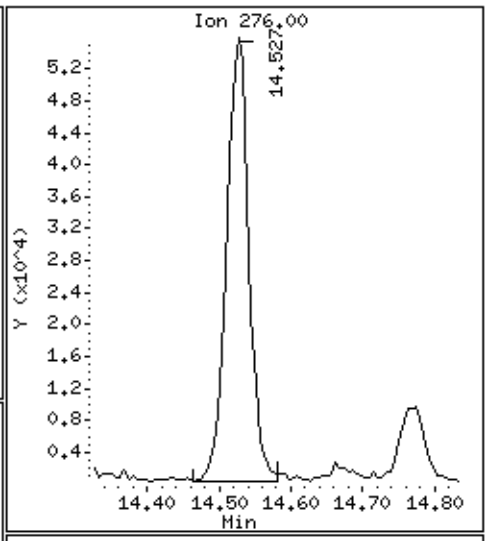
Column phase: Rxi-5Sil MS

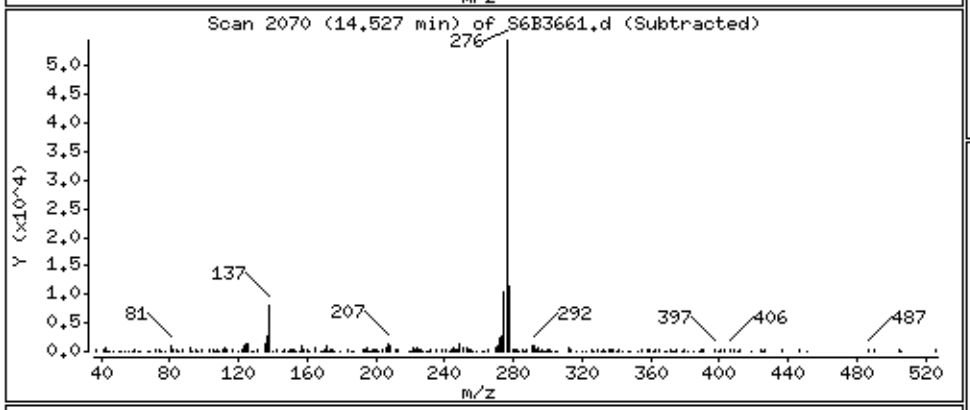
Column diameter: 0.25

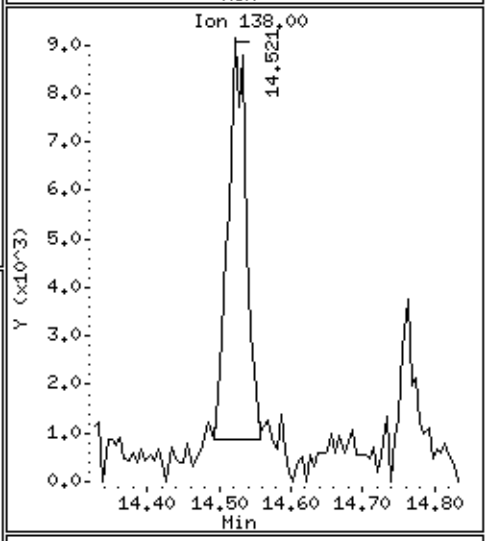
86 Benzo(g,h,i)perylene

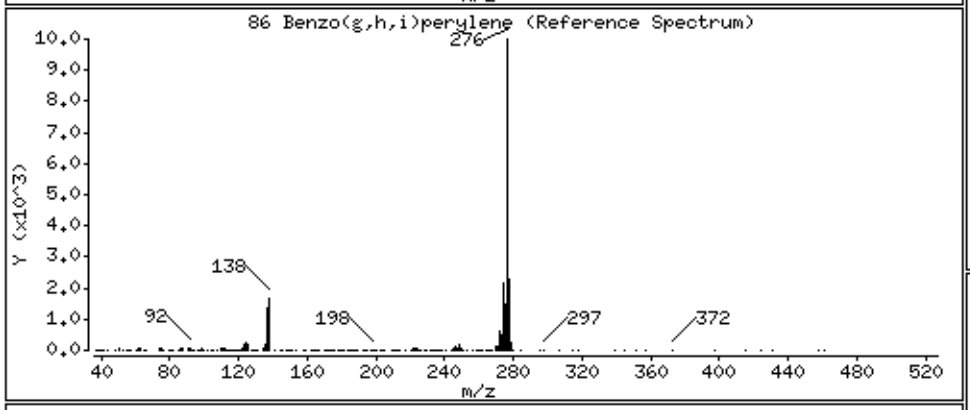
Concentration: 230 ug/Kg

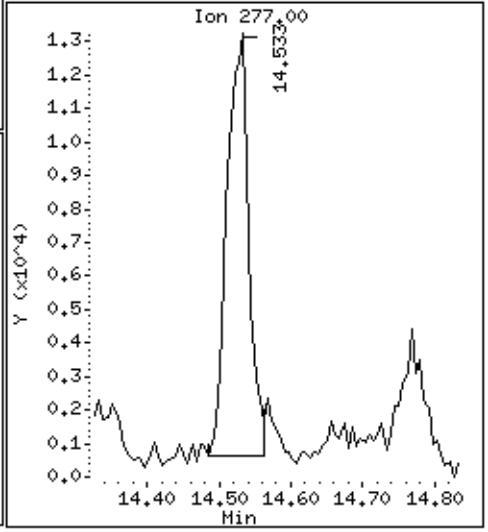


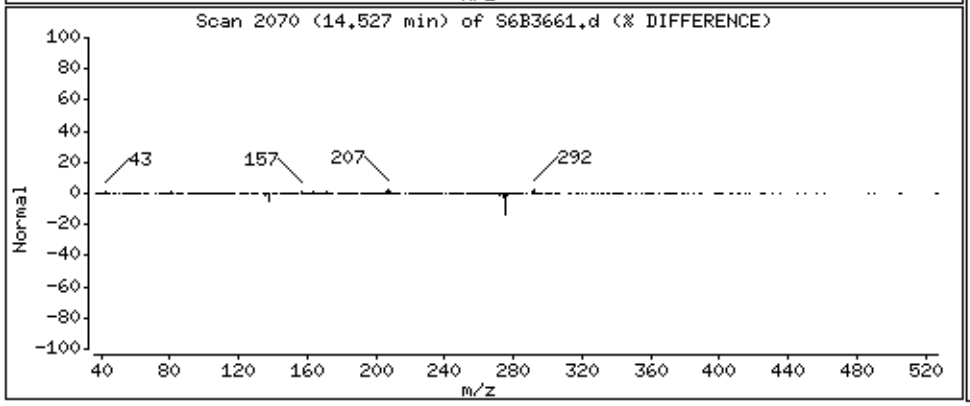












1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SB-130 (18-20)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-15A

Sample wt/vol: 15.5 (g/mL) G Lab File ID: S6B3662.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 7.5 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	350	U
91-57-6	2-Methylnaphthalene	350	U
208-96-8	Acenaphthylene	350	U
83-32-9	Acenaphthene	350	U
86-73-7	Fluorene	350	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
53-70-3	Dibenzo(a,h)anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

Data File: \\avogadro\organics\S6.I\130506.B\S6B3662.d
Report Date: 07-May-2013 10:03

Spectrum Analytical, Inc. RI Division

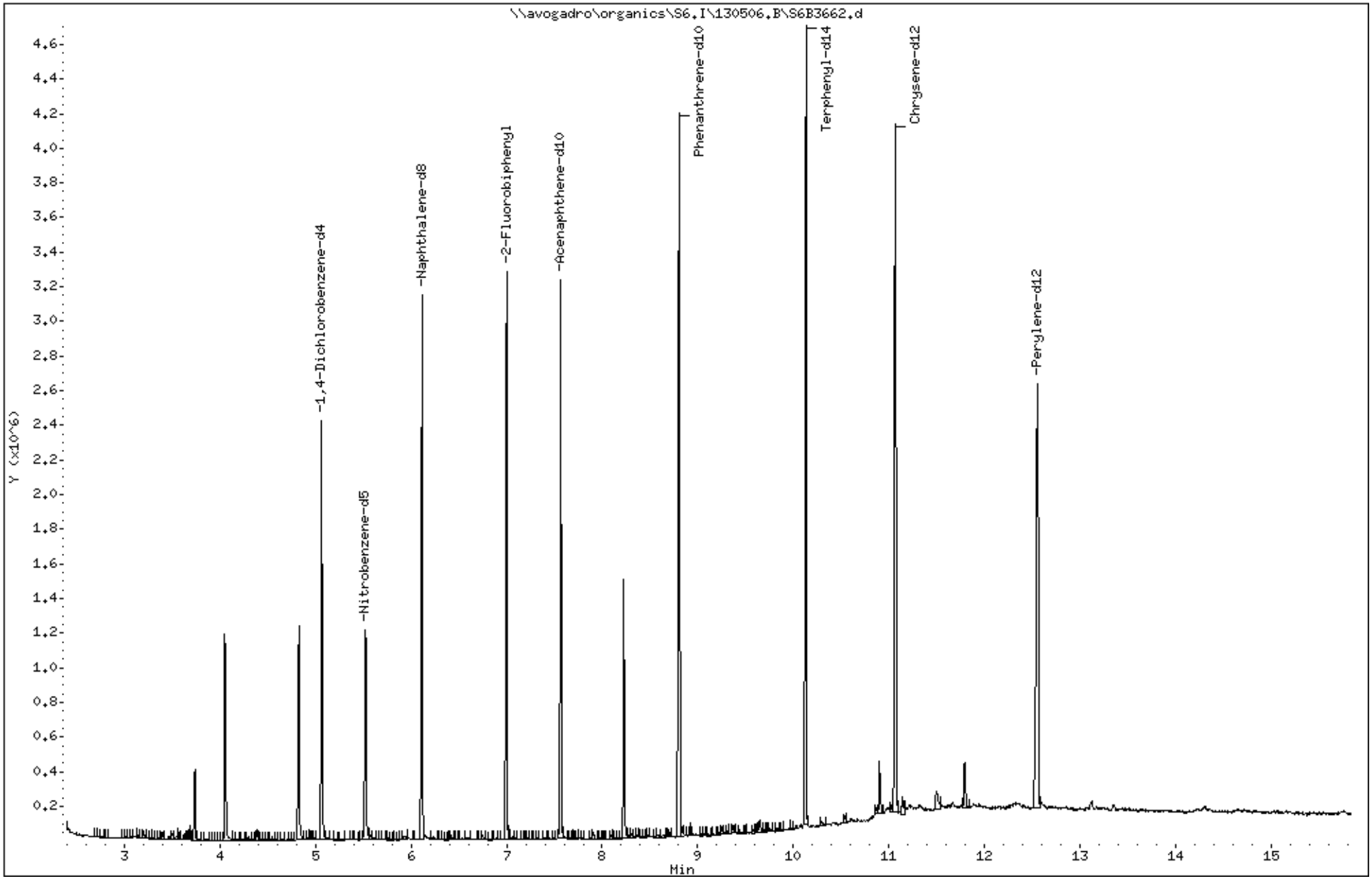
Data file : \\avogadro\organics\S6.I\130506.B\S6B3662.d
Lab Smp Id: M0619-15A Client Smp ID: SB-130 (18-20)
Inj Date : 06-MAY-2013 23:17
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-15A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
* 12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	290861	40.0000	
$ 22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	397381	44.0988	2800
* 31 Naphthalene-d8	136	6.113	6.113	(1.000)	1008440	40.0000	
$ 41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	836635	41.5673	2700
* 48 Acenaphthene-d10	164	7.570	7.570	(1.000)	689080	40.0000	
* 64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1338033	40.0000	
$ 72 Terphenyl-d14	244	10.132	10.138	(0.915)	1254708	51.3855	3300
* 76 Chrysene-d12	240	11.072	11.101	(1.000)	1627385	40.0000	
* 83 Perylene-d12	264	12.558	12.593	(1.000)	1563063	40.0000	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3662.d
Date : 06-MAY-2013 23:17
Client ID: SB-130 (18-20)
Instrument: S6.i
Sample Info: M0619-15A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUP1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16A

Sample wt/vol: 15.2 (g/mL) G Lab File ID: S6B3663.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/06/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	200	J
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	92	J
85-01-8	Phenanthrene	680	
120-12-7	Anthracene	240	J
206-44-0	Fluoranthene	930	
129-00-0	Pyrene	1300	
56-55-3	Benzo(a)anthracene	710	
218-01-9	Chrysene	790	
205-99-2	Benzo(b)fluoranthene	560	
207-08-9	Benzo(k)fluoranthene	260	J
50-32-8	Benzo(a)pyrene	530	
193-39-5	Indeno(1,2,3-cd)pyrene	280	J
53-70-3	Dibenzo(a,h)anthracene	98	J
191-24-2	Benzo(g,h,i)perylene	370	J

Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d
Report Date: 07-May-2013 10:03

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3663.d
Lab Smp Id: M0619-16A Client Smp ID: DUP1
Inj Date : 06-MAY-2013 23:39
Operator : PK   SRC: LIMS Inst ID: S6.i
Smp Info : M0619-16A,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.200	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
*	12 1,4-Dichlorobenzene-d4	152	5.061	5.061	(1.000)	241766	40.0000		
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	306353	40.4042	2600	
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	848527	40.0000		
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	663091	40.5805	2700	
	46 Acenaphthylene	152	7.446	7.452	(0.984)	55690	2.62292	170(a)	
*	48 Acenaphthene-d10	164	7.564	7.570	(1.000)	559424	40.0000		
	55 Fluorene	166	8.016	8.022	(1.060)	21851	1.23769	81(aQ)	
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1096154	40.0000		
	65 Phenanthrene	178	8.821	8.827	(1.002)	227145	9.06645	600(a)	
	66 Anthracene	178	8.862	8.868	(1.007)	82007	3.18394	210(a)	
	69 Fluoranthene	202	9.820	9.826	(1.115)	383450	12.5062	820	
	71 Pyrene	202	10.014	10.020	(0.902)	514084	17.5237	1200	
$	72 Terphenyl-d14	244	10.132	10.138	(0.913)	1012870	48.1122	3200	
	75 Benzo(a)anthracene	228	11.089	11.083	(0.999)	269275	8.33040	550(aH)	
*	76 Chrysene-d12	240	11.072	11.101	(1.000)	1403095	40.0000	(H)	
	77 Chrysene	228	11.089	11.125	(0.999)	286090	10.5822	700	
	80 Benzo(b)fluoranthene	252	12.100	12.141	(0.964)	274241	7.45948	490(aM)M2 PK 05/07	
	81 Benzo(k)fluoranthene	252	12.123	12.170	(0.965)	121805	3.53466	230(aQMH)M2 PK 05/07	
	82 Benzo(a)pyrene	252	12.476	12.517	(0.993)	233887	7.12748	470(a)	

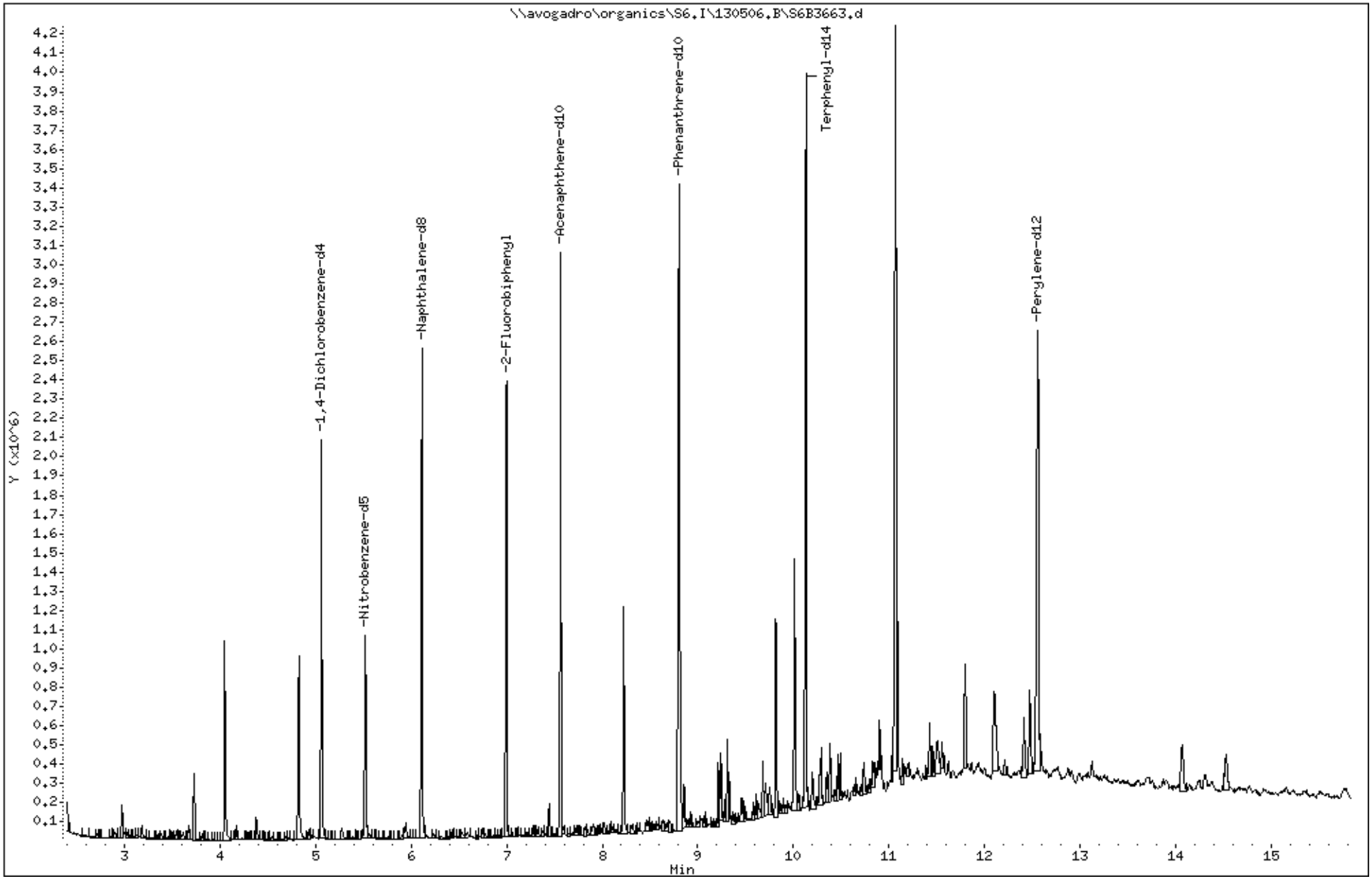
Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d
Report Date: 07-May-2013 10:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 83 Perylene-d12	264	12.558	12.593	(1.000)	1406429	40.0000	
84 Indeno(1,2,3-cd)pyrene	276	14.062	14.115	(1.120)	153041	3.76351	250(a)
85 Dibenzo(a,h)anthracene	278	14.074	14.133	(1.121)	44397	1.31097	86(a)
86 Benzo(g,h,i)perylene	276	14.532	14.579	(1.157)	162237	4.90576	320(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d
Date : 06-MAY-2013 23:39
Client ID: DUP1
Instrument: S6.i
Sample Info: M0619-16A,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

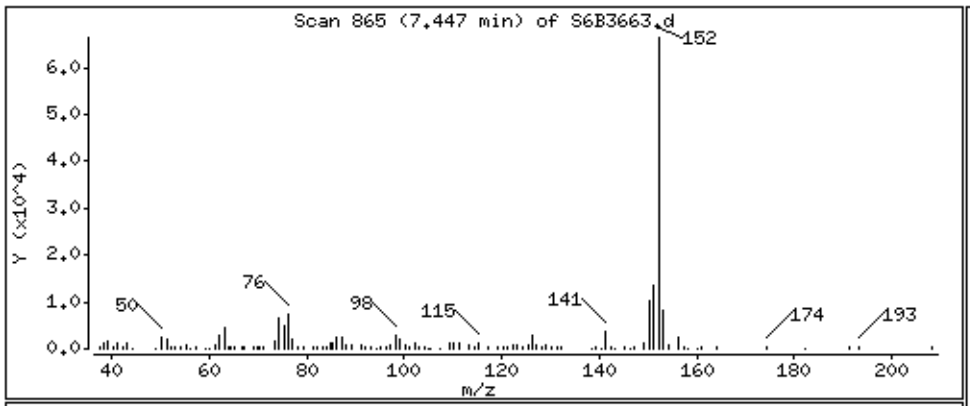
Client ID: DUP1 Instrument: S6.i

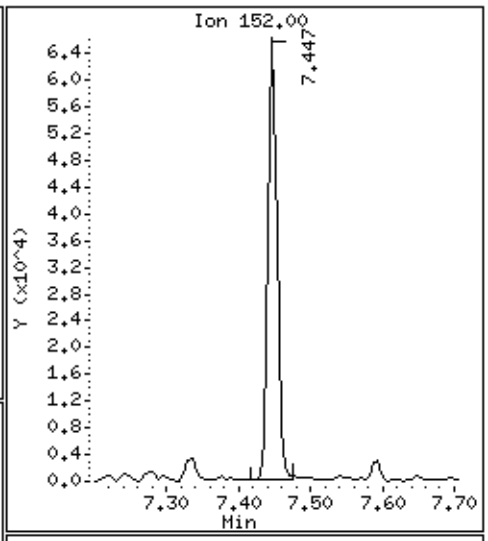
Sample Info: M0619-16A,,71418

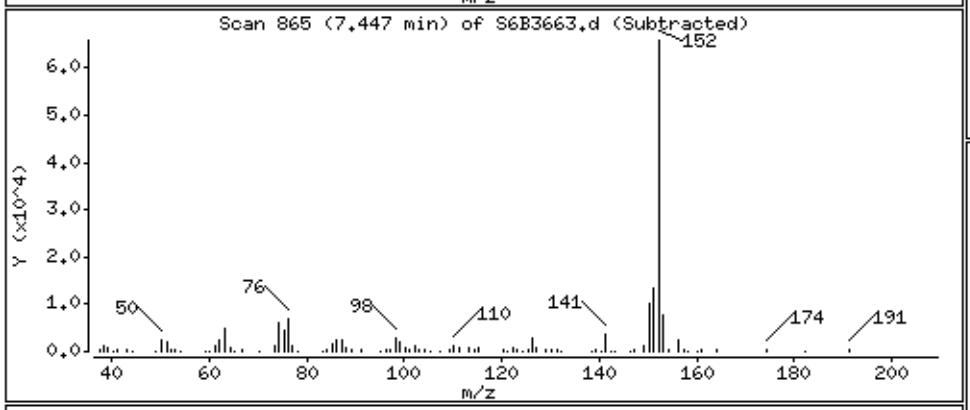
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

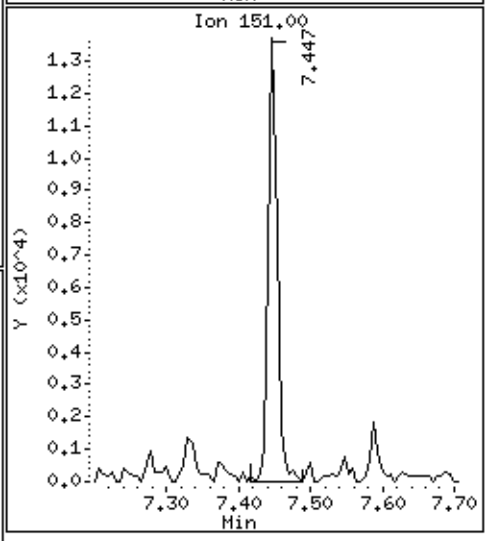
Column phase: Rxi-5Sil MS Column diameter: 0.25

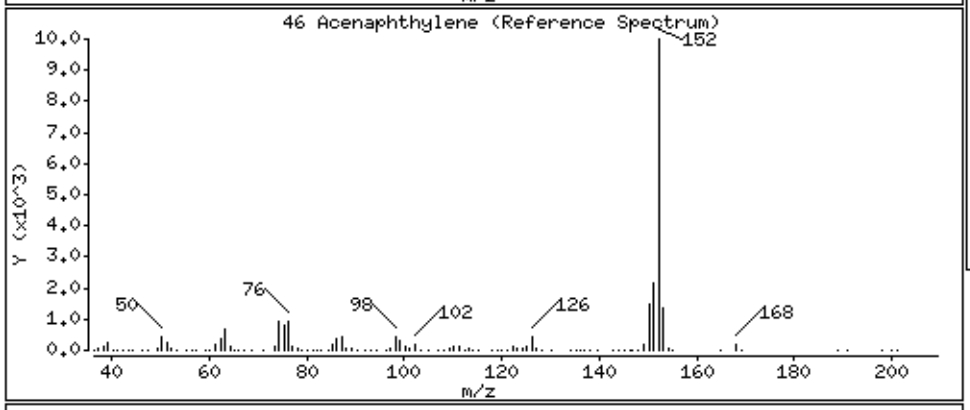
46 Acenaphthylene Concentration: 170 ug/Kg

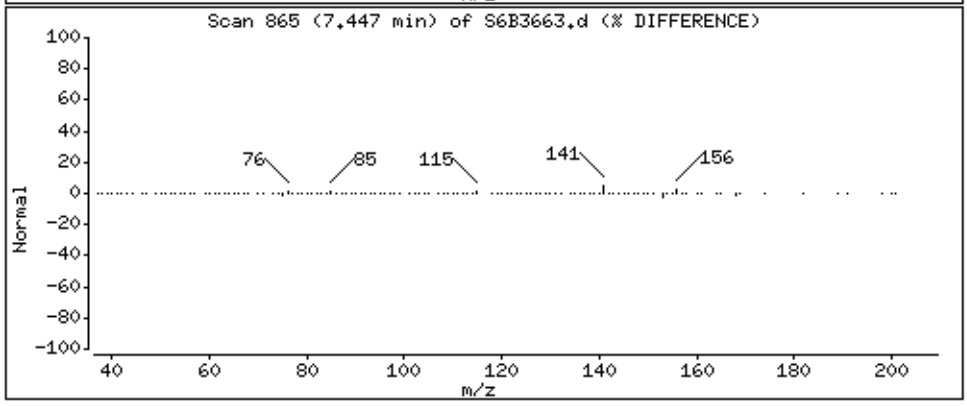












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

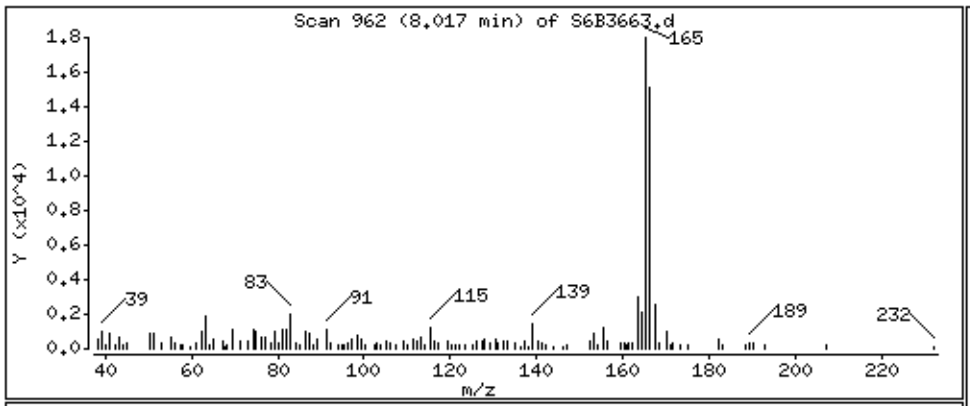
Client ID: DUP1 Instrument: S6.i

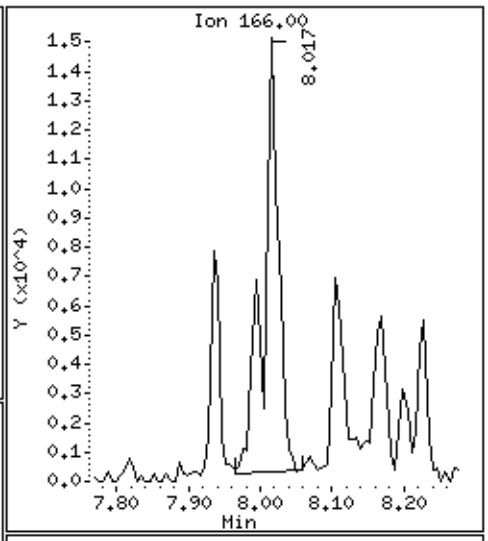
Sample Info: M0619-16A,,71418

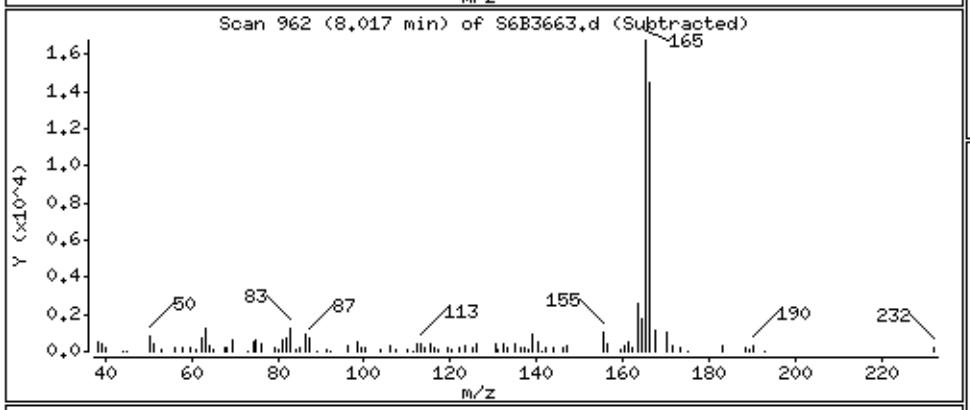
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

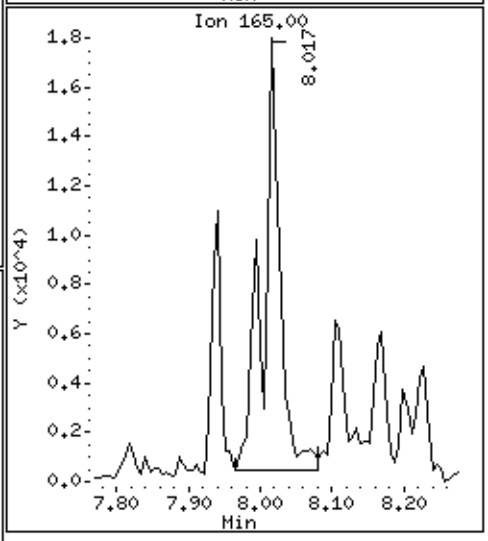
Column phase: Rxi-5Sil MS Column diameter: 0.25

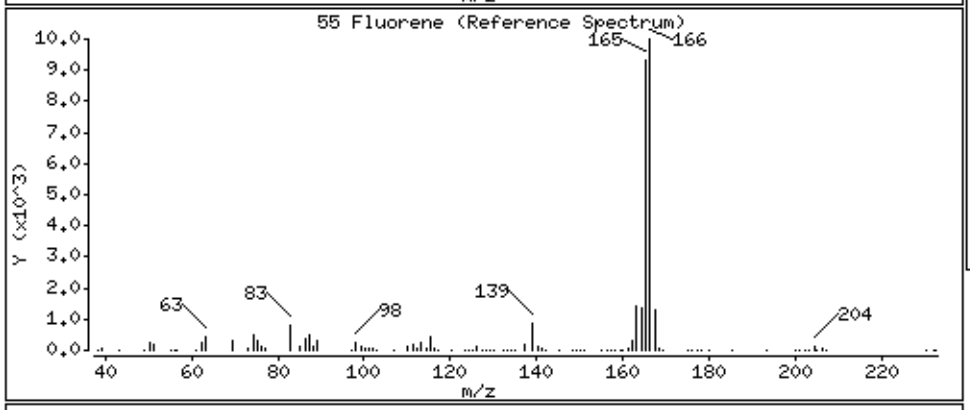
55 Fluorene Concentration: 81 ug/Kg

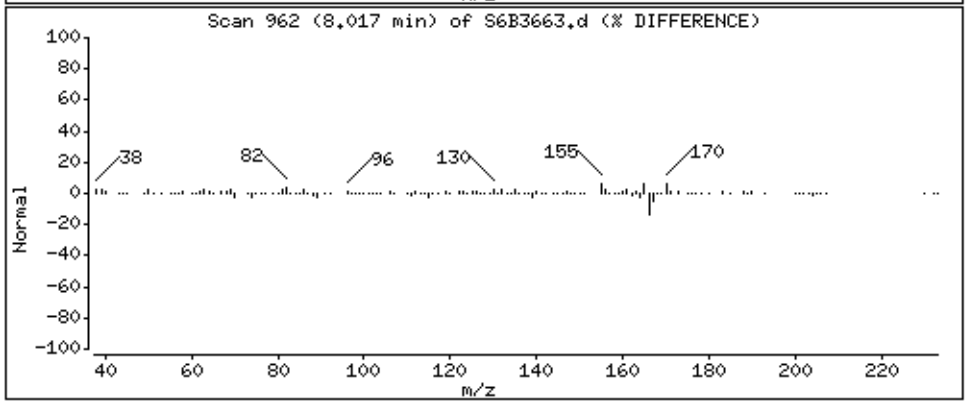












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

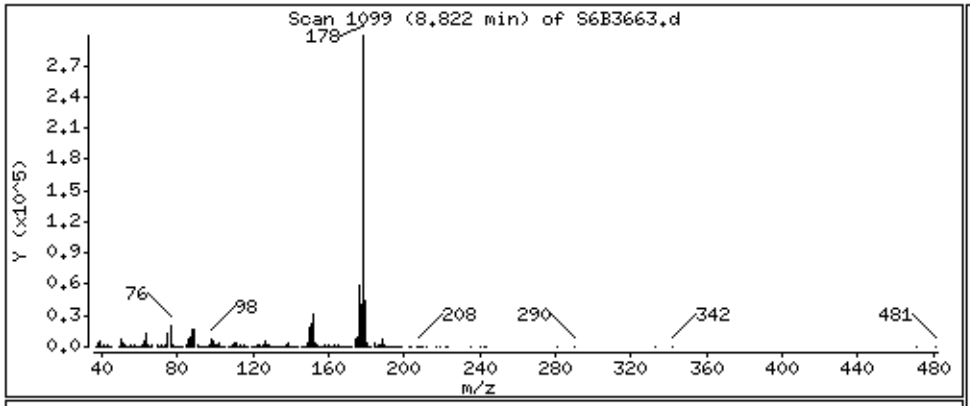
Client ID: DUP1 Instrument: S6.i

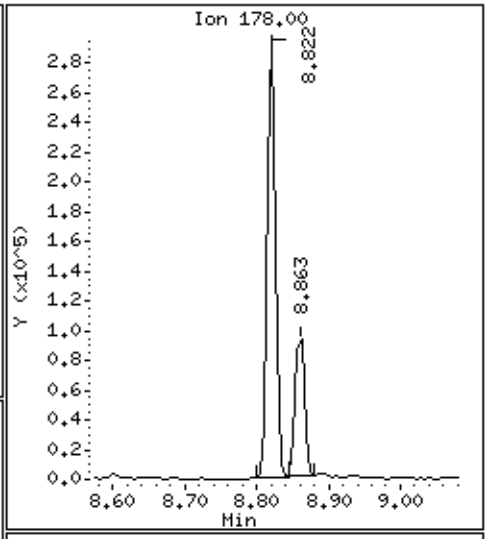
Sample Info: M0619-16A,,71418

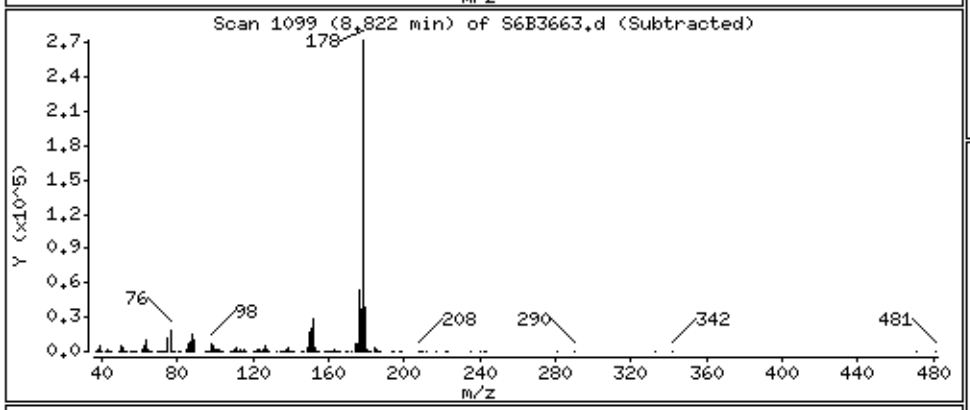
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

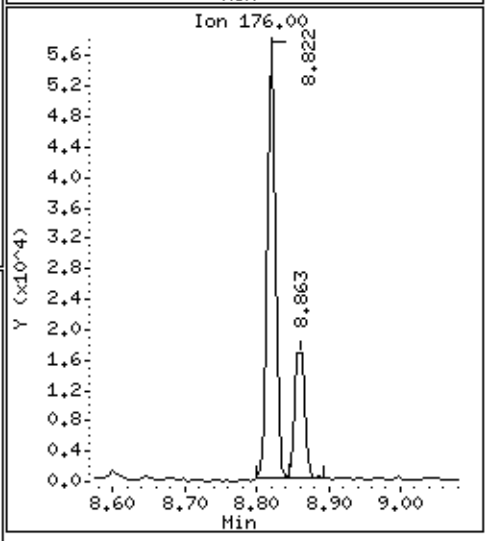
Column phase: Rxi-5Sil MS Column diameter: 0.25

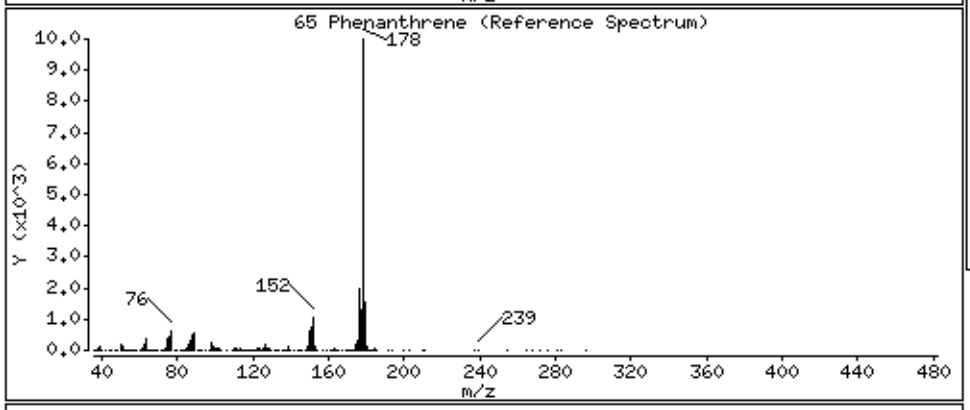
65 Phenanthrene Concentration: 600 ug/Kg

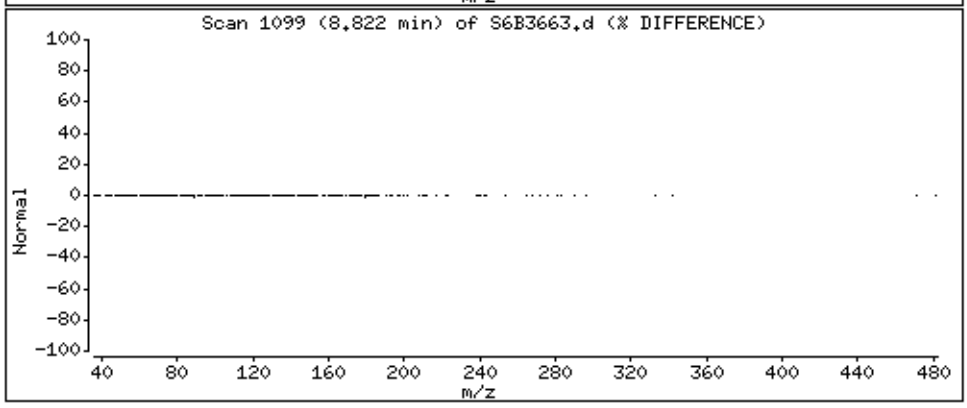












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

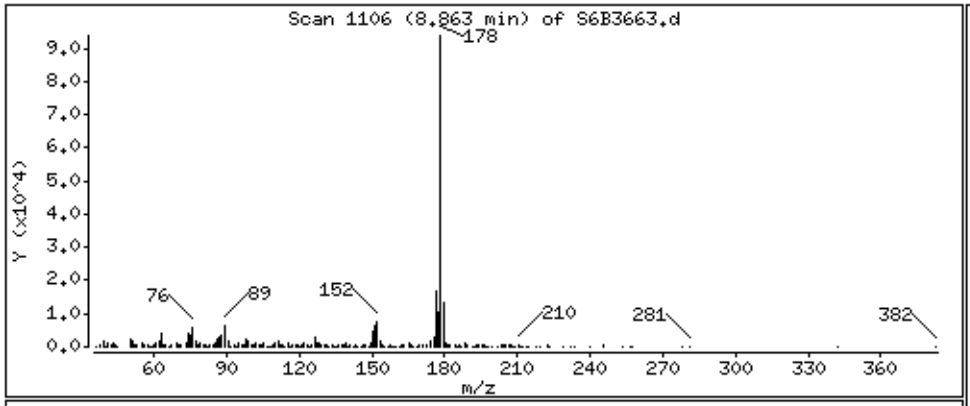
Client ID: DUP1 Instrument: S6.i

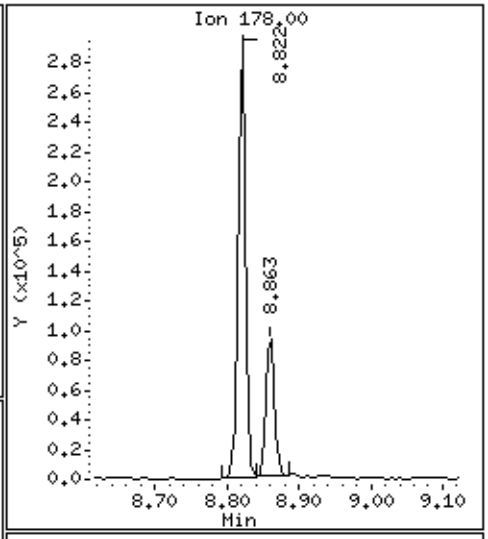
Sample Info: M0619-16A,,71418

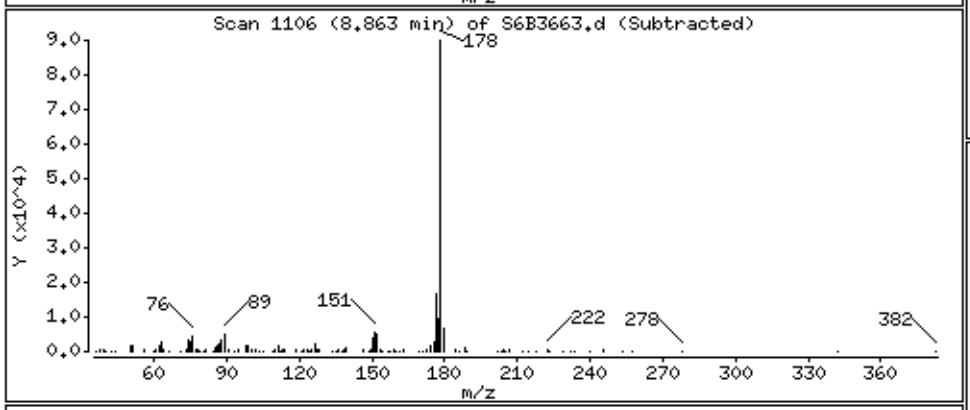
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

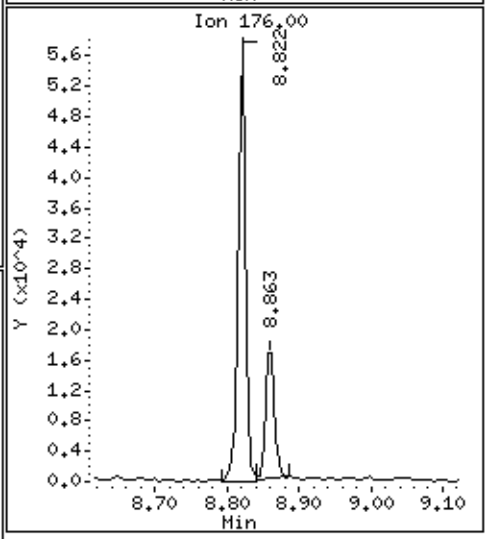
Column phase: Rxi-5Sil MS Column diameter: 0.25

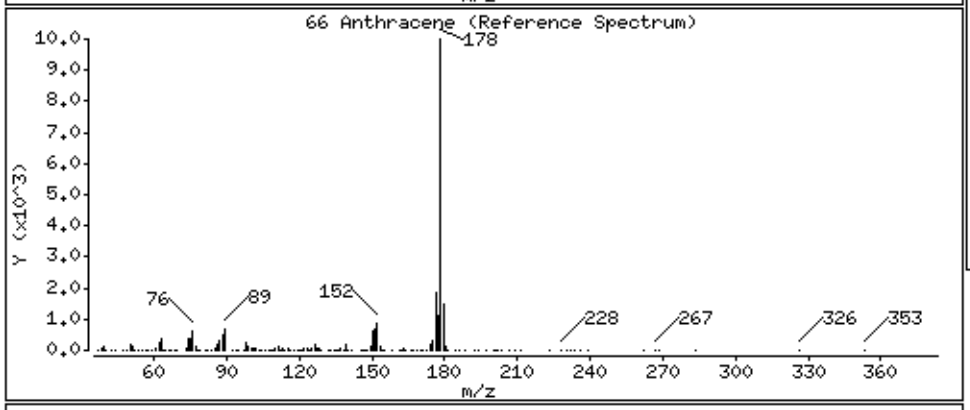
66 Anthracene Concentration: 210 ug/Kg

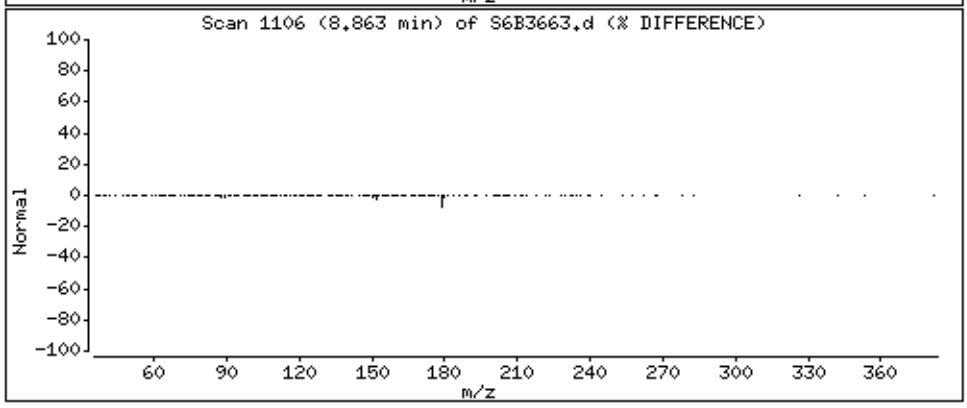












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

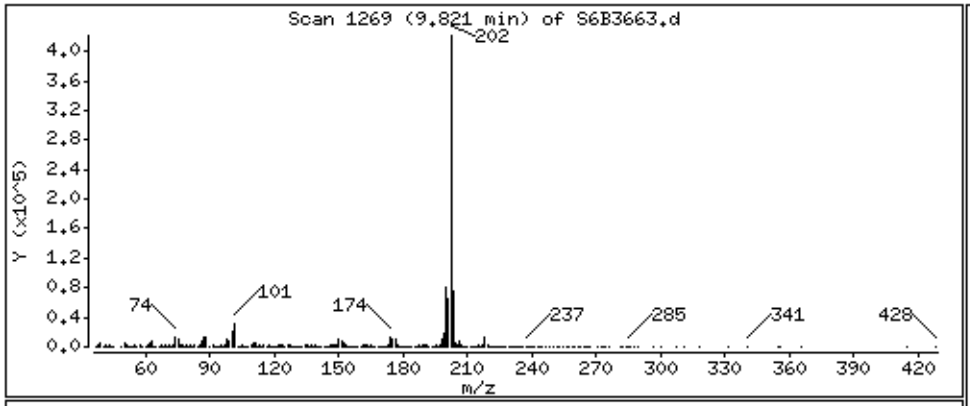
Client ID: DUP1 Instrument: S6.i

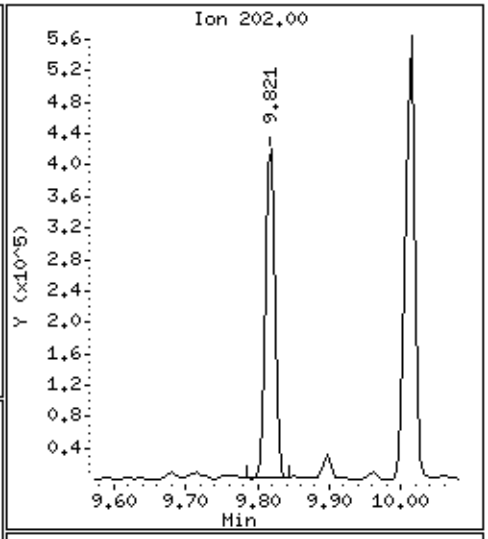
Sample Info: M0619-16A,,71418

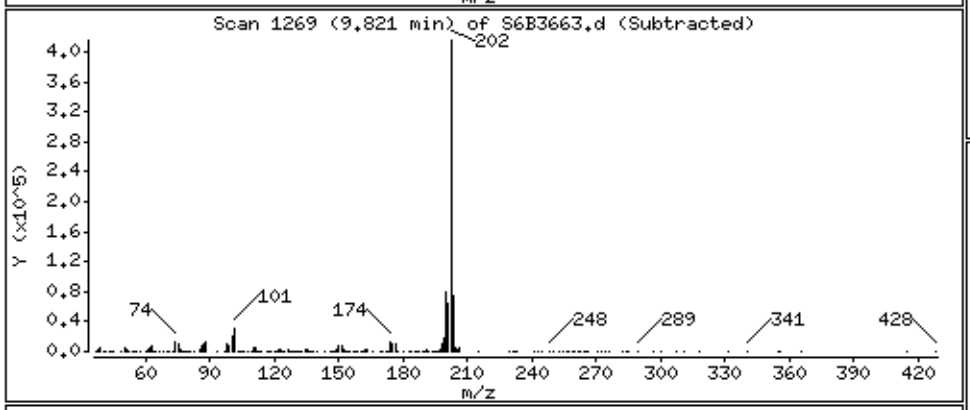
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

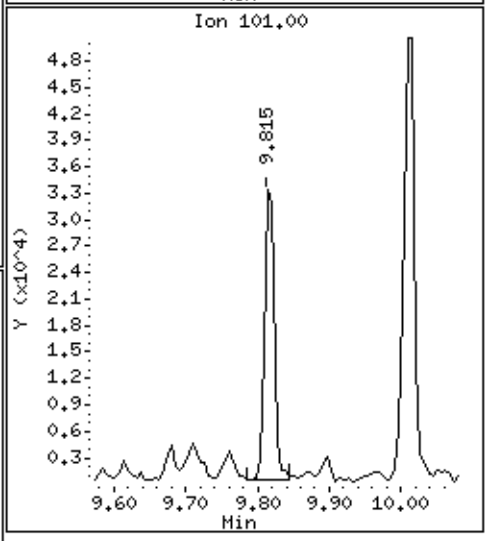
Column phase: Rxi-5Sil MS Column diameter: 0.25

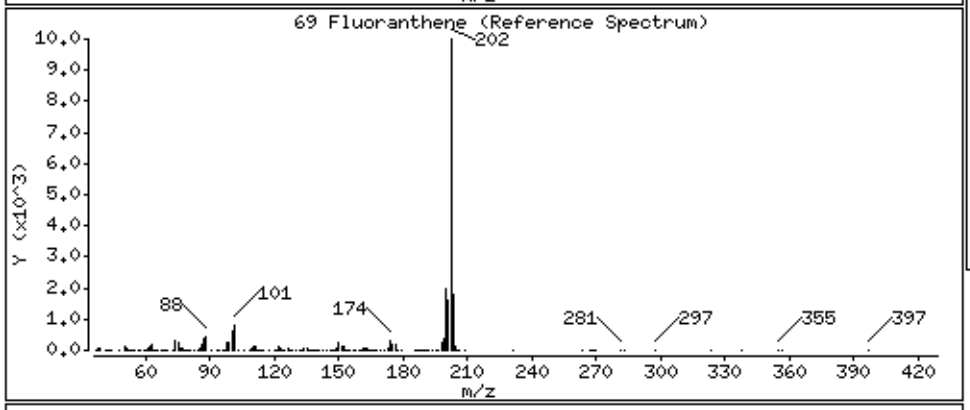
69 Fluoranthene Concentration: 820 ug/Kg

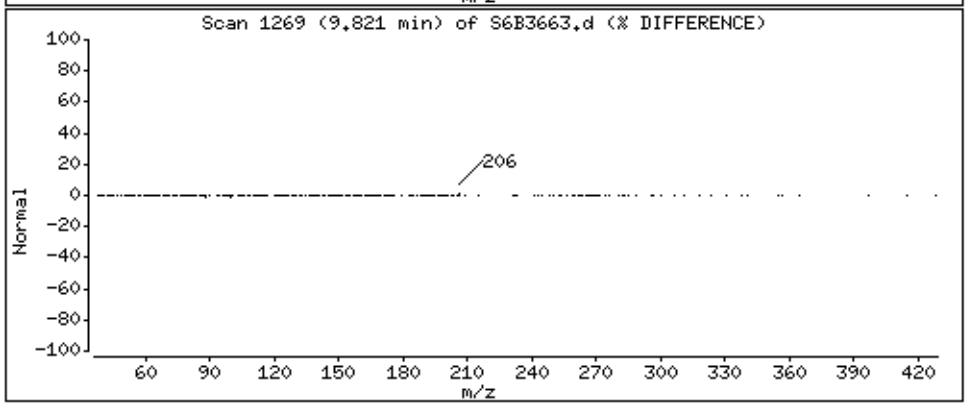












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

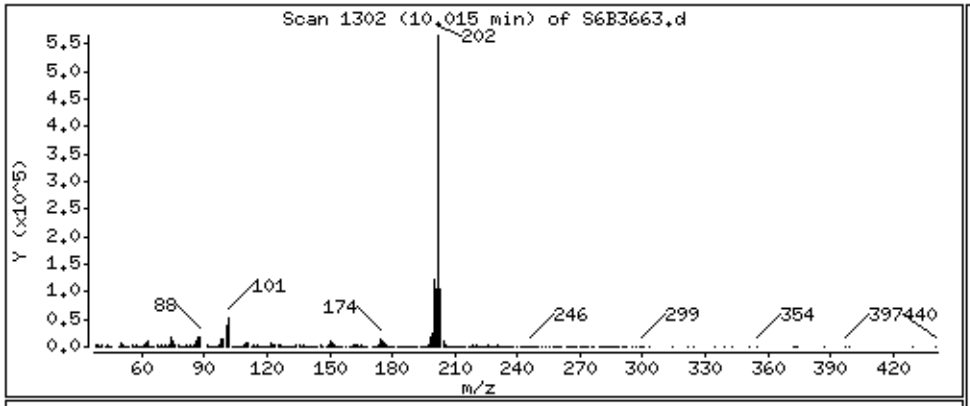
Client ID: DUP1 Instrument: S6.i

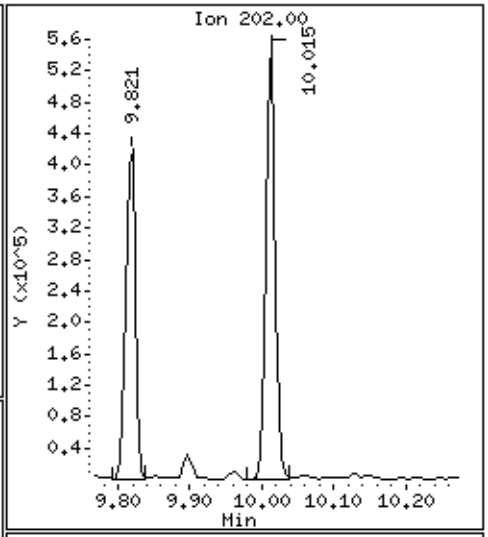
Sample Info: M0619-16A,,71418

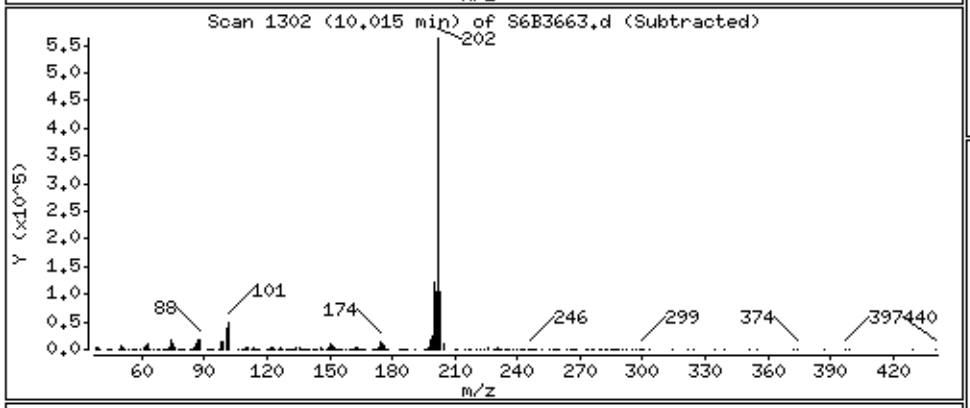
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

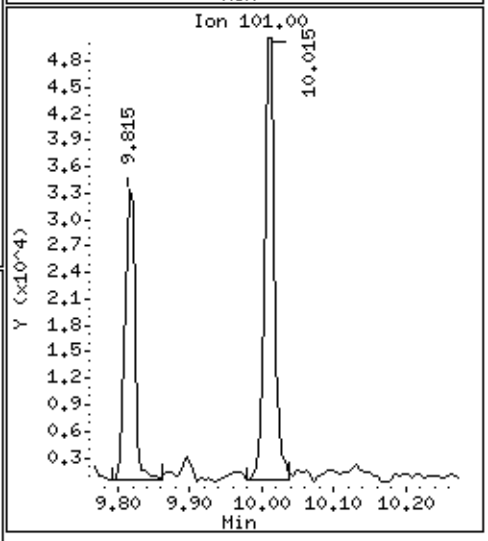
Column phase: Rxi-5Sil MS Column diameter: 0.25

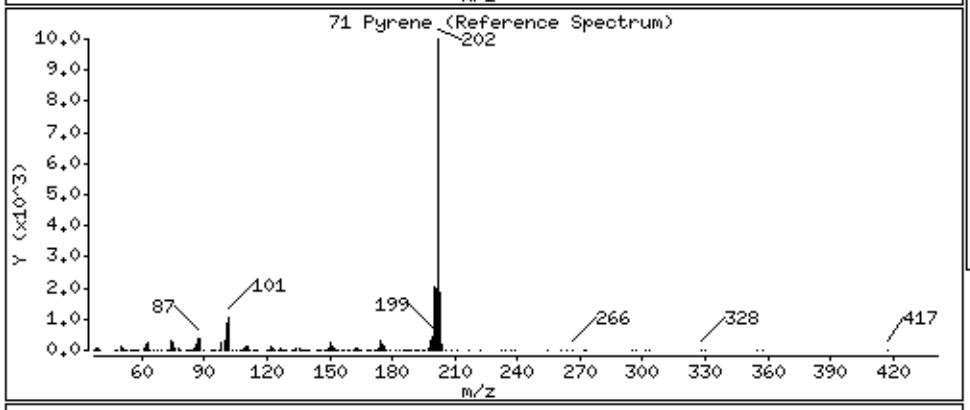
71 Pyrene Concentration: 1200 ug/Kg

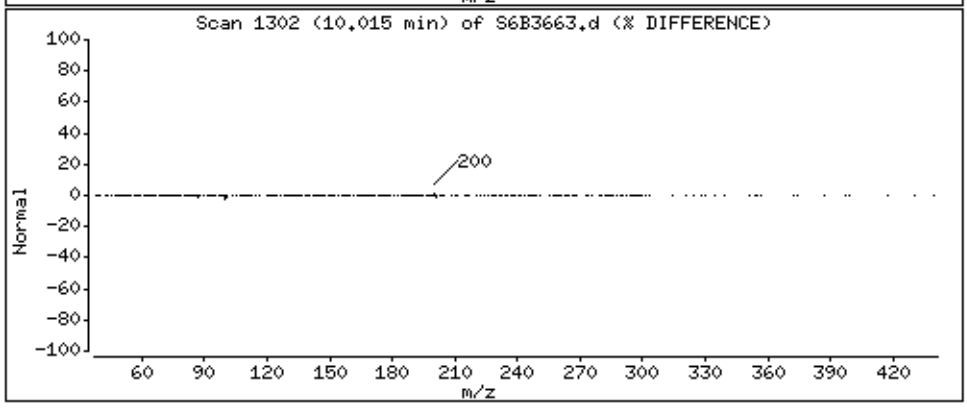












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

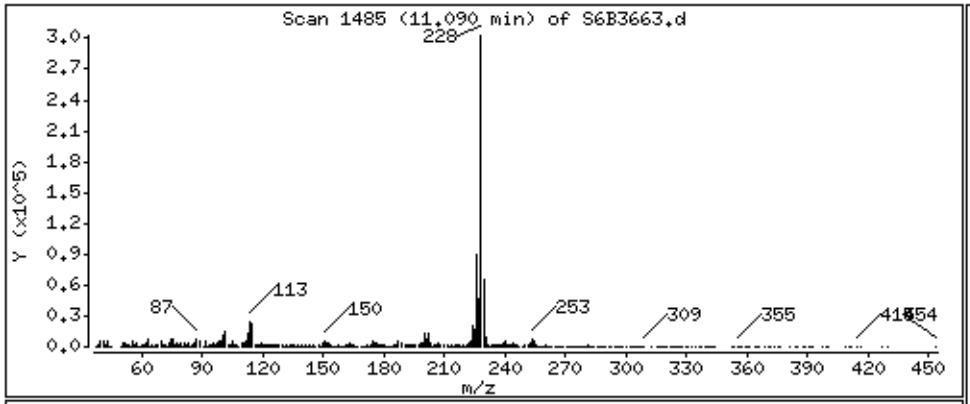
Client ID: DUP1 Instrument: S6.i

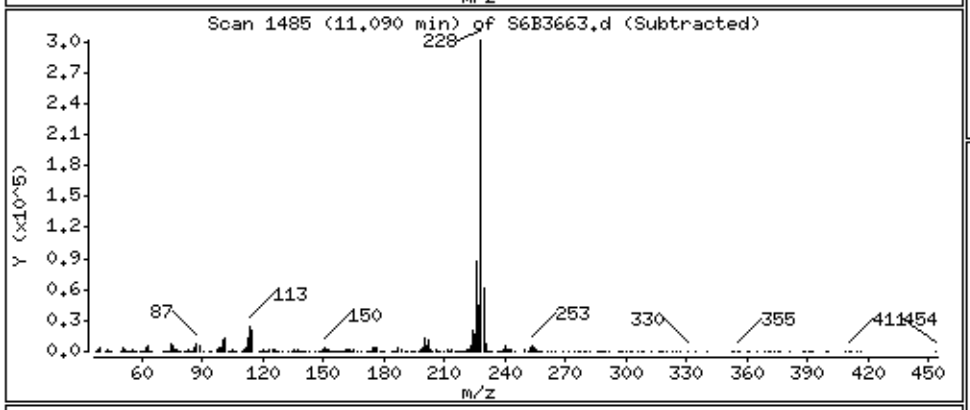
Sample Info: M0619-16A,,71418

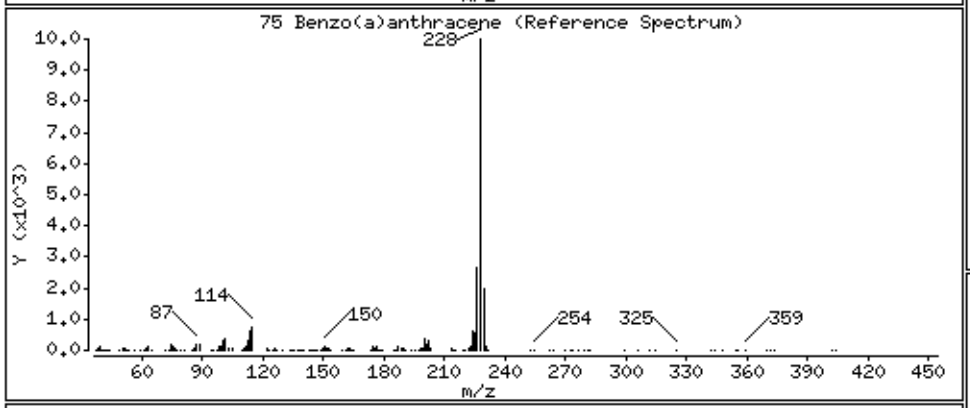
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

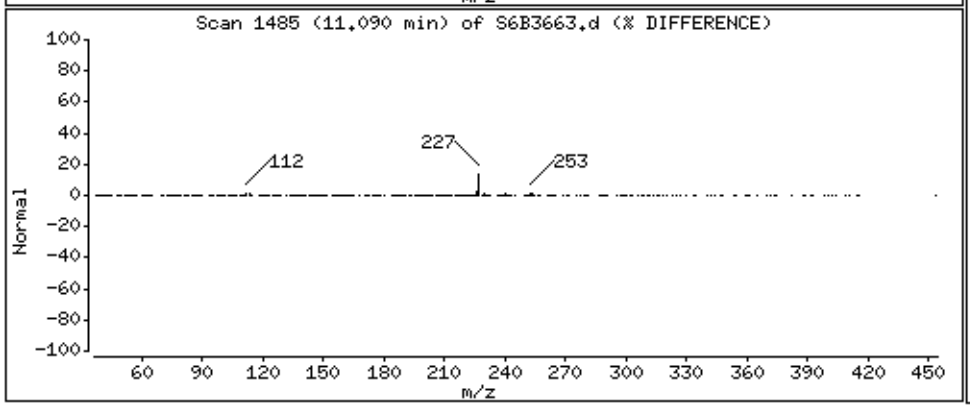
Column phase: Rxi-5Sil MS Column diameter: 0.25

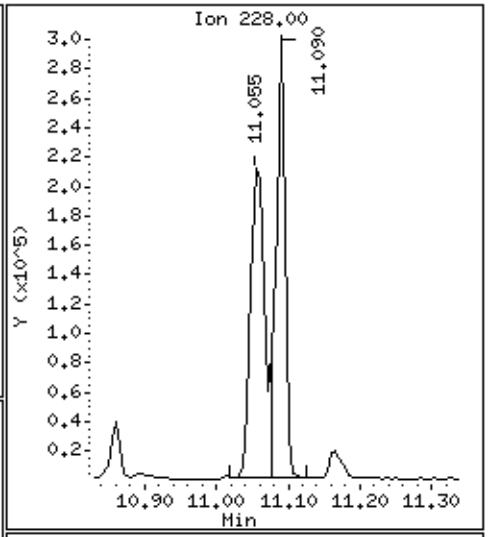
75 Benzo(a)anthracene Concentration: 550 ug/Kg

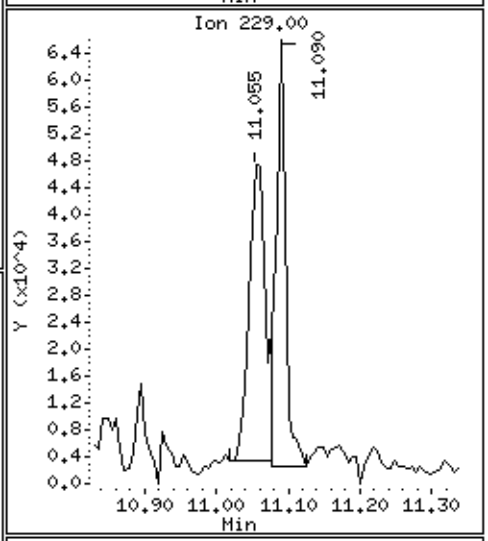


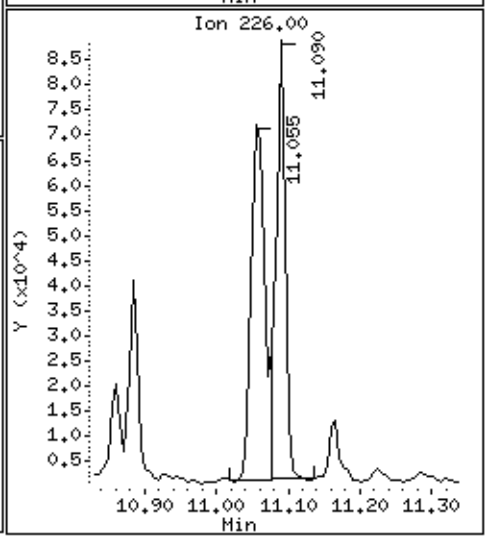












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

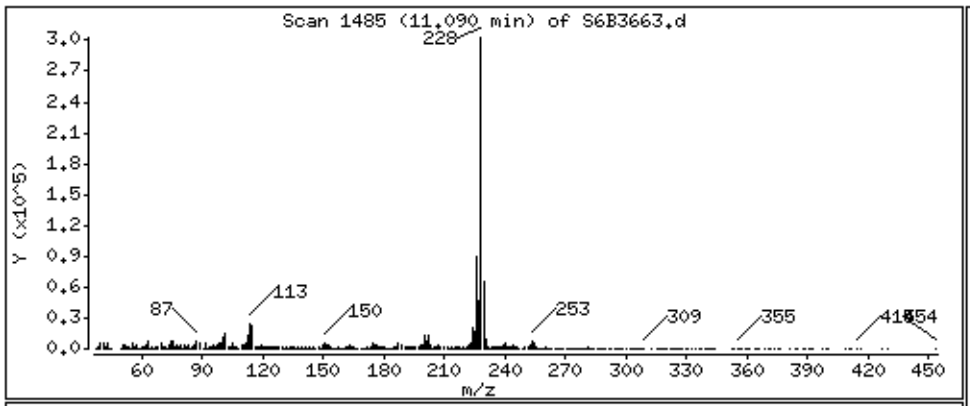
Client ID: DUP1 Instrument: S6.i

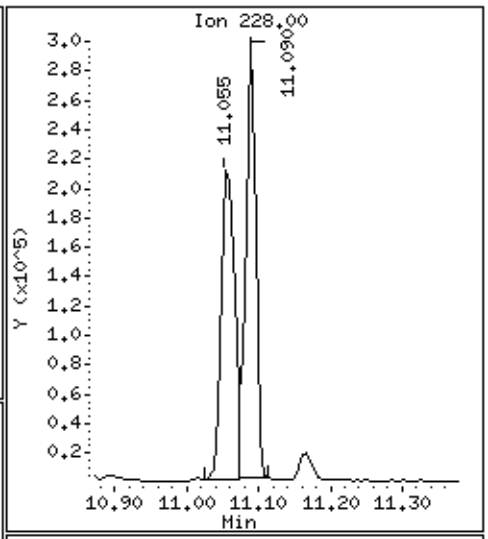
Sample Info: M0619-16A,,71418

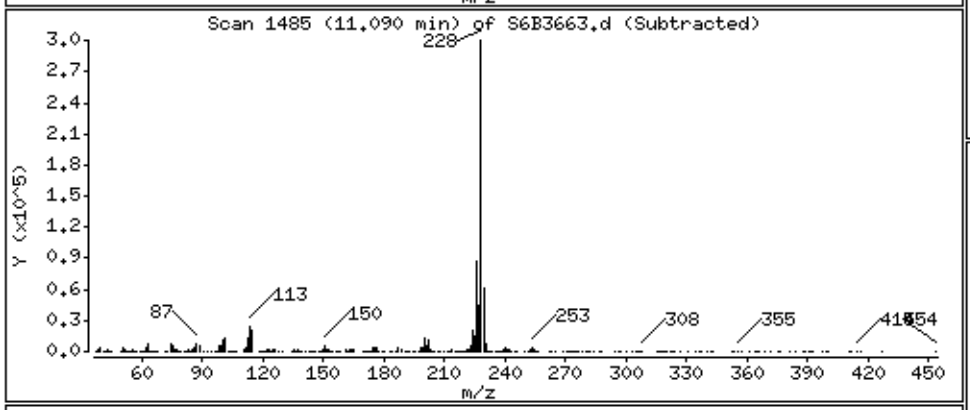
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

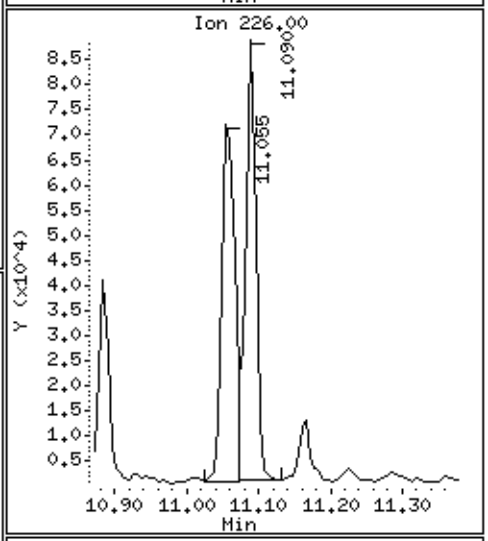
Column phase: Rxi-5Sil MS Column diameter: 0.25

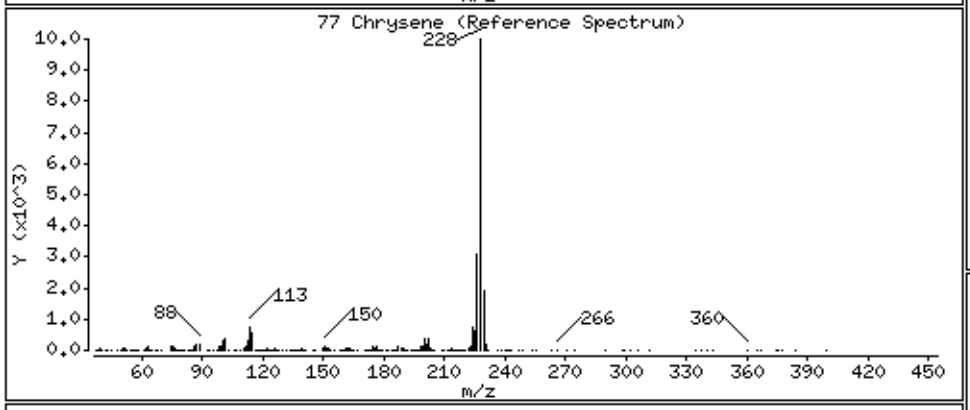
77 Chrysene Concentration: 700 ug/Kg

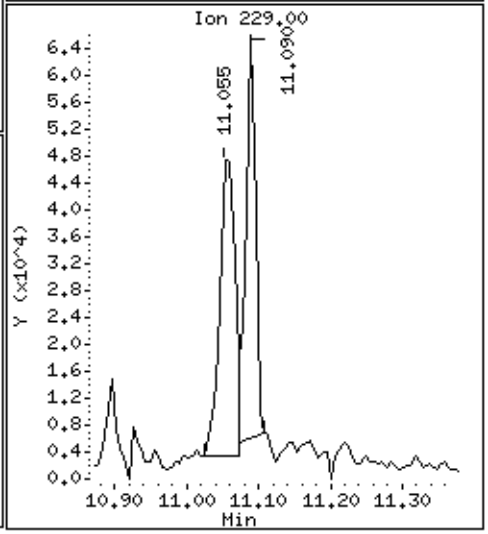


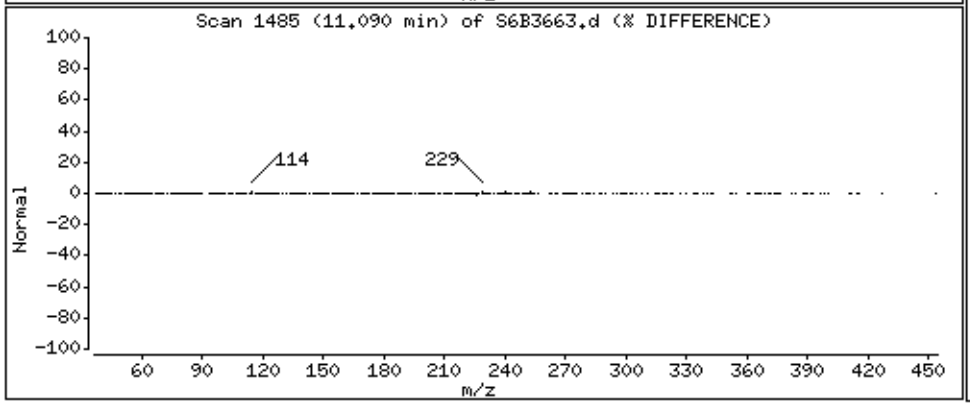












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

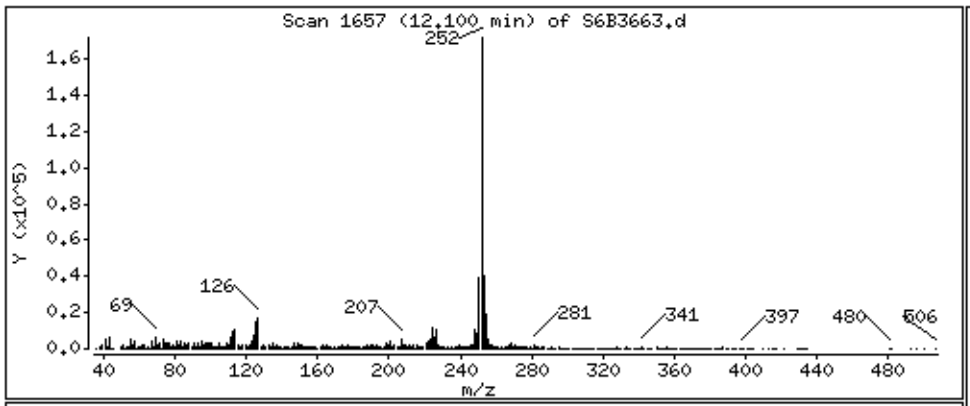
Client ID: DUP1 Instrument: S6.i

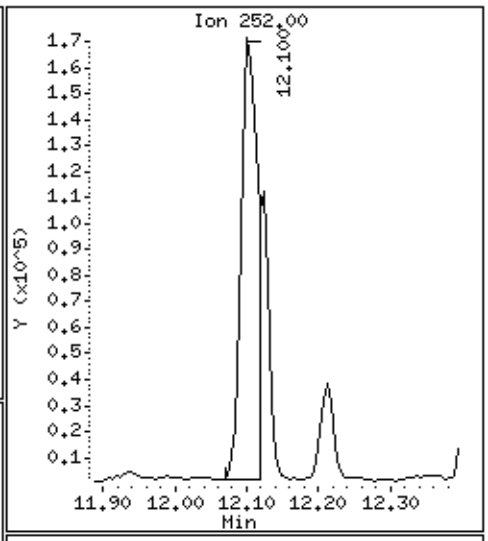
Sample Info: M0619-16A,,71418

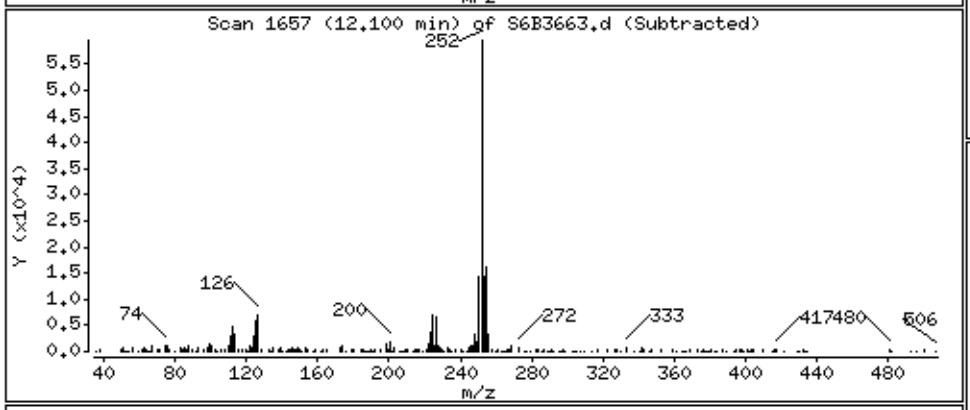
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

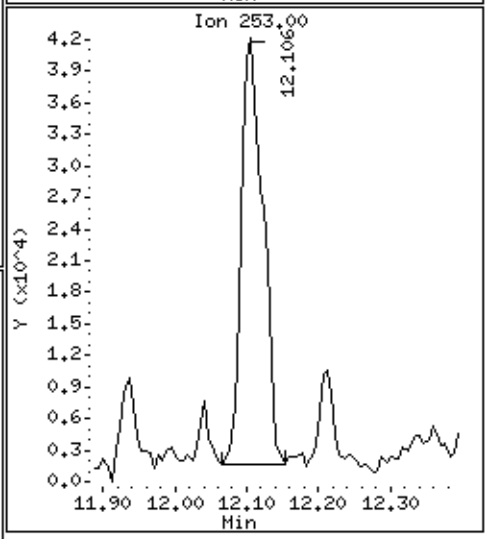
Column phase: Rxi-5Sil MS Column diameter: 0.25

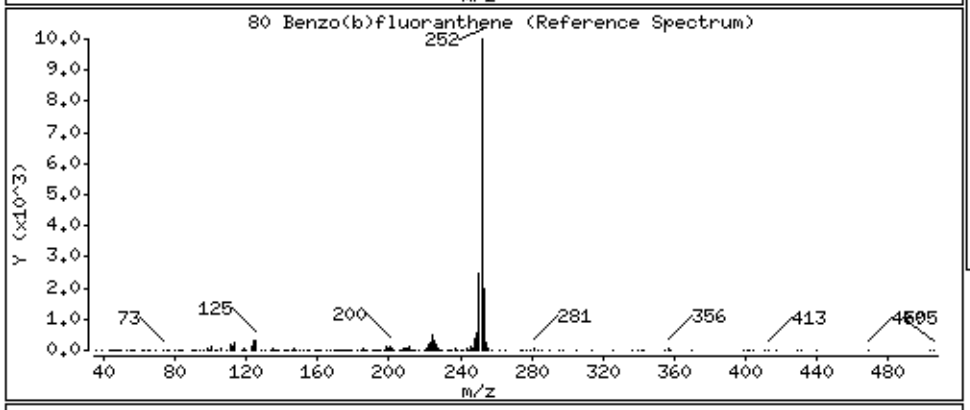
80 Benzo(b)fluoranthene Concentration: 490 ug/Kg

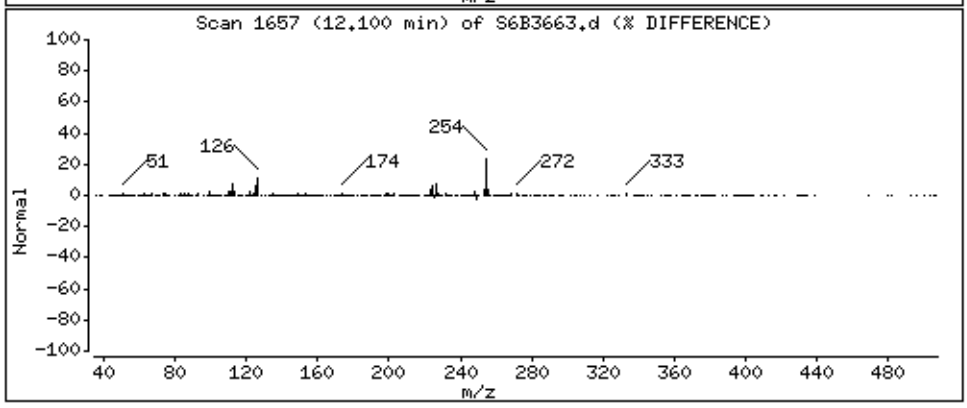












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

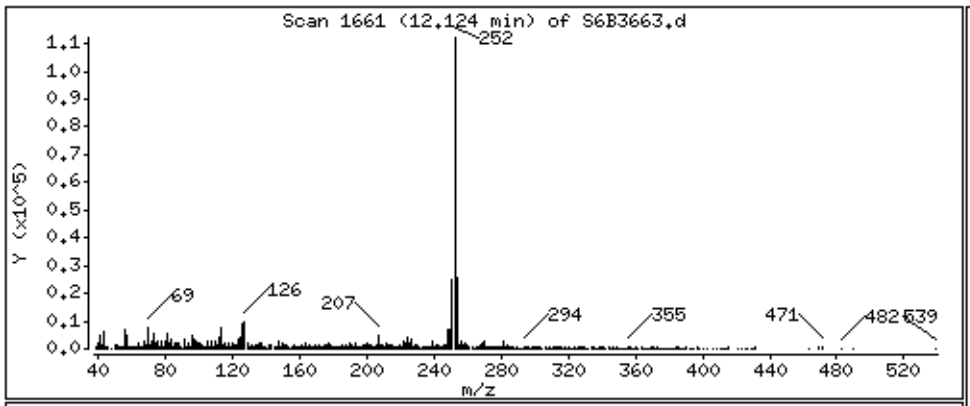
Client ID: DUP1 Instrument: S6.i

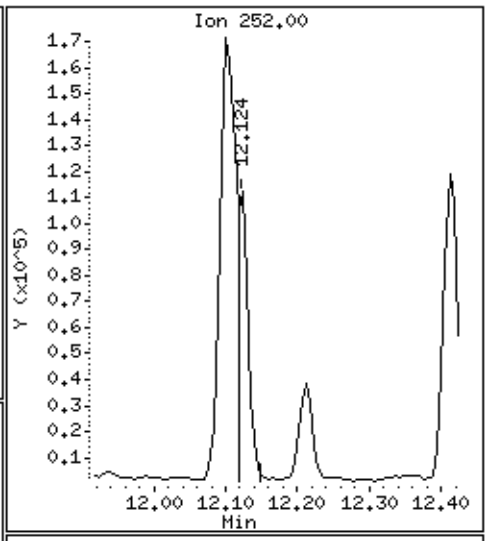
Sample Info: M0619-16A,,71418

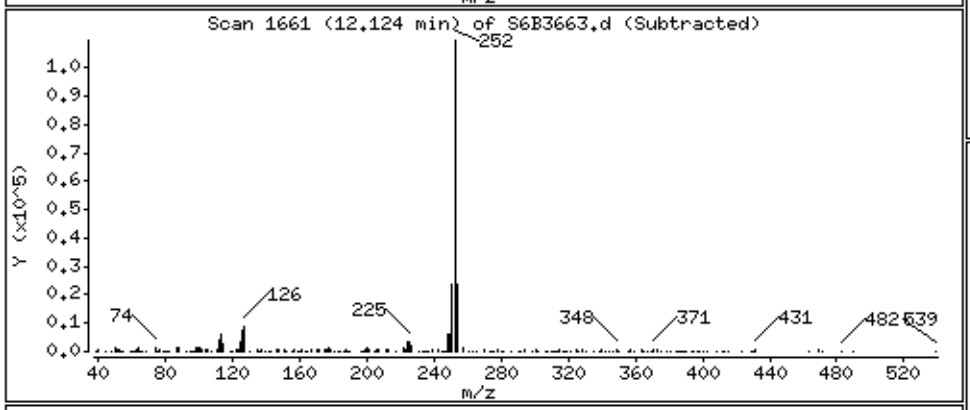
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

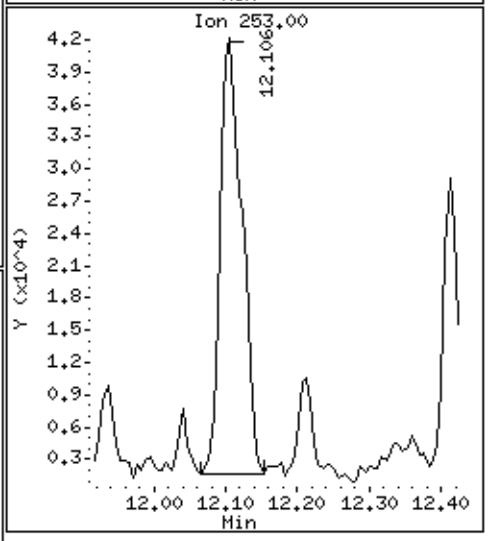
Column phase: Rxi-5Sil MS Column diameter: 0.25

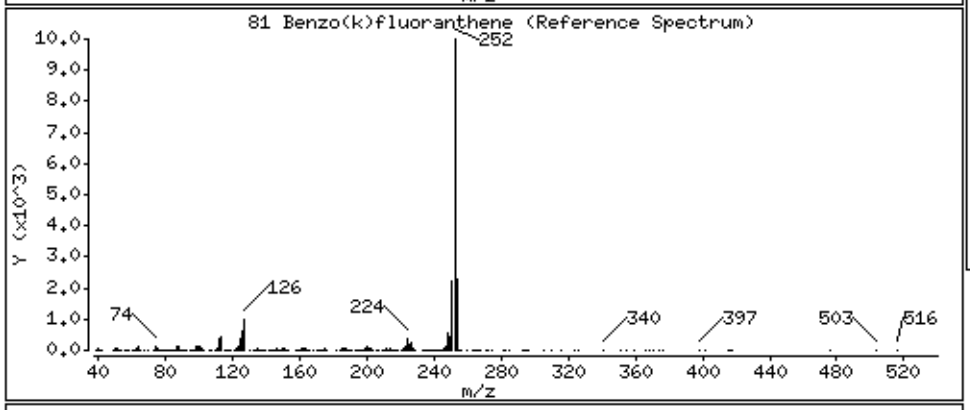
81 Benzo(k)fluoranthene Concentration: 230 ug/Kg

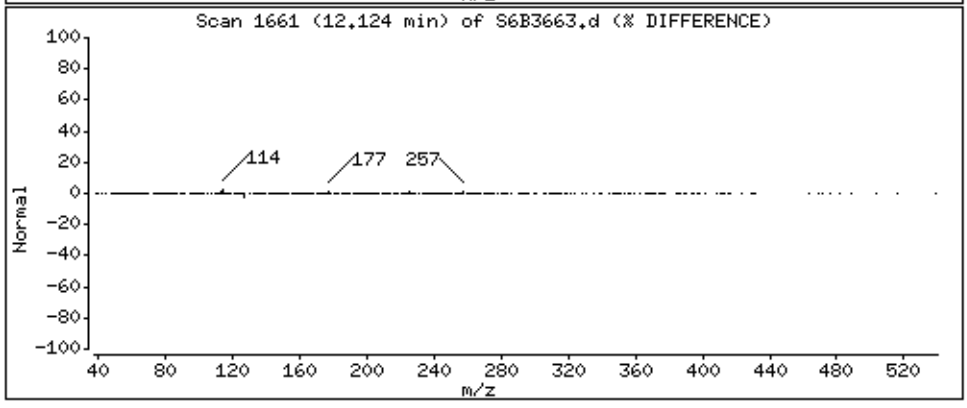












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

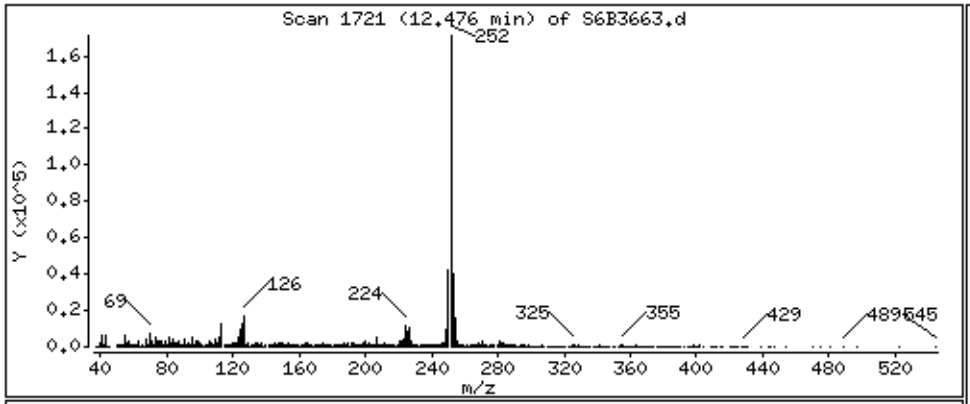
Client ID: DUP1 Instrument: S6.i

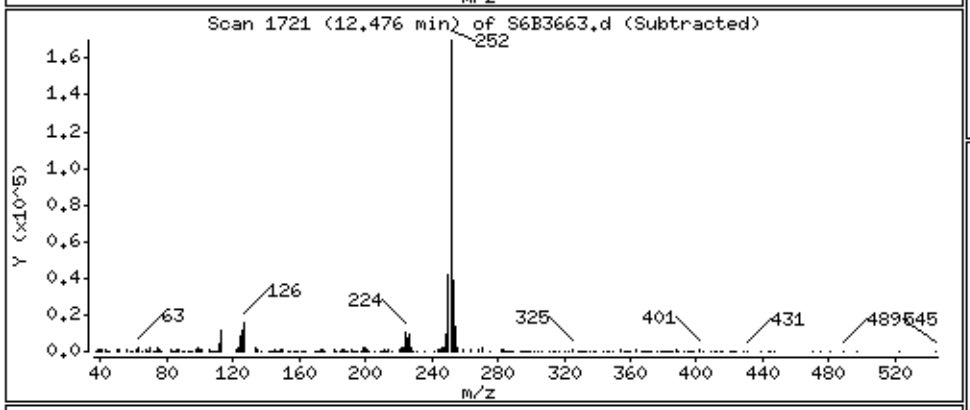
Sample Info: M0619-16A,,71418

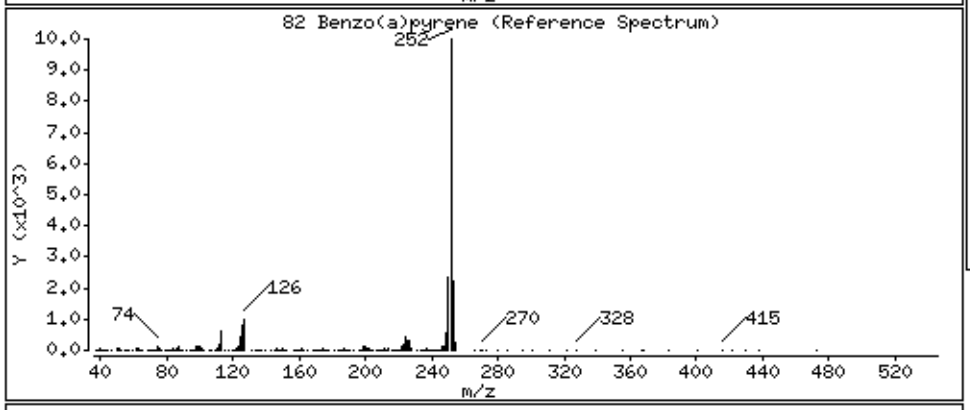
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

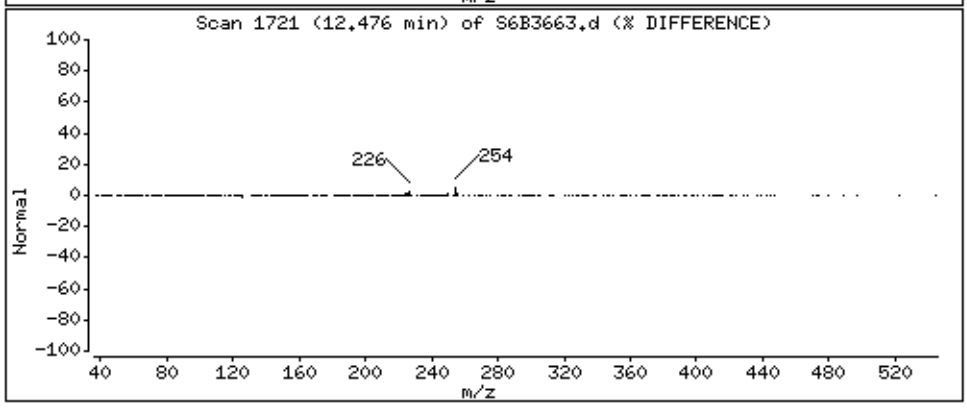
Column phase: Rxi-5Sil MS Column diameter: 0.25

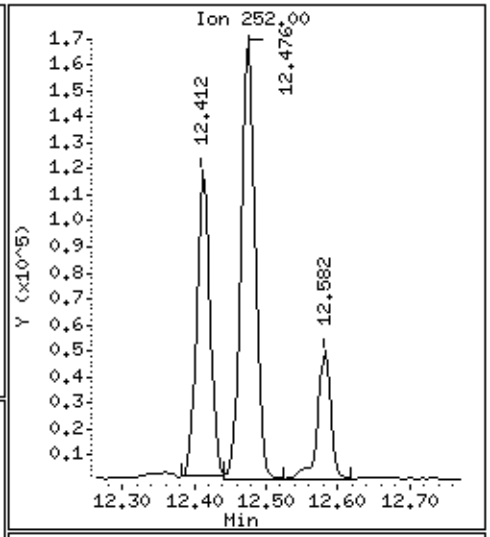
82 Benzo(a)pyrene Concentration: 470 ug/Kg

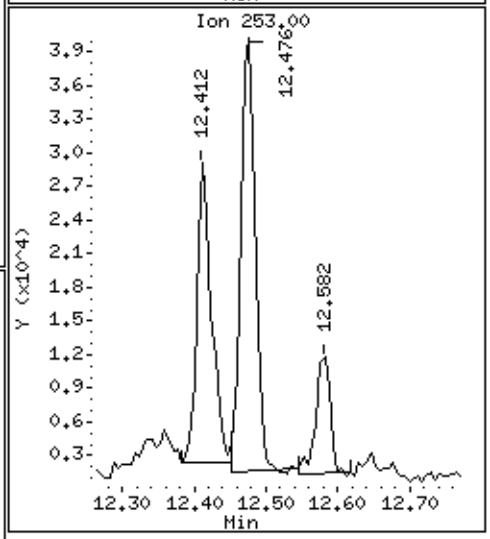












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

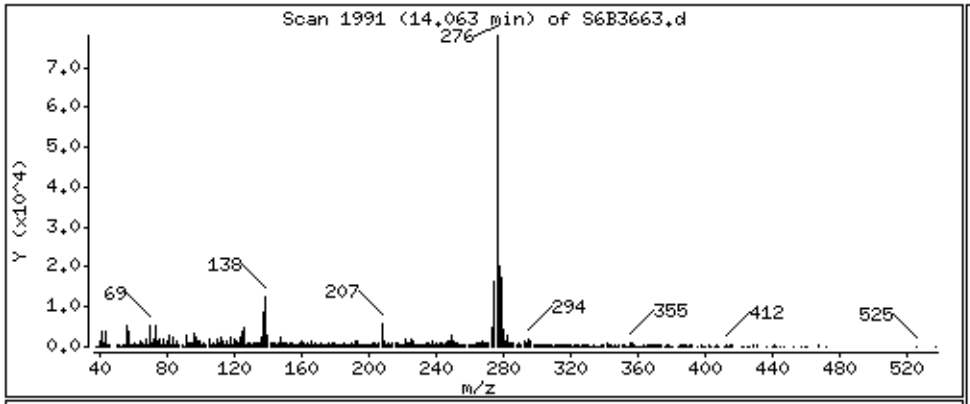
Client ID: DUP1 Instrument: S6.i

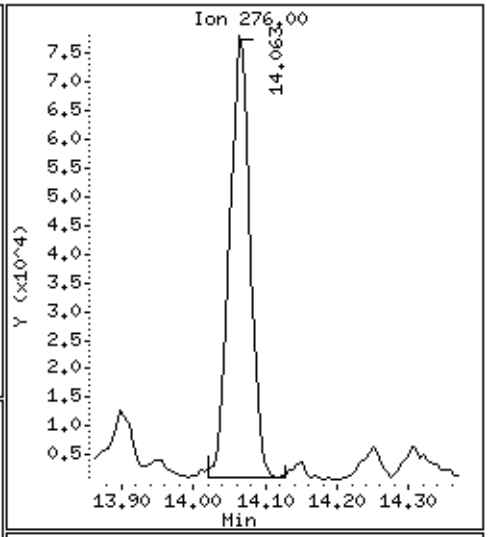
Sample Info: M0619-16A,,71418

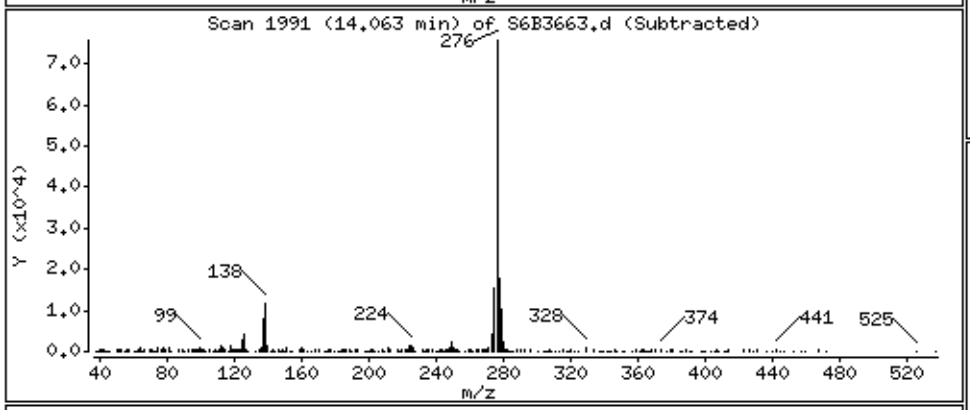
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

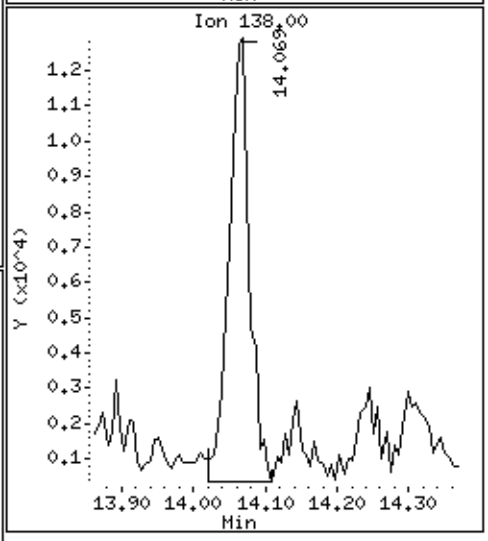
Column phase: Rxi-5Sil MS Column diameter: 0.25

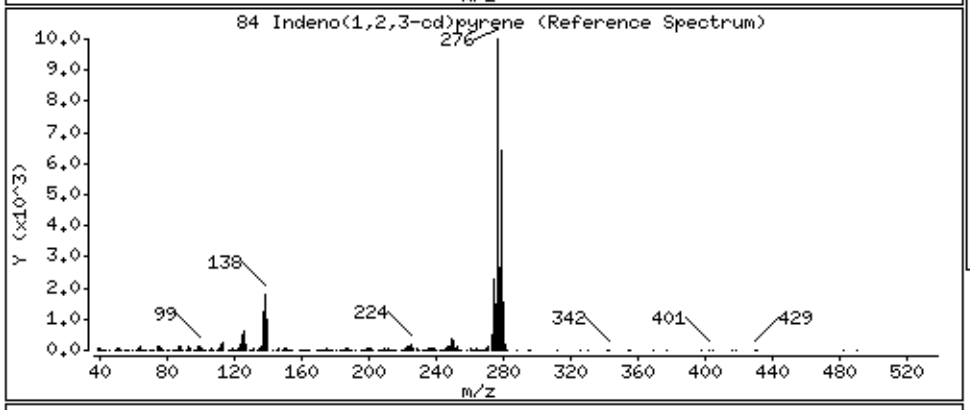
84 Indeno(1,2,3-cd)pyrene Concentration: 250 ug/Kg

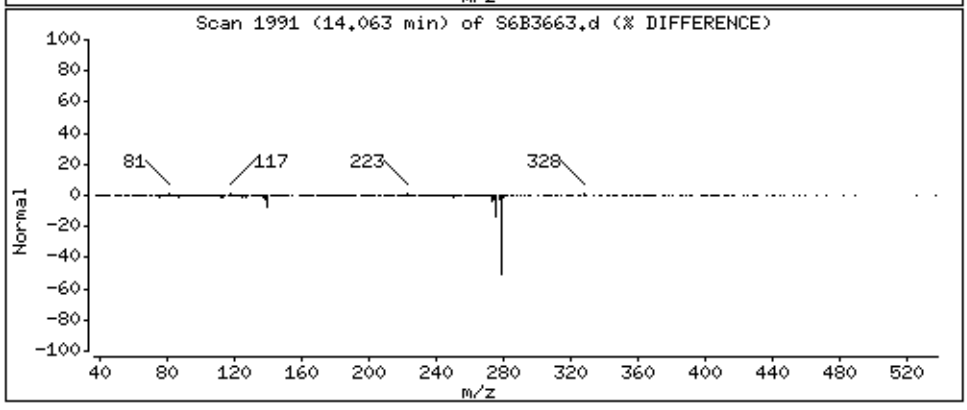












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

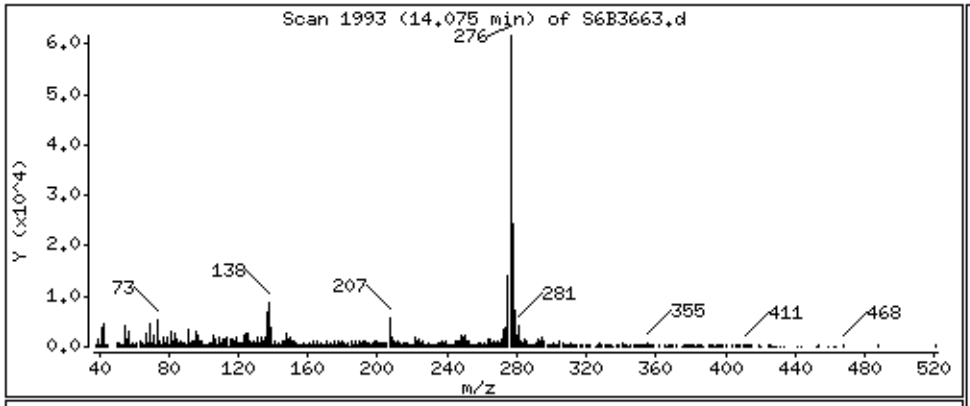
Client ID: DUP1 Instrument: S6.i

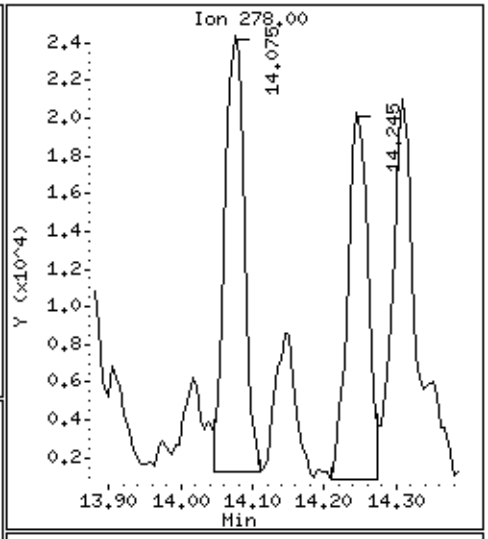
Sample Info: M0619-16A,,71418

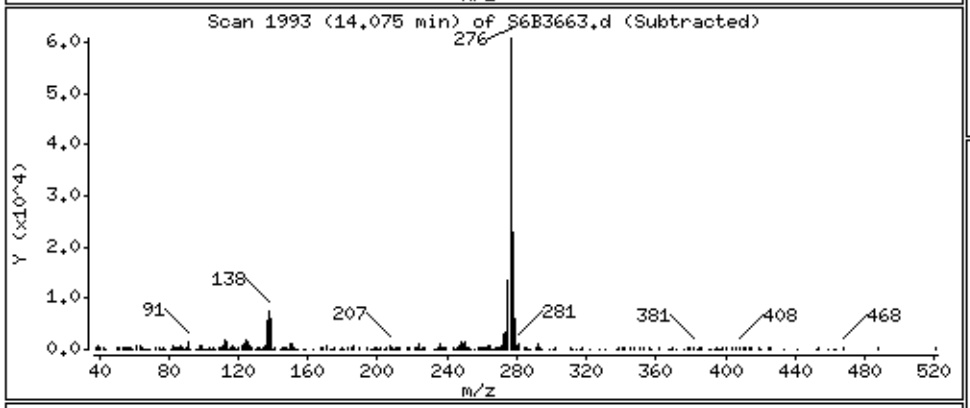
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

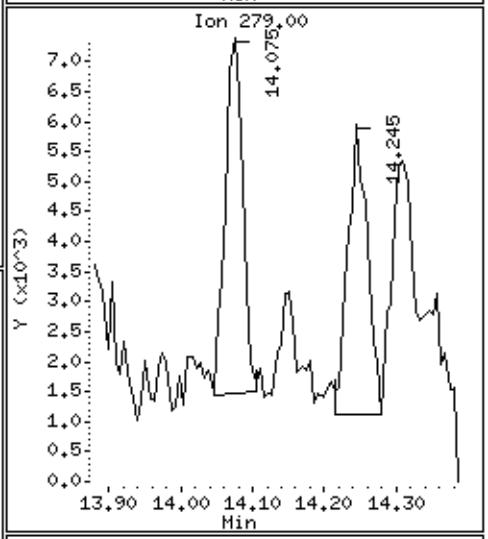
Column phase: Rxi-5Sil MS Column diameter: 0.25

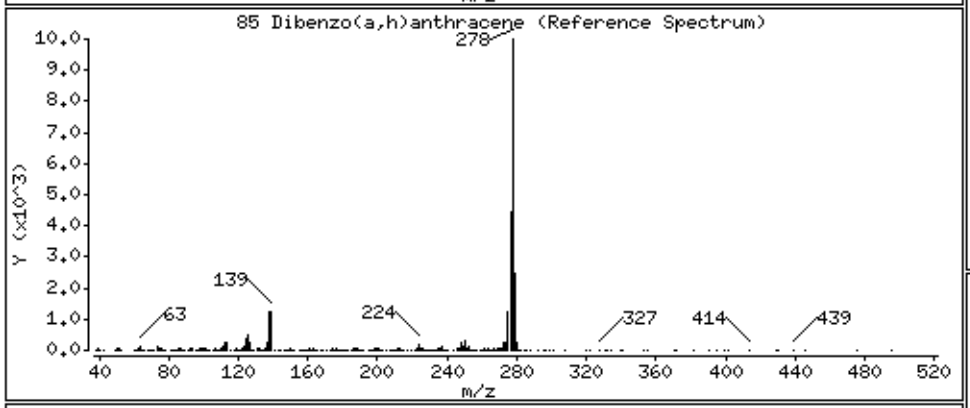
85 Dibenzo(a,h)anthracene Concentration: 86 ug/Kg

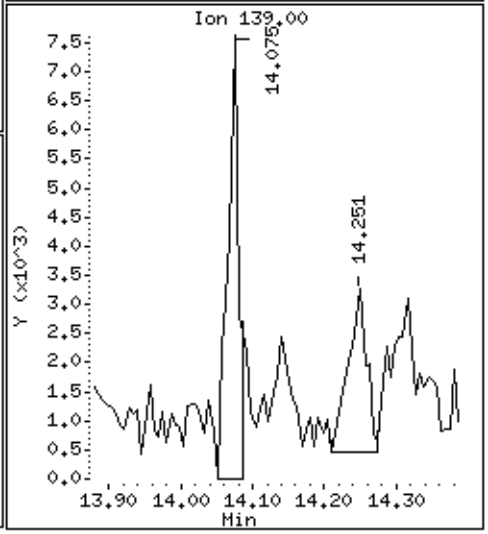


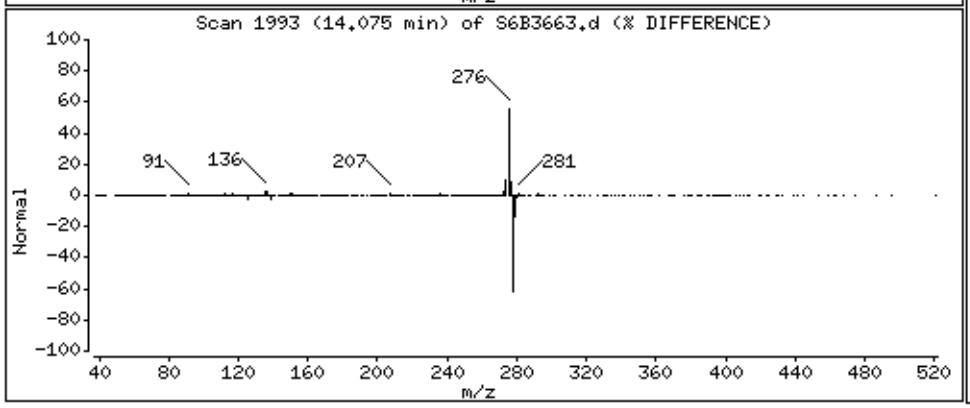












Data File: \\avogadro\organics\S6.I\130506.B\S6B3663.d

Date : 06-MAY-2013 23:39

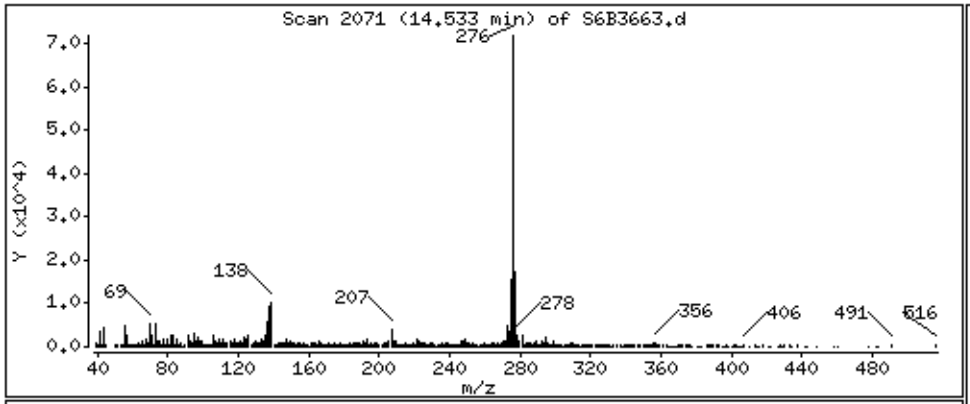
Client ID: DUP1 Instrument: S6.i

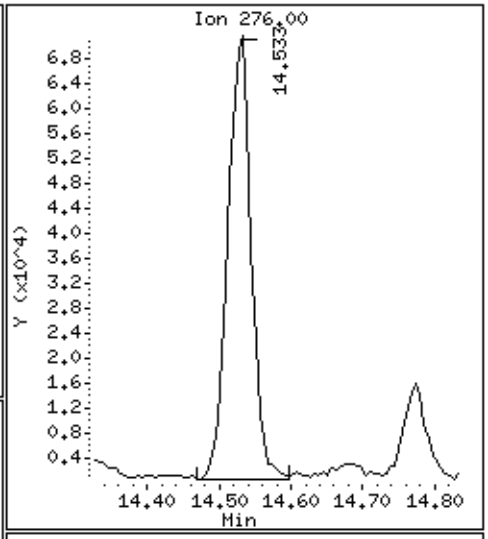
Sample Info: M0619-16A,,71418

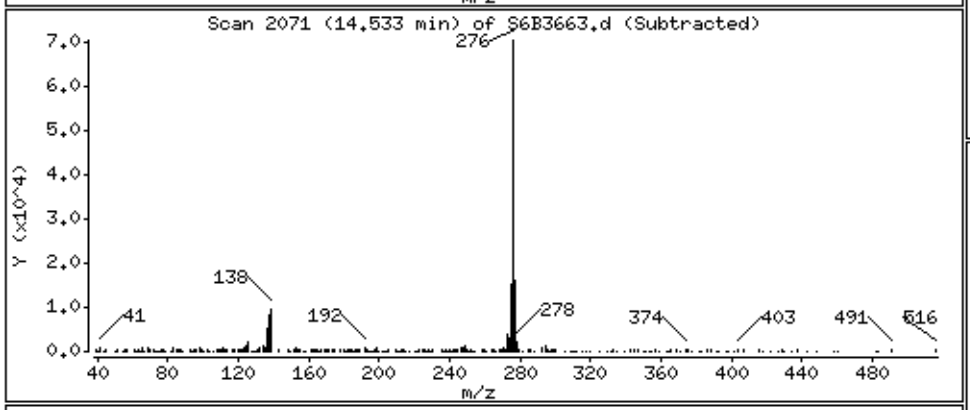
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

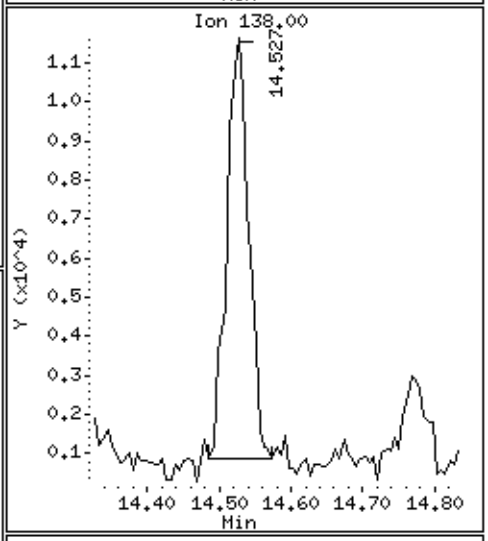
Column phase: Rxi-5Sil MS Column diameter: 0.25

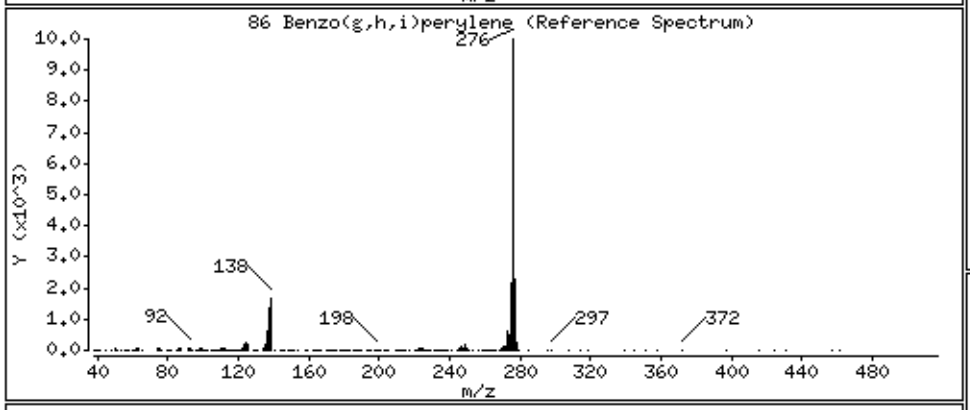
86 Benzo(g,h,i)perylene Concentration: 320 ug/Kg

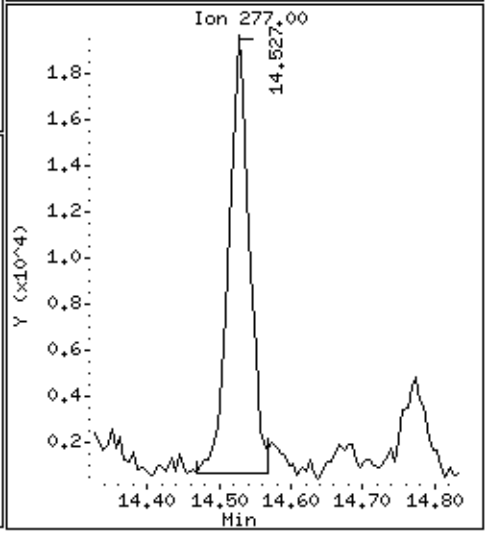


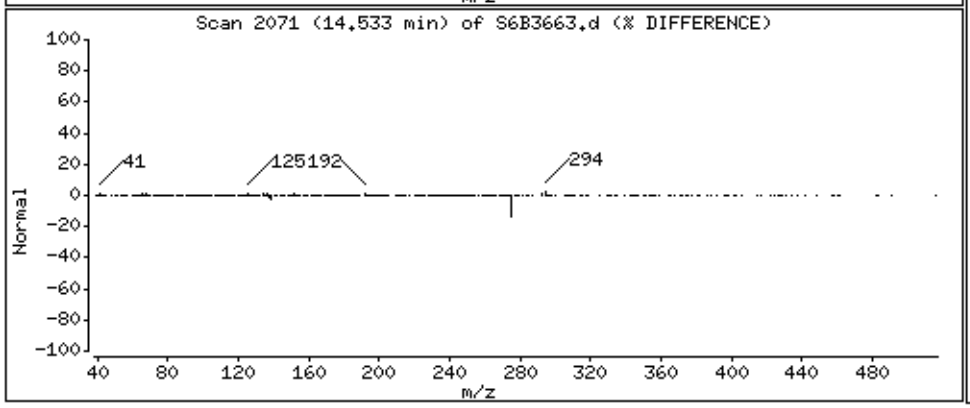












6 - FORM VI SV-3

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M0619 SAS No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date(s): 04/17/2013 04/17/2013

Calibration Times: 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = S6B3263.D RRF010 = S6B3265.D RRF025 = S6B3261A.D RRF040 = S6B3266.D RRF060 = S6B3264.D
RRF080 = S6B3262.D

COMPOUND	RRF005	RRF010	RRF025	RRF040	RRF060	RRF080					RRF	% RSD
Naphthalene	0.933	0.875	0.878	0.865	0.846	0.805					0.867	4.8
2-Methylnaphthalene	0.698	0.676	0.684	0.672	0.646	0.612					0.665	4.6
Acenaphthylene	1.494	1.434	1.519	1.541	1.560	1.563					1.518	3.2
Acenaphthene	1.018	0.959	1.019	1.045	1.075	1.075					1.032	4.2
Fluorene	1.212	1.177	1.243	1.284	1.325	1.333					1.262	4.9
Phenanthrene	0.878	0.841	0.919	0.925	0.963	0.960					0.914	5.2
Anthracene	0.893	0.864	0.943	0.957	0.994	0.990					0.940	5.6
Fluoranthene	1.063	1.034	1.116	1.143	1.174	1.183					1.119	5.4
Pyrene	0.830	0.806	0.842	0.854	0.862	0.824					0.836	2.4
Benzo(a)anthracene	0.905	0.866	0.896	0.925	0.982	0.955					0.922	4.5
Chrysene	0.765	0.738	0.795	0.802	0.793	0.732					0.771	4.0
Benzo(b)fluoranthene	0.923	0.894	0.964	1.019	1.156	1.317					1.046	15.5
Benzo(k)fluoranthene	1.018	0.976	1.047	1.037	0.983	0.819					0.980	8.6
Benzo(a)pyrene	0.891	0.876	0.948	0.943	0.978	0.963					0.933	4.4
Indeno(1,2,3-cd)pyrene	1.113	1.084	1.148	1.179	1.215	1.199					1.157	4.4
Dibenzo(a,h)anthracene	0.915	0.894	0.960	0.990	1.021	0.999					0.963	5.2
Benzo(g,h,i)perylene	0.919	0.883	0.941	0.964	0.976	0.962					0.941	3.7

6 - FORM VI SV-3

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M0619 SAS No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date(s): 04/17/2013 04/17/2013

Calibration Times: 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = S6B3263.D RRF010 = S6B3265.D RRF025 = S6B3261A.D RRF040 = S6B3266.D RRF060 = S6B3264.D
RRF080 = S6B3262.D

COMPOUND	RRF005	RRF010	RRF025	RRF040	RRF060	RRF080					RRF	% RSD
Nitrobenzene-d5	0.360	0.344	0.372	0.374	0.363	0.333					0.357	4.5
2-Fluorobiphenyl	1.150	1.103	1.167	1.172	1.208	1.210					1.168	3.4
Terphenyl-d14	0.578	0.561	0.608	0.617	0.631	0.606					0.600	4.3

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

Data File: \\avogadro\organics\S6.I\130417.B\S6B3261A.d
Report Date: 18-Apr-2013 16:05

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3261A.d
Lab Smp Id: SSTD0256B Client Smp ID: SSTD0256B
Inj Date : 17-APR-2013 13:22
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0256B,SSTD0256B
Misc Info : 2,3
Comment   :
Method   : \\avogadro\organics\S6.I\130417.B\S6_8270C_N.m
Meth Date : 18-Apr-2013 16:04 pkaczorows Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
$	109 1,4-Dioxane-d8	96	2.792	2.792	(0.518)	31164	25.0000	25
	108 1,4-Dioxane	58	2.816	2.816	(0.522)	17950	25.0000	26
	1 N-Nitrosodimethylamine	74	3.110	3.110	(0.576)	75884	25.0000	25
	2 Pyridine	79	3.133	3.133	(0.581)	128044	25.0000	25
$	3 2-Fluorophenol	112	4.296	4.296	(0.796)	122342	25.0000	25
	101 Benzaldehyde	77	5.031	5.031	(0.932)	102664	25.0000	23
$	5 Phenol-d5	99	5.078	5.078	(0.941)	176810	25.0000	25
	6 Phenol	94	5.090	5.090	(0.943)	182541	25.0000	24
	7 Aniline	66	5.090	5.090	(0.943)	106201	25.0000	21
	8 bis(2-Chloroethyl)Ether	63	5.166	5.166	(0.958)	79414	25.0000	24
	10 2-Chlorophenol	128	5.225	5.225	(0.968)	128440	25.0000	24
	11 1,3-Dichlorobenzene	146	5.348	5.348	(0.991)	147004	25.0000	26
*	12 1,4-Dichlorobenzene-d4	152	5.395	5.395	(1.000)	173503	40.0000	
	13 1,4-Dichlorobenzene	146	5.407	5.407	(1.002)	152989	25.0000	25
	117 2-Ethyl-1-hexanol	57	5.436	5.436	(1.008)	98495	25.0000	25
	15 Benzyl Alcohol	108	5.507	5.507	(1.021)	104292	25.0000	25
	16 1,2-Dichlorobenzene	146	5.542	5.542	(1.027)	140114	25.0000	25
	17 2-Methylphenol	108	5.595	5.595	(1.037)	138135	25.0000	25
	18 2,2'-oxybis(1-Chloropropane)	45	5.613	5.613	(1.040)	91049	25.0000	24
	99 Acetophenone	105	5.724	5.724	(1.061)	225388	25.0000	24

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19	N-Nitroso-di-n-propylamine	70	5.724	5.724	(1.061)	114363	25.0000	24
	20	4-Methylphenol	108	5.718	5.718	(1.060)	147488	25.0000	24
	21	Hexachloroethane	117	5.824	5.824	(1.079)	58858	25.0000	25
$	22	Nitrobenzene-d5	82	5.854	5.854	(0.906)	179155	25.0000	26
	23	Nitrobenzene	77	5.871	5.871	(0.909)	184544	25.0000	25
	24	Isophorone	82	6.065	6.065	(0.939)	327231	25.0000	25
	25	2-Nitrophenol	139	6.136	6.136	(0.950)	80359	25.0000	26
	26	2,4-Dimethylphenol	107	6.159	6.159	(0.954)	170434	25.0000	25
	27	bis(2-Chloroethoxy)methane	93	6.235	6.235	(0.965)	175068	25.0000	25
	28	Benzoic Acid	105	6.253	6.253	(0.968)	92365	25.0000	21
	29	2,4-Dichlorophenol	162	6.335	6.335	(0.981)	135619	25.0000	25
	30	1,2,4-Trichlorobenzene	180	6.406	6.406	(0.992)	155499	25.0000	26
*	31	Naphthalene-d8	136	6.459	6.459	(1.000)	771131	40.0000	
	32	Naphthalene	128	6.476	6.476	(1.003)	423105	25.0000	25
	115	alpha-Terpineol	59	6.465	6.465	(1.001)	81364	25.0000	25
	33	4-Chloroaniline	127	6.506	6.506	(1.007)	166373	25.0000	25
	34	Hexachlorobutadiene	225	6.576	6.576	(1.018)	94757	25.0000	26
	102	Caprolactam	113	6.817	6.817	(1.055)	47094	25.0000	24
	35	4-Chloro-3-Methylphenol	107	6.905	6.905	(1.069)	155442	25.0000	25
	36	2-Methylnaphthalene	142	7.046	7.046	(1.091)	329494	25.0000	26
	114	1-Methylnaphthalene	142	7.129	7.129	(1.104)	305321	25.0000	26
	38	Hexachlorocyclopentadiene	237	7.181	7.181	(0.907)	100269	25.0000	26
	112	1,2,4,5-Tetrachlorobenzene	216	7.187	7.187	(0.907)	182056	25.0000	24
	39	2,4,6-Trichlorophenol	196	7.275	7.275	(0.918)	118508	25.0000	25
	40	2,4,5-Trichlorophenol	196	7.311	7.311	(0.923)	123400	25.0000	24
$	41	2-Fluorobiphenyl	172	7.346	7.346	(0.927)	409585	25.0000	25
	98	1,1'-Biphenyl	154	7.428	7.428	(0.938)	449532	25.0000	25
	42	2-Chloronaphthalene	162	7.452	7.452	(0.941)	327874	25.0000	25
	43	2-Nitroaniline	65	7.528	7.528	(0.950)	101343	25.0000	24
	44	Dimethylphthalate	163	7.675	7.675	(0.969)	408756	25.0000	25
	45	2,6-Dinitrotoluene	165	7.728	7.728	(0.976)	98317	25.0000	25
	46	Acenaphthylene	152	7.798	7.798	(0.984)	532855	25.0000	25
	47	3-Nitroaniline	138	7.875	7.875	(0.994)	95294	25.0000	25
*	48	Acenaphthene-d10	164	7.922	7.922	(1.000)	561378	40.0000	
	49	Acenaphthene	153	7.945	7.945	(1.003)	357520	25.0000	25
	50	2,4-Dinitrophenol	184	7.951	7.951	(1.004)	28342	25.0000	19(a)
	51	4-Nitrophenol	109	7.998	7.998	(1.010)	86810	25.0000	24
	53	2,4-Dinitrotoluene	165	8.063	8.063	(1.018)	131014	25.0000	24
	52	Dibenzofuran	168	8.086	8.086	(1.021)	500964	25.0000	25
	110	2,3,4,6-Tetrachlorophenol	232	8.186	8.186	(1.033)	114551	25.0000	24
	54	Diethylphthalate	149	8.251	8.251	(1.042)	432626	25.0000	25
	56	4-Chlorophenyl-phenylether	204	8.362	8.362	(1.056)	230298	25.0000	24
	55	Fluorene	166	8.374	8.374	(1.057)	436096	25.0000	25
	57	4-Nitroaniline	138	8.386	8.386	(1.059)	98297	25.0000	26
	58	4,6-Dinitro-2-methylphenol	198	8.409	8.409	(0.917)	52899	25.0000	21
	59	N-Nitrosodiphenylamine	169	8.456	8.456	(0.922)	378977	25.0000	26
	97	Azobenzene	77	8.492	8.492	(0.926)	502249	25.0000	25
$	60	2,4,6-Tribromophenol	330	8.574	8.574	(0.935)	66116	25.0000	24
	61	4-Bromophenyl-phenylether	248	8.768	8.768	(0.956)	139316	25.0000	25
	62	Hexachlorobenzene	284	8.844	8.844	(0.965)	143382	25.0000	25
	100	Atrazine	200	8.891	8.891	(0.970)	67891	25.0000	26
	63	Pentachlorophenol	266	9.003	9.003	(0.982)	103319	25.0000	24
	111	Pentachloronitrobenzene	237	9.020	9.020	(0.984)	68246	25.0000	24
*	64	Phenanthrene-d10	188	9.167	9.167	(1.000)	1144372	40.0000	

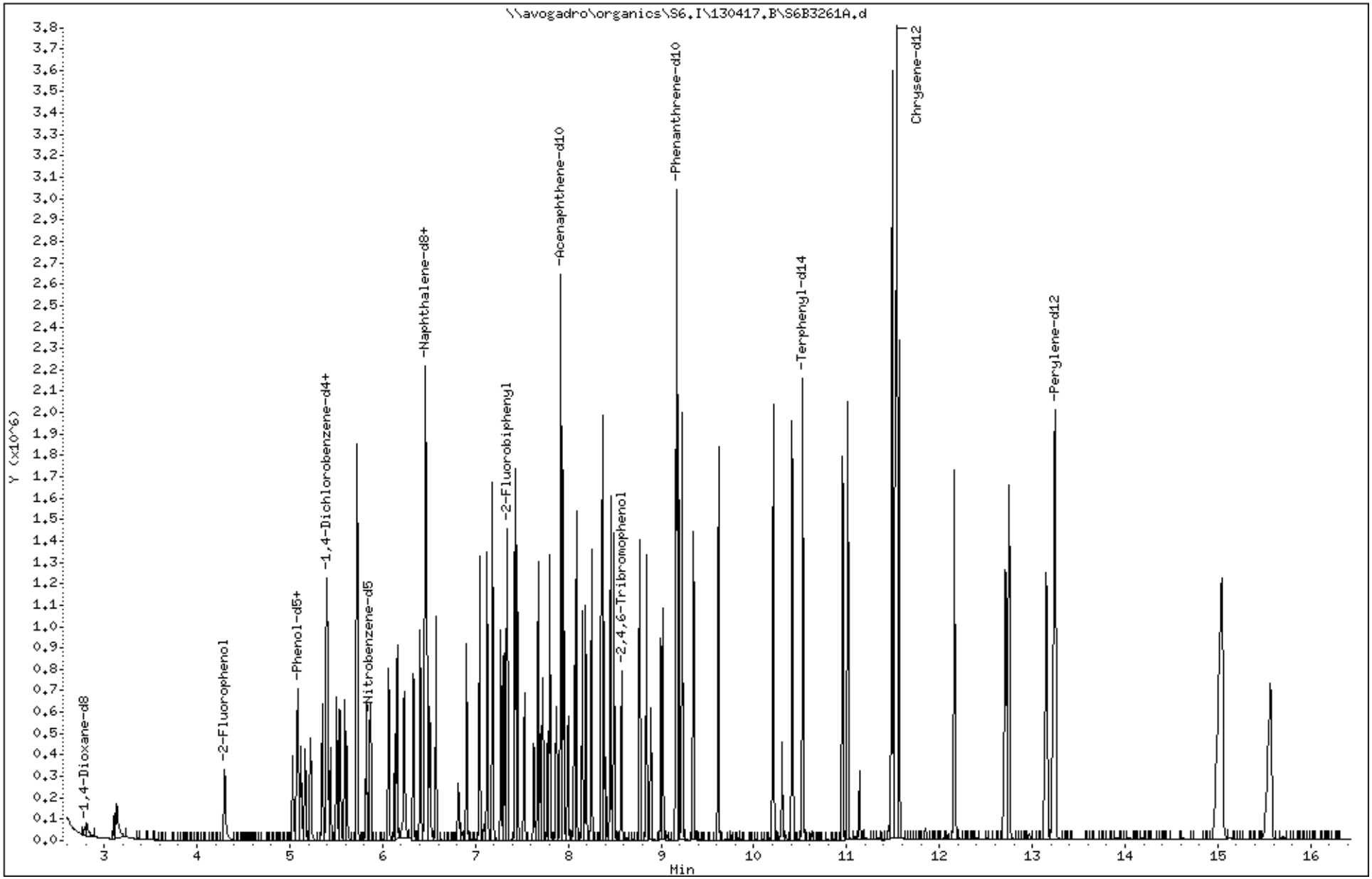
Data File: \\avogadro\organics\S6.I\130417.B\S6B3261A.d
Report Date: 18-Apr-2013 16:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	9.185	9.185	(1.002)	657228	25.0000	25
66	Anthracene	178	9.226	9.226	(1.006)	674442	25.0000	25
67	Carbazole	167	9.349	9.349	(1.020)	509086	25.0000	26
68	Di-n-butylphthalate	149	9.620	9.620	(1.049)	758608	25.0000	25
69	Fluoranthene	202	10.207	10.207	(1.113)	798393	25.0000	25
70	Benzidine	184	10.301	10.301	(0.893)	158872	25.0000	27
71	Pyrene	202	10.413	10.413	(0.902)	809988	25.0000	25
$ 72	Terphenyl-d14	244	10.530	10.530	(0.912)	584471	25.0000	25
73	Butylbenzylphthalate	149	10.954	10.954	(0.949)	354995	25.0000	25
74	3,3'-Dichlorobenzidine	252	11.488	11.488	(0.995)	293739	25.0000	25
78	bis(2-Ethylhexyl)phthalate	149	11.488	11.488	(0.995)	553471	25.0000	25
75	Benzo(a)anthracene	228	11.523	11.523	(0.998)	862060	25.0000	24
* 76	Chrysene-d12	240	11.541	11.541	(1.000)	1538681	40.0000	
77	Chrysene	228	11.565	11.565	(1.002)	764844	25.0000	26
79	Di-n-octylphthalate	149	12.158	12.158	(0.918)	901103	25.0000	25
80	Benzo(b)fluoranthene	252	12.716	12.716	(0.960)	838191	25.0000	23
81	Benzo(k)fluoranthene	252	12.751	12.751	(0.963)	909639	25.0000	27
82	Benzo(a)pyrene	252	13.151	13.151	(0.993)	823655	25.0000	25
* 83	Perylene-d12	264	13.245	13.245	(1.000)	1390495	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	15.014	15.014	(1.134)	998020	25.0000	25
85	Dibenzo(a,h)anthracene	278	15.043	15.043	(1.136)	834275	25.0000	25
86	Benzo(g,h,i)perylene	276	15.566	15.566	(1.175)	817400	25.0000	25

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\S6.I\130417.B\S6B3261A.d
Date : 17-APR-2013 13:22
Client ID: SSTD0256B
Instrument: S6.i
Sample Info: SSTD0256B,SSTD0256B
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130417.B\S6B3262.d
Report Date: 18-Apr-2013 16:05

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3262.d
Lab Smp Id: SSTD0806B Client Smp ID: SSTD0806B
Inj Date : 17-APR-2013 13:44
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0806B,SSTD0806B
Misc Info : 1,6
Comment   :
Method   : \\avogadro\organics\S6.I\130417.B\S6_8270C_N.m
Meth Date : 18-Apr-2013 16:04 pkaczorows Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 2 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	2.798	2.792	(0.518)	99470	80.0000	81
	108	1,4-Dioxane	58	2.822	2.816	(0.522)	51427	80.0000	76(Q)
	1	N-Nitrosodimethylamine	74	3.121	3.110	(0.578)	235829	80.0000	80
	2	Pyridine	79	3.139	3.133	(0.581)	406813	80.0000	79
$	3	2-Fluorophenol	112	4.308	4.296	(0.798)	395864	80.0000	82
	101	Benzaldehyde	77	5.031	5.031	(0.931)	215079	80.0000	49
$	5	Phenol-d5	99	5.101	5.078	(0.945)	574354	80.0000	81
	6	Phenol	94	5.113	5.090	(0.947)	636979	80.0000	85(AQ)
	7	Aniline	66	5.113	5.090	(0.947)	606066	80.0000	120(AQ)
	8	bis(2-Chloroethyl)Ether	63	5.178	5.166	(0.959)	255129	80.0000	79
	10	2-Chlorophenol	128	5.231	5.225	(0.968)	415711	80.0000	80(A)
	11	1,3-Dichlorobenzene	146	5.354	5.348	(0.991)	448049	80.0000	79
*	12	1,4-Dichlorobenzene-d4	152	5.401	5.395	(1.000)	170962	40.0000	
	13	1,4-Dichlorobenzene	146	5.413	5.407	(1.002)	459616	80.0000	78
	117	2-Ethyl-1-hexanol	57	5.448	5.436	(1.009)	304753	80.0000	78
	15	Benzyl Alcohol	108	5.519	5.507	(1.022)	329932	80.0000	81(A)
	16	1,2-Dichlorobenzene	146	5.542	5.542	(1.026)	444394	80.0000	80(A)
	17	2-Methylphenol	108	5.607	5.595	(1.038)	434894	80.0000	81(A)
	18	2,2'-oxybis(1-Chloropropane)	45	5.618	5.613	(1.040)	280586	80.0000	77
	99	Acetophenone	105	5.742	5.724	(1.063)	774202	80.0000	84(A)

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19	N-Nitroso-di-n-propylamine	70	5.742	5.724	(1.063)	382361	80.0000	81(A)
	20	4-Methylphenol	108	5.736	5.718	(1.062)	495658	80.0000	83(A)
	21	Hexachloroethane	117	5.824	5.824	(1.078)	184694	80.0000	80(A)
$	22	Nitrobenzene-d5	82	5.865	5.854	(0.908)	581722	80.0000	74
	23	Nitrobenzene	77	5.883	5.871	(0.911)	597098	80.0000	72
	24	Isophorone	82	6.083	6.065	(0.942)	1032841	80.0000	71
	25	2-Nitrophenol	139	6.141	6.136	(0.951)	259154	80.0000	74(Q)
	26	2,4-Dimethylphenol	107	6.171	6.159	(0.955)	556035	80.0000	73
	27	bis(2-Chloroethoxy)methane	93	6.241	6.235	(0.966)	555206	80.0000	71
	28	Benzoic Acid	105	6.329	6.253	(0.980)	408369	80.0000	84(A)
	29	2,4-Dichlorophenol	162	6.347	6.335	(0.983)	449224	80.0000	74
	30	1,2,4-Trichlorobenzene	180	6.412	6.406	(0.993)	502103	80.0000	74
*	31	Naphthalene-d8	136	6.459	6.459	(1.000)	874178	40.0000	
	32	Naphthalene	128	6.482	6.476	(1.004)	1407808	80.0000	74
	115	alpha-Terpineol	59	6.476	6.465	(1.003)	275625	80.0000	75
	33	4-Chloroaniline	127	6.517	6.506	(1.009)	555175	80.0000	72
	34	Hexachlorobutadiene	225	6.576	6.576	(1.018)	309962	80.0000	75
	102	Caprolactam	113	6.870	6.817	(1.064)	137260	80.0000	62
	35	4-Chloro-3-Methylphenol	107	6.917	6.905	(1.071)	508980	80.0000	73
	36	2-Methylnaphthalene	142	7.046	7.046	(1.091)	1069880	80.0000	74
	114	1-Methylnaphthalene	142	7.134	7.129	(1.105)	987716	80.0000	73
	38	Hexachlorocyclopentadiene	237	7.187	7.181	(0.907)	348213	80.0000	90(A)
	112	1,2,4,5-Tetrachlorobenzene	216	7.193	7.187	(0.908)	630299	80.0000	85(A)
	39	2,4,6-Trichlorophenol	196	7.281	7.275	(0.919)	399258	80.0000	85(A)
	40	2,4,5-Trichlorophenol	196	7.322	7.311	(0.924)	406939	80.0000	81(A)
$	41	2-Fluorobiphenyl	172	7.346	7.346	(0.927)	1353971	80.0000	83
	98	1,1'-Biphenyl	154	7.434	7.428	(0.938)	1499249	80.0000	84(A)
	42	2-Chloronaphthalene	162	7.458	7.452	(0.941)	1082850	80.0000	83(A)
	43	2-Nitroaniline	65	7.540	7.528	(0.952)	343082	80.0000	80(A)
	44	Dimethylphthalate	163	7.693	7.675	(0.971)	1305636	80.0000	81(A)
	45	2,6-Dinitrotoluene	165	7.740	7.728	(0.977)	322612	80.0000	82(A)
	46	Acenaphthylene	152	7.810	7.798	(0.986)	1748282	80.0000	82(A)
	47	3-Nitroaniline	138	7.892	7.875	(0.996)	303314	80.0000	79
*	48	Acenaphthene-d10	164	7.922	7.922	(1.000)	559441	40.0000	
	49	Acenaphthene	153	7.957	7.945	(1.004)	1202616	80.0000	83(A)
	50	2,4-Dinitrophenol	184	7.969	7.951	(1.006)	151926	80.0000	100(AQH)
	51	4-Nitrophenol	109	8.022	7.998	(1.013)	291942	80.0000	82(A)
	53	2,4-Dinitrotoluene	165	8.080	8.063	(1.020)	457213	80.0000	86(A)
	52	Dibenzofuran	168	8.092	8.086	(1.022)	1687490	80.0000	84(A)
	110	2,3,4,6-Tetrachlorophenol	232	8.198	8.186	(1.035)	404078	80.0000	87(A)
	54	Diethylphthalate	149	8.268	8.251	(1.044)	1435152	80.0000	82(A)
	56	4-Chlorophenyl-phenylether	204	8.368	8.362	(1.056)	806741	80.0000	86(A)
	55	Fluorene	166	8.380	8.374	(1.058)	1491274	80.0000	84(A)
	57	4-Nitroaniline	138	8.415	8.386	(1.062)	277421	80.0000	73
	58	4,6-Dinitro-2-methylphenol	198	8.427	8.409	(0.919)	245224	80.0000	95(A)
	59	N-Nitrosodiphenylamine	169	8.474	8.456	(0.924)	1236471	80.0000	82(A)
	97	Azobenzene	77	8.503	8.492	(0.928)	1732183	80.0000	84(A)
$	60	2,4,6-Tribromophenol	330	8.586	8.574	(0.937)	242671	80.0000	88
	61	4-Bromophenyl-phenylether	248	8.774	8.768	(0.957)	486847	80.0000	85(A)
	62	Hexachlorobenzene	284	8.850	8.844	(0.965)	504644	80.0000	85(A)
	100	Atrazine	200	8.903	8.891	(0.971)	203188	80.0000	76
	63	Pentachlorophenol	266	9.009	9.003	(0.983)	391742	80.0000	88(A)
	111	Pentachloronitrobenzene	237	9.026	9.020	(0.985)	243655	80.0000	86(A)
*	64	Phenanthrene-d10	188	9.167	9.167	(1.000)	1170290	40.0000	

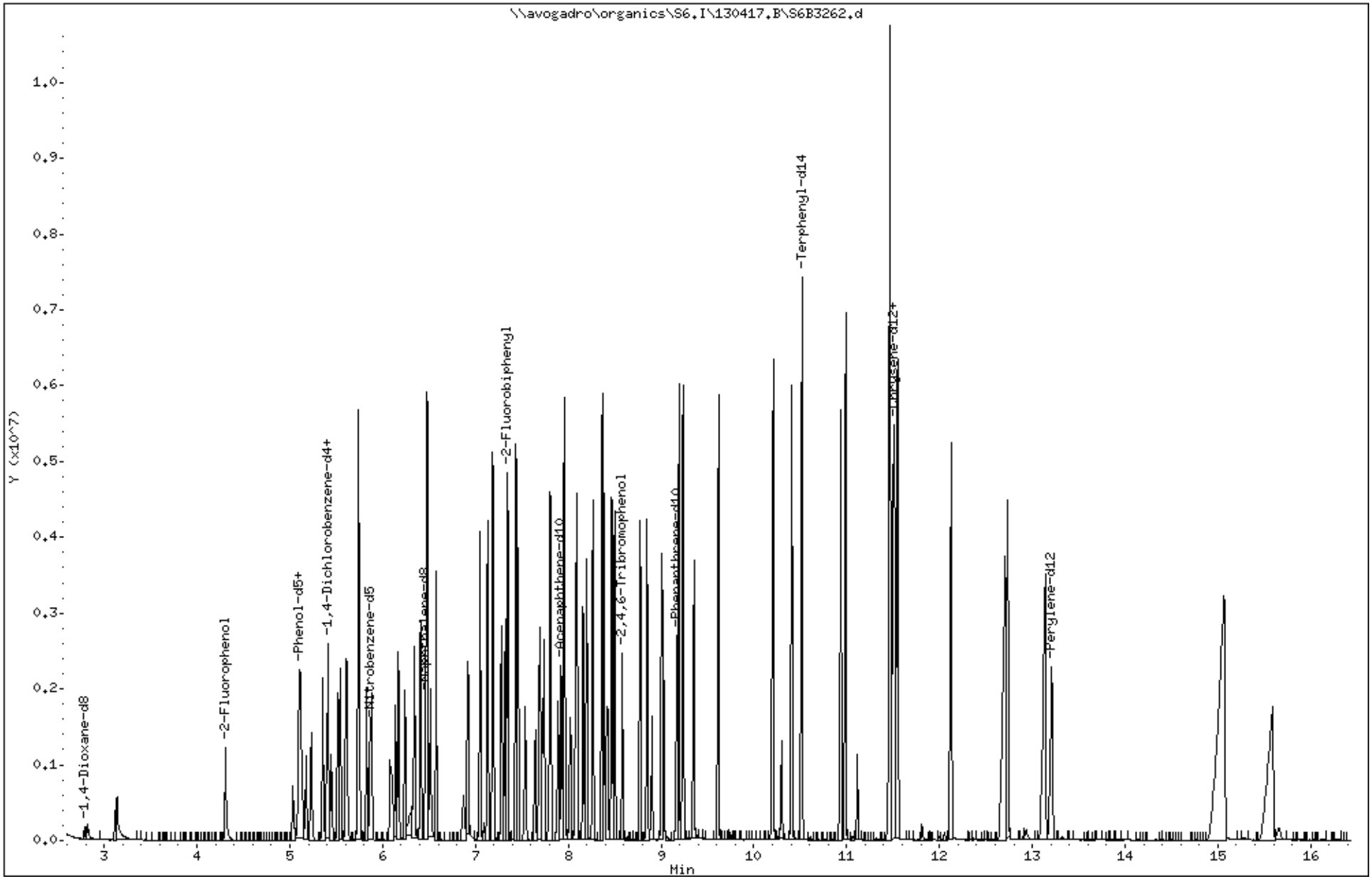
Data File: \\avogadro\organics\S6.I\130417.B\S6B3262.d
Report Date: 18-Apr-2013 16:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	9.191	9.185	(1.003)	2247048	80.0000	84(A)
66	Anthracene	178	9.238	9.226	(1.008)	2317370	80.0000	84(A)
67	Carbazole	167	9.355	9.349	(1.021)	1441809	80.0000	71
68	Di-n-butylphthalate	149	9.620	9.620	(1.049)	2566051	80.0000	82(A)
69	Fluoranthene	202	10.207	10.207	(1.113)	2768675	80.0000	84(A)
70	Benzidine	184	10.295	10.301	(0.894)	510937	80.0000	78
71	Pyrene	202	10.413	10.413	(0.904)	2818965	80.0000	79
$ 72	Terphenyl-d14	244	10.519	10.530	(0.913)	2074376	80.0000	81
73	Butylbenzylphthalate	149	10.936	10.954	(0.949)	1250849	80.0000	80
74	3,3'-Dichlorobenzidine	252	11.471	11.488	(0.996)	1045221	80.0000	80(A)
78	bis(2-Ethylhexyl)phthalate	149	11.465	11.488	(0.995)	2071109	80.0000	84(A)
75	Benzo(a)anthracene	228	11.506	11.523	(0.999)	3266844	80.0000	83(A)
* 76	Chrysene-d12	240	11.518	11.541	(1.000)	1710372	40.0000	
77	Chrysene	228	11.553	11.565	(1.003)	2503458	80.0000	76
79	Di-n-octylphthalate	149	12.129	12.158	(0.918)	3148071	80.0000	82(A)
80	Benzo(b)fluoranthene	252	12.710	12.716	(0.962)	3963383	80.0000	100(A)
81	Benzo(k)fluoranthene	252	12.740	12.751	(0.964)	2464230	80.0000	67(H)
82	Benzo(a)pyrene	252	13.139	13.151	(0.995)	2898311	80.0000	82(A)
* 83	Perylene-d12	264	13.210	13.245	(1.000)	1504978	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	15.066	15.014	(1.141)	3609946	80.0000	83(A)
85	Dibenzo(a,h)anthracene	278	15.072	15.043	(1.141)	3006396	80.0000	83(A)
86	Benzo(g,h,i)perylene	276	15.589	15.566	(1.180)	2894314	80.0000	82(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130417.B\S6B3262.d
Date : 17-APR-2013 13:44
Client ID: SSTD0806B
Instrument: S6.i
Sample Info: SSTD0806B,SSTD0806B
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130417.B\S6B3263.d
Report Date: 18-Apr-2013 16:05

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3263.d
Lab Smp Id: SSTD0056B Client Smp ID: SSTD0056B
Inj Date : 17-APR-2013 14:06
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0056B,SSTD0056B
Misc Info : 1,1
Comment   :
Method   : \\avogadro\organics\S6.I\130417.B\S6_8270C_N.m
Meth Date : 18-Apr-2013 16:04 pkaczorows Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
$	109	1,4-Dioxane-d8	96	2.798	2.792	(0.519)	6209	5.00000	5(a)
	108	1,4-Dioxane	58	2.822	2.816	(0.523)	3342	5.00000	5(a)
	1	N-Nitrosodimethylamine	74	3.115	3.110	(0.577)	14471	5.00000	5(a)
	2	Pyridine	79	3.145	3.133	(0.583)	23881	5.00000	4(a)
$	3	2-Fluorophenol	112	4.296	4.296	(0.796)	23181	5.00000	5(a)
	101	Benzaldehyde	77	5.031	5.031	(0.932)	25865	5.00000	6(a)
$	5	Phenol-d5	99	5.072	5.078	(0.940)	34959	5.00000	5(a)
	6	Phenol	94	5.084	5.090	(0.942)	35305	5.00000	5(a)
	7	Aniline	66	5.084	5.090	(0.942)	19874	5.00000	4(a)
	8	bis(2-Chloroethyl)Ether	63	5.160	5.166	(0.956)	17683	5.00000	5(a)
	10	2-Chlorophenol	128	5.219	5.225	(0.967)	25615	5.00000	5(a)
	11	1,3-Dichlorobenzene	146	5.348	5.348	(0.991)	28540	5.00000	5(a)
*	12	1,4-Dichlorobenzene-d4	152	5.395	5.395	(1.000)	175238	40.0000	
	13	1,4-Dichlorobenzene	146	5.407	5.407	(1.002)	30551	5.00000	5(a)
	117	2-Ethyl-1-hexanol	57	5.430	5.436	(1.007)	20242	5.00000	5(a)
	15	Benzyl Alcohol	108	5.501	5.507	(1.020)	19121	5.00000	4(a)
	16	1,2-Dichlorobenzene	146	5.536	5.542	(1.026)	28156	5.00000	5(a)
	17	2-Methylphenol	108	5.583	5.595	(1.035)	26066	5.00000	5(a)
	18	2,2'-oxybis(1-Chloropropane)	45	5.607	5.613	(1.039)	18908	5.00000	5(a)
	99	Acetophenone	105	5.718	5.724	(1.060)	44136	5.00000	5(a)

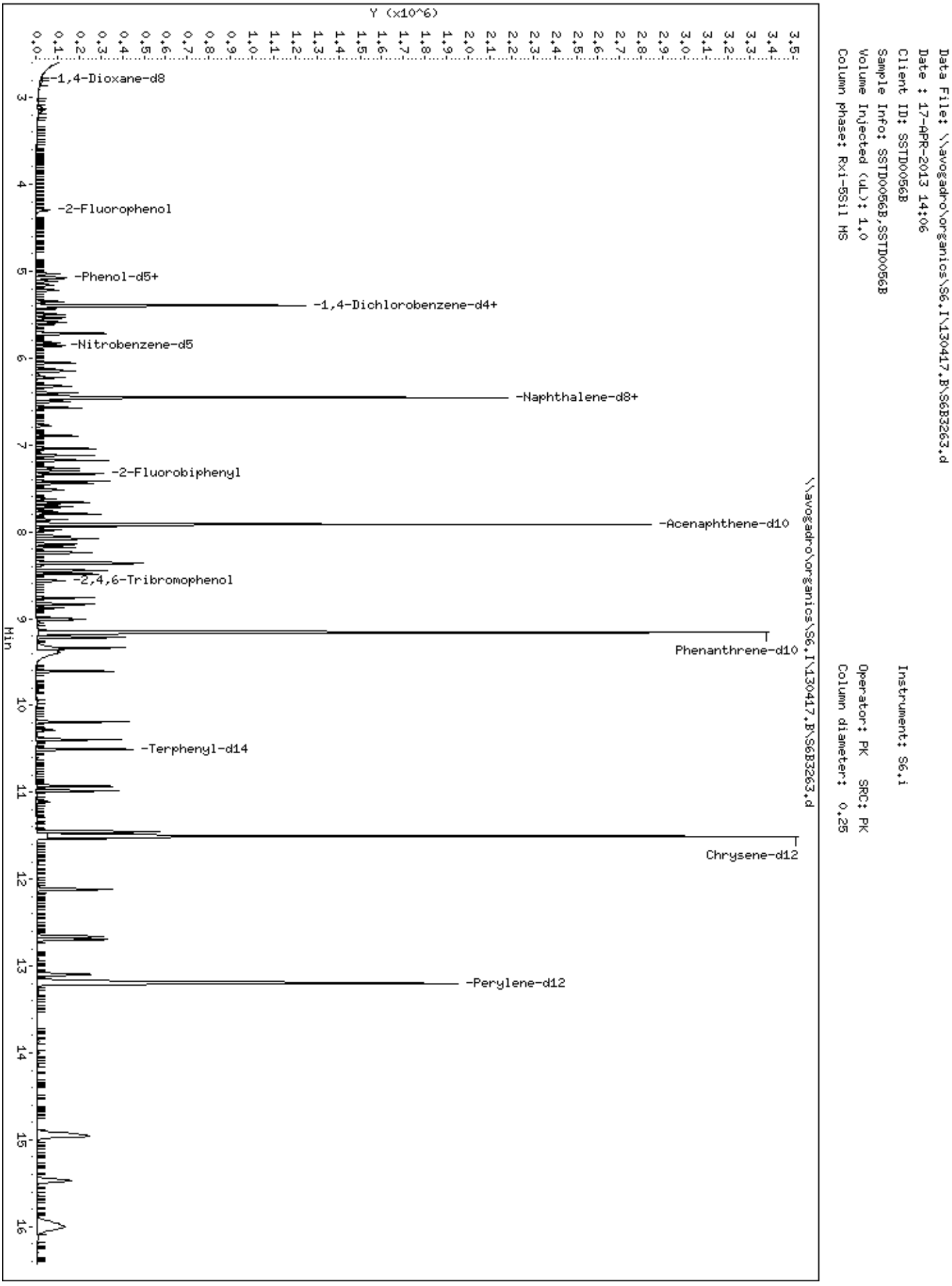
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	5.718	5.724	(1.060)	22227	5.00000	4(a)
	20 4-Methylphenol	108	5.712	5.718	(1.059)	29323	5.00000	5(a)
	21 Hexachloroethane	117	5.824	5.824	(1.079)	11146	5.00000	5(a)
$	22 Nitrobenzene-d5	82	5.848	5.854	(0.906)	33187	5.00000	5(a)
	23 Nitrobenzene	77	5.865	5.871	(0.909)	35912	5.00000	5(a)
	24 Isophorone	82	6.059	6.065	(0.939)	67002	5.00000	5(a)
	25 2-Nitrophenol	139	6.130	6.136	(0.950)	14989	5.00000	5(a)
	26 2,4-Dimethylphenol	107	6.147	6.159	(0.953)	33681	5.00000	5(a)
	27 bis(2-Chloroethoxy)methane	93	6.224	6.235	(0.964)	36208	5.00000	5(a)
	28 Benzoic Acid	105	6.218	6.253	(0.964)	8341	5.00000	2(a)
	29 2,4-Dichlorophenol	162	6.323	6.335	(0.980)	27844	5.00000	5(a)
	30 1,2,4-Trichlorobenzene	180	6.400	6.406	(0.992)	29659	5.00000	5(a)
*	31 Naphthalene-d8	136	6.453	6.459	(1.000)	738008	40.0000	
	32 Naphthalene	128	6.470	6.476	(1.003)	86103	5.00000	5(a)
	115 alpha-Terpineol	59	6.459	6.465	(1.001)	16550	5.00000	5(a)
	33 4-Chloroaniline	127	6.500	6.506	(1.007)	35218	5.00000	5(a)
	34 Hexachlorobutadiene	225	6.570	6.576	(1.018)	17678	5.00000	5(a)
	102 Caprolactam	113	6.782	6.817	(1.051)	11529	5.00000	6(a)
	35 4-Chloro-3-Methylphenol	107	6.893	6.905	(1.068)	30701	5.00000	5(a)
	36 2-Methylnaphthalene	142	7.040	7.046	(1.091)	64364	5.00000	5(a)
	114 1-Methylnaphthalene	142	7.123	7.129	(1.104)	60405	5.00000	5(a)
	38 Hexachlorocyclopentadiene	237	7.175	7.181	(0.906)	16257	5.00000	4(a)
	112 1,2,4,5-Tetrachlorobenzene	216	7.181	7.187	(0.907)	37194	5.00000	5(a)
	39 2,4,6-Trichlorophenol	196	7.269	7.275	(0.918)	22036	5.00000	5(a)
	40 2,4,5-Trichlorophenol	196	7.299	7.311	(0.922)	25432	5.00000	5(a)
$	41 2-Fluorobiphenyl	172	7.334	7.346	(0.927)	81667	5.00000	5(a)
	98 1,1'-Biphenyl	154	7.422	7.428	(0.938)	89143	5.00000	5(a)
	42 2-Chloronaphthalene	162	7.446	7.452	(0.941)	64762	5.00000	5(a)
	43 2-Nitroaniline	65	7.516	7.528	(0.950)	19655	5.00000	4(a)
	44 Dimethylphthalate	163	7.663	7.675	(0.968)	81076	5.00000	5(a)
	45 2,6-Dinitrotoluene	165	7.716	7.728	(0.975)	19520	5.00000	5(a)
	46 Acenaphthylene	152	7.792	7.798	(0.984)	106079	5.00000	5(a)
	47 3-Nitroaniline	138	7.857	7.875	(0.993)	20382	5.00000	5(a)
*	48 Acenaphthene-d10	164	7.916	7.922	(1.000)	568214	40.0000	
	49 Acenaphthene	153	7.939	7.945	(1.003)	72307	5.00000	5(a)
	50 2,4-Dinitrophenol	184	7.939	7.951	(1.003)	1529	5.00000	1(aQ)
	51 4-Nitrophenol	109	7.980	7.998	(1.008)	16064	5.00000	4(a)
	53 2,4-Dinitrotoluene	165	8.051	8.063	(1.017)	24598	5.00000	4(aQ)
	52 Dibenzofuran	168	8.080	8.086	(1.021)	100144	5.00000	5(a)
	110 2,3,4,6-Tetrachlorophenol	232	8.180	8.186	(1.033)	22386	5.00000	5
	54 Diethylphthalate	149	8.245	8.251	(1.042)	85882	5.00000	5(a)
	56 4-Chlorophenyl-phenylether	204	8.351	8.362	(1.055)	47151	5.00000	5(a)
	55 Fluorene	166	8.362	8.374	(1.056)	86079	5.00000	5(a)
	57 4-Nitroaniline	138	8.368	8.386	(1.057)	21056	5.00000	5(a)
	58 4,6-Dinitro-2-methylphenol	198	8.392	8.409	(0.917)	4532	5.00000	2(aQ)
	59 N-Nitrosodiphenylamine	169	8.445	8.456	(0.922)	73511	5.00000	5(a)
	97 Azobenzene	77	8.486	8.492	(0.927)	103997	5.00000	5(a)
$	60 2,4,6-Tribromophenol	330	8.568	8.574	(0.936)	12882	5.00000	4(a)
	61 4-Bromophenyl-phenylether	248	8.762	8.768	(0.957)	27717	5.00000	5(a)
	62 Hexachlorobenzene	284	8.832	8.844	(0.965)	27753	5.00000	5(a)
	100 Atrazine	200	8.879	8.891	(0.970)	14100	5.00000	5(a)
	63 Pentachlorophenol	266	8.991	9.003	(0.982)	17697	5.00000	4(TaQ)
	111 Pentachloronitrobenzene	237	9.009	9.020	(0.984)	13340	5.00000	5(a)
*	64 Phenanthrene-d10	188	9.156	9.167	(1.000)	1186924	40.0000	

Data File: \\avogadro\organics\S6.I\130417.B\S6B3263.d
Report Date: 18-Apr-2013 16:05

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	65	Phenanthrene	178	9.173	9.185	(1.002)	130218	5.00000	5(a)
	66	Anthracene	178	9.214	9.226	(1.006)	132435	5.00000	5(a)
	67	Carbazole	167	9.338	9.349	(1.020)	125576	5.00000	6(a)
	68	Di-n-butylphthalate	149	9.608	9.620	(1.049)	153814	5.00000	5(a)
	69	Fluoranthene	202	10.190	10.207	(1.113)	157736	5.00000	5(a)
	70	Benzidine	184	10.284	10.301	(0.894)	29967	5.00000	5(a)
	71	Pyrene	202	10.389	10.413	(0.903)	161676	5.00000	5(a)
$	72	Terphenyl-d14	244	10.507	10.530	(0.913)	112577	5.00000	5(a)
	73	Butylbenzylphthalate	149	10.930	10.954	(0.950)	68721	5.00000	5(a)
	74	3,3'-Dichlorobenzidine	252	11.447	11.488	(0.995)	58169	5.00000	5(a)
	78	bis(2-Ethylhexyl)phthalate	149	11.453	11.488	(0.995)	102098	5.00000	4(a)
	75	Benzo(a)anthracene	228	11.488	11.523	(0.998)	176276	5.00000	5(a)
*	76	Chrysene-d12	240	11.506	11.541	(1.000)	1557884	40.0000	
	77	Chrysene	228	11.529	11.565	(1.002)	148986	5.00000	5(a)
	79	Di-n-octylphthalate	149	12.117	12.158	(0.918)	174351	5.00000	5(a)
	80	Benzo(b)fluoranthene	252	12.663	12.716	(0.959)	163658	5.00000	4(a)
	81	Benzo(k)fluoranthene	252	12.693	12.751	(0.961)	180537	5.00000	5(a)
	82	Benzo(a)pyrene	252	13.098	13.151	(0.992)	157940	5.00000	5(a)
*	83	Perylene-d12	264	13.204	13.245	(1.000)	1418376	40.0000	
	84	Indeno(1,2,3-cd)pyrene	276	14.937	15.014	(1.131)	197402	5.00000	5(a)
	85	Dibenzo(a,h)anthracene	278	14.961	15.043	(1.133)	162202	5.00000	5(a)
	86	Benzo(g,h,i)perylene	276	15.472	15.566	(1.172)	162852	5.00000	5(a)

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.


Data File: \\avogadro\organics\S6.i\130417.B\S6B3263.d
Date : 17-APR-2013 14:06
Client ID: SSTD0056B
Sample Info: SSTD0056B,SSTD0056B
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S6.i
Operator: PK SRC: PK
Column diameter: 0.25
Y (x10^6)
Min
\\avogadro\organics\S6.i\130417.B\S6B3263.d
-1,4-Dioxane-d8
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4+
-Nitrobenzene-d5
-Naphthalene-d8+
-2-Fluorobiphenyl
-Acenaphthene-d10
-2,4,6-Tribromophenol
Phenanthrene-d10
-Terphenyl-d14
Chrysene-d12
-Perylene-d12

Data File: \\avogadro\organics\S6.I\130417.B\S6B3264.d
Report Date: 18-Apr-2013 16:05

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3264.d
Lab Smp Id: SSTD0606B Client Smp ID: SSTD0606B
Inj Date : 17-APR-2013 14:28
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0606B,SSTD0606B
Misc Info : 1,5
Comment   :
Method   : \\avogadro\organics\S6.I\130417.B\S6_8270C_N.m
Meth Date : 18-Apr-2013 16:04 pkaczorows Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109 1,4-Dioxane-d8	96	2.798	2.792	(0.519)	73728	60.0000	63
	108 1,4-Dioxane	58	2.822	2.816	(0.523)	41553	60.0000	64
	1 N-Nitrosodimethylamine	74	3.121	3.110	(0.579)	172797	60.0000	61
	2 Pyridine	79	3.139	3.133	(0.582)	307675	60.0000	63
$	3 2-Fluorophenol	112	4.308	4.296	(0.799)	291904	60.0000	63
	101 Benzaldehyde	77	5.031	5.031	(0.932)	215365	60.0000	51
$	5 Phenol-d5	99	5.096	5.078	(0.944)	431003	60.0000	64
	6 Phenol	94	5.107	5.090	(0.947)	470670	60.0000	66
	7 Aniline	66	5.107	5.090	(0.947)	307274	60.0000	66(Q)
	8 bis(2-Chloroethyl)Ether	63	5.172	5.166	(0.959)	187136	60.0000	60
	10 2-Chlorophenol	128	5.231	5.225	(0.970)	308248	60.0000	63
	11 1,3-Dichlorobenzene	146	5.354	5.348	(0.992)	332895	60.0000	61
*	12 1,4-Dichlorobenzene-d4	152	5.395	5.395	(1.000)	163084	40.0000	
	13 1,4-Dichlorobenzene	146	5.413	5.407	(1.003)	347835	60.0000	62
	117 2-Ethyl-1-hexanol	57	5.442	5.436	(1.009)	228747	60.0000	61
	15 Benzyl Alcohol	108	5.513	5.507	(1.022)	245137	60.0000	63
	16 1,2-Dichlorobenzene	146	5.542	5.542	(1.027)	326180	60.0000	62
	17 2-Methylphenol	108	5.601	5.595	(1.038)	320963	60.0000	62
	18 2,2'-oxybis(1-Chloropropane)	45	5.613	5.613	(1.040)	213757	60.0000	61
	99 Acetophenone	105	5.736	5.724	(1.063)	557280	60.0000	63

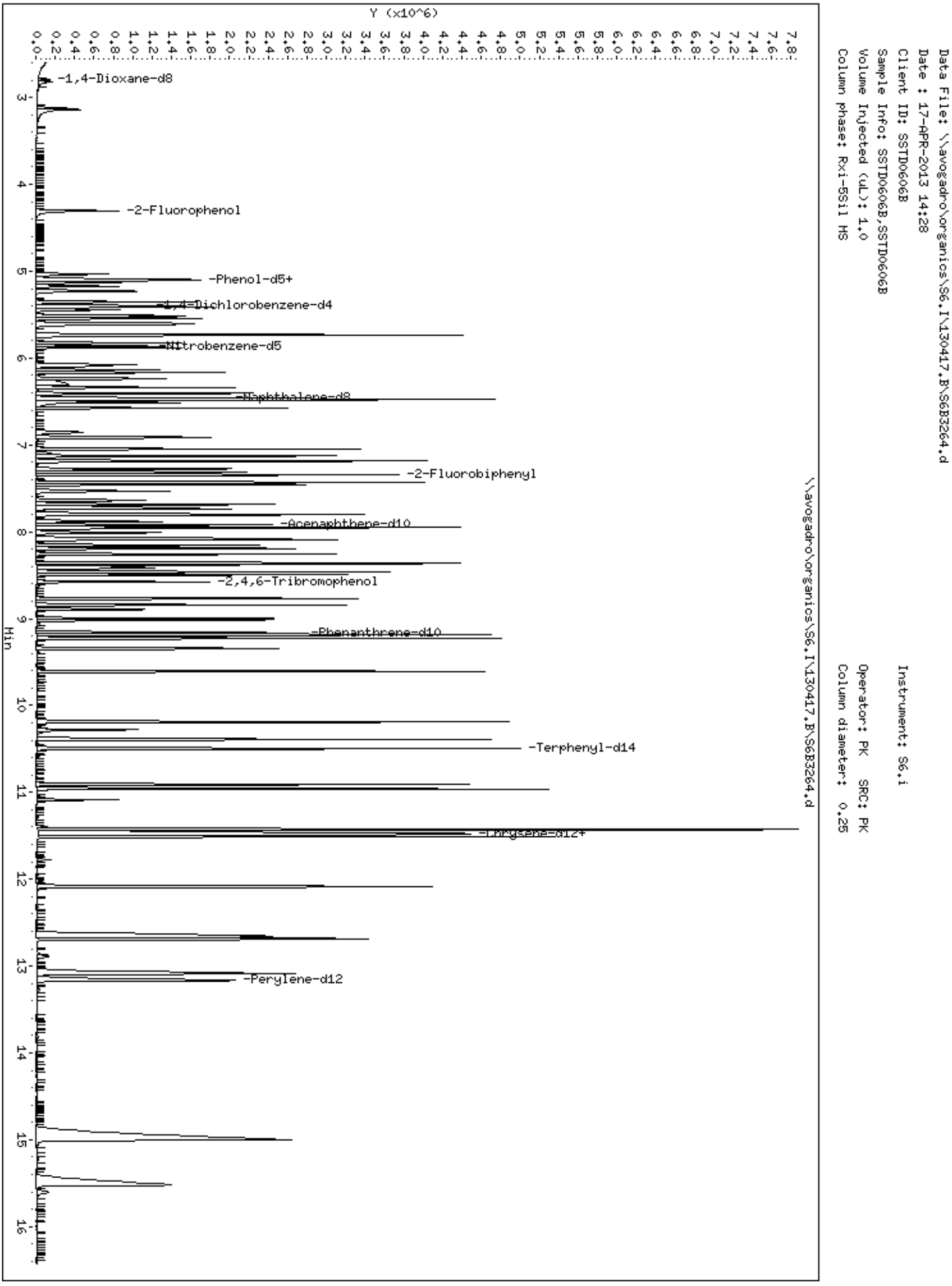
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	5.736	5.724	(1.063)	285495	60.0000	63
	20 4-Methylphenol	108	5.730	5.718	(1.062)	366674	60.0000	64
	21 Hexachloroethane	117	5.824	5.824	(1.079)	137613	60.0000	63
$	22 Nitrobenzene-d5	82	5.859	5.854	(0.907)	436836	60.0000	61
	23 Nitrobenzene	77	5.877	5.871	(0.910)	448277	60.0000	59
	24 Isophorone	82	6.077	6.065	(0.941)	774458	60.0000	58
	25 2-Nitrophenol	139	6.136	6.136	(0.950)	191467	60.0000	59(Q)
	26 2,4-Dimethylphenol	107	6.165	6.159	(0.955)	413966	60.0000	59
	27 bis(2-Chloroethoxy)methane	93	6.241	6.235	(0.966)	410893	60.0000	57
	28 Benzoic Acid	105	6.306	6.253	(0.976)	305293	60.0000	68
	29 2,4-Dichlorophenol	162	6.341	6.335	(0.982)	335314	60.0000	60
	30 1,2,4-Trichlorobenzene	180	6.406	6.406	(0.992)	365738	60.0000	59
*	31 Naphthalene-d8	136	6.459	6.459	(1.000)	801829	40.0000	
	32 Naphthalene	128	6.476	6.476	(1.003)	1017500	60.0000	58
	115 alpha-Terpineol	59	6.470	6.465	(1.002)	200711	60.0000	59
	33 4-Chloroaniline	127	6.512	6.506	(1.008)	409218	60.0000	58
	34 Hexachlorobutadiene	225	6.576	6.576	(1.018)	223949	60.0000	59
	102 Caprolactam	113	6.858	6.817	(1.062)	107550	60.0000	52
	35 4-Chloro-3-Methylphenol	107	6.917	6.905	(1.071)	374301	60.0000	58
	36 2-Methylnaphthalene	142	7.046	7.046	(1.091)	777132	60.0000	58
	114 1-Methylnaphthalene	142	7.129	7.129	(1.104)	729174	60.0000	59
	38 Hexachlorocyclopentadiene	237	7.181	7.181	(0.907)	252225	60.0000	67
	112 1,2,4,5-Tetrachlorobenzene	216	7.187	7.187	(0.907)	452090	60.0000	63
	39 2,4,6-Trichlorophenol	196	7.281	7.275	(0.919)	283230	60.0000	62
	40 2,4,5-Trichlorophenol	196	7.317	7.311	(0.924)	305125	60.0000	63
$	41 2-Fluorobiphenyl	172	7.346	7.346	(0.927)	985048	60.0000	62
	98 1,1'-Biphenyl	154	7.434	7.428	(0.938)	1091629	60.0000	62
	42 2-Chloronaphthalene	162	7.458	7.452	(0.941)	784281	60.0000	62
	43 2-Nitroaniline	65	7.534	7.528	(0.951)	259534	60.0000	63
	44 Dimethylphthalate	163	7.687	7.675	(0.970)	965625	60.0000	61
	45 2,6-Dinitrotoluene	165	7.734	7.728	(0.976)	235250	60.0000	62
	46 Acenaphthylene	152	7.804	7.798	(0.985)	1271921	60.0000	62
	47 3-Nitroaniline	138	7.886	7.875	(0.996)	222679	60.0000	60
*	48 Acenaphthene-d10	164	7.922	7.922	(1.000)	543622	40.0000	
	49 Acenaphthene	153	7.951	7.945	(1.004)	876276	60.0000	62
	50 2,4-Dinitrophenol	184	7.963	7.951	(1.005)	110601	60.0000	78(Q)
	51 4-Nitrophenol	109	8.010	7.998	(1.011)	214794	60.0000	62
	53 2,4-Dinitrotoluene	165	8.074	8.063	(1.019)	327975	60.0000	63
	52 Dibenzofuran	168	8.092	8.086	(1.022)	1213107	60.0000	62
	110 2,3,4,6-Tetrachlorophenol	232	8.192	8.186	(1.034)	289894	60.0000	64
	54 Diethylphthalate	149	8.262	8.251	(1.043)	1057274	60.0000	62
	56 4-Chlorophenyl-phenylether	204	8.362	8.362	(1.056)	573668	60.0000	63
	55 Fluorene	166	8.374	8.374	(1.057)	1080073	60.0000	63
	57 4-Nitroaniline	138	8.404	8.386	(1.061)	200633	60.0000	54
	58 4,6-Dinitro-2-methylphenol	198	8.421	8.409	(0.919)	177217	60.0000	71
	59 N-Nitrosodiphenylamine	169	8.462	8.456	(0.924)	906633	60.0000	62
	97 Azobenzene	77	8.498	8.492	(0.928)	1239348	60.0000	62
$	60 2,4,6-Tribromophenol	330	8.580	8.574	(0.937)	173464	60.0000	65
	61 4-Bromophenyl-phenylether	248	8.768	8.768	(0.957)	353974	60.0000	64
	62 Hexachlorobenzene	284	8.844	8.844	(0.965)	366259	60.0000	64
	100 Atrazine	200	8.897	8.891	(0.971)	153106	60.0000	59
	63 Pentachlorophenol	266	8.997	9.003	(0.982)	279376	60.0000	65
	111 Pentachloronitrobenzene	237	9.015	9.020	(0.984)	178049	60.0000	65
*	64 Phenanthrene-d10	188	9.161	9.167	(1.000)	1129398	40.0000	

Data File: \\avogadro\organics\S6.I\130417.B\S6B3264.d
Report Date: 18-Apr-2013 16:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	65 Phenanthrene	178	9.185	9.185	(1.003)	1631345	60.0000	63
	66 Anthracene	178	9.226	9.226	(1.007)	1683255	60.0000	63
	67 Carbazole	167	9.349	9.349	(1.021)	1040682	60.0000	53
	68 Di-n-butylphthalate	149	9.608	9.620	(1.049)	1886179	60.0000	63
	69 Fluoranthene	202	10.190	10.207	(1.112)	1988131	60.0000	63
	70 Benzidine	184	10.278	10.301	(0.895)	381953	60.0000	63
	71 Pyrene	202	10.389	10.413	(0.905)	2039665	60.0000	62
$	72 Terphenyl-d14	244	10.501	10.530	(0.915)	1492664	60.0000	63
	73 Butylbenzylphthalate	149	10.912	10.954	(0.950)	913169	60.0000	63
	74 3,3'-Dichlorobenzidine	252	11.429	11.488	(0.995)	726534	60.0000	61
	78 bis(2-Ethylhexyl)phthalate	149	11.424	11.488	(0.995)	1458068	60.0000	64
	75 Benzo(a)anthracene	228	11.471	11.523	(0.999)	2323796	60.0000	64
*	76 Chrysene-d12	240	11.482	11.541	(1.000)	1578195	40.0000	
	77 Chrysene	228	11.512	11.565	(1.003)	1877092	60.0000	62
	79 Di-n-octylphthalate	149	12.087	12.158	(0.918)	2291785	60.0000	63
	80 Benzo(b)fluoranthene	252	12.657	12.716	(0.962)	2464077	60.0000	66
	81 Benzo(k)fluoranthene	252	12.687	12.751	(0.964)	2095091	60.0000	60
	82 Benzo(a)pyrene	252	13.086	13.151	(0.994)	2085067	60.0000	63
*	83 Perylene-d12	264	13.163	13.245	(1.000)	1420617	40.0000	
	84 Indeno(1,2,3-cd)pyrene	276	14.984	15.014	(1.138)	2589248	60.0000	63
	85 Dibenzo(a,h)anthracene	278	15.002	15.043	(1.140)	2175901	60.0000	64
	86 Benzo(g,h,i)perylene	276	15.519	15.566	(1.179)	2079262	60.0000	62

QC Flag Legend

Q - Qualifier signal failed the ratio test.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Date : 17-APR-2013 14:28
Client ID: SSTD0606B
Sample Info: SSTD0606B,SSTD0606B
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S6,i
Operator: PK SRC: PK
Column diameter: 0.25
Y (x10^6)
Min
-1,4-Dioxane-d8
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
-Naphthalene-d8
-2-Fluorobiphenyl
-Acenaphthene-d10
-2,4,6-Tribromophenol
-Phenanthrene-d10
-Terphenyl-d14
-Chrysene-d12+
-Perylene-d12
\\avogadro\organics\S6,I\130417,B\S6B3264.d

Data File: \\avogadro\organics\S6.I\130417.B\S6B3265.d
Report Date: 18-Apr-2013 16:05

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3265.d
Lab Smp Id: SSTD0106B Client Smp ID: SSTD0106B
Inj Date : 17-APR-2013 14:51
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0106B,SSTD0106B
Misc Info : 1,2
Comment   :
Method   : \\avogadro\organics\S6.I\130417.B\S6_8270C_N.m
Meth Date : 18-Apr-2013 16:04 pkaczorows Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	2.793	2.792	(0.518)	10940	10.0000	10
	108	1,4-Dioxane	58	2.822	2.816	(0.523)	5843	10.0000	9(a)
	1	N-Nitrosodimethylamine	74	3.110	3.110	(0.576)	26108	10.0000	9(a)
	2	Pyridine	79	3.139	3.133	(0.582)	45172	10.0000	9(a)
$	3	2-Fluorophenol	112	4.297	4.296	(0.796)	41843	10.0000	9(a)
	101	Benzaldehyde	77	5.031	5.031	(0.932)	63849	10.0000	16
$	5	Phenol-d5	99	5.072	5.078	(0.940)	60695	10.0000	9(a)
	6	Phenol	94	5.084	5.090	(0.942)	63557	10.0000	9(a)
	7	Aniline	66	5.084	5.090	(0.942)	35444	10.0000	8(a)
	8	bis(2-Chloroethyl)Ether	63	5.160	5.166	(0.956)	29307	10.0000	10
	10	2-Chlorophenol	128	5.219	5.225	(0.967)	46021	10.0000	10
	11	1,3-Dichlorobenzene	146	5.348	5.348	(0.991)	51358	10.0000	10
*	12	1,4-Dichlorobenzene-d4	152	5.395	5.395	(1.000)	159816	40.0000	
	13	1,4-Dichlorobenzene	146	5.407	5.407	(1.002)	53948	10.0000	10
	117	2-Ethyl-1-hexanol	57	5.437	5.436	(1.008)	35161	10.0000	10
	15	Benzyl Alcohol	108	5.501	5.507	(1.020)	36779	10.0000	10
	16	1,2-Dichlorobenzene	146	5.536	5.542	(1.026)	50042	10.0000	10
	17	2-Methylphenol	108	5.589	5.595	(1.036)	48275	10.0000	10
	18	2,2'-oxybis(1-Chloropropane)	45	5.613	5.613	(1.040)	33733	10.0000	10
	99	Acetophenone	105	5.719	5.724	(1.060)	83463	10.0000	10

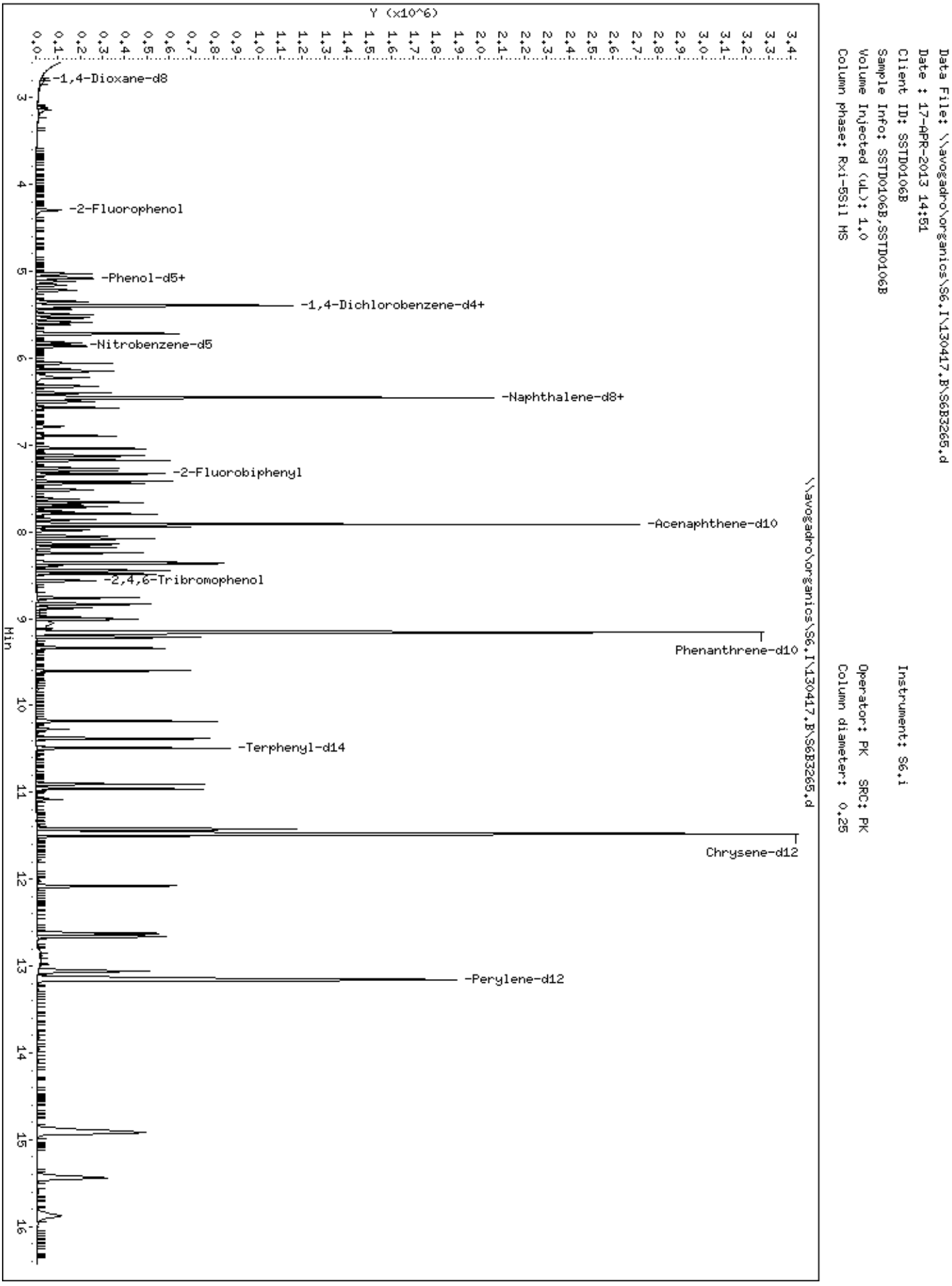
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	19 N-Nitroso-di-n-propylamine	70	5.719	5.724	(1.060)	43112	10.0000	10
	20 4-Methylphenol	108	5.713	5.718	(1.059)	52742	10.0000	9(a)
	21 Hexachloroethane	117	5.824	5.824	(1.079)	21287	10.0000	10
$	22 Nitrobenzene-d5	82	5.848	5.854	(0.906)	60691	10.0000	10
	23 Nitrobenzene	77	5.865	5.871	(0.909)	68855	10.0000	10
	24 Isophorone	82	6.059	6.065	(0.939)	120515	10.0000	10
	25 2-Nitrophenol	139	6.130	6.136	(0.950)	28691	10.0000	10
	26 2,4-Dimethylphenol	107	6.153	6.159	(0.954)	61933	10.0000	10
	27 bis(2-Chloroethoxy)methane	93	6.230	6.235	(0.965)	64721	10.0000	10
	28 Benzoic Acid	105	6.212	6.253	(0.963)	32814	10.0000	8(a)
	29 2,4-Dichlorophenol	162	6.324	6.335	(0.980)	48510	10.0000	10
	30 1,2,4-Trichlorobenzene	180	6.400	6.406	(0.992)	55635	10.0000	10
*	31 Naphthalene-d8	136	6.453	6.459	(1.000)	706383	40.0000	
	32 Naphthalene	128	6.471	6.476	(1.003)	154474	10.0000	10
	115 alpha-Terpineol	59	6.459	6.465	(1.001)	29549	10.0000	10
	33 4-Chloroaniline	127	6.500	6.506	(1.007)	65881	10.0000	11
	34 Hexachlorobutadiene	225	6.571	6.576	(1.018)	33002	10.0000	10
	102 Caprolactam	113	6.788	6.817	(1.052)	21965	10.0000	12
	35 4-Chloro-3-Methylphenol	107	6.894	6.905	(1.068)	58864	10.0000	10
	36 2-Methylnaphthalene	142	7.041	7.046	(1.091)	119432	10.0000	10
	114 1-Methylnaphthalene	142	7.123	7.129	(1.104)	108930	10.0000	10
	38 Hexachlorocyclopentadiene	237	7.176	7.181	(0.906)	30770	10.0000	8(a)
	112 1,2,4,5-Tetrachlorobenzene	216	7.182	7.187	(0.907)	64330	10.0000	9(a)
	39 2,4,6-Trichlorophenol	196	7.270	7.275	(0.918)	43006	10.0000	9(a)
	40 2,4,5-Trichlorophenol	196	7.299	7.311	(0.922)	45682	10.0000	9(a)
$	41 2-Fluorobiphenyl	172	7.334	7.346	(0.927)	149140	10.0000	9(a)
	98 1,1'-Biphenyl	154	7.422	7.428	(0.938)	160818	10.0000	9(a)
	42 2-Chloronaphthalene	162	7.446	7.452	(0.941)	117360	10.0000	9(a)
	43 2-Nitroaniline	65	7.516	7.528	(0.950)	39849	10.0000	10(a)
	44 Dimethylphthalate	163	7.663	7.675	(0.968)	149557	10.0000	10
	45 2,6-Dinitrotoluene	165	7.716	7.728	(0.975)	35101	10.0000	9(a)
	46 Acenaphthylene	152	7.793	7.798	(0.984)	193893	10.0000	9(a)
	47 3-Nitroaniline	138	7.863	7.875	(0.993)	37689	10.0000	10(a)
*	48 Acenaphthene-d10	164	7.916	7.922	(1.000)	540984	40.0000	
	49 Acenaphthene	153	7.940	7.945	(1.003)	129708	10.0000	9(a)
	50 2,4-Dinitrophenol	184	7.940	7.951	(1.003)	7094	10.0000	5(aQ)
	51 4-Nitrophenol	109	7.981	7.998	(1.008)	32252	10.0000	9(a)
	53 2,4-Dinitrotoluene	165	8.051	8.063	(1.017)	47869	10.0000	9(aQ)
	52 Dibenzofuran	168	8.081	8.086	(1.021)	185163	10.0000	9(a)
	110 2,3,4,6-Tetrachlorophenol	232	8.180	8.186	(1.033)	40831	10.0000	9
	54 Diethylphthalate	149	8.245	8.251	(1.042)	160022	10.0000	10
	56 4-Chlorophenyl-phenylether	204	8.351	8.362	(1.055)	81933	10.0000	9(a)
	55 Fluorene	166	8.363	8.374	(1.056)	159250	10.0000	9(a)
	57 4-Nitroaniline	138	8.368	8.386	(1.057)	40221	10.0000	11(a)
	58 4,6-Dinitro-2-methylphenol	198	8.392	8.409	(0.917)	16382	10.0000	6(aQ)
	59 N-Nitrosodiphenylamine	169	8.445	8.456	(0.922)	140197	10.0000	9(a)
	97 Azobenzene	77	8.486	8.492	(0.927)	190680	10.0000	9(a)
$	60 2,4,6-Tribromophenol	330	8.568	8.574	(0.936)	24876	10.0000	9(a)
	61 4-Bromophenyl-phenylether	248	8.762	8.768	(0.957)	51591	10.0000	9(a)
	62 Hexachlorobenzene	284	8.833	8.844	(0.965)	54053	10.0000	9(a)
	100 Atrazine	200	8.880	8.891	(0.970)	26668	10.0000	10
	63 Pentachlorophenol	266	8.991	9.003	(0.982)	36599	10.0000	8(a)
	111 Pentachloronitrobenzene	237	9.009	9.020	(0.984)	26386	10.0000	9(a)
*	64 Phenanthrene-d10	188	9.156	9.167	(1.000)	1149189	40.0000	

Data File: \\avogadro\organics\S6.I\130417.B\S6B3265.d
Report Date: 18-Apr-2013 16:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	65 Phenanthrene	178	9.173	9.185	(1.002)	241601	10.0000	9(a)
	66 Anthracene	178	9.215	9.226	(1.006)	248086	10.0000	9(a)
	67 Carbazole	167	9.338	9.349	(1.020)	214328	10.0000	11
	68 Di-n-butylphthalate	149	9.602	9.620	(1.049)	284809	10.0000	9(a)
	69 Fluoranthene	202	10.178	10.207	(1.112)	297125	10.0000	9(a)
	70 Benzidine	184	10.272	10.301	(0.895)	47288	10.0000	8(a)
	71 Pyrene	202	10.378	10.413	(0.904)	304916	10.0000	10
$	72 Terphenyl-d14	244	10.490	10.530	(0.914)	212146	10.0000	9(a)
	73 Butylbenzylphthalate	149	10.907	10.954	(0.950)	133589	10.0000	10
	74 3,3'-Dichlorobenzidine	252	11.418	11.488	(0.995)	111684	10.0000	10
	78 bis(2-Ethylhexyl)phthalate	149	11.424	11.488	(0.995)	199190	10.0000	9(a)
	75 Benzo(a)anthracene	228	11.459	11.523	(0.998)	327423	10.0000	9(a)
*	76 Chrysene-d12	240	11.477	11.541	(1.000)	1512708	40.0000	
	77 Chrysene	228	11.500	11.565	(1.002)	278947	10.0000	10
	79 Di-n-octylphthalate	149	12.076	12.158	(0.918)	334880	10.0000	9(a)
	80 Benzo(b)fluoranthene	252	12.628	12.716	(0.960)	311745	10.0000	8(a)
	81 Benzo(k)fluoranthene	252	12.663	12.751	(0.962)	340665	10.0000	10
	82 Benzo(a)pyrene	252	13.057	13.151	(0.992)	305722	10.0000	9(a)
*	83 Perylene-d12	264	13.157	13.245	(1.000)	1395540	40.0000	
	84 Indeno(1,2,3-cd)pyrene	276	14.902	15.014	(1.133)	378159	10.0000	9(a)
	85 Dibenzo(a,h)anthracene	278	14.926	15.043	(1.134)	311897	10.0000	9(a)
	86 Benzo(g,h,i)perylene	276	15.437	15.566	(1.173)	307931	10.0000	9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.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Date : 17-APR-2013 14:51
Client ID: SSTD0106B
Sample Info: SSTD0106B,SSTD0106B
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S6.i
Operator: PK SRC: PK
Column diameter: 0.25
Y (x10^6)
Min
-1,4-Dioxane-d8
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4+
-Nitrobenzene-d5
-Naphthalene-d8+
-2-Fluorobiphenyl
-Acenaphthene-d10
-2,4,6-Tribromophenol
Phenanthrene-d10
-Terphenyl-d14
Chrysene-d12
-Perylene-d12
\\avogadro\organics\S6.I\130417.B\S6B3265.d

Data File: \\avogadro\organics\S6.I\130417.B\S6B3266.d
Report Date: 18-Apr-2013 16:05

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3266.d
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Inj Date : 17-APR-2013 15:13
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Smp Info : SSTD0406B,SSTD0406B
Misc Info : 1,4
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Meth Date : 18-Apr-2013 16:04 pkaczorows Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	2.792	2.792	(0.518)	44613	40.0000	39
	108	1,4-Dioxane	58	2.822	2.816	(0.523)	25760	40.0000	41
	1	N-Nitrosodimethylamine	74	3.110	3.110	(0.576)	117365	40.0000	43
	2	Pyridine	79	3.133	3.133	(0.581)	196367	40.0000	41
$	3	2-Fluorophenol	112	4.302	4.296	(0.797)	188461	40.0000	42
	101	Benzaldehyde	77	5.031	5.031	(0.932)	150405	40.0000	37
$	5	Phenol-d5	99	5.084	5.078	(0.942)	275712	40.0000	42
	6	Phenol	94	5.096	5.090	(0.944)	290056	40.0000	42
	7	Aniline	66	5.096	5.090	(0.944)	163735	40.0000	36
	8	bis(2-Chloroethyl)Ether	63	5.172	5.166	(0.959)	121856	40.0000	40
	10	2-Chlorophenol	128	5.225	5.225	(0.968)	200303	40.0000	42
	11	1,3-Dichlorobenzene	146	5.354	5.348	(0.992)	215408	40.0000	41
*	12	1,4-Dichlorobenzene-d4	152	5.395	5.395	(1.000)	158686	40.0000	
	13	1,4-Dichlorobenzene	146	5.413	5.407	(1.003)	222222	40.0000	40
	117	2-Ethyl-1-hexanol	57	5.442	5.436	(1.009)	150106	40.0000	41
	15	Benzyl Alcohol	108	5.507	5.507	(1.021)	157207	40.0000	42
	16	1,2-Dichlorobenzene	146	5.542	5.542	(1.027)	210799	40.0000	41
	17	2-Methylphenol	108	5.595	5.595	(1.037)	206552	40.0000	41
	18	2,2'-oxybis(1-Chloropropane)	45	5.613	5.613	(1.040)	139965	40.0000	41
	99	Acetophenone	105	5.730	5.724	(1.062)	352853	40.0000	41

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19	N-Nitroso-di-n-propylamine	70	5.730	5.724	(1.062)	188042	40.0000	43
	20	4-Methylphenol	108	5.724	5.718	(1.061)	231021	40.0000	41
	21	Hexachloroethane	117	5.824	5.824	(1.079)	86323	40.0000	40
$	22	Nitrobenzene-d5	82	5.859	5.854	(0.907)	281063	40.0000	42
	23	Nitrobenzene	77	5.871	5.871	(0.909)	289868	40.0000	41
	24	Isophorone	82	6.071	6.065	(0.940)	514586	40.0000	41
	25	2-Nitrophenol	139	6.136	6.136	(0.950)	125777	40.0000	42
	26	2,4-Dimethylphenol	107	6.159	6.159	(0.954)	269588	40.0000	41
	27	bis(2-Chloroethoxy)methane	93	6.235	6.235	(0.965)	271281	40.0000	40
	28	Benzoic Acid	105	6.282	6.253	(0.973)	189059	40.0000	45
	29	2,4-Dichlorophenol	162	6.335	6.335	(0.981)	212236	40.0000	40
	30	1,2,4-Trichlorobenzene	180	6.406	6.406	(0.992)	234990	40.0000	40
*	31	Naphthalene-d8	136	6.459	6.459	(1.000)	752493	40.0000	
	32	Naphthalene	128	6.476	6.476	(1.003)	651270	40.0000	40
	115	alpha-Terpineol	59	6.470	6.465	(1.002)	130288	40.0000	41
	33	4-Chloroaniline	127	6.506	6.506	(1.007)	259484	40.0000	39
	34	Hexachlorobutadiene	225	6.576	6.576	(1.018)	142111	40.0000	40
	102	Caprolactam	113	6.835	6.817	(1.058)	73533	40.0000	38
	35	4-Chloro-3-Methylphenol	107	6.905	6.905	(1.069)	245319	40.0000	41
	36	2-Methylnaphthalene	142	7.046	7.046	(1.091)	505732	40.0000	40
	114	1-Methylnaphthalene	142	7.128	7.129	(1.104)	469048	40.0000	40
	38	Hexachlorocyclopentadiene	237	7.181	7.181	(0.907)	154961	40.0000	42
	112	1,2,4,5-Tetrachlorobenzene	216	7.187	7.187	(0.908)	283347	40.0000	40
	39	2,4,6-Trichlorophenol	196	7.275	7.275	(0.919)	183209	40.0000	41
	40	2,4,5-Trichlorophenol	196	7.311	7.311	(0.924)	195844	40.0000	41
$	41	2-Fluorobiphenyl	172	7.340	7.346	(0.927)	627809	40.0000	40
	98	1,1'-Biphenyl	154	7.428	7.428	(0.938)	694318	40.0000	40
	42	2-Chloronaphthalene	162	7.452	7.452	(0.941)	505032	40.0000	40
	43	2-Nitroaniline	65	7.528	7.528	(0.951)	169215	40.0000	41
	44	Dimethylphthalate	163	7.681	7.675	(0.970)	628866	40.0000	41
	45	2,6-Dinitrotoluene	165	7.728	7.728	(0.976)	154821	40.0000	41
	46	Acenaphthylene	152	7.798	7.798	(0.985)	825207	40.0000	40
	47	3-Nitroaniline	138	7.875	7.875	(0.995)	147050	40.0000	40
*	48	Acenaphthene-d10	164	7.916	7.922	(1.000)	535628	40.0000	
	49	Acenaphthene	153	7.945	7.945	(1.004)	559933	40.0000	40
	50	2,4-Dinitrophenol	184	7.951	7.951	(1.004)	63196	40.0000	45(Q)
	51	4-Nitrophenol	109	8.004	7.998	(1.011)	138292	40.0000	41
	53	2,4-Dinitrotoluene	165	8.069	8.063	(1.019)	212532	40.0000	42
	52	Dibenzofuran	168	8.086	8.086	(1.022)	779722	40.0000	40
	110	2,3,4,6-Tetrachlorophenol	232	8.186	8.186	(1.034)	182045	40.0000	41
	54	Diethylphthalate	149	8.257	8.251	(1.043)	676244	40.0000	40
	56	4-Chlorophenyl-phenylether	204	8.356	8.362	(1.056)	362119	40.0000	40
	55	Fluorene	166	8.374	8.374	(1.058)	687960	40.0000	41
	57	4-Nitroaniline	138	8.392	8.386	(1.060)	138085	40.0000	38
	58	4,6-Dinitro-2-methylphenol	198	8.409	8.409	(0.918)	112506	40.0000	45
	59	N-Nitrosodiphenylamine	169	8.456	8.456	(0.923)	584258	40.0000	40
	97	Azobenzene	77	8.492	8.492	(0.927)	805776	40.0000	40
$	60	2,4,6-Tribromophenol	330	8.574	8.574	(0.936)	108666	40.0000	41
	61	4-Bromophenyl-phenylether	248	8.768	8.768	(0.957)	223530	40.0000	40
	62	Hexachlorobenzene	284	8.838	8.844	(0.965)	232805	40.0000	41
	100	Atrazine	200	8.891	8.891	(0.971)	100751	40.0000	39
	63	Pentachlorophenol	266	8.997	9.003	(0.982)	173522	40.0000	41
	111	Pentachloronitrobenzene	237	9.015	9.020	(0.984)	109365	40.0000	40
*	64	Phenanthrene-d10	188	9.161	9.167	(1.000)	1127534	40.0000	

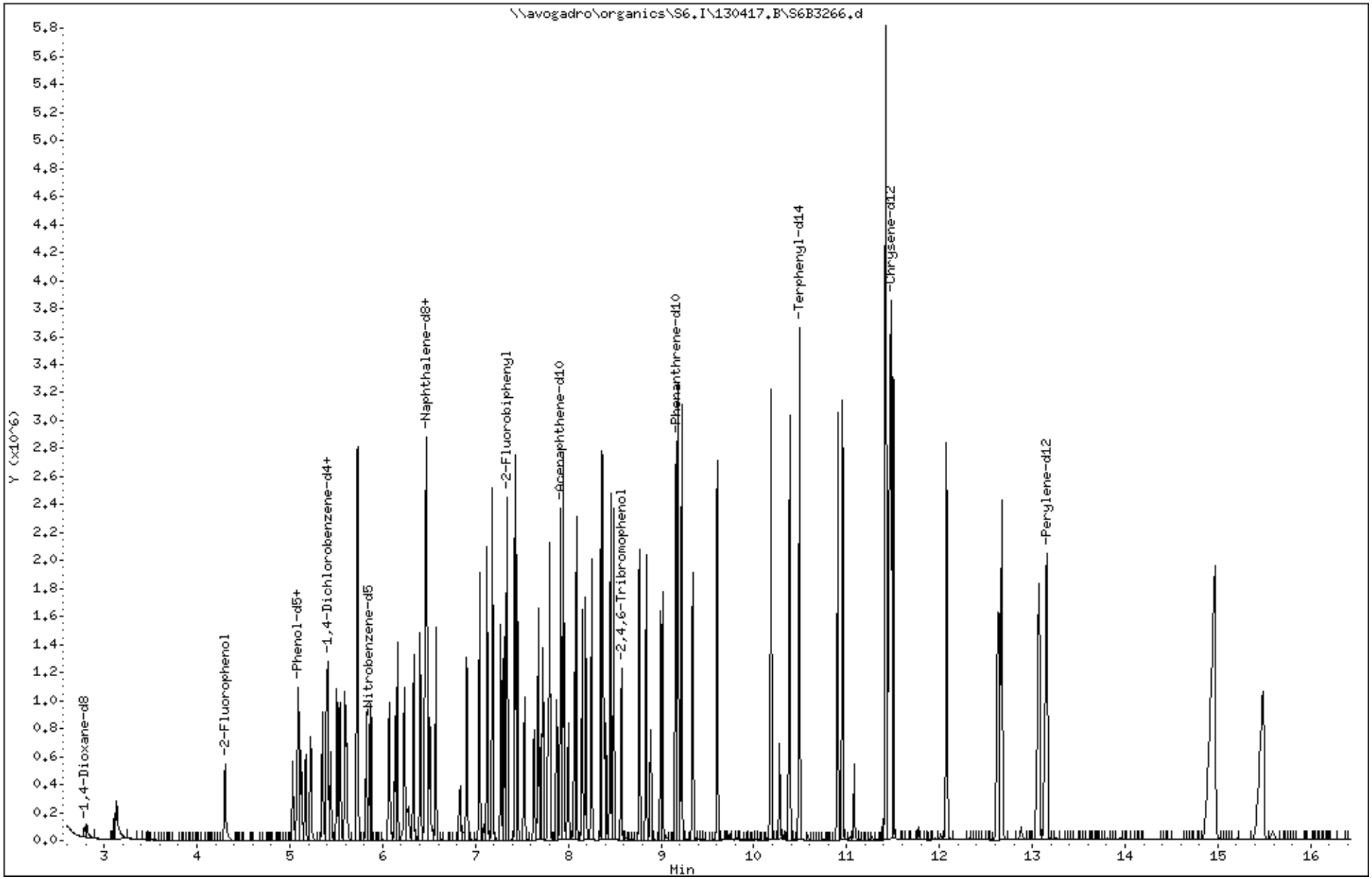
Data File: \\avogadro\organics\S6.I\130417.B\S6B3266.d
Report Date: 18-Apr-2013 16:05

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	65 Phenanthrene	178	9.179	9.185	(1.002)	1042787	40.0000	40
	66 Anthracene	178	9.220	9.226	(1.006)	1078507	40.0000	41
	67 Carbazole	167	9.344	9.349	(1.020)	681157	40.0000	35
	68 Di-n-butylphthalate	149	9.608	9.620	(1.049)	1216253	40.0000	40
	69 Fluoranthene	202	10.184	10.207	(1.112)	1288772	40.0000	41
	70 Benzidine	184	10.278	10.301	(0.896)	253433	40.0000	43
	71 Pyrene	202	10.384	10.413	(0.905)	1296060	40.0000	41
$	72 Terphenyl-d14	244	10.495	10.530	(0.915)	937179	40.0000	41
	73 Butylbenzylphthalate	149	10.906	10.954	(0.950)	577939	40.0000	41
	74 3,3'-Dichlorobenzidine	252	11.424	11.488	(0.995)	470866	40.0000	41
	78 bis(2-Ethylhexyl)phthalate	149	11.418	11.488	(0.995)	903972	40.0000	41
	75 Benzo(a)anthracene	228	11.459	11.523	(0.998)	1404592	40.0000	40
*	76 Chrysene-d12	240	11.476	11.541	(1.000)	1518394	40.0000	
	77 Chrysene	228	11.506	11.565	(1.003)	1217100	40.0000	42
	79 Di-n-octylphthalate	149	12.076	12.158	(0.913)	1448642	40.0000	40
	80 Benzo(b)fluoranthene	252	12.640	12.716	(0.956)	1423002	40.0000	39(H)
	81 Benzo(k)fluoranthene	252	12.675	12.751	(0.958)	1447796	40.0000	42
	82 Benzo(a)pyrene	252	13.075	13.151	(0.988)	1316957	40.0000	40
*	83 Perylene-d12	264	13.157	13.245	(1.000)	1395910	40.0000	(H)
	84 Indeno(1,2,3-cd)pyrene	276	14.937	15.014	(1.129)	1645879	40.0000	41
	85 Dibenzo(a,h)anthracene	278	14.967	15.043	(1.131)	1382340	40.0000	41
	86 Benzo(g,h,i)perylene	276	15.484	15.566	(1.171)	1346095	40.0000	41(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130417.B\S6B3266.d
Date : 17-APR-2013 15:13
Client ID: SSTD0406B
Instrument: S6.i
Sample Info: SSTD0406B,SSTD0406B
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



7E - FORM VII SV-1

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date: 05/02/2013 Time: 10:57

Lab File ID: S6B3561D.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256M Init. Calib. Time(s): 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{\text{RRF}}$	RRF025	MIN RRF	%D	MAX %D
Naphthalene	0.867	0.894	0.700	3.1	20.0
2-Methylnaphthalene	0.665	0.694	0.400	4.5	20.0
Acenaphthylene	1.518	1.532	0.900	0.9	20.0
Acenaphthene	1.032	1.017	0.900	-1.5	20.0
Fluorene	1.262	1.262	0.900	0.0	20.0
Phenanthrene	0.914	0.923	0.700	0.9	20.0
Anthracene	0.940	0.951	0.700	1.1	20.0
Fluoranthene	1.119	1.143	0.600	2.1	20.0
Pyrene	0.836	0.861	0.600	3.0	20.0
Benzo(a)anthracene	0.922	0.925	0.800	0.4	20.0
Chrysene	0.771	0.857	0.700	11.2	20.0
Benzo(b)fluoranthene	1.046	0.979	0.700	-6.4	20.0
Benzo(k)fluoranthene	0.980	0.966	0.700	-1.5	20.0
Benzo(a)pyrene	0.933	0.910	0.700	-2.5	20.0
Indeno(1,2,3-cd)pyrene	1.157	1.209	0.500	4.5	20.0
Dibenzo(a,h)anthracene	0.963	0.989	0.400	2.7	20.0
Benzo(g,h,i)perylene	0.941	1.026	0.500	9.1	20.0

7F - FORM VII SV-2

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date: 05/02/2013 Time: 10:57

Lab File ID: S6B3561D.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256M Init. Calib. Time(s): 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF025	MIN RRF	%D	MAX %D
Nitrobenzene-d5	0.357	0.382	0.010	6.9	20.0
2-Fluorobiphenyl	1.168	1.149	0.010	-1.6	20.0
Terphenyl-d14	0.600	0.589	0.010	-1.9	20.0

7E - FORM VII SV-1

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date: 05/06/2013 Time: 15:22

Lab File ID: S6B3641A.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256O Init. Calib. Time(s): 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{\text{RRF}}$	RRF025	MIN RRF	%D	MAX %D
Naphthalene	0.867	0.897	0.700	3.4	20.0
2-Methylnaphthalene	0.665	0.658	0.400	-0.9	20.0
Acenaphthylene	1.518	1.508	0.900	-0.6	20.0
Acenaphthene	1.032	1.015	0.900	-1.7	20.0
Fluorene	1.262	1.251	0.900	-0.9	20.0
Phenanthrene	0.914	0.905	0.700	-1.0	20.0
Anthracene	0.940	0.946	0.700	0.6	20.0
Fluoranthene	1.119	1.109	0.600	-0.9	20.0
Pyrene	0.836	0.832	0.600	-0.5	20.0
Benzo(a)anthracene	0.922	0.925	0.800	0.4	20.0
Chrysene	0.771	0.816	0.700	5.9	20.0
Benzo(b)fluoranthene	1.046	1.035	0.700	-1.0	20.0
Benzo(k)fluoranthene	0.980	0.992	0.700	1.2	20.0
Benzo(a)pyrene	0.933	0.931	0.700	-0.3	20.0
Indeno(1,2,3-cd)pyrene	1.157	1.147	0.500	-0.8	20.0
Dibenzo(a,h)anthracene	0.963	0.973	0.400	1.0	20.0
Benzo(g,h,i)perylene	0.941	0.937	0.500	-0.4	20.0

7F - FORM VII SV-2

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date: 05/06/2013 Time: 15:22

Lab File ID: S6B3641A.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256O Init. Calib. Time(s): 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF025	MIN RRF	%D	MAX %D
Nitrobenzene-d5	0.357	0.381	0.010	6.5	20.0
2-Fluorobiphenyl	1.168	1.234	0.010	5.6	20.0
Terphenyl-d14	0.600	0.625	0.010	4.2	20.0

7E - FORM VII SV-1

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date: 05/07/2013 Time: 11:26

Lab File ID: S6B3671A.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256P Init. Calib. Time(s): 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF025	MIN RRF	%D	MAX %D
Naphthalene	0.867	0.909	0.700	4.8	20.0
2-Methylnaphthalene	0.665	0.681	0.400	2.4	20.0
Acenaphthylene	1.518	1.504	0.900	-0.9	20.0
Acenaphthene	1.032	1.012	0.900	-2.0	20.0
Fluorene	1.262	1.259	0.900	-0.3	20.0
Phenanthrene	0.914	0.902	0.700	-1.3	20.0
Anthracene	0.940	0.939	0.700	-0.1	20.0
Fluoranthene	1.119	1.151	0.600	2.9	20.0
Pyrene	0.836	0.809	0.600	-3.3	20.0
Benzo(a)anthracene	0.922	0.927	0.800	0.6	20.0
Chrysene	0.771	0.821	0.700	6.6	20.0
Benzo(b)fluoranthene	1.046	1.038	0.700	-0.7	20.0
Benzo(k)fluoranthene	0.980	0.969	0.700	-1.1	20.0
Benzo(a)pyrene	0.933	0.926	0.700	-0.7	20.0
Indeno(1,2,3-cd)pyrene	1.157	1.184	0.500	2.4	20.0
Dibenzo(a,h)anthracene	0.963	0.995	0.400	3.3	20.0
Benzo(g,h,i)perylene	0.941	0.959	0.500	1.9	20.0

7F - FORM VII SV-2

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Instrument ID: S6 Calibration Date: 05/07/2013 Time: 11:26

Lab File ID: S6B3671A.D Init. Calib. Date(s): 04/17/2013 04/17/2013

EPA Sample No.(SSTD020##) SSTD0256P Init. Calib. Time(s): 13:22 15:13

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	RRF	RRF025	MIN RRF	%D	MAX %D
Nitrobenzene-d5	0.357	0.388	0.010	8.5	20.0
2-Fluorobiphenyl	1.168	1.210	0.010	3.6	20.0
Terphenyl-d14	0.600	0.604	0.010	0.7	20.0

Data File: \\avogadro\organics\S6.I\130502.B\S6B3561D.d
Report Date: 06-May-2013 13:04

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130502.B\S6B3561D.d
Lab Smp Id: SSTD0256M Client Smp ID: SSTD0256M
Inj Date : 02-MAY-2013 10:57
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0256M,SSTD0256M
Misc Info : 2,3
Comment   :
Method   : \\avogadro\organics\S6.I\130502.B\S6_8270C_N.m
Meth Date : 06-May-2013 13:04 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	2.514	2.514	(0.490)	5902	25.0000	20
	108	1,4-Dioxane	58	2.538	2.538	(0.494)	2947	25.0000	18(Q)
	1	N-Nitrosodimethylamine	74	2.831	2.831	(0.551)	17102	25.0000	24
	2	Pyridine	79	2.861	2.861	(0.557)	28539	25.0000	23(T)
$	3	2-Fluorophenol	112	4.059	4.059	(0.791)	27753	25.0000	23
	101	Benzaldehyde	77	4.770	4.770	(0.929)	25527	25.0000	24
$	5	Phenol-d5	99	4.847	4.847	(0.944)	46201	25.0000	27
	6	Phenol	94	4.858	4.858	(0.946)	51382	25.0000	28
	7	Aniline	66	4.858	4.858	(0.946)	49807	25.0000	42
	8	bis(2-Chloroethyl)Ether	63	4.911	4.911	(0.957)	18259	25.0000	23
	10	2-Chlorophenol	128	4.970	4.970	(0.968)	32084	25.0000	25
	11	1,3-Dichlorobenzene	146	5.093	5.093	(0.992)	34151	25.0000	24
*	12	1,4-Dichlorobenzene-d4	152	5.135	5.135	(1.000)	41868	40.0000	
	13	1,4-Dichlorobenzene	146	5.152	5.152	(1.003)	36071	25.0000	25
	117	2-Ethyl-1-hexanol	57	5.187	5.187	(1.010)	21456	25.0000	22
	15	Benzyl Alcohol	108	5.252	5.252	(1.023)	27952	25.0000	28
	16	1,2-Dichlorobenzene	146	5.281	5.281	(1.029)	33928	25.0000	25
	17	2-Methylphenol	108	5.352	5.352	(1.042)	38350	25.0000	29
	18	2,2'-oxybis(1-Chloropropane)	45	5.358	5.358	(1.043)	20788	25.0000	23
	99	Acetophenone	105	5.470	5.470	(1.065)	59288	25.0000	26

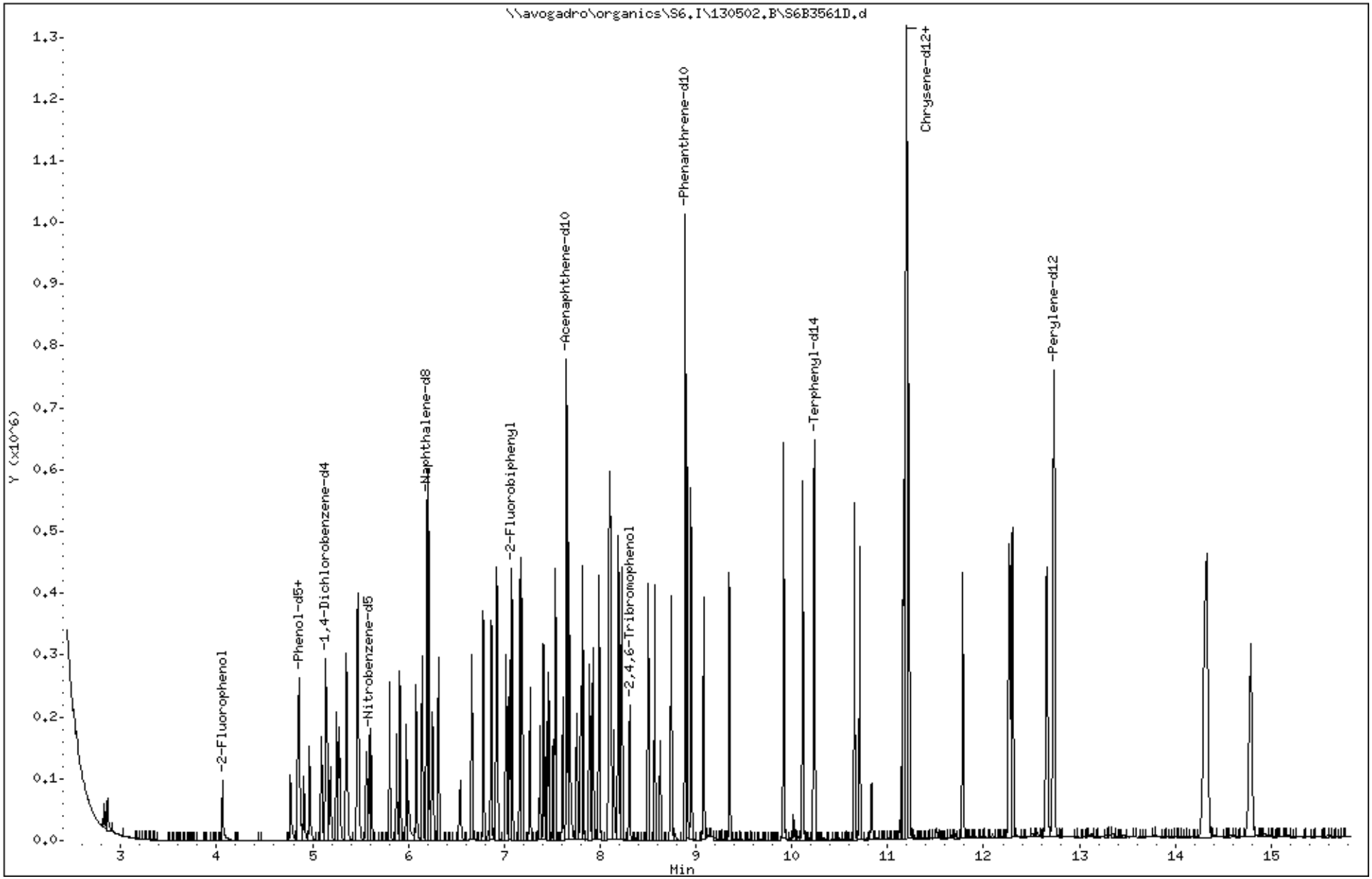
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19	N-Nitroso-di-n-propylamine	70	5.464	5.464	(1.064)	32629	25.0000	28
	20	4-Methylphenol	108	5.481	5.481	(1.068)	42388	25.0000	29
	21	Hexachloroethane	117	5.564	5.564	(1.084)	14120	25.0000	25
$	22	Nitrobenzene-d5	82	5.593	5.593	(0.903)	49569	25.0000	27
	23	Nitrobenzene	77	5.611	5.611	(0.906)	51146	25.0000	26
	24	Isophorone	82	5.804	5.804	(0.937)	88906	25.0000	26
	25	2-Nitrophenol	139	5.875	5.875	(0.949)	22259	25.0000	27(Q)
	26	2,4-Dimethylphenol	107	5.910	5.910	(0.954)	47363	25.0000	26
	27	bis(2-Chloroethoxy)methane	93	5.981	5.981	(0.966)	47087	25.0000	25
	28	Benzoic Acid	105	6.004	6.004	(0.970)	33543	25.0000	29
	29	2,4-Dichlorophenol	162	6.081	6.081	(0.982)	37023	25.0000	26
	30	1,2,4-Trichlorobenzene	180	6.145	6.145	(0.992)	41483	25.0000	26
*	31	Naphthalene-d8	136	6.192	6.192	(1.000)	207482	40.0000	
	32	Naphthalene	128	6.210	6.210	(1.003)	115923	25.0000	26
	115	alpha-Terpineol	59	6.210	6.210	(1.003)	20767	25.0000	24
	33	4-Chloroaniline	127	6.251	6.251	(1.009)	50479	25.0000	28
	34	Hexachlorobutadiene	225	6.316	6.316	(1.020)	25634	25.0000	26
	102	Caprolactam	113	6.545	6.545	(1.057)	16261	25.0000	31
	35	4-Chloro-3-Methylphenol	107	6.662	6.662	(1.076)	46984	25.0000	28
	36	2-Methylnaphthalene	142	6.780	6.780	(1.095)	90036	25.0000	26
	114	1-Methylnaphthalene	142	6.868	6.868	(1.109)	85224	25.0000	27
	38	Hexachlorocyclopentadiene	237	6.921	6.921	(0.905)	20307	25.0000	19
	112	1,2,4,5-Tetrachlorobenzene	216	6.927	6.927	(0.906)	49025	25.0000	24
	39	2,4,6-Trichlorophenol	196	7.021	7.021	(0.918)	31766	25.0000	25
	40	2,4,5-Trichlorophenol	196	7.056	7.056	(0.922)	34944	25.0000	26
$	41	2-Fluorobiphenyl	172	7.079	7.079	(0.925)	109306	25.0000	24
	98	1,1'-Biphenyl	154	7.168	7.168	(0.937)	121025	25.0000	25
	42	2-Chloronaphthalene	162	7.185	7.185	(0.939)	91083	25.0000	26
	43	2-Nitroaniline	65	7.267	7.267	(0.950)	33125	25.0000	28
	44	Dimethylphthalate	163	7.414	7.414	(0.969)	107490	25.0000	24
	45	2,6-Dinitrotoluene	165	7.461	7.461	(0.975)	27597	25.0000	26
	46	Acenaphthylene	152	7.532	7.532	(0.985)	145686	25.0000	25
	47	3-Nitroaniline	138	7.608	7.608	(0.995)	27725	25.0000	27
*	48	Acenaphthene-d10	164	7.649	7.649	(1.000)	152191	40.0000	
	49	Acenaphthene	153	7.679	7.679	(1.004)	96695	25.0000	25
	50	2,4-Dinitrophenol	184	7.696	7.696	(1.006)	11923	25.0000	30(Q)
	51	4-Nitrophenol	109	7.755	7.755	(1.014)	27338	25.0000	28
	53	2,4-Dinitrotoluene	165	7.802	7.802	(1.020)	39224	25.0000	27
	52	Dibenzofuran	168	7.820	7.820	(1.022)	137870	25.0000	25
	110	2,3,4,6-Tetrachlorophenol	232	7.926	7.926	(1.036)	31880	25.0000	25
	54	Diethylphthalate	149	7.990	7.990	(1.045)	109115	25.0000	23
	56	4-Chlorophenyl-phenylether	204	8.096	8.096	(1.058)	62627	25.0000	24
	55	Fluorene	166	8.102	8.102	(1.059)	120034	25.0000	25
	57	4-Nitroaniline	138	8.119	8.119	(1.061)	31453	25.0000	30
	58	4,6-Dinitro-2-methylphenol	198	8.143	8.143	(0.916)	19868	25.0000	28(Q)
	59	N-Nitrosodiphenylamine	169	8.190	8.190	(0.921)	103371	25.0000	25
	97	Azobenzene	77	8.225	8.225	(0.925)	137955	25.0000	24
$	60	2,4,6-Tribromophenol	330	8.307	8.307	(0.935)	21190	25.0000	28
	61	4-Bromophenyl-phenylether	248	8.501	8.501	(0.956)	39399	25.0000	25
	62	Hexachlorobenzene	284	8.572	8.572	(0.964)	43885	25.0000	27
	100	Atrazine	200	8.625	8.625	(0.970)	18135	25.0000	24
	63	Pentachlorophenol	266	8.736	8.736	(0.983)	19922	25.0000	16(a)
	111	Pentachloronitrobenzene	237	8.742	8.742	(0.983)	19162	25.0000	24
*	64	Phenanthrene-d10	188	8.889	8.889	(1.000)	324592	40.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	8.907	8.907	(1.002)	187183	25.0000	25
66	Anthracene	178	8.948	8.948	(1.007)	192867	25.0000	25
67	Carbazole	167	9.077	9.077	(1.021)	136368	25.0000	24
68	Di-n-butylphthalate	149	9.347	9.347	(1.052)	184654	25.0000	21
69	Fluoranthene	202	9.917	9.917	(1.116)	231807	25.0000	26
70	Benzidine	184	10.017	10.017	(0.895)	14996	25.0000	9(a)
71	Pyrene	202	10.117	10.117	(0.903)	236610	25.0000	26
$ 72	Terphenyl-d14	244	10.235	10.235	(0.914)	161835	25.0000	24
73	Butylbenzylphthalate	149	10.652	10.652	(0.951)	88623	25.0000	22
74	3,3'-Dichlorobenzidine	252	11.151	11.151	(0.996)	76782	25.0000	23
78	bis(2-Ethylhexyl)phthalate	149	11.169	11.169	(0.997)	120749	25.0000	19
75	Benzo(a)anthracene	228	11.186	11.186	(0.999)	254202	25.0000	25
* 76	Chrysene-d12	240	11.198	11.198	(1.000)	439665	40.0000	
77	Chrysene	228	11.222	11.222	(1.002)	235486	25.0000	28
79	Di-n-octylphthalate	149	11.786	11.786	(0.925)	205152	25.0000	18
80	Benzo(b)fluoranthene	252	12.268	12.268	(0.963)	264847	25.0000	23
81	Benzo(k)fluoranthene	252	12.303	12.303	(0.966)	261248	25.0000	25
82	Benzo(a)pyrene	252	12.661	12.661	(0.994)	246068	25.0000	24
* 83	Perylene-d12	264	12.738	12.738	(1.000)	432816	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	14.306	14.306	(1.123)	327017	25.0000	26
85	Dibenzo(a,h)anthracene	278	14.330	14.330	(1.125)	267460	25.0000	26
86	Benzo(g,h,i)perylene	276	14.788	14.788	(1.161)	277661	25.0000	27

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\S6.I\130502.B\S6B3561D.d
Date : 02-MAY-2013 10:57
Client ID: SSTD0256M
Instrument: S6.i
Sample Info: SSTD0256M,SSTD0256M
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3641A.d
Report Date: 07-May-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3641A.d
Lab Smp Id: SSTD0256O Client Smp ID: SSTD0256O
Inj Date : 06-MAY-2013 15:22
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0256O,SSTD0256O
Misc Info : 2,3
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
$	109	1,4-Dioxane-d8	96	2.464	2.464	(0.487)	42535	25.0000	25
	108	1,4-Dioxane	58	2.488	2.488	(0.492)	22187	25.0000	23(Q)
	1	N-Nitrosodimethylamine	74	2.799	2.799	(0.553)	85741	25.0000	20
	2	Pyridine	79	2.811	2.811	(0.555)	174132	25.0000	24
$	3	2-Fluorophenol	112	4.021	4.021	(0.795)	158730	25.0000	23
	101	Benzaldehyde	77	4.703	4.703	(0.929)	133334	25.0000	21
$	5	Phenol-d5	99	4.808	4.808	(0.950)	228834	25.0000	23
	6	Phenol	94	4.820	4.820	(0.952)	256422	25.0000	24
	7	Aniline	66	4.797	4.797	(0.948)	111525	25.0000	16
	8	bis(2-Chloroethyl)Ether	63	4.838	4.838	(0.956)	145864	25.0000	32
	10	2-Chlorophenol	128	4.908	4.908	(0.970)	168230	25.0000	23
	11	1,3-Dichlorobenzene	146	5.014	5.014	(0.991)	196860	25.0000	24
*	12	1,4-Dichlorobenzene-d4	152	5.061	5.061	(1.000)	240932	40.0000	
	13	1,4-Dichlorobenzene	146	5.073	5.073	(1.002)	208832	25.0000	25
	117	2-Ethyl-1-hexanol	57	5.114	5.114	(1.010)	111750	25.0000	20
	15	Benzyl Alcohol	108	5.190	5.190	(1.026)	127031	25.0000	22
	16	1,2-Dichlorobenzene	146	5.202	5.202	(1.028)	192755	25.0000	25
	17	2-Methylphenol	108	5.302	5.302	(1.048)	167556	25.0000	22
	18	2,2'-oxybis(1-Chloropropane)	45	5.278	5.278	(1.043)	97004	25.0000	19
	99	Acetophenone	105	5.396	5.396	(1.066)	285918	25.0000	22

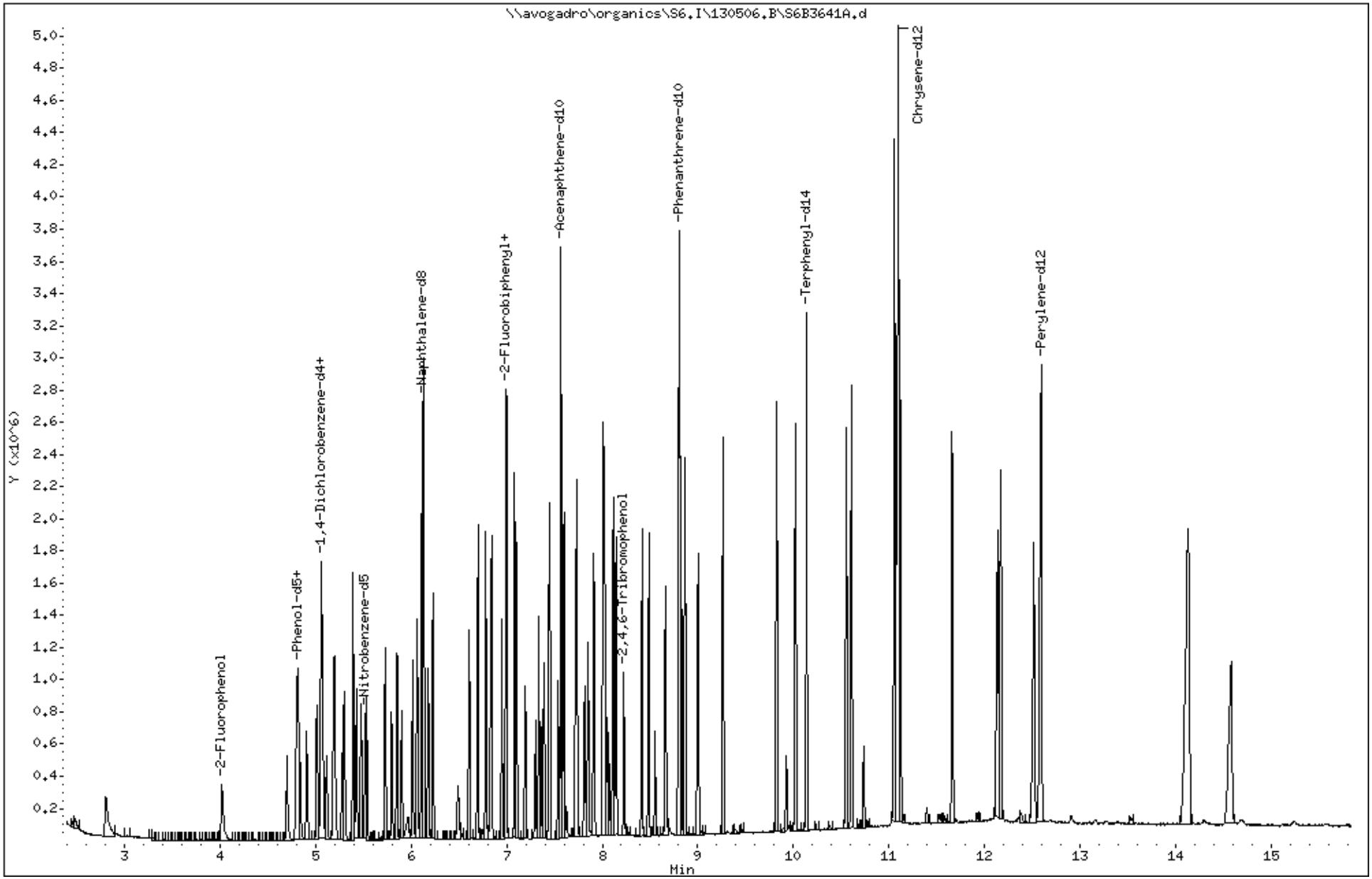
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	5.396	5.396	(1.066)	126714	25.0000	19
	20 4-Methylphenol	108	5.425	5.425	(1.072)	181760	25.0000	21
	21 Hexachloroethane	117	5.478	5.478	(1.082)	77523	25.0000	24
$	22 Nitrobenzene-d5	82	5.519	5.519	(0.903)	235828	25.0000	27
	23 Nitrobenzene	77	5.537	5.537	(0.906)	234018	25.0000	25
	24 Isophorone	82	5.731	5.731	(0.938)	399220	25.0000	24
	25 2-Nitrophenol	139	5.795	5.795	(0.948)	102224	25.0000	26
	26 2,4-Dimethylphenol	107	5.854	5.854	(0.958)	208531	25.0000	24
	27 bis(2-Chloroethoxy)methane	93	5.901	5.901	(0.965)	208194	25.0000	24
	28 Benzoic Acid	105	5.972	5.972	(0.977)	65618	25.0000	12(a)
	29 2,4-Dichlorophenol	162	6.019	6.019	(0.985)	173355	25.0000	25
	30 1,2,4-Trichlorobenzene	180	6.066	6.066	(0.992)	203667	25.0000	26
*	31 Naphthalene-d8	136	6.113	6.113	(1.000)	991487	40.0000	
	32 Naphthalene	128	6.130	6.130	(1.003)	555820	25.0000	26
	115 alpha-Terpineol	59	6.130	6.130	(1.003)	100167	25.0000	24
	33 4-Chloroaniline	127	6.177	6.177	(1.011)	217485	25.0000	25
	34 Hexachlorobutadiene	225	6.230	6.230	(1.019)	135289	25.0000	29
	102 Caprolactam	113	6.495	6.495	(1.062)	58348	25.0000	23
	35 4-Chloro-3-Methylphenol	107	6.606	6.606	(1.081)	189372	25.0000	24
	36 2-Methylnaphthalene	142	6.700	6.700	(1.096)	408027	25.0000	25
	114 1-Methylnaphthalene	142	6.783	6.783	(1.110)	390771	25.0000	26
	38 Hexachlorocyclopentadiene	237	6.830	6.830	(0.902)	113282	25.0000	24
	112 1,2,4,5-Tetrachlorobenzene	216	6.841	6.841	(0.904)	240126	25.0000	26
	39 2,4,6-Trichlorophenol	196	6.947	6.947	(0.918)	146917	25.0000	25
	40 2,4,5-Trichlorophenol	196	6.994	6.994	(0.924)	159941	25.0000	26
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	530201	25.0000	26
	98 1,1'-Biphenyl	154	7.082	7.082	(0.936)	566230	25.0000	26
	42 2-Chloronaphthalene	162	7.106	7.106	(0.939)	407521	25.0000	25
	43 2-Nitroaniline	65	7.194	7.194	(0.950)	127832	25.0000	24
	44 Dimethylphthalate	163	7.335	7.335	(0.969)	486321	25.0000	24
	45 2,6-Dinitrotoluene	165	7.394	7.394	(0.977)	122096	25.0000	25
	46 Acenaphthylene	152	7.452	7.452	(0.984)	648087	25.0000	25
	47 3-Nitroaniline	138	7.541	7.541	(0.996)	113777	25.0000	24
*	48 Acenaphthene-d10	164	7.570	7.570	(1.000)	687496	40.0000	
	49 Acenaphthene	153	7.599	7.599	(1.004)	436031	25.0000	24
	50 2,4-Dinitrophenol	184	7.623	7.623	(1.007)	30025	25.0000	17(aQ)
	51 4-Nitrophenol	109	7.717	7.717	(1.019)	92329	25.0000	21
	53 2,4-Dinitrotoluene	165	7.729	7.729	(1.021)	168339	25.0000	26
	52 Dibenzofuran	168	7.734	7.734	(1.022)	620588	25.0000	25
	110 2,3,4,6-Tetrachlorophenol	232	7.852	7.852	(1.037)	130204	25.0000	23
	54 Diethylphthalate	149	7.911	7.911	(1.045)	516794	25.0000	24
	56 4-Chlorophenyl-phenylether	204	8.011	8.011	(1.058)	294201	25.0000	26
	55 Fluorene	166	8.022	8.022	(1.060)	537575	25.0000	25
	57 4-Nitroaniline	138	8.052	8.052	(1.064)	101966	25.0000	22
	58 4,6-Dinitro-2-methylphenol	198	8.075	8.075	(0.917)	64611	25.0000	21
	59 N-Nitrosodiphenylamine	169	8.116	8.116	(0.922)	445844	25.0000	25
	97 Azobenzene	77	8.146	8.146	(0.925)	601044	25.0000	24
$	60 2,4,6-Tribromophenol	330	8.228	8.228	(0.935)	90538	25.0000	28
	61 4-Bromophenyl-phenylether	248	8.416	8.416	(0.956)	180078	25.0000	26
	62 Hexachlorobenzene	284	8.486	8.486	(0.964)	196496	25.0000	28
	100 Atrazine	200	8.557	8.557	(0.972)	77741	25.0000	24
	63 Pentachlorophenol	266	8.663	8.663	(0.984)	26269	25.0000	5(a)
	111 Pentachloronitrobenzene	237	8.663	8.663	(0.984)	82964	25.0000	25
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1381864	40.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	8.827	8.827	(1.003)	781955	25.0000	25
66	Anthracene	178	8.868	8.868	(1.007)	816619	25.0000	25
67	Carbazole	167	9.004	9.004	(1.023)	594568	25.0000	25
68	Di-n-butylphthalate	149	9.262	9.262	(1.052)	916729	25.0000	25
69	Fluoranthene	202	9.826	9.826	(1.116)	957772	25.0000	25
70	Benzidine	184	9.926	9.926	(0.894)	146685	25.0000	20
71	Pyrene	202	10.020	10.020	(0.903)	968218	25.0000	25
$ 72	Terphenyl-d14	244	10.138	10.138	(0.913)	727508	25.0000	26
73	Butylbenzylphthalate	149	10.555	10.555	(0.951)	423903	25.0000	25
74	3,3'-Dichlorobenzidine	252	11.054	11.054	(0.996)	365772	25.0000	26
78	bis(2-Ethylhexyl)phthalate	149	11.060	11.060	(0.996)	672353	25.0000	25
75	Benzo(a)anthracene	228	11.083	11.083	(0.998)	1076604	25.0000	25
* 76	Chrysene-d12	240	11.101	11.101	(1.000)	1861939	40.0000	
77	Chrysene	228	11.125	11.125	(1.002)	949455	25.0000	26
79	Di-n-octylphthalate	149	11.659	11.659	(0.926)	1102050	25.0000	25
80	Benzo(b)fluoranthene	252	12.141	12.141	(0.964)	1101025	25.0000	25
81	Benzo(k)fluoranthene	252	12.170	12.170	(0.966)	1055725	25.0000	25
82	Benzo(a)pyrene	252	12.517	12.517	(0.994)	990380	25.0000	25
* 83	Perylene-d12	264	12.593	12.593	(1.000)	1702620	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	14.115	14.115	(1.121)	1220837	25.0000	25
85	Dibenzo(a,h)anthracene	278	14.133	14.133	(1.122)	1035449	25.0000	25
86	Benzo(g,h,i)perylene	276	14.579	14.579	(1.158)	997102	25.0000	25

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3641A.d
Date : 06-MAY-2013 15:22
Client ID: SSTD02560
Instrument: S6.i
Sample Info: SSTD02560,SSTD02560
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3671A.d
Report Date: 07-May-2013 13:08

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3671A.d
Lab Smp Id: SSTD0256P Client Smp ID: SSTD0256P
Inj Date : 07-MAY-2013 11:26
Operator : PK   SRC: PK Inst ID: S6.i
Smp Info : SSTD0256P,SSTD0256P
Misc Info : 2,3
Comment   :
Method   : \\avogadro\organics\S6.I\130507.B\S6_8270C_N.m
Meth Date : 07-May-2013 13:08 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	2.361	2.361	(0.472)	39721	25.0000	23
	108	1,4-Dioxane	58	2.391	2.391	(0.478)	22363	25.0000	24(Q)
	1	N-Nitrosodimethylamine	74	2.708	2.708	(0.542)	86187	25.0000	21
	2	Pyridine	79	2.720	2.720	(0.544)	168105	25.0000	24
$	3	2-Fluorophenol	112	3.954	3.954	(0.791)	154593	25.0000	23
	101	Benzaldehyde	77	4.641	4.641	(0.928)	138076	25.0000	22
$	5	Phenol-d5	99	4.747	4.747	(0.949)	231227	25.0000	24
	6	Phenol	94	4.758	4.758	(0.952)	248715	25.0000	24
	7	Aniline	66	4.735	4.735	(0.947)	98463	25.0000	14
	8	bis(2-Chloroethyl)Ether	63	4.776	4.776	(0.955)	148255	25.0000	33
	10	2-Chlorophenol	128	4.847	4.847	(0.969)	170408	25.0000	24
	11	1,3-Dichlorobenzene	146	4.952	4.952	(0.991)	200091	25.0000	25
*	12	1,4-Dichlorobenzene-d4	152	4.999	4.999	(1.000)	237184	40.0000	
	13	1,4-Dichlorobenzene	146	5.011	5.011	(1.002)	208012	25.0000	25
	117	2-Ethyl-1-hexanol	57	5.058	5.058	(1.012)	109205	25.0000	20
	15	Benzyl Alcohol	108	5.129	5.129	(1.026)	134708	25.0000	24
	16	1,2-Dichlorobenzene	146	5.140	5.140	(1.028)	193165	25.0000	25
	17	2-Methylphenol	108	5.246	5.246	(1.049)	175994	25.0000	24
	18	2,2'-oxybis(1-Chloropropane)	45	5.223	5.223	(1.045)	95185	25.0000	19
	99	Acetophenone	105	5.334	5.334	(1.067)	297983	25.0000	23

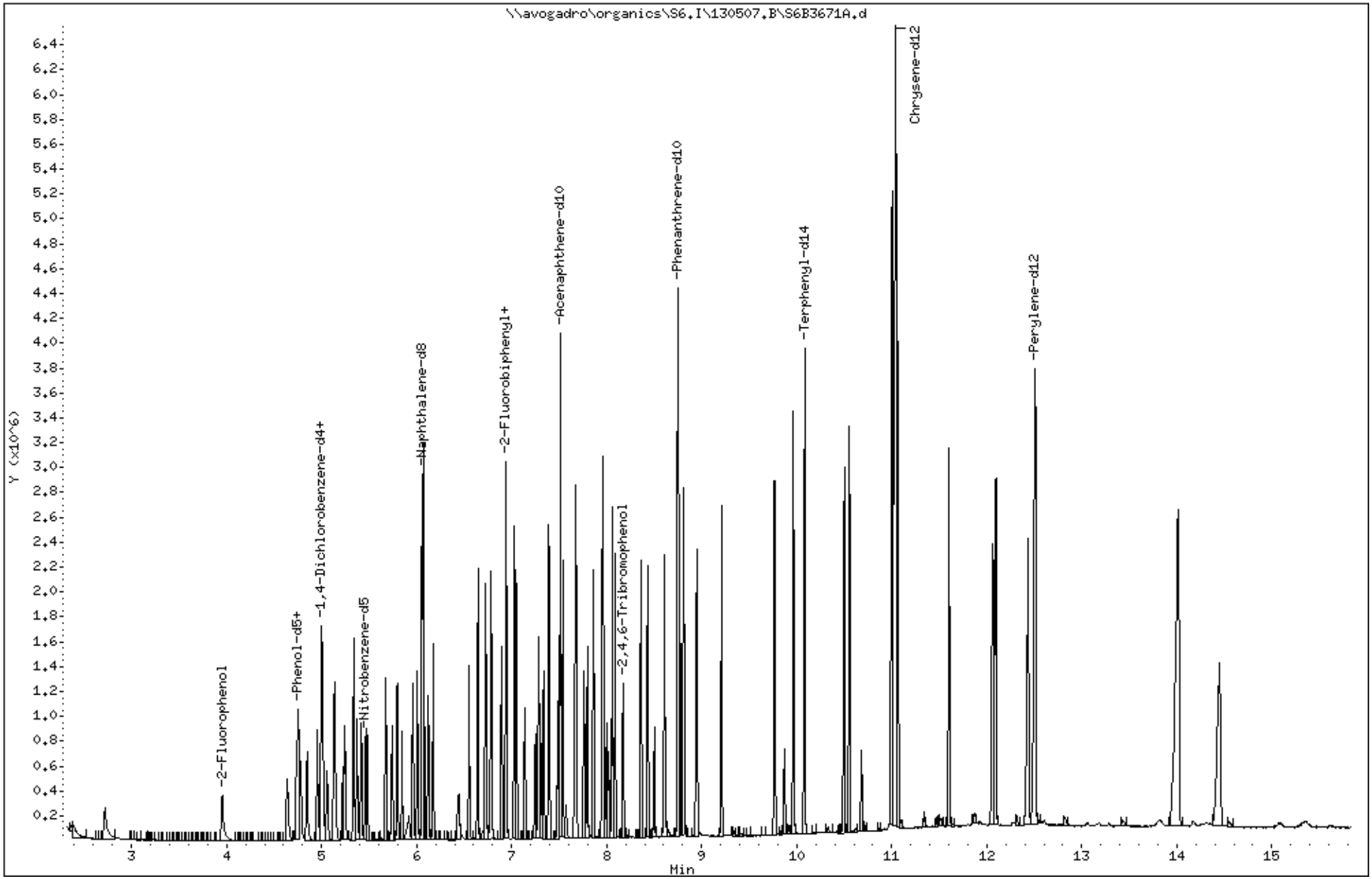
			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19	N-Nitroso-di-n-propylamine	70	5.340	5.340	(1.068)	134455	25.0000	20
	20	4-Methylphenol	108	5.370	5.370	(1.074)	190937	25.0000	23
	21	Hexachloroethane	117	5.417	5.417	(1.083)	78541	25.0000	24
$	22	Nitrobenzene-d5	82	5.464	5.464	(0.902)	251546	25.0000	27
	23	Nitrobenzene	77	5.475	5.475	(0.904)	246013	25.0000	25
	24	Isophorone	82	5.675	5.675	(0.937)	427542	25.0000	25
	25	2-Nitrophenol	139	5.740	5.740	(0.948)	109691	25.0000	26(Q)
	26	2,4-Dimethylphenol	107	5.798	5.798	(0.957)	223907	25.0000	25
	27	bis(2-Chloroethoxy)methane	93	5.845	5.845	(0.965)	220315	25.0000	24
	28	Benzoic Acid	105	5.922	5.922	(0.978)	77827	25.0000	13(a)
	29	2,4-Dichlorophenol	162	5.957	5.957	(0.984)	184092	25.0000	25
	30	1,2,4-Trichlorobenzene	180	6.010	6.010	(0.992)	214631	25.0000	27
*	31	Naphthalene-d8	136	6.057	6.057	(1.000)	1037783	40.0000	
	32	Naphthalene	128	6.075	6.075	(1.003)	589439	25.0000	26
	115	alpha-Terpineol	59	6.075	6.075	(1.003)	103980	25.0000	24
	33	4-Chloroaniline	127	6.122	6.122	(1.011)	227485	25.0000	25
	34	Hexachlorobutadiene	225	6.174	6.174	(1.019)	138857	25.0000	28
	102	Caprolactam	113	6.445	6.445	(1.064)	68491	25.0000	26
	35	4-Chloro-3-Methylphenol	107	6.551	6.551	(1.081)	210575	25.0000	25
	36	2-Methylnaphthalene	142	6.645	6.645	(1.097)	441617	25.0000	26
	114	1-Methylnaphthalene	142	6.727	6.727	(1.111)	408761	25.0000	26
	38	Hexachlorocyclopentadiene	237	6.780	6.780	(0.902)	114448	25.0000	22
	112	1,2,4,5-Tetrachlorobenzene	216	6.786	6.786	(0.903)	263658	25.0000	26
	39	2,4,6-Trichlorophenol	196	6.891	6.891	(0.917)	164711	25.0000	26
	40	2,4,5-Trichlorophenol	196	6.938	6.938	(0.923)	173173	25.0000	25
$	41	2-Fluorobiphenyl	172	6.944	6.944	(0.924)	574172	25.0000	26
	98	1,1'-Biphenyl	154	7.026	7.026	(0.935)	614350	25.0000	25
	42	2-Chloronaphthalene	162	7.050	7.050	(0.938)	438541	25.0000	25
	43	2-Nitroaniline	65	7.138	7.138	(0.950)	147420	25.0000	25
	44	Dimethylphthalate	163	7.285	7.285	(0.970)	543133	25.0000	25
	45	2,6-Dinitrotoluene	165	7.338	7.338	(0.977)	134535	25.0000	25
	46	Acenaphthylene	152	7.397	7.397	(0.984)	713427	25.0000	25
	47	3-Nitroaniline	138	7.485	7.485	(0.996)	129747	25.0000	25
*	48	Acenaphthene-d10	164	7.514	7.514	(1.000)	758959	40.0000	
	49	Acenaphthene	153	7.538	7.538	(1.003)	479831	25.0000	24
	50	2,4-Dinitrophenol	184	7.567	7.567	(1.007)	37368	25.0000	19(aQ)
	51	4-Nitrophenol	109	7.667	7.667	(1.020)	123788	25.0000	26
	53	2,4-Dinitrotoluene	165	7.673	7.673	(1.021)	195598	25.0000	27
	52	Dibenzofuran	168	7.679	7.679	(1.022)	686739	25.0000	25
	110	2,3,4,6-Tetrachlorophenol	232	7.796	7.796	(1.038)	154630	25.0000	24
	54	Diethylphthalate	149	7.861	7.861	(1.046)	599743	25.0000	25
	56	4-Chlorophenyl-phenylether	204	7.955	7.955	(1.059)	329900	25.0000	26
	55	Fluorene	166	7.967	7.967	(1.060)	597175	25.0000	25
	57	4-Nitroaniline	138	7.996	7.996	(1.064)	126903	25.0000	25
	58	4,6-Dinitro-2-methylphenol	198	8.019	8.019	(0.917)	78309	25.0000	22
	59	N-Nitrosodiphenylamine	169	8.061	8.061	(0.921)	519111	25.0000	25
	97	Azobenzene	77	8.090	8.090	(0.925)	676657	25.0000	24
$	60	2,4,6-Tribromophenol	330	8.172	8.172	(0.934)	108847	25.0000	28
	61	4-Bromophenyl-phenylether	248	8.360	8.360	(0.956)	216125	25.0000	27
	62	Hexachlorobenzene	284	8.431	8.431	(0.964)	234410	25.0000	29
	100	Atrazine	200	8.501	8.501	(0.972)	92821	25.0000	25
	63	Pentachlorophenol	266	8.607	8.607	(0.984)	89477	25.0000	15(a)
	111	Pentachloronitrobenzene	237	8.607	8.607	(0.984)	102502	25.0000	26
*	64	Phenanthrene-d10	188	8.748	8.748	(1.000)	1609408	40.0000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	8.771	8.771	(1.003)	907328	25.0000	25
66	Anthracene	178	8.813	8.813	(1.007)	944683	25.0000	25
67	Carbazole	167	8.948	8.948	(1.023)	754762	25.0000	27
68	Di-n-butylphthalate	149	9.212	9.212	(1.053)	1084967	25.0000	25
69	Fluoranthene	202	9.770	9.770	(1.117)	1158233	25.0000	26
70	Benzidine	184	9.870	9.870	(0.894)	218872	25.0000	24
71	Pyrene	202	9.964	9.964	(0.903)	1185989	25.0000	24
$ 72	Terphenyl-d14	244	10.082	10.082	(0.913)	886159	25.0000	25
73	Butylbenzylphthalate	149	10.499	10.499	(0.951)	521670	25.0000	24
74	3,3'-Dichlorobenzidine	252	10.998	10.998	(0.996)	488551	25.0000	27
78	bis(2-Ethylhexyl)phthalate	149	11.004	11.004	(0.997)	842778	25.0000	25
75	Benzo(a)anthracene	228	11.022	11.022	(0.998)	1359606	25.0000	25
* 76	Chrysene-d12	240	11.039	11.039	(1.000)	2345703	40.0000	
77	Chrysene	228	11.063	11.063	(1.002)	1204042	25.0000	27
79	Di-n-octylphthalate	149	11.604	11.604	(0.928)	1384217	25.0000	24
80	Benzo(b)fluoranthene	252	12.062	12.062	(0.964)	1457121	25.0000	25
81	Benzo(k)fluoranthene	252	12.097	12.097	(0.967)	1360751	25.0000	25
82	Benzo(a)pyrene	252	12.432	12.432	(0.994)	1300432	25.0000	25
* 83	Perylene-d12	264	12.508	12.508	(1.000)	2246119	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	13.995	13.995	(1.119)	1662468	25.0000	26
85	Dibenzo(a,h)anthracene	278	14.018	14.018	(1.121)	1396937	25.0000	26
86	Benzo(g,h,i)perylene	276	14.447	14.447	(1.155)	1346061	25.0000	25

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\S6.I\130507.B\S6B3671A.d
Date : 07-MAY-2013 11:26
Client ID: SSTD0256P
Instrument: S6.i
Sample Info: SSTD0256P,SSTD0256P
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130417.B\S6B3260M.d
Lab Smp Id: DFTPP6B Client Smp ID: DFTPP6B
Inj Date : 17-APR-2013 12:32
Operator : PK SRC: PK Inst ID: S6.i
Smp Info : DFTPP6B,DFTPP6B
Misc Info :
Comment :
Method : \\avogadro\organics\S6.I\130417.B\S6_dftppSOM.m
Meth Date : 17-Apr-2013 11:16 pkaczorows Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 50 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf * Vf/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.830	4.824	0.006	198	284288			0.00- 100.00	100.00
4.830	4.824	0.006	51	104000			10.00- 80.00	36.58
4.830	4.824	0.006	68	0	0.0	0.0	0.00- 2.00	0.00
4.830	4.824	0.006	69	144128			0.00- 0.00	50.70
4.830	4.824	0.006	70	1015			0.00- 2.00	0.70
4.830	4.824	0.006	127	124088			10.00- 80.00	43.65
4.830	4.824	0.006	197	0	0.0	0.0	0.00- 2.00	0.00
4.830	4.824	0.006	199	20208			5.00- 9.00	7.11
4.830	4.824	0.006	275	90080			10.00- 60.00	31.69
4.830	4.824	0.006	365	12919			1.00- 0.00	4.54
4.830	4.824	0.006	441	43104			0.01- 99.99	99.74
4.830	4.824	0.006	442	221248			50.00- 100.00	77.83
4.830	4.824	0.006	443	43216			15.00- 24.00	19.53

Data File: \\avogadro\organics\S6.I\130417.B\S6B3260M.d

Date : 17-APR-2013 12:32

Client ID: DFTPP6B

Instrument: S6.i

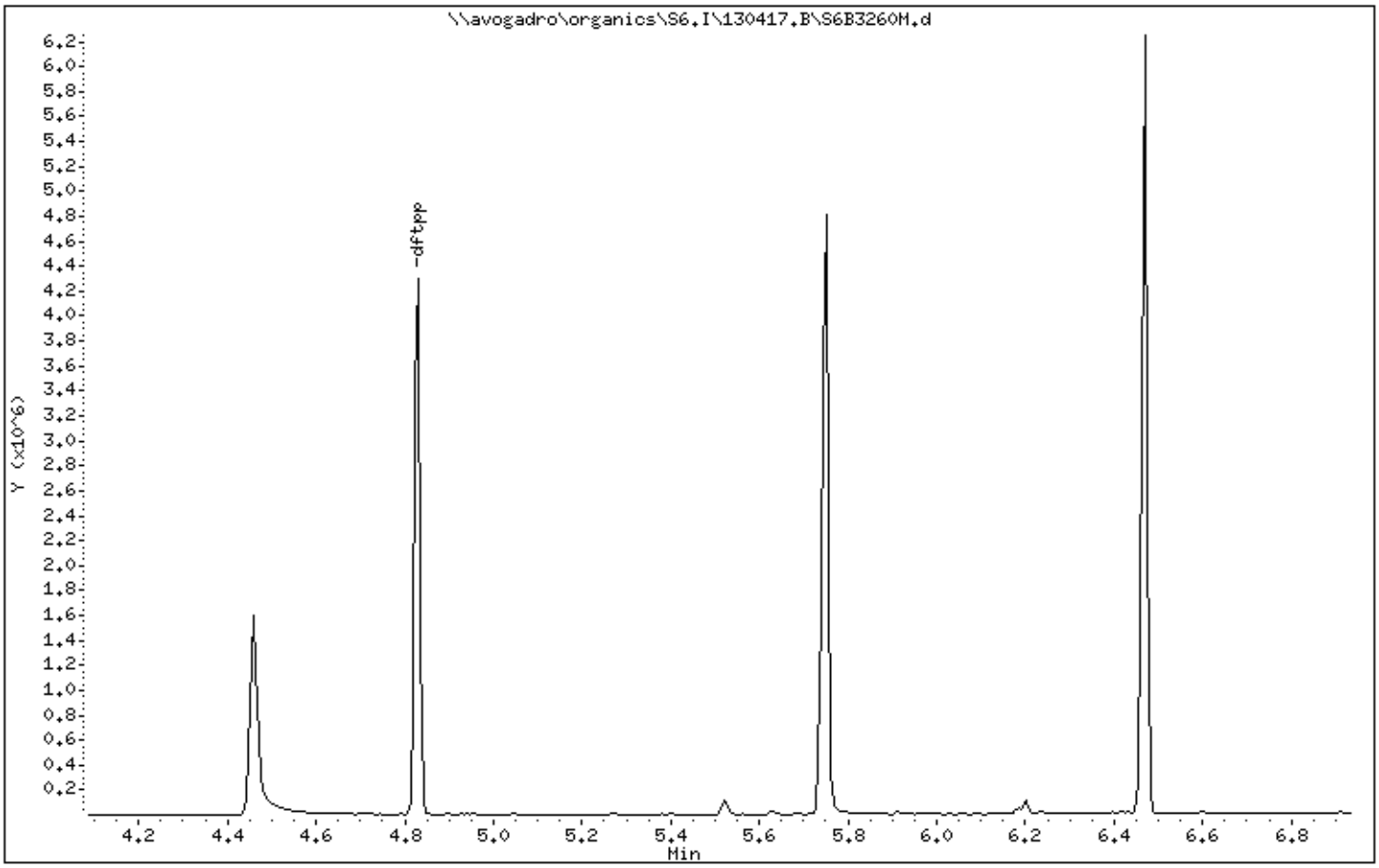
Sample Info: DFTPP6B,DFTPP6B

Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130417.B\S6B3260M.d

Date : 17-APR-2013 12:32

Client ID: DFTPP6B

Instrument: S6.i

Sample Info: DFTPP6B,DFTPP6B

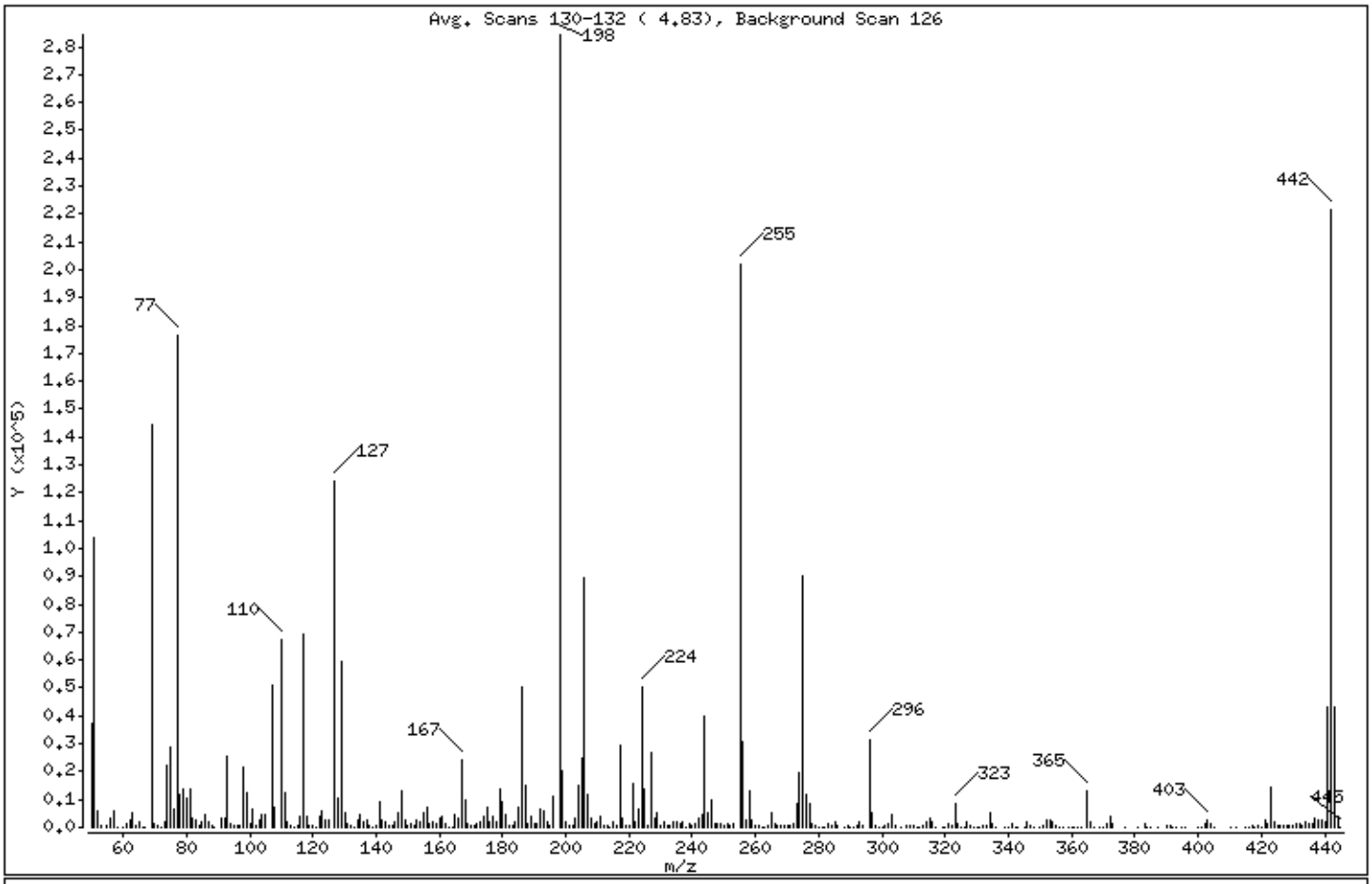
Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	36.58
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.70
70	Less than 2.00% of mass 69	0.36 (0.70)
127	10.00 - 80.00% of mass 198	43.65
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.11
275	10.00 - 60.00% of mass 198	31.69
365	Greater than 1.00% of mass 198	4.54
441	Present, but less than mass 443	15.16
442	50.00 - 100.00% of mass 198	77.83
443	15.00 - 24.00% of mass 442	15.20 (19.53)

Date : 17-APR-2013 12:32

Client ID: DFTPP6B Instrument: S6.i

Sample Info: DFTPP6B,DFTPP6B

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3260M.d
Spectrum: Avg. Scans 130-132 (4.83), Background Scan 126
Location of Maximum: 198.00
Number of points: 354

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	37104	146.00	1866	236.00	1614	331.00	189
51.00	104000	147.00	4998	237.00	2011	332.00	751
52.00	6017	148.00	13348	238.00	232	333.00	842
53.00	458	149.00	2441	239.00	1524	334.00	5141
55.00	467	150.00	468	240.00	968	335.00	1203
56.00	2949	151.00	1151	241.00	1541	336.00	199
57.00	5762	152.00	684	242.00	3213	339.00	77
58.00	251	153.00	2854	243.00	4622	340.00	113
60.00	30	154.00	2194	244.00	40000	341.00	1119
61.00	1542	155.00	4936	245.00	5442	342.00	182
62.00	2684	156.00	7096	246.00	9859	343.00	151
63.00	5290	157.00	1466	247.00	1612	345.00	201
64.00	628	158.00	1818	248.00	1002	346.00	2002
65.00	1895	159.00	1525	249.00	1430	347.00	375
66.00	318	160.00	3484	250.00	610	348.00	63
67.00	248	161.00	4029	251.00	1032	350.00	229
69.00	144128	162.00	1193	252.00	643	351.00	409
70.00	1015	163.00	263	253.00	1256	352.00	2478
71.00	411	164.00	305	255.00	201984	353.00	2308
72.00	193	165.00	4692	256.00	30624	354.00	1793
73.00	2091	166.00	3543	257.00	2626	355.00	773
74.00	22256	167.00	24240	258.00	13366	356.00	215
75.00	28696	168.00	9951	259.00	2307	357.00	174
76.00	6476	169.00	1450	260.00	329	359.00	141
77.00	176128	170.00	502	261.00	405	360.00	76
78.00	11871	171.00	826	262.00	126	361.00	154
79.00	13847	172.00	1352	263.00	231	362.00	271
80.00	10176	173.00	2150	264.00	818	363.00	7
81.00	13742	174.00	3904	265.00	5441	365.00	12919
82.00	3263	175.00	7113	266.00	1110	366.00	1637
83.00	2383	176.00	1910	267.00	440	367.00	93
84.00	334	177.00	3912	268.00	353	369.00	145
85.00	2194	178.00	1764	269.00	340	370.00	315
86.00	4481	179.00	13444	270.00	949	371.00	1192
87.00	1659	180.00	9104	271.00	674	372.00	3864

Date : 17-APR-2013 12:32

Client ID: DFTPP6B Instrument: S6.i

Sample Info: DFTPP6B,DFTPP6B

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3260M.d
Spectrum: Avg. Scans 130-132 (4.83), Background Scan 126
Location of Maximum: 198.00
Number of points: 354

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	697	181.00	4313	272.00	1106	373.00	1346
89.00	240	182.00	839	273.00	8590	377.00	89
91.00	3020	183.00	551	274.00	19824	381.00	124
92.00	3526	184.00	1945	275.00	90080	383.00	1073
93.00	25728	185.00	7215	276.00	11761	384.00	299
94.00	1554	186.00	50256	277.00	8578	385.00	98
95.00	534	187.00	15267	278.00	1410	387.00	52
96.00	814	188.00	1539	279.00	395	390.00	834
97.00	417	189.00	4097	280.00	162	391.00	445
98.00	21520	190.00	998	281.00	253	392.00	294
99.00	12290	191.00	1575	282.00	255	393.00	153
100.00	1334	192.00	6253	283.00	1049	395.00	107
101.00	6430	193.00	5730	284.00	750	396.00	72
102.00	336	194.00	1733	285.00	1745	400.00	316
103.00	2396	195.00	546	286.00	384	401.00	226
104.00	4489	196.00	10988	288.00	75	402.00	1597
105.00	4682	198.00	284288	289.00	503	403.00	2672
107.00	50736	199.00	20208	290.00	248	404.00	1139
108.00	6910	200.00	1859	291.00	263	405.00	69
110.00	67080	201.00	914	292.00	558	410.00	55
111.00	12203	202.00	619	293.00	1707	412.00	185
112.00	2044	203.00	3333	294.00	870	415.00	173
113.00	690	204.00	14916	296.00	31584	416.00	181
114.00	194	205.00	24816	297.00	5144	417.00	568
115.00	562	206.00	89824	298.00	482	418.00	134
116.00	4015	207.00	11447	299.00	55	419.00	754
117.00	69024	208.00	3486	300.00	235	420.00	269
118.00	4181	209.00	1251	301.00	629	421.00	2661
119.00	595	210.00	2056	302.00	1041	422.00	1249
120.00	893	211.00	3615	303.00	4272	423.00	14394
121.00	194	212.00	675	304.00	782	424.00	2149
122.00	3918	213.00	569	306.00	91	425.00	605
123.00	5635	214.00	248	308.00	536	426.00	407
124.00	2731	215.00	1787	309.00	428	427.00	657
125.00	2445	216.00	526	310.00	353	428.00	410

Date : 17-APR-2013 12:32

Client ID: DFTPP6B Instrument: S6.i

Sample Info: DFTPP6B,DFTPP6B

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3260M.d
Spectrum: Avg. Scans 130-132 (4.83), Background Scan 126
Location of Maximum: 198.00
Number of points: 354

m/z	Y	m/z	Y	m/z	Y	m/z	Y
127.00	124088	217.00	29304	311.00	192	429.00	825
128.00	10781	218.00	3331	312.00	306	430.00	672
129.00	59304	219.00	877	313.00	363	431.00	1012
130.00	5081	220.00	378	314.00	1671	432.00	1240
131.00	1200	221.00	15872	315.00	2996	433.00	499
132.00	605	222.00	2059	316.00	2016	434.00	2001
133.00	226	223.00	6314	317.00	144	435.00	1518
134.00	2854	224.00	50224	319.00	185	436.00	1593
135.00	4725	225.00	13784	320.00	159	437.00	3107
136.00	2281	226.00	419	321.00	1114	438.00	2702
137.00	2770	227.00	26856	322.00	917	439.00	2364
138.00	546	228.00	3528	323.00	8391	440.00	2094
139.00	326	229.00	4943	324.00	1606	441.00	43104
140.00	486	230.00	580	325.00	227	442.00	221248
141.00	9399	231.00	1779	326.00	259	443.00	43216
142.00	2842	232.00	361	327.00	1848	444.00	3931
143.00	1936	233.00	384	328.00	589	445.00	210
144.00	565	234.00	1977	329.00	88		
145.00	490	235.00	1762	330.00	164		

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130502.B\S6B3560.d
Lab Smp Id: DFTPP6M Client Smp ID: DFTPP6M
Inj Date : 02-MAY-2013 09:13
Operator : PK SRC: PK Inst ID: S6.i
Smp Info : DFTPP6M,DFTPP6M
Misc Info :
Comment :
Method : \\avogadro\organics\S6.I\130502.B\S6_dftppSOM.m
Meth Date : 01-May-2013 16:38 pkaczorows Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 50 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf * Vf/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume (uL)
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.587	4.576	0.011	198	29360			0.00- 100.00	100.00
4.587	4.576	0.011	51	12180			10.00- 80.00	41.49
4.587	4.576	0.011	68	0	0.0	0.0	0.00- 2.00	0.00
4.587	4.576	0.011	69	16752			0.00- 0.00	57.06
4.587	4.576	0.011	70	0	0.0	0.0	0.00- 2.00	0.00
4.587	4.576	0.011	127	13693			10.00- 80.00	46.64
4.587	4.576	0.011	197	0	0.0	0.0	0.00- 2.00	0.00
4.587	4.576	0.011	199	2033			5.00- 9.00	6.92
4.587	4.576	0.011	275	9487			10.00- 60.00	32.31
4.587	4.576	0.011	365	1648			1.00- 0.00	5.61
4.587	4.576	0.011	441	4551			0.01- 99.99	80.43
4.587	4.576	0.011	442	29072			50.00- 100.00	99.02
4.587	4.576	0.011	443	5658			15.00- 24.00	19.46

Data File: \\avogadro\organics\S6.I\130502.B\S6B3560.d

Date : 02-MAY-2013 09:13

Client ID: DFTPP6M

Instrument: S6.i

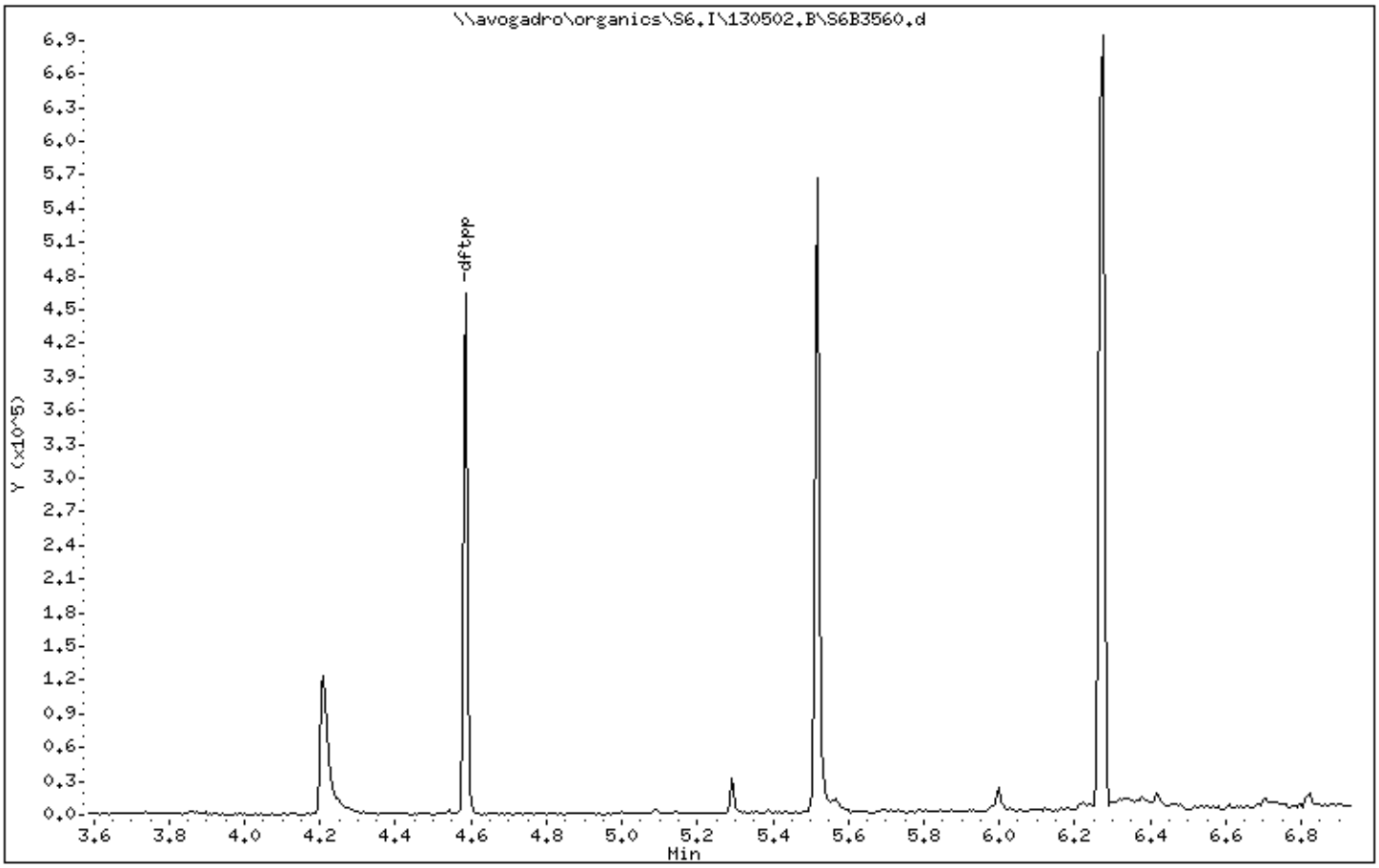
Sample Info: DFTPP6M,DFTPP6M

Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130502.B\S6B3560.d

Date : 02-MAY-2013 09:13

Client ID: DFTPP6M

Instrument: S6.i

Sample Info: DFTPP6M,DFTPP6M

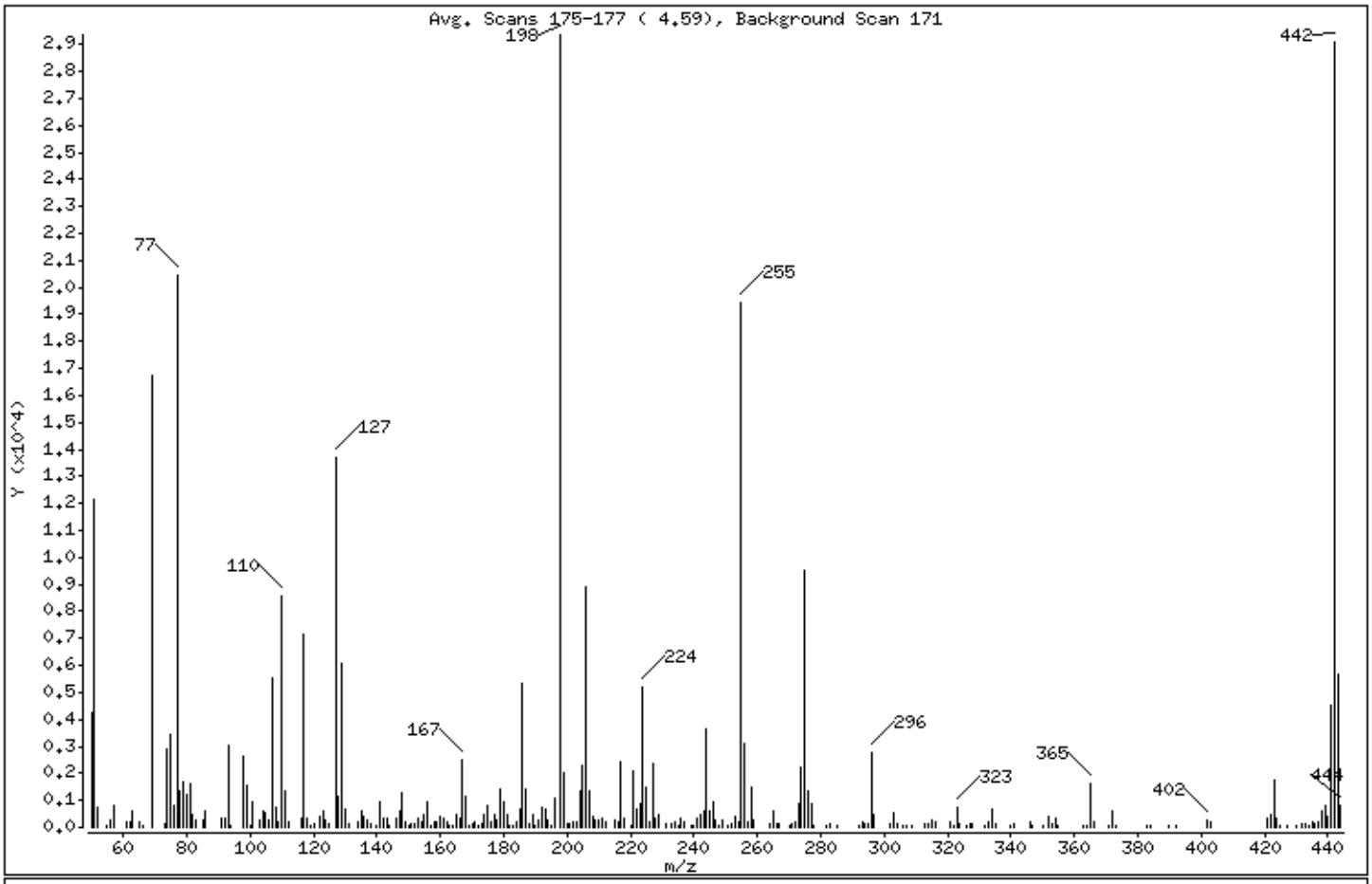
Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	41.49
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.06
70	Less than 2.00% of mass 69	0.00 (0.00)
127	10.00 - 80.00% of mass 198	46.64
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 60.00% of mass 198	32.31
365	Greater than 1.00% of mass 198	5.61
441	Present, but less than mass 443	15.50
442	50.00 - 100.00% of mass 198	99.02
443	15.00 - 24.00% of mass 442	19.27 (19.46)

Date : 02-MAY-2013 09:13

Client ID: DFTPP6M Instrument: S6.i

Sample Info: DFTPP6M,DFTPP6M

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3560.d
Spectrum: Avg. Scans 175-177 (4.59), Background Scan 171
Location of Maximum: 198.00
Number of points: 258

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	4282	143.00	319	210.00	283	302.00	105
51.00	12180	144.00	72	211.00	354	303.00	561
52.00	720	146.00	332	212.00	210	304.00	154
55.00	98	147.00	578	215.00	246	306.00	59
56.00	258	148.00	1294	216.00	199	307.00	86
57.00	818	149.00	192	217.00	2457	309.00	57
61.00	235	150.00	50	218.00	304	313.00	118
62.00	212	151.00	121	220.00	81	314.00	163
63.00	615	152.00	165	221.00	2099	315.00	246
65.00	234	153.00	338	222.00	699	316.00	196
66.00	75	154.00	210	223.00	880	321.00	189
69.00	16752	155.00	441	224.00	5213	322.00	50
73.00	140	156.00	944	225.00	1493	323.00	726
74.00	2905	157.00	57	226.00	188	324.00	166
75.00	3431	158.00	225	227.00	2388	326.00	57
76.00	813	159.00	172	228.00	313	327.00	160
77.00	20456	160.00	386	229.00	485	328.00	155
78.00	1374	161.00	340	231.00	168	332.00	58
79.00	1686	162.00	233	233.00	125	333.00	180
80.00	1211	163.00	61	234.00	206	334.00	683
81.00	1634	164.00	70	235.00	63	335.00	150
82.00	456	165.00	470	236.00	352	340.00	82
83.00	267	166.00	306	237.00	225	341.00	120
85.00	264	167.00	2526	239.00	91	346.00	206
86.00	630	168.00	1177	240.00	54	347.00	54
91.00	336	169.00	62	241.00	328	350.00	52
92.00	349	170.00	114	242.00	460	352.00	391
93.00	3054	171.00	180	243.00	628	353.00	133
94.00	41	172.00	61	244.00	3667	354.00	361
98.00	2653	173.00	165	245.00	601	355.00	52
99.00	1574	174.00	440	246.00	928	363.00	63
100.00	89	175.00	823	247.00	267	364.00	75
101.00	916	176.00	213	248.00	51	365.00	1648
103.00	266	177.00	485	249.00	260	366.00	229
104.00	601	178.00	248	251.00	70	371.00	59

Date : 02-MAY-2013 09:13

Client ID: DFTPP6M Instrument: S6.i

Sample Info: DFTPP6M,DFTPP6M

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3560.d
Spectrum: Avg. Scans 175-177 (4.59), Background Scan 171
Location of Maximum: 198.00
Number of points: 258

m/z	Y	m/z	Y	m/z	Y	m/z	Y
105.00	542	179.00	1438	252.00	141	372.00	580
106.00	287	180.00	973	253.00	397	373.00	57
107.00	5547	181.00	504	254.00	234	383.00	100
108.00	755	182.00	81	255.00	19448	384.00	91
109.00	217	183.00	69	256.00	3115	390.00	79
110.00	8569	184.00	206	257.00	179	392.00	67
111.00	1327	185.00	648	258.00	1452	402.00	247
112.00	193	186.00	5352	259.00	289	403.00	202
116.00	354	187.00	1410	264.00	144	421.00	314
117.00	7137	188.00	118	265.00	605	422.00	444
118.00	344	189.00	485	266.00	156	423.00	1773
119.00	51	190.00	82	267.00	119	424.00	316
120.00	149	191.00	284	270.00	62	425.00	55
122.00	436	192.00	754	271.00	130	427.00	65
123.00	595	193.00	649	272.00	202	430.00	55
124.00	298	194.00	292	273.00	879	432.00	142
125.00	166	195.00	59	274.00	2224	433.00	125
127.00	13693	196.00	1112	275.00	9487	434.00	55
128.00	1172	198.00	29360	276.00	1346	435.00	218
129.00	6103	199.00	2033	277.00	846	436.00	149
130.00	644	200.00	146	278.00	75	437.00	210
131.00	159	201.00	161	282.00	55	438.00	582
134.00	218	202.00	173	283.00	131	439.00	843
135.00	584	203.00	205	285.00	59	440.00	422
136.00	374	204.00	1334	292.00	85	441.00	4551
137.00	239	205.00	2291	293.00	171	442.00	29072
138.00	129	206.00	8877	294.00	113	443.00	5658
140.00	81	207.00	1341	295.00	126	444.00	823
141.00	921	208.00	427	296.00	2734		
142.00	331	209.00	302	297.00	455		

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3640C.d
Lab Smp Id: DFTPP6O Client Smp ID: DFTPP6O
Inj Date : 06-MAY-2013 14:22
Operator : PK SRC: PK Inst ID: S6.i
Smp Info : DFTPP6O,DFTPP6O
Misc Info :
Comment :
Method : \\avogadro\organics\S6.I\130506.B\S6_dftppSOM.m
Meth Date : 03-May-2013 10:47 pkaczorows Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 50 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf * Vf/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.481	4.576	-0.095	198	97280			0.00- 100.00	100.00
4.481	4.576	-0.095	51	39400			10.00- 80.00	40.50
4.481	4.576	-0.095	68	0	0.0	0.0	0.00- 2.00	0.00
4.481	4.576	-0.095	69	54752			0.00- 0.00	56.28
4.481	4.576	-0.095	70	178			0.00- 2.00	0.33
4.481	4.576	-0.095	127	44288			10.00- 80.00	45.53
4.481	4.576	-0.095	197	0	0.0	0.0	0.00- 2.00	0.00
4.481	4.576	-0.095	199	6949			5.00- 9.00	7.14
4.481	4.576	-0.095	275	29776			10.00- 60.00	30.61
4.481	4.576	-0.095	365	4976			1.00- 0.00	5.12
4.481	4.576	-0.095	441	17392			0.01- 99.99	95.56
4.481	4.576	-0.095	442	92072			50.00- 100.00	94.65
4.481	4.576	-0.095	443	18200			15.00- 24.00	19.77

Data File: \\avogadro\organics\S6.I\130506.B\S6B3640C.d

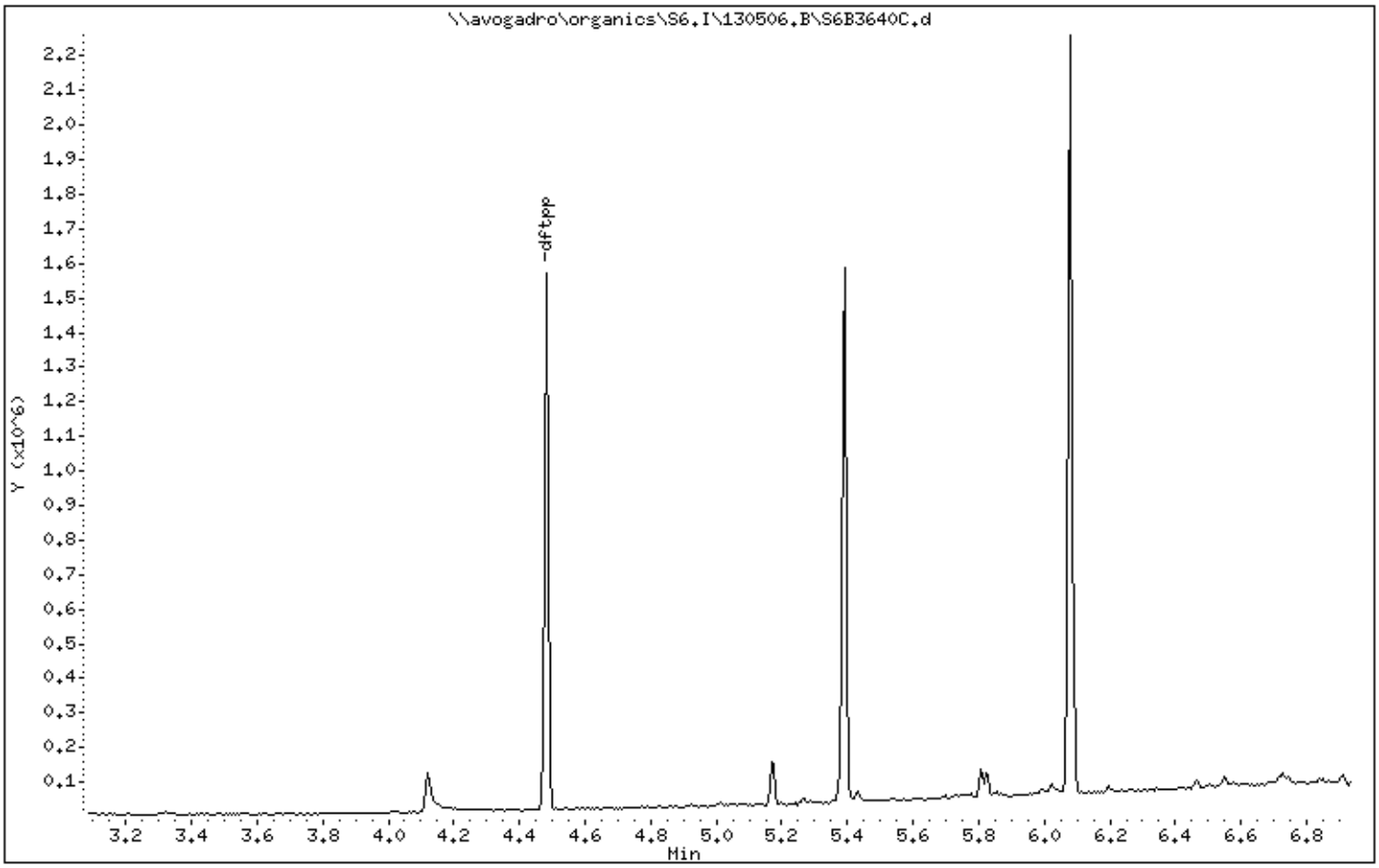
Date : 06-MAY-2013 14:22

Client ID: DFTPP60 Instrument: S6.i

Sample Info: DFTPP60,DFTPP60

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130506.B\S6B3640C.d

Date : 06-MAY-2013 14:22

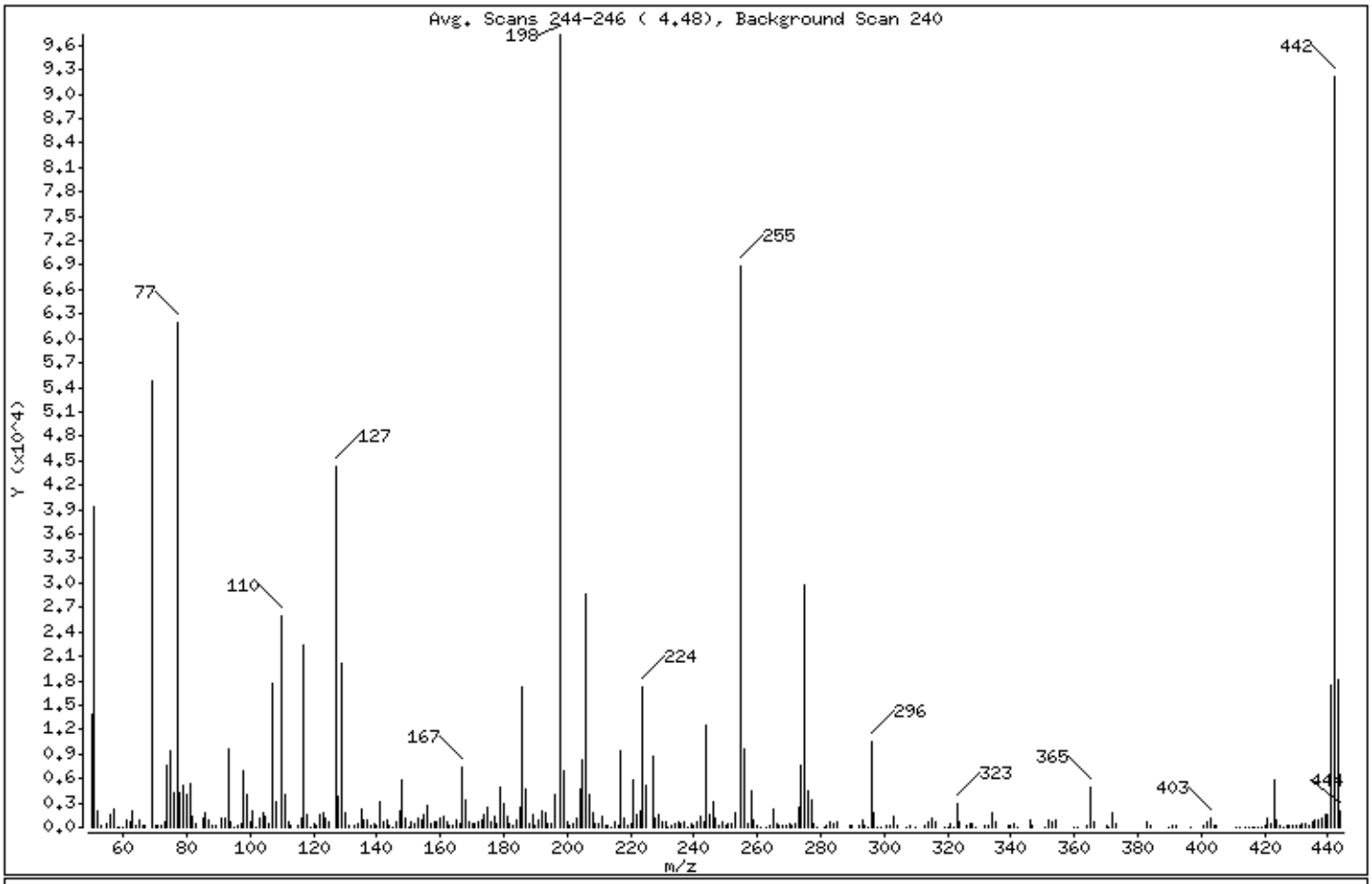
Client ID: DFTPP60 Instrument: S6.i

Sample Info: DFTPP60,DFTPP60

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	40.50
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	56.28
70	Less than 2.00% of mass 69	0.18 (0.33)
127	10.00 - 80.00% of mass 198	45.53
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.14
275	10.00 - 60.00% of mass 198	30.61
365	Greater than 1.00% of mass 198	5.12
441	Present, but less than mass 443	17.88
442	50.00 - 100.00% of mass 198	94.65
443	15.00 - 24.00% of mass 442	18.71 (19.77)

Date : 06-MAY-2013 14:22

Client ID: DFTPP60 Instrument: S6.i

Sample Info: DFTPP60,DFTPP60

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3640C.d
Spectrum: Avg. Scans 244-246 (4.48), Background Scan 240
Location of Maximum: 198.00
Number of points: 321

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	13837	139.00	394	221.00	5787	316.00	714
51.00	39400	140.00	276	222.00	1497	319.00	103
52.00	1921	141.00	3217	223.00	2114	320.00	68
53.00	180	142.00	774	224.00	17304	321.00	531
55.00	346	143.00	809	225.00	5200	322.00	57
56.00	1567	144.00	190	227.00	8679	323.00	2829
57.00	2179	145.00	110	228.00	1090	324.00	602
58.00	99	146.00	699	229.00	1547	326.00	128
59.00	103	147.00	2018	230.00	620	327.00	463
60.00	37	148.00	5900	231.00	733	328.00	337
61.00	997	149.00	1063	232.00	75	329.00	50
62.00	752	150.00	73	233.00	129	332.00	277
63.00	1919	151.00	776	234.00	530	333.00	301
64.00	262	152.00	342	235.00	583	334.00	1859
65.00	851	153.00	1078	236.00	389	335.00	667
66.00	128	154.00	807	237.00	680	339.00	119
67.00	266	155.00	1541	238.00	70	340.00	187
69.00	54752	156.00	2736	239.00	424	341.00	470
70.00	178	157.00	402	240.00	293	342.00	85
71.00	165	158.00	656	241.00	570	346.00	1001
72.00	129	159.00	619	242.00	1443	347.00	130
73.00	712	160.00	1153	243.00	639	351.00	85
74.00	7702	161.00	1339	244.00	12484	352.00	963
75.00	9431	162.00	564	245.00	1620	353.00	678
76.00	4336	163.00	232	246.00	3210	354.00	991
77.00	62048	164.00	201	247.00	1126	360.00	98
78.00	4235	165.00	829	248.00	176	361.00	56
79.00	5214	166.00	406	249.00	642	364.00	118
80.00	4018	167.00	7333	250.00	158	365.00	4976
81.00	5300	168.00	3422	251.00	465	366.00	587
82.00	1298	169.00	627	252.00	480	370.00	161
83.00	448	170.00	428	253.00	1798	371.00	43
85.00	1011	171.00	496	255.00	68912	372.00	1678
86.00	1716	172.00	712	256.00	9684	373.00	546
87.00	919	173.00	862	257.00	381	383.00	590

Date : 06-MAY-2013 14:22

Client ID: DFTPP60 Instrument: S6.i

Sample Info: DFTPP60,DFTPP60

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3640C.d
Spectrum: Avg. Scans 244-246 (4.48), Background Scan 240
Location of Maximum: 198.00
Number of points: 321

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	299	174.00	1499	258.00	4544	384.00	168
89.00	205	175.00	2483	259.00	842	390.00	50
91.00	1118	176.00	709	260.00	223	391.00	211
92.00	1217	177.00	1358	261.00	92	392.00	237
93.00	9551	178.00	427	263.00	85	397.00	70
94.00	626	179.00	4856	264.00	288	401.00	301
95.00	3	180.00	2904	265.00	2334	402.00	590
96.00	323	181.00	1352	266.00	483	403.00	1089
97.00	391	182.00	339	267.00	275	404.00	281
98.00	6961	183.00	174	268.00	218	405.00	155
99.00	4121	184.00	831	269.00	173	411.00	50
100.00	678	185.00	2421	270.00	461	412.00	60
101.00	1943	186.00	17216	271.00	329	414.00	60
102.00	2	187.00	4658	272.00	528	415.00	55
103.00	1078	188.00	512	273.00	2464	416.00	53
104.00	1825	189.00	1611	274.00	7509	417.00	72
105.00	1323	190.00	112	275.00	29776	418.00	57
106.00	365	191.00	812	276.00	4558	419.00	64
107.00	17712	192.00	1970	277.00	3352	420.00	274
108.00	3096	193.00	1764	278.00	516	421.00	1073
110.00	25992	194.00	550	279.00	70	422.00	548
111.00	4095	195.00	431	281.00	84	423.00	5851
112.00	765	196.00	4120	282.00	300	424.00	866
113.00	227	198.00	97280	283.00	705	425.00	120
115.00	148	199.00	6949	284.00	356	426.00	54
116.00	1087	200.00	616	285.00	607	427.00	202
117.00	22272	201.00	281	289.00	220	428.00	242
118.00	1633	202.00	483	290.00	124	429.00	305
119.00	32	203.00	1101	292.00	140	430.00	165
120.00	341	204.00	4590	293.00	801	431.00	255
121.00	324	205.00	8364	294.00	247	432.00	398
122.00	1554	206.00	28736	295.00	91	433.00	373
123.00	1874	207.00	4038	296.00	10505	434.00	256
124.00	1098	208.00	1689	297.00	1682	435.00	617
125.00	677	209.00	435	298.00	96	436.00	822

Date : 06-MAY-2013 14:22

Client ID: DFTPP60 Instrument: S6.i

Sample Info: DFTPP60,DFTPP60

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3640C.d
Spectrum: Avg. Scans 244-246 (4.48), Background Scan 240
Location of Maximum: 198.00
Number of points: 321

m/z	Y	m/z	Y	m/z	Y	m/z	Y
127.00	44288	210.00	471	299.00	50	437.00	789
128.00	3852	211.00	1335	301.00	324	438.00	1198
129.00	20192	212.00	254	302.00	161	439.00	1546
130.00	1853	213.00	142	303.00	1389	440.00	1468
131.00	317	214.00	75	304.00	280	441.00	17392
133.00	152	215.00	759	307.00	52	442.00	92072
134.00	493	216.00	313	308.00	213	443.00	18200
135.00	2148	217.00	9502	310.00	16	444.00	1946
136.00	829	218.00	1166	313.00	137		
137.00	900	219.00	235	314.00	722		
138.00	227	220.00	518	315.00	1164		

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130507.B\S6B3670.d
Lab Smp Id: DFTPP6P Client Smp ID: DFTPP6P
Inj Date : 07-MAY-2013 10:12
Operator : PK SRC: PK Inst ID: S6.i
Smp Info : DFTPP6P,DFTPP6P
Misc Info :
Comment :
Method : \\avogadro\organics\S6.I\130507.B\S6_dftppSOM.m
Meth Date : 03-May-2013 10:47 pkaczorows Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 50 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf * Vf/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
4.430	4.576	-0.146	198	119384			0.00- 100.00	100.00
4.430	4.576	-0.146	51	44280			10.00- 80.00	37.09
4.430	4.576	-0.146	68	0	0.0	0.0	0.00- 2.00	0.00
4.430	4.576	-0.146	69	60200			0.00- 0.00	50.43
4.430	4.576	-0.146	70	522			0.00- 2.00	0.87
4.430	4.576	-0.146	127	52352			10.00- 80.00	43.85
4.430	4.576	-0.146	197	870			0.00- 2.00	0.73
4.430	4.576	-0.146	199	7726			5.00- 9.00	6.47
4.430	4.576	-0.146	275	37728			10.00- 60.00	31.60
4.430	4.576	-0.146	365	5806			1.00- 0.00	4.86
4.430	4.576	-0.146	441	22824			0.01- 99.99	98.45
4.430	4.576	-0.146	442	115656			50.00- 100.00	96.88
4.430	4.576	-0.146	443	23184			15.00- 24.00	20.05

Data File: \\avogadro\organics\S6.I\130507.B\S6B3670.d

Date : 07-MAY-2013 10:12

Client ID: DFTPP6P

Instrument: S6.i

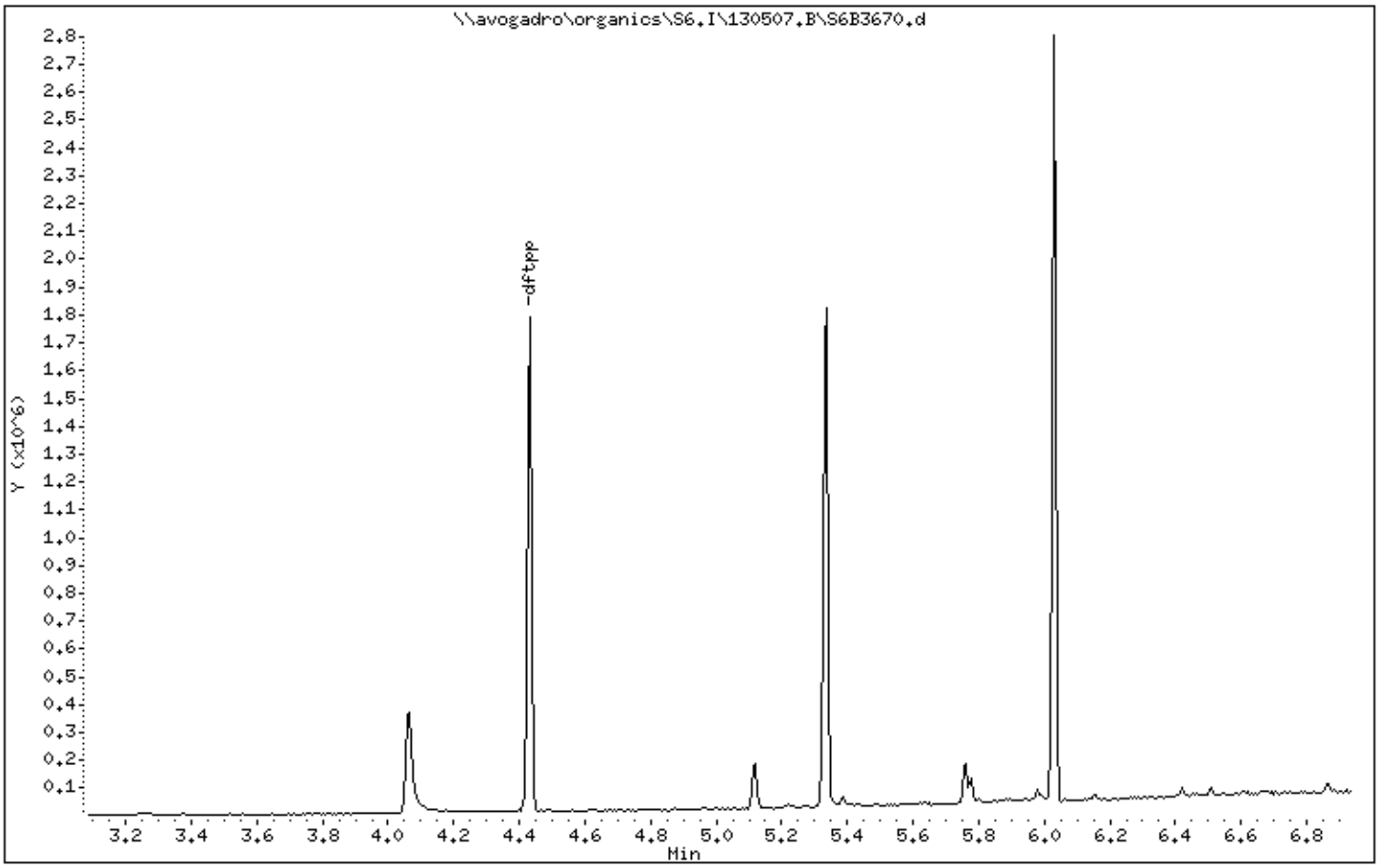
Sample Info: DFTPP6P,DFTPP6P

Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25



Data File: \\avogadro\organics\S6.I\130507.B\S6B3670.d

Date : 07-MAY-2013 10:12

Client ID: DFTPP6P

Instrument: S6.i

Sample Info: DFTPP6P,DFTPP6P

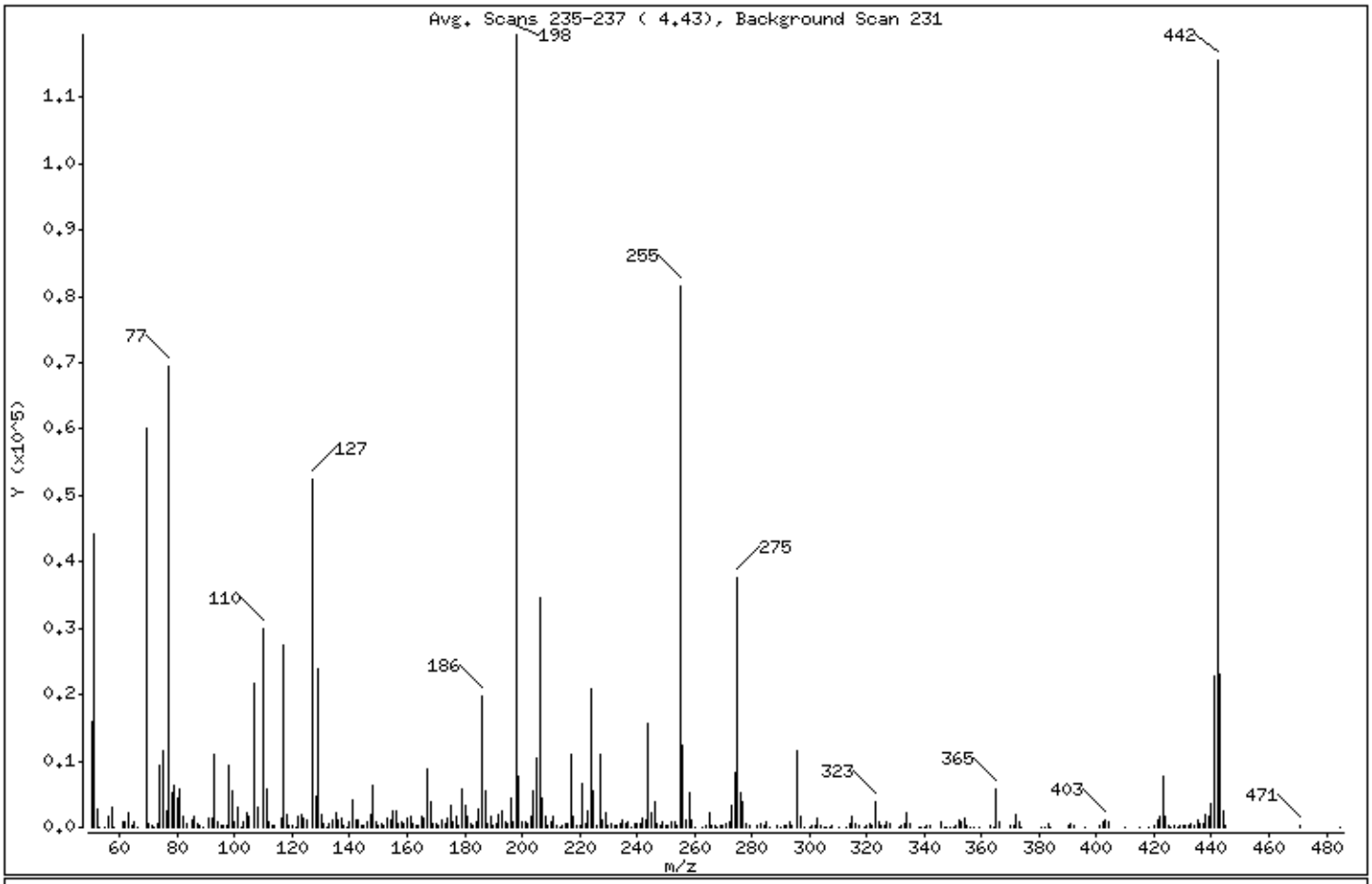
Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	37.09
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	50.43
70	Less than 2.00% of mass 69	0.44 (0.87)
127	10.00 - 80.00% of mass 198	43.85
197	Less than 2.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.47
275	10.00 - 60.00% of mass 198	31.60
365	Greater than 1.00% of mass 198	4.86
441	Present, but less than mass 443	19.12
442	50.00 - 100.00% of mass 198	96.88
443	15.00 - 24.00% of mass 442	19.42 (20.05)

Date : 07-MAY-2013 10:12

Client ID: DFTPP6P Instrument: S6.i

Sample Info: DFTPP6P,DFTPP6P

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3670.d
Spectrum: Avg. Scans 235-237 (4.43), Background Scan 231
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
50.00	16016	144.00	248	227.00	10928	322.00	166
51.00	44280	145.00	247	228.00	1132	323.00	3833
52.00	2825	146.00	788	229.00	2292	324.00	893
53.00	6	147.00	1811	230.00	264	325.00	204
55.00	2	148.00	6216	231.00	594	326.00	217
56.00	1619	149.00	749	232.00	299	327.00	792
57.00	3078	150.00	186	233.00	219	328.00	442
58.00	82	151.00	543	234.00	663	331.00	80
61.00	727	152.00	216	235.00	1074	332.00	261
62.00	822	153.00	1329	236.00	643	333.00	639
63.00	2286	154.00	988	237.00	830	334.00	2278
64.00	340	155.00	2356	238.00	65	335.00	547
65.00	747	156.00	2399	239.00	510	338.00	62
66.00	137	157.00	563	240.00	559	339.00	96
69.00	60200	158.00	858	241.00	475	340.00	93
70.00	522	159.00	488	242.00	1427	341.00	370
71.00	207	160.00	1325	243.00	1229	342.00	272
72.00	52	161.00	1540	244.00	15700	346.00	801
73.00	537	162.00	681	245.00	2307	347.00	113
74.00	9344	163.00	176	246.00	3728	348.00	52
75.00	11440	164.00	357	247.00	634	349.00	52
76.00	2540	165.00	1685	248.00	288	350.00	88
77.00	69320	166.00	1360	249.00	702	351.00	233
78.00	5272	167.00	8685	250.00	284	352.00	1217
79.00	6316	168.00	3951	251.00	342	353.00	741
80.00	4265	169.00	542	252.00	762	354.00	1248
81.00	5636	170.00	504	253.00	866	355.00	311
82.00	1661	171.00	335	254.00	317	356.00	58
83.00	650	172.00	1189	255.00	81424	357.00	68
85.00	979	173.00	651	256.00	12391	359.00	52
86.00	1711	174.00	1299	257.00	1011	363.00	240
87.00	627	175.00	3220	258.00	5256	364.00	134
88.00	219	176.00	787	259.00	1018	365.00	5806
89.00	22	177.00	1658	260.00	57	366.00	805
91.00	1465	178.00	333	263.00	65	370.00	338

Date : 07-MAY-2013 10:12

Client ID: DFTPP6P Instrument: S6.i

Sample Info: DFTPP6P,DFTPP6P

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3670.d
Spectrum: Avg. Scans 235-237 (4.43), Background Scan 231
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
92.00	1466	179.00	5893	264.00	259	371.00	274
93.00	10882	180.00	3289	265.00	2113	372.00	2039
94.00	806	181.00	1630	266.00	262	373.00	748
95.00	318	182.00	484	267.00	214	374.00	95
96.00	274	183.00	168	268.00	39	381.00	58
97.00	158	184.00	742	269.00	223	382.00	95
98.00	9335	185.00	2734	270.00	243	383.00	558
99.00	5585	186.00	19768	271.00	589	384.00	59
100.00	687	187.00	5585	272.00	731	390.00	256
101.00	2926	188.00	557	273.00	3323	391.00	434
102.00	133	189.00	1677	274.00	8224	392.00	147
103.00	895	190.00	397	275.00	37728	396.00	71
104.00	2316	191.00	680	276.00	5217	401.00	148
105.00	1586	192.00	2045	277.00	3941	402.00	942
107.00	21680	193.00	2429	278.00	680	403.00	977
108.00	3098	194.00	712	279.00	154	404.00	894
110.00	30008	195.00	512	282.00	397	410.00	60
111.00	5650	196.00	4408	283.00	526	415.00	66
112.00	832	197.00	870	284.00	196	418.00	118
113.00	355	198.00	119384	285.00	733	420.00	190
114.00	263	199.00	7726	286.00	116	421.00	1184
116.00	1401	200.00	691	289.00	215	422.00	1537
117.00	27328	201.00	758	290.00	95	423.00	7664
118.00	1913	202.00	622	291.00	360	424.00	1686
119.00	383	203.00	1512	292.00	356	425.00	259
120.00	388	204.00	5618	293.00	910	426.00	117
121.00	101	205.00	10435	294.00	185	427.00	177
122.00	1614	206.00	34456	296.00	11534	428.00	125
123.00	2026	207.00	4354	297.00	1609	429.00	346
124.00	1311	208.00	1578	298.00	127	430.00	155
125.00	1042	209.00	366	300.00	65	431.00	361
127.00	52352	210.00	711	301.00	284	432.00	410
128.00	4558	211.00	1723	302.00	306	433.00	527
129.00	23888	212.00	352	303.00	1375	434.00	242
130.00	2020	213.00	124	304.00	344	435.00	987

Date : 07-MAY-2013 10:12

Client ID: DFTPP6P Instrument: S6.i

Sample Info: DFTPP6P,DFTPP6P

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S6B3670.d
Spectrum: Avg. Scans 235-237 (4.43), Background Scan 231
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
131.00	511	214.00	251	305.00	54	436.00	495
132.00	17	215.00	628	306.00	68	437.00	540
133.00	504	216.00	677	307.00	52	438.00	1990
134.00	1139	217.00	10867	308.00	175	439.00	1727
135.00	2235	218.00	1517	310.00	69	440.00	3474
136.00	978	219.00	166	313.00	112	441.00	22824
137.00	1469	220.00	393	314.00	651	442.00	115656
138.00	178	221.00	6658	315.00	1554	443.00	23184
139.00	70	222.00	552	316.00	647	444.00	2350
140.00	744	223.00	2599	317.00	158	445.00	163
141.00	4039	224.00	20984	319.00	61	471.00	142
142.00	1201	225.00	5617	320.00	149	485.00	66
143.00	1051	226.00	299	321.00	512		

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

MB-71418

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-71418

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S6B3562.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/02/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	330	U
91-57-6	2-Methylnaphthalene	330	U
208-96-8	Acenaphthylene	330	U
83-32-9	Acenaphthene	330	U
86-73-7	Fluorene	330	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

Data File: \\Avogadro\Organics\S6.I\130502.B\S6B3562.d
Report Date: 06-May-2013 13:52

Spectrum Analytical, Inc. RI Division

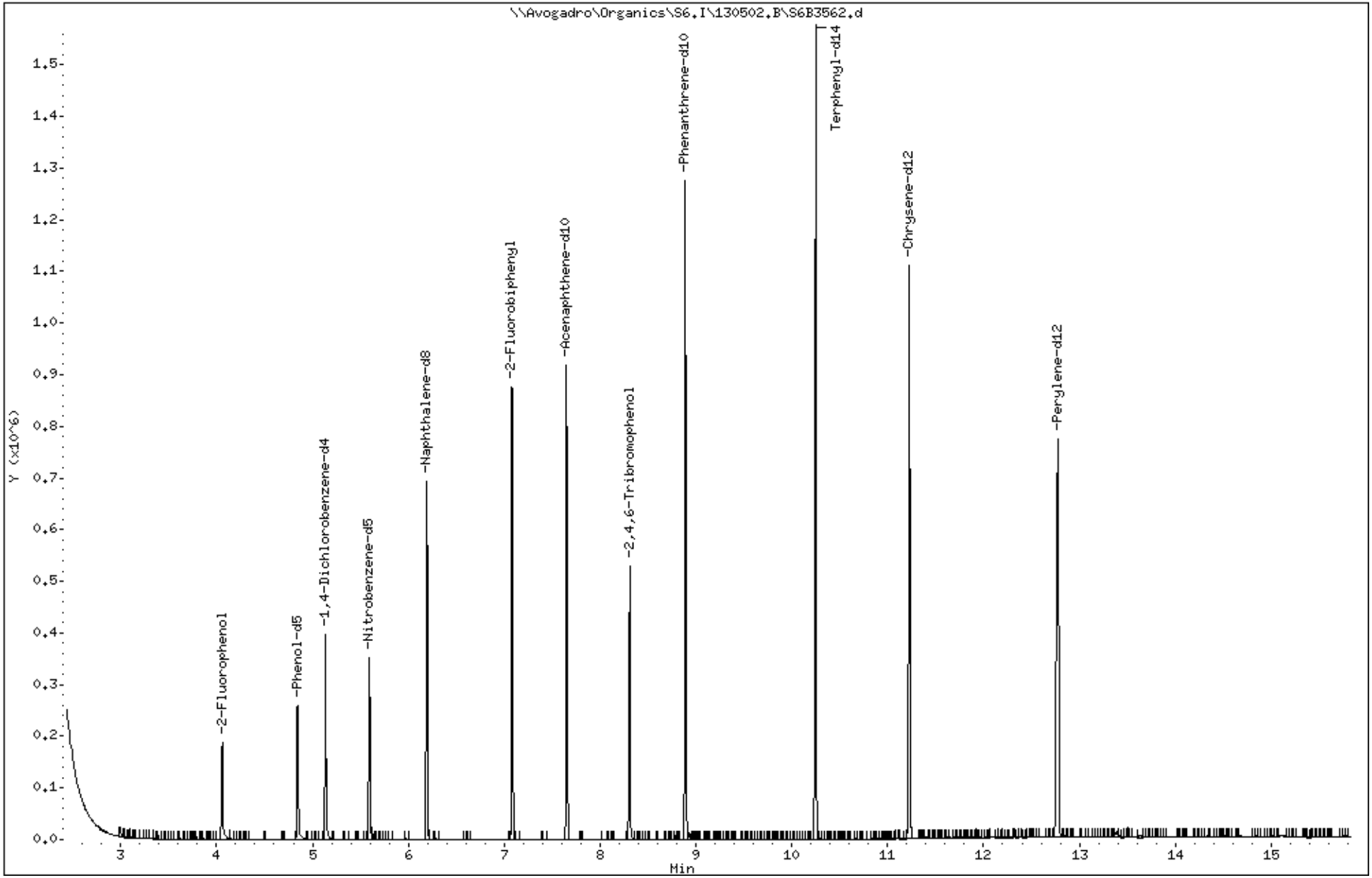
Data file : \\Avogadro\Organics\S6.I\130502.B\S6B3562.d
Lab Smp Id: MB-71418 Client Smp ID: MB-71418
Inj Date : 02-MAY-2013 11:26
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : MB-71418,MB-71418,71418
Misc Info :
Comment :
Method : \\avogadro\organics\S6.I\130502.B\S6_8270C_N.m
Meth Date : 06-May-2013 13:52 mscarpaci Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET104

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
$	3 2-Fluorophenol	112	4.060	4.059	(0.791)	52083	39.2588	2600
$	5 Phenol-d5	99	4.847	4.847	(0.944)	89997	46.2908	3100
*	12 1,4-Dichlorobenzene-d4	152	5.135	5.135	(1.000)	47014	40.0000	
$	22 Nitrobenzene-d5	82	5.593	5.593	(0.903)	101463	49.6578	3300
*	31 Naphthalene-d8	136	6.192	6.192	(1.000)	228660	40.0000	
$	41 2-Fluorobiphenyl	172	7.085	7.079	(0.926)	241448	46.3636	3100
*	48 Acenaphthene-d10	164	7.650	7.649	(1.000)	178292	40.0000	
$	60 2,4,6-Tribromophenol	330	8.308	8.307	(0.935)	47608	52.3863	3500
*	64 Phenanthrene-d10	188	8.889	8.889	(1.000)	383792	40.0000	
$	72 Terphenyl-d14	244	10.247	10.235	(0.913)	415613	60.1862	4000
*	76 Chrysene-d12	240	11.228	11.198	(1.000)	460236	40.0000	
*	83 Perylene-d12	264	12.773	12.738	(1.000)	439256	40.0000	

Data File: \\Avogadro\Organics\S6.I\130502.B\S6B3562.d
Date : 02-MAY-2013 11:26
Client ID: MB-71418
Instrument: S6.i
Sample Info: MB-71418,MB-71418,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUP1MS

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16AMS

Sample wt/vol: 15.3 (g/mL) G Lab File ID: S6B3664.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	2600	
91-57-6	2-Methylnaphthalene	2500	
208-96-8	Acenaphthylene	2700	
83-32-9	Acenaphthene	2700	
86-73-7	Fluorene	2800	
85-01-8	Phenanthrene	3000	
120-12-7	Anthracene	2800	
206-44-0	Fluoranthene	3200	
129-00-0	Pyrene	3500	
56-55-3	Benzo(a)anthracene	3400	
218-01-9	Chrysene	3400	
205-99-2	Benzo(b)fluoranthene	3100	
207-08-9	Benzo(k)fluoranthene	2900	
50-32-8	Benzo(a)pyrene	3000	
193-39-5	Indeno(1,2,3-cd)pyrene	3000	
53-70-3	Dibenzo(a,h)anthracene	3000	
191-24-2	Benzo(g,h,i)perylene	3100	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3664.d
Report Date: 07-May-2013 10:03

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3664.d
Lab Smp Id: M0619-16AMS Client Smp ID: DUP1MS
Inj Date : 07-MAY-2013 00:01
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : M0619-16AMS,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 24 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.300	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	249599	40.0000	
$	22 Nitrobenzene-d5	82	5.525	5.519	(0.903)	295141	37.0482	2400
*	31 Naphthalene-d8	136	6.119	6.113	(1.000)	891522	40.0000	
	32 Naphthalene	128	6.136	6.130	(1.003)	684785	35.4330	2300
	36 2-Methylnaphthalene	142	6.701	6.700	(1.095)	508383	34.3191	2200
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	660694	38.3123	2500
	46 Acenaphthylene	152	7.453	7.452	(0.984)	815027	36.3725	2400
*	48 Acenaphthene-d10	164	7.570	7.570	(1.000)	590402	40.0000	
	49 Acenaphthene	153	7.599	7.599	(1.004)	545782	35.8369	2300
	55 Fluorene	166	8.023	8.022	(1.060)	693111	37.1993	2400
*	64 Phenanthrene-d10	188	8.804	8.804	(1.000)	1151048	40.0000	
	65 Phenanthrene	178	8.827	8.827	(1.003)	1082767	41.1573	2700
	66 Anthracene	178	8.869	8.868	(1.007)	1026743	37.9624	2500
	69 Fluoranthene	202	9.820	9.826	(1.115)	1412700	43.8778	2900
	71 Pyrene	202	10.020	10.020	(0.905)	1492735	47.0963	3100
$	72 Terphenyl-d14	244	10.126	10.138	(0.915)	975657	42.8955	2800
	75 Benzo(a)anthracene	228	11.060	11.083	(0.999)	1611490	46.1435	3000(H)
*	76 Chrysene-d12	240	11.072	11.101	(1.000)	1515910	40.0000	
	77 Chrysene	228	11.095	11.125	(1.002)	1357053	46.4605	3000

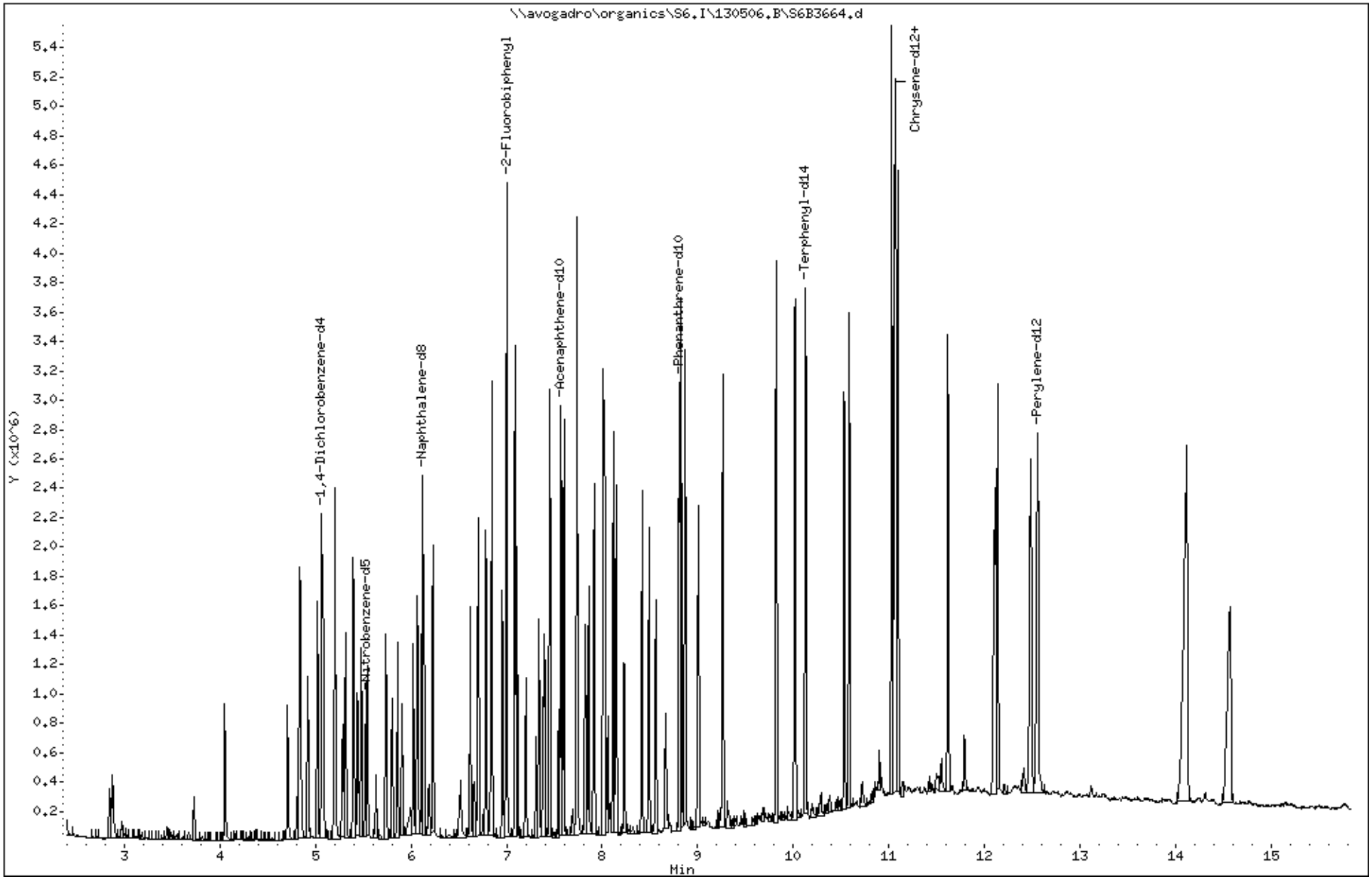
Data File: \\avogadro\organics\S6.I\130506.B\S6B3664.d
Report Date: 07-May-2013 10:03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	80 Benzo(b)fluoranthene	252	12.112	12.141	(0.964)	1579849	41.5991	2700(H)
	81 Benzo(k)fluoranthene	252	12.141	12.170	(0.967)	1406432	39.5087	2600
	82 Benzo(a)pyrene	252	12.488	12.517	(0.994)	1363562	40.2250	2600
*	83 Perylene-d12	264	12.558	12.593	(1.000)	1452867	40.0000	
	84 Indeno(1,2,3-cd)pyrene	276	14.098	14.115	(1.123)	1726493	41.1000	2700
	85 Dibenzo(a,h)anthracene	278	14.121	14.133	(1.124)	1399342	39.9995	2600
	86 Benzo(g,h,i)perylene	276	14.568	14.579	(1.160)	1415004	41.4196	2700

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3664.d
Date : 07-MAY-2013 00:01
Client ID: DUP1MS
Instrument: S6.i
Sample Info: M0619-16AMS,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

DUP1MSD

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M0619-16AMSD

Sample wt/vol: 15.4 (g/mL) G Lab File ID: S6B3665.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 04/29/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/07/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	3000	
91-57-6	2-Methylnaphthalene	2800	
208-96-8	Acenaphthylene	3000	
83-32-9	Acenaphthene	3000	
86-73-7	Fluorene	3000	
85-01-8	Phenanthrene	3500	
120-12-7	Anthracene	3100	
206-44-0	Fluoranthene	3800	
129-00-0	Pyrene	3800	
56-55-3	Benzo(a)anthracene	3600	
218-01-9	Chrysene	3800	
205-99-2	Benzo(b)fluoranthene	3200	
207-08-9	Benzo(k)fluoranthene	3300	
50-32-8	Benzo(a)pyrene	3200	
193-39-5	Indeno(1,2,3-cd)pyrene	3300	
53-70-3	Dibenzo(a,h)anthracene	3200	
191-24-2	Benzo(g,h,i)perylene	3300	

Data File: \\avogadro\organics\S6.I\130506.B\S6B3665.d
Report Date: 07-May-2013 10:03

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130506.B\S6B3665.d
Lab Smp Id: M0619-16AMSD Client Smp ID: DUP1MSD
Inj Date : 07-MAY-2013 00:23
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : M0619-16AMSD,,71418
Misc Info :
Comment   :
Method   : \\avogadro\organics\S6.I\130506.B\S6_8270C_N.m
Meth Date : 07-May-2013 10:01 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.400	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
*	12 1,4-Dichlorobenzene-d4	152	5.067	5.061	(1.000)	260055	40.0000	
$	22 Nitrobenzene-d5	82	5.525	5.519	(0.903)	330804	40.9216	2600
*	31 Naphthalene-d8	136	6.119	6.113	(1.000)	904665	40.0000	
	32 Naphthalene	128	6.136	6.130	(1.003)	790660	40.3169	2600
	36 2-Methylnaphthalene	142	6.700	6.700	(1.095)	573511	38.1532	2500
$	41 2-Fluorobiphenyl	172	7.000	7.000	(0.925)	723567	42.1002	2700
	46 Acenaphthylene	152	7.452	7.452	(0.984)	897274	40.1786	2600
*	48 Acenaphthene-d10	164	7.570	7.570	(1.000)	588410	40.0000	
	49 Acenaphthene	153	7.599	7.599	(1.004)	608746	40.1065	2600
	55 Fluorene	166	8.022	8.022	(1.060)	747612	40.2602	2600
*	64 Phenanthrene-d10	188	8.810	8.804	(1.000)	1129494	40.0000	
	65 Phenanthrene	178	8.827	8.827	(1.002)	1232470	47.7417	3100
	66 Anthracene	178	8.868	8.868	(1.007)	1102733	41.5500	2700
	69 Fluoranthene	202	9.826	9.826	(1.115)	1616596	51.1688	3300
	71 Pyrene	202	10.020	10.020	(0.905)	1625892	51.6186	3400
$	72 Terphenyl-d14	244	10.126	10.138	(0.915)	1063066	47.0311	3000
	75 Benzo(a)anthracene	228	11.060	11.083	(0.999)	1674926	48.2602	3100(H)
*	76 Chrysene-d12	240	11.072	11.101	(1.000)	1506478	40.0000	
	77 Chrysene	228	11.095	11.125	(1.002)	1481078	51.0242	3300

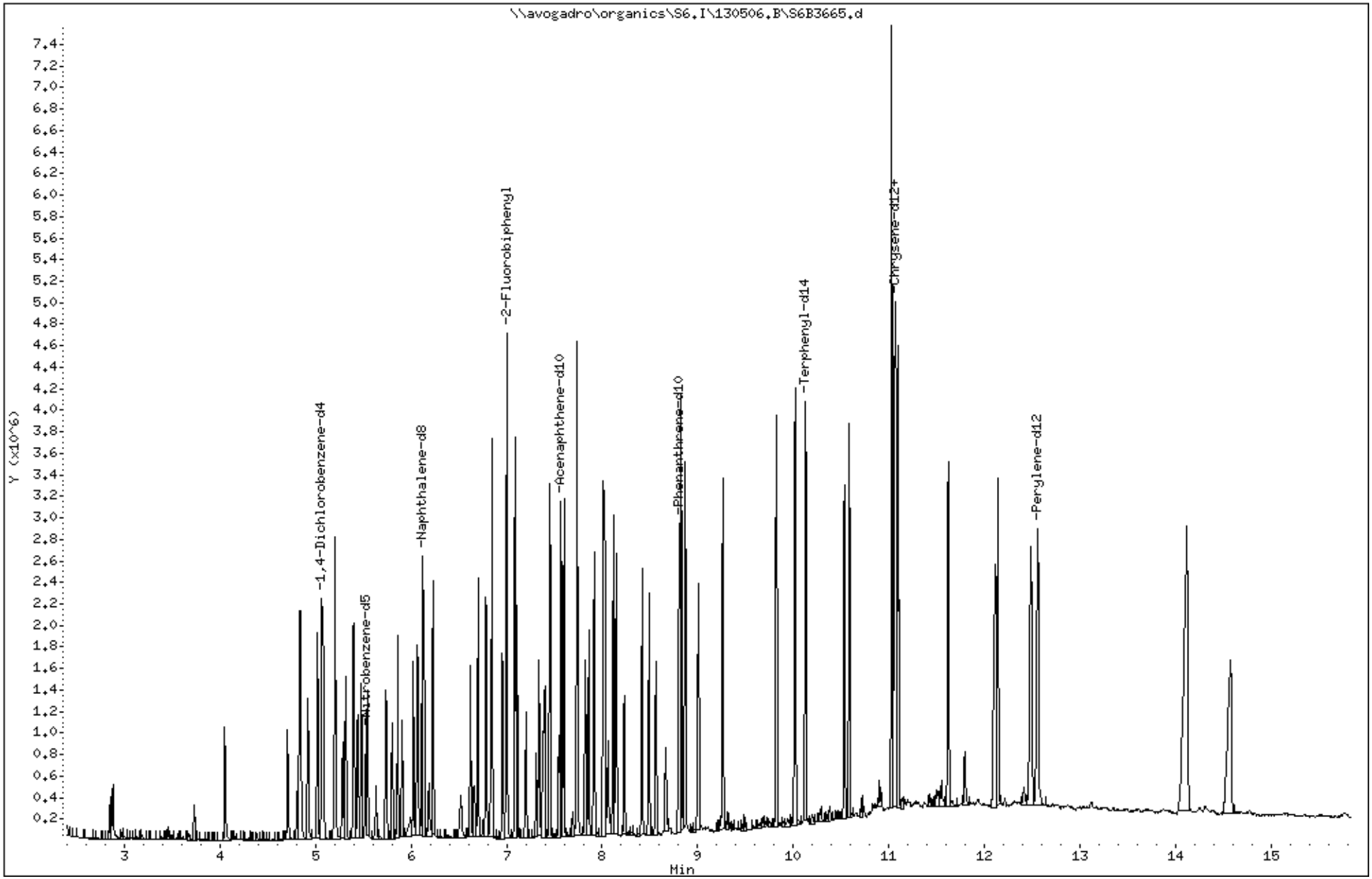
Data File: \\avogadro\organics\S6.I\130506.B\S6B3665.d
Report Date: 07-May-2013 10:03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	80 Benzo(b)fluoranthene	252	12.112	12.141	(0.964)	1653315	43.4972	2800(H)
	81 Benzo(k)fluoranthene	252	12.141	12.170	(0.967)	1594566	44.7563	2900
	82 Benzo(a)pyrene	252	12.488	12.517	(0.994)	1485690	43.7912	2800
*	83 Perylene-d12	264	12.558	12.593	(1.000)	1454081	40.0000	
	84 Indeno(1,2,3-cd)pyrene	276	14.104	14.115	(1.123)	1866062	44.3854	2900
	85 Dibenzo(a,h)anthracene	278	14.121	14.133	(1.124)	1516139	43.3020	2800
	86 Benzo(g,h,i)perylene	276	14.574	14.579	(1.160)	1526562	44.6478	2900

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S6.I\130506.B\S6B3665.d
Date : 07-MAY-2013 00:23
Client ID: DUP1MSD
Instrument: S6.i
Sample Info: M0619-16AMSD,,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

LCS-71418

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M0619 Mod. Ref No.: SDG No.: SM0619

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-71418

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S6B3571B.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 04/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 05/02/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	3100	
91-57-6	2-Methylnaphthalene	3000	
208-96-8	Acenaphthylene	3000	
83-32-9	Acenaphthene	3000	
86-73-7	Fluorene	3100	
85-01-8	Phenanthrene	3200	
120-12-7	Anthracene	3100	
206-44-0	Fluoranthene	3100	
129-00-0	Pyrene	3200	
56-55-3	Benzo(a)anthracene	3200	
218-01-9	Chrysene	3500	
205-99-2	Benzo(b)fluoranthene	2900	
207-08-9	Benzo(k)fluoranthene	3000	
50-32-8	Benzo(a)pyrene	3000	
193-39-5	Indeno(1,2,3-cd)pyrene	2900	
53-70-3	Dibenzo(a,h)anthracene	2900	
191-24-2	Benzo(g,h,i)perylene	2900	

Data File: \\avogadro\organics\S6.I\130502.B\S6B3571B.d
Report Date: 06-May-2013 13:04

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S6.I\130502.B\S6B3571B.d
Lab Smp Id: LCS-71418 Client Smp ID: LCS-71418
Inj Date : 02-MAY-2013 18:23
Operator : PK SRC: LIMS Inst ID: S6.i
Smp Info : LCS-71418,LCS-71418,71418
Misc Info :
Comment :
Method : \\avogadro\organics\S6.I\130502.B\S6_8270C_N.m
Meth Date : 06-May-2013 13:04 S6.i Quant Type: ISTD
Cal Date : 17-APR-2013 13:22 Cal File: S6B3261A.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
1	N-Nitrosodimethylamine	74	2.831	2.831	(0.551)	59013	47.5179	3200
2	Pyridine	79	2.855	2.861	(0.555)	68616	31.8616	2100
$ 3	2-Fluorophenol	112	4.071	4.059	(0.792)	99212	48.9477	3300
101	Benzaldehyde	77	4.770	4.770	(0.928)	64884	35.0641	2300
$ 5	Phenol-d5	99	4.852	4.847	(0.944)	132095	44.4714	3000
6	Phenol	94	4.864	4.858	(0.946)	149114	47.4474	3200
7	Aniline	66	4.864	4.858	(0.946)	133715	65.3738	4400
8	bis(2-Chloroethyl)Ether	63	4.911	4.911	(0.955)	53466	39.2437	2600(Q)
10	2-Chlorophenol	128	4.976	4.970	(0.968)	100371	46.2970	3100
11	1,3-Dichlorobenzene	146	5.093	5.093	(0.991)	103339	43.3086	2900
* 12	1,4-Dichlorobenzene-d4	152	5.140	5.135	(1.000)	71829	40.0000	
13	1,4-Dichlorobenzene	146	5.152	5.152	(1.002)	111085	44.5988	3000
15	Benzyl Alcohol	108	5.258	5.252	(1.023)	71230	41.6599	2800
16	1,2-Dichlorobenzene	146	5.281	5.281	(1.027)	105208	45.1172	3000
17	2-Methylphenol	108	5.358	5.352	(1.042)	98252	43.4375	2900
18	2,2'-oxybis(1-Chloropropane)	45	5.358	5.358	(1.042)	58693	38.2759	2600
99	Acetophenone	105	5.469	5.470	(1.064)	154575	39.8876	2600
19	N-Nitroso-di-n-propylamine	70	5.475	5.464	(1.065)	81052	40.9169	2700
20	4-Methylphenol	108	5.481	5.481	(1.066)	105417	41.8163	2800

			QUANT SIG					CONCENTRATIONS	
								ON-COLUMN	FINAL
	Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ug/Kg)
	21	Hexachloroethane	117	5.563	5.564	(1.082)	41970	43.4011	2900
$	22	Nitrobenzene-d5	82	5.599	5.593	(0.903)	132302	50.8383	3400(R)
	23	Nitrobenzene	77	5.616	5.611	(0.906)	132735	48.3669	3200
	24	Isophorone	82	5.810	5.804	(0.937)	199400	41.0165	2700
	25	2-Nitrophenol	139	5.875	5.875	(0.948)	57714	49.2219	3300(Q)
	26	2,4-Dimethylphenol	107	5.916	5.910	(0.954)	118114	46.5735	3100
	27	bis(2-Chloroethoxy)methane	93	5.981	5.981	(0.965)	110260	42.4208	2800
	28	Benzoic Acid	105	6.033	6.004	(0.973)	73987	45.5234	3000
	29	2,4-Dichlorophenol	162	6.086	6.081	(0.982)	91229	44.8647	3000
	30	1,2,4-Trichlorobenzene	180	6.145	6.145	(0.991)	106537	47.1318	3100
*	31	Naphthalene-d8	136	6.198	6.192	(1.000)	291236	40.0000	
	32	Naphthalene	128	6.216	6.210	(1.003)	291874	46.2313	3100
	33	4-Chloroaniline	127	6.257	6.251	(1.009)	79724	31.2457	2100
	34	Hexachlorobutadiene	225	6.315	6.316	(1.019)	65550	47.9114	3200
	102	Caprolactam	113	6.568	6.545	(1.060)	41157	55.3542	3700
	35	4-Chloro-3-Methylphenol	107	6.668	6.662	(1.076)	106513	45.7879	3000
	36	2-Methylnaphthalene	142	6.786	6.780	(1.095)	217317	44.9082	3000
	114	1-Methylnaphthalene	142	6.868	6.868	(1.108)	197539	44.0006	2900
	38	Hexachlorocyclopentadiene	237	6.921	6.921	(0.904)	56458	42.8763	2800
	112	1,2,4,5-Tetrachlorobenzene	216	6.927	6.927	(0.905)	181405	71.9099	4800(R)
	39	2,4,6-Trichlorophenol	196	7.021	7.021	(0.917)	79073	49.3014	3300
	40	2,4,5-Trichlorophenol	196	7.062	7.056	(0.922)	81045	47.2693	3200
$	41	2-Fluorobiphenyl	172	7.085	7.079	(0.926)	253068	45.2915	3000
	98	1,1'-Biphenyl	154	7.167	7.168	(0.936)	320593	52.2338	3500
	42	2-Chloronaphthalene	162	7.191	7.185	(0.939)	213111	47.8598	3200
	43	2-Nitroaniline	65	7.273	7.267	(0.950)	76223	52.2802	3500
	44	Dimethylphthalate	163	7.420	7.414	(0.969)	240928	43.5703	2900
	45	2,6-Dinitrotoluene	165	7.467	7.461	(0.975)	63345	47.2924	3200
	46	Acenaphthylene	152	7.538	7.532	(0.985)	329571	45.3934	3000
	47	3-Nitroaniline	138	7.614	7.608	(0.995)	57211	43.6926	2900
*	48	Acenaphthene-d10	164	7.655	7.649	(1.000)	191296	40.0000	
	49	Acenaphthene	153	7.679	7.679	(1.003)	224683	45.5326	3000
	50	2,4-Dinitrophenol	184	7.696	7.696	(1.005)	34687	69.3894	4600(QR)
	51	4-Nitrophenol	109	7.761	7.755	(1.014)	64211	52.9266	3500
	53	2,4-Dinitrotoluene	165	7.802	7.802	(1.019)	86988	47.8390	3200
	52	Dibenzofuran	168	7.820	7.820	(1.021)	312236	45.2427	3000
	110	2,3,4,6-Tetrachlorophenol	232	7.925	7.926	(1.035)	75446	47.3252	3200
	54	Diethylphthalate	149	7.996	7.990	(1.045)	246024	41.3359	2800
	56	4-Chlorophenyl-phenylether	204	8.096	8.096	(1.058)	143221	44.6241	3000
	55	Fluorene	166	8.108	8.102	(1.059)	278859	46.1912	3100
	57	4-Nitroaniline	138	8.125	8.119	(1.061)	71257	54.9880	3700
	58	4,6-Dinitro-2-methylphenol	198	8.149	8.143	(0.917)	53860	62.8338	4200
	59	N-Nitrosodiphenylamine	169	8.196	8.190	(0.922)	234847	46.7555	3100
	97	Azobenzene	77	8.231	8.225	(0.926)	307471	44.5446	3000
$	60	2,4,6-Tribromophenol	330	8.307	8.307	(0.935)	51046	55.3458	3700
	61	4-Bromophenyl-phenylether	248	8.501	8.501	(0.956)	90890	47.6073	3200
	62	Hexachlorobenzene	284	8.572	8.572	(0.964)	98106	49.7962	3300
	100	Atrazine	200	8.630	8.625	(0.971)	75960	85.2035	5700(AR)
	63	Pentachlorophenol	266	8.736	8.736	(0.983)	62497	42.3347	2800
	111	Pentachloronitrobenzene	237	8.730	8.742	(0.982)	2339	2.47052	160(aQ)
*	64	Phenanthrene-d10	188	8.889	8.889	(1.000)	389503	40.0000	
	65	Phenanthrene	178	8.907	8.907	(1.002)	421468	47.3434	3200
	66	Anthracene	178	8.948	8.948	(1.007)	425034	46.4406	3100
	67	Carbazole	167	9.083	9.077	(1.022)	374445	55.7487	3700

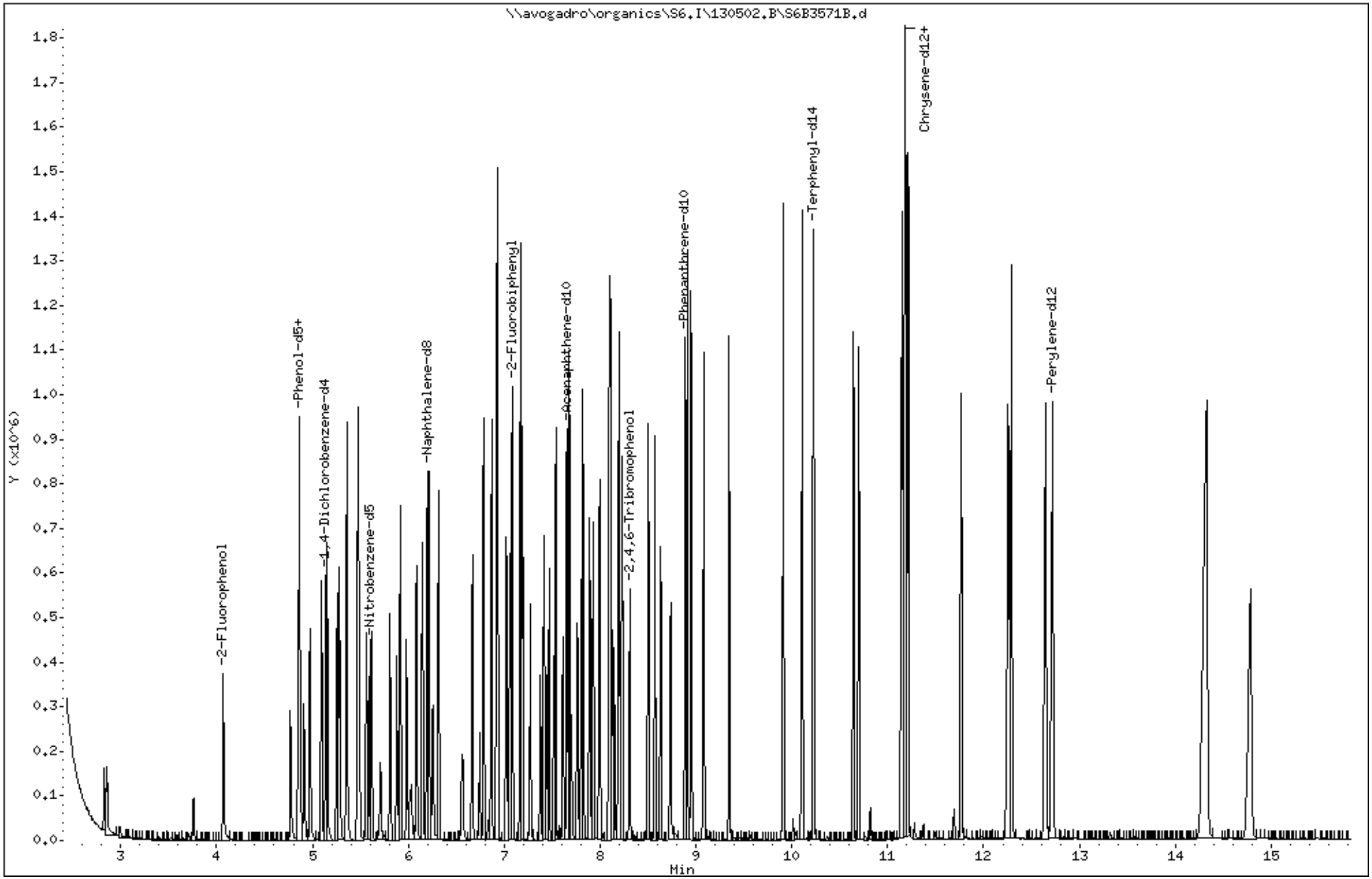
Data File: \\avogadro\organics\S6.I\130502.B\S6B3571B.d
Report Date: 06-May-2013 13:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
68	Di-n-butylphthalate	149	9.347	9.347	(1.052)	418372	40.4240	2700
69	Fluoranthene	202	9.911	9.917	(1.115)	511562	46.9543	3100
70	Benzidine	184	10.011	10.017	(0.895)	17905	8.64033	580(a)
71	Pyrene	202	10.111	10.117	(0.904)	539476	47.8198	3200
$ 72	Terphenyl-d14	244	10.229	10.235	(0.914)	400719	49.4978	3300
73	Butylbenzylphthalate	149	10.640	10.652	(0.951)	204623	41.2343	2700
74	3,3'-Dichlorobenzidine	252	11.139	11.151	(0.996)	183873	44.8878	3000
78	bis(2-Ethylhexyl)phthalate	149	11.151	11.169	(0.997)	273624	35.3471	2400
75	Benzo(a)anthracene	228	11.175	11.186	(0.999)	591916	47.6184	3200
* 76	Chrysene-d12	240	11.186	11.198	(1.000)	539563	40.0000	
77	Chrysene	228	11.210	11.222	(1.002)	549677	52.8721	3500
79	Di-n-octylphthalate	149	11.768	11.786	(0.925)	464658	32.0949	2100
80	Benzo(b)fluoranthene	252	12.256	12.268	(0.964)	645576	43.6364	2900
81	Benzo(k)fluoranthene	252	12.291	12.303	(0.966)	629811	45.4170	3000
82	Benzo(a)pyrene	252	12.649	12.661	(0.994)	588403	44.5584	3000
* 83	Perylene-d12	264	12.720	12.738	(1.000)	565969	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	14.300	14.306	(1.124)	709609	43.3640	2900
85	Dibenzo(a,h)anthracene	278	14.324	14.330	(1.126)	587001	43.0728	2900
86	Benzo(g,h,i)perylene	276	14.788	14.788	(1.163)	587735	44.1635	2900

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\S6.I\130502.B\S6B3571B.d
Date : 02-MAY-2013 18:23
Client ID: LCS-71418
Instrument: S6.i
Sample Info: LCS-71418,LCS-71418,71418
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



M0619

Prep Start Date: **04/30/2013 09:00**
Prep End Date: **05/01/2013 16:16** Prep Code: **BNA_S_PR** Prep Type: **SONC/SW3550B** Prep Factor Units: **mL / g**
Prep Batch ID: **71418** Technician: **James Kyle Dorsey**

QC Matrix: NA2SO4 | Solvent (1): MECL2 | Solvent (3): N/A | Solvent (5): N/A | Clean Up (1): N/A | Clean Up (3): N/A
QC Matrix Lot: 121756 | Solvent (1) Lot: DH 299 | Solvent (3) Lot: N/A | Solvent (5) Lot: N/A | Clean Up (1) Lot: N/A | Clean Up (1) Lot: N/A

Filter?: FILTER | Solvent (2): N/A | Solvent (4): N/A | Solvent (6): N/A | Clean Up (2): N/A | Clean Up (4): N/A
Filter Lot: FC003203 | Solvent (2) Lot: N/A | Solvent (4) Lot: N/A | Solvent (6) Lot: N/A | Clean Up (2) Lot: N/A | Clean Up (4) Lot: N/A

Start Time: N/A | Cycles/Hour 0 | Sonicator Tuned?Yes | Bath Temp1 (C): 87 | Therm ID1: MT-88
End Time: N/A

Mitkem Sample ID	Client Samp ID	M	Initial (mL/g)	Final (mL)	Surrogate Spike ID	Surr (mL)	LCS/D MS/D Spike ID	Spike (mL)	A* Init	W* Init	Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	CNCNTR Unit
MB-71418	BatchQC		15	1	OSW130404B	1			JKD	TM			05/01/13	JKD	R7		☐	☐	KD 1
LCS-71418	BatchQC		15	1	OSW130404B	1	OSW130404A	1	JKD	TM			05/01/13	JKD	R7		☐	☐	KD 1
M0588-01A	CS-BOT21	S	15.2	1	OSW130404B	1			JKD	TM	05/06/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0588-02A	CS-SW17	S	15.2	1	OSW130404B	1			JKD	TM	05/06/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0588-03A	BLIND DUP	S	15.8	1	OSW130404B	1			JKD	TM	05/06/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-01A	SB-126 (0-2)	S	15.1	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-02A	SB-126 (8-10)	S	15.3	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-03A	SB-126 (10.5-12.5)	S	15.8	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-04A	SB-127 (3-5)	S	15.5	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-05A	SB-127 (8-10)	S	15.4	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-06A	SB-127 (10-12)	S	15.4	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-07A	SB-128 (2-4)	S	15.2	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-08A	SB-128 (10-12)	S	15.1	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-09A	SB-128 (18-20)	S	15.4	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-10A	SB-129 (1-3)	S	15.1	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-11A	SB-129 (8-10)	S	15.1	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-12A	SB-129 (18-20)	S	15.3	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-13A	SB-130 (2-4)	S	15.1	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-14A	SB-130 (15-17)	S	15	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-15A	SB-130 (18-20)	S	15.5	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-16A	DUP1	S	15.2	1	OSW130404B	1			JKD	TM	05/09/13	01	05/01/13	JKD	R7		☐	☐	KD 1
M0619-16AMS	DUP1	S	15.3	1	OSW130404B	1	OSW130404A	1	JKD	TM	05/09/13		05/01/13	JKD	R7		☐	☐	KD 1
M0619-16AMSD	DUP1	S	15.4	1	OSW130404B	1	OSW130404A	1	JKD	TM	05/09/13		05/01/13	JKD	R7		☐	☐	KD 1

James Kyle Dorsey 05/01/2013
Analyst Reviewed Date

Jodie B Warner 05/01/2013
Manager Reviewed Date

JW 5/1/13

Logbook ID: 50.0147-04/13

Percent Moisture and Percent Solids Report

Lab Sample ID	Client Sample ID	Analyzed	Percent Moisture	Percent Solids	Validated
M0619-01A	SB-126 (0-2)	05/07/2013	17.450	82.550	Yes
M0619-02A	SB-126 (8-10)	05/07/2013	12.330	87.670	Yes
M0619-03A	SB-126 (10.5-12.5)	05/07/2013	21.925	78.075	Yes
M0619-04A	SB-127 (3-5)	05/07/2013	11.892	88.108	Yes
M0619-05A	SB-127 (8-10)	05/07/2013	8.416	91.584	Yes
M0619-06A	SB-127 (10-12)	05/07/2013	22.016	77.984	Yes
M0619-07A	SB-128 (2-4)	05/07/2013	12.000	88.000	Yes
M0619-08A	SB-128 (10-12)	05/07/2013	11.716	88.284	Yes
M0619-09A	SB-128 (18-20)	05/07/2013	8.595	91.405	Yes
M0619-10A	SB-129 (1-3)	05/07/2013	15.400	84.600	Yes
M0619-11A	SB-129 (8-10)	05/07/2013	10.226	89.774	Yes
M0619-12A	SB-129 (18-20)	05/07/2013	6.667	93.333	Yes
M0619-13A	SB-130 (2-4)	05/07/2013	12.500	87.500	Yes
M0619-14A	SB-130 (15-17)	05/07/2013	15.547	84.453	Yes
M0619-15A	SB-130 (18-20)	05/07/2013	7.546	92.454	Yes
M0619-16A	DUP1	05/07/2013	11.744	88.256	Yes

Spectrum Analytical, Inc. RI Division S6 Injection Log
Semivolatiles Laboratory

L1 - SQ130408A
L2 B
L3 C
L4 D
L5 E
L6 F

METHOD: 8270
ICAL DATE: 4/17/13
ANALYST: MK
EMV: 1823

BATCH: 130417.B

Start: 17-APR-13 12:32
End: 17-APR-13 15:35

Internal Standard: SI120822A
Comments:

#10170 Tune - SI120820A

Inlet Maintenance By: MK
Liner : clean
Column : clipped
Inlet Seal: clean
Septum : New

Reviewed By: MMS 4/18/13

Manual Integration: MA

MI Review: MA

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	INTERNAL STANDARDS DCB	NPT	ANT	PHN	CRY	PRY	SURROGATES BN NBZ	BN FBP	BN TPH	ACID PHL	ACID 2FP	ACID TBP	OLM DCB	OLM 2CP	DILN	FLG	COMMENTS
S6B3260M	12:32	DFTPP6B	DFTPP6B		AQ															1		ok
S6B3261A	13:22	SSTD0256B	SSTD0256B		AQ	100	100	100	100	100	100									1		
S6B3262	13:44	SSTD0806B	SSTD0806B		AQ	99	113	100	102	111	108									1		
S6B3263	14:06	SSTD0056B	SSTD0056B		AQ	101	96	101	104	101	102									1		
S6B3264	14:28	SSTD0606B	SSTD0606B		AQ	94	104	97	99	103	102									1		
S6B3265	14:51	SSTD0106B	SSTD0106B		AQ	92	92	96	100	98	100									1		
S6B3266	15:13	SSTD0406B	SSTD0406B		AQ	91	98	95	99	99	100									1		
S6B3267	15:35	SICV0256B	SICV0256B		AQ	86	89	91	94	94	97	104	99	101	104	101	101			1		ok

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

MK 4/18/13

Logbook ID: 70.0195-04/13

Instrument S6
Injection Log

Spectrum Analytical, Inc. RI Div. SEMIVOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division S6 Injection Log
Semivolatiles Laboratory

METHOD: 8270
ICAL DATE: 4/17/13

ANALYST: MC
EMV: 1813

BATCH: 130502.B

Start: 02-MAY-13 09:13
End: 02-MAY-13 19:08

Internal Standard: SI130417A #10170 Tune-SI120820A
Comments: CB-SI130408C

Inlet Maintenance By: MC
Liner : NA
Column :
Inlet Seal:
Septum : ↓

Reviewed By: WMS 5/8/13

Manual Integration: MC

MI Review: WMS

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	INTERNAL STANDARDS DCB	NPT	ANT	PHN	CRY	PRY	SURROGATES BN NBZ	FBP	TPH	ACID PHL	2FP	TBP	OLM DCB	2CP	DILN	FLG	COMMENTS
S6B3560	09:13	DFTPP6M	DFTPP6M		AQ																	
S6B3561D	10:57	SSTD0256M	SSTD0256M		AQ	100	100	100	100	100	100									1		↓
S6B3562	11:26	MB-71418	MB-71418	71418	SL	112	110	117	118	105	101	99	93	120	92	78	105			1		↓
S6B3563B	14:22	MB-71441	MB-71441	71441	SL	163	133	121	110	92	92	111*	95	118	93	100	104			1		↓
S6B3564B	14:44	LCS-71441	LCS-71441	71441	SL	181	147	127	115	117	127	102*	95	99	91	96	114			1	ER	RR
S6B3565B	15:49	MB-71313	MB-71313	71313	SL	133	112	108	105	97	97	102*	87	106	90	90	97			1		↓
S6B3566B	16:33	OSW130501B			AQ	196	179	156	135	116	116	0*	0*	0*	0*	0*	0*			1	R	MI_70
S6B3567B	16:55	LCSD-71313	LCSD-71313	71313	SL	145	122	113	110	113	121	100*	92	100	96	93	117			1	R	↓
S6B3568B	17:16	LCS-71313	LCS-71313	71313	SL	154	121	109	101	108	115	97	91	100	89	94	112			1	R	↓
S6B3569B	17:38	MB-71456	MB-71456	71456	SL	183	146	130	119	103	101	98	88	104	80	89	100			1		↓
S6B3570B	18:01	LCS-71456	LCS-71456	71456	SL	119	101	93	94	100	105	101*	88	95	88	91	105			1	ER	RR
S6B3571B	18:23	LCS-71418	LCS-71418	71418	SL	172	140	126	120	123	131	102*	90	99	89	98	111			1	ER	↓
S6B3572D	19:08	LCSD-71441	LCSD-71441	71441	SL	188	155	137	127	126	133	101*	94	100	92	95	109			1	ER	↓

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

MC 5/5/13

M0619

Logbook ID: 70.0195-04/13

Instrument S6
Injection Log

Spectrum Analytical, Inc. RI Div. SEMIVOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division S6 Injection Log
Semivolatiles Laboratory

METHOD: 8270
ICAL DATE: 4/17/13

ANALYST: MC
EMV: 1813

BATCH: 130506.B

Start: 06-MAY-13 14:22
End: 07-MAY-13 00:23

Internal Standard: SQ1304174
Comments:

#10170

Tune - DFTPP 8270A
23-JU130408C

Inlet Maintenance By: MC
Liner : cleaned
Column : clipped
Inlet Seal: cleaned
Septum : NEW

Reviewed By: JMS 5/7/13

Manual Integration: MC

MI Review: JMS 5/7/13

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	INTERNAL STANDARDS DCB	NPT	ANT	PHN	CRY	PRY	SURROGATES BN NBZ	BN FBP	BN TPH	ACID PHL	ACID 2FP	ACID TBP	OLM DCB	OLM 2CP	DILN	FLG	COMMENTS
S6B3640C	14:22	DFTPP60	DFTPP60		AQ																	
S6B3641A	15:22	SSTD02560	SSTD02560		AQ	100	100	100	100	100	100									1		OK
S6B3642	15:56	MB-71359	MB-71359	71359	AQ	104	100	103	105	103	110	104	96	118*	79	83	102			1		PCP < 50% ok for MB80
S6B3643	16:18	LCS-71359	LCS-71359	71359	AQ	105	99	99	101	104	106	96	97	105	78	73	105			1		
S6B3644	16:39	LCSD-71359	LCSD-71359	71359	AQ	114	107	109	109	109	111	95	93	106	75	75	103			1	R	
S6B3645	17:01	M0571-03A	PS-2 CONDENSATE	71359	AQ	88	93	86	87	84	89				102	102	132D			1	R	
S6B3646	17:23	M0571-04A	DEWATERING AREA	71359	AQ	98	99	96	96	93	98				96	85	124			5		
S6B3647	17:45	M0580-02ADL	WETWELLDL	71359	AQ	115	112	109	108	105	113	27	16	4.9	28	16	24			10		
S6B3648	18:07	M0619-01A	SB-126 (0-2)	71418	SL	129	112	107	103	89	87	75	75	92						20		
S6B3649	18:29	M0619-02A	SB-126 (8-10)	71418	SL	121	105	101	98	84	86	87	82	105						1		MI_80_81
S6B3650	18:51	M0619-03A	SB-126 (10.5-12	71418	SL	116	105	101	109	106	95	81	83	90						1		OK MI_80
S6B3651	19:14	M0619-04A	SB-127 (3-5)	71418	SL	132	115	109	105	89	91	82	78	99						1	E	MI_80_81 DLx20
S6B3652	19:36	M0619-05A	SB-127 (8-10)	71418	SL	124	109	103	96	85	87	79	77	100						1		OK
S6B3653	19:58	M0619-06A	SB-127 (10-12)	71418	SL	127	174	123	99	99	107	62	59	73						1		OK MI_80_81
S6B3654	20:20	M0619-07A	SB-128 (2-4)	71418	SL	118	101	97	94	84	92	75	74	94						1	E	MI_32_80_81 DLx20
S6B3655	20:42	M0619-08A	SB-128 (10-12)	71418	SL	134	154	107	101	91	96	113*	83	93						1		OK MI_80_81
S6B3656	21:04	M0619-09A	SB-128 (18-20)	71418	SL	121	142	93	87	80	88	69	81	92						1	E	MI_22_32 DLx40
S6B3657	21:26	M0619-10A	SB-129 (1-3)	71418	SL	121	103	98	96	89	93	87	87	101						1	E	MI_32_80_81 DLx20
S6B3658	21:49	M0619-11A	SB-129 (8-10)	71418	SL	119	104	94	90	87	95	84	84	97						1		OK MI_80_81
S6B3659	22:11	M0619-12A	SB-129 (18-20)	71418	SL	110	92	89	85	80	85	86	81	98						1	E	MI_80_81 DLx2
S6B3660	22:33	M0619-13A	SB-130 (2-4)	71418	SL	104	88	84	84	80	84	80	81	94						1		OK
S6B3661	22:55	M0619-14A	SB-130 (15-17)	71418	SL	106	92	90	86	81	88	81	78	93						1		MI_80_81
S6B3662	23:17	M0619-15A	SB-130 (18-20)	71418	SL	121	102	100	97	87	92	88	83	103						1		
S6B3663	23:39	M0619-16A	DUP1	71418	SL	100	86	81	79	75	83	81	81	96						1		
S6B3664	00:01	M0619-16AMS	DUP1MS	71418	SL	104	90	86	83	81	85	74	77	86						1		MI_80_81
S6B3665	00:23	M0619-16AMSD	DUP1MSD	71418	SL	108	91	86	82	81	85	82	84	94						1		OK

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
I - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

MC 5/7/13

Page 111 of 825

M0619

Logbook ID: 70.0195-04/13

Instrument S6
Injection Log

Spectrum Analytical, Inc. RI Div. SEMIVOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division S6 Injection Log
Semivolatiles Laboratory

METHOD: 8270
ICAL DATE: 4/17/13

ANALYST: ML
EMV: 1813

BATCH: 130507.B

Start: 07-MAY-13 10:12
End: 08-MAY-13 08:45

Internal Standard: SI130417A
Comments:

#10170

Tune-ID:120820A
23-JU130408C

Inlet Maintenance By: ML
Liner : cleaned
Column : clipped
Inlet Seal: cleaned
Septum : new

Reviewed By: JMS 5/8/13

Manual Integration: ML

MI Review: JMS 5/8

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	INTERNAL STANDARDS DCB	NPT	ANT	PHN	CRY	PRY	SURROGATES BN NBZ	BN FBP	BN TPH	ACID PHL	ACID 2FP	ACID TBP	OLM DCB	OLM 2CP	DILN	FLG	COMMENTS
S6B3670	10:12	DFTPP6P	DFTPP6P		AQ																	
S6B3671A	11:26	SSTD0256P	SSTD0256P		AQ	100	100	100	100	100	100									1		au
S6B3672	11:49	MB-71359	MB-71359	71359	AQ	111	103	103	102	97	103	105	95	118	79	78	112			1		
S6B3673	12:11	M0553-11A	SED13-133	71313	SL	132	120	116	110	95	92	90	86	103	73	79	106			1		
S6B3674	12:33	M0619-03ADL	SB-126 (10.5-12	71418	SL	98	95	99	103	108	114	66	64	74						1		
S6B3675	12:55	M0619-06ADL	SB-127 (10-12)D	71418	SL	125	118	121	118	115	123	52	49	57						20		au MI_81
S6B3676	13:17	M0619-08ADL	SB-128 (10-12)D	71418	SL	125	118	120	119	115	122	0D	0D	0D						20	E	DIx2
S6B3677	13:38	M0619-09ADL	SB-128 (18-20)D	71418	SL	117	110	112	113	108	113	60	61	65						40	E	DIx4
S6B3678	14:01	M0619-11ADL	SB-129 (8-10)DL	71418	SL	125	117	116	114	111	116	71	68	80						20		au
S6B3679	15:15	M0619-06ADL	SB-127 (10-12)D	71418	SL	110	106	108	106	103	113	0D	0D	0D						2		MI_80_81
S6B3680	15:36	M0619-08ADL	SB-128 (10-12)D	71418	SL	119	112	114	113	107	114	0D	0D	0D						40		
S6B3681	15:58	MB-71506	MB-71506	71519	AQ	99	96	100	102	100	107	83	74	91	67	65	92			160		
S6B3682	16:20	LCS-71519	LCS-71519	71519	AQ	118	110	114	113	116	117	89	89	95	73	67	107			1		
S6B3683	16:42	LCSD-71519	LCSD-71519	71519	AQ	106	96	96	96	96	96	100	105	115	79	72	126*			1	R	au
S6B3684	17:04	M0641-01A	WC-1	71519	AQ	102	94	93	92	88	91	110*	101	120	56	63	125*			1	R	RR
S6B3685	17:26	M0641-02A	WC-2	71519	AQ	113	103	103	102	98	103	100	92	113	43	59	116			1		au
S6B3686	17:48	M0641-03A	WC-3	71519	AQ	104	95	95	93	89	92	116*	106	126	48	64	128*			1		
S6B3687	18:10	M0641-04A	WC-4	71519	AQ	104	97	96	94	90	92	111*	103	122	46	62	126*			1		
S6B3688	18:33	M0641-04AMS	WC-4MS	71519	AQ	105	97	96	95	96	96	104	106	112	44	56	123			1		
S6B3689	18:55	MB-71523	MB-71523	71523	AQ	102	96	96	95	87	92	100	95	122	78	79	120			1	R	
S6B3690	19:17	LCS-71523	LCS-71523	71523	AQ	101	93	93	92	94	95	98	100	108	78	73	121			1		au
S6B3691	19:39	LCSD-71523	LCSD-71523	71523	AQ	109	98	96	96	95	96	96	100	108	75	71	118			1	R	Don't use it
S6B3692	20:02	M0627-02A	COMP	71523	AQ	104	96	97	95	89	93	88	87	110	13	22	96			1	R	au
S6B3693	08:45	LCS-71523	LCS-71523	71523	AQ	68	64	65	67	71	74	89	84	91	68	65	100			1		au
																				1	RT	au

* - Internal Standard or Surrogate outside of control limits
+ - One or more target compounds are above the calibration range
- - Sample was injected outside of the 12 hour sequence

R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

ML 5/8/13

* Metals *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM

Project: Bay Ridge Holders, Former MGP

Laboratory Workorder / SDG #: M0619

SW846 6010C, SW846 7471B

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 6010C, SW846 7471B

IV. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3050B
Soil Samples were prepared following procedures in laboratory test code: SW7471B

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: FIMS2
Instrument Type: CVAA
Description: FIMS
Manufacturer: Perkin-Elmer
Model: FIMS100

Instrument Code: OPTIMA3
Instrument Type: ICP
Description: Optima ICP-OES
Manufacturer: Perkin-Elmer
Model: 4300 DV

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for laboratory control samples were within the QC limits.

2. Matrix spike (MS):

Matrix spikes were performed on sample: DUP1 (M0619-16AMS).

Percent recoveries were within the QC limits. Please note that the concentration of Lead in native sample DUP1 (M0619-16A) exceeded more than four times the amount spiked.

D. Post Digestion Spike (PDS):

A post-digestion spike was not performed on any sample in this SDG.

E. Duplicate sample:

Duplicate analyses were performed on sample: DUP1 (M0619-16ADUP).

Relative percent differences were within the QC limits with the

following exceptions:

DUP1 (M0619-16ADUP), Duplicate analysis not within control limit for Arsenic.

F. Serial Dilution (SD):

Serial Dilution analyses were performed on sample: DUP1 (M0619-16ASD).

Percent differences were within the QC limits.

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed: 

Date: 05/09/13

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

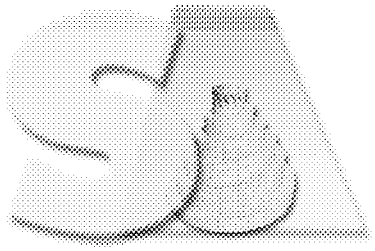
E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.



Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

U.S.EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

SOW No.: SW846

EPA Sample No.	Lab Sample ID
DUP1	M0619-16
DUP1D	M0619-16DUP
DUP1S	M0619-16MS
SB-126 (0-2)	M0619-01
SB-126 (10.5-12.5)	M0619-03
SB-126 (8-10)	M0619-02
SB-127 (10-12)	M0619-06
SB-127 (3-5)	M0619-04
SB-127 (8-10)	M0619-05
SB-128 (10-12)	M0619-08
SB-128 (18-20)	M0619-09
SB-128 (2-4)	M0619-07
SB-129 (1-3)	M0619-10
SB-129 (18-20)	M0619-12
SB-129 (8-10)	M0619-11
SB-130 (15-17)	M0619-14
SB-130 (18-20)	M0619-15
SB-130 (2-4)	M0619-13

Were ICP interelement corrections applied?	Yes/No	Yes
Were background corrections applied?	Yes/No	Yes
If yes-were raw data generated before application of background corrections?	Yes/No	No

Comments:

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 above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature

Signature: Name: Dawn E. Smart

Date: 5/9/13 Title:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

DUP1

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-16

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.9		*	P
7440-39-3	Barium	87.4			P
7440-43-9	Cadmium	0.81			P
7440-47-3	Chromium	27.3			P
7439-92-1	Lead	359			P
7439-97-6	Mercury	0.22			CV
7782-49-2	Selenium	2.8			P
7440-22-4	Silver	0.23	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-126 (0-2)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-01

Level (low/med): MED Date Received: 04/29/2013

% Solids: 82.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.9		*	P
7440-39-3	Barium	71.1			P
7440-43-9	Cadmium	0.72			P
7440-47-3	Chromium	22.6			P
7439-92-1	Lead	251			P
7439-97-6	Mercury	0.21			CV
7782-49-2	Selenium	2.4			P
7440-22-4	Silver	0.19	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-126 (10.5-12.5)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-03

Level (low/med): MED Date Received: 04/29/2013

% Solids: 78.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.2		*	P
7440-39-3	Barium	173			P
7440-43-9	Cadmium	0.77			P
7440-47-3	Chromium	16.4			P
7439-92-1	Lead	480			P
7439-97-6	Mercury	0.83			CV
7782-49-2	Selenium	2.3			P
7440-22-4	Silver	0.34	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-126 (8-10)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-02

Level (low/med): MED Date Received: 04/29/2013

% Solids: 87.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	6.3		*	P
7440-39-3	Barium	98.7			P
7440-43-9	Cadmium	0.47			P
7440-47-3	Chromium	27.1			P
7439-92-1	Lead	284			P
7439-97-6	Mercury	0.16			CV
7782-49-2	Selenium	2.6			P
7440-22-4	Silver	0.14	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-127 (10-12)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-06

Level (low/med): MED Date Received: 04/29/2013

% Solids: 78.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.1		*	P
7440-39-3	Barium	211			P
7440-43-9	Cadmium	1.1			P
7440-47-3	Chromium	17.5			P
7439-92-1	Lead	779			P
7439-97-6	Mercury	1.3			CV
7782-49-2	Selenium	2.8			P
7440-22-4	Silver	0.45	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-127 (3-5)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-04

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	6.0		*	P
7440-39-3	Barium	110			P
7440-43-9	Cadmium	0.67			P
7440-47-3	Chromium	21.5			P
7439-92-1	Lead	262			P
7439-97-6	Mercury	0.18			CV
7782-49-2	Selenium	1.8			P
7440-22-4	Silver	0.16	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-127 (8-10)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-05

Level (low/med): MED Date Received: 04/29/2013

% Solids: 91.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.7		*	P
7440-39-3	Barium	80.8			P
7440-43-9	Cadmium	0.59			P
7440-47-3	Chromium	20.6			P
7439-92-1	Lead	332			P
7439-97-6	Mercury	0.15			CV
7782-49-2	Selenium	2.2			P
7440-22-4	Silver	0.072	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-128 (10-12)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-08

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.8		*	P
7440-39-3	Barium	38.9			P
7440-43-9	Cadmium	0.32			P
7440-47-3	Chromium	24.5			P
7439-92-1	Lead	63.5			P
7439-97-6	Mercury	0.026	B		CV
7782-49-2	Selenium	2.0			P
7440-22-4	Silver	0.062	U		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-128 (18-20)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-09

Level (low/med): MED Date Received: 04/29/2013

% Solids: 91.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.1		*	P
7440-39-3	Barium	39.6			P
7440-43-9	Cadmium	0.41			P
7440-47-3	Chromium	23.7			P
7439-92-1	Lead	39.4			P
7439-97-6	Mercury	0.0065	B		CV
7782-49-2	Selenium	2.0			P
7440-22-4	Silver	0.14	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-128 (2-4)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-07

Level (low/med): MED Date Received: 04/29/2013

% Solids: 88.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	7.0		*	P
7440-39-3	Barium	105			P
7440-43-9	Cadmium	0.57			P
7440-47-3	Chromium	22.1			P
7439-92-1	Lead	255			P
7439-97-6	Mercury	0.14			CV
7782-49-2	Selenium	1.5			P
7440-22-4	Silver	0.18	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-129 (1-3)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-10

Level (low/med): MED Date Received: 04/29/2013

% Solids: 84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	8.6		*	P
7440-39-3	Barium	54.2			P
7440-43-9	Cadmium	0.53			P
7440-47-3	Chromium	15.7			P
7439-92-1	Lead	76.4			P
7439-97-6	Mercury	0.14			CV
7782-49-2	Selenium	2.5			P
7440-22-4	Silver	0.21	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-129 (18-20)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-12

Level (low/med): MED Date Received: 04/29/2013

% Solids: 93.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.8		*	P
7440-39-3	Barium	32.9			P
7440-43-9	Cadmium	0.30			P
7440-47-3	Chromium	18.7			P
7439-92-1	Lead	13.3			P
7439-97-6	Mercury	0.0025	U		CV
7782-49-2	Selenium	1.9			P
7440-22-4	Silver	0.062	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-129 (8-10)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-11

Level (low/med): MED Date Received: 04/29/2013

% Solids: 89.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	4.6		*	P
7440-39-3	Barium	34.2			P
7440-43-9	Cadmium	0.26			P
7440-47-3	Chromium	13.8			P
7439-92-1	Lead	190			P
7439-97-6	Mercury	0.13			CV
7782-49-2	Selenium	1.5			P
7440-22-4	Silver	0.059	U		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-130 (15-17)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-14

Level (low/med): MED Date Received: 04/29/2013

% Solids: 84.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.1		*	P
7440-39-3	Barium	39.3			P
7440-43-9	Cadmium	0.64			P
7440-47-3	Chromium	22.2			P
7439-92-1	Lead	175			P
7439-97-6	Mercury	0.091			CV
7782-49-2	Selenium	2.2			P
7440-22-4	Silver	0.062	U		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-130 (18-20)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-15

Level (low/med): MED Date Received: 04/29/2013

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.4		*	P
7440-39-3	Barium	39.9			P
7440-43-9	Cadmium	0.25	B		P
7440-47-3	Chromium	15.5			P
7439-92-1	Lead	19.6			P
7439-97-6	Mercury	0.0024	U		CV
7782-49-2	Selenium	2.4			P
7440-22-4	Silver	0.14	B		P

Comments:

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-130 (2-4)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Lab Sample ID: M0619-13

Level (low/med): MED Date Received: 04/29/2013

% Solids: 87.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	5.6		*	P
7440-39-3	Barium	72.1			P
7440-43-9	Cadmium	0.66			P
7440-47-3	Chromium	21.0			P
7439-92-1	Lead	373			P
7439-97-6	Mercury	0.26			CV
7782-49-2	Selenium	2.3			P
7440-22-4	Silver	0.21	B		P

Comments:

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
	05/02/13 11:52				05/02/13 12:11		05/02/13 12:29		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury	5.0	4.63	92.6	5.0	4.66	93.3	4.61	92.1	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
					05/02/13 12:42				
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.0	4.57	91.3			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
	05/02/13 7:48				05/02/13 8:06		05/02/13 08:44		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic	500.0	501.43	100.3	500.0	502.61	100.5	522.02	104.4	P
Barium	10000.0	10078.66	100.8	10000.0	10309.48	103.1	10693.04	106.9	P
Cadmium	250.0	251.00	100.4	250.0	248.59	99.4	260.32	104.1	P
Chromium	1000.0	1001.93	100.2	1000.0	994.48	99.4	1036.17	103.6	P
Lead	500.0	493.26	98.7	500.0	504.98	101.0	515.07	103.0	P
Selenium	500.0	495.38	99.1	500.0	489.96	98.0	516.19	103.2	P
Silver	1250.0	1261.68	100.9	1250.0	1258.55	100.7	1321.60	105.7	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
					05/02/13 9:21		05/02/13 09:55		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				500.0	505.28	101.1	516.46	103.3	P
Barium				10000.0	10456.02	104.6	10766.66	107.7	P
Cadmium				250.0	254.59	101.8	263.61	105.4	P
Chromium				1000.0	1017.16	101.7	1045.43	104.5	P
Lead				500.0	514.39	102.9	524.15	104.8	P
Selenium				500.0	499.71	99.9	509.35	101.9	P
Silver				1250.0	1285.09	102.8	1314.77	105.2	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
					05/02/13 10:28				
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				500.0	516.19	103.2			P
Barium				10000.0	10535.12	105.4			P
Cadmium				250.0	262.73	105.1			P
Chromium				1000.0	1038.92	103.9			P
Lead				500.0	519.94	104.0			P
Selenium				500.0	512.73	102.5			P
Silver				1250.0	1304.85	104.4			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID: **MB-71444**

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

FIMS2_130502A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 05/02/13 12:12	C	05/02/13 12:31	C	05/02/13 12:44	C	Preparation Blank	C	M
Mercury	0.028	U	0.028	U	0.028	U	0.028	U	0.002	U	CV

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID: **MB-71425**

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

OPTIMA3_130502A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 05/02/13 8:10	C	05/02/13 8:48	C	05/02/13 9:25	C	Preparation Blank	C	M
Arsenic	4.3	U	4.3	U	4.3	U	4.3	U	0.410	U	P
Barium	2.1	B	2.5	B	2.8	B	1.7	B	0.032	B	P
Cadmium	0.9	U	0.9	U	0.9	U	0.9	U	0.015	U	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.019	U	P
Lead	4.2	U	4.2	U	4.2	U	4.2	U	0.170	U	P
Selenium	12.0	U	12.0	U	12.0	U	12.4	B	0.640	U	P
Silver	6.9	U	6.9	U	6.9	U	6.9	U	0.128	B	P

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3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Blank Matrix (soil/water): Method Blank ID:

Preparation Blank Concentration Units (ug/L or mg/kg):

OPTIMA3_130502A

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte		C	05/02/13 9:59	C	05/02/13 10:32	C		C		C	M
Arsenic			4.3	U	4.3	U					P
Barium			2.4	B	2.5	B					P
Cadmium			0.9	U	0.9	U					P
Chromium			0.6	U	0.6	U					P
Lead			4.2	U	4.2	U					P
Selenium			12.0	U	12.0	U					P
Silver			6.9	U	6.9	U					P

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

ICP ID Number: OPTIMA3 ICS Source:

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found %R	Final Found Sol. AB	Final Found %R
Arsenic	0	100	9	102.1	102.1				
Barium	0	500	3	505.6	101.1				
Cadmium	0	1000	4	906.1	90.6				
Chromium	0	500	1	460.4	92.1				
Lead	0	500	0	456.9	91.4				
Selenium	0	500	-4	447.1	89.4				
Silver	0	200	4	214.3	107.2				

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DUP1S

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Level (low/med): MED

% Solids for Sample: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Arsenic	75-125	29.4		10.9		22.2	83		P
Barium	75-125	619		87.4		444	120		P
Cadmium	75-125	12.1		0.81		11.1	102		P
Chromium	75-125	69.3		27.3		44.4	94		P
Lead		482		359		22.2	553		P
Selenium	75-125	22.7		2.8		22.2	89		P
Silver	75-125	57.9		0.063	B	55.2	105		P
Mercury	75-125	1.0		0.22		0.87	94		CV

Comments:

U.S. EPA - CLP

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DUPLICATES

EPA SAMPLE NO.

DUP1D

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Level (low/med): MED

% Solids for Sample: 88.3 % Solids for Duplicate: 88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Arsenic		10.8728		7.9018		31.6	*	P
Barium		87.3643		78.5456		10.6		P
Cadmium	0.2	0.8121		0.7309		10.5		P
Chromium		27.3469		22.7325		18.4		P
Lead		358.9850		399.3424		10.6		P
Selenium	1.5	2.7980		2.2438		22		P
Silver		0.2315	B	0.4087	B	55.4		P
Mercury		0.2238		0.2308		3.1		CV

LABORATORY CONTROL SAMPLE

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Solid LCS Source:

Aqueous LCS Source:

LCS(D) ID:
LCS-71425

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Arsenic				22.8	23.1		18.2	27.3	101.3
Barium				455.0	477.1		364	546.0	104.9
Cadmium				11.4	11.5		9.1	13.6	100.9
Chromium				45.5	46.2		36.4	54.6	101.5
Lead				22.8	22.8		18.2	27.3	100.0
Selenium				22.8	22.1		18.2	27.3	96.9
Silver				56.5	58.9		42.4	67.8	104.2

LABORATORY CONTROL SAMPLE

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Solid LCS Source:

Aqueous LCS Source:

LCS(D) ID:
LCS-71444

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Mercury				0.8	0.7		0.6	0.9	87.5

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ICP SERIAL DILUTIONS

EPA SAMPLE NO.

DUP1

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Matrix (soil/water): SOIL Level (low/med): MED

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	222.63		224.03		1		P
Barium	1788.82		1896.88		6		P
Cadmium	16.63		18.05		9		P
Chromium	559.94		583.64		4		P
Lead	7350.38		7870.65		7		P
Selenium	57.29		78.70		37		P
Silver	6.90	B	34.50	U	100		P

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METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument Type: CV InstrumentID: FIMS2 Date: 03/04/2010

Preparation Method: 7471B

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRDL	MDL
Mercury	253.70	0.2	0.028

Comments:

U.S. EPA - CLP

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METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument Type: CV InstrumentID: FIMS2 Date: 02/09/2011

Preparation Method: 7471B

Concentration Units (ug/L or mg/kg): mg/Kg

Analyte	Wavelength /Mass	CRDL	MDL
Mercury	253.70	0.03	0.0021

Comments:

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument Type: P InstrumentID: OPTIMA3 Date: 06/03/2010

Preparation Method: 3050B

Concentration Units (ug/L or mg/kg): mg/Kg

Analyte	Wavelength /Mass	CRDL	MDL
Arsenic	188.98	1.0	0.41
Barium	233.53	10	0.031
Cadmium	226.50	0.25	0.015
Chromium	267.72	1.0	0.019
Lead	220.35	0.50	0.17
Selenium	196.03	1.5	0.64
Silver	328.07	1.5	0.064

Comments:

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10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument Type: P InstrumentID: OPTIMA3 Date: 03/03/2010

Preparation Method: 3005A

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRDL	MDL
Arsenic	188.98	20	4.3
Barium	233.53	200	1.1
Cadmium	226.50	5.0	0.89
Chromium	267.72	20	0.64
Lead	220.35	10	4.2
Selenium	196.03	30	12.0
Silver	328.07	30	6.9

Comments:

U.S. EPA - CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

ICP ID Number: OPTIMA3 Date: 3/22/2013

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Co
Aluminum	308.21		0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.83	0.0524709	0.0000000	0.0813952	0.0208555	0.0000000
Arsenic	188.97	0.0211768	-0.0144099	-0.1293530	0.0000000	0.0000000
Barium	233.52	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.10	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0340687	0.0000000	0.0000000
Calcium	227.54	0.0000000		-37.6317000	0.0000000	154.2530000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.75	0.0000000	0.0000000	-0.1055780	0.0000000	0.0000000
Iron	273.95	0.1353110	0.0000000		0.0629507	0.0000000
Lead	220.35	-0.0646768	0.0000000	0.0402248	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000		0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	-0.2617180
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	-0.0463483	0.0206586	-0.4046580	0.0000000	-0.4462920
Silver	328.06	0.0000000	0.0000000	-0.0397677	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-0.0178616	-0.0847627	-0.0140225	2.5469000
Titanium	334.94	0.0055152	-0.0099349	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0441272	0.0000000	0.0000000
Zinc	206.20	0.0128739	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

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11B

ICP INTERELEMENT CORRECTION FACTORS (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

ICP ID Number: OPTIMA3 Date: 3/22/2013

Analyte	Wave-length (nm)	Interelement Correction Factors for: Cr	Cu	Mn	Ni	Tl
Aluminum	308.21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.83	12.8721000	0.3052440	0.0000000	0.0000000	0.0000000
Arsenic	188.97	-8.5884200	0.0000000	0.0000000	0.0000000	0.0000000
Barium	233.52	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.10	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	-0.5446510	0.0000000
Calcium	227.54	0.0000000	0.0000000	0.0000000	52.9720000	0.0000000
Chromium	267.71		0.0000000	0.4053390	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.1592230	0.0000000
Copper	324.75	0.0000000		0.0000000	0.0000000	0.0000000
Iron	273.95	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0451725	0.4845090	0.1475910	0.0797307	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000		0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000		0.2826600
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	0.0000000	0.0000000	0.3886040	-0.1531550	0.0000000
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.1975820	0.0000000	0.2934860	0.0000000	
Titanium	334.94	0.2542870	0.0000000	0.0000000	0.0000000	0.1359400
Vanadium	292.40	-3.1034300	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.20	-2.4395100	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

ICP ID Number: OPTIMA3 Date: 3/22/2013

Analyte	Wave-length (nm)	Interelement Correction Factors for: Ti	V	___	___	___
Aluminum	308.21	0.0000000	4.6508100			
Antimony	206.83	-0.8473160	-1.2603800			
Arsenic	188.97	0.0000000	0.0000000			
Barium	233.52	0.0000000	-1.1393900			
Beryllium	313.10	-1.7951400	-0.0449437			
Cadmium	226.50	0.2180210	0.0000000			
Calcium	227.54	0.0000000	62.2286000			
Chromium	267.71	0.0000000	-0.4256330			
Cobalt	228.61	2.0452400	0.0000000			
Copper	324.75	0.0000000	-0.2212660			
Iron	273.95	-2.1905500	-14.8783000			
Lead	220.35	-0.5895250	0.0000000			
Magnesium	279.07	0.0000000	0.0000000			
Manganese	257.61	0.0000000	0.0000000			
Nickel	231.60	0.0000000	0.0000000			
Potassium	766.49	0.0000000	0.0000000			
Selenium	196.02	0.0000000	0.0000000			
Silver	328.06	0.0000000	-5.3154700			
Sodium	589.59	0.0000000	0.0000000			
Thallium	190.80	0.8213800	2.1141200			
Titanium	334.94		0.0000000			
Vanadium	292.40	1.0836500				
Zinc	206.20	0.0000000	0.0000000			

Comments:

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ICP LINEAR RANGES (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

ICP ID Number: OPTIMA3 Date: 3/18/2013

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Arsenic	0.20	50000	P
Barium	0.20	100000	P
Cadmium	0.20	50000	P
Chromium	0.20	50000	P
Lead	0.20	100000	P
Selenium	0.20	50000	P
Silver	0.20	2500	P

Comments:

U.S. EPA - CLP

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PREPARATION LOG

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Method: 3050B Batch ID: 71425

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
DUP1	05/01/2013	1.16	50
DUP1D	05/01/2013	1.18	50
DUP1S	05/01/2013	1.16	50
LCSS	05/01/2013	1.00	50
PBS	05/01/2013	1.00	50
SB-126 (0-2)	05/01/2013	1.50	50
SB-126 (10.5-12.5)	05/01/2013	1.30	50
SB-126 (8-10)	05/01/2013	1.14	50
SB-127 (10-12)	05/01/2013	1.39	50
SB-127 (3-5)	05/01/2013	1.38	50
SB-127 (8-10)	05/01/2013	1.23	50
SB-128 (10-12)	05/01/2013	1.17	50
SB-128 (18-20)	05/01/2013	1.15	50
SB-128 (2-4)	05/01/2013	1.25	50
SB-129 (1-3)	05/01/2013	1.35	50
SB-129 (18-20)	05/01/2013	1.26	50
SB-129 (8-10)	05/01/2013	1.21	50
SB-130 (15-17)	05/01/2013	1.23	50
SB-130 (18-20)	05/01/2013	1.02	50
SB-130 (2-4)	05/01/2013	1.52	50

Comments:

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PREPARATION LOG

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Preparation Method: 7471B Batch ID: 71444

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
CCB	05/01/2013	0.60	100
CCV	05/01/2013	0.60	100
ICB	05/01/2013	0.60	100
ICV	05/01/2013	0.60	100
S0	05/01/2013	0.60	100
S0.2	05/01/2013	0.60	100
S1.0	05/01/2013	0.60	100
S10.0	05/01/2013	0.60	100
S2.0	05/01/2013	0.60	100
S5.0	05/01/2013	0.60	100
DUP1	05/01/2013	0.57	100
DUP1D	05/01/2013	0.58	100
DUP1S	05/01/2013	0.59	100
LCSS	05/01/2013	0.60	100
PBS	05/01/2013	0.60	100
SB-126 (0-2)	05/01/2013	0.59	100
SB-126 (10.5-12.5)	05/01/2013	0.51	100
SB-126 (8-10)	05/01/2013	0.56	100
SB-127 (10-12)	05/01/2013	0.56	100
SB-127 (3-5)	05/01/2013	0.51	100
SB-127 (8-10)	05/01/2013	0.56	100
SB-128 (10-12)	05/01/2013	0.51	100
SB-128 (18-20)	05/01/2013	0.51	100
SB-128 (2-4)	05/01/2013	0.57	100
SB-129 (1-3)	05/01/2013	0.54	100
SB-129 (18-20)	05/01/2013	0.53	100
SB-129 (8-10)	05/01/2013	0.55	100
SB-130 (15-17)	05/01/2013	0.51	100
SB-130 (18-20)	05/01/2013	0.57	100
SB-130 (2-4)	05/01/2013	0.57	100

Comments:

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument ID Number: FIMS2 Method: CV

Start Date: 05/02/2013 End Date: 05/02/2013

FIMS2_130502A

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.0	1142																X									
S0.2	1.0	1144																X									
S1.0	1.0	1146																X									
S2.0	1.0	1147																X									
S5.0	1.0	1149																X									
S10.0	1.0	1151																X									
ICV	1.0	1152																X									
ICB	1.0	1154																X									
PBS	1.0	1156																X									
LCSS	1.0	1157																X									
ZZZZZZ	1.0	1159																										
ZZZZZZ	1.0	1201																										
ZZZZZZ	1.0	1202																										
ZZZZZZ	1.0	1204																										
SB-126 (0-2)	1.0	1206																X									
SB-126 (8-10)	1.0	1207																X									
SB-126 (10.5-12.5)	1.0	1209																X									
CCV	1.0	1211																X									
CCB	1.0	1212																X									
SB-127 (3-5)	1.0	1214																X									
SB-127 (8-10)	1.0	1216																X									
SB-127 (10-12)	1.0	1217																X									
SB-128 (2-4)	1.0	1219																X									
SB-128 (10-12)	1.0	1221																X									
SB-128 (18-20)	1.0	1222																X									
SB-129 (1-3)	1.0	1224																X									
SB-129 (8-10)	1.0	1226																X									
SB-129 (18-20)	1.0	1227																X									
CCV	1.0	1229																X									
CCB	1.0	1231																X									
SB-130 (2-4)	1.0	1232																X									

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14

ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument ID Number: FIMS2 Method: CV

Start Date: 05/02/2013 End Date: 05/02/2013

FIMS2_130502A

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
SB-130 (15-17)	1.0	1234																X									
SB-130 (18-20)	1.0	1236																X									
DUP1	1.0	1237																X									
DUP1D	1.0	1239																X									
DUP1S	1.0	1241																X									
CCV	1.0	1242																X									
CCB	1.0	1244																X									

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14

ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument ID Number: OPTIMA3 Method: P

Start Date: 05/02/2013 End Date: 05/02/2013

OPTIMA3_130502A

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
S0	1.0	0733				X	X		X			X			X						X	X								
S1	1.0	0736				X	X		X			X			X						X	X								
S2	1.0	0740				X	X		X			X			X						X	X								
S3	1.0	0744				X	X		X			X			X						X	X								
ICV	1.0	0748				X	X		X			X			X						X	X								
ICB	1.0	0751				X	X		X			X			X						X	X								
ZZZZZZ	1.0	0755																												
ICSA	1.0	0758				X	X		X			X			X						X	X								
ICSAB	1.0	0802				X	X		X			X			X						X	X								
CCV	1.0	0806				X	X		X			X			X						X	X								
CCB	1.0	0810				X	X		X			X			X						X	X								
ZZZZZZ	1.0	0813																												
PBS	1.0	0817				X	X		X			X			X						X	X								
LCSS	1.0	0821				X	X		X			X			X						X	X								
ZZZZZZ	1.0	0824																												
ZZZZZZ	1.0	0828																												
ZZZZZZ	1.0	0832																												
ZZZZZZ	1.0	0835																												
ZZZZZZ	1.0	0839																												
CCV	1.0	0844				X	X		X			X			X						X	X								
CCB	1.0	0848				X	X		X			X			X						X	X								
SB-126 (0-2)	1.0	0851				X	X		X			X			X						X	X								
SB-126 (8-10)	1.0	0855				X	X		X			X			X						X	X								
SB-126 (10.5-12.5)	1.0	0859				X	X		X			X			X						X	X								
SB-127 (3-5)	1.0	0903				X	X		X			X			X						X	X								
SB-127 (8-10)	1.0	0906				X	X		X			X			X						X	X								
SB-127 (10-12)	1.0	0910				X	X		X			X			X						X	X								
SB-128 (2-4)	1.0	0914				X	X		X			X			X						X	X								
SB-128 (10-12)	1.0	0918				X	X		X			X			X						X	X								
CCV	1.0	0921				X	X		X			X			X						X	X								
CCB	1.0	0925				X	X		X			X			X						X	X								

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: 6021ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM0619

Instrument ID Number: OPTIMA3 Method: P

Start Date: 05/02/2013 End Date: 05/02/2013

OPTIMA3_130502A

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
SB-128 (18-20)	1.0	0929				X	X		X			X			X						X	X					
SB-129 (1-3)	1.0	0933				X	X		X			X			X						X	X					
SB-129 (8-10)	1.0	0936				X	X		X			X			X						X	X					
SB-129 (18-20)	1.0	0940				X	X		X			X			X						X	X					
SB-130 (2-4)	1.0	0944				X	X		X			X			X						X	X					
SB-130 (15-17)	1.0	0948				X	X		X			X			X						X	X					
SB-130 (18-20)	1.0	0951				X	X		X			X			X						X	X					
CCV	1.0	0955				X	X		X			X			X						X	X					
CCB	1.0	0959				X	X		X			X			X						X	X					
DUP1	1.0	1002				X	X		X			X			X						X	X					
DUP1D	1.0	1006				X	X		X			X			X						X	X					
DUP1S	1.0	1010				X	X		X			X			X						X	X					
ZZZZZZ	1.0	1014																										
DUP1L	5.0	1017				X	X		X			X			X						X	X					
ZZZZZZ	20.0	1021																										
ZZZZZZ	20.0	1025																										
CCV	1.0	1028				X	X		X			X			X						X	X					
CCB	1.0	1032				X	X		X			X			X						X	X					

Instrument Raw Data

==========

Analysis Begun

Start Time: 5/2/2013 7:33:04 AM **Plasma On Time: 5/2/2013 6:23:59 AM**
Logged In Analyst: mitOptima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N3102302 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\Administrator\Sample Information\0502A.sif
Batch ID: Null
Results Data Set: B13050201
Results Library: C:\pe\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: S0 **Date Collected: 5/2/2013 7:33:21 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1849740.3	24346.99	1.32%	100.00	%
Lu 261.542	1169122.3	16607.56	1.42%	100.0	%
Ag 328.068	-3934.8	96.43	2.45%	[0.00]	mg/L
Al 308.215	3978.5	89.69	2.25%	[0.00]	mg/L
As 188.979	7.7	0.88	11.50%	[0.00]	mg/L
Ba 233.527	-132.1	3.13	2.37%	[0.00]	mg/L
Be 313.107	-624.5	26.14	4.19%	[0.00]	mg/L
Co 228.616	-58.1	7.76	13.36%	[0.00]	mg/L
Cr 267.716	57.7	17.21	29.85%	[0.00]	mg/L
Cu 324.752	2676.4	44.82	1.67%	[0.00]	mg/L
Fe 273.955	-729.2	8.70	1.19%	[0.00]	mg/L
Mg 279.077	-859.3	20.62	2.40%	[0.00]	mg/L
Mn 257.610	-234.5	13.50	5.76%	[0.00]	mg/L
Ni 231.604	-52.7	6.02	11.43%	[0.00]	mg/L
Pb 220.353	64.3	1.91	2.97%	[0.00]	mg/L
Sb 206.836†	52.2	5.42	10.39%	[0.00]	mg/L
Se 196.026	-21.4	4.15	19.35%	[0.00]	mg/L
Tl 190.801	-7.9	2.42	30.80%	[0.00]	mg/L
V 292.402	0.4	84.97	>999.9%	[0.00]	mg/L
Zn 206.200	75.5	2.58	3.42%	[0.00]	mg/L
Cd 226.502	-80.8	4.28	5.29%	[0.00]	mg/L
Ti 334.940	161.0	59.85	37.18%	[0.00]	mg/L
Ca 227.546	99.7	20.64	20.70%	[0.00]	mg/L
Na 589.592	48.7	95.01	195.21%	[0.00]	mg/L
K 766.490	1636.0	85.92	5.25%	[0.00]	mg/L

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Sequence No.: 2 **Autosampler Location: 9**
Sample ID: S1 **Date Collected: 5/2/2013 7:36:59 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1764966.2	7240.32	0.41%	95.417	%
Lu 261.542	1125024.8	4930.85	0.44%	96.23	%
Ag 328.068	369613.6	4427.41	1.20%	[2.5]	mg/L
Al 308.215	351490.2	3830.70	1.09%	[20]	mg/L
As 188.979	1081.9	3.15	0.29%	[1]	mg/L
Ba 233.527	1618730.6	4971.63	0.31%	[20]	mg/L
Be 313.107	922683.7	3240.67	0.35%	[0.5]	mg/L
Co 228.616	153754.5	1761.29	1.15%	[5]	mg/L
Cr 267.716	123180.5	1098.49	0.89%	[2]	mg/L
Cu 324.752	494564.9	1316.49	0.27%	[2.5]	mg/L

Fe 273.955	204401.7	2165.22	1.06%	[10]	mg/L
Mg 279.077	674532.3	2444.25	0.36%	[50]	mg/L
Mn 257.610	2299369.2	5785.14	0.25%	[5]	mg/L
Ni 231.604	119630.4	1197.19	1.00%	[5]	mg/L
Pb 220.353	4896.4	26.42	0.54%	[1]	mg/L
Sb 206.836†	1587.8	16.53	1.04%	[1]	mg/L
Se 196.026	744.1	4.25	0.57%	[1]	mg/L
Tl 190.801	1180.6	2.43	0.21%	[1]	mg/L
V 292.402	531693.5	1897.27	0.36%	[5]	mg/L
Zn 206.200	126613.1	1085.80	0.86%	[5]	mg/L
Cd 226.502	22386.5	287.44	1.28%	[0.5]	mg/L
Ti 334.940	526540.2	1175.57	0.22%	[1]	mg/L
Ca 227.546	8349.3	11.26	0.13%	[50]	mg/L
Na 589.592	166465.7	1871.70	1.12%	[50]	mg/L
K 766.490	52030.0	533.88	1.03%	[50]	mg/L

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Sequence No.: 3 **Autosampler Location: 10**
Sample ID: S2 **Date Collected: 5/2/2013 7:40:41 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1812333.3	11305.45	0.62%	97.978	%
Lu 261.542	1153798.2	6723.49	0.58%	98.69	%
Ag 328.068	191100.7	6053.79	3.17%	[1.25]	mg/L
Al 308.215	179763.3	4547.65	2.53%	[10]	mg/L
As 188.979	543.7	11.40	2.10%	[0.5]	mg/L
Ba 233.527	843305.7	2546.45	0.30%	[10]	mg/L
Be 313.107	470797.0	1392.86	0.30%	[0.25]	mg/L
Co 228.616	80345.2	2029.50	2.53%	[2.5]	mg/L
Cr 267.716	63586.3	1584.36	2.49%	[1]	mg/L
Cu 324.752	251544.8	5920.68	2.35%	[1.25]	mg/L
Fe 273.955	106321.2	2864.49	2.69%	[5]	mg/L
Mg 279.077	348536.5	9470.05	2.72%	[25]	mg/L
Mn 257.610	1194014.1	4872.43	0.41%	[2.5]	mg/L
Ni 231.604	62566.5	1638.35	2.62%	[2.5]	mg/L
Pb 220.353	2528.8	17.12	0.68%	[0.5]	mg/L
Sb 206.836†	797.9	8.05	1.01%	[0.5]	mg/L
Se 196.026	376.3	1.86	0.49%	[0.5]	mg/L
Tl 190.801	604.7	4.60	0.76%	[0.5]	mg/L
V 292.402	271587.7	6735.85	2.48%	[2.5]	mg/L
Zn 206.200	66461.3	1970.23	2.96%	[2.5]	mg/L
Cd 226.502	11605.5	320.16	2.76%	[0.25]	mg/L
Ti 334.940	268973.0	1301.97	0.48%	[0.5]	mg/L
Ca 227.546	4208.9	16.05	0.38%	[25]	mg/L
Na 589.592	85949.2	1092.54	1.27%	[25]	mg/L
K 766.490	26683.8	421.65	1.58%	[25]	mg/L

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Sequence No.: 4 **Autosampler Location: 11**
Sample ID: S3 **Date Collected: 5/2/2013 7:44:22 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1881681.8	8301.65	0.44%	101.73	%
Lu 261.542	1191469.6	4959.23	0.42%	101.9	%
Ag 328.068	4342.7	38.97	0.90%	[0.025]	mg/L
Al 308.215	3637.4	62.98	1.73%	[0.2]	mg/L
As 188.979	9.9	2.40	24.21%	[0.01]	mg/L
Ba 233.527	18013.1	177.00	0.98%	[0.2]	mg/L
Be 313.107	9636.5	71.87	0.75%	[0.005]	mg/L

Co 228.616	1648.6	4.70	0.29%	[0.05]	mg/L
Cr 267.716	1296.1	15.92	1.23%	[0.02]	mg/L
Cu 324.752	5102.6	62.84	1.23%	[0.025]	mg/L
Fe 273.955	2237.9	56.48	2.52%	[0.1]	mg/L
Mg 279.077	7415.7	99.41	1.34%	[0.5]	mg/L
Mn 257.610	31278.0	386.74	1.24%	[0.05]	mg/L
Ni 231.604	1287.3	4.56	0.35%	[0.05]	mg/L
Pb 220.353	51.4	3.95	7.68%	[0.01]	mg/L
Sb 206.836†	32.5	4.39	13.50%	[0.01]	mg/L
Se 196.026	14.0	5.67	40.38%	[0.01]	mg/L
Tl 190.801	16.3	2.75	16.88%	[0.01]	mg/L
V 292.402	5514.3	77.26	1.40%	[0.05]	mg/L
Zn 206.200	1375.2	7.22	0.52%	[0.05]	mg/L
Cd 226.502	231.6	0.69	0.30%	[0.005]	mg/L
Ti 334.940	5549.3	96.96	1.75%	[0.01]	mg/L
Ca 227.546	87.9	3.34	3.79%	[0.5]	mg/L
Na 589.592	1874.9	27.68	1.48%	[0.5]	mg/L
K 766.490	601.1	21.15	3.52%	[0.5]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	148900	0.00000	0.999907	
Al 308.215	3	Lin Thru 0	0.0	17650	0.00000	0.999959	
As 188.979	3	Lin Thru 0	0.0	1083	0.00000	0.999998	
Ba 233.527	3	Lin Thru 0	0.0	81620	0.00000	0.999861	
Be 313.107	3	Lin Thru 0	0.0	1853000	0.00000	0.999967	
Co 228.616	3	Lin Thru 0	0.0	31030	0.00000	0.999840	
Cr 267.716	3	Lin Thru 0	0.0	61990	0.00000	0.999917	
Cu 324.752	3	Lin Thru 0	0.0	198500	0.00000	0.999976	
Fe 273.955	3	Lin Thru 0	0.0	20610	0.00000	0.999872	
Mg 279.077	3	Lin Thru 0	0.0	13580	0.00000	0.999912	
Mn 257.610	3	Lin Thru 0	0.0	463400	0.00000	0.999878	
Ni 231.604	3	Lin Thru 0	0.0	24150	0.00000	0.999834	
Pb 220.353	3	Lin Thru 0	0.0	4929	0.00000	0.999914	
Sb 206.836	3	Lin Thru 0	0.0	1590	0.00000	0.999954	
Se 196.026	3	Lin Thru 0	0.0	745.8	0.00000	0.999959	
Tl 190.801	3	Lin Thru 0	0.0	1186	0.00000	0.999948	
V 292.402	3	Lin Thru 0	0.0	106800	0.00000	0.999963	
Zn 206.200	3	Lin Thru 0	0.0	25580	0.00000	0.999805	
Cd 226.502	3	Lin Thru 0	0.0	45100	0.00000	0.999893	
Ti 334.940	3	Lin Thru 0	0.0	528800	0.00000	0.999963	
Ca 227.546	3	Lin Thru 0	0.0	167.3	0.00000	0.999995	
Na 589.592	3	Lin Thru 0	0.0	3351	0.00000	0.999915	
K 766.490	3	Lin Thru 0	0.0	1046	0.00000	0.999947	

==========

Sequence No.: 5 **Autosampler Location: 3**
Sample ID: ICV **Date Collected: 5/2/2013 7:48:01 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1802240.2	97.432	%	0.7621				0.78%
Lu 261.542	1156041.5	98.88	%	0.784				0.79%
Ag 328.068	185842.1	1.2617	mg/L	0.00927	1.2617	mg/L	0.00927	0.73%
QC value within limits for Ag 328.068 Recovery = 100.93%								
Al 308.215	177307.6	10.031	mg/L	0.0973	10.031	mg/L	0.0973	0.97%
QC value within limits for Al 308.215 Recovery = 100.31%								
As 188.979	533.3	0.50143	mg/L	0.001376	0.50143	mg/L	0.001376	0.27%
QC value within limits for As 188.979 Recovery = 100.29%								
Ba 233.527	822348.9	10.079	mg/L	0.0945	10.079	mg/L	0.0945	0.94%
QC value within limits for Ba 233.527 Recovery = 100.79%								
Be 313.107	454580.1	0.24632	mg/L	0.002375	0.24632	mg/L	0.002375	0.96%
QC value within limits for Be 313.107 Recovery = 98.53%								
Co 228.616	76514.3	2.4645	mg/L	0.02471	2.4645	mg/L	0.02471	1.00%

QC value within limits for Co 228.616 Recovery = 98.58%
Cr 267.716 62106.3 1.0019 mg/L 0.01194 1.0019 mg/L 0.01194 1.19%
QC value within limits for Cr 267.716 Recovery = 100.19%
Cu 324.752 244746.1 1.2340 mg/L 0.01006 1.2340 mg/L 0.01006 0.82%
QC value within limits for Cu 324.752 Recovery = 98.72%
Fe 273.955 104101.4 5.0873 mg/L 0.04766 5.0873 mg/L 0.04766 0.94%
QC value within limits for Fe 273.955 Recovery = 101.75%
Mg 279.077 338197.7 24.902 mg/L 0.2354 24.902 mg/L 0.2354 0.95%
QC value within limits for Mg 279.077 Recovery = 99.61%
Mn 257.610 1151030.5 2.4837 mg/L 0.02396 2.4837 mg/L 0.02396 0.96%
QC value within limits for Mn 257.610 Recovery = 99.35%
Ni 231.604 60131.4 2.4908 mg/L 0.02355 2.4908 mg/L 0.02355 0.95%
QC value within limits for Ni 231.604 Recovery = 99.63%
Pb 220.353 2432.3 0.49326 mg/L 0.000821 0.49326 mg/L 0.000821 0.17%
QC value within limits for Pb 220.353 Recovery = 98.65%
Sb 206.836† 807.4 0.49678 mg/L 0.004540 0.49678 mg/L 0.004540 0.91%
QC value within limits for Sb 206.836 Recovery = 99.36%
Se 196.026 368.2 0.49538 mg/L 0.004325 0.49538 mg/L 0.004325 0.87%
QC value within limits for Se 196.026 Recovery = 99.08%
Tl 190.801 574.4 0.47252 mg/L 0.002599 0.47252 mg/L 0.002599 0.55%
QC value within limits for Tl 190.801 Recovery = 94.50%
V 292.402 265116.7 2.4848 mg/L 0.02535 2.4848 mg/L 0.02535 1.02%
QC value within limits for V 292.402 Recovery = 99.39%
Zn 206.200 64351.4 2.5185 mg/L 0.02796 2.5185 mg/L 0.02796 1.11%
QC value within limits for Zn 206.200 Recovery = 100.74%
Cd 226.502 11272.1 0.25100 mg/L 0.001761 0.25100 mg/L 0.001761 0.70%
QC value within limits for Cd 226.502 Recovery = 100.40%
Ti 334.940 258439.6 0.48857 mg/L 0.005052 0.48857 mg/L 0.005052 1.03%
QC value within limits for Ti 334.940 Recovery = Not calculated
Ca 227.546 4097.8 24.023 mg/L 0.0412 24.023 mg/L 0.0412 0.17%
QC value within limits for Ca 227.546 Recovery = 96.09%
Na 589.592 84732.7 25.285 mg/L 0.0564 25.285 mg/L 0.0564 0.22%
QC value within limits for Na 589.592 Recovery = 101.14%
K 766.490 26053.1 24.908 mg/L 0.0380 24.908 mg/L 0.0380 0.15%
QC value within limits for K 766.490 Recovery = 99.63%
All analyte(s) passed QC.

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Sequence No.: 6 **Autosampler Location: 4**
Sample ID: ICB **Date Collected: 5/2/2013 7:51:41 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1906296.1	103.06	%	1.012				0.98%
Lu 261.542	1205475.6	103.1	%	1.03				1.00%
Ag 328.068	279.5	0.00188	mg/L	0.000680	0.00188	mg/L	0.000680	36.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	251.5	0.01425	mg/L	0.006027	0.01425	mg/L	0.006027	42.30%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979	1.8	0.00168	mg/L	0.000821	0.00168	mg/L	0.000821	48.78%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	171.7	0.00210	mg/L	0.001140	0.00210	mg/L	0.001140	54.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	119.5	0.00006	mg/L	0.000022	0.00006	mg/L	0.000022	33.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616	23.1	0.00074	mg/L	0.000384	0.00074	mg/L	0.000384	51.63%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	16.4	0.00027	mg/L	0.000212	0.00027	mg/L	0.000212	80.01%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752	218.2	0.00110	mg/L	0.000439	0.00110	mg/L	0.000439	39.91%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	34.4	0.00167	mg/L	0.001473	0.00167	mg/L	0.001473	88.13%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077	95.6	0.00704	mg/L	0.007142	0.00704	mg/L	0.007142	101.43%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	268.6	0.00058	mg/L	0.000364	0.00058	mg/L	0.000364	62.74%

QC value within limits for Mn 257.610 Recovery = Not calculated

Ni 231.604	11.2	0.00046 mg/L	0.000359	0.00046 mg/L	0.000359	77.36%	
QC value within limits for Ni 231.604 Recovery = Not calculated							
Pb 220.353	-0.8	-0.00016 mg/L	0.001741	-0.00016 mg/L	0.001741	>999.9%	
QC value within limits for Pb 220.353 Recovery = Not calculated							
Sb 206.836†	5.4	0.00342 mg/L	0.002684	0.00342 mg/L	0.002684	78.39%	
QC value within limits for Sb 206.836 Recovery = Not calculated							
Se 196.026	4.3	0.00571 mg/L	0.005322	0.00571 mg/L	0.005322	93.21%	
QC value within limits for Se 196.026 Recovery = Not calculated							
Tl 190.801	-0.2	-0.00018 mg/L	0.000696	-0.00018 mg/L	0.000696	394.26%	
QC value within limits for Tl 190.801 Recovery = Not calculated							
V 292.402	33.1	0.00031 mg/L	0.000351	0.00031 mg/L	0.000351	112.92%	
QC value within limits for V 292.402 Recovery = Not calculated							
Zn 206.200	37.7	0.00148 mg/L	0.000411	0.00148 mg/L	0.000411	27.87%	
QC value within limits for Zn 206.200 Recovery = Not calculated							
Cd 226.502	4.3	0.00010 mg/L	0.000063	0.00010 mg/L	0.000063	65.83%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Ti 334.940	64.9	0.00012 mg/L	0.000051	0.00012 mg/L	0.000051	41.58%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Ca 227.546	0.4	0.00227 mg/L	0.016327	0.00227 mg/L	0.016327	720.76%	
QC value within limits for Ca 227.546 Recovery = Not calculated							
Na 589.592	187.8	0.05604 mg/L	0.006338	0.05604 mg/L	0.006338	11.31%	
QC value within limits for Na 589.592 Recovery = Not calculated							
K 766.490	17.5	0.01672 mg/L	0.033661	0.01672 mg/L	0.033661	201.29%	
QC value within limits for K 766.490 Recovery = Not calculated							

All analyte(s) passed QC.

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Sequence No.: 7 **Autosampler Location: 2**
Sample ID: LLICV **Date Collected: 5/2/2013 7:55:20 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1824027.8	98.610	%	0.5091				0.52%
Lu 261.542	1165857.5	99.72	%	0.590				0.59%
Ag 328.068	5279.5	0.03576	mg/L	0.000654	0.03576	mg/L	0.000654	1.83%
QC value within limits for Ag 328.068 Recovery = 119.19%								
Al 308.215	4096.0	0.23175	mg/L	0.002698	0.23175	mg/L	0.002698	1.16%
QC value within limits for Al 308.215 Recovery = 115.88%								
As 188.979	21.8	0.02032	mg/L	0.002448	0.02032	mg/L	0.002448	12.05%
QC value within limits for As 188.979 Recovery = 101.61%								
Ba 233.527	18563.2	0.22751	mg/L	0.003480	0.22751	mg/L	0.003480	1.53%
QC value within limits for Ba 233.527 Recovery = 113.75%								
Be 313.107	10256.4	0.00558	mg/L	0.000085	0.00558	mg/L	0.000085	1.52%
QC value within limits for Be 313.107 Recovery = 111.51%								
Co 228.616	1762.2	0.05674	mg/L	0.000283	0.05674	mg/L	0.000283	0.50%
QC value within limits for Co 228.616 Recovery = 113.48%								
Cr 267.716	1334.8	0.02153	mg/L	0.000104	0.02153	mg/L	0.000104	0.48%
QC value within limits for Cr 267.716 Recovery = 107.66%								
Cu 324.752	6424.9	0.03240	mg/L	0.000858	0.03240	mg/L	0.000858	2.65%
QC value within limits for Cu 324.752 Recovery = 108.00%								
Fe 273.955	4562.9	0.22223	mg/L	0.005276	0.22223	mg/L	0.005276	2.37%
QC value within limits for Fe 273.955 Recovery = 111.12%								
Mg 279.077	7761.2	0.57148	mg/L	0.008557	0.57148	mg/L	0.008557	1.50%
QC value within limits for Mg 279.077 Recovery = 114.30%								
Mn 257.610	26625.6	0.05745	mg/L	0.000565	0.05745	mg/L	0.000565	0.98%
QC value within limits for Mn 257.610 Recovery = 114.91%								
Ni 231.604	1351.5	0.05598	mg/L	0.000183	0.05598	mg/L	0.000183	0.33%
QC value within limits for Ni 231.604 Recovery = 111.96%								
Pb 220.353	55.3	0.01121	mg/L	0.001502	0.01121	mg/L	0.001502	13.40%
QC value within limits for Pb 220.353 Recovery = 112.09%								
Sb 206.836†	42.5	0.02646	mg/L	0.003831	0.02646	mg/L	0.003831	14.47%
QC value greater than the upper limit for Sb 206.836 Recovery = 132.32%								
Se 196.026	32.6	0.04382	mg/L	0.001323	0.04382	mg/L	0.001323	3.02%
QC value greater than the upper limit for Se 196.026 Recovery = 146.07%								
Tl 190.801	24.5	0.02044	mg/L	0.002536	0.02044	mg/L	0.002536	12.41%

QC value within limits for Tl 190.801 Recovery = 102.18%
V 292.402 5781.1 0.05416 mg/L 0.000864 0.05416 mg/L 0.000864 1.60%
QC value within limits for V 292.402 Recovery = 108.33%
Zn 206.200 1433.7 0.05611 mg/L 0.000261 0.05611 mg/L 0.000261 0.46%
QC value within limits for Zn 206.200 Recovery = 112.22%
Cd 226.502 251.6 0.00560 mg/L 0.000159 0.00560 mg/L 0.000159 2.85%
QC value within limits for Cd 226.502 Recovery = 111.94%
Ti 334.940 11134.3 0.02105 mg/L 0.000216 0.02105 mg/L 0.000216 1.03%
QC value within limits for Ti 334.940 Recovery = 105.27%
Ca 227.546 143.5 0.85117 mg/L 0.028900 0.85117 mg/L 0.028900 3.40%
QC value within limits for Ca 227.546 Recovery = 106.40%
Na 589.592 3745.2 1.1176 mg/L 0.02125 1.1176 mg/L 0.02125 1.90%
QC value within limits for Na 589.592 Recovery = 111.76%
K 766.490 1248.0 1.1932 mg/L 0.06916 1.1932 mg/L 0.06916 5.80%
QC value within limits for K 766.490 Recovery = 119.32%
QC Failed. Continue with analysis.

==========

Sequence No.: 8 **Autosampler Location: 5**
Sample ID: ICSA **Date Collected: 5/2/2013 7:58:57 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1697378.9	91.763	%	0.3241				0.35%
Lu 261.542	1070750.7	91.59	%	0.285				0.31%
Ag 328.068	541.8	0.00364	mg/L	0.000407	0.00364	mg/L	0.000407	11.19%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	8799226.6	498.40	mg/L	0.925	498.40	mg/L	0.925	0.19%
QC value within limits for Al 308.215 Recovery = 99.68%								
As 188.979	4.2	0.00933	mg/L	0.003258	0.00933	mg/L	0.003258	34.92%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	207.9	0.00255	mg/L	0.000071	0.00255	mg/L	0.000071	2.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	-3.1	-0.00001	mg/L	0.000014	-0.00001	mg/L	0.000014	208.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616	83.0	0.00268	mg/L	0.000088	0.00268	mg/L	0.000088	3.29%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	80.0	0.00129	mg/L	0.000128	0.00129	mg/L	0.000128	9.94%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752	-2956.8	0.00368	mg/L	0.000319	0.00368	mg/L	0.000319	8.65%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	3625497.4	175.85	mg/L	0.264	175.85	mg/L	0.264	0.15%
QC value within limits for Fe 273.955 Recovery = 87.93%								
Mg 279.077	6252604.2	460.40	mg/L	0.770	460.40	mg/L	0.770	0.17%
QC value within limits for Mg 279.077 Recovery = 92.08%								
Mn 257.610	-120.2	-0.00026	mg/L	0.000017	-0.00026	mg/L	0.000017	6.62%
Saturated outside survey window (code 6)								
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604	52.0	0.00216	mg/L	0.000427	0.00216	mg/L	0.000427	19.77%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	-151.8	-0.00062	mg/L	0.000971	-0.00062	mg/L	0.000971	156.16%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	78.2	-0.00087	mg/L	0.006206	-0.00087	mg/L	0.006206	714.85%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026	-33.2	-0.00357	mg/L	0.006838	-0.00357	mg/L	0.006838	191.44%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801	-31.1	0.00412	mg/L	0.005086	0.00412	mg/L	0.005086	123.48%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402	0.3	-0.00775	mg/L	0.000216	-0.00775	mg/L	0.000216	2.78%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	322.8	0.00621	mg/L	0.000208	0.00621	mg/L	0.000208	3.34%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Cd 226.502	458.4	0.00417	mg/L	0.000273	0.00417	mg/L	0.000273	6.53%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ti 334.940	-1547.2	-0.00069	mg/L	0.000107	-0.00069	mg/L	0.000107	15.54%
QC value within limits for Ti 334.940 Recovery = Not calculated								

Ca 227.546	83843.8	507.90 mg/L	3.922	507.90 mg/L	3.922	0.77%
QC value within limits for Ca 227.546 Recovery = 101.58%						
Na 589.592	958.2	0.28593 mg/L	0.019832	0.28593 mg/L	0.019832	6.94%
QC value within limits for Na 589.592 Recovery = Not calculated						
K 766.490	-1.1	-0.00102 mg/L	0.084615	-0.00102 mg/L	0.084615	>999.9%
QC value within limits for K 766.490 Recovery = Not calculated						

All analyte(s) passed QC.

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Sequence No.: 9 **Autosampler Location: 6**
Sample ID: ICSAB **Date Collected: 5/2/2013 8:02:43 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1639198.1	88.618	%	0.3266				0.37%
Lu 261.542	1035444.5	88.57	%	0.314				0.35%
Ag 328.068	31526.2	0.21434	mg/L	0.003550	0.21434	mg/L	0.003550	1.66%
QC value within limits for Ag 328.068 Recovery = 107.17%								
Al 308.215	8984809.5	508.91	mg/L	2.615	508.91	mg/L	2.615	0.51%
QC value within limits for Al 308.215 Recovery = 101.78%								
As 188.979	100.2	0.10209	mg/L	0.001666	0.10209	mg/L	0.001666	1.63%
QC value within limits for As 188.979 Recovery = 102.09%								
Ba 233.527	41216.6	0.50555	mg/L	0.009074	0.50555	mg/L	0.009074	1.79%
QC value within limits for Ba 233.527 Recovery = 101.11%								
Be 313.107	881293.4	0.47564	mg/L	0.002329	0.47564	mg/L	0.002329	0.49%
QC value within limits for Be 313.107 Recovery = 95.13%								
Co 228.616	13832.0	0.44565	mg/L	0.002622	0.44565	mg/L	0.002622	0.59%
QC value within limits for Co 228.616 Recovery = 89.13%								
Cr 267.716	28537.8	0.46037	mg/L	0.002504	0.46037	mg/L	0.002504	0.54%
QC value within limits for Cr 267.716 Recovery = 92.07%								
Cu 324.752	95062.7	0.49791	mg/L	0.009470	0.49791	mg/L	0.009470	1.90%
QC value within limits for Cu 324.752 Recovery = 99.58%								
Fe 273.955	3692372.5	179.11	mg/L	0.900	179.11	mg/L	0.900	0.50%
QC value within limits for Fe 273.955 Recovery = 89.55%								
Mg 279.077	6327392.2	465.90	mg/L	2.442	465.90	mg/L	2.442	0.52%
QC value within limits for Mg 279.077 Recovery = 93.18%								
Mn 257.610	220886.9	0.47663	mg/L	0.009061	0.47663	mg/L	0.009061	1.90%
QC value within limits for Mn 257.610 Recovery = 95.33%								
Ni 231.604	20719.7	0.85819	mg/L	0.003857	0.85819	mg/L	0.003857	0.45%
QC value within limits for Ni 231.604 Recovery = 85.82%								
Pb 220.353	2101.8	0.45688	mg/L	0.003970	0.45688	mg/L	0.003970	0.87%
QC value within limits for Pb 220.353 Recovery = 91.38%								
Sb 206.836†	1196.3	0.69611	mg/L	0.010954	0.69611	mg/L	0.010954	1.57%
QC value within limits for Sb 206.836 Recovery = 116.02%								
Se 196.026	302.3	0.44705	mg/L	0.005152	0.44705	mg/L	0.005152	1.15%
QC value within limits for Se 196.026 Recovery = 89.41%								
Tl 190.801	76.5	0.09297	mg/L	0.003397	0.09297	mg/L	0.003397	3.65%
QC value within limits for Tl 190.801 Recovery = 92.97%								
V 292.402	51097.2	0.47197	mg/L	0.008931	0.47197	mg/L	0.008931	1.89%
QC value within limits for V 292.402 Recovery = 94.39%								
Zn 206.200	22447.0	0.87226	mg/L	0.005828	0.87226	mg/L	0.005828	0.67%
QC value within limits for Zn 206.200 Recovery = 87.23%								
Cd 226.502	41123.2	0.90613	mg/L	0.018125	0.90613	mg/L	0.018125	2.00%
QC value within limits for Cd 226.502 Recovery = 90.61%								
Ti 334.940	-1602.0	-0.00086	mg/L	0.000022	-0.00086	mg/L	0.000022	2.58%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	85837.6	519.80	mg/L	9.772	519.80	mg/L	9.772	1.88%
QC value within limits for Ca 227.546 Recovery = 103.96%								
Na 589.592	90204.9	26.918	mg/L	0.0937	26.918	mg/L	0.0937	0.35%
QC value within limits for Na 589.592 Recovery = 107.67%								
K 766.490	28174.7	26.937	mg/L	0.1264	26.937	mg/L	0.1264	0.47%
QC value within limits for K 766.490 Recovery = 107.75%								

All analyte(s) passed QC.
User canceled analysis.

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Analysis Begun

Start Time: 5/2/2013 8:06:23 AM **Plasma On Time: 5/2/2013 6:23:59 AM**
Logged In Analyst: mitOptima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N3102302 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\Administrator\Sample Information\0502A.sif
Batch ID: Null
Results Data Set: B13050201
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 5/2/2013 8:06:24 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1786067.0	96.558	%	0.5101				0.53%
Lu 261.542	1138116.1	97.35	%	0.562				0.58%
Ag 328.068	185384.4	1.2586	mg/L	0.01410	1.2586	mg/L	0.01410	1.12%
QC value within limits for Ag 328.068 Recovery = 100.68%								
Al 308.215	180976.5	10.239	mg/L	0.0986	10.239	mg/L	0.0986	0.96%
QC value within limits for Al 308.215 Recovery = 102.39%								
As 188.979	534.6	0.50261	mg/L	0.004003	0.50261	mg/L	0.004003	0.80%
QC value within limits for As 188.979 Recovery = 100.52%								
Ba 233.527	841188.7	10.309	mg/L	0.0497	10.309	mg/L	0.0497	0.48%
QC value within limits for Ba 233.527 Recovery = 103.09%								
Be 313.107	463341.4	0.25106	mg/L	0.001500	0.25106	mg/L	0.001500	0.60%
QC value within limits for Be 313.107 Recovery = 100.42%								
Co 228.616	76359.8	2.4595	mg/L	0.03302	2.4595	mg/L	0.03302	1.34%
QC value within limits for Co 228.616 Recovery = 98.38%								
Cr 267.716	61646.0	0.99448	mg/L	0.012209	0.99448	mg/L	0.012209	1.23%
QC value within limits for Cr 267.716 Recovery = 99.45%								
Cu 324.752	242942.8	1.2249	mg/L	0.01356	1.2249	mg/L	0.01356	1.11%
QC value within limits for Cu 324.752 Recovery = 97.99%								
Fe 273.955	105130.0	5.1370	mg/L	0.05784	5.1370	mg/L	0.05784	1.13%
QC value within limits for Fe 273.955 Recovery = 102.74%								
Mg 279.077	344128.9	25.339	mg/L	0.1982	25.339	mg/L	0.1982	0.78%
QC value within limits for Mg 279.077 Recovery = 101.36%								
Mn 257.610	1171642.7	2.5282	mg/L	0.01192	2.5282	mg/L	0.01192	0.47%
QC value within limits for Mn 257.610 Recovery = 101.13%								
Ni 231.604	59657.1	2.4712	mg/L	0.03328	2.4712	mg/L	0.03328	1.35%
QC value within limits for Ni 231.604 Recovery = 98.85%								
Pb 220.353	2489.9	0.50498	mg/L	0.001851	0.50498	mg/L	0.001851	0.37%
QC value within limits for Pb 220.353 Recovery = 101.00%								
Sb 206.836†	841.8	0.51846	mg/L	0.002078	0.51846	mg/L	0.002078	0.40%
QC value within limits for Sb 206.836 Recovery = 103.69%								
Se 196.026	364.2	0.48996	mg/L	0.013487	0.48996	mg/L	0.013487	2.75%
QC value within limits for Se 196.026 Recovery = 97.99%								
Tl 190.801	576.1	0.47401	mg/L	0.002235	0.47401	mg/L	0.002235	0.47%
QC value within limits for Tl 190.801 Recovery = 94.80%								
V 292.402	264137.5	2.4756	mg/L	0.02920	2.4756	mg/L	0.02920	1.18%
QC value within limits for V 292.402 Recovery = 99.02%								
Zn 206.200	63757.8	2.4953	mg/L	0.02921	2.4953	mg/L	0.02921	1.17%
QC value within limits for Zn 206.200 Recovery = 99.81%								
Cd 226.502	11164.2	0.24859	mg/L	0.003750	0.24859	mg/L	0.003750	1.51%
QC value within limits for Cd 226.502 Recovery = 99.44%								
Ti 334.940	263136.0	0.49746	mg/L	0.001811	0.49746	mg/L	0.001811	0.36%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	4226.9	24.799	mg/L	0.2310	24.799	mg/L	0.2310	0.93%
QC value within limits for Ca 227.546 Recovery = 99.20%								
Na 589.592	87319.3	26.057	mg/L	0.2893	26.057	mg/L	0.2893	1.11%
QC value within limits for Na 589.592 Recovery = 104.23%								
K 766.490	26850.1	25.670	mg/L	0.3291	25.670	mg/L	0.3291	1.28%

QC value within limits for K 766.490 Recovery = 102.68%
All analyte(s) passed QC.

Sequence No.: 2 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 5/2/2013 8:10:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1855482.9	100.31	%	1.529				1.52%
Lu 261.542	1186311.7	101.5	%	1.50				1.48%
Ag 328.068	309.1	0.00208	mg/L	0.000587	0.00208	mg/L	0.000587	28.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	202.2	0.01145	mg/L	0.001060	0.01145	mg/L	0.001060	9.26%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979	0.6	0.00051	mg/L	0.001642	0.00051	mg/L	0.001642	322.21%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	201.4	0.00247	mg/L	0.001187	0.00247	mg/L	0.001187	48.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	116.3	0.00006	mg/L	0.000058	0.00006	mg/L	0.000058	91.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616	22.9	0.00074	mg/L	0.000294	0.00074	mg/L	0.000294	39.87%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	7.3	0.00012	mg/L	0.000162	0.00012	mg/L	0.000162	137.97%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752	387.7	0.00195	mg/L	0.000449	0.00195	mg/L	0.000449	22.97%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	132.1	0.00642	mg/L	0.000757	0.00642	mg/L	0.000757	11.79%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077	234.1	0.01723	mg/L	0.002331	0.01723	mg/L	0.002331	13.53%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	368.9	0.00080	mg/L	0.000444	0.00080	mg/L	0.000444	55.73%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604	12.0	0.00050	mg/L	0.000287	0.00050	mg/L	0.000287	57.86%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	-3.6	-0.00073	mg/L	0.001189	-0.00073	mg/L	0.001189	162.80%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	1.9	0.00120	mg/L	0.003938	0.00120	mg/L	0.003938	327.47%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026	7.4	0.00992	mg/L	0.006542	0.00992	mg/L	0.006542	65.96%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801	-0.8	-0.00069	mg/L	0.001428	-0.00069	mg/L	0.001428	207.69%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402	69.6	0.00065	mg/L	0.000711	0.00065	mg/L	0.000711	109.17%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	37.9	0.00148	mg/L	0.000455	0.00148	mg/L	0.000455	30.72%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Cd 226.502	5.2	0.00012	mg/L	0.000046	0.00012	mg/L	0.000046	39.71%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ti 334.940	111.2	0.00021	mg/L	0.000114	0.00021	mg/L	0.000114	54.17%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	6.0	0.03578	mg/L	0.068355	0.03578	mg/L	0.068355	191.05%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Na 589.592	187.7	0.05600	mg/L	0.014339	0.05600	mg/L	0.014339	25.61%
QC value within limits for Na 589.592 Recovery = Not calculated								
K 766.490	155.7	0.14889	mg/L	0.051170	0.14889	mg/L	0.051170	34.37%
QC value within limits for K 766.490 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 3 **Autosampler Location: 2**
Sample ID: LLICV **Date Collected: 5/2/2013 8:13:44 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1847911.1	99.901	%	0.7181				0.72%
Lu 261.542	1183487.1	101.2	%	0.78				0.77%
Ag 328.068	5080.5	0.03441	mg/L	0.000602	0.03441	mg/L	0.000602	1.75%
QC value within limits for Ag 328.068 Recovery = 114.70%								
Al 308.215	3850.4	0.21785	mg/L	0.002113	0.21785	mg/L	0.002113	0.97%
QC value within limits for Al 308.215 Recovery = 108.92%								
As 188.979	20.1	0.01877	mg/L	0.003296	0.01877	mg/L	0.003296	17.56%
QC value within limits for As 188.979 Recovery = 93.86%								
Ba 233.527	18136.0	0.22227	mg/L	0.000317	0.22227	mg/L	0.000317	0.14%
QC value within limits for Ba 233.527 Recovery = 111.14%								
Be 313.107	9949.8	0.00541	mg/L	0.000004	0.00541	mg/L	0.000004	0.08%
QC value within limits for Be 313.107 Recovery = 108.18%								
Co 228.616	1748.9	0.05631	mg/L	0.000469	0.05631	mg/L	0.000469	0.83%
QC value within limits for Co 228.616 Recovery = 112.62%								
Cr 267.716	1323.9	0.02136	mg/L	0.000123	0.02136	mg/L	0.000123	0.58%
QC value within limits for Cr 267.716 Recovery = 106.79%								
Cu 324.752	6269.9	0.03162	mg/L	0.000241	0.03162	mg/L	0.000241	0.76%
QC value within limits for Cu 324.752 Recovery = 105.40%								
Fe 273.955	4549.9	0.22158	mg/L	0.001777	0.22158	mg/L	0.001777	0.80%
QC value within limits for Fe 273.955 Recovery = 110.79%								
Mg 279.077	7541.2	0.55528	mg/L	0.003826	0.55528	mg/L	0.003826	0.69%
QC value within limits for Mg 279.077 Recovery = 111.06%								
Mn 257.610	26040.6	0.05619	mg/L	0.000283	0.05619	mg/L	0.000283	0.50%
QC value within limits for Mn 257.610 Recovery = 112.38%								
Ni 231.604	1341.1	0.05555	mg/L	0.000126	0.05555	mg/L	0.000126	0.23%
QC value within limits for Ni 231.604 Recovery = 111.10%								
Pb 220.353	45.7	0.00927	mg/L	0.000743	0.00927	mg/L	0.000743	8.02%
QC value within limits for Pb 220.353 Recovery = 92.72%								
Sb 206.836†	36.1	0.02249	mg/L	0.002668	0.02249	mg/L	0.002668	11.86%
QC value within limits for Sb 206.836 Recovery = 112.47%								
Se 196.026	27.2	0.03658	mg/L	0.002490	0.03658	mg/L	0.002490	6.81%
QC value within limits for Se 196.026 Recovery = 121.95%								
Tl 190.801	22.8	0.01900	mg/L	0.003574	0.01900	mg/L	0.003574	18.81%
QC value within limits for Tl 190.801 Recovery = 94.98%								
V 292.402	5628.7	0.05274	mg/L	0.000295	0.05274	mg/L	0.000295	0.56%
QC value within limits for V 292.402 Recovery = 105.48%								
Zn 206.200	1414.7	0.05537	mg/L	0.000506	0.05537	mg/L	0.000506	0.91%
QC value within limits for Zn 206.200 Recovery = 110.73%								
Cd 226.502	249.3	0.00555	mg/L	0.000190	0.00555	mg/L	0.000190	3.43%
QC value within limits for Cd 226.502 Recovery = 110.93%								
Ti 334.940	10835.9	0.02049	mg/L	0.000140	0.02049	mg/L	0.000140	0.68%
QC value within limits for Ti 334.940 Recovery = 102.45%								
Ca 227.546	138.2	0.81981	mg/L	0.051280	0.81981	mg/L	0.051280	6.26%
QC value within limits for Ca 227.546 Recovery = 102.48%								
Na 589.592	3750.7	1.1192	mg/L	0.04688	1.1192	mg/L	0.04688	4.19%
QC value within limits for Na 589.592 Recovery = 111.92%								
K 766.490	1185.6	1.1335	mg/L	0.03783	1.1335	mg/L	0.03783	3.34%
QC value within limits for K 766.490 Recovery = 113.35%								

All analyte(s) passed QC.

Sequence No.: 4 **Autosampler Location: 38**
Sample ID: MB-71425~PBS **Date Collected: 5/2/2013 8:17:21 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MB-71425~PBS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1828722.3	98.864	%	0.6684				0.68%
Lu 261.542	1173754.1	100.4	%	0.69				0.69%
Ag 328.068	380.4	0.00255	mg/L	0.000257	0.00255	mg/L	0.000257	10.07%
Al 308.215	329.3	0.01865	mg/L	0.002383	0.01865	mg/L	0.002383	12.78%
As 188.979	2.4	0.00220	mg/L	0.002854	0.00220	mg/L	0.002854	130.01%
Ba 233.527	52.3	0.00064	mg/L	0.000100	0.00064	mg/L	0.000100	15.62%

Be 313.107	-29.2	-0.00002	mg/L	0.000049	-0.00002	mg/L	0.000049 317.45%
Co 228.616	-0.2	-0.00001	mg/L	0.000109	-0.00001	mg/L	0.000109 >999.9%
Cr 267.716	17.9	0.00029	mg/L	0.000055	0.00029	mg/L	0.000055 19.10%
Cu 324.752	686.1	0.00346	mg/L	0.000233	0.00346	mg/L	0.000233 6.73%
Fe 273.955	338.6	0.01642	mg/L	0.000192	0.01642	mg/L	0.000192 1.17%
Mg 279.077	93.3	0.00687	mg/L	0.002097	0.00687	mg/L	0.002097 30.52%
Mn 257.610	877.0	0.00189	mg/L	0.000221	0.00189	mg/L	0.000221 11.70%
Ni 231.604	6.1	0.00025	mg/L	0.000409	0.00025	mg/L	0.000409 161.07%
Pb 220.353	-1.3	-0.00026	mg/L	0.000650	-0.00026	mg/L	0.000650 247.43%
Sb 206.836†	11.7	0.00733	mg/L	0.002670	0.00733	mg/L	0.002670 36.44%
Se 196.026	9.1	0.01222	mg/L	0.005896	0.01222	mg/L	0.005896 48.25%
Tl 190.801	-2.9	-0.00246	mg/L	0.003145	-0.00246	mg/L	0.003145 127.72%
V 292.402	-48.7	-0.00046	mg/L	0.000337	-0.00046	mg/L	0.000337 73.79%
Zn 206.200	32.7	0.00128	mg/L	0.000263	0.00128	mg/L	0.000263 20.56%
Cd 226.502	-6.3	-0.00014	mg/L	0.000002	-0.00014	mg/L	0.000002 1.76%
Ti 334.940	141.6	0.00027	mg/L	0.000029	0.00027	mg/L	0.000029 10.62%
Ca 227.546	9.1	0.05520	mg/L	0.005969	0.05520	mg/L	0.005969 10.81%
Na 589.592	82.8	0.02472	mg/L	0.025684	0.02472	mg/L	0.025684 103.90%
K 766.490	29.9	0.02856	mg/L	0.075967	0.02856	mg/L	0.075967 266.01%

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Sequence No.: 5 **Autosampler Location: 39**
Sample ID: LCS-71425~LCS **Date Collected: 5/2/2013 8:21:00 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LCS-71425~LCS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1788969.5	96.715	%	1.0272				1.06%
Lu 261.542	1151073.7	98.46	%	1.076				1.09%
Ag 328.068	173513.4	1.1781	mg/L	0.01582	1.1781	mg/L	0.01582	1.34%
Al 308.215	158464.1	8.9648	mg/L	0.08748	8.9648	mg/L	0.08748	0.98%
As 188.979	490.6	0.46131	mg/L	0.003219	0.46131	mg/L	0.003219	0.70%
Ba 233.527	778556.9	9.5419	mg/L	0.14134	9.5419	mg/L	0.14134	1.48%
Be 313.107	430207.5	0.23228	mg/L	0.003350	0.23228	mg/L	0.003350	1.44%
Co 228.616	71290.2	2.2972	mg/L	0.02185	2.2972	mg/L	0.02185	0.95%
Cr 267.716	57332.4	0.92492	mg/L	0.008711	0.92492	mg/L	0.008711	0.94%
Cu 324.752	228285.8	1.1510	mg/L	0.01741	1.1510	mg/L	0.01741	1.51%
Fe 273.955	97401.7	4.7591	mg/L	0.05131	4.7591	mg/L	0.05131	1.08%
Mg 279.077	321831.7	23.697	mg/L	0.3658	23.697	mg/L	0.3658	1.54%
Mn 257.610	1081848.5	2.3344	mg/L	0.03735	2.3344	mg/L	0.03735	1.60%
Ni 231.604	55411.2	2.2953	mg/L	0.02140	2.2953	mg/L	0.02140	0.93%
Pb 220.353	2252.0	0.45640	mg/L	0.000826	0.45640	mg/L	0.000826	0.18%
Sb 206.836†	791.1	0.48700	mg/L	0.003915	0.48700	mg/L	0.003915	0.80%
Se 196.026	327.9	0.44125	mg/L	0.001325	0.44125	mg/L	0.001325	0.30%
Tl 190.801	517.9	0.42599	mg/L	0.004037	0.42599	mg/L	0.004037	0.95%
V 292.402	249206.5	2.3361	mg/L	0.03216	2.3361	mg/L	0.03216	1.38%
Zn 206.200	57303.5	2.2427	mg/L	0.02923	2.2427	mg/L	0.02923	1.30%
Cd 226.502	10312.9	0.22974	mg/L	0.002650	0.22974	mg/L	0.002650	1.15%
Ti 334.940	562.5	0.00094	mg/L	0.000112	0.00094	mg/L	0.000112	11.89%
Ca 227.546	3730.7	21.861	mg/L	0.0985	21.861	mg/L	0.0985	0.45%
Na 589.592	77131.8	23.017	mg/L	0.0565	23.017	mg/L	0.0565	0.25%
K 766.490	23820.1	22.773	mg/L	0.0607	22.773	mg/L	0.0607	0.27%

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Sequence No.: 6 **Autosampler Location: 40**
Sample ID: M0588-01A~CS-BOT21 **Date Collected: 5/2/2013 8:24:39 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0588-01A~CS-BOT21

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1865320.0	100.84	%	1.375				1.36%
Lu 261.542	1117849.7	95.61	%	1.485				1.55%
Ag 328.068	110.3	0.00172	mg/L	0.001087	0.00172	mg/L	0.001087	63.12%

Al 308.215	1346508.6	76.267	mg/L	0.3254	76.267	mg/L	0.3254	0.43%
As 188.979	16.4	0.02726	mg/L	0.004078	0.02726	mg/L	0.004078	14.96%
Ba 233.527	27300.8	0.33471	mg/L	0.002162	0.33471	mg/L	0.002162	0.65%
Be 313.107	-1960.1	0.00227	mg/L	0.000051	0.00227	mg/L	0.000051	2.23%
Co 228.616	1901.3	0.05747	mg/L	0.000358	0.05747	mg/L	0.000358	0.62%
Cr 267.716	7529.2	0.11986	mg/L	0.000969	0.11986	mg/L	0.000969	0.81%
Cu 324.752	17982.3	0.10621	mg/L	0.000728	0.10621	mg/L	0.000728	0.69%
Fe 273.955	3040384.8	147.55	mg/L	0.569	147.55	mg/L	0.569	0.39%
Mg 279.077	1201823.2	88.494	mg/L	0.3125	88.494	mg/L	0.3125	0.35%
Mn 257.610	1916119.4	4.1346	mg/L	0.01767	4.1346	mg/L	0.01767	0.43%
Ni 231.604	3244.3	0.13439	mg/L	0.000669	0.13439	mg/L	0.000669	0.50%
Pb 220.353	208.4	0.04538	mg/L	0.001641	0.04538	mg/L	0.001641	3.62%
Sb 206.836†	35.2	0.00452	mg/L	0.003996	0.00452	mg/L	0.003996	88.48%
Se 196.026	-11.6	0.03199	mg/L	0.012288	0.03199	mg/L	0.012288	38.42%
Tl 190.801	-31.9	-0.00986	mg/L	0.003786	-0.00986	mg/L	0.003786	38.38%
V 292.402	19713.0	0.17644	mg/L	0.002512	0.17644	mg/L	0.002512	1.42%
Zn 206.200	8694.1	0.33926	mg/L	0.002735	0.33926	mg/L	0.002735	0.81%
Cd 226.502	355.9	0.00253	mg/L	0.000183	0.00253	mg/L	0.000183	7.21%
Ti 334.940	979337.4	1.8551	mg/L	0.00886	1.8551	mg/L	0.00886	0.48%
Ca 227.546	61482.4	373.11	mg/L	3.339	373.11	mg/L	3.339	0.89%
Na 589.592	6400.6	1.9100	mg/L	0.01825	1.9100	mg/L	0.01825	0.96%
K 766.490	12322.3	11.781	mg/L	0.1496	11.781	mg/L	0.1496	1.27%

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Sequence No.: 7 **Autosampler Location: 41**
Sample ID: M0588-02A~CS-SW17 **Date Collected: 5/2/2013 8:28:20 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0588-02A~CS-SW17

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1698566.7	91.827	%	3.2702				3.56%
Lu 261.542	975082.4	83.40	%	0.533				0.64%
Ag 328.068	259.6	0.00375	mg/L	0.001191	0.00375	mg/L	0.001191	31.75%
Al 308.215	3516829.1	199.20	mg/L	2.922	199.20	mg/L	2.922	1.47%
As 188.979	48.8	0.08940	mg/L	0.006559	0.08940	mg/L	0.006559	7.34%
Ba 233.527	128223.4	1.5715	mg/L	0.02478	1.5715	mg/L	0.02478	1.58%
Be 313.107	9413.2	0.00802	mg/L	0.000139	0.00802	mg/L	0.000139	1.74%
Co 228.616	5609.5	0.17740	mg/L	0.000491	0.17740	mg/L	0.000491	0.28%
Cr 267.716	16583.7	0.26210	mg/L	0.001911	0.26210	mg/L	0.001911	0.73%
Cu 324.752	22223.4	0.15753	mg/L	0.002162	0.15753	mg/L	0.002162	1.37%
Fe 273.955	8878588.9	430.82	mg/L	2.281	430.82	mg/L	2.281	0.53%
Mg 279.077	11687651.1	860.59	mg/L	5.248	860.59	mg/L	5.248	0.61%
Concentration greater than upper limit for Mg 279.077.								
Mn 257.610	6381922.2	13.771	mg/L	0.0749	13.771	mg/L	0.0749	0.54%
Ni 231.604	9214.9	0.38169	mg/L	0.002754	0.38169	mg/L	0.002754	0.72%
Pb 220.353	360.6	0.08469	mg/L	0.001681	0.08469	mg/L	0.001681	1.99%
Sb 206.836†	106.2	0.00173	mg/L	0.000140	0.00173	mg/L	0.000140	8.09%
Se 196.026	-74.0	0.02656	mg/L	0.007176	0.02656	mg/L	0.007176	27.02%
Tl 190.801	-73.0	0.01102	mg/L	0.002303	0.01102	mg/L	0.002303	20.89%
V 292.402	40363.2	0.35799	mg/L	0.005238	0.35799	mg/L	0.005238	1.46%
Zn 206.200	14820.6	0.57758	mg/L	0.002982	0.57758	mg/L	0.002982	0.52%
Cd 226.502	1211.3	0.01203	mg/L	0.000506	0.01203	mg/L	0.000506	4.20%
Ti 334.940	859763.1	1.6417	mg/L	0.02547	1.6417	mg/L	0.02547	1.55%
Ca 227.546	286672.0	1730.1	mg/L	27.08	1730.1	mg/L	27.08	1.57%
Concentration greater than upper limit for Ca 227.546.								
Na 589.592	14580.7	4.3510	mg/L	0.01123	4.3510	mg/L	0.01123	0.26%
K 766.490	63859.8	61.054	mg/L	0.4177	61.054	mg/L	0.4177	0.68%

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Sequence No.: 8 **Autosampler Location: 42**
Sample ID: M0588-03A~BLIND DUP **Date Collected: 5/2/2013 8:32:08 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0588-03A~BLIND DUP

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1835513.0	99.231	%	0.9159				0.92%
Lu 261.542	1118779.7	95.69	%	0.938				0.98%
Ag 328.068	261.0	0.00264	mg/L	0.000334	0.00264	mg/L	0.000334	12.67%
Al 308.215	838371.3	47.486	mg/L	0.3096	47.486	mg/L	0.3096	0.65%
As 188.979	9.0	0.01785	mg/L	0.000392	0.01785	mg/L	0.000392	2.20%
Ba 233.527	13917.8	0.17072	mg/L	0.001629	0.17072	mg/L	0.001629	0.95%
Be 313.107	-2727.5	0.00105	mg/L	0.000013	0.00105	mg/L	0.000013	1.24%
Co 228.616	1483.4	0.04493	mg/L	0.000561	0.04493	mg/L	0.000561	1.25%
Cr 267.716	5298.8	0.08440	mg/L	0.000201	0.08440	mg/L	0.000201	0.24%
Cu 324.752	14329.1	0.08480	mg/L	0.000871	0.08480	mg/L	0.000871	1.03%
Fe 273.955	2455691.1	119.17	mg/L	0.702	119.17	mg/L	0.702	0.59%
Mg 279.077	942227.9	69.379	mg/L	0.4508	69.379	mg/L	0.4508	0.65%
Mn 257.610	1318234.2	2.8445	mg/L	0.01628	2.8445	mg/L	0.01628	0.57%
Ni 231.604	2211.5	0.09161	mg/L	0.000287	0.09161	mg/L	0.000287	0.31%
Pb 220.353	132.9	0.02826	mg/L	0.001627	0.02826	mg/L	0.001627	5.76%
Sb 206.836†	21.6	0.00024	mg/L	0.001519	0.00024	mg/L	0.001519	638.23%
Se 196.026	-3.8	0.03464	mg/L	0.007776	0.03464	mg/L	0.007776	22.45%
Tl 190.801	-30.4	-0.01229	mg/L	0.006246	-0.01229	mg/L	0.006246	50.81%
V 292.402	17763.4	0.15981	mg/L	0.001920	0.15981	mg/L	0.001920	1.20%
Zn 206.200	5731.7	0.22371	mg/L	0.001253	0.22371	mg/L	0.001253	0.56%
Cd 226.502	331.5	0.00303	mg/L	0.000178	0.00303	mg/L	0.000178	5.88%
Ti 334.940	741229.5	1.4040	mg/L	0.00868	1.4040	mg/L	0.00868	0.62%
Ca 227.546	44541.0	270.76	mg/L	2.517	270.76	mg/L	2.517	0.93%
Na 589.592	4915.9	1.4669	mg/L	0.02144	1.4669	mg/L	0.02144	1.46%
K 766.490	7310.5	6.9892	mg/L	0.09197	6.9892	mg/L	0.09197	1.32%

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Sequence No.: 9 **Autosampler Location: 43**
Sample ID: M0610-01A~SO-WC **Date Collected: 5/2/2013 8:35:49 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0610-01A~SO-WC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1774380.8	95.926	%	0.2094				0.22%
Lu 261.542	1039991.4	88.95	%	0.278				0.31%
Ag 328.068	299.9	0.00327	mg/L	0.000172	0.00327	mg/L	0.000172	5.26%
Al 308.215	1804052.7	102.18	mg/L	0.532	102.18	mg/L	0.532	0.52%
As 188.979	44.4	0.06275	mg/L	0.002370	0.06275	mg/L	0.002370	3.78%
Ba 233.527	47489.9	0.58214	mg/L	0.005806	0.58214	mg/L	0.005806	1.00%
Be 313.107	-980.6	0.00328	mg/L	0.000044	0.00328	mg/L	0.000044	1.34%
Co 228.616	2708.2	0.08292	mg/L	0.000531	0.08292	mg/L	0.000531	0.64%
Cr 267.716	9969.1	0.15821	mg/L	0.000563	0.15821	mg/L	0.000563	0.36%
Cu 324.752	54161.3	0.29460	mg/L	0.002882	0.29460	mg/L	0.002882	0.98%
Fe 273.955	4237057.7	205.61	mg/L	0.925	205.61	mg/L	0.925	0.45%
Mg 279.077	4015476.3	295.67	mg/L	1.387	295.67	mg/L	1.387	0.47%
Mn 257.610	3102761.3	6.6952	mg/L	0.02815	6.6952	mg/L	0.02815	0.42%
Ni 231.604	4124.5	0.17085	mg/L	0.000666	0.17085	mg/L	0.000666	0.39%
Pb 220.353	489.8	0.10630	mg/L	0.000113	0.10630	mg/L	0.000113	0.11%
Sb 206.836†	54.8	0.00618	mg/L	0.000840	0.00618	mg/L	0.000840	13.59%
Se 196.026	-25.9	0.02438	mg/L	0.009130	0.02438	mg/L	0.009130	37.45%
Tl 190.801	-47.1	-0.00744	mg/L	0.003751	-0.00744	mg/L	0.003751	50.43%
V 292.402	25305.1	0.22607	mg/L	0.000654	0.22607	mg/L	0.000654	0.29%
Zn 206.200	19381.3	0.75690	mg/L	0.002465	0.75690	mg/L	0.002465	0.33%
Cd 226.502	555.6	0.00494	mg/L	0.000193	0.00494	mg/L	0.000193	3.91%
Ti 334.940	1119952.6	2.1257	mg/L	0.01066	2.1257	mg/L	0.01066	0.50%
Ca 227.546	141935.9	856.30	mg/L	8.516	856.30	mg/L	8.516	0.99%
Concentration greater than upper limit for Ca 227.546.								
Na 589.592	9175.1	2.7380	mg/L	0.02535	2.7380	mg/L	0.02535	0.93%
K 766.490	19858.4	18.986	mg/L	0.0540	18.986	mg/L	0.0540	0.28%

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Sequence No.: 10 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 5/2/2013 8:39:33 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**

Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1815489.8	98.148	%	0.0898				0.09%
Lu 261.542	1158195.9	99.07	%	0.159				0.16%
Ag 328.068	195535.7	1.3276	mg/L	0.02899	1.3276	mg/L	0.02899	2.18%
QC value within limits for Ag 328.068 Recovery = 106.21%								
Al 308.215	191025.1	10.808	mg/L	0.2606	10.808	mg/L	0.2606	2.41%
QC value within limits for Al 308.215 Recovery = 108.08%								
As 188.979	562.8	0.52925	mg/L	0.003016	0.52925	mg/L	0.003016	0.57%
QC value within limits for As 188.979 Recovery = 105.85%								
Ba 233.527	888341.9	10.887	mg/L	0.0446	10.887	mg/L	0.0446	0.41%
QC value within limits for Ba 233.527 Recovery = 108.87%								
Be 313.107	491974.1	0.26658	mg/L	0.001390	0.26658	mg/L	0.001390	0.52%
QC value within limits for Be 313.107 Recovery = 106.63%								
Co 228.616	81220.0	2.6161	mg/L	0.06401	2.6161	mg/L	0.06401	2.45%
QC value within limits for Co 228.616 Recovery = 104.64%								
Cr 267.716	65872.7	1.0627	mg/L	0.02628	1.0627	mg/L	0.02628	2.47%
QC value within limits for Cr 267.716 Recovery = 106.27%								
Cu 324.752	256693.0	1.2943	mg/L	0.02868	1.2943	mg/L	0.02868	2.22%
QC value within limits for Cu 324.752 Recovery = 103.54%								
Fe 273.955	114894.8	5.6133	mg/L	0.14630	5.6133	mg/L	0.14630	2.61%
QC value greater than the upper limit for Fe 273.955 Recovery = 112.27%								
Mg 279.077	368264.1	27.116	mg/L	0.2029	27.116	mg/L	0.2029	0.75%
QC value within limits for Mg 279.077 Recovery = 108.47%								
Mn 257.610	1239612.4	2.6748	mg/L	0.01263	2.6748	mg/L	0.01263	0.47%
QC value within limits for Mn 257.610 Recovery = 106.99%								
Ni 231.604	63682.3	2.6379	mg/L	0.06215	2.6379	mg/L	0.06215	2.36%
QC value within limits for Ni 231.604 Recovery = 105.52%								
Pb 220.353	2598.7	0.52704	mg/L	0.000634	0.52704	mg/L	0.000634	0.12%
QC value within limits for Pb 220.353 Recovery = 105.41%								
Sb 206.836†	879.0	0.54108	mg/L	0.004285	0.54108	mg/L	0.004285	0.79%
QC value within limits for Sb 206.836 Recovery = 108.22%								
Se 196.026	384.0	0.51670	mg/L	0.003498	0.51670	mg/L	0.003498	0.68%
QC value within limits for Se 196.026 Recovery = 103.34%								
Tl 190.801	605.5	0.49802	mg/L	0.004017	0.49802	mg/L	0.004017	0.81%
QC value within limits for Tl 190.801 Recovery = 99.60%								
V 292.402	281662.1	2.6398	mg/L	0.06329	2.6398	mg/L	0.06329	2.40%
QC value within limits for V 292.402 Recovery = 105.59%								
Zn 206.200	68039.0	2.6628	mg/L	0.06595	2.6628	mg/L	0.06595	2.48%
QC value within limits for Zn 206.200 Recovery = 106.51%								
Cd 226.502	11899.4	0.26496	mg/L	0.007514	0.26496	mg/L	0.007514	2.84%
QC value within limits for Cd 226.502 Recovery = 105.98%								
Ti 334.940	278855.2	0.52718	mg/L	0.002873	0.52718	mg/L	0.002873	0.55%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	4467.6	26.212	mg/L	0.1888	26.212	mg/L	0.1888	0.72%
QC value within limits for Ca 227.546 Recovery = 104.85%								
Na 589.592	89128.6	26.597	mg/L	0.1564	26.597	mg/L	0.1564	0.59%
QC value within limits for Na 589.592 Recovery = 106.39%								
K 766.490	27467.3	26.260	mg/L	0.1737	26.260	mg/L	0.1737	0.66%
QC value within limits for K 766.490 Recovery = 105.04%								

QC Failed. Continue with analysis.
User canceled analysis.

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Analysis Begun

Start Time: 5/2/2013 8:44:33 AM **Plasma On Time: 5/2/2013 6:23:59 AM**
Logged In Analyst: mitOptima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N3102302 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\Administrator\Sample Information\0502A.sif
Batch ID: Null
Results Data Set: B13050201
Results Library: C:\pe\Administrator\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 5/2/2013 8:44:34 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1819855.3	98.384	%	0.7995				0.81%
Lu 261.542	1157516.2	99.01	%	0.851				0.86%
Ag 328.068	194653.2	1.3216	mg/L	0.00978	1.3216	mg/L	0.00978	0.74%
QC value within limits for Ag 328.068 Recovery = 105.73%								
Al 308.215	187385.5	10.602	mg/L	0.0811	10.602	mg/L	0.0811	0.77%
QC value within limits for Al 308.215 Recovery = 106.02%								
As 188.979	555.3	0.52202	mg/L	0.002192	0.52202	mg/L	0.002192	0.42%
QC value within limits for As 188.979 Recovery = 104.40%								
Ba 233.527	872479.6	10.693	mg/L	0.0855	10.693	mg/L	0.0855	0.80%
QC value within limits for Ba 233.527 Recovery = 106.93%								
Be 313.107	483262.3	0.26185	mg/L	0.002165	0.26185	mg/L	0.002165	0.83%
QC value within limits for Be 313.107 Recovery = 104.74%								
Co 228.616	79285.9	2.5538	mg/L	0.05491	2.5538	mg/L	0.05491	2.15%
QC value within limits for Co 228.616 Recovery = 102.15%								
Cr 267.716	64228.3	1.0362	mg/L	0.02283	1.0362	mg/L	0.02283	2.20%
QC value within limits for Cr 267.716 Recovery = 103.62%								
Cu 324.752	258076.9	1.3012	mg/L	0.00864	1.3012	mg/L	0.00864	0.66%
QC value within limits for Cu 324.752 Recovery = 104.10%								
Fe 273.955	107852.6	5.2713	mg/L	0.11048	5.2713	mg/L	0.11048	2.10%
QC value within limits for Fe 273.955 Recovery = 105.43%								
Mg 279.077	358280.6	26.381	mg/L	0.2244	26.381	mg/L	0.2244	0.85%
QC value within limits for Mg 279.077 Recovery = 105.52%								
Mn 257.610	1214072.0	2.6197	mg/L	0.02074	2.6197	mg/L	0.02074	0.79%
QC value within limits for Mn 257.610 Recovery = 104.79%								
Ni 231.604	62220.4	2.5773	mg/L	0.05314	2.5773	mg/L	0.05314	2.06%
QC value within limits for Ni 231.604 Recovery = 103.09%								
Pb 220.353	2539.7	0.51507	mg/L	0.002837	0.51507	mg/L	0.002837	0.55%
QC value within limits for Pb 220.353 Recovery = 103.01%								
Sb 206.836†	875.6	0.53930	mg/L	0.005541	0.53930	mg/L	0.005541	1.03%
QC value within limits for Sb 206.836 Recovery = 107.86%								
Se 196.026	383.7	0.51619	mg/L	0.008734	0.51619	mg/L	0.008734	1.69%
QC value within limits for Se 196.026 Recovery = 103.24%								
Tl 190.801	605.9	0.49859	mg/L	0.006463	0.49859	mg/L	0.006463	1.30%
QC value within limits for Tl 190.801 Recovery = 99.72%								
V 292.402	279762.8	2.6220	mg/L	0.02136	2.6220	mg/L	0.02136	0.81%
QC value within limits for V 292.402 Recovery = 104.88%								
Zn 206.200	65842.5	2.5769	mg/L	0.05648	2.5769	mg/L	0.05648	2.19%
QC value within limits for Zn 206.200 Recovery = 103.07%								
Cd 226.502	11691.2	0.26032	mg/L	0.006187	0.26032	mg/L	0.006187	2.38%
QC value within limits for Cd 226.502 Recovery = 104.13%								
Ti 334.940	273234.6	0.51655	mg/L	0.003501	0.51655	mg/L	0.003501	0.68%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	4304.1	25.236	mg/L	0.0698	25.236	mg/L	0.0698	0.28%
QC value within limits for Ca 227.546 Recovery = 100.95%								
Na 589.592	89175.0	26.611	mg/L	0.1818	26.611	mg/L	0.1818	0.68%
QC value within limits for Na 589.592 Recovery = 106.44%								
K 766.490	27619.1	26.405	mg/L	0.1978	26.405	mg/L	0.1978	0.75%

QC value within limits for K 766.490 Recovery = 105.62%
All analyte(s) passed QC.

Sequence No.: 2 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 5/2/2013 8:48:16 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1849153.7	99.968	%	1.0349				1.04%
Lu 261.542	1181563.1	101.1	%	1.17				1.16%
Ag 328.068	230.4	0.00155	mg/L	0.000932	0.00155	mg/L	0.000932	60.06%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	181.9	0.01030	mg/L	0.004248	0.01030	mg/L	0.004248	41.24%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979	1.4	0.00127	mg/L	0.003460	0.00127	mg/L	0.003460	273.45%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	224.4	0.00275	mg/L	0.001291	0.00275	mg/L	0.001291	46.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	93.1	0.00005	mg/L	0.000043	0.00005	mg/L	0.000043	84.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616	19.1	0.00061	mg/L	0.000142	0.00061	mg/L	0.000142	23.21%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	7.6	0.00012	mg/L	0.000180	0.00012	mg/L	0.000180	147.16%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752	322.2	0.00162	mg/L	0.000441	0.00162	mg/L	0.000441	27.17%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	92.2	0.00448	mg/L	0.000836	0.00448	mg/L	0.000836	18.64%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077	149.2	0.01099	mg/L	0.002868	0.01099	mg/L	0.002868	26.10%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	470.9	0.00102	mg/L	0.000446	0.00102	mg/L	0.000446	43.91%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604	14.5	0.00060	mg/L	0.000308	0.00060	mg/L	0.000308	51.44%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	4.6	0.00094	mg/L	0.002009	0.00094	mg/L	0.002009	213.18%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	5.2	0.00330	mg/L	0.003074	0.00330	mg/L	0.003074	93.30%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026	4.5	0.00599	mg/L	0.003026	0.00599	mg/L	0.003026	50.51%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801	0.7	0.00061	mg/L	0.003653	0.00061	mg/L	0.003653	594.80%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402	78.1	0.00073	mg/L	0.000446	0.00073	mg/L	0.000446	60.90%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	41.5	0.00162	mg/L	0.000314	0.00162	mg/L	0.000314	19.33%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Cd 226.502	5.7	0.00013	mg/L	0.000222	0.00013	mg/L	0.000222	176.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ti 334.940	140.9	0.00027	mg/L	0.000057	0.00027	mg/L	0.000057	21.42%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	2.1	0.01280	mg/L	0.105820	0.01280	mg/L	0.105820	826.61%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Na 589.592	115.9	0.03459	mg/L	0.010177	0.03459	mg/L	0.010177	29.42%
QC value within limits for Na 589.592 Recovery = Not calculated								
K 766.490	113.8	0.10885	mg/L	0.038294	0.10885	mg/L	0.038294	35.18%
QC value within limits for K 766.490 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 3 **Autosampler Location: 44**
Sample ID: M0619-01A~SB-126 (0-2) **Date Collected: 5/2/2013 8:51:54 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-01A~SB-126 (0-2)

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1915378.9	103.55	%	0.603				0.58%
Lu 261.542	1136351.0	97.20	%	0.549				0.57%
Ag 328.068	168.7	0.00462	mg/L	0.000502	0.00462	mg/L	0.000502	10.87%
Al 308.215	3483968.2	197.33	mg/L	1.564	197.33	mg/L	1.564	0.79%
As 188.979	135.6	0.14517	mg/L	0.005708	0.14517	mg/L	0.005708	3.93%
Ba 233.527	143598.0	1.7602	mg/L	0.01720	1.7602	mg/L	0.01720	0.98%
Be 313.107	-14914.1	0.00438	mg/L	0.000092	0.00438	mg/L	0.000092	2.10%
Co 228.616	5483.5	0.16249	mg/L	0.000219	0.16249	mg/L	0.000219	0.13%
Cr 267.716	34834.4	0.55981	mg/L	0.006005	0.55981	mg/L	0.006005	1.07%
Cu 324.752	183556.1	0.96387	mg/L	0.010845	0.96387	mg/L	0.010845	1.13%
Fe 273.955	7621647.5	369.88	mg/L	2.640	369.88	mg/L	2.640	0.71%
Mg 279.077	994136.3	73.201	mg/L	0.5488	73.201	mg/L	0.5488	0.75%
Mn 257.610	2748149.2	5.9300	mg/L	0.04481	5.9300	mg/L	0.04481	0.76%
Ni 231.604	15922.7	0.65948	mg/L	0.001221	0.65948	mg/L	0.001221	0.19%
Pb 220.353	30659.3	6.2218	mg/L	0.07010	6.2218	mg/L	0.07010	1.13%
Sb 206.836†	87.9	0.01246	mg/L	0.001512	0.01246	mg/L	0.001512	12.14%
Se 196.026	-58.1	0.06059	mg/L	0.008925	0.06059	mg/L	0.008925	14.73%
Tl 190.801	-45.9	-0.01457	mg/L	0.001842	-0.01457	mg/L	0.001842	12.64%
V 292.402	69959.4	0.63300	mg/L	0.007358	0.63300	mg/L	0.007358	1.16%
Zn 206.200	98243.4	3.8402	mg/L	0.05352	3.8402	mg/L	0.05352	1.39%
Cd 226.502	1424.1	0.01783	mg/L	0.000147	0.01783	mg/L	0.000147	0.82%
Ti 334.940	3653830.5	6.9087	mg/L	0.05888	6.9087	mg/L	0.05888	0.85%
Ca 227.546	9990.1	73.544	mg/L	0.3381	73.544	mg/L	0.3381	0.46%
Na 589.592	10478.7	3.1270	mg/L	0.05636	3.1270	mg/L	0.05636	1.80%
K 766.490	18646.0	17.827	mg/L	0.3753	17.827	mg/L	0.3753	2.11%

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Sequence No.: 4 **Autosampler Location: 45**
Sample ID: M0619-02A~SB-126 (8-10) **Date Collected: 5/2/2013 8:55:38 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-02A~SB-126 (8-10)

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1897425.2	102.58	%	0.701				0.68%
Lu 261.542	1131207.5	96.76	%	0.768				0.79%
Ag 328.068	32.2	0.00286	mg/L	0.000364	0.00286	mg/L	0.000364	12.71%
Al 308.215	3076979.4	174.28	mg/L	0.115	174.28	mg/L	0.115	0.07%
As 188.979	118.9	0.12677	mg/L	0.002893	0.12677	mg/L	0.002893	2.28%
Ba 233.527	161003.7	1.9733	mg/L	0.00631	1.9733	mg/L	0.00631	0.32%
Be 313.107	-6030.0	0.00664	mg/L	0.000035	0.00664	mg/L	0.000035	0.53%
Co 228.616	5463.5	0.16471	mg/L	0.000570	0.16471	mg/L	0.000570	0.35%
Cr 267.716	33743.8	0.54182	mg/L	0.000702	0.54182	mg/L	0.000702	0.13%
Cu 324.752	91403.8	0.49208	mg/L	0.000843	0.49208	mg/L	0.000843	0.17%
Fe 273.955	6150083.3	298.47	mg/L	0.394	298.47	mg/L	0.394	0.13%
Mg 279.077	779098.6	57.367	mg/L	0.1000	57.367	mg/L	0.1000	0.17%
Mn 257.610	3131888.9	6.7580	mg/L	0.01187	6.7580	mg/L	0.01187	0.18%
Ni 231.604	17327.9	0.71768	mg/L	0.003050	0.71768	mg/L	0.003050	0.42%
Pb 220.353	27961.6	5.6752	mg/L	0.02074	5.6752	mg/L	0.02074	0.37%
Sb 206.836†	61.2	0.00203	mg/L	0.002807	0.00203	mg/L	0.002807	138.03%
Se 196.026	-42.8	0.05246	mg/L	0.007474	0.05246	mg/L	0.007474	14.25%
Tl 190.801	-41.1	-0.01532	mg/L	0.003387	-0.01532	mg/L	0.003387	22.10%
V 292.402	53186.0	0.48056	mg/L	0.000935	0.48056	mg/L	0.000935	0.19%
Zn 206.200	71173.9	2.7820	mg/L	0.00301	2.7820	mg/L	0.00301	0.11%
Cd 226.502	917.7	0.00937	mg/L	0.000336	0.00937	mg/L	0.000336	3.59%
Ti 334.940	2909466.2	5.5014	mg/L	0.00913	5.5014	mg/L	0.00913	0.17%
Ca 227.546	12333.9	84.877	mg/L	0.4059	84.877	mg/L	0.4059	0.48%
Na 589.592	7759.7	2.3156	mg/L	0.04252	2.3156	mg/L	0.04252	1.84%
K 766.490	19737.9	18.871	mg/L	0.0878	18.871	mg/L	0.0878	0.47%

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Sequence No.: 5 **Autosampler Location: 46**
Sample ID: M0619-03A~SB-126 (10.5-1 **Date Collected: 5/2/2013 8:59:22 AM**
Analyst: **Data Type: Original**

Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-03A~SB-126 (10.5-1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1799494.6	97.284	%	0.6459				0.66%
Lu 261.542	1085872.8	92.88	%	0.579				0.62%
Ag 328.068	714.1	0.00692	mg/L	0.000986	0.00692	mg/L	0.000986	14.26%
Al 308.215	2753821.1	155.98	mg/L	1.121	155.98	mg/L	1.121	0.72%
As 188.979	134.0	0.14703	mg/L	0.007036	0.14703	mg/L	0.007036	4.79%
Ba 233.527	286577.6	3.5117	mg/L	0.00430	3.5117	mg/L	0.00430	0.12%
Be 313.107	-7689.4	0.00498	mg/L	0.000153	0.00498	mg/L	0.000153	3.07%
Co 228.616	4895.2	0.14733	mg/L	0.001156	0.14733	mg/L	0.001156	0.78%
Cr 267.716	20815.7	0.33350	mg/L	0.002392	0.33350	mg/L	0.002392	0.72%
Cu 324.752	317415.1	1.6301	mg/L	0.00085	1.6301	mg/L	0.00085	0.05%
Fe 273.955	6046355.0	293.43	mg/L	2.067	293.43	mg/L	2.067	0.70%
Mg 279.077	1246492.8	91.783	mg/L	0.7442	91.783	mg/L	0.7442	0.81%
Mn 257.610	2809580.1	6.0625	mg/L	0.04756	6.0625	mg/L	0.04756	0.78%
Ni 231.604	8591.6	0.35586	mg/L	0.002389	0.35586	mg/L	0.002389	0.67%
Pb 220.353	47948.1	9.7343	mg/L	0.03987	9.7343	mg/L	0.03987	0.41%
Sb 206.836†	133.6	0.05003	mg/L	0.002631	0.05003	mg/L	0.002631	5.26%
Se 196.026	-38.3	0.04591	mg/L	0.007501	0.04591	mg/L	0.007501	16.34%
Tl 190.801	-38.0	-0.00192	mg/L	0.000860	-0.00192	mg/L	0.000860	44.87%
V 292.402	42553.3	0.38104	mg/L	0.000535	0.38104	mg/L	0.000535	0.14%
Zn 206.200	113143.5	4.4228	mg/L	0.00934	4.4228	mg/L	0.00934	0.21%
Cd 226.502	1200.1	0.01570	mg/L	0.000128	0.01570	mg/L	0.000128	0.81%
Ti 334.940	2683648.1	5.0801	mg/L	0.04114	5.0801	mg/L	0.04114	0.81%
Ca 227.546	105173.7	639.78	mg/L	1.004	639.78	mg/L	1.004	0.16%
Concentration greater than upper limit for Ca 227.546.								
Na 589.592	18654.1	5.5666	mg/L	0.01291	5.5666	mg/L	0.01291	0.23%
K 766.490	23303.8	22.280	mg/L	0.1005	22.280	mg/L	0.1005	0.45%

Sequence No.: 6 **Autosampler Location: 47**
Sample ID: M0619-04A~SB-127 (3-5) **Date Collected: 5/2/2013 9:03:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-04A~SB-127 (3-5)

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1963792.5	106.17	%	0.599				0.56%
Lu 261.542	1152556.7	98.58	%	0.529				0.54%
Ag 328.068	-232.7	0.00392	mg/L	0.000203	0.00392	mg/L	0.000203	5.18%
Al 308.215	4110109.6	232.80	mg/L	0.384	232.80	mg/L	0.384	0.16%
As 188.979	135.0	0.14499	mg/L	0.001253	0.14499	mg/L	0.001253	0.86%
Ba 233.527	217904.3	2.6710	mg/L	0.01893	2.6710	mg/L	0.01893	0.71%
Be 313.107	-16392.9	0.00616	mg/L	0.000125	0.00616	mg/L	0.000125	2.03%
Co 228.616	7471.4	0.22360	mg/L	0.000364	0.22360	mg/L	0.000364	0.16%
Cr 267.716	32625.6	0.52343	mg/L	0.005949	0.52343	mg/L	0.005949	1.14%
Cu 324.752	166987.0	0.88252	mg/L	0.006230	0.88252	mg/L	0.006230	0.71%
Fe 273.955	8017511.0	389.10	mg/L	0.503	389.10	mg/L	0.503	0.13%
Mg 279.077	1088546.9	80.153	mg/L	0.1604	80.153	mg/L	0.1604	0.20%
Mn 257.610	3786981.6	8.1716	mg/L	0.00952	8.1716	mg/L	0.00952	0.12%
Ni 231.604	22730.3	0.94143	mg/L	0.001954	0.94143	mg/L	0.001954	0.21%
Pb 220.353	31434.2	6.3813	mg/L	0.06100	6.3813	mg/L	0.06100	0.96%
Sb 206.836†	88.9	0.01172	mg/L	0.004102	0.01172	mg/L	0.004102	35.00%
Se 196.026	-73.9	0.04435	mg/L	0.009555	0.04435	mg/L	0.009555	21.54%
Tl 190.801	-42.9	-0.01261	mg/L	0.003592	-0.01261	mg/L	0.003592	28.49%
V 292.402	110102.8	1.0064	mg/L	0.00980	1.0064	mg/L	0.00980	0.97%
Zn 206.200	92394.6	3.6110	mg/L	0.03261	3.6110	mg/L	0.03261	0.90%
Cd 226.502	1393.7	0.01634	mg/L	0.000125	0.01634	mg/L	0.000125	0.77%
Ti 334.940	4407300.5	8.3336	mg/L	0.01994	8.3336	mg/L	0.01994	0.24%
Ca 227.546	14668.6	102.19	mg/L	0.073	102.19	mg/L	0.073	0.07%
Na 589.592	6614.9	1.9740	mg/L	0.02196	1.9740	mg/L	0.02196	1.11%
K 766.490	24532.2	23.454	mg/L	0.1655	23.454	mg/L	0.1655	0.71%

Sequence No.: 7 **Autosampler Location: 48**
Sample ID: M0619-05A~SB-127 (8-10) **Date Collected: 5/2/2013 9:06:51 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-05A~SB-127 (8-10)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1907581.9	103.13	%	1.999				1.94%
Lu 261.542	1128562.9	96.53	%	2.110				2.19%
Ag 328.068	-146.4	0.00162	mg/L	0.000516	0.00162	mg/L	0.000516	31.90%
Al 308.215	2776707.1	157.27	mg/L	1.362	157.27	mg/L	1.362	0.87%
As 188.979	96.5	0.10514	mg/L	0.005082	0.10514	mg/L	0.005082	4.83%
Ba 233.527	148618.4	1.8215	mg/L	0.01473	1.8215	mg/L	0.01473	0.81%
Be 313.107	-11672.3	0.00502	mg/L	0.000110	0.00502	mg/L	0.000110	2.19%
Co 228.616	4369.8	0.12787	mg/L	0.000059	0.12787	mg/L	0.000059	0.05%
Cr 267.716	28858.6	0.46345	mg/L	0.003899	0.46345	mg/L	0.003899	0.84%
Cu 324.752	161113.5	0.84262	mg/L	0.005996	0.84262	mg/L	0.005996	0.71%
Fe 273.955	6029752.1	292.63	mg/L	2.595	292.63	mg/L	2.595	0.89%
Mg 279.077	827234.5	60.912	mg/L	0.6241	60.912	mg/L	0.6241	1.02%
Mn 257.610	2630665.1	5.6765	mg/L	0.05829	5.6765	mg/L	0.05829	1.03%
Ni 231.604	13111.4	0.54304	mg/L	0.005352	0.54304	mg/L	0.005352	0.99%
Pb 220.353	36883.7	7.4848	mg/L	0.05011	7.4848	mg/L	0.05011	0.67%
Sb 206.836†	69.2	0.00989	mg/L	0.004398	0.00989	mg/L	0.004398	44.47%
Se 196.026	-44.2	0.04969	mg/L	0.004389	0.04969	mg/L	0.004389	8.83%
Tl 190.801	-34.4	-0.01071	mg/L	0.006845	-0.01071	mg/L	0.006845	63.91%
V 292.402	52290.6	0.47133	mg/L	0.003682	0.47133	mg/L	0.003682	0.78%
Zn 206.200	71933.8	2.8118	mg/L	0.02716	2.8118	mg/L	0.02716	0.97%
Cd 226.502	1100.2	0.01335	mg/L	0.000456	0.01335	mg/L	0.000456	3.41%
Ti 334.940	3329458.6	6.2955	mg/L	0.06482	6.2955	mg/L	0.06482	1.03%
Ca 227.546	8870.4	63.965	mg/L	0.4250	63.965	mg/L	0.4250	0.66%
Na 589.592	6221.6	1.8566	mg/L	0.01032	1.8566	mg/L	0.01032	0.56%
K 766.490	21340.1	20.402	mg/L	0.3205	20.402	mg/L	0.3205	1.57%

Sequence No.: 8 **Autosampler Location: 49**
Sample ID: M0619-06A~SB-127 (10-12) **Date Collected: 5/2/2013 9:10:36 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-06A~SB-127 (10-12)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1768492.8	95.608	%	0.7347				0.77%
Lu 261.542	1064812.9	91.08	%	1.016				1.12%
Ag 328.068	1047.4	0.00981	mg/L	0.000542	0.00981	mg/L	0.000542	5.52%
Al 308.215	3216342.3	182.18	mg/L	1.047	182.18	mg/L	1.047	0.57%
As 188.979	197.2	0.21874	mg/L	0.003617	0.21874	mg/L	0.003617	1.65%
Ba 233.527	373683.6	4.5792	mg/L	0.02839	4.5792	mg/L	0.02839	0.62%
Be 313.107	-9469.8	0.00712	mg/L	0.000131	0.00712	mg/L	0.000131	1.84%
Co 228.616	4570.0	0.13332	mg/L	0.000549	0.13332	mg/L	0.000549	0.41%
Cr 267.716	23804.1	0.38005	mg/L	0.001197	0.38005	mg/L	0.001197	0.31%
Cu 324.752	1307598.0	6.6360	mg/L	0.04320	6.6360	mg/L	0.04320	0.65%
Fe 273.955	9514033.7	461.72	mg/L	5.256	461.72	mg/L	5.256	1.14%
Mg 279.077	1707090.0	125.70	mg/L	0.798	125.70	mg/L	0.798	0.63%
Mn 257.610	4776533.3	10.307	mg/L	0.1145	10.307	mg/L	0.1145	1.11%
Ni 231.604	8660.4	0.35872	mg/L	0.001689	0.35872	mg/L	0.001689	0.47%
Pb 220.353	83194.1	16.882	mg/L	0.0995	16.882	mg/L	0.0995	0.59%
Sb 206.836†	135.8	0.03512	mg/L	0.001455	0.03512	mg/L	0.001455	4.14%
Se 196.026	-71.2	0.06001	mg/L	0.012707	0.06001	mg/L	0.012707	21.18%
Tl 190.801	-68.5	-0.00947	mg/L	0.009228	-0.00947	mg/L	0.009228	97.40%
V 292.402	55747.2	0.49543	mg/L	0.003629	0.49543	mg/L	0.003629	0.73%
Zn 206.200	137871.0	5.3894	mg/L	0.04309	5.3894	mg/L	0.04309	0.80%
Cd 226.502	1800.2	0.02290	mg/L	0.000410	0.02290	mg/L	0.000410	1.79%
Ti 334.940	3596961.1	6.8105	mg/L	0.08195	6.8105	mg/L	0.08195	1.20%
Ca 227.546	163777.3	996.48	mg/L	6.396	996.48	mg/L	6.396	0.64%

Concentration greater than upper limit for Ca 227.546.

Na 589.592	19312.6	5.7631	mg/L	0.01406	5.7631	mg/L	0.01406	0.24%
K 766.490	32922.0	31.475	mg/L	0.1105	31.475	mg/L	0.1105	0.35%

Sequence No.: 9 **Autosampler Location: 50**
Sample ID: M0619-07A~SB-128 (2-4) **Date Collected: 5/2/2013 9:14:27 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-07A~SB-128 (2-4)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1931355.2	104.41	%	0.428				0.41%
Lu 261.542	1146710.5	98.08	%	0.487				0.50%
Ag 328.068	128.9	0.00389	mg/L	0.000584	0.00389	mg/L	0.000584	15.02%
Al 308.215	3506592.6	198.62	mg/L	0.803	198.62	mg/L	0.803	0.40%
As 188.979	149.1	0.15379	mg/L	0.001839	0.15379	mg/L	0.001839	1.20%
Ba 233.527	188489.8	2.3101	mg/L	0.01381	2.3101	mg/L	0.01381	0.60%
Be 313.107	-8794.6	0.00610	mg/L	0.000067	0.00610	mg/L	0.000067	1.09%
Co 228.616	4972.7	0.14784	mg/L	0.000621	0.14784	mg/L	0.000621	0.42%
Cr 267.716	30282.7	0.48639	mg/L	0.002668	0.48639	mg/L	0.002668	0.55%
Cu 324.752	149979.0	0.78854	mg/L	0.006465	0.78854	mg/L	0.006465	0.82%
Fe 273.955	6417993.1	311.47	mg/L	1.043	311.47	mg/L	1.043	0.33%
Mg 279.077	864409.0	63.649	mg/L	0.2043	63.649	mg/L	0.2043	0.32%
Mn 257.610	2704270.0	5.8353	mg/L	0.01823	5.8353	mg/L	0.01823	0.31%
Ni 231.604	14709.7	0.60924	mg/L	0.002297	0.60924	mg/L	0.002297	0.38%
Pb 220.353	27625.9	5.6081	mg/L	0.04332	5.6081	mg/L	0.04332	0.77%
Sb 206.836†	71.2	0.00698	mg/L	0.003041	0.00698	mg/L	0.003041	43.58%
Se 196.026	-60.5	0.03408	mg/L	0.003948	0.03408	mg/L	0.003948	11.59%
Tl 190.801	-38.6	-0.01293	mg/L	0.005188	-0.01293	mg/L	0.005188	40.11%
V 292.402	60689.9	0.54951	mg/L	0.002361	0.54951	mg/L	0.002361	0.43%
Zn 206.200	76167.8	2.9768	mg/L	0.02031	2.9768	mg/L	0.02031	0.68%
Cd 226.502	1092.7	0.01263	mg/L	0.000209	0.01263	mg/L	0.000209	1.66%
Ti 334.940	3186865.4	6.0255	mg/L	0.01685	6.0255	mg/L	0.01685	0.28%
Ca 227.546	6419.4	50.009	mg/L	0.1219	50.009	mg/L	0.1219	0.24%
Na 589.592	5568.5	1.6617	mg/L	0.02365	1.6617	mg/L	0.02365	1.42%
K 766.490	17676.2	16.899	mg/L	0.0791	16.899	mg/L	0.0791	0.47%

Sequence No.: 10 **Autosampler Location: 51**
Sample ID: M0619-08A~SB-128 (10-12) **Date Collected: 5/2/2013 9:18:12 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-08A~SB-128 (10-12)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1929523.8	104.31	%	1.108				1.06%
Lu 261.542	1156982.0	98.96	%	1.081				1.09%
Ag 328.068	-379.2	0.00073	mg/L	0.000777	0.00073	mg/L	0.000777	106.43%
Al 308.215	4050666.1	229.43	mg/L	2.559	229.43	mg/L	2.559	1.12%
As 188.979	111.0	0.11925	mg/L	0.003001	0.11925	mg/L	0.003001	2.52%
Ba 233.527	65507.1	0.80333	mg/L	0.009707	0.80333	mg/L	0.009707	1.21%
Be 313.107	-24763.1	0.00414	mg/L	0.000126	0.00414	mg/L	0.000126	3.05%
Co 228.616	6383.0	0.18560	mg/L	0.000635	0.18560	mg/L	0.000635	0.34%
Cr 267.716	31536.9	0.50712	mg/L	0.001394	0.50712	mg/L	0.001394	0.27%
Cu 324.752	211513.3	1.1010	mg/L	0.01278	1.1010	mg/L	0.01278	1.16%
Fe 273.955	6899458.9	334.84	mg/L	0.915	334.84	mg/L	0.915	0.27%
Mg 279.077	1108270.5	81.605	mg/L	0.9443	81.605	mg/L	0.9443	1.16%
Mn 257.610	2153545.6	4.6469	mg/L	0.05615	4.6469	mg/L	0.05615	1.21%
Ni 231.604	32015.5	1.3260	mg/L	0.00370	1.3260	mg/L	0.00370	0.28%
Pb 220.353	6433.2	1.3114	mg/L	0.00349	1.3114	mg/L	0.00349	0.27%
Sb 206.836†	63.9	0.00138	mg/L	0.004157	0.00138	mg/L	0.004157	301.43%
Se 196.026	-61.1	0.04214	mg/L	0.008795	0.04214	mg/L	0.008795	20.87%
Tl 190.801	-31.8	-0.00800	mg/L	0.004132	-0.00800	mg/L	0.004132	51.63%
V 292.402	65863.4	0.59296	mg/L	0.006736	0.59296	mg/L	0.006736	1.14%

Zn 206.200	37106.6	1.4492	mg/L	0.01589	1.4492	mg/L	0.01589	1.10%
Cd 226.502	878.9	0.00668	mg/L	0.000128	0.00668	mg/L	0.000128	1.92%
Ti 334.940	5147548.4	9.7329	mg/L	0.03140	9.7329	mg/L	0.03140	0.32%
Ca 227.546	5542.1	45.595	mg/L	0.2312	45.595	mg/L	0.2312	0.51%
Na 589.592	4357.4	1.3003	mg/L	0.00811	1.3003	mg/L	0.00811	0.62%
K 766.490	18803.9	17.978	mg/L	0.0435	17.978	mg/L	0.0435	0.24%

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Sequence No.: 11 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 5/2/2013 9:21:58 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1876634.0	101.45	%	0.910				0.90%
Lu 261.542	1193628.6	102.1	%	1.11				1.09%
Ag 328.068	189286.0	1.2851	mg/L	0.01474	1.2851	mg/L	0.01474	1.15%
QC value within limits for Ag 328.068 Recovery = 102.81%								
Al 308.215	181716.8	10.281	mg/L	0.0928	10.281	mg/L	0.0928	0.90%
QC value within limits for Al 308.215 Recovery = 102.81%								
As 188.979	537.3	0.50528	mg/L	0.001892	0.50528	mg/L	0.001892	0.37%
QC value within limits for As 188.979 Recovery = 101.06%								
Ba 233.527	853143.3	10.456	mg/L	0.1008	10.456	mg/L	0.1008	0.96%
QC value within limits for Ba 233.527 Recovery = 104.56%								
Be 313.107	477087.6	0.25851	mg/L	0.003076	0.25851	mg/L	0.003076	1.19%
QC value within limits for Be 313.107 Recovery = 103.40%								
Co 228.616	77449.9	2.4946	mg/L	0.03124	2.4946	mg/L	0.03124	1.25%
QC value within limits for Co 228.616 Recovery = 99.79%								
Cr 267.716	63050.8	1.0172	mg/L	0.01137	1.0172	mg/L	0.01137	1.12%
QC value within limits for Cr 267.716 Recovery = 101.72%								
Cu 324.752	245847.2	1.2396	mg/L	0.01508	1.2396	mg/L	0.01508	1.22%
QC value within limits for Cu 324.752 Recovery = 99.17%								
Fe 273.955	108842.8	5.3182	mg/L	0.08227	5.3182	mg/L	0.08227	1.55%
QC value within limits for Fe 273.955 Recovery = 106.36%								
Mg 279.077	342576.1	25.225	mg/L	0.3081	25.225	mg/L	0.3081	1.22%
QC value within limits for Mg 279.077 Recovery = 100.90%								
Mn 257.610	1187414.8	2.5622	mg/L	0.02346	2.5622	mg/L	0.02346	0.92%
QC value within limits for Mn 257.610 Recovery = 102.49%								
Ni 231.604	60940.7	2.5243	mg/L	0.02572	2.5243	mg/L	0.02572	1.02%
QC value within limits for Ni 231.604 Recovery = 100.97%								
Pb 220.353	2536.4	0.51439	mg/L	0.004146	0.51439	mg/L	0.004146	0.81%
QC value within limits for Pb 220.353 Recovery = 102.88%								
Sb 206.836†	841.7	0.51816	mg/L	0.007496	0.51816	mg/L	0.007496	1.45%
QC value within limits for Sb 206.836 Recovery = 103.63%								
Se 196.026	371.4	0.49971	mg/L	0.011258	0.49971	mg/L	0.011258	2.25%
QC value within limits for Se 196.026 Recovery = 99.94%								
Tl 190.801	582.9	0.47953	mg/L	0.001312	0.47953	mg/L	0.001312	0.27%
QC value within limits for Tl 190.801 Recovery = 95.91%								
V 292.402	270617.2	2.5363	mg/L	0.03051	2.5363	mg/L	0.03051	1.20%
QC value within limits for V 292.402 Recovery = 101.45%								
Zn 206.200	64544.4	2.5261	mg/L	0.03203	2.5261	mg/L	0.03203	1.27%
QC value within limits for Zn 206.200 Recovery = 101.04%								
Cd 226.502	11434.1	0.25459	mg/L	0.003609	0.25459	mg/L	0.003609	1.42%
QC value within limits for Cd 226.502 Recovery = 101.84%								
Ti 334.940	270504.4	0.51139	mg/L	0.004074	0.51139	mg/L	0.004074	0.80%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	4176.6	24.493	mg/L	0.0943	24.493	mg/L	0.0943	0.38%
QC value within limits for Ca 227.546 Recovery = 97.97%								
Na 589.592	86403.9	25.784	mg/L	0.3266	25.784	mg/L	0.3266	1.27%
QC value within limits for Na 589.592 Recovery = 103.14%								
K 766.490	26820.2	25.642	mg/L	0.3695	25.642	mg/L	0.3695	1.44%
QC value within limits for K 766.490 Recovery = 102.57%								

All analyte(s) passed QC.

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Sequence No.: 12 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 5/2/2013 9:25:39 AM**

Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1892430.6	102.31	%	1.347				1.32%
Lu 261.542	1199003.2	102.6	%	1.46				1.42%
Ag 328.068	190.3	0.00128	mg/L	0.000222	0.00128	mg/L	0.000222	17.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	99.1	0.00561	mg/L	0.001978	0.00561	mg/L	0.001978	35.25%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979	0.3	0.00027	mg/L	0.002344	0.00027	mg/L	0.002344	881.94%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	135.1	0.00166	mg/L	0.000663	0.00166	mg/L	0.000663	40.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	60.2	0.00003	mg/L	0.000042	0.00003	mg/L	0.000042	125.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616	16.0	0.00051	mg/L	0.000113	0.00051	mg/L	0.000113	21.91%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	5.9	0.00010	mg/L	0.000104	0.00010	mg/L	0.000104	108.51%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752	271.9	0.00137	mg/L	0.000604	0.00137	mg/L	0.000604	44.10%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	180.1	0.00875	mg/L	0.001824	0.00875	mg/L	0.001824	20.86%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077	106.0	0.00780	mg/L	0.005275	0.00780	mg/L	0.005275	67.59%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	325.5	0.00070	mg/L	0.000230	0.00070	mg/L	0.000230	32.75%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604	6.0	0.00025	mg/L	0.000215	0.00025	mg/L	0.000215	86.07%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	9.2	0.00187	mg/L	0.000150	0.00187	mg/L	0.000150	8.05%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.9	-0.00121	mg/L	0.002397	-0.00121	mg/L	0.002397	198.16%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026	9.3	0.01242	mg/L	0.002593	0.01242	mg/L	0.002593	20.88%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801	1.4	0.00120	mg/L	0.002654	0.00120	mg/L	0.002654	220.67%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402	26.1	0.00024	mg/L	0.000430	0.00024	mg/L	0.000430	176.43%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	46.8	0.00183	mg/L	0.000177	0.00183	mg/L	0.000177	9.64%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Cd 226.502	3.2	0.00007	mg/L	0.000084	0.00007	mg/L	0.000084	119.67%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ti 334.940	305.8	0.00058	mg/L	0.000152	0.00058	mg/L	0.000152	26.34%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546	-4.6	-0.02745	mg/L	0.093772	-0.02745	mg/L	0.093772	341.64%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Na 589.592	20.9	0.00625	mg/L	0.021689	0.00625	mg/L	0.021689	347.13%
QC value within limits for Na 589.592 Recovery = Not calculated								
K 766.490	89.8	0.08586	mg/L	0.036636	0.08586	mg/L	0.036636	42.67%
QC value within limits for K 766.490 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 13 **Autosampler Location: 52**
Sample ID: M0619-09A~SB-128 (18-20) **Date Collected: 5/2/2013 9:29:18 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-09A~SB-128 (18-20)

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1872052.1	101.21	%	0.074				0.07%
Lu 261.542	1129447.5	96.61	%	0.089				0.09%

Ag 328.068	-18.1	0.00299	mg/L	0.000444	0.00299	mg/L	0.000444	14.84%
Al 308.215	2580864.4	146.18	mg/L	0.054	146.18	mg/L	0.054	0.04%
As 188.979	74.5	0.08557	mg/L	0.007253	0.08557	mg/L	0.007253	8.48%
Ba 233.527	67951.3	0.83324	mg/L	0.000962	0.83324	mg/L	0.000962	0.12%
Be 313.107	-30542.7	0.00070	mg/L	0.000124	0.00070	mg/L	0.000124	17.81%
Co 228.616	6198.5	0.17999	mg/L	0.000594	0.17999	mg/L	0.000594	0.33%
Cr 267.716	31001.5	0.49775	mg/L	0.000118	0.49775	mg/L	0.000118	0.02%
Cu 324.752	79333.2	0.43131	mg/L	0.000540	0.43131	mg/L	0.000540	0.13%
Fe 273.955	6153627.1	298.65	mg/L	0.674	298.65	mg/L	0.674	0.23%
Mg 279.077	2206544.8	162.47	mg/L	0.164	162.47	mg/L	0.164	0.10%
Mn 257.610	2981796.2	6.4341	mg/L	0.01841	6.4341	mg/L	0.01841	0.29%
Ni 231.604	36685.6	1.5194	mg/L	0.00114	1.5194	mg/L	0.00114	0.07%
Pb 220.353	4066.5	0.82730	mg/L	0.002225	0.82730	mg/L	0.002225	0.27%
Sb 206.836†	67.8	0.00955	mg/L	0.004652	0.00955	mg/L	0.004652	48.72%
Se 196.026	-52.1	0.04206	mg/L	0.014744	0.04206	mg/L	0.014744	35.06%
Tl 190.801	-34.3	-0.01216	mg/L	0.003371	-0.01216	mg/L	0.003371	27.73%
V 292.402	62483.1	0.56308	mg/L	0.001637	0.56308	mg/L	0.001637	0.29%
Zn 206.200	34939.7	1.3655	mg/L	0.00210	1.3655	mg/L	0.00210	0.15%
Cd 226.502	901.6	0.00856	mg/L	0.000072	0.00856	mg/L	0.000072	0.85%
Ti 334.940	5052907.2	9.5545	mg/L	0.02113	9.5545	mg/L	0.02113	0.22%
Ca 227.546	7247.9	54.424	mg/L	0.1404	54.424	mg/L	0.1404	0.26%
Na 589.592	7767.7	2.3180	mg/L	0.00907	2.3180	mg/L	0.00907	0.39%
K 766.490	47971.7	45.864	mg/L	0.3470	45.864	mg/L	0.3470	0.76%

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Sequence No.: 14 **Autosampler Location: 53**
Sample ID: M0619-10A~SB-129 (1-3) **Date Collected: 5/2/2013 9:33:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-10A~SB-129 (1-3)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1858928.8	100.50	%	0.268				0.27%
Lu 261.542	1104343.0	94.46	%	0.635				0.67%
Ag 328.068	-44.2	0.00481	mg/L	0.000516	0.00481	mg/L	0.000516	10.73%
Al 308.215	4633165.5	262.42	mg/L	0.914	262.42	mg/L	0.914	0.35%
As 188.979	190.5	0.19605	mg/L	0.007815	0.19605	mg/L	0.007815	3.99%
Ba 233.527	101033.6	1.2390	mg/L	0.00414	1.2390	mg/L	0.00414	0.33%
Be 313.107	-26738.1	0.00225	mg/L	0.000173	0.00225	mg/L	0.000173	7.67%
Co 228.616	6383.9	0.18673	mg/L	0.001069	0.18673	mg/L	0.001069	0.57%
Cr 267.716	22340.3	0.35847	mg/L	0.001741	0.35847	mg/L	0.001741	0.49%
Cu 324.752	150588.5	0.80351	mg/L	0.002754	0.80351	mg/L	0.002754	0.34%
Fe 273.955	8722672.5	423.32	mg/L	1.366	423.32	mg/L	1.366	0.32%
Mg 279.077	1086092.5	79.972	mg/L	0.2029	79.972	mg/L	0.2029	0.25%
Mn 257.610	2657428.8	5.7342	mg/L	0.01654	5.7342	mg/L	0.01654	0.29%
Ni 231.604	8305.8	0.34405	mg/L	0.001838	0.34405	mg/L	0.001838	0.53%
Pb 220.353	8577.0	1.7454	mg/L	0.01084	1.7454	mg/L	0.01084	0.62%
Sb 206.836†	84.2	0.00729	mg/L	0.006230	0.00729	mg/L	0.006230	85.47%
Se 196.026	-73.4	0.05822	mg/L	0.010569	0.05822	mg/L	0.010569	18.15%
Tl 190.801	-54.9	-0.01937	mg/L	0.004692	-0.01937	mg/L	0.004692	24.22%
V 292.402	102647.1	0.93352	mg/L	0.004579	0.93352	mg/L	0.004579	0.49%
Zn 206.200	64094.5	2.5036	mg/L	0.01127	2.5036	mg/L	0.01127	0.45%
Cd 226.502	1278.5	0.01209	mg/L	0.000176	0.01209	mg/L	0.000176	1.45%
Ti 334.940	4901734.7	9.2686	mg/L	0.02674	9.2686	mg/L	0.02674	0.29%
Ca 227.546	16824.8	116.41	mg/L	0.543	116.41	mg/L	0.543	0.47%
Na 589.592	20662.2	6.1658	mg/L	0.09402	6.1658	mg/L	0.09402	1.52%
K 766.490	12838.7	12.274	mg/L	0.1670	12.274	mg/L	0.1670	1.36%

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Sequence No.: 15 **Autosampler Location: 54**
Sample ID: M0619-11A~SB-129 (8-10) **Date Collected: 5/2/2013 9:36:54 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-11A~SB-129 (8-10)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Y 360.073	1918408.2	103.71	%	1.543				1.49%
Lu 261.542	1169957.5	100.1	%	1.57				1.57%
Ag 328.068	-189.0	0.00003	mg/L	0.000289	0.00003	mg/L	0.000289	889.01%
Al 308.215	1519000.9	86.037	mg/L	1.1373	86.037	mg/L	1.1373	1.32%
As 188.979	96.6	0.09965	mg/L	0.002768	0.09965	mg/L	0.002768	2.78%
Ba 233.527	60564.2	0.74234	mg/L	0.000102	0.74234	mg/L	0.000102	0.01%
Be 313.107	-6475.6	0.00450	mg/L	0.000112	0.00450	mg/L	0.000112	2.49%
Co 228.616	2901.1	0.08429	mg/L	0.000490	0.08429	mg/L	0.000490	0.58%
Cr 267.716	18619.3	0.29939	mg/L	0.000151	0.29939	mg/L	0.000151	0.05%
Cu 324.752	50871.4	0.27615	mg/L	0.000778	0.27615	mg/L	0.000778	0.28%
Fe 273.955	3869783.6	187.81	mg/L	2.518	187.81	mg/L	2.518	1.34%
Mg 279.077	513658.6	37.822	mg/L	0.5605	37.822	mg/L	0.5605	1.48%
Mn 257.610	1226364.8	2.6463	mg/L	0.03620	2.6463	mg/L	0.03620	1.37%
Ni 231.604	16410.3	0.67965	mg/L	0.002343	0.67965	mg/L	0.002343	0.34%
Pb 220.353	20327.7	4.1247	mg/L	0.00611	4.1247	mg/L	0.00611	0.15%
Sb 206.836†	40.4	0.00494	mg/L	0.002590	0.00494	mg/L	0.002590	52.47%
Se 196.026	-29.4	0.03178	mg/L	0.006762	0.03178	mg/L	0.006762	21.28%
Tl 190.801	-18.0	-0.00357	mg/L	0.002373	-0.00357	mg/L	0.002373	66.42%
V 292.402	26166.7	0.23283	mg/L	0.000164	0.23283	mg/L	0.000164	0.07%
Zn 206.200	38521.6	1.5058	mg/L	0.00435	1.5058	mg/L	0.00435	0.29%
Cd 226.502	565.6	0.00554	mg/L	0.000102	0.00554	mg/L	0.000102	1.84%
Ti 334.940	2352320.2	4.4479	mg/L	0.06365	4.4479	mg/L	0.06365	1.43%
Ca 227.546	3532.5	28.122	mg/L	0.1169	28.122	mg/L	0.1169	0.42%
Na 589.592	5165.2	1.5413	mg/L	0.04488	1.5413	mg/L	0.04488	2.91%
K 766.490	10444.2	9.9852	mg/L	0.16924	9.9852	mg/L	0.16924	1.69%

Sequence No.: 16 **Autosampler Location: 55**
Sample ID: M0619-12A~SB-129 (18-20) **Date Collected: 5/2/2013 9:40:35 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-12A~SB-129 (18-20)

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1881392.8	101.71	%	0.575				0.57%
Lu 261.542	1115651.4	95.43	%	0.640				0.67%
Ag 328.068	-124.6	0.00146	mg/L	0.000950	0.00146	mg/L	0.000950	65.14%
Al 308.215	2240036.2	126.88	mg/L	0.663	126.88	mg/L	0.663	0.52%
As 188.979	79.5	0.09004	mg/L	0.004213	0.09004	mg/L	0.004213	4.68%
Ba 233.527	63071.8	0.77328	mg/L	0.009118	0.77328	mg/L	0.009118	1.18%
Be 313.107	-11342.6	0.00677	mg/L	0.000132	0.00677	mg/L	0.000132	1.95%
Co 228.616	7663.7	0.23193	mg/L	0.001443	0.23193	mg/L	0.001443	0.62%
Cr 267.716	27467.5	0.44027	mg/L	0.004693	0.44027	mg/L	0.004693	1.07%
Cu 324.752	118986.6	0.63079	mg/L	0.006040	0.63079	mg/L	0.006040	0.96%
Fe 273.955	6107482.3	296.39	mg/L	1.432	296.39	mg/L	1.432	0.48%
Mg 279.077	3555804.3	261.82	mg/L	1.411	261.82	mg/L	1.411	0.54%
Mn 257.610	3443874.3	7.4312	mg/L	0.03783	7.4312	mg/L	0.03783	0.51%
Ni 231.604	59559.2	2.4667	mg/L	0.02742	2.4667	mg/L	0.02742	1.11%
Pb 220.353	1540.2	0.31186	mg/L	0.001602	0.31186	mg/L	0.001602	0.51%
Sb 206.836†	63.9	0.00466	mg/L	0.001764	0.00466	mg/L	0.001764	37.84%
Se 196.026	-50.3	0.04405	mg/L	0.004096	0.04405	mg/L	0.004096	9.30%
Tl 190.801	-40.8	-0.01448	mg/L	0.003969	-0.01448	mg/L	0.003969	27.41%
V 292.402	46114.1	0.41231	mg/L	0.005427	0.41231	mg/L	0.005427	1.32%
Zn 206.200	21482.9	0.83944	mg/L	0.010449	0.83944	mg/L	0.010449	1.24%
Cd 226.502	788.9	0.00717	mg/L	0.000126	0.00717	mg/L	0.000126	1.76%
Ti 334.940	3793309.6	7.1727	mg/L	0.04281	7.1727	mg/L	0.04281	0.60%
Ca 227.546	7481.7	55.690	mg/L	0.1692	55.690	mg/L	0.1692	0.30%
Na 589.592	15450.0	4.6104	mg/L	0.09132	4.6104	mg/L	0.09132	1.98%
K 766.490	38316.5	36.633	mg/L	0.4520	36.633	mg/L	0.4520	1.23%

Sequence No.: 17 **Autosampler Location: 56**
Sample ID: M0619-13A~SB-130 (2-4) **Date Collected: 5/2/2013 9:44:21 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-13A~SB-130 (2-4)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1941067.0	104.94	%	1.950				1.86%
Lu 261.542	1147709.2	98.17	%	1.924				1.96%
Ag 328.068	215.7	0.00552	mg/L	0.001532	0.00552	mg/L	0.001532	27.77%
Al 308.215	3514028.3	199.04	mg/L	0.514	199.04	mg/L	0.514	0.26%
As 188.979	137.5	0.14775	mg/L	0.005883	0.14775	mg/L	0.005883	3.98%
Ba 233.527	156384.0	1.9170	mg/L	0.07874	1.9170	mg/L	0.07874	4.11%
Be 313.107	-15606.7	0.00369	mg/L	0.000300	0.00369	mg/L	0.000300	8.13%
Co 228.616	6345.2	0.19063	mg/L	0.001028	0.19063	mg/L	0.001028	0.54%
Cr 267.716	34721.5	0.55791	mg/L	0.022244	0.55791	mg/L	0.022244	3.99%
Cu 324.752	179898.3	0.94718	mg/L	0.036810	0.94718	mg/L	0.036810	3.89%
Fe 273.955	7955066.6	386.07	mg/L	0.952	386.07	mg/L	0.952	0.25%
Mg 279.077	1043394.9	76.828	mg/L	0.2680	76.828	mg/L	0.2680	0.35%
Mn 257.610	2895343.5	6.2476	mg/L	0.02561	6.2476	mg/L	0.02561	0.41%
Ni 231.604	14954.8	0.61941	mg/L	0.002723	0.61941	mg/L	0.002723	0.44%
Pb 220.353	48935.1	9.9292	mg/L	0.37241	9.9292	mg/L	0.37241	3.75%
Sb 206.836†	76.3	0.00374	mg/L	0.005233	0.00374	mg/L	0.005233	139.91%
Se 196.026	-62.6	0.06087	mg/L	0.007080	0.06087	mg/L	0.007080	11.63%
Tl 190.801	-51.2	-0.01791	mg/L	0.006119	-0.01791	mg/L	0.006119	34.17%
V 292.402	81744.4	0.74282	mg/L	0.032125	0.74282	mg/L	0.032125	4.32%
Zn 206.200	87227.0	3.4094	mg/L	0.13726	3.4094	mg/L	0.13726	4.03%
Cd 226.502	1436.7	0.01757	mg/L	0.000302	0.01757	mg/L	0.000302	1.72%
Ti 334.940	3559270.4	6.7299	mg/L	0.02760	6.7299	mg/L	0.02760	0.41%
Ca 227.546	10224.0	75.543	mg/L	0.3193	75.543	mg/L	0.3193	0.42%
Na 589.592	12044.3	3.5942	mg/L	0.04008	3.5942	mg/L	0.04008	1.12%
K 766.490	15126.0	14.461	mg/L	0.1275	14.461	mg/L	0.1275	0.88%

Sequence No.: 18 **Autosampler Location: 57**
Sample ID: M0619-14A~SB-130 (15-17) **Date Collected: 5/2/2013 9:48:05 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-14A~SB-130 (15-17)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1902698.9	102.86	%	1.040				1.01%
Lu 261.542	1134953.7	97.08	%	0.947				0.98%
Ag 328.068	-221.6	0.00102	mg/L	0.000569	0.00102	mg/L	0.000569	55.71%
Al 308.215	2872808.9	162.72	mg/L	1.773	162.72	mg/L	1.773	1.09%
As 188.979	92.0	0.10527	mg/L	0.002712	0.10527	mg/L	0.002712	2.58%
Ba 233.527	66545.9	0.81589	mg/L	0.002506	0.81589	mg/L	0.002506	0.31%
Be 313.107	-14028.7	0.00464	mg/L	0.000194	0.00464	mg/L	0.000194	4.18%
Co 228.616	6244.8	0.18724	mg/L	0.000456	0.18724	mg/L	0.000456	0.24%
Cr 267.716	28698.5	0.46114	mg/L	0.001356	0.46114	mg/L	0.001356	0.29%
Cu 324.752	97683.2	0.53332	mg/L	0.001589	0.53332	mg/L	0.001589	0.30%
Fe 273.955	8026425.7	389.53	mg/L	3.955	389.53	mg/L	3.955	1.02%
Mg 279.077	900500.4	66.306	mg/L	0.7864	66.306	mg/L	0.7864	1.19%
Mn 257.610	2306421.5	4.9768	mg/L	0.05373	4.9768	mg/L	0.05373	1.08%
Ni 231.604	21315.6	0.88283	mg/L	0.004596	0.88283	mg/L	0.004596	0.52%
Pb 220.353	17955.2	3.6410	mg/L	0.01041	3.6410	mg/L	0.01041	0.29%
Sb 206.836†	71.5	0.00358	mg/L	0.001290	0.00358	mg/L	0.001290	36.06%
Se 196.026	-76.8	0.04603	mg/L	0.002714	0.04603	mg/L	0.002714	5.90%
Tl 190.801	-48.7	-0.01535	mg/L	0.003629	-0.01535	mg/L	0.003629	23.65%
V 292.402	50413.4	0.44893	mg/L	0.002216	0.44893	mg/L	0.002216	0.49%
Zn 206.200	70296.0	2.7476	mg/L	0.01083	2.7476	mg/L	0.01083	0.39%
Cd 226.502	1241.6	0.01326	mg/L	0.000383	0.01326	mg/L	0.000383	2.89%
Ti 334.940	3590245.6	6.7883	mg/L	0.07229	6.7883	mg/L	0.07229	1.06%
Ca 227.546	3600.7	36.079	mg/L	0.2052	36.079	mg/L	0.2052	0.57%
Na 589.592	5015.3	1.4966	mg/L	0.01813	1.4966	mg/L	0.01813	1.21%
K 766.490	21297.5	20.362	mg/L	0.2304	20.362	mg/L	0.2304	1.13%

Sequence No.: 19 **Autosampler Location: 58**
Sample ID: M0619-15A~SB-130 (18-20) **Date Collected: 5/2/2013 9:51:49 AM**
Analyst: **Data Type: Original**

Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-15A~SB-130 (18-20)

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1911932.9	103.36	%	0.989				0.96%
Lu 261.542	1132159.6	96.84	%	1.037				1.07%
Ag 328.068	50.1	0.00272	mg/L	0.000500	0.00272	mg/L	0.000500	18.37%
Al 308.215	2025514.5	114.73	mg/L	0.375	114.73	mg/L	0.375	0.33%
As 188.979	54.1	0.06321	mg/L	0.004001	0.06321	mg/L	0.004001	6.33%
Ba 233.527	61441.6	0.75332	mg/L	0.012011	0.75332	mg/L	0.012011	1.59%
Be 313.107	-19800.4	0.00312	mg/L	0.000299	0.00312	mg/L	0.000299	9.60%
Co 228.616	4119.0	0.11701	mg/L	0.001254	0.11701	mg/L	0.001254	1.07%
Cr 267.716	18371.2	0.29204	mg/L	0.005459	0.29204	mg/L	0.005459	1.87%
Cu 324.752	49850.3	0.27798	mg/L	0.004462	0.27798	mg/L	0.004462	1.61%
Fe 273.955	5221270.2	253.40	mg/L	0.851	253.40	mg/L	0.851	0.34%
Mg 279.077	1247165.9	91.832	mg/L	0.3435	91.832	mg/L	0.3435	0.37%
Mn 257.610	5154613.7	11.123	mg/L	0.0334	11.123	mg/L	0.0334	0.30%
Ni 231.604	5582.4	0.23123	mg/L	0.001877	0.23123	mg/L	0.001877	0.81%
Pb 220.353	1819.8	0.36952	mg/L	0.002066	0.36952	mg/L	0.002066	0.56%
Sb 206.836†	42.9	0.00160	mg/L	0.002116	0.00160	mg/L	0.002116	132.26%
Se 196.026	-35.5	0.04544	mg/L	0.007919	0.04544	mg/L	0.007919	17.43%
Tl 190.801	-39.0	-0.02048	mg/L	0.004855	-0.02048	mg/L	0.004855	23.70%
V 292.402	47907.4	0.43000	mg/L	0.008171	0.43000	mg/L	0.008171	1.90%
Zn 206.200	19160.8	0.74844	mg/L	0.012287	0.74844	mg/L	0.012287	1.64%
Cd 226.502	672.1	0.00472	mg/L	0.000457	0.00472	mg/L	0.000457	9.68%
Ti 334.940	4060322.3	7.6776	mg/L	0.01361	7.6776	mg/L	0.01361	0.18%
Ca 227.546	5419.3	41.875	mg/L	0.2860	41.875	mg/L	0.2860	0.68%
Na 589.592	6562.5	1.9583	mg/L	0.01266	1.9583	mg/L	0.01266	0.65%
K 766.490	31390.8	30.011	mg/L	0.3547	30.011	mg/L	0.3547	1.18%

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Sequence No.: 20 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 5/2/2013 9:55:33 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1819364.8	98.358	%	1.0152				1.03%
Lu 261.542	1160036.3	99.22	%	1.141				1.15%
Ag 328.068	193652.4	1.3148	mg/L	0.00202	1.3148	mg/L	0.00202	0.15%
QC value within limits for Ag 328.068 Recovery = 105.18%								
Al 308.215	190235.2	10.763	mg/L	0.0529	10.763	mg/L	0.0529	0.49%
QC value within limits for Al 308.215 Recovery = 107.63%								
As 188.979	549.1	0.51646	mg/L	0.002600	0.51646	mg/L	0.002600	0.50%
QC value within limits for As 188.979 Recovery = 103.29%								
Ba 233.527	878490.0	10.767	mg/L	0.1778	10.767	mg/L	0.1778	1.65%
QC value within limits for Ba 233.527 Recovery = 107.67%								
Be 313.107	486808.1	0.26378	mg/L	0.004929	0.26378	mg/L	0.004929	1.87%
QC value within limits for Be 313.107 Recovery = 105.51%								
Co 228.616	80684.8	2.5989	mg/L	0.00232	2.5989	mg/L	0.00232	0.09%
QC value within limits for Co 228.616 Recovery = 103.95%								
Cr 267.716	64803.3	1.0454	mg/L	0.00247	1.0454	mg/L	0.00247	0.24%
QC value within limits for Cr 267.716 Recovery = 104.54%								
Cu 324.752	253445.1	1.2779	mg/L	0.00219	1.2779	mg/L	0.00219	0.17%
QC value within limits for Cu 324.752 Recovery = 102.23%								
Fe 273.955	113674.3	5.5535	mg/L	0.08808	5.5535	mg/L	0.08808	1.59%
QC value greater than the upper limit for Fe 273.955 Recovery = 111.07%								
Mg 279.077	355448.9	26.173	mg/L	0.0788	26.173	mg/L	0.0788	0.30%
QC value within limits for Mg 279.077 Recovery = 104.69%								
Mn 257.610	1219077.3	2.6305	mg/L	0.04096	2.6305	mg/L	0.04096	1.56%
QC value within limits for Mn 257.610 Recovery = 105.22%								
Ni 231.604	62931.8	2.6068	mg/L	0.00405	2.6068	mg/L	0.00405	0.16%
QC value within limits for Ni 231.604 Recovery = 104.27%								
Pb 220.353	2584.4	0.52415	mg/L	0.002033	0.52415	mg/L	0.002033	0.39%

QC value within limits for Pb 220.353 Recovery = 104.83%

Sb 206.836†	898.0	0.55328 mg/L	0.005757	0.55328 mg/L	0.005757	1.04%

QC value greater than the upper limit for Sb 206.836 Recovery = 110.66%

Se 196.026	378.5	0.50935 mg/L	0.003022	0.50935 mg/L	0.003022	0.59%

QC value within limits for Se 196.026 Recovery = 101.87%

Tl 190.801	598.4	0.49221 mg/L	0.005286	0.49221 mg/L	0.005286	1.07%

QC value within limits for Tl 190.801 Recovery = 98.44%

V 292.402	277616.1	2.6019 mg/L	0.00503	2.6019 mg/L	0.00503	0.19%

QC value within limits for V 292.402 Recovery = 104.08%

Zn 206.200	66541.9	2.6042 mg/L	0.00110	2.6042 mg/L	0.00110	0.04%

QC value within limits for Zn 206.200 Recovery = 104.17%

Cd 226.502	11839.2	0.26361 mg/L	0.001284	0.26361 mg/L	0.001284	0.49%

QC value within limits for Cd 226.502 Recovery = 105.44%

Ti 334.940	277131.8	0.52392 mg/L	0.007330	0.52392 mg/L	0.007330	1.40%

QC value within limits for Ti 334.940 Recovery = Not calculated

Ca 227.546	4326.1	25.371 mg/L	0.1614	25.371 mg/L	0.1614	0.64%

QC value within limits for Ca 227.546 Recovery = 101.49%

Na 589.592	87830.5	26.210 mg/L	0.2835	26.210 mg/L	0.2835	1.08%

QC value within limits for Na 589.592 Recovery = 104.84%

K 766.490	27194.5	25.999 mg/L	0.2884	25.999 mg/L	0.2884	1.11%

QC value within limits for K 766.490 Recovery = 104.00%

QC Failed. Continue with analysis.

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Sequence No.: 21 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 5/2/2013 9:59:14 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1962061.1	106.07	%	0.915				0.86%
Lu 261.542	1244378.1	106.4	%	0.91				0.85%
Ag 328.068	95.1	0.00064	mg/L	0.000107	0.00064	mg/L	0.000107	16.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	50.2	0.00284	mg/L	0.001622	0.00284	mg/L	0.001622	57.12%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979	-0.5	-0.00045	mg/L	0.002563	-0.00045	mg/L	0.002563	568.59%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	192.7	0.00236	mg/L	0.000749	0.00236	mg/L	0.000749	31.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	127.6	0.00007	mg/L	0.000034	0.00007	mg/L	0.000034	48.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616	17.3	0.00056	mg/L	0.000229	0.00056	mg/L	0.000229	41.27%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716	14.0	0.00023	mg/L	0.000167	0.00023	mg/L	0.000167	74.30%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752	267.9	0.00135	mg/L	0.000401	0.00135	mg/L	0.000401	29.72%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955	202.3	0.00982	mg/L	0.001364	0.00982	mg/L	0.001364	13.88%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077	127.6	0.00940	mg/L	0.002568	0.00940	mg/L	0.002568	27.33%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610	444.8	0.00096	mg/L	0.000188	0.00096	mg/L	0.000188	19.56%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604	19.6	0.00081	mg/L	0.000265	0.00081	mg/L	0.000265	32.57%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353	8.9	0.00180	mg/L	0.000707	0.00180	mg/L	0.000707	39.33%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.6	0.00037	mg/L	0.000503	0.00037	mg/L	0.000503	135.12%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026	7.9	0.01055	mg/L	0.002055	0.01055	mg/L	0.002055	19.48%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801	-6.4	-0.00538	mg/L	0.001290	-0.00538	mg/L	0.001290	24.00%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402	51.3	0.00048	mg/L	0.000390	0.00048	mg/L	0.000390	81.12%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200	38.6	0.00151	mg/L	0.000252	0.00151	mg/L	0.000252	16.68%

QC value within limits for Zn 206.200 Recovery = Not calculated

Cd 226.502	-1.4	-0.00003	mg/L	0.000065	-0.00003	mg/L	0.000065 208.14%

QC value within limits for Cd 226.502 Recovery = Not calculated

Ti 334.940	270.2	0.00051	mg/L	0.000058	0.00051	mg/L	0.000058 11.33%

QC value within limits for Ti 334.940 Recovery = Not calculated

Ca 227.546	-8.6	-0.05149	mg/L	0.044068	-0.05149	mg/L	0.044068 85.59%

QC value within limits for Ca 227.546 Recovery = Not calculated

Na 589.592	-53.1	-0.01584	mg/L	0.015964	-0.01584	mg/L	0.015964 100.78%

QC value within limits for Na 589.592 Recovery = Not calculated

K 766.490	123.9	0.11850	mg/L	0.057022	0.11850	mg/L	0.057022 48.12%

QC value within limits for K 766.490 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 22 **Autosampler Location: 59**
Sample ID: M0619-16A~DUP1 **Date Collected: 5/2/2013 10:02:53 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-16A~DUP1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1866142.6	100.89	%	1.376				1.36%
Lu 261.542	1114587.5	95.34	%	1.269				1.33%
Ag 328.068	224.2	0.00474	mg/L	0.000911	0.00474	mg/L	0.000911	19.21%
Al 308.215	3184263.8	180.36	mg/L	1.181	180.36	mg/L	1.181	0.65%
As 188.979	220.1	0.22263	mg/L	0.003396	0.22263	mg/L	0.003396	1.53%
Ba 233.527	145940.1	1.7888	mg/L	0.02215	1.7888	mg/L	0.02215	1.24%
Be 313.107	-12955.4	0.00375	mg/L	0.000218	0.00375	mg/L	0.000218	5.81%
Co 228.616	4862.5	0.14441	mg/L	0.000982	0.14441	mg/L	0.000982	0.68%
Cr 267.716	34833.4	0.55994	mg/L	0.007435	0.55994	mg/L	0.007435	1.33%
Cu 324.752	145281.1	0.76893	mg/L	0.009340	0.76893	mg/L	0.009340	1.21%
Fe 273.955	7207679.3	349.79	mg/L	2.128	349.79	mg/L	2.128	0.61%
Mg 279.077	893769.9	65.811	mg/L	0.4388	65.811	mg/L	0.4388	0.67%
Mn 257.610	2563226.3	5.5310	mg/L	0.03167	5.5310	mg/L	0.03167	0.57%
Ni 231.604	13853.1	0.57377	mg/L	0.003648	0.57377	mg/L	0.003648	0.64%
Pb 220.353	36225.1	7.3504	mg/L	0.09787	7.3504	mg/L	0.09787	1.33%
Sb 206.836†	85.9	0.01309	mg/L	0.004046	0.01309	mg/L	0.004046	30.90%
Se 196.026	-55.0	0.05729	mg/L	0.002754	0.05729	mg/L	0.002754	4.81%
Tl 190.801	-43.2	-0.01302	mg/L	0.003890	-0.01302	mg/L	0.003890	29.88%
V 292.402	64966.7	0.58815	mg/L	0.008588	0.58815	mg/L	0.008588	1.46%
Zn 206.200	81164.5	3.1726	mg/L	0.04852	3.1726	mg/L	0.04852	1.53%
Cd 226.502	1332.1	0.01663	mg/L	0.000107	0.01663	mg/L	0.000107	0.64%
Ti 334.940	3156389.9	5.9682	mg/L	0.03654	5.9682	mg/L	0.03654	0.61%
Ca 227.546	10566.8	76.247	mg/L	0.4036	76.247	mg/L	0.4036	0.53%
Na 589.592	7106.0	2.1205	mg/L	0.01540	2.1205	mg/L	0.01540	0.73%
K 766.490	14254.3	13.628	mg/L	0.1157	13.628	mg/L	0.1157	0.85%

Sequence No.: 23 **Autosampler Location: 60**
Sample ID: M0619-16ADUP~DUP1D **Date Collected: 5/2/2013 10:06:38 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-16ADUP~DUP1D

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1906768.3	103.08	%	0.223				0.22%
Lu 261.542	1135740.5	97.14	%	0.295				0.30%
Ag 328.068	794.2	0.00851	mg/L	0.000226	0.00851	mg/L	0.000226	2.66%
Al 308.215	3442545.7	194.99	mg/L	0.112	194.99	mg/L	0.112	0.06%
As 188.979	160.0	0.16458	mg/L	0.005761	0.16458	mg/L	0.005761	3.50%
Ba 233.527	133467.0	1.6360	mg/L	0.03174	1.6360	mg/L	0.03174	1.94%
Be 313.107	-12557.9	0.00447	mg/L	0.000105	0.00447	mg/L	0.000105	2.36%
Co 228.616	4915.3	0.14554	mg/L	0.000825	0.14554	mg/L	0.000825	0.57%
Cr 267.716	29478.8	0.47348	mg/L	0.001382	0.47348	mg/L	0.001382	0.29%
Cu 324.752	146983.4	0.77452	mg/L	0.012679	0.77452	mg/L	0.012679	1.64%

Fe 273.955	6626133.2	321.57	mg/L	0.072	321.57	mg/L	0.072	0.02%
Mg 279.077	774399.0	57.021	mg/L	0.0316	57.021	mg/L	0.0316	0.06%
Mn 257.610	2645729.7	5.7090	mg/L	0.00890	5.7090	mg/L	0.00890	0.16%
Ni 231.604	13648.3	0.56529	mg/L	0.002323	0.56529	mg/L	0.002323	0.41%
Pb 220.353	40982.1	8.3177	mg/L	0.15910	8.3177	mg/L	0.15910	1.91%
Sb 206.836†	72.0	0.00739	mg/L	0.006238	0.00739	mg/L	0.006238	84.41%
Se 196.026	-54.0	0.04673	mg/L	0.001678	0.04673	mg/L	0.001678	3.59%
Tl 190.801	-42.5	-0.01535	mg/L	0.003113	-0.01535	mg/L	0.003113	20.28%
V 292.402	63852.7	0.57840	mg/L	0.011026	0.57840	mg/L	0.011026	1.91%
Zn 206.200	77409.3	3.0254	mg/L	0.05422	3.0254	mg/L	0.05422	1.79%
Cd 226.502	1228.3	0.01522	mg/L	0.000134	0.01522	mg/L	0.000134	0.88%
Ti 334.940	3304574.0	6.2483	mg/L	0.01152	6.2483	mg/L	0.01152	0.18%
Ca 227.546	9179.7	66.893	mg/L	0.2258	66.893	mg/L	0.2258	0.34%
Na 589.592	7797.3	2.3268	mg/L	0.04745	2.3268	mg/L	0.04745	2.04%
K 766.490	15967.9	15.266	mg/L	0.2121	15.266	mg/L	0.2121	1.39%

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Sequence No.: 24 **Autosampler Location: 61**
Sample ID: M0619-16AMS~DUP1S **Date Collected: 5/2/2013 10:10:23 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-16AMS~DUP1S

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1898636.5	102.64	%	0.996				0.97%
Lu 261.542	1136672.8	97.22	%	0.974				1.00%
Ag 328.068	174144.0	1.1845	mg/L	0.01111	1.1845	mg/L	0.01111	0.94%
Al 308.215	3286401.1	186.13	mg/L	2.117	186.13	mg/L	2.117	1.14%
As 188.979	625.3	0.60224	mg/L	0.003536	0.60224	mg/L	0.003536	0.59%
Ba 233.527	1034052.6	12.673	mg/L	0.1444	12.673	mg/L	0.1444	1.14%
Be 313.107	418824.5	0.23693	mg/L	0.002697	0.23693	mg/L	0.002697	1.14%
Co 228.616	75045.7	2.4059	mg/L	0.02643	2.4059	mg/L	0.02643	1.10%
Cr 267.716	88054.4	1.4186	mg/L	0.01373	1.4186	mg/L	0.01373	0.97%
Cu 324.752	359318.5	1.8431	mg/L	0.01639	1.8431	mg/L	0.01639	0.89%
Fe 273.955	6316979.6	306.60	mg/L	3.547	306.60	mg/L	3.547	1.16%
Mg 279.077	1064951.9	78.415	mg/L	1.0301	78.415	mg/L	1.0301	1.31%
Mn 257.610	3446018.5	7.4358	mg/L	0.08369	7.4358	mg/L	0.08369	1.13%
Ni 231.604	68076.2	2.8198	mg/L	0.02613	2.8198	mg/L	0.02613	0.93%
Pb 220.353	48627.5	9.8681	mg/L	0.09668	9.8681	mg/L	0.09668	0.98%
Sb 206.836†	531.7	0.28785	mg/L	0.007964	0.28785	mg/L	0.007964	2.77%
Se 196.026	261.3	0.46381	mg/L	0.008166	0.46381	mg/L	0.008166	1.76%
Tl 190.801	475.7	0.41016	mg/L	0.005136	0.41016	mg/L	0.005136	1.25%
V 292.402	294173.7	2.7389	mg/L	0.02444	2.7389	mg/L	0.02444	0.89%
Zn 206.200	136951.4	5.3559	mg/L	0.05195	5.3559	mg/L	0.05195	0.97%
Cd 226.502	11676.5	0.24867	mg/L	0.000193	0.24867	mg/L	0.000193	0.08%
Ti 334.940	3173065.4	5.9996	mg/L	0.05750	5.9996	mg/L	0.05750	0.96%
Ca 227.546	14189.8	95.680	mg/L	0.2504	95.680	mg/L	0.2504	0.26%
Na 589.592	85240.7	25.437	mg/L	0.1385	25.437	mg/L	0.1385	0.54%
K 766.490	39619.3	37.878	mg/L	0.2576	37.878	mg/L	0.2576	0.68%

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Sequence No.: 25 **Autosampler Location: 62**
Sample ID: M0619-16APDS~DUP1 **Date Collected: 5/2/2013 10:14:10 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-16APDS~DUP1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1861928.6	100.66	%	1.242				1.23%
Lu 261.542	1114479.9	95.33	%	1.222				1.28%
Ag 328.068	164754.6	1.1221	mg/L	0.00981	1.1221	mg/L	0.00981	0.87%
Al 308.215	3267010.1	185.03	mg/L	2.300	185.03	mg/L	2.300	1.24%
As 188.979	699.8	0.67294	mg/L	0.001238	0.67294	mg/L	0.001238	0.18%
Ba 233.527	913574.3	11.197	mg/L	0.1444	11.197	mg/L	0.1444	1.29%
Be 313.107	420739.7	0.23768	mg/L	0.002543	0.23768	mg/L	0.002543	1.07%

Co 228.616	75834.9	2.4316	mg/L	0.02325	2.4316	mg/L	0.02325	0.96%
Cr 267.716	89307.9	1.4389	mg/L	0.01365	1.4389	mg/L	0.01365	0.95%
Cu 324.752	373264.7	1.9170	mg/L	0.01881	1.9170	mg/L	0.01881	0.98%
Fe 273.955	7032121.3	341.31	mg/L	4.380	341.31	mg/L	4.380	1.28%
Mg 279.077	1173276.2	86.392	mg/L	1.2581	86.392	mg/L	1.2581	1.46%
Mn 257.610	3475332.2	7.4991	mg/L	0.08931	7.4991	mg/L	0.08931	1.19%
Ni 231.604	68363.5	2.8317	mg/L	0.02679	2.8317	mg/L	0.02679	0.95%
Pb 220.353	36481.3	7.4021	mg/L	0.07051	7.4021	mg/L	0.07051	0.95%
Sb 206.836†	926.2	0.53284	mg/L	0.009490	0.53284	mg/L	0.009490	1.78%
Se 196.026	258.6	0.47428	mg/L	0.010945	0.47428	mg/L	0.010945	2.31%
Tl 190.801	465.0	0.40406	mg/L	0.007486	0.40406	mg/L	0.007486	1.85%
V 292.402	306438.0	2.8524	mg/L	0.02518	2.8524	mg/L	0.02518	0.88%
Zn 206.200	132891.9	5.1973	mg/L	0.06560	5.1973	mg/L	0.06560	1.26%
Cd 226.502	11407.8	0.24157	mg/L	0.000846	0.24157	mg/L	0.000846	0.35%
Ti 334.940	3088536.6	5.8398	mg/L	0.05752	5.8398	mg/L	0.05752	0.98%
Ca 227.546	14239.6	97.272	mg/L	0.0840	97.272	mg/L	0.0840	0.09%
Na 589.592	86238.9	25.735	mg/L	0.1230	25.735	mg/L	0.1230	0.48%
K 766.490	38410.7	36.723	mg/L	0.1850	36.723	mg/L	0.1850	0.50%

Sequence No.: 26 **Autosampler Location: 63**
Sample ID: M0619-16ASD~DUP1 **Date Collected: 5/2/2013 10:17:59 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0619-16ASD~DUP1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1850768.2	100.06	%	0.930				0.93%
Lu 261.542	1174506.3	100.5	%	0.89				0.89%
Ag 328.068	268.4	0.00248	mg/L	0.000255	0.00248	mg/L	0.000255	10.28%
Al 308.215	655401.1	37.122	mg/L	0.3275	37.122	mg/L	0.3275	0.88%
As 188.979	43.8	0.04481	mg/L	0.004277	0.04481	mg/L	0.004277	9.54%
Ba 233.527	30951.2	0.37938	mg/L	0.003918	0.37938	mg/L	0.003918	1.03%
Be 313.107	-2582.8	0.00089	mg/L	0.000034	0.00089	mg/L	0.000034	3.82%
Co 228.616	1063.0	0.03165	mg/L	0.000081	0.03165	mg/L	0.000081	0.25%
Cr 267.716	7263.1	0.11673	mg/L	0.000456	0.11673	mg/L	0.000456	0.39%
Cu 324.752	30254.5	0.16076	mg/L	0.001715	0.16076	mg/L	0.001715	1.07%
Fe 273.955	1624400.1	78.834	mg/L	0.7562	78.834	mg/L	0.7562	0.96%
Mg 279.077	195459.7	14.392	mg/L	0.1581	14.392	mg/L	0.1581	1.10%
Mn 257.610	563217.8	1.2153	mg/L	0.01183	1.2153	mg/L	0.01183	0.97%
Ni 231.604	3033.1	0.12562	mg/L	0.000530	0.12562	mg/L	0.000530	0.42%
Pb 220.353	7759.2	1.5741	mg/L	0.00620	1.5741	mg/L	0.00620	0.39%
Sb 206.836†	13.8	-0.00030	mg/L	0.000643	-0.00030	mg/L	0.000643	216.10%
Se 196.026	-10.4	0.01574	mg/L	0.005977	0.01574	mg/L	0.005977	37.97%
Tl 190.801	-13.2	-0.00576	mg/L	0.001921	-0.00576	mg/L	0.001921	33.37%
V 292.402	13686.7	0.12367	mg/L	0.000851	0.12367	mg/L	0.000851	0.69%
Zn 206.200	17766.1	0.69447	mg/L	0.010421	0.69447	mg/L	0.010421	1.50%
Cd 226.502	293.3	0.00361	mg/L	0.000141	0.00361	mg/L	0.000141	3.89%
Ti 334.940	669807.5	1.2665	mg/L	0.01278	1.2665	mg/L	0.01278	1.01%
Ca 227.546	2147.7	15.787	mg/L	0.0122	15.787	mg/L	0.0122	0.08%
Na 589.592	1471.1	0.43899	mg/L	0.016125	0.43899	mg/L	0.016125	3.67%
K 766.490	3071.6	2.9367	mg/L	0.04246	2.9367	mg/L	0.04246	1.45%

Sequence No.: 27 **Autosampler Location: 64**
Sample ID: M0588-02A~CS-SW17 20X **Date Collected: 5/2/2013 10:21:33 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0588-02A~CS-SW17 20X

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1808477.5	97.769	%	0.7898				0.81%
Lu 261.542	1152243.7	98.56	%	0.775				0.79%
Ag 328.068	268.7	0.00192	mg/L	0.000606	0.00192	mg/L	0.000606	31.50%
Al 308.215	193048.0	10.934	mg/L	0.1034	10.934	mg/L	0.1034	0.95%

As 188.979	3.2	0.00564	mg/L	0.001685	0.00564	mg/L	0.001685	29.89%
Ba 233.527	7787.1	0.09544	mg/L	0.000144	0.09544	mg/L	0.000144	0.15%
Be 313.107	599.0	0.00050	mg/L	0.000017	0.00050	mg/L	0.000017	3.34%
Co 228.616	372.6	0.01181	mg/L	0.000192	0.01181	mg/L	0.000192	1.62%
Cr 267.716	1026.5	0.01621	mg/L	0.000096	0.01621	mg/L	0.000096	0.59%
Cu 324.752	1268.4	0.00947	mg/L	0.000141	0.00947	mg/L	0.000141	1.49%
Fe 273.955	600893.8	29.158	mg/L	0.2814	29.158	mg/L	0.2814	0.97%
Mg 279.077	746321.6	54.954	mg/L	0.5077	54.954	mg/L	0.5077	0.92%
Mn 257.610	406411.9	0.87696	mg/L	0.008364	0.87696	mg/L	0.008364	0.95%
Ni 231.604	633.3	0.02623	mg/L	0.000180	0.02623	mg/L	0.000180	0.68%
Pb 220.353	49.0	0.01032	mg/L	0.000342	0.01032	mg/L	0.000342	3.32%
Sb 206.836†	5.2	-0.00094	mg/L	0.001178	-0.00094	mg/L	0.001178	125.74%
Se 196.026	6.4	0.01770	mg/L	0.005653	0.01770	mg/L	0.005653	31.94%
Tl 190.801	-19.5	-0.01198	mg/L	0.003477	-0.01198	mg/L	0.003477	29.02%
V 292.402	2411.1	0.02124	mg/L	0.000444	0.02124	mg/L	0.000444	2.09%
Zn 206.200	1056.2	0.04120	mg/L	0.000073	0.04120	mg/L	0.000073	0.18%
Cd 226.502	69.0	0.00053	mg/L	0.000038	0.00053	mg/L	0.000038	7.11%
Ti 334.940	50607.2	0.09656	mg/L	0.001588	0.09656	mg/L	0.001588	1.65%
Ca 227.546	15495.0	93.733	mg/L	1.3621	93.733	mg/L	1.3621	1.45%
Na 589.592	713.9	0.21303	mg/L	0.022783	0.21303	mg/L	0.022783	10.69%
K 766.490	3271.5	3.1278	mg/L	0.05445	3.1278	mg/L	0.05445	1.74%

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Sequence No.: 28 **Autosampler Location: 65**
Sample ID: M0610-01A~SO-WC 20X **Date Collected: 5/2/2013 10:25:07 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M0610-01A~SO-WC 20X

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1857265.8	100.41	%	0.581				0.58%
Lu 261.542	1185183.7	101.4	%	0.67				0.66%
Ag 328.068	150.1	0.00108	mg/L	0.000562	0.00108	mg/L	0.000562	52.12%
Al 308.215	91414.1	5.1778	mg/L	0.05899	5.1778	mg/L	0.05899	1.14%
As 188.979	2.0	0.00306	mg/L	0.000484	0.00306	mg/L	0.000484	15.82%
Ba 233.527	2641.1	0.03237	mg/L	0.000337	0.03237	mg/L	0.000337	1.04%
Be 313.107	-69.9	0.00016	mg/L	0.000016	0.00016	mg/L	0.000016	9.66%
Co 228.616	164.0	0.00506	mg/L	0.000120	0.00506	mg/L	0.000120	2.37%
Cr 267.716	556.3	0.00882	mg/L	0.000667	0.00882	mg/L	0.000667	7.56%
Cu 324.752	2878.7	0.01579	mg/L	0.000156	0.01579	mg/L	0.000156	0.99%
Fe 273.955	250680.5	12.165	mg/L	0.0519	12.165	mg/L	0.0519	0.43%
Mg 279.077	232940.1	17.152	mg/L	0.0583	17.152	mg/L	0.0583	0.34%
Mn 257.610	178184.8	0.38449	mg/L	0.001547	0.38449	mg/L	0.001547	0.40%
Ni 231.604	249.5	0.01034	mg/L	0.000269	0.01034	mg/L	0.000269	2.60%
Pb 220.353	41.1	0.00861	mg/L	0.001397	0.00861	mg/L	0.001397	16.23%
Sb 206.836†	2.3	-0.00020	mg/L	0.003560	-0.00020	mg/L	0.003560	>999.9%
Se 196.026	12.0	0.01977	mg/L	0.006043	0.01977	mg/L	0.006043	30.56%
Tl 190.801	-11.7	-0.00805	mg/L	0.001170	-0.00805	mg/L	0.001170	14.53%
V 292.402	1394.9	0.01243	mg/L	0.000287	0.01243	mg/L	0.000287	2.31%
Zn 206.200	1181.9	0.04617	mg/L	0.000363	0.04617	mg/L	0.000363	0.79%
Cd 226.502	32.1	0.00028	mg/L	0.000072	0.00028	mg/L	0.000072	25.91%
Ti 334.940	58810.1	0.11161	mg/L	0.001572	0.11161	mg/L	0.001572	1.41%
Ca 227.546	7210.2	43.564	mg/L	0.3458	43.564	mg/L	0.3458	0.79%
Na 589.592	419.3	0.12514	mg/L	0.019675	0.12514	mg/L	0.019675	15.72%
K 766.490	1070.3	1.0232	mg/L	0.03809	1.0232	mg/L	0.03809	3.72%

==========

Sequence No.: 29 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 5/2/2013 10:28:46 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1809461.5	97.822	%	0.3713				0.38%

Lu 261.542	1155637.6	98.85 %	0.332				0.34%
Ag 328.068	192187.4	1.3049 mg/L	0.02396	1.3049 mg/L	0.02396	1.84%	
QC value within limits for Ag 328.068 Recovery = 104.39%							
Al 308.215	184643.4	10.446 mg/L	0.2134	10.446 mg/L	0.2134	2.04%	
QC value within limits for Al 308.215 Recovery = 104.46%							
As 188.979	548.9	0.51619 mg/L	0.000922	0.51619 mg/L	0.000922	0.18%	
QC value within limits for As 188.979 Recovery = 103.24%							
Ba 233.527	859594.0	10.535 mg/L	0.1428	10.535 mg/L	0.1428	1.36%	
QC value within limits for Ba 233.527 Recovery = 105.35%							
Be 313.107	482835.4	0.26160 mg/L	0.003442	0.26160 mg/L	0.003442	1.32%	
QC value within limits for Be 313.107 Recovery = 104.64%							
Co 228.616	79734.3	2.5683 mg/L	0.05694	2.5683 mg/L	0.05694	2.22%	
QC value within limits for Co 228.616 Recovery = 102.73%							
Cr 267.716	64398.8	1.0389 mg/L	0.02072	1.0389 mg/L	0.02072	1.99%	
QC value within limits for Cr 267.716 Recovery = 103.89%							
Cu 324.752	249449.1	1.2577 mg/L	0.02394	1.2577 mg/L	0.02394	1.90%	
QC value within limits for Cu 324.752 Recovery = 100.62%							
Fe 273.955	108373.7	5.2961 mg/L	0.10706	5.2961 mg/L	0.10706	2.02%	
QC value within limits for Fe 273.955 Recovery = 105.92%							
Mg 279.077	350570.9	25.814 mg/L	0.5626	25.814 mg/L	0.5626	2.18%	
QC value within limits for Mg 279.077 Recovery = 103.25%							
Mn 257.610	1187628.4	2.5627 mg/L	0.03568	2.5627 mg/L	0.03568	1.39%	
QC value within limits for Mn 257.610 Recovery = 102.51%							
Ni 231.604	62460.7	2.5873 mg/L	0.05712	2.5873 mg/L	0.05712	2.21%	
QC value within limits for Ni 231.604 Recovery = 103.49%							
Pb 220.353	2563.7	0.51994 mg/L	0.001056	0.51994 mg/L	0.001056	0.20%	
QC value within limits for Pb 220.353 Recovery = 103.99%							
Sb 206.836†	896.4	0.55233 mg/L	0.007349	0.55233 mg/L	0.007349	1.33%	
QC value greater than the upper limit for Sb 206.836 Recovery = 110.47%							
Se 196.026	381.1	0.51273 mg/L	0.005792	0.51273 mg/L	0.005792	1.13%	
QC value within limits for Se 196.026 Recovery = 102.55%							
Tl 190.801	586.4	0.48212 mg/L	0.002107	0.48212 mg/L	0.002107	0.44%	
QC value within limits for Tl 190.801 Recovery = 96.42%							
V 292.402	276085.1	2.5876 mg/L	0.05026	2.5876 mg/L	0.05026	1.94%	
QC value within limits for V 292.402 Recovery = 103.50%							
Zn 206.200	65620.0	2.5682 mg/L	0.05958	2.5682 mg/L	0.05958	2.32%	
QC value within limits for Zn 206.200 Recovery = 102.73%							
Cd 226.502	11799.2	0.26273 mg/L	0.005387	0.26273 mg/L	0.005387	2.05%	
QC value within limits for Cd 226.502 Recovery = 105.09%							
Ti 334.940	267905.0	0.50647 mg/L	0.007276	0.50647 mg/L	0.007276	1.44%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Ca 227.546	4253.5	24.934 mg/L	0.1355	24.934 mg/L	0.1355	0.54%	
QC value within limits for Ca 227.546 Recovery = 99.74%							
Na 589.592	87653.9	26.157 mg/L	0.0878	26.157 mg/L	0.0878	0.34%	
QC value within limits for Na 589.592 Recovery = 104.63%							
K 766.490	27181.8	25.987 mg/L	0.1353	25.987 mg/L	0.1353	0.52%	
QC value within limits for K 766.490 Recovery = 103.95%							

QC Failed. Continue with analysis.

==========

Sequence No.: 30 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 5/2/2013 10:32:27 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1875191.5	101.38	%	0.368				0.36%
Lu 261.542	1189270.1	101.7	%	0.37				0.36%
Ag 328.068	241.1	0.00162	mg/L	0.000480	0.00162	mg/L	0.000480	29.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215	76.6	0.00434	mg/L	0.003709	0.00434	mg/L	0.003709	85.53%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979	1.7	0.00153	mg/L	0.003702	0.00153	mg/L	0.003702	242.56%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527	201.1	0.00247	mg/L	0.001109	0.00247	mg/L	0.001109	44.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107	118.7	0.00006	mg/L	0.000046	0.00006	mg/L	0.000046	70.34%

```
   QC value within limits for Be 313.107  Recovery = Not calculated
Co 228.616               15.5     0.00050 mg/L      0.000520     0.00050 mg/L      0.000520 104.09%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716               12.7     0.00020 mg/L      0.000145     0.00020 mg/L      0.000145  70.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752              216.1     0.00109 mg/L      0.000286     0.00109 mg/L      0.000286  26.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 273.955              143.5     0.00698 mg/L      0.000852     0.00698 mg/L      0.000852  12.21%
   QC value within limits for Fe 273.955  Recovery = Not calculated
Mg 279.077              108.4     0.00798 mg/L      0.007767     0.00798 mg/L      0.007767  97.35%
   QC value within limits for Mg 279.077  Recovery = Not calculated
Mn 257.610              414.4     0.00089 mg/L      0.000358     0.00089 mg/L      0.000358  40.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Ni 231.604               10.2     0.00042 mg/L      0.000308     0.00042 mg/L      0.000308  72.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
Pb 220.353                1.3     0.00026 mg/L      0.000474     0.00026 mg/L      0.000474 179.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
Sb 206.836†               3.6     0.00225 mg/L      0.002729     0.00225 mg/L      0.002729 121.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026                6.5     0.00869 mg/L      0.004176     0.00869 mg/L      0.004176  48.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
Tl 190.801               -2.8    -0.00239 mg/L      0.001803    -0.00239 mg/L      0.001803  75.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
V 292.402                91.8     0.00086 mg/L      0.000816     0.00086 mg/L      0.000816  94.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 206.200               52.8     0.00206 mg/L      0.000157     0.00206 mg/L      0.000157   7.61%
   QC value within limits for Zn 206.200  Recovery = Not calculated
Cd 226.502                4.4     0.00010 mg/L      0.000223     0.00010 mg/L      0.000223 231.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Ti 334.940              181.5     0.00034 mg/L      0.000079     0.00034 mg/L      0.000079  23.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Ca 227.546               -6.7    -0.03975 mg/L      0.110289    -0.03975 mg/L      0.110289 277.44%
   QC value within limits for Ca 227.546  Recovery = Not calculated
Na 589.592               73.7     0.02201 mg/L      0.025767     0.02201 mg/L      0.025767 117.08%
   QC value within limits for Na 589.592  Recovery = Not calculated
K 766.490                37.2     0.03558 mg/L      0.037727     0.03558 mg/L      0.037727 106.03%
   QC value within limits for K 766.490  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Analysis Begun

Logged In Analyst: mitFIMS2 **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: AS-90**

Sample Information File: C:\data-AA\mitFIMS2\Sample Information\0502A.sif
Batch ID: Null
Results Data Set: HG13050201
Results Library: C:\data-AA\mitFIMS2\Results\Results.mdb

==========

Method Loaded
Method Name: Comm Hg **Method Last Saved: 12/19/2012 4:02:38 PM**
Method Description: Hg Anallysis by Cold Vapor AA

Analyte	Calibration Equation	Wavelength
Hg 253.7	Lin Thru 0	253.7

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: S0 **Date Collected: 5/2/2013 11:42:47 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0008	0.0018	0.0008	11:43:47	Yes
2		[0.00]	0.0009	0.0037	0.0009	11:44:27	Yes
Mean:		[0.00]	0.0008				
SD:		0.00	0.0000				
%RSD:		0.00	3.84				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.20 **Date Collected: 5/2/2013 11:44:29 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.20

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0122	0.0029	11:45:27	Yes
2		[0.2]	0.0021	0.0125	0.0029	11:46:07	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.23				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01038 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S1.0 **Date Collected: 5/2/2013 11:46:09 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S1.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1]	0.0134	0.0670	0.0142	11:47:07	Yes
2		[1]	0.0134	0.0663	0.0142	11:47:47	Yes
Mean:		[1]	0.0134				

SD: 0 0.0000
%RSD: 0 0.02
Standard number 2 applied. [1]
Correlation Coef.: 0.996960 Slope: 0.01327 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 5/2/2013 11:47:49 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0252	0.1252	0.0261	11:48:47	Yes
2		[2]	0.0247	0.1210	0.0255	11:49:26	Yes
Mean:		[2]	0.0249				
SD:		0	0.0004				
%RSD:		0	1.52				

Standard number 3 applied. [2]
Correlation Coef.: 0.998404 Slope: 0.01264 Intercept: 0.00000

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 5/2/2013 11:49:28 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0657	0.3225	0.0665	11:50:26	Yes
2		[5]	0.0663	0.3244	0.0671	11:51:05	Yes
Mean:		[5]	0.0660				
SD:		0	0.0005				
%RSD:		0	0.71				

Standard number 4 applied. [5]
Correlation Coef.: 0.999523 Slope: 0.01311 Intercept: 0.00000

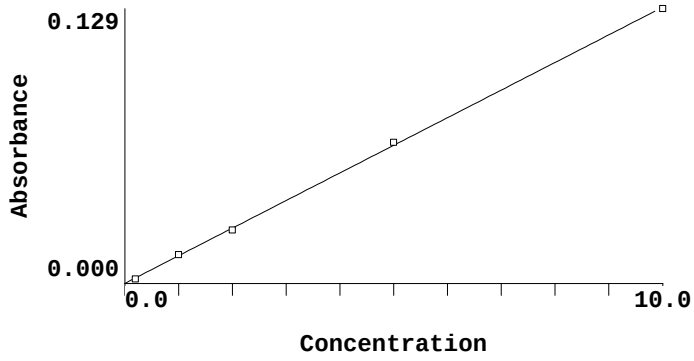
==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 5/2/2013 11:51:07 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.1290	0.6386	0.1299	11:52:05	Yes
2		[10]	0.1281	0.6339	0.1289	11:52:45	Yes
Mean:		[10]	0.1285				
SD:		0	0.0007				
%RSD:		0	0.51				

Standard number 5 applied. [10]
Correlation Coef.: 0.999832 Slope: 0.01291 Intercept: 0.00000
The calibration curve may not be linear.



Calibration data for Hg 253.7 **Equation: Linear Through Zero**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
S0	0.0000	0	0.000	0.00	3.8
S0.20	0.0021	0.2	0.161	0.00	0.2
S1.0	0.0134	1.0	1.034	0.00	0.0
S2.0	0.0249	2.0	1.932	0.00	1.5
S5.0	0.0660	5.0	5.109	0.00	0.7
S10.0	0.1285	10.0	9.954	0.00	0.5

Correlation Coef.: 0.999832 Slope: 0.01291 Intercept: 0.00000

==========

Sequence No.: 7 **Autosampler Location: 7**
Sample ID: ICV **Date Collected: 5/2/2013 11:52:48 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.622	4.622	0.0597	0.2962	0.0605	11:53:46	Yes
2	4.635	4.635	0.0599	0.2945	0.0607	11:54:26	Yes
Mean:	4.629	4.629	0.0598				
SD:	0.009	0.009	0.0001				
%RSD:	0.196	0.196	0.20				

QC value within limits for Hg 253.7 Recovery = 92.58%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 5/2/2013 11:54:27 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0010	0.0009	11:55:28	Yes
2	0.004	0.004	0.0001	0.0020	0.0009	11:56:08	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	3.002	3.002	3.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 17**
Sample ID: MB-71444 **Date Collected: 5/2/2013 11:56:10 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: MB-71444

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.054	-0.054	-0.0007	-0.0018	0.0001	11:57:08	Yes
2	-0.052	-0.052	-0.0007	-0.0014	0.0002	11:57:47	Yes
Mean:	-0.053	-0.053	-0.0007				
SD:	0.001	0.001	0.0000				
%RSD:	2.570	2.570	2.57				

==========

Sequence No.: 10 **Autosampler Location: 18**
Sample ID: LCS-71444 **Date Collected: 5/2/2013 11:57:49 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LCS-71444

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.344	4.344	0.0561	0.2764	0.0569	11:58:47	Yes
2	4.369	4.369	0.0564	0.2767	0.0573	11:59:27	Yes
Mean:	4.356	4.356	0.0563				
SD:	0.018	0.018	0.0002				
%RSD:	0.408	0.408	0.41				

==========

Sequence No.: 11 **Autosampler Location: 19**
Sample ID: M0588-01A **Date Collected: 5/2/2013 11:59:29 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0588-01A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0004	-0.0002	0.0005	12:00:26	Yes
2	-0.027	-0.027	-0.0003	-0.0001	0.0005	12:01:06	Yes
Mean:	-0.028	-0.028	-0.0004				
SD:	0.002	0.002	0.0000				
%RSD:	6.492	6.492	6.49				

==========

Sequence No.: 12 **Autosampler Location: 20**
Sample ID: M0588-02A **Date Collected: 5/2/2013 12:01:08 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0588-02A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0001	0.0013	0.0007	12:02:05	Yes
2	-0.007	-0.007	-0.0001	0.0014	0.0008	12:02:45	Yes
Mean:	-0.007	-0.007	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	13.38	13.38	13.38				

==========

Sequence No.: 13 **Autosampler Location: 21**
Sample ID: M0588-03A **Date Collected: 5/2/2013 12:02:47 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0588-03A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	-0.0005	-0.0015	0.0003	12:03:45	Yes
2	-0.040	-0.040	-0.0005	-0.0007	0.0003	12:04:25	Yes
Mean:	-0.040	-0.040	-0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	1.318	1.318	1.32				

Sequence No.: 14 **Autosampler Location: 22**
Sample ID: M0610-01A **Date Collected: 5/2/2013 12:04:27 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0610-01A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.030	0.030	0.0004	0.0026	0.0012	12:05:25	Yes
2	0.041	0.041	0.0005	0.0055	0.0014	12:06:04	Yes
Mean:	0.035	0.035	0.0005				
SD:	0.008	0.008	0.0001				
%RSD:	21.75	21.75	21.75				

Sequence No.: 15 **Autosampler Location: 23**
Sample ID: M0619-01A **Date Collected: 5/2/2013 12:06:06 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-01A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.026	1.026	0.0133	0.0662	0.0141	12:07:04	Yes
2	1.015	1.015	0.0131	0.0662	0.0139	12:07:43	Yes
Mean:	1.020	1.020	0.0132				
SD:	0.008	0.008	0.0001				
%RSD:	0.810	0.810	0.81				

Sequence No.: 16 **Autosampler Location: 24**
Sample ID: M0619-02A **Date Collected: 5/2/2013 12:07:45 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-02A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.773	0.773	0.0100	0.0506	0.0108	12:08:43	Yes
2	0.757	0.757	0.0098	0.0501	0.0106	12:09:22	Yes
Mean:	0.765	0.765	0.0099				
SD:	0.011	0.011	0.0001				
%RSD:	1.490	1.490	1.49				

Sequence No.: 17 **Autosampler Location: 25**
Sample ID: M0619-03A **Date Collected: 5/2/2013 12:09:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-03A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.311	3.311	0.0428	0.2111	0.0436	12:10:21	Yes

2	3.338	3.338	0.0431	0.2110	0.0439	12:11:01	Yes
Mean:	3.325	3.325	0.0429				
SD:	0.019	0.019	0.0002				
%RSD:	0.560	0.560	0.56				

==========

Sequence No.: 18 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 5/2/2013 12:11:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.645	4.645	0.0600	0.2960	0.0608	12:12:02	Yes
2	4.684	4.684	0.0605	0.2986	0.0613	12:12:42	Yes
Mean:	4.664	4.664	0.0602				
SD:	0.027	0.027	0.0004				
%RSD:	0.587	0.587	0.59				

QC value within limits for Hg 253.7 Recovery = 93.28%
All analyte(s) passed QC.

==========

Sequence No.: 19 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 5/2/2013 12:12:44 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0023	0.0009	12:13:44	Yes
2	0.011	0.011	0.0001	0.0031	0.0010	12:14:24	Yes
Mean:	0.008	0.008	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	45.31	45.31	45.31				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 20 **Autosampler Location: 26**
Sample ID: M0619-04A **Date Collected: 5/2/2013 12:14:26 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-04A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.825	0.825	0.0107	0.0561	0.0115	12:15:26	Yes
2	0.822	0.822	0.0106	0.0543	0.0115	12:16:06	Yes
Mean:	0.824	0.824	0.0106				
SD:	0.002	0.002	0.0000				
%RSD:	0.224	0.224	0.22				

==========

Sequence No.: 21 **Autosampler Location: 27**
Sample ID: M0619-05A **Date Collected: 5/2/2013 12:16:08 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-05A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.740	0.740	0.0096	0.0492	0.0104	12:17:05	Yes
2	0.760	0.760	0.0098	0.0515	0.0106	12:17:45	Yes
Mean:	0.750	0.750	0.0097				
SD:	0.014	0.014	0.0002				
%RSD:	1.843	1.843	1.84				

==========

Sequence No.: 22 **Autosampler Location: 28**
Sample ID: M0619-06A **Date Collected: 5/2/2013 12:17:47 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-06A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.743	5.743	0.0742	0.3693	0.0750	12:18:44	Yes
2	5.801	5.801	0.0749	0.3746	0.0757	12:19:24	Yes
Mean:	5.772	5.772	0.0745				
SD:	0.041	0.041	0.0005				
%RSD:	0.712	0.712	0.71				

==========

Sequence No.: 23 **Autosampler Location: 29**
Sample ID: M0619-07A **Date Collected: 5/2/2013 12:19:26 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-07A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.704	0.704	0.0091	0.0478	0.0099	12:20:23	Yes
2	0.705	0.705	0.0091	0.0468	0.0099	12:21:03	Yes
Mean:	0.704	0.704	0.0091				
SD:	0.001	0.001	0.0000				
%RSD:	0.083	0.083	0.08				

==========

Sequence No.: 24 **Autosampler Location: 30**
Sample ID: M0619-08A **Date Collected: 5/2/2013 12:21:05 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-08A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.115	0.115	0.0015	0.0098	0.0023	12:22:02	Yes
2	0.119	0.119	0.0015	0.0101	0.0024	12:22:43	Yes
Mean:	0.117	0.117	0.0015				
SD:	0.003	0.003	0.0000				
%RSD:	2.430	2.430	2.43				

==========

Sequence No.: 25 **Autosampler Location: 31**
Sample ID: M0619-09A **Date Collected: 5/2/2013 12:22:44 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-09A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.030	0.030	0.0004	0.0047	0.0012	12:23:42	Yes
2	0.030	0.030	0.0004	0.0047	0.0012	12:24:22	Yes
Mean:	0.030	0.030	0.0004				

SD:	0.000	0.000	0.0000
%RSD:	1.380	1.380	1.38

==========

Sequence No.: 26 **Autosampler Location: 32**
Sample ID: M0619-10A **Date Collected: 5/2/2013 12:24:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-10A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.637	0.637	0.0082	0.0428	0.0091	12:25:25	Yes
2	0.645	0.645	0.0083	0.0443	0.0092	12:26:05	Yes
Mean:	0.641	0.641	0.0083				
SD:	0.006	0.006	0.0001				
%RSD:	0.880	0.880	0.88				

==========

Sequence No.: 27 **Autosampler Location: 33**
Sample ID: M0619-11A **Date Collected: 5/2/2013 12:26:06 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-11A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.665	0.665	0.0086	0.0452	0.0094	12:27:04	Yes
2	0.657	0.657	0.0085	0.0458	0.0093	12:27:44	Yes
Mean:	0.661	0.661	0.0085				
SD:	0.005	0.005	0.0001				
%RSD:	0.827	0.827	0.83				

==========

Sequence No.: 28 **Autosampler Location: 34**
Sample ID: M0619-12A **Date Collected: 5/2/2013 12:27:46 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-12A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0006	-0.0012	0.0002	12:28:43	Yes
2	-0.046	-0.046	-0.0006	0.0009	0.0002	12:29:24	Yes
Mean:	-0.046	-0.046	-0.0006				
SD:	0.000	0.000	0.0000				
%RSD:	0.738	0.738	0.74				

==========

Sequence No.: 29 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 5/2/2013 12:29:25 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.575	4.575	0.0591	0.2956	0.0599	12:30:26	Yes
2	4.637	4.637	0.0599	0.3015	0.0607	12:31:05	Yes
Mean:	4.606	4.606	0.0595				
SD:	0.043	0.043	0.0006				
%RSD:	0.939	0.939	0.94				

QC value within limits for Hg 253.7 Recovery = 92.12%

All analyte(s) passed QC.

==========

Sequence No.: 30 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 5/2/2013 12:31:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0030	0.0010	12:32:07	Yes
2	0.014	0.014	0.0002	0.0029	0.0010	12:32:47	Yes
Mean:	0.012	0.012	0.0002				
SD:	0.004	0.004	0.0001				
%RSD:	33.42	33.42	33.42				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 31 **Autosampler Location: 35**
Sample ID: M0619-13A **Date Collected: 5/2/2013 12:32:49 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-13A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.290	1.290	0.0167	0.0837	0.0175	12:33:48	Yes
2	1.294	1.294	0.0167	0.0850	0.0176	12:34:28	Yes
Mean:	1.292	1.292	0.0167				
SD:	0.003	0.003	0.0000				
%RSD:	0.205	0.205	0.21				

==========

Sequence No.: 32 **Autosampler Location: 36**
Sample ID: M0619-14A **Date Collected: 5/2/2013 12:34:30 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-14A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.393	0.393	0.0051	0.0272	0.0059	12:35:27	Yes
2	0.394	0.394	0.0051	0.0278	0.0059	12:36:07	Yes
Mean:	0.393	0.393	0.0051				
SD:	0.001	0.001	0.0000				
%RSD:	0.258	0.258	0.26				

==========

Sequence No.: 33 **Autosampler Location: 37**
Sample ID: M0619-15A **Date Collected: 5/2/2013 12:36:09 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-15A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0006	-0.0004	0.0002	12:37:07	Yes
2	-0.047	-0.047	-0.0006	0.0000	0.0002	12:37:47	Yes
Mean:	-0.048	-0.048	-0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	3.807	3.807	3.81				

Sequence No.: 34 **Autosampler Location: 38**
Sample ID: M0619-16A **Date Collected: 5/2/2013 12:37:49 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-16A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.134	1.134	0.0146	0.0743	0.0155	12:38:46	Yes
2	1.118	1.118	0.0144	0.0734	0.0153	12:39:26	Yes
Mean:	1.126	1.126	0.0145				
SD:	0.011	0.011	0.0001				
%RSD:	0.950	0.950	0.95				

Sequence No.: 35 **Autosampler Location: 39**
Sample ID: M0619-16ADUP **Date Collected: 5/2/2013 12:39:28 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-16ADUP

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.192	1.192	0.0154	0.0788	0.0162	12:40:26	Yes
2	1.171	1.171	0.0151	0.0776	0.0160	12:41:05	Yes
Mean:	1.182	1.182	0.0153				
SD:	0.015	0.015	0.0002				
%RSD:	1.240	1.240	1.24				

Sequence No.: 36 **Autosampler Location: 40**
Sample ID: M0619-16AMS **Date Collected: 5/2/2013 12:41:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M0619-16AMS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.494	5.494	0.0710	0.3559	0.0718	12:42:05	Yes
2	5.349	5.349	0.0691	0.3475	0.0699	12:42:45	Yes
Mean:	5.422	5.422	0.0700				
SD:	0.103	0.103	0.0013				
%RSD:	1.893	1.893	1.89				

Sequence No.: 37 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 5/2/2013 12:42:47 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.579	4.579	0.0591	0.2965	0.0600	12:43:46	Yes
2	4.551	4.551	0.0588	0.2936	0.0596	12:44:26	Yes
Mean:	4.565	4.565	0.0590				
SD:	0.020	0.020	0.0003				
%RSD:	0.428	0.428	0.43				

QC value within limits for Hg 253.7 Recovery = 91.31%
All analyte(s) passed QC.

==========

Sequence No.: 38 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 5/2/2013 12:44:28 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.013	0.013	0.0002	0.0040	0.0010	12:45:28	Yes
2	0.014	0.014	0.0002	0.0043	0.0010	12:46:08	Yes
Mean:	0.014	0.014	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	8.540	8.540	8.54				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Prep Start Date: **05/01/2013 14:00**
Prep End Date: **05/01/2013 16:00** Prep Code: **ICP_S_PR** Prep Type: **3050B/SW3050B** Prep Factor Units: **mL / g**
Prep Batch ID: **71425** Technician: **David T Camara**

QC Matrix: **N/A** 1:1 HNO3 **1112120** 30% H2O2 **125018** Reagent 5 Lot: **N/A**
QC Matrix Lot: **N/A** 1:1 HNO3 (mL): **5.0** 30% H2O2 (mL): **N/A** Reagent 5 (mL): **N/A**

Filter?: **N/A** Conc HNO3 **1112120** Conc HCl **4112073** Reagent 6 Lot: **N/A**
Filter Lot: **N/A** Conc HNO3 (mL): **2.5** Conc HCl (mL): **5.0** Reagent 6 (mL): **N/A**

Digestion Start Time 1: **05/01/2013 14:00** Digestion Start Time 2: **05/01/2013 15:45** Block Temp (C): **97** Therm ID1: **MT-120**
Digestion End Time 1: **05/01/2013 14:45** Digestion End Time 2: **05/01/2013 16:00** Corr Fac **0**

Mitkem Sample ID	Client Samp ID		tial L/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
MB-71425			1	50	--	--	--	--					05/01/13	DTC	ICPLab		☐	☐	HB-5
LCS-71425			1	50	--	--	--	--					05/01/13	DTC	ICPLab		☐	☐	HB-5
455 uL II130325A, 45.5 uL IP120608A, 45.5 uL IP120608B, 455 uL IP130227A																			
M0588-01A	CS-BOT21	S	1.36	50	--	--	--	--			05/06/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
TAL																			
M0588-02A	CS-SW17	S	1.4	50	--	--	--	--			05/06/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
TAL																			
M0588-03A	BLIND DUP	S	1.05	50	--	--	--	--			05/06/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
TAL																			
M0610-01A	SO-WC	S	1.18	50	--	--	--	--			05/09/13		05/01/13	DTC	ICPLab		☐	☐	HB-5
M0619-01A	SB-126 (0-2)	S	1.5	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-02A	SB-126 (8-10)	S	1.14	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-03A	SB-126 (10.5-12.5)	S	1.3	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-04A	SB-127 (3-5)	S	1.38	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-05A	SB-127 (8-10)	S	1.23	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-06A	SB-127 (10-12)	S	1.39	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-07A	SB-128 (2-4)	S	1.25	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-08A	SB-128 (10-12)	S	1.17	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-09A	SB-128 (18-20)	S	1.15	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-10A	SB-129 (1-3)	S	1.35	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-11A	SB-129 (8-10)	S	1.21	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			

DC 5/1/13

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division

PREP BATCH REPORT

Prep Start Date: **05/01/2013 14:00**
Prep End Date: **05/01/2013 16:00** Prep Code: **ICP_S_PR** Prep Type: **3050B/SW3050B** Prep Factor Units: **mL / g**
Prep Batch ID: **71425** Technician: **David T Camara**

QC Matrix: N/A | 1:1 HNO3 1112120 | 30% H2O2 125018 | Reagent 5 Lot: N/A
QC Matrix Lot: N/A | 1:1 HNO3 (mL): 5.0 | 30% H2O2 (mL): N/A | Reagent 5 (mL): N/A

Filter?: N/A | Conc HNO3 1112120 | Conc HCl 4112073 | Reagent 6 Lot: N/A
Filter Lot: N/A | Conc HNO3 (mL): 2.5 | Conc HCl (mL): 5.0 | Reagent 6 (mL): N/A

Digestion Start Time 1: 05/01/2013 14:00 | Digestion Start Time 2: 05/01/2013 15:45 | Block Temp (C): 97 | Therm ID1: MT-120
Digestion End Time 1: 05/01/2013 14:45 | Digestion End Time 2: 05/01/2013 16:00 | Corr Fac 0

Mitkem Sample ID	Client Samp ID		tial L/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
M0619-12A	SB-129 (18-20)	S	1.26	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-13A	SB-130 (2-4)	S	1.52	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-14A	SB-130 (15-17)	S	1.23	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-15A	SB-130 (18-20)	S	1.02	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-16A	DUP1	S	1.16	50	--	--	--	--			05/09/13	01	05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-16ADUP	DUP1	S	1.18	50	--	--	--	--			05/09/13		05/01/13	DTC	ICPLab		☐	☐	HB-5
RCRA8																			
M0619-16AMS	DUP1	S	1.16	50	--	--	--	--			05/09/13		05/01/13	DTC	ICPLab		☐	☐	HB-5
455 uL II130325A, 45.5 uL IP120608A, 45.5 uL IP120608B, 455 uL IP130227A, RCRA8																			

David T Camara 05/01/2013
Analyst Reviewed Date

Manager Reviewed 5/2/13
Date

DC 5/1/13

Prep Start Date: **05/01/2013 16:00**
Prep End Date: **05/01/2013 17:00** Prep Code: **SW7471A_PR** Prep Type: **7471B/SW7471B** Prep Factor Units: **mL / g**
Prep Batch ID: **71444** Technician: **David T Camara**

QC Matrix: N/A | Conc HNO3 1112120 | 5% KMnO4 IR13042903 | Reagent 5 Lot: N/A
QC Matrix Lot: N/A | Conc HNO3 (mL): 1.25 | 5% KMnO4 (mL): 15.0 | Reagent 5 (mL): N/A

Filter?: N/A | Conc HCl 4112073 | Reagent 4 Lot: N/A | Reagent 6 Lot: N/A
Filter Lot: N/A | Conc HCl (mL): 3.75 | Reagent 4 (mL): N/A | Reagent 6 (mL): N/A

Digestion Start Time 1: 05/01/2013 16:00 | Digestion Start Time 2: 05/01/2013 16:30 | Block Temp (C): 97 | Therm ID1: MT-47
Digestion End Time 1: 05/01/2013 16:02 | Digestion End Time 2: 05/01/2013 17:00 | Corr Fac -2

Mitkem Sample ID	Client Samp ID		itial L/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
S0			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
S0.2			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
40 uL II130429C																			
S1.0			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
200 uL II130429C																			
S2.0			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
400 uL II130429C																			
S5.0			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
1000 uL II130429C																			
S10.0			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
2000 uL II130429C																			
ICV			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
1000 uL II130429D																			
ICB			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
CCV			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
1000 uL II130429D																			
CCB			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
MB-71444			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
LCS-71444			0.6	100	--	--	--	--					05/01/13	DTC	HgLab		☐	☐	HB-A
1000 uL II130429E																			
M0588-01A	CS-BOT21	S	0.56	100	--	--	--	--			05/06/13	01	05/01/13	DTC	HgLab		☐	☐	HB-A
TAL																			
M0588-02A	CS-SW17	S	0.5	100	--	--	--	--			05/06/13	01	05/01/13	DTC	HgLab		☐	☐	HB-A
TAL																			
M0588-03A	BLIND DUP	S	0.59	100	--	--	--	--			05/06/13	01	05/01/13	DTC	HgLab		☐	☐	HB-A
TAL																			
M0610-01A	SO-WC	S	0.54	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
M0619-01A	SB-126 (0-2)	S	0.59	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-02A	SB-126 (8-10)	S	0.56	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			

12/31/13

Logbook ID: 100.0128 -04/13

Spectrum Analytical, Inc. Featuring Hanibal Technology -- Rhode Island Division PREP BATCH REPORT

Prep Start Date: **05/01/2013 16:00**
Prep End Date: **05/01/2013 17:00** Prep Code: **SW7471A_PR** Prep Type: **7471B/SW7471B** Prep Factor Units: **mL / g**
Prep Batch ID: **71444** Technician: **David T Camara**

QC Matrix: N/A | Conc HNO3 1112120 | 5% KMnO4 IR13042903 | Reagent 5 Lot: N/A
QC Matrix Lot: N/A | Conc HNO3 (mL): 1.25 | 5% KMnO4 (mL): 15.0 | Reagent 5 (mL): N/A

Filter?: N/A | Conc HCl 4112073 | Reagent 4 Lot: N/A | Reagent 6 Lot: N/A
Filter Lot: N/A | Conc HCl (mL): 3.75 | Reagent 4 (mL): N/A | Reagent 6 (mL): N/A

Reviewed: HZA 5/2/13

Digestion Start Time 1: 05/01/2013 16:00 | Digestion Start Time 2: 05/01/2013 16:30 | Block Temp (C): 97 | Therm ID1: MT-47
Digestion End Time 1: 05/01/2013 16:02 | Digestion End Time 2: 05/01/2013 17:00 | Corr Fac -2

Mitkem Sample ID	Client Samp ID		tial L/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
M0619-03A	SB-126 (10.5-12.5)	S	0.51	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-04A	SB-127 (3-5)	S	0.51	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-05A	SB-127 (8-10)	S	0.56	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-06A	SB-127 (10-12)	S	0.56	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-07A	SB-128 (2-4)	S	0.57	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-08A	SB-128 (10-12)	S	0.51	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-09A	SB-128 (18-20)	S	0.51	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-10A	SB-129 (1-3)	S	0.54	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-11A	SB-129 (8-10)	S	0.55	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-12A	SB-129 (18-20)	S	0.53	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-13A	SB-130 (2-4)	S	0.57	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-14A	SB-130 (15-17)	S	0.51	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-2
RCRA8																			
M0619-15A	SB-130 (18-20)	S	0.57	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-C
RCRA8																			
M0619-16A	DUP1	S	0.57	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-C
RCRA8																			
M0619-16ADUP	DUP1	S	0.58	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-C
M0619-16AMS	DUP1	S	0.59	100	--	--	--	--			05/09/13	01	05/01/13	DTC	HgLab		☐	☐	HB-C
1000 uL II130429E																			

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05/1/13
Logbook ID: 1000128-04/13

Percent Moisture and Percent Solids Report

Lab Sample ID	Client Sample ID	Analyzed	Percent Moisture	Percent Solids	Validated
M0619-01A	SB-126 (0-2)	05/07/2013	17.450	82.550	Yes
M0619-02A	SB-126 (8-10)	05/07/2013	12.330	87.670	Yes
M0619-03A	SB-126 (10.5-12.5)	05/07/2013	21.925	78.075	Yes
M0619-04A	SB-127 (3-5)	05/07/2013	11.892	88.108	Yes
M0619-05A	SB-127 (8-10)	05/07/2013	8.416	91.584	Yes
M0619-06A	SB-127 (10-12)	05/07/2013	22.016	77.984	Yes
M0619-07A	SB-128 (2-4)	05/07/2013	12.000	88.000	Yes
M0619-08A	SB-128 (10-12)	05/07/2013	11.716	88.284	Yes
M0619-09A	SB-128 (18-20)	05/07/2013	8.595	91.405	Yes
M0619-10A	SB-129 (1-3)	05/07/2013	15.400	84.600	Yes
M0619-11A	SB-129 (8-10)	05/07/2013	10.226	89.774	Yes
M0619-12A	SB-129 (18-20)	05/07/2013	6.667	93.333	Yes
M0619-13A	SB-130 (2-4)	05/07/2013	12.500	87.500	Yes
M0619-14A	SB-130 (15-17)	05/07/2013	15.547	84.453	Yes
M0619-15A	SB-130 (18-20)	05/07/2013	7.546	92.454	Yes
M0619-16A	DUP1	05/07/2013	11.744	88.256	Yes

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
01A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
01A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
01A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
01A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
01A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01A	002	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
01A	002	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
01B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
01D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
02A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
02A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
02A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
02A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
02A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
02A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
02B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
02D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
03A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
03A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
03A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
03A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
03A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
03A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
03D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
04A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
04A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
04A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
04A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
04A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
04A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
04A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
04D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
05A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
05A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
05A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
05A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
05A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
05A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
05B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
05D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
06A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
06A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
06A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
06A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06A	002	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
06A	002	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
06B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
06D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
07A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
07A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
07A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
07A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
07A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
07A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
07A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
07D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
08A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
08A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
08A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
08A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08A	002	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
08A	002	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
08B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
08D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
09A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
09A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
09A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
09A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
09A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
09A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
09D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
10A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
10A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
10A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
10A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
10A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
10A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
10A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
10D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
11A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
11A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
11A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
11A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
11A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
11A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
11B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
11D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
12A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
12A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
12A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
12A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
12A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
12A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
12D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
13A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
13A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
13A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
13A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
13A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
13A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
13A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
13D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
14A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
14A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
14A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
14A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	001	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
14A	001	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
14A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
14B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
14D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	002	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
15A	002	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
15A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	002	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
15A	002	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
15A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15A	002	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
15A	002	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
15B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
15D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Internal Chain of Custody

Client: AECOM_NY

Work Order: M0619 **Profile Name:** AECOM_BAY-RIDGE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
16A	001	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	001	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	001	SW6010_S	Out	David T Camara	5/1/2013 1:31:01 PM
16A	001	SW6010_S	In	David T Camara	5/1/2013 4:46:34 PM
16A	001	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	001	SW7471	Out	David T Camara	5/1/2013 1:31:11 PM
16A	001	SW7471	In	David T Camara	5/1/2013 4:46:37 PM
16A	001	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	002	PMoist	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	002	SW6010_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	002	SW7471	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	002	SW8270_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16A	002	SW8270_S	Out	James Kyle Dorsey	4/30/2013 10:21:00 AM
16A	002	SW8270_S	In	James Kyle Dorsey	4/30/2013 12:17:11 PM
16B	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16C	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16C	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
16D	001	SW9012_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
17A	001	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
17A	002	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
17A	003	SW8260_LOW_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
17B	001	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
17B	002	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM
17B	003	SW8260_MED_S	In	LOGIN: rdorsey	4/29/2013 3:55:00 PM

Last Page of Data Report

SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

Quality Assurance/Quality Control Data Deliverable

ASP-B

Prepared for

Spectrum Analytical, Inc. - North Kingstown, RI

Project/Number: Bay Ridge Holder, Former MG / M0619

Work Order: SB68738

SDG# 68738

Submitted on April 30th, 2013

Table of Contents

Laboratory Name: Spectrum Analytical, Inc. featuring Hanibal Technology
City/Sate: Agawam, MA
Client Name: Spectrum Analytical, Inc. - North Kingstown, RI
Project Name/Number: Bay Ridge Holder, Former MG / M0619
SDG#: 68738
Associated Work Orders: SB68738

NY Lab ID #11393/11840
NJ Lab ID#MA011/MA012

SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

Spectrum Analytical, Inc. - North Kingstown, RI

Client Project: Bay Ridge Holder, Former MG

Project Number: M0619

Spectrum Analytical, Inc. Project ID: SB68738

05/09/2013

Prepared for: Spectrum Analytical, Inc. - North Kingstown, RI
646 Camp Ave.
North Kingstown, RI 02852
Attn: Agnes Huntley

Prepared By: Spectrum Analytical, Inc.
830 Silver Street
Agawam, MA 01001
(800)789-9115

SDG68738

SB68738 General Narrative

Spectrum Analytical, Inc. submits the enclosed data package for the site characterization of Bay Ridge Holder, Former MG. Samples submitted for analysis by Spectrum Analytical, Inc. - North Kingstown, RI. Under this deliverable, analysis results are presented for sixteen Soil samples submitted on April 30th, 2013.

The analyses were performed according to USEPA SW846 method analytical guidelines and other methods. In addition the analyses were performed according to criteria dictated by National Environmental Laboratory Accreditation Conference (NELAC) and in accordance with project contract requirements and chain of custody forms.

Observations and/or deviations observed for specific analyses can be found in the analysis narrative:

1. Overall Observations:

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual Integrations are coded to provide the data reviewer justification for such action. The codes are labeled on corresponding raw data for GC/MS and GC analysis as follows:

- M1 peak tailing or fronting
- M2 peak co-elution
- M3 rising or failing baseline
- M4 retention time shift
- M5 miscellaneous - under this category, the justification is explained
- M6 software did not integrate peak
- M7 partial peak integration

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Scanned copies of logbook pages are included, with the originals are archived within the laboratory.

The pages in this report have been numbered consecutively, starting with the general narrative and ending with the page labeled as "Last Page of data Report".

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 above. Release of the data contained in this electronic data package, has been authorized by the laboratory director as verified by the following signature.

Nicole Leja

Laboratory Director

Date: 05/09/2013

SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Sample Transmittal Documentation

CHAIN-OF-CUSTODY RECORD

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

WorkOrder : M0619
Project: Bay Ridge Holders, Former MG
Report Type : ASP-B
Due Date : 5/9/2013
FAX Due Date :
Report To : Agnes R Huntley
Purchase Order : M0619
EDD Type : EQUIIS_4_AECOM

Subcontractor:
Spectrum Analytical, Inc.

Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

= number of containers

Requested Test

SB68738RH

Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	SW9012_S									
SB-126 (0-2)	04/24/2013 12:00	1	Soil		M0619-01D	X									SB68738.01
SB-126 (8-10)	04/25/2013 14:00	1	Soil		M0619-02D	X									-02
SB-126 (10.5-12.5)	04/25/2013 14:15	1	Soil		M0619-03D	X									-03
SB-127 (3-5)	04/24/2013 10:00	1	Soil		M0619-04D	X									-04
SB-127 (8-10)	04/25/2013 11:00	1	Soil		M0619-05D	X									-05
SB-127 (10-12)	04/25/2013 11:15	1	Soil		M0619-06D	X									-06

1) SW9012_S, TOTAL CYANIDE

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments: Please analyze the samples for Free Cyanide.

		Date/Time		Date/Time
Relinquished by:	Agnes R Huntley	04/30/13 11:34	**Received by:**	4/30/13 1200
Relinquished by:			**Received by:**	4-30-13 17:20 1.3

Rev 2

646 Camp Ave * North Kingstown * RI * 02852 * 401-732-3400 * 401-732-3499
www.spectrum-analytical.com

CHAIN-OF-CUSTODY RECORD

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

WorkOrder : M0619
Project: Bay Ridge Holders, Former MG
Report Type : ASP-B
Due Date : 5/9/2013
FAX Due Date :
Report To : Agnes R Huntley
Purchase Order : M0619
EDD Type : EQUIIS_4_AECOM

Subcontractor:
Spectrum Analytical, Inc.

Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

= number of containers

Requested Test

SB68738 RM

Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	SW9012_S										
SB-128 (2-4)	04/24/2013 13:30	1	Soil		M0619-07D	X										SB68738-07
SB-128 (10-12)	04/25/2013 14:30	1	Soil		M0619-08D	X										-08
SB-128 (18-20)	04/25/2013 14:45	1	Soil		M0619-09D	X										-09
SB-129 (1-3)	04/24/2013 11:00	1	Soil		M0619-10D	X										-10
SB-129 (8-10)	04/25/2013 12:00	1	Soil		M0619-11D	X										-4
SB-129 (18-20)	04/25/2013 12:15	1	Soil		M0619-12D	X										-12

1) SW9012_S, TOTAL CYANIDE

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments: Please analyze the samples for Free Cyanide.

		Date/Time			Date/Time
Relinquished by:	Agnes R Huntley	04/30/13 11:34	**Received by:**		4/30/13 1200
Relinquished by:			**Received by:**		4-30-13 17:00

04/30/2013

1-3

R9Z

646 Camp Ave * North Kingstown * RI * 02852 * 401-732-3400 * 401-732-3499
www.spectrum-analytical.com

CHAIN-OF-CUSTODY RECORD

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

WorkOrder : M0619
Project: Bay Ridge Holders, Former MG
Report Type : ASP-B
Due Date : 5/9/2013
FAX Due Date :
Report To : Agnes R Huntley
Purchase Order : M0619
EDD Type : EQUIIS_4_AECOM

Subcontractor:
Spectrum Analytical, Inc.

Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

Requested Test

SB68738 RH

= number of containers

Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	SW9012_S									
SB-130 (2-4)	04/24/2013 09:30	1	Soil		M0619-13D	X									SB68738-13
SB-130 (15-17)	04/25/2013 10:00	1	Soil		M0619-14D	X									-14
SB-130 (18-20)	04/25/2013 10:15	1	Soil		M0619-15D	X									-15
DUP1	04/24/2013 09:45	1	Soil	X	M0619-16D	X									-16

1) SW9012_S, TOTAL CYANIDE

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments: Please analyze the samples for Free Cyanide.

		Date/Time		Date/Time
Relinquished by:	Agnes R Huntley	04/30/13 11:34	**Received by:**	4/30/13 1200
Relinquished by:			**Received by:**	4-30-13 17:20 1.3

04/30/2013

Ref

646 Camp Ave * North Kingstown * RI * 02852 * 401-732-3400 * 401-732-3499
www.spectrum-analytical.com

SB68738

Spectrum Analytical, Inc. - Agawam, MA

Report To:

Spectrum Analytical, Inc. - North Kingstown, RI
Agnes Huntley
646 Camp Ave.
North Kingstown, RI 02852
Phone: (401) 732-3400
Fax: (401) 732-3499

Project #:	M0619
Project:	Bay Ridge Holder, Former MG
Date Due:	09-May-13 17:00
Received By:	Tanya Krivolenko
Date Received:	30-Apr-13 17:20
Temperature:	1.3°C
PO #:	M0619

✓ Containers Intact	Frozen vials
✓ Properly Labeled	Frozen soil jars
✓ COC/Labels Agree	State EDD
Received On Ice	✓ COC present
✓ Recd within hold time	Custody seal present
Air-tight containers (Encore device)	Custody seal intact
✓ Refrigerated	COC complete
DW Field QC	

Lab ID	Client ID	Sampled	Lab Matrix / Report Matrix	Containers
SB68738-01	SB-126 (0-2)	24-Apr-13 12:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-02	SB-126 (8-10)	25-Apr-13 14:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-03	SB-126 (10.5-12.5)	25-Apr-13 14:15	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-04	SB-127 (3-5)	24-Apr-13 10:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-05	SB-127 (8-10)	25-Apr-13 11:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-06	SB-127 (10-12)	25-Apr-13 11:15	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-07	SB-128 (2-4)	24-Apr-13 13:30	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-08	SB-128 (10-12)	25-Apr-13 14:30	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-09	SB-128 (18-20)	25-Apr-13 14:45	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-10	SB-129 (1-3)	24-Apr-13 11:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-11	SB-129 (8-10)	25-Apr-13 12:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-12	SB-129 (18-20)	25-Apr-13 12:15	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-13	SB-130 (2-4)	24-Apr-13 09:30	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-14	SB-130 (15-17)	25-Apr-13 10:00	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-15	SB-130 (18-20)	25-Apr-13 10:15	Soil/Sediment / Soil	A - 2 oz. jar
SB68738-16	DUP	24-Apr-13 09:45	Soil/Sediment / Soil	A - 2 oz. jar

SB68738

Spectrum Analytical, Inc. - Agawam, MA

Analysis	Due	TAT	Comments
SB68738-01 SB-126 (0-2)			
Solid, Dry Weight	09-May-13 15:00	7	ASP-B
wc-Cyanide WAD	"	"	"
SB68738-02 SB-126 (8-10)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-03 SB-126 (10.5-12.5)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-04 SB-127 (3-5)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-05 SB-127 (8-10)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-06 SB-127 (10-12)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-07 SB-128 (2-4)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-08 SB-128 (10-12)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-09 SB-128 (18-20)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-10 SB-129 (1-3)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-11 SB-129 (8-10)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-12 SB-129 (18-20)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-13 SB-130 (2-4)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-14 SB-130 (15-17)			
Solid, Dry Weight	"	"	"
wc-Cyanide WAD	"	"	"
SB68738-15 SB-130 (18-20)			
Solid, Dry Weight	"	"	"

SB68738

Spectrum Analytical, Inc. - Agawam, MA

Analysis	Due	TAT	Comments
SB68738-15 SB-130 (18-20)			
wc-Cyanide WAD	09-May-13 15:00	7	ASP-B
SB68738-16 DUP			
Solid, Dry Weight	"	"	MS/MSD/ASP-B
wc-Cyanide WAD	"	"	"

SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Form 1 Summary Pack

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-126 (0-2)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-01	File ID:	050813C1-019
Sampled:	04/24/13 12:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:30
% Solids:	80.62	Preparation:	General Preparation	Initial/Final:	0.48823 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.423	1	0.423	1.27	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-126 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-02	File ID:	050813C1-020
Sampled:	04/25/13 14:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:31
% Solids:	74.23	Preparation:	General Preparation	Initial/Final:	0.518 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.433	1	0.433	1.30	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-126 (10.5-12.5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-03	File ID:	050813C1-021
Sampled:	04/25/13 14:15	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:32
% Solids:	77.40	Preparation:	General Preparation	Initial/Final:	0.4823 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.446	1	0.446	1.34	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-127 (3-5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-04	File ID:	050813C1-022
Sampled:	04/24/13 10:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:32
% Solids:	85.68	Preparation:	General Preparation	Initial/Final:	0.5112 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.380	1	0.380	1.14	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-127 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-05	File ID:	050813C1-023
Sampled:	04/25/13 11:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:33
% Solids:	75.82	Preparation:	General Preparation	Initial/Final:	0.5232 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.420	1	0.420	1.26	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-127 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-06	File ID:	050813C1-024
Sampled:	04/25/13 11:15	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:34
% Solids:	80.75	Preparation:	General Preparation	Initial/Final:	0.5438 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	1.60	1	0.379	1.14	

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-128 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-07	File ID:	050813C1-031
Sampled:	04/24/13 13:30	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:39
% Solids:	87.33	Preparation:	General Preparation	Initial/Final:	0.5514 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.346	1	0.346	1.04	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-128 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-08	File ID:	050813C2-019
Sampled:	04/25/13 14:30	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:22
% Solids:	87.49	Preparation:	General Preparation	Initial/Final:	0.5505 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.447	1	0.346	1.04	J

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-128 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-09	File ID:	050813C2-020
Sampled:	04/25/13 14:45	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:22
% Solids:	92.43	Preparation:	General Preparation	Initial/Final:	0.5597 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.322	1	0.322	0.966	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-129 (1-3)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-10	File ID:	050813C1-032
Sampled:	04/24/13 11:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:40
% Solids:	85.75	Preparation:	General Preparation	Initial/Final:	0.5186 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.374	1	0.374	1.12	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-129 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-11	File ID:	050813C2-021
Sampled:	04/25/13 12:00	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:23
% Solids:	86.46	Preparation:	General Preparation	Initial/Final:	0.5561 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.346	1	0.346	1.04	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-129 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-12	File ID:	050813C2-022
Sampled:	04/25/13 12:15	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:24
% Solids:	94.57	Preparation:	General Preparation	Initial/Final:	0.5365 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.328	1	0.328	0.986	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-130 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-13	File ID:	050813C1-033
Sampled:	04/24/13 09:30	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:40
% Solids:	85.94	Preparation:	General Preparation	Initial/Final:	0.4959 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.391	1	0.391	1.17	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-130 (15-17)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-14	File ID:	050813C2-023
Sampled:	04/25/13 10:00	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:24
% Solids:	98.62	Preparation:	General Preparation	Initial/Final:	0.5478 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	1.31	1	0.308	0.925	

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-130 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-15	File ID:	050813C2-024
Sampled:	04/25/13 10:15	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:25
% Solids:	87.84	Preparation:	General Preparation	Initial/Final:	0.5336 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.355	1	0.355	1.07	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

DUP

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-16	File ID:	050813C1-034
Sampled:	04/24/13 09:45	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:41
% Solids:	86.34	Preparation:	General Preparation	Initial/Final:	0.4968 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.388	1	0.388	1.17	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-126 (0-2)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-01	File ID:	
Sampled:	04/24/13 12:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	80.62	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	80.6	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-126 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-02	File ID:	
Sampled:	04/25/13 14:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	74.23	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	74.2	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-126 (10.5-12.5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-03	File ID:	
Sampled:	04/25/13 14:15	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	77.40	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	77.4	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-127 (3-5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-04	File ID:	
Sampled:	04/24/13 10:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	85.68	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	85.7	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-127 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-05	File ID:	
Sampled:	04/25/13 11:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	75.82	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	75.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-127 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-06	File ID:	
Sampled:	04/25/13 11:15	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	80.75	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	80.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-128 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-07	File ID:	
Sampled:	04/24/13 13:30	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	87.33	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	87.3	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-128 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-08	File ID:	
Sampled:	04/25/13 14:30	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	87.49	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	87.5	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-128 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-09	File ID:	
Sampled:	04/25/13 14:45	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	92.43	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	92.4	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-129 (1-3)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-10	File ID:	
Sampled:	04/24/13 11:00	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	85.75	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	85.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-129 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-11	File ID:	
Sampled:	04/25/13 12:00	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	86.46	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	86.5	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-129 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-12	File ID:	
Sampled:	04/25/13 12:15	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	94.57	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	94.6	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-130 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-13	File ID:	
Sampled:	04/24/13 09:30	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	85.94	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	85.9	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-130 (15-17)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-14	File ID:	
Sampled:	04/25/13 10:00	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	98.62	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	98.6	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-130 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-15	File ID:	
Sampled:	04/25/13 10:15	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	87.84	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	87.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

DUP

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-16	File ID:	
Sampled:	04/24/13 09:45	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	86.34	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	86.3	1			

SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

SW846 9012B

CROSS REFERENCE TABLE

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Project Number:	M0619		

Client Sample ID:	Lab Sample ID:
SB-126 (0-2)	SB68738-01
SB-126 (8-10)	SB68738-02
SB-126 (10.5-12.5)	SB68738-03
SB-127 (3-5)	SB68738-04
SB-127 (8-10)	SB68738-05
SB-127 (10-12)	SB68738-06
SB-128 (2-4)	SB68738-07
SB-128 (10-12)	SB68738-08
SB-128 (18-20)	SB68738-09
SB-129 (1-3)	SB68738-10
SB-129 (8-10)	SB68738-11
SB-129 (18-20)	SB68738-12
SB-130 (2-4)	SB68738-13
SB-130 (15-17)	SB68738-14
SB-130 (18-20)	SB68738-15
DUP	SB68738-16

CASE NARRATIVE

Spectrum Analytical, Inc. Lab Reference No. SB68738

Client: Spectrum Analytical, Inc. - North Kingstown, RI

Project: Bay Ridge Holder, Former MG / M0619

SDG #: 68738

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception or a communication form is included in the addendum with this package.

II. HOLDING TIMES

All samples were prepared and analyzed within the method-specific holding time.

III. METHODS

Analyses were performed according to 335.4, SW846 9012B.

IV. PREPARATION

Soil/Sediment samples were prepared according to General Preparation.

V. INSTRUMENTATION

The following equipment was used to analyze 335.4, SW846 9012B:

Lachat1 details: Lachat Quikchem 8000

Lachat1 details: Lachat Quikchem 8000

VI. ANALYSIS

A. Calibration:

All quality control samples were within the acceptance criteria.

B. Blanks:

All blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Samples (LCS):

All method criteria were met with the following exceptions:

Cyanide (weak acid dissociable) in batch 1310525, sample 1310525-BS4: The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.

2. Matrix Spike / Matrix Spike Duplicate Samples (MS/MSD):

A matrix spike and a matrix spike duplicate were analyzed:

In batch 1310404 from source sample DUP (SB68738-16).

In batch 1310525 from source sample SB-130 (18-20) (SB68738-15).

All method criteria were met.

3. Reference:

All method criteria were met.

D. Duplicates:

A duplicate was analyzed.

In batch 1310404 from source sample DUP (SB68738-16).

In batch 1310525 from source sample SB-130 (18-20) (SB68738-15).

All method criteria were met.

E. Samples:

All method criteria were met.

SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

SW846 9012B

QC Summary

FORM IIa - INITIAL AND CONTINUING CALIBRATION CHECK

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
SDG: 68738
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Project: Bay Ridge Holder, Former MG
Instrument ID: Lachat1
Calibration: 1305024
Sequence: S305150

Lab Sample ID	Analyte	True	Found	%R	QC Limits	Units	Method
1310404-CCV1	Cyanide (weak acid dissocial	30.0	30.2	101	85 - 115	mg/kg wet	SW846 9012B
1310404-CCV2	Cyanide (weak acid dissocial	30.0	30.2	101	85 - 115	mg/kg wet	SW846 9012B
1310404-CCV3	Cyanide (weak acid dissocial	30.0	30.0	100	85 - 115	mg/kg wet	SW846 9012B

* Values outside of QC limits

FORM IIa - INITIAL AND CONTINUING CALIBRATION CHECK

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
SDG: 68738
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Project: Bay Ridge Holder, Former MG
Instrument ID: Lachat1
Calibration: 1305024
Sequence: S305167

Lab Sample ID	Analyte	True	Found	%R	QC Limits	Units	Method
1310525-CCV1	Cyanide (weak acid dissocial	30.0	30.8	103	85 - 115	mg/kg wet	SW846 9012B
1310525-CCV2	Cyanide (weak acid dissocial	30.0	31.2	104	85 - 115	mg/kg wet	SW846 9012B
1310525-CCV3	Cyanide (weak acid dissocial	30.0	31.1	104	85 - 115	mg/kg wet	SW846 9012B

* Values outside of QC limits

FORM III - BLANKS

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
SDG: 68738
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Project: Bay Ridge Holder, Former MG
Instrument ID: Lachat1
Calibration: 1305024
Sequence: S305150
Matrix: Soil/Sediment

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
1310404-CCB1	Cyanide (weak acid dissociable)	BRL	0.0100	mg/l	U	SW846 9012B
1310404-BLK1	Cyanide (weak acid dissociable)	BRL	1.00	mg/kg wet	U	SW846 9012B
1310404-CCB2	Cyanide (weak acid dissociable)	BRL	0.0100	mg/l	U	SW846 9012B
1310404-BLK2	Cyanide (weak acid dissociable)	BRL	1.00	mg/kg wet	U	SW846 9012B
1310404-CCB3	Cyanide (weak acid dissociable)	BRL	0.0100	mg/l	U	SW846 9012B

FORM III - BLANKS

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
SDG: 68738
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Project: Bay Ridge Holder, Former MG
Instrument ID: Lachat1
Calibration: 1305024
Sequence: S305167
Matrix: Soil/Sediment

Lab Sample ID	Analyte	Found	MRL	Units	C	Method
1310525-CCB1	Cyanide (weak acid dissociable)	BRL	0.0100	mg/l	U	SW846 9012B
1310525-BLK1	Cyanide (weak acid dissociable)	BRL	1.00	mg/kg wet	U	SW846 9012B
1310525-CCB2	Cyanide (weak acid dissociable)	BRL	0.0100	mg/l	U	SW846 9012B
1310525-BLK2	Cyanide (weak acid dissociable)	BRL	1.00	mg/kg wet	U	SW846 9012B
1310525-CCB3	Cyanide (weak acid dissociable)	BRL	0.0100	mg/l	U	SW846 9012B

FORM IIIc - DUPLICATES

DUP

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Matrix: Soil/Sediment
Batch: 1310404
Preparation: General Preparation
Source Sample Name: DUP

SDG: 68738
Project: Bay Ridge Holder, Former MG
Laboratory ID: 1310404-DUP1
Lab Source ID: SB68738-16
Initial/Final: 0.5473 g / 50 ml
% Solids: 86.34
File ID: 050813C1-035

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/kg dry)	C	DUPLICATE CONCENTRATION (mg/kg dry)	C	RPD %	Q	METHOD
Cyanide (weak acid dissociable)	35	BRL		BDL				SW846 9012B

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIc - DUPLICATES

SB-130 (18-20)

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Matrix: Soil/Sediment
Batch: 1310525
Preparation: General Preparation
Source Sample Name: SB-130 (18-20)

SDG: 68738
Project: Bay Ridge Holder, Former MG
Laboratory ID: 1310525-DUP1
Lab Source ID: SB68738-15
Initial/Final: 0.5258 g / 50 ml
% Solids: 87.84
File ID: 050813C2-031

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/kg dry)	C	DUPLICATE CONCENTRATION (mg/kg dry)	C	RPD %	Q	METHOD
Cyanide (weak acid dissociable)	35	BRL		BDL				SW846 9012B

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310404	Laboratory ID:	1310404-BS1
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 09:28	Spike ID:	13E0176
		File ID:	050813C1-016

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	40.0	39.6	99	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310404	Laboratory ID:	1310404-BS2
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 09:29	Spike ID:	13E0176
		File ID:	050813C1-017

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	20.0	21.4	107	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310404	Laboratory ID:	1310404-BS3
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 09:37	Spike ID:	13E0176
		File ID:	050813C1-029

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	40.0	42.2	105	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310404	Laboratory ID:	1310404-BS4
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 09:38	Spike ID:	13E0176
		File ID:	050813C1-030

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	20.0	20.9	104	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310525	Laboratory ID:	1310525-BS1
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 14:20	Spike ID:	13E0176
		File ID:	050813C2-016

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	40.0	39.3	98	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310525	Laboratory ID:	1310525-BS2
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 14:20	Spike ID:	13E0176
		File ID:	050813C2-017

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	20.0	21.2	106	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310525	Laboratory ID:	1310525-BS3
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 14:29	Spike ID:	13E0176
		File ID:	050813C2-029

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	40.0	39.9	100	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIa - LCS / LCS DUPLICATE RECOVERY

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310525	Laboratory ID:	1310525-BS4
Preparation:	General Preparation	Initial/Final:	0.5 g / 50 ml
Analyzed:	05/08/13 14:29	Spike ID:	13E0176
		File ID:	050813C2-030

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	LCS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	20.0	22.2	111 *	90 - 110

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

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

FORM IIIb (Organic) / FORM V (Inorganic)
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

DUP

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310404	Laboratory ID:	1310404-MS1
Preparation:	General Preparation	Initial/Final:	0.4939 g / 50 ml
Source Sample Name:	DUP	% Solids:	86.34
		Spike ID:	13E0176
		File ID:	050813C1-036

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	11.7	BRL	11.9	101	75 - 125

File ID: 050813C1-037

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Cyanide (weak acid dissociable)	10.7	9.97	93	17	35	75 - 125

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

* Values outside of QC limits

FORM IIIb (Organic) / FORM V (Inorganic)
MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SB-130 (18-20)

SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Instrument:	Lachat1
Batch:	1310525	Laboratory ID:	1310525-MS1
Preparation:	General Preparation	Initial/Final:	0.5073 g / 50 ml
Source Sample Name:	SB-130 (18-20)	% Solids:	87.84
		Spike ID:	13E0176
		File ID:	050813C2-032

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	MS CONCENTRATION (mg/kg dry)	MS % REC. #	QC LIMITS REC.
Cyanide (weak acid dissociable)	11.2	BRL	11.6	104	75 - 125

File ID: 050813C2-033

COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Cyanide (weak acid dissociable)	11.0	11.4	104	2	35	75 - 125

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

* Values outside of QC limits

FORM VIIb(Inorganics) - STANDARD REFERENCE MATERIAL RECOVERY

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
SDG: 68738
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Project: Bay Ridge Holder, Former MG
Matrix: Soil/Sediment
Spike ID: 13C1152
Batch: 1310525
Laboratory ID: 1310525-SRM1
Preparation: General Preparation
Initial/Final: 0.5 g / 50 ml

ANALYTE	TRUE (mg/kg wet)	FOUND (mg/kg wet)	SRM % REC.	QC LIMITS REC.
Cyanide (weak acid dissociable)	22.5	20.3	90	74.9 - 125

* Values outside of QC limits

Organic/FORM IX(Inorganic) - METHOD DETECTION AND REPORTING LIMITS

SW846 9012B

Laboratory: Spectrum Analytical, Inc. - Agawam, MA **SDG:** 68738

Client: Spectrum Analytical, Inc. - North Kingstown, RI **Project:** Bay Ridge Holder, Former MG

Analyte	MDL	MRL	Units
Cyanide (weak acid dissociable)	0.333	1.00	mg/kg

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SW846 9012B

Sample Data

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-126 (0-2)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-01	File ID:	050813C1-019
Sampled:	04/24/13 12:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:30
% Solids:	80.62	Preparation:	General Preparation	Initial/Final:	0.48823 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.423	1	0.423	1.27	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-126 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-02	File ID:	050813C1-020
Sampled:	04/25/13 14:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:31
% Solids:	74.23	Preparation:	General Preparation	Initial/Final:	0.518 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.433	1	0.433	1.30	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-126 (10.5-12.5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-03	File ID:	050813C1-021
Sampled:	04/25/13 14:15	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:32
% Solids:	77.40	Preparation:	General Preparation	Initial/Final:	0.4823 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.446	1	0.446	1.34	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-127 (3-5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-04	File ID:	050813C1-022
Sampled:	04/24/13 10:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:32
% Solids:	85.68	Preparation:	General Preparation	Initial/Final:	0.5112 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.380	1	0.380	1.14	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-127 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-05	File ID:	050813C1-023
Sampled:	04/25/13 11:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:33
% Solids:	75.82	Preparation:	General Preparation	Initial/Final:	0.5232 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.420	1	0.420	1.26	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-127 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-06	File ID:	050813C1-024
Sampled:	04/25/13 11:15	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:34
% Solids:	80.75	Preparation:	General Preparation	Initial/Final:	0.5438 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	1.60	1	0.379	1.14	

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-128 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-07	File ID:	050813C1-031
Sampled:	04/24/13 13:30	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:39
% Solids:	87.33	Preparation:	General Preparation	Initial/Final:	0.5514 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.346	1	0.346	1.04	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-128 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-08	File ID:	050813C2-019
Sampled:	04/25/13 14:30	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:22
% Solids:	87.49	Preparation:	General Preparation	Initial/Final:	0.5505 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.447	1	0.346	1.04	J

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-128 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-09	File ID:	050813C2-020
Sampled:	04/25/13 14:45	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:22
% Solids:	92.43	Preparation:	General Preparation	Initial/Final:	0.5597 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.322	1	0.322	0.966	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-129 (1-3)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-10	File ID:	050813C1-032
Sampled:	04/24/13 11:00	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:40
% Solids:	85.75	Preparation:	General Preparation	Initial/Final:	0.5186 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.374	1	0.374	1.12	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-129 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-11	File ID:	050813C2-021
Sampled:	04/25/13 12:00	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:23
% Solids:	86.46	Preparation:	General Preparation	Initial/Final:	0.5561 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.346	1	0.346	1.04	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-129 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-12	File ID:	050813C2-022
Sampled:	04/25/13 12:15	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:24
% Solids:	94.57	Preparation:	General Preparation	Initial/Final:	0.5365 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.328	1	0.328	0.986	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-130 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-13	File ID:	050813C1-033
Sampled:	04/24/13 09:30	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:40
% Solids:	85.94	Preparation:	General Preparation	Initial/Final:	0.4959 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.391	1	0.391	1.17	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-130 (15-17)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-14	File ID:	050813C2-023
Sampled:	04/25/13 10:00	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:24
% Solids:	98.62	Preparation:	General Preparation	Initial/Final:	0.5478 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	1.31	1	0.308	0.925	

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

SB-130 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-15	File ID:	050813C2-024
Sampled:	04/25/13 10:15	Prepared:	05/08/13 12:53	Analyzed:	05/08/13 14:25
% Solids:	87.84	Preparation:	General Preparation	Initial/Final:	0.5336 g / 50 ml
Batch:	1310525	Sequence:	S305167	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.355	1	0.355	1.07	U

FORM I - INORGANIC ANALYSIS DATA SHEET

SW846 9012B

DUP

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-16	File ID:	050813C1-034
Sampled:	04/24/13 09:45	Prepared:	05/07/13 14:22	Analyzed:	05/08/13 09:41
% Solids:	86.34	Preparation:	General Preparation	Initial/Final:	0.4968 g / 50 ml
Batch:	1310404	Sequence:	S305150	Calibration:	1305024
Instrument:	Lachat1				
Reported to:	MDL				

CAS NO.	Analyte	Result (mg/kg dry)	Dilution Factor	MDL	MRL	Q
57-12-5	Cyanide (weak acid dissociable)	0.388	1	0.388	1.17	U

SPECTRUM ANALYTICAL, INC.

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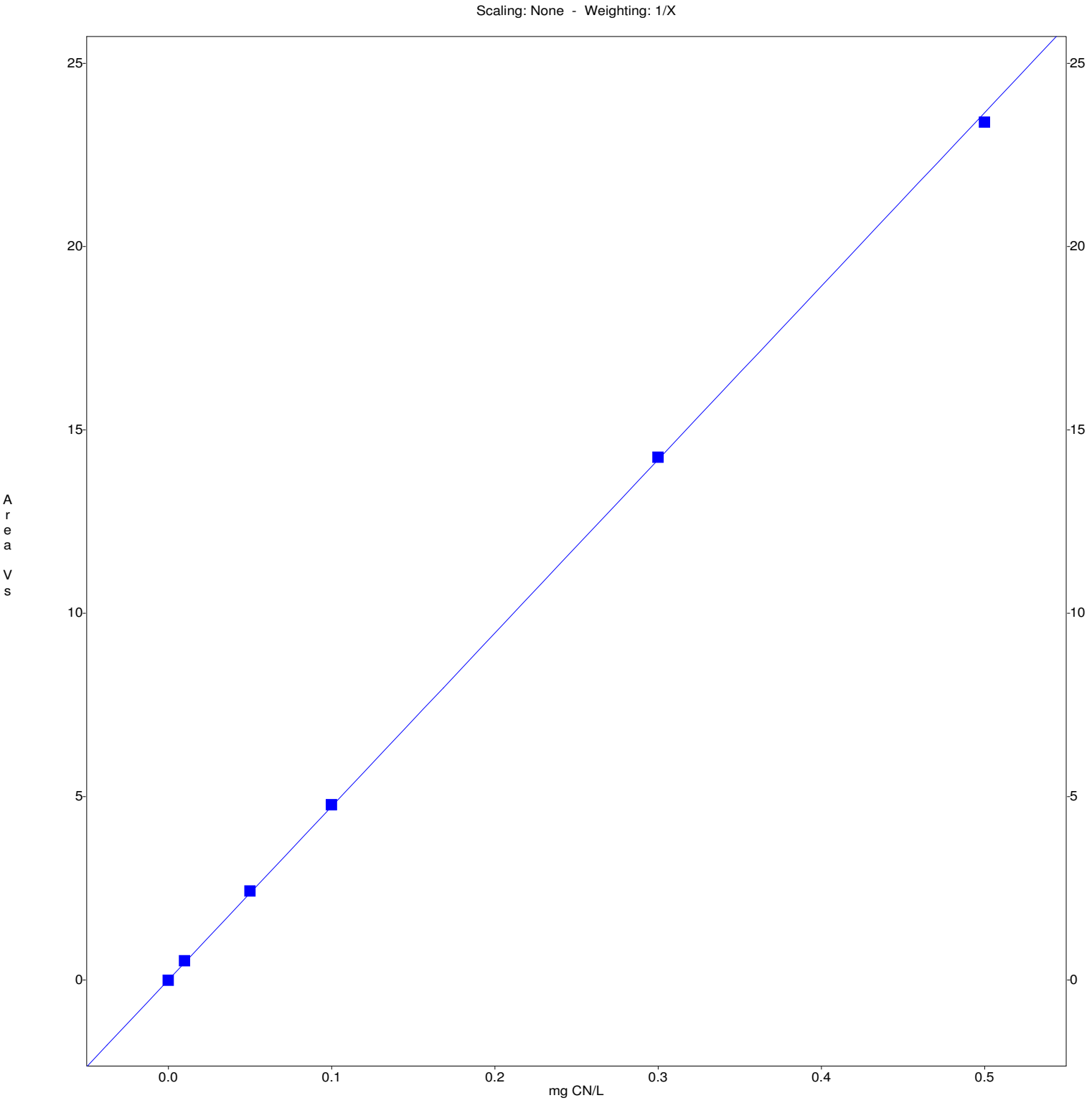
SW846 9012B

Standards Data

Cyanide

Lvl	Area	mg CN/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	23399578	0.50	23399578					0.0	0.0	1.1
2	14265792	0.30	14265792					0.0	0.0	-0.5
3	4789408	0.10	4789408					0.0	0.0	-1.2
4	2433479	0.05	2433479					0.0	0.0	-2.9
5	528365	0.01	528365					0.0	0.0	-11.7
6	0	0.00	0					0.0	0.0	

1st Order Poly
Conc = 2.114e-008 Area - 2.939e-009
r = 0.9999



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SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

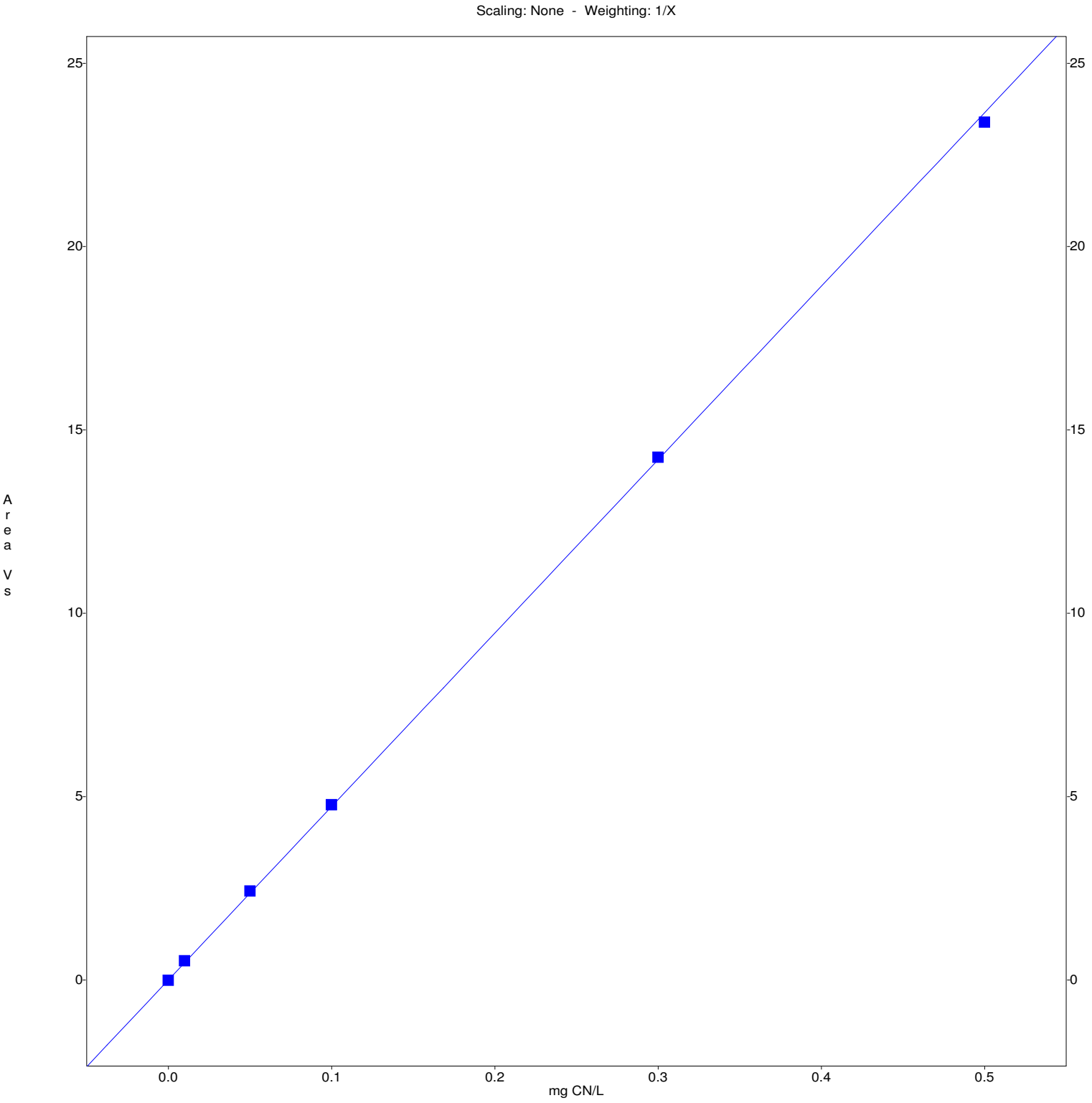
SW846 9012B

Raw Quality Control Data

Cyanide

Lvl	Area	mg CN/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	23399578	0.50	23399578					0.0	0.0	1.1
2	14265792	0.30	14265792					0.0	0.0	-0.5
3	4789408	0.10	4789408					0.0	0.0	-1.2
4	2433479	0.05	2433479					0.0	0.0	-2.9
5	528365	0.01	528365					0.0	0.0	-11.7
6	0	0.00	0					0.0	0.0	

1st Order Poly
Conc = 2.114e-008 Area - 2.939e-009
r = 0.9999



Printed: Wednesday, May 08, 2013 - 09:48 AM

OPERATOR: rthomas
DATA FILENAME: C:\OMNION\DATA\050813C1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\050813C1.TRA

Method - Ch. 2 (Cyanide)

METHOD DESCRIPTION:
Created: Feb 5, 2013 13:25:25
Modified: Feb 5, 2013 17:29:34
Cyanide_CH2_tier

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 1 - 8)

Calibration Standards:

Cup: 1, Sample ID: 0.000 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 6, Peak Area: 0.0000 µv-s

Cup: 2, Sample ID: 0.010 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 5, Peak Area: 528365.0000 µv-s

Cup: 3, Sample ID: 0.050 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 4, Peak Area: 2433479.0000 µv-s

Cup: 4, Sample ID: 0.100 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 3, Peak Area: 4789408.0000 µv-s

Cup: 5, Sample ID: 0.300 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 2, Peak Area: 14265792.0000 µv-s

Cup: 6, Sample ID: 0.500 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 1, Peak Area: 23399578.0000 µv-s

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 1 - 4)

Unknowns:

Cup: 1, Sample ID: SEQ-ICV1, Sample Type: Unknown
Rep 1/1, Result: 0.3148 mg CN/L

Cup: 2, Sample ID: SEQ-ICB1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 3, Sample ID: SEQ-LCV1, Sample Type: Unknown
Rep 1/1, Result: 0.0108 mg CN/L

Cup: 4, Sample ID: SEQ-HCV1, Sample Type: Unknown
Rep 1/1, Result: 0.4146 mg CN/L

OPERATOR: rthomas
DATA FILENAME: C:\OMNION\DATA\050813C1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\050813C1.TRA

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 5 - 20)

Unknowns:

Cup: 5, Sample ID: CLEAN BLANK, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 6, Sample ID: SEQ-CRL1, Sample Type: Unknown
Rep 1/1, Result: 0.0105 mg CN/L

Cup: 7, Sample ID: SEQ-CCV1, Sample Type: Unknown
Rep 1/1, Result: 0.3019 mg CN/L

Cup: 8, Sample ID: SEQ-CCB1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 9, Sample ID: 1310404-blk1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 10, Sample ID: 1310404-bs1 high, Sample Type: Unknown
Rep 1/1, Result: 0.3964 mg CN/L

Cup: 11, Sample ID: 1310404-bs2 low, Sample Type: Unknown
Rep 1/1, Result: 0.2140 mg CN/L

Cup: 12, Sample ID: 1310404-srm1, Sample Type: Unknown
Rep 1/1, Result: 0.0078 mg CN/L

Cup: 13, Sample ID: sb68738-01, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 14, Sample ID: sb68738-02, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 15, Sample ID: sb68738-03, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 16, Sample ID: sb68738-04, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 17, Sample ID: sb68738-05, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 18, Sample ID: sb68738-06, Sample Type: Unknown
Rep 1/1, Result: 0.0141 mg CN/L

Cup: 19, Sample ID: SEQ-CRL2, Sample Type: Unknown
Rep 1/1, Result: 0.0103 mg CN/L

Cup: 20, Sample ID: SEQ-CCV2, Sample Type: Unknown
Rep 1/1, Result: 0.3022 mg CN/L

OPERATOR: rthomas
DATA FILENAME: C:\OMNION\DATA\050813C1.FDT
TRAY FILENAME: C:\OMNION\TRAYS\050813C1.TRA

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 21 - 40)

Unknowns:

Cup: 21, Sample ID: SEQ-CCB2, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 22, Sample ID: 1310404-blk2, Sample Type: Unknown
Rep 1/1, Result: 0.0022 mg CN/L

Cup: 23, Sample ID: 1310404-bs3 high, Sample Type: Unknown
Rep 1/1, Result: 0.4216 mg CN/L

Cup: 24, Sample ID: 1310404-bs4 low, Sample Type: Unknown
Rep 1/1, Result: 0.2089 mg CN/L

Cup: 25, Sample ID: sb68738-07, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 26, Sample ID: sb68738-10, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 27, Sample ID: sb68738-13, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 28, Sample ID: sb68738-16, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 29, Sample ID: 1310404-dup1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 30, Sample ID: 1310404-ms1, Sample Type: Unknown
Rep 1/1, Result: 0.1012 mg CN/L

Cup: 31, Sample ID: 1310404-msd1, Sample Type: Unknown
Rep 1/1, Result: 0.0930 mg CN/L

Cup: 32, Sample ID: SEQ-CRL3, Sample Type: Unknown
Rep 1/1, Result: 0.0108 mg CN/L

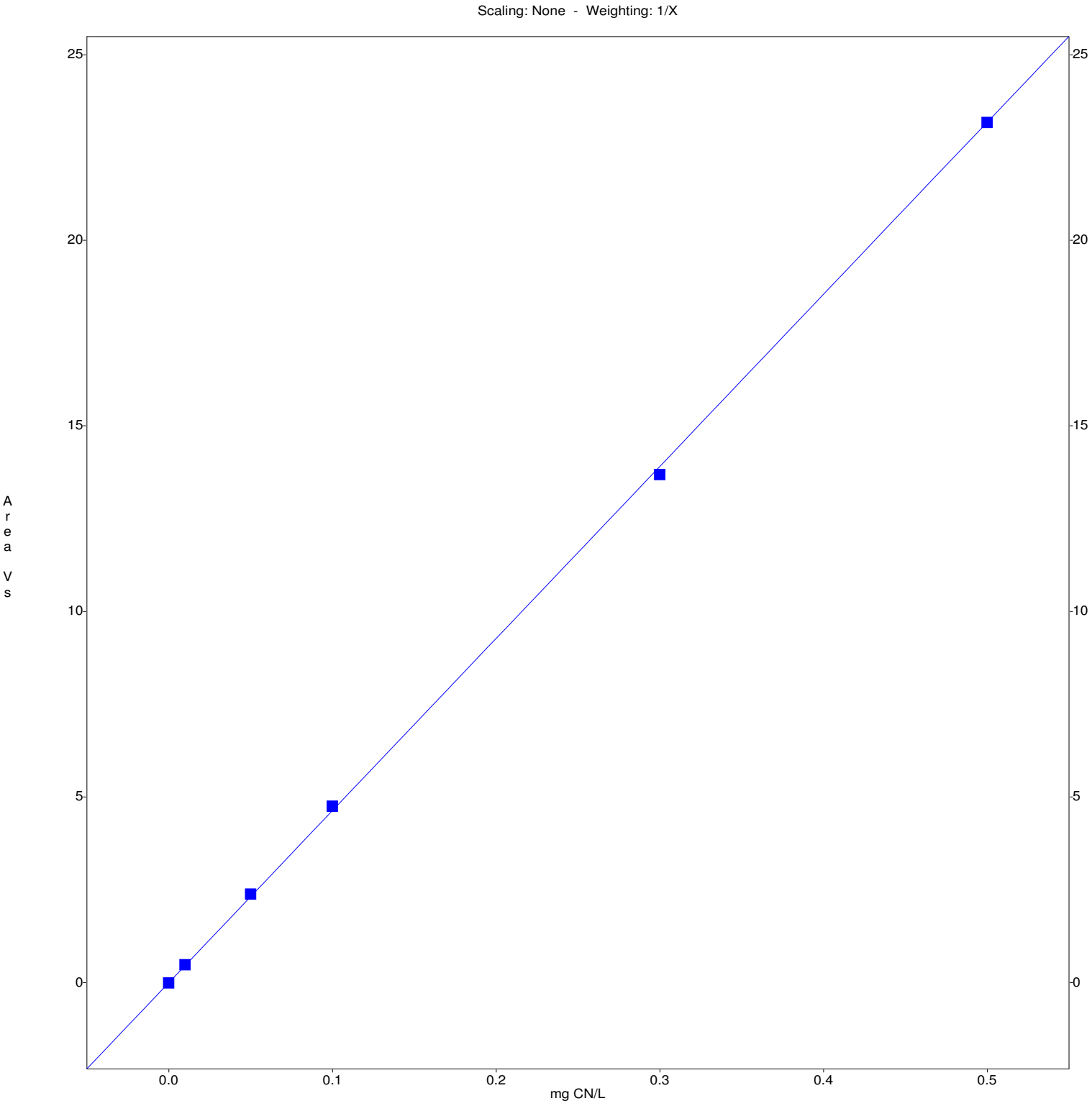
Cup: 33, Sample ID: SEQ-CCV3, Sample Type: Unknown
Rep 1/1, Result: 0.3005 mg CN/L

Cup: 34, Sample ID: SEQ-CCB3, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cyanide

Lvl	Area	mg CN/L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	23178560	0.50	23178560					0.0	0.0	0.0
2	13694976	0.30	13694976					0.0	0.0	1.5
3	4760045	0.10	4760045					0.0	0.0	-2.7
4	2392595	0.05	2392595					0.0	0.0	-3.2
5	485203	0.01	485203					0.0	0.0	-4.6
6	0	0.00	0					0.0	0.0	

1st Order Poly
Conc = 2.157e-008 Area - 1.844e-009
r = 0.9999



Printed: Wednesday, May 08, 2013 - 02:43 PM

OPERATOR: rthomas
DATA FILENAME: C:\OMNION\DATA\050813C2.FDT
TRAY FILENAME: C:\OMNION\TRAYS\050813C2.TRA

Method - Ch. 2 (Cyanide)

METHOD DESCRIPTION:
Created: Feb 5, 2013 13:25:25
Modified: Feb 5, 2013 17:29:34
Cyanide_CH2_tier

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 1 - 8)

Calibration Standards:

Cup: 1, Sample ID: 0.000 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 6, Peak Area: 0.0000 µv-s

Cup: 2, Sample ID: 0.010 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 5, Peak Area: 506675.0000 µv-s

Cup: 3, Sample ID: 0.050 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 4, Peak Area: 2319578.0000 µv-s

Cup: 4, Sample ID: 0.100 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 3, Peak Area: 4552826.0000 µv-s

Cup: 5, Sample ID: 0.300 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 2, Peak Area: 13634695.0000 µv-s

Cup: 6, Sample ID: 0.500 mg/L CN, Sample Type: CalStd
Rep 1/1, Level: 1, Peak Area: 22409606.0000 µv-s

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 1 - 4)

Unknowns:

Cup: 1, Sample ID: SEQ-ICV1, Sample Type: Unknown
Rep 1/1, Result: 0.3180 mg CN/L

Cup: 2, Sample ID: SEQ-ICB1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 3, Sample ID: SEQ-LCV1, Sample Type: Unknown
Rep 1/1, Result: 0.0106 mg CN/L

Cup: 4, Sample ID: SEQ-HCV1, Sample Type: Unknown
Rep 1/1, Result: 0.4203 mg CN/L

OPERATOR: rthomas
DATA FILENAME: C:\OMNION\DATA\050813C2.FDT
TRAY FILENAME: C:\OMNION\TRAYS\050813C2.TRA

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 5 - 20)

Unknowns:

Cup: 5, Sample ID: CLEAN BLANK, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 6, Sample ID: SEQ-CRL1, Sample Type: Unknown
Rep 1/1, Result: 0.0108 mg CN/L

Cup: 7, Sample ID: SEQ-CCV1, Sample Type: Unknown
Rep 1/1, Result: 0.3080 mg CN/L

Cup: 8, Sample ID: SEQ-CCB1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 9, Sample ID: 1310525-blk1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 10, Sample ID: 1310525-bs1 high, Sample Type: Unknown
Rep 1/1, Result: 0.3931 mg CN/L

Cup: 11, Sample ID: 1310525-bs2 low, Sample Type: Unknown
Rep 1/1, Result: 0.2120 mg CN/L

Cup: 12, Sample ID: 1310525-srm1, Sample Type: Unknown
Rep 1/1, Result: 0.2033 mg CN/L

Cup: 13, Sample ID: sb68738-08, Sample Type: Unknown
Rep 1/1, Result: 0.0043 mg CN/L

Cup: 14, Sample ID: sb68738-09, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 15, Sample ID: sb68738-11, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 16, Sample ID: sb68738-12, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 17, Sample ID: sb68738-14, Sample Type: Unknown
Rep 1/1, Result: 0.0142 mg CN/L

Cup: 18, Sample ID: sb68738-15, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 19, Sample ID: SEQ-CRL2, Sample Type: Unknown
Rep 1/1, Result: 0.0106 mg CN/L

Cup: 20, Sample ID: SEQ-CCV2, Sample Type: Unknown
Rep 1/1, Result: 0.3119 mg CN/L

OPERATOR: rthomas
DATA FILENAME: C:\OMNION\DATA\050813C2.FDT
TRAY FILENAME: C:\OMNION\TRAYS\050813C2.TRA

Sample Information/Results: Ch. 2
Cyanide (Cup Range: 21 - 40)

Unknowns:

Cup: 21, Sample ID: SEQ-CCB2, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 22, Sample ID: 1310525-blk2, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 23, Sample ID: 1310525-bs3 high, Sample Type: Unknown
Rep 1/1, Result: 0.3991 mg CN/L

Cup: 24, Sample ID: 1310525-bs4 low, Sample Type: Unknown
Rep 1/1, Result: 0.2220 mg CN/L

Cup: 25, Sample ID: 1310525-dup1, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

Cup: 26, Sample ID: 1310525-ms1, Sample Type: Unknown
Rep 1/1, Result: 0.1036 mg CN/L

Cup: 27, Sample ID: 1310525-msd1, Sample Type: Unknown
Rep 1/1, Result: 0.1042 mg CN/L

Cup: 28, Sample ID: SEQ-CRL3, Sample Type: Unknown
Rep 1/1, Result: 0.0108 mg CN/L

Cup: 29, Sample ID: SEQ-CCV3, Sample Type: Unknown
Rep 1/1, Result: 0.3110 mg CN/L

Cup: 30, Sample ID: SEQ-CCB3, Sample Type: Unknown
Rep 1/1, Result: -0.0000 mg CN/L

SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

SW846 9012B

Data Processing Summary

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310404

Sequence S305150

Balance ID 5

Matrix: Soil/Sediment

Prepared using: Wet Chem - General Preparation

(No Surrogate)

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments
1310404-BLK1	Blank		QC	0.5	50				07-May-13 14:22	
1310404-BLK2	Blank		QC	0.5	50				07-May-13 14:22	
1310404-BS1	LCS		QC	0.5	50	13E0176			07-May-13 14:22	
1310404-BS2	LCS		QC	0.5	50				07-May-13 14:22	
1310404-BS3	LCS		QC	0.5	50				07-May-13 14:22	
1310404-BS4	LCS		QC	0.5	50				07-May-13 14:22	
1310404-CCB1	Calibration Blank		QC	0.5	50				07-May-13 14:22	
1310404-CCB2	Calibration Blank		QC	0.5	50				07-May-13 14:22	
1310404-CCB3	Calibration Blank		QC	0.5	50				07-May-13 14:22	
1310404-CCV1	Calibration Check		QC	0.5	50	13E0179			07-May-13 14:22	
1310404-CCV2	Calibration Check		QC	0.5	50	13E0179			07-May-13 14:22	
1310404-CCV3	Calibration Check		QC	0.5	50	13E0179			07-May-13 14:22	
1310404-DUP1	Duplicate		QC	0.5473	50		Source		07-May-13 14:22	
1310404-MS1	Matrix Spike		QC	0.4939	50	13E0176	SB68738-16		07-May-13 14:22	
1310404-MSD1	Matrix Spike Dup		QC	0.54	50	13E0176			07-May-13 14:22	
SB68738-01	SB-126 (0-2)	A	wc-Cyanide WA	0.48823	50			09-May-13 15:00	24-Apr-13 12:00	**ASP-B**
SB68738-02	SB-126 (8-10)	A	wc-Cyanide WA	0.518	50			09-May-13 15:00	25-Apr-13 14:00	**ASP-B**
SB68738-03	SB-126 (10.5-12.5)	A	wc-Cyanide WA	0.4823	50			09-May-13 15:00	25-Apr-13 14:15	**ASP-B**
SB68738-04	SB-127 (3-5)	A	wc-Cyanide WA	0.5112	50			09-May-13 15:00	24-Apr-13 10:00	**ASP-B**
SB68738-05	SB-127 (8-10)	A	wc-Cyanide WA	0.5232	50			09-May-13 15:00	25-Apr-13 11:00	**ASP-B**
SB68738-06	SB-127 (10-12)	A	wc-Cyanide WA	0.5438	50			09-May-13 15:00	25-Apr-13 11:15	**ASP-B**
SB68738-07	SB-128 (2-4)	A	wc-Cyanide WA	0.5514	50			09-May-13 15:00	24-Apr-13 13:30	**ASP-B**

Analyst Reviewed 5.09.13 Date

Manager Reviewed 5/9/13 Date

Extracts Received By Date

Printed: 5/8/2013 12:17:09PM

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310404

Sequence S305150

Balance ID 5

Matrix: Soil/Sediment

Prepared using: Wet Chem - General Preparation

(No Surrogate)

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments
SB68738-10	SB-129 (1-3)	A	wc-Cyanide WA	0.5186	50			09-May-13 15:00	24-Apr-13 11:00	**ASP-B**
SB68738-13	SB-130 (2-4)	A	wc-Cyanide WA	0.4959	50			09-May-13 15:00	24-Apr-13 09:30	**ASP-B**
SB68738-16	DUP	A	wc-Cyanide WA	0.4968	50			09-May-13 15:00	24-Apr-13 09:45	**MS/MSD/ASP-B**

wad cyanide 5.07.13

ANALYZED BY RLT

Reagents Used:

12H0544	Cyanide -- Methyl red for WAD
13A0152	Cyanide -- Zinc Acetate solution
13B0473	Cyanide -- 51% Magnesium chloride for distillation
13C0770	Cyanide -- Pyridine Barbituric acid
13D0441	Cyanide -- 0.25N NaOH
13D0595	Cyanide -- Bismuth nitrate
13D0893	Cyanide -- Sodium acetate for WAD
13D1059	Cyanide -- Sulfamic Acid solution
13E0166	Cyanide -- Potassium Phosphate Buffer
13E0340	Cyanide -- Chloramine T trihydrate

Analyst Reviewed Date

Manager Reviewed Date

Extracts Received By Date

Printed: 5/8/2013 12:17:09PM

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310525

Sequence S305167

S:C9.BRL5

Balance ID AJ

Matrix: Soil/Sediment

Prepared using: Wet Chem - General Preparation

(No Surrogate)

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments
1310525-BLK1	Blank		QC	0.5	50				08-May-13 12:53	
1310525-BLK2	Blank		QC	0.5	50				08-May-13 12:53	
1310525-BS1	LCS		QC	0.5	50	13E0176			08-May-13 12:53	
1310525-BS2	LCS		QC	0.5	50	13E0176			08-May-13 12:53	
1310525-BS3	LCS		QC	0.5	50	13E0176			08-May-13 12:53	
1310525-BS4	LCS		QC	0.5	50	13E0176			08-May-13 12:53	
1310525-CCB1	Calibration Blank		QC	0.5	50				08-May-13 12:53	
1310525-CCB2	Calibration Blank		QC	0.5	50				08-May-13 12:53	
1310525-CCB3	Calibration Blank		QC	0.5	50				08-May-13 12:53	
1310525-CCV1	Calibration Check		QC	0.5	50	13E0179			08-May-13 12:53	
1310525-CCV2	Calibration Check		QC	0.5	50	13E0179			08-May-13 12:53	
1310525-CCV3	Calibration Check		QC	0.5	50	13E0179			08-May-13 12:53	
1310525-DUP1	Duplicate		QC	0.5258	50		SB68738-15		25-Apr-13 10:15	
1310525-MS1	Matrix Spike		QC	0.5073	50	13E0176	SB68738-15		25-Apr-13 10:15	
1310525-MSD1	Matrix Spike Dup		QC	0.5185	50	13E0176	SB68738-15		25-Apr-13 10:15	
1310525-SRM1	Reference		QC	0.5	50	13C1152			08-May-13 12:53	
SB68738-08	SB-128 (10-12)	A	wc-Cyanide WA	0.5505	50			09-May-13 15:00	25-Apr-13 14:30	**ASP-B**
SB68738-09	SB-128 (18-20)	A	wc-Cyanide WA	0.5597	50			09-May-13 15:00	25-Apr-13 14:45	**ASP-B**
SB68738-11	SB-129 (8-10)	A	wc-Cyanide WA	0.5561	50			09-May-13 15:00	25-Apr-13 12:00	**ASP-B**
SB68738-12	SB-129 (18-20)	A	wc-Cyanide WA	0.5365	50			09-May-13 15:00	25-Apr-13 12:15	**ASP-B**
SB68738-14	SB-130 (15-17)	A	wc-Cyanide WA	0.5478	50			09-May-13 15:00	25-Apr-13 10:00	**ASP-B**
SB68738-15	SB-130 (18-20)	A	wc-Cyanide WA	0.5336	50			09-May-13 15:00	25-Apr-13 10:15	**ASP-B**

Analyst Reviewed Date 5/9/13

Manager Reviewed Date 5/9/13

Extracts Received By Date

Printed: 5/9/2013 12:30:04PM

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310525

Sequence S305167

Balance ID 5

Matrix: Soil/Sediment **Prepared using: Wet Chem - General Preparation** **(No Surrogate)**

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments

wad cyanide 5.08.13

ANALYZED BY RLT

Reagents Used:

12H0544	Cyanide -- Methyl red for WAD
13A0152	Cyanide -- Zinc Acetate solution
13B0473	Cyanide -- 51% Magnesium chloride for distillation
13C0770	Cyanide -- Pyridine Barbituric acid
13D0441	Cyanide -- 0.25N NaOH
13D0595	Cyanide -- Bismuth nitrate
13D0893	Cyanide -- Sodium acetate for WAD
13D1059	Cyanide -- Sulfamic Acid solution
13E0166	Cyanide -- Potassium Phosphate Buffer
13E0340	Cyanide -- Chloramine T trihydrate

Analyst Reviewed 5.09.13 Date

Manager Reviewed Date

Extracts Received By Date

Printed: 5/9/2013 12:30:04PM

FORM VIII(Organics)/FORM XIII(Inorganics)
ANALYSIS BATCH (SEQUENCE) SUMMARY
SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Sequence:	S305150	Instrument:	Lachat1
		Calibration:	1305024

Sample Name	Lab Sample ID	Lab File ID	Analyzed
Calibration Check	1310404-CCV1	050813C1-013	05/08/13 09:26
Calibration Blank	1310404-CCB1	050813C1-014	05/08/13 09:27
Blank	1310404-BLK1	050813C1-015	05/08/13 09:27
LCS	1310404-BS1	050813C1-016	05/08/13 09:28
LCS	1310404-BS2	050813C1-017	05/08/13 09:29
SB-126 (0-2)	SB68738-01	050813C1-019	05/08/13 09:30
SB-126 (8-10)	SB68738-02	050813C1-020	05/08/13 09:31
SB-126 (10.5-12.5)	SB68738-03	050813C1-021	05/08/13 09:32
SB-127 (3-5)	SB68738-04	050813C1-022	05/08/13 09:32
SB-127 (8-10)	SB68738-05	050813C1-023	05/08/13 09:33
SB-127 (10-12)	SB68738-06	050813C1-024	05/08/13 09:34
Calibration Check	1310404-CCV2	050813C1-026	05/08/13 09:35
Calibration Blank	1310404-CCB2	050813C1-027	05/08/13 09:36
LCS	1310404-BS3	050813C1-029	05/08/13 09:37
Blank	1310404-BLK2	050813C1-028	05/08/13 09:37
LCS	1310404-BS4	050813C1-030	05/08/13 09:38
SB-128 (2-4)	SB68738-07	050813C1-031	05/08/13 09:39
SB-129 (1-3)	SB68738-10	050813C1-032	05/08/13 09:40
SB-130 (2-4)	SB68738-13	050813C1-033	05/08/13 09:40
DUP	SB68738-16	050813C1-034	05/08/13 09:41
DUP	1310404-MS1	050813C1-036	05/08/13 09:42
DUP	1310404-DUP1	050813C1-035	05/08/13 09:42
DUP	1310404-MSD1	050813C1-037	05/08/13 09:43
Calibration Check	1310404-CCV3	050813C1-039	05/08/13 09:44
Calibration Blank	1310404-CCB3	050813C1-040	05/08/13 09:45

FORM VIII(Organics)/FORM XIII(Inorganics)
ANALYSIS BATCH (SEQUENCE) SUMMARY
SW846 9012B

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA	SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI	Project:	Bay Ridge Holder, Former MG
Sequence:	S305167	Instrument:	Lachat1
		Calibration:	1305024

Sample Name	Lab Sample ID	Lab File ID	Analyzed
Calibration Check	1310525-CCV1	050813C2-013	05/08/13 14:17
Calibration Blank	1310525-CCB1	050813C2-014	05/08/13 14:18
Blank	1310525-BLK1	050813C2-015	05/08/13 14:19
LCS	1310525-BS2	050813C2-017	05/08/13 14:20
LCS	1310525-BS1	050813C2-016	05/08/13 14:20
Reference	1310525-SRM1	050813C2-018	05/08/13 14:21
SB-128 (10-12)	SB68738-08	050813C2-019	05/08/13 14:22
SB-128 (18-20)	SB68738-09	050813C2-020	05/08/13 14:22
SB-129 (8-10)	SB68738-11	050813C2-021	05/08/13 14:23
SB-129 (18-20)	SB68738-12	050813C2-022	05/08/13 14:24
SB-130 (15-17)	SB68738-14	050813C2-023	05/08/13 14:24
SB-130 (18-20)	SB68738-15	050813C2-024	05/08/13 14:25
Calibration Check	1310525-CCV2	050813C2-026	05/08/13 14:27
Calibration Blank	1310525-CCB2	050813C2-027	05/08/13 14:27
Blank	1310525-BLK2	050813C2-028	05/08/13 14:28
LCS	1310525-BS4	050813C2-030	05/08/13 14:29
LCS	1310525-BS3	050813C2-029	05/08/13 14:29
SB-130 (18-20)	1310525-DUP1	050813C2-031	05/08/13 14:30
SB-130 (18-20)	1310525-MS1	050813C2-032	05/08/13 14:31
SB-130 (18-20)	1310525-MSD1	050813C2-033	05/08/13 14:32
Calibration Check	1310525-CCV3	050813C2-035	05/08/13 14:33
Calibration Blank	1310525-CCB3	050813C2-036	05/08/13 14:34

Date	Analyst	Batch	Matrix	Analysis	Sample ID	Client ID	Initial Vol/Wt	Comments
5.07.13	RLV	131049	Soil	WAD	BS High		50ml	
					BS Low		50ml	
					SRM		0.1347	
				BIC	~~68738-01~~		~~50ml~~	50ml 5.07.13 RLV
					68738-01	SB-126(0-2)	0.4882	
					-02	SB-126(8-10)	0.5180	
					-03	SB(126)10.5-12.5	0.4823	
					-04	SB127(3-5)	0.5112	
					-05	SB127(8-10)	0.4822	
					-06	SB127(10-12)	0.5438	
					BS High		50ml	
					BS Low		50ml	
					-07	SB128(2-4)	0.4974	
					-10	SB129(1-3)	0.5186	
					-13	SB130(2-4)	0.4959	
					-14	DUP	0.4968	5.07.13 RLV
					-16	dup	~~0.5463~~	0.5473
					BIC		50ml	
					-14	MS	0.4939	
					-16	MSD	0.5400	
						LCS	50ml	
						LCSD	50ml	
						LCS	50ml	
						LCS		

Peer Reviewed by:_____

Date:_____

Rev. 9/09/11

Cyanide Distillation Logbook

Date	Analyst	Batch	Matrix	Analysis	Sample ID	Client ID	Initial Vol/Wt	Comments
5.08.13	RG	131825	Soil	WAD	BS		50ml	
					BS		50ml	
					SRM		50ml	
					BK		50ml	
					68738-08	SB-128 (0-12)	0.5005	
					-09	SB-128 (18-20)	0.5097	
					-11	SB-129 (8-10)	0.5061	
					-12	SB-129 (18-20)	0.5360	
					-14	SB-130 (15-17)	0.5076	
					-15	SB-130 (18-20)	0.5336	
					BK		50ml	
					BS		50ml	
					BS		50ml	
					-15	dup	0.5058	
					15	MS	0.5073	
					-15	MSD	0.5080	
5.08.13	RG	131649	~~WAD~~	TOTAL	BS		50ml	
					69192-01	INFLUENT	50ml	
					-01	INFLUENT	50ml	
					BK		50ml	
					-02	AFTER STRIPPER	50ml	
					-02	AFTER STRIPPER	50ml	

Peer Reviewed by:_____

Date:_____

Rev. 9/09/11

SPECTRUM ANALYTICAL, INC.

Featuring

Hanibal Technology

SM2540 G Mod.

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-126 (0-2)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-01	File ID:	
Sampled:	04/24/13 12:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	80.62	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	80.6	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-126 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-02	File ID:	
Sampled:	04/25/13 14:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	74.23	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	74.2	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-126 (10.5-12.5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-03	File ID:	
Sampled:	04/25/13 14:15	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	77.40	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	77.4	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-127 (3-5)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-04	File ID:	
Sampled:	04/24/13 10:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	85.68	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	85.7	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-127 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-05	File ID:	
Sampled:	04/25/13 11:00	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	75.82	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	75.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-127 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-06	File ID:	
Sampled:	04/25/13 11:15	Prepared:	05/07/13 10:40	Analyzed:	05/07/13 14:37
% Solids:	80.75	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310352	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	80.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-128 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-07	File ID:	
Sampled:	04/24/13 13:30	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	87.33	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	87.3	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-128 (10-12)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-08	File ID:	
Sampled:	04/25/13 14:30	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	87.49	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	87.5	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-128 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-09	File ID:	
Sampled:	04/25/13 14:45	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	92.43	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	92.4	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-129 (1-3)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-10	File ID:	
Sampled:	04/24/13 11:00	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	85.75	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	85.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-129 (8-10)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-11	File ID:	
Sampled:	04/25/13 12:00	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	86.46	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	86.5	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-129 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-12	File ID:	
Sampled:	04/25/13 12:15	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	94.57	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	94.6	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-130 (2-4)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-13	File ID:	
Sampled:	04/24/13 09:30	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	85.94	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	85.9	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-130 (15-17)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-14	File ID:	
Sampled:	04/25/13 10:00	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	98.62	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	98.6	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

SB-130 (18-20)

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-15	File ID:	
Sampled:	04/25/13 10:15	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	87.84	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	87.8	1			

FORM I - INORGANIC ANALYSIS DATA SHEET

SM2540 G Mod.

DUP

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Project Number:	M0619			Received:	04/30/13 17:20
Matrix:	Soil	Laboratory ID:	SB68738-16	File ID:	
Sampled:	04/24/13 09:45	Prepared:	05/07/13 10:41	Analyzed:	05/07/13 14:37
% Solids:	86.34	Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Batch:	1310354	Sequence:		Calibration:	
Instrument:	Inst				
Reported to:	MDL				

CAS NO.	Analyte	Result (%)	Dilution Factor	MDL	MRL	Q
solids	% Solids	86.3	1			

FORM I - INORGANIC ANALYSIS DATA SHEET
SM2540 G Mod.

DUP

Laboratory:	Spectrum Analytical, Inc. - Agawam, MA			SDG:	68738
Client:	Spectrum Analytical, Inc. - North Kingstown, RI			Project:	Bay Ridge Holder, Former MG
Matrix:	Soil/Sediment	Laboratory ID:	1310354-DUP1	File ID:	
		Preparation:	General Preparation	Initial/Final:	1 g / 1 ml
Analyzed:	05/07/13 14:37	Instrument:	Inst		
Batch:	1310354	Sequence:		Calibration:	

CAS NO.	Analyte	Concentration CONC. (%)	Dilution Factor	Q	Method
solids	% Solids	85.1	1		SM2540 G Mod.

FORM IIIc - DUPLICATES

DUP

SM2540 G Mod.

Laboratory: Spectrum Analytical, Inc. - Agawam, MA
Client: Spectrum Analytical, Inc. - North Kingstown, RI
Matrix: Soil/Sediment
Batch: 1310354
Preparation: General Preparation
Source Sample Name: DUP

SDG: 68738
Project: Bay Ridge Holder, Former MG
Laboratory ID: 1310354-DUP1
Lab Source ID: SB68738-16
Initial/Final: 1 g / 1 ml
% Solids: 86.34
File ID:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (%)	C	DUPLICATE CONCENTRATION (%)	C	RPD %	Q	METHOD
% Solids	20	86.3		85.1		1		SM2540 G Mod.

* Values outside of QC limits

Individual peaks for multi-component analytes are indicated by a number in parentheses

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310354

DT

Balance ID C4

Matrix: Soil/Sediment

Prepared using: Wet Chem - General Preparation

(No Surrogate)

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments
1310354-DUP1	Duplicate		QC	1	1		SB68738-16		24-Apr-13 09:45	
SB68738-07	SB-128 (2-4)	A	Solid, Dry Weig	1	1			09-May-13 15:00	24-Apr-13 13:30	**ASP-B**
SB68738-08	SB-128 (10-12)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 14:30	**ASP-B**
SB68738-09	SB-128 (18-20)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 14:45	**ASP-B**
SB68738-10	SB-129 (1-3)	A	Solid, Dry Weig	1	1			09-May-13 15:00	24-Apr-13 11:00	**ASP-B**
SB68738-11	SB-129 (8-10)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 12:00	**ASP-B**
SB68738-12	SB-129 (18-20)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 12:15	**ASP-B**
SB68738-13	SB-130 (2-4)	A	Solid, Dry Weig	1	1			09-May-13 15:00	24-Apr-13 09:30	**ASP-B**
SB68738-14	SB-130 (15-17)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 10:00	**ASP-B**
SB68738-15	SB-130 (18-20)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 10:15	**ASP-B**
SB68738-16	DUP	A	Solid, Dry Weig	1	1			09-May-13 15:00	24-Apr-13 09:45	**MS/MSD/ASP-B**
SB68742-01	COMPOST-ADM BLDG	A	Solid, Dry Weig	1	1			09-May-13 15:00	26-Apr-13 13:30	**Level 2**
SB68874-01	GE-BLDG65-DU01A	A	Solid, Dry Weig	1	1			09-May-13 15:00	30-Apr-13 14:25	**CAM/run pcb first**
SB68874-03	GE-BLDG65-DU03A	A	Solid, Dry Weig	1	1			09-May-13 15:00	30-Apr-13 14:36	**CAM/run pcb first**
SB68874-04	GE-BLDG65-DU04A	A	Solid, Dry Weig	1	1			09-May-13 15:00	30-Apr-13 14:47	**CAM/run pcb first**
SB68874-05	GE-BLDG65-DU05A	A	Solid, Dry Weig	1	1			09-May-13 15:00	30-Apr-13 14:52	**CAM/run pcb first**
SB68874-06	GE-BLDG65-DU06A	A	Solid, Dry Weig	1	1			09-May-13 15:00	01-May-13 07:45	**CAM/run pcb first**
SB68874-07	GE-BLDG65-DU07A	A	Solid, Dry Weig	1	1			09-May-13 15:00	01-May-13 07:53	**CAM/run pcb first**
SB68874-08	GE-BLDG65-DU08A	A	Solid, Dry Weig	1	1			09-May-13 15:00	01-May-13 08:01	**CAM/run pcb first**
SB68874-09	GE-BLDG65-DU09A	A	Solid, Dry Weig	1	1			09-May-13 15:00	01-May-13 08:18	**CAM/run pcb first**
SB68874-10	GE-BLDG65-DU10A	A	Solid, Dry Weig	1	1			09-May-13 15:00	01-May-13 08:23	**CAM/run pcb first**

%solids 5/7/13

NDB 5/8/13
Analyst Reviewed Date

BD 5/8/13
Manager Reviewed Date

Extracts Received By Date

Printed: 5/7/2013 10:43:01AM

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310354

Balance ID 9

Matrix: Soil/Sediment DS

Prepared using: Wet Chem - General Preparation **(No Surrogate)**

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments

Reagents Used:

DTB 5/8/13
Analyst Reviewed Date

3D 5/8/13
Manager Reviewed Date

Extracts Received By Date

Printed: 5/7/2013 10:43:01AM

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310352

Balance ID 9

Matrix: Soil/Sediment

Prepared using: Wet Chem - General Preparation

(No Surrogate)

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments
1310352-DUP1	Duplicate		QC	1	1		SB68671-01		26-Apr-13 09:30	
SB68671-01	AQ01785	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 09:30	
SB68708-01	1304029	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-02	1304030	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-03	1304031	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-04	1304032	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-05	1304033	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-06	1304034	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-07	1304035	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-08	1304036	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-09	1304037	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-10	1304038	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-11	1304039	B	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-12	1304015	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68708-16	1304042	A	Solid, Dry Weig	1	1			09-May-13 16:00	26-Apr-13 00:00	CAM
SB68738-01	SB-126 (0-2)	A	Solid, Dry Weig	1	1			09-May-13 15:00	24-Apr-13 12:00	ASP-B
SB68738-02	SB-126 (8-10)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 14:00	ASP-B
SB68738-03	SB-126 (10.5-12.5)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 14:15	ASP-B
SB68738-04	SB-127 (3-5)	A	Solid, Dry Weig	1	1			09-May-13 15:00	24-Apr-13 10:00	ASP-B
SB68738-05	SB-127 (8-10)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 11:00	ASP-B
SB68738-06	SB-127 (10-12)	A	Solid, Dry Weig	1	1			09-May-13 15:00	25-Apr-13 11:15	ASP-B

%solids 5/7/13

NDB 5/8/13
Analyst Reviewed Date

BD 5/8/13
Manager Reviewed Date

Extracts Received By Date

Printed: 5/7/2013 10:41:47AM

SPECTRUM ANALYTICAL, INC. - PREPARATION BENCH SHEET

1310352

Balance ID 9

Matrix: Soil/Sediment DT

Prepared using: Wet Chem - General Preparation **(No Surrogate)**

Lab Number	Client ID	ID	Analysis	Initial (g)	Final (ml)	Spike ID	Source ID	Due Date	Collection Date	Sample Comments

Reagents Used:

NDB 5/8/13
Analyst Reviewed Date

BD 5/8/13
Manager Reviewed Date

Extracts Received By Date

Printed: 5/7/2013 10:41:47AM

Percent Solids Log
1310354

LabNumber	DishID	DishWeight	WetWeight	DryWeight	InitialResult	Analysis	Analyte
1310354-DUP1	6236	2.681	14.261	12.541	85.14373548	Solid, Dry \	% Solids
SB68738-07	5393	2.685	12.140	10.942	87.33011095	Solid, Dry \	% Solids
SB68738-08	8018	2.658	14.049	12.624	87.49418385	Solid, Dry \	% Solids
SB68738-09	7353	2.665	12.976	12.196	92.43317686	Solid, Dry \	% Solids
SB68738-10	0184	2.665	12.449	11.055	85.75327065	Solid, Dry \	% Solids
SB68738-11	5163	2.617	14.960	13.289	86.46266275	Solid, Dry \	% Solids
SB68738-12	6582	2.680	17.547	16.739	94.56697945	Solid, Dry \	% Solids
SB68738-13	5158	2.619	15.348	13.559	85.94334287	Solid, Dry \	% Solids
SB68738-14	6574	2.657	16.058	15.874	98.62406542	Solid, Dry \	% Solids
SB68738-15	6568	2.652	14.661	13.201	87.83962696	Solid, Dry \	% Solids
SB68738-16	6578	2.641	14.182	12.605	86.33988684	Solid, Dry \	% Solids
SB68742-01	6573	2.656	13.367	7.825	48.25828377	Solid, Dry \	% Solids
SB68874-01	6572	2.669	11.637	11.472	98.16565936	Solid, Dry \	% Solids
SB68874-03	5164	2.594	11.806	11.529	96.99423597	Solid, Dry \	% Solids
SB68874-04	6577	2.649	13.265	13.058	98.05194194	Solid, Dry \	% Solids
SB68874-05	6579	2.653	10.205	9.991	97.17028602	Solid, Dry \	% Solids
SB68874-06	6541	2.653	10.502	10.318	97.66209278	Solid, Dry \	% Solids
SB68874-07	5159	2.599	12.007	11.836	98.18552888	Solid, Dry \	% Solids
SB68874-08	0339	2.689	13.966	13.721	97.82654961	Solid, Dry \	% Solids
SB68874-09	9808	2.673	11.775	11.612	98.21348129	Solid, Dry \	% Solids
SB68874-10	6619	2.673	12.345	12.193	98.42748439	Solid, Dry \	% Solids

5/8/13 DJB

Percent Solids Log
1310352

LabNumber	DishID	DishWeight	WetWeight	DryWeight	InitialResult	Analysis	Analyte
1310352-DUP1	5162	2.595	10.998	7.225	55.0965761	Solid, Dry \	% Solids
SB68671-01	9747	2.657	10.841	7.139	54.76271932	Solid, Dry \	% Solids
SB68708-01	6106	2.684	11.511	10.090	83.89976436	Solid, Dry \	% Solids
SB68708-02	5160	2.575	13.849	12.284	86.11823141	Solid, Dry \	% Solids
SB68708-03	5161	2.594	12.602	11.771	91.69539455	Solid, Dry \	% Solids
SB68708-04	6581	2.678	13.350	12.061	87.92541229	Solid, Dry \	% Solids
SB68708-05	6655	2.674	12.073	10.872	87.21978104	Solid, Dry \	% Solids
SB68708-06	6657	2.639	14.076	11.991	81.77215854	Solid, Dry \	% Solids
SB68708-07	6569	2.650	13.548	12.403	89.49705907	Solid, Dry \	% Solids
SB68708-08	9841	2.637	14.294	12.998	88.87926228	Solid, Dry \	% Solids
SB68708-09	656	2.652	14.307	9.836	61.63772393	Solid, Dry \	% Solids
SB68708-10	0346	2.671	10.284	8.619	78.13156789	Solid, Dry \	% Solids
SB68708-11	0353	2.666	11.182	8.569	69.32000986	Solid, Dry \	% Solids
SB68708-12	9266	2.610	14.558	13.156	88.26842762	Solid, Dry \	% Solids
SB68708-16	5757	2.592	17.193	16.599	95.93107274	Solid, Dry \	% Solids
SB68738-01	7328	2.643	27.032	22.305	80.61765044	Solid, Dry \	% Solids
SB68738-02	7355	2.659	11.489	9.213	74.22624373	Solid, Dry \	% Solids
SB68738-03	7333	2.656	18.739	15.104	77.40007959	Solid, Dry \	% Solids
SB68738-04	7357	2.668	17.010	14.956	85.67872483	Solid, Dry \	% Solids
SB68738-05	9844	2.642	12.741	10.299	75.81638513	Solid, Dry \	% Solids
SB68738-06	9792	2.676	14.299	12.062	80.7541748	Solid, Dry \	% Solids

5/8/13 DJB

Notes & Definitions

BRL Below the reporting limit and also indicates there are no detections between the MDL and MRL

Form I 'Q' column

B The analyte was found in the associated blank as well as the sample

D All identified compounds in the analysis are at a secondary dilution factor

E The identified compound's concentration exceeds the calibration range of the instrument for this specific analysis

J Compound detected but below the reporting limit and above the minimum detection limit (MDL); therefore, the result is an estimated concentration

N Included for TIC that indicates presumptive evidence of a compound

P Used for a Dual Column target analyte when the concentration difference between the two GC columns is greater than 40%.

U Compound was analyzed for but not detected

Form IIa 'Method' column

This column refers to the instrument used for analysis

IR Iris ICP
MS Thermo ICP/MS
AV Mercury analyzer

Form VI 'Q' column

***** indicates that:
Mean RF is above the value in the LIMIT column, or
Linear COD is below the value in the LIMIT column, or
Quad COD is below the value in the LIMIT column

Form VII 'Type' column

A average of response factor
L linear regression
Q quadratic equation

Form VIII 'Q' column for Inorganics

E The dilution analysis is not within a control limit of 10%, therefore a chemical or physical interference effect must be suspected

Last Page of data Report

Report Date:
21-Oct-13 17:39

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

Laboratory Report

AECOM Technical Services, Inc.
20 Exchange Place
13th Floor
New York, NY 10005

Work Order: M1876
Project : Bay Ridge Holders, Waste Char
Project #: 60137360.440

Attn: Nelson Abrams

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
M1876-01	DISPOSAL-1	Soil	27-Sep-13 10:15	28-Sep-13 08:55

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirments have been meet.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033

NELAP ACCREDITED TNI LABORATORY

LABORATORY ACCREDITATION BUREAU ACCREDITED
Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Identification and Analytical Requirements Summary

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Customer Sample ID	Laboratory Sample ID	Analytical Requirements				
		MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other
DISPOSAL-1	M1876-01	SW8260_LOW_S	SW8270_S	SW8082_S	SW6010_S	SEE DATA
DISPOSAL-1	M1876-01				SW6010_S	
DISPOSAL-1	M1876-01				SW7471	

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8260_LOW_S					
M1876-01D	SL	9/27/2013	9/28/2013	NA	10/8/2013

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSSEMI

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8270_S					
M1876-01A	SL	9/27/2013	9/28/2013	9/30/2013	10/4/2013

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary GC*

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
SW8082_S					
M1876-01A	SL	9/27/2013	9/28/2013	9/30/2013	10/8/2013

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
SW8260_LOW_S					
M1876-01D	SL	SW8260_LOW_S	NA	LOW	1

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSSEMI

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
SW8270_S					
M1876-01A	SL	SW8270_S	3550B	NA	1

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary GC*

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxiliary Cleanup	Dil/Conc Factor
SW8082_S					
M1876-01A	SL	SW8082_S	3550B	Acid/Sulfur	1

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary ME

Project Name : Bay Ridge Holders, Waste Char -- 60137360.440 **SDG :** M1876

Laboratory Sample ID	Matrix	Metals Requested	Date Received By Lab	Date Analyzed
SW6010_S				
M1876-01C	SL	SW6010_S	9/28/2013	10/1/2013
M1876-01CDUP	SL	SW6010_S	9/28/2013	10/1/2013
M1876-01CMS	SL	SW6010_S	9/28/2013	10/1/2013
SW7471				
M1876-01C	SL	SW7471	9/28/2013	9/30/2013
M1876-01CDUP	SL	SW7471	9/28/2013	9/30/2013
M1876-01CMS	SL	SW7471	9/28/2013	9/30/2013

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

WorkOrder: M1876

Client ID: AECOM_NY
Project: Bay Ridge Holders, Waste Char
WO Name: Bay Ridge Holders, Waste Char
Location: AECOM_BAY-RIDGE_WASTE, 60137360.440
Comments: No charge for TB, pdf only. Agawam EDD format is EQUIS AECOM FSM

Case:
SDG:
PO: 49352ACM

HC Due: 10/17/13
Fax Due: 10/07/13
Fax Report: ☑

Report Level: ASP-B
Special Program:
EDD: EQUIIS_4_AECOM

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
M1876-01A	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	PMoist	/					B3
M1876-01A	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW8082_S	/ +1262, 1268				Y	B3
M1876-01A	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW8270_S	/ Analyze TCLP if >RCRA 20X rule					B3
M1876-01B	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	NJEPH_S	/ SPECTRUM--Sub to Agawam					SUB
M1876-01B	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW6010_S	/ SPECTRUM--Suflur, sub to Agawam				Y	SUB
M1876-01C	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW6010_S	/ PP13				Y	B3
M1876-01C	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW7471	/ PP13					B3
M1876-01D	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW8260_LOW_S	/ Analyze TCLP if >RCRA 20X rule					VOA
M1876-01E	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW8260_MED_S	/ Analyze TCLP if >RCRA 20X rule		Y			VOA
M1876-01F	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW6010_W	2-8OZ, 2-4OZ; TCLP ON HOLD / TCLP_METALS, Analyze >RCRA 20X Rule	Y	Y		Y	B3
M1876-01F	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW7470	2-8OZ, 2-4OZ; TCLP ON HOLD / TCLP_METALS, Analyze >RCRA 20X Rule	Y	Y			B3
M1876-01F	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW8260_W	2-8OZ, 2-4OZ; TCLP ON HOLD / TCLP_VOA, Analyze >RCRA 20X Rule	Y	Y		Y	B3
M1876-01F	DISPOSAL-1	09/27/2013 10:15	09/28/2013	Soil	SW8270_W	2-8OZ, 2-4OZ; TCLP ON HOLD / TCLP_SVOA, Analyze >RCRA 20X Rule	Y	Y		Y	B3

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

10/21/2013 15:51

Lab Client Rep: Agnes R Huntley

Sample Transmittal Documentation

M1876

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Page 1 of 1

CHAIN OF CUSTODY RECORD

☐ 11 Almgren Drive, Agawam, MA 01001, (413) 789-9018
☐ 8405 Benjamin Road, Ste A, Tampa, FL 33634, (813) 888-9507
☐ 646 Camp Avenue, N Kingstown, RI 02852, (401) 732-3400

Special Handling:

TAT- Ind icate Date Needed: _____
- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: Nelson Abrams
Nelson.Abrams@aecom.com
Telephone #: 347-803-8722
Project Mgr. _____

Invoice To: AECOM
20 Exchange Place 13th Floor
New York, NY 10005
P.O. No.: _____ RQN: _____

Project No.: 60137360
Site Name: National Grid- Bay Ridge
Location: Brooklyn State: NY
Sampler(s): J. Christoffel

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10=H_3PO_4 11= MeOH 12= _____

List preservative code below: 9/11

QA/QC Reporting Notes:

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1= _____ X2= _____ X3= _____

G=Grab C=Composite

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: Metals by ICP	Mercury by FIA	NJ EPH by GC-FID Metals by ICP/Sulfur	VOC by GC-MS	SVOA by GC-MS PCB by GC-ECD	TCLP- Hold
	Disposal-1	9/27/13	10:15	C	SO	6	10	0	0	X	X	X	X	X	

QA/QC Reporting Level
☐ Level I ☐ Level II
☐ Level III ☐ Level IV
☐ Other _____
State-specific reporting standards: _____

Relinquished by:	Received by:	Date:	Time:	Temp°C
J. Christoffel/AECOM via FedEx	FED EX	9/27/13	11:30	
		9/28/13	9:55	2°

☒ EDD Format Nelson.Abrams@aecom.com
☒ E-mail to Nelson.Abrams@aecom.com

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☑ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

Page 3 of 371

Revised Feb 2013

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

Received By: VEB	Page 01 of 00
Reviewed By:	Log-in Date 09/28/2013
Work Order: M1876	Client Name: AECOM Technical Services, Inc.
Project Name/Event: Bay Ridge Holders, Former MGP / 60137360.300	

Remarks: (1/2) Please see associated sample/extract transfer logbook pages submitted with this data package.

1. Custody Seal(s)	Present / Absent
	Intact / Broken
2. Custody Seal Nos.	N/A
3. Traffic Reports/ Chain of Custody Records (TR/COCs) or Packing Lists	Present / Absent
4. Airbill	AirBill / Sticker
	Present / Absent
5. Airbill No.	FedEx 8022 3586 0778
6. Sample Tags	Present / Absent
Sample Tag Numbers	Listed / Not Listed on Chain-of-Custody
7. Sample Condition	Intact / Broken/ Leaking
8. Cooler Temperature Indicator Bottle	Present / Absent
9. Cooler Temperature	2 °C
10. Does information on TR/COCs and sample tags agree?	Yes / No
11. Date Received at Laboratory	09/28/2013
12. Time Received	08:55

Lab Sample ID	Preservation (pH) HNO3	H2SO4	HCl	NaOH	H3PO4	VOA Matrix	Soil HeadSpace or Air Bubble > or equal to 1/4"
M1876-01						F/M	

Sample Transfer

Fraction (1) TVOA/VOA	Fraction (2) SVOA/PEST/ARO
Area #	Area #
By	By
On	On

IR Temp Gun ID:MT-74

CoolantCondition: ICE

Preservative Name/Lot No:

VOA Matrix Key:

US = Unpreserved Soil	A= Air
UA = Unpreserved Aqueous	H = HCl
M = MeOH	E = Encore
N = NaHSO4	F = Freeze

See Sample Condition Notification/Corrective Action Form Yes / No

Rad OK Yes / No

* Volatiles *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: Bay Ridge Holders, Waste Char

Laboratory Workorder / SDG #: M1876

SW846 8260C, VOC by GC-MS

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 8260C

IV. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW5035

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: V1
Instrument Type: GCMS-VOA

Description: HP5890 II / HP5972
Manufacturer: Hewlett-Packard
Model: 5890 / 5972

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes

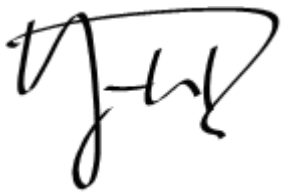
are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

· M1 peak tailing or fronting
· M2 peak co-elution
· M3 rising or falling baseline
· M4 retention time shift
· M5 miscellaneous - under this category, the justification is explained
· M6 software did not integrate peak
· M7 partial peak integration

Manual integration was performed on the following:

VSTD1001H Dichlorodifluoromethane due to M7

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.



Signed:_____ _____

Date:_____10/21/2013_____

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.

Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

2D - FORM II VOA-4

SOIL VOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	VDMC1 (DBFM) #	VDMC2 (DCE) #	VDMC3 (TOL) #	VDMC4 (BFB) #				TOT OUT
01	MB-74207	97	98	101	100				0
02	DISPOSAL-1	100	106	99	98				0
03	LCS-74207	99	103	101	103				0

		QC LIMITS
VDMC1	(DBFM) Dibromofluoromethane	(76-128)
VDMC2	(DCE) = 1,2-Dichloroethane-d4	(88-110)
VDMC3	(TOL) = Toluene-d8	(85-115)
VDMC4	(BFB) = Bromofluorobenzene	(85-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

som13.10.18.A

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCS-74207 LCS Lot No.:

Date Extracted: 10/08/2013 Date Analyzed (1): 10/08/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Dichlorodifluoromethane	50.0000	0.0000	46.7423	93		35 - 135
Chloromethane	50.0000	0.0000	48.6904	97		50 - 130
Vinyl chloride	50.0000	0.0000	48.8784	98		60 - 125
Bromomethane	50.0000	0.0000	47.9966	96		30 - 160
Chloroethane	50.0000	0.0000	48.0978	96		40 - 155
Trichlorofluoromethane	50.0000	0.0000	47.4657	95		25 - 185
1,1-Dichloroethene	50.0000	0.0000	50.3471	101		65 - 135
Acetone	50.0000	0.0000	51.7542	104		20 - 160
Iodomethane	50.0000	0.0000	51.0549	102		70 - 126
Carbon disulfide	50.0000	0.0000	48.3437	97		45 - 160
Methylene chloride	50.0000	0.0000	54.9388	110		55 - 140
trans-1,2-Dichloroethene	50.0000	0.0000	48.8059	98		65 - 135
Methyl tert-butyl ether	50.0000	0.0000	53.6480	107		75 - 126
1,1-Dichloroethane	50.0000	0.0000	49.8975	100		75 - 125
Vinyl acetate	50.0000	0.0000	54.5656	109		65 - 138
2-Butanone	50.0000	0.0000	54.1096	108		30 - 160
cis-1,2-Dichloroethene	50.0000	0.0000	49.1222	98		65 - 125
2,2-Dichloropropane	50.0000	0.0000	49.7299	99		65 - 135
Bromochloromethane	50.0000	0.0000	52.8536	106		70 - 125
Chloroform	50.0000	0.0000	50.2998	101		70 - 125
1,1,1-Trichloroethane	50.0000	0.0000	49.6359	99		70 - 135
1,1-Dichloropropene	50.0000	0.0000	48.3872	97		70 - 135
Carbon tetrachloride	50.0000	0.0000	49.6869	99		65 - 135
1,2-Dichloroethane	50.0000	0.0000	51.7868	104		70 - 135
Benzene	50.0000	0.0000	50.7871	102		75 - 125
Trichloroethene	50.0000	0.0000	49.8954	100		75 - 125
1,2-Dichloropropane	50.0000	0.0000	51.3003	103		70 - 120
Dibromomethane	50.0000	0.0000	52.6166	105		75 - 130
Bromodichloromethane	50.0000	0.0000	51.7210	103		70 - 130
cis-1,3-Dichloropropene	50.0000	0.0000	49.7056	99		70 - 125
4-Methyl-2-pentanone	50.0000	0.0000	55.2603	111		45 - 145
Toluene	50.0000	0.0000	50.8277	102		70 - 125
trans-1,3-Dichloropropene	50.0000	0.0000	53.1261	106		65 - 125
1,1,2-Trichloroethane	50.0000	0.0000	51.9347	104		60 - 125
1,3-Dichloropropane	50.0000	0.0000	53.1694	106		75 - 125
Tetrachloroethene	50.0000	0.0000	47.2280	94		65 - 140
2-Hexanone	50.0000	0.0000	50.1214	100		45 - 145
Dibromochloromethane	50.0000	0.0000	51.3803	103		65 - 130
1,2-Dibromoethane	50.0000	0.0000	52.7291	105		70 - 125
Chlorobenzene	50.0000	0.0000	48.3098	97		75 - 125
1,1,1,2-Tetrachloroethane	50.0000	0.0000	50.8477	102		75 - 125
Ethylbenzene	50.0000	0.0000	48.5916	97		75 - 125
m,p-Xylene	100.0000	0.0000	99.8552	100		80 - 125
o-Xylene	50.0000	0.0000	48.9215	98		75 - 125

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCS-74207 LCS Lot No.:

Date Extracted: 10/08/2013 Date Analyzed (1): 10/08/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Xylene (Total)	150.0000	0.0000	148.7767	99		83 - 125
Styrene	50.0000	0.0000	50.7735	102		75 - 125
Bromoform	50.0000	0.0000	51.3544	103		55 - 135
Isopropylbenzene	50.0000	0.0000	49.7404	99		75 - 130
1,1,2,2-Tetrachloroethane	50.0000	0.0000	49.5839	99		55 - 130
Bromobenzene	50.0000	0.0000	48.8968	98		65 - 120
1,2,3-Trichloropropane	50.0000	0.0000	56.2850	113		65 - 130
n-Propylbenzene	50.0000	0.0000	46.1608	92		65 - 135
2-Chlorotoluene	50.0000	0.0000	46.3943	93		70 - 130
1,3,5-Trimethylbenzene	50.0000	0.0000	48.8475	98		65 - 135
4-Chlorotoluene	50.0000	0.0000	47.4710	95		75 - 125
tert-Butylbenzene	50.0000	0.0000	47.5836	95		65 - 130
1,2,4-Trimethylbenzene	50.0000	0.0000	48.8891	98		65 - 135
sec-Butylbenzene	50.0000	0.0000	47.8826	96		65 - 130
4-Isopropyltoluene	50.0000	0.0000	48.6150	97		75 - 135
1,3-Dichlorobenzene	50.0000	0.0000	48.2937	97		70 - 125
1,4-Dichlorobenzene	50.0000	0.0000	49.5241	99		70 - 125
n-Butylbenzene	50.0000	0.0000	48.6757	97		65 - 140
1,2-Dichlorobenzene	50.0000	0.0000	48.5403	97		75 - 120
1,2-Dibromo-3-chloropropan	50.0000	0.0000	53.7671	108		40 - 135
1,2,4-Trichlorobenzene	50.0000	0.0000	54.5130	109		65 - 130
Hexachlorobutadiene	50.0000	0.0000	49.5914	99		55 - 140
1,2,3-Trichlorobenzene	50.0000	0.0000	53.0614	106		60 - 135
Naphthalene	50.0000	0.0000	55.7364	111		40 - 125
1,1,2-Trichloro-1,2,2-trif	50.0000	0.0000	55.7968	112		70 - 130
1,4-Dioxane	1000.0000	0.0000	893.4521	89		70 - 130
Cyclohexane	50.0000	0.0000	47.1946	94		70 - 130
Methyl acetate	50.0000	0.0000	53.8070	108		70 - 130
Methylcyclohexane	50.0000	0.0000	48.2354	96		70 - 130

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

* Values outside of QC limits

Spike Recovery: 0 out of 73 outside limits

COMMENTS:

4A - FORM IV VOA
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
MB-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: V1M5574.D Lab Sample ID: MB-74207

Instrument ID: V1

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 10/08/2013

Level: (TRACE or LOW/MED) LOW Time Analyzed: 10:38

GC Column: DB-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	DISPOSAL-1	M1876-01D	V1M5577.D	12:11
02	LCS-74207	LCS-74207	V1M5583A.D	15:11

COMMENTS:

som13.10.18.A

5A - FORM V VOA

VOLATILE ORGANIC INSTRUMENT

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.

BFB1H

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: V1M5510.D BFB Injection Date: 10/07/2013

Instrument ID: V1 BFB Injection Time: 7:41

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	43.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	82.0
175	5.0 - 9.0% of mass 174	6.1 (7.4)1
176	95.0 - 101.0% of mass 174	81.4 (99.3)1
177	5.0 - 9.0% of mass 176	5.3 (6.5)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501H	VSTD0501H	V1M5513.D	10/07/2013	9:22
02	VSTD0201H	VSTD0201H	V1M5514.D	10/07/2013	10:16
03	VSTD0051H	VSTD0051H	V1M5515.D	10/07/2013	10:41
04	VSTD1001H	VSTD1001H	V1M5517.D	10/07/2013	11:59
05	VSTD2001H	VSTD2001H	V1M5518.D	10/07/2013	12:24

5A - FORM V VOA
VOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

EPA SAMPLE NO.
BFB1J

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: V1M5570.D BFB Injection Date: 10/08/2013

Instrument ID: V1 BFB Injection Time: 8:07

GC Column: DB-624 ID: 0.25 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.9
75	30.0 - 60.0% of mass 95	45.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	85.0
175	5.0 - 9.0% of mass 174	6.1 (7.2)1
176	95.0 - 101.0% of mass 174	83.7 (98.5)1
177	5.0 - 9.0% of mass 176	5.5 (6.6)2

1 - Value is % mass 174 2 - Value is % mass 176

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0501J	VSTD0501J	V1M5572.D	10/08/2013	9:26
02	MB-74207	MB-74207	V1M5574.D	10/08/2013	10:38
03	DISPOSAL-1	M1876-01D	V1M5577.D	10/08/2013	12:11
04	LCS-74207	LCS-74207	V1M5583A.D	10/08/2013	15:11

8A - FORM VIII VOA

VOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: DB-624 ID: 0.25 (mm) Init. Calib. Date(s): 10/07/2013 10/07/2013

EPA Sample No.(VSTD#####): VSTD0501J Date Analyzed: 10/08/2013

Lab File ID (Standard): V1M5572.D Time Analyzed: 9:26

Instrument ID: V1 Heated Purge: (Y/N) Y

		IS1 (S1) AREA	#	RT	#	IS2 (S2) AREA	#	RT	#	IS3 (S3) AREA	#	RT	#
	12 HOUR STD	1800694		4.48		1271578		7.345		600662		9.905	
	UPPER LIMIT	3601388		4.98		2543156		7.845		1201324		10.405	
	LOWER LIMIT	900347		3.98		635789		6.845		300331		9.405	
	EPA SAMPLE NO.												
01	MB-74207	1750635		4.491		1229167		7.356		572354		9.916	
02	DISPOSAL-1	1667855		4.477		1195843		7.342		539234		9.912	
03	LCS-74207	1552022		4.468		1113548		7.343		543236		9.912	

IS1 () = Fluorobenzene
IS2 () = Chlorobenzene-d5
IS3 () = 1,4-Dichlorobenzene-d4
AREA UPPER LIMIT = 200% (Low-Medium Volatiles) and 140% (Trace Volatiles) of internal standard area
AREA LOWER LIMIT = 50% (Low-Medium Volatiles) and 60% (Trace Volatiles) of internal standard area
RT UPPER LIMIT = +0.50 (Low-Medium Volatiles) and +0.33 (Trace Volatiles) minutes of internal standard RT
RT LOWER LIMIT = -0.50 (Low-Medium Volatiles) and -0.33 (Trace Volatiles) minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DISPOSAL-1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1876-01D

Sample wt/vol: 8.70 (g/mL) G Lab File ID: V1M5577.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/28/2013

% Moisture: not dec. 12 Date Analyzed: 10/08/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	3.2	U
74-87-3	Chloromethane	3.2	U
75-01-4	Vinyl chloride	3.2	U
74-83-9	Bromomethane	3.2	U
75-00-3	Chloroethane	3.2	U
75-69-4	Trichlorofluoromethane	3.2	U
75-35-4	1,1-Dichloroethene	3.2	U
67-64-1	Acetone	2.1	J
74-88-4	Iodomethane	3.2	U
75-15-0	Carbon disulfide	3.2	U
75-09-2	Methylene chloride	7.2	
156-60-5	trans-1,2-Dichloroethene	3.2	U
1634-04-4	Methyl tert-butyl ether	3.2	U
75-34-3	1,1-Dichloroethane	3.2	U
108-05-4	Vinyl acetate	3.2	U
78-93-3	2-Butanone	3.2	U
156-59-2	cis-1,2-Dichloroethene	3.2	U
594-20-7	2,2-Dichloropropane	3.2	U
74-97-5	Bromochloromethane	3.2	U
67-66-3	Chloroform	3.2	U
71-55-6	1,1,1-Trichloroethane	3.2	U
563-58-6	1,1-Dichloropropene	3.2	U
56-23-5	Carbon tetrachloride	3.2	U
107-06-2	1,2-Dichloroethane	3.2	U
71-43-2	Benzene	3.2	U
79-01-6	Trichloroethene	3.2	U
78-87-5	1,2-Dichloropropane	3.2	U
74-95-3	Dibromomethane	3.2	U
75-27-4	Bromodichloromethane	3.2	U
10061-01-5	cis-1,3-Dichloropropene	3.2	U
108-10-1	4-Methyl-2-pentanone	3.2	U
108-88-3	Toluene	3.2	U
10061-02-6	trans-1,3-Dichloropropene	3.2	U
79-00-5	1,1,2-Trichloroethane	3.2	U
142-28-9	1,3-Dichloropropane	3.2	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DISPOSAL-1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1876-01D

Sample wt/vol: 8.70 (g/mL) G Lab File ID: V1M5577.D

Level: (TRACE/LOW/MED) LOW Date Received: 09/28/2013

% Moisture: not dec. 12 Date Analyzed: 10/08/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	3.2	U
591-78-6	2-Hexanone	3.2	U
124-48-1	Dibromochloromethane	3.2	U
106-93-4	1,2-Dibromoethane	3.2	U
108-90-7	Chlorobenzene	3.2	U
630-20-6	1,1,1,2-Tetrachloroethane	3.2	U
100-41-4	Ethylbenzene	3.2	U
179601-23-1	m,p-Xylene	3.2	U
95-47-6	o-Xylene	3.2	U
1330-20-7	Xylene (Total)	3.2	U
100-42-5	Styrene	3.2	U
75-25-2	Bromoform	3.2	U
98-82-8	Isopropylbenzene	3.2	U
79-34-5	1,1,2,2-Tetrachloroethane	3.2	U
108-86-1	Bromobenzene	3.2	U
96-18-4	1,2,3-Trichloropropane	3.2	U
103-65-1	n-Propylbenzene	3.2	U
95-49-8	2-Chlorotoluene	3.2	U
108-67-8	1,3,5-Trimethylbenzene	3.2	U
106-43-4	4-Chlorotoluene	3.2	U
98-06-6	tert-Butylbenzene	3.2	U
95-63-6	1,2,4-Trimethylbenzene	3.2	U
135-98-8	sec-Butylbenzene	3.2	U
99-87-6	4-Isopropyltoluene	3.2	U
541-73-1	1,3-Dichlorobenzene	3.2	U
106-46-7	1,4-Dichlorobenzene	3.2	U
104-51-8	n-Butylbenzene	3.2	U
95-50-1	1,2-Dichlorobenzene	3.2	U
96-12-8	1,2-Dibromo-3-chloropropane	3.2	U
120-82-1	1,2,4-Trichlorobenzene	3.2	U
87-68-3	Hexachlorobutadiene	3.2	U
87-61-6	1,2,3-Trichlorobenzene	3.2	U
91-20-3	Naphthalene	3.2	U

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5577.D
Report Date: 17-Oct-2013 07:00

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131008.B\V1M5577.D
Lab Smp Id: M1876-01D Client Smp ID: DISPOSAL-1
Inj Date : 08-OCT-2013 12:11
Operator : WL   SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,M1876-01D,,74207
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131008.B\v18260GH.m
Meth Date : 17-Oct-2013 06:59 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 12:24 Cal File: V1M5518.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	8.700	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	11 Acetone	58	2.330	2.330	(0.521)	5602	3.16530	2(Q)
	16 Methylene Chloride	84	2.625	2.626	(0.587)	73502	11.1362	6(Q)
$	32 Dibromofluoromethane	113	3.925	3.925	(0.877)	481766	50.2318	29
$	37 1,2-Dichloroethane-d4	102	4.191	4.191	(0.936)	117169	52.7727	30
*	41 Fluorobenzene	96	4.476	4.477	(1.000)	1667855	50.0000	
$	51 Toluene-d8	98	5.894	5.895	(0.803)	1489087	49.6727	28
*	60 Chlorobenzene-d5	117	7.342	7.342	(1.000)	1195843	50.0000	
$	70 Bromofluorobenzene	95	8.632	8.642	(1.176)	554369	49.1516	28
*	84 1,4-Dichlorobenzene-d4	152	9.912	9.912	(1.000)	539234	50.0000	

QC Flag Legend

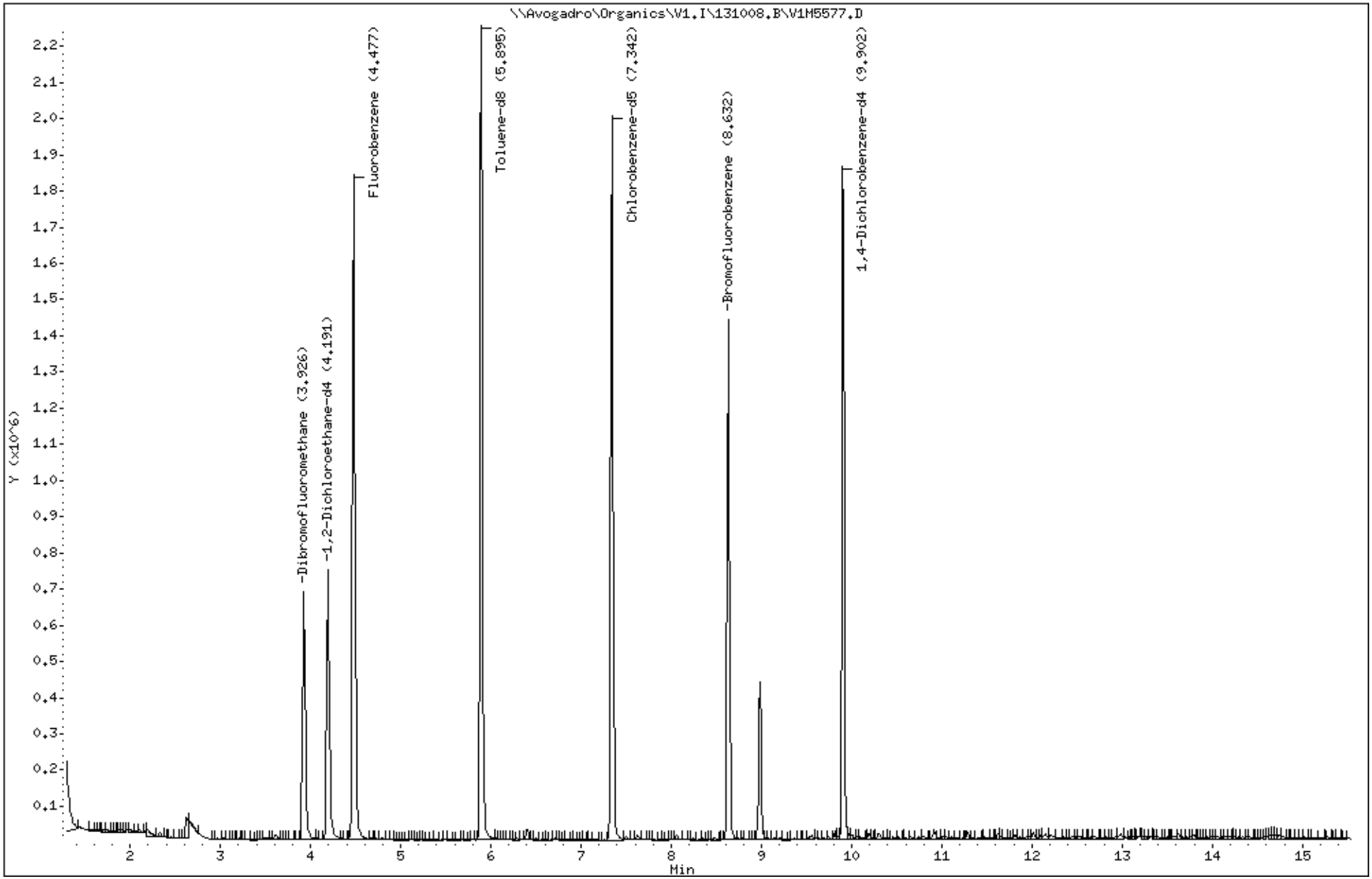
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5577.D
Date : 08-OCT-2013 12:11
Client ID: DISPOSAL-1
Sample Info: 5ML,M1876-01D,,74207

Instrument: V1.i

Operator: WL SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5577.D

Date : 08-OCT-2013 12:11

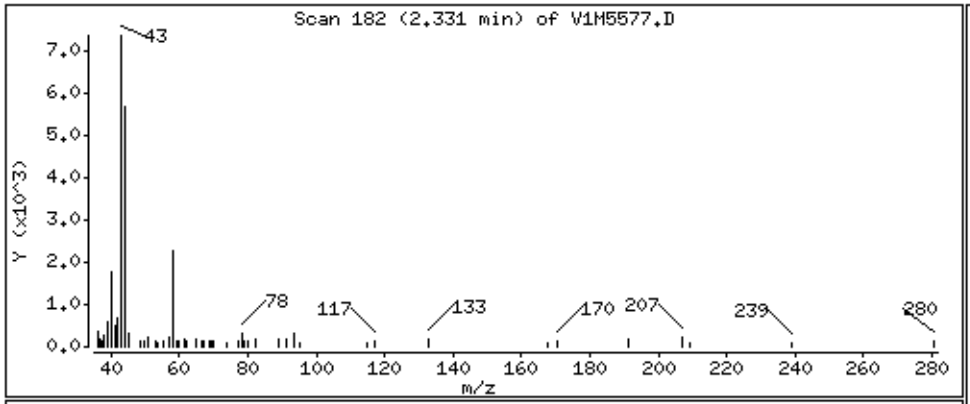
Client ID: DISPOSAL-1 Instrument: V1.i

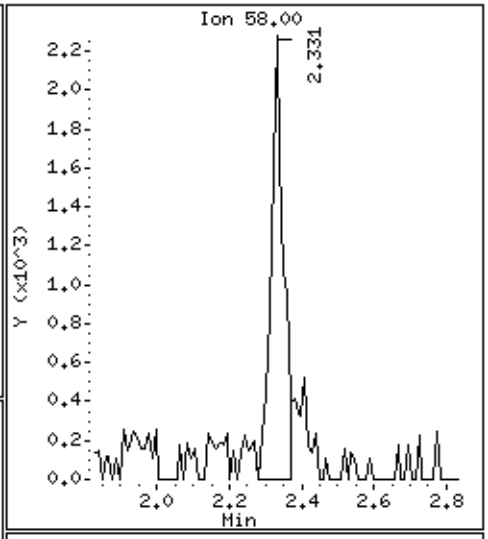
Sample Info: 5ML,M1876-01D,,74207

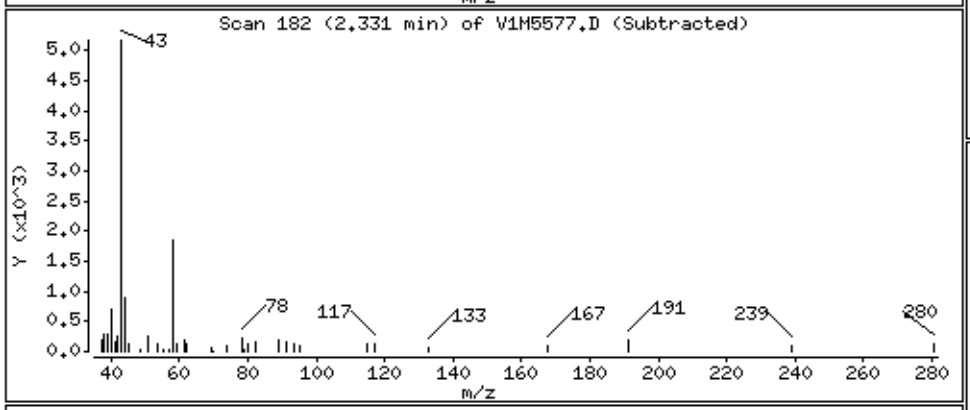
Operator: WL SRC: LIMS

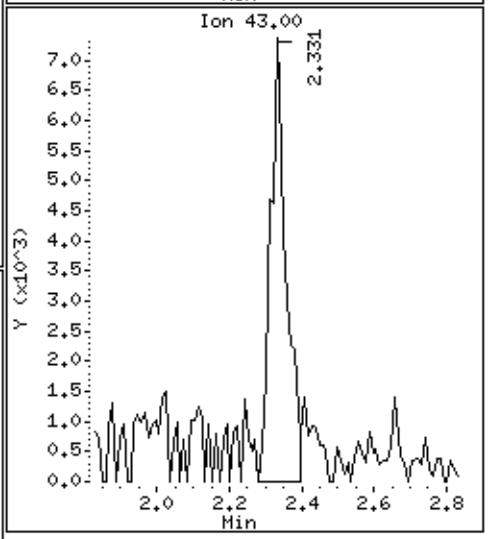
Column phase: DB-624 Column diameter: 0.25

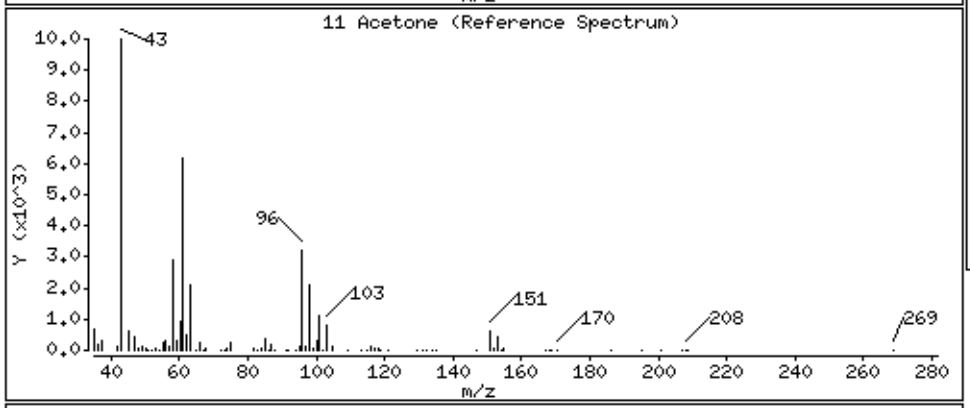
11 Acetone Concentration: 2 ug/Kg

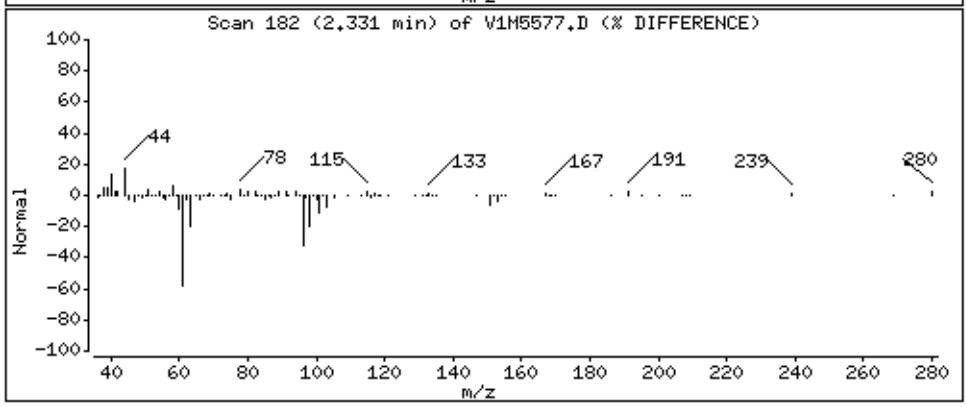












Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5577.D

Date : 08-OCT-2013 12:11

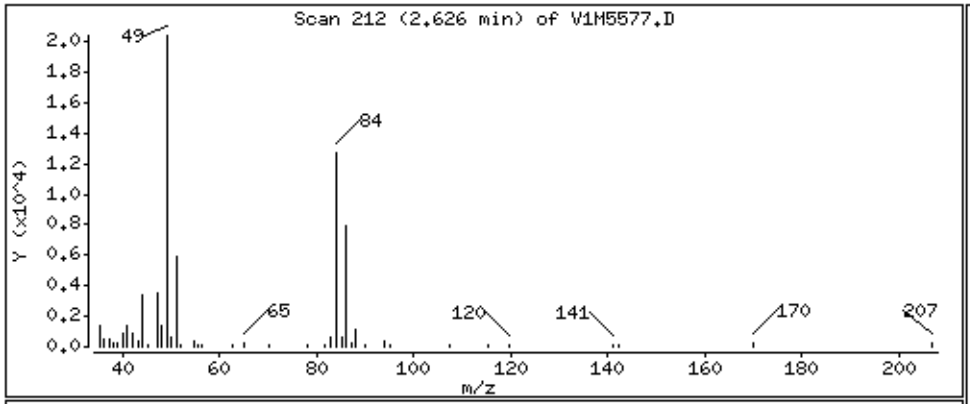
Client ID: DISPOSAL-1 Instrument: V1.i

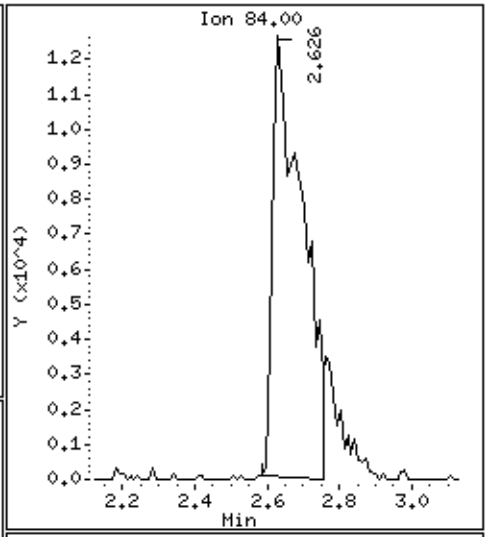
Sample Info: 5ML,M1876-01D,,74207

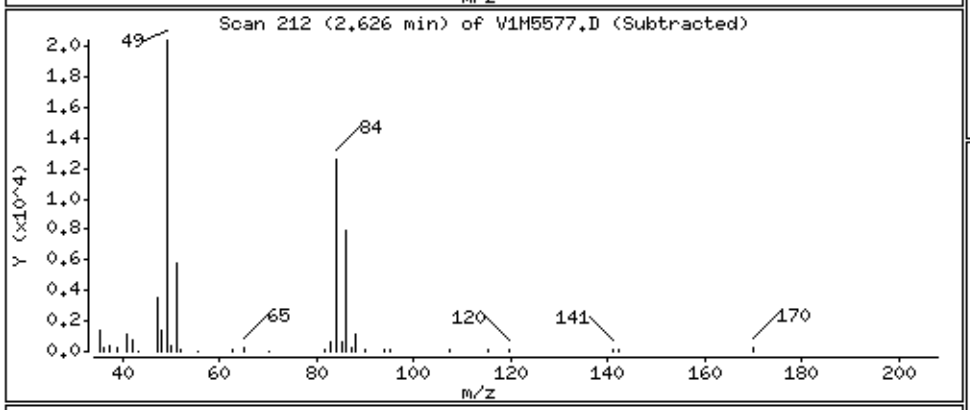
Operator: WL SRC: LIMS

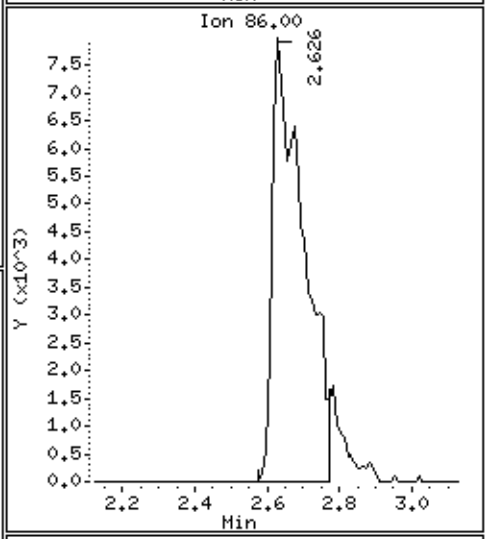
Column phase: DB-624 Column diameter: 0.25

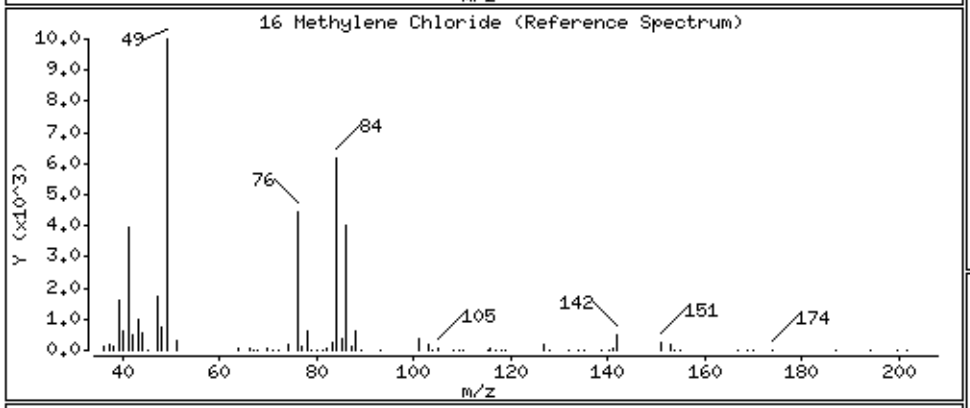
16 Methylene Chloride Concentration: 6 ug/Kg

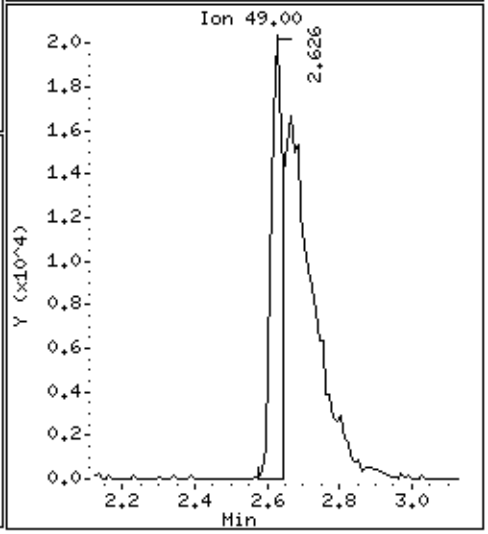


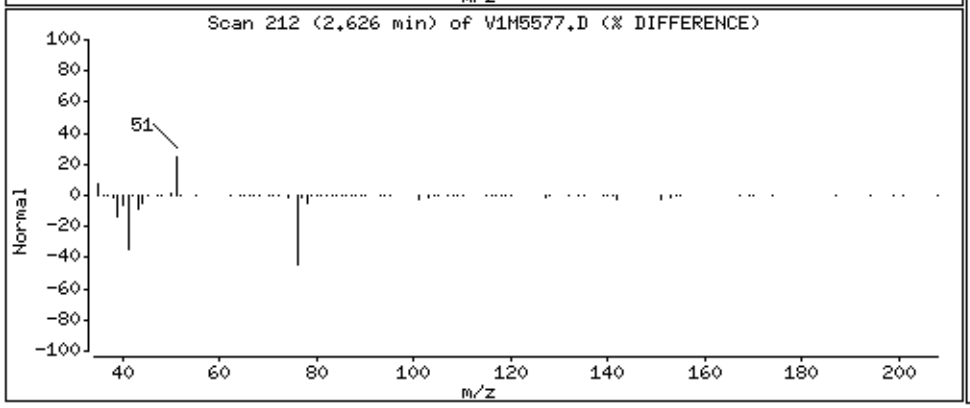












6A - FORM VI VOA-1

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: V1 Calibration Date(s): 10/07/2013 10/07/2013

Heated Purge: (Y/N) Y Calibration Time(s): 9:22 12:24

Purge Volume: 10.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1M5515.D RRF020 = V1M5514.D

RRF050 = V1M5513.D RRF100 = V1M5517.D RRF200 = V1M5518.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dichlorodifluoromethane	0.077	0.097	0.101	0.108	0.115	0.100	14.5
Chloromethane	0.284	0.396	0.416	0.417	0.424	0.387	15.1
Vinyl chloride	0.297	0.292	0.308	0.305	0.324	0.305	4.0
Bromomethane	0.191	0.188	0.184	0.185	0.195	0.189	2.5
Chloroethane	0.200	0.195	0.198	0.192	0.209	0.199	3.2
Trichlorofluoromethane	0.261	0.219	0.230	0.234	0.255	0.240	7.4
1,1-Dichloroethene	0.174	0.191	0.209	0.211	0.234	0.204	11.1
Acetone	0.056	0.050	0.051	0.050	0.057	0.053	6.8
Iodomethane	0.260	0.282	0.307	0.330	0.371	0.310	13.9
Carbon disulfide	1.033	0.992	1.039	1.023	1.091	1.036	3.5
Methylene chloride	0.126	0.233	0.267	0.244	0.264	0.227	25.5
trans-1,2-Dichloroethene	0.224	0.212	0.215	0.223	0.236	0.222	4.2
Methyl tert-butyl ether	0.773	0.716	0.723	0.763	0.784	0.752	4.0
1,1-Dichloroethane	0.490	0.468	0.475	0.483	0.496	0.482	2.3
Vinyl acetate	1.112	1.048	1.068	1.100	1.120	1.090	2.8
2-Butanone	0.041	0.038	0.038	0.040	0.046	0.041	7.9
cis-1,2-Dichloroethene	0.256	0.245	0.245	0.247	0.256	0.250	2.3
2,2-Dichloropropane	0.169	0.159	0.152	0.157	0.155	0.158	4.1
Bromochloromethane	0.129	0.126	0.132	0.134	0.144	0.133	5.2
Chloroform	0.410	0.381	0.385	0.390	0.402	0.394	3.1
1,1,1-Trichloroethane	0.231	0.210	0.216	0.221	0.224	0.220	3.7
1,1-Dichloropropene	0.109	0.101	0.100	0.106	0.110	0.105	4.3
Carbon tetrachloride	0.204	0.193	0.194	0.204	0.214	0.202	4.2
1,2-Dichloroethane	0.306	0.284	0.290	0.295	0.307	0.296	3.4
Benzene	0.966	0.904	0.891	0.915	0.913	0.918	3.1
Trichloroethene	0.235	0.235	0.240	0.239	0.249	0.240	2.4
1,2-Dichloropropane	0.292	0.275	0.277	0.284	0.290	0.284	2.7
Dibromomethane	0.146	0.138	0.139	0.145	0.153	0.144	4.1
Bromodichloromethane	0.287	0.275	0.286	0.296	0.314	0.292	4.9
cis-1,3-Dichloropropene	0.393	0.384	0.405	0.411	0.430	0.405	4.4
4-Methyl-2-pentanone	0.331	0.329	0.304	0.351	0.365	0.336	6.9
Toluene	0.879	0.831	0.832	0.817	0.816	0.835	3.1
trans-1,3-Dichloropropene	0.323	0.322	0.341	0.349	0.373	0.342	6.2
1,1,2-Trichloroethane	0.185	0.183	0.178	0.182	0.194	0.184	3.2
1,3-Dichloropropane	0.531	0.483	0.497	0.508	0.521	0.508	3.8
Tetrachloroethene	0.290	0.253	0.249	0.257	0.263	0.262	6.2
2-Hexanone	0.264	0.515	0.281	0.403	0.361	0.365	27.7
Dibromochloromethane	0.302	0.303	0.323	0.338	0.358	0.325	7.4
1,2-Dibromoethane	0.297	0.269	0.271	0.288	0.302	0.285	5.2

6B - FORM VI VOA-2

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: V1 Calibration Date(s): 10/07/2013 10/07/2013

Heated Purge: (Y/N) Y Calibration Time(s): 9:22 12:24

Purge Volume: 10.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1M5515.D RRF020 = V1M5514.D

RRF050 = V1M5513.D RRF100 = V1M5517.D RRF200 = V1M5518.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Chlorobenzene	0.887	0.791	0.773	0.767	0.780	0.800	6.2
1,1,1,2-Tetrachloroethane	0.295	0.289	0.293	0.296	0.310	0.297	2.7
Ethylbenzene	0.409	0.387	0.387	0.396	0.413	0.398	3.1
m,p-Xylene	0.516	0.495	0.484	0.484	0.467	0.489	3.7
o-Xylene	0.504	0.477	0.474	0.480	0.491	0.485	2.6
Styrene	0.885	0.823	0.830	0.815	0.800	0.831	3.9
Bromoform	0.176	0.178	0.192	0.209	0.228	0.196	11.2
Isopropylbenzene	1.248	1.212	1.206	1.182	1.193	1.208	2.1
1,1,2,2-Tetrachloroethane	0.880	0.768	0.771	0.811	0.849	0.816	6.0
Bromobenzene	0.781	0.692	0.726	0.737	0.764	0.740	4.7
1,2,3-Trichloropropane	0.898	0.817	0.847	0.945	0.688	0.839	11.6
n-Propylbenzene	0.727	0.707	0.733	0.748	0.770	0.737	3.2
2-Chlorotoluene	0.676	0.667	0.673	0.678	0.700	0.679	1.8
1,3,5-Trimethylbenzene	2.232	2.149	2.172	2.144	2.024	2.144	3.5
4-Chlorotoluene	0.690	0.688	0.700	0.704	0.715	0.699	1.6
tert-Butylbenzene	2.464	2.259	2.368	2.284	2.190	2.313	4.6
1,2,4-Trimethylbenzene	2.267	2.178	2.185	2.157	2.045	2.166	3.7
sec-Butylbenzene	2.948	2.909	2.975	2.820	2.631	2.857	4.9
4-Isopropyltoluene	2.502	2.374	2.443	2.333	2.179	2.366	5.2
1,3-Dichlorobenzene	1.517	1.360	1.348	1.341	1.322	1.378	5.7
1,4-Dichlorobenzene	1.500	1.378	1.377	1.344	1.329	1.386	4.9
n-Butylbenzene	2.297	2.265	2.290	2.123	1.994	2.194	6.0
1,2-Dichlorobenzene	1.478	1.298	1.270	1.245	1.254	1.309	7.4
1,2-Dibromo-3-chloropropane	0.091	0.097	0.093	0.107	0.117	0.101	10.6
1,2,4-Trichlorobenzene	0.652	0.743	0.717	0.726	0.751	0.718	5.4
Hexachlorobutadiene	0.520	0.494	0.468	0.421	0.380	0.457	12.4
1,2,3-Trichlorobenzene	0.603	0.654	0.609	0.636	0.651	0.630	3.7
Naphthalene	1.685	1.528	1.441	1.605	1.685	1.589	6.6

6C - FORM VI VOA-3

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: V1 Calibration Date(s): 10/07/2013 10/07/2013

Heated Purge: (Y/N) Y Calibration Time(s): 9:22 12:24

Purge Volume: 10.0 (mL)

GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

LAB FILE ID: RRF005 = V1M5515.D RRF020 = V1M5514.D

RRF050 = V1M5513.D RRF100 = V1M5517.D RRF200 = V1M5518.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF200	$\overline{RRF}$	%RSD
Dibromofluoromethane	0.285	0.286	0.284	0.287	0.295	0.288	1.4
1,2-Dichloroethane-d4	0.068	0.068	0.064	0.066	0.066	0.067	2.8
Toluene-d8	1.272	1.248	1.239	1.255	1.253	1.253	1.0
Bromofluorobenzene	0.462	0.466	0.464	0.474	0.493	0.472	2.7

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5513.D
Report Date: 11-Oct-2013 14:09

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131007.B\V1M5513.D
Lab Smp Id: VSTD0501H Client Smp ID: VSTD0501H
Inj Date : 07-OCT-2013 09:22
Operator : WL   SRC: WL Inst ID: V1.i
Smp Info : 5ML,VSTD0501H,VSTD0501H
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131007.B\v18260GH.m
Meth Date : 08-Oct-2013 11:42 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 09:22 Cal File: V1M5513.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.280	1.295	(0.285)	228920	50.0000	51(Q)
2	Chloromethane	50	1.428	1.443	(0.318)	939733	50.0000	54
3	Vinyl Chloride	62	1.507	1.512	(0.336)	697083	50.0000	50
4	Bromomethane	94	1.743	1.748	(0.388)	415987	50.0000	49
5	Chloroethane	64	1.822	1.817	(0.406)	447794	50.0000	50
6	Trichlorofluoromethane	101	1.979	1.994	(0.441)	518952	50.0000	48
127	Ethanol	46	2.068	2.073	(0.461)	404521	5000.00	4700
7	Ether	59	2.147	2.142	(0.478)	559606	50.0000	48(Q)
8	Acrolein	56	2.225	2.221	(0.496)	640389	250.000	230
9	1,1-Dichloroethene	96	2.334	2.349	(0.520)	472033	50.0000	66(Q)
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.373	2.359	(0.529)	422953	50.0000	61(Q)
11	Acetone	58	2.334	2.339	(0.520)	116150	50.0000	48(Q)
12	Iodomethane	142	2.462	2.457	(0.548)	693677	50.0000	49
13	Carbon Disulfide	76	2.481	2.546	(0.553)	2348667	50.0000	50
14	Acetonitrile	40	2.521	2.526	(0.561)	639585	500.000	460(Q)
15	Methyl Acetate	43	2.560	2.565	(0.570)	717274	50.0000	45
16	Methylene Chloride	84	2.639	2.634	(0.588)	603056	50.0000	59(Q)
17	tert-Butanol	59	2.708	2.713	(0.603)	110590	100.000	88
18	Acrylonitrile	53	2.797	2.792	(0.623)	269231	50.0000	49
20	Methyl tert-butyl ether	73	2.836	2.831	(0.632)	1634347	50.0000	48
19	trans-1,2-Dichloroethene	96	2.836	2.831	(0.632)	485171	50.0000	48

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	21 1,1-Dichloroethane	63	3.131	3.127	(0.697)	1072950	50.0000	49
	22 Vinyl acetate	43	3.181	3.176	(0.708)	2414754	50.0000	49
	23 Diisopropyl Ether	45	3.190	3.186	(0.711)	2798527	50.0000	50
	24 Ethyl tert-butyl ether	59	3.456	3.461	(0.770)	2085904	50.0000	48
M	27 1,2-dichloroethene, (Total)	100				1039607	100.000	(a)
	25 cis-1,2-Dichloroethene	96	3.565	3.560	(0.794)	554436	50.0000	49
	26 2,2-Dichloropropane	77	3.574	3.570	(0.796)	343642	50.0000	48
	28 2-Butanone	72	3.565	3.560	(0.794)	86002	50.0000	47
	29 Bromochloromethane	128	3.742	3.747	(0.833)	297880	50.0000	50
	30 Tetrahydrofuran	72	3.791	3.786	(0.844)	147480	100.000	92
	31 Chloroform	83	3.811	3.806	(0.849)	870632	50.0000	49
$	32 Dibromofluoromethane	113	3.929	3.924	(0.875)	642614	50.0000	49
	33 1,1,1-Trichloroethane	97	3.968	3.964	(0.884)	487229	50.0000	49
	34 Cyclohexane	56	4.017	4.013	(0.895)	918521	50.0000	49
	36 Carbon Tetrachloride	117	4.106	4.101	(0.914)	439333	50.0000	48
	35 1,1-Dichloropropene	110	4.096	4.092	(0.912)	225641	50.0000	47
$	37 1,2-Dichloroethane-d4	102	4.205	4.200	(0.936)	144581	50.0000	48
	38 Benzene	78	4.264	4.259	(0.950)	2014930	50.0000	48
	39 1,2-Dichloroethane	62	4.264	4.259	(0.950)	654561	50.0000	49
	40 tert-Amyl methyl ether	73	4.362	4.348	(0.971)	1657535	50.0000	49
*	41 Fluorobenzene	96	4.490	4.485	(1.000)	2260691	50.0000	
	42 Trichloroethene	130	4.805	4.801	(1.070)	542401	50.0000	50
	43 Methylcyclohexane	83	4.982	4.978	(1.110)	922139	50.0000	51
	44 1,2-Dichloropropane	63	4.992	4.988	(1.112)	626858	50.0000	49
	46 Dibromomethane	93	5.091	5.086	(1.134)	314283	50.0000	48
	47 1,4-Dioxane	88	5.110	5.106	(1.138)	115742	1000.00	790
	48 Bromodichloromethane	83	5.238	5.224	(1.167)	646982	50.0000	49
	45 2-Chloroethyl vinyl ether	63	5.514	5.509	(1.228)	9624	50.0000	47
	49 cis-1,3-Dichloropropene	75	5.652	5.637	(1.259)	915465	50.0000	50
	50 4-Methyl-2-pentanone	43	5.790	5.785	(1.289)	687191	50.0000	45
$	51 Toluene-d8	98	5.908	5.903	(0.803)	2014364	50.0000	49
	52 Toluene	91	5.977	5.962	(1.331)	1881005	50.0000	50
	53 trans-1,3-Dichloropropene	75	6.174	6.169	(1.375)	770979	50.0000	50
	54 1,1,2-Trichloroethane	97	6.351	6.346	(1.414)	402100	50.0000	48
	55 Tetrachloroethene	164	6.518	6.504	(0.886)	404189	50.0000	47
	56 1,3-Dichloropropane	76	6.518	6.514	(0.886)	807256	50.0000	49
	57 2-Hexanone	43	6.617	6.612	(0.900)	457315	50.0000	38
	58 Dibromochloromethane	129	6.745	6.740	(0.917)	525180	50.0000	50
	59 1,2-Dibromoethane	107	6.863	6.858	(0.933)	441138	50.0000	48
*	60 Chlorobenzene-d5	117	7.355	7.351	(1.000)	1625821	50.0000	
	63 1-Chlorohexane	91	7.385	7.370	(1.004)	785970	50.0000	49(Q)
	61 Chlorobenzene	112	7.385	7.380	(1.004)	1257480	50.0000	48
	62 1,1,1,2-Tetrachloroethane	131	7.473	7.469	(1.016)	476880	50.0000	49
	64 Ethylbenzene	106	7.513	7.508	(1.021)	629248	50.0000	48
	65 m,p-Xylene	106	7.641	7.636	(1.039)	1575169	100.000	99
	66 o-Xylene	106	8.064	8.069	(1.096)	770563	50.0000	49
	67 Styrene	104	8.084	8.079	(1.099)	1349810	50.0000	50
	68 Bromoform	173	8.261	8.257	(1.123)	312902	50.0000	49
	69 Isopropylbenzene	105	8.488	8.483	(1.154)	1960284	50.0000	50
	126 trans-1,4-Dichloro-2-butene	75	8.547	8.542	(1.162)	191409	50.0000	46
$	70 Bromofluorobenzene	95	8.645	8.641	(1.175)	754045	50.0000	49
	72 Bromobenzene	156	8.803	8.798	(0.888)	546190	50.0000	49
	71 1,1,2,2-Tetrachloroethane	83	8.813	8.808	(0.889)	580489	50.0000	47
	73 1,2,3-Trichloropropane	75	8.852	8.847	(0.893)	637765	50.0000	50

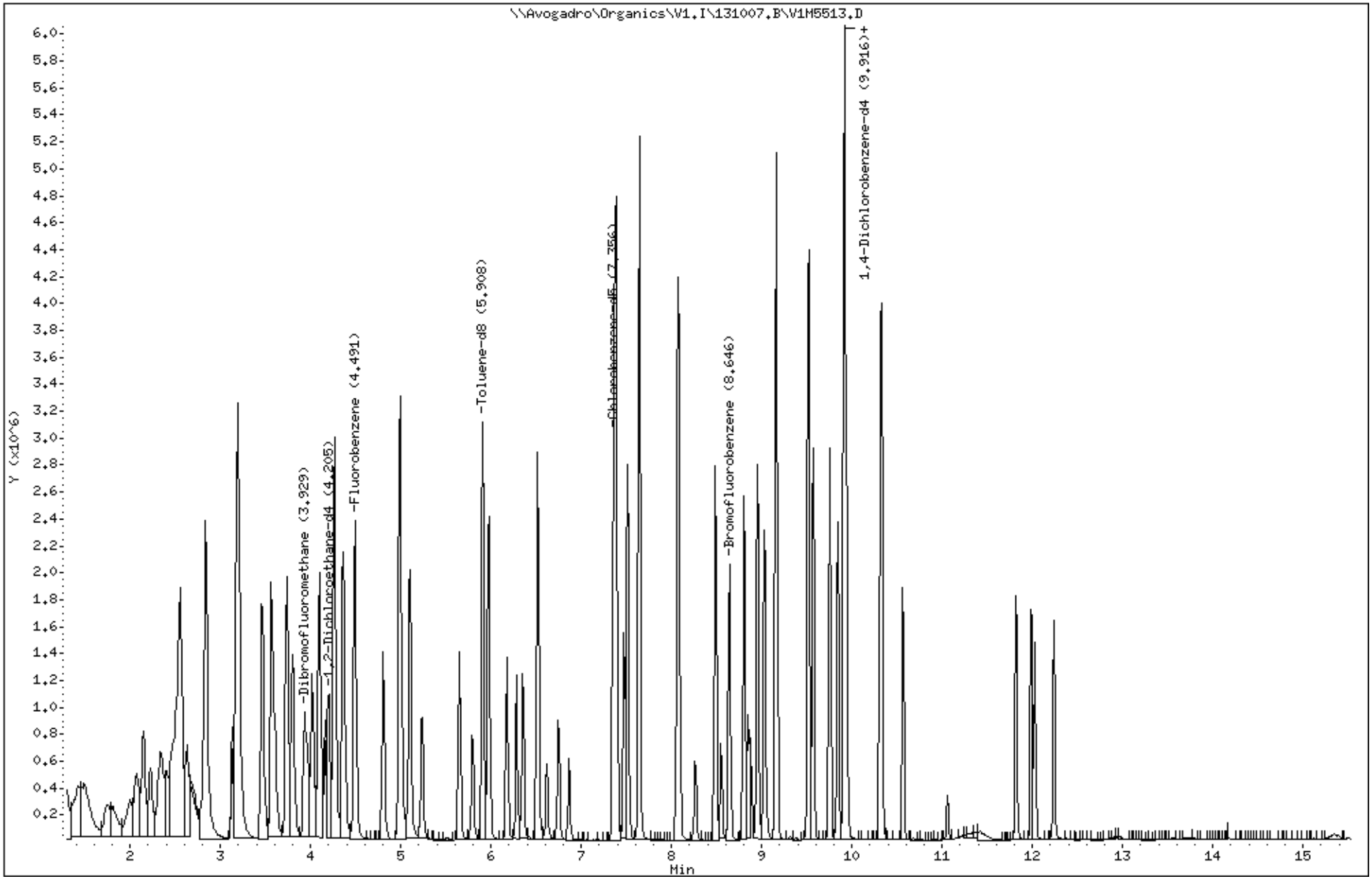
Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5513.D
Report Date: 11-Oct-2013 14:09

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	74 n-Propylbenzene	120	8.950	8.956	(0.903)	552109	50.0000	50	
	75 2-Chlorotoluene	126	9.029	9.034	(0.911)	506545	50.0000	50	
	76 1,3,5-Trimethylbenzene	105	9.157	9.162	(0.924)	1635386	50.0000	51	
	77 4-Chlorotoluene	126	9.157	9.153	(0.924)	526685	50.0000	50	
	78 tert-Butylbenzene	119	9.521	9.517	(0.960)	1782640	50.0000	51	
	79 1,2,4-Trimethylbenzene	105	9.571	9.566	(0.965)	1644849	50.0000	50	
M	81 Xylene (Total)	106				2345732	150.000		(a)
	80 sec-Butylbenzene	105	9.758	9.753	(0.984)	2239627	50.0000	52	
	82 1,3-Dichlorobenzene	146	9.846	9.842	(0.993)	1014688	50.0000	49	
	83 4-Isopropyltoluene	119	9.915	9.911	(1.000)	1839460	50.0000	52	
*	84 1,4-Dichlorobenzene-d4	152	9.915	9.911	(1.000)	752822	50.0000		
	85 1,4-Dichlorobenzene	146	9.935	9.940	(1.002)	1036807	50.0000	50	
	86 n-Butylbenzene	91	10.329	10.324	(1.042)	1723826	50.0000	52	
	87 1,2-Dichlorobenzene	146	10.309	10.314	(1.040)	956088	50.0000	48	
	88 1,2-Dibromo-3-chloropropane	75	11.057	11.053	(1.115)	70365	50.0000	46	
	89 1,2,4-Trichlorobenzene	180	11.825	11.821	(1.193)	539682	50.0000	50	
	90 Hexachlorobutadiene	225	11.993	11.988	(1.210)	352453	50.0000	51	
	91 Naphthalene	128	12.022	12.028	(1.212)	1084913	50.0000	45	
	92 1,2,3-Trichlorobenzene	180	12.239	12.234	(1.234)	458628	50.0000	48	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5513.D
Date : 07-OCT-2013 09:22
Client ID: VSTD0501H
Instrument: V1.i
Sample Info: 5ML,VSTD0501H,VSTD0501H
Operator: WL SRC: WL
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5514.D
Report Date: 11-Oct-2013 14:09

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131007.B\V1M5514.D
Lab Smp Id: VSTD0201H Client Smp ID: VSTD0201H
Inj Date : 07-OCT-2013 10:16
Operator : WL   SRC: WL Inst ID: V1.i
Smp Info : 5ML,VSTD0201H,VSTD0201H
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131007.B\v18260GH.m
Meth Date : 08-Oct-2013 11:42 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 10:16 Cal File: V1M5514.D
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.286	1.295	(0.287)	85071	20.0000	19
2	Chloromethane	50	1.433	1.443	(0.320)	346719	20.0000	20
3	Vinyl Chloride	62	1.502	1.512	(0.335)	255956	20.0000	19
4	Bromomethane	94	1.738	1.748	(0.388)	164540	20.0000	20
5	Chloroethane	64	1.827	1.817	(0.407)	170733	20.0000	20
6	Trichlorofluoromethane	101	1.994	1.994	(0.445)	191980	20.0000	18
127	Ethanol	46	2.073	2.073	(0.462)	192436	2000.00	2300
7	Ether	59	2.142	2.142	(0.478)	209776	20.0000	19(Q)
8	Acrolein	56	2.231	2.221	(0.497)	239503	100.000	88
9	1,1-Dichloroethene	96	2.339	2.349	(0.522)	167003	20.0000	24
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.349	2.359	(0.524)	141815	20.0000	21
11	Acetone	58	2.329	2.339	(0.519)	44006	20.0000	19
12	Iodomethane	142	2.467	2.457	(0.550)	246754	20.0000	18
13	Carbon Disulfide	76	2.477	2.546	(0.552)	868692	20.0000	19
14	Acetonitrile	40	2.526	2.526	(0.563)	252387	200.000	190
15	Methyl Acetate	43	2.566	2.565	(0.572)	282675	20.0000	18
16	Methylene Chloride	84	2.634	2.634	(0.587)	204205	20.0000	20
17	tert-Butanol	59	2.713	2.713	(0.605)	46809	40.0000	38
18	Acrylonitrile	53	2.802	2.792	(0.625)	99214	20.0000	18
20	Methyl tert-butyl ether	73	2.841	2.831	(0.633)	627373	20.0000	19
19	trans-1,2-Dichloroethene	96	2.831	2.831	(0.631)	186049	20.0000	19

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	21 1,1-Dichloroethane	63	3.137	3.127	(0.699)	409977	20.0000	19
	22 Vinyl acetate	43	3.186	3.176	(0.710)	918047	20.0000	19
	23 Diisopropyl Ether	45	3.196	3.186	(0.712)	1072959	20.0000	20
	24 Ethyl tert-butyl ether	59	3.462	3.461	(0.772)	820904	20.0000	19
M	27 1,2-dichloroethene, (Total)	100				400708	40.0000	(a)
	25 cis-1,2-Dichloroethene	96	3.560	3.560	(0.794)	214659	20.0000	20
	26 2,2-Dichloropropane	77	3.570	3.570	(0.796)	139220	20.0000	20
	28 2-Butanone	72	3.570	3.560	(0.796)	33366	20.0000	19(Q)
	29 Bromochloromethane	128	3.747	3.747	(0.835)	110057	20.0000	19
	30 Tetrahydrofuran	72	3.786	3.786	(0.844)	57255	40.0000	37
	31 Chloroform	83	3.806	3.806	(0.849)	333801	20.0000	19
$	32 Dibromofluoromethane	113	3.934	3.924	(0.877)	627172	50.0000	50
	33 1,1,1-Trichloroethane	97	3.964	3.964	(0.884)	183687	20.0000	19
	34 Cyclohexane	56	4.023	4.013	(0.897)	352794	20.0000	20
	36 Carbon Tetrachloride	117	4.102	4.101	(0.914)	168594	20.0000	19
	35 1,1-Dichloropropene	110	4.102	4.092	(0.914)	88578	20.0000	19
$	37 1,2-Dichloroethane-d4	102	4.200	4.200	(0.936)	149331	50.0000	51
	38 Benzene	78	4.259	4.259	(0.950)	791231	20.0000	20
	39 1,2-Dichloroethane	62	4.259	4.259	(0.950)	248678	20.0000	19
	40 tert-Amyl methyl ether	73	4.358	4.348	(0.971)	639964	20.0000	20
*	41 Fluorobenzene	96	4.486	4.485	(1.000)	2189195	50.0000	
	42 Trichloroethene	130	4.801	4.801	(1.070)	205683	20.0000	20
	43 Methylcyclohexane	83	4.978	4.978	(1.110)	344448	20.0000	20
	44 1,2-Dichloropropane	63	4.988	4.988	(1.112)	240635	20.0000	19
	46 Dibromomethane	93	5.086	5.086	(1.134)	120856	20.0000	19
	47 1,4-Dioxane	88	5.106	5.106	(1.138)	77692	400.000	550
	48 Bromodichloromethane	83	5.224	5.224	(1.165)	240906	20.0000	19
	45 2-Chloroethyl vinyl ether	63	5.510	5.509	(1.228)	4170	20.0000	21
	49 cis-1,3-Dichloropropene	75	5.638	5.637	(1.257)	335883	20.0000	19
	50 4-Methyl-2-pentanone	43	5.785	5.785	(1.290)	287945	20.0000	20
$	51 Toluene-d8	98	5.903	5.903	(0.803)	1944657	50.0000	50
	52 Toluene	91	5.962	5.962	(1.329)	727428	20.0000	20
	53 trans-1,3-Dichloropropene	75	6.169	6.169	(1.375)	282251	20.0000	19
	54 1,1,2-Trichloroethane	97	6.346	6.346	(1.415)	160123	20.0000	20
	55 Tetrachloroethene	164	6.514	6.504	(0.886)	157476	20.0000	19
	56 1,3-Dichloropropane	76	6.514	6.514	(0.886)	300848	20.0000	19
	57 2-Hexanone	43	6.612	6.612	(0.900)	320706	20.0000	28
	58 Dibromochloromethane	129	6.740	6.740	(0.917)	189162	20.0000	19
	59 1,2-Dibromoethane	107	6.858	6.858	(0.933)	167830	20.0000	19
*	60 Chlorobenzene-d5	117	7.351	7.351	(1.000)	1558261	50.0000	
	63 1-Chlorohexane	91	7.370	7.370	(1.003)	304420	20.0000	20(Q)
	61 Chlorobenzene	112	7.380	7.380	(1.004)	492848	20.0000	20
	62 1,1,1,2-Tetrachloroethane	131	7.469	7.469	(1.016)	180267	20.0000	19
	64 Ethylbenzene	106	7.508	7.508	(1.021)	241238	20.0000	19
	65 m,p-Xylene	106	7.636	7.636	(1.039)	616572	40.0000	40
	66 o-Xylene	106	8.070	8.069	(1.098)	297093	20.0000	20
	67 Styrene	104	8.079	8.079	(1.099)	512817	20.0000	20
	68 Bromoform	173	8.266	8.257	(1.125)	110771	20.0000	18
	69 Isopropylbenzene	105	8.483	8.483	(1.154)	755160	20.0000	20
	126 trans-1,4-Dichloro-2-butene	75	8.542	8.542	(1.162)	65744	20.0000	16
$	70 Bromofluorobenzene	95	8.641	8.641	(1.175)	725592	50.0000	49
	72 Bromobenzene	156	8.798	8.798	(0.887)	200727	20.0000	19
	71 1,1,2,2-Tetrachloroethane	83	8.808	8.808	(0.888)	222633	20.0000	19
	73 1,2,3-Trichloropropane	75	8.847	8.847	(0.892)	236892	20.0000	19

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5514.D
Report Date: 11-Oct-2013 14:09

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	74	n-Propylbenzene	120	8.956	8.956	(0.903)	204966	20.0000	19
	75	2-Chlorotoluene	126	9.034	9.034	(0.911)	193412	20.0000	20
	76	1,3,5-Trimethylbenzene	105	9.162	9.162	(0.924)	623248	20.0000	20
	77	4-Chlorotoluene	126	9.162	9.153	(0.924)	199592	20.0000	20
	78	tert-Butylbenzene	119	9.517	9.517	(0.959)	655222	20.0000	20
	79	1,2,4-Trimethylbenzene	105	9.566	9.566	(0.964)	631666	20.0000	20
M	81	Xylene (Total)	106				913665	60.0000	(a)
	80	sec-Butylbenzene	105	9.753	9.753	(0.983)	843900	20.0000	20
	82	1,3-Dichlorobenzene	146	9.852	9.842	(0.993)	394427	20.0000	20
	83	4-Isopropyltoluene	119	9.911	9.911	(0.999)	688690	20.0000	20
*	84	1,4-Dichlorobenzene-d4	152	9.921	9.911	(1.000)	725130	50.0000	
	85	1,4-Dichlorobenzene	146	9.940	9.940	(1.002)	399830	20.0000	20
	86	n-Butylbenzene	91	10.334	10.324	(1.042)	657007	20.0000	21
	87	1,2-Dichlorobenzene	146	10.314	10.314	(1.040)	376527	20.0000	20
	88	1,2-Dibromo-3-chloropropane	75	11.063	11.053	(1.115)	28067	20.0000	19
	89	1,2,4-Trichlorobenzene	180	11.821	11.821	(1.192)	215465	20.0000	21
	90	Hexachlorobutadiene	225	11.988	11.988	(1.208)	143419	20.0000	22
	91	Naphthalene	128	12.028	12.028	(1.212)	443341	20.0000	19
	92	1,2,3-Trichlorobenzene	180	12.244	12.234	(1.234)	189551	20.0000	21

QC Flag Legend

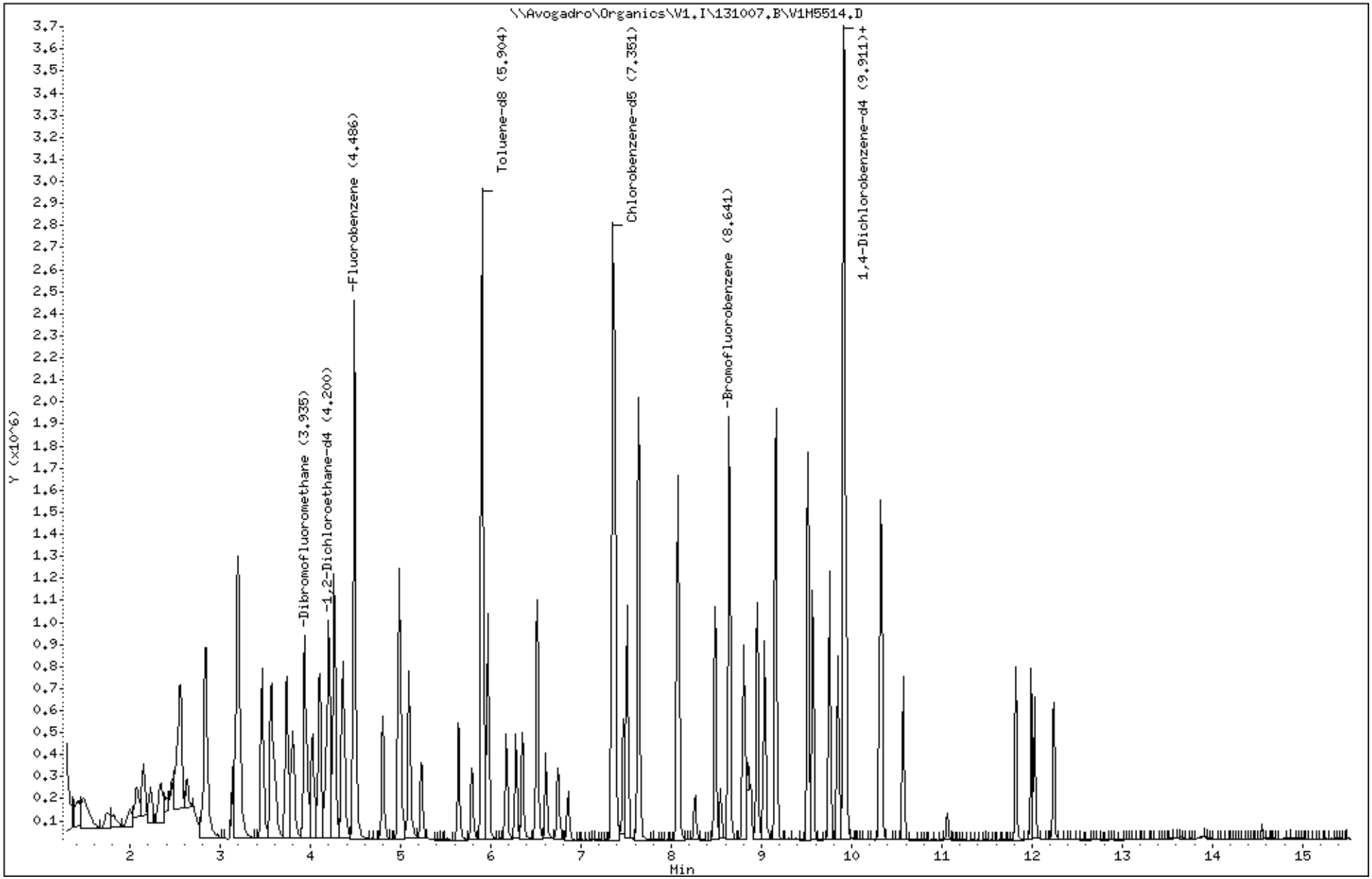
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5514.D
Date : 07-OCT-2013 10:16
Client ID: VSTD0201H
Sample Info: 5ML,VSTD0201H,VSTD0201H

Instrument: V1.i

Operator: WL SRC: WL
Column diameter: 0.25

Column phase: DB-624



Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5515.D
Report Date: 11-Oct-2013 14:09

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131007.B\V1M5515.D
Lab Smp Id: VSTD0051H Client Smp ID: VSTD0051H
Inj Date : 07-OCT-2013 10:41
Operator : WL   SRC: WL Inst ID: V1.i
Smp Info : 5ML,VSTD0051H,VSTD0051H
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131007.B\v18260GH.m
Meth Date : 08-Oct-2013 11:42 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 10:41 Cal File: V1M5515.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.293	1.295	(0.288)	15821	5.00000	4
2	Chloromethane	50	1.421	1.443	(0.317)	58484	5.00000	4
3	Vinyl Chloride	62	1.529	1.512	(0.341)	61139	5.00000	5
4	Bromomethane	94	1.745	1.748	(0.389)	39334	5.00000	5
5	Chloroethane	64	1.824	1.817	(0.407)	41116	5.00000	5
6	Trichlorofluoromethane	101	1.982	1.994	(0.442)	53689	5.00000	5
127	Ethanol	46	2.070	2.073	(0.462)	43263	500.000	550
7	Ether	59	2.149	2.142	(0.479)	52837	5.00000	5
8	Acrolein	56	2.228	2.221	(0.497)	74315	25.0000	29
9	1,1-Dichloroethene	96	2.346	2.349	(0.523)	35780	5.00000	6
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.366	2.359	(0.528)	14921	5.00000	2(Q)
11	Acetone	58	2.336	2.339	(0.521)	11604	5.00000	5(Q)
12	Iodomethane	142	2.454	2.457	(0.548)	53517	5.00000	4
13	Carbon Disulfide	76	2.474	2.546	(0.552)	212527	5.00000	5
14	Acetonitrile	40	2.523	2.526	(0.563)	74969	50.0000	59(Q)
15	Methyl Acetate	43	2.563	2.565	(0.572)	82424	5.00000	6
16	Methylene Chloride	84	2.632	2.634	(0.587)	26012	5.00000	3(Q)
17	tert-Butanol	59	2.720	2.713	(0.607)	13349	10.0000	12
18	Acrylonitrile	53	2.799	2.792	(0.624)	24016	5.00000	5
20	Methyl tert-butyl ether	73	2.838	2.831	(0.633)	159089	5.00000	5
19	trans-1,2-Dichloroethene	96	2.838	2.831	(0.633)	46098	5.00000	5

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
	21	1,1-Dichloroethane	63	3.134	3.127	(0.699)	100714	5.00000	5
	22	Vinyl acetate	43	3.183	3.176	(0.710)	228809	5.00000	5
	23	Diisopropyl Ether	45	3.193	3.186	(0.712)	269451	5.00000	5
	24	Ethyl tert-butyl ether	59	3.469	3.461	(0.774)	205343	5.00000	5
M	27	1,2-dichloroethene, (Total)	100				98794	10.0000	(a)
	25	cis-1,2-Dichloroethene	96	3.567	3.560	(0.796)	52696	5.00000	5
	26	2,2-Dichloropropane	77	3.567	3.570	(0.796)	34754	5.00000	5
	28	2-Butanone	72	3.567	3.560	(0.796)	8478	5.00000	5(Q)
	29	Bromochloromethane	128	3.754	3.747	(0.837)	26608	5.00000	5
	30	Tetrahydrofuran	72	3.793	3.786	(0.846)	15521	10.0000	11
	31	Chloroform	83	3.813	3.806	(0.851)	84371	5.00000	5
$	32	Dibromofluoromethane	113	3.931	3.924	(0.877)	586176	50.0000	50
	33	1,1,1-Trichloroethane	97	3.971	3.964	(0.886)	47516	5.00000	5
	34	Cyclohexane	56	4.020	4.013	(0.897)	83683	5.00000	5
	36	Carbon Tetrachloride	117	4.099	4.101	(0.914)	41998	5.00000	5
	35	1,1-Dichloropropene	110	4.099	4.092	(0.914)	22464	5.00000	5
$	37	1,2-Dichloroethane-d4	102	4.207	4.200	(0.939)	140906	50.0000	51
	38	Benzene	78	4.266	4.259	(0.952)	198665	5.00000	5
	39	1,2-Dichloroethane	62	4.266	4.259	(0.952)	62982	5.00000	5
	40	tert-Amyl methyl ether	73	4.355	4.348	(0.971)	150199	5.00000	5
*	41	Fluorobenzene	96	4.483	4.485	(1.000)	2057101	50.0000	
	42	Trichloroethene	130	4.798	4.801	(1.070)	48394	5.00000	5
	43	Methylcyclohexane	83	4.985	4.978	(1.112)	81109	5.00000	5
	44	1,2-Dichloropropane	63	4.985	4.988	(1.112)	60141	5.00000	5
	46	Dibromomethane	93	5.083	5.086	(1.134)	29997	5.00000	5
	47	1,4-Dioxane	88	5.103	5.106	(1.138)	16304	100.000	120
	48	Bromodichloromethane	83	5.231	5.224	(1.167)	59087	5.00000	5
	45	2-Chloroethyl vinyl ether	63	5.507	5.509	(1.228)	1036	5.00000	6(T)
	49	cis-1,3-Dichloropropene	75	5.635	5.637	(1.257)	80897	5.00000	5
	50	4-Methyl-2-pentanone	43	5.782	5.785	(1.290)	68132	5.00000	5
$	51	Toluene-d8	98	5.901	5.903	(0.803)	1833970	50.0000	51
	52	Toluene	91	5.960	5.962	(1.329)	180912	5.00000	5
	53	trans-1,3-Dichloropropene	75	6.166	6.169	(1.376)	66445	5.00000	5
	54	1,1,2-Trichloroethane	97	6.344	6.346	(1.415)	37994	5.00000	5
	55	Tetrachloroethene	164	6.501	6.504	(0.885)	41744	5.00000	6
	56	1,3-Dichloropropane	76	6.511	6.514	(0.886)	76561	5.00000	5
	57	2-Hexanone	43	6.600	6.612	(0.898)	38116	5.00000	4
	58	Dibromochloromethane	129	6.737	6.740	(0.917)	43496	5.00000	5(T)
	59	1,2-Dibromoethane	107	6.856	6.858	(0.933)	42757	5.00000	5
*	60	Chlorobenzene-d5	117	7.348	7.351	(1.000)	1441349	50.0000	
	63	1-Chlorohexane	91	7.368	7.370	(1.003)	71776	5.00000	5(Q)
	61	Chlorobenzene	112	7.377	7.380	(1.004)	127828	5.00000	6
	62	1,1,1,2-Tetrachloroethane	131	7.466	7.469	(1.016)	42453	5.00000	5
	64	Ethylbenzene	106	7.505	7.508	(1.021)	58979	5.00000	5
	65	m,p-Xylene	106	7.633	7.636	(1.039)	148747	10.0000	10
	66	o-Xylene	106	8.057	8.069	(1.096)	72714	5.00000	5
	67	Styrene	104	8.077	8.079	(1.099)	127577	5.00000	5
	68	Bromoform	173	8.254	8.257	(1.123)	25301	5.00000	4
	69	Isopropylbenzene	105	8.480	8.483	(1.154)	179843	5.00000	5
	126	trans-1,4-Dichloro-2-butene	75	8.539	8.542	(1.162)	16759	5.00000	4
$	70	Bromofluorobenzene	95	8.638	8.641	(1.176)	665838	50.0000	49
	72	Bromobenzene	156	8.795	8.798	(0.887)	51421	5.00000	5
	71	1,1,2,2-Tetrachloroethane	83	8.805	8.808	(0.888)	57967	5.00000	5
	73	1,2,3-Trichloropropane	75	8.845	8.847	(0.892)	59102	5.00000	5

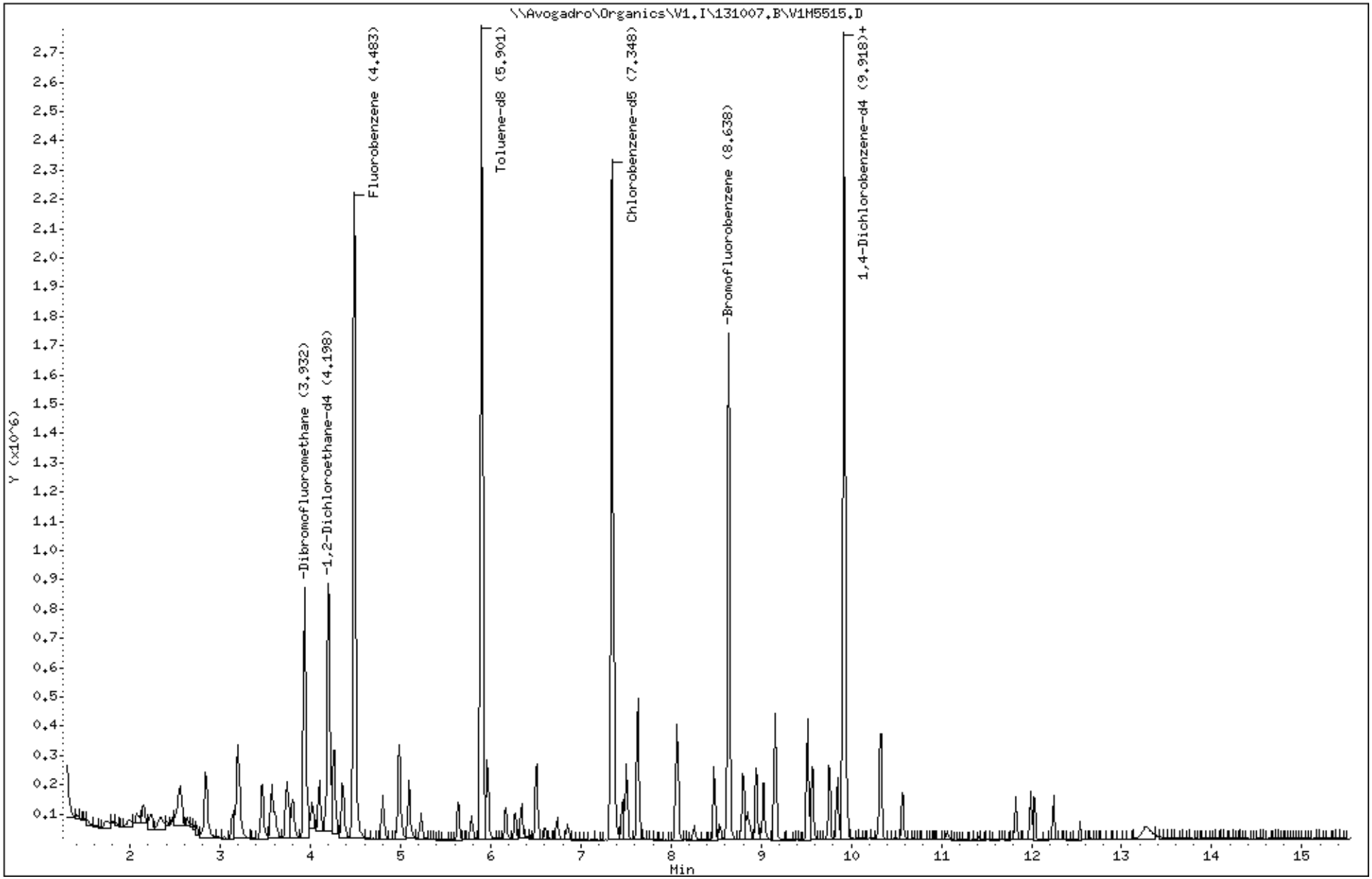
Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5515.D
Report Date: 11-Oct-2013 14:09

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	74	n-Propylbenzene	120	8.953	8.956	(0.903)	47871	5.00000	5	
	75	2-Chlorotoluene	126	9.032	9.034	(0.911)	44512	5.00000	5	
	76	1,3,5-Trimethylbenzene	105	9.160	9.162	(0.924)	146955	5.00000	5	
	77	4-Chlorotoluene	126	9.150	9.153	(0.923)	45455	5.00000	5	
	78	tert-Butylbenzene	119	9.514	9.517	(0.959)	162247	5.00000	5	
	79	1,2,4-Trimethylbenzene	105	9.563	9.566	(0.964)	149254	5.00000	5	
M	81	Xylene (Total)	106				221461	15.0000		(a)
	80	sec-Butylbenzene	105	9.750	9.753	(0.983)	194156	5.00000	5	
	82	1,3-Dichlorobenzene	146	9.849	9.842	(0.993)	99880	5.00000	6	
	83	4-Isopropyltoluene	119	9.918	9.911	(1.000)	164740	5.00000	5	
*	84	1,4-Dichlorobenzene-d4	152	9.918	9.911	(1.000)	658508	50.0000		
	85	1,4-Dichlorobenzene	146	9.947	9.940	(1.003)	98773	5.00000	5	
	86	n-Butylbenzene	91	10.331	10.324	(1.042)	151267	5.00000	5	
	87	1,2-Dichlorobenzene	146	10.312	10.314	(1.040)	97344	5.00000	6	
	88	1,2-Dibromo-3-chloropropane	75	11.060	11.053	(1.115)	5975	5.00000	4	
	89	1,2,4-Trichlorobenzene	180	11.828	11.821	(1.193)	42928	5.00000	4	
	90	Hexachlorobutadiene	225	11.995	11.988	(1.209)	34218	5.00000	6	
	91	Naphthalene	128	12.035	12.028	(1.213)	110959	5.00000	5	
	92	1,2,3-Trichlorobenzene	180	12.241	12.234	(1.234)	39677	5.00000	5	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5515.D
Date : 07-OCT-2013 10:41
Client ID: VSTD0051H
Instrument: V1.i
Sample Info: 5ML,VSTD0051H,VSTD0051H
Operator: WL SRC: WL
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5517.D
Report Date: 11-Oct-2013 14:09

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131007.B\V1M5517.D
Lab Smp Id: VSTD1001H Client Smp ID: VSTD1001H
Inj Date : 07-OCT-2013 11:59
Operator : WL   SRC: WL Inst ID: V1.i
Smp Info : 5ML,VSTD1001H,VSTD1001H
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131007.B\v18260GH.m
Meth Date : 08-Oct-2013 11:42 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 11:59 Cal File: V1M5517.D
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	
1	Dichlorodifluoromethane	85	1.300	1.295	(0.290)	487787	100.000	110(M)M7 AM 10/11	
2	Chloromethane	50	1.438	1.443	(0.321)	1882151	100.000	110	
3	Vinyl Chloride	62	1.517	1.512	(0.339)	1375124	100.000	100	
4	Bromomethane	94	1.743	1.748	(0.389)	832812	100.000	98	
5	Chloroethane	64	1.812	1.817	(0.404)	866250	100.000	96	
6	Trichlorofluoromethane	101	1.979	1.994	(0.442)	1055529	100.000	98	
127	Ethanol	46	2.068	2.073	(0.462)	869533	10000.0	10000	
7	Ether	59	2.137	2.142	(0.477)	1199928	100.000	100(Q)	
8	Acrolein	56	2.226	2.221	(0.497)	1400865	500.000	500	
9	1,1-Dichloroethene	96	2.344	2.349	(0.523)	953165	100.000	130	
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.354	2.359	(0.525)	660398	100.000	95	
11	Acetone	58	2.324	2.339	(0.519)	224755	100.000	94(Q)	
12	Iodomethane	142	2.452	2.457	(0.547)	1490149	100.000	110	
13	Carbon Disulfide	76	2.541	2.546	(0.567)	4615459	100.000	99	
14	Acetonitrile	40	2.521	2.526	(0.563)	1335565	1000.00	960(Q)	
15	Methyl Acetate	43	2.550	2.565	(0.569)	1546193	100.000	97	
16	Methylene Chloride	84	2.629	2.634	(0.587)	1100367	100.000	110(Q)	
17	tert-Butanol	59	2.708	2.713	(0.604)	244180	200.000	190	
18	Acrylonitrile	53	2.797	2.792	(0.624)	561193	100.000	100	
20	Methyl tert-butyl ether	73	2.836	2.831	(0.633)	3444836	100.000	100	
19	trans-1,2-Dichloroethene	96	2.826	2.831	(0.631)	1006941	100.000	100	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	21 1,1-Dichloroethane	63	3.122	3.127	(0.697)	2180262	100.000	100
	22 Vinyl acetate	43	3.171	3.176	(0.708)	4965863	100.000	100
	23 Diisopropyl Ether	45	3.181	3.186	(0.710)	5636487	100.000	100
	24 Ethyl tert-butyl ether	59	3.456	3.461	(0.771)	4388155	100.000	100
M	27 1,2-dichloroethene, (Total)	100				2120196	200.000	(a)
	25 cis-1,2-Dichloroethene	96	3.555	3.560	(0.793)	1113255	100.000	99
	26 2,2-Dichloropropane	77	3.565	3.570	(0.796)	709482	100.000	99
	28 2-Butanone	72	3.565	3.560	(0.796)	181276	100.000	99
	29 Bromochloromethane	128	3.742	3.747	(0.835)	602519	100.000	100
	30 Tetrahydrofuran	72	3.781	3.786	(0.844)	312506	200.000	200
	31 Chloroform	83	3.801	3.806	(0.848)	1759486	100.000	99
$	32 Dibromofluoromethane	113	3.919	3.924	(0.875)	648395	50.0000	50
	33 1,1,1-Trichloroethane	97	3.958	3.964	(0.884)	997297	100.000	100
	34 Cyclohexane	56	4.008	4.013	(0.895)	1872445	100.000	100
	36 Carbon Tetrachloride	117	4.096	4.101	(0.914)	921610	100.000	100
	35 1,1-Dichloropropene	110	4.086	4.092	(0.912)	478781	100.000	100
$	37 1,2-Dichloroethane-d4	102	4.195	4.200	(0.936)	149106	50.0000	50
	38 Benzene	78	4.254	4.259	(0.949)	4128365	100.000	100
	39 1,2-Dichloroethane	62	4.254	4.259	(0.949)	1330330	100.000	99
	40 tert-Amyl methyl ether	73	4.352	4.348	(0.971)	3470080	100.000	100
*	41 Fluorobenzene	96	4.480	4.485	(1.000)	2256416	50.0000	
	42 Trichloroethene	130	4.795	4.801	(1.070)	1079566	100.000	100
	43 Methylcyclohexane	83	4.973	4.978	(1.110)	1822912	100.000	100
	44 1,2-Dichloropropane	63	4.982	4.988	(1.112)	1280469	100.000	100
	46 Dibromomethane	93	5.081	5.086	(1.134)	655397	100.000	100
	47 1,4-Dioxane	88	5.101	5.106	(1.138)	303920	2000.00	2100
	48 Bromodichloromethane	83	5.219	5.224	(1.165)	1335300	100.000	100
	45 2-Chloroethyl vinyl ether	63	5.504	5.509	(1.229)	17861	100.000	87
	49 cis-1,3-Dichloropropene	75	5.642	5.637	(1.259)	1853307	100.000	100
	50 4-Methyl-2-pentanone	43	5.780	5.785	(1.290)	1584081	100.000	100
$	51 Toluene-d8	98	5.898	5.903	(0.803)	2014740	50.0000	50
	52 Toluene	91	5.967	5.962	(1.332)	3687077	100.000	98
	53 trans-1,3-Dichloropropene	75	6.164	6.169	(1.376)	1575961	100.000	100
	54 1,1,2-Trichloroethane	97	6.341	6.346	(1.415)	823514	100.000	99
	55 Tetrachloroethene	164	6.509	6.504	(0.886)	825657	100.000	98
	56 1,3-Dichloropropane	76	6.509	6.514	(0.886)	1630430	100.000	100
	57 2-Hexanone	43	6.607	6.612	(0.899)	1293499	100.000	110
	58 Dibromochloromethane	129	6.735	6.740	(0.917)	1084298	100.000	100
	59 1,2-Dibromoethane	107	6.853	6.858	(0.933)	923551	100.000	100
*	60 Chlorobenzene-d5	117	7.345	7.351	(1.000)	1605601	50.0000	
	63 1-Chlorohexane	91	7.375	7.370	(1.004)	1550806	100.000	99(Q)
	61 Chlorobenzene	112	7.375	7.380	(1.004)	2462501	100.000	96
	62 1,1,1,2-Tetrachloroethane	131	7.464	7.469	(1.016)	952090	100.000	100
	64 Ethylbenzene	106	7.503	7.508	(1.021)	1271655	100.000	99
	65 m,p-Xylene	106	7.641	7.636	(1.040)	3107713	200.000	200
	66 o-Xylene	106	8.064	8.069	(1.098)	1540069	100.000	99
	67 Styrene	104	8.074	8.079	(1.099)	2617747	100.000	98
	68 Bromoform	173	8.261	8.257	(1.125)	670042	100.000	110
	69 Isopropylbenzene	105	8.488	8.483	(1.155)	3794883	100.000	98
	126 trans-1,4-Dichloro-2-butene	75	8.547	8.542	(1.164)	442431	100.000	110
$	70 Bromofluorobenzene	95	8.635	8.641	(1.176)	761016	50.0000	50
	72 Bromobenzene	156	8.803	8.798	(0.888)	1091195	100.000	100
	71 1,1,2,2-Tetrachloroethane	83	8.813	8.808	(0.889)	1200937	100.000	99
	73 1,2,3-Trichloropropane	75	8.852	8.847	(0.893)	1399292	100.000	110

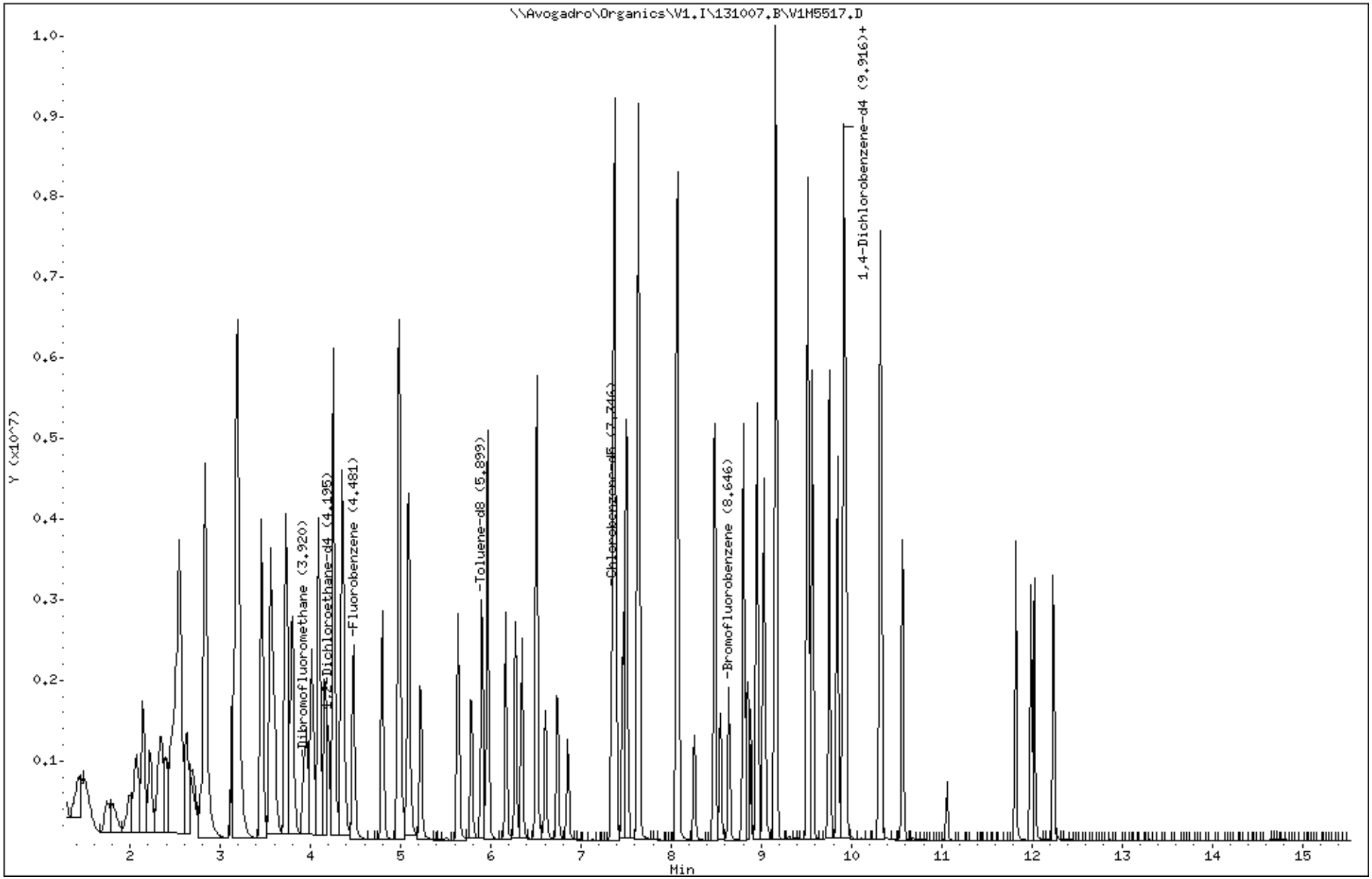
Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5517.D
Report Date: 11-Oct-2013 14:09

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
74	n-Propylbenzene	120	8.950	8.956	(0.903)	1107265	100.000	100(Q)
75	2-Chlorotoluene	126	9.029	9.034	(0.911)	1003337	100.000	100
76	1,3,5-Trimethylbenzene	105	9.157	9.162	(0.924)	3174256	100.000	100
77	4-Chlorotoluene	126	9.157	9.153	(0.924)	1042060	100.000	100(Q)
78	tert-Butylbenzene	119	9.521	9.517	(0.960)	3381350	100.000	99
79	1,2,4-Trimethylbenzene	105	9.571	9.566	(0.965)	3193139	100.000	100
M 81	Xylene (Total)	106				4647782	300.000	(a)
80	sec-Butylbenzene	105	9.758	9.753	(0.984)	4174919	100.000	99
82	1,3-Dichlorobenzene	146	9.846	9.842	(0.993)	1986130	100.000	97
83	4-Isopropyltoluene	119	9.915	9.911	(1.000)	3453997	100.000	98
* 84	1,4-Dichlorobenzene-d4	152	9.915	9.911	(1.000)	740319	50.0000	(Q)
85	1,4-Dichlorobenzene	146	9.945	9.940	(1.003)	1990530	100.000	97
86	n-Butylbenzene	91	10.329	10.324	(1.042)	3143912	100.000	97
87	1,2-Dichlorobenzene	146	10.309	10.314	(1.040)	1844092	100.000	95
88	1,2-Dibromo-3-chloropropane	75	11.057	11.053	(1.115)	158704	100.000	110
89	1,2,4-Trichlorobenzene	180	11.825	11.821	(1.193)	1075335	100.000	100
90	Hexachlorobutadiene	225	11.993	11.988	(1.210)	623757	100.000	92
91	Naphthalene	128	12.032	12.028	(1.213)	2376478	100.000	100
92	1,2,3-Trichlorobenzene	180	12.239	12.234	(1.234)	941160	100.000	100

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5517.D
Date : 07-OCT-2013 11:59
Client ID: VSTD1001H
Instrument: V1.i
Sample Info: 5ML,VSTD1001H,VSTD1001H
Operator: WL SRC: WL
Column phase: DB-624
Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5518.D
Report Date: 11-Oct-2013 14:09

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131007.B\V1M5518.D
Lab Smp Id: VSTD2001H Client Smp ID: VSTD2001H
Inj Date : 07-OCT-2013 12:24
Operator : WL   SRC: WL Inst ID: V1.i
Smp Info : 5ML,VSTD2001H,VSTD2001H
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131007.B\v18260GH.m
Meth Date : 08-Oct-2013 11:42 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 12:24 Cal File: V1M5518.D
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.291	1.295	(0.289)	943231	200.000	230(A)
2	Chloromethane	50	1.438	1.443	(0.322)	3481305	200.000	220(A)
3	Vinyl Chloride	62	1.507	1.512	(0.337)	2658703	200.000	210(A)
4	Bromomethane	94	1.744	1.748	(0.390)	1602848	200.000	210(A)
5	Chloroethane	64	1.813	1.817	(0.405)	1713450	200.000	210(A)
6	Trichlorofluoromethane	101	1.980	1.994	(0.443)	2095104	200.000	210(A)
127	Ethanol	46	2.069	2.073	(0.463)	1199779	20000.0	15000
7	Ether	59	2.137	2.142	(0.478)	2272778	200.000	220(A)
8	Acrolein	56	2.216	2.221	(0.496)	2630688	1000.00	1000(A)
9	1,1-Dichloroethene	96	2.334	2.349	(0.522)	1918160	200.000	230(A)
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.354	2.359	(0.527)	1660892	200.000	260(A)
11	Acetone	58	2.325	2.339	(0.520)	471337	200.000	220(A)
12	Iodomethane	142	2.453	2.457	(0.549)	3044732	200.000	240(A)
13	Carbon Disulfide	76	2.482	2.546	(0.555)	8950877	200.000	210(A)
14	Acetonitrile	40	2.512	2.526	(0.562)	2586269	2000.00	2000(A)
15	Methyl Acetate	43	2.551	2.565	(0.571)	3083736	200.000	210(A)
16	Methylene Chloride	84	2.620	2.634	(0.586)	2166194	200.000	230(A)
17	tert-Butanol	59	2.699	2.713	(0.604)	469249	400.000	410
18	Acrylonitrile	53	2.787	2.792	(0.623)	1134149	200.000	220
20	Methyl tert-butyl ether	73	2.827	2.831	(0.632)	6431769	200.000	210(A)
19	trans-1,2-Dichloroethene	96	2.827	2.831	(0.632)	1937737	200.000	210(A)

			QUANT SIG						AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	
	21	1,1-Dichloroethane	63	3.122	3.127	(0.698)	4073962	200.000	200(A)	
	22	Vinyl acetate	43	3.161	3.176	(0.707)	9188287	200.000	200(A)	
	23	Diisopropyl Ether	45	3.181	3.186	(0.712)	10021495	200.000	200	
	24	Ethyl tert-butyl ether	59	3.447	3.461	(0.771)	8024585	200.000	200(A)	
M	27	1,2-dichloroethene, (Total)	100				4038535	400.000	(a)	
	25	cis-1,2-Dichloroethene	96	3.555	3.560	(0.795)	2100798	200.000	200(A)	
	26	2,2-Dichloropropane	77	3.555	3.570	(0.795)	1268431	200.000	200	
	28	2-Butanone	72	3.555	3.560	(0.795)	376803	200.000	220(A)	
	29	Bromochloromethane	128	3.733	3.747	(0.835)	1181632	200.000	220(A)	
	30	Tetrahydrofuran	72	3.772	3.786	(0.844)	645079	400.000	440	
	31	Chloroform	83	3.792	3.806	(0.848)	3299828	200.000	200(A)	
$	32	Dibromofluoromethane	113	3.920	3.924	(0.877)	604274	50.0000	51	
	33	1,1,1-Trichloroethane	97	3.959	3.964	(0.885)	1837122	200.000	200	
	34	Cyclohexane	56	4.008	4.013	(0.897)	3504665	200.000	210(A)	
	36	Carbon Tetrachloride	117	4.087	4.101	(0.914)	1752673	200.000	210(A)	
	35	1,1-Dichloropropene	110	4.087	4.092	(0.914)	899541	200.000	210(A)	
$	37	1,2-Dichloroethane-d4	102	4.185	4.200	(0.936)	135513	50.0000	50	
	38	Benzene	78	4.245	4.259	(0.949)	7491430	200.000	200	
	39	1,2-Dichloroethane	62	4.254	4.259	(0.952)	2518680	200.000	210(A)	
	40	tert-Amyl methyl ether	73	4.343	4.348	(0.971)	6414360	200.000	210(A)	
*	41	Fluorobenzene	96	4.471	4.485	(1.000)	2051495	50.0000		
	42	Trichloroethene	130	4.786	4.801	(1.070)	2042736	200.000	210(A)	
	43	Methylcyclohexane	83	4.973	4.978	(1.112)	3350346	200.000	200(A)	
	44	1,2-Dichloropropane	63	4.983	4.988	(1.115)	2383150	200.000	200(A)	
	46	Dibromomethane	93	5.081	5.086	(1.137)	1252034	200.000	210(A)	
	47	1,4-Dioxane	88	5.091	5.106	(1.139)	314924	4000.00	2400	
	48	Bromodichloromethane	83	5.219	5.224	(1.167)	2574340	200.000	220(A)	
	45	2-Chloroethyl vinyl ether	63	5.495	5.509	(1.229)	39135	200.000	210(A)	
	49	cis-1,3-Dichloropropene	75	5.633	5.637	(1.260)	3532024	200.000	210(A)	
	50	4-Methyl-2-pentanone	43	5.781	5.785	(1.293)	2994452	200.000	220(A)	
$	51	Toluene-d8	98	5.899	5.903	(0.804)	1855428	50.0000	50	
	52	Toluene	91	5.958	5.962	(1.333)	6694805	200.000	200	
	53	trans-1,3-Dichloropropene	75	6.165	6.169	(1.379)	3061875	200.000	220(A)	
	54	1,1,2-Trichloroethane	97	6.342	6.346	(1.418)	1591833	200.000	210(A)	
	55	Tetrachloroethene	164	6.499	6.504	(0.886)	1560394	200.000	200(A)	
	56	1,3-Dichloropropane	76	6.509	6.514	(0.887)	3083704	200.000	200(A)	
	57	2-Hexanone	43	6.598	6.612	(0.899)	2138374	200.000	200	
	58	Dibromochloromethane	129	6.736	6.740	(0.918)	2123521	200.000	220(A)	
	59	1,2-Dibromoethane	107	6.844	6.858	(0.933)	1791806	200.000	210(A)	
*	60	Chlorobenzene-d5	117	7.336	7.351	(1.000)	1480847	50.0000		
	63	1-Chlorohexane	91	7.366	7.370	(1.004)	2903333	200.000	200(A)	
	61	Chlorobenzene	112	7.366	7.380	(1.004)	4622063	200.000	200	
	62	1,1,1,2-Tetrachloroethane	131	7.464	7.469	(1.017)	1836332	200.000	210(A)	
	64	Ethylbenzene	106	7.504	7.508	(1.023)	2447672	200.000	210(A)	
	65	m,p-Xylene	106	7.632	7.636	(1.040)	5534769	400.000	380	
	66	o-Xylene	106	8.055	8.069	(1.098)	2905834	200.000	200(A)	
	67	Styrene	104	8.075	8.079	(1.101)	4739102	200.000	190	
	68	Bromoform	173	8.252	8.257	(1.125)	1348481	200.000	230(A)	
	69	Isopropylbenzene	105	8.478	8.483	(1.156)	7069335	200.000	200	
	126	trans-1,4-Dichloro-2-butene	75	8.537	8.542	(1.164)	940125	200.000	250(A)	
$	70	Bromofluorobenzene	95	8.626	8.641	(1.176)	729379	50.0000	52	
	72	Bromobenzene	156	8.793	8.798	(0.887)	2120853	200.000	210(A)	
	71	1,1,2,2-Tetrachloroethane	83	8.803	8.808	(0.888)	2355076	200.000	210(A)	
	73	1,2,3-Trichloropropane	75	8.843	8.847	(0.892)	1909143	200.000	160	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
	74 n-Propylbenzene	120	8.941	8.956	(0.902)	2135013	200.000	210(A)
	75 2-Chlorotoluene	126	9.030	9.034	(0.911)	1940684	200.000	210(A)
	76 1,3,5-Trimethylbenzene	105	9.158	9.162	(0.924)	5613850	200.000	190
	77 4-Chlorotoluene	126	9.148	9.153	(0.923)	1985000	200.000	200(A)
	78 tert-Butylbenzene	119	9.512	9.517	(0.959)	6074563	200.000	190
	79 1,2,4-Trimethylbenzene	105	9.561	9.566	(0.964)	5674028	200.000	190
M	81 Xylene (Total)	106				8440603	600.000	(a)
	80 sec-Butylbenzene	105	9.749	9.753	(0.983)	7299122	200.000	180
	82 1,3-Dichlorobenzene	146	9.847	9.842	(0.993)	3667470	200.000	190
	83 4-Isopropyltoluene	119	9.906	9.911	(0.999)	6044106	200.000	180
*	84 1,4-Dichlorobenzene-d4	152	9.916	9.911	(1.000)	693581	50.0000	
	85 1,4-Dichlorobenzene	146	9.936	9.940	(1.002)	3687442	200.000	190
	86 n-Butylbenzene	91	10.329	10.324	(1.042)	5532919	200.000	180
	87 1,2-Dichlorobenzene	146	10.310	10.314	(1.040)	3478114	200.000	190
	88 1,2-Dibromo-3-chloropropane	75	11.058	11.053	(1.115)	323318	200.000	230(A)
	89 1,2,4-Trichlorobenzene	180	11.816	11.821	(1.192)	2082245	200.000	210(A)
	90 Hexachlorobutadiene	225	11.984	11.988	(1.209)	1053040	200.000	170
	91 Naphthalene	128	12.023	12.028	(1.212)	4674273	200.000	210(A)
	92 1,2,3-Trichlorobenzene	180	12.240	12.234	(1.234)	1806653	200.000	210(A)

QC Flag Legend

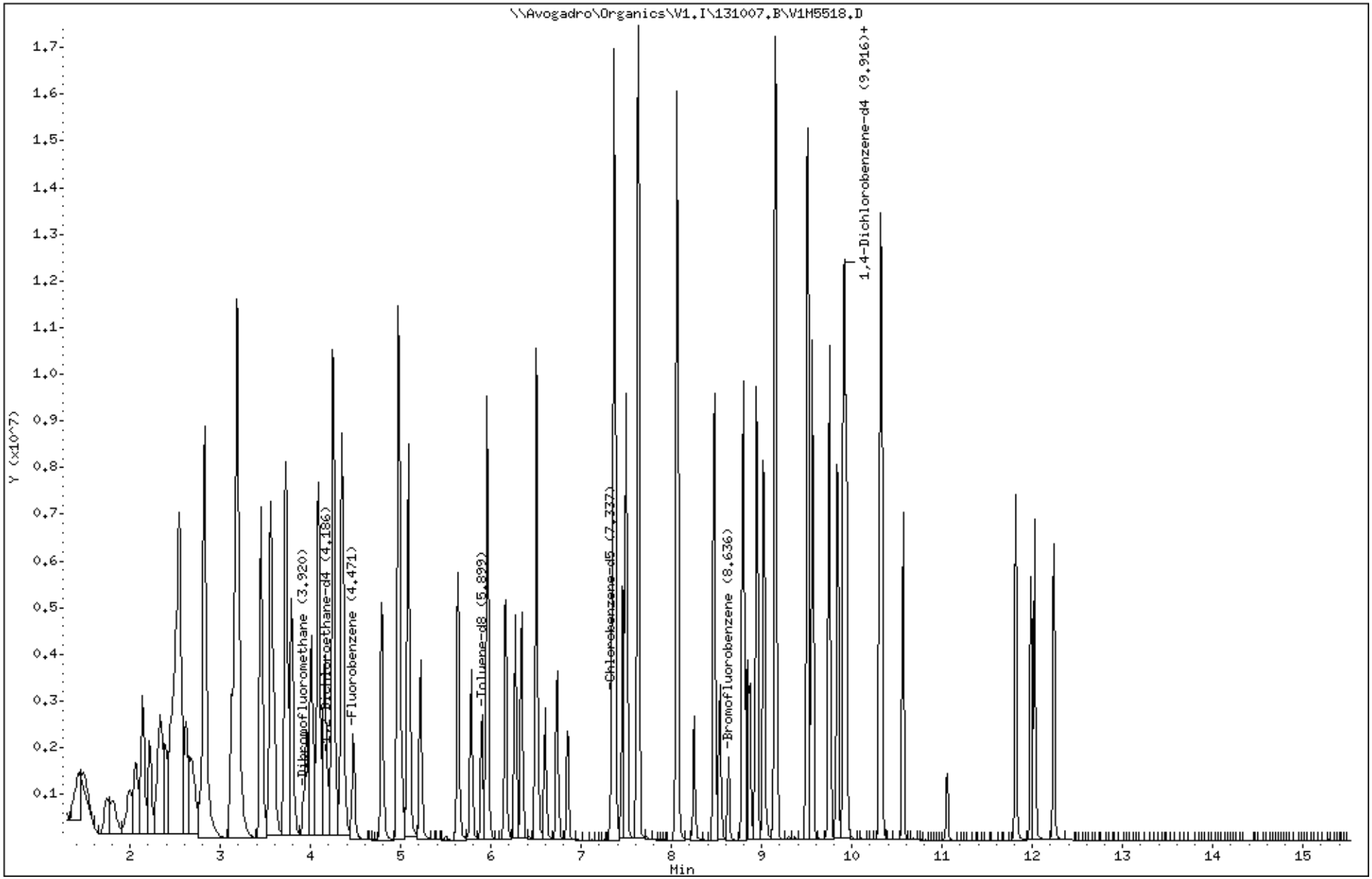
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5518.D
Date : 07-OCT-2013 12:24
Client ID: VSTD2001H
Sample Info: 5ML,VSTD2001H,VSTD2001H

Instrument: V1.i

Operator: WL SRC: WL
Column diameter: 0.25

Column phase: DB-624



7A - FORM VII VOA-1
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: V1 Calibration Date: 10/08/2013 Time: 9:26

Lab File ID: V1M5572.D Init. Calib. Date(s): 10/07/2013 10/07/2013

EPA Sample No.(VSTD#####) VSTD0501J Init. Calib. Time(s): 9:22 12:24

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dichlorodifluoromethane	0.100	0.094	0.100	-5.3	20.0
Chloromethane	0.387	0.428	0.100	10.4	20.0
Vinyl chloride	0.305	0.329	0.100	7.8	20.0
Bromomethane	0.189	0.176	0.100	-6.8	20.0
Chloroethane	0.199	0.199	0.100	0.3	20.0
Trichlorofluoromethane	0.240	0.239	0.100	-0.4	20.0
1,1-Dichloroethene	0.204	0.236	0.100	16.0	20.0
Acetone	0.053	0.051	0.100	-4.6	20.0
Iodomethane	0.310	0.359	0.100	15.7	20.0
Carbon disulfide	1.036	1.093	0.100	5.5	20.0
Methylene chloride	0.227	0.279	0.100	22.9	20.0
trans-1,2-Dichloroethene	0.222	0.234	0.100	5.5	20.0
Methyl tert-butyl ether	0.752	0.762	0.100	1.4	20.0
1,1-Dichloroethane	0.482	0.511	0.200	6.0	20.0
Vinyl acetate	1.090	1.141	0.100	4.7	20.0
2-Butanone	0.041	0.040	0.100	-2.2	20.0
cis-1,2-Dichloroethene	0.250	0.261	0.100	4.3	20.0
2,2-Dichloropropane	0.158	0.174	0.100	9.7	20.0
Bromochloromethane	0.133	0.140	0.100	5.2	20.0
Chloroform	0.394	0.422	0.200	7.1	20.0
1,1,1-Trichloroethane	0.220	0.236	0.100	7.2	20.0
1,1-Dichloropropene	0.105	0.110	0.100	4.3	20.0
Carbon tetrachloride	0.202	0.213	0.100	5.8	20.0
1,2-Dichloroethane	0.296	0.309	0.100	4.4	20.0
Benzene	0.918	0.988	0.500	7.6	20.0
Trichloroethene	0.240	0.252	0.200	5.2	20.0
1,2-Dichloropropane	0.284	0.299	0.100	5.5	20.0
Dibromomethane	0.144	0.143	0.100	-0.8	20.0
Bromodichloromethane	0.292	0.306	0.200	5.1	20.0
cis-1,3-Dichloropropene	0.405	0.425	0.200	4.9	20.0
4-Methyl-2-pentanone	0.336	0.328	0.100	-2.4	20.0
Toluene	0.835	0.886	0.400	6.2	20.0
trans-1,3-Dichloropropene	0.342	0.357	0.100	4.5	20.0
1,1,2-Trichloroethane	0.184	0.181	0.100	-1.7	20.0
1,3-Dichloropropane	0.508	0.526	0.100	3.5	20.0
Tetrachloroethene	0.262	0.269	0.200	2.4	20.0
2-Hexanone	0.365	0.366	0.100	0.3	20.0
Dibromochloromethane	0.325	0.341	0.100	5.0	20.0
1,2-Dibromoethane	0.285	0.280	0.100	-1.9	20.0
Chlorobenzene	0.800	0.822	0.500	2.8	20.0

7B - FORM VII VOA-2
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: V1 Calibration Date: 10/08/2013 Time: 9:26

Lab File ID: V1M5572.D Init. Calib. Date(s): 10/07/2013 10/07/2013

EPA Sample No.(VSTD#####) VSTD0501J Init. Calib. Time(s): 9:22 12:24

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
1,1,1,2-Tetrachloroethane	0.297	0.308	0.100	3.8	20.0
Ethylbenzene	0.398	0.427	0.100	7.1	20.0
m,p-Xylene	0.489	0.522	0.100	6.7	20.0
o-Xylene	0.485	0.501	0.300	3.4	20.0
Styrene	0.831	0.867	0.300	4.4	20.0
Bromoform	0.196	0.195	0.100	-0.8	20.0
Isopropylbenzene	1.208	1.290	0.100	6.8	20.0
1,1,2,2-Tetrachloroethane	0.816	0.784	0.300	-3.9	20.0
Bromobenzene	0.740	0.745	0.100	0.7	20.0
1,2,3-Trichloropropane	0.839	0.897	0.100	7.0	20.0
n-Propylbenzene	0.737	0.764	0.100	3.7	20.0
2-Chlorotoluene	0.679	0.689	0.100	1.6	20.0
1,3,5-Trimethylbenzene	2.144	2.262	0.100	5.5	20.0
4-Chlorotoluene	0.699	0.713	0.100	1.9	20.0
tert-Butylbenzene	2.313	2.435	0.100	5.3	20.0
1,2,4-Trimethylbenzene	2.166	2.252	0.100	4.0	20.0
sec-Butylbenzene	2.857	3.052	0.100	6.8	20.0
4-Isopropyltoluene	2.366	2.446	0.100	3.4	20.0
1,3-Dichlorobenzene	1.378	1.378	0.600	0.0	20.0
1,4-Dichlorobenzene	1.386	1.397	0.500	0.8	20.0
n-Butylbenzene	2.194	2.281	0.100	4.0	20.0
1,2-Dichlorobenzene	1.309	1.275	0.400	-2.6	20.0
1,2-Dibromo-3-chloropropane	0.101	0.096	0.050	-4.5	20.0
1,2,4-Trichlorobenzene	0.718	0.733	0.200	2.1	20.0
Hexachlorobutadiene	0.457	0.456	0.100	-0.1	20.0
1,2,3-Trichlorobenzene	0.630	0.641	0.100	1.6	20.0
Naphthalene	1.589	1.542	0.100	-3.0	20.0

7C - FORM VII VOA-3
VOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: V1 Calibration Date: 10/08/2013 Time: 9:26

Lab File ID: V1M5572.D Init. Calib. Date(s): 10/07/2013 10/07/2013

EPA Sample No.(VSTD#####) VSTD0501J Init. Calib. Time(s): 9:22 12:24

Heated Purge: (Y/N) Y GC Column: DB-624 ID: 0.25 (mm) Length: 30 (m)

Purge Volume: 10.0 (mL)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX %D
Dibromofluoromethane	0.288	0.283	0.100	-1.7	20.0
1,2-Dichloroethane-d4	0.067	0.070	0.100	5.0	20.0
Toluene-d8	1.253	1.271	0.100	1.4	20.0
Bromofluorobenzene	0.472	0.474	0.100	0.6	20.0

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5572.D
Report Date: 17-Oct-2013 07:00

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131008.B\V1M5572.D
Lab Smp Id: VSTD0501J Client Smp ID: VSTD0501J
Inj Date : 08-OCT-2013 09:26
Operator : WL   SRC: WL Inst ID: V1.i
Smp Info : 5ML,VSTD0501J,VSTD0501J
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131008.B\v18260GH.m
Meth Date : 17-Oct-2013 06:59 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 12:24 Cal File: V1M5518.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.299	1.277	(0.290)	169903	50.0000	47
2	Chloromethane	50	1.447	1.434	(0.323)	770069	50.0000	52
3	Vinyl Chloride	62	1.506	1.494	(0.336)	592751	50.0000	54
4	Bromomethane	94	1.762	1.740	(0.393)	316473	50.0000	46
5	Chloroethane	64	1.831	1.809	(0.409)	359058	50.0000	50
6	Trichlorofluoromethane	101	1.989	1.976	(0.444)	430087	50.0000	50
127	Ethanol	46	2.077	2.065	(0.464)	254358	5000.00	3700(Q)
7	Ether	59	2.146	2.143	(0.479)	447175	50.0000	48
8	Acrolein	56	2.225	2.222	(0.497)	400165	250.000	180
9	1,1-Dichloroethene	96	2.343	2.330	(0.523)	425610	50.0000	58
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.363	2.350	(0.527)	370538	50.0000	67
11	Acetone	58	2.333	2.330	(0.521)	91099	50.0000	48
12	Iodomethane	142	2.461	2.449	(0.549)	645691	50.0000	58
13	Carbon Disulfide	76	2.550	2.478	(0.569)	1968022	50.0000	53
14	Acetonitrile	40	2.530	2.517	(0.565)	524605	500.000	470
15	Methyl Acetate	43	2.569	2.557	(0.574)	621072	50.0000	49
16	Methylene Chloride	84	2.638	2.626	(0.589)	502194	50.0000	55
17	tert-Butanol	59	2.707	2.705	(0.604)	84206	100.000	84
18	Acrylonitrile	53	2.796	2.793	(0.624)	219415	50.0000	50
20	Methyl tert-butyl ether	73	2.835	2.833	(0.633)	1373003	50.0000	51
19	trans-1,2-Dichloroethene	96	2.835	2.823	(0.633)	421782	50.0000	53

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
	21 1,1-Dichloroethane	63	3.131	3.128	(0.699)	920395	50.0000	53
	22 Vinyl acetate	43	3.180	3.187	(0.710)	2054049	50.0000	52
	23 Diisopropyl Ether	45	3.190	3.187	(0.712)	2423508	50.0000	54
	24 Ethyl tert-butyl ether	59	3.465	3.453	(0.774)	1827687	50.0000	53
M	27 1,2-dichloroethene, (Total)	100				890971	100.000	(a)
	25 cis-1,2-Dichloroethene	96	3.564	3.561	(0.796)	469189	50.0000	52
	26 2,2-Dichloropropane	77	3.574	3.561	(0.798)	312664	50.0000	55
	28 2-Butanone	72	3.564	3.561	(0.796)	71689	50.0000	49
	29 Bromochloromethane	128	3.741	3.738	(0.835)	251606	50.0000	52
	30 Tetrahydrofuran	72	3.790	3.778	(0.846)	118942	100.000	93
	31 Chloroform	83	3.800	3.797	(0.848)	759531	50.0000	54
$	32 Dibromofluoromethane	113	3.928	3.925	(0.877)	508779	50.0000	49
	33 1,1,1-Trichloroethane	97	3.958	3.955	(0.884)	425296	50.0000	54
	34 Cyclohexane	56	4.017	4.014	(0.897)	791507	50.0000	53
	36 Carbon Tetrachloride	117	4.096	4.093	(0.914)	384217	50.0000	53
	35 1,1-Dichloropropene	110	4.096	4.093	(0.914)	197541	50.0000	52
$	37 1,2-Dichloroethane-d4	102	4.204	4.191	(0.938)	125846	50.0000	52
	38 Benzene	78	4.253	4.250	(0.949)	1778380	50.0000	54
	39 1,2-Dichloroethane	62	4.263	4.260	(0.952)	556926	50.0000	52
	40 tert-Amyl methyl ether	73	4.352	4.349	(0.971)	1390117	50.0000	52
*	41 Fluorobenzene	96	4.480	4.477	(1.000)	1800694	50.0000	
	42 Trichloroethene	130	4.795	4.792	(1.070)	454130	50.0000	53
	43 Methylcyclohexane	83	4.982	4.969	(1.112)	773462	50.0000	53
	44 1,2-Dichloropropane	63	4.982	4.979	(1.112)	539179	50.0000	53
	46 Dibromomethane	93	5.080	5.077	(1.134)	257402	50.0000	50
	47 1,4-Dioxane	88	5.100	5.097	(1.138)	86855	1000.00	740
	48 Bromodichloromethane	83	5.228	5.215	(1.167)	551769	50.0000	52
	45 2-Chloroethyl vinyl ether	63	5.504	5.491	(1.229)	6891	50.0000	42
	49 cis-1,3-Dichloropropene	75	5.632	5.629	(1.257)	764513	50.0000	52
	50 4-Methyl-2-pentanone	43	5.779	5.777	(1.290)	590346	50.0000	49
$	51 Toluene-d8	98	5.897	5.895	(0.803)	1616734	50.0000	51
	52 Toluene	91	5.957	5.954	(1.330)	1596082	50.0000	53
	53 trans-1,3-Dichloropropene	75	6.163	6.161	(1.376)	643157	50.0000	52
	54 1,1,2-Trichloroethane	97	6.341	6.338	(1.415)	326409	50.0000	49
	55 Tetrachloroethene	164	6.508	6.495	(0.886)	341454	50.0000	51
	56 1,3-Dichloropropane	76	6.508	6.505	(0.886)	668511	50.0000	52
	57 2-Hexanone	43	6.606	6.604	(0.899)	465161	50.0000	50
	58 Dibromochloromethane	129	6.734	6.732	(0.917)	433906	50.0000	52
	59 1,2-Dibromoethane	107	6.853	6.850	(0.933)	355934	50.0000	49
*	60 Chlorobenzene-d5	117	7.345	7.342	(1.000)	1271578	50.0000	
	63 1-Chlorohexane	91	7.365	7.372	(1.003)	655671	50.0000	53
	61 Chlorobenzene	112	7.374	7.372	(1.004)	1044933	50.0000	51
	62 1,1,1,2-Tetrachloroethane	131	7.463	7.470	(1.016)	391708	50.0000	52
	64 Ethylbenzene	106	7.502	7.509	(1.021)	542835	50.0000	54
	65 m,p-Xylene	106	7.630	7.637	(1.039)	1327084	100.000	110
	66 o-Xylene	106	8.064	8.061	(1.098)	637604	50.0000	52
	67 Styrene	104	8.073	8.081	(1.099)	1102458	50.0000	52
	68 Bromoform	173	8.251	8.258	(1.123)	247764	50.0000	50
	69 Isopropylbenzene	105	8.477	8.484	(1.154)	1639947	50.0000	53
	126 trans-1,4-Dichloro-2-butene	75	8.536	8.543	(1.162)	167119	50.0000	52
$	70 Bromofluorobenzene	95	8.635	8.642	(1.176)	603189	50.0000	50
	72 Bromobenzene	156	8.792	8.799	(0.888)	447775	50.0000	50
	71 1,1,2,2-Tetrachloroethane	83	8.802	8.809	(0.889)	471077	50.0000	48
	73 1,2,3-Trichloropropane	75	8.841	8.849	(0.893)	539019	50.0000	53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	
74	n-Propylbenzene	120	8.940	8.947	(0.903)	458973	50.0000	52	
75	2-Chlorotoluene	126	9.029	9.026	(0.912)	414017	50.0000	51	
76	1,3,5-Trimethylbenzene	105	9.157	9.154	(0.924)	1358422	50.0000	53	
77	4-Chlorotoluene	126	9.147	9.154	(0.923)	428130	50.0000	51	
78	tert-Butylbenzene	119	9.501	9.508	(0.959)	1462681	50.0000	53	
79	1,2,4-Trimethylbenzene	105	9.560	9.567	(0.965)	1352784	50.0000	52	
M 81	Xylene (Total)	106				1964688	150.000	(a)	
80	sec-Butylbenzene	105	9.737	9.754	(0.983)	1833194	50.0000	53	
82	1,3-Dichlorobenzene	146	9.836	9.843	(0.993)	827470	50.0000	50	
83	4-Isopropyltoluene	119	9.905	9.912	(1.000)	1469432	50.0000	52	
* 84	1,4-Dichlorobenzene-d4	152	9.905	9.912	(1.000)	600662	50.0000		
85	1,4-Dichlorobenzene	146	9.934	9.941	(1.003)	839242	50.0000	50	
86	n-Butylbenzene	91	10.318	10.325	(1.042)	1370398	50.0000	52	
87	1,2-Dichlorobenzene	146	10.299	10.316	(1.040)	766100	50.0000	49	
88	1,2-Dibromo-3-chloropropane	75	11.047	11.054	(1.115)	57932	50.0000	48	
89	1,2,4-Trichlorobenzene	180	11.815	11.822	(1.193)	440266	50.0000	51	
90	Hexachlorobutadiene	225	11.982	11.989	(1.210)	274108	50.0000	50	
91	Naphthalene	128	12.022	12.029	(1.214)	925978	50.0000	48	
92	1,2,3-Trichlorobenzene	180	12.238	12.236	(1.236)	384756	50.0000	51	

QC Flag Legend

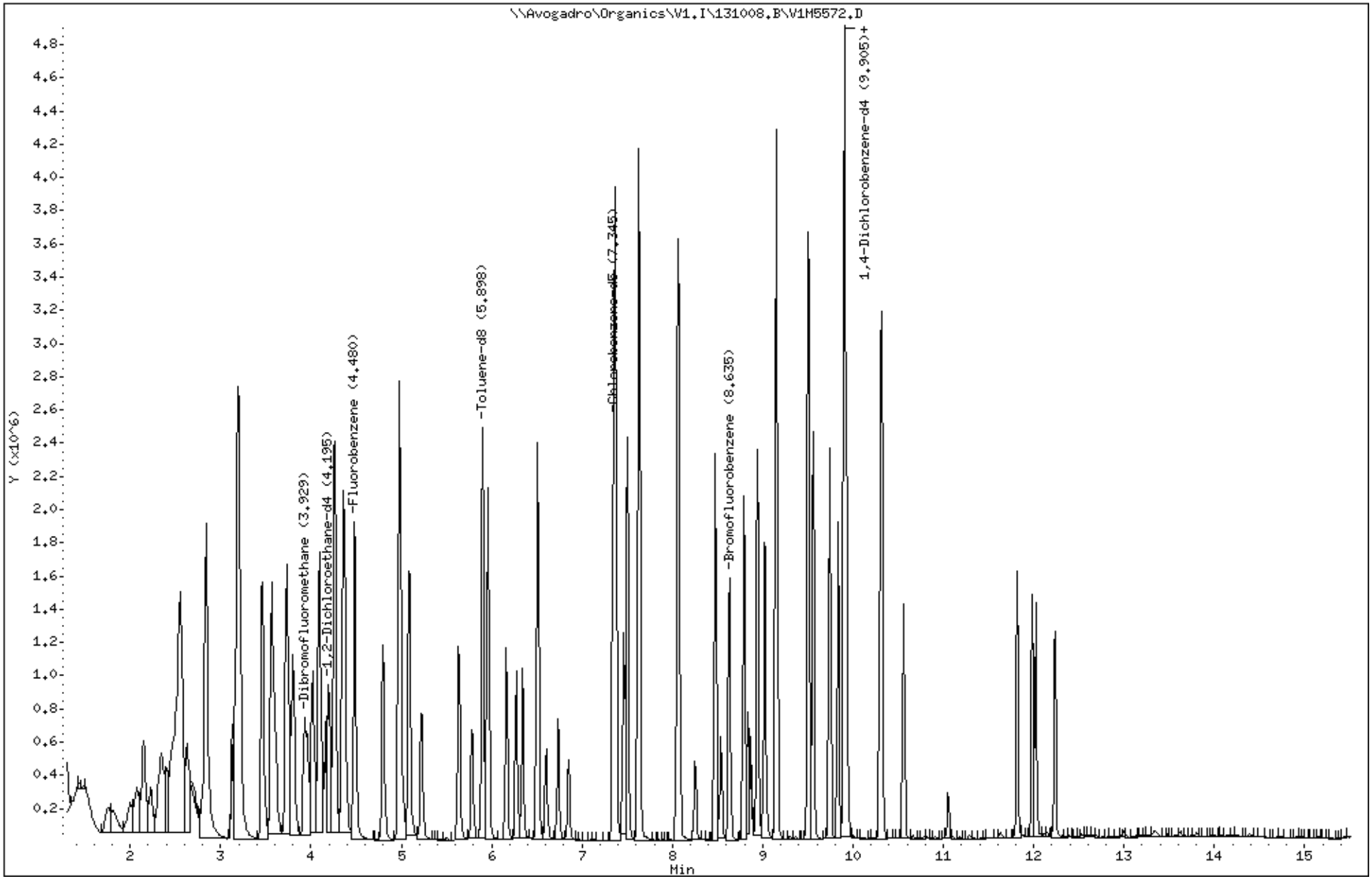
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5572.D
Date : 08-OCT-2013 09:26
Client ID: VSTD0501J
Sample Info: 5ML,VSTD0501J,VSTD0501J

Instrument: V1.i

Operator: WL SRC: WL
Column diameter: 0.25

Column phase: DB-624



Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V1.I\131007.B\V1M5510.D
Lab Smp Id: BFB1H Client Smp ID: BFB1H
Inj Date : 07-OCT-2013 07:41
Operator : WL SRC: WL Inst ID: V1.i
Smp Info : 2UL,BFB1H,BFB1H
Misc Info :
Comment :
Method : \\Avogadro\Organics\V1.I\131007.B\bfb8260.m
Meth Date : 08-Oct-2013 09:22 amarquis Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * Vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
4.565	4.600	(0.000)	95	669312			0.00- 100.00	100.00
4.565	4.600	(0.000)	50	130464			15.00- 40.00	19.49
4.565	4.600	(0.000)	75	290240			30.00- 60.00	43.36
4.565	4.600	(0.000)	96	46176			5.00- 9.00	6.90
4.565	4.600	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
4.565	4.600	(0.000)	174	548672			50.00- 0.00	81.98
4.565	4.600	(0.000)	175	40688			5.00- 9.00	7.42
4.565	4.600	(0.000)	176	544896			95.00- 101.00	99.31
4.565	4.600	(0.000)	177	35672			5.00- 9.00	6.55

Data File: \\Avogadro\Organics\V1.I\131007.B\V1M5510.D

Date : 07-OCT-2013 07:41

Client ID: BFB1H

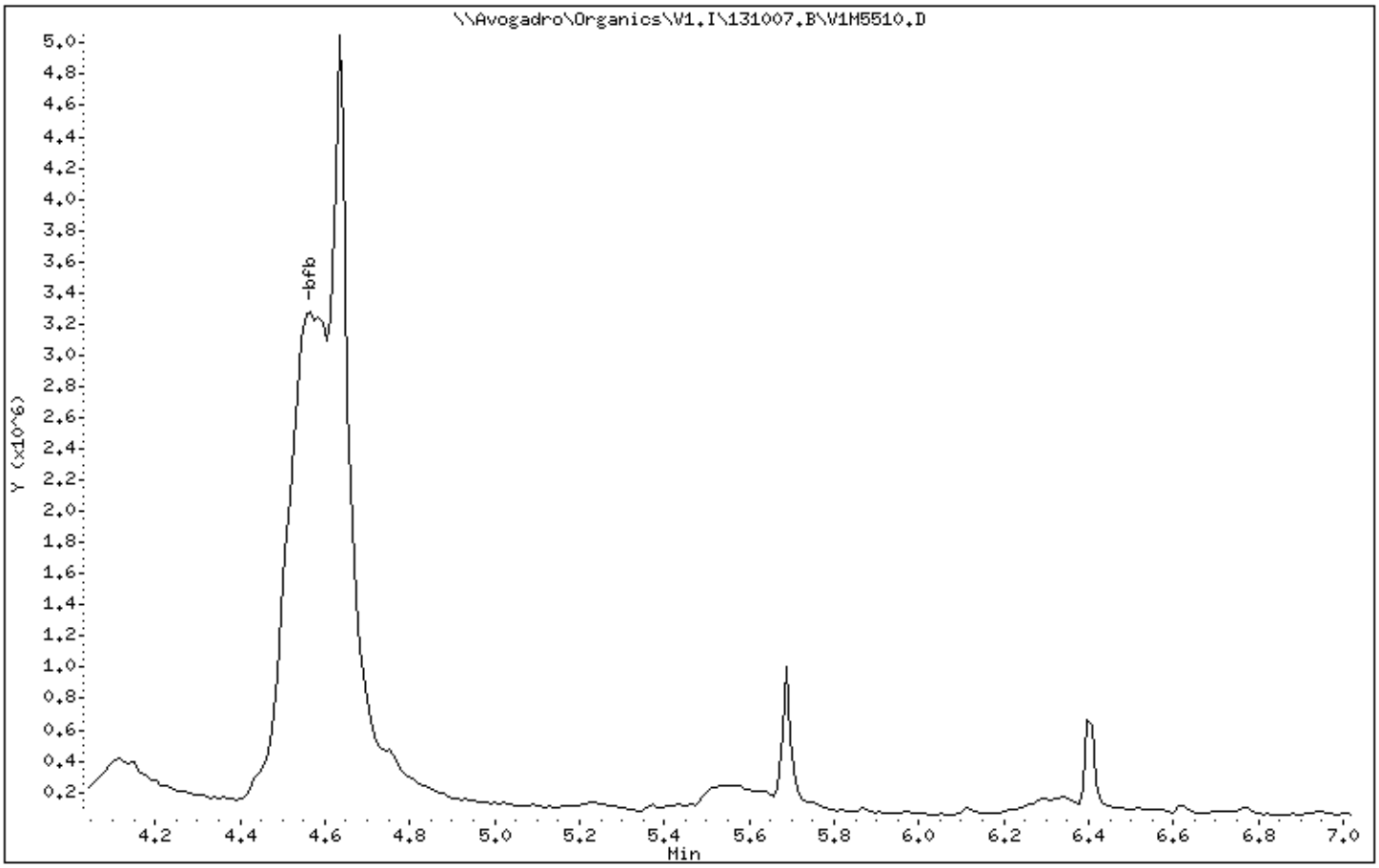
Instrument: V1.i

Sample Info: 2UL,BFB1H,BFB1H

Operator: WL SRC: WL

Column phase: DB-624

Column diameter: 0.25



Date : 07-OCT-2013 07:41

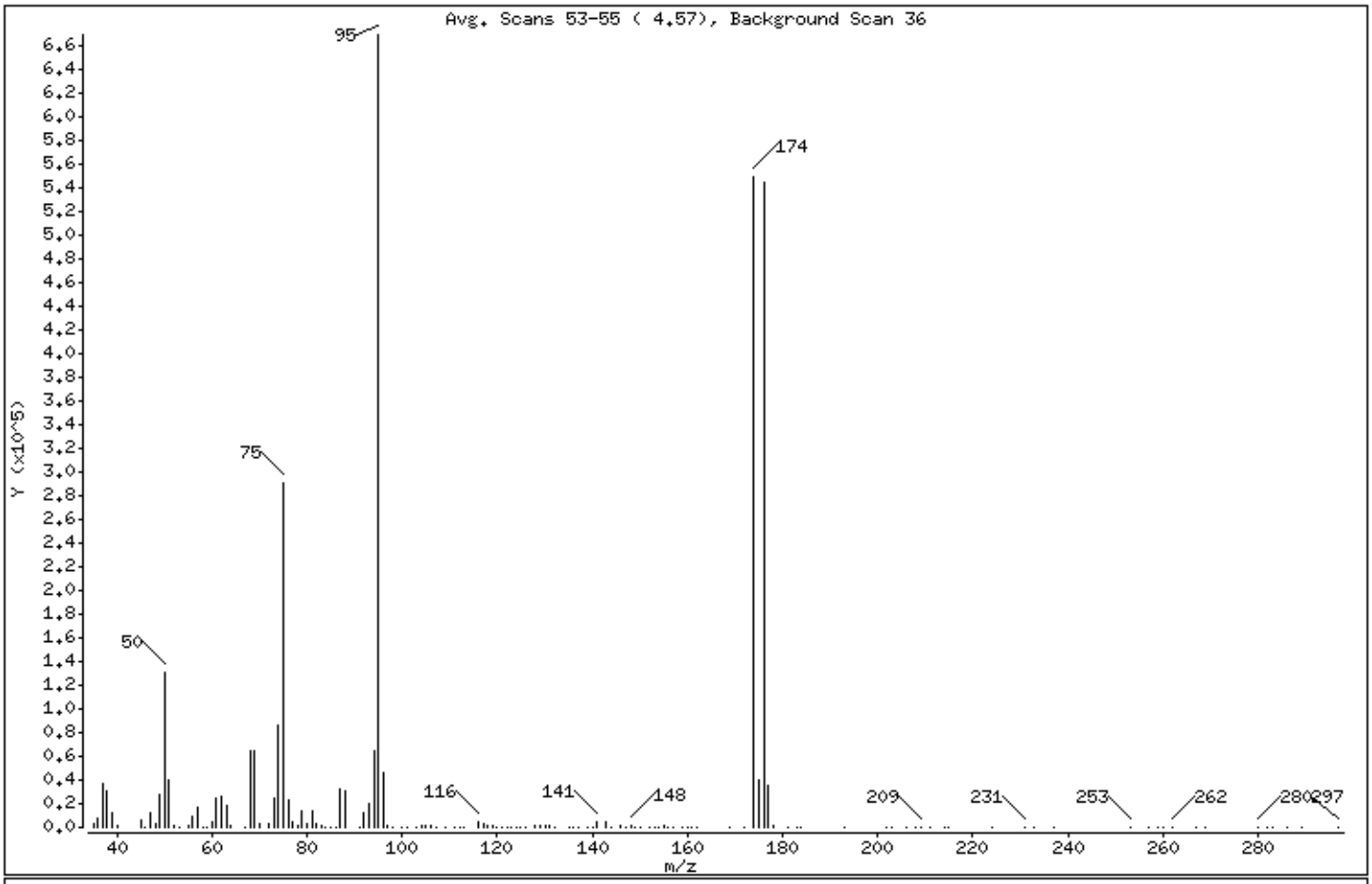
Client ID: BFB1H Instrument: V1.i

Sample Info: 2UL,BFB1H,BFB1H

Operator: WL SRC: WL

Column phase: DB-624 Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.49
75	30.00 - 60.00% of mass 95	43.36
96	5.00 - 9.00% of mass 95	6.90
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	81.98
175	5.00 - 9.00% of mass 174	6.08 (7.42)
176	95.00 - 101.00% of mass 174	81.41 (99.31)
177	5.00 - 9.00% of mass 176	5.33 (6.55)

Date : 07-OCT-2013 07:41

Client ID: BFB1H Instrument: V1.i

Sample Info: 2UL,BFB1H,BFB1H

Operator: WL SRC: WL

Column phase: DB-624 Column diameter: 0.25

Data File: V1M5510.D
Spectrum: Avg. Scans 53-55 (4.57), Background Scan 36
Location of Maximum: 95.00
Number of points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	2320	79.00	14110	123.00	176	176.00	544896
36.00	7856	80.00	3803	124.00	427	177.00	35672
37.00	37176	81.00	13510	125.00	91	178.00	1245
38.00	31088	82.00	3052	126.00	469	181.00	34
39.00	12111	83.00	819	128.00	1674	183.00	90
40.00	922	84.00	662	129.00	931	184.00	81
45.00	6209	85.00	328	130.00	1933	193.00	34
46.00	666	86.00	274	131.00	1182	202.00	45
47.00	12996	87.00	31896	132.00	179	203.00	62
48.00	3623	88.00	30680	135.00	768	206.00	58
49.00	27848	91.00	243	136.00	6	208.00	80
50.00	130464	92.00	12129	137.00	678	209.00	110
51.00	39968	93.00	20648	139.00	280	211.00	43
52.00	1332	94.00	64744	140.00	552	214.00	41
53.00	109	95.00	669312	141.00	4153	215.00	41
55.00	1401	96.00	46176	143.00	3944	224.00	47
56.00	8525	97.00	1054	144.00	296	231.00	49
57.00	16360	98.00	300	146.00	1093	233.00	46
58.00	152	100.00	489	147.00	84	237.00	41
59.00	487	101.00	215	148.00	1369	253.00	72
60.00	4902	103.00	460	149.00	310	257.00	39
61.00	24488	104.00	1933	150.00	571	259.00	72
62.00	25400	105.00	1702	152.00	212	260.00	34
63.00	18712	106.00	1546	153.00	594	262.00	183
64.00	1824	107.00	273	154.00	161	267.00	63
67.00	708	109.00	18	155.00	1181	269.00	59
68.00	65208	111.00	515	156.00	188	280.00	61
69.00	64544	112.00	84	157.00	695	282.00	54
70.00	3772	113.00	439	159.00	336	283.00	49
72.00	2839	116.00	4046	160.00	91	286.00	36
73.00	24080	117.00	3195	161.00	543	289.00	34
74.00	86784	118.00	1562	162.00	72	297.00	39
75.00	290240	119.00	2106	169.00	1		
76.00	23616	120.00	349	172.00	391		
77.00	4042	121.00	110	174.00	548672		

Date : 07-OCT-2013 07:41

Client ID: BFB1H Instrument: V1.i

Sample Info: 2UL,BFB1H,BFB1H

Operator: WL SRC: WL

Column phase: DB-624 Column diameter: 0.25

Data File: V1M5510.D
Spectrum: Avg. Scans 53-55 (4.57), Background Scan 36
Location of Maximum: 95.00
Number of points: 140

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	1637	122.00	148	175.00	40688		

Spectrum Analytical, Inc. RI Division

Data file : \\Avogadro\Organics\V1.I\131008.B\V1M5570.D
Lab Smp Id: BFB1J Client Smp ID: BFB1J
Inj Date : 08-OCT-2013 08:07
Operator : WL SRC: WL Inst ID: V1.i
Smp Info : 2UL,BFB1J,BFB1J
Misc Info :
Comment :
Method : \\Avogadro\Organics\V1.I\131008.B\bfb8260.m
Meth Date : 09-Oct-2013 09:57 amarquis Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET115

Concentration Formula: Amt * DF * Uf * Vf * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/Kg)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
4.618	4.600	(0.000)	95	672320			0.00- 100.00	100.00
4.618	4.600	(0.000)	50	133760			15.00- 40.00	19.90
4.618	4.600	(0.000)	75	303936			30.00- 60.00	45.21
4.618	4.600	(0.000)	96	45448			5.00- 9.00	6.76
4.618	4.600	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
4.618	4.600	(0.000)	174	571392			50.00- 0.00	84.99
4.618	4.600	(0.000)	175	40888			5.00- 9.00	7.16
4.618	4.600	(0.000)	176	562816			95.00- 101.00	98.50
4.618	4.600	(0.000)	177	37312			5.00- 9.00	6.63

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5570.D

Date : 08-OCT-2013 08:07

Client ID: BFB1J

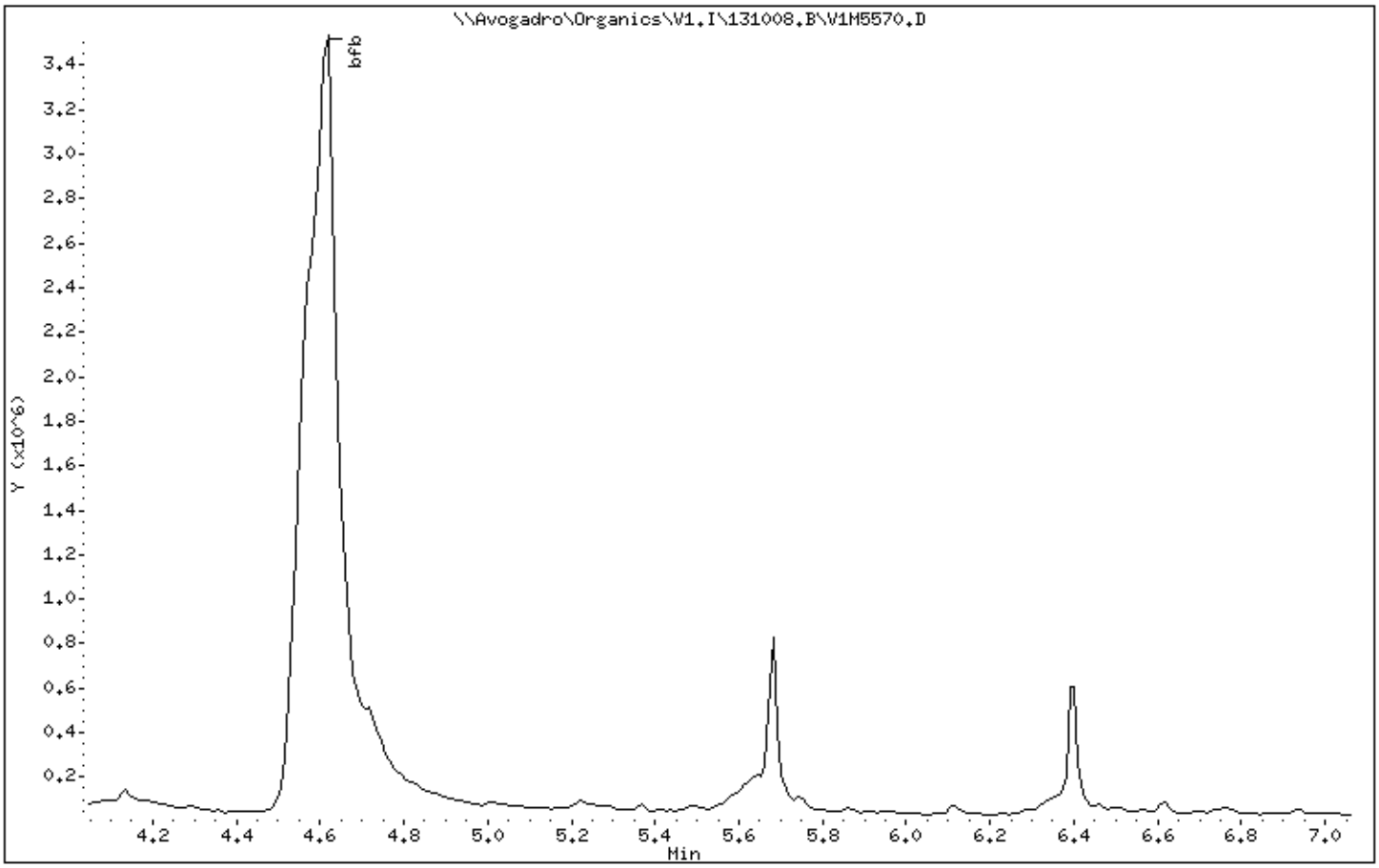
Instrument: V1.i

Sample Info: 2UL,BFB1J,BFB1J

Operator: WL SRC: WL

Column phase: DB-624

Column diameter: 0.25



Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5570.D

Date : 08-OCT-2013 08:07

Client ID: BFB1J

Instrument: V1.i

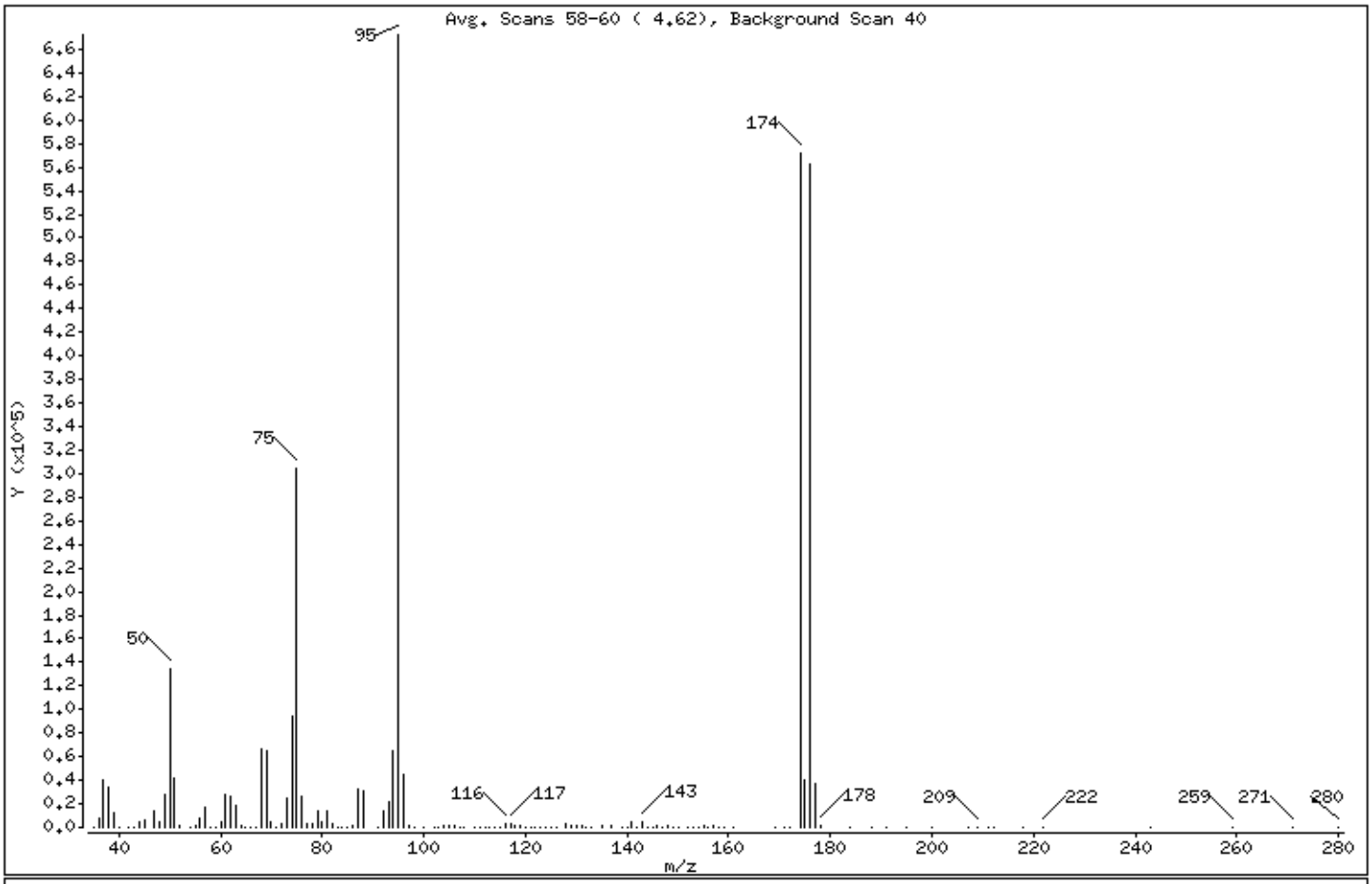
Sample Info: 2UL,BFB1J,BFB1J

Operator: WL SRC: WL

Column phase: DB-624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.90
75	30.00 - 60.00% of mass 95	45.21
96	5.00 - 9.00% of mass 95	6.76
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	84.99
175	5.00 - 9.00% of mass 174	6.08 (7.16)
176	95.00 - 101.00% of mass 174	83.71 (98.50)
177	5.00 - 9.00% of mass 176	5.55 (6.63)

Date : 08-OCT-2013 08:07

Client ID: BFB1J Instrument: V1.i

Sample Info: 2UL,BFB1J,BFB1J

Operator: WL SRC: WL

Column phase: DB-624 Column diameter: 0.25

Data File: V1M5570.D
Spectrum: Avg. Scans 58-60 (4.62), Background Scan 40
Location of Maximum: 95.00
Number of points: 136

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	105	73.00	25016	113.00	381	153.00	567
36.00	7657	74.00	93952	114.00	188	154.00	380
37.00	40248	75.00	303936	115.00	325	155.00	1384
38.00	33880	76.00	26120	116.00	3480	156.00	260
39.00	12583	77.00	3339	117.00	3101	157.00	1170
40.00	427	78.00	3139	118.00	1711	158.00	99
42.00	155	79.00	13484	119.00	2220	159.00	426
43.00	47	80.00	3898	120.00	169	161.00	600
44.00	5312	81.00	14150	121.00	39	169.00	131
45.00	6659	82.00	2865	122.00	157	171.00	74
47.00	13251	83.00	464	123.00	347	172.00	100
48.00	4051	84.00	157	124.00	620	174.00	571392
49.00	28184	85.00	249	125.00	157	175.00	40888
50.00	133760	86.00	851	126.00	233	176.00	562816
51.00	41840	87.00	32136	128.00	2378	177.00	37312
52.00	1608	88.00	30256	129.00	1053	178.00	1254
54.00	82	91.00	613	130.00	2205	184.00	94
55.00	1323	92.00	14339	131.00	1406	188.00	39
56.00	8007	93.00	22288	132.00	130	191.00	69
57.00	17432	94.00	64392	133.00	72	195.00	57
58.00	654	95.00	672320	135.00	868	200.00	35
59.00	710	96.00	45448	137.00	1101	207.00	69
60.00	5326	97.00	1164	139.00	36	209.00	95
61.00	27224	98.00	1	140.00	403	211.00	34
62.00	25680	100.00	197	141.00	4216	212.00	35
63.00	18040	102.00	149	142.00	475	218.00	48
64.00	1576	103.00	155	143.00	4777	222.00	46
65.00	476	104.00	2175	144.00	283	243.00	37
66.00	96	105.00	796	145.00	373	259.00	46
67.00	728	106.00	1844	146.00	891	271.00	38
68.00	66240	107.00	393	147.00	365	280.00	45
69.00	65144	108.00	49	148.00	1767		
70.00	4572	110.00	137	149.00	509		
71.00	162	111.00	498	150.00	509		
72.00	3840	112.00	222	152.00	312		

Date : 08-OCT-2013 08:07

Client ID: BFB1J Instrument: V1.i

Sample Info: 2UL,BFB1J,BFB1J

Operator: WL SRC: WL

Column phase: DB-624 Column diameter: 0.25

Data File: V1M5570.D
Spectrum: Avg. Scans 58-60 (4.62), Background Scan 40
Location of Maximum: 95.00
Number of points: 136

m/z	Y	m/z	Y	m/z	Y	m/z	Y

EPA SAMPLE NO.
MB-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-74207

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M5574.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 10/08/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	5.0	U
74-87-3	Chloromethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	5.0	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
1634-04-4	Methyl tert-butyl ether	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
78-93-3	2-Butanone	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
594-20-7	2,2-Dichloropropane	5.0	U
74-97-5	Bromochloromethane	5.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
563-58-6	1,1-Dichloropropene	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
71-43-2	Benzene	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
74-95-3	Dibromomethane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
142-28-9	1,3-Dichloropropane	5.0	U

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-74207

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M5574.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 10/08/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	5.0	U
124-48-1	Dibromochloromethane	5.0	U
106-93-4	1,2-Dibromoethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U
100-41-4	Ethylbenzene	5.0	U
179601-23-1	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
1330-20-7	Xylene (Total)	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
98-82-8	Isopropylbenzene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
108-86-1	Bromobenzene	5.0	U
96-18-4	1,2,3-Trichloropropane	5.0	U
103-65-1	n-Propylbenzene	5.0	U
95-49-8	2-Chlorotoluene	5.0	U
108-67-8	1,3,5-Trimethylbenzene	5.0	U
106-43-4	4-Chlorotoluene	5.0	U
98-06-6	tert-Butylbenzene	5.0	U
95-63-6	1,2,4-Trimethylbenzene	5.0	U
135-98-8	sec-Butylbenzene	5.0	U
99-87-6	4-Isopropyltoluene	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
104-51-8	n-Butylbenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	U
87-68-3	Hexachlorobutadiene	5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	U
91-20-3	Naphthalene	5.0	U

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5574.D
Report Date: 17-Oct-2013 07:00

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131008.B\V1M5574.D
Lab Smp Id: MB-74207 Client Smp ID: MB-74207
Inj Date : 08-OCT-2013 10:38
Operator : WL SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,MB-74207,MB-74207,74207
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131008.B\v18260GH.m
Meth Date : 17-Oct-2013 06:59 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 12:24 Cal File: V1M5518.D
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

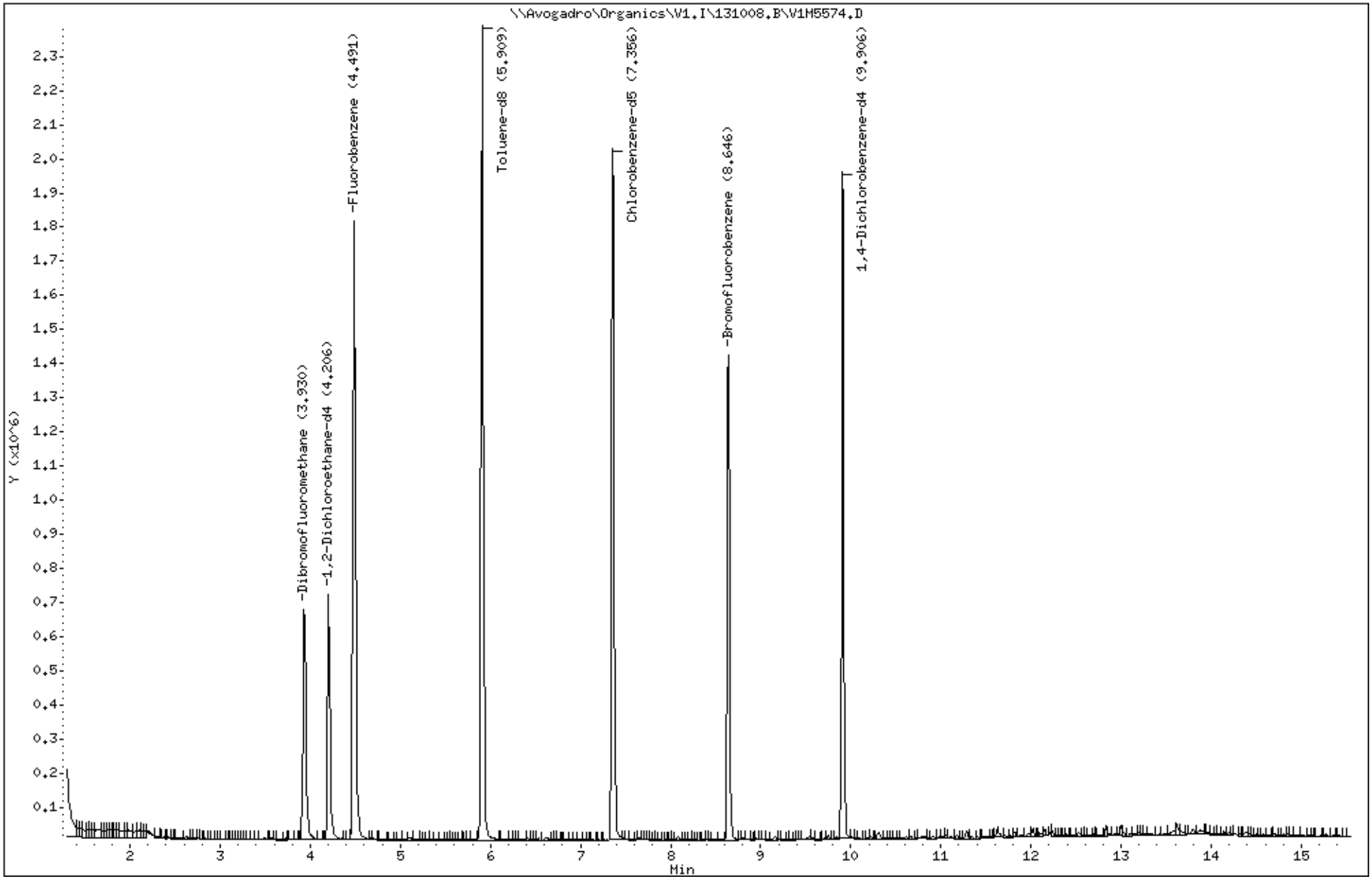
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/Kg)
$ 32 Dibromofluoromethane	113	3.929	3.925	(0.875)	490542	48.7284	49
$ 37 1,2-Dichloroethane-d4	102	4.205	4.191	(0.936)	114210	49.0076	49
* 41 Fluorobenzene	96	4.491	4.477	(1.000)	1750635	50.0000	
$ 51 Toluene-d8	98	5.908	5.895	(0.803)	1562435	50.7065	51
* 60 Chlorobenzene-d5	117	7.356	7.342	(1.000)	1229167	50.0000	
$ 70 Bromofluorobenzene	95	8.646	8.642	(1.175)	578743	49.9215	50
* 84 1,4-Dichlorobenzene-d4	152	9.916	9.912	(1.000)	572354	50.0000	

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5574.D
Date : 08-OCT-2013 10:38
Client ID: MB-74207
Sample Info: 5ML,MB-74207,MB-74207,74207

Instrument: V1.i

Operator: WL SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



1A - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-74207

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M5583A.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 10/08/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-71-8	Dichlorodifluoromethane	47	
74-87-3	Chloromethane	49	
75-01-4	Vinyl chloride	49	
74-83-9	Bromomethane	48	
75-00-3	Chloroethane	48	
75-69-4	Trichlorofluoromethane	47	
75-35-4	1,1-Dichloroethene	50	
67-64-1	Acetone	52	
74-88-4	Iodomethane	51	
75-15-0	Carbon disulfide	48	
75-09-2	Methylene chloride	55	
156-60-5	trans-1,2-Dichloroethene	49	
1634-04-4	Methyl tert-butyl ether	54	
75-34-3	1,1-Dichloroethane	50	
108-05-4	Vinyl acetate	55	
78-93-3	2-Butanone	54	
156-59-2	cis-1,2-Dichloroethene	49	
594-20-7	2,2-Dichloropropane	50	
74-97-5	Bromochloromethane	53	
67-66-3	Chloroform	50	
71-55-6	1,1,1-Trichloroethane	50	
563-58-6	1,1-Dichloropropene	48	
56-23-5	Carbon tetrachloride	50	
107-06-2	1,2-Dichloroethane	52	
71-43-2	Benzene	51	
79-01-6	Trichloroethene	50	
78-87-5	1,2-Dichloropropane	51	
74-95-3	Dibromomethane	53	
75-27-4	Bromodichloromethane	52	
10061-01-5	cis-1,3-Dichloropropene	50	
108-10-1	4-Methyl-2-pentanone	55	
108-88-3	Toluene	51	
10061-02-6	trans-1,3-Dichloropropene	53	
79-00-5	1,1,2-Trichloroethane	52	
142-28-9	1,3-Dichloropropane	53	

1B - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-74207

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-74207

Sample wt/vol: 5.00 (g/mL) G Lab File ID: V1M5583A.D

Level: (TRACE/LOW/MED) LOW Date Received:

% Moisture: not dec. 0.0 Date Analyzed: 10/08/2013

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 10.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
127-18-4	Tetrachloroethene	47	
591-78-6	2-Hexanone	50	
124-48-1	Dibromochloromethane	51	
106-93-4	1,2-Dibromoethane	53	
108-90-7	Chlorobenzene	48	
630-20-6	1,1,1,2-Tetrachloroethane	51	
100-41-4	Ethylbenzene	49	
179601-23-1	m,p-Xylene	100	
95-47-6	o-Xylene	49	
1330-20-7	Xylene (Total)	150	
100-42-5	Styrene	51	
75-25-2	Bromoform	51	
98-82-8	Isopropylbenzene	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	
108-86-1	Bromobenzene	49	
96-18-4	1,2,3-Trichloropropane	56	
103-65-1	n-Propylbenzene	46	
95-49-8	2-Chlorotoluene	46	
108-67-8	1,3,5-Trimethylbenzene	49	
106-43-4	4-Chlorotoluene	47	
98-06-6	tert-Butylbenzene	48	
95-63-6	1,2,4-Trimethylbenzene	49	
135-98-8	sec-Butylbenzene	48	
99-87-6	4-Isopropyltoluene	49	
541-73-1	1,3-Dichlorobenzene	48	
106-46-7	1,4-Dichlorobenzene	50	
104-51-8	n-Butylbenzene	49	
95-50-1	1,2-Dichlorobenzene	49	
96-12-8	1,2-Dibromo-3-chloropropane	54	
120-82-1	1,2,4-Trichlorobenzene	55	
87-68-3	Hexachlorobutadiene	50	
87-61-6	1,2,3-Trichlorobenzene	53	
91-20-3	Naphthalene	56	

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5583A.D
Report Date: 17-Oct-2013 07:00

Spectrum Analytical, Inc. RI Division

Method 8260 Water and Medium Soil

Data file : \\Avogadro\Organics\V1.I\131008.B\V1M5583A.D
Lab Smp Id: LCS-74207 Client Smp ID: LCS-74207
Inj Date : 08-OCT-2013 15:11
Operator : WL SRC: LIMS Inst ID: V1.i
Smp Info : 5ML,LCS-74207,LCS-74207,74207
Misc Info :
Comment   :
Method   : \\Avogadro\Organics\V1.I\131008.B\v18260GH.m
Meth Date : 17-Oct-2013 06:59 amarquis Quant Type: ISTD
Cal Date : 07-OCT-2013 12:24 Cal File: V1M5518.D
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14

Concentration Formula: Amt * DF * Uf * 5/(Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Ws	5.000	Weight of sample (g)
M	0.00000	% Moisture (not decanted)
Va	100.000	Aliquot of methanol (uL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
1	Dichlorodifluoromethane	85	1.277	1.277	(0.286)	144612	50.0000	47
2	Chloromethane	50	1.425	1.434	(0.319)	623808	50.0000	49
3	Vinyl Chloride	62	1.503	1.494	(0.337)	463223	50.0000	49
4	Bromomethane	94	1.740	1.740	(0.390)	280980	50.0000	48
5	Chloroethane	64	1.809	1.809	(0.405)	296709	50.0000	48
6	Trichlorofluoromethane	101	1.976	1.976	(0.442)	353309	50.0000	47
127	Ethanol	46	2.065	2.065	(0.462)	220844	5000.00	3800
7	Ether	59	2.134	2.143	(0.478)	426593	50.0000	53
8	Acrolein	56	2.222	2.222	(0.498)	410911	250.000	210
9	1,1-Dichloroethene	96	2.321	2.330	(0.520)	318314	50.0000	50
10	1,1,2-Trichloro-1,2,2-trifluo	101	2.340	2.350	(0.524)	266829	50.0000	56
11	Acetone	58	2.321	2.330	(0.520)	85234	50.0000	52
12	Iodomethane	142	2.458	2.449	(0.550)	491286	50.0000	51
13	Carbon Disulfide	76	2.478	2.478	(0.555)	1553909	50.0000	48
14	Acetonitrile	40	2.518	2.517	(0.564)	509310	500.000	530
15	Methyl Acetate	43	2.557	2.557	(0.572)	587634	50.0000	54
16	Methylene Chloride	84	2.626	2.626	(0.588)	429453	50.0000	55
17	tert-Butanol	59	2.705	2.705	(0.606)	83193	100.000	96
18	Acrylonitrile	53	2.793	2.793	(0.625)	204010	50.0000	54
20	Methyl tert-butyl ether	73	2.833	2.833	(0.634)	1252235	50.0000	54
19	trans-1,2-Dichloroethene	96	2.833	2.823	(0.634)	336451	50.0000	49

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	21 1,1-Dichloroethane	63	3.128	3.128	(0.700)	747152	50.0000	50
	22 Vinyl acetate	43	3.167	3.187	(0.709)	1845808	50.0000	54
	23 Diisopropyl Ether	45	3.177	3.187	(0.711)	2065944	50.0000	53
	24 Ethyl tert-butyl ether	59	3.453	3.453	(0.773)	1603023	50.0000	54
M	27 1,2-dichloroethene, (Total)	100				717415	100.000	98
	25 cis-1,2-Dichloroethene	96	3.551	3.561	(0.795)	380964	50.0000	49
	26 2,2-Dichloropropane	77	3.561	3.561	(0.797)	244428	50.0000	50
	28 2-Butanone	72	3.561	3.561	(0.797)	68341	50.0000	54
	29 Bromochloromethane	128	3.738	3.738	(0.837)	217971	50.0000	53
	30 Tetrahydrofuran	72	3.778	3.778	(0.846)	117890	100.000	110
	31 Chloroform	83	3.788	3.797	(0.848)	614684	50.0000	50
$	32 Dibromofluoromethane	113	3.916	3.925	(0.877)	439700	50.0000	49
	33 1,1,1-Trichloroethane	97	3.945	3.955	(0.883)	339310	50.0000	50
	34 Cyclohexane	56	4.004	4.014	(0.896)	602966	50.0000	47
	36 Carbon Tetrachloride	117	4.083	4.093	(0.914)	311185	50.0000	50
	35 1,1-Dichloropropene	110	4.083	4.093	(0.914)	157970	50.0000	48
$	37 1,2-Dichloroethane-d4	102	4.182	4.191	(0.936)	106580	50.0000	52
	38 Benzene	78	4.241	4.250	(0.949)	1446660	50.0000	51
	39 1,2-Dichloroethane	62	4.250	4.260	(0.952)	476270	50.0000	52
	40 tert-Amyl methyl ether	73	4.339	4.349	(0.971)	1265880	50.0000	54
*	41 Fluorobenzene	96	4.467	4.477	(1.000)	1552022	50.0000	
	42 Trichloroethene	130	4.782	4.792	(1.071)	371154	50.0000	50
	43 Methylcyclohexane	83	4.959	4.969	(1.110)	601223	50.0000	48
	44 1,2-Dichloropropane	63	4.969	4.979	(1.112)	451791	50.0000	51
	46 Dibromomethane	93	5.068	5.077	(1.134)	235403	50.0000	53
	47 1,4-Dioxane	88	5.087	5.097	(1.139)	90105	1000.00	890
	48 Bromodichloromethane	83	5.206	5.215	(1.165)	468190	50.0000	52
	45 2-Chloroethyl vinyl ether	63	5.491	5.491	(1.229)	5510	50.0000	39
	49 cis-1,3-Dichloropropene	75	5.629	5.629	(1.260)	624211	50.0000	50
	50 4-Methyl-2-pentanone	43	5.777	5.777	(1.293)	576318	50.0000	55
$	51 Toluene-d8	98	5.895	5.895	(0.803)	1409083	50.0000	50
	52 Toluene	91	5.954	5.954	(1.333)	1317413	50.0000	51
	53 trans-1,3-Dichloropropene	75	6.161	6.161	(1.379)	563551	50.0000	53
	54 1,1,2-Trichloroethane	97	6.338	6.338	(1.419)	297230	50.0000	52
	55 Tetrachloroethene	164	6.495	6.495	(0.885)	275873	50.0000	47
	56 1,3-Dichloropropane	76	6.505	6.505	(0.886)	601231	50.0000	53
	57 2-Hexanone	43	6.604	6.604	(0.899)	407224	50.0000	50
	58 Dibromochloromethane	129	6.732	6.732	(0.917)	371765	50.0000	51
	59 1,2-Dibromoethane	107	6.850	6.850	(0.933)	335232	50.0000	53
*	60 Chlorobenzene-d5	117	7.342	7.342	(1.000)	1113548	50.0000	
	63 1-Chlorohexane	91	7.372	7.372	(1.004)	519070	50.0000	48
	61 Chlorobenzene	112	7.372	7.372	(1.004)	860329	50.0000	48
	62 1,1,1,2-Tetrachloroethane	131	7.460	7.470	(1.016)	336007	50.0000	51
	64 Ethylbenzene	106	7.500	7.509	(1.021)	431246	50.0000	48
	65 m,p-Xylene	106	7.638	7.637	(1.040)	1087964	100.000	100
	66 o-Xylene	106	8.061	8.061	(1.098)	528474	50.0000	49
	67 Styrene	104	8.071	8.081	(1.099)	939302	50.0000	51
	68 Bromoform	173	8.258	8.258	(1.125)	224630	50.0000	51
	69 Isopropylbenzene	105	8.474	8.484	(1.154)	1338233	50.0000	50
	126 trans-1,4-Dichloro-2-butene	75	8.543	8.543	(1.164)	158245	50.0000	56
$	70 Bromofluorobenzene	95	8.632	8.642	(1.176)	541559	50.0000	52
	72 Bromobenzene	156	8.790	8.799	(0.887)	393111	50.0000	49
	71 1,1,2,2-Tetrachloroethane	83	8.799	8.809	(0.888)	439473	50.0000	50
	73 1,2,3-Trichloropropane	75	8.839	8.849	(0.892)	513018	50.0000	56

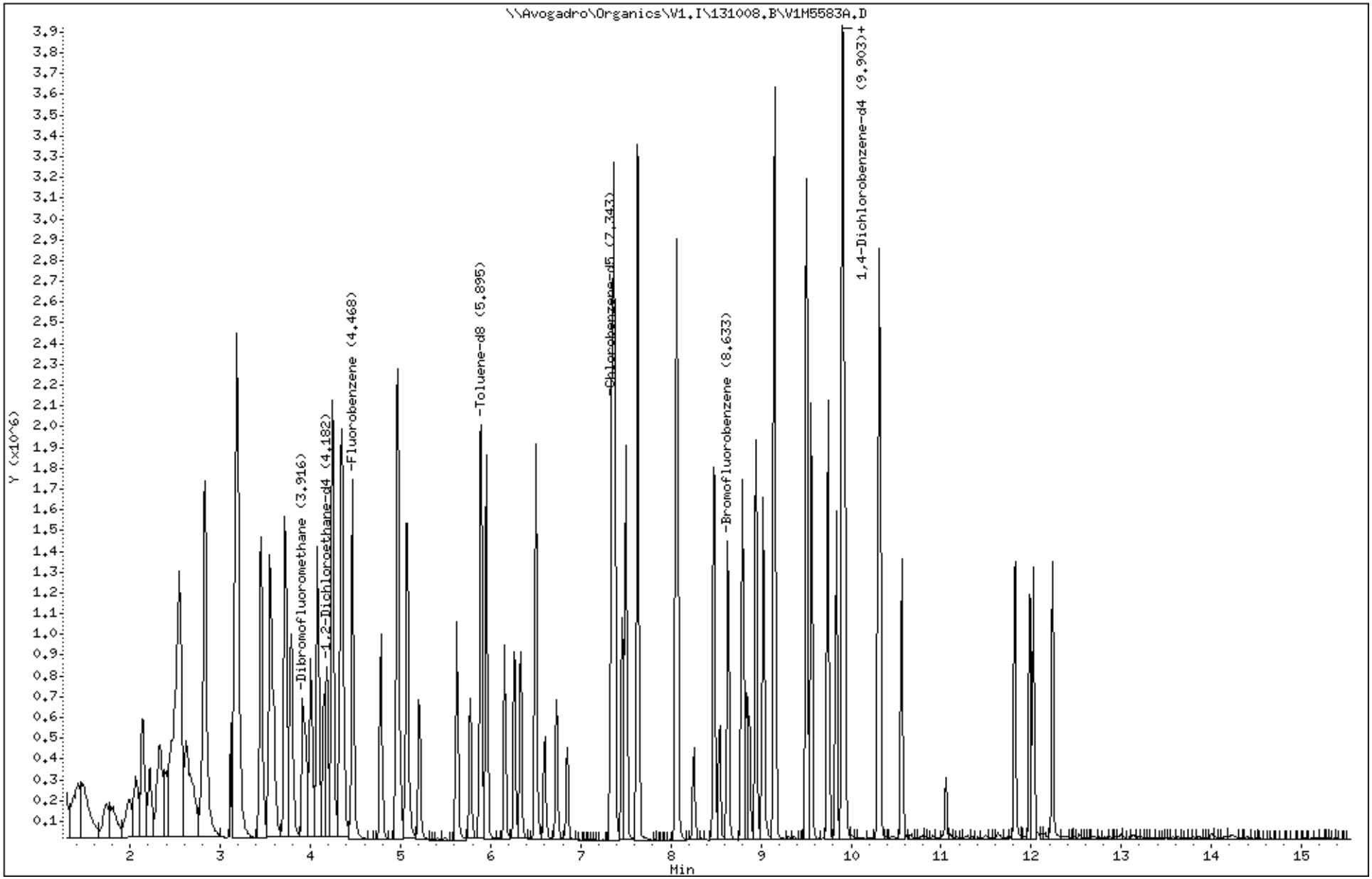
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
74	n-Propylbenzene	120	8.947	8.947	(0.903)	369562	50.0000	46
75	2-Chlorotoluene	126	9.026	9.026	(0.911)	342034	50.0000	46
76	1,3,5-Trimethylbenzene	105	9.154	9.154	(0.924)	1137858	50.0000	49
77	4-Chlorotoluene	126	9.154	9.154	(0.924)	360752	50.0000	47
78	tert-Butylbenzene	119	9.508	9.508	(0.959)	1195684	50.0000	48
79	1,2,4-Trimethylbenzene	105	9.558	9.567	(0.964)	1150614	50.0000	49
M 81	Xylene (Total)	106				1616438	150.000	150
80	sec-Butylbenzene	105	9.745	9.754	(0.983)	1486146	50.0000	48
82	1,3-Dichlorobenzene	146	9.833	9.843	(0.992)	722802	50.0000	48
83	4-Isopropyltoluene	119	9.902	9.912	(0.999)	1249785	50.0000	49
* 84	1,4-Dichlorobenzene-d4	152	9.912	9.912	(1.000)	543236	50.0000	
85	1,4-Dichlorobenzene	146	9.932	9.941	(1.002)	745669	50.0000	50
86	n-Butylbenzene	91	10.316	10.325	(1.041)	1160265	50.0000	49
87	1,2-Dichlorobenzene	146	10.306	10.316	(1.040)	690394	50.0000	48
88	1,2-Dibromo-3-chloropropane	75	11.054	11.054	(1.115)	58965	50.0000	54
89	1,2,4-Trichlorobenzene	180	11.822	11.822	(1.193)	425063	50.0000	54
90	Hexachlorobutadiene	225	11.990	11.989	(1.210)	246026	50.0000	50
91	Naphthalene	128	12.019	12.029	(1.213)	962174	50.0000	56
92	1,2,3-Trichlorobenzene	180	12.236	12.236	(1.234)	363435	50.0000	53

Data File: \\Avogadro\Organics\V1.I\131008.B\V1M5583A.D
Date : 08-OCT-2013 15:11
Client ID: LCS-74207
Sample Info: 5ML,LCS-74207,LCS-74207,74207

Instrument: V1.i

Operator: WL SRC: LIMS
Column diameter: 0.25

Column phase: DB-624



M1876

INJECTION LOG

VOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division V1 Injection Log
Volatiles Laboratory

METHOD: 8260C
ICAL DATE: 10-7-13

ANALYST: [illegible]

BATCH: 131007.B

Start: 07-OCT-13 07:41
End: 07-OCT-13 19:31

Comments:

Standards: BFB VM3D974A 2 uL
IS/SS VM3D970A [illegible] uL
STD VM3D970A 25 uL
_____ ____ uL

Reviewed By: [illegible] 10/9/13 Manual Integration: _____ MI Review: _____

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	INTERNAL STDS CBZ	INTERNAL STDS DCB	SURROGATES DFM	SURROGATES DCE	SURROGATES TOL	SURROGATES BFB	DILN	FLG	COMMENTS	pH
V1M5510	07:41	BFB1H	BFB1H		SL									1		OK	
V1M5512	08:42	VSTD0501H	VSTD0501H		SL		104	102	102					1		OK	
V1M5513	09:22	VSTD0501H	VSTD0501H		SL		100	100	100					1		OK	
V1M5514	10:16	VSTD0201H	VSTD0201H		SL		97	96	96					1		OK	
V1M5515	10:41	VSTD0051H	VSTD0051H		SL		91	89	87					1		OK	
V1M5517	11:59	VSTD1001H	VSTD1001H		SL		100	99	98					1		OK MI_1	
V1M5518	12:24	VSTD2001H	VSTD2001H		SL		91	91	92					1		OK	
V1M5519	13:14	LCS-74184	LCS-74184	74184	SL		98	98	101	100	101	100	100	1	R	OK	
V1M5520	13:39	VICV0501H	VICV0501H	74184	SL		92	89	88	99	96	101	99	1	R	OK	
V1M5521	14:04	MB-74184	MB-74184	74184	SL		94	92	90	98	101	101	96	1		NOT USED	
V1M5522	14:29	MB-74184	MB-74184	74184	SL		85	81	80	99	96	103	98	1		OK NOT USED	
V1M5523	14:54	M1876-01D	DISPOSAL-1	74184	SL		91	90	86	102	108	100	99	1		RUN ON	
V1M5523A	15:19	MB-74184	MB-74184	74184	SL		88	86	83	97	97	102	98	1		OK	
V1M5524	15:44	M1814-08A	WGL-SD-TB01-092	74184	SL	1	85	82	79	100	104	102	95	1		OK	
V1M5525	16:10	M1814-02CRE	WGL-SD-SD01-091	74184	SL	2	0*	0*	0*	100	0*	174*	68*	1		RUN ON DIL	
V1M5526	16:34	M1814-04CRE	WGL-SD-SD07-091	74184	SL	2	75	65	45*	104	110*	110	88	1		OK	
V1M5527	17:00	M1814-05CRE	WGL-SD-SD06-091	74184	SL	2	64	45*	21*	112	123*	131*	70*	1		OK	
V1M5528	17:25	M1814-09C	WGL-SD-SD02-091	74184	SL	1	43*	38*	30*	95	96	110	87	1		RUN ON } REPORTED	
V1M5529	17:50	M1814-10C	WGL-SD-SD03-091	74184	SL	1	71	60	41*	100	100	113	84*	1		RUN ON }	
V1M5530	18:16	M1814-11C	WGL-SD-SD04-091	74184	SL	1	69	65	51	105	114*	104	89	1		RUN ON	
V1M5531	18:41	M1814-06CMS	WGL-SD-SD05-091	74184	SL	4	88	88	79	103	116*	99	95	1	R	REPORTED - 1ST RUN	
V1M5532	19:06	M1814-06CMSD	WGL-SD-SD05-091	74184	SL	2	82	83	81	105	117*	99	98	1	R	↓	
V1M5533	19:31	VBLK	VBLK		SL		90	88	84	98	101	102	96	1		NOT USED	

* - Internal Standard or Surrogate outside of control limits
E - One or more target compounds are above the calibration range
T - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

10-9-13

[redacted] TRU[redacted]T V[redacted] [redacted] [redacted] [redacted] [redacted] [redacted] pectrum [redacted]alytic[redacted], Inc. RI [redacted]

INJECTION LOG

VOLATILES LABORATORY

Spectrum Analytical, Inc. RI Division V1 Injection Log
Volatiles Laboratory

METHOD: 8260L ANALYST: JH BATCH: 131008.B Start: 08-OCT-13 08:07
ICAL DATE: 10-7-13 End: 08-OCT-13 19:49

Comments:

Standards: IS/D WM309721A 2 uL
IS/D WM309720A 2 uL
S/D WM309707A 2.5 uL
_____ ____ uL

Reviewed By: CW 10/16/13 Manual Integration: _____ MI Review: _____

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	BN	INTERNAL STDS FBZ	CBZ	DCB	SURROGATES DFM	DCE	TOL	BFB	DILN	FLG	COMMENTS	pH
V1M5570	08:07	BFB1J	BFB1J		SL									1		OK	
V1M5571	08:24	VSTD0501J	VSTD0501J		SL		100	100	100					1		WNT LYMEN	
V1M5572	09:26	VSTD0501J	VSTD0501J		SL		100	100	100					1		OK	
V1M5573	10:13	MB-74207	MB-74207	74207	SL		96	97	94	97	102	101	99	1		WNT LYMEN	
V1M5574	10:38	MB-74207	MB-74207	74207	SL		97	97	95	97	98	101	100	1		OK	
V1M5575	11:20	M1908-13A	401003-TB101	74207	SL	1	90	88	85	95	94	102	96	1		OK	
V1M5576	11:46	M1908-28A	401003-TB102	74207	SL	1	84	84	82	96	100	102	97	1		OK	
V1M5577	12:11	M1876-01D	DISPOSAL-1	74207	SL	2	93	94	90	100	106	99	98	1		OK	
V1M5578	12:40	M1908-09B	401003-DP013008	74207	SL	1	91	89	81	100	95	103	96	1		OK	
V1M5579	13:05	M1908-11B	401003-DP014004	74207	SL	1	84	85	84	99	105	100	100	1		OK	
V1M5580	13:30	M1908-12B	401003-DP014016	74207	SL	1	94	93	36*	97	101	132*	172*	1	E	REANALYZED -OK	
V1M5581	13:55	LCS-74207	LCS-74207	74207	SL		88	90	93	98	101	101	99	1	R	WNT LYMEN	
V1M5582	14:21	M1854-06CMS	SS06 092613MS	74207	SL	2	85	84	81	101	113*	102	99	1	R	OK	
V1M5583	14:46	M1854-06CMSD	SS06 092613MSD	74207	SL	3	86	86	80	101	112*	102	98	1	R	OK	
V1M5583A	15:11	LCS-74207	LCS-74207	74207	SL		86	88	90	98	103	101	103	1		OK	
V1M5584	15:36	VBLK	VBLK		SL		86	87	86	99	105	102	96	1		WNT LYMEN	
V1M5585	16:02	M1908-14B	401003-DP015004	74207	SL	1	90	92	94	100	103	100	99	1		OK	
V1M5586	16:27	M1908-15B	401003-DP015016	74207	SL	1	82	77	23*	99	98	183*	247*	1	E	TCM MEND LVL	
V1M5587	16:52	M1814-09CRE	WGL-SD-SD02-091	74207	SL	2	67	56	41*	98	98	115*	85*	1		OK	
V1M5588	17:17	M1814-10CRE	WGL-SD-SD03-091	74207	SL	2	70	60	46*	98	99	112	88	1		OK	
V1M5589	17:43	M1814-11CRE	WGL-SD-SD04-091	74207	SL	2	70	55	33*	101	102	121*	79*	1		OK	
V1M5590	18:08	M1908-16B	401003-DP016008	74207	SL	1	82	83	79	101	105	101	98	1		OK	
V1M5591	18:33	M1908-17B	401003-DP016016	74207	SL	1	83	84	30*	98	103	116*	253*	1	E	TCM MEND LVL	
V1M5592	18:59	M1908-18B	401003-DP017008	74207	SL	1	74	76	78	94	104	99	102	1		TCM LOW LVL	
V1M5593	19:24	M1908-19B	401003-DP017016	74207	SL	1	84	66	21*	99	101	162*	440*	1	E	TCM MEND LVL	
V1M5594	19:49	VBLK	VBLK		SL		86	82	78	96	94	106	98	1		WNT LYMEN	

* - Internal Standard or Surrogate outside of control limits
+ - One or more target compounds are above the calibration range
# - Sample was injected outside of the 12 hour sequence
R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

10/10/13

M1876

Spectrum Analytical, Inc. RI Division: Volatile Organics Low/Medium Level Soil Extraction Log

Date	Lab ID		Analysis	Initial Wt. (g)	Final Wt. (g)	Sample Wt. (g)	Extraction Volume (mL)	Sample Type	Solvent&Lot# by/Date*	Comments/ Time of Encore transfer	Analyst
10-8-17	MB-74207		8260	NA	NA	5.0	5.0	E	DI H2O		
	LCS-74207					5.0		E			
	M1908	13A				5.0		B		T.B.	
	M1908	28A		NA	NA	5.0				T.B.	
	M1876	01D		32.35	41.04	8.7					
	M1908	09B		32.62	39.28	6.7					
		11D		32.60	37.46	4.9					
		12D		32.54	38.37	5.8					
		15B		32.62	38.76	6.1					
	M1908	14D		32.50	36.84	4.3					
	M1814	09C		32.72	44.79	12.1					
	M1814	10C		32.62	41.86	9.2					
	M1814	11C		32.39	38.36	6.0		B			
	M1854	06CMS		NA	NA	2.5		E			
10-8-17	M1854	06CMSD	8260	NA	NA	2.5	5.0	E	DI H2O		

*=Date added, if different than Rec. date

Sample Type: A. MeOH Pre-preserved; B. DI H2O/Freeze; C. NaHSO4 Pre-preserved; D. Encore; E. Unpreserved Jars

Logbook ID: 90.0189-09/13

Reviewed By: 10/8/17

M1876

Spectrum Analytical, Inc. RI Division : VOLATILE SAMPLES RECEIVING LOGBOOK

VOA Log-In Date	Workorder	Client ID	Sample Numbers	Relinquished by:	Received by:	Pres. Used	F/R	Returned to R23
9/28/13	M1876	AECOM	01	WJL	WL	F	F10	
↓	M1877	SEVENSON	01-05	WJL		F	F10	
↓	M1878	SEVENSON	01-04	WJL		F	F10	
9/28/13	M1878	SEVENSON	01-04	WJL		M	R10	
9/30/13	M1848	EPA	01-12	WJL		T	R4	
↓	M1849	EPA	01-02	WJL		VS	R8	
↓	M1849	EPA	03	WJL		VA	R10	
↓	M1847	STERLING	02-04	WJL		M	R10	
↓	M1881	GOMEZ	01-02	WJL		VS	R8	
↓	M1855	CRA	01	WJL		VS	R8	
↓	M1844	CH2M	01-12	WJL		H	R10	
↓	M1843	CH2M	01-04	WJL		H	R10	
↓	M1882	SPECTRUM MITKEM	01	WJL		H	R10	
9/30/13	M1847	STERLING	02-04	WJL	WL	F	F10	

Logbook ID 90.0191-01/13

Reviewed By: WL 10/6/13

"Preservative Used" Key

UA = Unpreserved Aqueous	**H** = HCL	**A** = Air	**M** = MeOH	**E** = Encore
US = Unpreserved Soil	**N** = $NaHSO_4$		**F** = Freeze	**T** = Trace, HCL

* Semivolatile Organics *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: Bay Ridge Holders, Waste Char

Laboratory Workorder / SDG #: M1876

SW846 8270D, SVOA by GC-MS

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 8270D

IV. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: S3
Instrument Type: GCMS-SEMI

Description: HP6890 / HP5973
Manufacturer: Hewlett-Packard
Model: 6890 / 5973

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes

are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

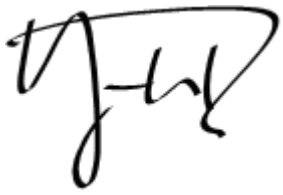
· M1 peak tailing or fronting
· M2 peak co-elution
· M3 rising or falling baseline
· M4 retention time shift
· M5 miscellaneous - under this category, the justification is explained
· M6 software did not integrate peak
· M7 partial peak integration

Manual integrations were performed on the following:

DISPOSAL-1 (M1876-01A) Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

SSTD0103T Benzo(b)fluoranthene , Benzo(k)fluoranthene due to M2

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.



Signed:_____ _____

Date:_____10/21/2013_____

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.

Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

2K - FORM II SV-4

SOIL SEMIVOLATILE DEUTERATED MONITORING COMPOUND RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Level: (LOW/MED) LOW

	EPA SAMPLE NO.	SDMC1 (NBZ) #	SDMC2 (FBP) #	SDMC3 (TPH) #	SDMC4 (PHL) #	SDMC5 (2FP) #	SDMC6 (TBP) #			TOT OUT
01	MB-74029	92	89	90	92	90	85			0
02	LCS-74029	93	89	87	95	95	81			0
03	LCSD-74029	96	93	93	97	98	88			0
04	DISPOSAL-1	76	77	75	74	74	74			0

			QC LIMITS
SDMC1	(NBZ)	= Nitrobenzene-d5	(35-100)
SDMC2	(FBP)	= 2-Fluorobiphenyl	(45-105)
SDMC3	(TPH)	= Terphenyl-d14	(30-125)
SDMC4	(PHL)	= Phenol-d5	(40-100)
SDMC5	(2FP)	= 2-Fluorophenol	(35-105)
SDMC6	(TBP)	= 2,4,6-Tribromophenol	(35-125)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D DMC diluted out

som13.10.18.A

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCS-74029 LCS Lot No.: A095842

Date Extracted: 09/30/2013 Date Analyzed (1): 10/04/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Phenol	3333.0000	0.0000	3115.8573	93		40 - 100
Bis(2-chloroethyl)ether	3333.0000	0.0000	3301.8415	99		40 - 105
2-Chlorophenol	3333.0000	0.0000	2974.3270	89		45 - 105
1,3-Dichlorobenzene	3333.0000	0.0000	2720.8551	82		40 - 100
1,4-Dichlorobenzene	3333.0000	0.0000	2746.7039	82		35 - 105
1,2-Dichlorobenzene	3333.0000	0.0000	2771.1148	83		45 - 95
2-Methylphenol	3333.0000	0.0000	3024.7223	91		40 - 105
2,2´-oxybis(1-Chloropropan	3333.0000	0.0000	3327.5969	100		20 - 115
4-Methylphenol	3333.0000	0.0000	3030.4736	91		40 - 105
N-Nitroso-di-n-propylamine	3333.0000	0.0000	3135.3555	94		40 - 115
Hexachloroethane	3333.0000	0.0000	2804.6187	84		35 - 110
Nitrobenzene	3333.0000	0.0000	3091.5313	93		40 - 115
Isophorone	3333.0000	0.0000	2905.9144	87		45 - 110
2-Nitrophenol	3333.0000	0.0000	2861.0989	86		40 - 110
2,4-Dimethylphenol	3333.0000	0.0000	2652.2120	80		30 - 105
2,4-Dichlorophenol	3333.0000	0.0000	2871.3306	86		45 - 110
1,2,4-Trichlorobenzene	3333.0000	0.0000	2742.7899	82		45 - 110
Naphthalene	3333.0000	0.0000	2875.9347	86		40 - 105
4-Chloroaniline	3333.0000	0.0000	1978.7024	59		10 - 100
Bis(2-chloroethoxy)methane	3333.0000	0.0000	2976.3007	89		45 - 110
Hexachlorobutadiene	3333.0000	0.0000	2667.3704	80		40 - 115
4-Chloro-3-methylphenol	3333.0000	0.0000	2879.3723	86		45 - 115
2-Methylnaphthalene	3333.0000	0.0000	2954.8799	89		45 - 105
Hexachlorocyclopentadiene	3333.0000	0.0000	2540.8403	76		8 - 148
2,4,6-Trichlorophenol	3333.0000	0.0000	2859.5818	86		45 - 110
2,4,5-Trichlorophenol	3333.0000	0.0000	2861.4838	86		50 - 110
2-Chloronaphthalene	3333.0000	0.0000	2939.5687	88		45 - 105
2-Nitroaniline	3333.0000	0.0000	3137.4066	94		45 - 120
Dimethylphthalate	3333.0000	0.0000	2780.0309	83		50 - 110
Acenaphthylene	3333.0000	0.0000	2876.9128	86		45 - 105
2,6-Dinitrotoluene	3333.0000	0.0000	2870.7453	86		50 - 110
3-Nitroaniline	3333.0000	0.0000	2243.7561	67		25 - 110
Acenaphthene	3333.0000	0.0000	2881.7948	86		45 - 110
2,4-Dinitrophenol	3333.0000	0.0000	3058.5583	92		15 - 130
4-Nitrophenol	3333.0000	0.0000	2844.1045	85		15 - 140
Dibenzofuran	3333.0000	0.0000	2850.8282	86		50 - 105
2,4-Dinitrotoluene	3333.0000	0.0000	2963.6057	89		50 - 115
Diethylphthalate	3333.0000	0.0000	2790.2409	84		50 - 115
4-Chlorophenyl-phenylether	3333.0000	0.0000	2767.9916	83		45 - 110
Fluorene	3333.0000	0.0000	2803.2524	84		50 - 110
4-Nitroaniline	3333.0000	0.0000	2579.4301	77		35 - 115
4,6-Dinitro-2-methylphenol	3333.0000	0.0000	2636.7397	79		30 - 135
N-Nitrosodiphenylamine	3333.0000	0.0000	2860.1652	86		50 - 115
4-Bromophenyl-phenylether	3333.0000	0.0000	2683.1473	81		45 - 115

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE RECOVERY

EPA SAMPLE NO.
LCS-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCS-74029 LCS Lot No.: A095842

Date Extracted: 09/30/2013 Date Analyzed (1): 10/04/2013

COMPOUND	SPIKE ADDED	SAMPLE CONCENTRATION	LCS CONCENTRATION	LCS %REC	#	QC. LIMITS REC.
Hexachlorobenzene	3333.0000	0.0000	2664.7185	80		45 - 120
Pentachlorophenol	3333.0000	0.0000	2760.9277	83		25 - 120
Phenanthrene	3333.0000	0.0000	2831.5240	85		50 - 110
Anthracene	3333.0000	0.0000	2836.3056	85		55 - 105
Carbazole	3333.0000	0.0000	2836.6680	85		45 - 115
Di-n-butylphthalate	3333.0000	0.0000	2829.3158	85		55 - 110
Fluoranthene	3333.0000	0.0000	2691.0646	81		55 - 115
Pyrene	3333.0000	0.0000	2952.0609	89		45 - 125
Butylbenzylphthalate	3333.0000	0.0000	2913.9461	87		50 - 125
3,3´-Dichlorobenzidine	3333.0000	0.0000	2058.2755	62		10 - 130
Benzo(a)anthracene	3333.0000	0.0000	2745.7791	82		50 - 110
Chrysene	3333.0000	0.0000	2780.2441	83		55 - 110
Bis(2-ethylhexyl)phthalate	3333.0000	0.0000	2881.9641	86		45 - 125
Di-n-octylphthalate	3333.0000	0.0000	3050.6577	92		40 - 130
Benzo(b)fluoranthene	3333.0000	0.0000	2706.8595	81		45 - 115
Benzo(k)fluoranthene	3333.0000	0.0000	3075.9520	92		45 - 125
Benzo(a)pyrene	3333.0000	0.0000	2885.7582	87		50 - 110
Indeno(1,2,3-cd)pyrene	3333.0000	0.0000	2554.1731	77		40 - 120
Dibenzo(a,h)anthracene	3333.0000	0.0000	2796.9156	84		40 - 125
Benzo(g,h,i)perylene	3333.0000	0.0000	2899.5267	87		40 - 125

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

* Values outside of QC limits

Spike Recovery: 0 out of 64 outside limits

COMMENTS:

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.
LCSD-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCSD-74029 LCS Lot No.: A095842

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	3333.0000	3227.4470	97		4		40	40 - 100
Bis(2-chloroethyl)ether	3333.0000	3398.7122	102		3		40	40 - 105
2-Chlorophenol	3333.0000	3094.5620	93		4		40	45 - 105
1,3-Dichlorobenzene	3333.0000	2805.4491	84		2		40	40 - 100
1,4-Dichlorobenzene	3333.0000	2838.2393	85		4		40	35 - 105
1,2-Dichlorobenzene	3333.0000	2831.6170	85		2		40	45 - 95
2-Methylphenol	3333.0000	3183.2090	96		5		40	40 - 105
2,2´-oxybis(1-Chloropropan	3333.0000	3412.8022	102		2		40	20 - 115
4-Methylphenol	3333.0000	3180.4386	95		4		40	40 - 105
N-Nitroso-di-n-propylamine	3333.0000	3212.1453	96		2		40	40 - 115
Hexachloroethane	3333.0000	2889.0749	87		4		40	35 - 110
Nitrobenzene	3333.0000	3155.9099	95		2		40	40 - 115
Isophorone	3333.0000	2985.8482	90		3		40	45 - 110
2-Nitrophenol	3333.0000	2944.1816	88		2		40	40 - 110
2,4-Dimethylphenol	3333.0000	3001.0187	90		12		40	30 - 105
2,4-Dichlorophenol	3333.0000	2952.6807	89		3		40	45 - 110
1,2,4-Trichlorobenzene	3333.0000	2775.6181	83		1		40	45 - 110
Naphthalene	3333.0000	2944.8861	88		2		40	40 - 105
4-Chloroaniline	3333.0000	2115.4198	63		7		40	10 - 100
Bis(2-chloroethoxy)methane	3333.0000	3082.7886	92		3		40	45 - 110
Hexachlorobutadiene	3333.0000	2707.0196	81		1		40	40 - 115
4-Chloro-3-methylphenol	3333.0000	3025.3903	91		6		40	45 - 115
2-Methylnaphthalene	3333.0000	3004.7937	90		1		40	45 - 105
Hexachlorocyclopentadiene	3333.0000	2644.7749	79		4		40	8 - 148
2,4,6-Trichlorophenol	3333.0000	3018.6309	91		6		40	45 - 110
2,4,5-Trichlorophenol	3333.0000	3065.7250	92		7		40	50 - 110
2-Chloronaphthalene	3333.0000	3039.4013	91		3		40	45 - 105
2-Nitroaniline	3333.0000	3358.6777	101		7		40	45 - 120
Dimethylphthalate	3333.0000	2941.1393	88		6		40	50 - 110
Acenaphthylene	3333.0000	3017.9500	91		6		40	45 - 105
2,6-Dinitrotoluene	3333.0000	3096.9637	93		8		40	50 - 110
3-Nitroaniline	3333.0000	2449.0406	73		9		40	25 - 110
Acenaphthene	3333.0000	3038.1044	91		6		40	45 - 110
2,4-Dinitrophenol	3333.0000	2897.6317	87		6		40	15 - 130
4-Nitrophenol	3333.0000	2968.9648	89		5		40	15 - 140
Dibenzofuran	3333.0000	2983.0203	89		3		40	50 - 105
2,4-Dinitrotoluene	3333.0000	3124.9391	94		5		40	50 - 115
Diethylphthalate	3333.0000	2969.4518	89		6		40	50 - 115
4-Chlorophenyl-phenylether	3333.0000	2979.2016	89		7		40	45 - 110
Fluorene	3333.0000	2938.6840	88		5		40	50 - 110
4-Nitroaniline	3333.0000	2826.5163	85		10		40	35 - 115
4,6-Dinitro-2-methylphenol	3333.0000	2748.1757	82		4		40	30 - 135
N-Nitrosodiphenylamine	3333.0000	3065.6132	92		7		40	50 - 115
4-Bromophenyl-phenylether	3333.0000	2899.3778	87		7		40	45 - 115
Hexachlorobenzene	3333.0000	2851.3588	86		7		40	45 - 120
Pentachlorophenol	3333.0000	3071.8333	92		10		40	25 - 120

3 - FORM III
SOIL LABORATORY CONTROL
SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.
LCSD-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCSD-74029 LCS Lot No.: A095842

COMPOUND	SPIKE ADDED	LCSD CONCENTRATION	LCSD %REC	#	%RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenanthrene	3333.0000	2979.9454	89		5		40	50 - 110
Anthracene	3333.0000	3008.7911	90		6		40	55 - 105
Carbazole	3333.0000	3002.8859	90		6		40	45 - 115
Di-n-butylphthalate	3333.0000	2966.8342	89		5		40	55 - 110
Fluoranthene	3333.0000	2852.5917	86		6		40	55 - 115
Pyrene	3333.0000	3170.0718	95		7		40	45 - 125
Butylbenzylphthalate	3333.0000	3083.4624	93		7		40	50 - 125
3,3´-Dichlorobenzidine	3333.0000	2320.5655	70		12		40	10 - 130
Benzo(a)anthracene	3333.0000	2984.5446	90		9		40	50 - 110
Chrysene	3333.0000	3039.3798	91		9		40	55 - 110
Bis(2-ethylhexyl)phthalate	3333.0000	3047.8611	91		6		40	45 - 125
Di-n-octylphthalate	3333.0000	3206.0206	96		4		40	40 - 130
Benzo(b)fluoranthene	3333.0000	2691.4514	81		0		40	45 - 115
Benzo(k)fluoranthene	3333.0000	3537.2523	106		14		40	45 - 125
Benzo(a)pyrene	3333.0000	3079.6093	92		6		40	50 - 110
Indeno(1,2,3-cd)pyrene	3333.0000	2804.7580	84		9		40	40 - 120
Dibenzo(a,h)anthracene	3333.0000	3068.8254	92		9		40	40 - 125
Benzo(g,h,i)perylene	3333.0000	3162.9322	95		9		40	40 - 125

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

* Values outside of QC limits

RPD: 0 out of 64 outside limits

Spike Recovery: 0 out of 64 outside limits

COMMENTS:

4C - FORM IV SV

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: S3I7960.D Lab Sample ID: MB-74029

Instrument ID: S3 Date Extracted: 09/30/2013

Matrix: (SOIL/SED/WATER) SOIL Date Analyzed: 10/04/2013

Level: (LOW/MED) LOW Time Analyzed: 12:45

Extraction: (Type) SONC GPC Cleanup: (Y/N) N

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	LCS-74029	LCS-74029	S3I7961.D	10/04/2013
02	LCSD-74029	LCSD-74029	S3I7962.D	10/04/2013
03	DISPOSAL-1	M1876-01A	S3I7971.D	10/04/2013

COMMENTS:

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.
DFTPP3T

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: S3I7581C.D DFTPP Injection Date: 09/06/2013

Instrument ID: S3 DFTPP Injection Time: 12:07

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	36.3
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	10.0 - 80.0% of mass 198	43.9
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 60.0% of mass 198	26.6
365	Greater than 1.0% of mass 198	3.0
441	Present, but less than mass 443	10.5
442	50.0 - 100% of mass 198	71.6
443	15.0 - 24.0% of mass 442	14.2 (19.8)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0053T	SSTD0053T	S3I7582.D	09/06/2013	14:49
02	SSTD0103T	SSTD0103T	S3I7583.D	09/06/2013	15:12
03	SSTD0403T	SSTD0403T	S3I7584.D	09/06/2013	15:34
04	SSTD0603T	SSTD0603T	S3I7585.D	09/06/2013	15:56
05	SSTD0803T	SSTD0803T	S3I7586.D	09/06/2013	16:18
06	SSTD0253T	SSTD0253T	S3I7586B.D	09/06/2013	17:02

5B - FORM V SV
SEMIVOLATILE ORGANIC INSTRUMENT
PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPINE (DFTPP)

EPA SAMPLE NO.
DFTPP3H

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: S3I7950A.D DFTPP Injection Date: 10/04/2013

Instrument ID: S3 DFTPP Injection Time: 8:59

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	44.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	46.4
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	10.0 - 80.0% of mass 198	51.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.5
275	10.0 - 60.0% of mass 198	26.0
365	Greater than 1.0% of mass 198	2.5
441	Present, but less than mass 443	8.1
442	50.0 - 100% of mass 198	51.5
443	15.0 - 24.0% of mass 442	10.1 (19.6)2

1 - Value is % mass 69 2 - Value is % mass 442

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD0253H	SSTD0253H	S3I7951.D	10/04/2013	9:11
02	MB-74029	MB-74029	S3I7960.D	10/04/2013	12:45
03	LCS-74029	LCS-74029	S3I7961.D	10/04/2013	13:06
04	LCSD-74029	LCSD-74029	S3I7962.D	10/04/2013	13:28
05	DISPOSAL-1	M1876-01A	S3I7971.D	10/04/2013	16:39

8C - FORM VIII SV-1

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: Rxi-5sil MS ID: 0.25 (mm) Init. Calib. Date(s): 09/06/2013 10/16/2013

EPA Sample No.(SSTD020##) SSTD0253H Date Analyzed: 10/04/2013

Lab File ID (Standard): S3I7951.D Time Analyzed: 9:11

Instrument ID: S3

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	160752		2.395		640357		4.094		391882		6.364	
	UPPER LIMIT	321504		2.895		1280714		4.594		783764		6.864	
	LOWER LIMIT	80376		1.895		320179		3.594		195941		5.864	
	EPA SAMPLE NO.												
01	MB-74029	119663		2.390		456225		4.078		264968		6.359	
02	LCS-74029	127054		2.394		488988		4.087		282584		6.363	
03	LCSD-74029	122428		2.392		475513		4.091		272994		6.362	
04	DISPOSAL-1	128593		2.396		486044		4.084		277489		6.360	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

8D - FORM VIII SV-2

SEMIVOLATILE INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

EPA Sample No.(SSTD020##) SSTD0253H Date Analyzed: 10/04/2013

Lab File ID (Standard): S3I7951.D Time Analyzed: 9:11

Instrument ID: S3 GC Column: Rxi-5sil MS ID: 0.25 (mm)

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	758466		7.657		865492		9.868		910107		11.103	
	UPPER LIMIT	1516932		8.157		1730984		10.368		1820214		11.603	
	LOWER LIMIT	379233		7.157		432746		9.368		455054		10.603	
	EPA SAMPLE NO.												
01	MB-74029	502303		7.646		539363		9.858		513015		11.076	
02	LCS-74029	524089		7.650		539430		9.841		527225		11.059	
03	LCSD-74029	506632		7.649		515383		9.845		518353		11.031	
04	DISPOSAL-1	512963		7.647		579940		9.843		648062		11.055	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12
AREA UPPER LIMIT = 200% of internal standard area
AREA LOWER LIMIT = 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside contract required QC limits with an asterisk.

EPA SAMPLE NO.
DISPOSAL-1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1876-01A

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7971.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 09/28/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	Bis(2-chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2´-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
111-91-1	Bis(2-chloroethoxy)methane	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	760	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	760	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	760	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	760	U
100-02-7	4-Nitrophenol	760	U
132-64-9	Dibenzofuran	370	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DISPOSAL-1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1876-01A

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7971.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: 12 Decanted: (Y/N) N Date Received: 09/28/2013

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	760	U
534-52-1	4,6-Dinitro-2-methylphenol	760	U
86-30-6	N-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	760	U
85-01-8	Phenanthrene	350	J
120-12-7	Anthracene	110	J
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	77	J
206-44-0	Fluoranthene	680	
129-00-0	Pyrene	710	
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3´-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	390	
218-01-9	Chrysene	570	
117-81-7	Bis(2-ethylhexyl)phthalate	370	U
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	470	
207-08-9	Benzo(k)fluoranthene	440	
50-32-8	Benzo(a)pyrene	400	
193-39-5	Indeno(1,2,3-cd)pyrene	260	J
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	270	J

Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D
Report Date: 07-Oct-2013 11:12

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\131004.B\S3I7971.D
Lab Smp Id: M1876-01A Client Smp ID: DISPOSAL-1
Inj Date : 04-OCT-2013 16:39
Operator : PK   SRC: LIMS Inst ID: S3.i
Smp Info : M1876-01A,,74029
Misc Info :
Comment   :
Method   : \\avogadro\organics\S3.I\131004.B\s3_8270C_N.m
Meth Date : 07-Oct-2013 11:10 S3.i Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 21
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$	3 2-Fluorophenol	112	1.391	1.379	(0.581)	165350	36.9558	2500
$	5 Phenol-d5	99	2.187	2.170	(0.913)	215391	37.1204	2500
*	12 1,4-Dichlorobenzene-d4	152	2.395	2.394	(1.000)	128593	40.0000	
$	22 Nitrobenzene-d5	82	3.026	3.030	(0.741)	171040	37.8714	2500
*	31 Naphthalene-d8	136	4.083	4.093	(1.000)	486044	40.0000	
$	41 2-Fluorobiphenyl	172	5.734	5.739	(0.902)	351387	38.5427	2600
*	48 Acenaphthene-d10	164	6.359	6.364	(1.000)	277489	40.0000	
$	60 2,4,6-Tribromophenol	330	7.086	7.090	(0.927)	46408	36.9558	2500
*	64 Phenanthrene-d10	188	7.647	7.656	(1.000)	512963	40.0000	
	65 Phenanthrene	178	7.663	7.672	(1.002)	62069	4.67126	310(a)
	66 Anthracene	178	7.705	7.715	(1.008)	20493	1.49412	100(a)
	68 Di-n-butylphthalate	149	8.224	8.228	(1.075)	15042	1.02331	68(a)
	69 Fluoranthene	202	8.635	8.645	(1.129)	137749	8.95839	600(a)
	71 Pyrene	202	8.811	8.821	(0.895)	149442	9.35693	620(a)
$	72 Terphenyl-d14	244	8.993	9.003	(0.914)	421508	37.4226	2500
	75 Benzo(a)anthracene	228	9.831	9.857	(0.999)	83316	5.19562	350(aH)
*	76 Chrysene-d12	240	9.842	9.868	(1.000)	579940	40.0000	
	77 Chrysene	228	9.858	9.889	(1.002)	112686	7.60610	510(a)
	80 Benzo(b)fluoranthene	252	10.740	10.782	(0.971)	120382	6.27244	420(aM)M2 PK 10/07

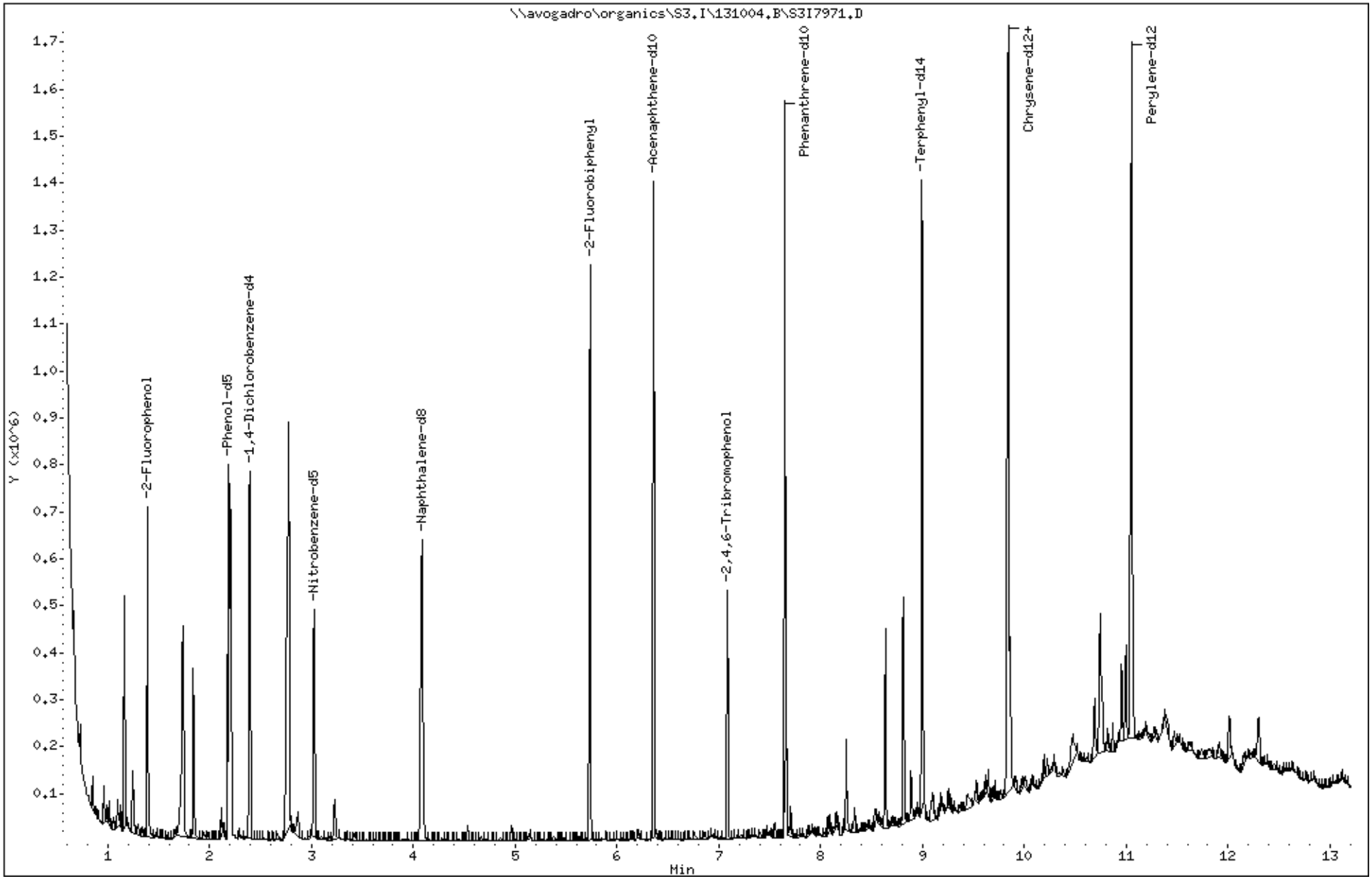
Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D
Report Date: 07-Oct-2013 11:12

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)	
	81 Benzo(k)fluoranthene	252	10.745	10.808	(0.972)	98138	5.80526	390(aM)M2 PK 10/07	
	82 Benzo(a)pyrene	252	10.996	11.043	(0.995)	87064	5.25796	350(aH)	
*	83 Perylene-d12	264	11.055	11.102	(1.000)	648062	40.0000		
	84 Indeno(1,2,3-cd)pyrene	276	12.011	12.069	(1.086)	61835	3.49355	230(a)	
	86 Benzo(g,h,i)perylene	276	12.300	12.363	(1.113)	58553	3.59902	240(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D
Date : 04-OCT-2013 16:39
Client ID: DISPOSAL-1
Instrument: S3.i
Sample Info: M1876-01A,,74029
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

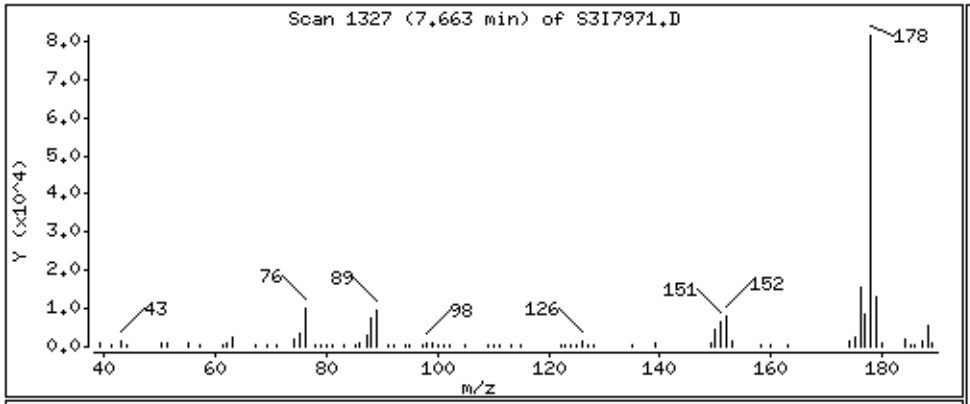
Client ID: DISPOSAL-1 Instrument: S3.i

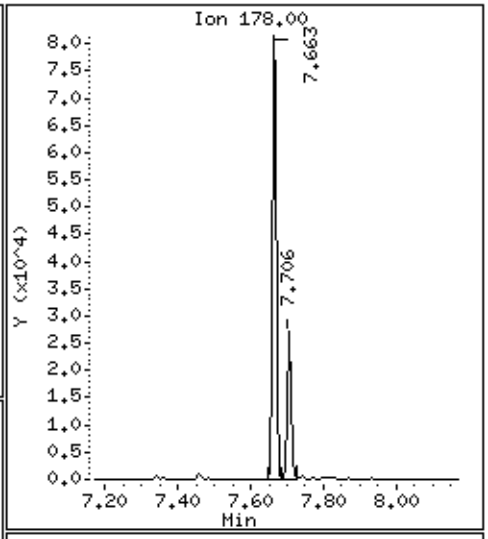
Sample Info: M1876-01A,,74029

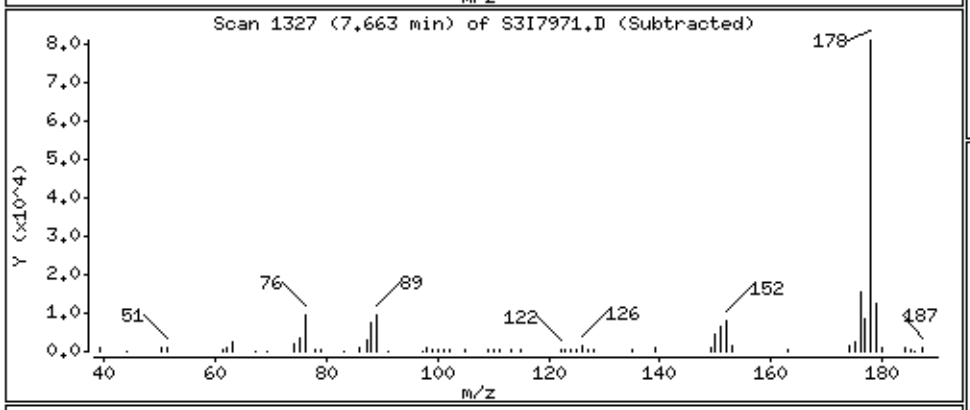
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

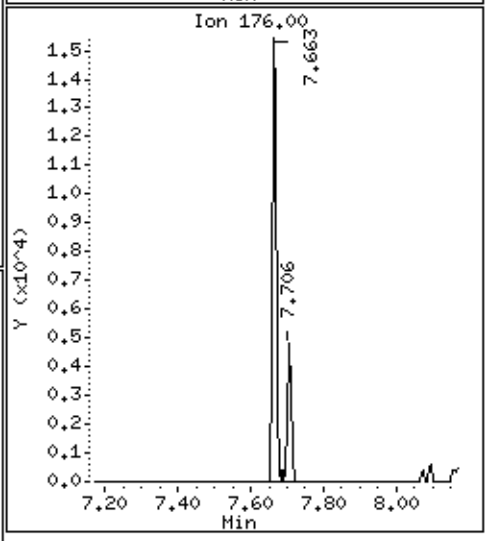
Column phase: Rxi-5Sil MS Column diameter: 0.25

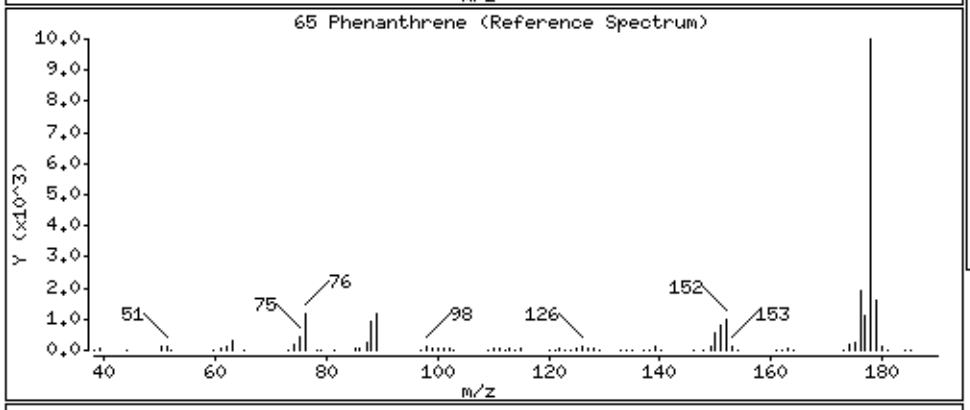
65 Phenanthrene Concentration: 310 ug/Kg

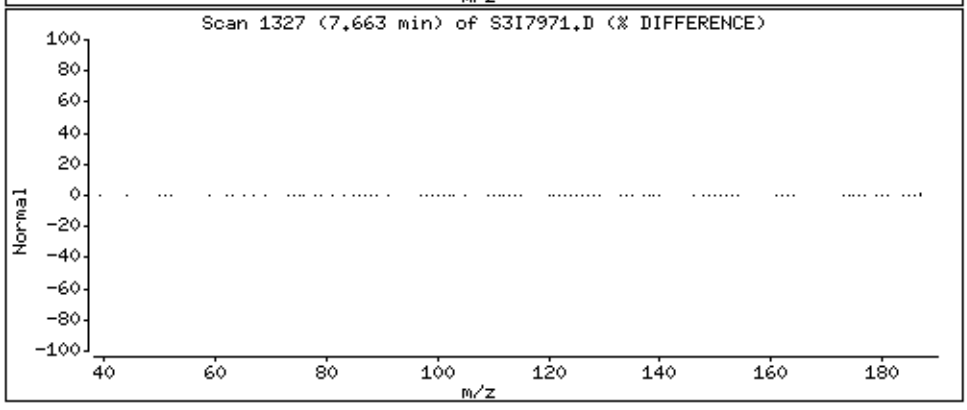












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

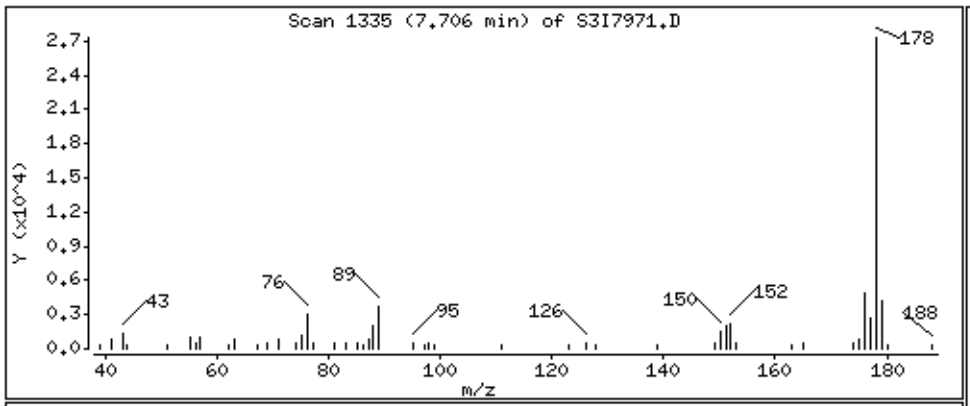
Client ID: DISPOSAL-1 Instrument: S3.i

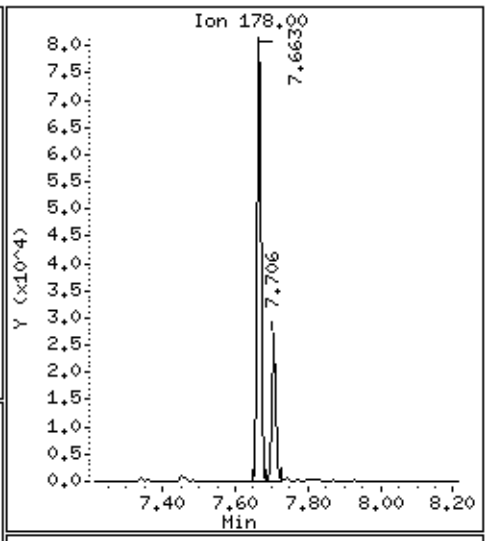
Sample Info: M1876-01A,,74029

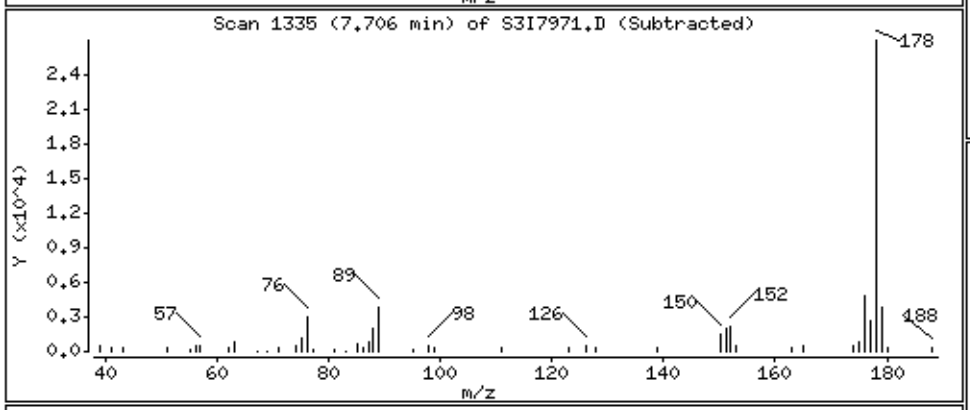
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

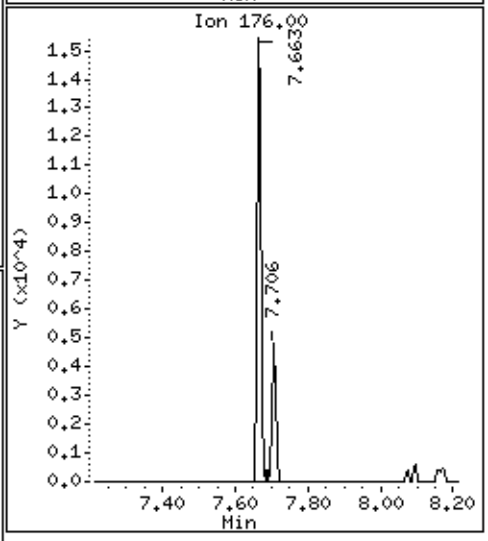
Column phase: Rxi-5Sil MS Column diameter: 0.25

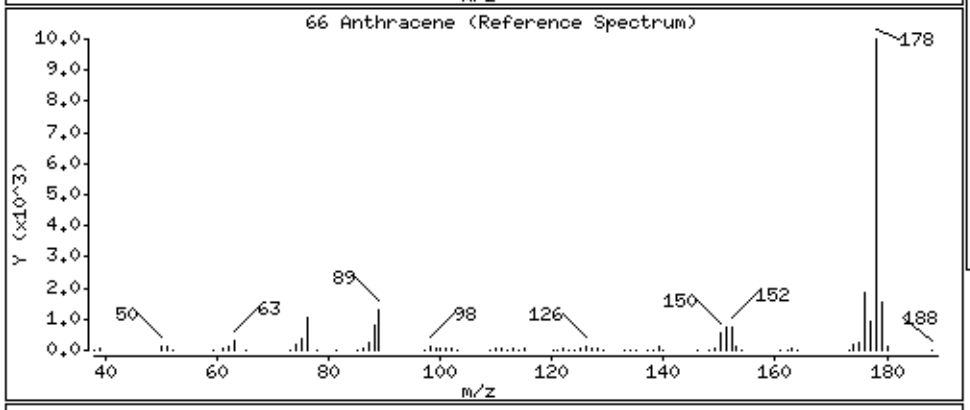
66 Anthracene Concentration: 100 ug/Kg

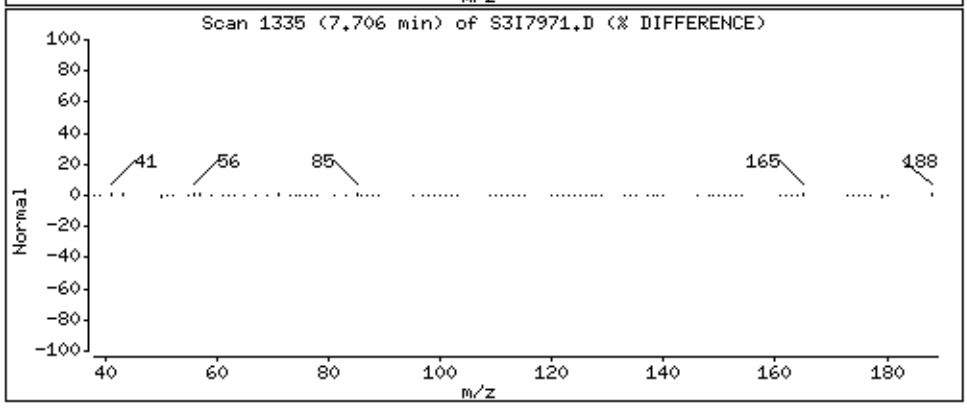












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

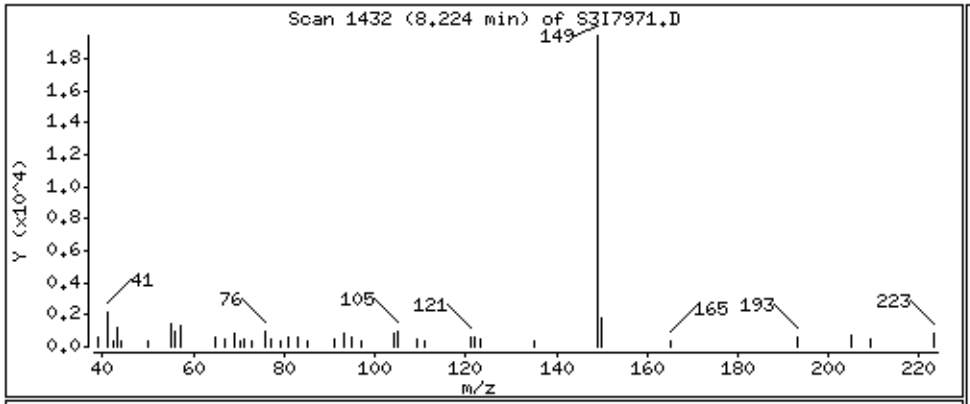
Client ID: DISPOSAL-1 Instrument: S3.i

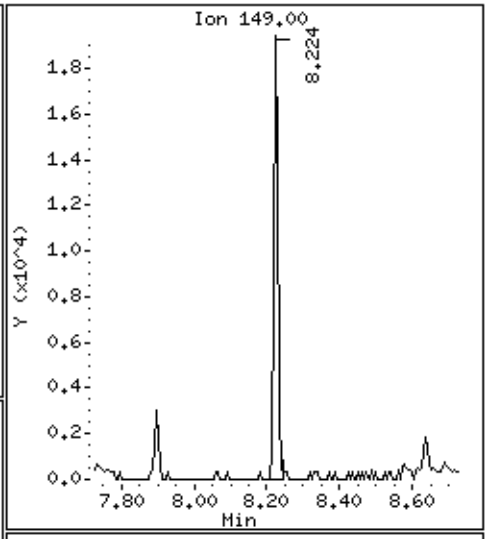
Sample Info: M1876-01A,,74029

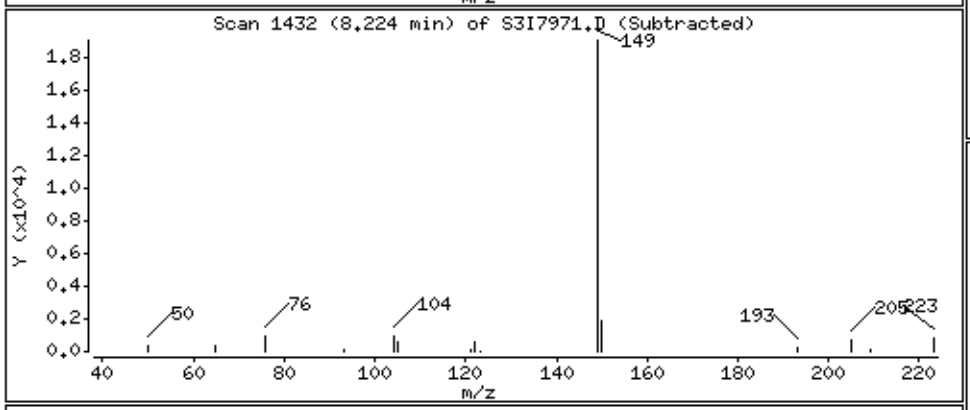
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

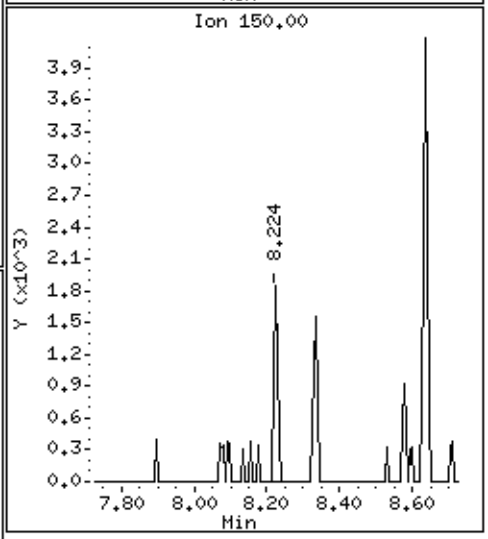
Column phase: Rxi-5Sil MS Column diameter: 0.25

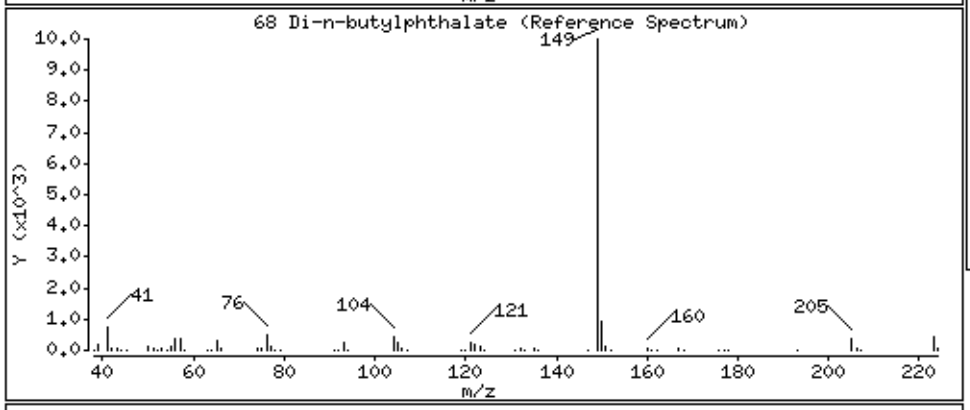
68 Di-n-butylphthalate Concentration: 68 ug/Kg

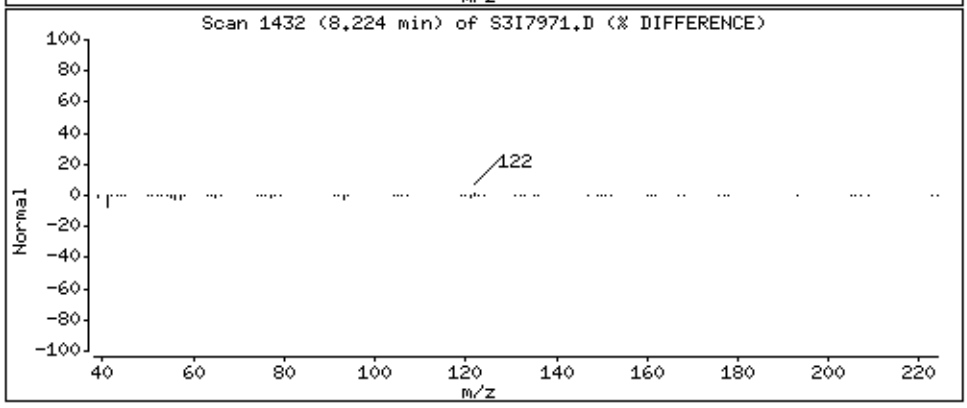












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

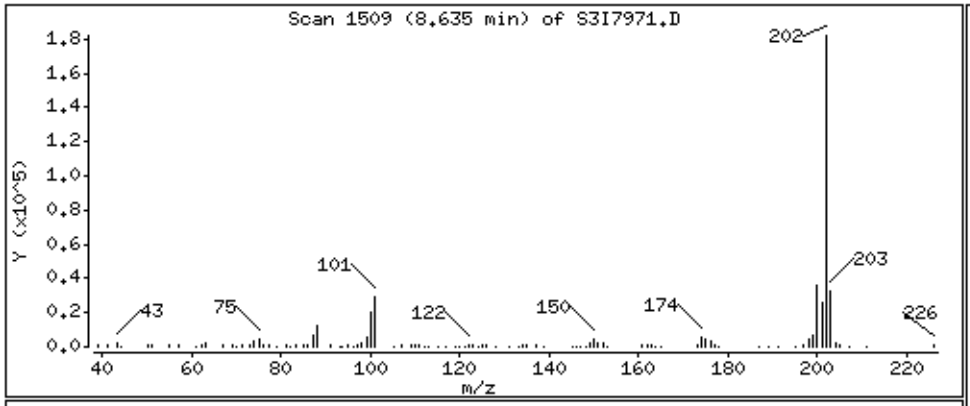
Client ID: DISPOSAL-1 Instrument: S3.i

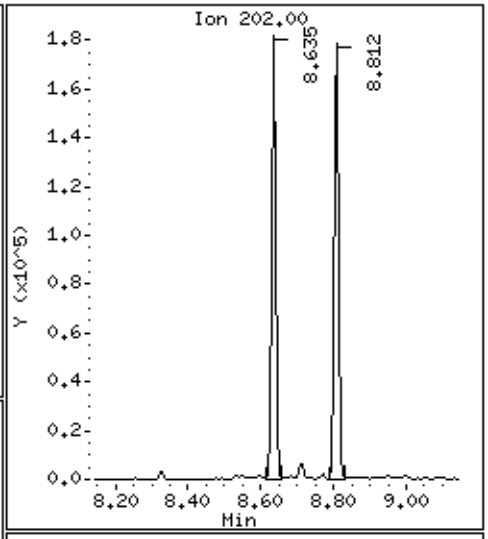
Sample Info: M1876-01A,,74029

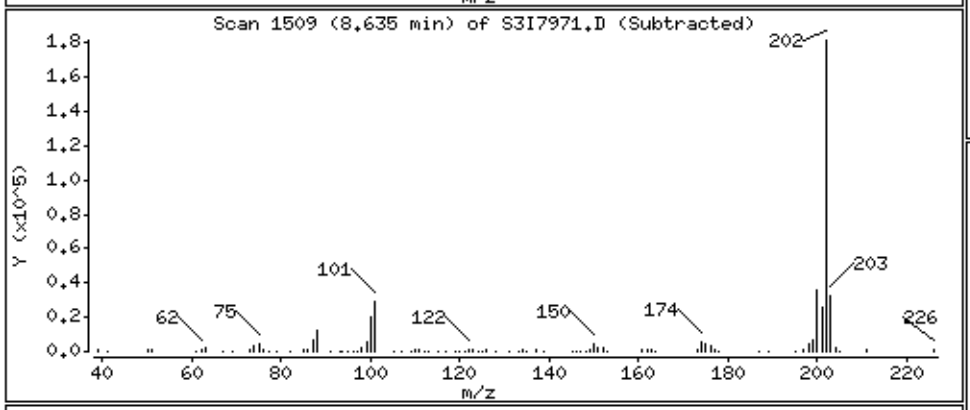
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

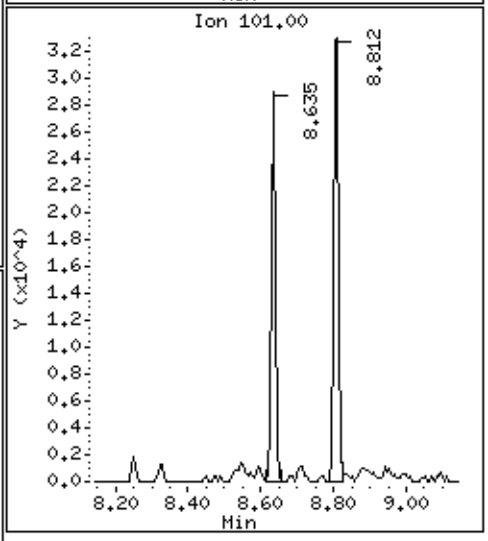
Column phase: Rxi-5Sil MS Column diameter: 0.25

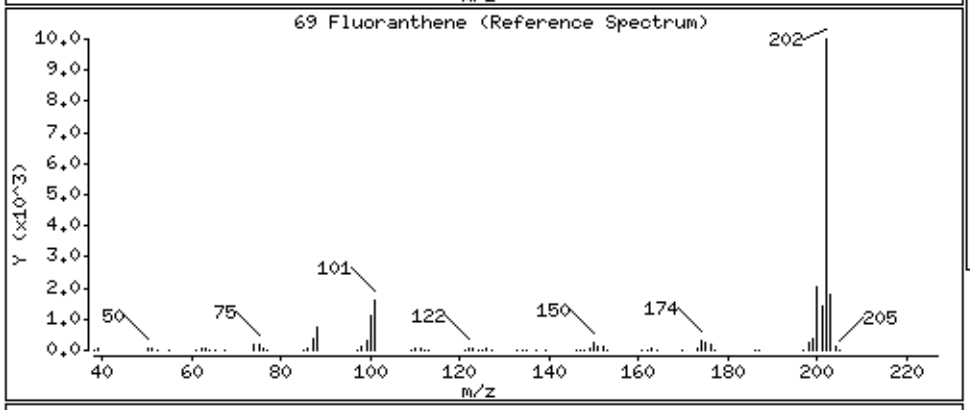
69 Fluoranthene Concentration: 600 ug/Kg

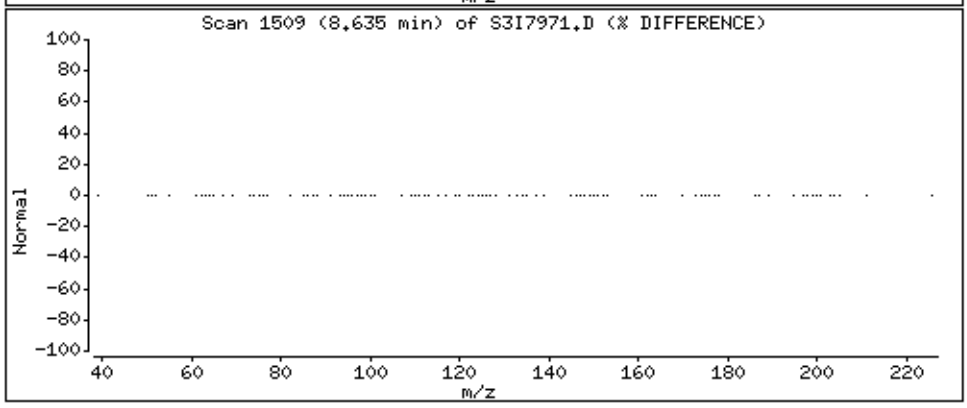












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

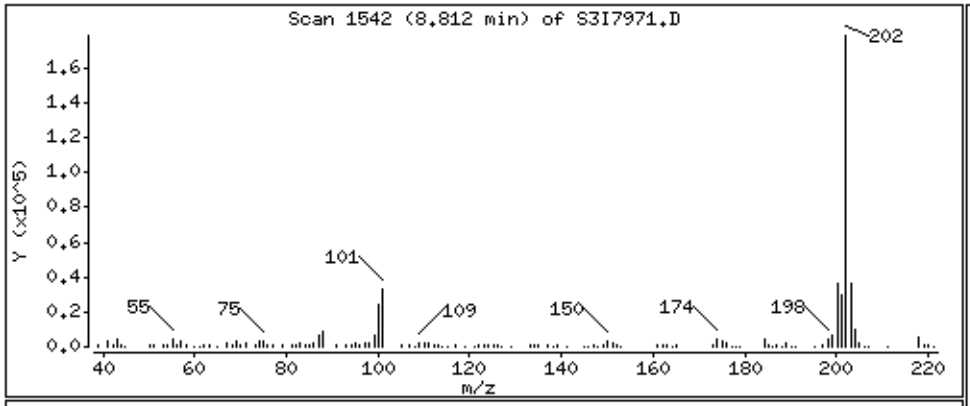
Client ID: DISPOSAL-1 Instrument: S3.i

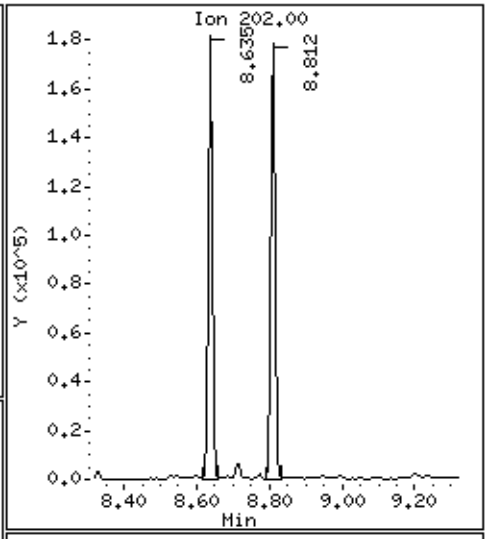
Sample Info: M1876-01A,,74029

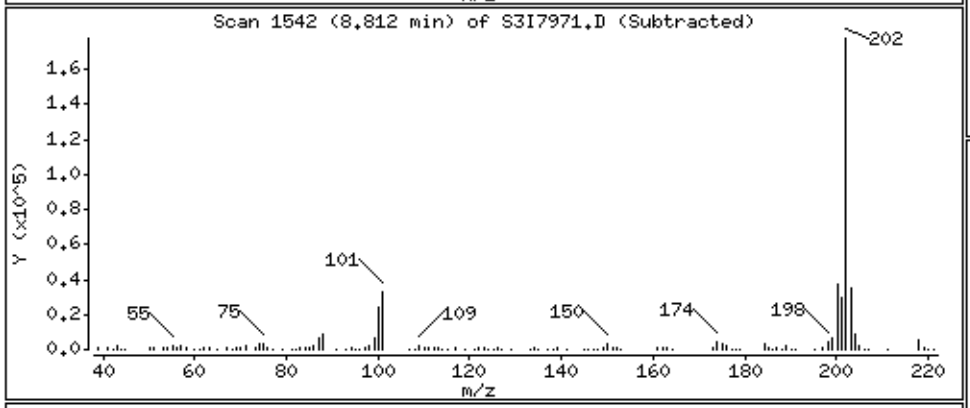
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

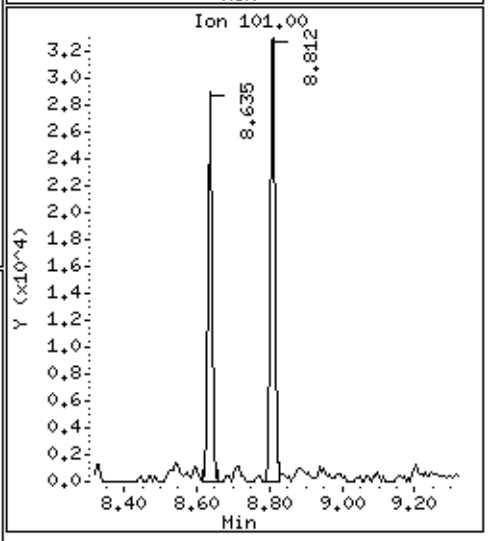
Column phase: Rxi-5Sil MS Column diameter: 0.25

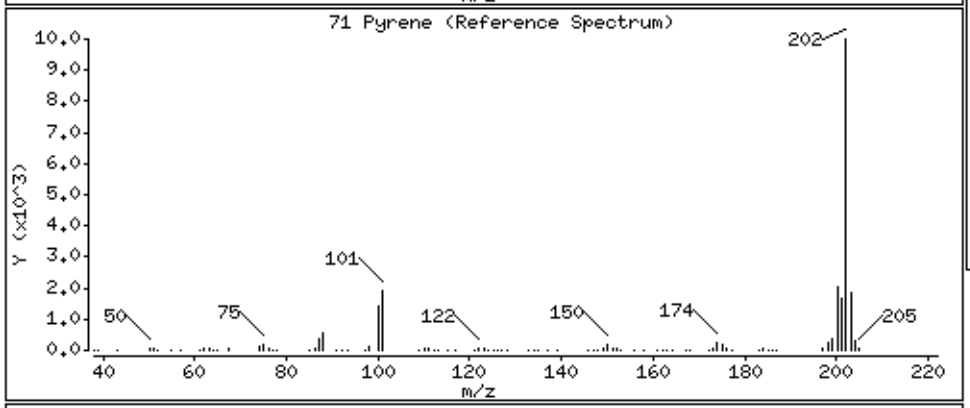
71 Pyrene Concentration: 620 ug/Kg

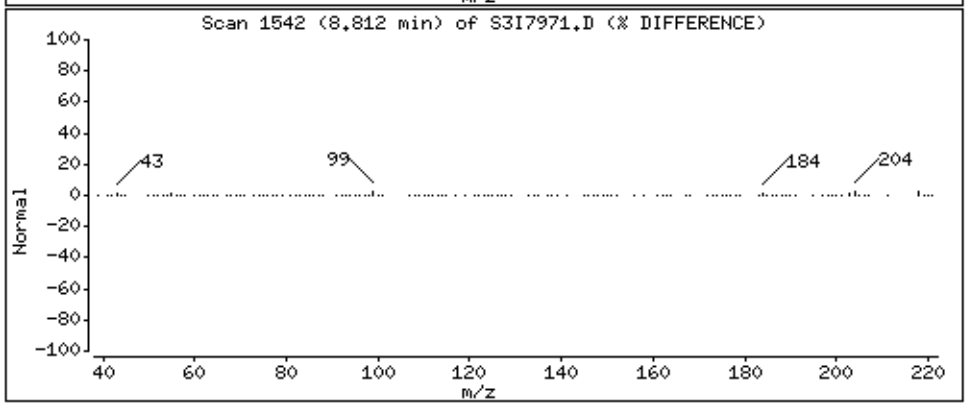












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

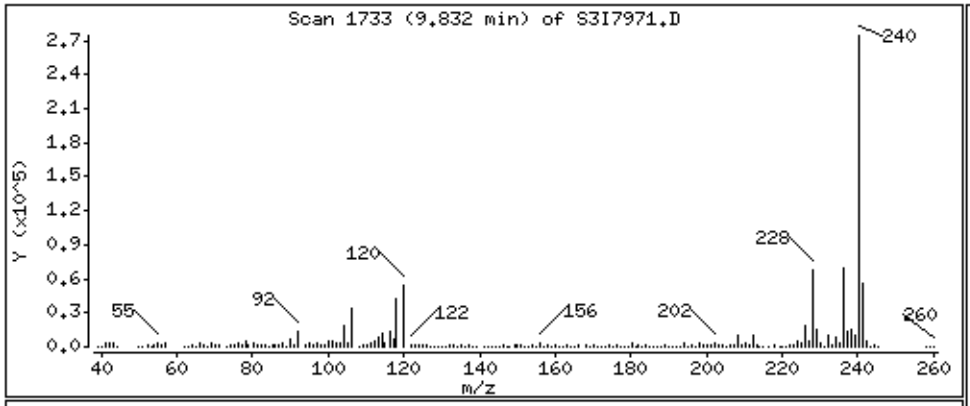
Client ID: DISPOSAL-1 Instrument: S3.i

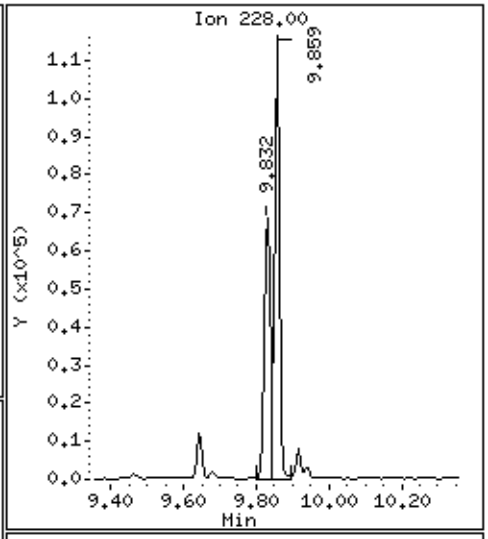
Sample Info: M1876-01A,,74029

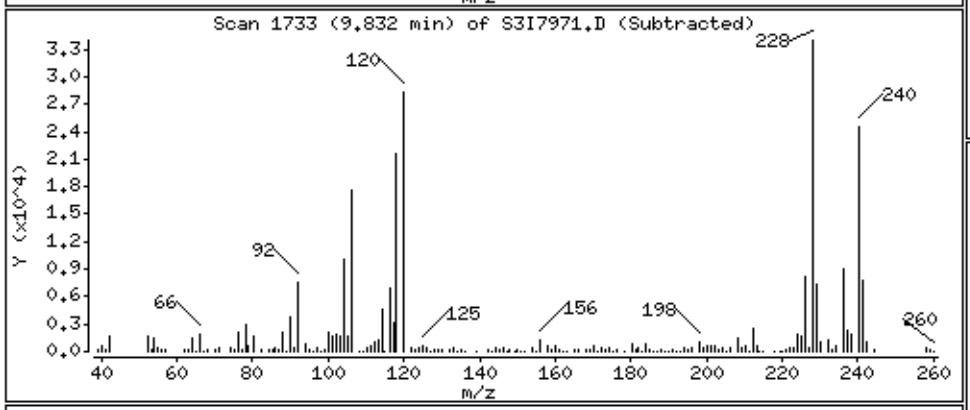
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

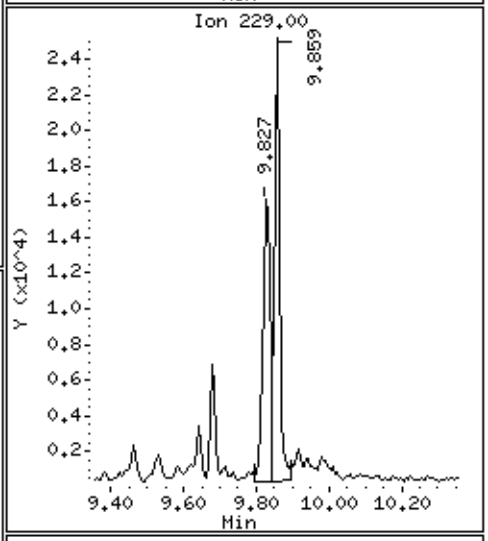
Column phase: Rxi-5Sil MS Column diameter: 0.25

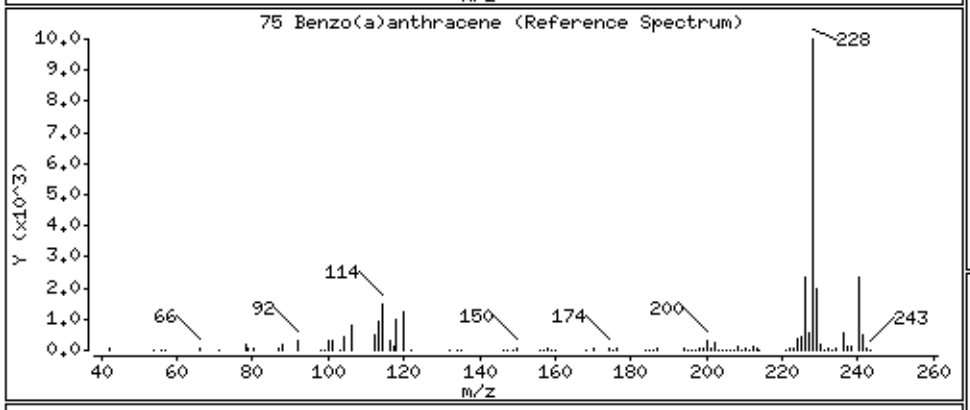
75 Benzo(a)anthracene Concentration: 350 ug/Kg

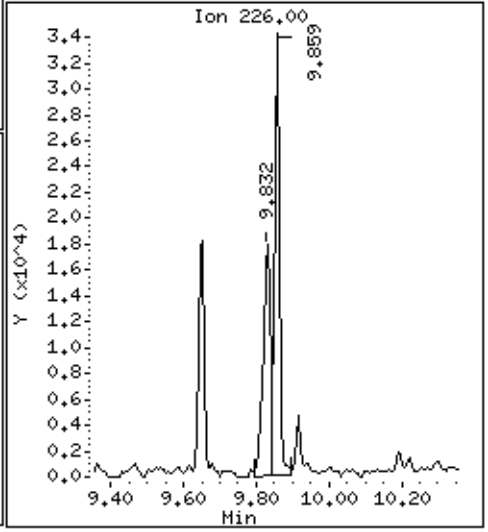


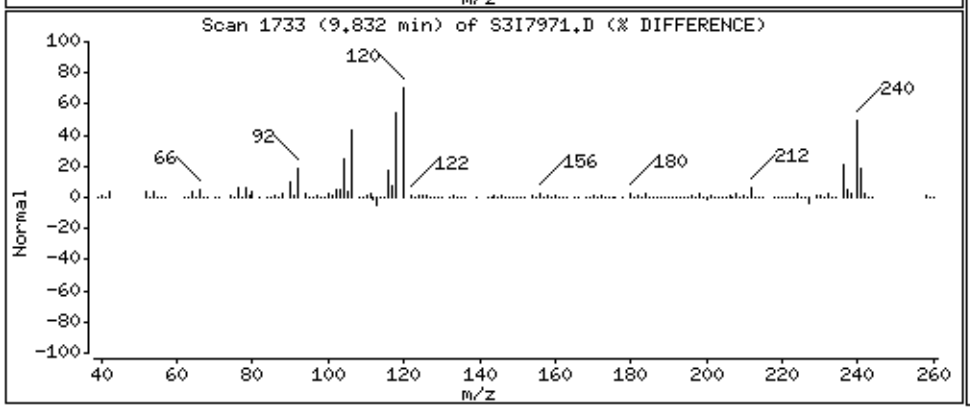












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

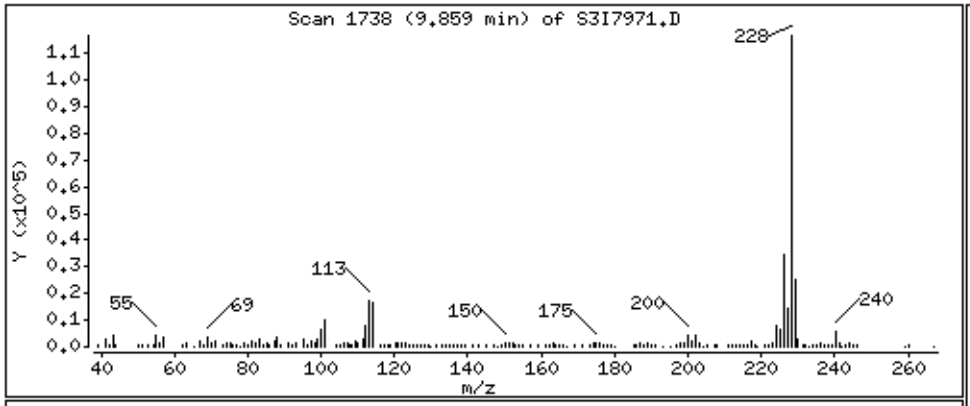
Client ID: DISPOSAL-1 Instrument: S3.i

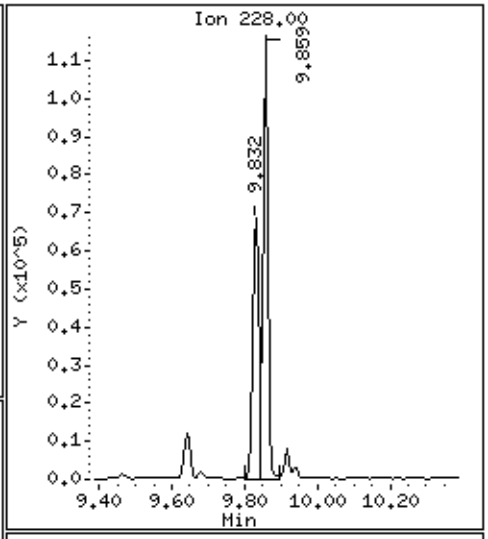
Sample Info: M1876-01A,,74029

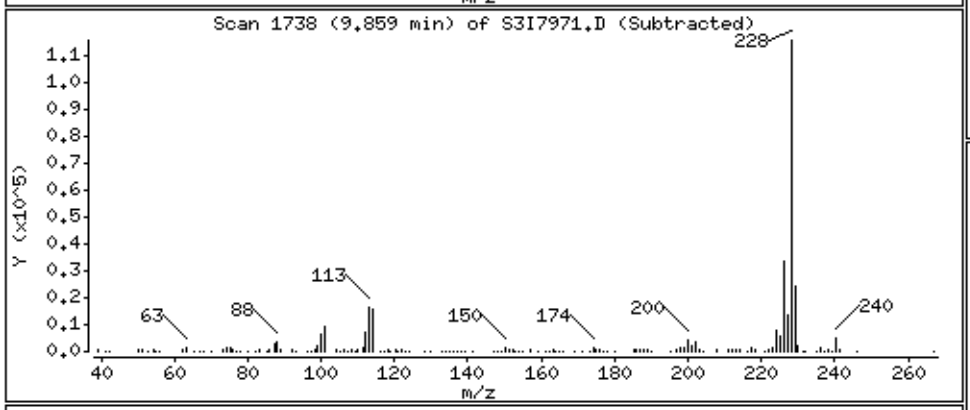
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

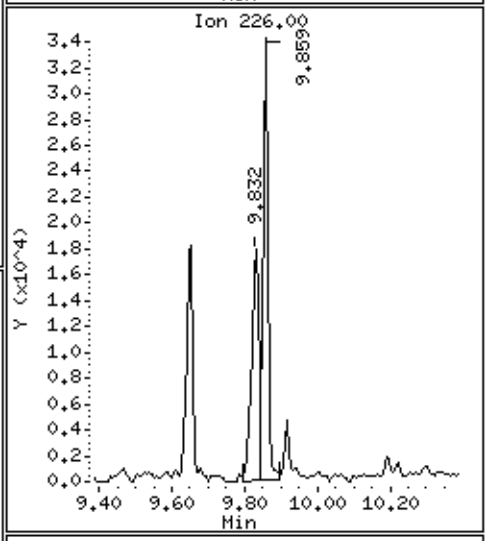
Column phase: Rxi-5Sil MS Column diameter: 0.25

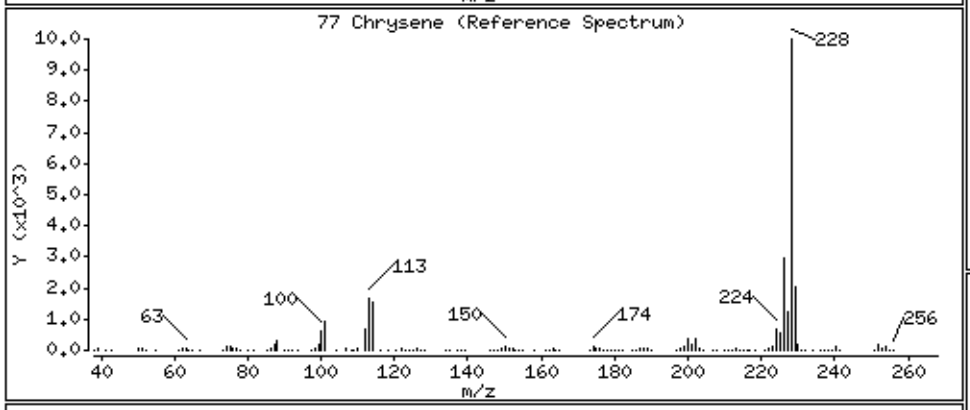
77 Chrysene Concentration: 510 ug/Kg

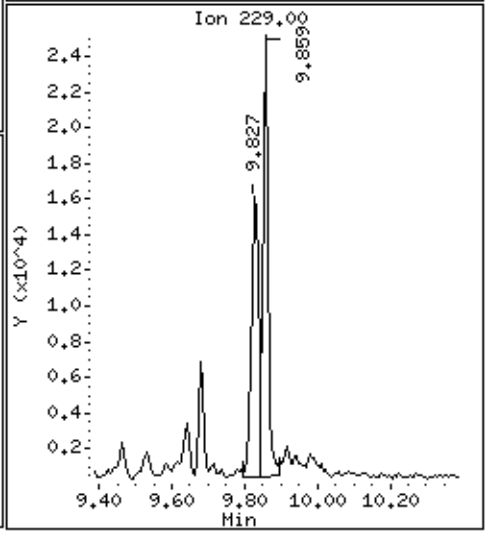


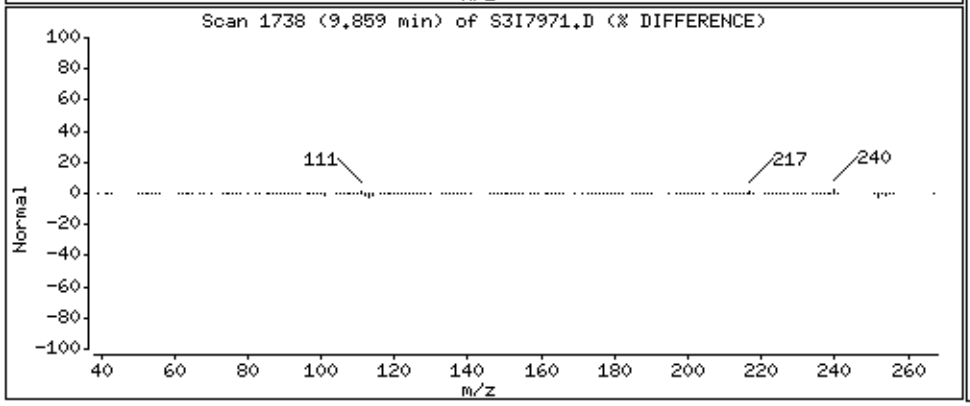












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

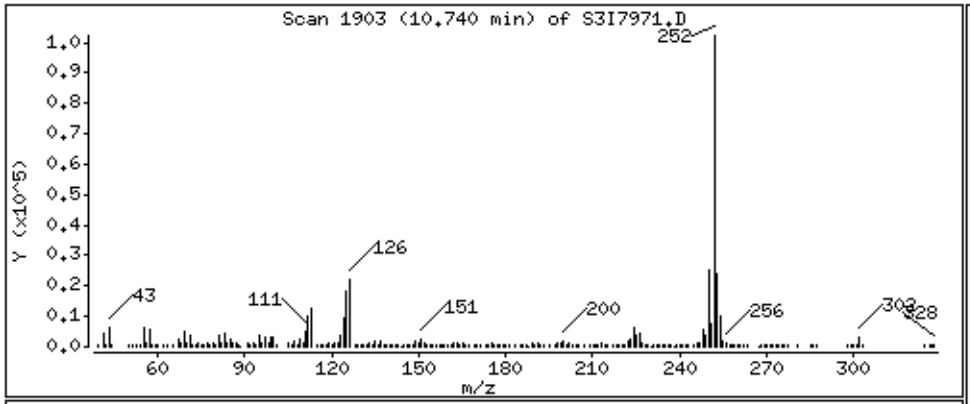
Client ID: DISPOSAL-1 Instrument: S3.i

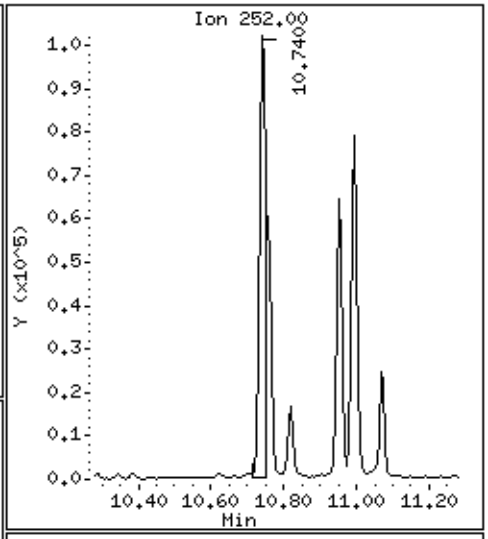
Sample Info: M1876-01A,,74029

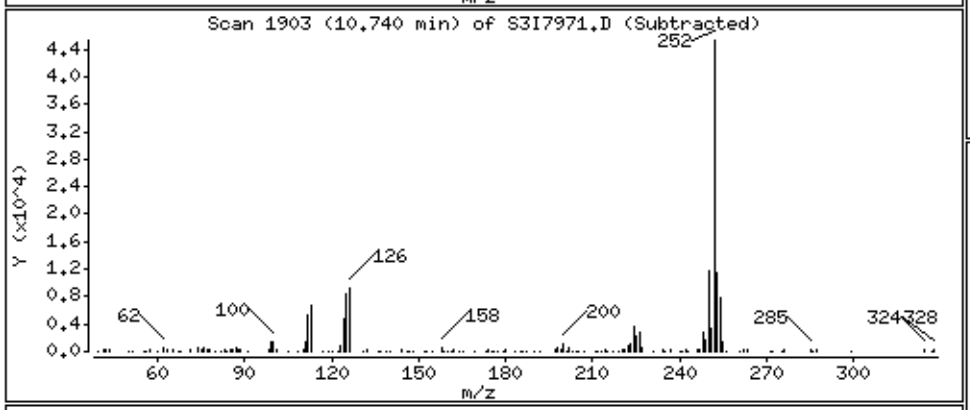
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

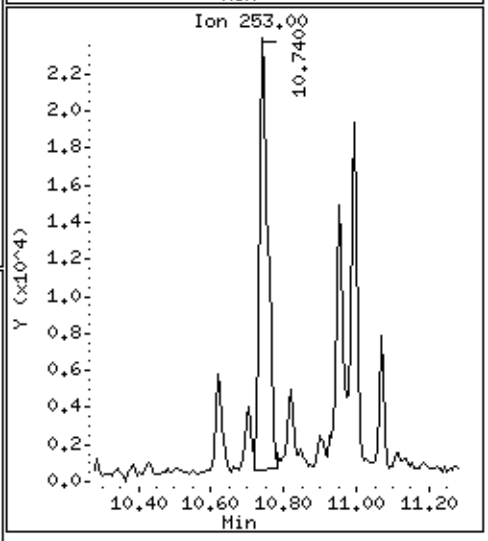
Column phase: Rxi-5Sil MS Column diameter: 0.25

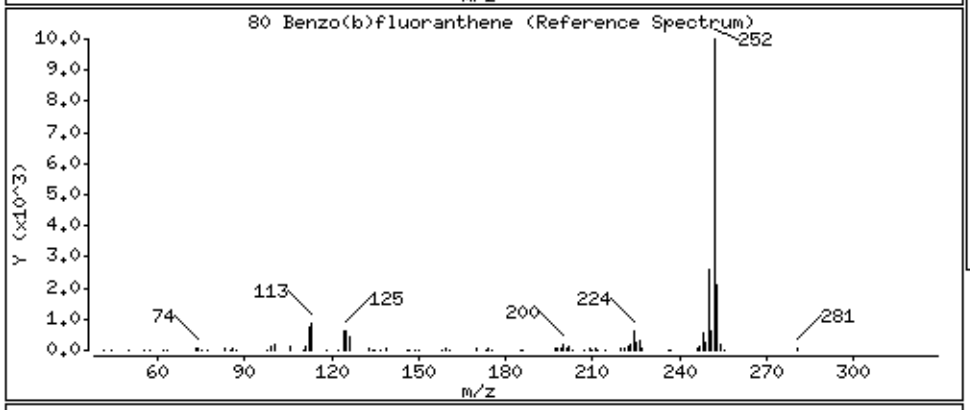
80 Benzo(b)fluoranthene Concentration: 420 ug/Kg

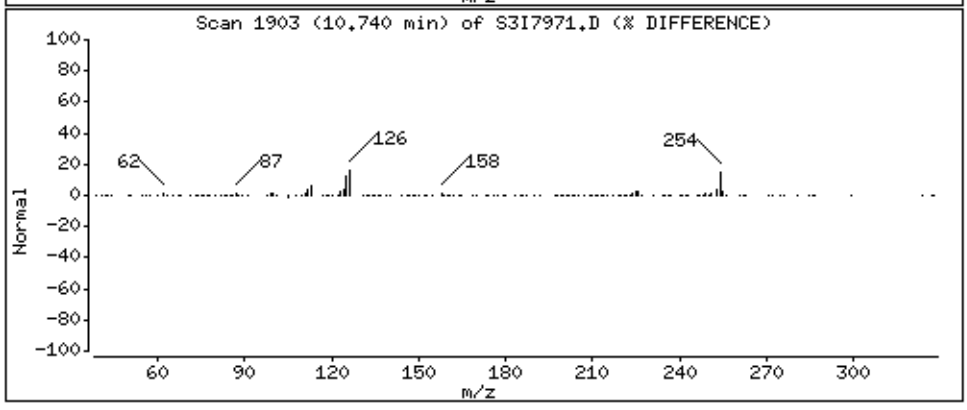












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

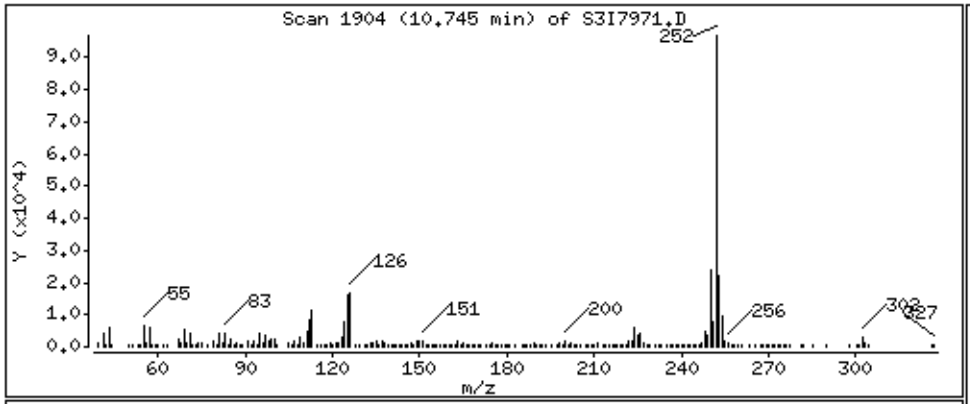
Client ID: DISPOSAL-1 Instrument: S3.i

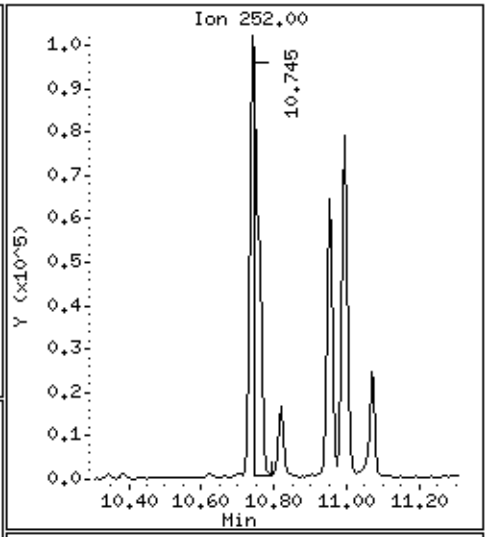
Sample Info: M1876-01A,,74029

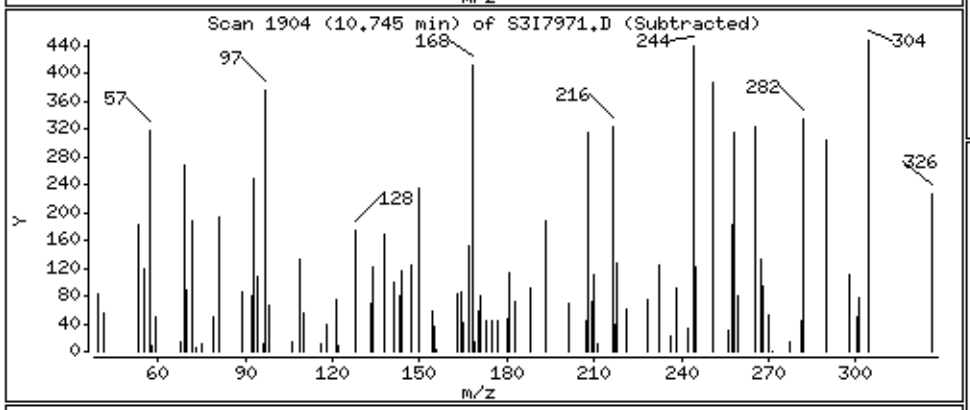
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

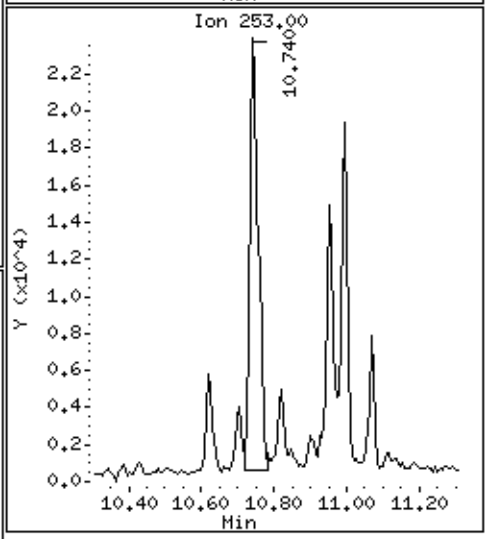
Column phase: Rxi-5Sil MS Column diameter: 0.25

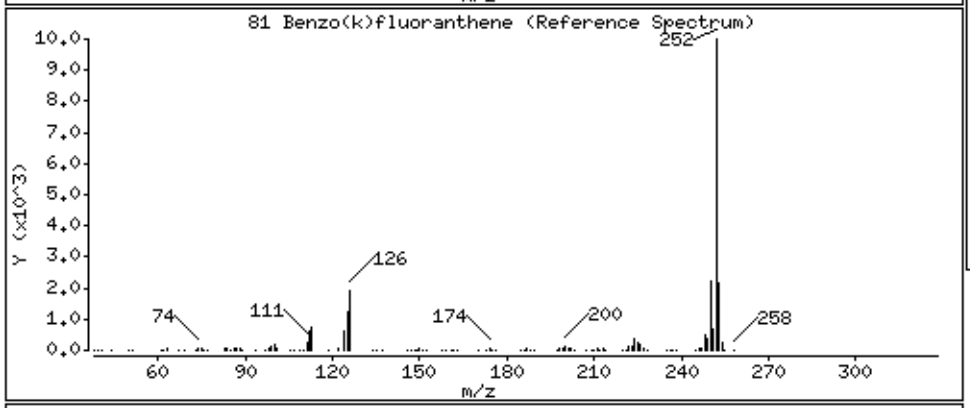
81 Benzo(k)fluoranthene Concentration: 390 ug/Kg

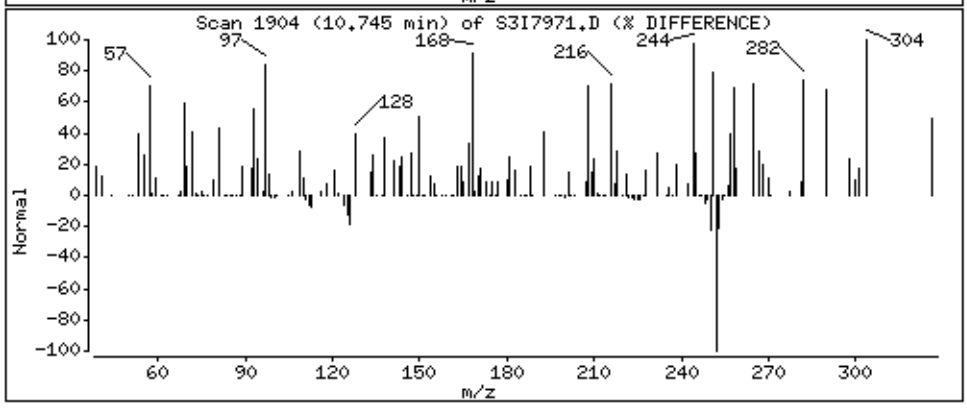












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

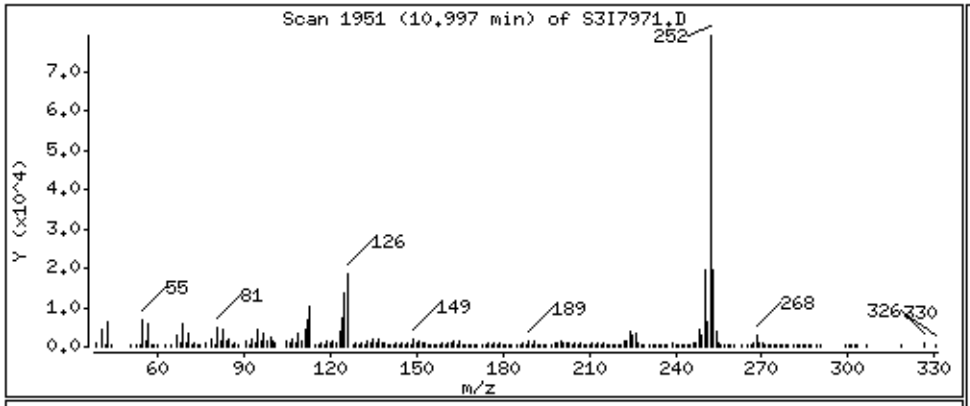
Client ID: DISPOSAL-1 Instrument: S3.i

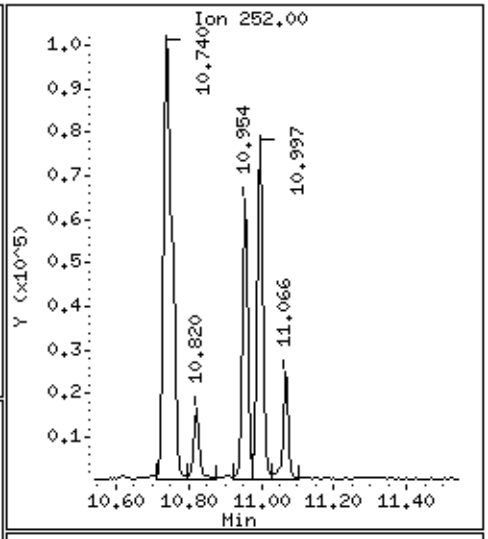
Sample Info: M1876-01A,,74029

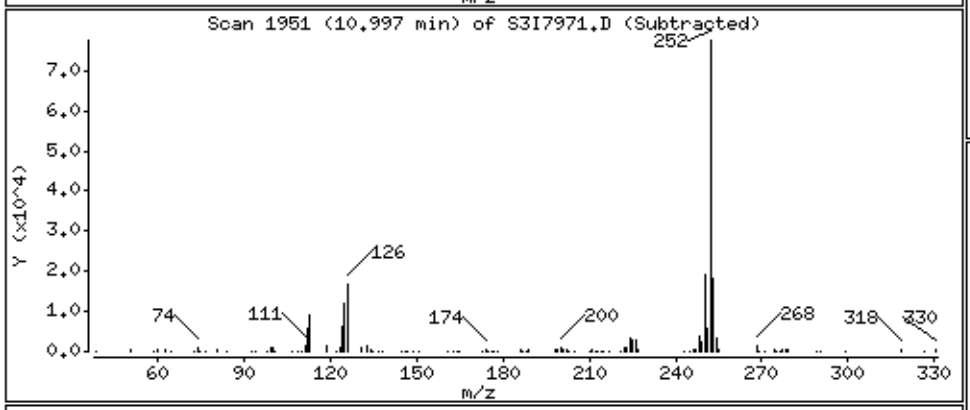
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

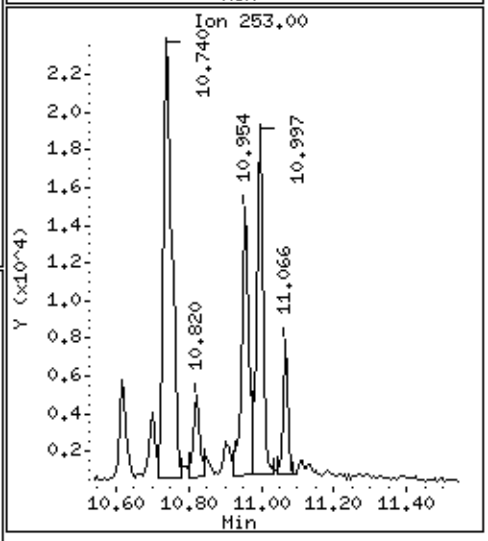
Column phase: Rxi-5Sil MS Column diameter: 0.25

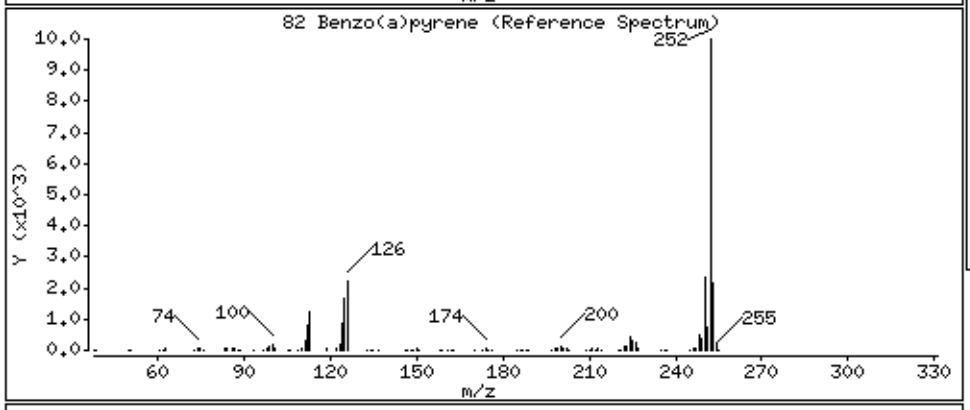
82 Benzo(a)pyrene Concentration: 350 ug/Kg

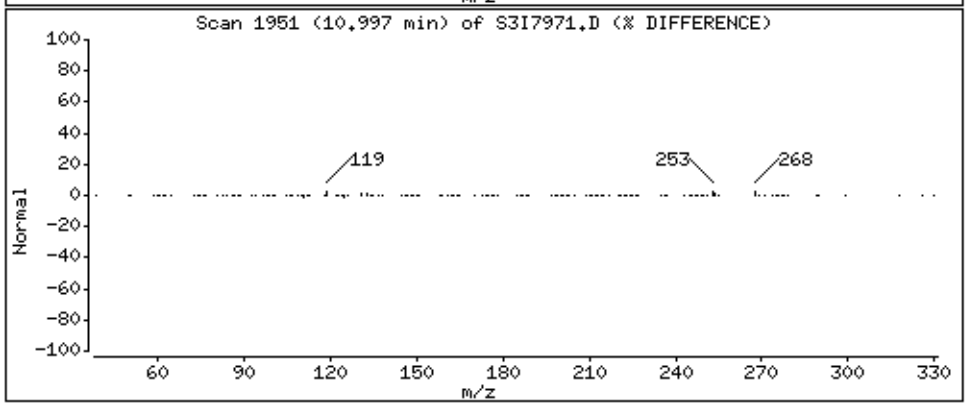












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

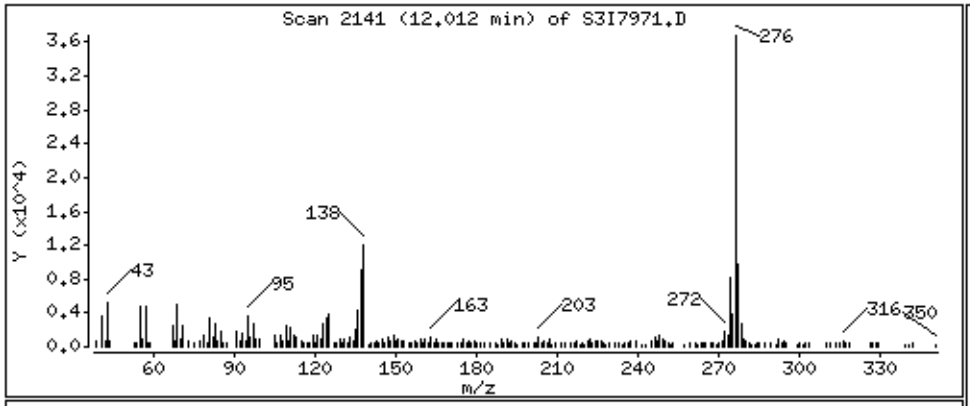
Client ID: DISPOSAL-1 Instrument: S3.i

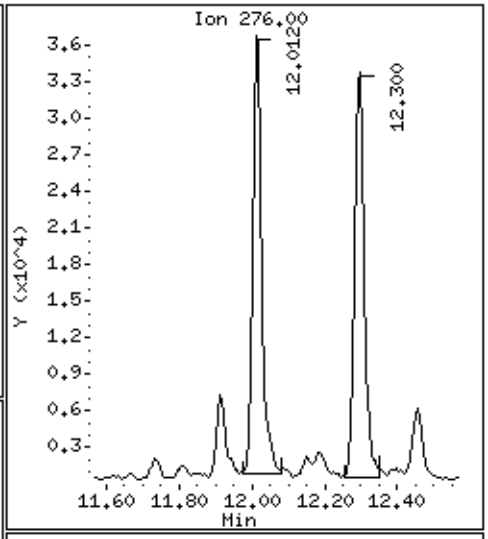
Sample Info: M1876-01A,,74029

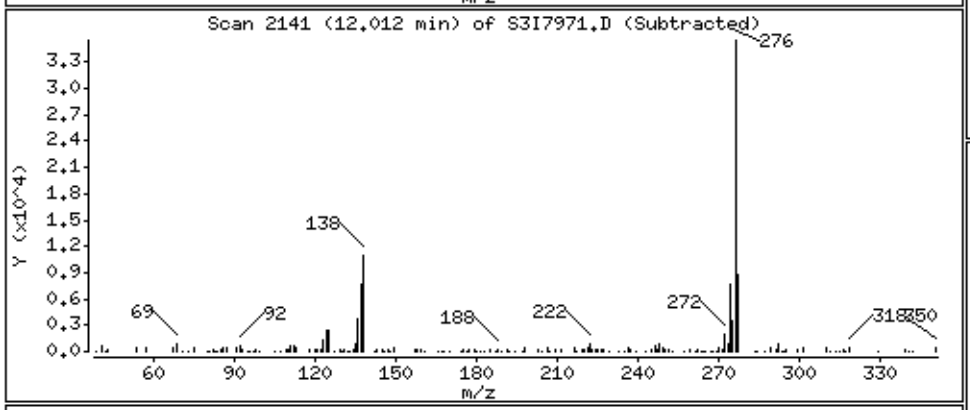
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

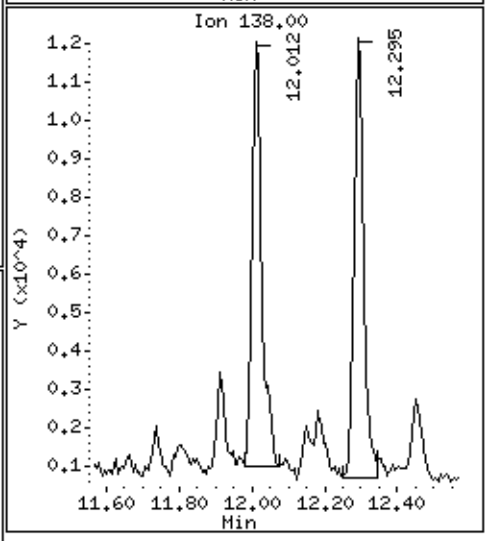
Column phase: Rxi-5Sil MS Column diameter: 0.25

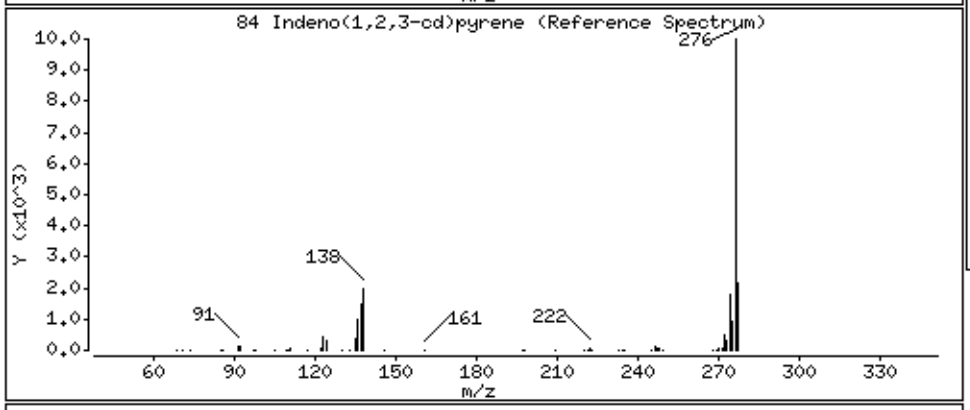
84 Indeno(1,2,3-cd)pyrene Concentration: 230 ug/Kg

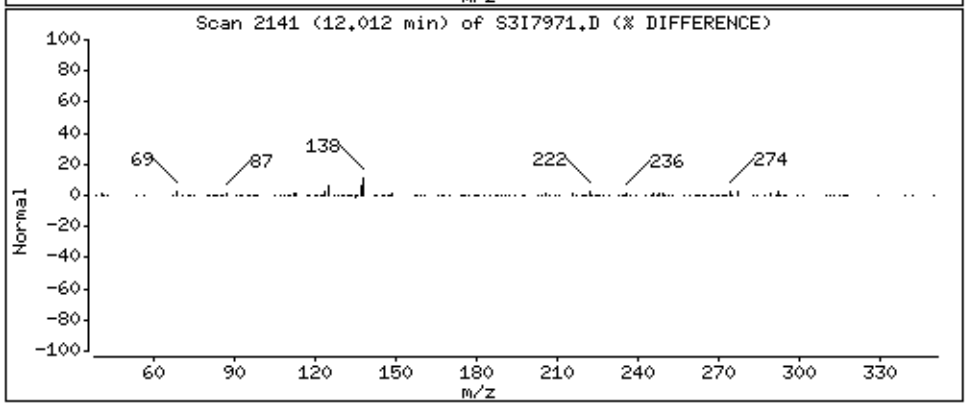












Data File: \\avogadro\organics\S3.I\131004.B\S3I7971.D

Date : 04-OCT-2013 16:39

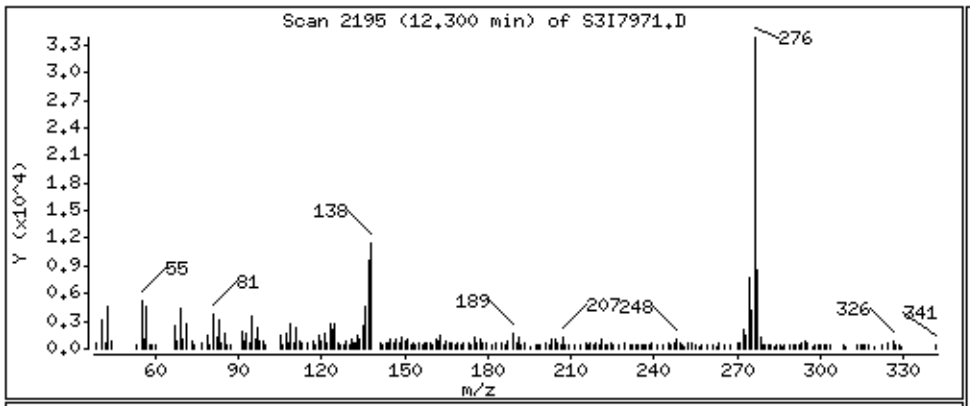
Client ID: DISPOSAL-1 Instrument: S3.i

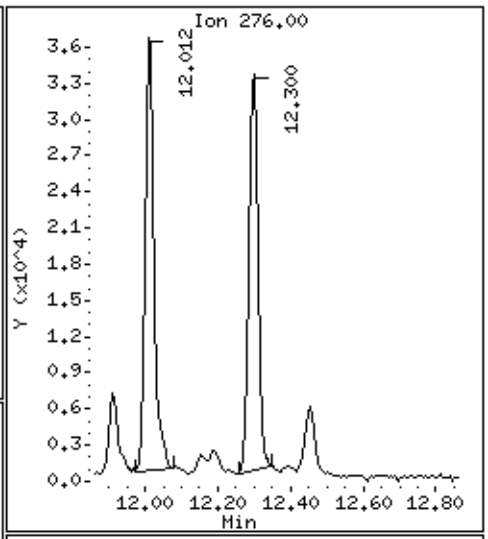
Sample Info: M1876-01A,,74029

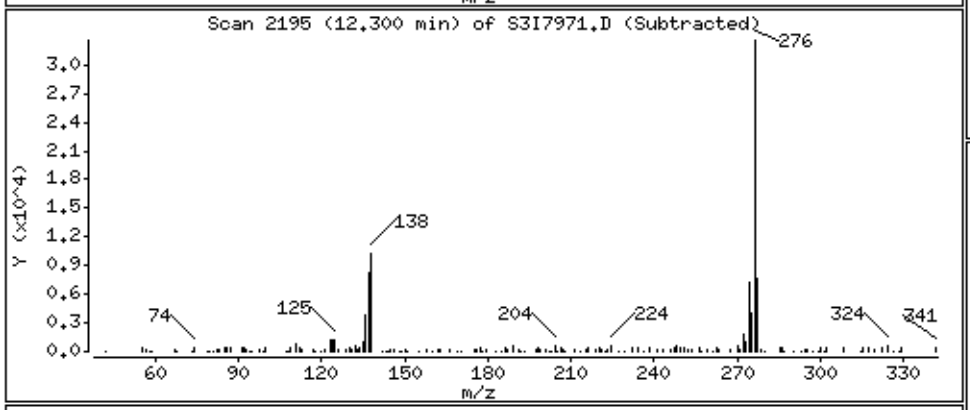
Volume Injected (uL): 1.0 Operator: PK SRC: LIMS

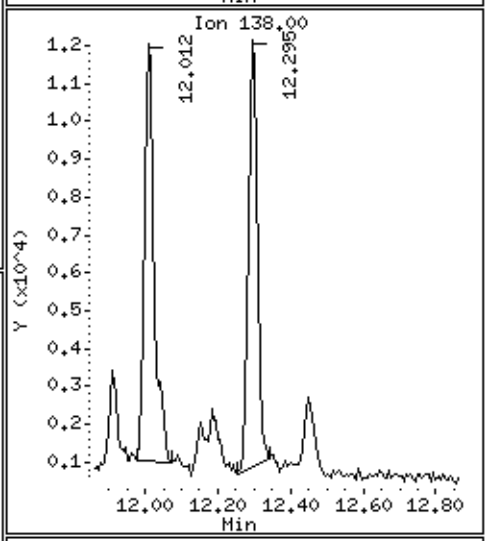
Column phase: Rxi-5Sil MS Column diameter: 0.25

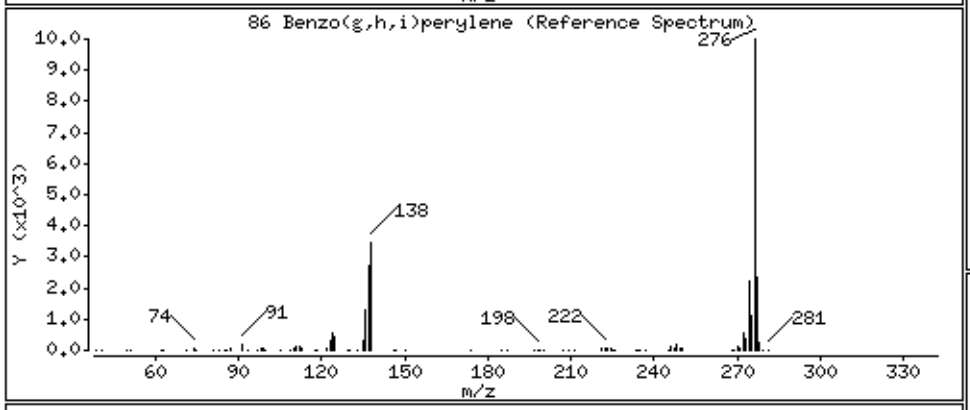
86 Benzo(g,h,i)perylene Concentration: 240 ug/Kg

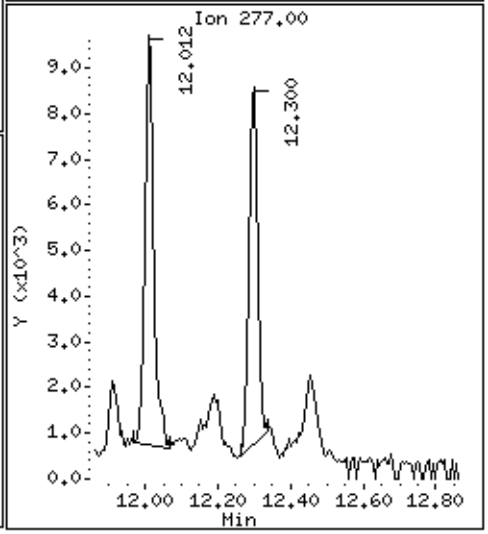


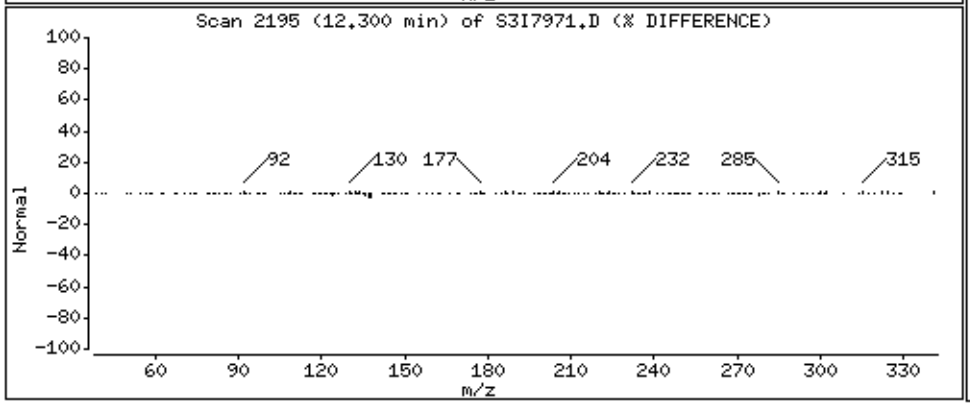












6 - FORM VI SV-2

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M1876 SAS No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date(s): 09/06/2013 10/16/2013

Calibration Times: 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = S3I8182.D RRF010 = S3I8183.D RRF025 = S3I8181.D RRF040 = S3I8184.D RRF060 = S3I8185.D
RRF080 = S3I8186.D

COMPOUND	RRF005	RRF010	RRF025	RRF040	RRF060	RRF080					RRF	% RSD
Phenol	1.873	1.873	1.850	1.853	1.907	1.916					1.879	1.5
Bis(2-chloroethyl)ether	1.002	1.004	0.991	0.994	0.924	0.928					0.974	3.8
2-Chlorophenol	1.480	1.462	1.439	1.448	1.486	1.477					1.465	1.3
1,3-Dichlorobenzene	1.595	1.589	1.535	1.545	1.569	1.552					1.564	1.6
1,4-Dichlorobenzene	1.634	1.619	1.561	1.545	1.583	1.564					1.584	2.2
1,2-Dichlorobenzene	1.523	1.533	1.495	1.484	1.526	1.500					1.510	1.3
2-Methylphenol	1.332	1.346	1.352	1.333	1.398	1.395					1.359	2.2
2,2´-oxybis(1-Chloropropane)	1.603	1.625	1.607	1.595	1.633	1.620					1.614	0.9
4-Methylphenol	1.412	1.440	1.429	1.446	1.489	1.489					1.451	2.2
N-Nitroso-di-n-propylamine	1.032	1.023	1.015	0.998	1.031	1.034					1.022	1.3
Hexachloroethane	0.565	0.565	0.550	0.551	0.570	0.564					0.561	1.5
Nitrobenzene	0.381	0.381	0.369	0.374	0.377	0.383					0.378	1.4
Isophorone	0.709	0.686	0.679	0.684	0.699	0.712					0.695	2.0
2-Nitrophenol	0.211	0.211	0.211	0.213	0.220	0.226					0.215	2.9
2,4-Dimethylphenol	0.364	0.370	0.372	0.363	0.377	0.387					0.372	2.4
2,4-Dichlorophenol	0.322	0.322	0.320	0.326	0.329	0.339					0.326	2.1
1,2,4-Trichlorobenzene	0.351	0.339	0.334	0.344	0.349	0.354					0.345	2.2
Naphthalene	1.141	1.122	1.086	1.081	1.096	1.090					1.103	2.2
4-Chloroaniline	0.483	0.480	0.477	0.473	0.483	0.485					0.480	1.0
Bis(2-chloroethoxy)methane	0.431	0.419	0.416	0.417	0.427	0.434					0.424	1.9
Hexachlorobutadiene	0.196	0.195	0.187	0.189	0.190	0.192					0.192	1.8
4-Chloro-3-methylphenol	0.343	0.337	0.331	0.332	0.336	0.339					0.336	1.4
2-Methylnaphthalene	0.766	0.751	0.728	0.718	0.721	0.711					0.732	2.9
Hexachlorocyclopentadiene	0.244	0.273	0.294	0.314	0.331	0.325					0.297	11.3
2,4,6-Trichlorophenol	0.400	0.392	0.388	0.386	0.398	0.397					0.393	1.5
2,4,5-Trichlorophenol		0.413	0.404	0.397	0.401	0.394					0.402	1.9
2-Chloronaphthalene	1.193	1.146	1.136	1.107	1.107	1.074					1.127	3.7

6 - FORM VI SV-3

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M1876 SAS No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date(s): 09/06/2013 10/16/2013

Calibration Times: 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = S3I8182.D RRF010 = S3I8183.D RRF025 = S3I8181.D RRF040 = S3I8184.D RRF060 = S3I8185.D
RRF080 = S3I8186.D

COMPOUND	RRF005	RRF010	RRF025	RRF040	RRF060	RRF080					RRF	% RSD
2-Nitroaniline		0.330	0.324	0.331	0.336	0.338					0.332	1.6
Dimethylphthalate	1.387	1.365	1.319	1.298	1.280	1.233					1.314	4.3
Acenaphthylene	2.001	1.963	1.874	1.828	1.806	1.697					1.862	5.9
2,6-Dinitrotoluene	0.321	0.322	0.320	0.316	0.315	0.325					0.320	1.2
3-Nitroaniline		0.373	0.364	0.364	0.367	0.365					0.367	1.0
Acenaphthene	1.246	1.201	1.171	1.121	1.106	1.085					1.155	5.4
2,4-Dinitrophenol		0.070	0.151	0.142	0.167	0.192					0.144	31.8
4-Nitrophenol		0.148	0.150	0.150	0.156	0.158					0.152	2.9
Dibenzofuran	1.802	1.758	1.693	1.647	1.638	1.595					1.689	4.6
2,4-Dinitrotoluene	0.407	0.419	0.420	0.416	0.423	0.433					0.420	2.0
Diethylphthalate	1.374	1.321	1.271	1.257	1.249	1.225					1.283	4.3
4-Chlorophenyl-phenylether	0.723	0.703	0.685	0.667	0.674	0.659					0.685	3.5
Fluorene	1.484	1.429	1.373	1.355	1.322	1.258					1.370	5.8
4-Nitroaniline		0.374	0.353	0.355	0.364	0.369					0.363	2.5
4,6-Dinitro-2-methylphenol		0.094	0.135	0.135	0.146	0.155					0.133	17.5
N-Nitrosodiphenylamine	0.674	0.658	0.646	0.622	0.609	0.581					0.632	5.4
4-Bromophenyl-phenylether	0.216	0.215	0.208	0.208	0.208	0.207					0.210	1.9
Hexachlorobenzene	0.214	0.215	0.215	0.211	0.216	0.213					0.214	0.8
Pentachlorophenol		0.121	0.133	0.125	0.146	0.128					0.131	7.5
Phenanthrene	1.106	1.099	1.057	0.999	0.995	0.960					1.036	5.8
Anthracene	1.175	1.151	1.074	1.032	1.017	0.968					1.070	7.5
Carbazole	1.100	1.085	1.010	0.988	0.979	0.960					1.020	5.7
Di-n-butylphthalate	1.234	1.199	1.158	1.122	1.102	1.064					1.146	5.5
Fluoranthene	1.328	1.272	1.212	1.153	1.133	1.096					1.199	7.4
Pyrene	1.169	1.118	1.077	1.077	1.088	1.081					1.102	3.3
Butylbenzylphthalate	0.489	0.473	0.466	0.473	0.487	0.492					0.480	2.2
3,3´-Dichlorobenzidine	0.422	0.409	0.398	0.396	0.379	0.368					0.395	4.9

Report 1,4-Dioxane-d8 for Low-Medium VOA analysis only

6 - FORM VI SV-3

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M1876 SAS No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date(s): 09/06/2013 10/16/2013

Calibration Times: 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = S3I8182.D RRF010 = S3I8183.D RRF025 = S3I8181.D RRF040 = S3I8184.D RRF060 = S3I8185.D
RRF080 = S3I8186.D

COMPOUND	RRF005	RRF010	RRF025	RRF040	RRF060	RRF080					RRF	% RSD
Benzo(a)anthracene	1.175	1.078	1.064	1.083	1.099	1.138					1.106	3.8
Chrysene	1.066	1.046	1.033	0.994	1.010	0.983					1.022	3.1
Bis(2-ethylhexyl)phthalate	0.688	0.663	0.650	0.663	0.682	0.685					0.672	2.3
Di-n-octylphthalate	1.190	1.147	1.112	1.076	1.071	1.039					1.106	5.0
Benzo(b)fluoranthene	1.157	1.184	1.139	1.172	1.174	1.282					1.185	4.2
Benzo(k)fluoranthene	1.198	1.085	1.100	1.043	0.982	0.853					1.043	11.2
Benzo(a)pyrene	1.063	1.043	0.996	1.009	1.014	1.007					1.022	2.5
Indeno(1,2,3-cd)pyrene	0.951	0.968	0.962	1.195	1.228	1.251					1.092	13.4
Dibenzo(a,h)anthracene	1.028	1.027	0.998	1.014	1.032	1.040					1.023	1.5
Benzo(g,h,i)perylene	1.005	1.013	0.953	0.992	1.019	1.042					1.004	3.0

6 - FORM VI SV-3

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Spectrum Analytical, Inc. Contract:

Lab Code: MITKEM Case No.: M1876 SAS No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date(s): 09/06/2013 10/16/2013

Calibration Times: 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm) Length: 30 (mm)

LAB FILE ID: RRF005 = S3I8182.D RRF010 = S3I8183.D RRF025 = S3I8181.D RRF040 = S3I8184.D RRF060 = S3I8185.D
RRF080 = S3I8186.D

COMPOUND	RRF005	RRF010	RRF025	RRF040	RRF060	RRF080					RRF	% RSD
Nitrobenzene-d5	0.377	0.367	0.362	0.367	0.374	0.382					0.372	2.0
2-Fluorobiphenyl	1.400	1.368	1.320	1.285	1.276	1.235					1.314	4.7
Terphenyl-d14	0.808	0.779	0.760	0.764	0.776	0.775					0.777	2.1
Phenol-d5	1.806	1.792	1.790	1.771	1.840	1.831					1.805	1.5
2-Fluorophenol	1.390	1.377	1.351	1.373	1.417	1.443					1.392	2.4
2,4,6-Tribromophenol	0.096	0.097	0.097	0.098	0.101	0.099					0.098	1.9

Data File: \\avogadro\organics\S3.I\130906.B\S3I7582.D
Report Date: 10-Sep-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7582.D
Lab Smp Id: SSTD0053T Client Smp ID: SSTD0053T
Inj Date : 06-SEP-2013 14:49
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0053T,SSTD0053T
Misc Info : 1,1
Comment   :
Method   : \\avogadro\organics\S3.I\130906.B\s3_8270C_N.m
Meth Date : 10-Sep-2013 10:00 pkaczorows Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109 1,4-Dioxane-d8	96	0.782	0.781	(0.294)	7916	5.00000	5(a)
	108 1,4-Dioxane	58	0.788	0.791	(0.296)	4952	5.00000	5(aQ)
	1 N-Nitrosodimethylamine	74	0.889	0.893	(0.334)	15766	5.00000	5(a)
	2 Pyridine	79	0.905	0.904	(0.340)	25402	5.00000	5(a)
$	3 2-Fluorophenol	112	1.589	1.587	(0.597)	23517	5.00000	5(a)
	101 Benzaldehyde	77	2.225	2.223	(0.836)	23145	5.00000	7(a)
$	5 Phenol-d5	99	2.428	2.421	(0.912)	30557	5.00000	5(a)
	6 Phenol	94	2.438	2.437	(0.916)	31692	5.00000	5(a)
	7 Aniline	66	2.342	2.346	(0.880)	13050	5.00000	5(a)
	8 bis(2-Chloroethyl)Ether	63	2.417	2.421	(0.908)	16949	5.00000	5(a)
	10 2-Chlorophenol	128	2.476	2.474	(0.930)	25052	5.00000	5(a)
	11 1,3-Dichlorobenzene	146	2.599	2.597	(0.976)	26995	5.00000	5(a)
*	12 1,4-Dichlorobenzene-d4	152	2.663	2.661	(1.000)	135387	40.0000	
	13 1,4-Dichlorobenzene	146	2.679	2.683	(1.006)	27645	5.00000	5(a)
	117 2-Ethyl-1-hexanol	57	2.807	2.805	(1.054)	22571	5.00000	5(a)
	15 Benzyl Alcohol	108	2.871	2.875	(1.078)	16177	5.00000	5(a)
	16 1,2-Dichlorobenzene	146	2.839	2.843	(1.066)	25776	5.00000	5(a)
	17 2-Methylphenol	108	3.080	3.083	(1.156)	22549	5.00000	5(a)
	18 2,2'-oxybis(1-Chloropropane)	45	3.021	3.024	(1.134)	27125	5.00000	5(a)
	99 Acetophenone	105	3.144	3.147	(1.181)	37024	5.00000	5(a)

Data File: \\avogadro\organics\S3.I\130906.B\S3I7582.D
Report Date: 10-Sep-2013 10:01

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	3.176	3.185	(1.193)	17467	5.00000	5(a)
	20 4-Methylphenol	108	3.293	3.292	(1.237)	23899	5.00000	5(a)
	21 Hexachloroethane	117	3.218	3.222	(1.209)	9558	5.00000	5(a)
$	22 Nitrobenzene-d5	82	3.315	3.318	(0.735)	24376	5.00000	5(a)
	23 Nitrobenzene	77	3.341	3.345	(0.741)	24603	5.00000	5(a)
	24 Isophorone	82	3.721	3.724	(0.825)	45776	5.00000	5(a)
	25 2-Nitrophenol	139	3.838	3.842	(0.851)	13630	5.00000	5(a)
	26 2,4-Dimethylphenol	107	4.132	4.136	(0.916)	23513	5.00000	5(a)
	27 bis(2-Chloroethoxy)methane	93	4.228	4.232	(0.937)	27862	5.00000	5(a)
	29 2,4-Dichlorophenol	162	4.404	4.397	(0.976)	20821	5.00000	5(a)
	30 1,2,4-Trichlorobenzene	180	4.452	4.451	(0.987)	22684	5.00000	5(a)
*	31 Naphthalene-d8	136	4.511	4.515	(1.000)	516607	40.0000	
	32 Naphthalene	128	4.543	4.547	(1.007)	73704	5.00000	5(a)
	115 alpha-Terpineol	59	4.672	4.675	(1.036)	13454	5.00000	5(a)
	33 4-Chloroaniline	127	4.736	4.734	(1.050)	31221	5.00000	5(a)
	34 Hexachlorobutadiene	225	4.816	4.814	(1.067)	12647	5.00000	5(a)
	102 Caprolactam	113	5.222	5.247	(1.157)	9582	5.00000	5(a)
	35 4-Chloro-3-Methylphenol	107	5.553	5.551	(1.231)	22179	5.00000	5(a)
	36 2-Methylnaphthalene	142	5.526	5.525	(1.225)	49438	5.00000	5(a)
	114 1-Methylnaphthalene	142	5.628	5.631	(1.247)	49948	5.00000	5(a)
	38 Hexachlorocyclopentadiene	237	5.729	5.728	(0.869)	9781	5.00000	4(a)
	112 1,2,4,5-Tetrachlorobenzene	216	5.729	5.728	(0.869)	23352	5.00000	5(a)
	39 2,4,6-Trichlorophenol	196	5.911	5.909	(0.897)	16060	5.00000	5(a)
	40 2,4,5-Trichlorophenol	196	5.975	5.973	(0.907)	17156	5.00000	5(a)
$	41 2-Fluorobiphenyl	172	5.970	5.973	(0.906)	56148	5.00000	5(a)
	98 1,1'-Biphenyl	154	6.060	6.059	(0.920)	74975	5.00000	5(a)
	42 2-Chloronaphthalene	162	6.050	6.048	(0.918)	47858	5.00000	5(a)
	43 2-Nitroaniline	65	6.205	6.208	(0.942)	12834	5.00000	5(a)
	44 Dimethylphthalate	163	6.418	6.427	(0.974)	55610	5.00000	5(a)
	45 2,6-Dinitrotoluene	165	6.461	6.465	(0.981)	12869	5.00000	5(a)
	46 Acenaphthylene	152	6.445	6.443	(0.978)	80259	5.00000	5(a)
	47 3-Nitroaniline	138	6.611	6.614	(1.003)	15001	5.00000	5(a)
*	48 Acenaphthene-d10	164	6.589	6.588	(1.000)	320813	40.0000	
	49 Acenaphthene	153	6.616	6.620	(1.004)	49986	5.00000	5(a)
	51 4-Nitrophenol	109	6.910	6.903	(1.049)	7150	5.00000	6(aQ)
	53 2,4-Dinitrotoluene	165	6.830	6.833	(1.036)	16339	5.00000	5(a)
	52 Dibenzofuran	168	6.782	6.780	(1.029)	72272	5.00000	5(a)
	110 2,3,4,6-Tetrachlorophenol	232	6.942	6.940	(1.054)	15289	5.00000	5
	54 Diethylphthalate	149	7.065	7.068	(1.072)	55103	5.00000	5(a)
	56 4-Chlorophenyl-phenylether	204	7.113	7.117	(1.079)	29009	5.00000	5(a)
	55 Fluorene	166	7.081	7.085	(1.075)	59522	5.00000	5(a)
	57 4-Nitroaniline	138	7.150	7.159	(1.085)	14716	5.00000	5(a)
	58 4,6-Dinitro-2-methylphenol	198	7.193	7.191	(0.914)	4025	5.00000	6(aQ)
	59 N-Nitrosodiphenylamine	169	7.230	7.234	(0.919)	52183	5.00000	5(a)
	97 Azobenzene	77	7.246	7.250	(0.921)	54757	5.00000	5(a)
$	60 2,4,6-Tribromophenol	330	7.305	7.309	(0.928)	7429	5.00000	5(a)
	61 4-Bromophenyl-phenylether	248	7.524	7.523	(0.956)	16709	5.00000	5(a)
	62 Hexachlorobenzene	284	7.562	7.560	(0.961)	16554	5.00000	5(a)
	100 Atrazine	200	7.722	7.726	(0.981)	17890	5.00000	5(a)
	63 Pentachlorophenol	266	7.765	7.763	(0.986)	9249	5.00000	4(a)
	111 Pentachloronitrobenzene	237	7.754	7.752	(0.985)	6203	5.00000	5(a)
*	64 Phenanthrene-d10	188	7.871	7.870	(1.000)	619550	40.0000	
	65 Phenanthrene	178	7.887	7.891	(1.002)	85685	5.00000	5(a)
	66 Anthracene	178	7.930	7.929	(1.007)	91005	5.00000	5(a)

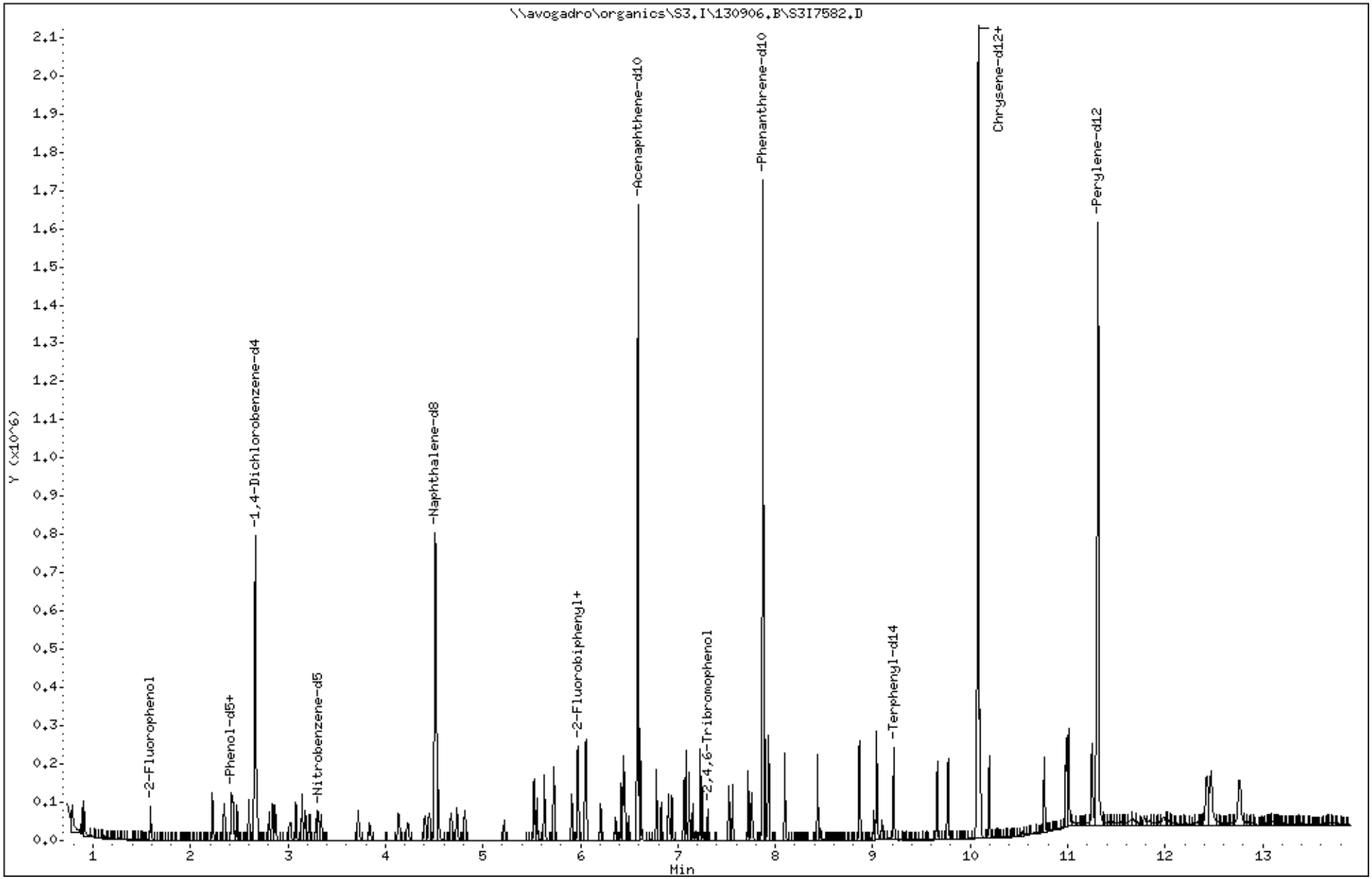
Data File: \\avogadro\organics\S3.I\130906.B\S3I7582.D
Report Date: 10-Sep-2013 10:01

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	67	Carbazole	167	8.096	8.100	(1.029)	85223	5.00000	5(a)
	68	Di-n-butylphthalate	149	8.432	8.431	(1.071)	95544	5.00000	5(a)
	69	Fluoranthene	202	8.865	8.863	(1.126)	102852	5.00000	6(a)
	70	Benzidine	184	9.015	9.008	(0.894)	40586	5.00000	5(a)
	71	Pyrene	202	9.041	9.040	(0.897)	103917	5.00000	5(a)
$	72	Terphenyl-d14	244	9.212	9.211	(0.914)	71769	5.00000	5(a)
	73	Butylbenzylphthalate	149	9.661	9.643	(0.958)	43416	5.00000	5(a)
	74	3,3'-Dichlorobenzidine	252	10.083	10.049	(1.000)	37535	5.00000	5(a)
	78	bis(2-Ethylhexyl)phthalate	149	10.195	10.156	(1.011)	61154	5.00000	5(a)
	75	Benzo(a)anthracene	228	10.072	10.039	(0.999)	104445	5.00000	5(a)
*	76	Chrysene-d12	240	10.083	10.049	(1.000)	710988	40.0000	
	77	Chrysene	228	10.099	10.071	(1.002)	94718	5.00000	5(a)
	79	Di-n-octylphthalate	149	10.762	10.696	(0.951)	108033	5.00000	5(a)
	80	Benzo(b)fluoranthene	252	10.986	10.920	(0.971)	105015	5.00000	5(a)
	81	Benzo(k)fluoranthene	252	11.007	10.942	(0.973)	108739	5.00000	6(a)
	82	Benzo(a)pyrene	252	11.248	11.177	(0.994)	96532	5.00000	5(a)
*	83	Perylene-d12	264	11.312	11.235	(1.000)	726310	40.0000	
	84	Indeno(1,2,3-cd)pyrene	276	12.428	12.352	(1.099)	86347	5.00000	4(a)
	85	Dibenzo(a,h)anthracene	278	12.471	12.395	(1.102)	93325	5.00000	5(a)
	86	Benzo(g,h,i)perylene	276	12.765	12.694	(1.128)	91242	5.00000	5(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: \\avogadro\organics\S3.I\130906.B\S3I7582.D
Date : 06-SEP-2013 14:49
Client ID: SSTD0053T
Instrument: S3.i
Sample Info: SSTD0053T,SSTD0053T
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S3.I\130906.B\S3I7583.D
Report Date: 10-Sep-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7583.D
Lab Smp Id: SSTD0103T Client Smp ID: SSTD0103T
Inj Date : 06-SEP-2013 15:12
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0103T,SSTD0103T
Misc Info : 1,2
Comment   :
Method   : \\avogadro\organics\S3.I\130906.B\s3_8270C_N.m
Meth Date : 10-Sep-2013 10:00 pkaczorows Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
$	109 1,4-Dioxane-d8	96	0.783	0.781	(0.294)	16027	10.0000	10
	108 1,4-Dioxane	58	0.788	0.791	(0.296)	10040	10.0000	10
	1 N-Nitrosodimethylamine	74	0.890	0.893	(0.334)	31500	10.0000	10
	2 Pyridine	79	0.900	0.904	(0.338)	54212	10.0000	11
$	3 2-Fluorophenol	112	1.590	1.587	(0.597)	46999	10.0000	10
	101 Benzaldehyde	77	2.225	2.223	(0.836)	41975	10.0000	12
$	5 Phenol-d5	99	2.423	2.421	(0.910)	61182	10.0000	10
	6 Phenol	94	2.439	2.437	(0.916)	63952	10.0000	10
	7 Aniline	66	2.343	2.346	(0.880)	26704	10.0000	10
	8 bis(2-Chloroethyl)Ether	63	2.418	2.421	(0.908)	34289	10.0000	10
	10 2-Chlorophenol	128	2.476	2.474	(0.930)	49908	10.0000	10
	11 1,3-Dichlorobenzene	146	2.599	2.597	(0.976)	54235	10.0000	10
*	12 1,4-Dichlorobenzene-d4	152	2.663	2.661	(1.000)	136546	40.0000	
	13 1,4-Dichlorobenzene	146	2.679	2.683	(1.006)	55256	10.0000	10
	117 2-Ethyl-1-hexanol	57	2.808	2.805	(1.054)	45459	10.0000	10
	15 Benzyl Alcohol	108	2.872	2.875	(1.078)	32947	10.0000	10
	16 1,2-Dichlorobenzene	146	2.840	2.843	(1.066)	52344	10.0000	10
	17 2-Methylphenol	108	3.080	3.083	(1.156)	45947	10.0000	10
	18 2,2'-oxybis(1-Chloropropane)	45	3.021	3.024	(1.134)	55488	10.0000	10
	99 Acetophenone	105	3.144	3.147	(1.180)	74965	10.0000	10

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Report Date: 10-Sep-2013 10:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
19	N-Nitroso-di-n-propylamine	70	3.176	3.185	(1.193)	34910	10.0000	10
20	4-Methylphenol	108	3.294	3.292	(1.237)	49169	10.0000	10
21	Hexachloroethane	117	3.219	3.222	(1.209)	19279	10.0000	10
$ 22	Nitrobenzene-d5	82	3.315	3.318	(0.735)	48408	10.0000	10
23	Nitrobenzene	77	3.342	3.345	(0.741)	50232	10.0000	10
24	Isophorone	82	3.721	3.724	(0.825)	90592	10.0000	10
25	2-Nitrophenol	139	3.839	3.842	(0.851)	27836	10.0000	10
26	2,4-Dimethylphenol	107	4.132	4.136	(0.916)	48774	10.0000	10
27	bis(2-Chloroethoxy)methane	93	4.229	4.232	(0.937)	55318	10.0000	10
28	Benzoic Acid	105	4.570	4.584	(1.013)	14730	10.0000	5(aQ)
29	2,4-Dichlorophenol	162	4.400	4.397	(0.975)	42469	10.0000	10
30	1,2,4-Trichlorobenzene	180	4.448	4.451	(0.986)	44759	10.0000	10
* 31	Naphthalene-d8	136	4.512	4.515	(1.000)	527930	40.0000	
32	Naphthalene	128	4.544	4.547	(1.007)	148076	10.0000	10
115	alpha-Terpineol	59	4.672	4.675	(1.036)	27061	10.0000	10
33	4-Chloroaniline	127	4.736	4.734	(1.050)	63390	10.0000	10
34	Hexachlorobutadiene	225	4.811	4.814	(1.066)	25757	10.0000	10
102	Caprolactam	113	5.233	5.247	(1.160)	19267	10.0000	10
35	4-Chloro-3-Methylphenol	107	5.553	5.551	(1.231)	44493	10.0000	10
36	2-Methylnaphthalene	142	5.527	5.525	(1.225)	99089	10.0000	10
114	1-Methylnaphthalene	142	5.628	5.631	(1.247)	98789	10.0000	10
38	Hexachlorocyclopentadiene	237	5.730	5.728	(0.869)	22098	10.0000	9(a)
112	1,2,4,5-Tetrachlorobenzene	216	5.730	5.728	(0.869)	46876	10.0000	10
39	2,4,6-Trichlorophenol	196	5.911	5.909	(0.897)	31767	10.0000	10
40	2,4,5-Trichlorophenol	196	5.975	5.973	(0.907)	33511	10.0000	10(a)
$ 41	2-Fluorobiphenyl	172	5.970	5.973	(0.906)	110905	10.0000	10
98	1,1'-Biphenyl	154	6.061	6.059	(0.920)	146821	10.0000	10
42	2-Chloronaphthalene	162	6.050	6.048	(0.918)	92911	10.0000	10
43	2-Nitroaniline	65	6.205	6.208	(0.942)	26712	10.0000	10(a)
44	Dimethylphthalate	163	6.424	6.427	(0.975)	110601	10.0000	10
45	2,6-Dinitrotoluene	165	6.462	6.465	(0.981)	26062	10.0000	10
46	Acenaphthylene	152	6.446	6.443	(0.978)	159076	10.0000	10
47	3-Nitroaniline	138	6.611	6.614	(1.003)	30221	10.0000	10(a)
* 48	Acenaphthene-d10	164	6.590	6.588	(1.000)	324197	40.0000	
49	Acenaphthene	153	6.617	6.620	(1.004)	97343	10.0000	10
50	2,4-Dinitrophenol	184	6.718	6.721	(1.019)	5665	10.0000	5(a)
51	4-Nitrophenol	109	6.905	6.903	(1.048)	11966	10.0000	10(a)
53	2,4-Dinitrotoluene	165	6.830	6.833	(1.036)	34000	10.0000	10
52	Dibenzofuran	168	6.777	6.780	(1.028)	142448	10.0000	10
110	2,3,4,6-Tetrachlorophenol	232	6.937	6.940	(1.053)	30439	10.0000	10
54	Diethylphthalate	149	7.065	7.068	(1.072)	107087	10.0000	10
56	4-Chlorophenyl-phenylether	204	7.113	7.117	(1.079)	57017	10.0000	10
55	Fluorene	166	7.081	7.085	(1.075)	115809	10.0000	10
57	4-Nitroaniline	138	7.151	7.159	(1.085)	30298	10.0000	10(a)
58	4,6-Dinitro-2-methylphenol	198	7.188	7.191	(0.913)	14512	10.0000	11(aQ)
59	N-Nitrosodiphenylamine	169	7.231	7.234	(0.919)	101718	10.0000	10
97	Azobenzene	77	7.247	7.250	(0.921)	109830	10.0000	10
$ 60	2,4,6-Tribromophenol	330	7.306	7.309	(0.928)	15008	10.0000	10
61	4-Bromophenyl-phenylether	248	7.525	7.523	(0.956)	33143	10.0000	10
62	Hexachlorobenzene	284	7.562	7.560	(0.961)	33246	10.0000	10
100	Atrazine	200	7.722	7.726	(0.981)	36077	10.0000	10
63	Pentachlorophenol	266	7.760	7.763	(0.986)	18634	10.0000	9(a)
111	Pentachloronitrobenzene	237	7.754	7.752	(0.985)	12427	10.0000	10
* 64	Phenanthrene-d10	188	7.872	7.870	(1.000)	618032	40.0000	

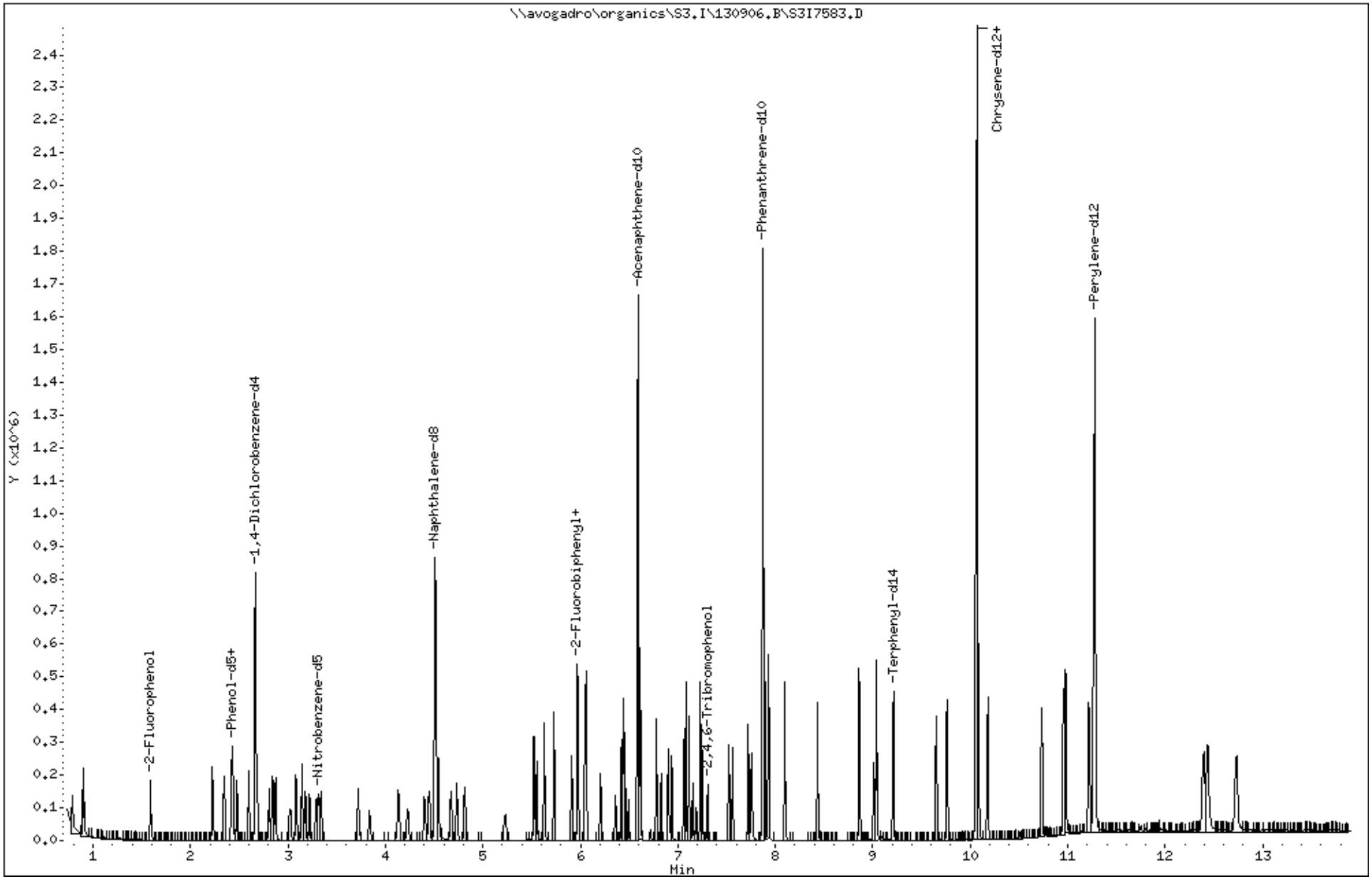
Data File: \\avogadro\organics\S3.I\130906.B\S3I7583.D
Report Date: 10-Sep-2013 10:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	
65	Phenanthrene	178	7.888	7.891	(1.002)	169832	10.0000	11	
66	Anthracene	178	7.931	7.929	(1.007)	177830	10.0000	11	
67	Carbazole	167	8.096	8.100	(1.029)	167683	10.0000	11	
68	Di-n-butylphthalate	149	8.433	8.431	(1.071)	185235	10.0000	10	
69	Fluoranthene	202	8.860	8.863	(1.126)	196550	10.0000	11	
70	Benzidine	184	9.010	9.008	(0.895)	80803	10.0000	11(a)	
71	Pyrene	202	9.037	9.040	(0.898)	199715	10.0000	10	
$ 72	Terphenyl-d14	244	9.213	9.211	(0.915)	139204	10.0000	10	
73	Butylbenzylphthalate	149	9.651	9.643	(0.959)	84579	10.0000	10	
74	3,3'-Dichlorobenzidine	252	10.068	10.049	(1.000)	73058	10.0000	10	
78	bis(2-Ethylhexyl)phthalate	149	10.180	10.156	(1.011)	118434	10.0000	10	
75	Benzo(a)anthracene	228	10.057	10.039	(0.999)	192581	10.0000	10	
* 76	Chrysene-d12	240	10.068	10.049	(1.000)	714820	40.0000		
77	Chrysene	228	10.089	10.071	(1.002)	186923	10.0000	10	
79	Di-n-octylphthalate	149	10.735	10.696	(0.952)	208893	10.0000	10	
80	Benzo(b)fluoranthene	252	10.960	10.920	(0.972)	215515	10.0000	10(M)M2 PK 09/10	
81	Benzo(k)fluoranthene	252	10.981	10.942	(0.973)	197493	10.0000	10(M)M2 PK 09/10	
82	Benzo(a)pyrene	252	11.216	11.177	(0.994)	189860	10.0000	10	
* 83	Perylene-d12	264	11.280	11.235	(1.000)	728171	40.0000		
84	Indeno(1,2,3-cd)pyrene	276	12.397	12.352	(1.099)	176275	10.0000	9(a)	
85	Dibenzo(a,h)anthracene	278	12.439	12.395	(1.103)	186930	10.0000	10	
86	Benzo(g,h,i)perylene	276	12.733	12.694	(1.129)	184458	10.0000	10	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\avogadro\organics\S3.I\130906.B\S3I7583.D
Date : 06-SEP-2013 15:12
Client ID: SSTD0103T
Instrument: S3.i
Sample Info: SSTD0103T,SSTD0103T
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S3.I\130906.B\S3I7584.D
Report Date: 10-Sep-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7584.D
Lab Smp Id: SSTD0403T Client Smp ID: SSTD0403T
Inj Date : 06-SEP-2013 15:34
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0403T,SSTD0403T
Misc Info : 1,4
Comment   :
Method   : \\avogadro\organics\S3.I\130906.B\s3_8270C_N.m
Meth Date : 10-Sep-2013 10:00 pkaczorows Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
$	109	1,4-Dioxane-d8	96	0.786	0.781	(0.295)	59844	40.0000	38
	108	1,4-Dioxane	58	0.791	0.791	(0.297)	42199	40.0000	40(Q)
	1	N-Nitrosodimethylamine	74	0.893	0.893	(0.335)	116822	40.0000	38
	2	Pyridine	79	0.903	0.904	(0.339)	203617	40.0000	39
$	3	2-Fluorophenol	112	1.592	1.587	(0.597)	190091	40.0000	39
	101	Benzaldehyde	77	2.228	2.223	(0.836)	113986	40.0000	32
$	5	Phenol-d5	99	2.431	2.421	(0.912)	245218	40.0000	39
	6	Phenol	94	2.442	2.437	(0.916)	256597	40.0000	39
	7	Aniline	66	2.351	2.346	(0.882)	108011	40.0000	40
	8	bis(2-Chloroethyl)Ether	63	2.420	2.421	(0.908)	137685	40.0000	41
	10	2-Chlorophenol	128	2.479	2.474	(0.930)	200464	40.0000	40
	11	1,3-Dichlorobenzene	146	2.602	2.597	(0.976)	213930	40.0000	40
*	12	1,4-Dichlorobenzene-d4	152	2.666	2.661	(1.000)	138462	40.0000	
	13	1,4-Dichlorobenzene	146	2.682	2.683	(1.006)	213903	40.0000	39
	117	2-Ethyl-1-hexanol	57	2.810	2.805	(1.054)	182335	40.0000	39
	15	Benzyl Alcohol	108	2.880	2.875	(1.080)	130753	40.0000	39
	16	1,2-Dichlorobenzene	146	2.842	2.843	(1.066)	205483	40.0000	39
	17	2-Methylphenol	108	3.088	3.083	(1.158)	184544	40.0000	39
	18	2,2'-oxybis(1-Chloropropane)	45	3.024	3.024	(1.134)	220867	40.0000	40
	99	Acetophenone	105	3.152	3.147	(1.182)	298796	40.0000	39

Data File: \\avogadro\organics\S3.I\130906.B\S3I7584.D
Report Date: 10-Sep-2013 10:01

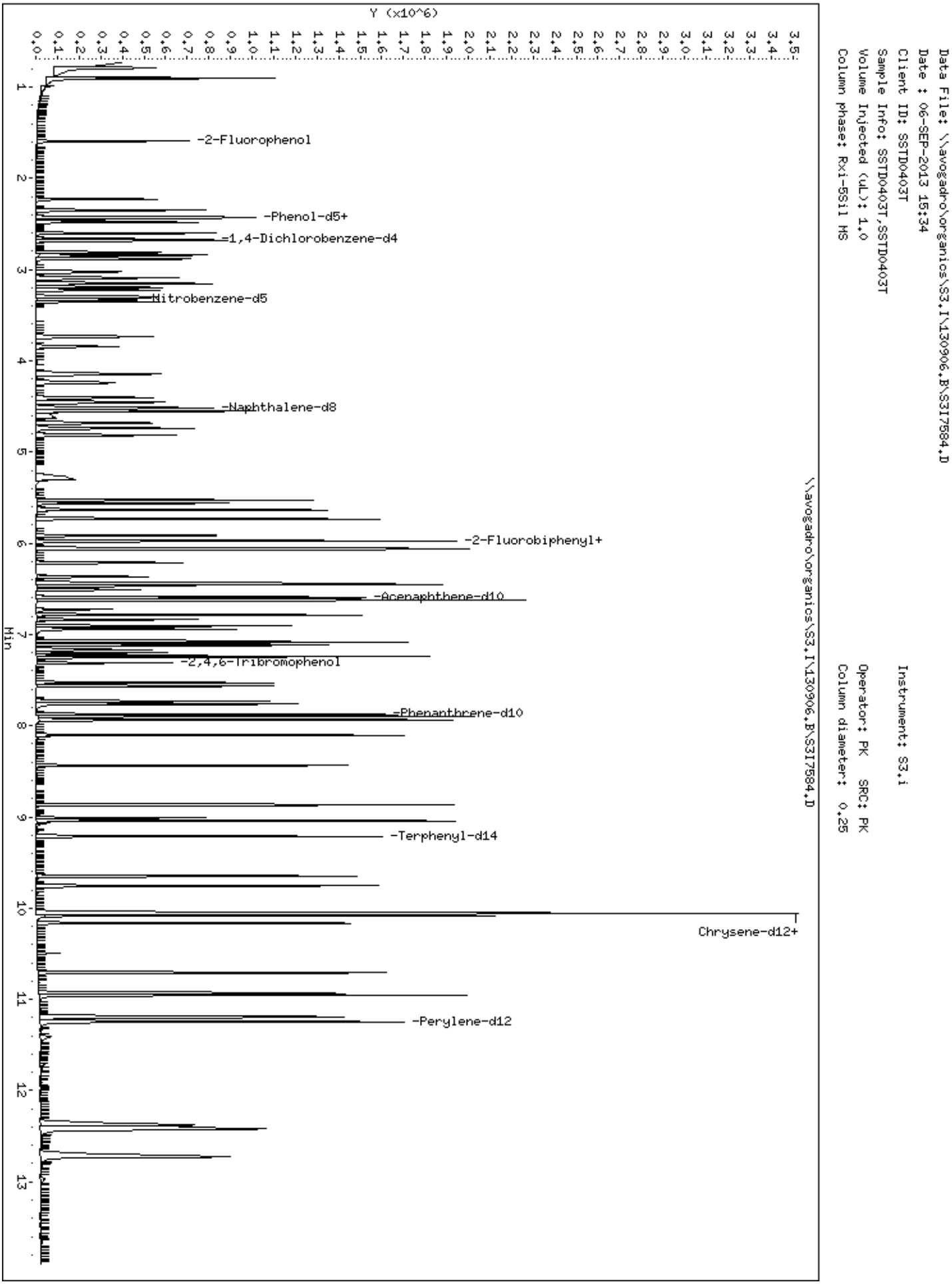
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	3.195	3.185	(1.198)	138188	40.0000	39
	20 4-Methylphenol	108	3.302	3.292	(1.238)	200233	40.0000	40
	21 Hexachloroethane	117	3.222	3.222	(1.208)	76233	40.0000	39
$	22 Nitrobenzene-d5	82	3.329	3.318	(0.736)	194256	40.0000	40
	23 Nitrobenzene	77	3.350	3.345	(0.741)	197903	40.0000	40
	24 Isophorone	82	3.735	3.724	(0.826)	361628	40.0000	39
	25 2-Nitrophenol	139	3.847	3.842	(0.851)	112601	40.0000	40
	26 2,4-Dimethylphenol	107	4.146	4.136	(0.917)	192083	40.0000	39
	27 bis(2-Chloroethoxy)methane	93	4.242	4.232	(0.939)	220688	40.0000	39
	28 Benzoic Acid	105	4.627	4.584	(1.024)	113394	40.0000	40(Q)
	29 2,4-Dichlorophenol	162	4.408	4.397	(0.975)	172367	40.0000	40
	30 1,2,4-Trichlorobenzene	180	4.456	4.451	(0.986)	181838	40.0000	40
*	31 Naphthalene-d8	136	4.520	4.515	(1.000)	528979	40.0000	
	32 Naphthalene	128	4.552	4.547	(1.007)	571884	40.0000	39
	115 alpha-Terpineol	59	4.685	4.675	(1.037)	107062	40.0000	39
	33 4-Chloroaniline	127	4.744	4.734	(1.050)	250266	40.0000	39
	34 Hexachlorobutadiene	225	4.814	4.814	(1.065)	99927	40.0000	39
	102 Caprolactam	113	5.300	5.247	(1.173)	74154	40.0000	39
	35 4-Chloro-3-Methylphenol	107	5.562	5.551	(1.230)	175503	40.0000	39
	36 2-Methylnaphthalene	142	5.530	5.525	(1.223)	379580	40.0000	39
	114 1-Methylnaphthalene	142	5.636	5.631	(1.247)	376089	40.0000	39
	38 Hexachlorocyclopentadiene	237	5.733	5.728	(0.870)	101674	40.0000	42
	112 1,2,4,5-Tetrachlorobenzene	216	5.733	5.728	(0.870)	182082	40.0000	40
	39 2,4,6-Trichlorophenol	196	5.919	5.909	(0.898)	124756	40.0000	39
	40 2,4,5-Trichlorophenol	196	5.978	5.973	(0.907)	128209	40.0000	39
$	41 2-Fluorobiphenyl	172	5.973	5.973	(0.906)	415436	40.0000	39
	98 1,1'-Biphenyl	154	6.064	6.059	(0.920)	547930	40.0000	39
	42 2-Chloronaphthalene	162	6.053	6.048	(0.918)	357752	40.0000	39
	43 2-Nitroaniline	65	6.213	6.208	(0.942)	107038	40.0000	40
	44 Dimethylphthalate	163	6.438	6.427	(0.977)	419720	40.0000	40
	45 2,6-Dinitrotoluene	165	6.475	6.465	(0.982)	102173	40.0000	40
	46 Acenaphthylene	152	6.448	6.443	(0.978)	591014	40.0000	39
	47 3-Nitroaniline	138	6.619	6.614	(1.004)	117831	40.0000	40
*	48 Acenaphthene-d10	164	6.593	6.588	(1.000)	323301	40.0000	
	49 Acenaphthene	153	6.625	6.620	(1.005)	362342	40.0000	39
	50 2,4-Dinitrophenol	184	6.726	6.721	(1.020)	45809	40.0000	39
	51 4-Nitrophenol	109	6.908	6.903	(1.048)	48440	40.0000	39
	53 2,4-Dinitrotoluene	165	6.838	6.833	(1.037)	134646	40.0000	40
	52 Dibenzofuran	168	6.785	6.780	(1.029)	532606	40.0000	39
	110 2,3,4,6-Tetrachlorophenol	232	6.945	6.940	(1.053)	119907	40.0000	41
	54 Diethylphthalate	149	7.073	7.068	(1.073)	406465	40.0000	39
	56 4-Chlorophenyl-phenylether	204	7.116	7.117	(1.079)	215501	40.0000	39
	55 Fluorene	166	7.089	7.085	(1.075)	438102	40.0000	40
	57 4-Nitroaniline	138	7.170	7.159	(1.088)	114765	40.0000	39
	58 4,6-Dinitro-2-methylphenol	198	7.202	7.191	(0.915)	82589	40.0000	38(Q)
	59 N-Nitrosodiphenylamine	169	7.239	7.234	(0.919)	380255	40.0000	39
	97 Azobenzene	77	7.255	7.250	(0.921)	433946	40.0000	40
$	60 2,4,6-Tribromophenol	330	7.314	7.309	(0.929)	59656	40.0000	40
	61 4-Bromophenyl-phenylether	248	7.527	7.523	(0.956)	126883	40.0000	40
	62 Hexachlorobenzene	284	7.565	7.560	(0.961)	129048	40.0000	39
	100 Atrazine	200	7.736	7.726	(0.982)	135059	40.0000	40
	63 Pentachlorophenol	266	7.768	7.763	(0.986)	76280	40.0000	38
	111 Pentachloronitrobenzene	237	7.757	7.752	(0.985)	50273	40.0000	40
*	64 Phenanthrene-d10	188	7.875	7.870	(1.000)	611327	40.0000	

Data File: \\avogadro\organics\S3.I\130906.B\S3I7584.D
Report Date: 10-Sep-2013 10:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	7.896	7.891	(1.003)	610786	40.0000	38
66	Anthracene	178	7.939	7.929	(1.008)	630849	40.0000	38
67	Carbazole	167	8.104	8.100	(1.029)	604059	40.0000	39
68	Di-n-butylphthalate	149	8.436	8.431	(1.071)	685717	40.0000	39
69	Fluoranthene	202	8.868	8.863	(1.126)	705041	40.0000	38
70	Benzidine	184	9.013	9.008	(0.896)	263377	40.0000	37
71	Pyrene	202	9.045	9.040	(0.899)	727874	40.0000	39
$ 72	Terphenyl-d14	244	9.216	9.211	(0.916)	516772	40.0000	39
73	Butylbenzylphthalate	149	9.648	9.643	(0.959)	319801	40.0000	39
74	3,3'-Dichlorobenzidine	252	10.065	10.049	(1.001)	267394	40.0000	40
78	bis(2-Ethylhexyl)phthalate	149	10.166	10.156	(1.011)	448443	40.0000	39
75	Benzo(a)anthracene	228	10.049	10.039	(0.999)	732163	40.0000	39
* 76	Chrysene-d12	240	10.060	10.049	(1.000)	676088	40.0000	
77	Chrysene	228	10.081	10.071	(1.002)	671957	40.0000	39
79	Di-n-octylphthalate	149	10.706	10.696	(0.935)	784370	40.0000	39(H)
80	Benzo(b)fluoranthene	252	10.936	10.920	(0.955)	854378	40.0000	40(H)
81	Benzo(k)fluoranthene	252	10.957	10.942	(0.957)	760714	40.0000	40(H)
82	Benzo(a)pyrene	252	11.198	11.177	(0.978)	735397	40.0000	39(H)
* 83	Perylene-d12	264	11.246	11.235	(1.000)	729070	40.0000	(H)
84	Indeno(1,2,3-cd)pyrene	276	12.378	12.352	(1.081)	871273	40.0000	44(H)
85	Dibenzo(a,h)anthracene	278	12.421	12.395	(1.085)	739398	40.0000	40(H)
86	Benzo(g,h,i)perylene	276	12.725	12.694	(1.112)	723262	40.0000	40(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.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Date : 06-SEP-2013 15:34
Client ID: SSTD0403T
Sample Info: SSTD0403T,SSTD0403T
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S3.i
Operator: PK SRC: PK
Column diameter: 0.25
Y (x10^6)
Min
\\avogadro\organics\S3.I\130906.B\S317584.D
-2-Fluorophenol
-Phenol-d5+
=1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
-Naphthalene-d8
-2-Fluorobiphenyl+
-Acenaphthene-d10
-2,4,6-Tribromophenol
=Phenanthrene-d10
-Terphenyl-d14
Chrysene-d12+
-Perylene-d12

Data File: \\avogadro\organics\S3.I\130906.B\S3I7585.D
Report Date: 10-Sep-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7585.D
Lab Smp Id: SSTD0603T Client Smp ID: SSTD0603T
Inj Date : 06-SEP-2013 15:56
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0603T,SSTD0603T
Misc Info : 1,5
Comment   :
Method   : \\avogadro\organics\S3.I\130906.B\s3_8270C_N.m
Meth Date : 10-Sep-2013 10:00 pkaczorows Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	0.785	0.781	(0.295)	93277	60.0000	61
	108	1,4-Dioxane	58	0.795	0.791	(0.299)	62693	60.0000	62(Q)
	1	N-Nitrosodimethylamine	74	0.897	0.893	(0.337)	177702	60.0000	61
	2	Pyridine	79	0.908	0.904	(0.341)	298556	60.0000	60
$	3	2-Fluorophenol	112	1.591	1.587	(0.597)	283184	60.0000	61
	101	Benzaldehyde	77	2.227	2.223	(0.836)	160119	60.0000	47
$	5	Phenol-d5	99	2.435	2.421	(0.914)	367806	60.0000	61
	6	Phenol	94	2.446	2.437	(0.918)	381244	60.0000	61
	7	Aniline	66	2.355	2.346	(0.884)	162074	60.0000	62
	8	bis(2-Chloroethyl)Ether	63	2.425	2.421	(0.910)	184688	60.0000	57
	10	2-Chlorophenol	128	2.483	2.474	(0.932)	296960	60.0000	61
	11	1,3-Dichlorobenzene	146	2.606	2.597	(0.978)	313582	60.0000	60
*	12	1,4-Dichlorobenzene-d4	152	2.665	2.661	(1.000)	133260	40.0000	
	13	1,4-Dichlorobenzene	146	2.686	2.683	(1.008)	316463	60.0000	60
	117	2-Ethyl-1-hexanol	57	2.815	2.805	(1.056)	271647	60.0000	61
	15	Benzyl Alcohol	108	2.889	2.875	(1.084)	197424	60.0000	62
	16	1,2-Dichlorobenzene	146	2.847	2.843	(1.068)	304987	60.0000	61
	17	2-Methylphenol	108	3.092	3.083	(1.160)	279436	60.0000	62
	18	2,2'-oxybis(1-Chloropropane)	45	3.028	3.024	(1.136)	326359	60.0000	61
	99	Acetophenone	105	3.157	3.147	(1.184)	447262	60.0000	61

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	3.205	3.185	(1.202)	206081	60.0000	60
	20 4-Methylphenol	108	3.306	3.292	(1.240)	297555	60.0000	62
	21 Hexachloroethane	117	3.226	3.222	(1.210)	113975	60.0000	61
$	22 Nitrobenzene-d5	82	3.333	3.318	(0.738)	290366	60.0000	60
	23 Nitrobenzene	77	3.360	3.345	(0.743)	292667	60.0000	60
	24 Isophorone	82	3.744	3.724	(0.829)	542044	60.0000	60
	25 2-Nitrophenol	139	3.851	3.842	(0.852)	170430	60.0000	61
	26 2,4-Dimethylphenol	107	4.156	4.136	(0.920)	292144	60.0000	61
	27 bis(2-Chloroethoxy)methane	93	4.252	4.232	(0.941)	331159	60.0000	60
	28 Benzoic Acid	105	4.674	4.584	(1.034)	197091	60.0000	70(Q)
	29 2,4-Dichlorophenol	162	4.412	4.397	(0.976)	255100	60.0000	60
	30 1,2,4-Trichlorobenzene	180	4.460	4.451	(0.987)	270723	60.0000	61
*	31 Naphthalene-d8	136	4.519	4.515	(1.000)	517106	40.0000	
	32 Naphthalene	128	4.556	4.547	(1.008)	850262	60.0000	60
	115 alpha-Terpineol	59	4.690	4.675	(1.038)	161957	60.0000	61
	33 4-Chloroaniline	127	4.749	4.734	(1.051)	374966	60.0000	60
	34 Hexachlorobutadiene	225	4.818	4.814	(1.066)	147694	60.0000	60
	102 Caprolactam	113	5.331	5.247	(1.180)	105498	60.0000	57
	35 4-Chloro-3-Methylphenol	107	5.571	5.551	(1.233)	260322	60.0000	60
	36 2-Methylnaphthalene	142	5.534	5.525	(1.225)	558890	60.0000	59
	114 1-Methylnaphthalene	142	5.635	5.631	(1.247)	553351	60.0000	59
	38 Hexachlorocyclopentadiene	237	5.731	5.728	(0.869)	156305	60.0000	67
	112 1,2,4,5-Tetrachlorobenzene	216	5.737	5.728	(0.870)	266442	60.0000	60
	39 2,4,6-Trichlorophenol	196	5.918	5.909	(0.897)	188045	60.0000	61
	40 2,4,5-Trichlorophenol	196	5.983	5.973	(0.907)	189420	60.0000	59
$	41 2-Fluorobiphenyl	172	5.977	5.973	(0.906)	603327	60.0000	58
	98 1,1'-Biphenyl	154	6.068	6.059	(0.920)	786773	60.0000	58
	42 2-Chloronaphthalene	162	6.057	6.048	(0.918)	523143	60.0000	59
	43 2-Nitroaniline	65	6.218	6.208	(0.943)	158815	60.0000	61
	44 Dimethylphthalate	163	6.442	6.427	(0.977)	604934	60.0000	58
	45 2,6-Dinitrotoluene	165	6.479	6.465	(0.982)	148884	60.0000	59
	46 Acenaphthylene	152	6.453	6.443	(0.978)	853744	60.0000	58
	47 3-Nitroaniline	138	6.629	6.614	(1.005)	173387	60.0000	60
*	48 Acenaphthene-d10	164	6.597	6.588	(1.000)	315183	40.0000	
	49 Acenaphthene	153	6.629	6.620	(1.005)	522823	60.0000	57
	50 2,4-Dinitrophenol	184	6.730	6.721	(1.020)	79042	60.0000	69
	51 4-Nitrophenol	109	6.912	6.903	(1.048)	73663	60.0000	61
	53 2,4-Dinitrotoluene	165	6.843	6.833	(1.037)	199854	60.0000	60
	52 Dibenzofuran	168	6.789	6.780	(1.029)	774535	60.0000	58
	110 2,3,4,6-Tetrachlorophenol	232	6.944	6.940	(1.053)	159409	60.0000	56
	54 Diethylphthalate	149	7.078	7.068	(1.073)	590452	60.0000	58
	56 4-Chlorophenyl-phenylether	204	7.120	7.117	(1.079)	318590	60.0000	59
	55 Fluorene	166	7.094	7.085	(1.075)	625149	60.0000	58
	57 4-Nitroaniline	138	7.179	7.159	(1.088)	172200	60.0000	60
	58 4,6-Dinitro-2-methylphenol	198	7.211	7.191	(0.915)	129161	60.0000	59(Q)
	59 N-Nitrosodiphenylamine	169	7.243	7.234	(0.919)	538824	60.0000	58
	97 Azobenzene	77	7.254	7.250	(0.921)	626639	60.0000	60
$	60 2,4,6-Tribromophenol	330	7.313	7.309	(0.928)	89293	60.0000	62
	61 4-Bromophenyl-phenylether	248	7.532	7.523	(0.956)	184354	60.0000	59
	62 Hexachlorobenzene	284	7.569	7.560	(0.961)	191054	60.0000	60
	100 Atrazine	200	7.740	7.726	(0.982)	191260	60.0000	58
	63 Pentachlorophenol	266	7.767	7.763	(0.986)	129228	60.0000	67
	111 Pentachloronitrobenzene	237	7.762	7.752	(0.985)	73192	60.0000	61
*	64 Phenanthrene-d10	188	7.879	7.870	(1.000)	590175	40.0000	

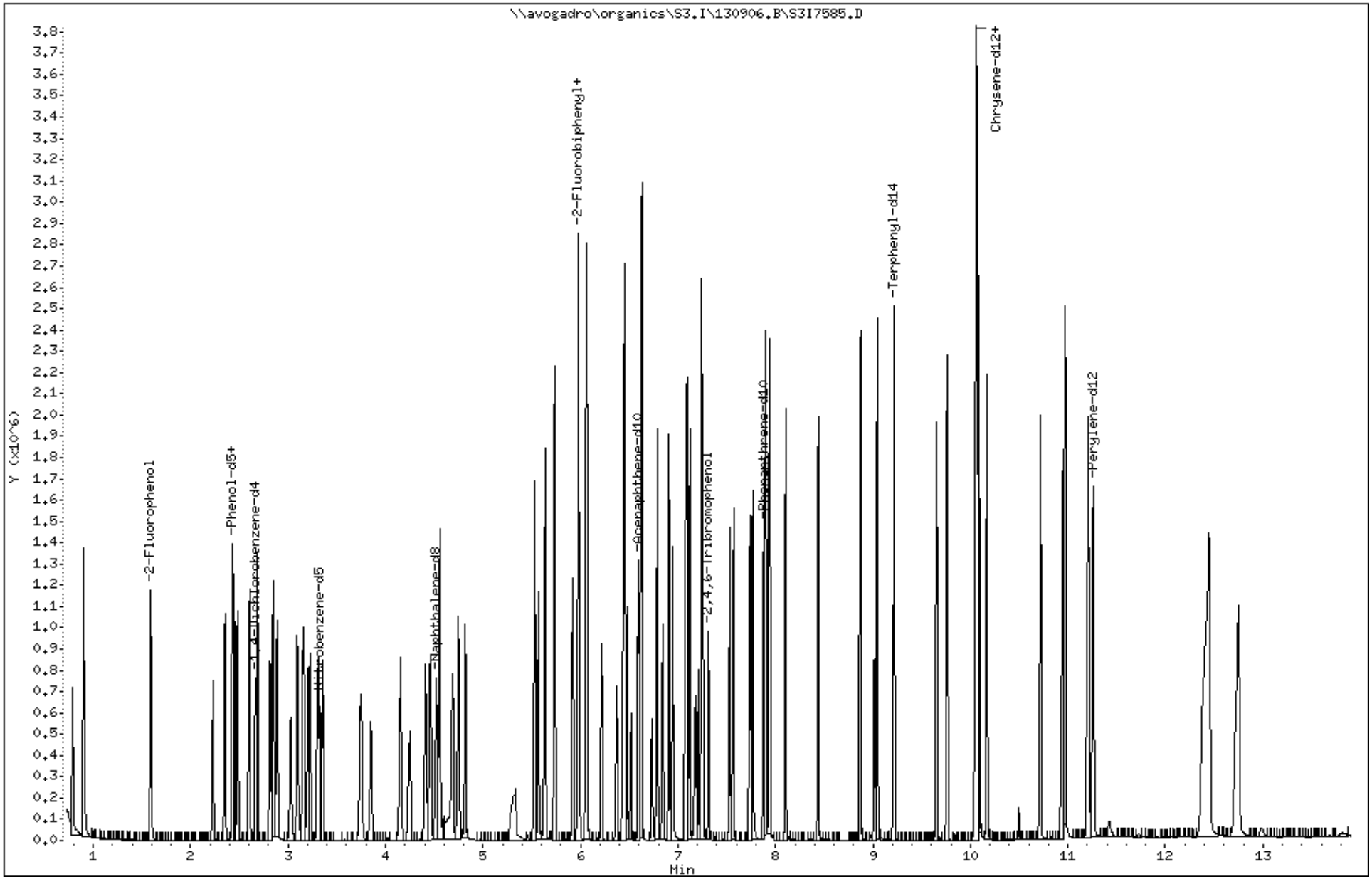
Data File: \\avogadro\organics\S3.I\130906.B\S3I7585.D
Report Date: 10-Sep-2013 10:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	65 Phenanthrene	178	7.900	7.891	(1.003)	880637	60.0000	58
	66 Anthracene	178	7.943	7.929	(1.008)	900092	60.0000	57
	67 Carbazole	167	8.109	8.100	(1.029)	866523	60.0000	58
	68 Di-n-butylphthalate	149	8.440	8.431	(1.071)	975117	60.0000	58
	69 Fluoranthene	202	8.873	8.863	(1.126)	1002694	60.0000	57
	70 Benzidine	184	9.017	9.008	(0.896)	368717	60.0000	55(H)
	71 Pyrene	202	9.049	9.040	(0.899)	1031039	60.0000	59
$	72 Terphenyl-d14	244	9.215	9.211	(0.916)	735127	60.0000	60
	73 Butylbenzylphthalate	149	9.653	9.643	(0.959)	461805	60.0000	61
	74 3,3'-Dichlorobenzidine	252	10.069	10.049	(1.001)	359459	60.0000	58
	78 bis(2-Ethylhexyl)phthalate	149	10.171	10.156	(1.011)	646388	60.0000	61
	75 Benzo(a)anthracene	228	10.053	10.039	(0.999)	1041764	60.0000	60
*	76 Chrysene-d12	240	10.064	10.049	(1.000)	631955	40.0000	
	77 Chrysene	228	10.091	10.071	(1.003)	957289	60.0000	59
	79 Di-n-octylphthalate	149	10.721	10.696	(0.942)	1118492	60.0000	58(H)
	80 Benzo(b)fluoranthene	252	10.951	10.920	(0.962)	1226178	60.0000	59(H)
	81 Benzo(k)fluoranthene	252	10.972	10.942	(0.964)	1025491	60.0000	56(H)
	82 Benzo(a)pyrene	252	11.213	11.177	(0.985)	1059239	60.0000	60
*	83 Perylene-d12	264	11.261	11.235	(1.000)	696334	40.0000	(H)
	84 Indeno(1,2,3-cd)pyrene	276	12.404	12.352	(1.090)	1282322	60.0000	67(H)
	85 Dibenzo(a,h)anthracene	278	12.452	12.395	(1.094)	1077638	60.0000	60
	86 Benzo(g,h,i)perylene	276	12.751	12.694	(1.121)	1064366	60.0000	61(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S3.I\130906.B\S3I7585.D
Date : 06-SEP-2013 15:56
Client ID: SSTD0603T
Instrument: S3.i
Sample Info: SSTD0603T,SSTD0603T
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



Data File: \\avogadro\organics\S3.I\130906.B\S3I7586.D
Report Date: 10-Sep-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7586.D
Lab Smp Id: SSTD0803T Client Smp ID: SSTD0803T
Inj Date : 06-SEP-2013 16:18
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0803T,SSTD0803T
Misc Info : 1,6
Comment   :
Method   : \\avogadro\organics\S3.I\130906.B\s3_8270C_N.m
Meth Date : 10-Sep-2013 10:00 pkaczorows Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	0.791	0.781	(0.296)	133898	80.0000	80
	108	1,4-Dioxane	58	0.801	0.791	(0.300)	89747	80.0000	81(AQ)
	1	N-Nitrosodimethylamine	74	0.903	0.893	(0.338)	241755	80.0000	75
	2	Pyridine	79	0.913	0.904	(0.342)	439010	80.0000	80(A)
$	3	2-Fluorophenol	112	1.597	1.587	(0.598)	421635	80.0000	83
	101	Benzaldehyde	77	2.233	2.223	(0.836)	204390	80.0000	55
$	5	Phenol-d5	99	2.441	2.421	(0.914)	534777	80.0000	81
	6	Phenol	94	2.457	2.437	(0.920)	559666	80.0000	82(A)
	7	Aniline	66	2.361	2.346	(0.884)	235215	80.0000	82(A)
	8	bis(2-Chloroethyl)Ether	63	2.431	2.421	(0.910)	271031	80.0000	76
	10	2-Chlorophenol	128	2.489	2.474	(0.932)	431559	80.0000	81(A)
	11	1,3-Dichlorobenzene	146	2.607	2.597	(0.976)	453442	80.0000	79
*	12	1,4-Dichlorobenzene-d4	152	2.671	2.661	(1.000)	146057	40.0000	
	13	1,4-Dichlorobenzene	146	2.687	2.683	(1.006)	456811	80.0000	79
	117	2-Ethyl-1-hexanol	57	2.821	2.805	(1.056)	398638	80.0000	81(A)
	15	Benzyl Alcohol	108	2.901	2.875	(1.086)	290443	80.0000	83(A)
	16	1,2-Dichlorobenzene	146	2.847	2.843	(1.066)	438238	80.0000	79
	17	2-Methylphenol	108	3.104	3.083	(1.162)	407415	80.0000	82(A)
	18	2,2'-oxybis(1-Chloropropane)	45	3.034	3.024	(1.136)	473200	80.0000	80(A)
	99	Acetophenone	105	3.162	3.147	(1.184)	650571	80.0000	81(A)

Data File: \\avogadro\organics\S3.I\130906.B\S3I7586.D
Report Date: 10-Sep-2013 10:01

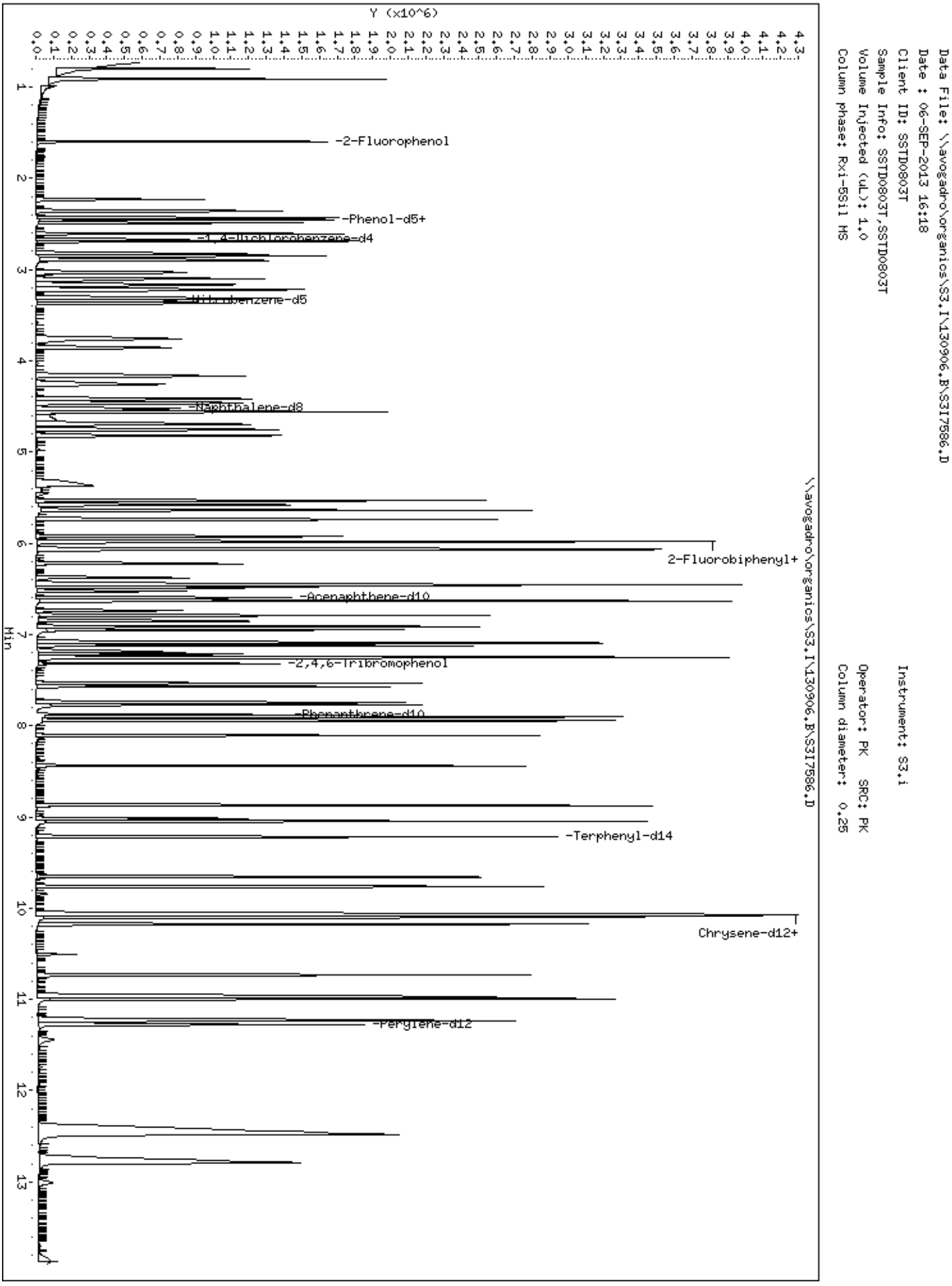
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
19	N-Nitroso-di-n-propylamine	70	3.216	3.185	(1.204)	302063	80.0000	81(A)
20	4-Methylphenol	108	3.317	3.292	(1.242)	435052	80.0000	82(A)
21	Hexachloroethane	117	3.227	3.222	(1.208)	164828	80.0000	80(A)
$ 22	Nitrobenzene-d5	82	3.339	3.318	(0.738)	426294	80.0000	82
23	Nitrobenzene	77	3.371	3.345	(0.745)	427330	80.0000	81(A)
24	Isophorone	82	3.761	3.724	(0.831)	794427	80.0000	82(A)
25	2-Nitrophenol	139	3.857	3.842	(0.852)	252092	80.0000	84(A)
26	2,4-Dimethylphenol	107	4.167	4.136	(0.921)	431870	80.0000	83(A)
27	bis(2-Chloroethoxy)methane	93	4.258	4.232	(0.941)	484589	80.0000	82(A)
28	Benzoic Acid	105	4.717	4.584	(1.042)	318117	80.0000	100(AQ)
29	2,4-Dichlorophenol	162	4.418	4.397	(0.976)	378286	80.0000	83(A)
30	1,2,4-Trichlorobenzene	180	4.466	4.451	(0.987)	395061	80.0000	82(A)
* 31	Naphthalene-d8	136	4.525	4.515	(1.000)	557696	40.0000	
32	Naphthalene	128	4.562	4.547	(1.008)	1215277	80.0000	79
115	alpha-Terpineol	59	4.696	4.675	(1.038)	236551	80.0000	82(A)
33	4-Chloroaniline	127	4.760	4.734	(1.052)	541283	80.0000	81(A)
34	Hexachlorobutadiene	225	4.819	4.814	(1.065)	214674	80.0000	80(A)
102	Caprolactam	113	5.374	5.247	(1.188)	167676	80.0000	83(A)
35	4-Chloro-3-Methylphenol	107	5.582	5.551	(1.234)	378447	80.0000	81(A)
36	2-Methylnaphthalene	142	5.534	5.525	(1.223)	792516	80.0000	78
114	1-Methylnaphthalene	142	5.641	5.631	(1.247)	786753	80.0000	77
38	Hexachlorocyclopentadiene	237	5.737	5.728	(0.870)	224223	80.0000	88(A)
112	1,2,4,5-Tetrachlorobenzene	216	5.743	5.728	(0.870)	379460	80.0000	78
39	2,4,6-Trichlorophenol	196	5.924	5.909	(0.898)	273640	80.0000	81(A)
40	2,4,5-Trichlorophenol	196	5.983	5.973	(0.907)	271549	80.0000	78
$ 41	2-Fluorobiphenyl	172	5.983	5.973	(0.907)	852159	80.0000	75
98	1,1'-Biphenyl	154	6.074	6.059	(0.921)	1079018	80.0000	72
42	2-Chloronaphthalene	162	6.058	6.048	(0.918)	741300	80.0000	76
43	2-Nitroaniline	65	6.224	6.208	(0.943)	233415	80.0000	82(A)
44	Dimethylphthalate	163	6.453	6.427	(0.978)	850881	80.0000	75
45	2,6-Dinitrotoluene	165	6.485	6.465	(0.983)	224112	80.0000	81(A)
46	Acenaphthylene	152	6.459	6.443	(0.979)	1170746	80.0000	73
47	3-Nitroaniline	138	6.635	6.614	(1.006)	251634	80.0000	80
* 48	Acenaphthene-d10	164	6.597	6.588	(1.000)	344955	40.0000	
49	Acenaphthene	153	6.630	6.620	(1.005)	748249	80.0000	75
50	2,4-Dinitrophenol	184	6.736	6.721	(1.021)	132774	80.0000	110(A)
51	4-Nitrophenol	109	6.918	6.903	(1.049)	109166	80.0000	83(A)
53	2,4-Dinitrotoluene	165	6.854	6.833	(1.039)	298435	80.0000	82(A)
52	Dibenzofuran	168	6.790	6.780	(1.029)	1100710	80.0000	76
110	2,3,4,6-Tetrachlorophenol	232	6.950	6.940	(1.053)	231191	80.0000	74
54	Diethylphthalate	149	7.084	7.068	(1.074)	845131	80.0000	76
56	4-Chlorophenyl-phenylether	204	7.126	7.117	(1.080)	454635	80.0000	77
55	Fluorene	166	7.094	7.085	(1.075)	868069	80.0000	73
57	4-Nitroaniline	138	7.196	7.159	(1.091)	254316	80.0000	81(A)
58	4,6-Dinitro-2-methylphenol	198	7.217	7.191	(0.916)	199687	80.0000	81(AQ)
59	N-Nitrosodiphenylamine	169	7.249	7.234	(0.920)	750785	80.0000	74
97	Azobenzene	77	7.260	7.250	(0.921)	897281	80.0000	78
$ 60	2,4,6-Tribromophenol	330	7.319	7.309	(0.929)	128445	80.0000	81
61	4-Bromophenyl-phenylether	248	7.532	7.523	(0.956)	267864	80.0000	79
62	Hexachlorobenzene	284	7.575	7.560	(0.961)	274759	80.0000	80
100	Atrazine	200	7.746	7.726	(0.983)	276645	80.0000	77
63	Pentachlorophenol	266	7.773	7.763	(0.986)	165479	80.0000	78
111	Pentachloronitrobenzene	237	7.762	7.752	(0.985)	103753	80.0000	79
* 64	Phenanthrene-d10	188	7.880	7.870	(1.000)	645961	40.0000	

Data File: \\avogadro\organics\S3.I\130906.B\S3I7586.D
Report Date: 10-Sep-2013 10:01

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	7.901	7.891	(1.003)	1240280	80.0000	74
66	Anthracene	178	7.944	7.929	(1.008)	1250860	80.0000	72
67	Carbazole	167	8.109	8.100	(1.029)	1240378	80.0000	75
68	Di-n-butylphthalate	149	8.441	8.431	(1.071)	1374154	80.0000	74
69	Fluoranthene	202	8.873	8.863	(1.126)	1415950	80.0000	73
70	Benzidine	184	9.017	9.008	(0.895)	447655	80.0000	63
71	Pyrene	202	9.050	9.040	(0.898)	1447317	80.0000	78
$ 72	Terphenyl-d14	244	9.220	9.211	(0.915)	1036758	80.0000	80
73	Butylbenzylphthalate	149	9.659	9.643	(0.959)	658521	80.0000	82(A)
74	3,3'-Dichlorobenzidine	252	10.081	10.049	(1.001)	493098	80.0000	74
78	bis(2-Ethylhexyl)phthalate	149	10.177	10.156	(1.010)	917023	80.0000	82(A)
75	Benzo(a)anthracene	228	10.065	10.039	(0.999)	1522546	80.0000	82(A)
* 76	Chrysene-d12	240	10.075	10.049	(1.000)	669210	40.0000	
77	Chrysene	228	10.102	10.071	(1.003)	1315287	80.0000	77
79	Di-n-octylphthalate	149	10.732	10.696	(0.952)	1581136	80.0000	75
80	Benzo(b)fluoranthene	252	10.978	10.920	(0.973)	1949713	80.0000	86(A)
81	Benzo(k)fluoranthene	252	10.994	10.942	(0.975)	1297397	80.0000	65(H)
82	Benzo(a)pyrene	252	11.234	11.177	(0.996)	1531833	80.0000	79
* 83	Perylene-d12	264	11.277	11.235	(1.000)	760601	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	12.447	12.352	(1.104)	1903302	80.0000	92(AQ)
85	Dibenzo(a,h)anthracene	278	12.485	12.395	(1.107)	1582715	80.0000	81(A)
86	Benzo(g,h,i)perylene	276	12.789	12.694	(1.134)	1585656	80.0000	83(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.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Date : 06-SEP-2013 16:18
Client ID: SSTD0803T
Sample Info: SSTD0803T,SSTD0803T
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S3,i
Operator: PK SRC: PK
Column diameter: 0.25
Y (x10^6)
Min
\\avogadro\organics\S3,I\130906,B\S317586.D
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
-Naphthalene-d8
2-Fluorobiphenyl+
-Acenaphthene-d10
-2,4,6-Tribromophenol
-Phenanthrene-d10
-Terphenyl-d14
Chrysene-d12+
-Perylene-d12

Data File: \\avogadro\organics\S3.I\130906.B\S3I7586B.D
Report Date: 10-Sep-2013 10:01

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7586B.D
Lab Smp Id: SSTD0253T Client Smp ID: SSTD0253T
Inj Date : 06-SEP-2013 17:02
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0253T,SSTD0253T
Misc Info : 2,3
Comment   :
Method   : \\avogadro\organics\S3.I\130906.B\s3_8270C_N.m
Meth Date : 10-Sep-2013 10:00 pkaczorows Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

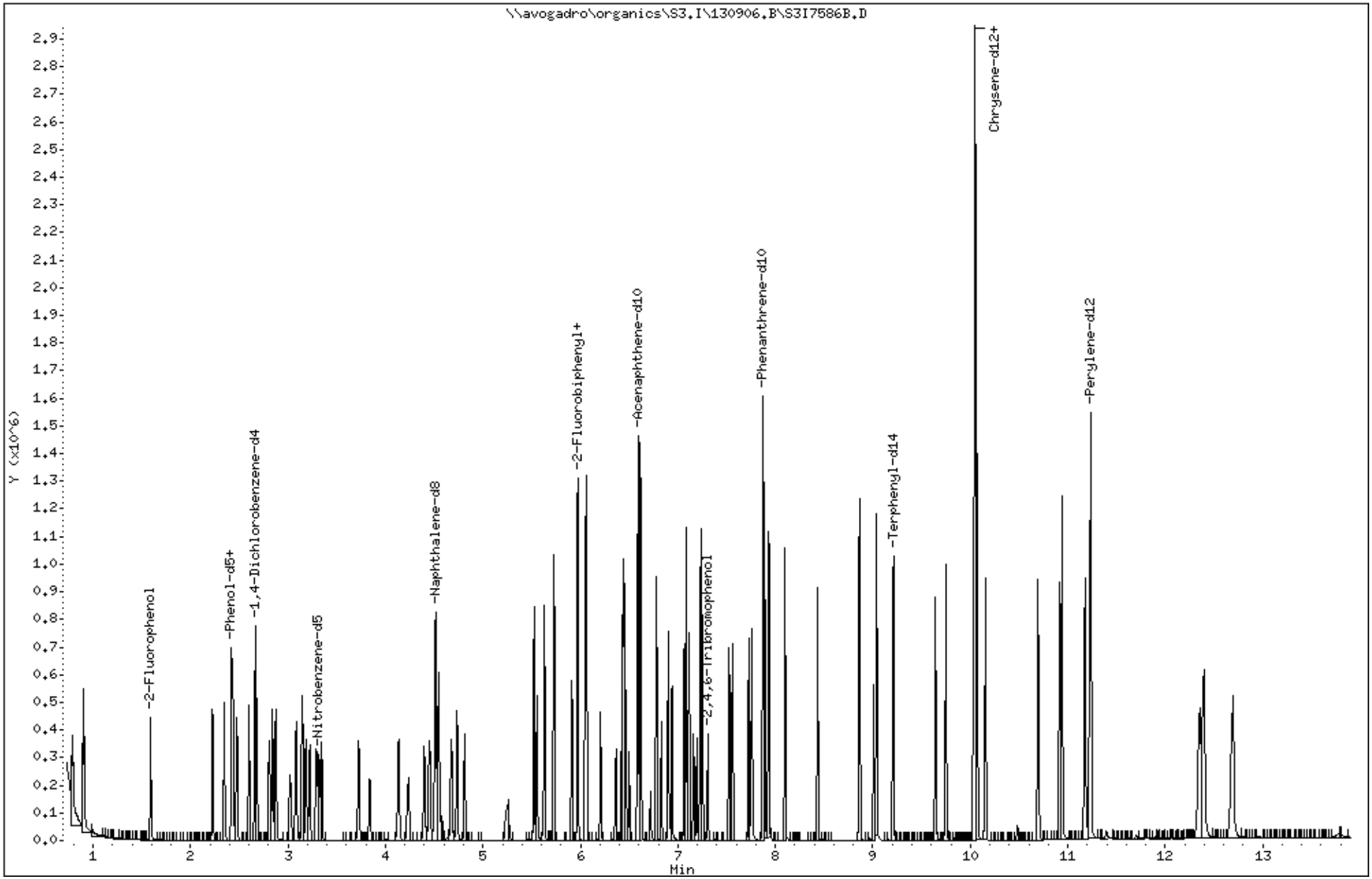
			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
$	109	1,4-Dioxane-d8	96	0.781	0.781	(0.294)	37326	25.0000	24
	108	1,4-Dioxane	58	0.791	0.791	(0.298)	25428	25.0000	25
	1	N-Nitrosodimethylamine	74	0.893	0.893	(0.336)	71683	25.0000	24
	2	Pyridine	79	0.904	0.904	(0.340)	116669	25.0000	24
$	3	2-Fluorophenol	112	1.587	1.587	(0.597)	112130	25.0000	24
	101	Benzaldehyde	77	2.223	2.223	(0.835)	98400	25.0000	29
$	5	Phenol-d5	99	2.421	2.421	(0.910)	148533	25.0000	25
	6	Phenol	94	2.437	2.437	(0.916)	153559	25.0000	25
	7	Aniline	66	2.346	2.346	(0.882)	64372	25.0000	25
	8	bis(2-Chloroethyl)Ether	63	2.421	2.421	(0.910)	82235	25.0000	25
	10	2-Chlorophenol	128	2.474	2.474	(0.930)	119394	25.0000	24
	11	1,3-Dichlorobenzene	146	2.597	2.597	(0.976)	127365	25.0000	24
*	12	1,4-Dichlorobenzene-d4	152	2.661	2.661	(1.000)	132778	40.0000	
	13	1,4-Dichlorobenzene	146	2.683	2.683	(1.008)	129579	25.0000	25
	117	2-Ethyl-1-hexanol	57	2.805	2.805	(1.054)	110567	25.0000	25
	15	Benzyl Alcohol	108	2.875	2.875	(1.080)	76438	25.0000	24
	16	1,2-Dichlorobenzene	146	2.843	2.843	(1.068)	124048	25.0000	25
	17	2-Methylphenol	108	3.083	3.083	(1.159)	112165	25.0000	25
	18	2,2'-oxybis(1-Chloropropane)	45	3.024	3.024	(1.136)	133381	25.0000	25
	99	Acetophenone	105	3.147	3.147	(1.183)	179883	25.0000	25

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
19	N-Nitroso-di-n-propylamine	70	3.185	3.185	(1.197)	84241	25.0000	25
20	4-Methylphenol	108	3.292	3.292	(1.237)	118616	25.0000	25
21	Hexachloroethane	117	3.222	3.222	(1.211)	45659	25.0000	24
$ 22	Nitrobenzene-d5	82	3.318	3.318	(0.735)	116620	25.0000	24
23	Nitrobenzene	77	3.345	3.345	(0.741)	118976	25.0000	24
24	Isophorone	82	3.724	3.724	(0.825)	218542	25.0000	24
25	2-Nitrophenol	139	3.842	3.842	(0.851)	68074	25.0000	24
26	2,4-Dimethylphenol	107	4.136	4.136	(0.916)	119850	25.0000	25
27	bis(2-Chloroethoxy)methane	93	4.232	4.232	(0.937)	133909	25.0000	24
28	Benzoic Acid	105	4.584	4.584	(1.015)	69092	25.0000	25
29	2,4-Dichlorophenol	162	4.397	4.397	(0.974)	103138	25.0000	24
30	1,2,4-Trichlorobenzene	180	4.451	4.451	(0.986)	107620	25.0000	24
* 31	Naphthalene-d8	136	4.515	4.515	(1.000)	515353	40.0000	
32	Naphthalene	128	4.547	4.547	(1.007)	349819	25.0000	25
115	alpha-Terpineol	59	4.675	4.675	(1.035)	65205	25.0000	24
33	4-Chloroaniline	127	4.734	4.734	(1.049)	153532	25.0000	25
34	Hexachlorobutadiene	225	4.814	4.814	(1.066)	60217	25.0000	24
102	Caprolactam	113	5.247	5.247	(1.162)	46275	25.0000	25
35	4-Chloro-3-Methylphenol	107	5.551	5.551	(1.230)	106750	25.0000	25
36	2-Methylnaphthalene	142	5.525	5.525	(1.224)	234616	25.0000	25
114	1-Methylnaphthalene	142	5.631	5.631	(1.247)	232748	25.0000	25
38	Hexachlorocyclopentadiene	237	5.728	5.728	(0.869)	58249	25.0000	25
112	1,2,4,5-Tetrachlorobenzene	216	5.728	5.728	(0.869)	111587	25.0000	25
39	2,4,6-Trichlorophenol	196	5.909	5.909	(0.897)	76776	25.0000	25
40	2,4,5-Trichlorophenol	196	5.973	5.973	(0.907)	79950	25.0000	25
$ 41	2-Fluorobiphenyl	172	5.973	5.973	(0.907)	261336	25.0000	25
98	1,1'-Biphenyl	154	6.059	6.059	(0.920)	346850	25.0000	25
42	2-Chloronaphthalene	162	6.048	6.048	(0.918)	224925	25.0000	25
43	2-Nitroaniline	65	6.208	6.208	(0.942)	64209	25.0000	24
44	Dimethylphthalate	163	6.427	6.427	(0.976)	261033	25.0000	25
45	2,6-Dinitrotoluene	165	6.465	6.465	(0.981)	63304	25.0000	25
46	Acenaphthylene	152	6.443	6.443	(0.978)	371010	25.0000	25
47	3-Nitroaniline	138	6.614	6.614	(1.004)	72072	25.0000	25
* 48	Acenaphthene-d10	164	6.588	6.588	(1.000)	316691	40.0000	
49	Acenaphthene	153	6.620	6.620	(1.005)	231815	25.0000	25
50	2,4-Dinitrophenol	184	6.721	6.721	(1.020)	29871	25.0000	26
51	4-Nitrophenol	109	6.903	6.903	(1.048)	29687	25.0000	25
53	2,4-Dinitrotoluene	165	6.833	6.833	(1.037)	83088	25.0000	25
52	Dibenzofuran	168	6.780	6.780	(1.029)	335161	25.0000	25
110	2,3,4,6-Tetrachlorophenol	232	6.940	6.940	(1.054)	71788	25.0000	25
54	Diethylphthalate	149	7.068	7.068	(1.073)	251651	25.0000	25
56	4-Chlorophenyl-phenylether	204	7.117	7.117	(1.080)	135490	25.0000	25
55	Fluorene	166	7.085	7.085	(1.075)	271684	25.0000	25
57	4-Nitroaniline	138	7.159	7.159	(1.087)	69838	25.0000	24
58	4,6-Dinitro-2-methylphenol	198	7.191	7.191	(0.914)	49923	25.0000	26
59	N-Nitrosodiphenylamine	169	7.234	7.234	(0.919)	239770	25.0000	26
97	Azobenzene	77	7.250	7.250	(0.921)	270536	25.0000	26
$ 60	2,4,6-Tribromophenol	330	7.309	7.309	(0.929)	35843	25.0000	25
61	4-Bromophenyl-phenylether	248	7.523	7.523	(0.956)	76997	25.0000	25
62	Hexachlorobenzene	284	7.560	7.560	(0.961)	79803	25.0000	25
100	Atrazine	200	7.726	7.726	(0.982)	83831	25.0000	25
63	Pentachlorophenol	266	7.763	7.763	(0.986)	49381	25.0000	25
111	Pentachloronitrobenzene	237	7.752	7.752	(0.985)	30476	25.0000	25
* 64	Phenanthrene-d10	188	7.870	7.870	(1.000)	593652	40.0000	

Data File: \\avogadro\organics\S3.I\130906.B\S3I7586B.D
Report Date: 10-Sep-2013 10:01

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	65	Phenanthrene	178	7.891	7.891	(1.003)	392281	25.0000	26
	66	Anthracene	178	7.929	7.929	(1.007)	398573	25.0000	25
	67	Carbazole	167	8.100	8.100	(1.029)	374651	25.0000	25
	68	Di-n-butylphthalate	149	8.431	8.431	(1.071)	429634	25.0000	25
	69	Fluoranthene	202	8.863	8.863	(1.126)	449720	25.0000	25
	70	Benzidine	184	9.008	9.008	(0.896)	218097	25.0000	31
	71	Pyrene	202	9.040	9.040	(0.900)	451904	25.0000	24
$	72	Terphenyl-d14	244	9.211	9.211	(0.917)	318995	25.0000	24
	73	Butylbenzylphthalate	149	9.643	9.643	(0.960)	195546	25.0000	24
	74	3,3'-Dichlorobenzidine	252	10.049	10.049	(1.000)	166900	25.0000	25
	78	bis(2-Ethylhexyl)phthalate	149	10.156	10.156	(1.011)	272719	25.0000	24
	75	Benzo(a)anthracene	228	10.039	10.039	(0.999)	446376	25.0000	24
*	76	Chrysene-d12	240	10.049	10.049	(1.000)	671344	40.0000	
	77	Chrysene	228	10.071	10.071	(1.002)	433372	25.0000	25
	79	Di-n-octylphthalate	149	10.696	10.696	(0.952)	483514	25.0000	25
	80	Benzo(b)fluoranthene	252	10.920	10.920	(0.972)	495591	25.0000	24
	81	Benzo(k)fluoranthene	252	10.942	10.942	(0.974)	478359	25.0000	26
	82	Benzo(a)pyrene	252	11.177	11.177	(0.995)	433285	25.0000	24
*	83	Perylene-d12	264	11.235	11.235	(1.000)	695888	40.0000	
	84	Indeno(1,2,3-cd)pyrene	276	12.352	12.352	(1.099)	418195	25.0000	22
	85	Dibenzo(a,h)anthracene	278	12.395	12.395	(1.103)	434191	25.0000	24
	86	Benzo(g,h,i)perylene	276	12.694	12.694	(1.130)	414639	25.0000	24

Data File: \\avogadro\organics\S3.I\130906.B\S3I7586B.D
Date : 06-SEP-2013 17:02
Client ID: SSTD0253T
Instrument: S3.i
Sample Info: SSTD0253T,SSTD0253T
Volume Injected (uL): 1.0
Operator: PK SRC: PK
Column phase: Rxi-5Sil MS
Column diameter: 0.25



7E - FORM VII SV-1

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date: 10/04/2013 Time: 9:11

Lab File ID: S3I7951.D Init. Calib. Date(s): 09/06/2013 10/16/2013

EPA Sample No.(SSTD020##) SSTD0253H Init. Calib. Time(s): 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF025	MIN RRF	%D	MAX %D
Phenol	1.879	2.047	0.800	9.0	20.0
Bis(2-chloroethyl)ether	0.974	1.128	0.700	15.8	20.0
2-Chlorophenol	1.465	1.474	0.800	0.6	20.0
1,3-Dichlorobenzene	1.564	1.532	0.010	-2.1	20.0
1,4-Dichlorobenzene	1.584	1.544	0.010	-2.5	20.0
1,2-Dichlorobenzene	1.510	1.481	0.010	-1.9	20.0
2-Methylphenol	1.359	1.426	0.700	4.9	20.0
2,2´-oxybis(1-Chloropropane)	1.614	1.908	0.010	18.2	20.0
4-Methylphenol	1.451	1.554	0.600	7.1	20.0
N-Nitroso-di-n-propylamine	1.022	1.161	0.500	13.6	20.0
Hexachloroethane	0.561	0.564	0.300	0.5	20.0
Nitrobenzene	0.378	0.405	0.200	7.1	20.0
Isophorone	0.695	0.747	0.400	7.5	20.0
2-Nitrophenol	0.215	0.211	0.100	-1.9	20.0
2,4-Dimethylphenol	0.372	0.351	0.200	-5.7	20.0
2,4-Dichlorophenol	0.326	0.319	0.200	-2.3	20.0
1,2,4-Trichlorobenzene	0.345	0.318	0.010	-8.0	20.0
Naphthalene	1.103	1.096	0.700	-0.6	20.0
4-Chloroaniline	0.480	0.499	0.010	3.9	20.0
Bis(2-chloroethoxy)methane	0.424	0.448	0.300	5.6	20.0
Hexachlorobutadiene	0.192	0.171	0.010	-11.0	20.0
4-Chloro-3-methylphenol	0.336	0.352	0.200	4.8	20.0
2-Methylnaphthalene	0.732	0.725	0.400	-1.0	20.0
Hexachlorocyclopentadiene	0.297	0.270	0.050	-9.2	20.0
2,4,6-Trichlorophenol	0.393	0.394	0.200	0.1	20.0
2,4,5-Trichlorophenol	0.402	0.399	0.200	-0.7	20.0
2-Chloronaphthalene	1.127	1.135	0.800	0.7	20.0
2-Nitroaniline	0.332	0.385	0.010	15.9	20.0
Dimethylphthalate	1.314	1.305	0.010	-0.7	20.0
Acenaphthylene	1.862	1.895	0.900	1.8	20.0
2,6-Dinitrotoluene	0.320	0.326	0.200	2.0	20.0
3-Nitroaniline	0.367	0.398	0.010	8.6	20.0
Acenaphthene	1.155	1.173	0.900	1.5	20.0
2,4-Dinitrophenol	0.144	0.093	0.010	-35.9	20.0
4-Nitrophenol	0.152	0.171	0.010	12.4	20.0
Dibenzofuran	1.689	1.703	0.800	0.8	20.0
2,4-Dinitrotoluene	0.420	0.450	0.200	7.2	20.0
Diethylphthalate	1.283	1.276	0.010	-0.6	20.0
4-Chlorophenyl-phenylether	0.685	0.675	0.400	-1.5	20.0
Fluorene	1.370	1.394	0.900	1.7	20.0
4-Nitroaniline	0.363	0.405	0.010	11.6	20.0
4,6-Dinitro-2-methylphenol	0.133	0.104	0.010	-22.0	20.0

7F - FORM VII SV-2

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date: 10/04/2013 Time: 9:11

Lab File ID: S3I7951.D Init. Calib. Date(s): 09/06/2013 10/16/2013

EPA Sample No.(SSTD020##) SSTD0253H Init. Calib. Time(s): 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF025	MIN RRF	%D	MAX %D
N-Nitrosodiphenylamine	0.632	0.643	0.010	1.8	20.0
4-Bromophenyl-phenylether	0.210	0.201	0.100	-4.4	20.0
Hexachlorobenzene	0.214	0.200	0.100	-6.5	20.0
Pentachlorophenol	0.131	0.181	0.050	38.6	20.0
Phenanthrene	1.036	1.063	0.700	2.6	20.0
Anthracene	1.070	1.089	0.700	1.8	20.0
Carbazole	1.020	1.055	0.010	3.3	20.0
Di-n-butylphthalate	1.146	1.186	0.010	3.5	20.0
Fluoranthene	1.199	1.215	0.600	1.3	20.0
Pyrene	1.102	1.094	0.600	-0.7	20.0
Butylbenzylphthalate	0.480	0.486	0.010	1.3	20.0
3,3´-Dichlorobenzidine	0.395	0.400	0.010	1.1	20.0
Benzo(a)anthracene	1.106	1.093	0.800	-1.1	20.0
Chrysene	1.022	0.980	0.700	-4.1	20.0
Bis(2-ethylhexyl)phthalate	0.672	0.693	0.010	3.1	20.0
Di-n-octylphthalate	1.106	1.145	0.010	3.5	20.0
Benzo(b)fluoranthene	1.185	1.077	0.700	-9.0	20.0
Benzo(k)fluoranthene	1.043	1.141	0.700	9.4	20.0
Benzo(a)pyrene	1.022	1.029	0.700	0.7	20.0
Indeno(1,2,3-cd)pyrene	1.092	0.992	0.500	-9.2	20.0
Dibenzo(a,h)anthracene	1.023	1.010	0.400	-1.3	20.0
Benzo(g,h,i)perylene	1.004	1.020	0.500	1.6	20.0

7G - FORM VII SV-3

SEMIVOLATILE CONTINUING CALIBRATION DATA

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: S3 Calibration Date: 10/04/2013 Time: 9:11

Lab File ID: S3I7951.D Init. Calib. Date(s): 09/06/2013 10/16/2013

EPA Sample No.(SSTD020##) SSTD0253H Init. Calib. Time(s): 14:49 12:40

GC Column: Rxi-5sil MS ID: 0.25 (mm)

COMPOUND	RRF	RRF025	MIN RRF	%D	MAX %D
Nitrobenzene-d5	0.372	0.388	0.010	4.4	20.0
2-Fluorobiphenyl	1.314	1.283	0.010	-2.4	20.0
Terphenyl-d14	0.777	0.763	0.010	-1.8	20.0
Phenol-d5	1.805	1.943	0.010	7.6	20.0
2-Fluorophenol	1.392	1.433	0.010	2.9	20.0
2,4,6-Tribromophenol	0.098	0.093	0.010	-4.6	20.0

Data File: \\avogadro\organics\S3.I\131004.B\S3I7951.D
Report Date: 07-Oct-2013 11:10

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\131004.B\S3I7951.D
Lab Smp Id: SSTD0253H Client Smp ID: SSTD0253H
Inj Date : 04-OCT-2013 09:11
Operator : PK   SRC: PK Inst ID: S3.i
Smp Info : SSTD0253H,SSTD0253H
Misc Info : 2,3
Comment   :
Method   : \\avogadro\organics\S3.I\131004.B\s3_8270C_N.m
Meth Date : 07-Oct-2013 11:10 S3.i Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allnew.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Vo) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC Correction Factor
Vt	1000.000	Volume of final extract (uL)
Vi	1.000	Volume injected (uL)
Vo	1000.000	Volume of sample extracted (mL)
Cpnd Variable		Local Compound Variable

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
$	109	1,4-Dioxane-d8	96	0.658	0.658	(0.275)	43649	25.0000	24
	108	1,4-Dioxane	58	0.664	0.664	(0.277)	35407	25.0000	29
	1	N-Nitrosodimethylamine	74	0.749	0.749	(0.313)	100591	25.0000	28
	2	Pyridine	79	0.760	0.760	(0.317)	176093	25.0000	29
$	3	2-Fluorophenol	112	1.379	1.379	(0.576)	143932	25.0000	26
	101	Benzaldehyde	77	1.978	1.978	(0.826)	111600	25.0000	27
$	5	Phenol-d5	99	2.170	2.170	(0.906)	195189	25.0000	27
	6	Phenol	94	2.181	2.181	(0.911)	205682	25.0000	27
	7	Aniline	66	2.095	2.095	(0.875)	86955	25.0000	27
	8	bis(2-Chloroethyl)Ether	63	2.170	2.170	(0.906)	113317	25.0000	29
	10	2-Chlorophenol	128	2.213	2.213	(0.924)	148130	25.0000	25
	11	1,3-Dichlorobenzene	146	2.336	2.336	(0.975)	153906	25.0000	24
*	12	1,4-Dichlorobenzene-d4	152	2.394	2.394	(1.000)	160752	40.0000	
	13	1,4-Dichlorobenzene	146	2.416	2.416	(1.009)	155148	25.0000	24
	117	2-Ethyl-1-hexanol	57	2.544	2.544	(1.062)	151853	25.0000	28
	15	Benzyl Alcohol	108	2.603	2.603	(1.087)	102878	25.0000	27
	16	1,2-Dichlorobenzene	146	2.565	2.565	(1.071)	148806	25.0000	24
	17	2-Methylphenol	108	2.806	2.806	(1.172)	143255	25.0000	26
	18	2,2'-oxybis(1-Chloropropane)	45	2.747	2.747	(1.147)	191683	25.0000	30
	99	Acetophenone	105	2.870	2.870	(1.199)	230484	25.0000	26

Data File: \\avogadro\organics\S3.I\131004.B\S3I7951.D
Report Date: 07-Oct-2013 11:10

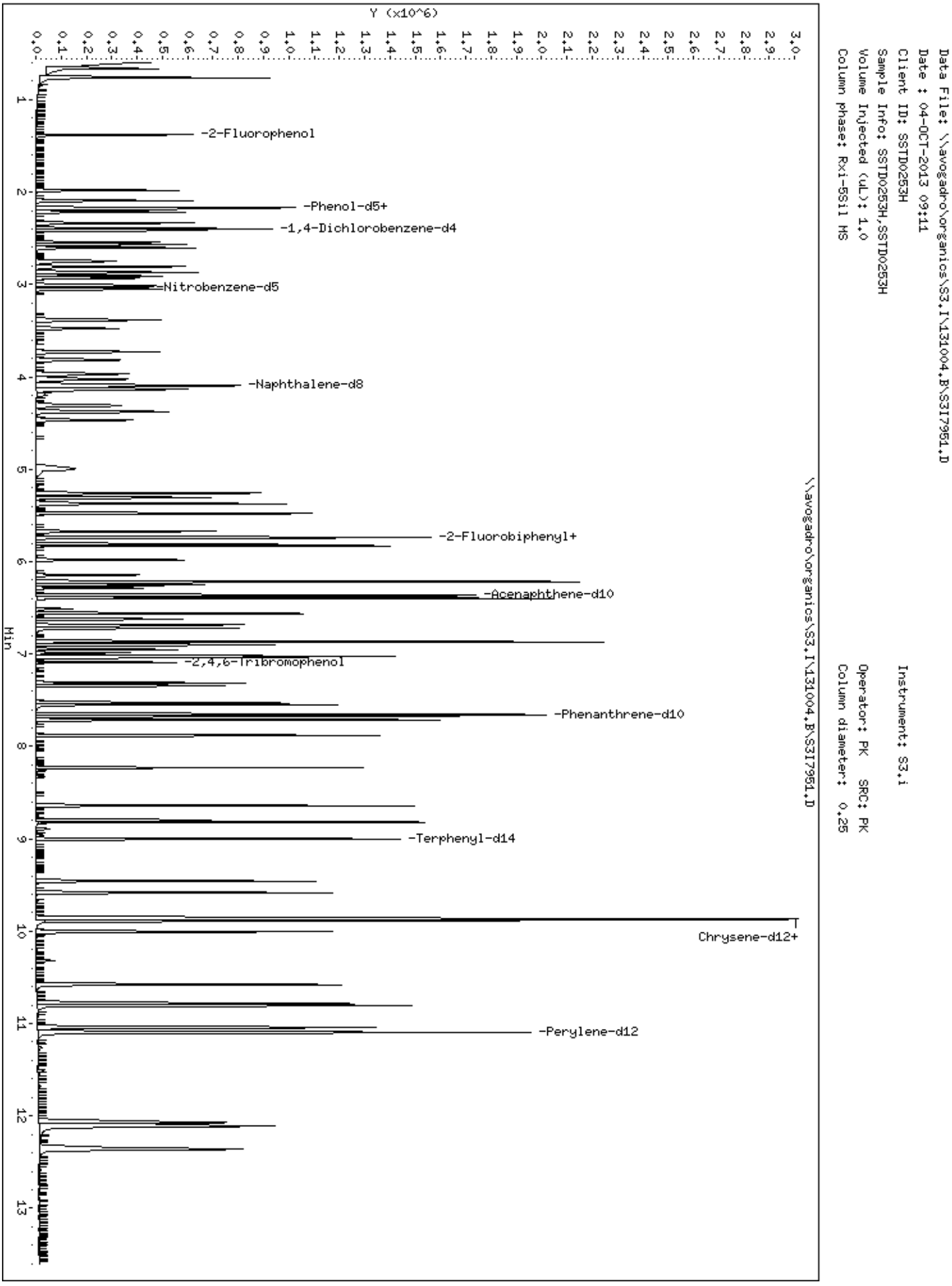
							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	19 N-Nitroso-di-n-propylamine	70	2.907	2.907	(1.214)	116689	25.0000	28
	20 4-Methylphenol	108	3.009	3.009	(1.257)	156092	25.0000	27
	21 Hexachloroethane	117	2.929	2.929	(1.223)	56630	25.0000	25
$	22 Nitrobenzene-d5	82	3.030	3.030	(0.740)	155345	25.0000	26
	23 Nitrobenzene	77	3.051	3.051	(0.746)	161908	25.0000	27
	24 Isophorone	82	3.383	3.383	(0.826)	299000	25.0000	27
	25 2-Nitrophenol	139	3.479	3.479	(0.850)	84567	25.0000	24
	26 2,4-Dimethylphenol	107	3.730	3.730	(0.911)	140461	25.0000	24
	27 bis(2-Chloroethoxy)methane	93	3.815	3.815	(0.932)	179199	25.0000	26
	28 Benzoic Acid	105	4.205	4.205	(1.027)	49754	25.0000	14(a)
	29 2,4-Dichlorophenol	162	3.970	3.970	(0.970)	127573	25.0000	24
	30 1,2,4-Trichlorobenzene	180	4.024	4.024	(0.983)	127152	25.0000	23
*	31 Naphthalene-d8	136	4.093	4.093	(1.000)	640357	40.0000	
	32 Naphthalene	128	4.136	4.136	(1.010)	438745	25.0000	25
	115 alpha-Terpineol	59	4.312	4.312	(1.054)	90354	25.0000	27
	33 4-Chloroaniline	127	4.376	4.376	(1.069)	199797	25.0000	26
	34 Hexachlorobutadiene	225	4.467	4.467	(1.091)	68257	25.0000	22
	102 Caprolactam	113	4.991	4.991	(1.219)	58730	25.0000	25
	35 4-Chloro-3-Methylphenol	107	5.306	5.306	(1.296)	141065	25.0000	26
	36 2-Methylnaphthalene	142	5.258	5.258	(1.284)	290001	25.0000	25
	114 1-Methylnaphthalene	142	5.370	5.370	(1.312)	290177	25.0000	25
	38 Hexachlorocyclopentadiene	237	5.477	5.477	(0.861)	66034	25.0000	23
	112 1,2,4,5-Tetrachlorobenzene	216	5.482	5.482	(0.861)	132026	25.0000	24
	39 2,4,6-Trichlorophenol	196	5.674	5.674	(0.892)	96428	25.0000	25
	40 2,4,5-Trichlorophenol	196	5.739	5.739	(0.902)	97707	25.0000	24
$	41 2-Fluorobiphenyl	172	5.739	5.739	(0.902)	314289	25.0000	24
	98 1,1'-Biphenyl	154	5.829	5.829	(0.916)	428405	25.0000	25
	42 2-Chloronaphthalene	162	5.813	5.813	(0.914)	277997	25.0000	25
	43 2-Nitroaniline	65	5.984	5.984	(0.940)	94223	25.0000	29
	44 Dimethylphthalate	163	6.219	6.219	(0.977)	319568	25.0000	25
	45 2,6-Dinitrotoluene	165	6.251	6.251	(0.982)	79870	25.0000	26
	46 Acenaphthylene	152	6.219	6.219	(0.977)	464128	25.0000	25
	47 3-Nitroaniline	138	6.396	6.396	(1.005)	97530	25.0000	27
*	48 Acenaphthene-d10	164	6.364	6.364	(1.000)	391882	40.0000	
	49 Acenaphthene	153	6.396	6.396	(1.005)	287214	25.0000	25
	50 2,4-Dinitrophenol	184	6.508	6.508	(1.023)	22659	25.0000	16(a)
	51 4-Nitrophenol	109	6.695	6.695	(1.052)	41925	25.0000	28
	53 2,4-Dinitrotoluene	165	6.625	6.625	(1.041)	110163	25.0000	27
	52 Dibenzofuran	168	6.561	6.561	(1.031)	417044	25.0000	25
	110 2,3,4,6-Tetrachlorophenol	232	6.721	6.721	(1.056)	91787	25.0000	26
	54 Diethylphthalate	149	6.866	6.866	(1.079)	312408	25.0000	25
	56 4-Chlorophenyl-phenylether	204	6.903	6.903	(1.085)	165347	25.0000	25
	55 Fluorene	166	6.866	6.866	(1.079)	341316	25.0000	25
	57 4-Nitroaniline	138	6.951	6.951	(1.092)	99160	25.0000	28
	58 4,6-Dinitro-2-methylphenol	198	6.989	6.989	(0.913)	49131	25.0000	21(Q)
	59 N-Nitrosodiphenylamine	169	7.026	7.026	(0.918)	304759	25.0000	25
	97 Azobenzene	77	7.037	7.037	(0.919)	378546	25.0000	28
$	60 2,4,6-Tribromophenol	330	7.090	7.090	(0.926)	44299	25.0000	24
	61 4-Bromophenyl-phenylether	248	7.314	7.314	(0.955)	95256	25.0000	24
	62 Hexachlorobenzene	284	7.347	7.347	(0.960)	94820	25.0000	23
	100 Atrazine	200	7.528	7.528	(0.983)	105070	25.0000	25
	63 Pentachlorophenol	266	7.550	7.550	(0.986)	85752	25.0000	35
	111 Pentachloronitrobenzene	237	7.539	7.539	(0.985)	39454	25.0000	26
*	64 Phenanthrene-d10	188	7.656	7.656	(1.000)	758466	40.0000	

Data File: \\avogadro\organics\S3.I\131004.B\S3I7951.D
Report Date: 07-Oct-2013 11:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
65	Phenanthrene	178	7.672	7.672	(1.002)	503942	25.0000	26
66	Anthracene	178	7.715	7.715	(1.008)	516337	25.0000	25
67	Carbazole	167	7.881	7.881	(1.029)	499896	25.0000	26
68	Di-n-butylphthalate	149	8.228	8.228	(1.075)	562379	25.0000	26
69	Fluoranthene	202	8.645	8.645	(1.129)	575890	25.0000	25
70	Benzidine	184	8.794	8.794	(0.891)	250681	25.0000	27
71	Pyrene	202	8.821	8.821	(0.894)	591607	25.0000	25
$ 72	Terphenyl-d14	244	9.003	9.003	(0.912)	412840	25.0000	24
73	Butylbenzylphthalate	149	9.457	9.457	(0.958)	262924	25.0000	25
74	3,3'-Dichlorobenzidine	252	9.879	9.879	(1.001)	216138	25.0000	25
78	bis(2-Ethylhexyl)phthalate	149	10.007	10.007	(1.014)	374803	25.0000	26
75	Benzo(a)anthracene	228	9.857	9.857	(0.999)	591462	25.0000	25
* 76	Chrysene-d12	240	9.868	9.868	(1.000)	865492	40.0000	
77	Chrysene	228	9.889	9.889	(1.002)	530249	25.0000	24
79	Di-n-octylphthalate	149	10.579	10.579	(0.953)	651024	25.0000	26
80	Benzo(b)fluoranthene	252	10.782	10.782	(0.971)	612884	25.0000	23
81	Benzo(k)fluoranthene	252	10.808	10.808	(0.974)	649141	25.0000	27
82	Benzo(a)pyrene	252	11.043	11.043	(0.995)	585561	25.0000	25
* 83	Perylene-d12	264	11.102	11.102	(1.000)	910107	40.0000	
84	Indeno(1,2,3-cd)pyrene	276	12.069	12.069	(1.087)	564315	25.0000	23
85	Dibenzo(a,h)anthracene	278	12.112	12.112	(1.091)	574557	25.0000	25
86	Benzo(g,h,i)perylene	276	12.363	12.363	(1.114)	580053	25.0000	25

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.


Data File: \\avogadro\organics\S3.I\131004.B\S317951.D
Date : 04-OCT-2013 09:11
Client ID: SSTD0253H
Sample Info: SSTD0253H,SSTD0253H
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S3.i
Operator: PK SRC: PK
Column diameter: 0.25
Y (x10^6)
Min
\\avogadro\organics\S3.I\131004.B\S317951.D
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
-Naphthalene-d8
-2-Fluorobiphenyl+
-Acenaphthene-d10
-2,4,6-Tribromophenol
-Phenanthrene-d10
-Terphenyl-d14
Chrysene-d12+
-Perylene-d12

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\130906.B\S3I7581C.D
Lab Smp Id: DFTPP3T Client Smp ID: DFTPP3T
Inj Date : 06-SEP-2013 12:07
Operator : PK SRC: PK Inst ID: S3.i
Smp Info : DFTPP3T,DFTPP3T
Misc Info :
Comment :
Method : \\avogadro\organics\S3.I\130906.B\S3_dftppSOM.m
Meth Date : 21-Aug-2013 10:38 pkaczorows Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 100 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf * Vf/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
2.864	3.450	-0.586	198	1157632			0.00- 100.00	100.00
2.864	3.450	-0.586	51	378304			10.00- 80.00	32.68
2.864	3.450	-0.586	68	0	0.0	0.0	0.00- 2.00	0.00
2.864	3.450	-0.586	69	419648			0.00- 0.00	36.25
2.864	3.450	-0.586	70	1375			0.00- 2.00	0.33
2.864	3.450	-0.586	127	508608			10.00- 80.00	43.94
2.864	3.450	-0.586	197	0	0.0	0.0	0.00- 2.00	0.00
2.864	3.450	-0.586	199	83456			5.00- 9.00	7.21
2.864	3.450	-0.586	275	307584			10.00- 60.00	26.57
2.864	3.450	-0.586	365	34448			1.00- 0.00	2.98
2.864	3.450	-0.586	441	121968			0.01- 99.99	74.30
2.864	3.450	-0.586	442	828672			50.00- 100.00	71.58
2.864	3.450	-0.586	443	164160			15.00- 24.00	19.81

Data File: \\avogadro\organics\S3.I\130906.B\S3I7581C.D

Date : 06-SEP-2013 12:07

Client ID: DFTPP3T

Instrument: S3.i

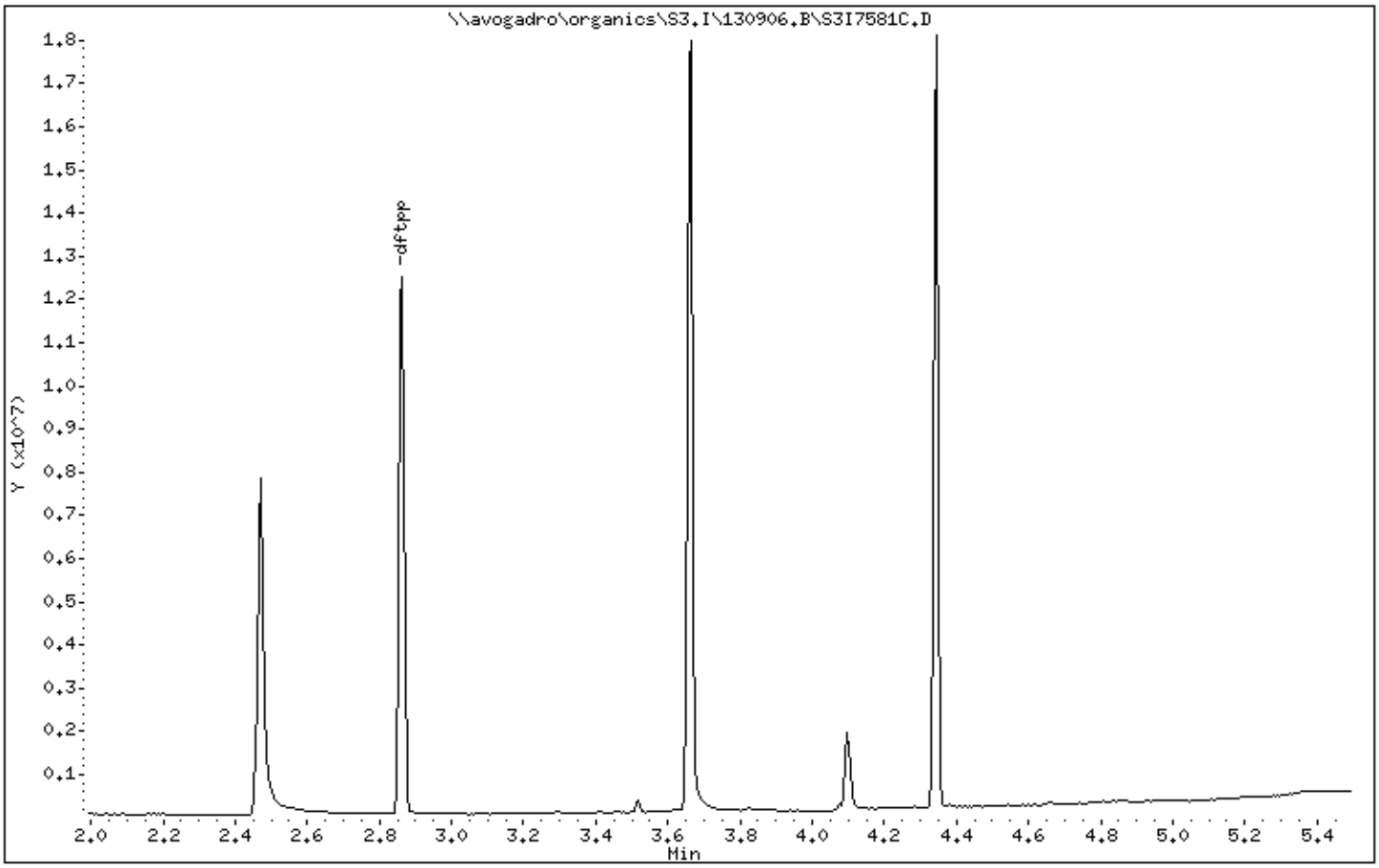
Sample Info: DFTPP3T,DFTPP3T

Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25



Data File: \\avogadro\organics\S3.I\130906.B\S3I7581C.D

Date : 06-SEP-2013 12:07

Client ID: DFTPP3T

Instrument: S3.i

Sample Info: DFTPP3T,DFTPP3T

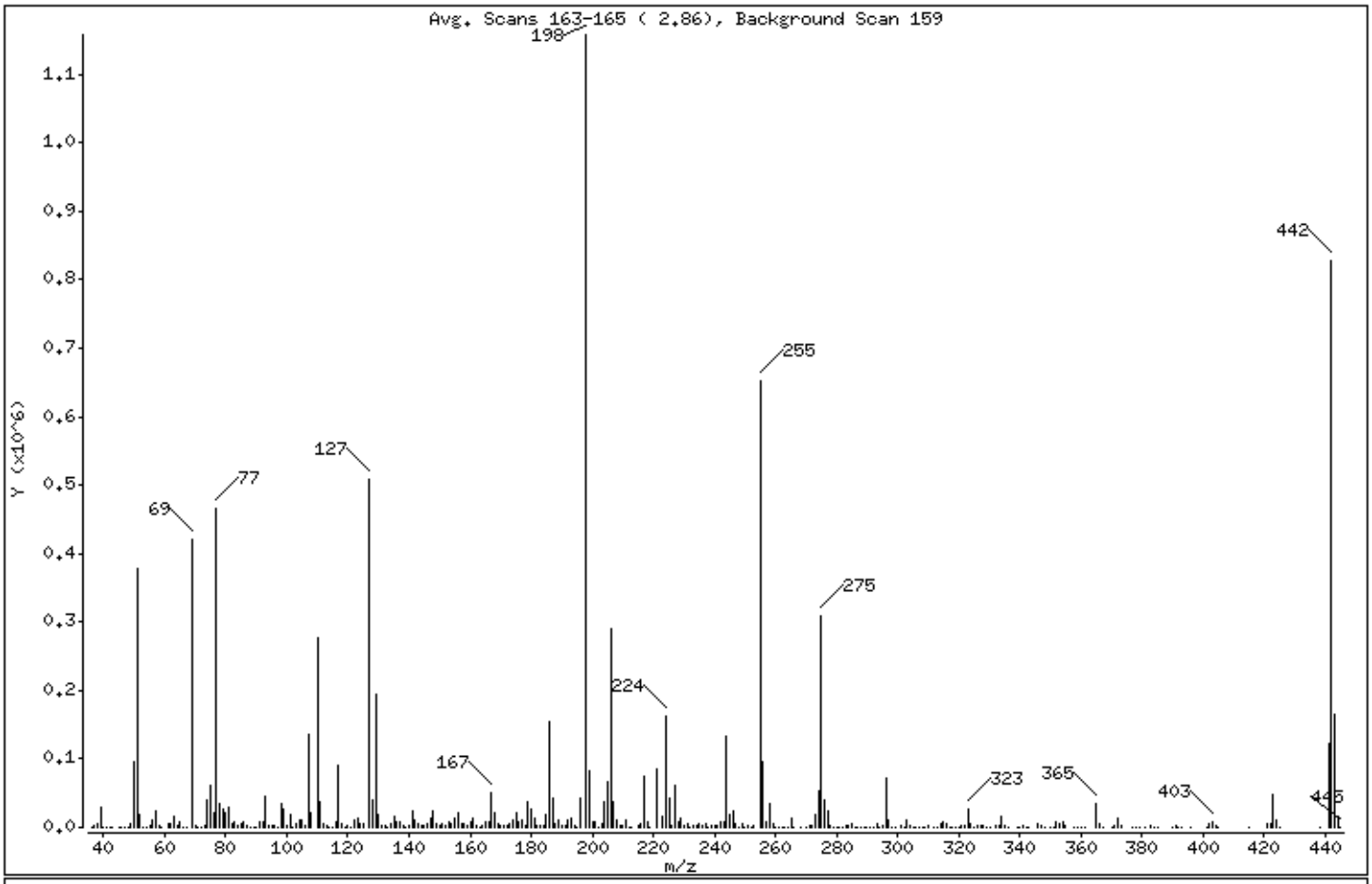
Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	32.68
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	36.25
70	Less than 2.00% of mass 69	0.12 (0.33)
127	10.00 - 80.00% of mass 198	43.94
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.21
275	10.00 - 60.00% of mass 198	26.57
365	Greater than 1.00% of mass 198	2.98
441	Present, but less than mass 443	10.54
442	50.00 - 100.00% of mass 198	71.58
443	15.00 - 24.00% of mass 442	14.18 (19.81)

Date : 06-SEP-2013 12:07

Client ID: DFTPP3T Instrument: S3.i

Sample Info: DFTPP3T,DFTPP3T

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S3I7581C.D
Spectrum: Avg. Scans 163-165 (2.86), Background Scan 159
Location of Maximum: 198.00
Number of points: 340

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	434	127.00	508608	215.00	3132	307.00	532
37.00	2203	128.00	38704	216.00	5372	308.00	1081
38.00	4784	129.00	193472	217.00	73216	309.00	797
39.00	29144	130.00	17384	218.00	8703	310.00	1534
40.00	692	131.00	3534	219.00	914	312.00	461
41.00	722	132.00	2104	221.00	84392	313.00	767
42.00	160	133.00	8	223.00	16928	314.00	4168
43.00	389	134.00	5459	224.00	161856	315.00	8289
45.00	348	135.00	14867	225.00	41424	316.00	5367
46.00	117	136.00	7158	226.00	2019	317.00	734
47.00	102	137.00	6923	227.00	61328	318.00	155
48.00	234	138.00	1390	228.00	8559	319.00	101
49.00	4330	139.00	904	229.00	14553	320.00	541
50.00	96192	140.00	2601	230.00	2068	321.00	2075
51.00	378304	141.00	23584	231.00	6551	322.00	1368
52.00	18112	142.00	9453	232.00	680	323.00	27080
53.00	288	143.00	6489	233.00	1431	324.00	5086
54.00	301	144.00	1466	234.00	3604	325.00	505
55.00	2020	145.00	2011	235.00	4795	326.00	1334
56.00	11219	146.00	4600	236.00	3191	327.00	3688
57.00	24704	147.00	12183	237.00	4964	328.00	2582
58.00	1794	148.00	25136	238.00	1090	329.00	660
59.00	505	149.00	6291	239.00	3167	330.00	236
61.00	4250	150.00	2470	240.00	2273	332.00	2109
62.00	5668	151.00	4275	241.00	3940	333.00	2404
63.00	15143	152.00	2485	242.00	7708	334.00	14779
64.00	1860	153.00	7157	243.00	8737	335.00	3895
65.00	8124	154.00	5293	244.00	132928	336.00	681
66.00	425	155.00	14147	245.00	18032	339.00	417
67.00	523	156.00	22280	246.00	24496	340.00	243
69.00	419648	157.00	4922	247.00	4812	341.00	2310
70.00	1375	158.00	5464	248.00	1199	342.00	512
71.00	354	159.00	3593	249.00	4495	343.00	143
72.00	140	160.00	7197	250.00	987	346.00	4928
73.00	3218	161.00	12220	251.00	1669	347.00	1604

Date : 06-SEP-2013 12:07

Client ID: DFTPP3T Instrument: S3.i

Sample Info: DFTPP3T,DFTPP3T

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S3I7581C.D
Spectrum: Avg. Scans 163-165 (2.86), Background Scan 159
Location of Maximum: 198.00
Number of points: 340

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	40576	162.00	3339	252.00	1173	348.00	153
75.00	62016	163.00	985	253.00	2876	350.00	244
76.00	21296	164.00	1372	255.00	651392	351.00	458
77.00	464448	165.00	8092	256.00	95648	352.00	8171
78.00	33344	166.00	7535	257.00	7474	353.00	4702
79.00	27432	167.00	49248	258.00	34448	354.00	8607
80.00	22384	168.00	21312	259.00	6568	355.00	2052
81.00	29248	169.00	4193	260.00	284	358.00	123
82.00	6359	170.00	1805	261.00	1154	359.00	659
83.00	7313	171.00	2752	262.00	167	360.00	126
84.00	1597	172.00	3330	263.00	176	361.00	559
85.00	6276	173.00	6473	264.00	825	365.00	34448
86.00	8913	174.00	11440	265.00	13195	366.00	4661
87.00	3979	175.00	20896	266.00	685	367.00	247
88.00	1303	176.00	7412	268.00	238	370.00	573
89.00	829	177.00	9375	270.00	580	371.00	2048
90.00	319	178.00	3059	271.00	1530	372.00	12512
91.00	7945	179.00	36816	272.00	1598	373.00	3507
92.00	7978	180.00	26232	273.00	18568	377.00	363
93.00	45584	181.00	13987	274.00	54480	378.00	104
94.00	3387	182.00	3067	275.00	307584	379.00	117
95.00	1519	183.00	2076	276.00	40872	381.00	106
96.00	1930	184.00	2784	277.00	22744	383.00	3897
97.00	698	185.00	18416	278.00	3684	384.00	951
98.00	35232	186.00	154624	279.00	1318	385.00	146
99.00	27464	187.00	43224	280.00	139	390.00	1322
100.00	2773	188.00	5306	281.00	615	391.00	1443
101.00	18032	189.00	10216	282.00	622	392.00	790
102.00	994	190.00	1713	283.00	2939	393.00	224
103.00	6178	191.00	3840	284.00	2179	396.00	216
104.00	11789	192.00	11058	285.00	4778	401.00	655
105.00	10708	193.00	12461	286.00	473	402.00	4532
106.00	1473	194.00	3383	287.00	107	403.00	6925
107.00	136960	195.00	1235	288.00	395	404.00	2418
108.00	20928	196.00	42728	289.00	1231	405.00	333

Date : 06-SEP-2013 12:07

Client ID: DFTPP3T Instrument: S3.i

Sample Info: DFTPP3T,DFTPP3T

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S3I7581C.D
Spectrum: Avg. Scans 163-165 (2.86), Background Scan 159
Location of Maximum: 198.00
Number of points: 340

m/z	Y	m/z	Y	m/z	Y	m/z	Y
110.00	277696	198.00	1157632	290.00	770	415.00	522
111.00	37120	199.00	83456	291.00	597	421.00	5677
112.00	4711	200.00	6845	292.00	1099	422.00	5520
113.00	1840	201.00	7854	293.00	5303	423.00	46632
114.00	696	202.00	40	294.00	1253	424.00	9468
115.00	198	203.00	6607	295.00	1501	425.00	473
116.00	8489	204.00	38584	296.00	73120	438.00	103
117.00	90040	205.00	66592	297.00	10683	441.00	121968
118.00	5998	206.00	290240	298.00	747	442.00	828672
119.00	756	207.00	38536	299.00	361	443.00	164160
120.00	1536	208.00	10366	301.00	1405	444.00	15737
121.00	1217	209.00	3554	302.00	1288	445.00	813
122.00	9531	210.00	3822	303.00	9570		
123.00	13511	211.00	11724	304.00	2717		
124.00	5424	212.00	812	305.00	139		
125.00	5703	213.00	887	306.00	330		

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\131004.B\S3I7950A.D
Lab Smp Id: DFTPP3H Client Smp ID: DFTPP3H
Inj Date : 04-OCT-2013 08:59
Operator : PK SRC: PK Inst ID: S3.i
Smp Info : DFTPP3H,DFTPP3H
Misc Info :
Comment :
Method : \\avogadro\organics\S3.I\131004.B\S3_dftppSOM.m
Meth Date : 19-Sep-2013 15:39 pkaczorows Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 100 QC Sample: DFTPP
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf * Vf/Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 dftpp						CAS #: 5074-71-5		
2.656	2.737	-0.081	198	2041344			0.00- 100.00	100.00
2.656	2.737	-0.081	51	902912			10.00- 80.00	44.23
2.656	2.737	-0.081	68	0	0.0	0.0	0.00- 2.00	0.00
2.656	2.737	-0.081	69	947008			0.00- 0.00	46.39
2.656	2.737	-0.081	70	2468			0.00- 2.00	0.26
2.656	2.737	-0.081	127	1058304			10.00- 80.00	51.84
2.656	2.737	-0.081	197	0	0.0	0.0	0.00- 2.00	0.00
2.656	2.737	-0.081	199	153600			5.00- 9.00	7.52
2.656	2.737	-0.081	275	530304			10.00- 60.00	25.98
2.656	2.737	-0.081	365	50976			1.00- 0.00	2.50
2.656	2.737	-0.081	441	165184			0.01- 99.99	80.08
2.656	2.737	-0.081	442	1051648			50.00- 100.00	51.52
2.656	2.737	-0.081	443	206272			15.00- 24.00	19.61

Data File: \\avogadro\organics\S3.I\131004.B\S3I7950A.D

Date : 04-OCT-2013 08:59

Client ID: DFTPP3H

Instrument: S3.i

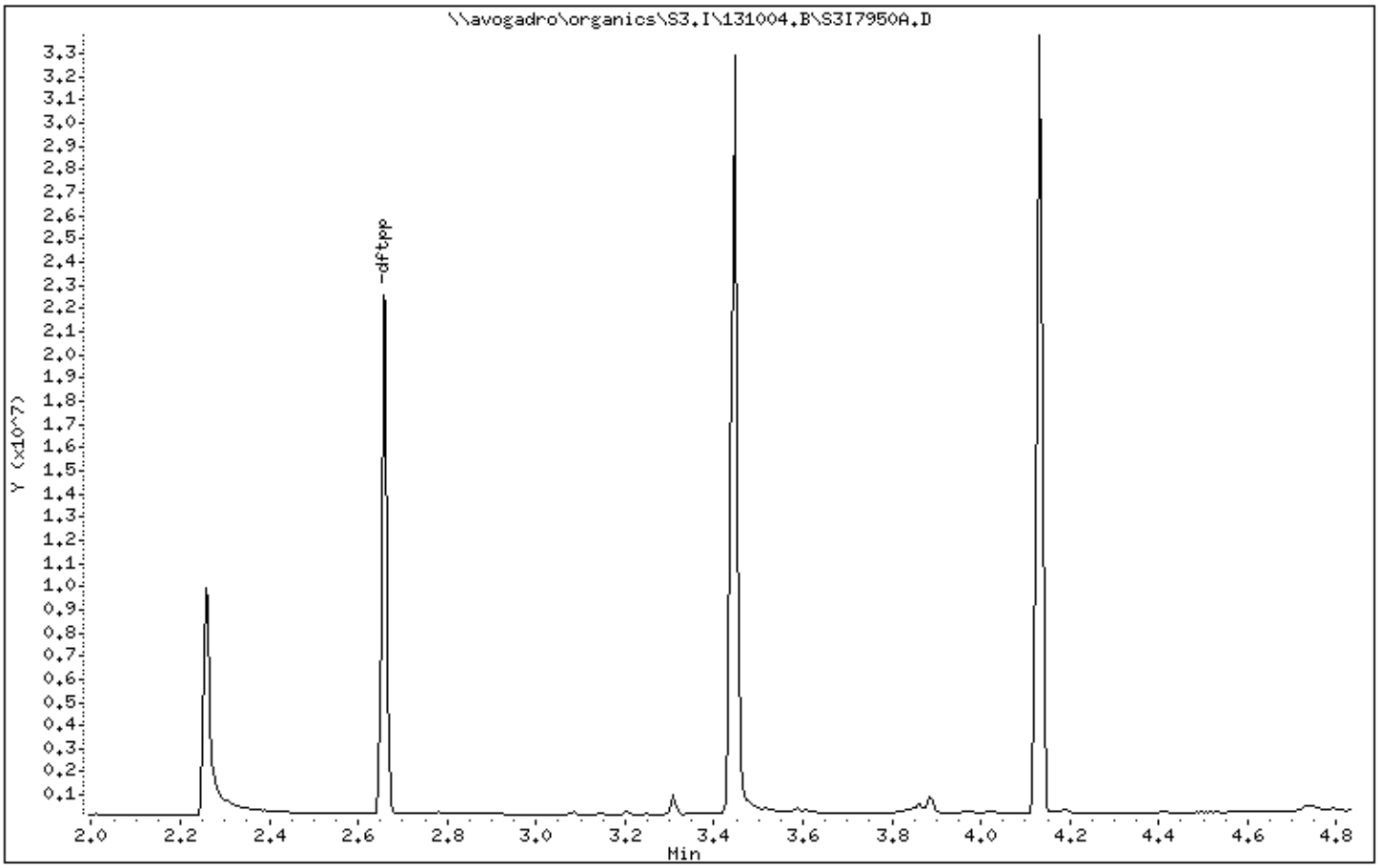
Sample Info: DFTPP3H,DFTPP3H

Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25



Data File: \\avogadro\organics\S3.I\131004.B\S3I7950A.D

Date : 04-OCT-2013 08:59

Client ID: DFTPP3H

Instrument: S3.i

Sample Info: DFTPP3H,DFTPP3H

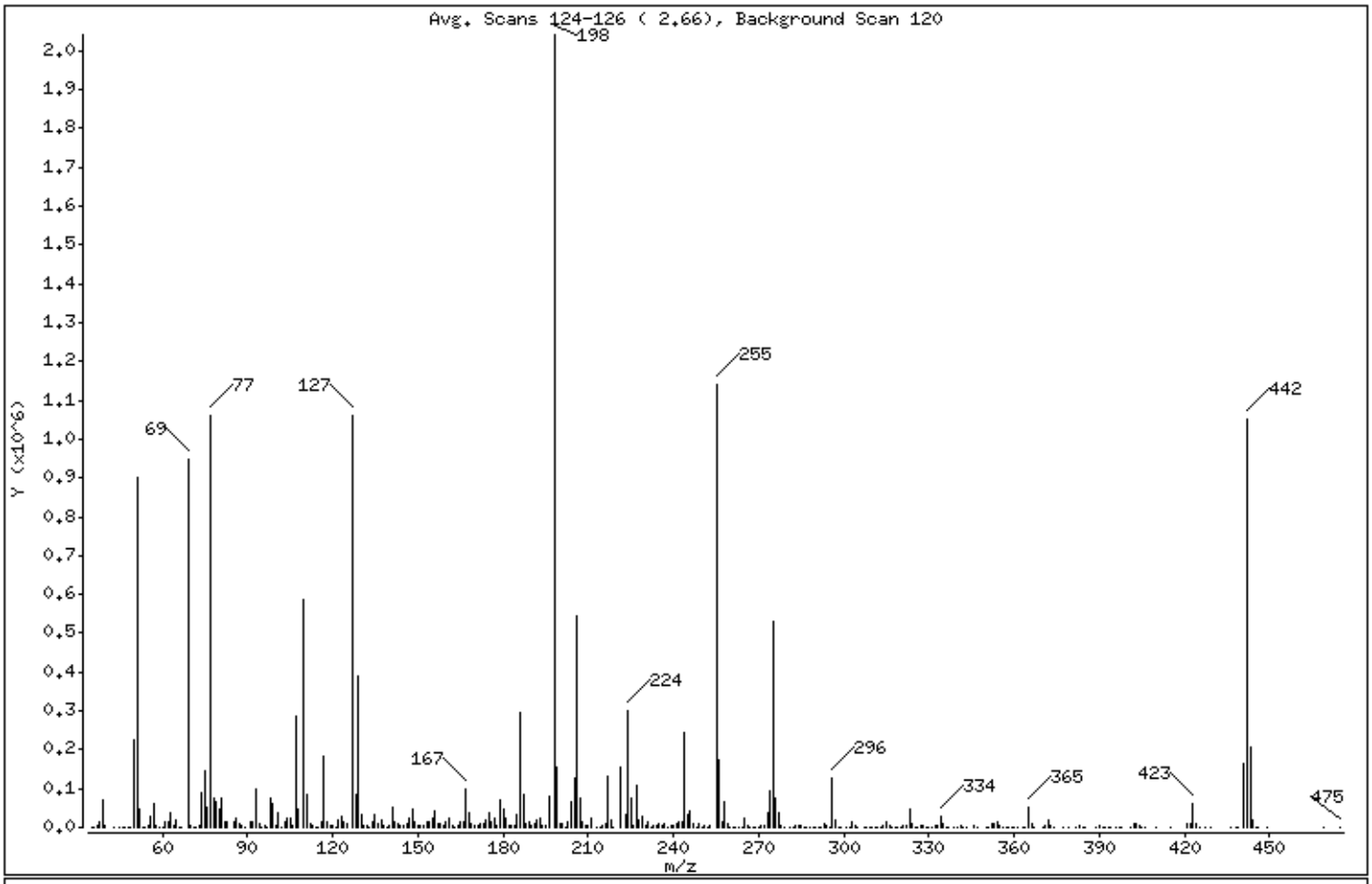
Volume Injected (uL): 2.0

Operator: PK SRC: PK

Column phase: RXi-5SILMS

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	44.23
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	46.39
70	Less than 2.00% of mass 69	0.12 (0.26)
127	10.00 - 80.00% of mass 198	51.84
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.52
275	10.00 - 60.00% of mass 198	25.98
365	Greater than 1.00% of mass 198	2.50
441	Present, but less than mass 443	8.09
442	50.00 - 100.00% of mass 198	51.52
443	15.00 - 24.00% of mass 442	10.10 (19.61)

Date : 04-OCT-2013 08:59

Client ID: DFTPP3H Instrument: S3.i

Sample Info: DFTPP3H,DFTPP3H

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S3I7950A.D
Spectrum: Avg. Scans 124-126 (2.66), Background Scan 120
Location of Maximum: 198.00
Number of points: 358

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	1318	133.00	1949	227.00	109184	321.00	4450
36.00	339	134.00	12271	228.00	17240	322.00	2378
37.00	3044	135.00	32176	229.00	27648	323.00	45856
38.00	12050	136.00	11528	230.00	4093	324.00	7942
39.00	69488	137.00	18496	231.00	11938	325.00	1222
40.00	2787	138.00	3440	232.00	1050	326.00	969
43.00	572	139.00	2196	233.00	2374	327.00	6790
45.00	1828	140.00	4932	234.00	5790	328.00	4359
46.00	144	141.00	50488	235.00	8778	329.00	452
47.00	1247	142.00	15193	236.00	6297	330.00	627
48.00	342	143.00	10821	237.00	11007	331.00	327
49.00	2226	144.00	4979	238.00	1659	332.00	2803
50.00	225024	145.00	2764	239.00	5353	333.00	4477
51.00	902912	146.00	9115	240.00	2551	334.00	29088
52.00	47256	147.00	23128	241.00	7403	335.00	7395
53.00	1655	148.00	48632	242.00	15293	336.00	1071
54.00	481	149.00	12657	243.00	16137	337.00	120
55.00	3028	150.00	4395	244.00	243648	339.00	614
56.00	27536	151.00	6436	245.00	33416	340.00	987
57.00	62432	152.00	4452	246.00	42328	341.00	5547
58.00	2879	153.00	15154	247.00	7847	342.00	1326
59.00	548	154.00	12647	248.00	2251	343.00	107
60.00	552	155.00	25248	249.00	8669	346.00	6892
61.00	12422	156.00	40680	250.00	1875	347.00	1703
62.00	13805	157.00	9954	251.00	2468	350.00	400
63.00	35432	158.00	9785	252.00	2182	351.00	621
64.00	5707	159.00	6390	253.00	3996	352.00	11125
65.00	20152	160.00	16382	255.00	1140224	353.00	8774
66.00	1995	161.00	24120	256.00	175168	354.00	12968
67.00	412	162.00	6394	257.00	13748	355.00	2762
69.00	947008	163.00	2283	258.00	65464	356.00	154
70.00	2468	164.00	2407	259.00	10895	357.00	255
71.00	905	165.00	15868	260.00	2198	358.00	405
72.00	704	166.00	15153	261.00	2040	359.00	751
73.00	6632	167.00	97528	262.00	186	360.00	405

Date : 04-OCT-2013 08:59

Client ID: DFTPP3H Instrument: S3.i

Sample Info: DFTPP3H,DFTPP3H

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S3I7950A.D
Spectrum: Avg. Scans 124-126 (2.66), Background Scan 120
Location of Maximum: 198.00
Number of points: 358

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	89184	168.00	39144	263.00	649	361.00	372
75.00	147584	169.00	8208	264.00	1468	363.00	288
76.00	52824	170.00	2868	265.00	25152	364.00	637
77.00	1059328	171.00	4944	266.00	4241	365.00	50976
78.00	74704	172.00	10889	267.00	1105	366.00	7404
79.00	64088	173.00	10666	268.00	1866	367.00	680
80.00	48336	174.00	20280	269.00	417	370.00	1619
81.00	73360	175.00	35512	270.00	875	371.00	3454
82.00	14135	176.00	12170	271.00	2503	372.00	20344
83.00	16249	177.00	21272	272.00	2816	373.00	3876
85.00	13026	178.00	6473	273.00	36352	374.00	615
86.00	21856	179.00	69944	274.00	95424	377.00	243
87.00	8532	180.00	48416	275.00	530304	379.00	145
88.00	4132	181.00	23880	276.00	73296	382.00	156
89.00	1380	182.00	3848	277.00	38400	383.00	5613
91.00	15278	183.00	2645	278.00	6884	384.00	1436
92.00	16392	184.00	6138	279.00	1476	385.00	566
93.00	100008	185.00	33016	281.00	395	389.00	268
94.00	8398	186.00	294976	282.00	1506	390.00	2521
95.00	1885	187.00	82360	283.00	5101	391.00	1780
96.00	5536	188.00	8377	284.00	3232	392.00	1748
97.00	1691	189.00	16408	285.00	6725	393.00	177
98.00	73392	190.00	3183	286.00	1775	394.00	136
99.00	60224	191.00	8359	287.00	490	396.00	144
100.00	5056	192.00	19464	288.00	864	397.00	110
101.00	36008	193.00	25192	289.00	1801	398.00	154
102.00	1860	194.00	4782	290.00	1162	401.00	489
103.00	14046	195.00	3444	291.00	1537	402.00	7539
104.00	23976	196.00	78016	292.00	2044	403.00	10773
105.00	23032	198.00	2041344	293.00	7990	404.00	3308
106.00	4742	199.00	153600	294.00	2754	405.00	396
107.00	288448	200.00	9533	295.00	1178	406.00	159
108.00	46032	201.00	9912	296.00	126496	410.00	255
110.00	588864	202.00	90	297.00	18232	415.00	630
111.00	83816	203.00	14329	298.00	1259	421.00	7794

Date : 04-OCT-2013 08:59

Client ID: DFTPP3H Instrument: S3.i

Sample Info: DFTPP3H,DFTPP3H

Volume Injected (uL): 2.0 Operator: PK SRC: PK

Column phase: RXi-5SILMS Column diameter: 0.25

Data File: S3I7950A.D
Spectrum: Avg. Scans 124-126 (2.66), Background Scan 120
Location of Maximum: 198.00
Number of points: 358

m/z	Y	m/z	Y	m/z	Y	m/z	Y
112.00	10520	204.00	67208	299.00	555	422.00	8050
113.00	4030	205.00	125592	301.00	1731	423.00	63064
114.00	1147	206.00	545472	302.00	2291	424.00	11688
115.00	1778	207.00	73936	303.00	15087	425.00	726
116.00	16097	208.00	15324	304.00	3941	427.00	123
117.00	182016	209.00	5197	305.00	849	429.00	106
118.00	14914	210.00	4701	307.00	205	436.00	164
119.00	2589	211.00	21360	308.00	2033	438.00	124
120.00	3943	213.00	1709	309.00	1530	439.00	140
121.00	1351	214.00	694	310.00	2166	441.00	165184
122.00	17648	215.00	4552	311.00	368	442.00	1051648
123.00	27760	216.00	10502	312.00	963	443.00	206272
124.00	12685	217.00	131264	313.00	1684	444.00	19968
125.00	10942	218.00	17464	314.00	6199	445.00	1180
127.00	1058304	219.00	2287	315.00	14315	446.00	114
128.00	83856	221.00	156096	316.00	6729	449.00	130
129.00	391744	223.00	32384	317.00	1782	469.00	106
130.00	31280	224.00	298688	318.00	102	475.00	114
131.00	6362	225.00	73192	319.00	226		
132.00	3588	226.00	6169	320.00	895		

EPA SAMPLE NO.
MB-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-74029

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7960.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2´-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
111-91-1	Bis(2-chloroethoxy)methane	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	670	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	670	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	670	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	670	U
100-02-7	4-Nitrophenol	670	U
132-64-9	Dibenzofuran	330	U

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-74029

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7960.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	670	U
534-52-1	4,6-Dinitro-2-methylphenol	670	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	670	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3´-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

Data File: \\avogadro\organics\S3.I\131004.B\S3I7960.D
Report Date: 07-Oct-2013 11:10

Spectrum Analytical, Inc. RI Division

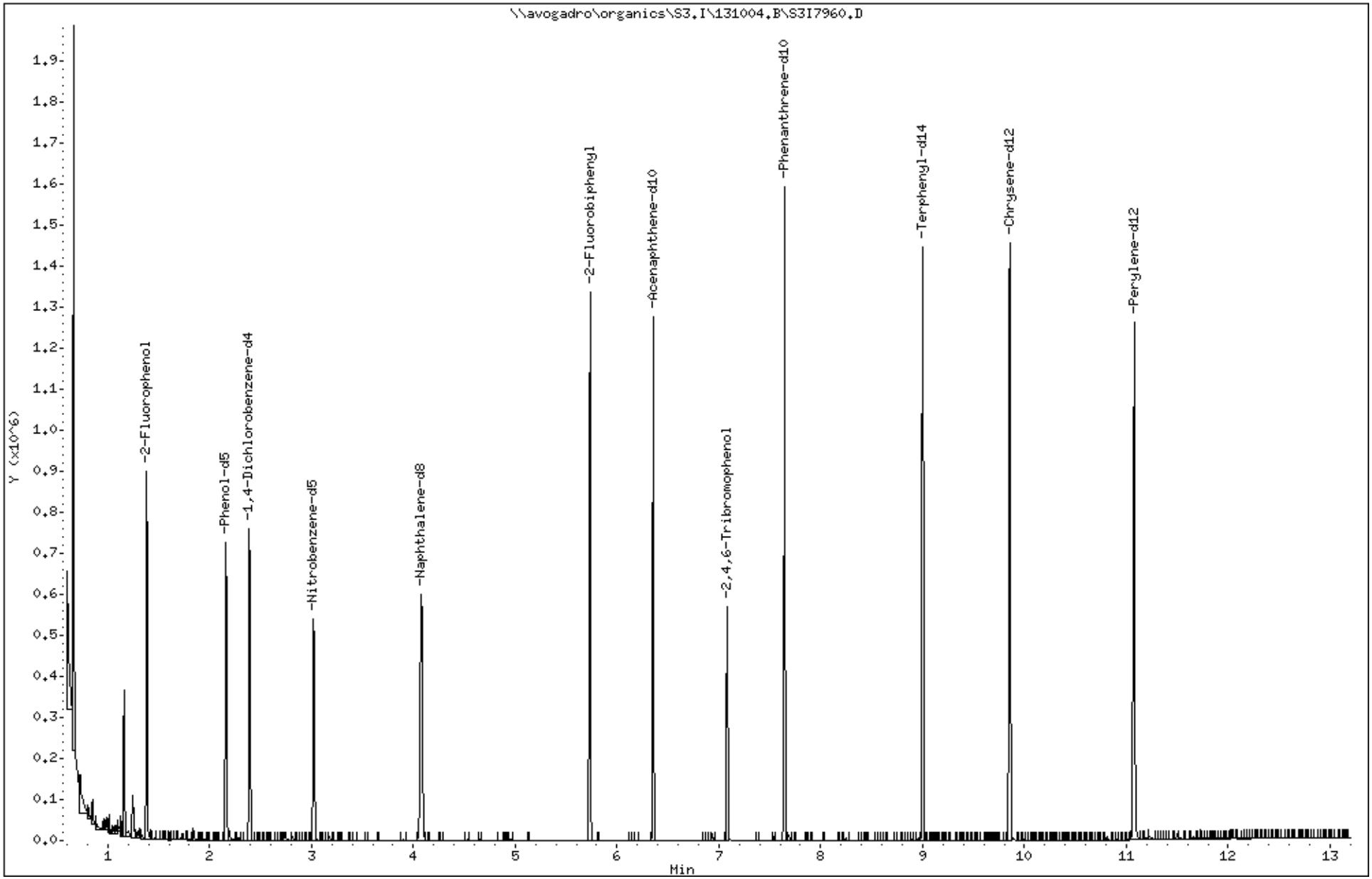
Data file : \\avogadro\organics\S3.I\131004.B\S3I7960.D
Lab Smp Id: MB-74029 Client Smp ID: MB-74029
Inj Date : 04-OCT-2013 12:45
Operator : PK SRC: LIMS Inst ID: S3.i
Smp Info : MB-74029,MB-74029,74029
Misc Info :
Comment   :
Method   : \\avogadro\organics\S3.I\131004.B\s3_8270C_N.m
Meth Date : 07-Oct-2013 11:10 S3.i Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 10 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
$ 3 2-Fluorophenol	112	1.379	1.379	(0.577)	186449	44.7812	3000
$ 5 Phenol-d5	99	2.159	2.170	(0.904)	247548	45.8461	3000
* 12 1,4-Dichlorobenzene-d4	152	2.389	2.394	(1.000)	119663	40.0000	
$ 22 Nitrobenzene-d5	82	3.019	3.030	(0.741)	195822	46.1925	3100
* 31 Naphthalene-d8	136	4.077	4.093	(1.000)	456225	40.0000	
$ 41 2-Fluorobiphenyl	172	5.733	5.739	(0.902)	385386	44.2695	3000
* 48 Acenaphthene-d10	164	6.358	6.364	(1.000)	264968	40.0000	
$ 60 2,4,6-Tribromophenol	330	7.085	7.090	(0.927)	52070	42.3445	2800
* 64 Phenanthrene-d10	188	7.646	7.656	(1.000)	502303	40.0000	
$ 72 Terphenyl-d14	244	9.003	9.003	(0.913)	470313	44.8969	3000
* 76 Chrysene-d12	240	9.857	9.868	(1.000)	539363	40.0000	
* 83 Perylene-d12	264	11.075	11.102	(1.000)	513015	40.0000	

Data File: \\avogadro\organics\S3.I\131004.B\S3I7960.D
Date : 04-OCT-2013 12:45
Client ID: MB-74029
Instrument: S3.i
Sample Info: MB-74029,MB-74029,74029
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-74029

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7961.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3100	
111-44-4	Bis(2-chloroethyl)ether	3300	
95-57-8	2-Chlorophenol	3000	
541-73-1	1,3-Dichlorobenzene	2700	
106-46-7	1,4-Dichlorobenzene	2700	
95-50-1	1,2-Dichlorobenzene	2800	
95-48-7	2-Methylphenol	3000	
108-60-1	2,2´-oxybis(1-Chloropropane)	3300	
106-44-5	4-Methylphenol	3000	
621-64-7	N-Nitroso-di-n-propylamine	3100	
67-72-1	Hexachloroethane	2800	
98-95-3	Nitrobenzene	3100	
78-59-1	Isophorone	2900	
88-75-5	2-Nitrophenol	2900	
105-67-9	2,4-Dimethylphenol	2700	
120-83-2	2,4-Dichlorophenol	2900	
120-82-1	1,2,4-Trichlorobenzene	2700	
91-20-3	Naphthalene	2900	
106-47-8	4-Chloroaniline	2000	
111-91-1	Bis(2-chloroethoxy)methane	3000	
87-68-3	Hexachlorobutadiene	2700	
59-50-7	4-Chloro-3-methylphenol	2900	
91-57-6	2-Methylnaphthalene	3000	
77-47-4	Hexachlorocyclopentadiene	2500	
88-06-2	2,4,6-Trichlorophenol	2900	
95-95-4	2,4,5-Trichlorophenol	2900	
91-58-7	2-Chloronaphthalene	2900	
88-74-4	2-Nitroaniline	3100	
131-11-3	Dimethylphthalate	2800	
208-96-8	Acenaphthylene	2900	
606-20-2	2,6-Dinitrotoluene	2900	
99-09-2	3-Nitroaniline	2200	
83-32-9	Acenaphthene	2900	
51-28-5	2,4-Dinitrophenol	3100	
100-02-7	4-Nitrophenol	2800	
132-64-9	Dibenzofuran	2900	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-74029

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7961.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	3000	
84-66-2	Diethylphthalate	2800	
7005-72-3	4-Chlorophenyl-phenylether	2800	
86-73-7	Fluorene	2800	
100-01-6	4-Nitroaniline	2600	
534-52-1	4,6-Dinitro-2-methylphenol	2600	
86-30-6	N-Nitrosodiphenylamine	2900	
101-55-3	4-Bromophenyl-phenylether	2700	
118-74-1	Hexachlorobenzene	2700	
87-86-5	Pentachlorophenol	2800	
85-01-8	Phenanthrene	2800	
120-12-7	Anthracene	2800	
86-74-8	Carbazole	2800	
84-74-2	Di-n-butylphthalate	2800	
206-44-0	Fluoranthene	2700	
129-00-0	Pyrene	3000	
85-68-7	Butylbenzylphthalate	2900	
91-94-1	3,3´-Dichlorobenzidine	2100	
56-55-3	Benzo(a)anthracene	2700	
218-01-9	Chrysene	2800	
117-81-7	Bis(2-ethylhexyl)phthalate	2900	
117-84-0	Di-n-octylphthalate	3100	
205-99-2	Benzo(b)fluoranthene	2700	
207-08-9	Benzo(k)fluoranthene	3100	
50-32-8	Benzo(a)pyrene	2900	
193-39-5	Indeno(1,2,3-cd)pyrene	2600	
53-70-3	Dibenzo(a,h)anthracene	2800	
191-24-2	Benzo(g,h,i)perylene	2900	

Data File: \\avogadro\organics\S3.I\131004.B\S3I7961.D
Report Date: 07-Oct-2013 11:10

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\131004.B\S3I7961.D
Lab Smp Id: LCS-74029 Client Smp ID: LCS-74029
Inj Date : 04-OCT-2013 13:06
Operator : PK SRC: LIMS Inst ID: S3.i
Smp Info : LCS-74029,LCS-74029,74029
Misc Info :
Comment   :
Method   : \\avogadro\organics\S3.I\131004.B\s3_8270C_N.m
Meth Date : 07-Oct-2013 11:10 S3.i Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
$	3 2-Fluorophenol	112	1.384	1.379	(0.578)	209078	47.2950	3200
$	5 Phenol-d5	99	2.164	2.170	(0.904)	272540	47.5384	3200
	6 Phenol	94	2.180	2.181	(0.911)	278921	46.7379	3100
	8 bis(2-Chloroethyl)Ether	63	2.164	2.170	(0.904)	153203	49.5276	3300
	10 2-Chlorophenol	128	2.212	2.213	(0.924)	207652	44.6149	3000
	11 1,3-Dichlorobenzene	146	2.334	2.336	(0.975)	202767	40.8128	2700
*	12 1,4-Dichlorobenzene-d4	152	2.393	2.394	(1.000)	127054	40.0000	
	13 1,4-Dichlorobenzene	146	2.409	2.416	(1.007)	207327	41.2006	2700
	16 1,2-Dichlorobenzene	146	2.564	2.565	(1.071)	199395	41.5667	2800
	17 2-Methylphenol	108	2.805	2.806	(1.172)	195886	45.3708	3000
	18 2,2'-oxybis(1-Chloropropane)	45	2.751	2.747	(1.150)	255872	49.9140	3300
	20 4-Methylphenol	108	3.008	3.009	(1.257)	209505	45.4571	3000
	19 N-Nitroso-di-n-propylamine	70	2.906	2.907	(1.214)	152695	47.0303	3100
	21 Hexachloroethane	117	2.927	2.929	(1.223)	74937	42.0693	2800
$	22 Nitrobenzene-d5	82	3.029	3.030	(0.741)	212170	46.6955	3100
	23 Nitrobenzene	77	3.050	3.051	(0.746)	214053	46.3730	3100
	24 Isophorone	82	3.382	3.383	(0.827)	370200	43.5887	2900
	25 2-Nitrophenol	139	3.472	3.479	(0.850)	112966	42.9165	2900
	26 2,4-Dimethylphenol	107	3.729	3.730	(0.912)	180975	39.7832	2600

Data File: \\avogadro\organics\S3.I\131004.B\S3I7961.D
Report Date: 07-Oct-2013 11:10

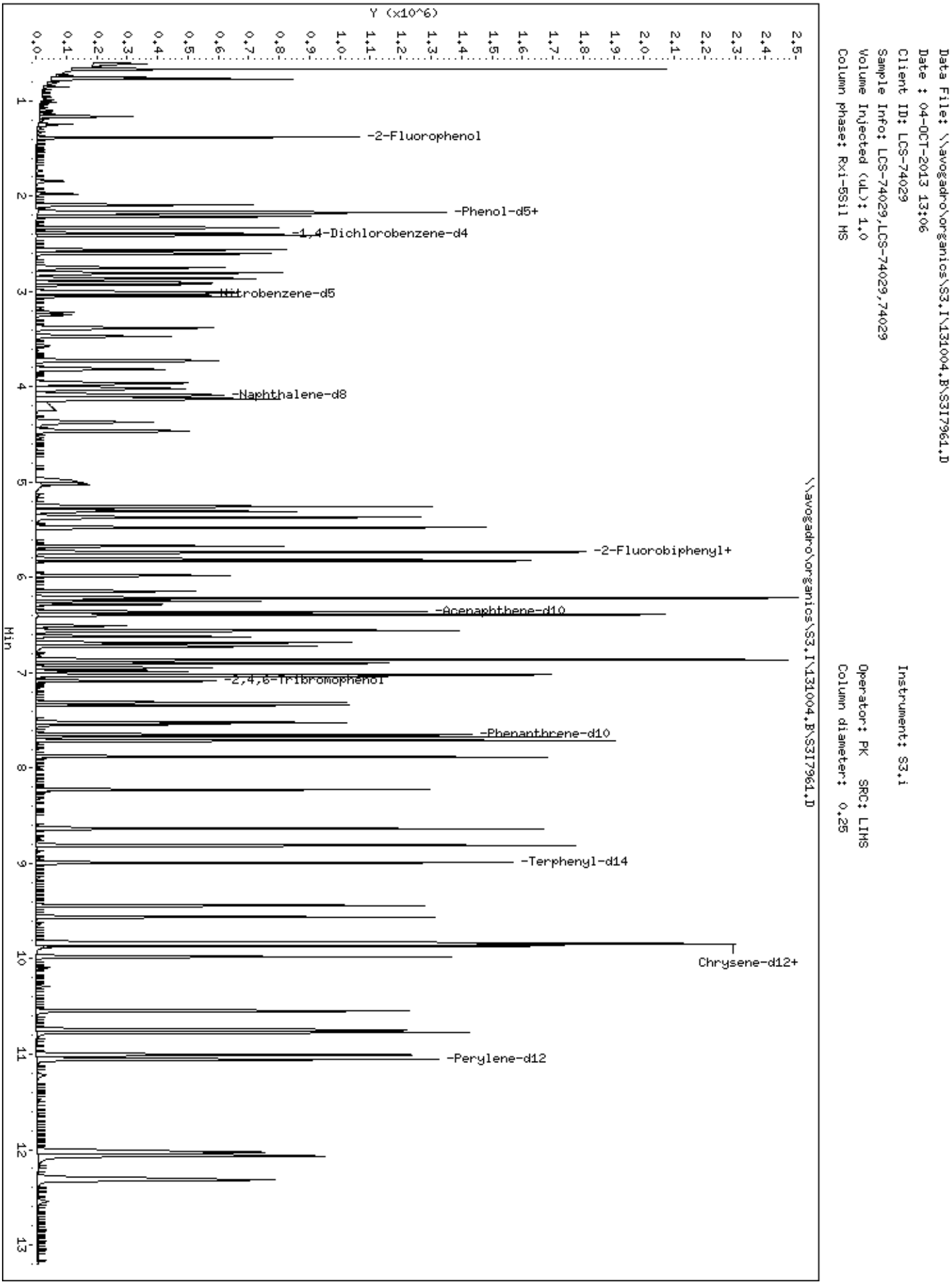
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	27 bis(2-Chloroethoxy)methane	93	3.814	3.815	(0.933)	231489	44.6445	3000
	29 2,4-Dichlorophenol	162	3.958	3.970	(0.969)	171846	43.0700	2900
	30 1,2,4-Trichlorobenzene	180	4.023	4.024	(0.984)	173642	41.1418	2700
*	31 Naphthalene-d8	136	4.087	4.093	(1.000)	488988	40.0000	
	32 Naphthalene	128	4.129	4.136	(1.010)	581522	43.1390	2900
	33 4-Chloroaniline	127	4.370	4.376	(1.069)	174297	29.6805	2000
	34 Hexachlorobutadiene	225	4.461	4.467	(1.091)	93726	40.0106	2700
	35 4-Chloro-3-Methylphenol	107	5.305	5.306	(1.298)	177641	43.1906	2900
	36 2-Methylnaphthalene	142	5.257	5.258	(1.286)	396751	44.3232	3000
	38 Hexachlorocyclopentadiene	237	5.476	5.477	(0.861)	79920	38.1126	2500
	39 2,4,6-Trichlorophenol	196	5.673	5.674	(0.892)	119220	42.8937	2800
	40 2,4,5-Trichlorophenol	196	5.732	5.739	(0.901)	123112	42.9223	2900
$	41 2-Fluorobiphenyl	172	5.737	5.739	(0.902)	414756	44.6732	3000
	42 2-Chloronaphthalene	162	5.807	5.813	(0.913)	351154	44.0935	2900
	43 2-Nitroaniline	65	5.978	5.984	(0.940)	110333	47.0611	3100
	44 Dimethylphthalate	163	6.213	6.219	(0.976)	386965	41.7005	2800
	45 2,6-Dinitrotoluene	165	6.250	6.251	(0.982)	97250	43.0612	2900
	46 Acenaphthylene	152	6.213	6.219	(0.976)	567522	43.1537	2900
	47 3-Nitroaniline	138	6.394	6.396	(1.005)	87163	33.6563	2200
*	48 Acenaphthene-d10	164	6.362	6.364	(1.000)	282584	40.0000	
	49 Acenaphthene	153	6.389	6.396	(1.004)	352709	43.2269	2900
	50 2,4-Dinitrophenol	184	6.507	6.508	(1.023)	46811	45.8784	3000
	51 4-Nitrophenol	109	6.688	6.695	(1.051)	45901	42.6616	2800
	53 2,4-Dinitrotoluene	165	6.619	6.625	(1.040)	131822	44.4541	3000
	52 Dibenzofuran	168	6.555	6.561	(1.030)	510256	42.7624	2800
	54 Diethylphthalate	149	6.865	6.866	(1.079)	379350	41.8536	2800
	56 4-Chlorophenyl-phenylether	204	6.902	6.903	(1.085)	200965	41.5199	2800
	55 Fluorene	166	6.865	6.866	(1.079)	407038	42.0488	2800
	57 4-Nitroaniline	138	6.950	6.951	(1.092)	99380	38.6915	2600
	58 4,6-Dinitro-2-methylphenol	198	6.987	6.989	(0.913)	73448	39.5511	2600(Q)
	59 N-Nitrosodiphenylamine	169	7.020	7.026	(0.918)	355089	42.9025	2900
$	60 2,4,6-Tribromophenol	330	7.089	7.090	(0.927)	51693	40.2905	2700
	61 4-Bromophenyl-phenylether	248	7.308	7.314	(0.955)	110820	40.2472	2700
	62 Hexachlorobenzene	284	7.340	7.347	(0.959)	112038	39.9708	2700
	63 Pentachlorophenol	266	7.543	7.550	(0.986)	70815	41.4139	2800
*	64 Phenanthrene-d10	188	7.650	7.656	(1.000)	524089	40.0000	
	65 Phenanthrene	178	7.666	7.672	(1.002)	576595	42.4729	2800
	66 Anthracene	178	7.709	7.715	(1.008)	596187	42.5446	2800
	67 Carbazole	167	7.880	7.881	(1.030)	568884	42.5500	2800
	68 Di-n-butylphthalate	149	8.227	8.228	(1.075)	637366	42.4397	2800
	69 Fluoranthene	202	8.638	8.645	(1.129)	634151	40.3660	2700
	71 Pyrene	202	8.809	8.821	(0.895)	657821	44.2809	3000
$	72 Terphenyl-d14	244	8.991	9.003	(0.914)	453633	43.2992	2900
	73 Butylbenzylphthalate	149	9.440	9.457	(0.959)	282941	43.7092	2900
	74 3,3'-Dichlorobenzidine	252	9.851	9.879	(1.001)	164605	30.8741	2000
	75 Benzo(a)anthracene	228	9.829	9.857	(0.999)	614327	41.1867	2700(H)
*	76 Chrysene-d12	240	9.840	9.868	(1.000)	539430	40.0000	
	78 bis(2-Ethylhexyl)phthalate	149	9.979	10.007	(1.014)	391680	43.2295	2900
	77 Chrysene	228	9.862	9.889	(1.002)	574691	41.7037	2800
	79 Di-n-octylphthalate	149	10.545	10.579	(0.954)	666999	45.7599	3000
	80 Benzo(b)fluoranthene	252	10.748	10.782	(0.972)	633959	40.6029	2700(H)
	81 Benzo(k)fluoranthene	252	10.775	10.808	(0.974)	634550	46.1393	3100
	82 Benzo(a)pyrene	252	11.010	11.043	(0.996)	583112	43.2864	2900
*	83 Perylene-d12	264	11.058	11.102	(1.000)	527225	40.0000	

Data File: \\avogadro\organics\S3.I\131004.B\S3I7961.D
Report Date: 07-Oct-2013 11:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
84 Indeno(1,2,3-cd)pyrene	276	12.030	12.069	(1.088)	551681	38.3126	2600
85 Dibenzo(a,h)anthracene	278	12.068	12.112	(1.091)	565825	41.9537	2800
86 Benzo(g,h,i)perylene	276	12.319	12.363	(1.114)	575655	43.4929	2900

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.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Date : 04-OCT-2013 13:06
Client ID: LCS-74029
Sample Info: LCS-74029,LCS-74029,74029
Volume Injected (uL): 1.0
Column phase: Rxi-5Sil MS
Instrument: S3,i
Operator: PK SRC: LIMS
Column diameter: 0.25
Y (x10^6)
Min
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
-Naphthalene-d8
-2-Fluorobiphenyl+
-Acenaphthene-d10
-2,4,6-Tribromophenol
-Phenanthrene-d10
-Terphenyl-d14
Chrysene-d12+
-Perylene-d12
\\avogadro\organics\S3,I\131004,B\S317961.D

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSD-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-74029

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7962.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3200	
111-44-4	Bis(2-chloroethyl)ether	3400	
95-57-8	2-Chlorophenol	3100	
541-73-1	1,3-Dichlorobenzene	2800	
106-46-7	1,4-Dichlorobenzene	2800	
95-50-1	1,2-Dichlorobenzene	2800	
95-48-7	2-Methylphenol	3200	
108-60-1	2,2´-oxybis(1-Chloropropane)	3400	
106-44-5	4-Methylphenol	3200	
621-64-7	N-Nitroso-di-n-propylamine	3200	
67-72-1	Hexachloroethane	2900	
98-95-3	Nitrobenzene	3200	
78-59-1	Isophorone	3000	
88-75-5	2-Nitrophenol	2900	
105-67-9	2,4-Dimethylphenol	3000	
120-83-2	2,4-Dichlorophenol	3000	
120-82-1	1,2,4-Trichlorobenzene	2800	
91-20-3	Naphthalene	2900	
106-47-8	4-Chloroaniline	2100	
111-91-1	Bis(2-chloroethoxy)methane	3100	
87-68-3	Hexachlorobutadiene	2700	
59-50-7	4-Chloro-3-methylphenol	3000	
91-57-6	2-Methylnaphthalene	3000	
77-47-4	Hexachlorocyclopentadiene	2600	
88-06-2	2,4,6-Trichlorophenol	3000	
95-95-4	2,4,5-Trichlorophenol	3100	
91-58-7	2-Chloronaphthalene	3000	
88-74-4	2-Nitroaniline	3400	
131-11-3	Dimethylphthalate	2900	
208-96-8	Acenaphthylene	3000	
606-20-2	2,6-Dinitrotoluene	3100	
99-09-2	3-Nitroaniline	2400	
83-32-9	Acenaphthene	3000	
51-28-5	2,4-Dinitrophenol	2900	
100-02-7	4-Nitrophenol	3000	
132-64-9	Dibenzofuran	3000	

1E - FORM I SV-2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSD-74029

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-74029

Sample wt/vol: 15.0 (g/mL) G Lab File ID: S3I7962.D

Level: (LOW/MED) LOW Extraction: (Type) SONC

% Moisture: Decanted: (Y/N) Date Received:

Concentrated Extract Volume: 1000 (uL) Date Extracted: 09/30/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Date Analyzed: 10/04/2013

GPC Cleanup:(Y/N) N pH: Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
121-14-2	2,4-Dinitrotoluene	3100	
84-66-2	Diethylphthalate	3000	
7005-72-3	4-Chlorophenyl-phenylether	3000	
86-73-7	Fluorene	2900	
100-01-6	4-Nitroaniline	2800	
534-52-1	4,6-Dinitro-2-methylphenol	2700	
86-30-6	N-Nitrosodiphenylamine	3100	
101-55-3	4-Bromophenyl-phenylether	2900	
118-74-1	Hexachlorobenzene	2900	
87-86-5	Pentachlorophenol	3100	
85-01-8	Phenanthrene	3000	
120-12-7	Anthracene	3000	
86-74-8	Carbazole	3000	
84-74-2	Di-n-butylphthalate	3000	
206-44-0	Fluoranthene	2900	
129-00-0	Pyrene	3200	
85-68-7	Butylbenzylphthalate	3100	
91-94-1	3,3´-Dichlorobenzidine	2300	
56-55-3	Benzo(a)anthracene	3000	
218-01-9	Chrysene	3000	
117-81-7	Bis(2-ethylhexyl)phthalate	3000	
117-84-0	Di-n-octylphthalate	3200	
205-99-2	Benzo(b)fluoranthene	2700	
207-08-9	Benzo(k)fluoranthene	3500	
50-32-8	Benzo(a)pyrene	3100	
193-39-5	Indeno(1,2,3-cd)pyrene	2800	
53-70-3	Dibenzo(a,h)anthracene	3100	
191-24-2	Benzo(g,h,i)perylene	3200	

Data File: \\avogadro\organics\S3.I\131004.B\S3I7962.D
Report Date: 07-Oct-2013 11:10

Spectrum Analytical, Inc. RI Division

Data file : \\avogadro\organics\S3.I\131004.B\S3I7962.D
Lab Smp Id: LCSD-74029 Client Smp ID: LCSD-74029
Inj Date : 04-OCT-2013 13:28
Operator : PK SRC: LIMS Inst ID: S3.i
Smp Info : LCSD-74029,LCSD-74029,74029
Misc Info :
Comment   :
Method   : \\avogadro\organics\S3.I\131004.B\s3_8270C_N.m
Meth Date : 07-Oct-2013 11:10 S3.i Quant Type: ISTD
Cal Date : 06-SEP-2013 17:02 Cal File: S3I7586B.D
Als bottle: 12 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8270C.sub
Target Version: 4.14
Processing Host: TARGET113

Concentration Formula: Amt * DF * Uf*(Vt/Vi)*(1/Ws)*(100/(100-M)) * CpndVariabl

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	GPC correction factor
Vt	1000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	15.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
$	3 2-Fluorophenol	112	1.388	1.379	(0.580)	208405	48.9241	3300
$	5 Phenol-d5	99	2.168	2.170	(0.906)	269128	48.7170	3200
	6 Phenol	94	2.184	2.181	(0.913)	278391	48.4117	3200
	8 bis(2-Chloroethyl)Ether	63	2.168	2.170	(0.906)	151956	50.9807	3400
	10 2-Chlorophenol	128	2.216	2.213	(0.926)	208180	46.4184	3100
	11 1,3-Dichlorobenzene	146	2.333	2.336	(0.975)	201459	42.0817	2800
*	12 1,4-Dichlorobenzene-d4	152	2.392	2.394	(1.000)	122428	40.0000	
	13 1,4-Dichlorobenzene	146	2.413	2.416	(1.009)	206436	42.5736	2800
	16 1,2-Dichlorobenzene	146	2.563	2.565	(1.071)	196330	42.4743	2800
	17 2-Methylphenol	108	2.809	2.806	(1.174)	198644	47.7481	3200
	18 2,2'-oxybis(1-Chloropropane)	45	2.750	2.747	(1.150)	252869	51.1920	3400
	20 4-Methylphenol	108	3.012	3.009	(1.259)	211867	47.7066	3200
	19 N-Nitroso-di-n-propylamine	70	2.910	2.907	(1.217)	150739	48.1822	3200
	21 Hexachloroethane	117	2.926	2.929	(1.223)	74383	43.3361	2900
$	22 Nitrobenzene-d5	82	3.028	3.030	(0.740)	212191	48.0235	3200
	23 Nitrobenzene	77	3.054	3.051	(0.747)	212489	47.3386	3200
	24 Isophorone	82	3.380	3.383	(0.826)	369901	44.7877	3000
	25 2-Nitrophenol	139	3.471	3.479	(0.849)	113043	44.1627	2900
	26 2,4-Dimethylphenol	107	3.727	3.730	(0.911)	199133	45.0153	3000

Data File: \\avogadro\organics\S3.I\131004.B\S3I7962.D
Report Date: 07-Oct-2013 11:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	27 bis(2-Chloroethoxy)methane	93	3.818	3.815	(0.933)	233164	46.2418	3100
	29 2,4-Dichlorophenol	162	3.962	3.970	(0.969)	171845	44.2902	3000
	30 1,2,4-Trichlorobenzene	180	4.021	4.024	(0.983)	170878	41.6343	2800
*	31 Naphthalene-d8	136	4.091	4.093	(1.000)	475513	40.0000	
	32 Naphthalene	128	4.128	4.136	(1.009)	579055	44.1733	2900
	33 4-Chloroaniline	127	4.368	4.376	(1.068)	181205	31.7313	2100
	34 Hexachlorobutadiene	225	4.465	4.467	(1.091)	92498	40.6053	2700
	35 4-Chloro-3-Methylphenol	107	5.309	5.306	(1.298)	181506	45.3809	3000
	36 2-Methylnaphthalene	142	5.255	5.258	(1.285)	392335	45.0719	3000
	38 Hexachlorocyclopentadiene	237	5.474	5.477	(0.861)	80366	39.6716	2600
	39 2,4,6-Trichlorophenol	196	5.672	5.674	(0.892)	121580	45.2795	3000
	40 2,4,5-Trichlorophenol	196	5.731	5.739	(0.901)	127423	45.9859	3100
$	41 2-Fluorobiphenyl	172	5.736	5.739	(0.902)	416442	46.4305	3100
	42 2-Chloronaphthalene	162	5.811	5.813	(0.914)	350758	45.5910	3000
	43 2-Nitroaniline	65	5.982	5.984	(0.940)	114106	50.3802	3400
	44 Dimethylphthalate	163	6.217	6.219	(0.977)	395497	44.1171	2900
	45 2,6-Dinitrotoluene	165	6.249	6.251	(0.982)	101353	46.4545	3100
	46 Acenaphthylene	152	6.217	6.219	(0.977)	575140	45.2692	3000
	47 3-Nitroaniline	138	6.393	6.396	(1.005)	91909	36.7356	2400
*	48 Acenaphthene-d10	164	6.361	6.364	(1.000)	272994	40.0000	
	49 Acenaphthene	153	6.393	6.396	(1.005)	359221	45.5716	3000
	50 2,4-Dinitrophenol	184	6.505	6.508	(1.023)	42843	43.4645	2900
	51 4-Nitrophenol	109	6.687	6.695	(1.051)	46290	44.5345	3000
	53 2,4-Dinitrotoluene	165	6.623	6.625	(1.041)	134281	46.8741	3100
	52 Dibenzofuran	168	6.559	6.561	(1.031)	515797	44.7453	3000
	54 Diethylphthalate	149	6.863	6.866	(1.079)	390014	44.5418	3000
	56 4-Chlorophenyl-phenylether	204	6.901	6.903	(1.085)	208959	44.6880	3000
	55 Fluorene	166	6.863	6.866	(1.079)	412222	44.0803	2900
	57 4-Nitroaniline	138	6.949	6.951	(1.092)	105204	42.3977	2800
	58 4,6-Dinitro-2-methylphenol	198	6.986	6.989	(0.913)	74436	41.2226	2700(Q)
	59 N-Nitrosodiphenylamine	169	7.024	7.026	(0.918)	367918	45.9842	3100
$	60 2,4,6-Tribromophenol	330	7.088	7.090	(0.927)	54334	43.8081	2900
	61 4-Bromophenyl-phenylether	248	7.312	7.314	(0.956)	115762	43.4907	2900
	62 Hexachlorobenzene	284	7.339	7.347	(0.959)	115892	42.7704	2800
	63 Pentachlorophenol	266	7.542	7.550	(0.986)	76165	46.0775	3100
*	64 Phenanthrene-d10	188	7.649	7.656	(1.000)	506632	40.0000	
	65 Phenanthrene	178	7.670	7.672	(1.003)	586606	44.6992	3000
	66 Anthracene	178	7.707	7.715	(1.008)	611377	45.1319	3000
	67 Carbazole	167	7.878	7.881	(1.030)	582159	45.0433	3000
	68 Di-n-butylphthalate	149	8.225	8.228	(1.075)	646083	44.5025	3000
	69 Fluoranthene	202	8.637	8.645	(1.129)	649824	42.7889	2800
	71 Pyrene	202	8.813	8.821	(0.895)	674911	47.5511	3200
$	72 Terphenyl-d14	244	8.995	9.003	(0.914)	463328	46.2881	3100
	73 Butylbenzylphthalate	149	9.444	9.457	(0.959)	286054	46.2519	3100
	74 3,3'-Dichlorobenzidine	252	9.850	9.879	(1.001)	177308	34.8085	2300
	75 Benzo(a)anthracene	228	9.828	9.857	(0.998)	637980	44.7682	3000(H)
*	76 Chrysene-d12	240	9.844	9.868	(1.000)	515383	40.0000	
	78 bis(2-Ethylhexyl)phthalate	149	9.978	10.007	(1.014)	395761	45.7179	3000
	77 Chrysene	228	9.866	9.889	(1.002)	600249	45.5907	3000
	79 Di-n-octylphthalate	149	10.528	10.579	(0.945)	689172	48.0903	3200(H)
	80 Benzo(b)fluoranthene	252	10.752	10.782	(0.965)	721203	46.9812	3100(H)
	81 Benzo(k)fluoranthene	252	10.752	10.808	(0.965)	717434	53.0588	3500
	82 Benzo(a)pyrene	252	10.982	11.043	(0.986)	611811	46.1941	3100(H)
*	83 Perylene-d12	264	11.030	11.102	(1.000)	518353	40.0000	(H)

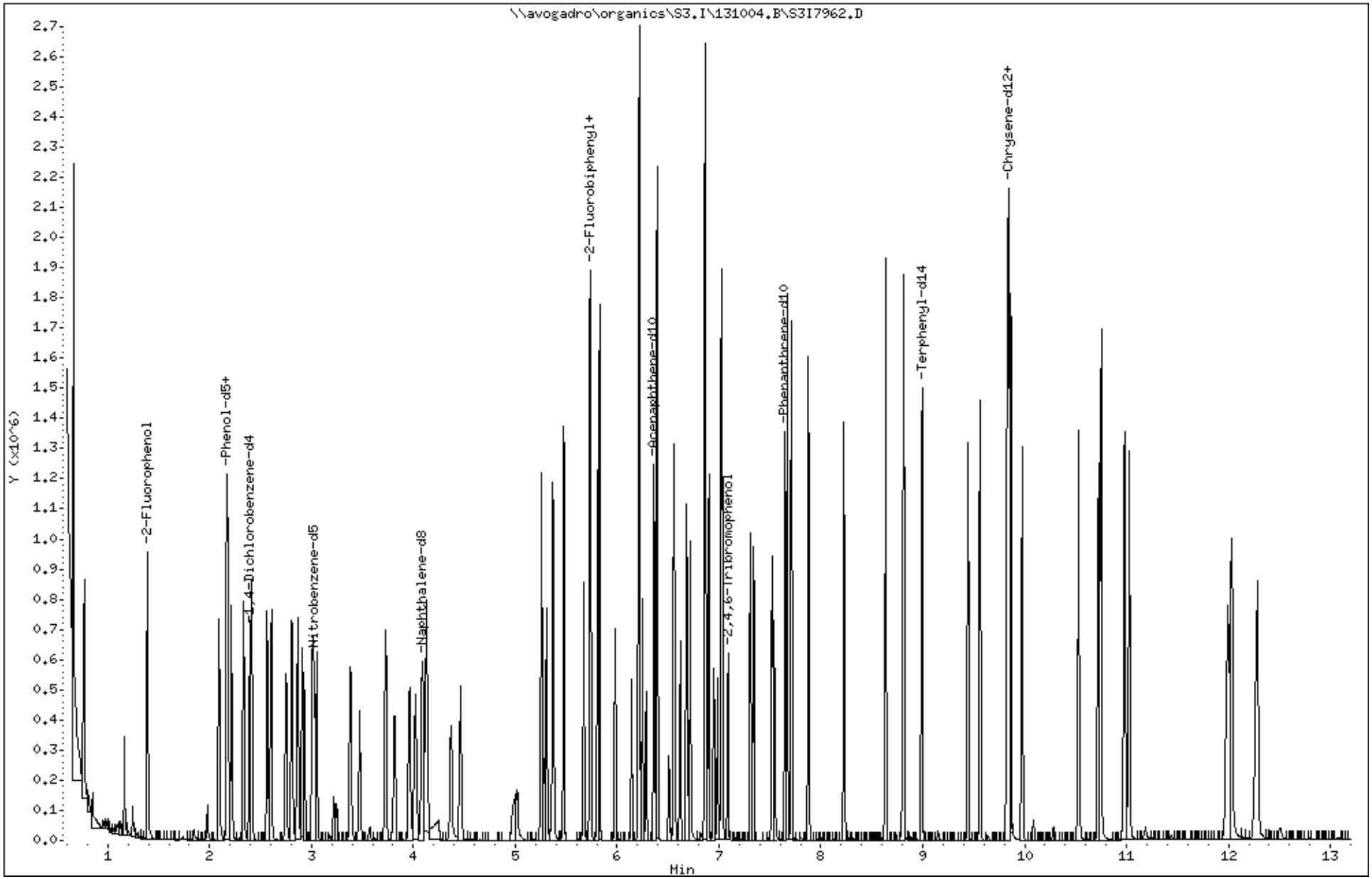
Data File: \\avogadro\organics\S3.I\131004.B\S3I7962.D
Report Date: 07-Oct-2013 11:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
84 Indeno(1,2,3-cd)pyrene	276	11.997	12.069	(1.077)	595611	42.0714	2800
85 Dibenzo(a,h)anthracene	278	12.034	12.112	(1.080)	610386	46.0324	3100
86 Benzo(g,h,i)perylene	276	12.286	12.363	(1.103)	617383	47.4440	3200(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: \\avogadro\organics\S3.I\131004.B\S3I7962.D
Date : 04-OCT-2013 13:28
Client ID: LCSD-74029
Instrument: S3.i
Sample Info: LCSD-74029,LCSD-74029,74029
Volume Injected (uL): 1.0
Operator: PK SRC: LIMS
Column phase: Rxi-5Sil MS
Column diameter: 0.25



M1876

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

PREP BATCH REPORT

Prep Start Date: **09/30/2013 09:10**
Prep End Date: **10/04/2013 12:00**
Prep Code: **BNA_S_PR**
Prep Type: **SONC/SW3550B**
Prep Factor Units: **mL / g**
Prep Batch ID: **74029**
Technician: **Antonio AP Cardoso**

QC Matrix: NA2SO4
QC Matrix Lot: 121756
Solvent (1): MECL2
Solvent (1) Lot: DI 925
Solvent (3): N/A
Solvent (3) Lot: N/A
Solvent (5): N/A
Solvent (5) Lot: N/A
Clean Up (1): N/A
Clean Up (1) Lot: N/A
Clean Up (3): N/A
Clean Up (1) Lot: N/A

Filter?: FILTER
Filter Lot: FC003203
Solvent (2): ACE
Solvent (2) Lot: 125597
Solvent (4): N/A
Solvent (4) Lot: N/A
Solvent (6): N/A
Solvent (6) Lot: N/A
Clean Up (2): N/A
Clean Up (2) Lot: N/A
Clean Up (4): N/A
Clean Up (4) Lot: N/A

Start Time: N/A
End Time: N/A
Cycles/Hour 0
Sonicator Tuned? Yes
Bath Temp1 (C): N/A
Therm ID1: N/A

Lab Sample ID	Client Samp ID	M	Initial (mL/g)	Final (mL)	Surrogate Spike ID	Surr (mL)	LCS/D MS/D Spike ID	Spike (mL)	A* Init	W* Init	Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	SONC / CNCNT
MB-74029	BatchQC		15	1	OSW130808A	1			TM	APC			10/04/13	TM	R7		☐	☐	N/A / N/A
LCS-74029	BatchQC		15	1	OSW130808A	1	OSW130919A	1	TM	APC			10/04/13	TM	R7		☐	☐	N/A / N/A
LCSD-74029	BatchQC		15	1	OSW130808A	1	OSW130919A	1	TM	APC			10/04/13	TM	R7		☐	☐	N/A / N/A
M1876-01A	DISPOSAL-1	S	15	1	OSW130808A	1			TM	APC	10/17/13	01	10/04/13	TM	R7		☐	☐	N/A / N/A

Timothy McDaniel — 10/04/2013
Analyst Reviewed — Date

Jodie B Warner — 10/04/2013
Manager Reviewed — Date

Comments:

*A = Analyst (Spiked) *W = Witnessed (Spike) *T = Transferred

TM 10/4/13

Logbook ID: 50.0147-09/13-2

M18766

Logbook ID: 70.0192-06/13

Instrument S3
Injection Log

Spectrum Analytical, Inc. RI Div
SemiVolatiles Laboratory

Spectrum Analytical, Inc. RI Division S3 Injection Log
Semivolatiles Laboratory

METHOD: 8270 ANALYST: MK
ICAL DATE: 9/6/13 EMV: 1725

BATCH: 130906.B

Start: 06-SEP-13 12:07
End: 07-SEP-13 01:31

L1 SU130822A
L2 B
L3 C
L4 D
L5 E
L6 F

Internal Standard: SI130417A
Comments:

#10716 Tune-SU130822A

Inlet Maintenance By: MK
Liner : clean
Column : clipped
Inlet Seal: clean
Septum : new

Reviewed By: 9/9/13

Manual Integration: MK

MI Review: 9/9/13

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	INTERNAL STANDARDS DCB	NPT	ANT	PHN	CRY	PRY	SURROGATES BN NBZ	BN FBP	BN TPH	ACID PHL	ACID 2FP	ACID TBP	OLM DCB	OLM 2CP	DILN	FLG	COMMENTS
S3I7581C	12:07	DFTPP3T	DFTPP3T		AQ																	
S3I7582	14:49	SSTD0053T	SSTD0053T		AQ	102	100	101	104	106	104									1		ok
S3I7583	15:12	SSTD0103T	SSTD0103T		AQ	103	102	102	104	106	105									1		Benzaldehyde +
S3I7584	15:34	SSTD0403T	SSTD0403T		AQ	104	103	102	103	101	105									1		MI_80_81 24DNT >15%RSD
S3I7585	15:56	SSTD0603T	SSTD0603T		AQ	100	100	100	99	94	100									1		4,6 Dinitro 2methyl
S3I7586	16:18	SSTD0803T	SSTD0803T		AQ	110	108	109	109	100	109									1		using Linear Quant.
S3I7586B	17:02	SSTD0253T	SSTD0253T		AQ	100	100	100	100	100	100									1		
S3I7587	17:24	SICV0253T	SICV0253T		AQ	99	99	100	100	99	99	98	100	99	99	98	98			1		L3
S3I7588	17:46	MB-73474	MB-73474	73501	AQ	111	112	114	115	116	112	81	80	83	78	78	83			1		
S3I7589	18:08	LCS-73501	LCS-73501	73501	AQ	116	116	118	118	113	115	80	78	81	76	74	80			1		
S3I7590	18:30	LCSD-73501	LCSD-73501	73501	AQ	117	117	117	119	113	116	76	76	80	73	71	76			1		
S3I7591	18:52	M1595-01B	IU17IW082913	73501	AQ	119	118	121	121	122	118	69	65	74	34	42	69			1		
S3I7592	19:14	MB-73498	MB-73498	73498	SL	126	123	119	116	106	93	86	89	92	85	86	80			1		
S3I7593	19:36	LCS-73498	LCS-73498	73498	SL	126	122	114	110	93	88	90	91	101	88	89	94			1		
S3I7594	19:58	M1622-11AMS	ST009-SB-07-10-	73498	SL	128	123	116	110	96	88	79	81	87	76	77	80			1		
S3I7595	20:21	M1622-11AMSD	ST009-SB-07-10-	73498	SL	127	123	116	112	96	91	73	76	84	71	73	77			1		
S3I7596	20:43	M1622-01A	ST009-SB-01-4-5	73498	SL	133	129	124	120	106	93	66	69	75	64	64	67			1		
S3I7597	21:05	M1622-02A	ST009-SB-01-8-9	73498	SL	129	126	118	109	95	89	64	67	68	60	61	63			1		
S3I7598	21:27	M1622-03A	ST009-SB-02-9-1	73498	SL	133	128	120	115	99	90	72	76	82	68	69	71			1		
S3I7599	21:50	M1622-04A	ST009-SB-03-5-6	73498	SL	131	128	122	115	98	89	69	75	82	69	72	74			1		
S3I7600	22:12	M1622-05A	ST009-SB-03-11-	73498	SL	132	127	120	114	98	89	76	79	86	68	65	55			1		
S3I7601	22:34	M1622-06A	ST009-SB-FD-130	73498	SL	126	122	117	112	95	88	65	69	76	61	64	70			1		
S3I7602	22:56	M1622-07A	ST009-SB-04-9-1	73498	SL	118	114	109	106	94	88	58	61	70	54	53	51			1		
S3I7603	23:19	M1622-08A	ST009-SB-05-11-	73498	SL	125	121	115	108	94	86	61	64	80	57	58	52			1		
S3I7604	23:41	M1622-09A	ST009-SB-06-11-	73498	SL	130	126	120	113	97	86	63	68	78	62	64	68			1		
S3I7605	00:03	M1622-11A	ST009-SB-07-10-	73498	SL	129	126	122	114	97	87	73	75	85	68	68	71			1		ok
S3I7606	00:25	M1622-12A	ST009-SB-08-10-	73498	SL	136	131	125	120	106	93	72	74	79	63	55	43			1	T	RR TT
S3I7607	00:47	M1622-13A	ST009-SB-09-4-5	73498	SL	132	128	122	119	101	91	63	68	74	61	62	63			1	T	
S3I7608	01:09	M1622-14A	ST009-SB-09-9-1	73498	SL	133	127	121	116	100	89	72	74	81	64	58	46			1	T	
S3I7609	01:31	M1622-15A	ST009-SB-10-11-	73498	SL	122	119	113	111	94	85	68	72	82	65	66	65			1	T	RR TT

* Internal Standard or Surrogate outside of control limits
\# One or more target compounds are above the calibration range
E Sample was injected outside of the 12 hour sequence

R - One or more spike compounds are outside of control limits
D - Surrogates are diluted

MK 9/9/13

Logbook ID: 70.0192-06/13

Instrument S3
Injection Log

Spectrum Analytical, Inc. RI Div
SemiVolatiles Laboratory

M8876

Spectrum Analytical, Inc. RI Division S3 Injection Log
Semivolatiles Laboratory

METHOD: 8270 ANALYST: PK BATCH: 131004.B Start: 04-OCT-13 08:59
ICAL DATE: 9/6/13 EMV: 1765 End: 04-OCT-13 21:00

Internal Standard: SI130417A #10716 Tune-SI130627A
Comments: L3-SG130822C

Inlet Maintenance By: PK
Liner : Cleaned
Column : Clipped
Inlet Seal: Cleaned
Septum : New

Reviewed By: MMS 10/7/13 Manual Integration: PK MI Review: MMS 10/7

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	INTERNAL STANDARDS DCB	NPT	ANT	PHN	CRY	PRY	SURROGATES BN NBZ	BN FBP	BN TPH	ACID PHL	ACID 2FP	ACID TBP	OLM DCB	OLM 2CP	DILN	FLG	COMMENTS
S3I7950A	08:59	DFTPP3H	DFTPP3H		AQ															1		OK
S3I7951	09:11	SSTD0253H	SSTD0253H		AQ	100	100	100	100	100	100									1		
S3I7952	09:51	MB-73975	MB-73975	73975	SL	91	87	80	78	69	62	100*	97	95	103*	101	75			1		
S3I7953	10:12	LCS-73975	LCS-73975	73975	SL	88	84	78	73	65	59	87	84	82	86	87	74			1	R	
S3I7954	10:33	LCSD-73975	LCSD-73975	73975	SL	80	77	72	67	60	56	90	86	90	90	90	80			1	R	
S3I7955	10:54	MB-73971	MB-73971	74114	AQ	77	76	75	78	81	78	93	86	87	92	87	84			1		
S3I7956	11:15	LCS-74114	LCS-74114	74114	AQ	71	71	72	74	73	72	90	89	92	88	80	87			1		
S3I7957	11:36	LCSD-74114	LCSD-74114	74114	AQ	71	72	72	74	74	71	93	88	89	93	84	84			1		
S3I7958	11:57	M1811-01A	GP-13 3-5	74114	AQ	71	69	69	72	77	75	70	66	78	28	37	69			1		
S3I7959	12:18	M1811-01AMS	GP-13 3-5MS	74114	AQ	73	73	74	76	77	76	81	75	81	40	49	74			1		
S3I7960	12:45	MB-74029	MB-74029	74029	SL	74	71	68	66	62	56	92	88	90	92	90	85			1		
S3I7961	13:06	LCS-74029	LCS-74029	74029	SL	79	76	72	69	62	58	93	89	86	95	94	80			1		
S3I7962	13:28	LCSD-74029	LCSD-74029	74029	SL	76	74	70	67	60	57	96	93	92	97	98	88			1		
S3I7963	13:49	MB-73883	MB-73883	73883	SL	73	71	68	66	62	56	90	86	86	92	91	74			1		
S3I7964	14:10	LCS-73883	LCS-73883	73883	SL	75	73	70	68	63	60	85	82	82	88	88	76			1		
S3I7965	14:32	M1779-01A	CS-BOT43	73883	SL	72	69	67	65	62	55	82	79	80	74	76	74			1	R	~~Don't Reuse~~ OK 10/3/13 PK
S3I7966	14:53	M1824-01E	ET-5	73975	SL	80	77	73	70	66	61	79	77	79	84	83	74			1		MI_80_81
S3I7967	15:15	M1824-02E	ET-6	73975	SL	75	73	68	66	63	57	81	81	80	86	84	73			1		MI_80_81
S3I7968	15:36	M1823-09B	LTS-C-14	73975	SL	76	73	68	66	63	64	80	80	76	82	80	73			1		MI_80_81
S3I7969	15:57	M1823-07B	LTS-C-12	73975	SL	78	75	72	69	65	64	82	79	76	85	84	69			1		MI_80_81
S3I7970	16:18	M1823-08B	LTS-C-13	73975	SL	77	74	71	67	64	65	80	79	77	85	82	74			1		MI_80_81
S3I7971	16:39	M1876-01A	DISPOSAL-1	74029	SL	80	76	71	68	67	71	76	77	75	74	74	74			1		MI_80_81
S3I7972	17:00	M1779-02A	CS-BOT44	73883	SL	76	72	68	67	66	66	82	82	79	84	79	70			1		
S3I7973	17:22	M1779-03A	CS-BOT45	73883	SL	78	74	70	69	70	74	80	77	75	77	80	76			1		
S3I7974	17:44	M1779-04A	CS-SW34	73883	SL	79	76	72	68	68	71	80	80	79	84	81	77			1		
S3I7975	18:05	M1779-05A	CS-SW35	73883	SL	81	77	73	70	68	70	80	78	78	73	74	74			1		
S3I7976	18:27	M1779-06A	CS-SW36	73883	SL	82	79	75	73	70	74	82	81	78	81	81	75			1		
S3I7977	18:49	M1779-07A	CS-SW37	73883	SL	79	75	72	68	67	68	85	82	78	85	82	74			1		
S3I7978	19:10	M1779-07AMS	CS-SW37MS	73883	SL	83	79	75	73	70	77	83	80	78	83	82	75			1		
S3I7979	19:32	M1779-07AMSD	CS-SW37MSD	73883	SL	74	72	68	66	63	68	88	87	85	91	90	82			1		
S3I7980	19:54	M1779-08A	CS-SW38	73883	SL	82	79	76	73	72	74	86	81	80	86	79	65			1		
S3I7981	20:16	M1779-09A	CS-SW39	73883	SL	72	70	68	67	65	62	78	76	79	69	54	25*			1		
S3I7982	20:38	M1779-10A	CS-SW40	73883	SL	75	73	70	67	65	68	84	82	82	88	85	76			1		OK
S3I7983	21:00	M1779-11A	BLIND DUP	73883	SL	73	71	69	67	64	67	81	77	76	80	79	65			1	T	RR TT

PK 10/7/13

* PCB Organics *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: Bay Ridge Holders, Waste Char

Laboratory Workorder / SDG #: M1876

SW846 8082A, PCB by GC-ECD

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 8082A

IV. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3550B

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: E4
Instrument Type: GC-ECD
Description: HP6890
Manufacturer: Hewlett-Packard

Model: 6890
GC Column used: 30 m X 0.53 mm ID [0.50 um thickness] CLPPest capillary column.

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits with the following exceptions. Please note that the acceptance criteria allow one surrogate recovery outside of the QC limits per fraction.

DISPOSAL-1 (M1876-01A), recovery is below criteria for Decachlorobiphenyl on front column at 57% with criteria of (60-125).

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Dilutions:

No sample in this SDG required analysis at dilution.

F. Samples:

The lower concentration between the primary and confirmatory GC column concentrations is reported due to the presence of interferences unless otherwise indicated. P flags are assigned to compounds when D% between the two columns are greater than 40%.

No other unusual occurrences were noted during sample analysis.

G. Manual Integration

Where needed, manual integrations were performed to improve data quality. The corrections were reviewed and associated hardcopies generated and reported as required. Manual integrations are coded to provide the data reviewer justification for such action. The codes are labeled on the ion chromatogram signal (GC/MS signal) and chromatogram for GC based analysis as follows:

· M1 peak tailing or fronting
· M2 peak co-elution
· M3 rising or falling baseline
· M4 retention time shift
· M5 miscellaneous - under this category, the justification is explained
· M6 software did not integrate peak
· M7 partial peak integration

The following samples were manually integrated:

AR16603JE Aroclor-1260 on rear column due to M3

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed:_____ _____

Date:_____10/21/2013_____

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

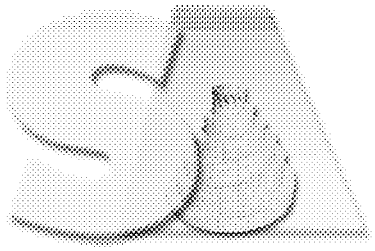
E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.



Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

2R - FORM II ARO-2

SOIL AROCLOR SURROGATE RECOVERY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	MB-74023	88	93	77	85			0
02	LCS-74023	87	92	72	81			0
03	LCSD-74023	75	78	74	83			0
04	DISPOSAL-1	62	61	57 *	64			1

	QC LIMITS
TCX = Tetrachloro-m-xylene	(34-147)
DCB = Decachlorobiphenyl	(60-125)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

som13.10.18.A

3P - FORM III ARO-4

SOIL AROCLOR LABORATORY CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

LCS-74023

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCS-74023 LCS Lot No.: A072217

Date Extracted: 09/30/2013 Date Analyzed (1): 10/08/2013

Instrument ID (1): E4 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC #	QC LIMITS
Aroclor-1016	133.3330	105.1201	79	40-140
Aroclor-1260	133.3330	97.0329	73	60-130

Instrument ID (2): E4 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 10/08/2013

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC #	QC LIMITS
Aroclor-1016	133.3330	107.8348	81	40-140
Aroclor-1260	133.3330	102.7859	77	60-130

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

LCS Recovery: 0 out of 4 outside limits.

COMMENTS:

som13.10.18.A

3P - FORM III ARO-4

SOIL AROCLOR LABORATORY CONTROL

SAMPLE DUPLICATE RECOVERY

EPA SAMPLE NO.

LCSD-74023

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCSD-74023 LCS Lot No.: A072217

Date Extracted: 09/30/2013 Date Analyzed (1): 10/08/2013

Instrument ID (1): E4 GC Column(1): CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS	%RPD	#	RPD LIMIT
Aroclor-1016	133.3330	100.0810	75		40-140	5.0		30
Aroclor-1260	133.3330	101.8300	76		60-130	4.0		30

Instrument ID (2): E4 GC Column(2): CLPPestII ID: 0.53 (mm)

Date Analyzed (2): 10/08/2013

COMPOUND	AMOUNT ADDED (UG/KG)	AMOUNT RECOVERED (UG/KG)	%REC	#	QC LIMITS	%RPD	#	RPD LIMIT
Aroclor-1016	133.3330	99.2295	74		40-140	9.0		30
Aroclor-1260	133.3330	104.2014	78		60-130	1.0		30

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

LCS Recovery: 0 out of 4 outside limits.

RPD: 0 out of 4 outside limits.

COMMENTS:

som13.10.18.A

4F - FORM IV ARO

AROCLOR METHOD BLANK SUMMARY

EPA SAMPLE NO.

MB-74023

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab File ID: E4H5075F.D / E4H5075R.D Lab Sample ID: MB-74023

Matrix: (SOIL/SED/WATER) SOIL Extraction: (Type) SONC Date Extracted: 09/30/2013

Sulfur Cleanup: (Y/N) Y GPC Cleanup:(Y/N) N

Acid Cleanup: (Y/N Y

Date Analyzed (1): 10/08/2013 Date Analyzed (2): 10/08/2013

Time Analyzed (1): 15:25 Time Analyzed (2): 15:25

Instrument ID (1): E4 Instrument ID (2): E4

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (mm)

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED (1)	DATE ANALYZED (2)
01	LCS-74023	LCS-74023	10/08/2013	10/08/2013
02	LCSD-74023	LCSD-74023	10/08/2013	10/08/2013
03	DISPOSAL-1	M1876-01A	10/08/2013	10/08/2013

COMMENTS:

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DISPOSAL-1

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: M1876-01A

Sample wt/vol: 30.5 (g/mL) G Lab File ID: E4H5078F.D/E4H5078R.D

% Moisture: 12 Decanted: (Y/N) N Date Received: 09/28/2013

Extraction: (Type) SONC Date Extracted: 09/30/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/08/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup:(Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup:(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	37	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	37	U
11096-82-5	Aroclor-1260	37	U
37324-23-5	Aroclor-1262	37	U
11100-14-4	Aroclor-1268	37	U

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5078F.D
Report Date: 10-Oct-2013 09:59

Spectrum Analytical, Inc. RI Division

Quantitation Report

Data file : \\avogadro\organics\E4.I\131008F.B\E4H5078F.D
Lab Smp Id: M1876-01A Client Smp ID: DISPOSAL-1
Inj Date : 08-OCT-2013 16:39
Operator : AL   SRC: LIMS Inst ID: E4.i
Smp Info : M1876-01A,,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008F.B\E4_LL_PCB_F.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET105

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

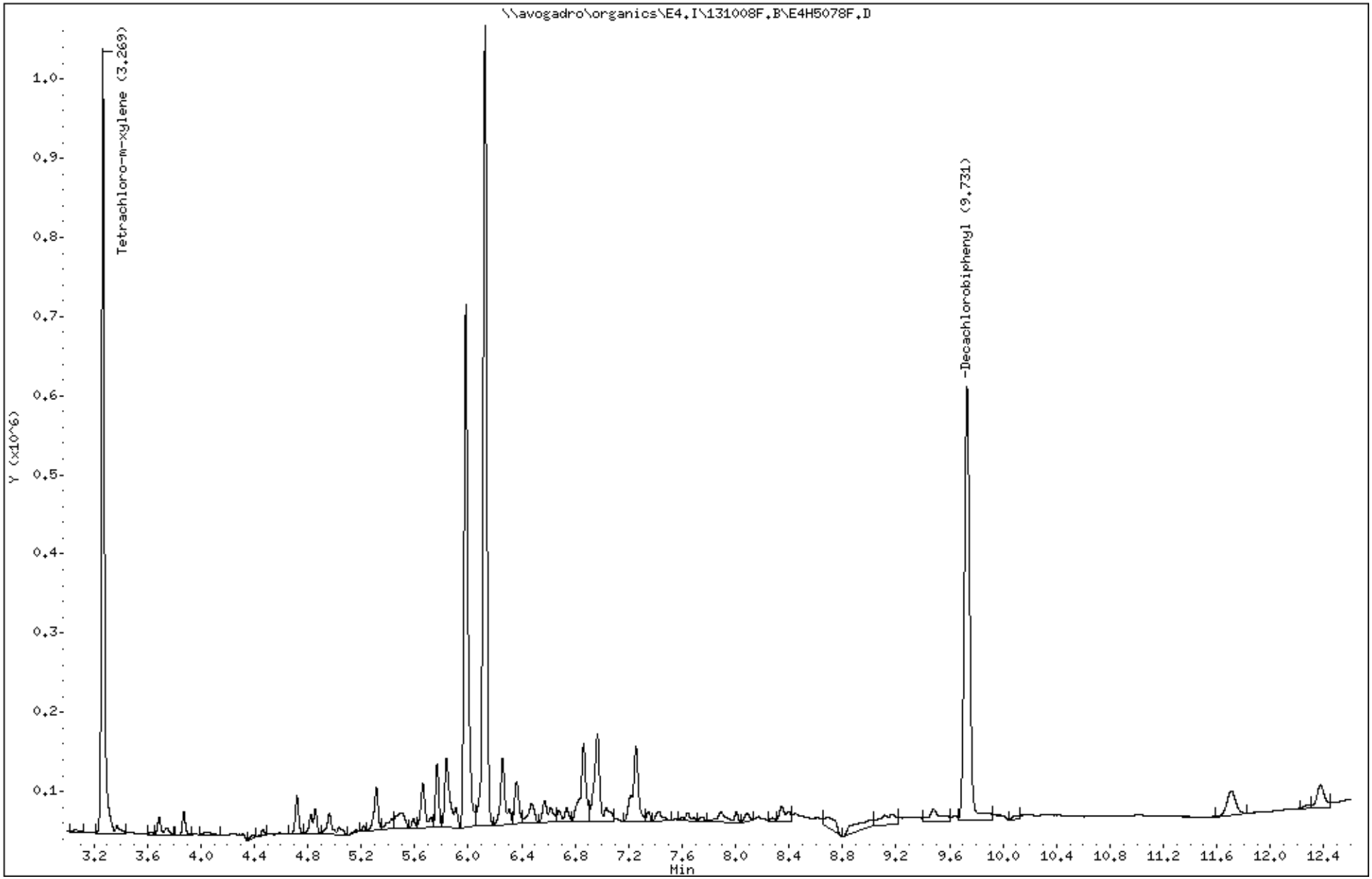
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.268	3.266	0.002	991095	0.03698	12			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
9.731	9.723	0.008	1576289	0.06801	22			(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5078F.D
Date : 08-OCT-2013 16:39
Client ID: DISPOSAL-1
Instrument: E4.i
Sample Info: M1876-01A,,74023,8082A,sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: LIMS
Column phase: CLPPest
Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008R.B\E4H5078R.D
Report Date: 10-Oct-2013 10:01

Spectrum Analytical, Inc. RI Division

Quantitation Report

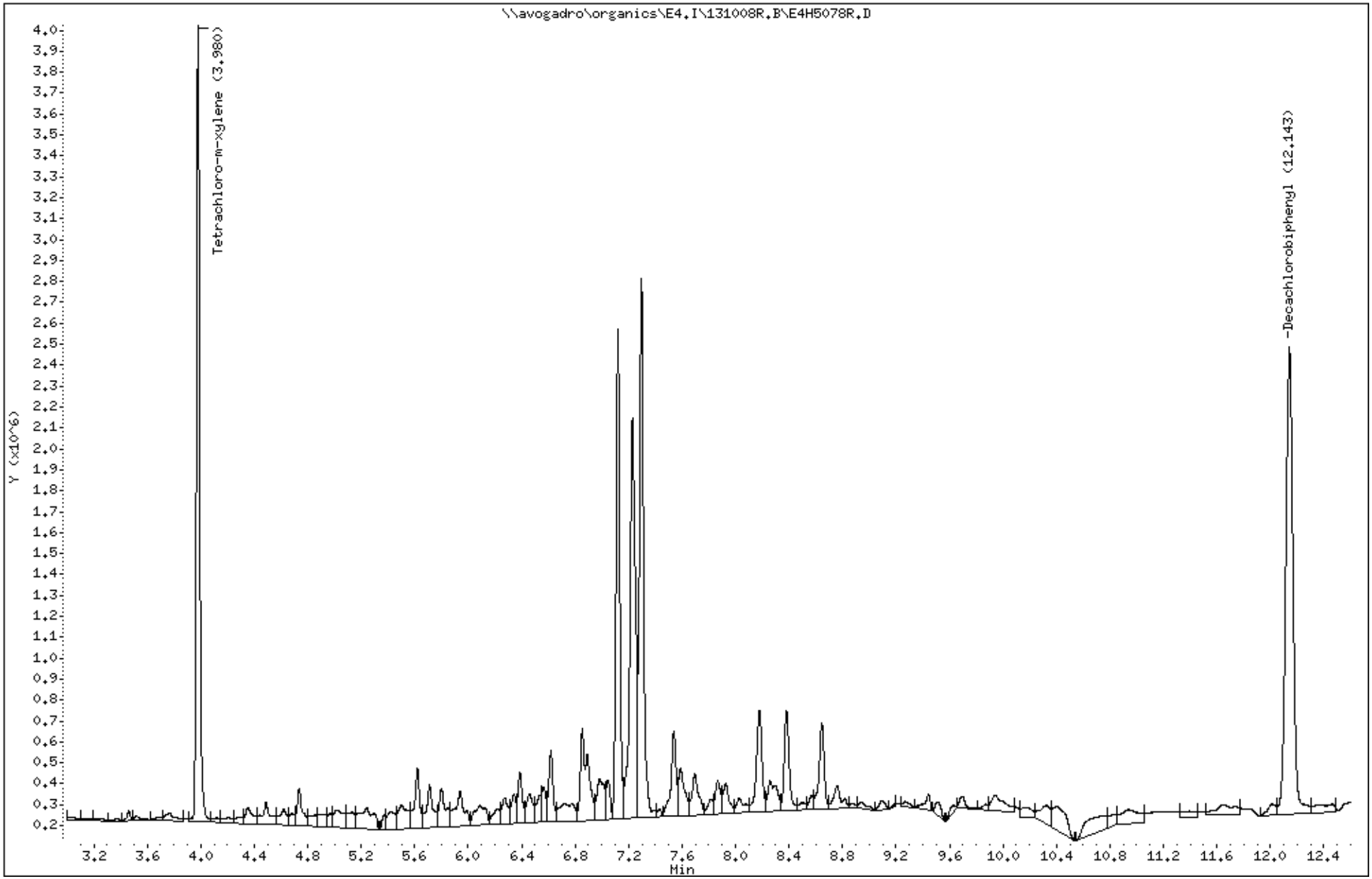
Data file : \\avogadro\organics\E4.I\131008R.B\E4H5078R.D
Lab Smp Id: M1876-01A Client Smp ID: DISPOSAL-1
Inj Date : 08-OCT-2013 16:39
Operator : AL   SRC: LIMS Inst ID: E4.i
Smp Info : M1876-01A,,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008R.B\E4_LL_PCB_R.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.500	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8	
3.980	3.986	-0.006	3804229	0.03664		12	
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3	
12.142	12.144	-0.002	2227615	0.07688		25	

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5078R.D
Date : 08-OCT-2013 16:39
Client ID: DISPOSAL-1
Instrument: E4.i
Sample Info: M1876-01A,,74023,8082A.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: LIMS
Column phase: CLPPestII
Column diameter: 0.32



6N - FORM VI ARO-1

AROCLORS INITIAL CALIBRATION (MULTIPOINT)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: E4

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0

GC Column: CLPPest ID: 0.53 (mm) Date(s) Analyzed (1): 10/07/2013 10/07/2013

COMPOUND	PEAK*	RT OF STANDARDS					__	RT WINDOW **	
		CS1	CS2	CS3	CS4	CS5	RT	FROM	TO
AR1016	1	4.075	4.074	4.074	4.074	4.075	4.074	4.004	4.144
	2	4.609	4.609	4.608	4.608	4.608	4.608	4.538	4.678
	3	5.215	5.215	5.215	5.215	5.215	5.215	5.145	5.285
AR1260	1	6.574	6.573	6.573	6.573	6.574	6.573	6.503	6.643
	2	7.635	7.636	7.636	7.635	7.635	7.635	7.565	7.705
	3	8.002	8.001	8.001	8.002	8.001	8.001	7.931	8.071
TCX (A)		3.266	3.267	3.266	3.266	3.266	3.266	3.216	3.316
DCB (A)		9.723	9.723	9.723	9.723	9.724	9.723	9.623	9.823

* At least three peaks for each column are required for identification of Aroclors.

**Retention Time windows are ± 0.07 minutes for each Aroclor peak; 0.05 minutes for tetrachloro-m-xylene; ± 0.10 minutes for decachlorobiphenyl.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6N - FORM VI ARO-1

AROCLORS INITIAL CALIBRATION (MULTIPOINT)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: E4

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0

GC Column: CLPPestII ID: 0.53 (mm) Date(s) Analyzed (1): 10/07/2013 10/07/2013

COMPOUND	PEAK*	RT OF STANDARDS					__	RT WINDOW **	
		CS1	CS2	CS3	CS4	CS5	RT	FROM	TO
AR1016	1	5.144	5.146	5.145	5.145	5.145	5.145	5.075	5.215
	2	5.692	5.693	5.692	5.692	5.692	5.692	5.622	5.762
	3	5.853	5.854	5.854	5.854	5.855	5.854	5.784	5.924
AR1260	1	8.191	8.190	8.190	8.191	8.190	8.190	8.120	8.260
	2	8.639	8.638	8.639	8.640	8.639	8.639	8.569	8.709
	3	9.129	9.127	9.127	9.127	9.128	9.128	9.058	9.198
TCX (A)		3.986	3.986	3.986	3.986	3.986	3.986	3.936	4.036
DCB (A)		12.146	12.144	12.145	12.142	12.145	12.144	12.044	12.244

* At least three peaks for each column are required for identification of Aroclors.

**Retention Time windows are ± 0.07 minutes for each Aroclor peak; 0.05 minutes for tetrachloro-m-xylene; ± 0.10 minutes for decachlorobiphenyl.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6P - FORM VI ARO-2

AROCLOR INITIAL CALIBRATION (MULTIPOINT)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: E4 Date(s) Analyzed: 10/07/2013 10/07/2013

GC Column: CLPPest ID: 0.53 (mm)

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0

COMPOUND	PEAK [1]	CALIBRATION FACTORS (CFs)					% RSD
		CS1	CS2	CS3	CS4	CS5	
AR1016	1	752730	676065	632620	602710	532230	12.9
	2	1159180	1088495	1033563	996310	926789	8.5
	3	628440	578700	538655	514194	469941	11.1
AR1260	1	991310	905960	853050	832838	765588	9.7
	2	824370	760650	703518	637229	568021	14.4
	3	1618750	1517560	1419590	1298165	1166791	12.7
TCX (A)		28629600	26406000	25876100	26408200	26702250	4.0
DCB (A)		29816500	23616300	21856925	20701763	19898881	17.1

[1]At least three peaks for each column are required for identification of Aroclors.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6P - FORM VI ARO-2

AROCLOR INITIAL CALIBRATION (MULTIPOINT)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: E4 Date(s) Analyzed: 10/07/2013 10/07/2013

GC Column: CLPPestII ID: 0.53 (mm)

Level (x CS1): CS1 1.0 CS2 2.0 CS3 4.0 CS4 8.0 CS5 16.0

COMPOUND	PEAK [1]	CALIBRATION FACTORS (CFs)					% RSD
		CS1	CS2	CS3	CS4	CS5	
AR1016	1	3116300	2846230	2643663	2503850	2259089	12.2
	2	5752850	5491075	5298515	5334063	5138381	4.3
	3	3385000	3115650	2965625	2878421	2415358	12.1
AR1260	1	4483830	4340700	4254615	4210263	3453565	9.7
	2	4191410	4037915	3883375	4178838	4359926	4.3
	3	3426610	3214175	3087623	2868466	2755709	8.7
TCX (A)		107259000	99632400	97062700	101914200	113219050	6.2
DCB (A)		31149700	29685500	26710000	27756300	29571581	6.0

[1]At least three peaks for each column are required for identification of Aroclors.

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

6Q - FORM VI ARO-3

AROCLOR INITIAL CALIBRATION (SINGLE POINT)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: E4 Date(s) Analyzed: 09/10/2013 10/07/2013

GC Column: CLPPest ID: 0.53 (mm)

COMPOUND	AMOUNT (ng)	PEAK [1]	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	0.4	1	3.13	3.06	3.20	70075
		2	3.46	3.39	3.53	349882.5
		3	4.08	4.01	4.15	66047.5
		4				
		5				
Aroclor-1232	0.4	1	4.08	4.01	4.15	364327.5
		2	4.22	4.15	4.29	95742.5
		3	4.53	4.46	4.60	116905
		4				
		5				
Aroclor-1242	0.4	1	4.76	4.69	4.83	723023
		2	5.22	5.15	5.29	670848
		3	5.58	5.51	5.65	372373
		4				
		5				
Aroclor-1248	0.4	1	4.97	4.90	5.04	729893
		2	5.64	5.57	5.71	309115
		3	5.92	5.85	5.99	798575
		4				
		5				
Aroclor-1254	0.4	1	6.67	6.60	6.74	1351475
		2	6.99	6.92	7.06	818588
		3	7.21	7.14	7.28	1501665
		4				
		5				
Aroclor-1262	0.4	1	8.34	8.27	8.41	739785
		2	8.44	8.37	8.51	734253
		3	9.11	9.04	9.18	592283
		4				
		5				
Aroclor-1268	0.4	1	8.68	8.61	8.75	1727890
		2	9.11	9.04	9.18	707358
		3	9.47	9.40	9.54	4445745
		4				
		5				

[1] At least three peaks for each column are required for identification of multicomponent analytes.

6Q - FORM VI ARO-3

AROCLOR INITIAL CALIBRATION (SINGLE POINT)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Instrument ID: E4 Date(s) Analyzed: 10/07/2013 10/07/2013

GC Column: CLPPestII ID: 0.53 (mm)

COMPOUND	AMOUNT (ng)	PEAK [1]	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	0.4	1	3.40	3.33	3.47	729898
		2	4.38	4.31	4.45	1471033
		3	4.56	4.49	4.63	977358
		4				
		5				
Aroclor-1232	0.4	1	4.56	4.49	4.63	726995
		2	4.64	4.57	4.71	2490758
		3	5.14	5.07	5.21	1505823
		4				
		5				
Aroclor-1242	0.4	1	5.98	5.91	6.05	2656655
		2	6.41	6.34	6.48	2962875
		3	6.56	6.49	6.63	2681723
		4				
		5				
Aroclor-1248	0.4	1	6.56	6.49	6.63	3796293
		2	6.86	6.79	6.93	4622943
		3	6.91	6.84	6.98	4275100
		4				
		5				
Aroclor-1254	0.4	1	7.13	7.06	7.20	6689038
		2	7.70	7.63	7.77	9716115
		3	8.40	8.33	8.47	4769313
		4				
		5				
Aroclor-1262	0.4	1	9.94	9.87	10.01	5208360
		2	10.62	10.55	10.69	756063
		3	10.95	10.88	11.02	1980218
		4				
		5				
Aroclor-1268	0.4	1	10.40	10.33	10.47	6516868
		2	10.94	10.87	11.01	2155808
		3	11.65	11.58	11.72	14148208
		4				
		5				

[1] At least three peaks for each column are required for identification of multicomponent analytes.

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 10/07/2013 10/07/2013

EPA Sample No. (AR####3##): AR16603JE Date Analyzed: 10/08/2013

Lab Sample ID: AR16603JE Time Analyzed: 14:55

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	__ CF	CF	%D
AR1016	1	4.073	4.004	4.144	639271	574807.5	-10.1
	2	4.608	4.538	4.678	1040867.25	946060	-9.1
	3	5.214	5.145	5.285	545985.875	490432.5	-10.2
AR1260	1	6.572	6.503	6.643	869749.125	776677.5	-10.7
	2	7.634	7.565	7.705	698757.5	637285	-8.8
	3	7.999	7.931	8.071	1404171.125	1271135	-9.5
TCX		3.265	3.216	3.316	26804430	23252350	-13.3
DCB		9.723	9.623	9.823	23178073.75	18749100	-19.1

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: CLPPestII ID: 0.53 (mm) Calibration Date(s): 10/07/2013 10/07/2013

EPA Sample No. (AR####3##): AR16603JE Date Analyzed: 10/08/2013

Lab Sample ID: AR16603JE Time Analyzed: 14:55

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	__ CF	CF	%D
AR1016	1	5.144	5.075	5.215	2673826.25	2411987.5	-9.8
	2	5.692	5.622	5.762	5402976.75	4708180	-12.9
	3	5.852	5.784	5.924	2952010.875	2618792.5	-11.3
AR1260	1	8.190	8.120	8.260	4148594.5	3533530	-14.8
	2	8.638	8.569	8.709	4130292.75	3273695	-20.7
	3	9.126	9.058	9.198	3070516.625	2676622.5	-12.8
TCX		3.984	3.936	4.036	103817470	88313900	-14.9
DCB		12.142	12.044	12.244	28974616.25	24005825	-17.1

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: CLPPest ID: 0.53 (mm) Calibration Date(s): 10/07/2013 10/07/2013

EPA Sample No. (AR####3##): AR16603JF Date Analyzed: 10/08/2013

Lab Sample ID: AR16603JF Time Analyzed: 23:35

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	__ CF	CF	%D
AR1016	1	4.072	4.004	4.144	639271	603212.5	-5.6
	2	4.607	4.538	4.678	1040867.25	961322.5	-7.6
	3	5.214	5.145	5.285	545985.875	508205	-6.9
AR1260	1	6.572	6.503	6.643	869749.125	793742.5	-8.7
	2	7.635	7.565	7.705	698757.5	646412.5	-7.5
	3	8.000	7.931	8.071	1404171.125	1276325	-9.1
TCX		3.265	3.216	3.316	26804430	25377650	-5.3
DCB		9.723	9.623	9.823	23178073.75	18819700	-18.8

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

7N - FORM VII ARO

AROCLOR CALIBRATION VERIFICATION SUMMARY

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: CLPPestII ID: 0.53 (mm) Calibration Date(s): 10/07/2013 10/07/2013

EPA Sample No. (AR####3##): AR16603JF Date Analyzed: 10/08/2013

Lab Sample ID: AR16603JF Time Analyzed: 23:35

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

EPA Sample No. (AR####3##): Date Analyzed:

Lab Sample ID: Time Analyzed:

AROCLOR COMPOUND	PEAK	RETENTION RT	RT WINDOW FROM	RT WINDOW TO	__ CF	CF	%D
AR1016	1	5.142	5.075	5.215	2673826.25	2582632.5	-3.4
	2	5.691	5.622	5.762	5402976.75	5069422.5	-6.2
	3	5.852	5.784	5.924	2952010.875	2850907.5	-3.4
AR1260	1	8.190	8.120	8.260	4148594.5	3717425	-10.4
	2	8.637	8.569	8.709	4130292.75	3483935	-15.6
	3	9.128	9.058	9.198	3070516.625	2826405	-8.0
TCX		3.984	3.936	4.036	103817470	98735750	-4.9
DCB		12.144	12.044	12.244	28974616.25	25143625	-13.2

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

8H - FORM VIII ARO
AROCLOR ANALYTICAL SEQUENCE

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: CLPPest ID: 0.53 (mm) Init. Calib. Date(s): 10/07/2013 10/07/2013

Instrument ID: E4

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.266 DCB: 9.723

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213J4	E4H5021F.D	10/7/2013	7:36	3.267	9.727
02	AR12323J4	E4H5022F.D	10/7/2013	7:55	3.267	9.725
03	AR12423J4	E4H5023F.D	10/7/2013	8:13	3.268	9.725
04	AR12483J4	E4H5024F.D	10/7/2013	8:31	3.267	9.725
05	AR12543J4	E4H5025F.D	10/7/2013	8:49	3.267	9.725
06	AR12623J4	E4H5026F.D	10/7/2013	9:07	3.266	9.724
07	AR12683J4	E4H5027F.D	10/7/2013	9:25	3.266	9.724
08	AR16601J4	E4H5028F.D	10/7/2013	9:43	3.266	9.723
09	AR16602J4	E4H5029F.D	10/7/2013	10:01	3.267	9.723
10	AR16603J4	E4H5030F.D	10/7/2013	10:20	3.266	9.723
11	AR16604J4	E4H5031F.D	10/7/2013	10:38	3.266	9.723
12	AR16605J4	E4H5032F.D	10/7/2013	10:56	3.266	9.724
13	AR16603JE	E4H5074F.D	10/8/2013	14:55	3.265	9.723
14	MB-74023	E4H5075F.D	10/8/2013	15:25	3.270	9.731
15	LCS-74023	E4H5076F.D	10/8/2013	15:52	3.268	9.729
16	LCSD-74023	E4H5077F.D	10/8/2013	16:10	3.265	9.722
17	DISPOSAL-1	E4H5078F.D	10/8/2013	16:39	3.269	9.731
18	AR16603JF	E4H5101F.D	10/8/2013	23:35	3.265	9.723

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)
DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

8H - FORM VIII ARO
AROCLOR ANALYTICAL SEQUENCE

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

GC Column: CLPPestII ID: 0.53 (mm) Init. Calib. Date(s): 10/07/2013 10/07/2013

Instrument ID: E4

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs, AND LCSs IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.986 DCB: 12.144

	EPA SAMPLE NO.	LAB File ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	AR12213J4	E4H5021R.D	10/7/2013	7:36	3.986	12.144
02	AR12323J4	E4H5022R.D	10/7/2013	7:55	3.987	12.147
03	AR12423J4	E4H5023R.D	10/7/2013	8:13	3.988	12.147
04	AR12483J4	E4H5024R.D	10/7/2013	8:31	3.987	12.145
05	AR12543J4	E4H5025R.D	10/7/2013	8:49	3.986	12.144
06	AR12623J4	E4H5026R.D	10/7/2013	9:07	3.986	12.143
07	AR12683J4	E4H5027R.D	10/7/2013	9:25	3.986	12.144
08	AR16601J4	E4H5028R.D	10/7/2013	9:43	3.986	12.146
09	AR16602J4	E4H5029R.D	10/7/2013	10:01	3.986	12.144
10	AR16603J4	E4H5030R.D	10/7/2013	10:20	3.986	12.145
11	AR16604J4	E4H5031R.D	10/7/2013	10:38	3.986	12.142
12	AR16605J4	E4H5032R.D	10/7/2013	10:56	3.986	12.145
13	AR16603JE	E4H5074R.D	10/8/2013	14:55	3.984	12.142
14	MB-74023	E4H5075R.D	10/8/2013	15:25	3.982	12.143
15	LCS-74023	E4H5076R.D	10/8/2013	15:52	3.981	12.145
16	LCSD-74023	E4H5077R.D	10/8/2013	16:10	3.983	12.143
17	DISPOSAL-1	E4H5078R.D	10/8/2013	16:39	3.980	12.143
18	AR16603JF	E4H5101R.D	10/8/2013	23:35	3.984	12.144

QC LIMITS

TCX = Tetrachloro-m-xylene (± 0.05 MINUTES)
DCB = Decachlorobiphenyl (± 0.10 MINUTES)

Column used to flag RT values with an asterisk.

10C - FORM X ARO
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.
LCS-74023

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCS-74023 Date(s) Analyzed: 10/08/2013 10/08/2013

Instrument ID (1): E4 Instrument ID (2): E4

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (MM)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	%D
Aroclor-1016	1	4.078	4.004	4.144	106.2215		
	2	4.613	4.538	4.678	104.6429		
COLUMN 1	3	5.221	5.145	5.285	104.4960		
	4						
	5					105.120123	
	1	5.141	5.075	5.215	109.1653		
	2	5.690	5.622	5.762	105.2393		
COLUMN 2	3	5.851	5.784	5.924	109.0999		
	4						
	5					107.834828	2.6
Aroclor-1260	1	6.579	6.503	6.643	103.5502		
	2	7.642	7.565	7.705	93.7717		
COLUMN 1	3	8.007	7.931	8.071	93.7768		
	4						
	5					97.032881	
	1	8.191	8.120	8.260	107.4027		
	2	8.637	8.569	8.709	105.0245		
COLUMN 2	3	9.127	9.058	9.198	95.9305		
	4						
	5					102.785927	5.9

At least 3 peaks for each column are required for identification of multicomponent analytes

10C - FORM X ARO
IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.
LCSD-74023

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Lab Sample ID: LCSD-74023 Date(s) Analyzed: 10/08/2013 10/08/2013

Instrument ID (1): E4 Instrument ID (2): E4

GC Column(1): CLPPest ID: 0.53 (mm) GC Column(2): CLPPestII ID: 0.53 (MM)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION PEAK	CONCENTRATION MEAN	%D
Aroclor-1016	1	4.072	4.004	4.144	97.9282		
	2	4.607	4.538	4.678	99.6502		
COLUMN 1	3	5.214	5.145	5.285	102.6644		
	4						
	5					100.080962	
	1	5.141	5.075	5.215	99.5733		
	2	5.690	5.622	5.762	98.1118		
COLUMN 2	3	5.851	5.784	5.924	100.0035		
	4						
	5					99.229533	0.9
Aroclor-1260	1	6.572	6.503	6.643	108.3722		
	2	7.635	7.565	7.705	99.0358		
COLUMN 1	3	8.000	7.931	8.071	98.0821		
	4						
	5					101.830033	
	1	8.189	8.120	8.260	106.4398		
	2	8.637	8.569	8.709	109.0672		
COLUMN 2	3	9.126	9.058	9.198	97.0971		
	4						
	5					104.201372	2.3

At least 3 peaks for each column are required for identification of multicomponent analytes

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5021F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5021F.D
Lab Smp Id: AR12213J4 Client Smp ID: AR12213J4
Inj Date : 07-OCT-2013 07:36
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR12213J4,AR12213J4,,ar1221.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 86 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

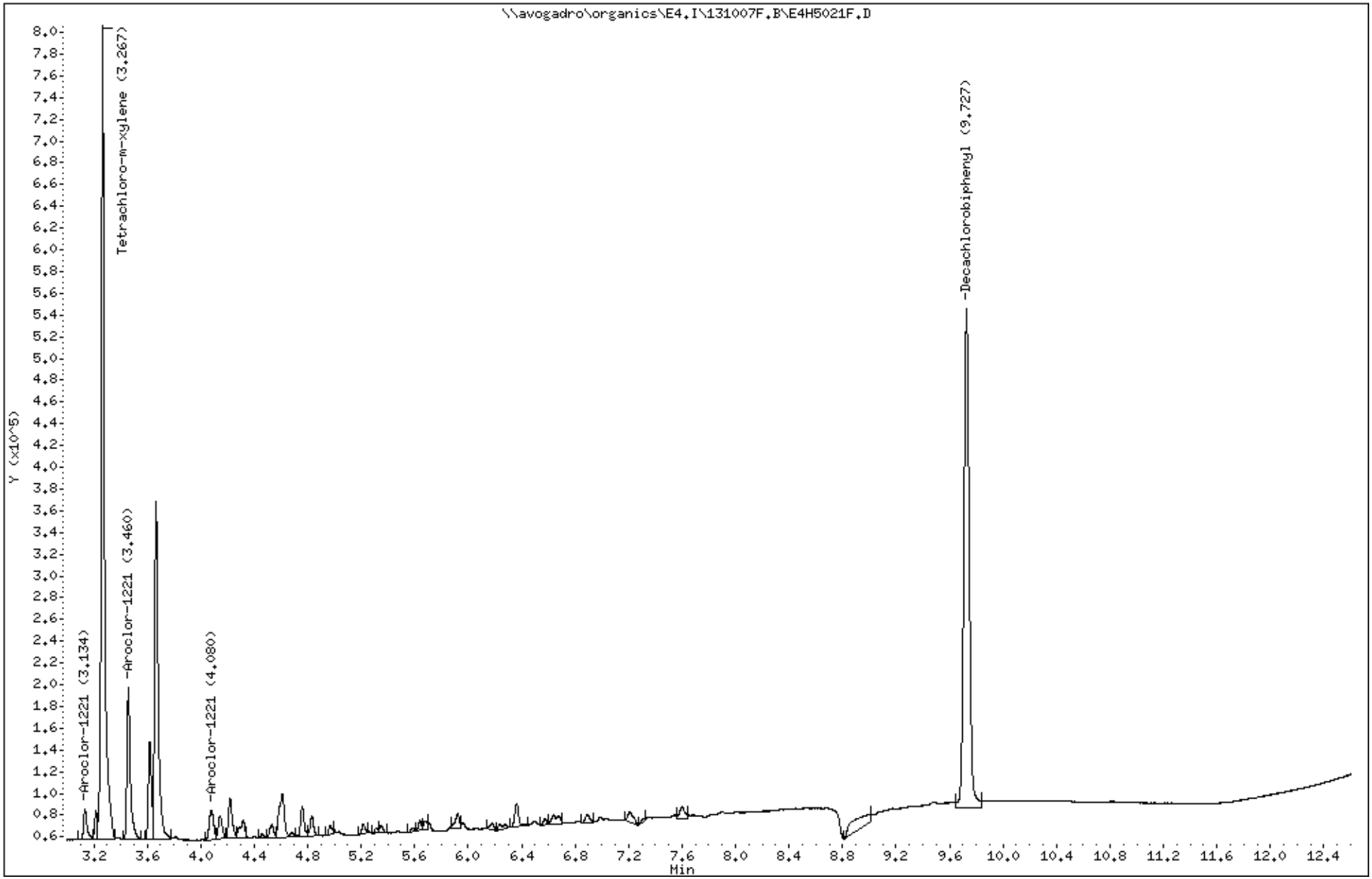
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.267	3.266	0.001	1255116	0.02000	0.031			(a)
3 Aroclor-1221					CAS #: 11104-28-2			
3.133	3.142	-0.009	48579	0.40000	1.8	80.00- 120.00	100.00	
3.459	3.457	0.002	246294	0.40000	1.8	1602.23-1642.23	507.00	
4.079	4.074	0.005	60429	0.40000	0.041	15829.77-15869.77	124.39	
		Average of Peak Amounts =			1.21367			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.727	9.723	0.004	1291817	0.04000	0.057			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5021F.D
Date : 07-OCT-2013 07:36
Client ID: AR12213J4 Instrument: E4.i
Sample Info: AR12213J4,AR12213J4,,ar1221.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPest Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5021R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5021R.D
Lab Smp Id: AR12213J4 Client Smp ID: AR12213J4
Inj Date : 07-OCT-2013 07:36
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12213J4,AR12213J4,,ar1221.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 86 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1221.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

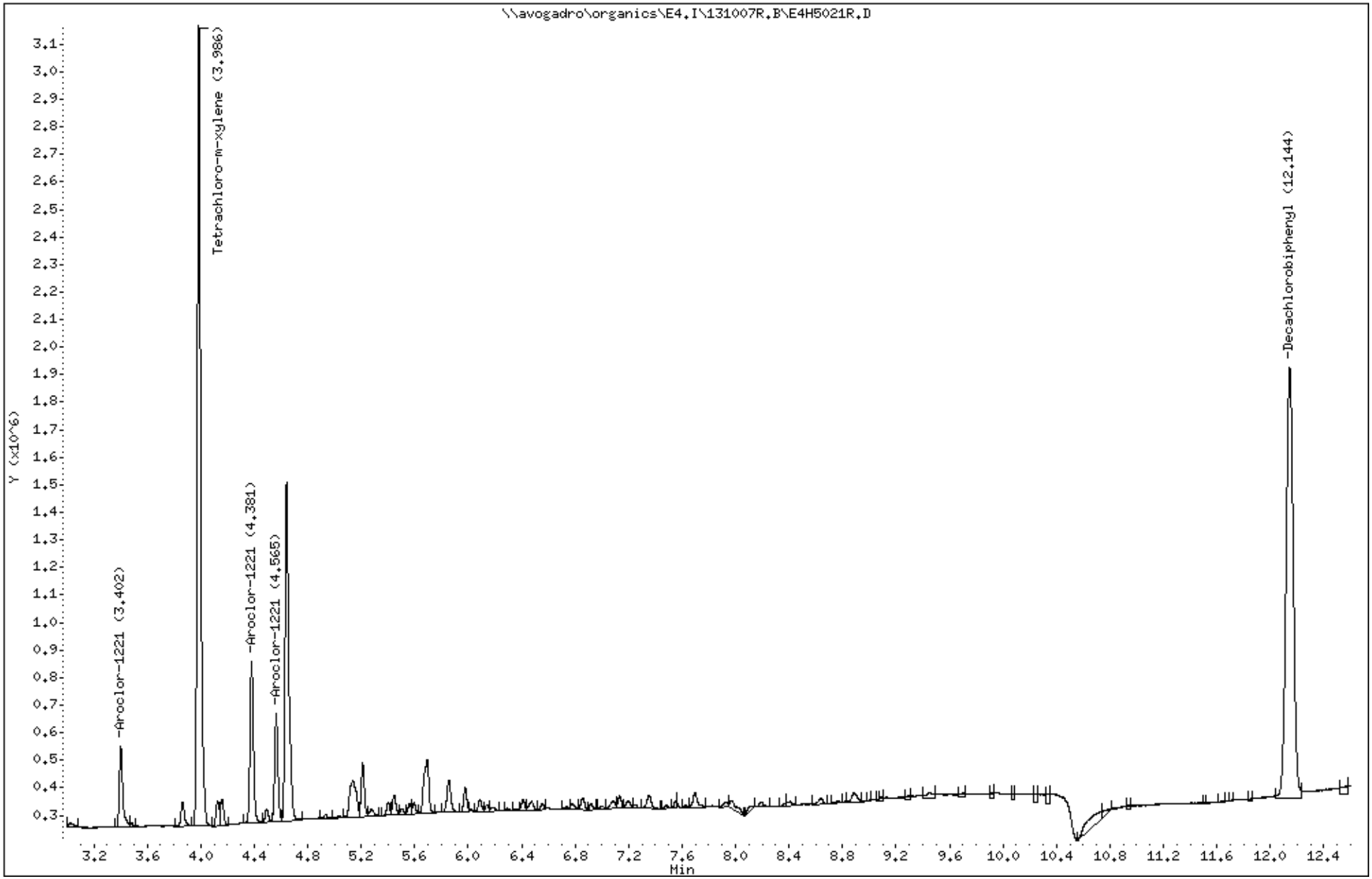
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.986	3.986	0.000	5097180	0.02000	0.027			(a)
2 Aroclor-1221						CAS #: 11104-28-2		
3.402	3.402	0.000	508763	0.40000	0.40	80.00- 120.00	100.00	(a)
4.380	4.378	0.002	1036672	0.40000	0.40	1666.91-1706.91	203.76	
4.564	4.563	0.001	668616	0.40000	0.40	1722.13-1762.13	131.42	
Average of Peak Amounts =				0.40000				
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.143	12.144	-0.001	5831970	0.04000	0.050			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5021R.D
Date : 07-OCT-2013 07:36
Client ID: AR12213J4
Instrument: E4.i
Sample Info: AR12213J4,AR12213J4,,ar1221.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5022F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5022F.D
Lab Smp Id: AR12323J4 Client Smp ID: AR12323J4
Inj Date : 07-OCT-2013 07:55
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR12323J4,AR12323J4,,ar1232.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 87 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

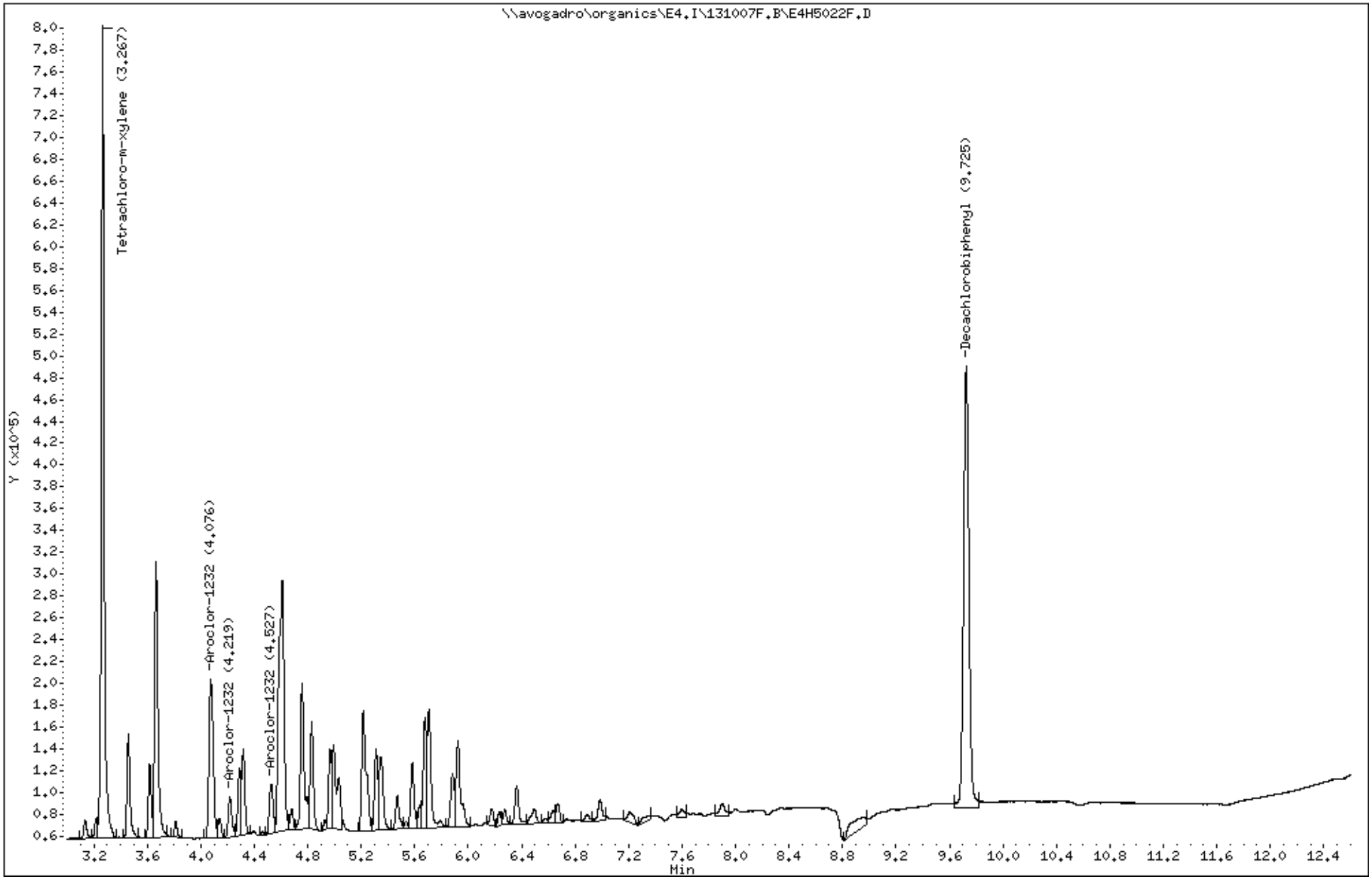
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.267	3.266	0.001	1115706	0.02000	0.025		(a)
4 Aroclor-1232					CAS #: 11141-16-5		
4.075	4.074	0.001	323549	0.40000	0.22	80.00- 120.00	100.00(a)
4.218	4.215	0.003	72772	0.40000	0.38	0.00- 33.76	22.49
4.527	4.524	0.003	90700	0.40000	0.22	10.16- 50.16	28.03
Average of Peak Amounts =					0.27333		
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
9.724	9.723	0.001	1135373	0.04000	0.046		(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5022F.D
Date : 07-OCT-2013 07:55
Client ID: AR12323J4 Instrument: E4.i
Sample Info: AR12323J4,AR12323J4,,ar1232.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPest Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5022R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5022R.D
Lab Smp Id: AR12323J4 Client Smp ID: AR12323J4
Inj Date : 07-OCT-2013 07:55
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12323J4,AR12323J4,,ar1232.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 87 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1232.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

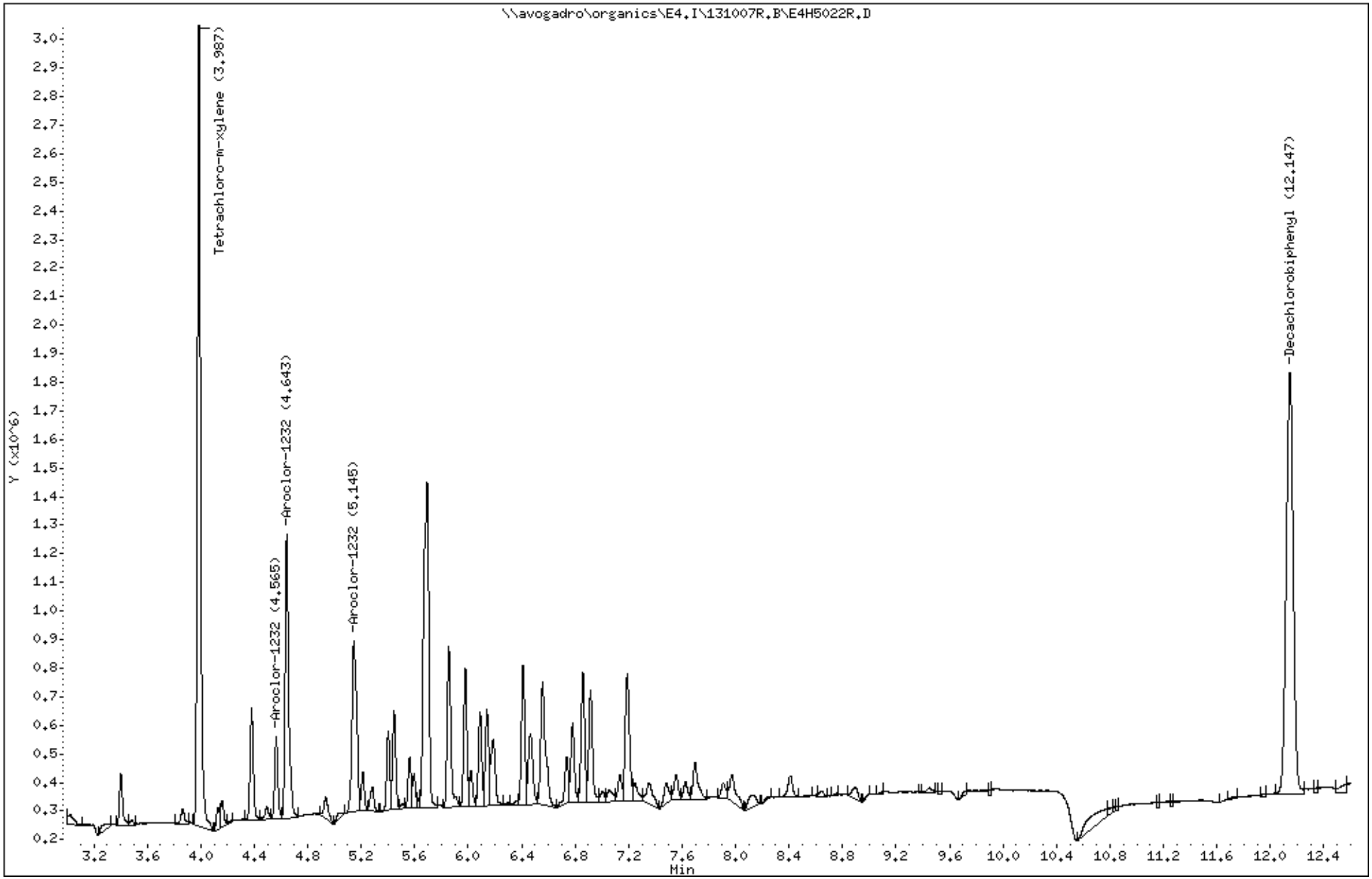
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.987	3.986	0.001	4715223	0.02000	0.025			(a)
3 Aroclor-1232					CAS #: 11141-16-5			
4.564	4.563	0.001	480182	0.40000	0.40	80.00- 120.00	100.00	(a)
4.643	4.642	0.001	1836703	0.40000	0.40	460.16- 500.16	382.50	
5.144	5.144	0.000	1472108	0.40000	0.40	917.24- 957.24	306.57	
Average of Peak Amounts =				0.40000				
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
12.147	12.144	0.003	5367315	0.04000	0.047			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5022R.D
Date : 07-OCT-2013 07:55
Client ID: AR12323J4 Instrument: E4.i
Sample Info: AR12323J4,AR12323J4,,ar1232.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPestII Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5023F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5023F.D
Lab Smp Id: AR12423J4 Client Smp ID: AR12423J4
Inj Date : 07-OCT-2013 08:13
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12423J4,AR12423J4,,ar1242.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 88 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

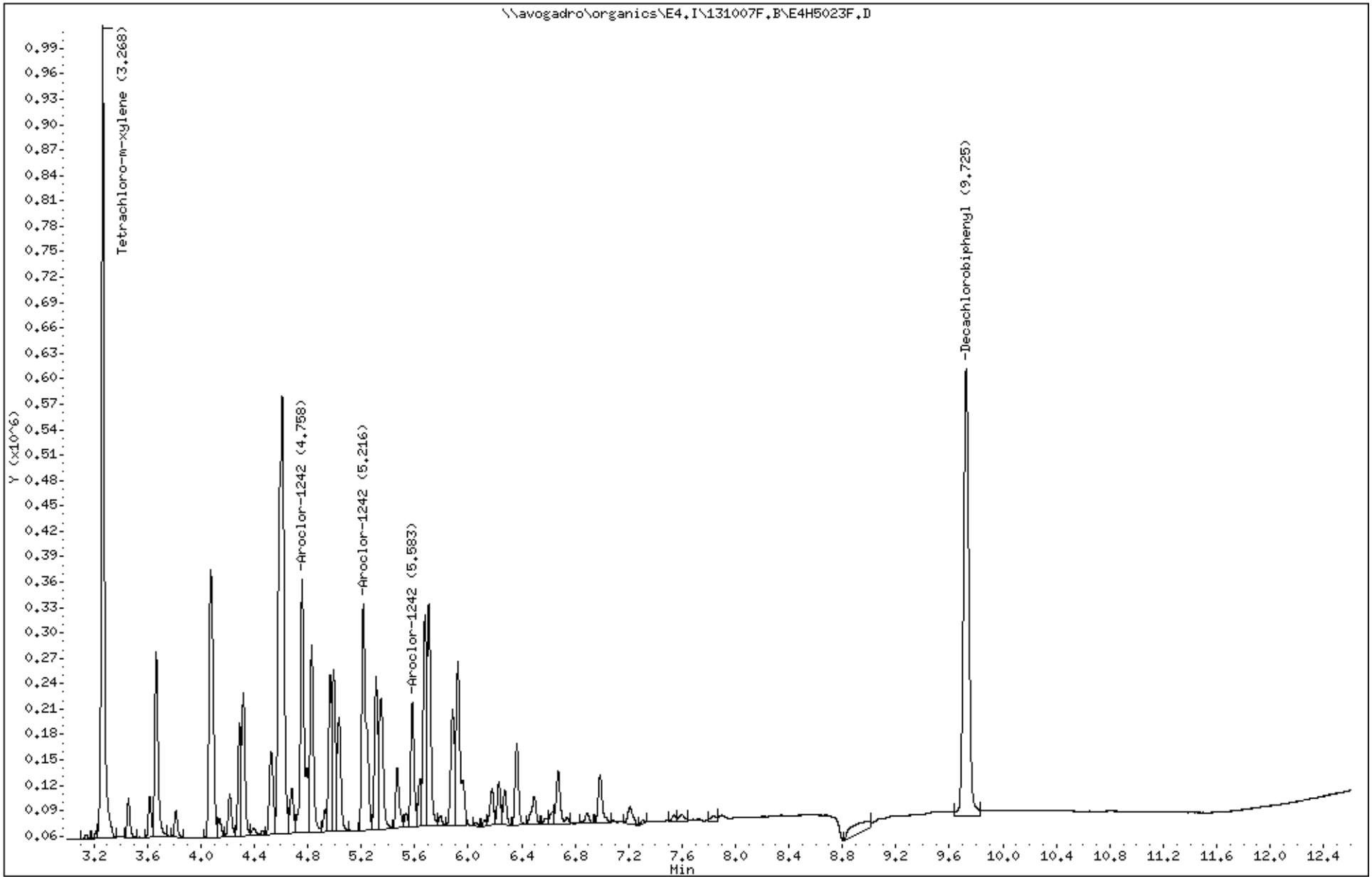
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.267	3.266	0.001	1402530	0.02000	0.032			(a)
6 Aroclor-1242					CAS #: 53469-21-9			
4.758	4.757	0.001	624737	0.40000	0.48	80.00- 120.00	100.00	(a)
5.215	5.214	0.001	615580	0.40000	0.49	92.99- 132.99	98.53	
5.582	5.580	0.002	258951	0.40000	1.3	0.00- 37.75	41.45	
Average of Peak Amounts =					0.75667			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.725	9.723	0.002	1472192	0.04000	0.061			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5023F.D
Date : 07-OCT-2013 08:13
Client ID: AR12423J4 Instrument: E4.i
Sample Info: AR12423J4,AR12423J4,,ar1242.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPest Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5023R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5023R.D
Lab Smp Id: AR12423J4 Client Smp ID: AR12423J4
Inj Date : 07-OCT-2013 08:13
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12423J4,AR12423J4,,ar1242.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 88 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1242.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

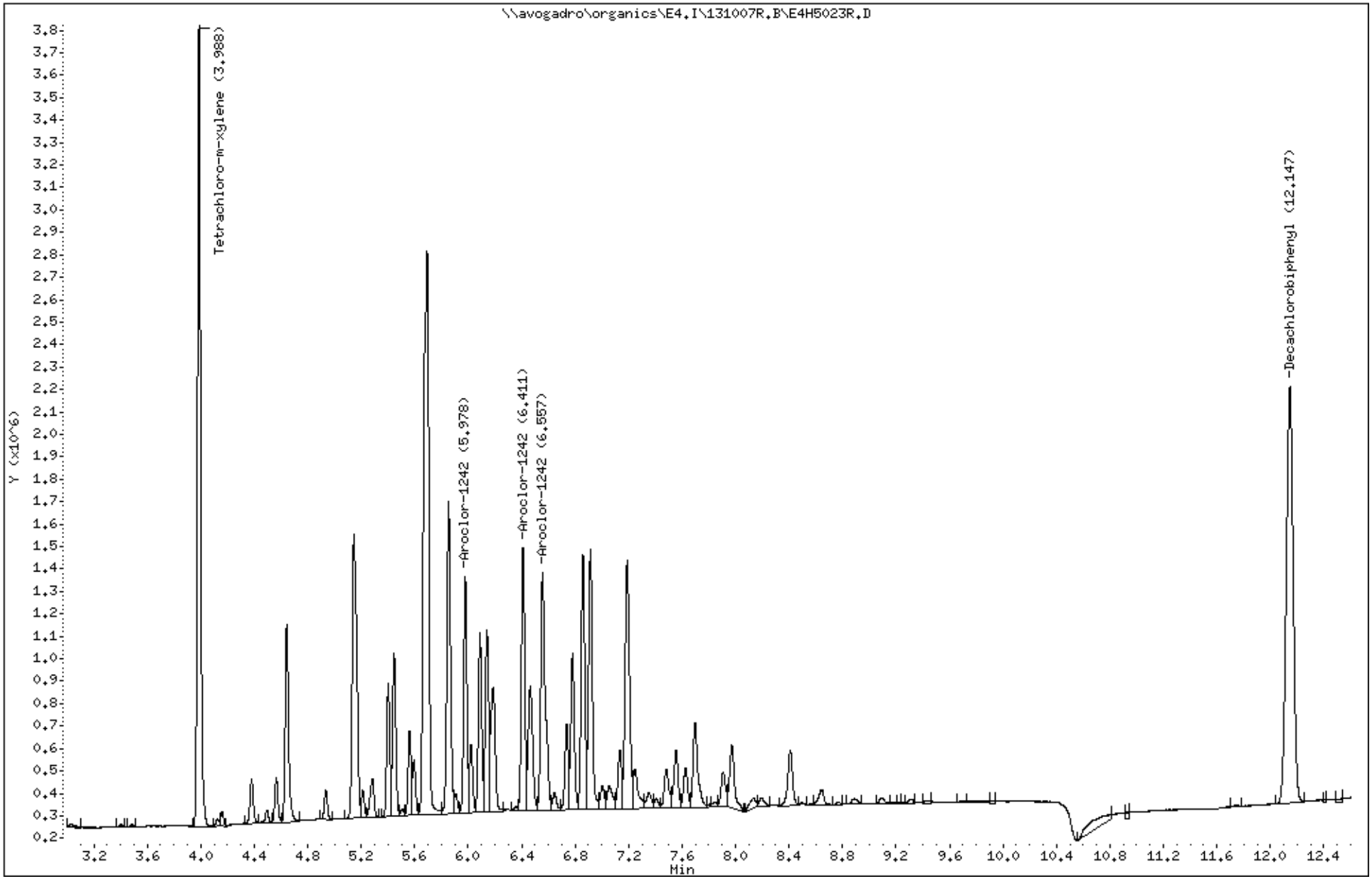
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.987	3.986	0.001	5742540	0.02000	0.029		(a)
4 Aroclor-1242					CAS #: 53469-21-9		
5.978	5.977	0.001	1762071	0.40000	0.40	80.00- 120.00	100.00(a)
6.410	6.409	0.001	2097907	0.40000	0.40	94.27- 134.27	119.06
6.556	6.556	0.000	2551335	0.40000	0.40	130.59- 170.59	144.79
Average of Peak Amounts =				0.40000			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
12.146	12.144	0.002	6636145	0.04000	0.056		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5023R.D
Date : 07-OCT-2013 08:13
Client ID: AR12423J4
Instrument: E4.i
Sample Info: AR12423J4,AR12423J4,,ar1242.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5024F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5024F.D
Lab Smp Id: AR12483J4 Client Smp ID: AR12483J4
Inj Date : 07-OCT-2013 08:31
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR12483J4,AR12483J4,,ar1248.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 89 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

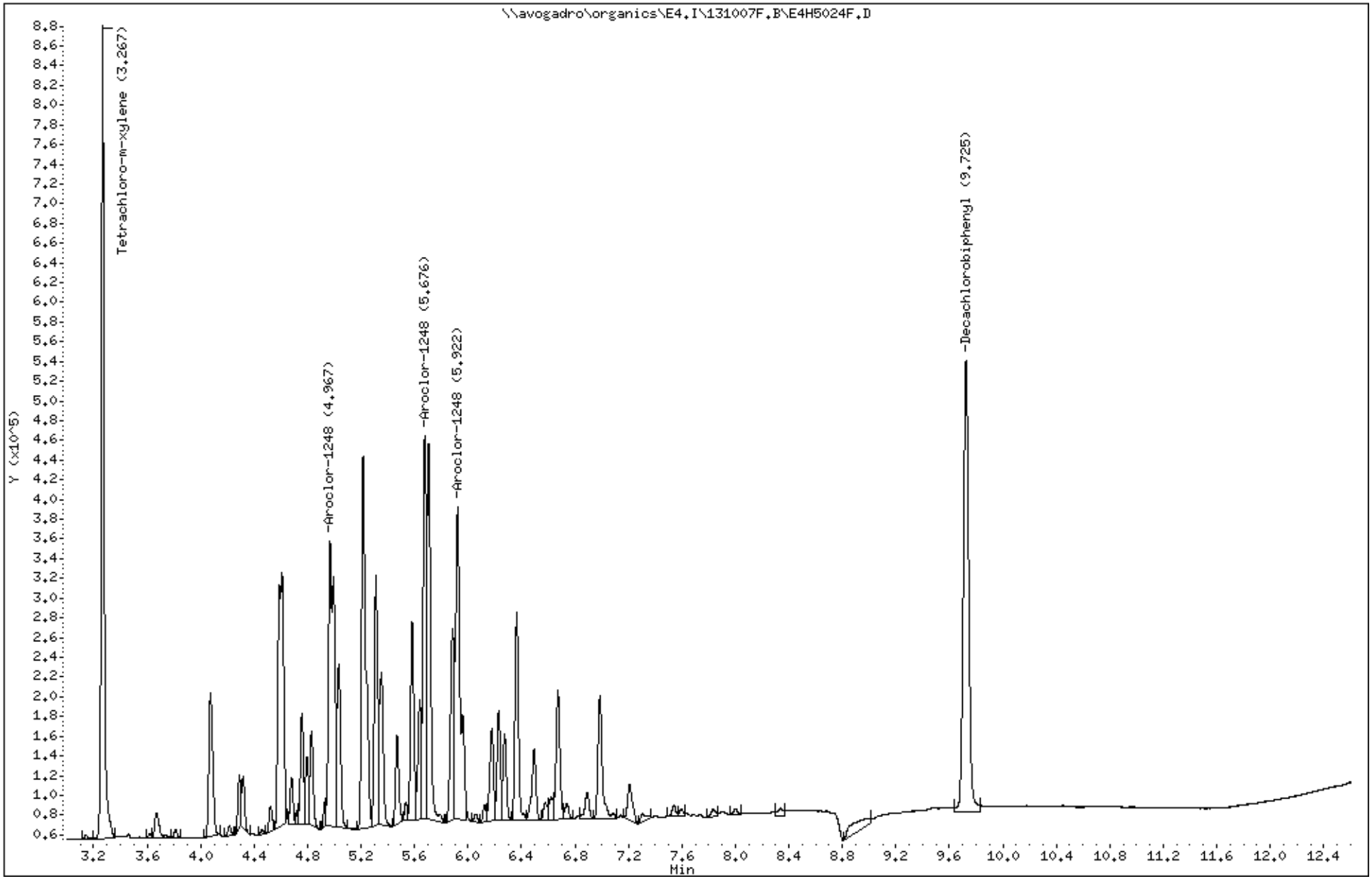
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.267	3.266	0.001	1202134	0.02000	0.026			(a)
7 Aroclor-1248					CAS #: 12672-29-6			
4.967	4.966	0.001	843794	0.40000	1.4	80.00- 120.00	100.00	
5.675	5.673	0.002	656102	0.40000	1.2	67.30- 107.30	77.76	
5.922	5.919	0.003	791897	0.40000	1.1	109.10- 149.10	93.85	
Average of Peak Amounts =					1.23333			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.724	9.723	0.001	1284456	0.04000	0.050			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5024F.D
Date : 07-OCT-2013 08:31
Client ID: AR12483J4 Instrument: E4.i
Sample Info: AR12483J4,AR12483J4,,ar1248.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPest Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5024R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5024R.D
Lab Smp Id: AR12483J4 Client Smp ID: AR12483J4
Inj Date : 07-OCT-2013 08:31
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12483J4,AR12483J4,,ar1248.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 89 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1248.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

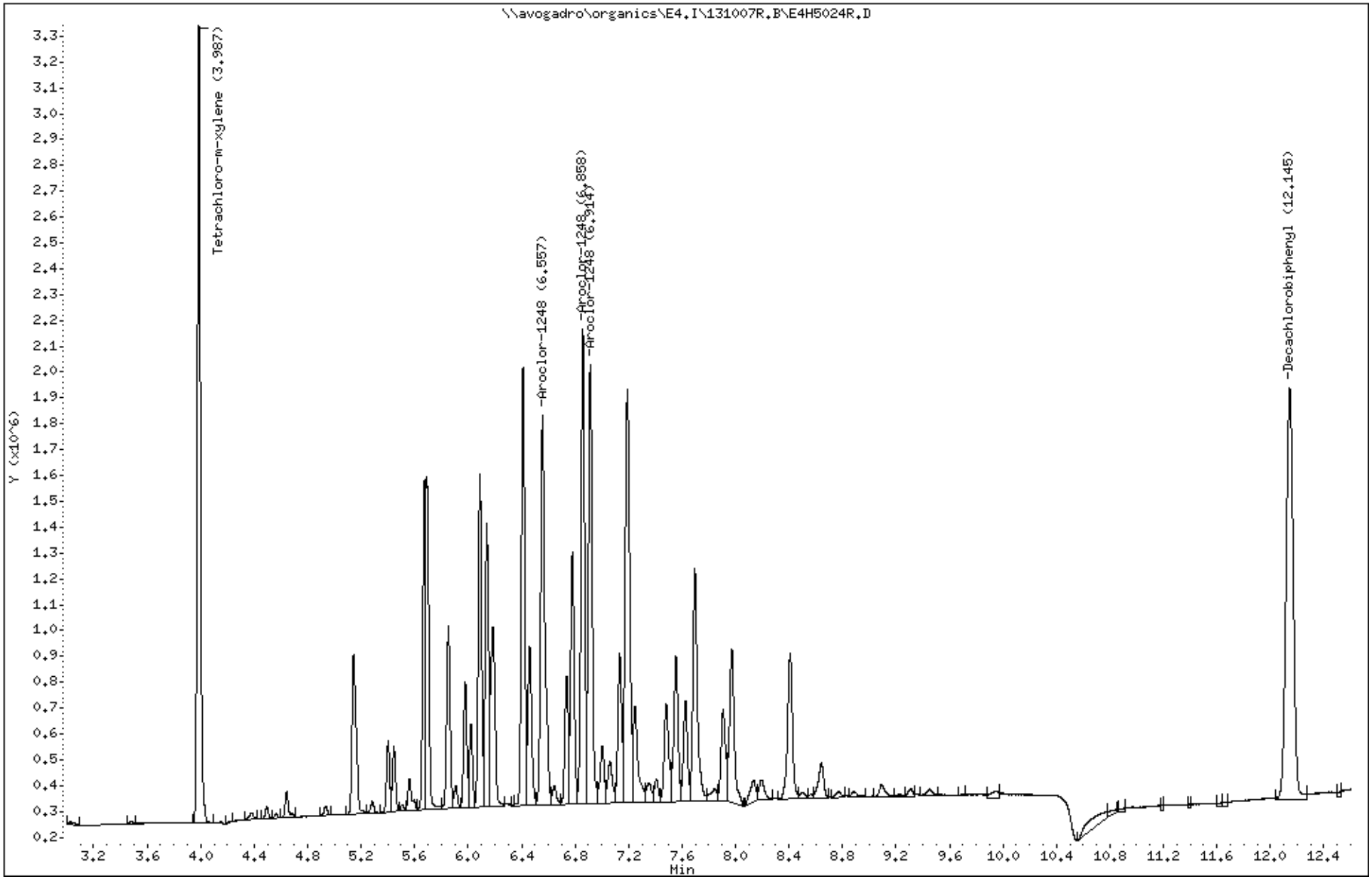
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.986	3.986	0.000	4967883	0.02000	0.026			(a)
5 Aroclor-1248					CAS #: 12672-29-6			
6.556	6.556	0.000	3417475	0.40000	0.40	80.00- 120.00	100.00	(a)
6.858	6.857	0.001	3416301	0.40000	0.40	1.86- 41.86	99.97	
6.914	6.912	0.002	3432427	0.40000	0.40	26.62- 66.62	100.44	
Average of Peak Amounts =				0.40000				
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
12.144	12.144	0.000	5969734	0.04000	0.051			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5024R.D
Date : 07-OCT-2013 08:31
Client ID: AR12483J4
Instrument: E4.i
Sample Info: AR12483J4,AR12483J4,,ar1248.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5025F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5025F.D
Lab Smp Id: AR12543J4 Client Smp ID: AR12543J4
Inj Date : 07-OCT-2013 08:49
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12543J4,AR12543J4,,ar1254.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 90 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

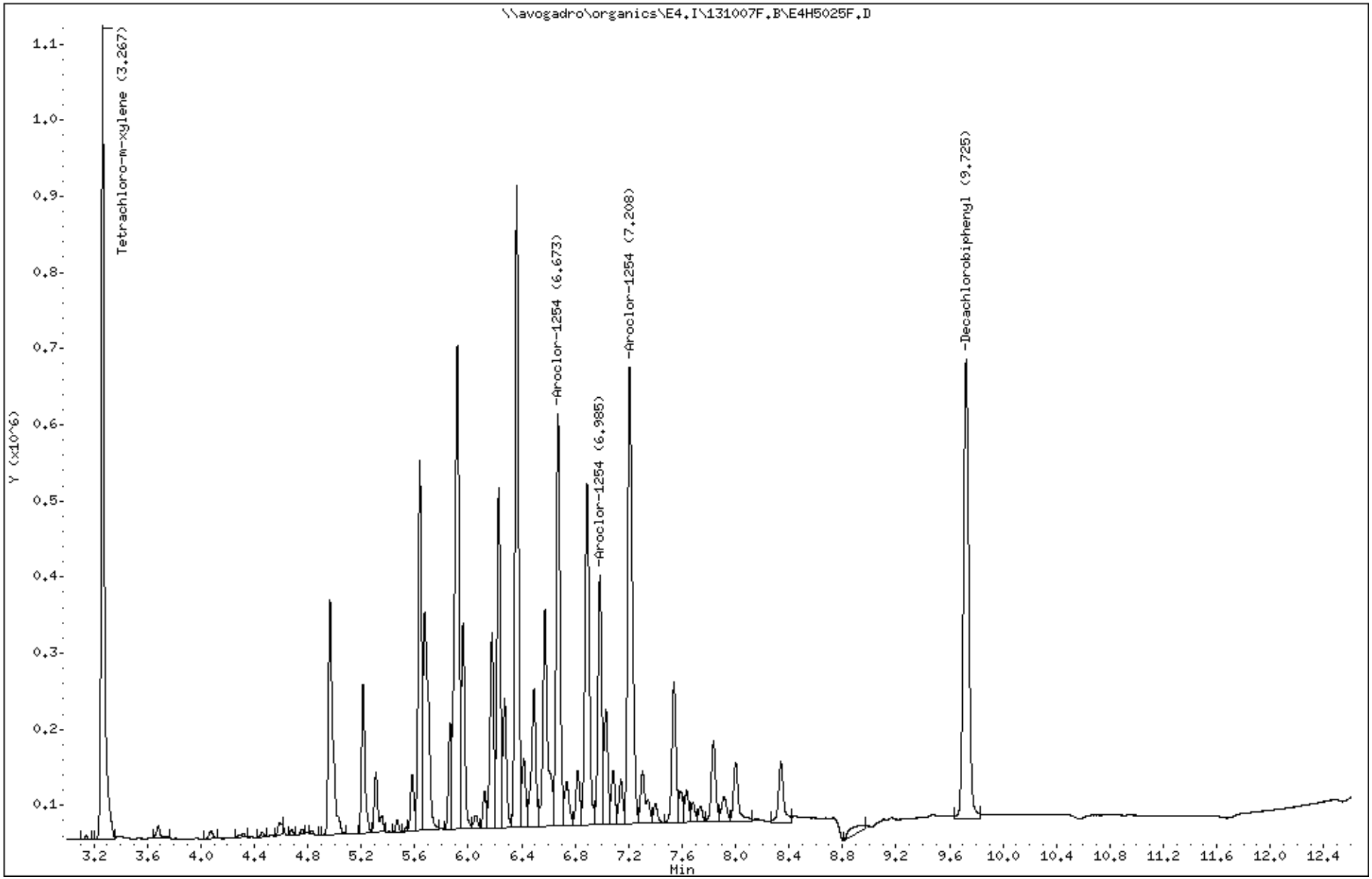
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

			AMOUNTS				
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.267	3.266	0.001	1677552	0.02000	0.038		(a)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
9.724	9.723	0.001	1681165	0.04000	0.068		
8 Aroclor-1254					CAS #: 11097-69-1		
6.672	6.677	-0.005	1116095	0.40000	5.6	80.00- 120.00	100.00
6.985	6.942	0.043	652751	0.40000	1.2	178.93- 218.93	58.49
7.207	7.206	0.001	1461034	0.40000	0.57	1160.03-1200.03	130.91
Average of Peak Amounts =					2.45667		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5025F.D
Date : 07-OCT-2013 08:49
Client ID: AR12543J4
Instrument: E4.i
Sample Info: AR12543J4,AR12543J4,,ar1254.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5025R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5025R.D
Lab Smp Id: AR12543J4 Client Smp ID: AR12543J4
Inj Date : 07-OCT-2013 08:49
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12543J4,AR12543J4,,ar1254.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 90 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1254.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

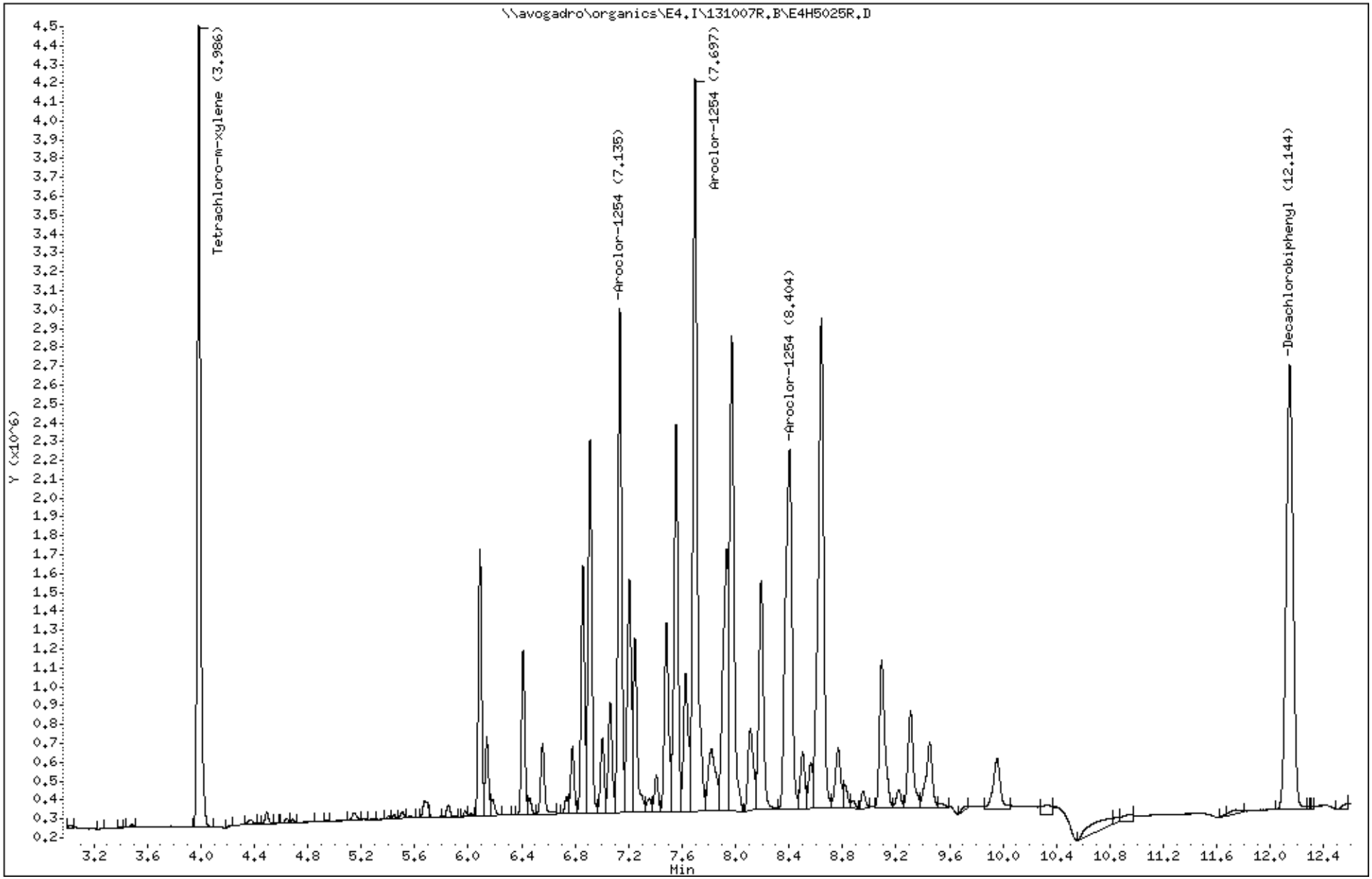
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.986	3.986	0.000	7087928	0.02000	0.034			(a)
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
12.143	12.144	-0.001	8453566	0.04000	0.066			
7 Aroclor-1254					CAS #: 11097-69-1			
7.134	7.133	0.001	5119297	0.40000	0.40	80.00- 120.00	100.00	(a)
7.697	7.696	0.001	8706781	0.40000	0.40	9.33- 49.33	170.08	
8.403	8.390	0.013	6406603	0.40000	0.40	304.25- 344.25	125.15	
Average of Peak Amounts =					0.40000			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5025R.D
Date : 07-OCT-2013 08:49
Client ID: AR12543J4
Instrument: E4.i
Sample Info: AR12543J4,AR12543J4,,ar1254.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5026F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5026F.D
Lab Smp Id: AR12623J4 Client Smp ID: AR12623J4
Inj Date : 07-OCT-2013 09:07
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR12623J4,AR12623J4,,ar1262.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 91 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1262.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

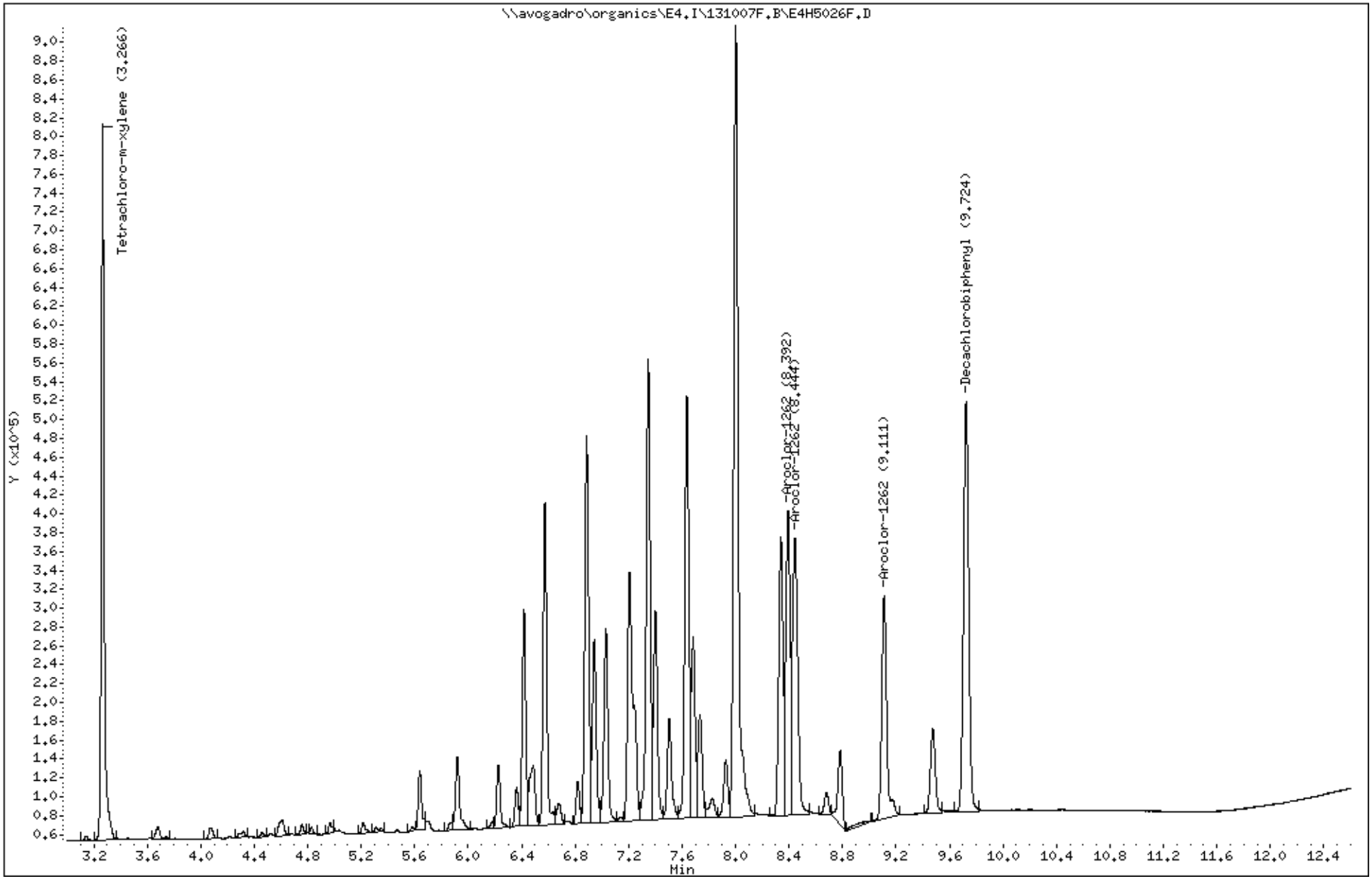
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.265	3.266	-0.001	1135932	0.02000	0.026			(a)
2 Aroclor-1262					CAS #: 37324-23-5			
8.391	8.392	-0.001	732077	0.40000	0.40	80.00- 120.00	100.00	(M)M3 AL 10/07
8.444	8.444	0.000	816365	0.40000	0.40	112.91- 152.91	111.51	
9.110	9.110	0.000	612282	0.40000	0.40	94.94- 134.94	83.64	
Average of Peak Amounts =					0.40000			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.724	9.723	0.001	1191402	0.04000	0.049			(a)

QC Flag Legend

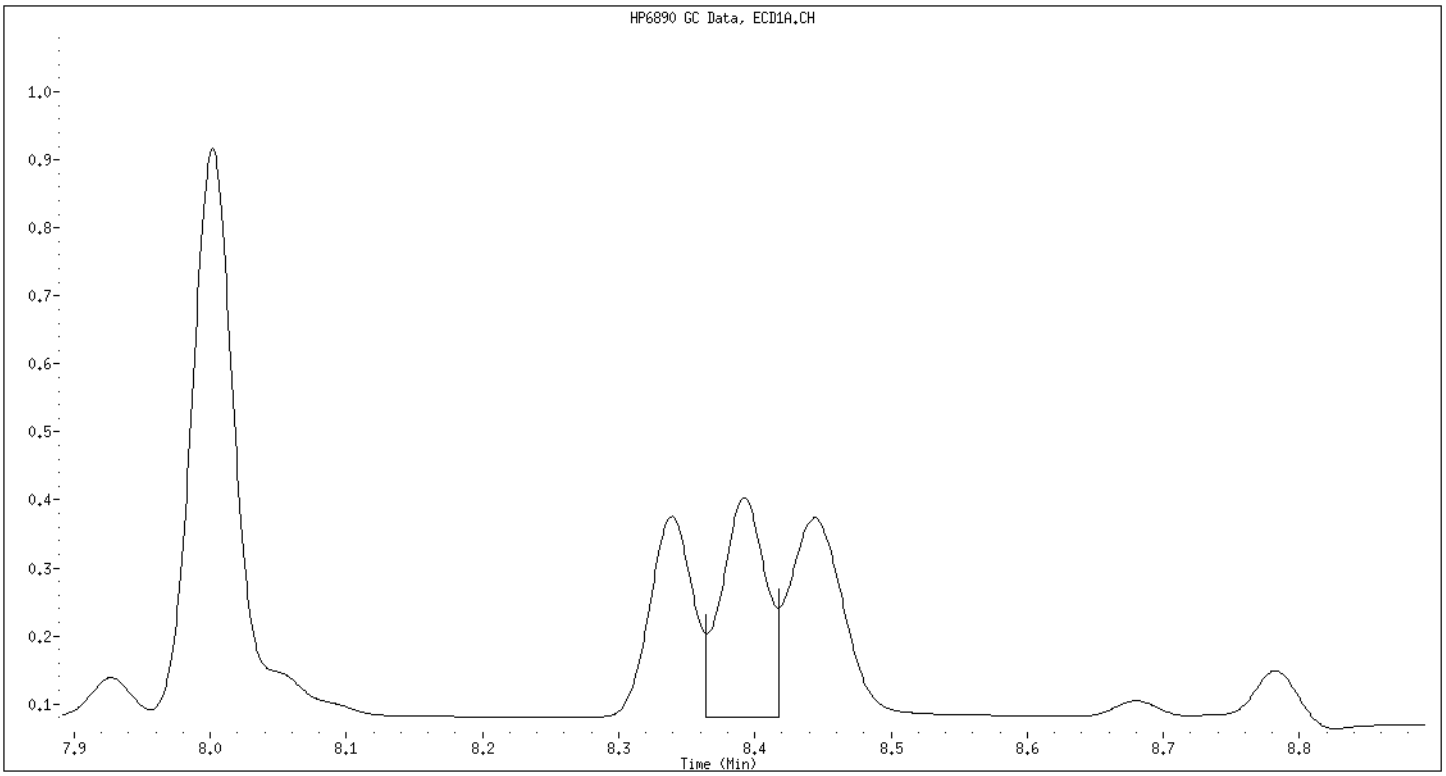
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5026F.D
Date : 07-OCT-2013 09:07
Client ID: AR12623J4
Instrument: E4.i
Sample Info: AR12623J4,AR12623J4,,ar1262.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Manual Integration Report Data File: \\avogadro\organics\E4.I\131007F.B\E4H5026F.D

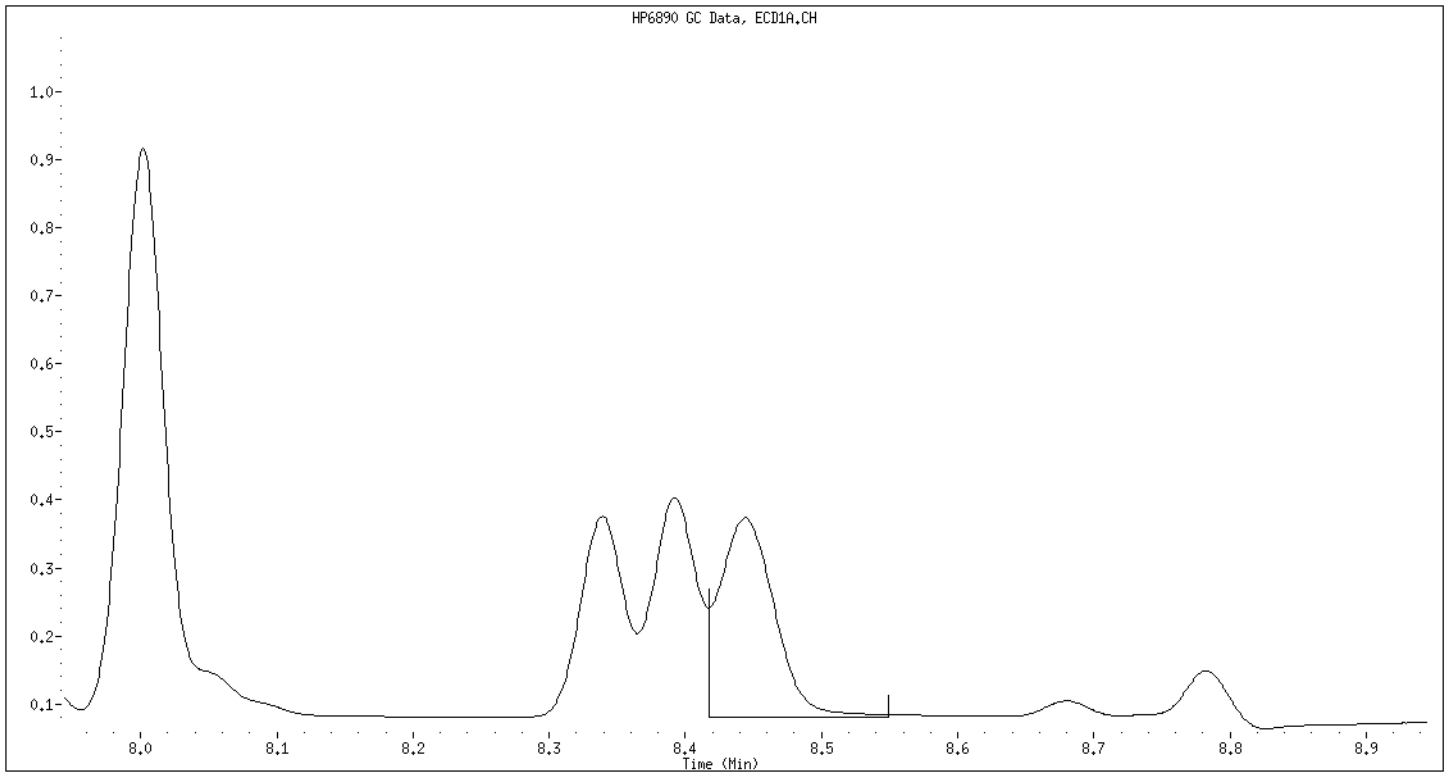
Lab ID: AR12623J4 Client ID: AR12623J4 Inj Vol: 1 uL
Inj Date: 07-OCT-2013 09:07 Operator: AL SRC: AL



Manual Integration Aroclor-1262 Response: 732077 Range: 8.364 to 8.418 min

Manual Integration Report Data File: \\avogadro\organics\E4.I\131007F.B\E4H5026F.D

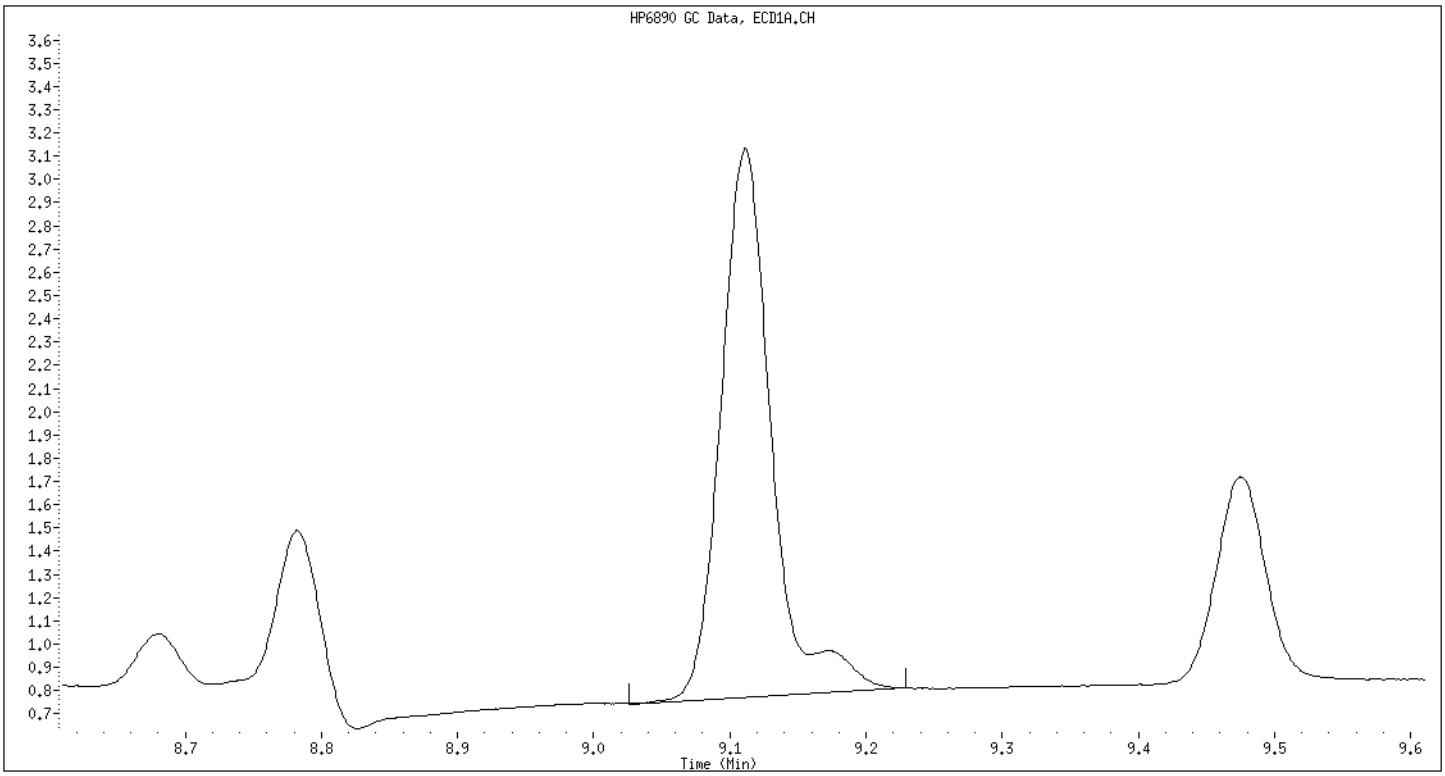
Lab ID: AR12623J4 Client ID: AR12623J4 Inj Vol: 1 uL
Inj Date: 07-OCT-2013 09:07 Operator: AL SRC: AL



Manual Integration Aroclor-1262 Response: 816365 Range: 8.418 to 8.549 min

Manual Integration Report Data File: \\avogadro\organics\E4.I\131007F.B\E4H5026F.D

Lab ID: AR12623J4 Client ID: AR12623J4 Inj Vol: 1 uL
Inj Date: 07-OCT-2013 09:07 Operator: AL SRC: AL



Manual Integration Aroclor-1262 Response: 612282 Range: 9.026 to 9.229 min

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5026R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5026R.D
Lab Smp Id: AR12623J4 Client Smp ID: AR12623J4
Inj Date : 07-OCT-2013 09:07
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR12623J4,AR12623J4,,ar1262.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 91 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1262.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

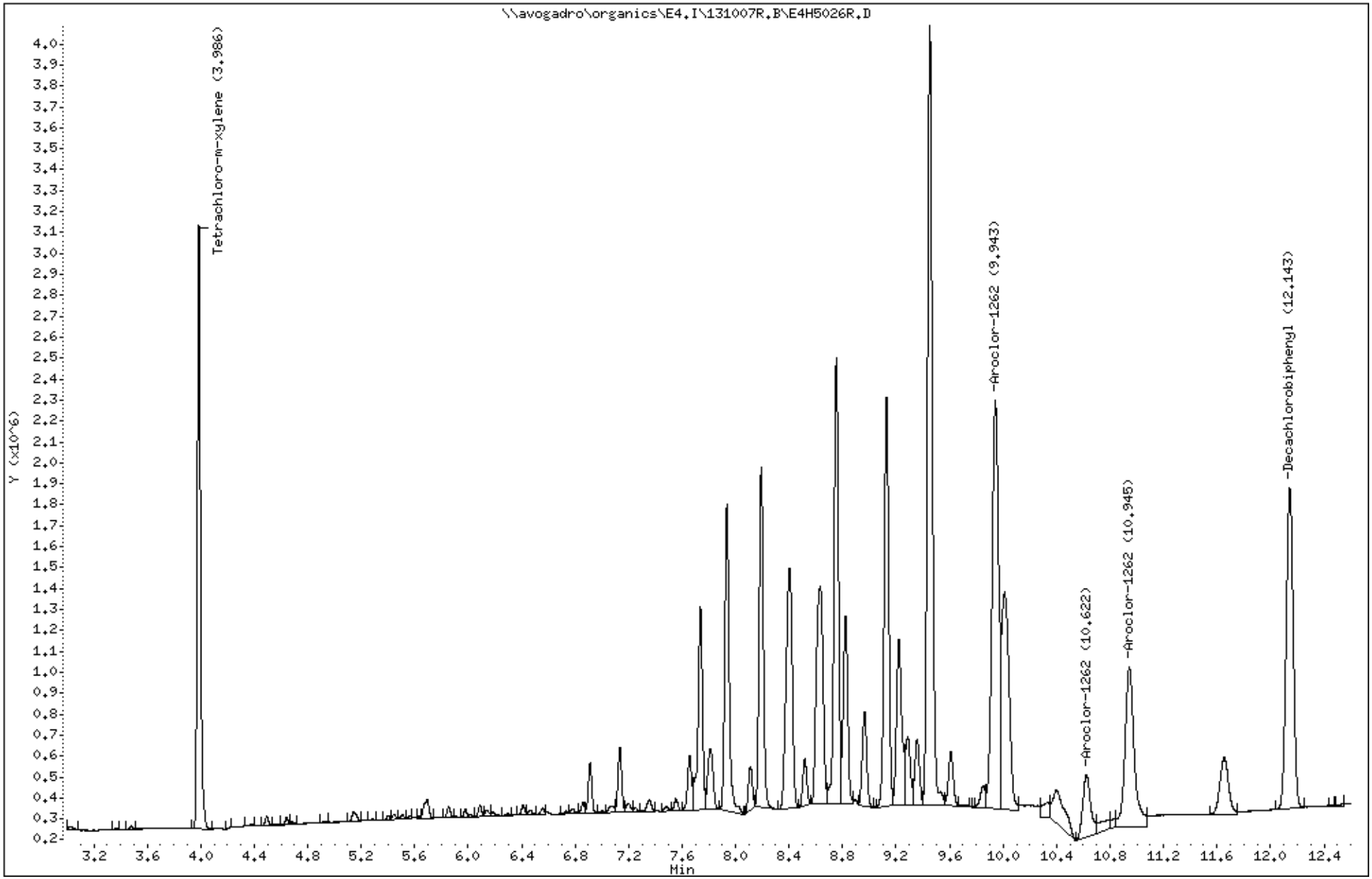
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.985	3.986	-0.001	4766390	0.02000	0.026			(a)
10 Aroclor-1262					CAS #: 37324-23-5			
9.942	9.950	-0.008	6796102	0.40000	0.40	80.00- 120.00	100.00	
10.621	10.622	-0.001	1210745	0.40000	0.40	0.00- 32.67	17.82	
10.945	10.945	0.000	3697411	0.40000	0.40	18.73- 58.73	54.40	
Average of Peak Amounts =					0.40000			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
12.143	12.144	-0.001	5577563	0.04000	0.049			(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5026R.D
Date : 07-OCT-2013 09:07
Client ID: AR12623J4 Instrument: E4.i
Sample Info: AR12623J4,AR12623J4,,ar1262.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPestII Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5027F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5027F.D
Lab Smp Id: AR12683J4 Client Smp ID: AR12683J4
Inj Date : 07-OCT-2013 09:25
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR12683J4,AR12683J4,,ar1268.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.M
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 92 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1268.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

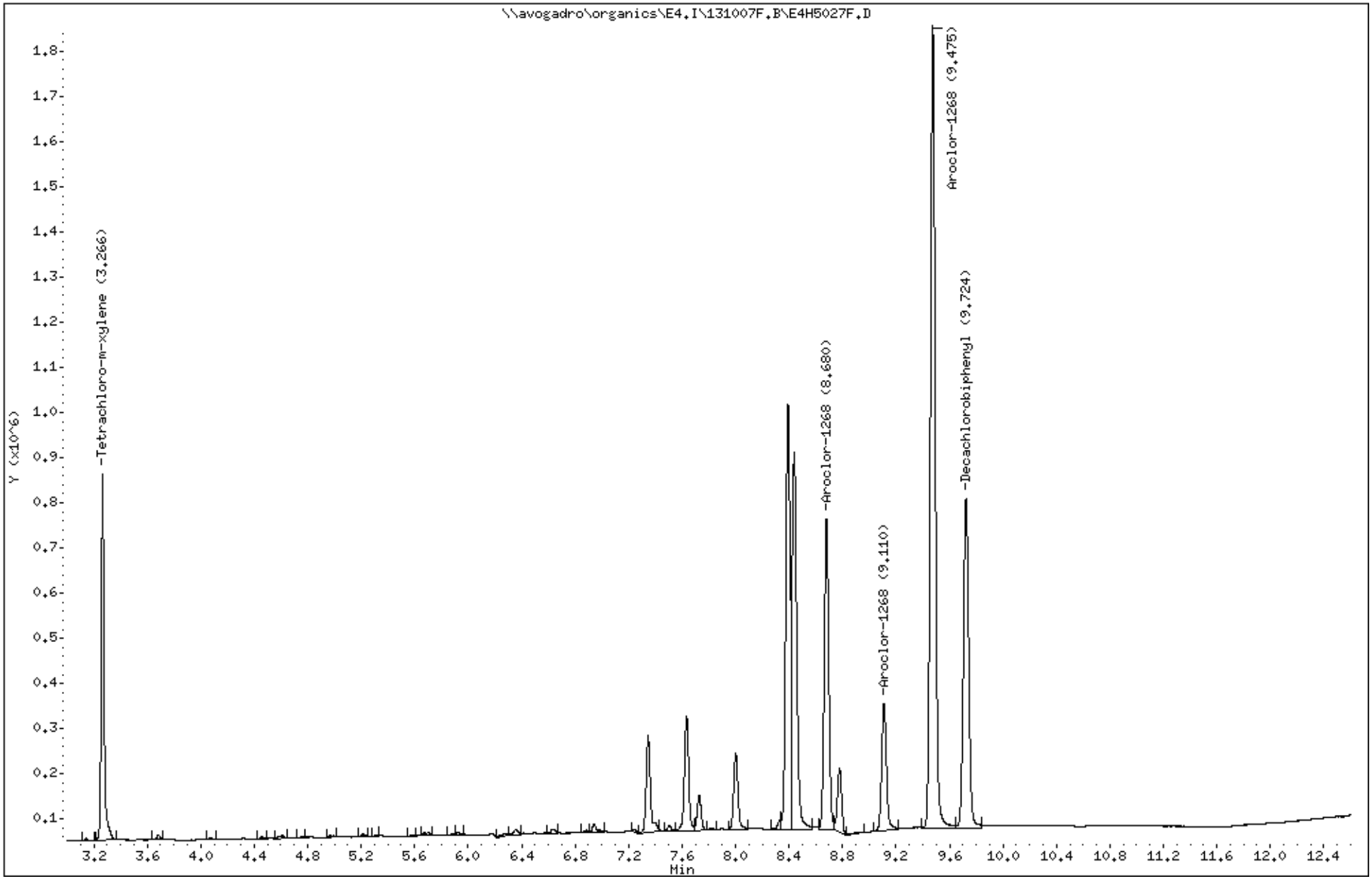
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.266	3.266	0.000	1203366	0.02000	0.027			(a)
10 Aroclor-1268					CAS #: 11100-14-4			
8.680	8.678	0.002	1601095	0.40000	54	80.00- 120.00	100.00	(A)
9.110	9.110	0.000	703487	0.40000	0.81	947.71- 987.71	43.94	
9.474	9.473	0.001	4491332	0.40000	20	326.25- 366.25	280.52	
Average of Peak Amounts =					24.9367			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.723	9.723	0.000	2021948	0.04000	0.083			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
    exceeded maximum amount.

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5027F.D
Date : 07-OCT-2013 09:25
Client ID: AR12683J4 Instrument: E4.i
Sample Info: AR12683J4,AR12683J4,,ar1268.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPest Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5027R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5027R.D
Lab Smp Id: AR12683J4 Client Smp ID: AR12683J4
Inj Date : 07-OCT-2013 09:25
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR12683J4,AR12683J4,,ar1268.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 92 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1268.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

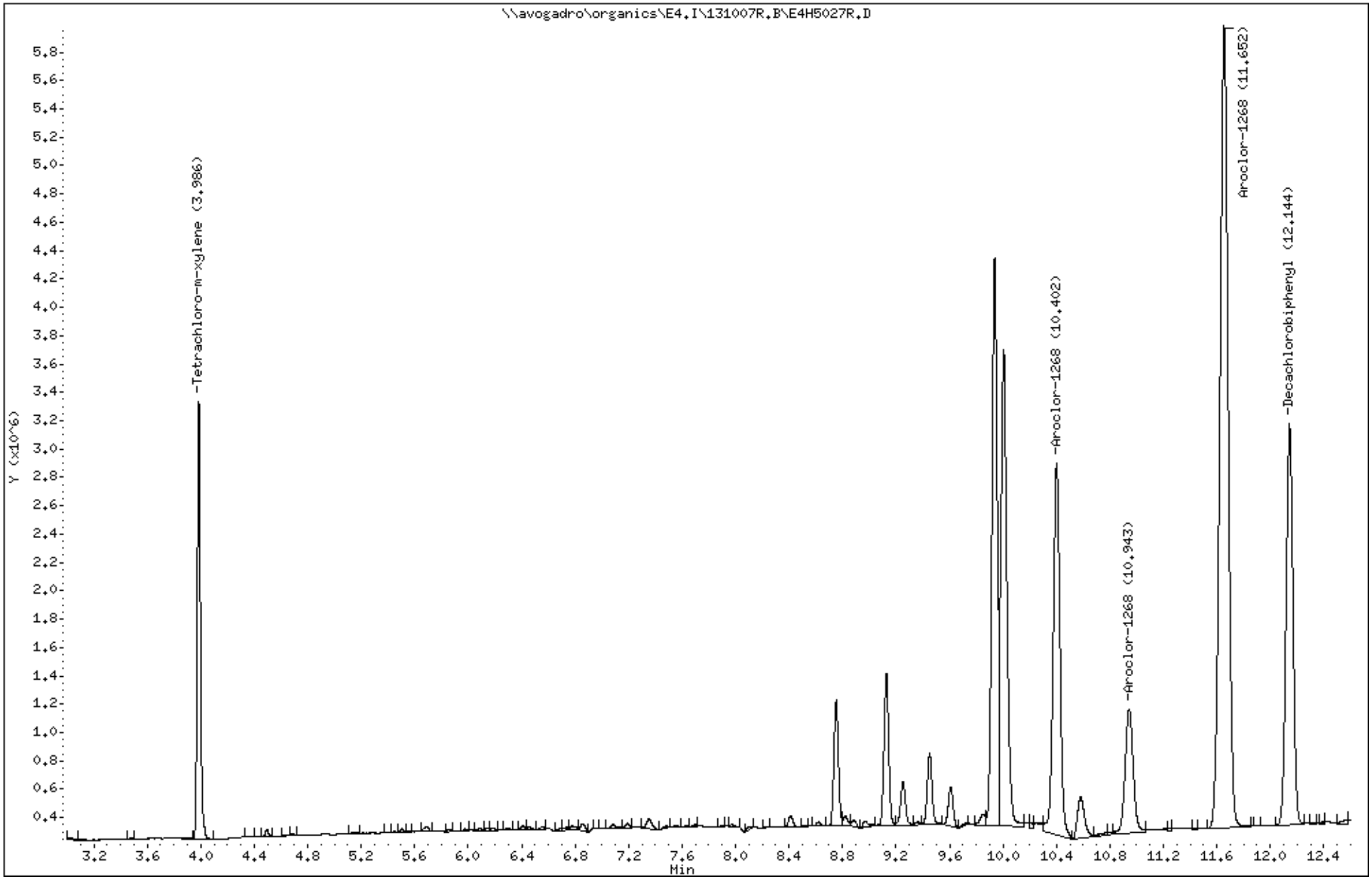
Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.986	3.986	0.000	5067965	0.02000	0.027			(a)
9 Aroclor-1268						CAS #: 11100-14-4		
10.402	10.401	0.001	9187141	0.40000	0.40	80.00- 120.00	100.00	(a)
10.942	10.945	-0.003	3762101	0.40000	0.40	539.43- 579.43	40.95	
11.652	11.654	-0.002	24092331	0.40000	0.40	132.49- 172.49	262.24	
Average of Peak Amounts =				0.40000				
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.143	12.144	-0.001	10058826	0.04000	0.074			

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5027R.D
Date : 07-OCT-2013 09:25
Client ID: AR12683J4
Instrument: E4.i
Sample Info: AR12683J4,AR12683J4,,ar1268.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5028F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5028F.D
Lab Smp Id: AR16601J4 Client Smp ID: AR16601J4
Inj Date : 07-OCT-2013 09:43
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR16601J4,AR16601J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.m
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 09:43 Cal File: E4H5028F.D
Als bottle: 81 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET106

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

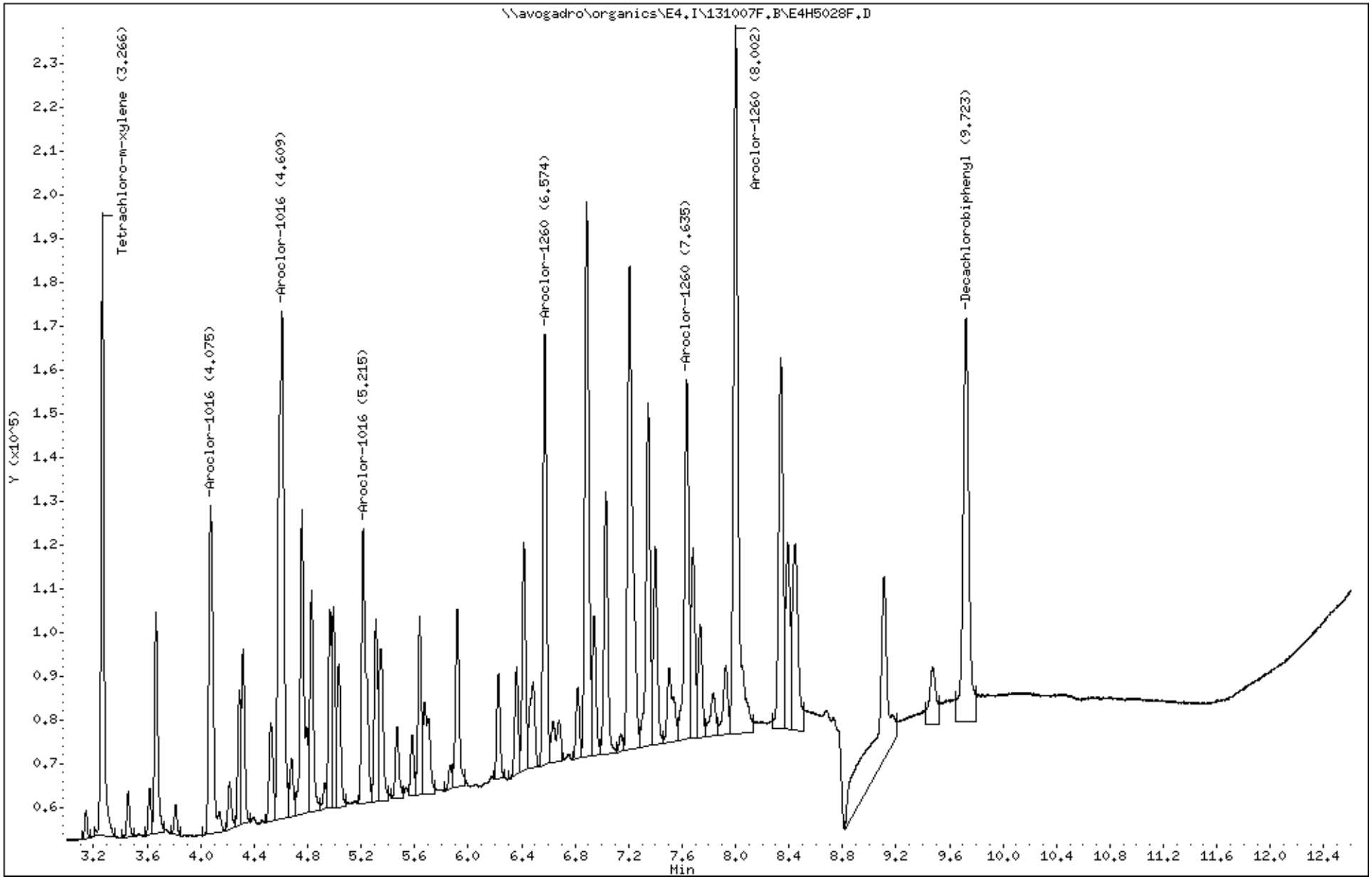
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.265	3.266	-0.001	217320	0.00500	0.0054			(a)
5 Aroclor-1016						CAS #: 12674-11-2		
4.074	4.074	0.000	173283	0.10000	0.12	80.00- 120.00	100.00	(a)
4.609	4.607	0.002	330019	0.10000	0.11	175.56- 215.56	190.45	
5.214	5.214	0.000	147257	0.10000	0.12	63.47- 103.47	84.98	
Average of Peak Amounts =					0.11667			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
9.723	9.723	0.000	282382	0.01000	0.012			(a)
9 Aroclor-1260						CAS #: 11096-82-5		
6.574	6.573	0.001	181033	0.10000	0.11	80.00- 120.00	100.00	(a)
7.634	7.635	-0.001	184738	0.10000	0.12	71.66- 111.66	102.05	
8.001	8.001	0.000	400088	0.10000	0.12	184.74- 224.74	221.00	
Average of Peak Amounts =					0.11667			

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5028F.D
Report Date: 07-Oct-2013 15:04

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5028F.D
Date : 07-OCT-2013 09:43
Client ID: AR16601J4
Instrument: E4.i
Sample Info: AR16601J4,AR16601J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5028R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5028R.D
Lab Smp Id: AR16601J4 Client Smp ID: AR16601J4
Inj Date : 07-OCT-2013 09:43
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16601J4,AR16601J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 09:43 Cal File: E4H5028R.D
Als bottle: 81 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

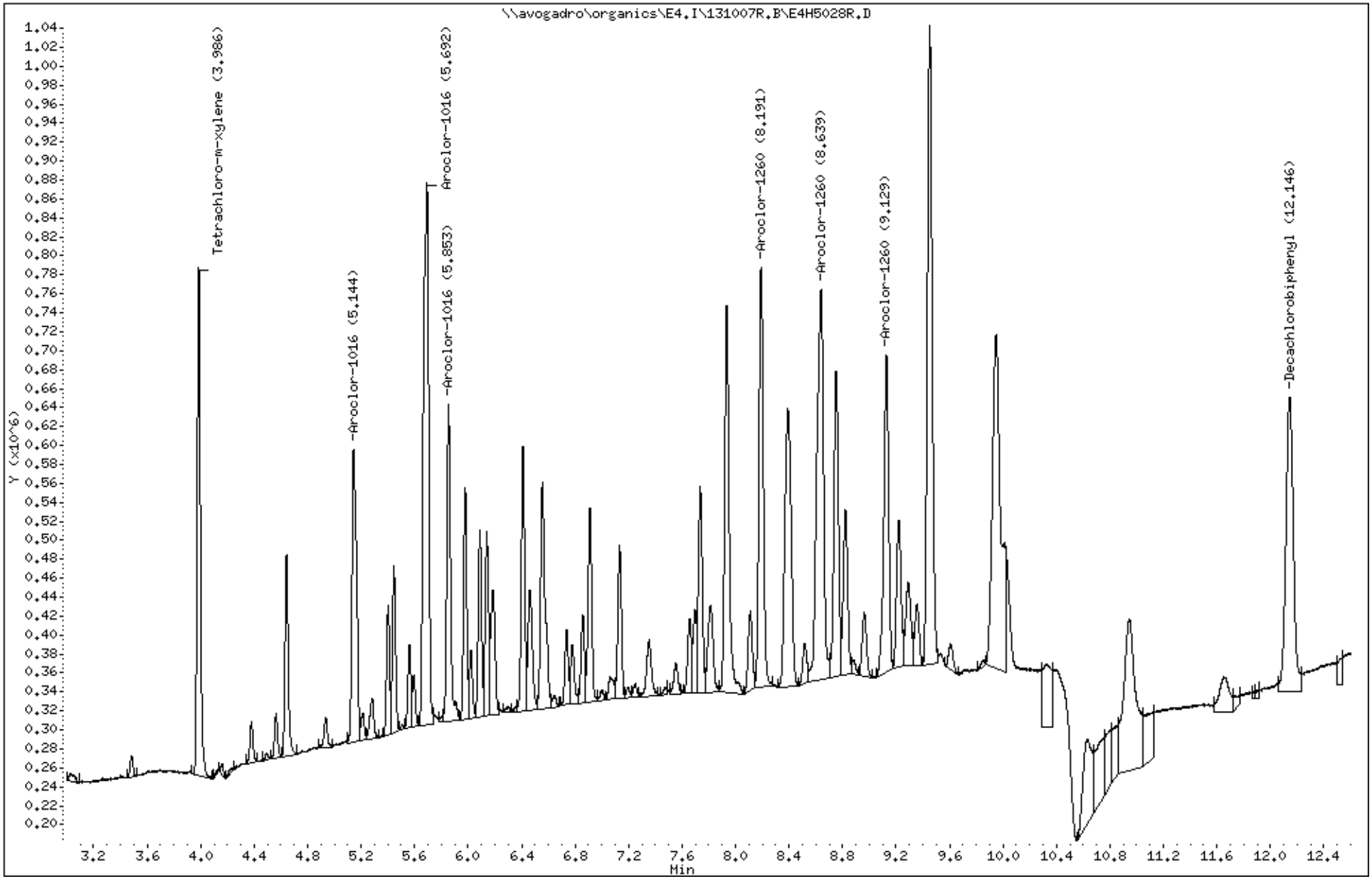
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.985	3.986	-0.001	900785	0.00500	0.0052			(a)
6 Aroclor-1016						CAS #: 12674-11-2		
5.144	5.144	0.000	729651	0.10000	0.12	80.00- 120.00	100.00	(a)
5.691	5.692	-0.001	1535340	0.10000	0.11	203.15- 243.15	210.42	
5.853	5.854	-0.001	657068	0.10000	0.12	67.78- 107.78	90.05	
Average of Peak Amounts =					0.11667			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.145	12.144	0.001	1211412	0.01000	0.011			(a)
8 Aroclor-1260						CAS #: 11096-82-5		
8.190	8.190	0.000	1012677	0.10000	0.11	80.00- 120.00	100.00	(a)
8.639	8.638	0.001	1410263	0.10000	0.10	120.37- 160.37	139.26	
9.129	9.127	0.002	838099	0.10000	0.11	61.11- 101.11	82.76	
Average of Peak Amounts =					0.10667			

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5028R.D
Report Date: 07-Oct-2013 15:05

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5028R.D
Date : 07-OCT-2013 09:43
Client ID: AR16601J4
Instrument: E4.i
Sample Info: AR16601J4,AR16601J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5029F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5029F.D
Lab Smp Id: AR16602J4 Client Smp ID: AR16602J4
Inj Date : 07-OCT-2013 10:01
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16602J4,AR16602J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.m
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:01 Cal File: E4H5029F.D
Als bottle: 82 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET106

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

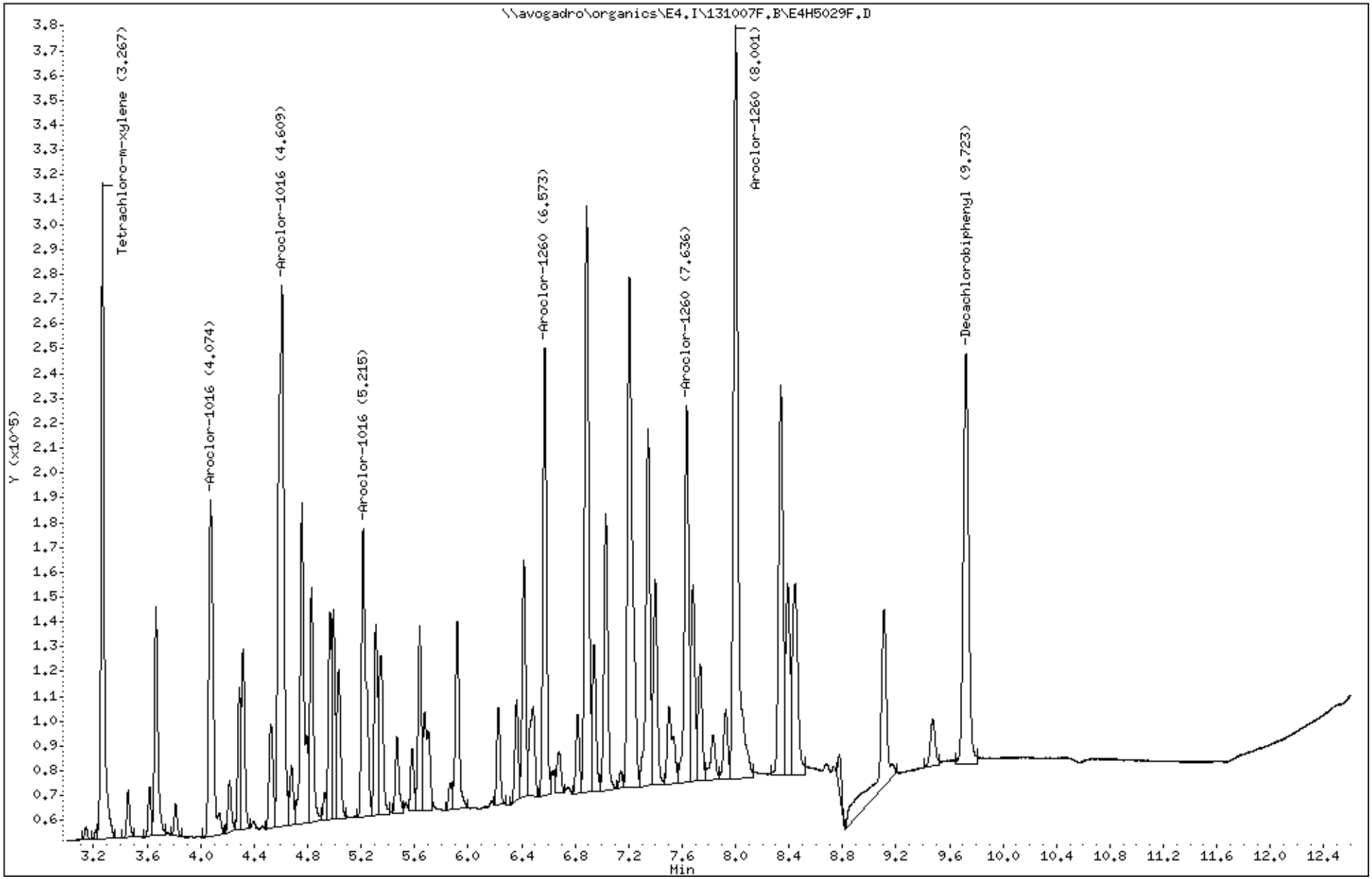
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.266	3.266	0.000	416166	0.01000	0.010			(a)
5 Aroclor-1016					CAS #: 12674-11-2			
4.074	4.074	0.000	318550	0.20000	0.22	80.00- 120.00	100.00	(a)
4.609	4.607	0.002	615605	0.20000	0.21	175.56- 215.56	193.25	
5.214	5.214	0.000	270302	0.20000	0.21	63.47- 103.47	84.85	
Average of Peak Amounts =					0.21333			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.723	9.723	0.000	461444	0.02000	0.020			(a)
9 Aroclor-1260					CAS #: 11096-82-5			
6.573	6.573	0.000	336286	0.20000	0.21	80.00- 120.00	100.00	(a)
7.635	7.635	0.000	330364	0.20000	0.22	71.66- 111.66	98.24	
8.000	8.001	-0.001	735331	0.20000	0.22	184.74- 224.74	218.66	
Average of Peak Amounts =					0.21667			

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5029F.D
Report Date: 07-Oct-2013 15:04

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5029F.D
Date : 07-OCT-2013 10:01
Client ID: AR16602J4
Instrument: E4.i
Sample Info: AR16602J4,AR16602J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5029R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5029R.D
Lab Smp Id: AR16602J4 Client Smp ID: AR16602J4
Inj Date : 07-OCT-2013 10:01
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16602J4,AR16602J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:01 Cal File: E4H5029R.D
Als bottle: 82 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

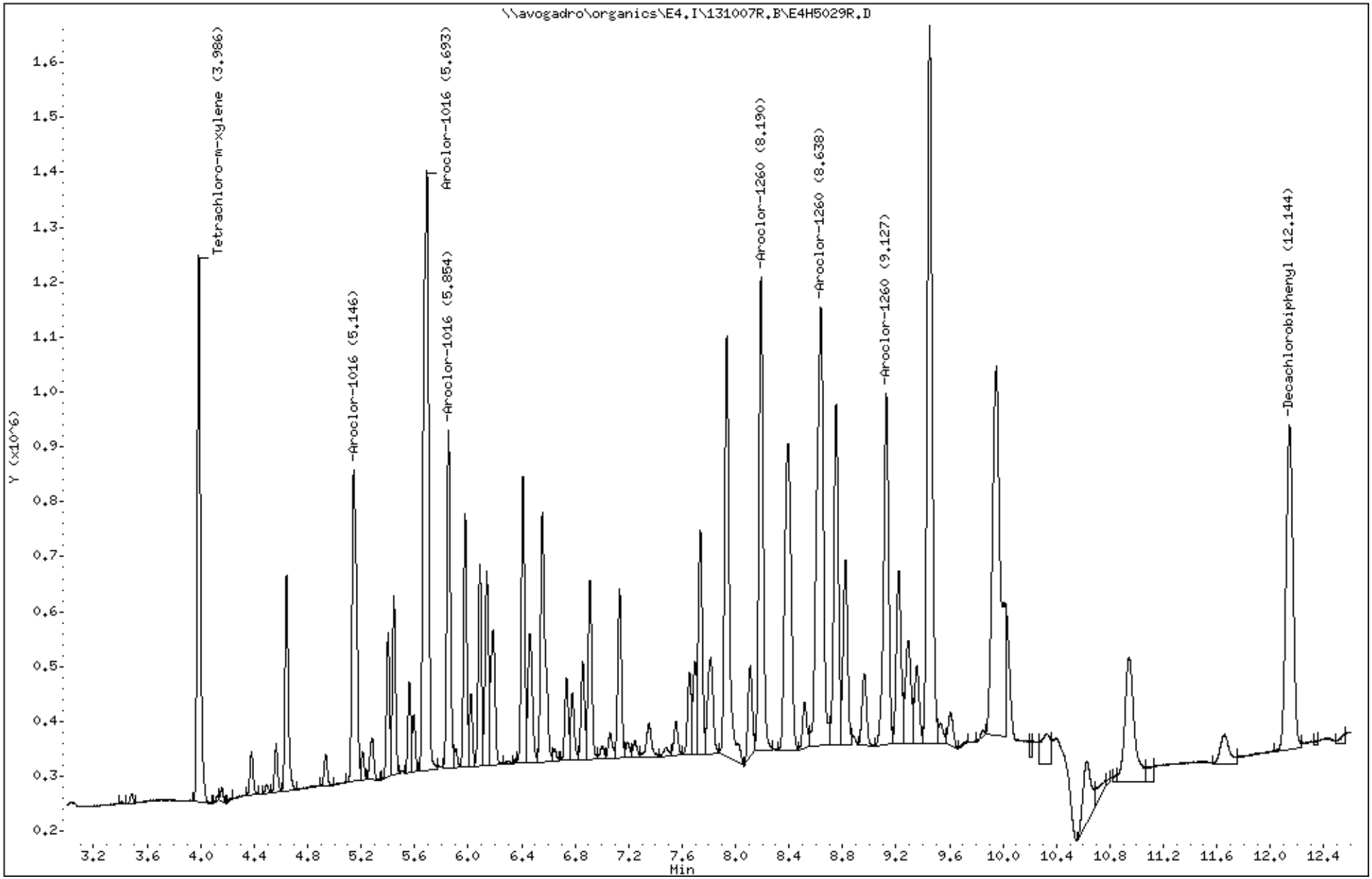
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.985	3.986	-0.001	1706135	0.01000	0.0100			(a)
6 Aroclor-1016						CAS #: 12674-11-2		
5.145	5.144	0.001	1341115	0.20000	0.21	80.00- 120.00	100.00	(a)
5.693	5.692	0.001	2900864	0.20000	0.20	203.15- 243.15	216.30	
5.854	5.854	0.000	1154546	0.20000	0.21	67.78- 107.78	86.09	
Average of Peak Amounts =					0.20667			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.144	12.144	0.000	2132670	0.02000	0.020			(a)
8 Aroclor-1260						CAS #: 11096-82-5		
8.189	8.190	-0.001	1915673	0.20000	0.21	80.00- 120.00	100.00	(a)
8.638	8.638	0.000	2719383	0.20000	0.20	120.37- 160.37	141.95	
9.127	9.127	0.000	1661978	0.20000	0.21	61.11- 101.11	86.76	
Average of Peak Amounts =					0.20667			

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5029R.D
Report Date: 07-Oct-2013 15:05

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5029R.D
Date : 07-OCT-2013 10:01
Client ID: AR16602J4
Instrument: E4.i
Sample Info: AR16602J4,AR16602J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5030F.D
Report Date: 07-Oct-2013 15:04

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5030F.D
Lab Smp Id: AR16603J4 Client Smp ID: AR16603J4
Inj Date : 07-OCT-2013 10:20
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16603J4,AR16603J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.m
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030F.D
Als bottle: 83 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET106

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

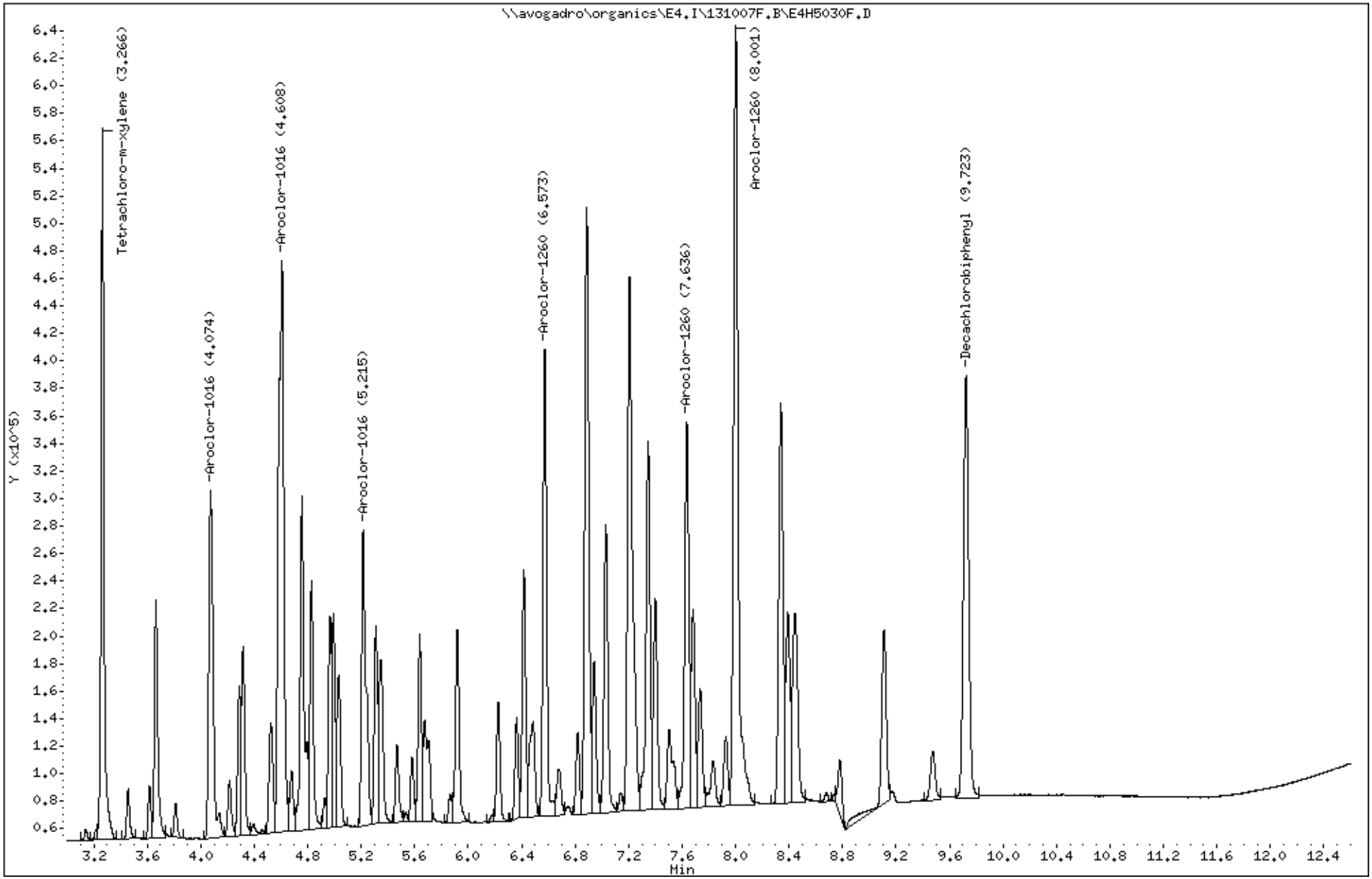
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.265	3.266	-0.001	790919	0.02000	0.019			(a)
5 Aroclor-1016						CAS #: 12674-11-2		
4.073	4.074	-0.001	593981	0.40000	0.41	80.00- 120.00	100.00	(a)
4.608	4.607	0.001	1159753	0.40000	0.40	175.56- 215.56	195.25	
5.214	5.214	0.000	497492	0.40000	0.40	63.47- 103.47	83.76	
Average of Peak Amounts =					0.40333			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
9.723	9.723	0.000	843214	0.04000	0.037			(a)
9 Aroclor-1260						CAS #: 11096-82-5		
6.573	6.573	0.000	652631	0.40000	0.40	80.00- 120.00	100.00	(a)
7.635	7.635	0.000	608053	0.40000	0.40	71.66- 111.66	93.17	
8.000	8.001	-0.001	1363244	0.40000	0.40	184.74- 224.74	208.88	
Average of Peak Amounts =					0.40000			

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5030F.D
Report Date: 07-Oct-2013 15:04

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5030F.D
Date : 07-OCT-2013 10:20
Client ID: AR16603J4
Instrument: E4.i
Sample Info: AR16603J4,AR16603J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5030R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5030R.D
Lab Smp Id: AR16603J4 Client Smp ID: AR16603J4
Inj Date : 07-OCT-2013 10:20
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16603J4,AR16603J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:20 Cal File: E4H5030R.D
Als bottle: 83 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

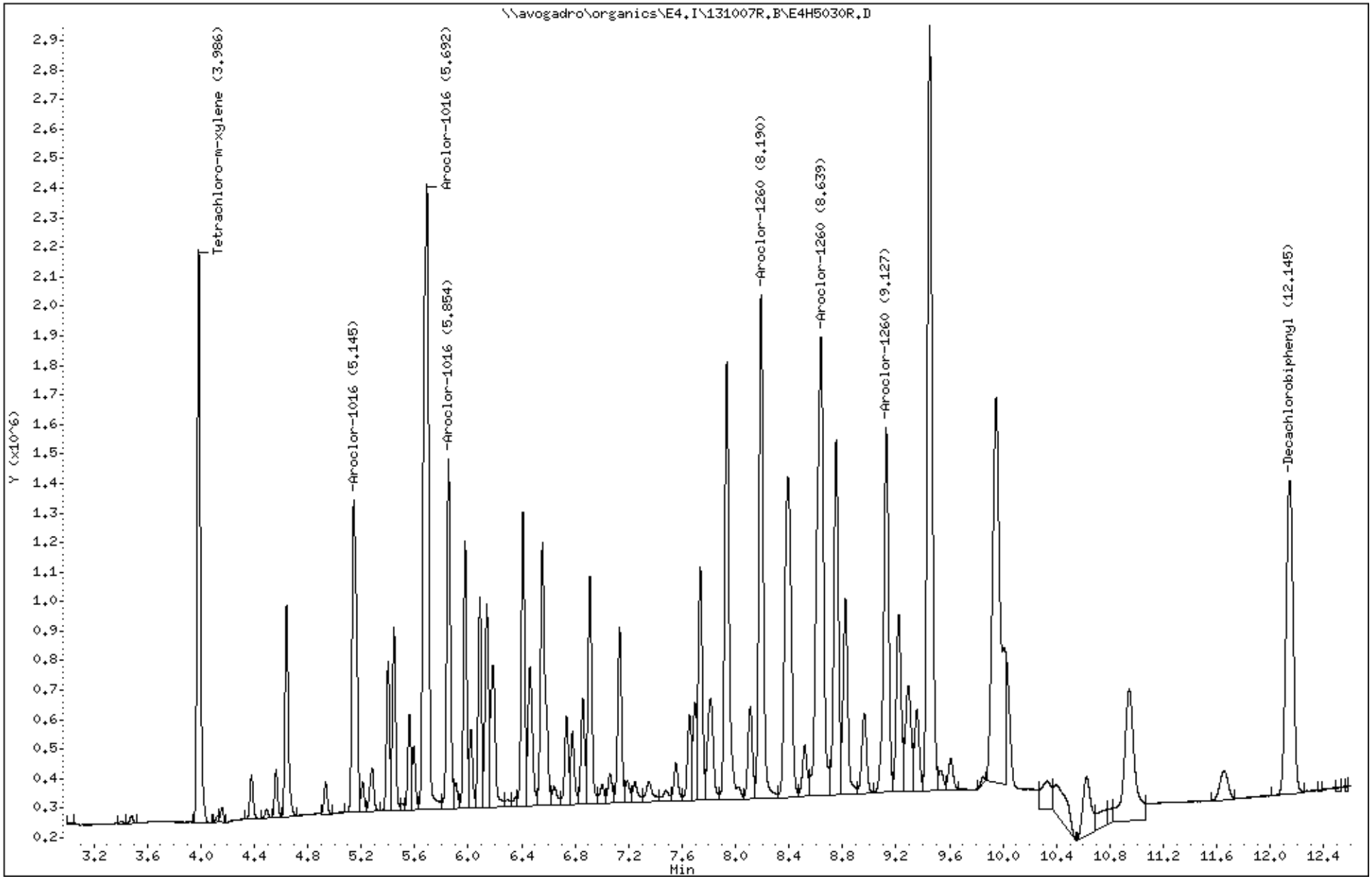
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.985	3.986	-0.001	3246250	0.02000	0.019			(a)
6 Aroclor-1016						CAS #: 12674-11-2		
5.144	5.144	0.000	2514334	0.40000	0.40	80.00- 120.00	100.00	(a)
5.692	5.692	0.000	5747572	0.40000	0.40	203.15- 243.15	228.59	
5.853	5.854	-0.001	2294260	0.40000	0.42	67.78- 107.78	91.25	
Average of Peak Amounts =					0.40667			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.144	12.144	0.000	3963595	0.04000	0.037			(a)
8 Aroclor-1260						CAS #: 11096-82-5		
8.189	8.190	-0.001	3873732	0.40000	0.42	80.00- 120.00	100.00	(a)
8.638	8.638	0.000	5358160	0.40000	0.40	120.37- 160.37	138.32	
9.127	9.127	0.000	3205902	0.40000	0.41	61.11- 101.11	82.76	
Average of Peak Amounts =					0.41000			

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5030R.D
Report Date: 07-Oct-2013 15:05

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5030R.D
Date : 07-OCT-2013 10:20
Client ID: AR16603J4
Instrument: E4.i
Sample Info: AR16603J4,AR16603J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5031F.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007F.B\E4H5031F.D
Lab Smp Id: AR16604J4 Client Smp ID: AR16604J4
Inj Date : 07-OCT-2013 10:38
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16604J4,AR16604J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.m
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:38 Cal File: E4H5031F.D
Als bottle: 84 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET106

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

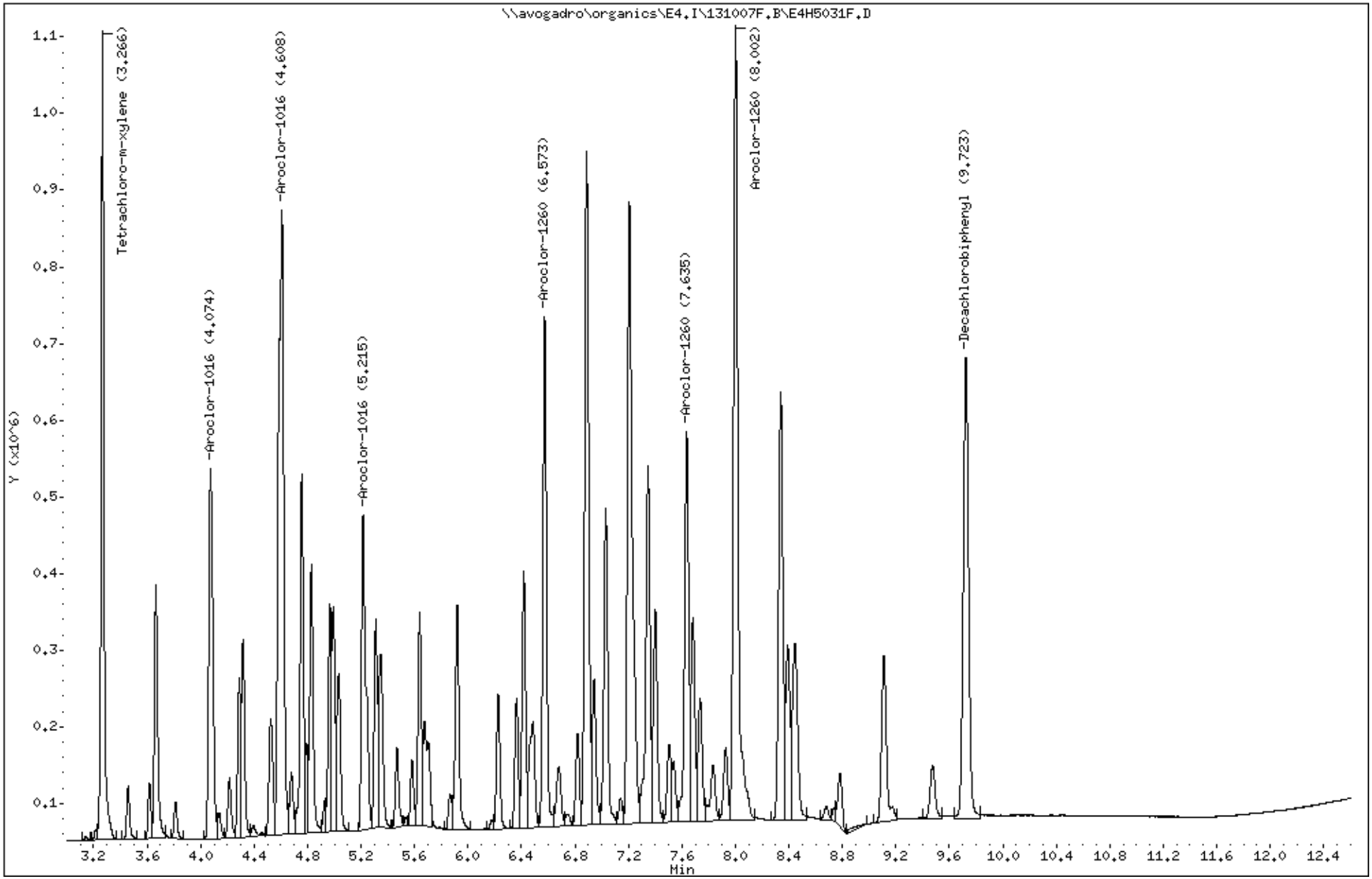
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.265	3.266	-0.001	1555252	0.04000	0.038			(a)
5 Aroclor-1016					CAS #: 12674-11-2			
4.074	4.074	0.000	1050206	0.80000	0.72	80.00- 120.00	100.00	(a)
4.608	4.607	0.001	2229676	0.80000	0.76	175.56- 215.56	212.31	
5.214	5.214	0.000	934465	0.80000	0.74	63.47- 103.47	88.98	
Average of Peak Amounts =					0.74000			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
9.723	9.723	0.000	1665218	0.08000	0.074			
9 Aroclor-1260					CAS #: 11096-82-5			
6.573	6.573	0.000	1258588	0.80000	0.77	80.00- 120.00	100.00	(a)
7.634	7.635	-0.001	1089080	0.80000	0.72	71.66- 111.66	86.53	
8.001	8.001	0.000	2471310	0.80000	0.73	184.74- 224.74	196.36	
Average of Peak Amounts =					0.74000			

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5031F.D
Report Date: 07-Oct-2013 15:05

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5031F.D
Date : 07-OCT-2013 10:38
Client ID: AR16604J4
Instrument: E4.i
Sample Info: AR16604J4,AR16604J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5031R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

Data file : \\avogadro\organics\E4.I\131007R.B\E4H5031R.D
Lab Smp Id: AR16604J4 Client Smp ID: AR16604J4
Inj Date : 07-OCT-2013 10:38
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16604J4,AR16604J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:38 Cal File: E4H5031R.D
Als bottle: 84 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

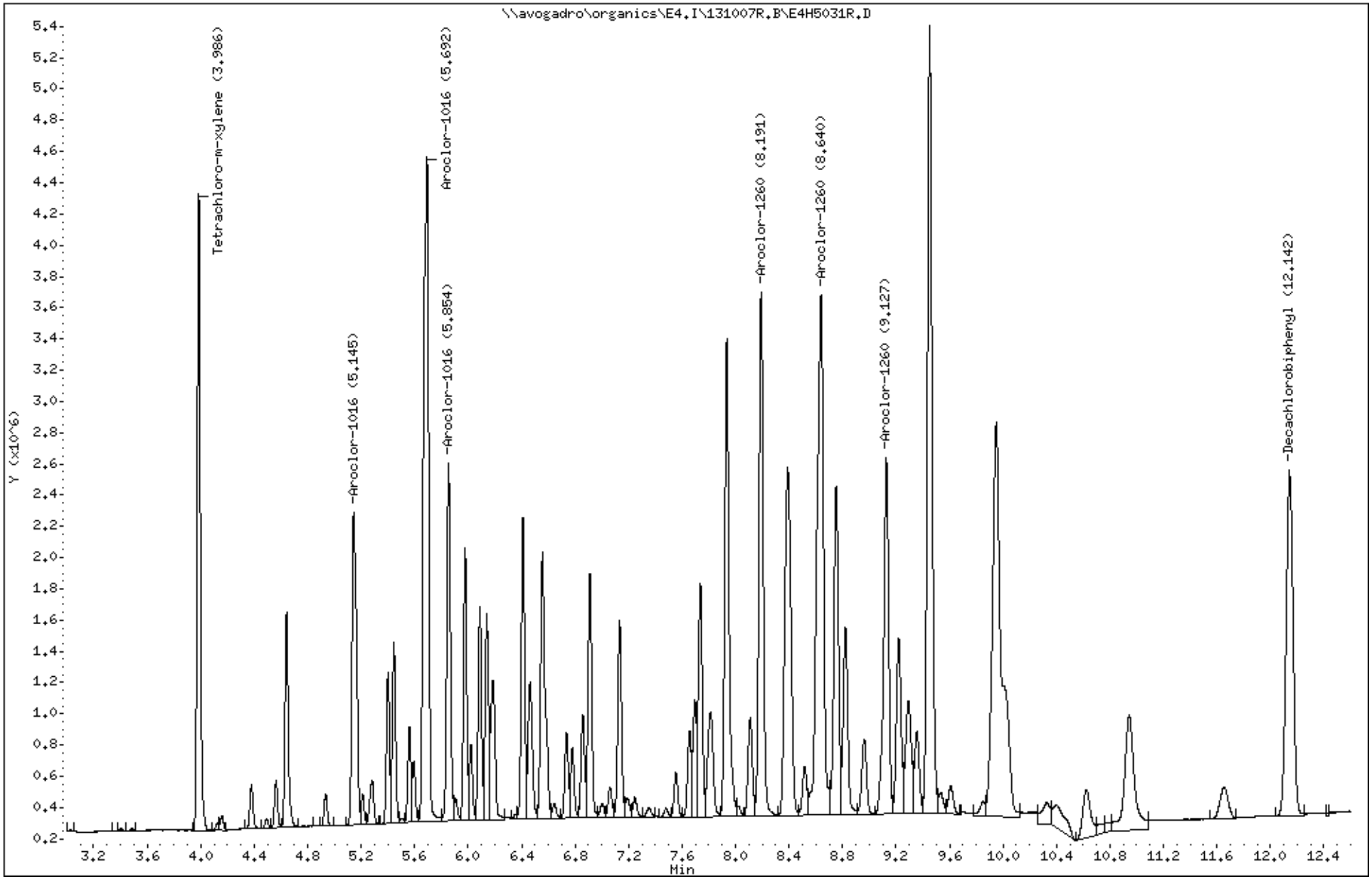
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.985	3.986	-0.001	6586540	0.04000	0.038		(a)	
6 Aroclor-1016					CAS #: 12674-11-2			
5.144	5.144	0.000	4741921	0.80000	0.76	80.00- 120.00	100.00	(a)
5.691	5.692	-0.001	11191819	0.80000	0.78	203.15- 243.15	236.02	
5.854	5.854	0.000	4328652	0.80000	0.79	67.78- 107.78	91.28	
Average of Peak Amounts =					0.77667			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
12.141	12.144	-0.003	7964290	0.08000	0.075			
8 Aroclor-1260					CAS #: 11096-82-5			
8.190	8.190	0.000	7537978	0.80000	0.82	80.00- 120.00	100.00	(a)
8.639	8.638	0.001	11309736	0.80000	0.84	120.37- 160.37	150.04	
9.127	9.127	0.000	5993366	0.80000	0.77	61.11- 101.11	79.51	
Average of Peak Amounts =					0.81000			

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5031R.D
Report Date: 07-Oct-2013 15:05

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5031R.D
Date : 07-OCT-2013 10:38
Client ID: AR16604J4
Instrument: E4.i
Sample Info: AR16604J4,AR16604J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007F.B\E4H5032F.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080 PCB Quantitation Report

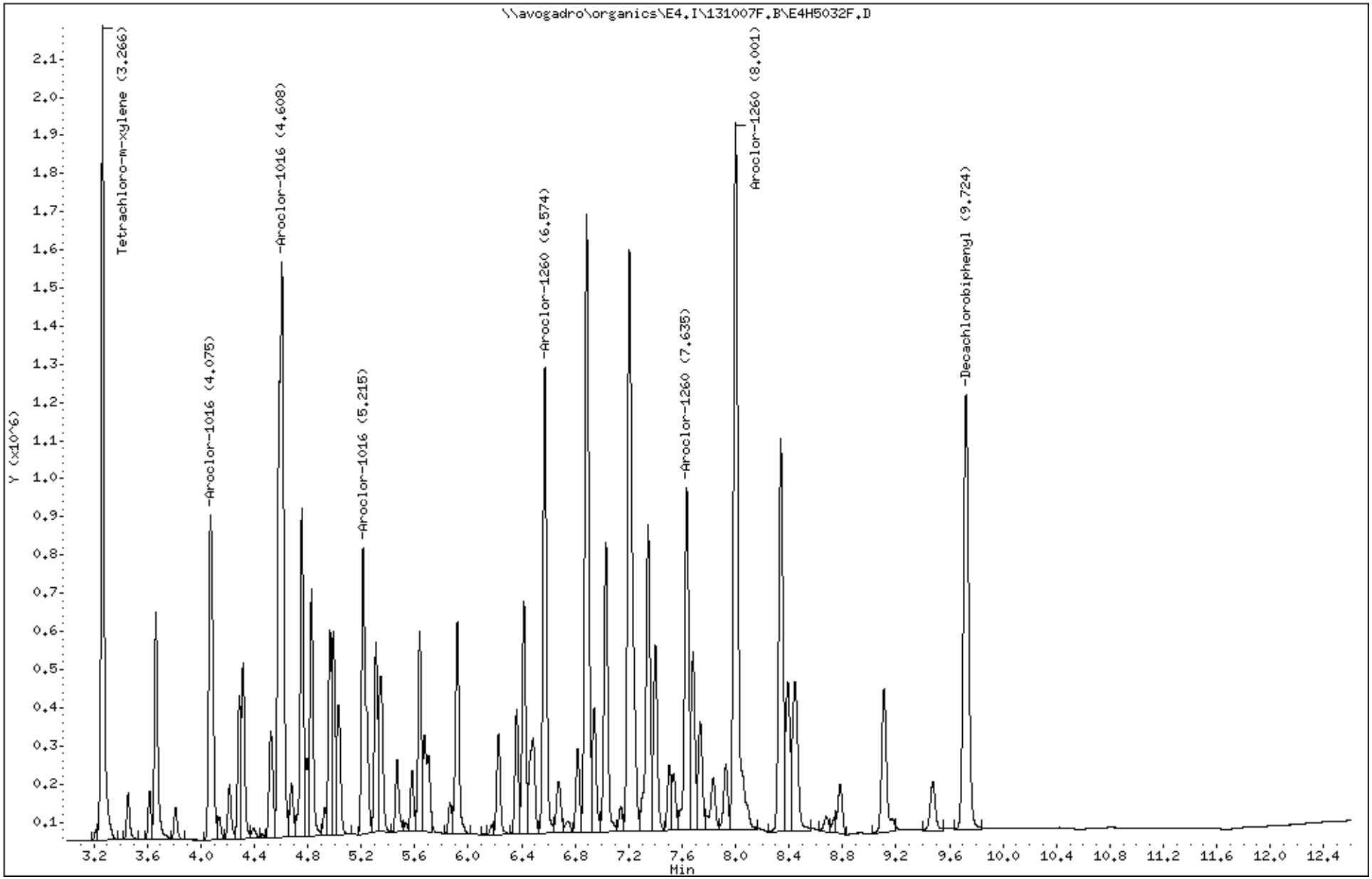
Data file : \\avogadro\organics\E4.I\131007F.B\E4H5032F.D
Lab Smp Id: AR16605J4 Client Smp ID: AR16605J4
Inj Date : 07-OCT-2013 10:56
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16605J4,AR16605J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase: CLP PEST Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007F.B\E4_ARO_5_F.m
Meth Date : 07-Oct-2013 14:54 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 85 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET106

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS CAL-AMT	AMOUNTS ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.266	3.266	0.000	3163743	0.08000	0.078		
5 Aroclor-1016					CAS #: 12674-11-2		
4.074	4.074	0.000	1881672	1.60000	1.3	80.00- 120.00	100.00
4.607	4.607	0.000	4092055	1.60000	1.4	175.56- 215.56	217.47
5.214	5.214	0.000	1694397	1.60000	1.3	63.47- 103.47	90.05
Average of Peak Amounts =					1.33333		
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
9.723	9.723	0.000	3116692	0.16000	0.14		
9 Aroclor-1260					CAS #: 11096-82-5		
6.573	6.573	0.000	2285045	1.60000	1.4	80.00- 120.00	100.00
7.635	7.635	0.000	1914808	1.60000	1.3	71.66- 111.66	83.80
8.001	8.001	0.000	4378071	1.60000	1.3	184.74- 224.74	191.60
Average of Peak Amounts =					1.33333		

Data File: \\avogadro\organics\E4.I\131007F.B\E4H5032F.D
Date : 07-OCT-2013 10:56
Client ID: AR16605J4
Instrument: E4.i
Sample Info: AR16605J4,AR16605J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131007R.B\E4H5032R.D
Report Date: 07-Oct-2013 15:05

Spectrum Analytical, Inc. RI Division

8080/8081PCB Quantitation Report

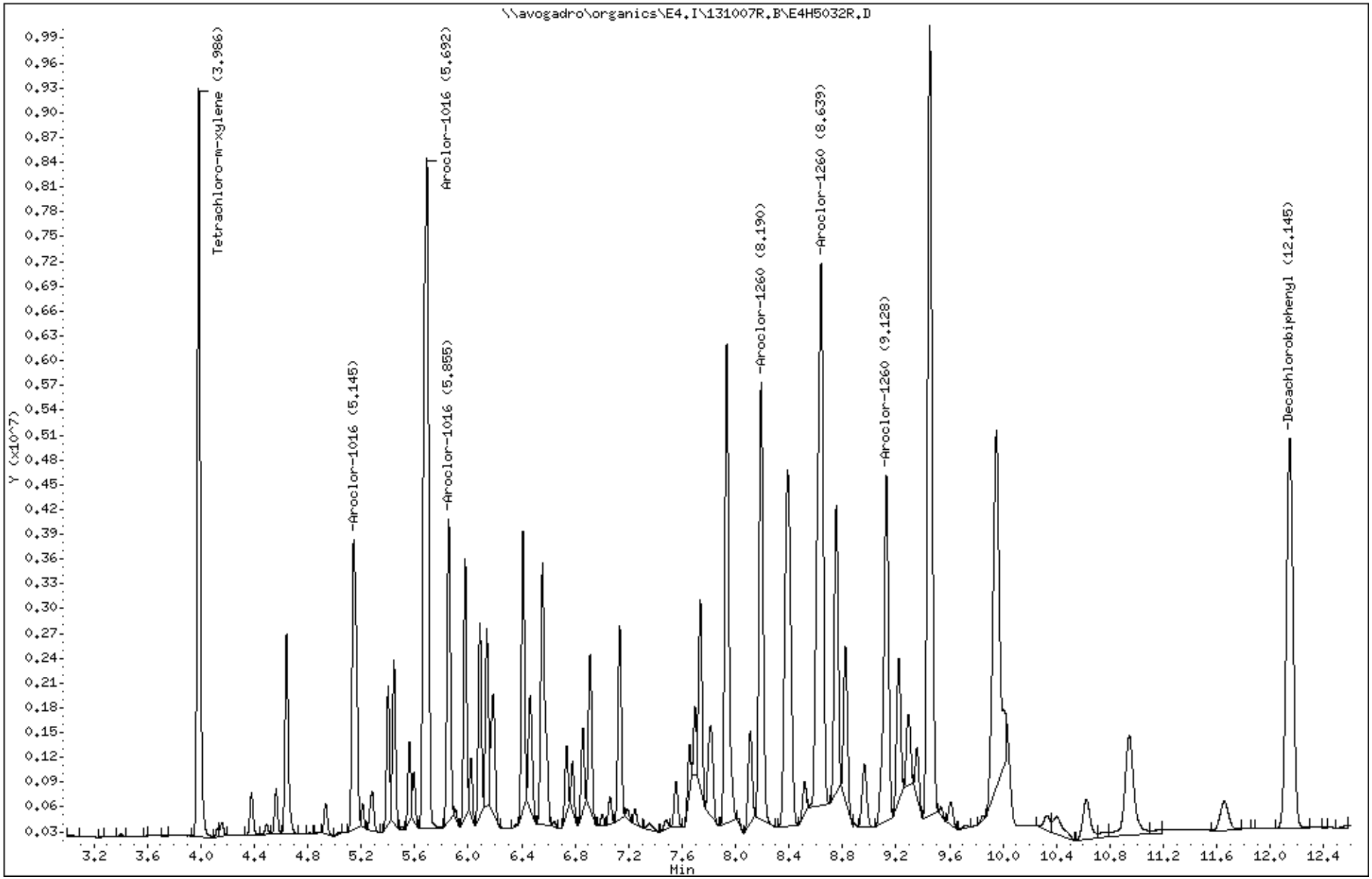
Data file : \\avogadro\organics\E4.I\131007R.B\E4H5032R.D
Lab Smp Id: AR16605J4 Client Smp ID: AR16605J4
Inj Date : 07-OCT-2013 10:56
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : AR16605J4,AR16605J4,,ar1260.sub,,
Misc Info : 1,3,,1
Comment   : Column Phase:CLP PEST(II) Column Diameter: 0.53mm
Method   : \\avogadro\organics\E4.I\131007R.B\E4_ARO_5_R.m
Meth Date : 07-Oct-2013 14:55 E4.i Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 85 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.986	3.986	0.000	14348090	0.08000	0.084			
6 Aroclor-1016						CAS #: 12674-11-2		
5.144	5.144	0.000	8213946	1.60000	1.3	80.00- 120.00		100.00
5.692	5.692	0.000	20937388	1.60000	1.5	203.15- 243.15		254.90
5.854	5.854	0.000	6457201	1.60000	1.2	67.78- 107.78		78.61
Average of Peak Amounts =					1.33333			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.144	12.144	0.000	16734432	0.16000	0.16			
8 Aroclor-1260						CAS #: 11096-82-5		
8.190	8.190	0.000	11267742	1.60000	1.2	80.00- 120.00		100.00
8.638	8.638	0.000	19640138	1.60000	1.4	120.37- 160.37		174.30
9.127	9.127	0.000	10590681	1.60000	1.4	61.11- 101.11		93.99
Average of Peak Amounts =					1.33333			

Data File: \\avogadro\organics\E4.I\131007R.B\E4H5032R.D
Date : 07-OCT-2013 10:56
Client ID: AR16605J4
Instrument: E4.i
Sample Info: AR16605J4,AR16605J4,,ar1260.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.53



Data File: \\avogadro\organics\E4.I\131008F.B\E4H5074F.D
Report Date: 10-Oct-2013 09:59

Spectrum Analytical, Inc. RI Division

Quantitation Report

Data file : \\avogadro\organics\E4.I\131008F.B\E4H5074F.D
Lab Smp Id: AR16603JE Client Smp ID: AR16603JE
Inj Date : 08-OCT-2013 14:55
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR16603JE,AR16603JE,,ar1660.sub,,
Misc Info : 2,3,,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008F.B\E4_LL_PCB_F.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET105

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

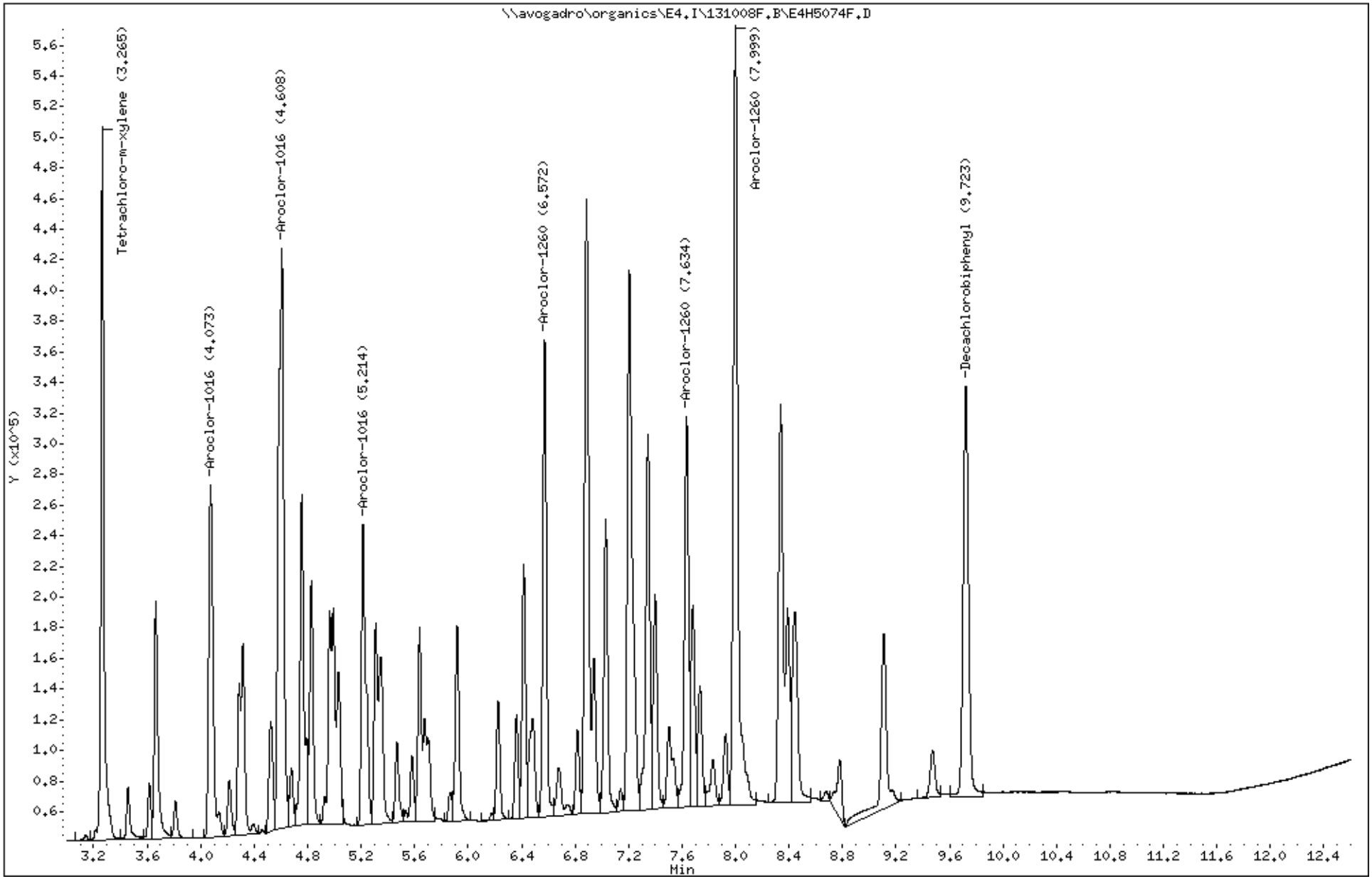
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.264	3.266	-0.002	465047	0.02000	0.017			(a)
5 Aroclor-1016						CAS #: 12674-11-2		
4.073	4.074	-0.001	229923	0.40000	0.36	80.00- 120.00	100.00	(a)
4.608	4.607	0.001	378424	0.40000	0.36	139.75- 179.75	164.59	
5.214	5.214	0.000	196173	0.40000	0.36	63.01- 103.01	85.32	
Average of Peak Amounts =					0.36000			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
9.723	9.723	0.000	749964	0.04000	0.032			(a)
9 Aroclor-1260						CAS #: 11096-82-5		
6.572	6.573	-0.001	310671	0.40000	0.36	80.00- 120.00	100.00	(a)
7.634	7.635	-0.001	254914	0.40000	0.36	61.49- 101.49	82.05	
7.999	8.001	-0.002	508454	0.40000	0.36	142.48- 182.48	163.66	
Average of Peak Amounts =					0.36000			

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5074F.D
Report Date: 10-Oct-2013 09:59

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5074F.D
Date : 08-OCT-2013 14:55
Client ID: AR16603JE
Instrument: E4.i
Sample Info: AR16603JE,AR16603JE,,ar1660.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008R.B\E4H5074R.D
Report Date: 10-Oct-2013 10:01

Spectrum Analytical, Inc. RI Division

Quantitation Report

Data file : \\avogadro\organics\E4.I\131008R.B\E4H5074R.D
Lab Smp Id: AR16603JE Client Smp ID: AR16603JE
Inj Date : 08-OCT-2013 14:55
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR16603JE,AR16603JE,,ar1660.sub,,
Misc Info : 2,3,,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008R.B\E4_LL_PCB_R.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

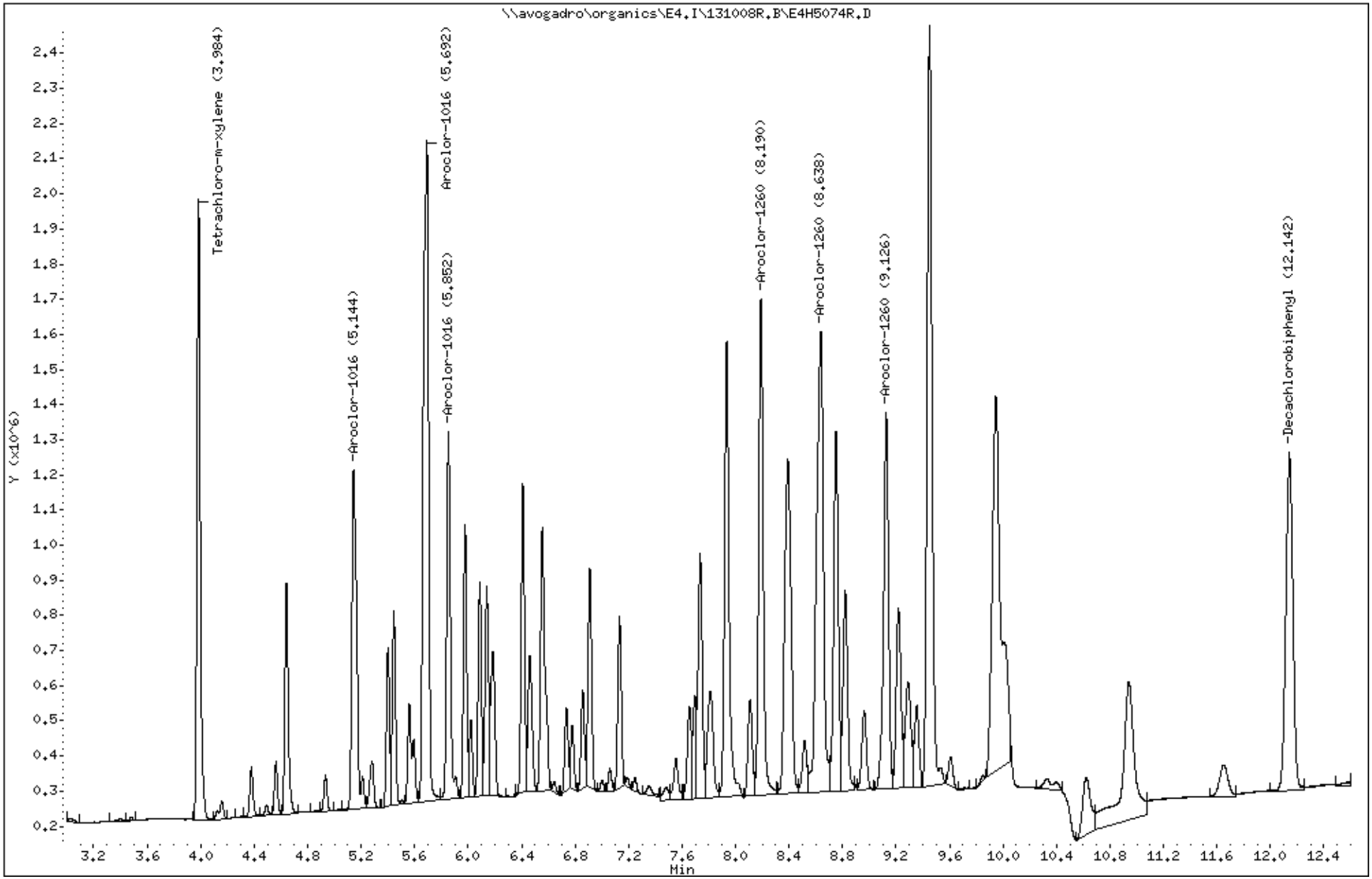
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.984	3.986	-0.002	1766278	0.02000	0.017			(a)
6 Aroclor-1016						CAS #: 12674-11-2		
5.144	5.144	0.000	964795	0.40000	0.36	80.00- 120.00	100.00	(a)
5.691	5.692	-0.001	1883272	0.40000	0.35	177.30- 217.30	195.20	
5.852	5.854	-0.002	1047517	0.40000	0.35	88.21- 128.21	108.57	
		Average of Peak Amounts =			0.35333			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
12.141	12.144	-0.003	960233	0.04000	0.033			(a)
8 Aroclor-1260						CAS #: 11096-82-5		
8.189	8.190	-0.001	1413412	0.40000	0.34	80.00- 120.00	100.00	(aM)M3 AL 10/10
8.638	8.638	0.000	1309478	0.40000	0.32	78.71- 118.71	92.65	
9.125	9.127	-0.002	1070649	0.40000	0.35	61.66- 101.66	75.75	
		Average of Peak Amounts =			0.33667			

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5074R.D
Report Date: 10-Oct-2013 10:01

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5074R.D
Date : 08-OCT-2013 14:55
Client ID: AR16603JE
Instrument: E4.i
Sample Info: AR16603JE,AR16603JE,,ar1660.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008F.B\E4H5101F.D
Report Date: 10-Oct-2013 10:00

Spectrum Analytical, Inc. RI Division

Quantitation Report

Data file : \\avogadro\organics\E4.I\131008F.B\E4H5101F.D
Lab Smp Id: AR16603JF Client Smp ID: AR16603JF
Inj Date : 08-OCT-2013 23:35
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR16603JF,AR16603JF,,ar1660.sub,,
Misc Info : 2,3,,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008F.B\E4_LL_PCB_F.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: TARGET105

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

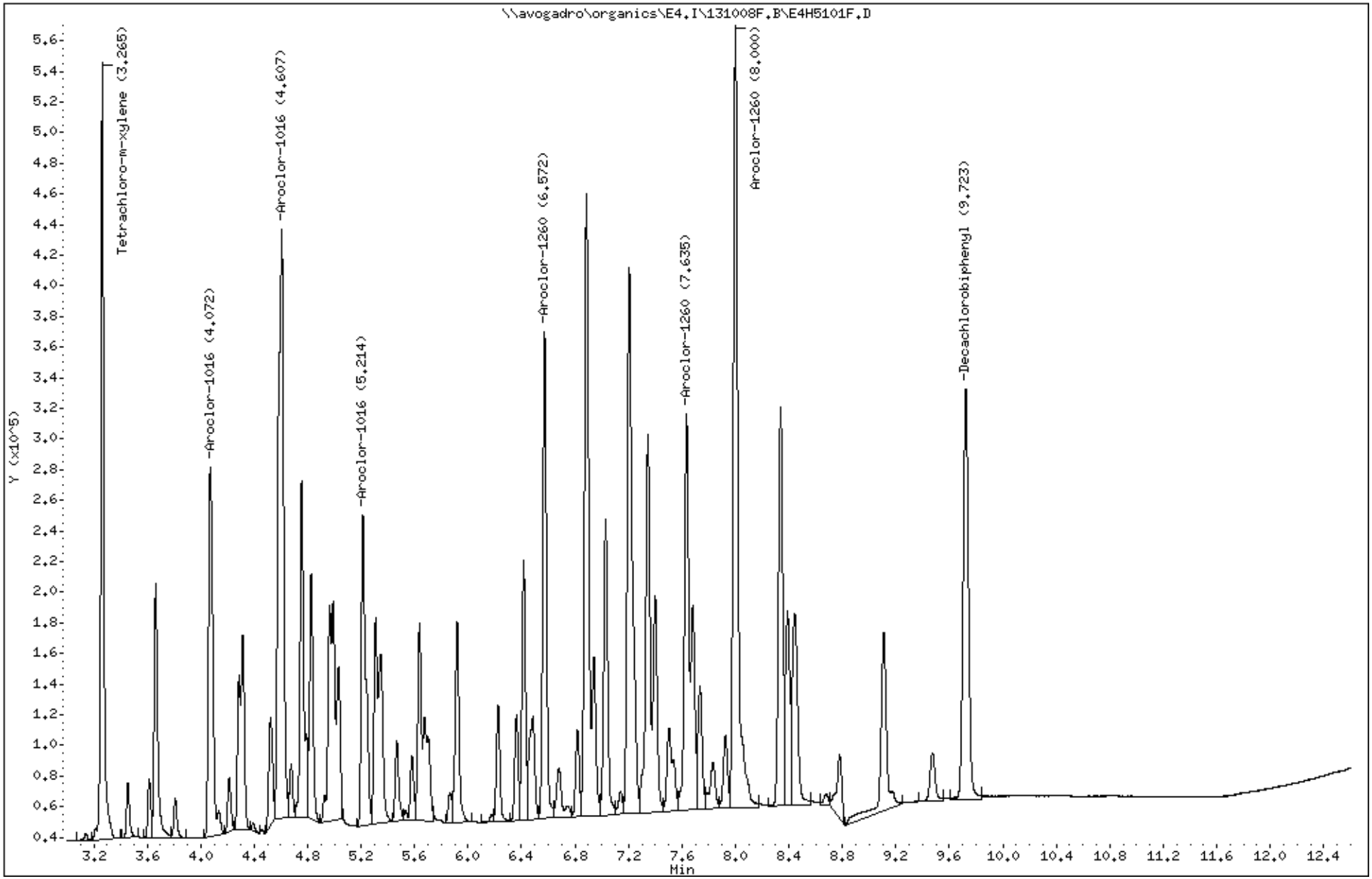
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8		
3.264	3.266	-0.002	507553	0.02000	0.019			(a)
5 Aroclor-1016						CAS #: 12674-11-2		
4.072	4.074	-0.002	241285	0.40000	0.38	80.00- 120.00	100.00	(a)
4.607	4.607	0.000	384529	0.40000	0.37	139.75- 179.75	159.37	
5.213	5.214	-0.001	203282	0.40000	0.37	63.01- 103.01	84.25	
Average of Peak Amounts =					0.37333			
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3		
9.722	9.723	-0.001	752788	0.04000	0.032			(a)
9 Aroclor-1260						CAS #: 11096-82-5		
6.572	6.573	-0.001	317497	0.40000	0.36	80.00- 120.00	100.00	(a)
7.634	7.635	-0.001	258565	0.40000	0.37	61.49- 101.49	81.44	
7.999	8.001	-0.002	510530	0.40000	0.36	142.48- 182.48	160.80	
Average of Peak Amounts =					0.36333			

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5101F.D
Report Date: 10-Oct-2013 10:00

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5101F.D
Date : 08-OCT-2013 23:35
Client ID: AR16603JF
Instrument: E4.i
Sample Info: AR16603JF,AR16603JF,,ar1660.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPest
Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008R.B\E4H5101R.D
Report Date: 10-Oct-2013 10:02

Spectrum Analytical, Inc. RI Division

Quantitation Report

Data file : \\avogadro\organics\E4.I\131008R.B\E4H5101R.D
Lab Smp Id: AR16603JF Client Smp ID: AR16603JF
Inj Date : 08-OCT-2013 23:35
Operator : AL   SRC: AL Inst ID: E4.i
Smp Info : AR16603JF,AR16603JF,,ar1660.sub,,
Misc Info : 2,3,,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008R.B\E4_LL_PCB_R.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ar1660.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (ml)
Vi	1.000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

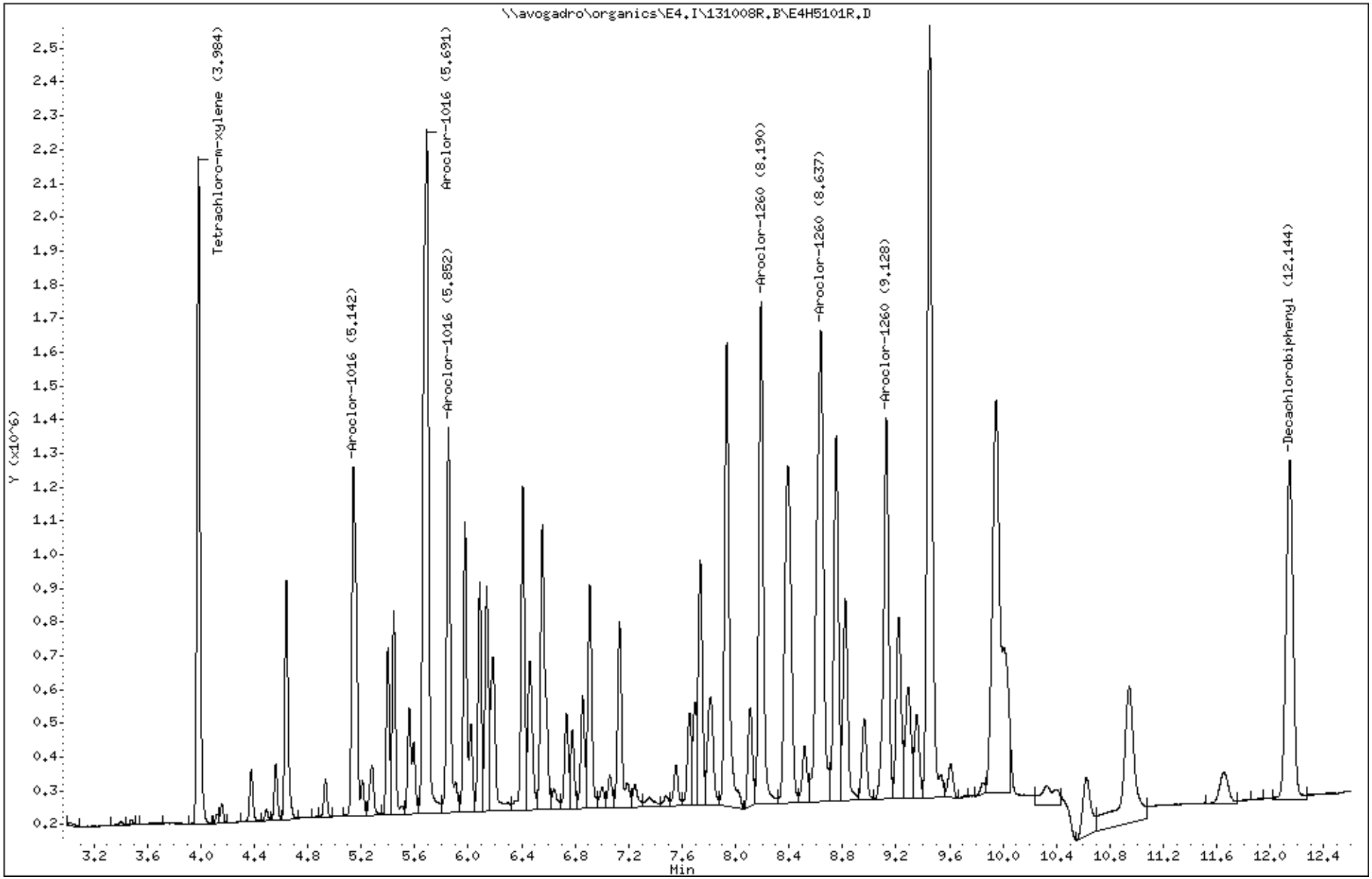
				AMOUNTS				
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ng)	TARGET RANGE	RATIO	
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
3.983	3.986	-0.003	1974715	0.02000	0.019			(a)
6 Aroclor-1016					CAS #: 12674-11-2			
5.142	5.144	-0.002	1033053	0.40000	0.39	80.00- 120.00	100.00	(a)
5.691	5.692	-0.001	2027769	0.40000	0.38	177.30- 217.30	196.29	
5.852	5.854	-0.002	1140363	0.40000	0.39	88.21- 128.21	110.39	
Average of Peak Amounts =					0.38667			
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3			
12.143	12.144	-0.001	1005745	0.04000	0.035			(a)
8 Aroclor-1260					CAS #: 11096-82-5			
8.190	8.190	0.000	1486970	0.40000	0.36	80.00- 120.00	100.00	(a)
8.637	8.638	-0.001	1393574	0.40000	0.34	78.71- 118.71	93.72	
9.127	9.127	0.000	1130562	0.40000	0.37	61.66- 101.66	76.03	
Average of Peak Amounts =					0.35667			

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5101R.D
Report Date: 10-Oct-2013 10:02

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5101R.D
Date : 08-OCT-2013 23:35
Client ID: AR16603JF
Instrument: E4.i
Sample Info: AR16603JF,AR16603JF,,ar1660.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: AL
Column phase: CLPPestII
Column diameter: 0.32



1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-74023

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: MB-74023

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E4H5075F.D/E4H5075R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 09/30/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/08/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup:(Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup:(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5075F.D
Report Date: 10-Oct-2013 09:59

Spectrum Analytical, Inc. RI Division

Quantitation Report

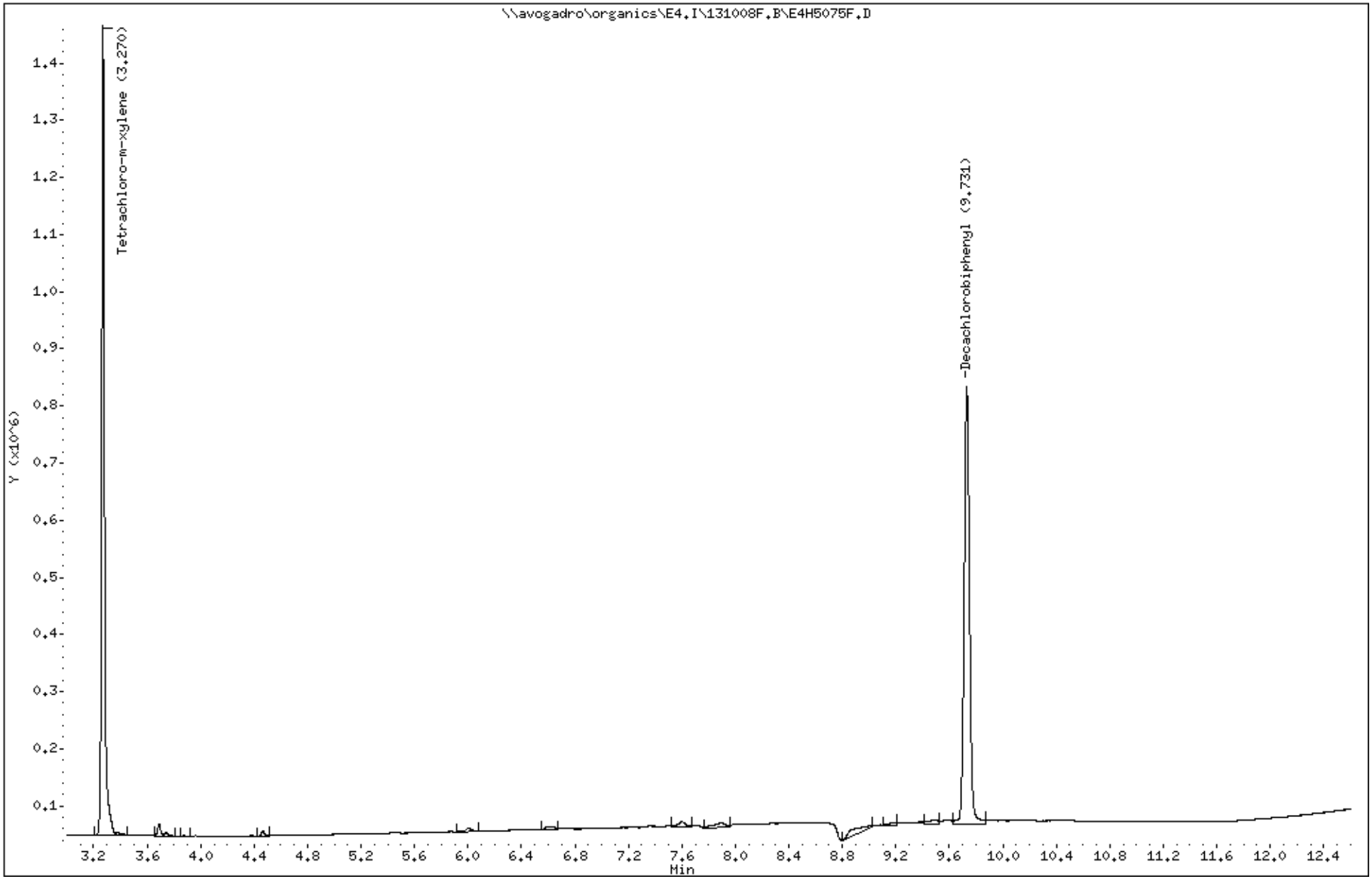
Data file : \\avogadro\organics\E4.I\131008F.B\E4H5075F.D
Lab Smp Id: MB-74023 Client Smp ID: MB-74023
Inj Date : 08-OCT-2013 15:25
Operator : AL SRC: LIMS Inst ID: E4.i
Smp Info : MB-74023,MB-74023,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008F.B\E4_LL_PCB_F.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET105

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS			
				ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.269	3.266	0.003	1418295	0.05291		18	
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
9.730	9.723	0.007	2142143	0.09242		31	

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5075F.D
Date : 08-OCT-2013 15:25
Client ID: MB-74023
Instrument: E4.i
Sample Info: MB-74023,MB-74023,74023,8082A.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: LIMS
Column phase: CLPPest
Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008R.B\E4H5075R.D
Report Date: 10-Oct-2013 10:01

Spectrum Analytical, Inc. RI Division

Quantitation Report

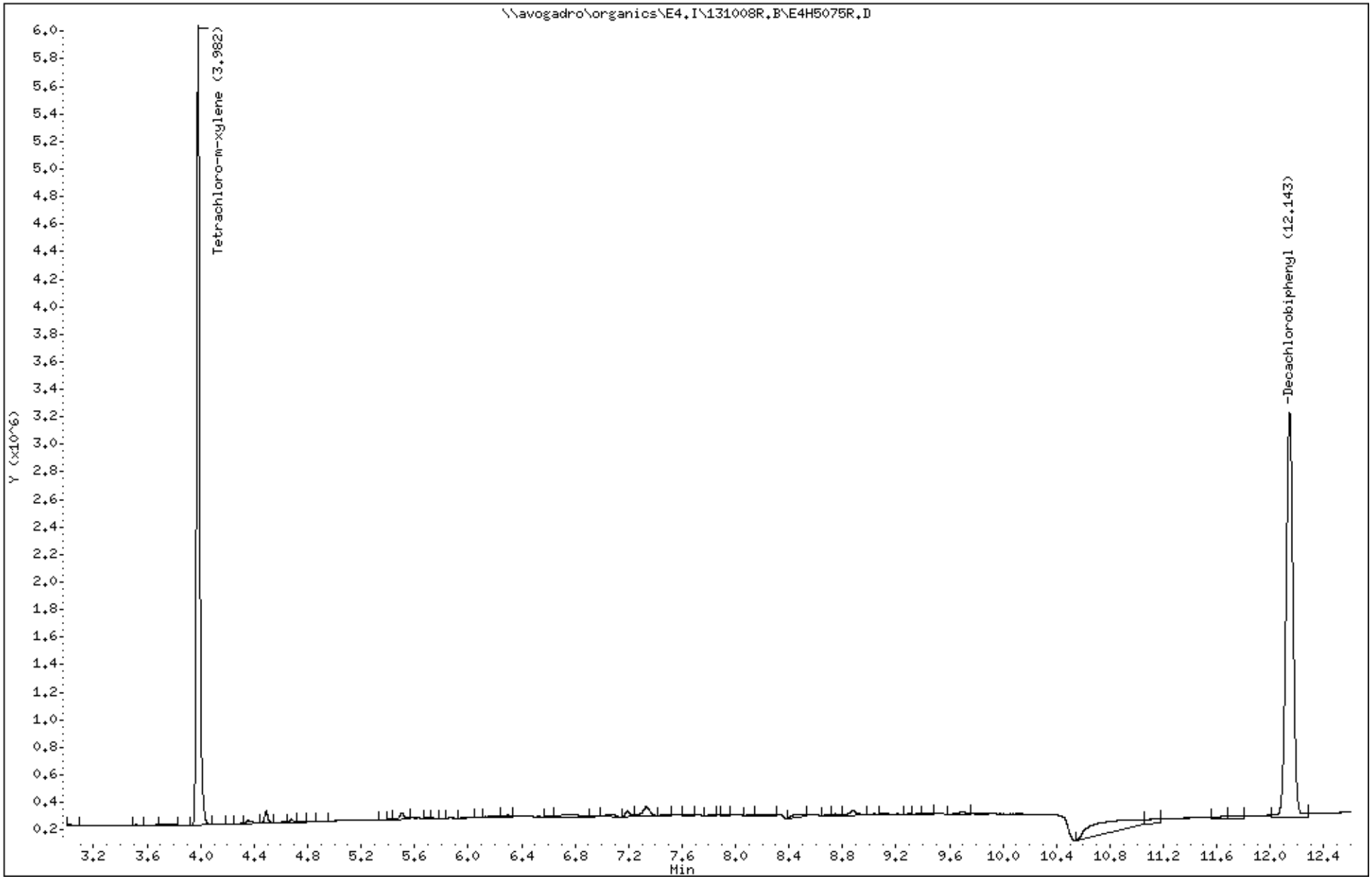
Data file : \\avogadro\organics\E4.I\131008R.B\E4H5075R.D
Lab Smp Id: MB-74023 Client Smp ID: MB-74023
Inj Date : 08-OCT-2013 15:25
Operator : AL SRC: LIMS Inst ID: E4.i
Smp Info : MB-74023,MB-74023,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008R.B\E4_LL_PCB_R.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

				CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	RESPONSE	(ng)	(ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8	
3.981	3.986	-0.005	5805650	0.05592	19		
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3	
12.143	12.144	-0.001	2940257	0.10148	34		

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5075R.D
Date : 08-OCT-2013 15:25
Client ID: MB-74023
Instrument: E4.i
Sample Info: MB-74023,MB-74023,74023,8082A.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: LIMS
Column phase: CLPPestII
Column diameter: 0.32



1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-74023(1)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-74023

Sample wt/vol: 30 (g/mL) G Lab File ID: E4H5076F.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 09/30/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/08/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup:(Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup:(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	110	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	97	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS-74023(2)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCS-74023

Sample wt/vol: 30 (g/mL) G Lab File ID: E4H5076R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 09/30/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/08/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup:(Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup:(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	110	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	100	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5076F.D
Report Date: 10-Oct-2013 09:59

Spectrum Analytical, Inc. RI Division

Quantitation Report

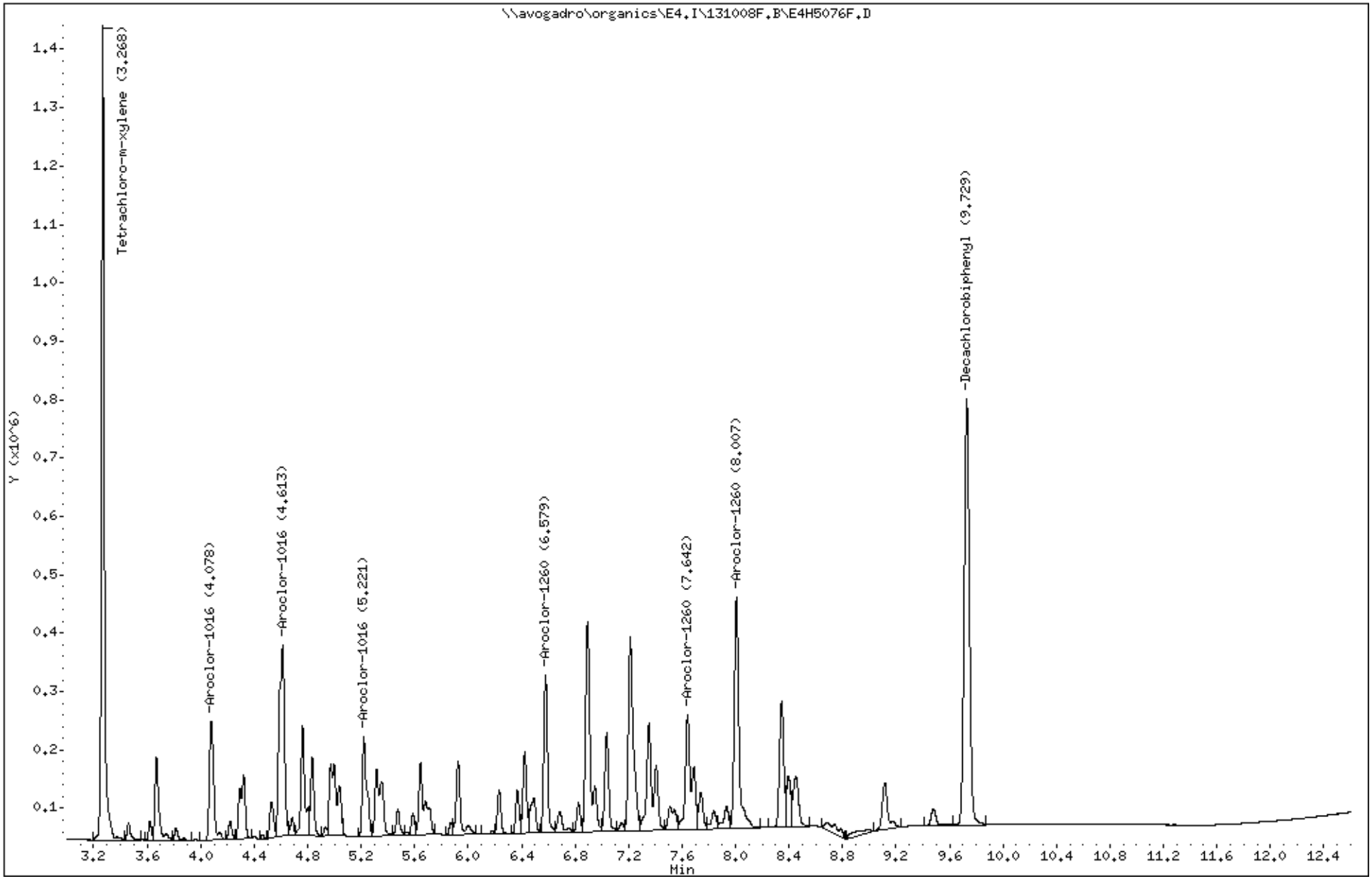
Data file : \\avogadro\organics\E4.I\131008F.B\E4H5076F.D
Lab Smp Id: LCS-74023 Client Smp ID: LCS-74023
Inj Date : 08-OCT-2013 15:52
Operator : AL SRC: LIMS Inst ID: E4.i
Smp Info : LCS-74023,LCS-74023,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008F.B\E4_LL_PCB_F.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.268	3.266	0.002	1395093	0.05205	17		
5 Aroclor-1016					CAS #: 12674-11-2		
4.078	4.074	0.004	203713	0.31866	110	80.00- 120.00	100.00
4.613	4.607	0.006	326758	0.31393	100	139.75- 179.75	160.40
5.220	5.214	0.006	171160	0.31349	100	63.01- 103.01	84.02
Average of Peak Concentrations =					100		
9 Aroclor-1260					CAS #: 11096-82-5		
6.579	6.573	0.006	270188	0.31065	100	80.00- 120.00	100.00
7.641	7.635	0.006	196571	0.28132	94	61.49- 101.49	72.75
8.006	8.001	0.005	395036	0.28133	94	142.48- 182.48	146.21
Average of Peak Concentrations =					97		
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
9.729	9.723	0.006	2004544	0.08648	29		

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5076F.D
Date : 08-OCT-2013 15:52
Client ID: LCS-74023
Instrument: E4.i
Sample Info: LCS-74023,LCS-74023,74023,8082A.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: LIMS
Column phase: CLPPest
Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008R.B\E4H5076R.D
Report Date: 10-Oct-2013 10:01

Spectrum Analytical, Inc. RI Division

Quantitation Report

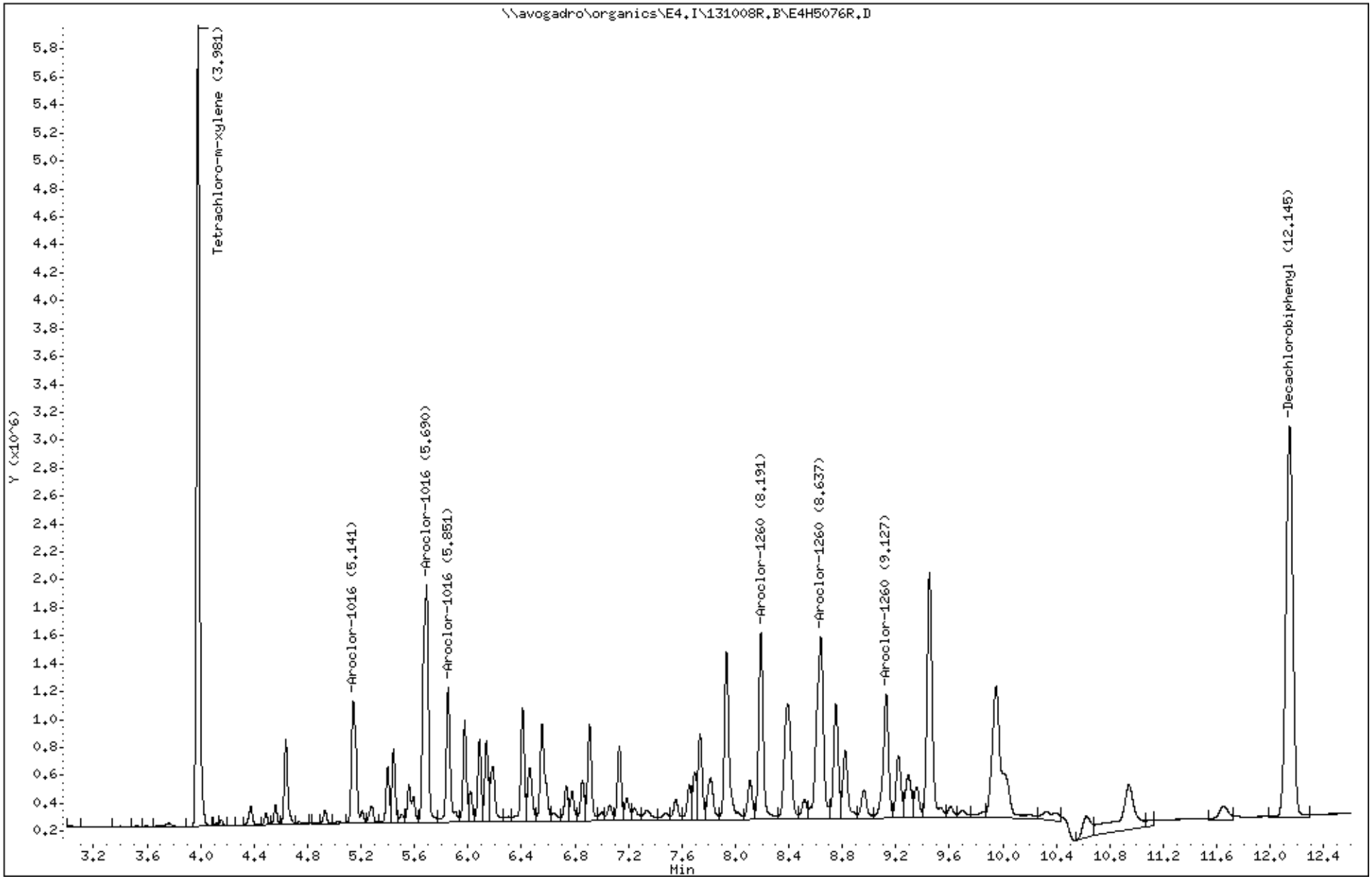
Data file : \\avogadro\organics\E4.I\131008R.B\E4H5076R.D
Lab Smp Id: LCS-74023 Client Smp ID: LCS-74023
Inj Date : 08-OCT-2013 15:52
Operator : AL SRC: LIMS Inst ID: E4.i
Smp Info : LCS-74023,LCS-74023,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008R.B\E4_LL_PCB_R.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.980	3.986	-0.006	5735934	0.05525	18		
6 Aroclor-1016					CAS #: 12674-11-2		
5.140	5.144	-0.004	875667	0.32750	110	80.00- 120.00	100.00
5.689	5.692	-0.003	1705817	0.31572	100	177.30- 217.30	194.80
5.850	5.854	-0.004	966192	0.32730	110	88.21- 128.21	110.34
	Average of Peak Concentrations =				110		
8 Aroclor-1260					CAS #: 11096-82-5		
8.190	8.190	0.000	1336711	0.32221	110	80.00- 120.00	100.00
8.637	8.638	-0.001	1301346	0.31507	100	78.71- 118.71	97.35
9.127	9.127	0.000	883669	0.28779	96	61.66- 101.66	66.11
	Average of Peak Concentrations =				100		
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
12.144	12.144	0.000	2803746	0.09677	32		

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5076R.D
Date : 08-OCT-2013 15:52
Client ID: LCS-74023
Instrument: E4.i
Sample Info: LCS-74023,LCS-74023,74023,8082A.sub,,
Volume Injected (uL): 1.0
Operator: AL SRC: LIMS
Column phase: CLPPestII
Column diameter: 0.32



1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCSD-74023(1)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-74023

Sample wt/vol: 30 (g/mL) G Lab File ID: E4H5077F.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 09/30/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/08/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup:(Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup:(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	100	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	100	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

1H - FORM I ARO

AROCLOR ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCSD-74023(2)

Lab Name: SPECTRUM ANALYTICAL, INC. Contract:

Lab Code: MITKEM Case No.: M1876 Mod. Ref No.: SDG No.: SM1876

Matrix: (SOIL/SED/WATER) SOIL Lab Sample ID: LCSD-74023

Sample wt/vol: 30 (g/mL) G Lab File ID: E4H5077R.D

% Moisture: Decanted: (Y/N) Date Received:

Extraction: (Type) SONC Date Extracted: 09/30/2013

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 10/08/2013

Injection Volume: 1.0 (uL) GPC Factor: 1.00 Dilution Factor: 1.0

GPC Cleanup:(Y/N) N pH: Sulfur Cleanup: (Y/N) Y

Acid Cleanup:(Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	99	
11104-28-2	Aroclor-1221	33	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	100	
37324-23-5	Aroclor-1262	33	U
11100-14-4	Aroclor-1268	33	U

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5077F.D
Report Date: 10-Oct-2013 09:59

Spectrum Analytical, Inc. RI Division

Quantitation Report

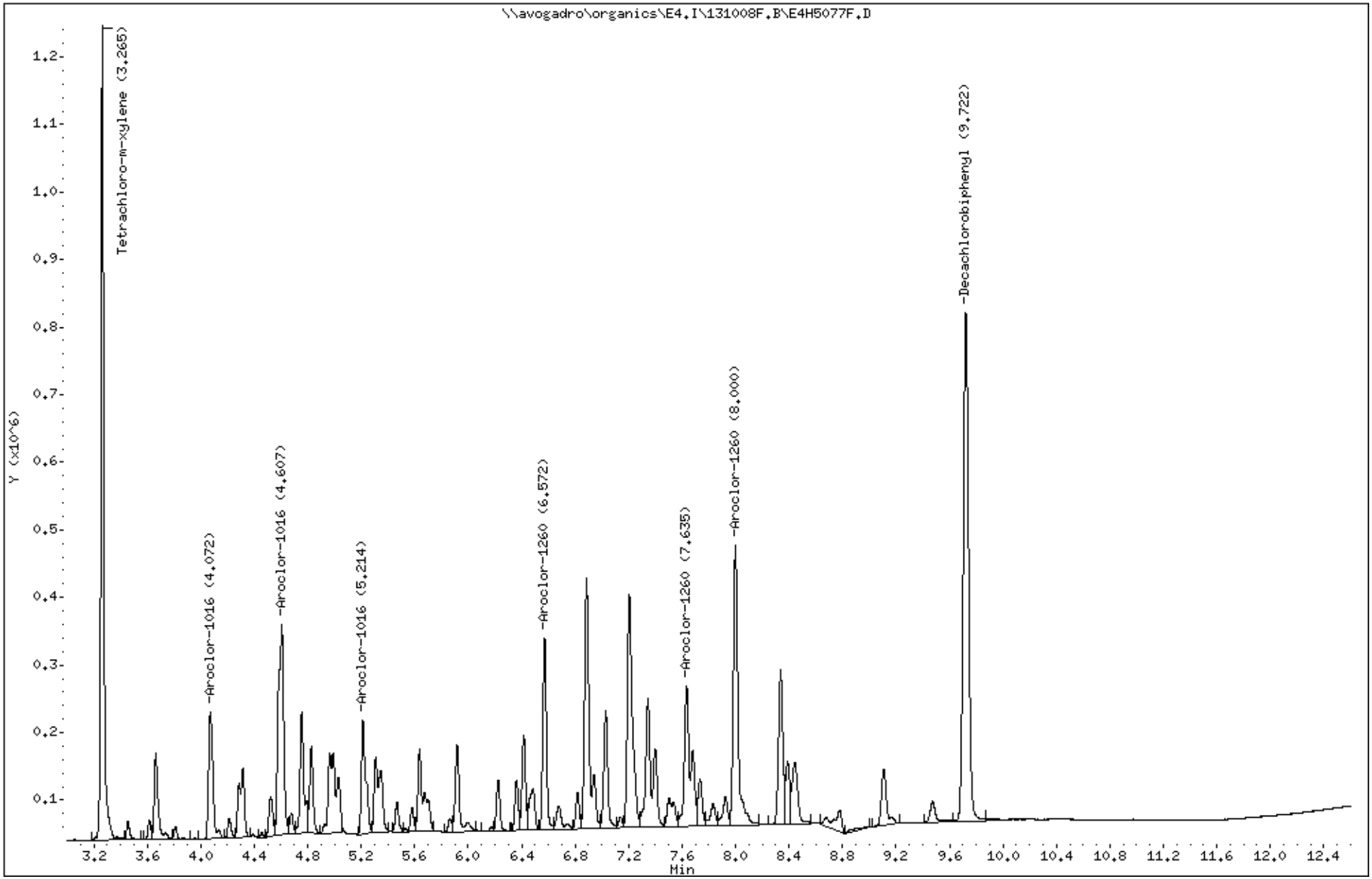
Data file : \\avogadro\organics\E4.I\131008F.B\E4H5077F.D
Lab Smp Id: LCSD-74023 Client Smp ID: LCSD-74023
Inj Date : 08-OCT-2013 16:10
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : LCSD-74023,LCSD-74023,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment   :
Method   : \\avogadro\organics\E4.I\131008F.B\E4_LL_PCB_F.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032F.D
Als bottle: 16 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene						CAS #: 877-09-8	
3.264	3.266	-0.002	1206032	0.04499	15		
5 Aroclor-1016						CAS #: 12674-11-2	
4.072	4.074	-0.002	187808	0.29378	98	80.00- 120.00	100.00
4.607	4.607	0.000	311168	0.29895	100	139.75- 179.75	165.68
5.213	5.214	-0.001	168160	0.30799	100	63.01- 103.01	89.54
Average of Peak Concentrations =					100		
9 Aroclor-1260						CAS #: 11096-82-5	
6.572	6.573	-0.001	282770	0.32512	110	80.00- 120.00	100.00
7.634	7.635	-0.001	207606	0.29711	99	61.49- 101.49	73.42
7.999	8.001	-0.002	413172	0.29425	98	142.48- 182.48	146.12
Average of Peak Concentrations =					100		
$ 11 Decachlorobiphenyl						CAS #: 2051-24-3	
9.722	9.723	-0.001	2069885	0.08930	30		

Data File: \\avogadro\organics\E4.I\131008F.B\E4H5077F.D
Date : 08-OCT-2013 16:10
Client ID: LCSD-74023 Instrument: E4.i
Sample Info: LCSD-74023,LCSD-74023,74023,8082A.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPest Column diameter: 0.32



Data File: \\avogadro\organics\E4.I\131008R.B\E4H5077R.D
Report Date: 10-Oct-2013 10:01

Spectrum Analytical, Inc. RI Division

Quantitation Report

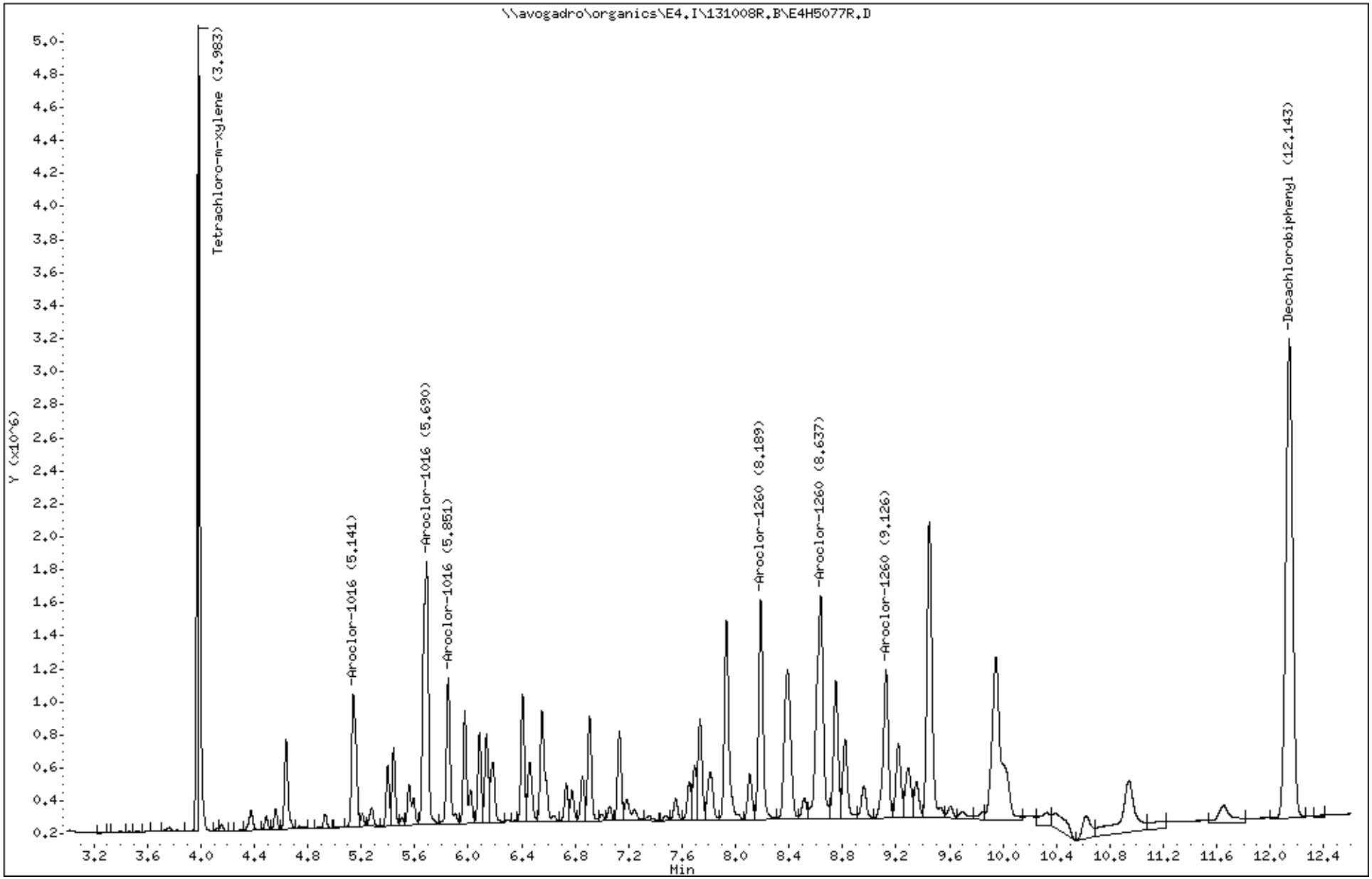
Data file : \\avogadro\organics\E4.I\131008R.B\E4H5077R.D
Lab Smp Id: LCSD-74023 Client Smp ID: LCSD-74023
Inj Date : 08-OCT-2013 16:10
Operator : AL SRC: AL Inst ID: E4.i
Smp Info : LCSD-74023,LCSD-74023,74023,8082A.sub,,
Misc Info : 3,,INSTBLANK,1
Comment :
Method : \\avogadro\organics\E4.I\131008R.B\E4_LL_PCB_R.M
Meth Date : 10-Oct-2013 09:50 alao Quant Type: ESTD
Cal Date : 07-OCT-2013 10:56 Cal File: E4H5032R.D
Als bottle: 16 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8082A.sub
Target Version: 4.14 Sample Matrix: SOIL
Processing Host: TARGET106

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVaria

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	1.000	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.00000	% Moisture
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
3.982	3.986	-0.004	4879489	0.04700	16		
6 Aroclor-1016					CAS #: 12674-11-2		
5.141	5.144	-0.003	798725	0.29872	100	80.00- 120.00	100.00
5.689	5.692	-0.003	1590288	0.29434	98	177.30- 217.30	199.10
5.851	5.854	-0.003	885634	0.30001	100	88.21- 128.21	110.88
Average of Peak Concentrations =					99		
8 Aroclor-1260					CAS #: 11096-82-5		
8.188	8.190	-0.002	1324727	0.31932	110	80.00- 120.00	100.00
8.637	8.638	-0.001	1351438	0.32720	110	78.71- 118.71	102.02
9.126	9.127	-0.001	894415	0.29129	97	61.66- 101.66	67.52
Average of Peak Concentrations =					100		
$ 11 Decachlorobiphenyl					CAS #: 2051-24-3		
12.142	12.144	-0.002	2898436	0.10003	33		

Data File: \\avogadro\organics\E4.I\131008R.B\E4H5077R.D
Date : 08-OCT-2013 16:10
Client ID: LCSD-74023 Instrument: E4.i
Sample Info: LCSD-74023,LCSD-74023,74023,8082A.sub,,
Volume Injected (uL): 1.0 Operator: AL SRC: AL
Column phase: CLPPestII Column diameter: 0.32



M1876

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

PREP BATCH REPORT

Prep Start Date: **09/30/2013 09:10**
Prep End Date: **10/04/2013 15:00**
Prep Batch ID: **74023**

Prep Code: **PCB_S_PR**
Technician: **Antonio AP Cardoso**

Prep Type: **SONC/SW3550B**

Prep Factor Units: **mL / g**

QC Matrix: NA2SO4
QC Matrix Lot: 121756

Solvent (1): MECL2
Solvent (1) Lot: DI 925

Solvent (3): HEXANE
Solvent (3) Lot: DJ006

Solvent (5): N/A
Solvent (5) Lot: N/A

Clean Up (1): N/A
Clean Up (1) Lot: N/A

Clean Up (3): N/A
Clean Up (1) Lot: N/A

Filter?: FILTER
Filter Lot: FC003203

Solvent (2): ACE
Solvent (2) Lot: 125597

Solvent (4): N/A
Solvent (4) Lot: N/A

Solvent (6): N/A
Solvent (6) Lot: N/A

Clean Up (2): N/A
Clean Up (2) Lot: N/A

Clean Up (4): N/A
Clean Up (4) Lot: N/A

Start Time: N/A
End Time: N/A

Cycles/Hour 0

Sonicator Tuned? Yes

Bath Temp1 (C): N/A

Therm ID1: N/A

Lab Sample ID	Client Samp ID	M	Initial (mL/g)	Final (mL)	Surrogate Spike ID	Surr (mL)	LCS/D MS/D Spike ID	Spike (mL)	A* Init	W* Init	Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	SONC / CNCNT
MB-74023	BatchQC		30	10	OPW130920A	1			TM	APC			10/04/13	TM	R21		☐	☐	N/A / N/A
	CLEAN UP (MB-74023): SW3665A/ACID_131004A (LOT: BOOM5126) /jwarner, SW3660B/CU_131004A (LOT: MKBH2055V) /jwarner																		
LCS-74023	BatchQC		30	10	OPW130920A	1	OPW130924A	1	TM	APC			10/04/13	TM	R21		☐	☐	N/A / N/A
	CLEAN UP (LCS-74023): SW3665A/ACID_131004A (LOT: BOOM5126) /jwarner, SW3660B/CU_131004A (LOT: MKBH2055V) /jwarner																		
LCSD-74023	BatchQC		30	10	OPW130920A	1	OPW130924A	1	TM	APC			10/04/13	TM	R21		☐	☐	N/A / N/A
	CLEAN UP (LCSD-74023): SW3665A/ACID_131004A (LOT: BOOM5126) /jwarner, SW3660B/CU_131004A (LOT: MKBH2055V) /jwarner																		
M1876-01A	DISPOSAL-1	S	30.5	10	OPW130920A	1			TM	APC	10/17/13	01	10/04/13	TM	R21		☐	☐	N/A / N/A
	CLEAN UP (M1876-01A): SW3665A/ACID_131004A (LOT: BOOM5126) /jwarner, SW3660B/CU_131004A (LOT: MKBH2055V) /jwarner																		

Timothy McDaniel — Analyst Reviewed — 10/04/2013 Date

Jodie B Warner — Manager Reviewed — 10/04/2013 Date

Comments:

*A = Analyst (Spiked) *W = Witnessed (Spike) *T = Transferred

TM 10/4/13

Logbook ID: 50.0149-09/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Sequence

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082
ICAL DATE: 10/7/13

ANALYST: AL

START BATCH: 131007BF.B Start: 07-OCT-13 07:36
END BATCH: 131007BF.B End: 07-OCT-13 10:56

8082 ICAL

Internal Standard:
Comments:

Inlet Maintenance By:
Liner :
Column :
Inlet Seal:
Septum :

Reviewed By: 10/8/13

Manual Integration: AL 10/8/13 MI Review: 10/8/13

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	SURROGATES FRONT DCB	SURROGATES REAR TCMX	SURROGATES REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5021F/R	07:36	AR12213J4	AR12213J4		AQ					1			✓		PW 130523 A
E4H5022F/R	07:55	AR12323J4	AR12323J4		AQ					1			✓		PW 130523 B
E4H5023F/R	08:13	AR12423J4	AR12423J4		AQ					1			✓		PW 130521 A
E4H5024F/R	08:31	AR12483J4	AR12483J4		AQ					1			✓		PW 130521 B
E4H5025F/R	08:49	AR12543J4	AR12543J4		AQ					1			✓		PW 130521 L
E4H5026F/R	09:07	AR12623J4	AR12623J4		AQ					1			✓		MI_F2 PW 130523 C
E4H5027F/R	09:25	AR12683J4	AR12683J4		AQ					1			✓		PW 130523 D
E4H5028F/R	09:43	AR16601J4	AR16601J4		AQ					1			✓		* PW130523 V
E4H5029F/R	10:01	AR16602J4	AR16602J4		AQ					1			✓		PW 130523 W
E4H5030F/R	10:20	AR16603J4	AR16603J4		AQ					1			✓		PW 131001A
E4H5031F/R	10:38	AR16604J4	AR16604J4		AQ					1			✓		PW 130523 X
E4H5032F/R	10:56	AR16605J4	AR16605J4		AQ					1			✓		PW 130523 Y

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

AL 10/8/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082 ANALYST: AL
ICAL DATE: 10/7/13

START BATCH: 131008F.B Start: 08-OCT-13 09:56
END BATCH: 131008F.B End: 08-OCT-13 14:55

Internal Standard:
Comments: STDs on Pg. 37

Inlet Maintenance By:
Liner :
Column :
Inlet Seal: I
Septum :

Reviewed By: 10/8/13 Manual Integration: AL 10/8/13 MI Review: 10/8/13

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	FRONT DCB	REAR TCMX	REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5059F/R	09:56	AIBLKJD	AIBLKJD		AQ	92	57	84	50	1			✓		
E4H5060F/R	10:15	AIBLKJD	AIBLKJD		AQ	92	58	88	54	1			✓		Not Using
E4H5061F/R	10:42	AR16603JD	AR16603JD		AQ					1			✓		
E4H5062F/R	11:09	AR1660ICVJA D	AR1660ICVJA		AQ					1			✓		
E4H5063F/R	11:33	AR12543JD	AR12543JD		AQ					1			✓	✓	Not Using
E4H5064F/R	11:53	AR12543JD	AR12543JD		AQ					1			✓	✓	Not Using
E4H5065F/R	12:12	MB-73977	MB-73977	73977	SL	87	79	91	84	1			✓		
E4H5066F/R	12:30	LCS-73977	LCS-73977	73977	SL	83	76	85	82	1			✓		
E4H5067F/R	12:48	LCSD-73977	LCSD-73977	73977	SL	81	76	85	82	1			✓		
E4H5068F/R	13:06	M1824-01E	ET-5	73977	SL	74	65	71	73	1			✓		
E4H5069F/R	13:24	M1824-02E	ET-6	73977	SL	72	61	67	69	1			✓		
E4H5070F/R	13:42	M1823-07B	LTS-C-12	73977	SL	71	57*	58	62	1			✓		
E4H5071F/R	14:00	M1823-08B	LTS-C-13	73977	SL	73	61	52	66	1			✓		
E4H5072F/R	14:18	M1823-09B	LTS-C-14	73977	SL	55	67	35	50*	1			✓		
E4H5073F/R	14:37	AIBLKJE	AIBLKJE		AQ	86	59	84	54	1			✓		
E4H5074F/R	14:55	AR16603JE	AR16603JE		AQ					1			✓		MI R8

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

AL 10/8/13

M1876

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082
ICAL DATE: 10/7/13
ANALYST: AL

START BATCH: 131008F.B Start: 08-OCT-13 15:25
END BATCH: 131008F.B End: 09-OCT-13 10:23

Inlet Maintenance By:
Liner :
Column :
Inlet Seal:
Septum :

Internal Standard:
Comments: STDs on Pg-37

Reviewed By: 10/9/13 Manual Integration: NA MI Review: NA

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	FRONT DCB	REAR TCMX	REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5075F/R	15:25	MB-74023	MB-74023	74023	SL	88	77	93	84	1			✓		
E4H5076F/R	15:52	LCS-74023	LCS-74023	74023	SL	87	72	92	81	1			✓		
E4H5077F/R	16:10	LCSD-74023	LCSD-~~74023~~	~~SL~~ AQ		75	74	78	83	1			✓		
E4H5078F/R	16:39	M1876-01A	DISPOSAL-1	74023	SL	62	57*	61	64	1			✓		54 TC
E4H5079F/R	16:58	MB-74027	MB-74027	74027	SL	85	74	88	80	1			✓		
E4H5080F/R	17:16	LCS-74027	LCS-74027	74027	SL	87	77	92	87	1			✓		
E4H5081F/R	17:34	M1877-01A	SA-NORTH #1@12	74027	SL	67	61	66	67	1			✓		
E4H5082F/R	17:52	M1877-02A	SA-NORTH #2@12	74027	SL	65	60*	65	63	1			✓		
E4H5083F/R	18:10	M1877-03A	SA-NORTH #3@12	74027	SL	72	65	74	68	1			✓		
E4H5084F/R	18:28	M1877-04A	SA-NORTH #4@12	74027	SL	66	64	67	70	1			✓		
E4H5085F/R	18:46	MB-74111	MB-74111	74111	SL	82	74	87	82	1			✓		
E4H5086F/R	19:04	LCS-74111	LCS-74111	74111	SL	81	73	86	83	1			✓		
E4H5087F/R	19:22	M1889-01A	TP-10 6	74111	SL	65	49*	66	51*	1			✓		~~48~~,54 TC
E4H5088F/R	19:40	M1889-02A	TP-12 3	74111	SL	71	62	73	62	1			✓		
E4H5089F/R	19:58	M1889-03A	TP-13 5	74111	SL	64	62	66	66	1			✓		
E4H5090F/R	20:16	M1889-04A	TP-14 8	74111	SL	71	52*	68	55*	1			✓		~~42~~,48 TC
E4H5091F/R	20:34	M1889-05A	TP-15 5-6	74111	SL	70	56*	71	62	1			✓		
E4H5092F/R	20:53	M1889-06A	TP-16 2	74111	SL	65	59*	66	60*	1			✓		
E4H5093F/R	21:11	M1889-07A	TP-17 8	74111	SL	73	57*	73	62	1			✓		
E4H5094F/R	21:29	M1889-08A	TP-19 7	74111	SL	71	58*	72	61	1			✓		
E4H5095F/R	21:47	MB-73884	MB-73884	73884	AQ	86	75	90	81	1			✓		
E4H5096F/R	22:05	LCS-73884	LCS-73884	73884	AQ	87	75	92	84	1			✓		
E4H5097F/R	22:23	LCSD-73884	LCSD-73884	73884	AQ	83	72	88	79	1			✓		
E4H5098F/R	22:41	M1745-05A	LCB	73884	AQ	15*	7.0*	14*	6.4*	1			✓		Low Surrogates both F & R ; RR
E4H5099F/R	22:59	M1745-06A	SLCS	73884	AQ	61	30*	62	29*	1			✓		
E4H5100F/R	23:17	AIBLKJF	AIBLKJF		AQ	92	59	92	60	1			✓		
E4H5101F/R	23:35	AR16603JF	AR16603JF		AQ					1			✓		

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

10/9/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082 ANALYST: AL
ICAL DATE: 10/7/13

START BATCH: 131008F.B Start: 08-OCT-13 15:25
END BATCH: 131008F.B End: 09-OCT-13 10:23

Internal Standard:
Comments: STDs on Pg. 37

Inlet Maintenance By:
Liner :
Column :
Inlet Seal:
Septum :

Reviewed By: 10/9/13 Manual Integration: NA MI Review: NA

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	SURROGATES FRONT DCB	SURROGATES REAR TCMX	SURROGATES REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5102F/R	23:53	AR16603JF	AR16603JF		AQ					1			—	—	MI_F11 Not Using
E4H5103F/R	00:11	MB-73953	MB-73953	73953	SL	80	75	84	82	1			✓		
E4H5104F/R	00:29	LCS-73953	LCS-73953	73953	SL	85	74	90	82	1			✓		
E4H5105F/R	00:47	LCSD-73953	LCSD-73953	73953	SL	86	74	92	82	1			✓		
E4H5106F/R	01:05	M1734-01B	WACSB101-1	73953	SL	69	66	72	73	1			✓		
E4H5107F/R	01:23	M1734-02B	WACSB101-2	73953	SL	54	65	39	70	1			✓		
E4H5108F/R	01:41	M1734-03B	WACSB101-3	73953	SL	76	67	78	73	1			✓		
E4H5109F/R	01:59	M1734-04B	WACSB101-4	73953	SL	74	69	76	75	1			✓		
E4H5110F/R	02:17	M1734-05B	WACSB101-5	73953	SL	75	72	78	80	1			✓		
E4H5111F/R	02:35	M1734-06B	WACSB102-1	73953	SL	78	70	80	78	1			✓		
E4H5112F/R	02:53	M1734-07B	WACSB102-2	73953	SL	56	68	41	74	1			✓		
E4H5113F/R	03:11	AIBLKJG	AIBLKJG		AQ	91	57	93	61	1			✓		
E4H5114F/R	03:29	AR16603JG	AR16603JG		AQ					1			✓		
E4H5115F/R	03:47	M1734-08B	WACSB102-3	73953	SL	72	70	74	76	1			✓		
E4H5116F/R	04:05	M1734-09B	WACSB102-4	73953	SL	50	62	34	71	1			✓		
E4H5117F/R	04:23	M1734-10B	WACSB102-5	73953	SL	48	68	33*	73	1			✓		
E4H5118F/R	04:41	M1734-11B	WACSB102-6	73953	SL	69	67	70	72	1			✓		
E4H5119F/R	04:59	M1734-12B	WACSB103-1	73953	SL	69	72	72	78	1			✓		
E4H5120F/R	05:17	M1734-13B	WACSB103-2	73953	SL	64	67	64	73	1			✓		
E4H5121F/R	05:35	M1734-14B	WACSB103-3	73953	SL	47	64	36	72	1			✓		
E4H5122F/R	05:53	M1734-15B	WACSB103-4	73953	SL	72	68	73	76	1			✓		
E4H5123F/R	06:11	M1734-16B	WACSB103-5	73953	SL	70	67	74	72	1			✓		
E4H5124F/R	06:29	M1734-17B	WACSB103-6	73953	SL	67	61	70	68	1			✓		
E4H5125F/R	06:47	AIBLKJH	AIBLKJH		AQ	98	57	101	63	1			✓		
E4H5126F/R	07:05	AR16603JH	AR16603JH		AQ					1			✓		
E4H5127F/R	07:23	M1734-18B	WACSB104-1	73953	SL	72	69	76	77	1			✓		
E4H5128F/R	07:41	M1734-19B	WACSB104-2	73953	SL	67	70	69	81	1			✓		

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

AL 10/9/13

M1876

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082
ICAL DATE: 10/7/13

ANALYST: JAL

START BATCH: 131008F.B Start: 08-OCT-13 15:25
END BATCH: 131008F.B End: 09-OCT-13 10:23

Internal Standard:
Comments:

STDs on Pg. 37

Inlet Maintenance By:
Liner :
Column :
Inlet Seal:
Septum :

Reviewed By: JAL 10/9/13 Manual Integration: NA MI Review: NA

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	FRONT DCB	REAR TCMX	REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5129F/R	07:59	M1734-20B	WACSB104-3	73953	SL	61	70	47	77	1			✓		
E4H5130F/R	08:17	MB-73954	MB-73954	73954	SL	78	72	85	80	1			✓		
E4H5131F/R	08:35	LCS-73954	LCS-73954	73954	SL	82	73	90	84	1			✓		
E4H5132F/R	08:53	LCSD-73954	LCSD-73954	73954	SL	84	73	92	83	1			✓		
E4H5133F/R	09:11	M1734-21B	WACSB104-4	73954	SL	59	69	45	79	1			✓		
E4H5134F/R	09:29	M1734-22B	WACSB104-5	73954	SL	43	66	44	75	1			✓		
E4H5135F/R	09:47	M1734-23B	WACSB104-6	73954	SL	70	69	74	76	1			✓		
E4H5136F/R	10:05	M1734-24B	WACSB104-7	73954	SL	70	66	74	74	1			✓		
E4H5137F/R	10:23	M1734-25B	WACSB105-1	73954	SL	66	72	70	75	1			✓		

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

JAL 10/9/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082
ICAL DATE: 10/7/13

ANALYST: AL

START BATCH: 131008F.B Start: 09-OCT-13 10:41
END BATCH: 131008F.B End: 09-OCT-13 14:55

Inlet Maintenance By:
Liner :
Column :
Inlet Seal: I
Septum :

Internal Standard:
Comments:

STDs on Pg. 37

Reviewed By: G 10/9/13

Manual Integration: AL 10/9/13

MI Review: G 10/9/13

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	SURROGATES FRONT DCB	SURROGATES REAR TCMX	SURROGATES REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5138F/R	10:41	M1734-26B	WACSB105-2	73954	SL	69	66	72	73	1			✓		
E4H5139F/R	10:59	M1734-27B	WACSB105-3	73954	SL	68	66	70	73	1			✓		
E4H5140F/R	11:17	AIBLKJI			AQ	93	58	94	62	1			✓		
E4H5141F/R	11:35	AR16603JI	AR16603JI		AQ					1			✓		
E4H5142F/R	11:53	M1734-28B	WACSB105-4	73954	SL	61	68	58	74	1			✓		
E4H5143F/R	12:12	M1734-29B	WACSB105-5	73954	SL	66	66	69	73	1			✓		
E4H5144F/R	12:30	M1734-30B	WACSB105-6	73954	SL	52	63	54	70	1			✓		
E4H5145F/R	12:48	M1734-31B	WACSB106-1	73954	SL	70	66	74	74	1			✓		
E4H5146F/R	13:06	M1734-32B	WACSB106-2	73954	SL	42	62	31*	69	1			✓		MI_F11
E4H5147F/R	13:24	M1734-33B	WACSB106-3	73954	SL	45	65	34*	73	1			✓		
E4H5148F/R	13:43	M1734-34B	WACSB106-4	73954	SL	63	66	67	74	1			✓		
E4H5149F/R	14:01	M1734-35B	WACSB106-5	73954	SL	70	67	74	73	1			✓		
E4H5150F/R	14:19	M1734-36B	WACSB106-6	73954	SL	59	64	62	70	1			✓		
E4H5151F/R	14:37	AIBLKJJ	AIBLKJJ		AQ	91	60	92	63	1			✓		
E4H5152F/R	14:55	AR16603JJ	AR16603JJ		AQ					1			✓		

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

Reviewed

AL
10/9/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082
ICAL DATE: 10/7/13
ANALYST: JL

START BATCH: 131008F.B Start: 09-OCT-13 15:13
END BATCH: 131008F.B End: 10-OCT-13 10:15

Internal Standard:
Comments: STDs on Pg. 37

Inlet Maintenance By:
Liner :
Column : J
Inlet Seal: J
Septum :

Reviewed By: JL 10/10/13 Manual Integration: MA MI Review: MA

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	SURROGATES FRONT DCB	SURROGATES REAR TCMX	SURROGATES REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5153F/R	15:13	MB-74144	MB-74144	74144	SL	78	74	84	82	1			✓		
E4H5154F/R	15:31	LCS-74144	LCS-74144	74144	SL	75	68	81	80	1			✓		
E4H5155F/R	15:49	LCSD-74144	LCSD-74144	74144	SL	80	72	87	83	1			✓		
E4H5156F/R	16:07	M1898-04A	SP-C	74144	SL	75	68	80	78	1			✓		
E4H5157F/R	16:25	MB-74091	MB-74091	74091	AQ	81	72	87	83	1			✓		
E4H5158F/R	16:43	LCS-74091	LCS-74091	74091	AQ	82	72	88	83	1			✓		
E4H5159F/R	17:01	M1822-01B	MW-1 092513	74091	AQ	77	59	83	66	1			✓		
E4H5160F/R	17:19	M1822-02B	MW-5 092513	74091	AQ	73	49	79	53	1			✓		
E4H5161F/R	17:37	M1822-03B	MW-3 092513	74091	AQ	75	53	81	58	1			✓		
E4H5162F/R	17:56	M1822-04B	MW-102S 092513	74091	AQ	68	36*	72	39*	1			✓		
E4H5163F/R	18:14	M1822-05B	MW-102D 092513	74091	AQ	64	46	64	54	1			✓		
E4H5164F/R	18:32	M1822-05BMS	MW-102D 092513M	74091	AQ	73 38	73 36*	75 39	34 42	1			✓		1/2 spikes compounds
E4H5165F/R	18:50	M1822-05BMSD	MW-102D 092513M	74091	AQ	62* 32*	53 26*	62* 30*	60 30*	1			✓		
E4H5166F/R	19:08	M1822-06B	DUP1 092513	74091	AQ	66	53	66	58	1			✓		
E4H5167F/R	19:26	MB-73933	MB-73933	73933	SL	83	73	90	85	1			✓		
E4H5168F/R	19:44	LCS-73933	LCS-73933	73933	SL	76	72	82	84	1			✓		
E4H5169F/R	20:02	M1779-02A	CS-BOT44	73933	SL	69	63	74	72	1			✓		
E4H5170F/R	20:20	M1779-04A	CS-SW34	73933	SL	75	65	78	75	1			✓		
E4H5171F/R	20:39	M1779-05A	CS-SW35	73933	SL	68	51*	69	55*	1			✓		
E4H5172F/R	20:57	M1779-06A	CS-SW36	73933	SL	66	60	69	64	1			✓		
E4H5173F/R	21:15	M1779-07A	CS-SW37	73933	SL	66	63	71	69	1			✓		
E4H5174F/R	21:33	M1779-07AMS	CS-SW37MS	73933	SL	56	58*	59	67	1	R		✓		
E4H5175F/R	21:51	M1779-07AMSD	CS-SW37MSD	73933	SL	66	62	70	67	1			✓		
E4H5176F/R	22:09	M1779-08A	CS-SW38	73933	SL	66	61	67	71	1			✓		
E4H5177F/R	22:27	M1779-09A	CS-SW39	73933	SL	56	58*	48	66	1			✓		
E4H5178F/R	22:45	M1779-10A	CS-SW40	73933	SL	66	64	68	72	1			✓		
E4H5179F/R	23:04	M1779-11A	BLIND DUP	73933	SL	68	64	72	74	1			✓		

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

JL 10/10/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082 ANALYST: AL
ICAL DATE: 10/7/13

START BATCH: 131008F.B Start: 09-OCT-13 15:13
END BATCH: 131008F.B End: 10-OCT-13 10:15

STDs on Pg. A37

Inlet Maintenance By:
Liner :
Column :
Inlet Seal: I
Septum :

Internal Standard:
Comments:

Reviewed By: CT 10/10/13 Manual Integration: AL 10/10/13 MI Review: CT 10/10/13

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	FRONT DCB	REAR TCMX	REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5180F/R	23:22	MB-73901	MB-73901	73901	AQ	97	82	108	96	1			✓		
E4H5181F/R	23:40	LCS-73901	LCS-73901	73901	AQ	80	91	99	110	1			✓		
E4H5182F/R	23:58	LCSD-73901	LCSD-73901	73901	AQ	84	92	103	109	1			✓		
E4H5183F/R	00:16	M1716-01A	MW 6	73901	AQ	27*	49	26*	47	1			✓		MI_F1_R1
E4H5184F/R	00:34	MB-73881	MB-73881	73881	SL	76	69	79	67	1			✓		
E4H5185F/R	00:52	LCS-73881	LCS-73881	73881	SL	79	70	86	77	1			✓		
E4H5186F/R	01:10	M1717-01A	GWS-01	73881	SL	40	52*	29*	52*	1			✓		ReRun Surr. Rear
E4H5187F/R	01:28	M1717-02A	GWS-02	73881	SL	46	82	88	70	1			✓		
E4H5188F/R	01:46	M1717-03A	GWS-03	73881	SL	50	64	37	70	1			✓		
E4H5189F/R	02:04	M1717-04A	GWS-04	73881	SL	55	55*	46	61	1			✓		
E4H5190F/R	02:22	AIBLKJK	AIBLKJK		AQ	105	60	106	63	1			✓		
E4H5191F/R	02:40	AR16603JK	AR16603JK		AQ					1			✓		
E4H5192F/R	02:58	M1717-04AMS	GWS-04MS	73881	SL	56	59*	49	66	1	R	R	✓		
E4H5193F/R	03:16	M1717-04AMSD	GWS-04MSD	73881	SL	62	63	54	72	1			✓		
E4H5194F/R	03:34	M1717-05A	FIELD DUP	73881	SL	46	57*	33*	59*	1			✓		ReRun Surr. rear
E4H5195F/R	03:52	M1745-05A	LCB	73884	AQ	14*	6.4*	12*	5.5*	1			✓		ReRun / Re-ext low Surr.
E4H5196F/R	04:10	M1818-01A	TOPSOIL #1	74111	SL	64	54*	66	61	1			✓		
E4H5197F/R	04:28	M1818-02A	TOPSOIL #2	74111	SL	71	55*	74	63	1			✓		
E4H5198F/R	04:46	M1912-01A	WC-1	74144	SL	70	63	73	69	1			✓		~~48~~ non-PCB pattern
E4H5199F/R	05:04	M1912-02A	WC-2	74144	SL	66	57*	70	64	1			✓		~~48~~ non-PCB pattern
E4H5200F/R	05:22	M1912-03A	WC-3	74144	SL	67	58*	71	68	1			✓		
E4H5201F/R	05:40	M1854-01A	SS01 092613	74111	SL	65	53*	65	66	1			✓		
E4H5202F/R	05:58	M1854-02A	SS02 092613	74111	SL	65	58*	67	65	1			✓		
E4H5203F/R	06:17	M1854-03A	SS03 092613	74111	SL	59	45*	48	50*	1			✓		~~48~~, ~~54~~, (60)
E4H5204F/R	06:35	M1854-04A	SS04 092613	74111	SL	67	54*	70	55*	1			✓		42 BRL
E4H5205F/R	06:52	M1854-05A	SS05 092613	74111	SL	48	40*	48	44*	1			✓		~~54~~, 60 BRL
E4H5206F/R	07:10	M1854-06A	SS06 092613	74111	SL	48	44*	45	47*	1			✓		

CT 10/10/13

F - One or more target compounds are above the calibration range
* - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

AL 10/10/13

Spectrum Analytical, Inc. RI Division - PEST/PCB RUN LOGBOOK: INSTRUMENT E4

Spectrum Analytical, Inc. RI Division E4 Injection Log
GC Semivolatiles Laboratory

METHOD: 8082 ANALYST: AL
ICAL DATE: 10/7/13

START BATCH: 131008F.B Start: 09-OCT-13 15:13
END BATCH: 131008F.B End: 10-OCT-13 10:15

Internal Standard:
Comments: STDs on Pg. 37

Inlet Maintenance By:
Liner :
Column :
Inlet Seal: I
Septum :

Reviewed By: 10/10/13 Manual Integration: NA MI Review: NA

FILE	TIME	LAB ID	CLIENT ID	PREP BATCH	MT	SURROGATES FRONT TCMX	SURROGATES FRONT DCB	SURROGATES REAR TCMX	SURROGATES REAR DCB	DILN	FLAGS F	FLAGS R	ANALYST CHECK F	ANALYST CHECK R	COMMENTS
E4H5207F/R	07:29	M1854-06AMS	SS06 092613MS	74111	SL	50	48*	49	52*	1	R	R	✓		
E4H5208F/R	07:46	M1854-06AMSD	SS06 092613MSD	74111	SL	51	50*	49	53*	1	R	R	✓		
E4H5209F/R	08:04	M1854-07A	SS07 092613	74111	SL	64	57*	67	63	1			✓		
E4H5210F/R	08:22	M1854-08A	SS08 092613	74111	SL	61	54*	64	62	1			✓		
E4H5211F/R	08:41	M1854-09A	DUP1 092613	74111	SL	65	53*	64	58*	1			✓		
E4H5212F/R	08:59	M1881-04A	PILE 1-04	74144	SL	72	60*	71	68	1			✓		
E4H5213F/R	09:17	M1878-01A	SA-NORTH #1@24	74027	SL	60	58*	61	65	1					} samples put on hold
E4H5214F/R	09:35	M1878-02A	SA-NORTH #2@24	74027	SL	68	60*	71	69	1					}
E4H5215F/R	09:57	AIBLKJL	AIBLKJL		AQ	106	59	112	71	1			✓		
E4H5216F/R	10:15	AR16603JL	AR16603JL		AQ					1			✓		

E - One or more target compounds are above the calibration range
R - One or more spike compounds are outside of control limits
* - Surrogate is outside of control limits
D - Surrogate is diluted

AL 10/10/13

* Metals *

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : AECOM Technical Services, Inc.

Project: Bay Ridge Holders, Waste Char

Laboratory Workorder / SDG #: M1876

SW846 6010C, SW846 7471B

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SW846 6010C, SW846 7471B

IV. PREPARATION

Soil Samples were prepared following procedures in laboratory test code: SW3050B
Soil Samples were prepared following procedures in laboratory test code: SW7471B

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: FIMS2
Instrument Type: CVAA
Description: FIMS
Manufacturer: Perkin-Elmer
Model: FIMS100

Instrument Code: OPTIMA3
Instrument Type: ICP
Description: Optima ICP-OES
Manufacturer: Perkin-Elmer
Model: 4300 DV

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for laboratory control samples were within the QC limits.

2. Matrix spike (MS):

Matrix spikes were performed on sample: DISPOSAL-1 (M1876-01CMS).

Percent recoveries were within the QC limits with the following exceptions:

DISPOSAL-1 (M1876-01CMS), recovery is below criteria for Antimony at 44% with criteria of (80-120) and Lead at 73% with criteria of (80-120).

D. Post Digestion Spike (PDS):

Post-digestion spike analysis was performed on sample: DISPOSAL-1 (M1876-01CPDS).

DISPOSAL-1 (M1876-01CPDS) for Antimony and Lead due to

recoveries of these elements outside of QC limits in the matrix spike.

E. Duplicate sample:

Duplicate analyses were performed on sample: DISPOSAL-1 (M1876-01CDUP).

Relative percent differences were within the QC limits.

F. Serial Dilution (SD):

Serial Dilution analyses were performed on sample: DISPOSAL-1 (M1876-01CSD).

Percent differences were within the QC limits.

G. Samples:

No other unusual occurrences were noted during sample analysis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Signed: 

Date: 10/21/13

Data Flag/Qualifiers:

U Not Detected. This compound was analyzed-for but not detected. For most analyses the reporting limit (lowest standard concentration) is the value listed. For Department of Defense programs, this is the Limit of Detection (LOD).

J This flag indicates an estimated value due to either
- the compound was detected below the reporting limit, or
- estimated concentration for Tentatively Identified Compound

B This flag indicates the compound was also detected in the associated Method Blank. The B flag has an alternative meaning for Inorganics analyses reported using CLP ILM-type metals forms, indicating a "trace" concentration below the reporting limit and equal to or above the detection limit.

D For Organics analysis, this flag indicates the compound concentration was obtained from a secondary dilution analysis

E This flag indicates the compound concentration exceeded the Calibration Range. The E flag has an alternative meaning for Inorganics analyses reported using CLP metals forms, indicating an estimated concentration due to the presence of interferences, as determined by the serial dilution analysis.

P This flag is used for pesticides/PCB/herbicide compound when there is a greater than 40% difference for detected concentration between the two GC columns used for primary and confirmation analyses. This difference typically indicates an interference, causing one value to be unusually high. The **lower** of the two values is generally reported on the Form 1, and both values reported on the Form 10.

A Used to flag semivolatile organic Tentatively Identified Compound library search results for compounds identified as aldol condensation byproducts.

N Used to flag results for volatile and semivolatile Organics analysis Tentatively Identified Compounds where an analyte has passed the identification criteria, and is considered to be positively identified. For Inorganics analysis the N flag indicates the matrix spike recovery falls outside of the control limit.

* For Inorganics analysis the * flag indicates Relative Percent Difference for duplicate analyses is outside of the control limit.

Sample ID Suffixes

DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution

RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.

RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.

RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.

MS Matrix Spike.

MSD Matrix Spike Duplicate

DUP Duplicate analysis

SD Serial Dilution

PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

U.S.EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

SOW No.: SW846

EPA Sample No.	Lab Sample ID
DISPOSAL-1	M1876-01
DISPOSAL-1D	M1876-01DUP
DISPOSAL-1S	M1876-01MS

Were ICP interelement corrections applied?	Yes/No	Yes
Were background corrections applied?	Yes/No	Yes
If yes-were raw data generated before application of background corrections?	Yes/No	No

Comments:

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 above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Sharyn B Lawler Name: Sharyn B. Lawler

Date: 10/21/13 Title: QAD

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

DISPOSAL-1

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Matrix (soil/water): SOIL Lab Sample ID: M1876-01

Level (low/med): MED Date Received: 09/28/2013

% Solids: 88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.37	U	N	P
7440-38-2	Arsenic	11.1			P
7440-41-7	Beryllium	0.33			P
7440-43-9	Cadmium	0.015	U		P
7440-47-3	Chromium	13.7			P
7440-50-8	Copper	23.8			P
7439-92-1	Lead	51.8		N	P
7439-97-6	Mercury	0.097			CV
7440-02-0	Nickel	10.2			P
7782-49-2	Selenium	0.62	U		P
7440-22-4	Silver	0.062	U		P
7440-28-0	Thallium	0.83	B		P
7440-66-6	Zinc	45.1			P

Comments:

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
	09/30/13 13:39				09/30/13 13:57		09/30/13 14:16		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury	5.0	5.00	100	5.0	5.05	101.0	4.92	98.4	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
	10/01/13 8:15				10/01/13 8:34		10/01/13 08:59		
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Antimony	500.0	469.71	93.9	500.0	463.21	92.6	463.88	92.8	P
Arsenic	500.0	489.83	98.0	500.0	478.25	95.7	489.63	97.9	P
Beryllium	250.0	240.12	96.0	250.0	240.79	96.3	243.01	97.2	P
Cadmium	250.0	244.73	97.9	250.0	244.20	97.7	250.18	100.1	P
Chromium	1000.0	992.62	99.3	1000.0	986.37	98.6	1002.29	100.2	P
Copper	1250.0	1190.64	95.3	1250.0	1200.32	96.0	1210.43	96.8	P
Lead	500.0	493.11	98.6	500.0	482.24	96.4	485.42	97.1	P
Nickel	2500.0	2468.06	98.7	2500.0	2444.35	97.8	2491.03	99.6	P
Selenium	500.0	481.80	96.4	500.0	470.11	94.0	476.78	95.4	P
Silver	1250.0	1224.29	97.9	1250.0	1226.05	98.1	1239.68	99.2	P
Thallium	500.0	475.68	95.1	500.0	467.76	93.6	473.06	94.6	P
Zinc	2500.0	2502.09	100.1	2500.0	2479.79	99.2	2539.14	101.6	P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Initial Calibration Source:

Continuing Calibration Source:

Concentration Units: ug/L

	Initial Calibration			Continuing Calibration					
					10/01/13 9:44				
Analyte	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Antimony				500.0	458.50	91.7			P
Arsenic				500.0	473.94	94.8			P
Beryllium				250.0	233.16	93.3			P
Cadmium				250.0	243.65	97.5			P
Chromium				1000.0	976.47	97.6			P
Copper				1250.0	1163.08	93.0			P
Lead				500.0	482.76	96.6			P
Nickel				2500.0	2420.36	96.8			P
Selenium				500.0	467.19	93.4			P
Silver				1250.0	1202.13	96.2			P
Thallium				500.0	461.71	92.3			P
Zinc				2500.0	2459.36	98.4			P

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID: **MB-74036**

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

FIMS2_130930A

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte		C	09/30/13 13:59	C	09/30/13 14:18	C		C		C	M
Mercury	0.028	U	0.028	U	0.028	U			0.002	U	CV

U.S. EPA - CLP

3

BLANKS

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Preparation Blank Matrix (soil/water): SOIL

Method Blank ID: **MB-74040**

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

OPTIMA3_131001A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 10/01/13 8:37	C	10/01/13 9:03	C	10/01/13 9:48	C	Preparation Blank	C	M
Antimony	9.3	U	9.3	U	9.3	U	9.3	U	0.380	U	P
Arsenic	4.3	U	4.3	U	4.3	U	4.3	U	0.410	U	P
Beryllium	0.3	U	0.3	U	0.3	U	0.3	U	0.004	B	P
Cadmium	0.9	U	0.9	U	0.9	U	0.9	U	0.016	B	P
Chromium	0.6	U	0.6	U	0.6	U	0.9	B	0.040	B	P
Copper	3.6	U	3.6	U	3.6	U	3.6	U	0.110	U	P
Lead	4.2	U	4.2	U	4.2	U	4.2	U	0.170	U	P
Nickel	0.9	U	0.8	U	0.8	U	0.8	U	0.043	U	P
Selenium	12.0	U	12.0	U	12.0	U	12.0	B	0.640	U	P
Silver	6.9	U	6.9	U	6.9	U	6.9	U	0.064	U	P
Thallium	6.2	U	7.5	B	6.2	U	6.2	U	0.220	U	P
Zinc	4.9	U	4.9	U	4.9	U	4.9	U	0.180	U	P

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

ICP ID Number: OPTIMA3 ICS Source:

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found %R	Final Found Sol. AB	Final Found %R
Antimony	0	600	-14	632.9	105.5				
Arsenic	0	100	0	100.3	100.3				
Beryllium	0	500	0	503.4	100.7				
Cadmium	0	1000	-3	969.7	97.0				
Chromium	0	500	1	501.6	100.3				
Copper	0	500	-5	526.7	105.3				
Lead	0	500	0	492.9	98.6				
Nickel	0	1000	2	946	94.6				
Selenium	0	500	-9	489.5	97.9				
Silver	0	200	-4	217.4	108.7				
Thallium	0	100	0	94.6	94.6				
Zinc	0	1000	8	967.6	96.8				

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DISPOSAL-1S

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Matrix (soil/water): SOIL Level (low/med): MED

% Solids for Sample: 88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	75-125	9.2		0.37	U	20.9	44	N	P
Arsenic	75-125	30.8		11.1		20.9	94		P
Beryllium	75-125	10.7		0.33		10.4	99		P
Cadmium	75-125	10.4		0.015	U	10.4	100		P
Chromium	75-125	55.2		13.7		41.8	99		P
Copper	75-125	78.0		23.8		52.0	104		P
Lead	75-125	67.0		51.8		20.9	73	N	P
Nickel	75-125	115		10.2		104	100		P
Selenium	75-125	19.2		0.62	U	20.9	92		P
Silver	75-125	53.0		0.062	U	52.0	102		P
Thallium	75-125	20.7		0.83	B	20.9	95		P
Zinc	75-125	147		45.1		104	98		P
Mercury	75-125	0.99		0.097		0.87	102		CV

Comments:

U.S. EPA - CLP

5B

EPA SAMPLE NO.

POST DIGEST SPIKE SAMPLE RECOVERY

DISPOSAL-1A

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Matrix (soil/water): SOIL Level (low/med): MED

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spike Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony		458.00		0.38	U	455.0	101		P
Lead		1490.40		1062.19		455.0	94		P

Comments:

U.S. EPA - CLP

6

DUPLICATES

EPA SAMPLE NO.

DISPOSAL-1D

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Matrix (soil/water): SOIL Level (low/med): MED

% Solids for Sample: 88.4 % Solids for Duplicate: 88.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Antimony		0.3700	U	0.3400	U			P
Arsenic		11.0585		11.7634		6.2		P
Beryllium	0.2	0.3299		0.3301		0.1		P
Cadmium		0.0150	U	0.0130	U			P
Chromium		13.7354		14.2569		3.7		P
Copper		23.7978		24.9107		4.6		P
Lead		51.7768		51.6861		0.2		P
Nickel	2.4	10.1515		11.6141		13.4		P
Selenium		0.6200	U	0.5700	U			P
Silver		0.0620	U	0.0570	U			P
Thallium		0.8282	B	0.4805	B	53.1		P
Zinc		45.0541		46.3493		2.8		P
Mercury	0.0	0.0973		0.0771		23.2		CV

LABORATORY CONTROL SAMPLE

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Solid LCS Source:

Aqueous LCS Source:

LCS(D) ID:
LCS-74036

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Mercury				0.8	0.8		0.6	0.9	100.0

LABORATORY CONTROL SAMPLE

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Solid LCS Source:

Aqueous LCS Source:

LCS(D) ID:
LCS-74040

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Antimony				22.8	21.9		18.2	27.3	96.1
Arsenic				22.8	21.6		18.2	27.3	94.7
Beryllium				11.4	10.6		9.1	13.6	93.0
Cadmium				11.4	11.0		9.1	13.6	96.5
Chromium				45.5	43.6		36.4	54.6	95.8
Copper				56.5	53.2		45.2	67.8	94.2
Lead				22.8	22.0		18.2	27.3	96.5
Nickel				113.5	108.2		90.8	136.2	95.3
Selenium				22.8	20.4		18.2	27.3	89.5
Silver				56.5	53.8		42.4	67.8	95.2
Thallium				22.8	21.0		18.2	27.3	92.1
Zinc				113.5	106.6		90.8	136.2	93.9

9

ICP SERIAL DILUTIONS

EPA SAMPLE NO.

DISPOSAL-1

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Matrix (soil/water): SOIL Level (low/med): MED

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Antimony	9.30	U	46.50	U			P
Arsenic	226.86		222.29		2		P
Beryllium	6.77		7.08		5		P
Cadmium	0.89	U	4.45	U			P
Chromium	281.78		285.24		1		P
Copper	488.21		467.20		4		P
Lead	1062.19		1087.96		2		P
Nickel	208.26		214.11		3		P
Selenium	12.00	U	60.00	U			P
Silver	6.90	U	34.50	U			P
Thallium	16.99	B	31.00	U	100		P
Zinc	924.28		957.51		4		P

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Instrument Type: CV InstrumentID: FIMS2 Date: 03/04/2010

Preparation Method: 7471B

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRDL	MDL
Mercury	253.70	0.2	0.028

Comments:

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Instrument Type: CV InstrumentID: FIMS2 Date: 02/09/2011

Preparation Method: 7471B

Concentration Units (ug/L or mg/kg): mg/Kg

Analyte	Wavelength /Mass	CRDL	MDL
Mercury	253.70	0.03	0.0021

Comments:

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Instrument Type: P InstrumentID: OPTIMA3 Date: 06/03/2010

Preparation Method: 3050B

Concentration Units (ug/L or mg/kg): mg/Kg

Analyte	Wavelength /Mass	CRDL	MDL
Antimony	206.83	1.0	0.38
Arsenic	188.98	1.0	0.41
Beryllium	313.11	0.25	0.0015
Cadmium	226.50	0.25	0.015
Chromium	267.72	1.0	0.019
Copper	324.75	1.5	0.11
Lead	220.35	0.50	0.17
Nickel	231.60	2.5	0.043
Selenium	196.03	1.5	0.64
Silver	328.07	1.5	0.064
Thallium	190.80	1.0	0.22
Zinc	206.20	2.5	0.18

Comments:

U.S. EPA - CLP

10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Instrument Type: P InstrumentID: OPTIMA3 Date: 03/03/2010

Preparation Method: 3005A

Concentration Units (ug/L or mg/kg): ug/L

Analyte	Wavelength /Mass	CRDL	MDL
Antimony	206.83	20	9.3
Arsenic	188.98	20	4.3
Beryllium	313.11	5.0	0.26
Cadmium	226.50	5.0	0.89
Chromium	267.72	20	0.64
Copper	324.75	30	3.6
Lead	220.35	10	4.2
Nickel	231.60	50	0.85
Selenium	196.03	30	12.0
Silver	328.07	30	6.9
Thallium	190.80	20	6.2
Zinc	206.20	50	4.9

Comments:

U.S. EPA - CLP

11A

ICP INTERELEMENT CORRECTION FACTORS (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

ICP ID Number: OPTIMA3 Date: 7/11/2013

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Co
Aluminum	308.21		0.1314000	0.0000000	0.0000000	0.0000000
Antimony	206.83	0.0407350	0.0000000	0.0439290	0.0124776	0.0000000
Arsenic	188.97	0.0186052	-0.0098384	-0.0749768	0.0000000	0.0000000
Barium	233.52	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.10	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0402071	0.0000000	0.0000000
Calcium	227.54	-0.6593720		-34.9107000	0.0000000	137.1730000
Chromium	267.71	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.75	0.0000000	0.0000000	-0.0915640	0.0000000	0.0000000
Iron	273.95	0.0000000	0.0000000		0.0000000	0.0000000
Lead	220.35	-0.0621081	0.0000000	0.0342143	0.0000000	-0.1297800
Magnesium	279.07	0.0000000	0.0000000	0.0000000		0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0377986	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.5129470	0.0000000
Selenium	196.02	-0.0346670	0.0324174	-0.3166330	0.0000000	0.0000000
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0161861	-0.0230305	-0.1033070	-0.0240298	2.2541400
Titanium	334.94	0.0000000	-0.0129053	0.0000000	0.0353115	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

ICP ID Number: OPTIMA3 Date: 7/11/2013

Analyte	Wave-length (nm)	Interelement Correction Factors for: Cr	Cu	Mn	Ni	Tl
Aluminum	308.21	0.0000000	-1.7861200	0.0000000	0.0000000	0.0000000
Antimony	206.83	13.4467000	0.0000000	0.0000000	-0.1334710	0.0000000
Arsenic	188.97	-6.7492500	0.0000000	-0.1746170	0.0000000	0.0000000
Barium	233.52	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	313.10	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.50	0.0000000	0.0000000	0.0000000	-0.5370570	0.0000000
Calcium	227.54	0.0000000	0.0000000	0.0000000	63.6454000	0.0000000
Chromium	267.71		0.0000000	0.3773270	0.0000000	0.0000000
Cobalt	228.61	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	324.75	-0.1821160		0.0000000	0.0000000	0.0000000
Iron	273.95	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	0.0000000	0.5244240	0.0000000	0.0000000	0.0000000
Magnesium	279.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000		0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000		0.3461200
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.02	0.0000000	0.0000000	0.6778870	0.0000000	0.0000000
Silver	328.06	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.1812810	0.0000000	0.0000000	-0.0852937	
Titanium	334.94	0.2276980	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	-2.6236600	0.2955330	0.0000000	0.0000000	0.0000000
Zinc	206.20	-2.6923700	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

U.S. EPA - CLP

11B

ICP INTERELEMENT CORRECTION FACTORS (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

ICP ID Number: OPTIMA3 Date: 7/11/2013

Analyte	Wave-length (nm)	Interelement Correction Factors for: Ti	V	___	___	___
Aluminum	308.21	0.0000000	8.7363500			
Antimony	206.83	0.0000000	-1.7170000			
Arsenic	188.97	-0.2945470	0.0000000			
Barium	233.52	0.0000000	-1.3059000			
Beryllium	313.10	-1.8135700	-0.0448612			
Cadmium	226.50	0.2873330	0.0000000			
Calcium	227.54	0.0000000	61.8243000			
Chromium	267.71	0.0000000	-0.4444340			
Cobalt	228.61	2.0754300	0.0000000			
Copper	324.75	-0.4210480	-0.2402890			
Iron	273.95	0.0000000	27.6092000			
Lead	220.35	-0.7679630	-0.1064990			
Magnesium	279.07	0.0000000	0.0000000			
Manganese	257.61	0.0000000	0.0000000			
Nickel	231.60	0.0000000	0.0000000			
Potassium	766.49	0.0000000	0.0000000			
Selenium	196.02	-0.5885460	0.1281370			
Silver	328.06	0.0000000	-1.0563700			
Sodium	589.59	0.0000000	0.0000000			
Thallium	190.80	0.5592620	1.9337300			
Titanium	334.94		0.0000000			
Vanadium	292.40	1.0094300				
Zinc	206.20	0.0000000	0.0000000			

Comments:

U.S. EPA - CLP

12

ICP LINEAR RANGES (BIANNUALLY)

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

ICP ID Number: OPTIMA3 Date: 7/11/2013

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Antimony	0.20	50000	P
Arsenic	0.20	50000	P
Beryllium	0.20	1000	P
Cadmium	0.20	50000	P
Chromium	0.20	50000	P
Copper	0.20	50000	P
Lead	0.20	100000	P
Nickel	0.20	100000	P
Selenium	0.20	25000	P
Silver	0.20	2500	P
Thallium	0.20	50000	P
Zinc	0.20	50000	P

Comments:

U.S. EPA - CLP

13

PREPARATION LOG

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Preparation Method: 7471B Batch ID: 74036

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
CCB	09/30/2013	0.60	100
CCV	09/30/2013	0.60	100
ICB	09/30/2013	0.60	100
ICV	09/30/2013	0.60	100
S0	09/30/2013	0.60	100
S0.2	09/30/2013	0.60	100
S1.0	09/30/2013	0.60	100
S10.0	09/30/2013	0.60	100
S2.0	09/30/2013	0.60	100
S5.0	09/30/2013	0.60	100
DISPOSAL-1	09/30/2013	0.55	100
DISPOSAL-1D	09/30/2013	0.56	100
DISPOSAL-1S	09/30/2013	0.59	100
LCSS	09/30/2013	0.60	100
PBS	09/30/2013	0.60	100

Comments:

U.S. EPA - CLP

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PREPARATION LOG

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Preparation Method: 3050B Batch ID: 74040

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
DISPOSAL-1	09/30/2013	1.16	50
DISPOSAL-1D	09/30/2013	1.26	50
DISPOSAL-1S	09/30/2013	1.23	50
LCSS	09/30/2013	1.00	50
PBS	09/30/2013	1.00	50

Comments:

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Instrument ID Number: FIMS2 Method: CV

Start Date: 09/30/2013 End Date: 09/30/2013

FIMS2_130930A

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.0	1329																X									
S0.2	1.0	1331																X									
S1.0	1.0	1333																X									
S2.0	1.0	1334																X									
S5.0	1.0	1336																X									
S10.0	1.0	1338																X									
ICV	1.0	1339																X									
ICB	1.0	1341																X									
PBS	1.0	1343																X									
LCSS	1.0	1344																X									
ZZZZZZ	1.0	1346																									
ZZZZZZ	1.0	1348																									
ZZZZZZ	1.0	1349																									
ZZZZZZ	1.0	1351																									
ZZZZZZ	1.0	1353																									
ZZZZZZ	1.0	1354																									
ZZZZZZ	1.0	1356																									
CCV	1.0	1357																X									
CCB	1.0	1359																X									
ZZZZZZ	1.0	1401																									
ZZZZZZ	1.0	1403																									
ZZZZZZ	1.0	1404																									
ZZZZZZ	1.0	1406																									
ZZZZZZ	1.0	1408																									
DISPOSAL-1	1.0	1409																X									
DISPOSAL-1D	1.0	1411																X									
DISPOSAL-1S	1.0	1413																X									
ZZZZZZ	5.0	1414																									
CCV	1.0	1416																X									
CCB	1.0	1418																X									

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ANALYSIS RUN LOG

Lab Name: Spectrum Analytical, Inc. Contract: 49352ACM

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SM1876

Instrument ID Number: OPTIMA3 Method: P

Start Date: 10/01/2013 End Date: 10/01/2013

OPTIMA3_131001A

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CO	CR	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.0	0800			X	X		X	X			X	X		X				X		X	X		X		X	
S1	1.0	0804			X	X		X	X			X	X		X				X		X	X		X		X	
S2	1.0	0808			X	X		X	X			X	X		X				X		X	X		X		X	
S3	1.0	0811			X	X		X	X			X	X		X				X		X	X		X		X	
ICV	1.0	0815			X	X		X	X			X	X		X				X		X	X		X		X	
ICB	1.0	0819			X	X		X	X			X	X		X				X		X	X		X		X	
ZZZZZZ	1.0	0822																										
ICSA	1.0	0826			X	X		X	X			X	X		X				X		X	X		X		X	
ICSAB	1.0	0830			X	X		X	X			X	X		X				X		X	X		X		X	
CCV	1.0	0834			X	X		X	X			X	X		X				X		X	X		X		X	
CCB	1.0	0837			X	X		X	X			X	X		X				X		X	X		X		X	
PBS	1.0	0841			X	X		X	X			X	X		X				X		X	X		X		X	
LCSS	1.0	0844			X	X		X	X			X	X		X				X		X	X		X		X	
ZZZZZZ	1.0	0848																										
ZZZZZZ	1.0	0852																										
ZZZZZZ	1.0	0856																										
CCV	1.0	0859			X	X		X	X			X	X		X				X		X	X		X		X	
CCB	1.0	0903			X	X		X	X			X	X		X				X		X	X		X		X	
ZZZZZZ	1.0	0907																										
ZZZZZZ	1.0	0911																										
DISPOSAL-1	1.0	0915			X	X		X	X			X	X		X				X		X	X		X		X	
DISPOSAL-1D	1.0	0918			X	X		X	X			X	X		X				X		X	X		X		X	
DISPOSAL-1S	1.0	0922			X	X		X	X			X	X		X				X		X	X		X		X	
DISPOSAL-1L	5.0	0926			X	X		X	X			X	X		X				X		X	X		X		X	
DISPOSAL-1A	1.0	0930			X										X													
ZZZZZZ	20.0	0933																										
ZZZZZZ	20.0	0937																										
ZZZZZZ	20.0	0940																										
CCV	1.0	0944			X	X		X	X			X	X		X				X		X	X		X		X	
CCB	1.0	0948			X	X		X	X			X	X		X				X		X	X		X		X	

Instrument Raw Data

==========

Reprocessing Begun
Logged In Analyst: mitOptima3 **Technique: ICP Continuous**

Results Data Set (original): B13100101
Results Library (original): C:\pe\Administrator\Results\Results.mdb
Results Data Set (reprocessed): B13100101A
Results Library (reprocessed): C:\pe\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: S0 **Date Collected: 10/1/2013 8:00:51 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:57:32 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1410625.7	14567.06	1.03%	100.00	%
Lu 261.542	906723.0	8300.85	0.92%	100.0	%
Ag 328.068†	-2837.7	62.72	2.21%	[0.00]	mg/L
Al 308.215†	6889.2	69.54	1.01%	[0.00]	mg/L
As 188.979†	10.8	5.74	53.19%	[0.00]	mg/L
Ba 233.527†	-71.2	3.68	5.17%	[0.00]	mg/L
Be 313.107†	-1278.3	22.52	1.76%	[0.00]	mg/L
Co 228.616†	-32.7	9.41	28.76%	[0.00]	mg/L
Cr 267.716†	53.9	28.80	53.41%	[0.00]	mg/L
Cu 324.752†	3491.3	94.63	2.71%	[0.00]	mg/L
Fe 273.955†	-920.9	10.88	1.18%	[0.00]	mg/L
Mg 279.077†	-1067.2	9.84	0.92%	[0.00]	mg/L
Mn 257.610†	-301.1	31.93	10.61%	[0.00]	mg/L
Ni 231.604†	-75.4	8.22	10.90%	[0.00]	mg/L
Pb 220.353†	83.7	3.38	4.04%	[0.00]	mg/L
Sb 206.836†	13.0	4.23	32.50%	[0.00]	mg/L
Se 196.026†	-12.5	5.66	45.24%	[0.00]	mg/L
Tl 190.801†	-0.7	4.79	736.69%	[0.00]	mg/L
V 292.402†	-12.3	53.29	434.89%	[0.00]	mg/L
Zn 206.200†	64.5	3.89	6.03%	[0.00]	mg/L
Cd 226.502†	-92.6	4.04	4.37%	[0.00]	mg/L
Ti 334.940†	218.3	62.75	28.74%	[0.00]	mg/L
Ca 227.546†	124.4	15.71	12.63%	[0.00]	mg/L
Na 589.592	2824.2	65.35	2.31%	[0.00]	mg/L
K 766.490	3014.7	115.00	3.81%	[0.00]	mg/L

==========

Sequence No.: 2 **Autosampler Location: 9**
Sample ID: S1 **Date Collected: 10/1/2013 8:04:28 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:57:53 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1439615.6	3067.60	0.21%	102.06	%
Lu 261.542	931630.0	1525.78	0.16%	102.7	%
Ag 328.068†	307198.5	4758.89	1.55%	[2.5]	mg/L
Al 308.215†	306964.3	5653.06	1.84%	[20]	mg/L
As 188.979†	1044.2	2.76	0.26%	[1]	mg/L
Ba 233.527†	1361849.3	5003.57	0.37%	[20]	mg/L
Be 313.107†	804383.4	3798.71	0.47%	[0.5]	mg/L
Co 228.616†	125264.7	2446.82	1.95%	[5]	mg/L
Cr 267.716†	106159.7	2147.51	2.02%	[2]	mg/L
Cu 324.752†	411175.4	1307.18	0.32%	[2.5]	mg/L
Fe 273.955†	175763.1	3582.52	2.04%	[10]	mg/L

Mg 279.077†	637922.6	2448.72	0.38%	[50] mg/L
Mn 257.610†	2074393.0	8747.79	0.42%	[5] mg/L
Ni 231.604†	101750.3	2133.88	2.10%	[5] mg/L
Pb 220.353†	4104.5	30.73	0.75%	[1] mg/L
Sb 206.836†	927.8	2.06	0.22%	[1] mg/L
Se 196.026†	745.7	9.24	1.24%	[1] mg/L
Tl 190.801†	993.0	2.78	0.28%	[1] mg/L
V 292.402†	443673.3	1210.76	0.27%	[5] mg/L
Zn 206.200†	109070.7	2423.29	2.22%	[5] mg/L
Cd 226.502†	18237.7	360.19	1.97%	[0.5] mg/L
Ti 334.940†	424324.4	1044.95	0.25%	[1] mg/L
Ca 227.546†	6869.3	34.11	0.50%	[50] mg/L
Na 589.592	175676.9	532.70	0.30%	[50] mg/L
K 766.490	62687.4	147.77	0.24%	[50] mg/L

==========

Sequence No.: 3 **Autosampler Location: 10**
Sample ID: S2 **Date Collected: 10/1/2013 8:08:11 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:57:54 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1451636.4	9234.45	0.64%	102.91	%
Lu 261.542	945670.8	6109.48	0.65%	104.3	%
Ag 328.068†	159500.5	754.72	0.47%	[1.25]	mg/L
Al 308.215†	153639.8	255.38	0.17%	[10]	mg/L
As 188.979†	528.4	4.13	0.78%	[0.5]	mg/L
Ba 233.527†	698915.8	225.26	0.03%	[10]	mg/L
Be 313.107†	406278.8	717.38	0.18%	[0.25]	mg/L
Co 228.616†	64569.8	111.84	0.17%	[2.5]	mg/L
Cr 267.716†	54766.0	74.69	0.14%	[1]	mg/L
Cu 324.752†	205697.9	126.57	0.06%	[1.25]	mg/L
Fe 273.955†	90273.3	101.90	0.11%	[5]	mg/L
Mg 279.077†	325511.8	185.08	0.06%	[25]	mg/L
Mn 257.610†	1058061.5	113.86	0.01%	[2.5]	mg/L
Ni 231.604†	52849.6	23.14	0.04%	[2.5]	mg/L
Pb 220.353†	2130.2	9.08	0.43%	[0.5]	mg/L
Sb 206.836†	473.3	2.34	0.49%	[0.5]	mg/L
Se 196.026†	375.8	4.10	1.09%	[0.5]	mg/L
Tl 190.801†	516.0	3.53	0.68%	[0.5]	mg/L
V 292.402†	225646.3	226.58	0.10%	[2.5]	mg/L
Zn 206.200†	56480.9	84.56	0.15%	[2.5]	mg/L
Cd 226.502†	9425.0	7.96	0.08%	[0.25]	mg/L
Ti 334.940†	213830.5	62.98	0.03%	[0.5]	mg/L
Ca 227.546†	3453.0	15.15	0.44%	[25]	mg/L
Na 589.592	90551.1	86.06	0.10%	[25]	mg/L
K 766.490	32353.9	208.04	0.64%	[25]	mg/L

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Sequence No.: 4 **Autosampler Location: 11**
Sample ID: S3 **Date Collected: 10/1/2013 8:11:46 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:57:55 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: S3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	1482772.7	7405.16	0.50%	105.11	%
Lu 261.542	953967.5	5506.53	0.58%	105.2	%
Ag 328.068†	3402.5	35.35	1.04%	[0.025]	mg/L
Al 308.215†	2626.0	138.78	5.29%	[0.2]	mg/L
As 188.979†	10.0	1.47	14.63%	[0.01]	mg/L
Ba 233.527†	14319.5	226.95	1.58%	[0.2]	mg/L

Be 313.107†	7939.0	166.44	2.10%	[0.005] mg/L
Co 228.616†	1274.3	6.63	0.52%	[0.05] mg/L
Cr 267.716†	1115.0	50.71	4.55%	[0.02] mg/L
Cu 324.752†	3742.2	36.76	0.98%	[0.025] mg/L
Fe 273.955†	1790.6	34.83	1.95%	[0.1] mg/L
Mg 279.077†	6709.9	171.20	2.55%	[0.5] mg/L
Mn 257.610†	21962.0	402.79	1.83%	[0.05] mg/L
Ni 231.604†	1042.6	6.57	0.63%	[0.05] mg/L
Pb 220.353†	41.3	4.53	10.96%	[0.01] mg/L
Sb 206.836†	16.2	1.44	8.90%	[0.01] mg/L
Se 196.026†	9.2	3.31	35.95%	[0.01] mg/L
Tl 190.801†	16.0	3.02	18.86%	[0.01] mg/L
V 292.402†	4382.7	76.22	1.74%	[0.05] mg/L
Zn 206.200†	1142.9	9.66	0.85%	[0.05] mg/L
Cd 226.502†	202.6	2.82	1.39%	[0.005] mg/L
Ti 334.940†	4112.3	81.52	1.98%	[0.01] mg/L
Ca 227.546†	70.6	6.01	8.51%	[0.5] mg/L
Na 589.592	1746.7	102.33	5.86%	[0.5] mg/L
K 766.490	840.4	32.02	3.81%	[0.5] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	123800	0.00000	0.999883	
Al 308.215	3	Lin Thru 0	0.0	15350	0.00000	0.999999	
As 188.979	3	Lin Thru 0	0.0	1047	0.00000	0.999988	
Ba 233.527	3	Lin Thru 0	0.0	68450	0.00000	0.999945	
Be 313.107	3	Lin Thru 0	0.0	1612000	0.00000	0.999992	
Co 228.616	3	Lin Thru 0	0.0	25210	0.00000	0.999924	
Cr 267.716	3	Lin Thru 0	0.0	53420	0.00000	0.999920	
Cu 324.752	3	Lin Thru 0	0.0	164500	0.00000	1.000000	
Fe 273.955	3	Lin Thru 0	0.0	17670	0.00000	0.999941	
Mg 279.077	3	Lin Thru 0	0.0	12810	0.00000	0.999966	
Mn 257.610	3	Lin Thru 0	0.0	416500	0.00000	0.999968	
Ni 231.604	3	Lin Thru 0	0.0	20510	0.00000	0.999881	
Pb 220.353	3	Lin Thru 0	0.0	4136	0.00000	0.999886	
Sb 206.836	3	Lin Thru 0	0.0	931.6	0.00000	0.999945	
Se 196.026	3	Lin Thru 0	0.0	746.9	0.00000	0.999993	
Tl 190.801	3	Lin Thru 0	0.0	1001	0.00000	0.999864	
V 292.402	3	Lin Thru 0	0.0	89040	0.00000	0.999977	
Zn 206.200	3	Lin Thru 0	0.0	21970	0.00000	0.999900	
Cd 226.502	3	Lin Thru 0	0.0	36720	0.00000	0.999911	
Ti 334.940	3	Lin Thru 0	0.0	425000	0.00000	0.999995	
Ca 227.546	3	Lin Thru 0	0.0	137.5	0.00000	0.999998	
Na 589.592	3	Lin Thru 0	0.0	3535	0.00000	0.999925	
K 766.490	3	Lin Thru 0	0.0	1262	0.00000	0.999914	

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Sequence No.: 5 **Autosampler Location: 3**
Sample ID: ICV **Date Collected: 10/1/2013 8:15:25 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:57:55 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1483842.2	105.19	%	0.156				0.15%
Lu 261.542	958734.4	105.7	%	0.21				0.20%
Ag 328.068†	151280.6	1.2243	mg/L	0.01393	1.2243	mg/L	0.01393	1.14%
QC value within limits for Ag 328.068 Recovery = 97.94%								
Al 308.215†	152805.6	9.9317	mg/L	0.10797	9.9317	mg/L	0.10797	1.09%
QC value within limits for Al 308.215 Recovery = 99.32%								
As 188.979†	504.9	0.48983	mg/L	0.003367	0.48983	mg/L	0.003367	0.69%
QC value within limits for As 188.979 Recovery = 97.97%								
Ba 233.527†	673802.5	9.8465	mg/L	0.01232	9.8465	mg/L	0.01232	0.13%
QC value within limits for Ba 233.527 Recovery = 98.47%								
Be 313.107†	385517.8	0.24012	mg/L	0.000682	0.24012	mg/L	0.000682	0.28%

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   QC value within limits for Be 313.107  Recovery = 96.05%
Co 228.616†          61381.8      2.4340 mg/L       0.02891      2.4340 mg/L       0.02891   1.19%
   QC value within limits for Co 228.616  Recovery = 97.36%
Cr 267.716†          53014.3     0.99262 mg/L      0.013151     0.99262 mg/L      0.013151   1.32%
   QC value within limits for Cr 267.716  Recovery = 99.26%
Cu 324.752†         195611.4      1.1906 mg/L       0.01329      1.1906 mg/L       0.01329   1.12%
   QC value within limits for Cu 324.752  Recovery = 95.25%
Fe 273.955†          88354.6      4.9328 mg/L       0.05629      4.9328 mg/L       0.05629   1.14%
   QC value within limits for Fe 273.955  Recovery = 98.66%
Mg 279.077†         311725.9      24.333 mg/L         0.3268      24.333 mg/L         0.3268   1.34%
   QC value within limits for Mg 279.077  Recovery = 97.33%
Mn 257.610†        1012609.2      2.4305 mg/L       0.00338      2.4305 mg/L       0.00338   0.14%
   QC value within limits for Mn 257.610  Recovery = 97.22%
Ni 231.604†          50618.6      2.4681 mg/L       0.03433      2.4681 mg/L       0.03433   1.39%
   QC value within limits for Ni 231.604  Recovery = 98.72%
Pb 220.353†           2036.2     0.49311 mg/L      0.002313     0.49311 mg/L      0.002313   0.47%
   QC value within limits for Pb 220.353  Recovery = 98.62%
Sb 206.836†            446.7     0.46971 mg/L      0.007570     0.46971 mg/L      0.007570   1.61%
   QC value within limits for Sb 206.836  Recovery = 93.94%
Se 196.026†            360.0     0.48180 mg/L      0.004172     0.48180 mg/L      0.004172   0.87%
   QC value within limits for Se 196.026  Recovery = 96.36%
Tl 190.801†            485.6     0.47568 mg/L      0.002422     0.47568 mg/L      0.002422   0.51%
   QC value within limits for Tl 190.801  Recovery = 95.14%
V 292.402†          215878.3      2.4269 mg/L       0.03040      2.4269 mg/L       0.03040   1.25%
   QC value within limits for V 292.402  Recovery = 97.07%
Zn 206.200†          54911.7      2.5021 mg/L       0.03286      2.5021 mg/L       0.03286   1.31%
   QC value within limits for Zn 206.200  Recovery = 100.08%
Cd 226.502†           8953.1     0.24473 mg/L      0.002802     0.24473 mg/L      0.002802   1.15%
   QC value within limits for Cd 226.502  Recovery = 97.89%
Ti 334.940†         201726.0     0.47357 mg/L      0.006105     0.47357 mg/L      0.006105   1.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Ca 227.546†           3348.5      23.887 mg/L         0.0158      23.887 mg/L         0.0158   0.07%
   QC value within limits for Ca 227.546  Recovery = 95.55%
Na 589.592           90874.5      25.705 mg/L         0.1425      25.705 mg/L         0.1425   0.55%
   QC value within limits for Na 589.592  Recovery = 102.82%
K 766.490            32289.7      25.576 mg/L         0.1836      25.576 mg/L         0.1836   0.72%
   QC value within limits for K 766.490  Recovery = 102.31%
All analyte(s) passed QC.
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Sequence No.: 6 **Autosampler Location: 4**
Sample ID: ICB **Date Collected: 10/1/2013 8:19:06 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:01 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1496188.0	106.07	%	1.585				1.49%
Lu 261.542	953786.4	105.2	%	1.53				1.46%
Ag 328.068†	167.1	0.00135	mg/L	0.000406	0.00135	mg/L	0.000406	30.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215†	-198.5	-0.01292	mg/L	0.010419	-0.01292	mg/L	0.010419	80.62%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-1.6	-0.00153	mg/L	0.001418	-0.00153	mg/L	0.001418	92.47%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527†	69.7	0.00102	mg/L	0.000109	0.00102	mg/L	0.000109	10.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	48.1	0.00003	mg/L	0.000055	0.00003	mg/L	0.000055	184.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616†	0.4	0.00002	mg/L	0.000400	0.00002	mg/L	0.000400	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	31.1	0.00058	mg/L	0.000316	0.00058	mg/L	0.000316	54.32%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-89.4	-0.00054	mg/L	0.000744	-0.00054	mg/L	0.000744	137.02%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955†	87.7	0.00496	mg/L	0.001136	0.00496	mg/L	0.001136	22.91%
QC value within limits for Fe 273.955 Recovery = Not calculated								

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Mg 279.077†              93.0     0.00726 mg/L      0.005985     0.00726 mg/L      0.005985  82.44%
   QC value within limits for Mg 279.077  Recovery = Not calculated
Mn 257.610†             104.7     0.00025 mg/L      0.000089     0.00025 mg/L      0.000089  35.43%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Ni 231.604†               4.8     0.00023 mg/L      0.000165     0.00023 mg/L      0.000165  71.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
Pb 220.353†              -6.7    -0.00161 mg/L      0.000707    -0.00161 mg/L      0.000707  43.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
Sb 206.836†               1.0     0.00106 mg/L      0.004698     0.00106 mg/L      0.004698 441.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.0     0.00405 mg/L      0.007253     0.00405 mg/L      0.007253 178.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
Tl 190.801†               3.2     0.00324 mg/L      0.003303     0.00324 mg/L      0.003303 101.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
V 292.402†               22.2     0.00025 mg/L      0.000428     0.00025 mg/L      0.000428 169.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 206.200†              32.2     0.00147 mg/L      0.000258     0.00147 mg/L      0.000258  17.55%
   QC value within limits for Zn 206.200  Recovery = Not calculated
Cd 226.502†              12.1     0.00033 mg/L      0.000228     0.00033 mg/L      0.000228  69.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Ti 334.940†              35.2     0.00008 mg/L      0.000028     0.00008 mg/L      0.000028  33.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Ca 227.546†              -7.2    -0.05192 mg/L      0.029476    -0.05192 mg/L      0.029476  56.77%
   QC value within limits for Ca 227.546  Recovery = Not calculated
Na 589.592              -26.2    -0.00741 mg/L      0.004411    -0.00741 mg/L      0.004411  59.53%
   QC value within limits for Na 589.592  Recovery = Not calculated
K 766.490               152.6     0.12095 mg/L      0.061948     0.12095 mg/L      0.061948  51.22%
   QC value within limits for K 766.490  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 7 **Autosampler Location: 2**
Sample ID: LLICV **Date Collected: 10/1/2013 8:22:45 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:01 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1545869.0	109.59	%	0.454				0.41%
Lu 261.542	986972.5	108.9	%	0.48				0.44%
Ag 328.068†	3606.8	0.02917	mg/L	0.000765	0.02917	mg/L	0.000765	2.62%
QC value within limits for Ag 328.068 Recovery = 97.24%								
Al 308.215†	2164.1	0.14057	mg/L	0.005626	0.14057	mg/L	0.005626	4.00%
QC value within limits for Al 308.215 Recovery = 70.29%								
As 188.979†	17.6	0.01691	mg/L	0.002530	0.01691	mg/L	0.002530	14.96%
QC value within limits for As 188.979 Recovery = 84.56%								
Ba 233.527†	12434.0	0.18170	mg/L	0.001994	0.18170	mg/L	0.001994	1.10%
QC value within limits for Ba 233.527 Recovery = 90.85%								
Be 313.107†	7385.2	0.00461	mg/L	0.000069	0.00461	mg/L	0.000069	1.50%
QC value within limits for Be 313.107 Recovery = 92.25%								
Co 228.616†	1204.3	0.04774	mg/L	0.000720	0.04774	mg/L	0.000720	1.51%
QC value within limits for Co 228.616 Recovery = 95.49%								
Cr 267.716†	956.5	0.01791	mg/L	0.000234	0.01791	mg/L	0.000234	1.31%
QC value within limits for Cr 267.716 Recovery = 89.53%								
Cu 324.752†	4247.9	0.02586	mg/L	0.000506	0.02586	mg/L	0.000506	1.96%
QC value within limits for Cu 324.752 Recovery = 86.21%								
Fe 273.955†	3262.7	0.18345	mg/L	0.002297	0.18345	mg/L	0.002297	1.25%
QC value within limits for Fe 273.955 Recovery = 91.73%								
Mg 279.077†	5966.3	0.46572	mg/L	0.006587	0.46572	mg/L	0.006587	1.41%
QC value within limits for Mg 279.077 Recovery = 93.14%								
Mn 257.610†	19530.4	0.04688	mg/L	0.000542	0.04688	mg/L	0.000542	1.16%
QC value within limits for Mn 257.610 Recovery = 93.75%								
Ni 231.604†	979.8	0.04777	mg/L	0.000608	0.04777	mg/L	0.000608	1.27%
QC value within limits for Ni 231.604 Recovery = 95.54%								
Pb 220.353†	38.2	0.00926	mg/L	0.001550	0.00926	mg/L	0.001550	16.74%
QC value within limits for Pb 220.353 Recovery = 92.57%								
Sb 206.836†	18.6	0.01980	mg/L	0.003787	0.01980	mg/L	0.003787	19.13%

QC value within limits for Sb 206.836 Recovery = 98.99%
Se 196.026† 22.1 0.02963 mg/L 0.004950 0.02963 mg/L 0.004950 16.70%
QC value within limits for Se 196.026 Recovery = 98.78%
Tl 190.801† 16.6 0.01645 mg/L 0.002140 0.01645 mg/L 0.002140 13.01%
QC value within limits for Tl 190.801 Recovery = 82.24%
V 292.402† 3767.4 0.04234 mg/L 0.000912 0.04234 mg/L 0.000912 2.15%
QC value within limits for V 292.402 Recovery = 84.69%
Zn 206.200† 1089.5 0.04964 mg/L 0.000479 0.04964 mg/L 0.000479 0.97%
QC value within limits for Zn 206.200 Recovery = 99.28%
Cd 226.502† 189.6 0.00517 mg/L 0.000174 0.00517 mg/L 0.000174 3.37%
QC value within limits for Cd 226.502 Recovery = 103.48%
Ti 334.940† 6909.0 0.01624 mg/L 0.000216 0.01624 mg/L 0.000216 1.33%
QC value within limits for Ti 334.940 Recovery = 81.18%
Ca 227.546† 79.9 0.57497 mg/L 0.014832 0.57497 mg/L 0.014832 2.58%
QC value within limits for Ca 227.546 Recovery = 71.87%
Na 589.592 3497.6 0.98935 mg/L 0.027149 0.98935 mg/L 0.027149 2.74%
QC value within limits for Na 589.592 Recovery = 98.93%
K 766.490 1326.5 1.0510 mg/L 0.05363 1.0510 mg/L 0.05363 5.10%
QC value within limits for K 766.490 Recovery = 105.10%
All analyte(s) passed QC.

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Sequence No.: 8 **Autosampler Location: 5**
Sample ID: ICSA **Date Collected: 10/1/2013 8:26:23 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:02 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1365128.0	96.775	%	0.4099				0.42%
Lu 261.542	883030.0	97.39	%	0.449				0.46%
Ag 328.068†	-532.1	-0.00431	mg/L	0.001244	-0.00431	mg/L	0.001244	28.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215†	8001101.2	521.14	mg/L	6.163	521.14	mg/L	6.163	1.18%
QC value within limits for Al 308.215 Recovery = 104.23%								
As 188.979†	-5.8	-0.00097	mg/L	0.000869	-0.00097	mg/L	0.000869	89.76%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527†	383.6	0.00559	mg/L	0.000140	0.00559	mg/L	0.000140	2.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-180.2	-0.00012	mg/L	0.000067	-0.00012	mg/L	0.000067	53.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616†	59.3	0.00236	mg/L	0.000280	0.00236	mg/L	0.000280	11.85%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	52.8	0.00098	mg/L	0.000156	0.00098	mg/L	0.000156	15.81%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-3668.7	-0.00493	mg/L	0.000332	-0.00493	mg/L	0.000332	6.75%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955†	3355081.9	189.85	mg/L	2.297	189.85	mg/L	2.297	1.21%
QC value within limits for Fe 273.955 Recovery = 94.93%								
Mg 279.077†	6086957.0	475.14	mg/L	5.821	475.14	mg/L	5.821	1.23%
QC value within limits for Mg 279.077 Recovery = 95.03%								
Mn 257.610†	-399.5	-0.01046	mg/L	0.000159	-0.01046	mg/L	0.000159	1.52%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604†	41.6	0.00204	mg/L	0.000359	0.00204	mg/L	0.000359	17.62%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	-107.4	-0.00008	mg/L	0.001253	-0.00008	mg/L	0.001253	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	20.1	-0.01394	mg/L	0.005498	-0.01394	mg/L	0.005498	39.46%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-55.8	-0.00871	mg/L	0.001852	-0.00871	mg/L	0.001852	21.27%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801†	-23.3	-0.00065	mg/L	0.003688	-0.00065	mg/L	0.003688	565.75%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-1019.0	-0.01143	mg/L	0.000133	-0.01143	mg/L	0.000133	1.16%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	174.3	0.00793	mg/L	0.000095	0.00793	mg/L	0.000095	1.20%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Cd 226.502†	279.6	-0.00283 mg/L	0.000393	-0.00283 mg/L	0.000393	13.92%	
QC value within limits for Cd 226.502 Recovery = Not calculated							
Ti 334.940†	-2623.5	-0.02295 mg/L	0.000201	-0.02295 mg/L	0.000201	0.87%	
QC value within limits for Ti 334.940 Recovery = Not calculated							
Ca 227.546†	71848.9	529.39 mg/L	7.231	529.39 mg/L	7.231	1.37%	
QC value within limits for Ca 227.546 Recovery = 105.88%							
Na 589.592	738.9	0.20901 mg/L	0.008867	0.20901 mg/L	0.008867	4.24%	
QC value within limits for Na 589.592 Recovery = Not calculated							
K 766.490	-19.8	-0.25940 mg/L	0.034918	-0.25940 mg/L	0.034918	13.46%	
QC value within limits for K 766.490 Recovery = Not calculated							

All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 6**
Sample ID: ICSAB **Date Collected: 10/1/2013 8:30:13 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:03 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1358914.3	96.334	%	1.0622				1.10%
Lu 261.542	884597.9	97.56	%	1.133				1.16%
Ag 328.068†	26854.6	0.21740	mg/L	0.001241	0.21740	mg/L	0.001241	0.57%
QC value within limits for Ag 328.068 Recovery = 108.70%								
Al 308.215†	8215646.1	535.11	mg/L	3.729	535.11	mg/L	3.729	0.70%
QC value within limits for Al 308.215 Recovery = 107.02%								
As 188.979†	96.4	0.10026	mg/L	0.002578	0.10026	mg/L	0.002578	2.57%
QC value within limits for As 188.979 Recovery = 100.26%								
Ba 233.527†	36899.6	0.53970	mg/L	0.002150	0.53970	mg/L	0.002150	0.40%
QC value within limits for Ba 233.527 Recovery = 107.94%								
Be 313.107†	811450.5	0.50338	mg/L	0.001121	0.50338	mg/L	0.001121	0.22%
QC value within limits for Be 313.107 Recovery = 100.68%								
Co 228.616†	12291.5	0.48762	mg/L	0.004832	0.48762	mg/L	0.004832	0.99%
QC value within limits for Co 228.616 Recovery = 97.52%								
Cr 267.716†	26795.1	0.50165	mg/L	0.005393	0.50165	mg/L	0.005393	1.08%
QC value within limits for Cr 267.716 Recovery = 100.33%								
Cu 324.752†	83654.0	0.52668	mg/L	0.000505	0.52668	mg/L	0.000505	0.10%
QC value within limits for Cu 324.752 Recovery = 105.34%								
Fe 273.955†	3454233.9	195.45	mg/L	1.270	195.45	mg/L	1.270	0.65%
QC value within limits for Fe 273.955 Recovery = 97.72%								
Mg 279.077†	6260286.8	488.67	mg/L	3.157	488.67	mg/L	3.157	0.65%
QC value within limits for Mg 279.077 Recovery = 97.73%								
Mn 257.610†	211546.0	0.49808	mg/L	0.001111	0.49808	mg/L	0.001111	0.22%
QC value within limits for Mn 257.610 Recovery = 99.62%								
Ni 231.604†	19402.1	0.94605	mg/L	0.009892	0.94605	mg/L	0.009892	1.05%
QC value within limits for Ni 231.604 Recovery = 94.60%								
Pb 220.353†	1929.4	0.49291	mg/L	0.006065	0.49291	mg/L	0.006065	1.23%
QC value within limits for Pb 220.353 Recovery = 98.58%								
Sb 206.836†	629.0	0.63292	mg/L	0.007032	0.63292	mg/L	0.007032	1.11%
QC value within limits for Sb 206.836 Recovery = 105.49%								
Se 196.026†	315.2	0.48954	mg/L	0.008329	0.48954	mg/L	0.008329	1.70%
QC value within limits for Se 196.026 Recovery = 97.91%								
Tl 190.801†	73.4	0.09458	mg/L	0.005019	0.09458	mg/L	0.005019	5.31%
QC value within limits for Tl 190.801 Recovery = 94.58%								
V 292.402†	44225.1	0.49815	mg/L	0.000492	0.49815	mg/L	0.000492	0.10%
QC value within limits for V 292.402 Recovery = 99.63%								
Zn 206.200†	21229.2	0.96764	mg/L	0.008979	0.96764	mg/L	0.008979	0.93%
QC value within limits for Zn 206.200 Recovery = 96.76%								
Cd 226.502†	35985.0	0.96973	mg/L	0.001399	0.96973	mg/L	0.001399	0.14%
QC value within limits for Cd 226.502 Recovery = 96.97%								
Ti 334.940†	-2570.5	-0.02342	mg/L	0.000063	-0.02342	mg/L	0.000063	0.27%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546†	74264.9	547.00	mg/L	1.006	547.00	mg/L	1.006	0.18%
QC value within limits for Ca 227.546 Recovery = 109.40%								
Na 589.592	95730.3	27.079	mg/L	0.3618	27.079	mg/L	0.3618	1.34%
QC value within limits for Na 589.592 Recovery = 108.32%								
K 766.490	34692.4	27.242	mg/L	0.3017	27.242	mg/L	0.3017	1.11%

QC value within limits for K 766.490 Recovery = 108.97%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 10/1/2013 8:34:06 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:04 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1483826.7	105.19	%	0.953				0.91%
Lu 261.542	965786.5	106.5	%	1.05				0.98%
Ag 328.068†	151496.8	1.2261	mg/L	0.00149	1.2261	mg/L	0.00149	0.12%
QC value within limits for Ag 328.068 Recovery = 98.08%								
Al 308.215†	152940.2	9.9405	mg/L	0.02355	9.9405	mg/L	0.02355	0.24%
QC value within limits for Al 308.215 Recovery = 99.40%								
As 188.979†	492.8	0.47825	mg/L	0.007189	0.47825	mg/L	0.007189	1.50%
QC value within limits for As 188.979 Recovery = 95.65%								
Ba 233.527†	674620.2	9.8585	mg/L	0.02657	9.8585	mg/L	0.02657	0.27%
QC value within limits for Ba 233.527 Recovery = 98.58%								
Be 313.107†	386579.7	0.24079	mg/L	0.000979	0.24079	mg/L	0.000979	0.41%
QC value within limits for Be 313.107 Recovery = 96.32%								
Co 228.616†	60823.1	2.4119	mg/L	0.00708	2.4119	mg/L	0.00708	0.29%
QC value within limits for Co 228.616 Recovery = 96.47%								
Cr 267.716†	52680.5	0.98637	mg/L	0.002910	0.98637	mg/L	0.002910	0.30%
QC value within limits for Cr 267.716 Recovery = 98.64%								
Cu 324.752†	197202.0	1.2003	mg/L	0.00179	1.2003	mg/L	0.00179	0.15%
QC value within limits for Cu 324.752 Recovery = 96.03%								
Fe 273.955†	88285.4	4.9286	mg/L	0.01746	4.9286	mg/L	0.01746	0.35%
QC value within limits for Fe 273.955 Recovery = 98.57%								
Mg 279.077†	313825.1	24.497	mg/L	0.0829	24.497	mg/L	0.0829	0.34%
QC value within limits for Mg 279.077 Recovery = 97.99%								
Mn 257.610†	1011809.8	2.4285	mg/L	0.00606	2.4285	mg/L	0.00606	0.25%
QC value within limits for Mn 257.610 Recovery = 97.14%								
Ni 231.604†	50132.3	2.4444	mg/L	0.00499	2.4444	mg/L	0.00499	0.20%
QC value within limits for Ni 231.604 Recovery = 97.77%								
Pb 220.353†	1991.3	0.48224	mg/L	0.005352	0.48224	mg/L	0.005352	1.11%
QC value within limits for Pb 220.353 Recovery = 96.45%								
Sb 206.836†	440.6	0.46321	mg/L	0.008728	0.46321	mg/L	0.008728	1.88%
QC value within limits for Sb 206.836 Recovery = 92.64%								
Se 196.026†	351.2	0.47011	mg/L	0.004834	0.47011	mg/L	0.004834	1.03%
QC value within limits for Se 196.026 Recovery = 94.02%								
Tl 190.801†	477.6	0.46776	mg/L	0.009026	0.46776	mg/L	0.009026	1.93%
QC value within limits for Tl 190.801 Recovery = 93.55%								
V 292.402†	216721.6	2.4363	mg/L	0.00264	2.4363	mg/L	0.00264	0.11%
QC value within limits for V 292.402 Recovery = 97.45%								
Zn 206.200†	54422.4	2.4798	mg/L	0.00545	2.4798	mg/L	0.00545	0.22%
QC value within limits for Zn 206.200 Recovery = 99.19%								
Cd 226.502†	8934.0	0.24420	mg/L	0.000830	0.24420	mg/L	0.000830	0.34%
QC value within limits for Cd 226.502 Recovery = 97.68%								
Ti 334.940†	204647.0	0.48044	mg/L	0.000677	0.48044	mg/L	0.000677	0.14%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546†	3304.9	23.574	mg/L	0.2032	23.574	mg/L	0.2032	0.86%
QC value within limits for Ca 227.546 Recovery = 94.29%								
Na 589.592	90092.2	25.484	mg/L	0.1479	25.484	mg/L	0.1479	0.58%
QC value within limits for Na 589.592 Recovery = 101.94%								
K 766.490	31609.1	25.037	mg/L	0.2108	25.037	mg/L	0.2108	0.84%
QC value within limits for K 766.490 Recovery = 100.15%								

All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 10/1/2013 8:37:41 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:04 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**

Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1471057.4	104.28	%	1.334				1.28%
Lu 261.542	945335.0	104.3	%	1.31				1.25%
Ag 328.068†	168.1	0.00136	mg/L	0.000714	0.00136	mg/L	0.000714	52.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215†	29.5	0.00190	mg/L	0.006272	0.00190	mg/L	0.006272	329.42%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-1.2	-0.00112	mg/L	0.006005	-0.00112	mg/L	0.006005	534.10%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527†	60.9	0.00089	mg/L	0.000179	0.00089	mg/L	0.000179	20.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	126.8	0.00008	mg/L	0.000030	0.00008	mg/L	0.000030	38.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616†	6.6	0.00026	mg/L	0.000159	0.00026	mg/L	0.000159	61.12%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	30.3	0.00057	mg/L	0.000472	0.00057	mg/L	0.000472	83.33%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-35.4	-0.00021	mg/L	0.000346	-0.00021	mg/L	0.000346	161.67%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955†	202.6	0.01146	mg/L	0.001878	0.01146	mg/L	0.001878	16.39%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077†	244.6	0.01910	mg/L	0.003292	0.01910	mg/L	0.003292	17.24%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	90.9	0.00022	mg/L	0.000119	0.00022	mg/L	0.000119	54.67%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604†	6.4	0.00031	mg/L	0.000103	0.00031	mg/L	0.000103	33.51%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	4.5	0.00109	mg/L	0.002076	0.00109	mg/L	0.002076	189.79%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	3.5	0.00372	mg/L	0.003377	0.00372	mg/L	0.003377	90.67%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	5.2	0.00699	mg/L	0.007053	0.00699	mg/L	0.007053	100.93%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801†	7.5	0.00747	mg/L	0.001772	0.00747	mg/L	0.001772	23.73%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	31.3	0.00035	mg/L	0.000168	0.00035	mg/L	0.000168	47.70%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	19.2	0.00087	mg/L	0.000175	0.00087	mg/L	0.000175	20.06%
QC value within limits for Zn 206.200 Recovery = Not calculated								
Cd 226.502†	7.8	0.00021	mg/L	0.000234	0.00021	mg/L	0.000234	110.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Ti 334.940†	60.4	0.00014	mg/L	0.000057	0.00014	mg/L	0.000057	40.08%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Ca 227.546†	12.8	0.09319	mg/L	0.085870	0.09319	mg/L	0.085870	92.15%
QC value within limits for Ca 227.546 Recovery = Not calculated								
Na 589.592	-131.8	-0.03728	mg/L	0.006597	-0.03728	mg/L	0.006597	17.70%
QC value within limits for Na 589.592 Recovery = Not calculated								
K 766.490	42.1	0.03332	mg/L	0.076584	0.03332	mg/L	0.076584	229.82%
QC value within limits for K 766.490 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 38**
Sample ID: MB-74040~PBS **Date Collected: 10/1/2013 8:41:20 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:05 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MB-74040~PBS

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1537523.8	109.00	%	1.822				1.67%
Lu 261.542	981906.9	108.3	%	1.91				1.76%
Ag 328.068†	132.9	0.00107	mg/L	0.000444	0.00107	mg/L	0.000444	41.38%

Al 308.215†	-541.1	-0.03526	mg/L	0.007910	-0.03526	mg/L	0.007910 22.44%
As 188.979†	-1.9	-0.00178	mg/L	0.003111	-0.00178	mg/L	0.003111 174.47%
Ba 233.527†	13.1	0.00019	mg/L	0.000172	0.00019	mg/L	0.000172 90.22%
Be 313.107†	113.6	0.00007	mg/L	0.000055	0.00007	mg/L	0.000055 77.81%
Co 228.616†	3.8	0.00015	mg/L	0.000190	0.00015	mg/L	0.000190 126.05%
Cr 267.716†	42.6	0.00080	mg/L	0.000102	0.00080	mg/L	0.000102 12.77%
Cu 324.752†	-47.1	-0.00029	mg/L	0.000508	-0.00029	mg/L	0.000508 178.20%
Fe 273.955†	215.2	0.01218	mg/L	0.001035	0.01218	mg/L	0.001035 8.49%
Mg 279.077†	129.7	0.01013	mg/L	0.006042	0.01013	mg/L	0.006042 59.66%
Mn 257.610†	251.4	0.00060	mg/L	0.000023	0.00060	mg/L	0.000023 3.75%
Ni 231.604†	-4.8	-0.00024	mg/L	0.000262	-0.00024	mg/L	0.000262 110.49%
Pb 220.353†	11.8	0.00285	mg/L	0.002093	0.00285	mg/L	0.002093 73.46%
Sb 206.836†	0.9	0.00101	mg/L	0.001838	0.00101	mg/L	0.001838 182.30%
Se 196.026†	3.7	0.00489	mg/L	0.005429	0.00489	mg/L	0.005429 110.94%
Tl 190.801†	1.1	0.00110	mg/L	0.004930	0.00110	mg/L	0.004930 448.32%
V 292.402†	-3.2	-0.00003	mg/L	0.000205	-0.00003	mg/L	0.000205 619.84%
Zn 206.200†	20.3	0.00093	mg/L	0.000247	0.00093	mg/L	0.000247 26.69%
Cd 226.502†	11.6	0.00032	mg/L	0.000114	0.00032	mg/L	0.000114 36.16%
Ti 334.940†	100.1	0.00023	mg/L	0.000088	0.00023	mg/L	0.000088 37.34%
Ca 227.546†	7.9	0.05763	mg/L	0.067449	0.05763	mg/L	0.067449 117.04%
Na 589.592	-186.7	-0.05281	mg/L	0.018098	-0.05281	mg/L	0.018098 34.27%
K 766.490	39.5	0.03130	mg/L	0.033962	0.03130	mg/L	0.033962 108.51%

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Sequence No.: 13 **Autosampler Location: 39**
Sample ID: LCS-74040~LCS **Date Collected: 10/1/2013 8:44:59 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:06 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LCS-74040~LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1487201.4	105.43	%	0.409				0.39%
Lu 261.542	968110.4	106.8	%	0.61				0.57%
Ag 328.068†	132842.9	1.0751	mg/L	0.00128	1.0751	mg/L	0.00128	0.12%
Al 308.215†	129779.1	8.4344	mg/L	0.00870	8.4344	mg/L	0.00870	0.10%
As 188.979†	445.5	0.43201	mg/L	0.000367	0.43201	mg/L	0.000367	0.08%
Ba 233.527†	596883.8	8.7225	mg/L	0.00765	8.7225	mg/L	0.00765	0.09%
Be 313.107†	340941.1	0.21160	mg/L	0.000172	0.21160	mg/L	0.000172	0.08%
Co 228.616†	54340.9	2.1557	mg/L	0.00036	2.1557	mg/L	0.00036	0.02%
Cr 267.716†	46601.5	0.87255	mg/L	0.001316	0.87255	mg/L	0.001316	0.15%
Cu 324.752†	174829.4	1.0640	mg/L	0.00123	1.0640	mg/L	0.00123	0.12%
Fe 273.955†	79276.4	4.4268	mg/L	0.00436	4.4268	mg/L	0.00436	0.10%
Mg 279.077†	279455.4	21.814	mg/L	0.0343	21.814	mg/L	0.0343	0.16%
Mn 257.610†	897259.3	2.1536	mg/L	0.00290	2.1536	mg/L	0.00290	0.13%
Ni 231.604†	44378.5	2.1638	mg/L	0.00249	2.1638	mg/L	0.00249	0.12%
Pb 220.353†	1819.1	0.44017	mg/L	0.000216	0.44017	mg/L	0.000216	0.05%
Sb 206.836†	416.7	0.43873	mg/L	0.003702	0.43873	mg/L	0.003702	0.84%
Se 196.026†	304.5	0.40725	mg/L	0.008626	0.40725	mg/L	0.008626	2.12%
Tl 190.801†	428.9	0.42036	mg/L	0.002674	0.42036	mg/L	0.002674	0.64%
V 292.402†	190955.6	2.1471	mg/L	0.00055	2.1471	mg/L	0.00055	0.03%
Zn 206.200†	46775.8	2.1314	mg/L	0.00138	2.1314	mg/L	0.00138	0.06%
Cd 226.502†	8034.9	0.21973	mg/L	0.000433	0.21973	mg/L	0.000433	0.20%
Ti 334.940†	385.3	-0.00006	mg/L	0.000071	-0.00006	mg/L	0.000071	114.32%
Ca 227.546†	2887.5	20.591	mg/L	0.0681	20.591	mg/L	0.0681	0.33%
Na 589.592	78901.2	22.319	mg/L	0.3700	22.319	mg/L	0.3700	1.66%
K 766.490	28223.1	22.355	mg/L	0.2892	22.355	mg/L	0.2892	1.29%

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Sequence No.: 14 **Autosampler Location: 40**
Sample ID: M1823-07B~LTS-C-12 **Date Collected: 10/1/2013 8:48:33 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:07 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1823-07B~LTS-C-12

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1612444.3	114.31	%	0.604				0.53%
Lu 261.542	926235.4	102.2	%	0.47				0.46%
Ag 328.068†	-2928.5	-0.02317	mg/L	0.000250	-0.02317	mg/L	0.000250	1.08%
Al 308.215†	4728585.7	307.97	mg/L	0.700	307.97	mg/L	0.700	0.23%
As 188.979†	283.7	0.31822	mg/L	0.003650	0.31822	mg/L	0.003650	1.15%
Ba 233.527†	136316.7	1.9920	mg/L	0.00509	1.9920	mg/L	0.00509	0.26%
Be 313.107†	21112.4	0.01448	mg/L	0.000009	0.01448	mg/L	0.000009	0.06%
Co 228.616†	6364.5	0.25092	mg/L	0.001920	0.25092	mg/L	0.001920	0.77%
Cr 267.716†	21180.5	0.39008	mg/L	0.002337	0.39008	mg/L	0.002337	0.60%
Cu 324.752†	142900.4	0.92661	mg/L	0.001744	0.92661	mg/L	0.001744	0.19%
Fe 273.955†	11068760.7	626.33	mg/L	0.934	626.33	mg/L	0.934	0.15%
Concentration greater than upper limit for Fe 273.955.								
Mg 279.077†	2055782.7	160.47	mg/L	0.326	160.47	mg/L	0.326	0.20%
Mn 257.610†	7325047.8	17.582	mg/L	0.0310	17.582	mg/L	0.0310	0.18%
Ni 231.604†	11271.9	0.54965	mg/L	0.003804	0.54965	mg/L	0.003804	0.69%
Pb 220.353†	2338.2	0.56326	mg/L	0.001283	0.56326	mg/L	0.001283	0.23%
Sb 206.836†	33.2	-0.01094	mg/L	0.002219	-0.01094	mg/L	0.002219	20.29%
Se 196.026†	-146.3	-0.02574	mg/L	0.010247	-0.02574	mg/L	0.010247	39.81%
Tl 190.801†	-46.4	0.01531	mg/L	0.002764	0.01531	mg/L	0.002764	18.06%
V 292.402†	40455.8	0.45461	mg/L	0.001215	0.45461	mg/L	0.001215	0.27%
Zn 206.200†	53304.7	2.4273	mg/L	0.00846	2.4273	mg/L	0.00846	0.35%
Cd 226.502†	1117.3	-0.00394	mg/L	0.000159	-0.00394	mg/L	0.000159	4.04%
Ti 334.940†	319171.9	0.74525	mg/L	0.003024	0.74525	mg/L	0.003024	0.41%
Ca 227.546†	60329.7	460.63	mg/L	1.293	460.63	mg/L	1.293	0.28%
Na 589.592	5716.5	1.6170	mg/L	0.02073	1.6170	mg/L	0.02073	1.28%
K 766.490	40817.5	32.265	mg/L	0.1615	32.265	mg/L	0.1615	0.50%

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Sequence No.: 15 **Autosampler Location: 41**
Sample ID: M1823-08B~LTS-C-13 **Date Collected: 10/1/2013 8:52:21 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:07 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1823-08B~LTS-C-13

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1575813.5	111.71	%	0.492				0.44%
Lu 261.542	935137.2	103.1	%	0.48				0.46%
Ag 328.068†	-2082.4	-0.01643	mg/L	0.001241	-0.01643	mg/L	0.001241	7.55%
Al 308.215†	3500065.8	227.96	mg/L	0.750	227.96	mg/L	0.750	0.33%
As 188.979†	229.7	0.25656	mg/L	0.003536	0.25656	mg/L	0.003536	1.38%
Ba 233.527†	98853.8	1.4446	mg/L	0.00555	1.4446	mg/L	0.00555	0.38%
Be 313.107†	14925.2	0.01084	mg/L	0.000041	0.01084	mg/L	0.000041	0.38%
Co 228.616†	5061.0	0.19898	mg/L	0.001491	0.19898	mg/L	0.001491	0.75%
Cr 267.716†	15710.7	0.28876	mg/L	0.002302	0.28876	mg/L	0.002302	0.80%
Cu 324.752†	92589.1	0.60807	mg/L	0.002057	0.60807	mg/L	0.002057	0.34%
Fe 273.955†	8620111.6	487.77	mg/L	1.215	487.77	mg/L	1.215	0.25%
Mg 279.077†	1459447.2	113.92	mg/L	0.347	113.92	mg/L	0.347	0.30%
Mn 257.610†	6090858.3	14.620	mg/L	0.0360	14.620	mg/L	0.0360	0.25%
Ni 231.604†	8469.8	0.41301	mg/L	0.003001	0.41301	mg/L	0.003001	0.73%
Pb 220.353†	1940.9	0.46721	mg/L	0.008330	0.46721	mg/L	0.008330	1.78%
Sb 206.836†	27.4	-0.00600	mg/L	0.001613	-0.00600	mg/L	0.001613	26.90%
Se 196.026†	-110.2	-0.01515	mg/L	0.000408	-0.01515	mg/L	0.000408	2.69%
Tl 190.801†	-38.7	0.00911	mg/L	0.014475	0.00911	mg/L	0.014475	158.87%
V 292.402†	32558.4	0.36557	mg/L	0.001628	0.36557	mg/L	0.001628	0.45%
Zn 206.200†	42832.2	1.9504	mg/L	0.00981	1.9504	mg/L	0.00981	0.50%
Cd 226.502†	839.2	-0.00400	mg/L	0.000385	-0.00400	mg/L	0.000385	9.62%
Ti 334.940†	366010.9	0.85713	mg/L	0.008005	0.85713	mg/L	0.008005	0.93%
Ca 227.546†	37115.9	286.97	mg/L	0.964	286.97	mg/L	0.964	0.34%
Na 589.592	3921.5	1.1093	mg/L	0.02658	1.1093	mg/L	0.02658	2.40%
K 766.490	32988.7	26.084	mg/L	0.0499	26.084	mg/L	0.0499	0.19%

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Sequence No.: 16 **Autosampler Location: 42**
Sample ID: M1823-09B~LTS-C-14 **Date Collected: 10/1/2013 8:56:08 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:08 AM**

Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1823-09B~LTS-C-14

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1569152.4	111.24	%	0.818				0.74%
Lu 261.542	931741.7	102.8	%	0.37				0.36%
Ag 328.068†	-1918.4	-0.01512	mg/L	0.000360	-0.01512	mg/L	0.000360	2.38%
Al 308.215†	3316957.2	216.02	mg/L	2.241	216.02	mg/L	2.241	1.04%
As 188.979†	204.3	0.22984	mg/L	0.007315	0.22984	mg/L	0.007315	3.18%
Ba 233.527†	104192.3	1.5226	mg/L	0.01693	1.5226	mg/L	0.01693	1.11%
Be 313.107†	14434.3	0.01042	mg/L	0.000146	0.01042	mg/L	0.000146	1.40%
Co 228.616†	4864.2	0.19130	mg/L	0.001634	0.19130	mg/L	0.001634	0.85%
Cr 267.716†	15621.9	0.28710	mg/L	0.001917	0.28710	mg/L	0.001917	0.67%
Cu 324.752†	97699.8	0.63593	mg/L	0.006159	0.63593	mg/L	0.006159	0.97%
Fe 273.955†	8007006.3	453.08	mg/L	0.522	453.08	mg/L	0.522	0.12%
Mg 279.077†	1425393.6	111.26	mg/L	1.345	111.26	mg/L	1.345	1.21%
Mn 257.610†	6076014.9	14.584	mg/L	0.0103	14.584	mg/L	0.0103	0.07%
Ni 231.604†	8742.3	0.42630	mg/L	0.002819	0.42630	mg/L	0.002819	0.66%
Pb 220.353†	2210.0	0.53264	mg/L	0.008098	0.53264	mg/L	0.008098	1.52%
Sb 206.836†	23.5	-0.00814	mg/L	0.001204	-0.00814	mg/L	0.001204	14.79%
Se 196.026†	-96.9	-0.00891	mg/L	0.004983	-0.00891	mg/L	0.004983	55.90%
Tl 190.801†	-31.7	0.01276	mg/L	0.006506	0.01276	mg/L	0.006506	50.97%
V 292.402†	31658.1	0.35550	mg/L	0.003718	0.35550	mg/L	0.003718	1.05%
Zn 206.200†	38186.8	1.7389	mg/L	0.01879	1.7389	mg/L	0.01879	1.08%
Cd 226.502†	802.9	-0.00305	mg/L	0.000381	-0.00305	mg/L	0.000381	12.46%
Ti 334.940†	340187.4	0.79646	mg/L	0.014102	0.79646	mg/L	0.014102	1.77%
Ca 227.546†	56052.1	423.44	mg/L	3.670	423.44	mg/L	3.670	0.87%
Na 589.592	4447.7	1.2581	mg/L	0.01422	1.2581	mg/L	0.01422	1.13%
K 766.490	33622.0	26.588	mg/L	0.1886	26.588	mg/L	0.1886	0.71%

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Sequence No.: 17 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 10/1/2013 8:59:56 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:09 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 360.073	1487995.3	105.48	%	0.702				0.67%
Lu 261.542	959026.0	105.8	%	0.71				0.67%
Ag 328.068†	153182.0	1.2397	mg/L	0.02339	1.2397	mg/L	0.02339	1.89%
QC value within limits for Ag 328.068 Recovery = 99.17%								
Al 308.215†	155793.7	10.126	mg/L	0.2136	10.126	mg/L	0.2136	2.11%
QC value within limits for Al 308.215 Recovery = 101.26%								
As 188.979†	504.6	0.48963	mg/L	0.007877	0.48963	mg/L	0.007877	1.61%
QC value within limits for As 188.979 Recovery = 97.93%								
Ba 233.527†	680213.5	9.9402	mg/L	0.01016	9.9402	mg/L	0.01016	0.10%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	390154.5	0.24301	mg/L	0.001550	0.24301	mg/L	0.001550	0.64%
QC value within limits for Be 313.107 Recovery = 97.21%								
Co 228.616†	62273.9	2.4694	mg/L	0.05217	2.4694	mg/L	0.05217	2.11%
QC value within limits for Co 228.616 Recovery = 98.78%								
Cr 267.716†	53530.6	1.0023	mg/L	0.01986	1.0023	mg/L	0.01986	1.98%
QC value within limits for Cr 267.716 Recovery = 100.23%								
Cu 324.752†	198861.8	1.2104	mg/L	0.02306	1.2104	mg/L	0.02306	1.91%
QC value within limits for Cu 324.752 Recovery = 96.83%								
Fe 273.955†	90577.4	5.0577	mg/L	0.10552	5.0577	mg/L	0.10552	2.09%
QC value within limits for Fe 273.955 Recovery = 101.15%								
Mg 279.077†	314640.3	24.560	mg/L	0.5567	24.560	mg/L	0.5567	2.27%
QC value within limits for Mg 279.077 Recovery = 98.24%								
Mn 257.610†	1024322.0	2.4586	mg/L	0.00300	2.4586	mg/L	0.00300	0.12%
QC value within limits for Mn 257.610 Recovery = 98.34%								
Ni 231.604†	51089.6	2.4910	mg/L	0.05230	2.4910	mg/L	0.05230	2.10%

QC value within limits for Ni 231.604 Recovery = 99.64%
Pb 220.353† 2004.3 0.48542 mg/L 0.004807 0.48542 mg/L 0.004807 0.99%
QC value within limits for Pb 220.353 Recovery = 97.08%
Sb 206.836† 441.4 0.46388 mg/L 0.006252 0.46388 mg/L 0.006252 1.35%
QC value within limits for Sb 206.836 Recovery = 92.78%
Se 196.026† 356.2 0.47678 mg/L 0.006767 0.47678 mg/L 0.006767 1.42%
QC value within limits for Se 196.026 Recovery = 95.36%
Tl 190.801† 483.1 0.47306 mg/L 0.003843 0.47306 mg/L 0.003843 0.81%
QC value within limits for Tl 190.801 Recovery = 94.61%
V 292.402† 218571.8 2.4571 mg/L 0.04848 2.4571 mg/L 0.04848 1.97%
QC value within limits for V 292.402 Recovery = 98.29%
Zn 206.200† 55725.2 2.5391 mg/L 0.05859 2.5391 mg/L 0.05859 2.31%
QC value within limits for Zn 206.200 Recovery = 101.57%
Cd 226.502† 9153.0 0.25018 mg/L 0.006890 0.25018 mg/L 0.006890 2.75%
QC value within limits for Cd 226.502 Recovery = 100.07%
Ti 334.940† 205893.6 0.48337 mg/L 0.009025 0.48337 mg/L 0.009025 1.87%
QC value within limits for Ti 334.940 Recovery = Not calculated
Ca 227.546† 3329.6 23.746 mg/L 0.2496 23.746 mg/L 0.2496 1.05%
QC value within limits for Ca 227.546 Recovery = 94.98%
Na 589.592 91846.6 25.980 mg/L 0.2746 25.980 mg/L 0.2746 1.06%
QC value within limits for Na 589.592 Recovery = 103.92%
K 766.490 32202.9 25.508 mg/L 0.3281 25.508 mg/L 0.3281 1.29%
QC value within limits for K 766.490 Recovery = 102.03%
All analyte(s) passed QC.

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Sequence No.: 18 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 10/1/2013 9:03:37 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:10 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1492166.0	105.78	%	1.423				1.35%
Lu 261.542	958620.3	105.7	%	1.51				1.43%
Ag 328.068†	174.9	0.00141	mg/L	0.000507	0.00141	mg/L	0.000507	35.87%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215†	-259.7	-0.01693	mg/L	0.006844	-0.01693	mg/L	0.006844	40.44%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-2.3	-0.00221	mg/L	0.004096	-0.00221	mg/L	0.004096	185.48%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527†	73.8	0.00108	mg/L	0.000119	0.00108	mg/L	0.000119	11.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	93.0	0.00006	mg/L	0.000013	0.00006	mg/L	0.000013	21.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616†	13.0	0.00052	mg/L	0.000150	0.00052	mg/L	0.000150	29.17%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	13.4	0.00025	mg/L	0.000355	0.00025	mg/L	0.000355	142.31%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-78.6	-0.00048	mg/L	0.000232	-0.00048	mg/L	0.000232	48.81%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955†	415.9	0.02353	mg/L	0.002217	0.02353	mg/L	0.002217	9.42%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077†	179.9	0.01404	mg/L	0.002620	0.01404	mg/L	0.002620	18.65%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	448.8	0.00108	mg/L	0.000084	0.00108	mg/L	0.000084	7.81%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Ni 231.604†	15.5	0.00076	mg/L	0.000549	0.00076	mg/L	0.000549	72.57%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	0.3	0.00007	mg/L	0.002288	0.00007	mg/L	0.002288	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	2.9	0.00312	mg/L	0.002473	0.00312	mg/L	0.002473	79.13%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	3.5	0.00476	mg/L	0.006217	0.00476	mg/L	0.006217	130.68%
QC value within limits for Se 196.026 Recovery = Not calculated								
Tl 190.801†	-1.0	-0.00101	mg/L	0.002283	-0.00101	mg/L	0.002283	225.67%
QC value within limits for Tl 190.801 Recovery = Not calculated								

V 292.402† -0.3 0.00000 mg/L 0.000509 0.00000 mg/L 0.000509 >999.9%
QC value within limits for V 292.402 Recovery = Not calculated
Zn 206.200† 27.0 0.00123 mg/L 0.000297 0.00123 mg/L 0.000297 24.18%
QC value within limits for Zn 206.200 Recovery = Not calculated
Cd 226.502† 12.3 0.00033 mg/L 0.000071 0.00033 mg/L 0.000071 21.20%
QC value within limits for Cd 226.502 Recovery = Not calculated
Ti 334.940† 50.5 0.00012 mg/L 0.000011 0.00012 mg/L 0.000011 9.22%
QC value within limits for Ti 334.940 Recovery = Not calculated
Ca 227.546† 9.0 0.06640 mg/L 0.038040 0.06640 mg/L 0.038040 57.29%
QC value within limits for Ca 227.546 Recovery = Not calculated
Na 589.592 -258.1 -0.07302 mg/L 0.020846 -0.07302 mg/L 0.020846 28.55%
QC value within limits for Na 589.592 Recovery = Not calculated
K 766.490 -41.0 -0.03247 mg/L 0.048458 -0.03247 mg/L 0.048458 149.24%
QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

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Sequence No.: 19 **Autosampler Location: 43**
Sample ID: M1824-01C~ET-5 **Date Collected: 10/1/2013 9:07:18 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:10 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1824-01C~ET-5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1550639.6	109.93	%	0.822				0.75%
Lu 261.542	928278.5	102.4	%	0.86				0.84%
Ag 328.068†	-2267.9	-0.01750	mg/L	0.000342	-0.01750	mg/L	0.000342	1.95%
Al 308.215†	5899630.0	384.30	mg/L	0.559	384.30	mg/L	0.559	0.15%
As 188.979†	112.7	0.17219	mg/L	0.005103	0.17219	mg/L	0.005103	2.96%
Ba 233.527†	235717.6	3.4445	mg/L	0.04908	3.4445	mg/L	0.04908	1.42%
Be 313.107†	20886.9	0.01874	mg/L	0.000244	0.01874	mg/L	0.000244	1.30%
Co 228.616†	18517.6	0.72802	mg/L	0.007188	0.72802	mg/L	0.007188	0.99%
Cr 267.716†	112711.5	2.0942	mg/L	0.03147	2.0942	mg/L	0.03147	1.50%
Cu 324.752†	82958.7	0.56606	mg/L	0.008163	0.56606	mg/L	0.008163	1.44%
Fe 273.955†	11542258.7	653.12	mg/L	10.371	653.12	mg/L	10.371	1.59%
Concentration greater than upper limit for Fe 273.955.								
Mg 279.077†	1292874.2	100.92	mg/L	0.160	100.92	mg/L	0.160	0.16%
Mn 257.610†	17879094.1	42.920	mg/L	0.6880	42.920	mg/L	0.6880	1.60%
Concentration greater than upper limit for Mn 257.610.								
Ni 231.604†	14766.1	0.72002	mg/L	0.009077	0.72002	mg/L	0.009077	1.26%
Pb 220.353†	3038.8	0.73864	mg/L	0.006423	0.73864	mg/L	0.006423	0.87%
Sb 206.836†	63.0	-0.00497	mg/L	0.004310	-0.00497	mg/L	0.004310	86.73%
Se 196.026†	-130.1	-0.00616	mg/L	0.001698	-0.00616	mg/L	0.001698	27.58%
Tl 190.801†	-17.0	0.04141	mg/L	0.005392	0.04141	mg/L	0.005392	13.02%
V 292.402†	68787.0	0.77595	mg/L	0.011370	0.77595	mg/L	0.011370	1.47%
Zn 206.200†	65246.7	2.9755	mg/L	0.04706	2.9755	mg/L	0.04706	1.58%
Cd 226.502†	1426.6	0.00240	mg/L	0.000128	0.00240	mg/L	0.000128	5.33%
Ti 334.940†	1346247.2	3.1637	mg/L	0.00959	3.1637	mg/L	0.00959	0.30%
Ca 227.546†	10543.8	99.524	mg/L	1.2066	99.524	mg/L	1.2066	1.21%
Na 589.592	3360.1	0.95046	mg/L	0.031275	0.95046	mg/L	0.031275	3.29%
K 766.490	58278.9	46.133	mg/L	0.7399	46.133	mg/L	0.7399	1.60%

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Sequence No.: 20 **Autosampler Location: 44**
Sample ID: M1824-02C~ET-6 **Date Collected: 10/1/2013 9:11:17 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:11 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1824-02C~ET-6

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1558637.9	110.49	%	0.494				0.45%
Lu 261.542	930952.3	102.7	%	0.27				0.26%
Ag 328.068†	-3060.6	-0.02396	mg/L	0.000227	-0.02396	mg/L	0.000227	0.95%

Al 308.215†	5881737.2	383.13	mg/L	0.664	383.13	mg/L	0.664	0.17%
As 188.979†	106.4	0.15238	mg/L	0.005739	0.15238	mg/L	0.005739	3.77%
Ba 233.527†	173764.0	2.5394	mg/L	0.01856	2.5394	mg/L	0.01856	0.73%
Be 313.107†	20339.0	0.01742	mg/L	0.000131	0.01742	mg/L	0.000131	0.75%
Co 228.616†	7261.2	0.28259	mg/L	0.001677	0.28259	mg/L	0.001677	0.59%
Cr 267.716†	32784.4	0.60915	mg/L	0.003829	0.60915	mg/L	0.003829	0.63%
Cu 324.752†	49386.6	0.36357	mg/L	0.001826	0.36357	mg/L	0.001826	0.50%
Fe 273.955†	11952280.5	676.32	mg/L	1.138	676.32	mg/L	1.138	0.17%
Concentration greater than upper limit for Fe 273.955.								
Mg 279.077†	1311578.0	102.38	mg/L	0.725	102.38	mg/L	0.725	0.71%
Mn 257.610†	5426801.9	13.026	mg/L	0.0219	13.026	mg/L	0.0219	0.17%
Ni 231.604†	9672.5	0.47166	mg/L	0.002543	0.47166	mg/L	0.002543	0.54%
Pb 220.353†	1551.0	0.37766	mg/L	0.004035	0.37766	mg/L	0.004035	1.07%
Sb 206.836†	39.0	-0.01166	mg/L	0.003298	-0.01166	mg/L	0.003298	28.29%
Se 196.026†	-156.2	-0.01448	mg/L	0.010100	-0.01448	mg/L	0.010100	69.73%
Tl 190.801†	-37.6	0.02494	mg/L	0.006334	0.02494	mg/L	0.006334	25.39%
V 292.402†	63939.9	0.71733	mg/L	0.003907	0.71733	mg/L	0.003907	0.54%
Zn 206.200†	31647.3	1.4421	mg/L	0.01435	1.4421	mg/L	0.01435	0.99%
Cd 226.502†	1179.1	-0.00559	mg/L	0.000367	-0.00559	mg/L	0.000367	6.56%
Ti 334.940†	1118087.9	2.6271	mg/L	0.01115	2.6271	mg/L	0.01115	0.42%
Ca 227.546†	8060.3	82.357	mg/L	0.2810	82.357	mg/L	0.2810	0.34%
Na 589.592	2978.4	0.84250	mg/L	0.010067	0.84250	mg/L	0.010067	1.19%
K 766.490	43202.5	34.185	mg/L	0.3815	34.185	mg/L	0.3815	1.12%

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Sequence No.: 21 **Autosampler Location: 45**
Sample ID: M1876-01C~DISPOSAL-1 **Date Collected: 10/1/2013 9:15:06 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:12 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1876-01C~DISPOSAL-1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1557083.6	110.38	%	0.474				0.43%
Lu 261.542	955614.6	105.4	%	0.46				0.43%
Ag 328.068†	-1213.6	-0.00927	mg/L	0.000494	-0.00927	mg/L	0.000494	5.33%
Al 308.215†	3253420.2	211.92	mg/L	0.240	211.92	mg/L	0.240	0.11%
As 188.979†	215.2	0.22686	mg/L	0.004278	0.22686	mg/L	0.004278	1.89%
Ba 233.527†	52998.5	0.77489	mg/L	0.003214	0.77489	mg/L	0.003214	0.41%
Be 313.107†	-6277.1	0.00677	mg/L	0.000092	0.00677	mg/L	0.000092	1.35%
Co 228.616†	3129.8	0.11198	mg/L	0.001054	0.11198	mg/L	0.001054	0.94%
Cr 267.716†	15115.9	0.28178	mg/L	0.001984	0.28178	mg/L	0.001984	0.70%
Cu 324.752†	75666.7	0.48821	mg/L	0.001101	0.48821	mg/L	0.001101	0.23%
Fe 273.955†	4930925.8	279.01	mg/L	0.261	279.01	mg/L	0.261	0.09%
Mg 279.077†	539525.2	42.115	mg/L	0.1857	42.115	mg/L	0.1857	0.44%
Mn 257.610†	1569016.0	3.7659	mg/L	0.00287	3.7659	mg/L	0.00287	0.08%
Ni 231.604†	4270.9	0.20826	mg/L	0.001681	0.20826	mg/L	0.001681	0.81%
Pb 220.353†	4360.0	1.0622	mg/L	0.00942	1.0622	mg/L	0.00942	0.89%
Sb 206.836†	16.9	-0.00620	mg/L	0.002453	-0.00620	mg/L	0.002453	39.54%
Se 196.026†	-59.4	0.00641	mg/L	0.007719	0.00641	mg/L	0.007719	120.39%
Tl 190.801†	-4.9	0.01699	mg/L	0.004280	0.01699	mg/L	0.004280	25.19%
V 292.402†	44612.6	0.49589	mg/L	0.002265	0.49589	mg/L	0.002265	0.46%
Zn 206.200†	20289.5	0.92428	mg/L	0.006386	0.92428	mg/L	0.006386	0.69%
Cd 226.502†	501.8	-0.00326	mg/L	0.000100	-0.00326	mg/L	0.000100	3.06%
Ti 334.940†	2493015.0	5.8645	mg/L	0.01182	5.8645	mg/L	0.01182	0.20%
Ca 227.546†	4960.1	45.885	mg/L	0.1288	45.885	mg/L	0.1288	0.28%
Na 589.592	10122.2	2.8632	mg/L	0.02542	2.8632	mg/L	0.02542	0.89%
K 766.490	12196.4	9.6438	mg/L	0.04617	9.6438	mg/L	0.04617	0.48%

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Sequence No.: 22 **Autosampler Location: 46**
Sample ID: M1876-01CDUP~DISPOSAL-1D **Date Collected: 10/1/2013 9:18:50 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:13 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1876-01CDUP~DISPOSAL-1D

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1550677.3	109.93	%	1.104				1.00%
Lu 261.542	949936.2	104.8	%	1.15				1.10%
Ag 328.068†	-1258.4	-0.00959	mg/L	0.000551	-0.00959	mg/L	0.000551	5.75%
Al 308.215†	3511843.6	228.76	mg/L	0.322	228.76	mg/L	0.322	0.14%
As 188.979†	250.9	0.26213	mg/L	0.002957	0.26213	mg/L	0.002957	1.13%
Ba 233.527†	58070.5	0.84904	mg/L	0.007345	0.84904	mg/L	0.007345	0.87%
Be 313.107†	-6539.8	0.00736	mg/L	0.000077	0.00736	mg/L	0.000077	1.04%
Co 228.616†	3245.5	0.11571	mg/L	0.001223	0.11571	mg/L	0.001223	1.06%
Cr 267.716†	17043.5	0.31769	mg/L	0.003659	0.31769	mg/L	0.003659	1.15%
Cu 324.752†	86443.1	0.55509	mg/L	0.005040	0.55509	mg/L	0.005040	0.91%
Fe 273.955†	5158364.6	291.88	mg/L	0.375	291.88	mg/L	0.375	0.13%
Mg 279.077†	596308.2	46.547	mg/L	0.4226	46.547	mg/L	0.4226	0.91%
Mn 257.610†	1782991.9	4.2795	mg/L	0.00833	4.2795	mg/L	0.00833	0.19%
Ni 231.604†	5307.4	0.25880	mg/L	0.002352	0.25880	mg/L	0.002352	0.91%
Pb 220.353†	4726.7	1.1517	mg/L	0.01425	1.1517	mg/L	0.01425	1.24%
Sb 206.836†	16.6	-0.00827	mg/L	0.001671	-0.00827	mg/L	0.001671	20.21%
Se 196.026†	-58.2	0.01207	mg/L	0.004954	0.01207	mg/L	0.004954	41.05%
Tl 190.801†	-12.0	0.01071	mg/L	0.004859	0.01071	mg/L	0.004859	45.38%
V 292.402†	48461.4	0.53880	mg/L	0.004422	0.53880	mg/L	0.004422	0.82%
Zn 206.200†	22672.0	1.0328	mg/L	0.01051	1.0328	mg/L	0.01051	1.02%
Cd 226.502†	543.9	-0.00291	mg/L	0.000225	-0.00291	mg/L	0.000225	7.73%
Ti 334.940†	2668761.1	6.2779	mg/L	0.02780	6.2779	mg/L	0.02780	0.44%
Ca 227.546†	5213.3	48.180	mg/L	0.4172	48.180	mg/L	0.4172	0.87%
Na 589.592	8500.4	2.4045	mg/L	0.02486	2.4045	mg/L	0.02486	1.03%
K 766.490	13460.9	10.644	mg/L	0.1370	10.644	mg/L	0.1370	1.29%

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Sequence No.: 23 **Autosampler Location: 47**
Sample ID: M1876-01CMS~DISPOSAL-1S **Date Collected: 10/1/2013 9:22:34 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:13 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1876-01CMS~DISPOSAL-1S

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1524485.8	108.07	%	1.528				1.41%
Lu 261.542	940502.3	103.7	%	1.53				1.48%
Ag 328.068†	142364.4	1.1526	mg/L	0.01923	1.1526	mg/L	0.01923	1.67%
Al 308.215†	3361393.3	218.93	mg/L	0.260	218.93	mg/L	0.260	0.12%
As 188.979†	672.5	0.66977	mg/L	0.008208	0.66977	mg/L	0.008208	1.23%
Ba 233.527†	691872.6	10.111	mg/L	0.1679	10.111	mg/L	0.1679	1.66%
Be 313.107†	358382.3	0.23232	mg/L	0.000866	0.23232	mg/L	0.000866	0.37%
Co 228.616†	61103.6	2.4127	mg/L	0.04229	2.4127	mg/L	0.04229	1.75%
Cr 267.716†	64249.9	1.2017	mg/L	0.01912	1.2017	mg/L	0.01912	1.59%
Cu 324.752†	274575.0	1.6976	mg/L	0.02646	1.6976	mg/L	0.02646	1.56%
Fe 273.955†	4863010.7	275.11	mg/L	0.740	275.11	mg/L	0.740	0.27%
Mg 279.077†	1096461.3	85.588	mg/L	0.4016	85.588	mg/L	0.4016	0.47%
Mn 257.610†	2472430.3	5.9338	mg/L	0.01821	5.9338	mg/L	0.01821	0.31%
Ni 231.604†	51116.2	2.4923	mg/L	0.04630	2.4923	mg/L	0.04630	1.86%
Pb 220.353†	5997.6	1.4583	mg/L	0.02417	1.4583	mg/L	0.02417	1.66%
Sb 206.836†	217.9	0.20061	mg/L	0.003846	0.20061	mg/L	0.003846	1.92%
Se 196.026†	251.0	0.41853	mg/L	0.007928	0.41853	mg/L	0.007928	1.89%
Tl 190.801†	438.2	0.45109	mg/L	0.003564	0.45109	mg/L	0.003564	0.79%
V 292.402†	239548.7	2.6882	mg/L	0.04194	2.6882	mg/L	0.04194	1.56%
Zn 206.200†	70372.8	3.2064	mg/L	0.06081	3.2064	mg/L	0.06081	1.90%
Cd 226.502†	8862.3	0.22598	mg/L	0.005022	0.22598	mg/L	0.005022	2.22%
Ti 334.940†	2316674.6	5.4478	mg/L	0.01510	5.4478	mg/L	0.01510	0.28%
Ca 227.546†	13973.9	110.70	mg/L	1.459	110.70	mg/L	1.459	1.32%
Na 589.592	93489.0	26.445	mg/L	0.2259	26.445	mg/L	0.2259	0.85%
K 766.490	41082.1	32.513	mg/L	0.2375	32.513	mg/L	0.2375	0.73%

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Sequence No.: 24 **Autosampler Location: 48**
Sample ID: M1876-01CSD~DISPOSAL-1 **Date Collected: 10/1/2013 9:26:20 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:14 AM**

Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: M1876-01CSD~DISPOSAL-1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1558452.1	110.48	%	1.000				0.91%
Lu 261.542	992571.0	109.5	%	0.96				0.88%
Ag 328.068†	-108.1	-0.00077	mg/L	0.000536	-0.00077	mg/L	0.000536	69.81%
Al 308.215†	630841.8	41.092	mg/L	0.0127	41.092	mg/L	0.0127	0.03%
As 188.979†	41.9	0.04446	mg/L	0.003411	0.04446	mg/L	0.003411	7.67%
Ba 233.527†	10544.0	0.15416	mg/L	0.002697	0.15416	mg/L	0.002697	1.75%
Be 313.107†	-1141.1	0.00142	mg/L	0.000026	0.00142	mg/L	0.000026	1.84%
Co 228.616†	643.4	0.02310	mg/L	0.000259	0.02310	mg/L	0.000259	1.12%
Cr 267.716†	3060.3	0.05705	mg/L	0.000135	0.05705	mg/L	0.000135	0.24%
Cu 324.752†	14413.7	0.09344	mg/L	0.002301	0.09344	mg/L	0.002301	2.46%
Fe 273.955†	1020222.5	57.728	mg/L	0.0677	57.728	mg/L	0.0677	0.12%
Mg 279.077†	110083.1	8.5929	mg/L	0.17609	8.5929	mg/L	0.17609	2.05%
Mn 257.610†	316721.3	0.76017	mg/L	0.001115	0.76017	mg/L	0.001115	0.15%
Ni 231.604†	878.2	0.04282	mg/L	0.000228	0.04282	mg/L	0.000228	0.53%
Pb 220.353†	893.9	0.21759	mg/L	0.003177	0.21759	mg/L	0.003177	1.46%
Sb 206.836†	3.1	-0.00160	mg/L	0.001463	-0.00160	mg/L	0.001463	91.31%
Se 196.026†	-9.9	0.00446	mg/L	0.003704	0.00446	mg/L	0.003704	83.14%
Tl 190.801†	0.0	0.00463	mg/L	0.001379	0.00463	mg/L	0.001379	29.77%
V 292.402†	8804.3	0.09786	mg/L	0.002401	0.09786	mg/L	0.002401	2.45%
Zn 206.200†	4203.9	0.19150	mg/L	0.001289	0.19150	mg/L	0.001289	0.67%
Cd 226.502†	114.6	-0.00037	mg/L	0.000055	-0.00037	mg/L	0.000055	15.05%
Ti 334.940†	496571.4	1.1681	mg/L	0.00371	1.1681	mg/L	0.00371	0.32%
Ca 227.546†	954.1	8.9673	mg/L	0.10396	8.9673	mg/L	0.10396	1.16%
Na 589.592	1890.9	0.53487	mg/L	0.034882	0.53487	mg/L	0.034882	6.52%
K 766.490	2590.9	2.0488	mg/L	0.11880	2.0488	mg/L	0.11880	5.80%

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Sequence No.: 25 Autosampler Location: 49
Sample ID: M1876-01CPDS~DISPOSAL-1 Date Collected: 10/1/2013 9:30:02 AM
Analyst: Data Type: Reprocessed on 10/1/2013 9:58:15 AM
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: M1876-01CPDS~DISPOSAL-1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1526225.2	108.19	%	0.501				0.46%
Lu 261.542	938800.9	103.5	%	0.46				0.44%
Ag 328.068†	107453.3	0.87074	mg/L	0.009954	0.87074	mg/L	0.009954	1.14%
Al 308.215†	3386293.4	220.56	mg/L	0.110	220.56	mg/L	0.110	0.05%
As 188.979†	681.5	0.67884	mg/L	0.002484	0.67884	mg/L	0.002484	0.37%
Ba 233.527†	706391.5	10.323	mg/L	0.0076	10.323	mg/L	0.0076	0.07%
Be 313.107†	360284.9	0.23427	mg/L	0.000013	0.23427	mg/L	0.000013	0.01%
Co 228.616†	63510.2	2.5073	mg/L	0.03834	2.5073	mg/L	0.03834	1.53%
Cr 267.716†	65052.8	1.2168	mg/L	0.01814	1.2168	mg/L	0.01814	1.49%
Cu 324.752†	274494.4	1.6976	mg/L	0.01955	1.6976	mg/L	0.01955	1.15%
Fe 273.955†	4915020.4	278.05	mg/L	0.179	278.05	mg/L	0.179	0.06%
Mg 279.077†	826676.6	64.529	mg/L	0.1164	64.529	mg/L	0.1164	0.18%
Mn 257.610†	2483893.0	5.9617	mg/L	0.00182	5.9617	mg/L	0.00182	0.03%
Ni 231.604†	53052.8	2.5868	mg/L	0.03777	2.5868	mg/L	0.03777	1.46%
Pb 220.353†	6128.9	1.4904	mg/L	0.00791	1.4904	mg/L	0.00791	0.53%
Sb 206.836†	457.7	0.45800	mg/L	0.003275	0.45800	mg/L	0.003275	0.72%
Se 196.026†	263.2	0.43635	mg/L	0.006466	0.43635	mg/L	0.006466	1.48%
Tl 190.801†	443.1	0.45509	mg/L	0.007055	0.45509	mg/L	0.007055	1.55%
V 292.402†	248629.5	2.7898	mg/L	0.03699	2.7898	mg/L	0.03699	1.33%
Zn 206.200†	71806.6	3.2717	mg/L	0.05428	3.2717	mg/L	0.05428	1.66%
Cd 226.502†	8821.7	0.22464	mg/L	0.000950	0.22464	mg/L	0.000950	0.42%
Ti 334.940†	2496247.8	5.8711	mg/L	0.02183	5.8711	mg/L	0.02183	0.37%
Ca 227.546†	8197.1	68.773	mg/L	0.2648	68.773	mg/L	0.2648	0.39%
Na 589.592	95516.5	27.018	mg/L	0.4338	27.018	mg/L	0.4338	1.61%
K 766.490	42313.8	33.500	mg/L	0.4765	33.500	mg/L	0.4765	1.42%

Sequence No.: 26 **Autosampler Location: 50**
Sample ID: M1823-07B~LTS-C-12 20xFe **Date Collected: 10/1/2013 9:33:36 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:16 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1823-07B~LTS-C-12 20xFe

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1579239.4	111.95	%	0.831				0.74%
Lu 261.542	1006581.6	111.0	%	0.84				0.76%
Ag 328.068†	73.6	0.00062	mg/L	0.001198	0.00062	mg/L	0.001198	193.64%
Al 308.215†	227617.6	14.825	mg/L	0.2310	14.825	mg/L	0.2310	1.56%
As 188.979†	12.2	0.01441	mg/L	0.002352	0.01441	mg/L	0.002352	16.32%
Ba 233.527†	6971.8	0.10188	mg/L	0.000686	0.10188	mg/L	0.000686	0.67%
Be 313.107†	1191.4	0.00081	mg/L	0.000016	0.00081	mg/L	0.000016	1.99%
Co 228.616†	351.4	0.01386	mg/L	0.000357	0.01386	mg/L	0.000357	2.58%
Cr 267.716†	1119.8	0.02061	mg/L	0.000177	0.02061	mg/L	0.000177	0.86%
Cu 324.752†	6433.3	0.04242	mg/L	0.001091	0.04242	mg/L	0.001091	2.57%
Fe 273.955†	633101.9	35.825	mg/L	0.0535	35.825	mg/L	0.0535	0.15%
Mg 279.077†	111096.4	8.6720	mg/L	0.14191	8.6720	mg/L	0.14191	1.64%
Mn 257.610†	401265.0	0.96313	mg/L	0.002270	0.96313	mg/L	0.002270	0.24%
Ni 231.604†	625.4	0.03050	mg/L	0.000590	0.03050	mg/L	0.000590	1.93%
Pb 220.353†	126.3	0.03024	mg/L	0.001983	0.03024	mg/L	0.001983	6.56%
Sb 206.836†	0.6	-0.00187	mg/L	0.002796	-0.00187	mg/L	0.002796	149.88%
Se 196.026†	-2.8	0.00590	mg/L	0.005397	0.00590	mg/L	0.005397	91.44%
Tl 190.801†	-4.4	-0.00083	mg/L	0.003230	-0.00083	mg/L	0.003230	387.97%
V 292.402†	2059.7	0.02315	mg/L	0.000410	0.02315	mg/L	0.000410	1.77%
Zn 206.200†	2895.6	0.13186	mg/L	0.001397	0.13186	mg/L	0.001397	1.06%
Cd 226.502†	71.0	-0.00003	mg/L	0.000030	-0.00003	mg/L	0.000030	96.19%
Ti 334.940†	16304.7	0.03805	mg/L	0.000799	0.03805	mg/L	0.000799	2.10%
Ca 227.546†	2742.5	21.196	mg/L	0.0835	21.196	mg/L	0.0835	0.39%
Na 589.592	4.9	0.00140	mg/L	0.015658	0.00140	mg/L	0.015658	>999.9%
K 766.490	2288.6	1.8092	mg/L	0.06147	1.8092	mg/L	0.06147	3.40%

Sequence No.: 27 **Autosampler Location: 51**
Sample ID: M1824-01C~ET-5 20xFeMn **Date Collected: 10/1/2013 9:37:17 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:16 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1824-01C~ET-5 20xFeMn

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1540798.5	109.23	%	0.579				0.53%
Lu 261.542	982746.4	108.4	%	0.50				0.46%
Ag 328.068†	18.8	0.00019	mg/L	0.000087	0.00019	mg/L	0.000087	45.27%
Al 308.215†	282546.5	18.405	mg/L	0.2339	18.405	mg/L	0.2339	1.27%
As 188.979†	6.3	0.00958	mg/L	0.008051	0.00958	mg/L	0.008051	84.04%
Ba 233.527†	11709.6	0.17111	mg/L	0.002179	0.17111	mg/L	0.002179	1.27%
Be 313.107†	965.2	0.00088	mg/L	0.000046	0.00088	mg/L	0.000046	5.26%
Co 228.616†	953.0	0.03748	mg/L	0.000523	0.03748	mg/L	0.000523	1.40%
Cr 267.716†	5688.4	0.10562	mg/L	0.002275	0.10562	mg/L	0.002275	2.15%
Cu 324.752†	3858.3	0.02684	mg/L	0.000643	0.02684	mg/L	0.000643	2.40%
Fe 273.955†	634025.4	35.876	mg/L	0.0303	35.876	mg/L	0.0303	0.08%
Mg 279.077†	67484.6	5.2677	mg/L	0.06797	5.2677	mg/L	0.06797	1.29%
Mn 257.610†	980194.1	2.3530	mg/L	0.00173	2.3530	mg/L	0.00173	0.07%
Ni 231.604†	772.5	0.03767	mg/L	0.000348	0.03767	mg/L	0.000348	0.93%
Pb 220.353†	151.0	0.03655	mg/L	0.002960	0.03655	mg/L	0.002960	8.10%
Sb 206.836†	2.0	-0.00158	mg/L	0.002818	-0.00158	mg/L	0.002818	177.99%
Se 196.026†	-6.5	0.00037	mg/L	0.004528	0.00037	mg/L	0.004528	>999.9%
Tl 190.801†	3.5	0.00673	mg/L	0.003478	0.00673	mg/L	0.003478	51.66%
V 292.402†	3393.6	0.03829	mg/L	0.000952	0.03829	mg/L	0.000952	2.49%
Zn 206.200†	3393.7	0.15476	mg/L	0.001342	0.15476	mg/L	0.001342	0.87%

Cd 226.502†	86.1	0.00035	mg/L	0.000181	0.00035	mg/L	0.000181 52.46%
Ti 334.940†	65851.3	0.15474	mg/L	0.003343	0.15474	mg/L	0.003343 2.16%
Ca 227.546†	490.6	4.8222	mg/L	0.08524	4.8222	mg/L	0.08524 1.77%
Na 589.592	-7.5	-0.00212	mg/L	0.021000	-0.00212	mg/L	0.021000 989.04%
K 766.490	3213.7	2.5441	mg/L	0.06278	2.5441	mg/L	0.06278 2.47%

Sequence No.: 28 **Autosampler Location: 52**
Sample ID: M1824-02C~ET-6 20xFe **Date Collected: 10/1/2013 9:40:57 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:17 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: M1824-02C~ET-6 20xFe

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1562880.5	110.79	%	0.572				0.52%
Lu 261.542	997885.9	110.1	%	0.60				0.54%
Ag 328.068†	41.3	0.00037	mg/L	0.000811	0.00037	mg/L	0.000811	219.36%
Al 308.215†	274380.3	17.873	mg/L	0.2748	17.873	mg/L	0.2748	1.54%
As 188.979†	2.1	0.00478	mg/L	0.002661	0.00478	mg/L	0.002661	55.71%
Ba 233.527†	8501.8	0.12424	mg/L	0.000462	0.12424	mg/L	0.000462	0.37%
Be 313.107†	1081.1	0.00090	mg/L	0.000030	0.00090	mg/L	0.000030	3.35%
Co 228.616†	379.7	0.01480	mg/L	0.000351	0.01480	mg/L	0.000351	2.37%
Cr 267.716†	1641.5	0.03049	mg/L	0.000285	0.03049	mg/L	0.000285	0.93%
Cu 324.752†	2031.8	0.01578	mg/L	0.000205	0.01578	mg/L	0.000205	1.30%
Fe 273.955†	647876.6	36.660	mg/L	0.0786	36.660	mg/L	0.0786	0.21%
Mg 279.077†	67745.8	5.2881	mg/L	0.08913	5.2881	mg/L	0.08913	1.69%
Mn 257.610†	278656.2	0.66886	mg/L	0.001302	0.66886	mg/L	0.001302	0.19%
Ni 231.604†	514.6	0.02509	mg/L	0.000494	0.02509	mg/L	0.000494	1.97%
Pb 220.353†	75.9	0.01830	mg/L	0.000542	0.01830	mg/L	0.000542	2.96%
Sb 206.836†	0.1	-0.00260	mg/L	0.001347	-0.00260	mg/L	0.001347	51.70%
Se 196.026†	-4.1	0.00503	mg/L	0.006795	0.00503	mg/L	0.006795	135.20%
Tl 190.801†	-2.1	0.00131	mg/L	0.004634	0.00131	mg/L	0.004634	353.05%
V 292.402†	3078.7	0.03454	mg/L	0.000613	0.03454	mg/L	0.000613	1.77%
Zn 206.200†	1648.0	0.07509	mg/L	0.000217	0.07509	mg/L	0.000217	0.29%
Cd 226.502†	76.6	0.00005	mg/L	0.000024	0.00005	mg/L	0.000024	52.09%
Ti 334.940†	54124.7	0.12716	mg/L	0.001324	0.12716	mg/L	0.001324	1.04%
Ca 227.546†	384.4	4.0809	mg/L	0.06920	4.0809	mg/L	0.06920	1.70%
Na 589.592	-152.4	-0.04312	mg/L	0.038173	-0.04312	mg/L	0.038173	88.53%
K 766.490	2340.7	1.8523	mg/L	0.01170	1.8523	mg/L	0.01170	0.63%

Sequence No.: 29 **Autosampler Location: 3**
Sample ID: CCV **Date Collected: 10/1/2013 9:44:37 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:18 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 360.073	1511644.8	107.16	%	0.359				0.33%
Lu 261.542	976618.4	107.7	%	0.43				0.40%
Ag 328.068†	148540.5	1.2021	mg/L	0.02160	1.2021	mg/L	0.02160	1.80%
QC value within limits for Ag 328.068 Recovery = 96.17%								
Al 308.215†	148850.3	9.6744	mg/L	0.18721	9.6744	mg/L	0.18721	1.94%
QC value within limits for Al 308.215 Recovery = 96.74%								
As 188.979†	488.4	0.47394	mg/L	0.001684	0.47394	mg/L	0.001684	0.36%
QC value within limits for As 188.979 Recovery = 94.79%								
Ba 233.527†	661308.2	9.6640	mg/L	0.02812	9.6640	mg/L	0.02812	0.29%
QC value within limits for Ba 233.527 Recovery = 96.64%								
Be 313.107†	374323.3	0.23316	mg/L	0.001356	0.23316	mg/L	0.001356	0.58%
QC value within limits for Be 313.107 Recovery = 93.27%								
Co 228.616†	60316.8	2.3918	mg/L	0.04271	2.3918	mg/L	0.04271	1.79%
QC value within limits for Co 228.616 Recovery = 95.67%								
Cr 267.716†	52151.1	0.97647	mg/L	0.020085	0.97647	mg/L	0.020085	2.06%

QC value within limits for Cr 267.716 Recovery = 97.65%
Cu 324.752† 191081.4 1.1631 mg/L 0.02195 1.1631 mg/L 0.02195 1.89%
QC value within limits for Cu 324.752 Recovery = 93.05%
Fe 273.955† 86725.3 4.8414 mg/L 0.09181 4.8414 mg/L 0.09181 1.90%
QC value within limits for Fe 273.955 Recovery = 96.83%
Mg 279.077† 304273.6 23.751 mg/L 0.4885 23.751 mg/L 0.4885 2.06%
QC value within limits for Mg 279.077 Recovery = 95.00%
Mn 257.610† 988650.4 2.3730 mg/L 0.00808 2.3730 mg/L 0.00808 0.34%
QC value within limits for Mn 257.610 Recovery = 94.92%
Ni 231.604† 49640.1 2.4204 mg/L 0.04670 2.4204 mg/L 0.04670 1.93%
QC value within limits for Ni 231.604 Recovery = 96.81%
Pb 220.353† 1993.5 0.48276 mg/L 0.002575 0.48276 mg/L 0.002575 0.53%
QC value within limits for Pb 220.353 Recovery = 96.55%
Sb 206.836† 436.1 0.45850 mg/L 0.001249 0.45850 mg/L 0.001249 0.27%
QC value within limits for Sb 206.836 Recovery = 91.70%
Se 196.026† 349.1 0.46719 mg/L 0.005043 0.46719 mg/L 0.005043 1.08%
QC value within limits for Se 196.026 Recovery = 93.44%
Tl 190.801† 471.5 0.46171 mg/L 0.001261 0.46171 mg/L 0.001261 0.27%
QC value within limits for Tl 190.801 Recovery = 92.34%
V 292.402† 213195.4 2.3967 mg/L 0.04623 2.3967 mg/L 0.04623 1.93%
QC value within limits for V 292.402 Recovery = 95.87%
Zn 206.200† 53974.0 2.4594 mg/L 0.05456 2.4594 mg/L 0.05456 2.22%
QC value within limits for Zn 206.200 Recovery = 98.37%
Cd 226.502† 8913.9 0.24365 mg/L 0.004845 0.24365 mg/L 0.004845 1.99%
QC value within limits for Cd 226.502 Recovery = 97.46%
Ti 334.940† 199308.5 0.46791 mg/L 0.009559 0.46791 mg/L 0.009559 2.04%
QC value within limits for Ti 334.940 Recovery = Not calculated
Ca 227.546† 3259.4 23.246 mg/L 0.1740 23.246 mg/L 0.1740 0.75%
QC value within limits for Ca 227.546 Recovery = 92.98%
Na 589.592 90590.8 25.625 mg/L 0.3740 25.625 mg/L 0.3740 1.46%
QC value within limits for Na 589.592 Recovery = 102.50%
K 766.490 31670.2 25.086 mg/L 0.3698 25.086 mg/L 0.3698 1.47%
QC value within limits for K 766.490 Recovery = 100.34%
All analyte(s) passed QC.

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Sequence No.: 30 **Autosampler Location: 4**
Sample ID: CCB **Date Collected: 10/1/2013 9:48:18 AM**
Analyst: **Data Type: Reprocessed on 10/1/2013 9:58:18 AM**
Logged In Analyst (Original) : mitOptima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 360.073	1511472.9	107.15	%	0.226				0.21%
Lu 261.542	961375.5	106.0	%	0.13				0.13%
Ag 328.068†	77.9	0.00063	mg/L	0.000264	0.00063	mg/L	0.000264	41.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 308.215†	-433.7	-0.02826	mg/L	0.003056	-0.02826	mg/L	0.003056	10.81%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-2.2	-0.00209	mg/L	0.004710	-0.00209	mg/L	0.004710	225.10%
QC value within limits for As 188.979 Recovery = Not calculated								
Ba 233.527†	61.1	0.00089	mg/L	0.000059	0.00089	mg/L	0.000059	6.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-69.3	-0.00004	mg/L	0.000028	-0.00004	mg/L	0.000028	66.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Co 228.616†	2.8	0.00011	mg/L	0.000120	0.00011	mg/L	0.000120	106.79%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	49.6	0.00093	mg/L	0.000855	0.00093	mg/L	0.000855	92.00%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-27.7	-0.00017	mg/L	0.000609	-0.00017	mg/L	0.000609	363.48%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 273.955†	122.1	0.00691	mg/L	0.003313	0.00691	mg/L	0.003313	47.96%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Mg 279.077†	71.2	0.00556	mg/L	0.002089	0.00556	mg/L	0.002089	37.58%
QC value within limits for Mg 279.077 Recovery = Not calculated								
Mn 257.610†	210.8	0.00051	mg/L	0.000075	0.00051	mg/L	0.000075	14.90%
QC value within limits for Mn 257.610 Recovery = Not calculated								

Ni 231.604†	7.9	0.00038 mg/L	0.000337	0.00038 mg/L	0.000337	87.88%
QC value within limits for Ni 231.604 Recovery = Not calculated						
Pb 220.353†	0.9	0.00022 mg/L	0.000525	0.00022 mg/L	0.000525	233.42%
QC value within limits for Pb 220.353 Recovery = Not calculated						
Sb 206.836†	0.8	0.00086 mg/L	0.001083	0.00086 mg/L	0.001083	125.17%
QC value within limits for Sb 206.836 Recovery = Not calculated						
Se 196.026†	9.0	0.01204 mg/L	0.003365	0.01204 mg/L	0.003365	27.96%
QC value within limits for Se 196.026 Recovery = Not calculated						
Tl 190.801†	3.9	0.00392 mg/L	0.006873	0.00392 mg/L	0.006873	175.43%
QC value within limits for Tl 190.801 Recovery = Not calculated						
V 292.402†	13.0	0.00015 mg/L	0.000415	0.00015 mg/L	0.000415	279.83%
QC value within limits for V 292.402 Recovery = Not calculated						
Zn 206.200†	21.6	0.00099 mg/L	0.000207	0.00099 mg/L	0.000207	20.96%
QC value within limits for Zn 206.200 Recovery = Not calculated						
Cd 226.502†	9.2	0.00025 mg/L	0.000098	0.00025 mg/L	0.000098	39.15%
QC value within limits for Cd 226.502 Recovery = Not calculated						
Ti 334.940†	72.1	0.00017 mg/L	0.000127	0.00017 mg/L	0.000127	74.97%
QC value within limits for Ti 334.940 Recovery = Not calculated						
Ca 227.546†	7.4	0.05419 mg/L	0.061452	0.05419 mg/L	0.061452	113.40%
QC value within limits for Ca 227.546 Recovery = Not calculated						
Na 589.592	-183.7	-0.05196 mg/L	0.004504	-0.05196 mg/L	0.004504	8.67%
QC value within limits for Na 589.592 Recovery = Not calculated						
K 766.490	177.2	0.14046 mg/L	0.041151	0.14046 mg/L	0.041151	29.30%
QC value within limits for K 766.490 Recovery = Not calculated						

All analyte(s) passed QC.

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Analysis Begun

Logged In Analyst: mitFIMS2 **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: AS-90**

Sample Information File: C:\data-AA\mitFIMS2\Sample Information\0930A.sif
Batch ID: Null
Results Data Set: HG13093001
Results Library: C:\data-AA\mitFIMS2\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: S0 **Date Collected: 9/30/2013 1:29:41 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0000	-0.0005	0.0000	13:30:43	Yes
2		[0.00]	0.0000	-0.0004	0.0000	13:31:23	Yes
Mean:		[0.00]	0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	9.74				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 9/30/2013 1:31:25 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0033	0.0201	0.0033	13:32:22	Yes
2		[0.2]	0.0033	0.0196	0.0033	13:33:02	Yes
Mean:		[0.2]	0.0033				
SD:		0.0	0.0000				
%RSD:		0.0	0.30				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01646 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S1.0 **Date Collected: 9/30/2013 1:33:04 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S1.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[1]	0.0162	0.0979	0.0163	13:34:02	Yes
2		[1]	0.0162	0.0986	0.0162	13:34:42	Yes
Mean:		[1]	0.0162				
SD:		0	0.0000				
%RSD:		0	0.07				

Standard number 2 applied. [1]
Correlation Coef.: 0.999986 Slope: 0.01622 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 9/30/2013 1:34:44 PM**

Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2]	0.0328	0.1987	0.0328	13:35:42	Yes
2		[2]	0.0331	0.2008	0.0332	13:36:22	Yes
Mean:		[2]	0.0330				
SD:		0	0.0002				
%RSD:		0	0.72				

Standard number 3 applied. [2]
Correlation Coef.: 0.999935 Slope: 0.01642 Intercept: 0.00000

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 9/30/2013 1:36:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5]	0.0826	0.4992	0.0826	13:37:21	Yes
2		[5]	0.0819	0.4931	0.0819	13:38:01	Yes
Mean:		[5]	0.0822				
SD:		0	0.0005				
%RSD:		0	0.64				

Standard number 4 applied. [5]
Correlation Coef.: 0.999992 Slope: 0.01644 Intercept: 0.00000

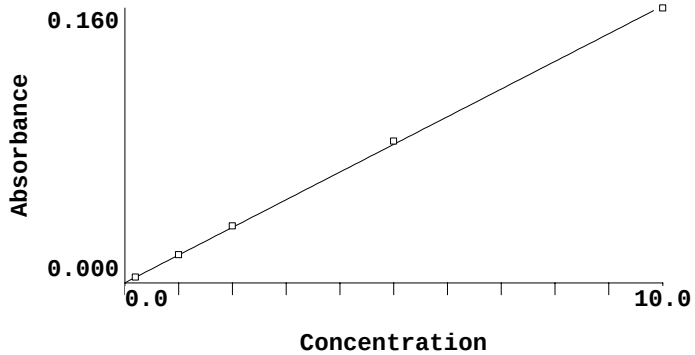
==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 9/30/2013 1:38:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10]	0.1613	0.9846	0.1613	13:39:01	Yes
2		[10]	0.1581	0.9851	0.1581	13:39:41	Yes
Mean:		[10]	0.1597				
SD:		0	0.0023				
%RSD:		0	1.43				

Standard number 5 applied. [10]
Correlation Coef.: 0.999842 Slope: 0.01608 Intercept: 0.00000



Calibration data for Hg 253.7 **Equation: Linear Through Zero**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
S0	0.0000	0	0.000	0.00	9.7
S0.2	0.0033	0.2	0.205	0.00	0.3
S1.0	0.0162	1.0	1.008	0.00	0.1
S2.0	0.0330	2.0	2.049	0.00	0.7
S5.0	0.0822	5.0	5.113	0.00	0.6
S10.0	0.1597	10.0	9.931	0.00	1.4

Correlation Coef.: 0.999842 Slope: 0.01608 Intercept: 0.00000

==========

Sequence No.: 7 **Autosampler Location: 7**
Sample ID: ICV **Date Collected: 9/30/2013 1:39:43 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.995	4.995	0.0803	0.4926	0.0804	13:40:41	Yes
2	5.004	5.004	0.0805	0.4914	0.0805	13:41:21	Yes
Mean:	4.999	4.999	0.0804				
SD:	0.007	0.007	0.0001				
%RSD:	0.137	0.137	0.14				

QC value within limits for Hg 253.7 Recovery = 99.99%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 9/30/2013 1:41:23 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	-0.0013	0.0000	13:42:23	Yes
2	0.003	0.003	0.0000	-0.0004	0.0001	13:43:03	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	82.06	82.06	82.06				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 17**
Sample ID: MB-74036~PBS **Date Collected: 9/30/2013 1:43:05 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: MB-74036~PBS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	-0.0000	-0.0007	0.0000	13:44:02	Yes
2	0.000	0.000	-0.0000	-0.0003	0.0000	13:44:42	Yes
Mean:	-0.001	-0.001	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	78.89	78.89	78.89				

==========

Sequence No.: 10 **Autosampler Location: 18**
Sample ID: LCS-74036 **Date Collected: 9/30/2013 1:44:44 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**

Dilution: **Sample Prep Vol:**

Replicate Data: LCS-74036

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.808	4.808	0.0773	0.4689	0.0773	13:45:42	Yes
2	4.747	4.747	0.0763	0.4610	0.0764	13:46:22	Yes
Mean:	4.777	4.777	0.0768				
SD:	0.043	0.043	0.0007				
%RSD:	0.907	0.907	0.91				

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Sequence No.: 11 **Autosampler Location: 19**
Sample ID: M1823-07B **Date Collected: 9/30/2013 1:46:24 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1823-07B

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.243	0.243	0.0039	0.0228	0.0039	13:47:22	Yes
2	0.243	0.243	0.0039	0.0229	0.0039	13:48:02	Yes
Mean:	0.243	0.243	0.0039				
SD:	0.000	0.000	0.0000				
%RSD:	0.108	0.108	0.11				

==========

Sequence No.: 12 **Autosampler Location: 20**
Sample ID: M1823-08B **Date Collected: 9/30/2013 1:48:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1823-08B

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0031	0.0178	0.0031	13:49:01	Yes
2	0.199	0.199	0.0032	0.0186	0.0032	13:49:41	Yes
Mean:	0.195	0.195	0.0031				
SD:	0.006	0.006	0.0001				
%RSD:	3.264	3.264	3.26				

==========

Sequence No.: 13 **Autosampler Location: 21**
Sample ID: M1823-09B **Date Collected: 9/30/2013 1:49:43 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1823-09B

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.155	0.155	0.0025	0.0145	0.0025	13:50:40	Yes
2	0.154	0.154	0.0025	0.0139	0.0025	13:51:20	Yes
Mean:	0.155	0.155	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.412	0.412	0.41				

==========

Sequence No.: 14 **Autosampler Location: 22**
Sample ID: M1826-01A **Date Collected: 9/30/2013 1:51:22 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-01A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	14.76	14.76	0.2374	1.4989	0.2374	13:52:20	Yes
	Sample concentration is greater than that of the highest standard.						
2	15.84	15.84	0.2547	1.5699	0.2547	13:53:00	Yes
	Sample concentration is greater than that of the highest standard.						
Mean:	15.30	15.30	0.2460				
SD:	0.760	0.760	0.0122				
%RSD:	4.968	4.968	4.97				
	Sample concentration is greater than that of the highest standard.						

==========

Sequence No.: 15 **Autosampler Location: 23**
Sample ID: M1826-02A **Date Collected: 9/30/2013 1:53:02 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-02A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.257	0.257	0.0041	0.0233	0.0042	13:54:00	Yes
2	0.260	0.260	0.0042	0.0235	0.0042	13:54:40	Yes
Mean:	0.259	0.259	0.0042				
SD:	0.002	0.002	0.0000				
%RSD:	0.859	0.859	0.86				

==========

Sequence No.: 16 **Autosampler Location: 24**
Sample ID: M1826-03A **Date Collected: 9/30/2013 1:54:41 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-03A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.099	0.099	0.0016	0.0091	0.0016	13:55:39	Yes
2	0.102	0.102	0.0016	0.0091	0.0017	13:56:18	Yes
Mean:	0.101	0.101	0.0016				
SD:	0.002	0.002	0.0000				
%RSD:	2.004	2.004	2.00				

==========

Sequence No.: 17 **Autosampler Location: 25**
Sample ID: M1826-04A **Date Collected: 9/30/2013 1:56:20 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-04A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.252	3.252	0.0523	0.3172	0.0523	13:57:17	Yes
2	3.202	3.202	0.0515	0.3123	0.0515	13:57:57	Yes
Mean:	3.227	3.227	0.0519				
SD:	0.035	0.035	0.0006				
%RSD:	1.092	1.092	1.09				

==========

Sequence No.: 18 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/30/2013 1:57:59 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.062	5.062	0.0814	0.4899	0.0814	13:58:58	Yes
2	5.036	5.036	0.0810	0.4844	0.0810	13:59:38	Yes
Mean:	5.049	5.049	0.0812				
SD:	0.018	0.018	0.0003				
%RSD:	0.361	0.361	0.36				

QC value within limits for Hg 253.7 Recovery = 100.99%
All analyte(s) passed QC.

==========

Sequence No.: 19 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 9/30/2013 1:59:40 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	-0.0010	0.0001	14:00:40	Yes
2	0.007	0.007	0.0001	-0.0003	0.0002	14:01:20	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.004	0.004	0.0001				
%RSD:	85.75	85.75	85.75				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 20 **Autosampler Location: 26**
Sample ID: M1826-05A **Date Collected: 9/30/2013 2:01:22 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-05A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.737	0.737	0.0118	0.0709	0.0119	14:02:22	Yes
2	0.724	0.724	0.0116	0.0705	0.0117	14:03:02	Yes
Mean:	0.730	0.730	0.0117				
SD:	0.009	0.009	0.0002				
%RSD:	1.283	1.283	1.28				

==========

Sequence No.: 21 **Autosampler Location: 27**
Sample ID: M1826-06A **Date Collected: 9/30/2013 2:03:04 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-06A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.970	0.970	0.0156	0.0948	0.0156	14:04:01	Yes
2	0.955	0.955	0.0154	0.0919	0.0154	14:04:41	Yes
Mean:	0.963	0.963	0.0155				
SD:	0.011	0.011	0.0002				
%RSD:	1.112	1.112	1.11				

==========

Sequence No.: 22 **Autosampler Location: 28**
Sample ID: M1826-07A **Date Collected: 9/30/2013 2:04:43 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-07A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.607	0.607	0.0098	0.0586	0.0098	14:05:41	Yes
2	0.590	0.590	0.0095	0.0568	0.0095	14:06:22	Yes
Mean:	0.599	0.599	0.0096				
SD:	0.011	0.011	0.0002				
%RSD:	1.912	1.912	1.91				

Sequence No.: 23 **Autosampler Location: 29**
Sample ID: M1826-08A **Date Collected: 9/30/2013 2:06:23 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-08A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.461	0.461	0.0074	0.0445	0.0074	14:07:21	Yes
2	0.454	0.454	0.0073	0.0434	0.0073	14:08:01	Yes
Mean:	0.458	0.458	0.0074				
SD:	0.005	0.005	0.0001				
%RSD:	1.055	1.055	1.06				

Sequence No.: 24 **Autosampler Location: 30**
Sample ID: M1843-01A **Date Collected: 9/30/2013 2:08:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1843-01A

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.288	2.288	0.0368	0.2222	0.0368	14:09:00	Yes
2	2.212	2.212	0.0356	0.2169	0.0356	14:09:40	Yes
Mean:	2.250	2.250	0.0362				
SD:	0.054	0.054	0.0009				
%RSD:	2.391	2.391	2.39				

Sequence No.: 25 **Autosampler Location: 31**
Sample ID: M1876-01C **Date Collected: 9/30/2013 2:09:42 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1876-01C

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.474	0.474	0.0076	0.0457	0.0077	14:10:39	Yes
2	0.472	0.472	0.0076	0.0451	0.0076	14:11:19	Yes
Mean:	0.473	0.473	0.0076				
SD:	0.002	0.002	0.0000				
%RSD:	0.360	0.360	0.36				

Sequence No.: 26 **Autosampler Location: 32**
Sample ID: M1876-01CDUP **Date Collected: 9/30/2013 2:11:21 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1876-01CDUP

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.381	0.381	0.0061	0.0361	0.0062	14:12:22	Yes
2	0.382	0.382	0.0061	0.0358	0.0062	14:13:02	Yes
Mean:	0.382	0.382	0.0061				
SD:	0.001	0.001	0.0000				
%RSD:	0.267	0.267	0.27				

==========

Sequence No.: 27 **Autosampler Location: 33**
Sample ID: M1876-01CMS **Date Collected: 9/30/2013 2:13:04 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1876-01CMS

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.058	5.058	0.0813	0.4964	0.0814	14:14:01	Yes
2	5.239	5.239	0.0842	0.5098	0.0843	14:14:41	Yes
Mean:	5.149	5.149	0.0828				
SD:	0.128	0.128	0.0021				
%RSD:	2.479	2.479	2.48				

==========

Sequence No.: 28 **Autosampler Location: 34**
Sample ID: M1826-01A 5X **Date Collected: 9/30/2013 2:14:43 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: M1826-01A 5X

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.565	3.565	0.0573	0.3456	0.0574	14:15:41	Yes
2	3.590	3.590	0.0577	0.3459	0.0578	14:16:21	Yes
Mean:	3.578	3.578	0.0575				
SD:	0.018	0.018	0.0003				
%RSD:	0.499	0.499	0.50				

==========

Sequence No.: 29 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/30/2013 2:16:23 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.925	4.925	0.0792	0.4773	0.0792	14:17:23	Yes
2	4.919	4.919	0.0791	0.4776	0.0791	14:18:03	Yes
Mean:	4.922	4.922	0.0792				
SD:	0.004	0.004	0.0001				
%RSD:	0.090	0.090	0.09				

QC value within limits for Hg 253.7 Recovery = 98.44%
All analyte(s) passed QC.

==========

Sequence No.: 30 **Autosampler Location: 1**
Sample ID: CCB **Date Collected: 9/30/2013 2:18:05 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.003	0.003	0.0001	-0.0004	0.0001	14:19:05	Yes
2	0.008	0.008	0.0001	0.0002	0.0002	14:19:45	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.003	0.003	0.0001				
%RSD:	55.55	55.55	55.55				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Prep Start Date: **09/30/2013 10:45**
Prep End Date: **09/30/2013 11:30** Prep Code: **SW7471A_PR** Prep Type: **7471B/SW7471B** Prep Factor Units: **mL / g**
Prep Batch ID: **74036** Technician: **David T Camara**

M1826

QC Matrix: N/A | Conc HNO3 1112120 | 5% KMnO4 IR13092603 | Reagent 5 Lot: N/A
QC Matrix Lot: N/A | Conc HNO3 (mL): 1.25 | 5% KMnO4 (mL): 15.0 | Reagent 5 (mL): N/A

Filter?: N/A | Conc HCl 4112073 | Reagent 4 Lot: N/A | Reagent 6 Lot: N/A
Filter Lot: N/A | Conc HCl (mL): 3.75 | Reagent 4 (mL): N/A | Reagent 6 (mL): N/A

Digestion Start Time 1: 09/30/2013 10:45 | Digestion Start Time 2: 09/30/2013 11:00 | Block Temp (C): 97 | Therm ID1: MT-47
Digestion End Time 1: 09/30/2013 10:47 | Digestion End Time 2: 09/30/2013 11:30 | Corr Fac -2

Lab Sample ID	Client Samp ID	M	Initial (mL/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
S0			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
S0.2			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
40 uL II130912A																			
S1.0			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
200 uL II130912A																			
S2.0			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
400 uL II130912A																			
S5.0			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
1000 uL II130912A																			
S10.0			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
2000 uL II130912A																			
ICV			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
1000 uL II130912B																			
ICB			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
CCV			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
1000 uL II130912B																			
CCB			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
MB-74036			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
LCS-74036			0.6	100	--	--	--	--					09/30/13	DTC	HgLab		☐	☐	HB-K
1000 uL II130912C																			
M1823-07B	LTS-C-12	S	0.59	100	--	--	--	--			10/15/13	01	09/30/13	DTC	HgLab		☐	☐	HB-K
TAL_Cr3_Cr6_S																			
M1823-08B	LTS-C-13	S	0.58	100	--	--	--	--			10/15/13	01	09/30/13	DTC	HgLab		☐	☐	HB-K
TAL_Cr3_Cr6_S																			
M1823-09B	LTS-C-14	S	0.5	100	--	--	--	--			10/15/13	01	09/30/13	DTC	HgLab		☐	☐	HB-K
TAL_Cr3_Cr6_S																			
M1826-01A	207-S01-092413-1	S	0.53	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1826-02A	207-S01A-092413-1	S	0.54	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1826-03A	207-S02-092413-1	S	0.51	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1826-04A	207-S02A-092413-1	S	0.55	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1826-05A	207-S03-092413-1	S	0.58	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1826-06A	207-S03A-092413-1	S	0.54	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2

DC 10/1/13

Logbook ID: 100.0128 -09/13

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Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

PREP BATCH REPORT

Prep Start Date: **09/30/2013 10:45**
Prep End Date: **09/30/2013 11:30**
Prep Batch ID: **74036**

Prep Code: **SW7471A_PR**
Technician: **David T Camara**

Prep Type: **7471B/SW7471B**

Prep Factor Units: **mL / g**

QC Matrix: N/A
QC Matrix Lot: N/A

Conc HNO3 **1112120**
Conc HNO3 (mL): **1.25**

5% KMnO4 **IR13092603**
5% KMnO4 (mL): **15.0**

Reagent 5 Lot: **N/A**
Reagent 5 (mL): **N/A**

Filter?: N/A
Filter Lot: N/A

Conc HCl **4112073**
Conc HCl (mL): **3.75**

Reagent 4 Lot: **N/A**
Reagent 4 (mL): **N/A**

Reagent 6 Lot: **N/A**
Reagent 6 (mL): **N/A**

Digestion Start Time 1: **09/30/2013 10:45**
Digestion End Time 1: **09/30/2013 10:47**

Digestion Start Time 2: **09/30/2013 11:00**
Digestion End Time 2: **09/30/2013 11:30**

Block Temp (C): **97**

Therm ID1: **MT-47**
Corr Fac **-2**

Lab Sample ID	Client Samp ID	M	Initial (mL/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
M1826-07A	207-S04-092513-1	S	0.52	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1826-08A	207-S04A-092513-1	S	0.51	100	--	--	--	--			10/02/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1843-01A	112-B14-092613-1	S	0.56	100	--	--	--	--			10/03/13	01	09/30/13	DTC	HgLab		☐	☐	HB-2
M1876-01C	DISPOSAL-1	S	0.55	100	--	--	--	--			10/17/13		09/30/13	DTC	HgLab		☐	☐	HB-2
PP13																			
M1876-01CDUP	DISPOSAL-1	S	0.56	100	--	--	--	--			10/17/13		09/30/13	DTC	HgLab		☐	☐	HB-2
PP13																			
M1876-01CMS	DISPOSAL-1	S	0.59	100	--	--	--	--			10/17/13		09/30/13	DTC	HgLab		☐	☐	HB-2
1000 uL II130912C, PP13																			

David T Camara — Analyst Reviewed — 09/30/2013 Date

HZA — Manager Reviewed — 10/1/13 Date

DC 10/1/13

Logbook ID: 100.0128 -09/13

M1876

Monday, September 30, 2013 19:59

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

PREP BATCH REPORT

Prep Start Date: **09/30/2013 17:30**
Prep End Date: **09/30/2013 19:15**
Prep Batch ID: **74040**

Prep Code: **ICP_S_PR**
Technician: **David T Camara**

Prep Type: **3050B/SW3050B**

Prep Factor Units: **mL / g**

QC Matrix: N/A
QC Matrix Lot: N/A

1:1 HNO3 **1112120**
1:1 HNO3 (mL): **5.0**

30% H2O2 **125018**
30% H2O2 (mL): **5.0**

Reagent 5 Lot: N/A
Reagent 5 (mL): N/A

Filter?: N/A
Filter Lot: N/A

Conc HNO3 **1112120**
Conc HNO3 (mL): **2.5**

Conc HCl **4112073**
Conc HCl (mL): **5.0**

Reagent 6 Lot: N/A
Reagent 6 (mL): N/A

Digestion Start Time 1: **09/30/2013 17:30**
Digestion End Time 1: **09/30/2013 18:15**

Digestion Start Time 2: **09/30/2013 19:00**
Digestion End Time 2: **09/30/2013 19:15**

Block Temp (C): **97**

Therm ID1: **MT-120**
Corr Fac **0**

Lab Sample ID	Client Samp ID	M	Initial (mL/g)	Final (mL)	Sample Color	Sample Clarity	Extract Color	Extract Clarity			Due Date	Bottle Number	Trans Date	Trans By	Storage	pH	pH >11	pH <2	HOT BLOCK
													09/30/13	DTC	ICPLab		☐	☐	HB-5
MB-74040			1	50	--	--	--	--					09/30/13	DTC	ICPLab		☐	☐	HB-5
LCS-74040			1	50	--	--	--	--											
455 uL II130925B, 455 uL IP130227A, 45.5 uL IP130311B, 45.5 uL IP130311D																			
M1823-07B	LTS-C-12	S	1.58	50	--	--	--	--			10/15/13	01	09/30/13	DTC	ICPLab		☐	☐	HB-5
TAL_Cr3_Cr6_S																			
M1823-08B	LTS-C-13	S	1.2	50	--	--	--	--			10/15/13	01	09/30/13	DTC	ICPLab		☐	☐	HB-5
TAL_Cr3_Cr6_S																			
M1823-09B	LTS-C-14	S	1.15	50	--	--	--	--			10/15/13	01	09/30/13	DTC	ICPLab		☐	☐	HB-5
TAL_Cr3_Cr6_S																			
M1824-01C	ET-5	S	1.4	50	--	--	--	--			10/08/13	01	09/30/13	DTC	ICPLab		☐	☐	HB-5
TAL																			
M1824-02C	ET-6	S	1.1	50	--	--	--	--			10/08/13	01	09/30/13	DTC	ICPLab		☐	☐	HB-5
TAL																			
M1876-01C	DISPOSAL-1	S	1.16	50	--	--	--	--			10/17/13	01	09/30/13	DTC	ICPLab		☐	☐	HB-5
PP13																			
M1876-01CDUP	DISPOSAL-1	S	1.26	50	--	--	--	--			10/17/13		09/30/13	DTC	ICPLab		☐	☐	HB-5
PP13																			
M1876-01CMS	DISPOSAL-1	S	1.23	50	--	--	--	--			10/17/13		09/30/13	DTC	ICPLab		☐	☐	HB-5
455 uL II130925B, 455 uL IP130227A, 45.5 uL IP130311B, 45.5 uL IP130311D, PP13																			

David T Camara
Analyst Reviewed

09/30/2013
Date

Manager Reviewed

10/1/13
Date

QC 10/1/13

Logbook ID 100.0124-08/13

Internal Chain of Custody

Client: AECOM_NY

Work Order: M1876 **Profile Name:** AECOM_BAY-RIDGE_WASTE

MATRIX **Soil**

Samp #	Bottle	Test	Status	Received	Date
01A	001	PMoist	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	001	SW8082_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	001	SW8082_S	Out	Antonio AP Cardoso	9/30/2013 8:23:40 AM
01A	001	SW8082_S	In	Antonio AP Cardoso	9/30/2013 8:23:55 AM
01A	001	SW8270_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	001	SW8270_S	Out	Antonio AP Cardoso	9/30/2013 8:21:18 AM
01A	001	SW8270_S	In	Antonio AP Cardoso	9/30/2013 8:22:32 AM
01A	002	PMoist	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	002	PMoist	Out	William J Lafferty	10/21/2013 4:00:27 PM
01A	002	SW8082_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	002	SW8270_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	003	PMoist	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	003	SW8082_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	003	SW8270_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	004	PMoist	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	004	SW8082_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01A	004	SW8270_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01B	001	SW6010_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01C	001	SW6010_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01C	001	SW6010_S	Out	David T Camara	9/30/2013 5:35:12 PM
01C	001	SW6010_S	In	David T Camara	9/30/2013 5:35:25 PM
01C	001	SW7471	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01C	001	SW7471	Out	David T Camara	9/30/2013 10:18:32 AM
01C	001	SW7471	In	David T Camara	9/30/2013 11:14:36 AM
01D	001	SW8260_LOW_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01D	002	SW8260_LOW_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01D	003	SW8260_LOW_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01D	004	SW8260_LOW_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01E	001	SW8260_MED_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM
01E	002	SW8260_MED_S	In	LOGIN: kpierce	9/28/2013 12:56:00 PM

Last Page of Data Report

Report Date:
08-Oct-13 13:07

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Spectrum Analytical, Inc.
646 Camp Ave.
North Kingstown, RI 02852
Attn: Agnes Huntley

Project: Bay Ridge Holders, Waste Char
Project #: M1876

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB77660-01	Disposal-1	Soil	27-Sep-13 10:15	30-Sep-13 17:05

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435

Authorized by:

Nicole Leja
Laboratory Director

Spectrum Analytical holds certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 12 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

The samples were received 2.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

NJDEP EPH 10-08 Revision:3

Laboratory Control Samples:

1323852 BSD

C12-C16 Aliphatic Hydrocarbons RPD 29% (25%) is outside individual acceptance criteria.

C16-C21 Aliphatic Hydrocarbons RPD 38% (25%) is outside individual acceptance criteria.

C21-C40 Aliphatic Hydrocarbons RPD 31% (25%) is outside individual acceptance criteria.

C9-C12 Aliphatic Hydrocarbons RPD 41% (25%) is outside individual acceptance criteria.

SW846 6010C

Spikes:

1323869-MS1 *Source: SB77660-01*

The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.

Sulfur

1323869-MSD1 *Source: SB77660-01*

The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.

Sulfur

Sample Acceptance Check Form

Client:	Spectrum Analytical, Inc. - North Kingstown, RI
Project:	Bay Ridge Holders, Waste Char / M1876
Work Order:	SB77660
Sample(s) received on:	9/30/2013
Received by:	Jessica Hoffman

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
1. Were custody seals present?	☐	☑	☐
2. Were custody seals intact?	☐	☐	☑
3. Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
4. Were samples cooled on ice upon transfer to laboratory representative?	☐	☑	☐
5. Were samples refrigerated upon transfer to laboratory representative?	☑	☐	☐
6. Were sample containers received intact?	☑	☐	☐
7. Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
8. Were samples accompanied by a Chain of Custody document?	☑	☐	☐
9. Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☐	☑	☐
10. Did sample container labels agree with Chain of Custody document?	☑	☐	☐
11. Were samples received within method-specific holding times?	☑	☐	☐

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Disposal-1 SB77660-01	M1876	Soil	27-Sep-13 10:15	30-Sep-13

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
NJ EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3545A													
	C9-C12 Aliphatic Hydrocarbons	< 0.765	U	mg/kg dry	11.4	0.765	1	NJDEP EPH 10-08 Revision:3	03-Oct-13	07-Oct-13	MWP	1323852	
	C12-C16 Aliphatic Hydrocarbons	< 0.233	U	mg/kg dry	11.4	0.233	1	"	"	"	"	"	
	C16-C21 Aliphatic Hydrocarbons	< 1.12	U	mg/kg dry	11.4	1.12	1	"	"	"	"	"	
	C21-C40 Aliphatic Hydrocarbons	< 3.47	U	mg/kg dry	11.4	3.47	1	"	"	"	"	"	
	C10-C12 Aromatic Hydrocarbons	< 0.169	U	mg/kg dry	11.4	0.169	1	"	"	"	"	"	
	C12-C16 Aromatic Hydrocarbons	< 0.697	U	mg/kg dry	11.4	0.697	1	"	"	"	"	"	
	C16-C21 Aromatic Hydrocarbons	< 0.902	U	mg/kg dry	11.4	0.902	1	"	"	"	"	"	
	C21-C36 Aromatic Hydrocarbons	< 0.931	U	mg/kg dry	11.4	0.931	1	"	"	"	"	"	
	Total Aliphatics	< 5.58	U	mg/kg dry	11.4	5.58	1	"	"	"	"	"	
	Total Aromatics	< 2.70	U	mg/kg dry	11.4	2.70	1	"	"	"	"	"	
	Total EPH Hydrocarbons	< 8.28	U	mg/kg dry	91.1	8.28	1	"	"	"	"	"	
NJ EPH Target Analytes													
Prepared by method SW846 3545A													
526-73-8	1,2,3-Trimethylbenzene	< 0.0971	U	mg/kg dry	0.455	0.0971	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.100	U	mg/kg dry	0.455	0.100	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.105	U	mg/kg dry	0.455	0.105	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 0.105	U	mg/kg dry	0.455	0.105	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 0.0945	U	mg/kg dry	0.455	0.0945	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.109	U	mg/kg dry	0.455	0.109	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.119	U	mg/kg dry	0.455	0.119	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.103	U	mg/kg dry	0.455	0.103	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.0971	U	mg/kg dry	0.455	0.0971	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.103	U	mg/kg dry	0.455	0.103	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.0881	U	mg/kg dry	0.455	0.0881	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.102	U	mg/kg dry	0.455	0.102	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.128	U	mg/kg dry	0.455	0.128	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.0958	U	mg/kg dry	0.455	0.0958	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.0893	U	mg/kg dry	0.455	0.0893	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.0762	U	mg/kg dry	0.455	0.0762	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.108	U	mg/kg dry	0.455	0.108	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.108	U	mg/kg dry	0.455	0.108	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*48*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*57*			*40-140 %*			"	"	"	"	"	
580-13-2	*2-Bromonaphthalene*	*85*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*58*			*40-140 %*			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
7704-34-9	Sulfur	**224**		mg/kg dry	5.67	2.59	1	SW846 6010C	07-Oct-13	07-Oct-13	edt	1323869	
General Chemistry Parameters													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Disposal-1 SB77660-01	M1876	Soil	27-Sep-13 10:15	30-Sep-13

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
General Chemistry Parameters													
	% Solids	**83.2**		%			1	SM2540 G Mod.	01-Oct-13	01-Oct-13	DT	1323666	

This laboratory report is not valid without an authorized signature on the cover page.

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1323852 - SW846 3545A										
Blank (1323852-BLK1)					Prepared: 03-Oct-13 Analyzed: 07-Oct-13					
C9-C12 Aliphatic Hydrocarbons	< 0.672	U	mg/kg wet	0.672						
C12-C16 Aliphatic Hydrocarbons	< 0.204	U	mg/kg wet	0.204						
C16-C21 Aliphatic Hydrocarbons	< 0.981	U	mg/kg wet	0.981						
C21-C40 Aliphatic Hydrocarbons	< 3.05	U	mg/kg wet	3.05						
C10-C12 Aromatic Hydrocarbons	< 0.149	U	mg/kg wet	0.149						
C12-C16 Aromatic Hydrocarbons	< 0.612	U	mg/kg wet	0.612						
C16-C21 Aromatic Hydrocarbons	< 0.792	U	mg/kg wet	0.792						
1,2,3-Trimethylbenzene	< 0.0853	U	mg/kg wet	0.0853						
C21-C36 Aromatic Hydrocarbons	< 0.818	U	mg/kg wet	0.818						
Total Aliphatics	< 4.91	U	mg/kg wet	4.91						
Naphthalene	< 0.0882	U	mg/kg wet	0.0882						
Total Aromatics	< 2.37	U	mg/kg wet	2.37						
2-Methylnaphthalene	< 0.0924	U	mg/kg wet	0.0924						
Acenaphthylene	< 0.0923	U	mg/kg wet	0.0923						
Acenaphthene	< 0.0830	U	mg/kg wet	0.0830						
Fluorene	< 0.0954	U	mg/kg wet	0.0954						
Phenanthrene	< 0.104	U	mg/kg wet	0.104						
Anthracene	< 0.0907	U	mg/kg wet	0.0907						
Fluoranthene	< 0.0853	U	mg/kg wet	0.0853						
Pyrene	< 0.0907	U	mg/kg wet	0.0907						
Benzo (a) anthracene	< 0.0773	U	mg/kg wet	0.0773						
Chrysene	< 0.0898	U	mg/kg wet	0.0898						
Benzo (b) fluoranthene	< 0.113	U	mg/kg wet	0.113						
Benzo (k) fluoranthene	< 0.0841	U	mg/kg wet	0.0841						
Benzo (a) pyrene	< 0.0785	U	mg/kg wet	0.0785						
Indeno (1,2,3-cd) pyrene	< 0.0669	U	mg/kg wet	0.0669						
Dibenzo (a,h) anthracene	< 0.0947	U	mg/kg wet	0.0947						
Benzo (g,h,i) perylene	< 0.0948	U	mg/kg wet	0.0948						
n-Hexadecane	< 0.0932	U	mg/kg wet	0.0932						
n-Tetradecane	< 0.0705	U	mg/kg wet	0.0705						
n-Eicosane	< 0.123	U	mg/kg wet	0.123						
n-Octacosane	< 0.152	U	mg/kg wet	0.152						
Naphthalene (aliphatic fraction)	**0.00**	U	mg/kg wet							
2-Methylnaphthalene (aliphatic fraction)	**0.00**	U	mg/kg wet							
n-Nonane	< 0.100	U	mg/kg wet	0.100						
n-Decane	< 0.0755	U	mg/kg wet	0.0755						
n-Dodecane	< 0.131	U	mg/kg wet	0.131						
n-Octadecane	< 0.122	U	mg/kg wet	0.122						
n-Heneicosane	< 0.147	U	mg/kg wet	0.147						
n-Docosane	< 0.140	U	mg/kg wet	0.140						
n-Tetracosane	< 0.140	U	mg/kg wet	0.140						
n-Hexacosane	< 0.142	U	mg/kg wet	0.142						
n-Triacontane	< 0.158	U	mg/kg wet	0.158						
n-Dotriacontane	< 0.157	U	mg/kg wet	0.157						
n-Tetratriacontane	< 0.148	U	mg/kg wet	0.148						
n-Hexatriacontane	< 0.154	U	mg/kg wet	0.154						
n-Octatriacontane	< 0.138	U	mg/kg wet	0.138						
n-Tetracontane	< 0.0844	U	mg/kg wet	0.0844						
Surrogate: 1-Chlorooctadecane	*1.34*		mg/kg wet		*3.33*		*40*	*40-140*		
Surrogate: Ortho-Terphenyl	*1.44*		mg/kg wet		*3.33*		*43*	*40-140*		
Surrogate: 2-Bromonaphthalene	*2.03*		mg/kg wet		*2.67*		*76*	*40-140*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1323852 - SW846 3545A										
Blank (1323852-BLK1)					Prepared: 03-Oct-13 Analyzed: 07-Oct-13					
Surrogate: 2-Fluorobiphenyl	*1.48*		mg/kg wet		*2.67*		*56*	*40-140*		
LCS (1323852-BS1)					Prepared: 03-Oct-13 Analyzed: 07-Oct-13					
C9-C12 Aliphatic Hydrocarbons	**13.2**		mg/kg wet	0.672	20.0		66	40-140		
C12-C16 Aliphatic Hydrocarbons	**7.47**	J	mg/kg wet	0.204	13.3		56	40-140		
C16-C21 Aliphatic Hydrocarbons	**12.3**		mg/kg wet	0.981	20.0		61	40-140		
C21-C40 Aliphatic Hydrocarbons	**56.4**		mg/kg wet	3.05	66.7		85	40-140		
C10-C12 Aromatic Hydrocarbons	**8.26**	J	mg/kg wet	0.149	13.3		62	40-140		
C12-C16 Aromatic Hydrocarbons	**9.86**	J	mg/kg wet	0.612	20.0		49	40-140		
C16-C21 Aromatic Hydrocarbons	**19.9**		mg/kg wet	0.792	33.3		60	40-140		
1,2,3-Trimethylbenzene	**3.30**		mg/kg wet	0.0853	6.67		50	40-140		
C21-C36 Aromatic Hydrocarbons	**49.9**		mg/kg wet	0.818	53.3		93	40-140		
Naphthalene	**2.97**		mg/kg wet	0.0882	6.67		45	40-140		
2-Methylnaphthalene	**2.80**		mg/kg wet	0.0924	6.67		42	40-140		
Acenaphthylene	**3.37**		mg/kg wet	0.0923	6.67		51	40-140		
Acenaphthene	**3.34**		mg/kg wet	0.0830	6.67		50	40-140		
Fluorene	**3.65**		mg/kg wet	0.0954	6.67		55	40-140		
Phenanthrene	**3.69**		mg/kg wet	0.104	6.67		55	40-140		
Anthracene	**3.29**		mg/kg wet	0.0907	6.67		49	40-140		
Fluoranthene	**3.86**		mg/kg wet	0.0853	6.67		58	40-140		
Pyrene	**3.67**		mg/kg wet	0.0907	6.67		55	40-140		
Benzo (a) anthracene	**4.43**		mg/kg wet	0.0773	6.67		66	40-140		
Chrysene	**4.27**		mg/kg wet	0.0898	6.67		64	40-140		
Benzo (b) fluoranthene	**4.40**		mg/kg wet	0.113	6.67		66	40-140		
Benzo (k) fluoranthene	**4.28**		mg/kg wet	0.0841	6.67		64	40-140		
Benzo (a) pyrene	**4.14**		mg/kg wet	0.0785	6.67		62	40-140		
Indeno (1,2,3-cd) pyrene	**4.68**		mg/kg wet	0.0669	6.67		70	40-140		
Dibenzo (a,h) anthracene	**4.55**		mg/kg wet	0.0947	6.67		68	40-140		
Benzo (g,h,i) perylene	**4.30**		mg/kg wet	0.0948	6.67		64	40-140		
n-Hexadecane	**3.81**		mg/kg wet	0.0932	6.67		57	40-140		
n-Tetradecane	**3.55**		mg/kg wet	0.0705	6.67		53	40-140		
n-Eicosane	**3.91**		mg/kg wet	0.123	6.67		59	40-140		
n-Octacosane	**3.47**		mg/kg wet	0.152	6.67		52	40-140		
Naphthalene (aliphatic fraction)	**0.00**	U	mg/kg wet					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**	U	mg/kg wet					0-200		
n-Nonane	**2.87**		mg/kg wet	0.100	6.67		43	40-140		
n-Decane	**2.69**		mg/kg wet	0.0755	6.67		40	40-140		
n-Dodecane	**3.25**		mg/kg wet	0.131	6.67		49	40-140		
n-Octadecane	**3.98**		mg/kg wet	0.122	6.67		60	40-140		
n-Heneicosane	**4.24**		mg/kg wet	0.147	6.67		64	40-140		
n-Docosane	**3.85**		mg/kg wet	0.140	6.67		58	40-140		
n-Tetracosane	**3.68**		mg/kg wet	0.140	6.67		55	40-140		
n-Hexacosane	**3.58**		mg/kg wet	0.142	6.67		54	40-140		
n-Triacontane	**3.43**		mg/kg wet	0.158	6.67		51	40-140		
n-Dotriacontane	**3.28**		mg/kg wet	0.157	6.67		49	40-140		
n-Tetratriacontane	**3.27**		mg/kg wet	0.148	6.67		49	40-140		
n-Hexatriacontane	**3.12**		mg/kg wet	0.154	6.67		47	40-140		
n-Octatriacontane	**3.03**		mg/kg wet	0.138	6.67		45	40-140		
n-Tetracontane	**2.70**		mg/kg wet	0.0844	6.67		41	40-140		
Surrogate: 1-Chlorooctadecane	*1.69*		mg/kg wet		*3.33*		*51*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.16*		mg/kg wet		*3.33*		*65*	*40-140*		
Surrogate: 2-Bromonaphthalene	*2.24*		mg/kg wet		*2.67*		*84*	*40-140*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1323852 - SW846 3545A										
LCS (1323852-BS1)					Prepared: 03-Oct-13 Analyzed: 07-Oct-13					
Surrogate: 2-Fluorobiphenyl	*1.46*		mg/kg wet		*2.67*		*55*	*40-140*		
LCS Dup (1323852-BSD1)					Prepared: 03-Oct-13 Analyzed: 07-Oct-13					
C9-C12 Aliphatic Hydrocarbons	**20.0**	QR2	mg/kg wet	0.672	20.0		100	40-140	41	25
C12-C16 Aliphatic Hydrocarbons	**10.0**	QR2	mg/kg wet	0.204	13.3		75	40-140	29	25
C16-C21 Aliphatic Hydrocarbons	**18.0**	QR2	mg/kg wet	0.981	20.0		90	40-140	38	25
C21-C40 Aliphatic Hydrocarbons	**77.1**	QR2	mg/kg wet	3.05	66.7		116	40-140	31	25
C10-C12 Aromatic Hydrocarbons	**8.31**	J	mg/kg wet	0.149	13.3		62	40-140	0.5	25
C12-C16 Aromatic Hydrocarbons	**10.0**		mg/kg wet	0.612	20.0		50	40-140	1	25
C16-C21 Aromatic Hydrocarbons	**20.4**		mg/kg wet	0.792	33.3		61	40-140	2	25
1,2,3-Trimethylbenzene	**3.19**		mg/kg wet	0.0853	6.67		48	40-140	3	25
C21-C36 Aromatic Hydrocarbons	**55.4**		mg/kg wet	0.818	53.3		104	40-140	11	25
Naphthalene	**2.95**		mg/kg wet	0.0882	6.67		44	40-140	0.6	25
2-Methylnaphthalene	**2.89**		mg/kg wet	0.0924	6.67		43	40-140	3	25
Acenaphthylene	**3.44**		mg/kg wet	0.0923	6.67		52	40-140	2	25
Acenaphthene	**3.18**		mg/kg wet	0.0830	6.67		48	40-140	5	25
Fluorene	**3.40**		mg/kg wet	0.0954	6.67		51	40-140	7	25
Phenanthrene	**3.65**		mg/kg wet	0.104	6.67		55	40-140	1	25
Anthracene	**3.28**		mg/kg wet	0.0907	6.67		49	40-140	0.3	25
Fluoranthene	**4.14**		mg/kg wet	0.0853	6.67		62	40-140	7	25
Pyrene	**4.00**		mg/kg wet	0.0907	6.67		60	40-140	8	25
Benzo (a) anthracene	**4.91**		mg/kg wet	0.0773	6.67		74	40-140	10	25
Chrysene	**4.60**		mg/kg wet	0.0898	6.67		69	40-140	8	25
Benzo (b) fluoranthene	**5.68**		mg/kg wet	0.113	6.67		85	40-140	25	25
Benzo (k) fluoranthene	**4.69**		mg/kg wet	0.0841	6.67		70	40-140	9	25
Benzo (a) pyrene	**4.60**		mg/kg wet	0.0785	6.67		69	40-140	11	25
Indeno (1,2,3-cd) pyrene	**5.16**		mg/kg wet	0.0669	6.67		77	40-140	10	25
Dibenzo (a,h) anthracene	**5.07**		mg/kg wet	0.0947	6.67		76	40-140	11	25
Benzo (g,h,i) perylene	**4.83**		mg/kg wet	0.0948	6.67		72	40-140	12	25
n-Hexadecane	**5.21**	QR2	mg/kg wet	0.0932	6.67		78	40-140	31	25
n-Tetradecane	**4.93**	QR2	mg/kg wet	0.0705	6.67		74	40-140	32	25
n-Eicosane	**5.60**	QR2	mg/kg wet	0.123	6.67		84	40-140	36	25
n-Octacosane	**5.69**	QR2	mg/kg wet	0.152	6.67		85	40-140	49	25
Naphthalene (aliphatic fraction)	**0.00**	U	mg/kg wet					0-200		200
2-Methylnaphthalene (aliphatic fraction)	**0.00**	U	mg/kg wet					0-200		200
n-Nonane	**4.41**	QR2	mg/kg wet	0.100	6.67		66	40-140	42	25
n-Decane	**4.32**	QR2	mg/kg wet	0.0755	6.67		65	40-140	47	25
n-Dodecane	**4.61**	QR2	mg/kg wet	0.131	6.67		69	40-140	35	25
n-Octadecane	**5.47**	QR2	mg/kg wet	0.122	6.67		82	40-140	32	25
n-Heneicosane	**6.19**	QR2	mg/kg wet	0.147	6.67		93	40-140	37	25
n-Docosane	**5.72**	QR2	mg/kg wet	0.140	6.67		86	40-140	39	25
n-Tetracosane	**5.70**	QR2	mg/kg wet	0.140	6.67		85	40-140	43	25
n-Hexacosane	**5.72**	QR2	mg/kg wet	0.142	6.67		86	40-140	46	25
n-Triacontane	**5.69**	QR2	mg/kg wet	0.158	6.67		85	40-140	50	25
n-Dotriacontane	**5.60**	QR2	mg/kg wet	0.157	6.67		84	40-140	52	25
n-Tetratriacontane	**5.62**	QR2	mg/kg wet	0.148	6.67		84	40-140	53	25
n-Hexatriacontane	**5.46**	QR2	mg/kg wet	0.154	6.67		82	40-140	55	25
n-Octatriacontane	**5.18**	QR2	mg/kg wet	0.138	6.67		78	40-140	52	25
n-Tetracontane	**4.79**	QR2	mg/kg wet	0.0844	6.67		72	40-140	56	25
Surrogate: 1-Chlorooctadecane	*2.64*		mg/kg wet		*3.33*		*79*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.15*		mg/kg wet		*3.33*		*64*	*40-140*		
Surrogate: 2-Bromonaphthalene	*2.32*		mg/kg wet		*2.67*		*87*	*40-140*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1323852 - SW846 3545A										
LCS Dup (1323852-BSD1)						Prepared: 03-Oct-13 Analyzed: 07-Oct-13				
Surrogate: 2-Fluorobiphenyl	*1.60*		mg/kg wet		*2.67*		*60*	*40-140*		
Duplicate (1323852-DUP1)			**Source: SB77660-01**			Prepared: 03-Oct-13 Analyzed: 07-Oct-13				
C9-C12 Aliphatic Hydrocarbons	< 0.766	U	mg/kg dry	0.766		BRL				50
C12-C16 Aliphatic Hydrocarbons	< 0.233	U	mg/kg dry	0.233		BRL				50
C16-C21 Aliphatic Hydrocarbons	< 1.12	U	mg/kg dry	1.12		BRL				50
C21-C40 Aliphatic Hydrocarbons	< 3.47	U	mg/kg dry	3.47		BRL				50
C10-C12 Aromatic Hydrocarbons	< 0.169	U	mg/kg dry	0.169		BRL				50
C12-C16 Aromatic Hydrocarbons	< 0.697	U	mg/kg dry	0.697		BRL				50
C16-C21 Aromatic Hydrocarbons	< 0.903	U	mg/kg dry	0.903		BRL				50
1,2,3-Trimethylbenzene	< 0.0972	U	mg/kg dry	0.0972		BRL				50
C21-C36 Aromatic Hydrocarbons	< 0.931	U	mg/kg dry	0.931		BRL				50
Naphthalene	< 0.100	U	mg/kg dry	0.100		BRL				50
2-Methylnaphthalene	< 0.105	U	mg/kg dry	0.105		BRL				50
Acenaphthylene	< 0.105	U	mg/kg dry	0.105		BRL				50
Acenaphthene	< 0.0946	U	mg/kg dry	0.0946		BRL				50
Fluorene	< 0.109	U	mg/kg dry	0.109		BRL				50
Phenanthrene	< 0.119	U	mg/kg dry	0.119		BRL				50
Anthracene	< 0.103	U	mg/kg dry	0.103		BRL				50
Fluoranthene	< 0.0972	U	mg/kg dry	0.0972		BRL				50
Pyrene	< 0.103	U	mg/kg dry	0.103		BRL				50
Benzo (a) anthracene	< 0.0881	U	mg/kg dry	0.0881		BRL				50
Chrysene	< 0.102	U	mg/kg dry	0.102		BRL				50
Benzo (b) fluoranthene	< 0.129	U	mg/kg dry	0.129		BRL				50
Benzo (k) fluoranthene	< 0.0958	U	mg/kg dry	0.0958		BRL				50
Benzo (a) pyrene	< 0.0894	U	mg/kg dry	0.0894		BRL				50
Indeno (1,2,3-cd) pyrene	< 0.0762	U	mg/kg dry	0.0762		BRL				50
Dibenzo (a,h) anthracene	< 0.108	U	mg/kg dry	0.108		BRL				50
Benzo (g,h,i) perylene	< 0.108	U	mg/kg dry	0.108		BRL				50
Surrogate: 1-Chlorooctadecane	*1.63*		mg/kg dry		*3.80*		*43*	*40-140*		
Surrogate: Ortho-Terphenyl	*1.80*		mg/kg dry		*3.80*		*47*	*40-140*		
Surrogate: 2-Bromonaphthalene	*2.32*		mg/kg dry		*3.04*		*76*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*1.60*		mg/kg dry		*3.04*		*53*	*40-140*		
Matrix Spike (1323852-MS1)			**Source: SB77660-01**			Prepared: 03-Oct-13 Analyzed: 07-Oct-13				
C9-C12 Aliphatic Hydrocarbons	**14.0**		mg/kg dry	0.787	23.4	BRL	60	40-140		
C12-C16 Aliphatic Hydrocarbons	**11.4**	J	mg/kg dry	0.239	15.6	BRL	73	40-140		
C16-C21 Aliphatic Hydrocarbons	**17.0**		mg/kg dry	1.15	23.4	BRL	73	40-140		
C21-C40 Aliphatic Hydrocarbons	**84.6**		mg/kg dry	3.57	78.0	BRL	108	40-140		
C10-C12 Aromatic Hydrocarbons	**8.60**	J	mg/kg dry	0.174	15.6	BRL	55	40-140		
C12-C16 Aromatic Hydrocarbons	**11.3**	J	mg/kg dry	0.717	23.4	BRL	48	40-140		
C16-C21 Aromatic Hydrocarbons	**25.8**		mg/kg dry	0.927	39.0	BRL	66	40-140		
C21-C36 Aromatic Hydrocarbons	**62.6**		mg/kg dry	0.957	62.4	BRL	100	40-140		
1,2,3-Trimethylbenzene	**3.45**		mg/kg dry	0.0999	7.80	BRL	44	40-140		
Naphthalene	**3.24**		mg/kg dry	0.103	7.80	BRL	41	40-140		
2-Methylnaphthalene	**3.20**		mg/kg dry	0.108	7.80	BRL	41	40-140		
Acenaphthylene	**3.65**		mg/kg dry	0.108	7.80	BRL	47	40-140		
Acenaphthene	**3.58**		mg/kg dry	0.0972	7.80	BRL	46	40-140		
Fluorene	**3.82**		mg/kg dry	0.112	7.80	BRL	49	40-140		
Phenanthrene	**4.73**		mg/kg dry	0.122	7.80	BRL	61	40-140		
Anthracene	**3.63**		mg/kg dry	0.106	7.80	BRL	46	40-140		
Fluoranthene	**5.62**		mg/kg dry	0.0999	7.80	BRL	72	40-140		
Pyrene	**5.25**		mg/kg dry	0.106	7.80	BRL	67	40-140		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1323852 - SW846 3545A										
Matrix Spike (1323852-MS1)			**Source: SB77660-01**		Prepared: 03-Oct-13 Analyzed: 07-Oct-13					
Benzo (a) anthracene	**5.69**		mg/kg dry	0.0905	7.80	BRL	73	40-140		
Chrysene	**5.50**		mg/kg dry	0.105	7.80	BRL	70	40-140		
Benzo (b) fluoranthene	**5.47**		mg/kg dry	0.132	7.80	BRL	70	40-140		
Benzo (k) fluoranthene	**5.48**		mg/kg dry	0.0984	7.80	BRL	70	40-140		
Benzo (a) pyrene	**5.47**		mg/kg dry	0.0918	7.80	BRL	70	40-140		
Indeno (1,2,3-cd) pyrene	**5.61**		mg/kg dry	0.0783	7.80	BRL	72	40-140		
Dibenzo (a,h) anthracene	**5.36**		mg/kg dry	0.111	7.80	BRL	69	40-140		
Benzo (g,h,i) perylene	**5.30**		mg/kg dry	0.111	7.80	BRL	68	40-140		
Surrogate: 1-Chlorooctadecane	*2.73*		mg/kg dry		*3.90*		*70*	*40-140*		
Surrogate: Ortho-Terphenyl	*2.35*		mg/kg dry		*3.90*		*60*	*40-140*		
Surrogate: 2-Bromonaphthalene	*2.87*		mg/kg dry		*3.12*		*92*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*2.02*		mg/kg dry		*3.12*		*65*	*40-140*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1323869 - SW846 3051A										
Blank (1323869-BLK1)						Prepared & Analyzed: 07-Oct-13				
Sulfur	< 2.28	U	mg/kg wet	2.28						
LCS (1323869-BS1)						Prepared & Analyzed: 07-Oct-13				
Sulfur	**114**		mg/kg wet	2.28	125		91	85-115		
LCS Dup (1323869-BSD1)						Prepared & Analyzed: 07-Oct-13				
Sulfur	**110**		mg/kg wet	2.28	125		88	85-115	3	30
Duplicate (1323869-DUP1)			**Source: SB77660-01**			Prepared & Analyzed: 07-Oct-13				
Sulfur	**196**		mg/kg dry	2.44		224			13	20
Matrix Spike (1323869-MS1)			**Source: SB77660-01**			Prepared & Analyzed: 07-Oct-13				
Sulfur	**285**	QM8	mg/kg dry	2.69	148	224	42	70-130		
Matrix Spike Dup (1323869-MSD1)			**Source: SB77660-01**			Prepared & Analyzed: 07-Oct-13				
Sulfur	**253**	QM8	mg/kg dry	2.52	138	224	21	70-130	12	20
Post Spike (1323869-PS1)			**Source: SB77660-01**			Prepared & Analyzed: 07-Oct-13				
Sulfur	**337**		mg/kg dry	2.59	142	224	80	80-120		

Notes and Definitions

J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QM8	The spike recovery exceeded the QC control limits for the MS and/or MSD. The batch was accepted based upon acceptable PS and /or LCS recovery.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
June O'Connor
Rebecca Merz

SB77660R4

CHAIN-OF-CUSTODY RECORD

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

WorkOrder : M1876
Project: Bay Ridge Holders, Waste Char
Report Type : ASP-B
Due Date : 10/17/2013
FAX Due Date : 10/7/2013
Report To : Agnes R Huntley
Purchase Order : M1876
EDD Types : **Please generate a Little PEL EDD**

Subcontractor:
Spectrum Analytical, Inc. - Agawam, MA
11 Almgren Drive
Agawam, Massachusetts 01001

Phone: (413) 789-9018

EQuISFacilityCode: N/A

= number of containers

Requested Test

Client Sample ID	Collection Date	#	Matrix	DUP/MS/MSD	Mitkem Sample ID	NJEPH_S	SW6010_S									
DISPOSAL-1	09/27/2013 10:15	1	Soil		M1876-01B	X	X									SB77660-01

1) NJEPH_S, NJ EPH BY GC-FID
2) SW6010_S, METALS BY ICP

Use 'Client Sample IDs' when reporting data. If needed, truncate 'Client Sample IDs' to fit on reports. Use full 'Client Sample ID' when generating EDD.

Comments: Please analyze 6010 for Sulfur, Agawam EDD = EQUIS AECOM FSM
In addition to the EDDs listed above a Little PEL EDD is required for this sub-contracted work.

3/4/13 2.4 IR01

1705-

		Date/Time			Date/Time
Relinquished by:	Agnes R Huntley	09/30/13 13:26	**Received by:**		9/30/13 1340
Relinquished by:		9/30/13 1705	**Received by:**		9/30/13

09/30/2013
Page 1 of 1

Rep

646 Camp Ave * North Kingstown * RI * 02852 * 401-732-3400 * 401-732-3499
www.spectrum-analytical.com

Appendix F
Summary of CAMP Field Results

AECOM

Client: Nat Grid
Location: Bay Ridge Former Station Holder B
Date: 4/24/13
Field Personnel: SM

Project:
Project Number: 60137360
Weather: 70°, Sunny Light Breeze
Ambient Noise:

Community Air Monitoring Plan / Noise Field Log

002527 005141

1 16087 — 0 18314

Time	Upwind PID	Upwind Dust Trak	Work Area PID	Downwind PID	Downwind Dust Trak	dB Readings[1]	Comments
1030	0.0	0.026	0.0	0.0	0.027		Start SB-130 / End
1045	0.0	0.016	0.0	0.0	0.018		Start SB-127
1100	0.0	0.003	0.0	0.0	0.012		End SB-127
1115	0.0	0.012	0.0	0.0	0.016		Start SB-129
1130	0.0	0.036	0.0	0.0	0.016		
1145	0.0	0.020	0.0	0.0	0.018		
1200	0.0	0.019	0.0	0.0	0.014		
1215	0.0	0.022	0.0	0.0	0.018		
1230	0.0	0.036	0.0	0.0	0.031		
1245	0.0	0.044	0.0	0.0	0.026		End SB-129
1300	0.0	0.021	0.0	0.0	0.018		Start SB-126 / End
1315	0.0	0.012	0.0	0.0	0.022		Start SB-128
1330	0.0	0.034	0.0	0.0	0.019		Stop SB 128

3 hrs

AECOM

Client: Nat Grid
Location: Bay Ridge Former Holder 2
Date: 4/25/13
Field Personnel: SM

Project:
Project Number: 60137360
Weather: 50's, breezy, Sunny
Ambient Noise:

Community Air Monitoring Plan / Noise Field Log

002527 16087 — 005141 18314

Time	Upwind PID	Upwind Dust Trak	Work Area PID	Downwind PID	Downwind Dust Trak	dB Readings[1]	Comments
0830	0.0	0.001	0.0	0.0	0.012		Setup for the day
0845	0.0	0.001	0.0	0.0	0.014		
0900	0.0	0.001	0.0	0.0	0.017		
0915	0.0	0.002	0.0	0.0	0.009		
0930	0.0	0.001	0.0	0.0	0.011		
0945	0.0	0.003	0.0	0.0	0.012		
1000	0.0	0.004	0.0	0.0	0.014		Start SB-130
1015	0.0	0.001	0.0	0.0	0.018		
1030	0.0	0.002	0.0	0.0	0.012		
1045	0.0	0.003	0.0	0.0	0.009		End SB-130
1100	0.0	0.002	0.0	0.0	0.010		Start SB-127
1115	0.0	0.005	0.0	0.0	0.007		End SB-127
1130	0.0	0.004	0.0	0.0	0.007		Start SB-129
1145	0.0	0.003	0.0	0.0	0.003		
1200	0.0	0.001	0.0	0.0	0.017		
1215	0.0	0.003	0.0	0.0	0.019		
1230	0.0	0.002	0.0	0.0	0.007		
1245	0.0	0.002	0.0	0.0	0.012		
1300	0.0	0.004	0.0	0.0	0.009		
1315	0.0	0.005	0.0	0.0	0.012		
1330	0.0	0.003	0.0	0.0	0.014		