



Robert Kondreck
Project Manager

October 19, 2015

Ms. Kathy Halbur
On-Scene Coordinator
U.S. Environmental Protection Agency Region 5
2984 Shawano Avenue
Green Bay, Wisconsin 54313

**Subject: Final Letter Report – Kewaunee Marquette School
EPA Contract No. EP-S5-13-01
Technical Direction Document No. S05-0001-1507-202
Document Tracking No. 0418**

Dear Ms. Halbur:

Tetra Tech Inc. (Tetra Tech) is submitting the Final Letter Report for the Kewaunee Marquette School. This report summarizes removal assessment activities conducted on August 5 and 20, 2015, and addresses your comments on the draft report that was submitted on October 13, 2015. If you have any questions regarding this report, please call me at (312) 201-7479.

Sincerely,

A handwritten signature in black ink, appearing to read 'Robert Kondreck'.

Robert Kondreck
Project Manager

Enclosure

cc: Kevin Scott, Tetra Tech Program Manager
TDD File

**FINAL LETTER REPORT
KEWAUNEE MARQUETTE SCHOOL
KEWAUNEE, KEWAUNEE COUNTY, WISCONSIN**

Prepared for

U.S. Environmental Protection Agency
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Region 5
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Submitted by

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Prepared by

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Robert Kondreck
Project Manager

Approved by

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John Dirgo
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CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1
2.0 SITE BACKGROUND	2
2.1 SITE LOCATION	2
2.2 SITE DESCRIPTION	2
3.0 REMOVAL ASSESSMENT ACTIVITIES.....	3
3.1 SCREENING AND SAMPLING ACTIVITIES	3
3.1.1 Mercury, VOC, and Radiation Screening	3
3.1.2 Waste, Bulk Asbestos, and Paint Sampling	4
3.1.3 Asbestos in Air Sampling	6
3.2 ANALYTICAL RESULTS	7
3.2.1 Waste Sample Results.....	7
3.2.2 Asbestos Bulk or Waste Sample Results	7
3.2.3 Paint Sample Results	8
3.2.4 Asbestos in Air Results.....	8
4.0 SUMMARY	10
5.0 REFERENCES.....	11

TABLE

<u>Table</u>	<u>Page</u>
TABLE 1 WASTE, BULK ASBESTOS, AND PAINT SAMPLE SUMMARY TABLE.....	5
TABLE 2 ACTIVITY BASED AIR SAMPLING ANALYTICAL RESULTS.....	9

Appendix

- A. Site Figures
- B. Tables
- C. Photographic Documentation
- D. START Field Notes
- E. Laboratory Reports
- F. Data Validation Reports

Attachment

- 1 Former Marquette School – Level 1 (Eagle Environmental Testing 2011)

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) tasked Tetra Tech Inc. (Tetra Tech), under Superfund Technical Assessment and Response Team (START) Contract EP-S5-13-01, Technical Direction Document (TDD) No. S05-0001-1507-202, to perform the following activities:

- Develop and implement a Health and Safety Plan and Sampling and Analysis Plan
- Collect air and bulk asbestos samples
- Collect samples of unknown materials found throughout the building
- Screen the building for mercury, radiation, and other chemical concentrations using real-time instruments
- Provide photographic and written documentation of site activities

These activities were performed as part of a removal assessment, as described in TDD No. S05-001-1507-202, for the Kewaukee Marquette School (EPA 2015). The purpose of the removal assessment was to evaluate the potential for threats to human health and the environment and to assess the necessity for removal action.

This letter report describes the site and site background in Section 2.0, summarizes removal assessment activities and results in Section 3.0, summarizes key removal assessment findings in Section 4.0, and includes references in Section 5.0. Tetra Tech site Figures 1 and 2 are provided in Appendix A; tables are provided in Appendix B; photographic documentation is provided as Appendix C; field notes recorded by START are provided in Appendix D; laboratory reports are provided in Appendix E; and Tetra Tech's data validation report is included in Appendix F. A first floor building layout figure from an asbestos survey completed by Eagle Environmental Testing, LLC (Eagle) is provided in Attachment 1.

2.0 SITE BACKGROUND

This section describes the site location, the site, and the project.

2.1 SITE LOCATION

The former Marquette Kewaunee School is located on at 317 Dorelle Street, Kewaunee, Wisconsin (see Figures 1 and 2 in Appendix A). The site is located in a residential neighborhood and is surrounded by single family homes. Lake Michigan is approximately 600 feet to the east.

2.2 SITE DESCRIPTION

The site is an abandoned school located in a residential neighborhood and surrounded by single-family homes in a populated area of Kewaunee, Wisconsin. The site is an approximately 70,000-square-foot, brick, multi-story former school that at one time housed kindergarten through 12th grade. The site was originally constructed in 1915 with additions in 1936, 1957, 1959, and 1964. The location of the site is provided in Figures 1 and 2 in Appendix A.

An asbestos survey completed for an investor group in March 2011 discovered various asbestos containing materials (ACM) containing chrysotile or mixed chrysotile and amosite fibers in materials at the school above amounts regulated by the EPA (Eagle 2011). ACM included pipe wrap, gaskets in the boiler room, fire door lining, insulation, and various other materials. A site walk-through conducted in June 2015 by the Wisconsin Department of Natural Resources (WDNR) and EPA discovered spilled waste oil on the floor near a drain in addition to abandoned containers in various rooms containing floor drains (WDNR 2015). Mercury in switches, lighting fixtures, and thermometers may have been released as a result of vandalism and/or scrapping activities, potentially releasing mercury onto the ground that may have been or could be spread by trespassers. In addition, other abandoned containers of volatile materials (paints and waste oils) may have been spilled by vandalism and/or scrapping activities resulting in trespasser exposure. Radiation from dials or science labs may also be present.

During the removal assessment EPA and START noted extensive water damage throughout the building accompanied by mold and moss. Most of the building appears to be deteriorated beyond repair.

3.0 REMOVAL ASSESSMENT ACTIVITIES

On August 5 and 20, 2015, EPA and START conducted the removal assessment. The EPA On-Scene Coordinators were (OSC) Kathy Halbur and Kristina Behnke. The START contractor was Tetra Tech. The WDNR Project Manager, Tauren Beggs, was on-site on August 20, 2015, to aid in decision making and sample processing. Before the removal assessment, a sampling and analysis plan (SAP) and site-specific health and safety plan (HASP) and were developed for the site (Tetra Tech 2015a and 2015b). Daily site activities were recorded by EPA and START personnel.

Section 3.0 is divided into two subsections below. Section 3.1 discusses screening and sampling activities, and Section 3.2 discusses sample results.

3.1 SCREENING AND SAMPLING ACTIVITIES

On August 5, 2015, EPA and START performed a site reconnaissance to assess sample locations and perform preliminary screening for mercury, volatile organic compounds (VOCs), and gamma radiation. Based on the site reconnaissance general sample locations were selected and presented to WDNR for additional input. On August 20, 2015, EPA and START screened the building for mercury, VOCs, and gamma radiation, collected asbestos samples in the air and asbestos bulk materials, and collected liquid and solid waste samples. All screening and sampling was done in accordance with the START SAP (Tetra Tech 2015b).

3.1.1 Mercury, VOC, and Radiation Screening

EPA and START performed real-time screening for mercury using a Jerome J505 meter and for gamma radiation and VOCs using a MultiRAE Pro on August 5 and again on August 20, 2015. On August 5, 2015, each room on the first floor was screened upon initial entry with the Jerome and MultiRAE Pro. On August 20, 2015, EPA and START conducted screening using the Jerome and MultiRAE Pro (first and second floors).

No VOCs were detected in either event. Gamma radiation was at or below background concentrations observed in the parking lot for both events (background ranged from four to five microrems). Mercury was not detected in any of the rooms during the August 5, 2015, event but was detected on August 20, 2015, in the former chemistry room on the second floor. Mercury concentrations in Room 119 were 200 nanograms per cubic meter (ng/m³), which is below the EPA/Agency for Toxic Substances and Disease Registry residential action level of 1,000 ng/m³ (ATSDR 2012).

3.1.2 Waste, Bulk Asbestos, and Paint Sampling

EPA and START collected a total of 21 liquid or solid waste, bulk or waste asbestos, and/or paint samples for laboratory analysis during the August 20, 2015, mobilization. Sample locations and materials were selected based on the likelihood that trespassers or workers would come in contact with the materials or if the materials could pose an immediate threat to the environment. For example, asbestos samples were collected of peeled or broken floor tiles and loose or fallen pipe wrap; paint samples were collected of peeling paint that had fallen to the floor; and waste samples were collected near floor drains or areas that could be disturbed by trespassers or workers. Laboratory analyses selected for each sample were based on likelihood of the sample containing detectable chemical concentrations. For example, polychlorinated biphenyls (PCBs) and lead have been found in paint on previous sites and oily liquid materials may be ignition hazard (flashpoint) and also contain PCBs or polynuclear aromatic hydrocarbons (PAHs). Therefore all samples were not analyzed for the same chemical constituents. One quality control sample was collected as a duplicate of Waste-003B-0815 of the parent sample Waste-003-0815.

Photographs of selected sample locations are provided in Appendix C. Additional details on the location and description of each sample are provided in the logbook (Appendix D). Asbestos samples were submitted to Reservoirs Environmental Inc. laboratory in Denver, CO. Non-asbestos samples were submitted to CT Laboratories in Baraboo, WI. A summary of the samples collected, sample locations, descriptions, and laboratory analyses is provided in Table 1.

TABLE 1
WASTE, BULK ASBESTOS, AND PAINT SAMPLE SUMMARY TABLE

Sample ID ¹	Location ²	Description	Laboratory Analysis
Bulk-001B-0815	Boiler Room (001)	Yellow insulation collected around boiler	Asbestos
Bulk-001C-0815	Boiler Room (001)	Deteriorated pipe wrap	Asbestos
Waste-001-0815	Boiler Room (001)	Composite of boiler room floor material	Asbestos, pH, Metals, PCBs
Waste-003-0815 Waste-003B-0815	Furnace Room (003)	Ash from furnace room floor	Asbestos, pH, Metals, PCBs
Paint-004-0815	Maintenance Room (004)	Paint peeling off metal door to furnace room	Lead, PCBs
Waste-004-0815	Maintenance Room (004)	Bottle labeled "Sodium Fluoride"	pH, Flashpoint
Paint-008-0815	Maintenance Room (008)	Green and blue peeling paint on maintenance door	Lead, PCBs
Waste-008-0815	Maintenance Room (008)	Bottle labeled "New Age Catalyst"	pH, Flashpoint
Bulk-010A-0815	Hallway (010)	Felled white ceiling tile	Asbestos
Bulk-010B-0815	Hallway (010)	9 x 9-inch tan floor tile (loose)	Asbestos
Bulk-011A-0815	Cafeteria (011)	9 x 9-inch green floor tile (loose)	Asbestos
Bulk-011B-0815	Cafeteria (011)	9 x 9-inch green floor tile (loose)	Asbestos
Bulk-014-0815	Maintenance Room (014)	Deteriorated pipe wrap	Asbestos
Paint-015-0815	Boys Bathroom (015)	Bright blue peeling paint	Lead, PCBs
Bulk-016-0815	Garage (016)	Bag labeled "Zonolite"	Asbestos
Bulk-016B-0815	Garage (016)	Spilled material at entry to side garage door	Asbestos
Paint-016-0815	Garage (016)	Orange and white peeling paint on wall	Lead, PCBs
Waste-016-0815	Garage (016)	Oil spilled near floor drain	pH, Flashpoint, Metals, PCBs, PAHs
Waste-016B-0815	Garage (016)	Containerized waste labeled "Deo-Quat -C multi-surface disinfectant"	pH, Flashpoint, Metals, PCBs
Paint-018-0815	Hallway (018)	Yellow and green peeling paint on wall	Lead, PCBs
Bulk-034-0815	Auditorium (034)	Fallen pipe wrap	Asbestos

Notes:

¹ = Sample numbers includes the room number (i.e. Bulk-034-0815 was collected from room 034) correlate to rooms listed in the figure in Attachment 1.

² = Use of room based on removal assessors' judgement.

PAHs = Polynuclear aromatic hydrocarbons

PCBs = polychlorinated biphenyls

3.1.3 Asbestos in Air Sampling

EPA and START collected six asbestos in air samples from three locations for laboratory analysis:

- Two activity-based air samples were collected from EPA and START personnel as they disturbed materials inside the building,
- Two air samples were collected at fixed locations (bystander locations) within the building, and
- Two air samples were collected at fixed location (ambient air locations) outside the building.

To perform activity-based air sampling, EPA and START personnel moved throughout the first and second floor agitating dust, kicking material on the ground, and using canned air to propel dust and paint off the wall. Each person was fitted with two pumps (one calibrated to 5 liters per minute [L/min] and one calibrated to 3 L/min). The sample intake was positioned near the breathing zone of the person (ABS-001-H and ABS-002-H) conducting the above activities. Both high (5 L/min) and low (3 L/min) volume samples were collected to ensure the laboratory would have a backup sample in case the filter for the high volume sample was overloaded, preventing an accurate count of asbestos fibers. However, the laboratory was instructed to analyze one sample from each pair, resulting in a total of two activity-based samples.

Concurrent with the activity-based sampling, two fixed locations were established in the main hallway (018) (ABS-003-H) and in the garage (016) (ABS-004-H) to serve as bystanders. Each bystander location was fitted with two pumps (one calibrated to 5 L/min and one calibrated to 3 L/min). Two samples were collected at each location, but only one was analyzed by the laboratory for reasons described above. The activity-based sampling activities lasted for approximately 2 hours.

Two fixed ambient air monitors were positioned outside the building near broken windows by the garage (016) (AA-001) and boiler room (002) (AA-002) to measure particulate matter escaping the building. Ambient air samples were collected over an approximate 8-hour period which overlapped activity-based air sampling. Quality control samples included a field blank sample and equipment blank. The field blank sample was opened and placed in a plastic bag for the duration of the 8-hour sampling event. The equipment blank was taken directly from the shipment of laboratory provided containers and submitted for analysis.

The above referenced locations (002, 016, and 018) are provided on the Figure in Attachment 1. Photographic documentation of selected sample locations are provided in Appendix C. Asbestos air samples were submitted to Reservoirs Environmental Inc. laboratory in Denver, CO.

3.2 ANALYTICAL RESULTS

Summaries of analytical results compared to the applicable action levels are provided in Sections 3.2.1 through 3.2.4. A summary of waste sample results are provided in Table B-1, asbestos in bulk and waste samples in Table B-2, paint chip results in Table B-3, and asbestos in air results in Table B-4, within Appendix B. Laboratory reports for each sample are provided in Appendix E. Data validation reports are provided in Appendix F.

3.2.1 Waste Sample Results

Six liquid or solid waste samples were analyzed by CT Laboratories for one or more of the following SW-846 methods:

- pH by Method 9045D
- Flashpoint by Method 1010
- Metals and mercury by Method 6010C for metals and Method 7471 for mercury
- PCBs by Method 8082A
- PAHs by Method 8270D

Two of the six liquid or solid waste samples (Waste-003-0815 and Waste-016B-0815) contained chemical concentrations above action levels.

- Waste-003-0815 and its duplicate Waste-003B-0815 (ash from furnace room floor) contained arsenic concentrations of 105 and 94 milligrams per kilogram (mg/kg) which are above the EPA removal management level (RML) of 67 mg/kg.
- Waste-016B-0815 (Containerized Waste labeled “Deo-Quat–C multi-surface disinfectant”) had a flashpoint of 79.3 indicating ignitability per 40 CFR 261, and the PCB Aroclor-1254 concentration of 6.31 mg/kg was above the EPA RML action level of 3.4 mg/kg.

3.2.2 Asbestos Bulk or Waste Sample Results

Twelve bulk or waste samples were analyzed for asbestos by Reservoirs Environmental Inc. laboratories using EPA Method 600/R-93/116. The laboratory separated the three 9 by 9-inch floor tiles into two separate samples, analyzing the adhesive mastic and tile. Four of the twelve bulk or waste samples (Bulk-

010B-0815, Bulk-011A-0815, Bulk-014-0815, and Bulk-016-0815) contained detectable amounts of asbestos.

- Bulk-010B-0815 (9 x 9-inch tan floor tile) contained 10% chrysotile in the black mastic and 12% chrysotile in the tan floor tile.
- Bulk -011A-0815 (9 x 9-inch green floor tile) contained 7% chrysotile in the green floor tile.
- Bulk-014-0815 (deteriorated pipe wrap) contained 70% chrysotile.
- Bulk-016-0815 (bag labeled “Zonolite”) contained trace (<1%) amounts of tremolite and actinolite.

3.2.3 Paint Sample Results

Five paint chip samples were analyzed by CT Laboratories for lead using Method 6010C and PCBs using Method 8082A. Out of the five paint chip samples submitted, all contained either lead or PCB concentrations above their respective action level. Lead concentrations were compared to lead-based paint hazard as defined by 40 CFR Part 745 and PCB concentrations were compared to PCB bulk product waste action level as defined by 40 CFR Part 761.

- Paint-004-0815 (Paint peeling off metal door to furnace room) contained lead at 45,900 mg/kg which exceeded the 5,000 mg/kg action level for lead-based paint hazards.
- Paint-008-0815 (Green and blue peeling paint on maintenance door) contained total a PCB concentration of 253.1 mg/kg which is above the 50 mg/kg PCB bulk product waste action level.
- Paint-015-0815 (Bright blue peeling paint in boy’s bathroom) contained a total PCB concentration of 133.8 mg/kg which is above the 50 mg/kg PCB bulk product waste action level.
- Paint-016-0815 (Orange and white peeling paint on wall of garage) contained a total PCB concentration of 277.3 mg/kg which is above the 50 mg/kg PCB bulk product waste action level.
- Paint-018-0815 (Yellow and green peeling paint on hallway wall) contained lead at 86,400 mg/kg which exceeded the 5,000 mg/kg action level for a lead-based paint hazard.

3.2.4 Asbestos in Air Results

Four activity-based air samples were collected and analyzed for asbestos by Reservoirs Environmental Inc. laboratories using International Standards Organization (ISO) Method 10312 (ABS-001-H through ABS-004-H). The high volume samples (5 L/min) contained the appropriate amount of material on the filter without being overloaded; therefore the collocated low volume samples (3 L/min) were not analyzed. All samples contained low levels of asbestos fibers, but all were below the Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) of 0.1 structures per cubic centimeter (s/cc). However, one sample (ABS-004-H) was damaged and could not be analyzed. Analytical results can be found in the table below.

TABLE 2
ACTIVITY-BASED AIR SAMPLING ANALYTICAL RESULTS

Sample Number	TEM Total Structures	TEM Air Concentration (s/cc)	PCME Total Structures	PCME Air Concentration (s/cc)
ABS-001-H	42	0.017	3	0.0013
ABS-002-H	17	0.0064	1	0.00038
ABS-003-H	17	0.068	1	0.0004
ABS-004-H	Filter Damaged			

Notes:

PCME = Phase Contrast Microscopy Equivalent

s/cc = Structures per cubic centimeter of air

TEM = Transmission Electron Microscopy

Two ambient air samples were collected in conjunction with the activity-based air samples and analyzed by National Institute for Occupational Safety and Health (NIOSH) Method 7400A. These samples were collected at a flow rate of 10 L/min for a duration of 8 hours; the activity-based air sampling occurred during this 8-hour period. Asbestos fibers were not detected in either ambient air sample.

As noted in Section 2.2, conditions inside the building were very wet during the August 20, 2015 sampling event. Resampling during drier conditions is recommended for a complete assessment.

4.0 SUMMARY

EPA and START collected a total of 21 liquid or solid waste, bulk or waste asbestos, and/or paint samples for laboratory analysis during the removal assessment. Laboratory analytical results indicated the following:

- No significant mercury, VOC, or gamma radiation readings were detected during two screening events.
- One waste sample was ignitable and contained PCBs above action levels
- One waste sample with arsenic and PCBs above action levels
- Four bulk asbestos samples contained either chrysotile or tremolite/actinolite asbestos; the asbestos content in these samples ranged from trace (< 1 percent) to 70 percent
- All paint samples contained either lead or PCB concentrations above action levels
- Asbestos was detected in activity-based air samples, but at concentrations below the OSHA PEL
- No asbestos was detected in outdoor ambient air samples

5.0 REFERENCES

- Agency for Toxic Substances and Disease Registry (ATSDR). 2012. Action Levels for Elemental Mercury Spills, Chemical-Specific Health Consultation for Joint EPA/ATSDR Nation Mercury Cleanup Policy Workgroup. March 22. Accessed On-Line:
http://www.atsdr.cdc.gov/emergency_response/Action_Levels_for_Elemental_Mercury_Spills_2012.pdf
- Eagle Environmental Testing, LLC (Eagle). 2011. "Asbestos Survey: Former Marquette School, 317 Dorelle Street, Kewaunee, WI." Prepared for Kewaunee Investors, LLC. March.
- Tetra Tech, Inc. (Tetra Tech) 2015a. "Abbreviated Sampling and Analysis Plan (SAP) for the Kewaunee Marquette School Site." Prepared for EPA under Contract No. EP-S5-13-01. August 10.
- Tetra Tech 2015b. Kewaunee Marquette School Site – Level 2 Health and Safety Plan. Prepared for EPA under Contract No. EP-S5-13-01. July 31.
- U.S. Environmental Protection Agency (EPA). 2015. Technical Direction Document (TDD) S05-1507-001-202, Specific Tasks START 4. July 14.
- Wisconsin Department of Natural Resources (WDNR). 2015. "Case Activity Report for Regulators, Case Title: Former Marquette School/317 Dorelle Street, Kewaunee, WI 54216." June 22.

APPENDIX A
SITE FIGURES



Legend



Approximate Site Boundary

Kewaunee Marquette School Site
Kewaunee, Wisconsin

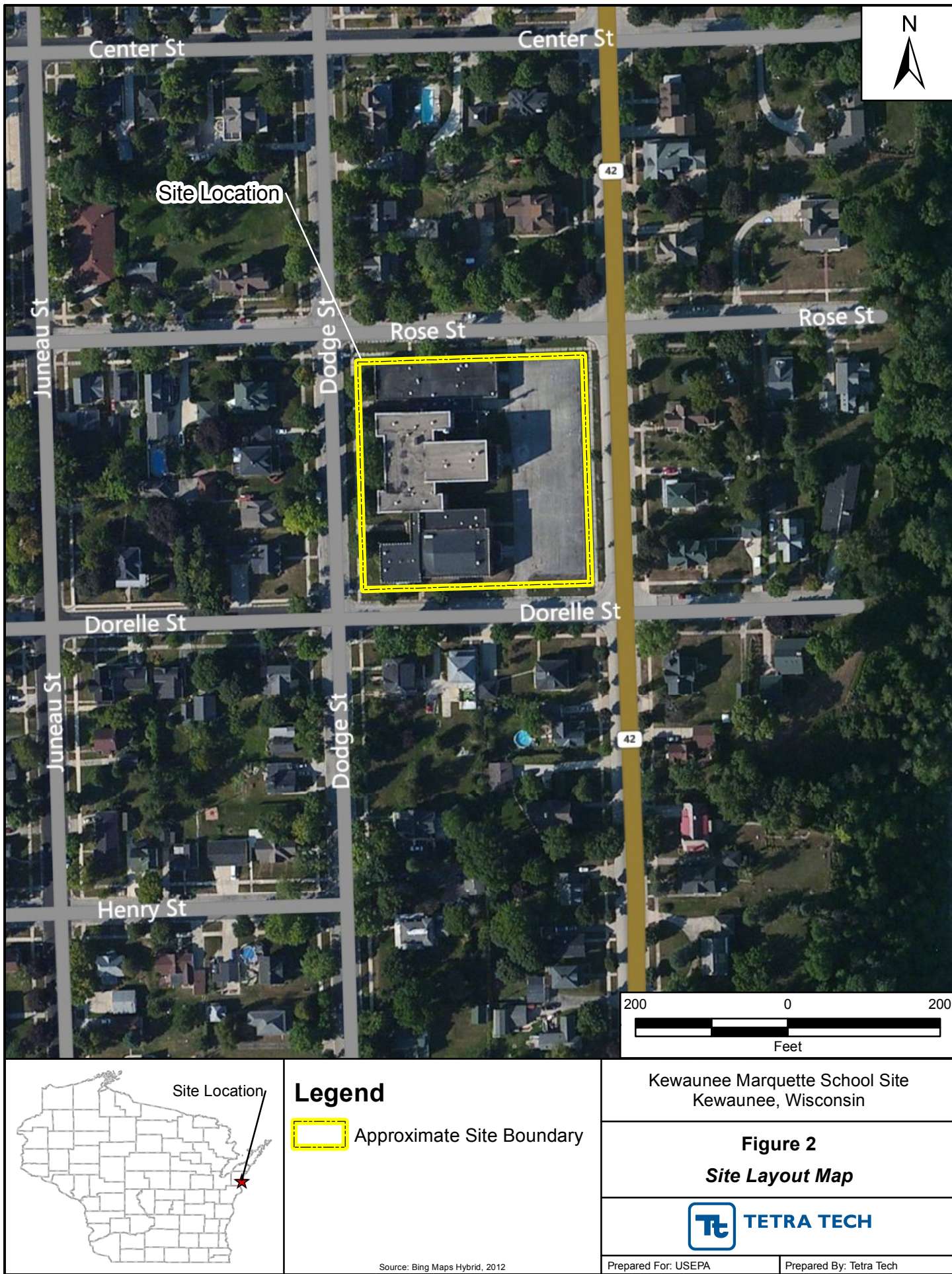
Figure 1
Site Location Map



TETRA TECH

Prepared For: USEPA

Prepared By: Tetra Tech



APPENDIX B
TABLES

Table B-1
Solid and Liquid Waste Analytical Results
Kewaunee Marquette School
Kewaunee, Kewaunee County, Wisconsin

Analyte	Action Level ¹	Units	WASTE-001-0815	WASTE-003-0815	WASTE-003B-0815	WASTE-004-0815	WASTE-008-0815	WASTE-016-0815	WASTE-016B-0815
Physical Chemistry									
pH	≤ 2 or ≥ 12.5	S.U.	7.51	7.49	7.69	7.52	10.94 J	9.66	7.42
Flashpoint	<140	Deg. F	NA	NA	NA	>140	>140	>140	79.3
Metals									
Arsenic	67	mg/kg	11.3	105	94	NA	NA	<3.1 U	<3 U
Barium	46,000	mg/kg	53.4	34	28.5	NA	NA	0.36 J	1.1
Cadmium	210	mg/kg	5.6	1	0.91	NA	NA	<0.15 U	1.7
Chromium	NL	mg/kg	287	13	10.8	NA	NA	<0.54 U	1.7
Lead	400	mg/kg	21.9	27.2	19.6	NA	NA	2.4 J	25.3
Mercury	28	mg/kg	0.036	17.1	17.7	NA	NA	<0.0087 UJ	<0.0087 U
Selenium	1,200	mg/kg	<1.2 U	17.2	13.8	NA	NA	<1.5 UJ	<1.5 U
Silver	1,200	mg/kg	1.4	0.34	<0.3 U	NA	NA	<0.38 U	<0.38 U
Polychlorinated Biphenyls (PCBs)									
Aroclor-1016	12	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	<0.300 U	<2.900 U
Aroclor-1221	15	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	<0.300 U	<2.900 U
Aroclor-1232	15	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	<0.300 U	<2.900 U
Aroclor-1242	24	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	<0.300 U	<2.900 U
Aroclor-1248	24	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	<0.300 U	<2.900 U
Aroclor-1254	3	mg/kg	0.333	0.713	0.505	NA	NA	0.861	6.31
Aroclor-1260	24	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	0.099 J	<2.900 U
Aroclor-1262	NL	mg/kg	0.448	0.537	0.386	NA	NA	<0.300 U	<2.900 U
Aroclor-1268	NL	mg/kg	<0.290 U	<0.280 U	<0.300 U	NA	NA	<0.05 U	<2.900 U
Total PCBs ²	1	mg/kg	0.781	1.25	0.891	NA	NA	0.96	6.31
Polyaromatic Hydrocarbons (PAHs)									
No detections ³									

Notes

Green highlighted cells indicate detection above action level

¹ = Physical Chemistry Action Level based on 40 CFR 261; Total PCBs based on 40 CFR Part 761; PCBs and Metals based on EPA RML for Residential (HQ = 3, Ca = 10⁻⁴)

² = Total PCBs is the sum of all positive detected Aroclors

³ = Waste-016-0815 only sample tested for PAHs

Ca = Cancer risk for carcinogens

HQ = Hazard Quotient for Non-carcinogens

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

mg/kg = milligrams per kilogram

NA = Not analyzed

NL = Not listed

U = The analyte was analyzed for, but was not detected at or above the associated value (reporting limit)

UJ = The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

Table B-2
Bulk Asbestos Analytical Results
Kewaunee Marquette School
Kewaunee, Kewaunee County, Wisconsin

Sample	Physical Description	Layer	Sub Part (%)	Asbestos Content (%)	Mineral
Waste-001-0815	Brown soil debris	A	100	ND	
Bulk-001B-0815	Yellow insulation w/rusty metal	A	100	ND	
Bulk-001C-0815	Yellow insulation w/multi-colored debris	A	100	ND	
Waste-003-0815	Dark grey soil debris	A	100	ND	
Bulk-010A-0815	Beige/white ceiling tile	A	100	ND	
Bulk-010B-0815	Black mastic	A	3	10	Chrysotile
	Tan floor tile	B	97	12	Chrysotile
Bulk-011A-0815	Black mastic	A	3	ND	
	Green floor tile	B	97	7	Chrysotile
Bulk-011B-0815	Black mastic w/tan mastic	A	3	ND	
	Brown/multicolored floor tile	B	97	ND	
Bulk-014-0815	Gray insulation w/ white fibrous woven material	A	100	70	Chrysotile
Bulk-016-0815	Gold/brown vermiculite	A	100	Trace <1%	Tremolite/Actinolite
Bulk-016B-0815	Brown/multicolored rock fragments w/multi-colored debris	A	100	ND	
Bulk-034-0815	White paper	A	100	ND	

Notes:

Green highlighted cells indicate detection

ND = Analyte not detected

Table B-3
Paint Chip Analytical Results
Kewaunee Marquette School
Kewaunee, Kewaunee County, Wisconsin

Analyte	Action Level ¹	Units	PAINT-004-0815	PAINT-008-0815	PAINT-015-0815	PAINT-016-0815	PAINT-018-0815
Metals							
Lead	5,000	mg/kg	45,900	2,510	2,430	3,670	86,400
Polychlorinated Biphenyls (PCBs)							
Aroclor-1016	50	mg/kg	<2.9 U	<29 U	<30 U	<28 U	<2.9 U
Aroclor-1221	50	mg/kg	<2.9 U	<29 U	<30 U	<28 U	<2.9 U
Aroclor-1232	50	mg/kg	<2.9 U	<29 U	<30 U	<28 U	<2.9 U
Aroclor-1242	50	mg/kg	<2.9 U	<29 U	<30 U	<28 U	<2.9 U
Aroclor-1248	50	mg/kg	<2.9 U	<29 U	<30 U	<28 U	<2.9 U
Aroclor-1254	50	mg/kg	12.2	158	109	182	15.9
Aroclor-1260	50	mg/kg	<2.9 U	<29 U	24.8 J	95.3 J	<2.9 U
Aroclor-1262	50	mg/kg	9.52	95.1	<30 U	<28 U	16.3
Aroclor-1268	50	mg/kg	<2.9 U	<29 U	<30 U	<28 U	<2.9 U
Total PCBs ²	50	mg/kg	21.7	253.1	133.8	277.3	32.2

Notes

Green highlighted cells indicate detection above action level

¹ = Lead action level based on lead-based paint hazard as defined by 40 CFR Part 745; PCBs action level based on PCB bulk product waste as defined by 40 CFR Part 761.

² = Total PCBs is the sum of all positive detected Aroclors

Ca = Cancer risk for carcinogens

HQ = Hazard Quotient for Non-carcinogens

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

mg/kg = milligram per kilogram

NL = Not listed

U = The analyte was analyzed for, but was not detected at or above the associated value (reporting limit)

APPENDIX C
PHOTOGRAPHIC DOCUMENTATION



Photographic Documentation

Client: U.S. EPA Region 5

Site Name: Kewaunee Marquette School

Location: 317 Dorelle Street, Kewaunee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1507-202

Dates: August 2015

Photograph No. 1

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (North) EPA collecting Paint-018-0815 sample. Sample collected of yellow and green peeling paint in foreground.



Photograph No. 2

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (South) Blue box in foreground is fixed bystander sample ABS-003-H.





Photographic Documentation

Client: U.S. EPA Region 5

Site Name: Kewaunee Marquette School

Location: 317 Dorelle Street, Kewaunee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1507-202

Dates: August 2015

Photograph No. 3

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (West). Spilled material in garage (016) leading to sewer system. EPA deployed boom to prevent product from entering sewer.



Photograph No. 4

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (East) EPA collected Waste-001-0815 sample from boiler room floor.





Photographic Documentation

Client: U.S. EPA Region 5

Site Name: Kewaunee Marquette School

Location: 317 Dorelle Street, Kewaunee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1507-202

Dates: August 2015

Photograph No. 5

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (Southeast)
Sample Bulk-011A-0815 and
Bulk-011B-0815 collected of
green and tan 8 by 8-inch
floor tile in foreground.



Photograph No. 6

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (Southeast) EPA
collecting Bulk-016B-0815.
Orange paint in background
was same paint as Paint-016-
0815.





Photographic Documentation

Client: U.S. EPA Region 5

Site Name: Kewaunee Marquette School

Location: 317 Dorelle Street, Kewaunee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1507-202

Dates: August 2015

Photograph No. 7

Photographer:

Robert Kondreck

Date: 8/20/2015

Description: (Southwest)

Ambient air monitoring (AA-001) next to the garage door. Black bag is protecting pump while allowing the sample to be collected.



Photograph No. 8

Photographer:

Chris Burns

Date: 8/20/2015

Description: (East) Evidence of trespassing within one of the second floor classrooms





Photographic Documentation

Client: U.S. EPA Region 5

Site Name: Kewaunee Marquette School

Location: 317 Dorelle Street, Kewaunee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1507-202

Dates: August 2015

Photograph No. 9

Photographer:

Chris Burns

Date: 8/20/2015

Description: (West) Activity based sampling conducted throughout the building (trespassing scenario).



Photograph No. 10

Photographer:

Chris Burns

Date: 8/20/2015

Description: (North)
Evidence of trespassing on second floor.





Photographic Documentation

Client: U.S. EPA Region 5

Site Name: Kewaunee Marquette School

Location: 317 Dorelle Street, Kewaunee, WI

Prepared by: Tetra Tech, Inc.

TDD Number: S05-0001-1507-202

Dates: August 2015

Photograph No. 11

Photographer:

Chris Burns

Date: 8/20/2015

Description: (East) Pipe wrap warning within kitchen area on first floor.



Photograph No. 12

Photographer:

Chris Burns

Date: 8/20/2015

Description: (Northeast)
Evidence of trespassing on second floor.



APPENDIX D
START FIELD NOTES

0800 EPA (Hazard & Benkel) & Start
(Kondrack) on the ~~Start~~ Ste. Safety
meeting (see form) _____

0828 Order on-site to sign access agreement for preliminary investigation. No roof collapse

0832 Over leaves st. (ERK Newman)

Brookline, Massachusetts Police assist to talk to OSC
center Weather Survey 62° light breeze
to east. Piro Calibrated by EPA
Placed beer around sensor in garage, collect
pictures of oil; _____

Paint $\times 3$ Spilled Solvent (went to Spill Kit)

Sample Oil (group)

The metal (bath room)

Asbestos Zonolite (gargoyle), Garbage Bay (gargoyle)

The (re-bell)

Brick (in front room)

Maths (in science room)

Pipe wrap at front end

Observed heavily moldy room, contained waste spilled

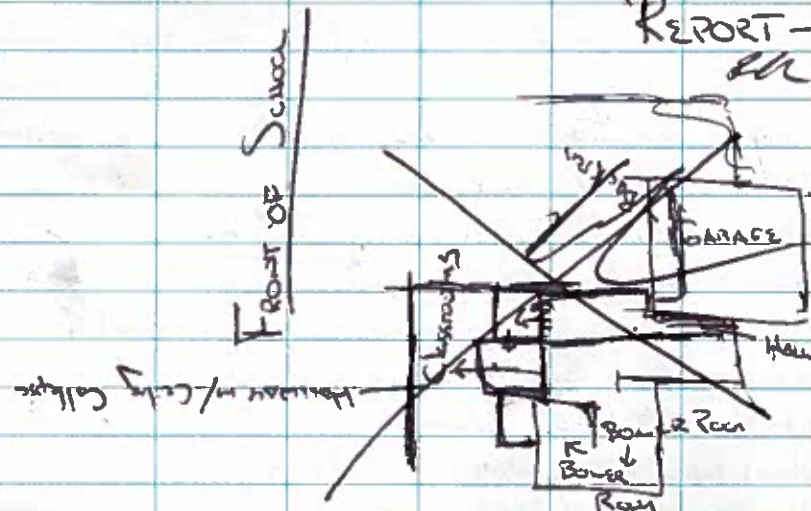
* Listed material above is planned samples during the investigation

8-5-15

AD

* Not to Scale

— SEE MAP IN ASSESSMENT
REPORT —
OK



0951 VOCs Xppm; TSS 3505 Oglf
* Gamma & background ~4.5

Sample Point for lead ~~test~~ ⁴ PCBs
mercury? asbestos

1017 leave S. 12

8-5-15

Rite in the Rain

8-20-15

0730 EPA (Hawz & Bahrke), Start (Brew & Kundel)
 WDRR (Boggs) onsite H&S Overt Cloudy
 Setup pumps. All pump monitoring within
 below: see map for sampling locations ie
 Lake-016 OBS refers to Pump "016" to

Ambient Air sample pump 1

Start Flow 10.02 L/min

Start Time 0805 AM

Stop Flow 9.95 L/min

Stop time

7.5 hrs

Ambient Air Sample pump 2

Start Flow 10.03 L/min

Start time 0812 AM

Stop Flow 9.80 L/min

Stop time

8 hrs

TTGP4

Start Flow - 4.6 L/min

Start Time - NA

Stop Flow - 4.25 L/min

Stop time - NA

120 min

TTGP5

Start Flow

Start time

Stop Flow

Stop time

N/A

8-20-15

Keweenaw Marquette

Gilman 610-0801-01 U60203X U60425X

Start Flow 3.01 L/min

Start time NA

Stop Flow 3.01 L/min

120 min

Stop time NA

381 L

Gilman

Gilman U60203X

Start Flow 4.51 L/min

Stop Flow

Start time

End time

BROKE

Gilman U60430X

Start Flow - 4.400 L/min

Start Time NA

120 min

Stop Flow 4.4 L/min

550 L

Stop Time NA

Gilman U60208X

Start Flow - 3.0 L/min

Start Time NA

Stop Flow 3.0 L/min

120 min

Stop time NA

375 L

ABS-003-H

Start Flow 10.03 L/min Stop Flow 9.95

Start Time

Stop time

1h 47m

Rite in the Rain

Keweenaw - Margaret 8-20-15

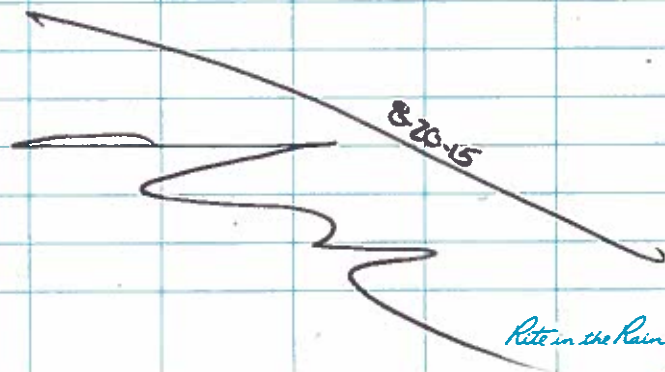
1205 Bulk-011-0815 collect of green tile w/
discontinuing white striations 9x9"

1206 Bulk-011a-0815 As Above except red

1208 P. pump which corrugated on one side
and smooth on opposite side In room with
circuit breakers, Hot water pipe? ✓
Bulk-014-0815 ✓1218 Bulk-001b-0815 collect of insulation around
boiler white & yellow some discoloration 2" line1220 Bulk-001c-0815 collect of pipe
wrap in boiler room on east side pipe
is cut also on the floor white outer
wrapping on 4" line approx 2" of insulation1227 Bulk-034-0815 Collect of pipe wrap
found in sub-torion pipe rolled over
2" non-erzht pipe in middle of room
with little evidence of where it came from1235 Bulk-016-0815 of sand spilled by tires
next to door by garage possible being
used as spill cleanup ✓1238 Paint-016-0815 of Orange & white
paint found in garage next to entrance door
PCBs + lead 8-20-15

Keweenaw - Margaret

8-20-15

1240 Waste-016b-0815 collect of
contaminated waste Designated
multi-surface disinfectant, black more
viscous than water most likely not white
bottle is labeled due to appearance (black)Backlog Waste-0038-0815 a duplicate
sample ✓1320 Lunch ✓1400 End lunch, waiting for asbestos
sample to finish filling out COC &
packaging samples Waste leaves ✓Backlog PID no readings 0.0 ppm, & Mercury
at highest level and 200 ng/m³
in the (119) ~~lab~~ lab room emptied
out. Calibrated both meters prior to
use ✓1621 Leave site ✓

APPENDIX E
LABORATORY REPORTS

ANALYTICAL RESULTS FOR:

**ROBERT KONDRECK
TETRA TECH
1 S WACKER DRIVE
CHICAGO, IL 60606**

PROJECT SITE: KEWAUNEE MARQUETTE SCHOOL,
KEWAUNEE, WI

DOD CONTRACT #:

PROJECT #:

SDG: 113433

PREPARED: September 17, 2015

TOTAL # OF PAGES IN THIS DOCUMENT: 1095

The data contained in the following report have been reviewed by the appropriate CT Laboratories' LLC staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: 
LABORATORY DIRECTOR

APPROVED BY: 
QA OFFICER

APPROVED BY: 
PROJECT MANAGER

Certifications: IL (NELAP 002413), KS (NELAP E-10368), KY (0023), NC (674), WI (157066030), DOD ELAP (A2LA 3806.01), VA (7608), MD (344), LA (NELAP 115843), ISO17025 (A2LA 3806.01, GA EDP Stipulation (Accreditor: LA NELAP, ACC#: E971111, Scope: Non-potable water solid and chemical materials, biological tissue, Effective: 12/10/2014, Expires: annually)

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Table of Contents

Section	Page
Cover Page.....	1
Table of Contents.....	2
Case Narrative and Summary of Detects (if applicable).....	3
Data Qualifier Sheet	7
Sample Delivery Group Summary	9
QC Batch Cross Reference	10
SVOC QC Summary Documents	12
SVOC Sample Data Documents	29
SVOC ICAL Documents.....	38
SVOC CCV Documents.....	128
SVOC QC Documents	140
SVOC Logbook Documents	151
PCB QC Summary Documents.....	165
PCB Sample Data Documents	186
PCB ICAL Documents	239
PCB CCV Documents	406
PCB QC Documents.....	437
PCB Logbook Documents.....	450
Metals CLP Forms Documents.....	474
Metals Raw Data Documents	574
Metals Logbook Documents	855
Inorganic CLP Forms Documents.....	1043
Inorganic Raw Data Documents.....	1064
Inorganic Logbook Documents.....	1068
Chain of Custody, PM Confirmation and Sample Condition Forms.....	1082

Client: Tetra Tech

Project: Kewaunee Marquette School, Kewaunee, WI

Sample Receipt Date(s): 08/21/2015

SDG #: 113433

Five paint and seven waste samples were received and analyzed for PCB, pH, flashpoint, SVOC, and metals analysis. The assigned sample ID numbers, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits.

Sample Analysis and Quality Control

SVOC Analysis:

The samples were analyzed using US EPA Method 8270. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

- Surrogate Recovery Data
- Matrix Spike/Matrix Spike Duplicate Recovery Data
- Laboratory Control Spike Data
- Method Blank Data
- Initial Calibration Summary
- Calibration Check Summary
- Analysis Run Log
- Prep Log
- Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

8270 analysis

Detailed reports were provided for the 8270 data for all detected compounds, as well as, for those compounds manually integrated (if applicable). Compounds not reported on the form 1's were either not detected or did not meet identification criteria so they were reported as non-detects.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, a reason #(s) was included on the raw data that corresponds to the "Index Key for Manual Integration Rationale". The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Analytical run 118513 (Soil):

The sample was extracted using waste dilution method with final volume of extract at 10ml. The surrogate amount was adjusted in LIMS accordingly.

Client: Tetra Tech

Project: Kewaunee Marquette School, Kewaunee, WI

Sample Receipt Date(s): 08/21/2015

SDG #: 113433

PCB Analysis:

The samples were analyzed using US EPA Method 8082A. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data

Matrix Spike/Matrix Spike Duplicate Recovery Data

Laboratory Control Spike Data

Method Blank Data

Initial Calibration Summary

Calibration Check Summary

Analysis Run Log

Prep Log

Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

Run 118271 PCB

The CCV's #56 and #68 on sequence 090115pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV's #3, #15, #38, #52, and #72 on sequence 090215pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV #65 on sequence 090215pcb had one peak for 1260 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

Samples 625794 and 625783 were outside QC limits for surrogate recovery, possibly due to matrix. They were "S" flagged.

Sample 625783 was run at a 1:20 dilution due to matrix. It was also "V" flagged for no detects.

Run 118277 PCB

The CCV's #56 and #68 on sequence 090115pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV's #3, #15, #38, #52, and #72 on sequence 090215pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV #65 on sequence 090215pcb had one peak for 1260 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The MS/MSD, performed on sample 623730, were above QC limits for spike recovery of 1016 and 1260. The parent sample was not flagged, due to no detects for 1016 or 1260.

Sample 623731 was outside QC limits for surrogate recovery, possibly due to matrix. It was "S" flagged.

Samples 623728, 623729, and 623732 were "D" flagged for surrogate recovery due to 1:100 dilutions.

Client: Tetra Tech

Project: Kewaunee Marquette School, Kewaunee, WI

Sample Receipt Date(s): 08/21/2015

SDG #: 113433

Metals Analysis:

The samples were analyzed using US EPA SW-846 methodology 6010C for the ICP metals and 7471 for the mercury. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification

Blanks Summary

ICP Interference Check Data

Spike Sample Recovery

Duplicates Data

Laboratory Control Sample Data

Analysis Run Log

All analysis results met the method specified quality control criteria with the following exceptions:

ICP Metals Analyses

Continuing Calibration Verification (CCV) standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

Analytical Run # 118178

Chromium and silver were detected in the Method Blank (MB) greater than the Method Detection Limit (MDL) but less than ½ the Reporting Limit (RL). Affected samples were reported and qualified with a "B" flag when the MB result was greater than 1/10th of the sample results.

The Serial Dilution (L) for sample # 623727 was not applicable because the parent sample raw results were less than 50 times the Limit of Quantitation (LOQ). A Post Digestion Spike (PDS) was analyzed and was unacceptable for lead. The parent sample was reported and qualified with an "M" flag for lead.

The Duplicate (DUP) for sample # 623727 was not applicable because the parent sample results were less than five times the LOQ. A Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

The Matrix Spike (MS) and MSD for sample # 623727 exceeded the recovery limit for selenium. A PDS was analyzed and was acceptable for selenium. The parent sample was reported and not qualified.

The L for sample # 623730 was not acceptable for lead because the result exceeded the Relative Percent Difference (RPD) limit. A PDS was analyzed and was unacceptable. The parent sample was reported and qualified with an "M" flag.

The MS and MSD for sample # 623730 exceeded the recovery limit for lead. A PDS was analyzed and was unacceptable. The parent sample was reported and qualified with an "M" flag for lead.

Client: Tetra Tech
Project: Kewaunee Marquette School, Kewaunee, WI
Sample Receipt Date(s): 08/21/2015
SDG #: 113433

Metals Analysis Continued:

CVAA Mercury Analysis

Analytical Run # 118139

The DUP for sample # 623727 was not applicable for mercury because the parent sample result was less than five times the LOQ. An MSD was analyzed to demonstrate precision and was acceptable. The parent sample was reported without qualification.

The MSD for sample # 623727 exceeded the recovery limit for mercury. The parent sample was reported and qualified with an "M" flag for mercury.

Inorganic Analyses:

The samples were analyzed using US EPA Methods 9045D and 1010. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Duplicate Analysis Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log

All analysis results met the method specified quality control criteria with the following exceptions:

Flashpoint Analyses

Analytical Run # 118112

All analysis results for this SDG met the method/project specified quality control criteria.

pH Analyses

Analytical Run # 118263

Sample # 623650 outside pH meter calibration range. Sample "X" flagged.

% Solids Analyses

Analytical Run # 118074

All analysis results for this SDG met the method/project specified quality control criteria.

Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: Data system failed to select the correct peak or missed the peak entirely.

In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.

This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.

For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.

There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.

Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the QA/QC Supervisor will be required.

Sample Delivery Group
113433

TETRA TECH
 ROBERT KONDRACK
 1 S WACKER DRIVE
 SUITE 3700
 CHICAGO, IL 60606

Project Name: KEWAUNEE MARQUETTE SCHOOL
 Project #:

CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
623650	113433		WASTE-008-0815	WASTE	08/20/2015	08/21/2015
623727	113433		WASTE-016-0815	WASTE	08/20/2015	08/21/2015
623728	113433		PAINT-008-0815	SOIL	08/20/2015	08/21/2015
623729	113433		PAINT-015-0815	SOIL	08/20/2015	08/21/2015
623730	113433		PAINT-018-0815	SOIL	08/20/2015	08/21/2015
623731	113433		PAINT-004-0815	SOIL	08/20/2015	08/21/2015
623732	113433		PAINT-016-0815	SOIL	08/20/2015	08/21/2015
623733	113433		WASTE-003-0815	WASTE	08/20/2015	08/21/2015
623734	113433		WASTE-003B-0815	WASTE	08/20/2015	08/21/2015
623735	113433		WASTE-001-0815	WASTE	08/20/2015	08/21/2015
623736	113433		WASTE-004-0815	WASTE	08/20/2015	08/21/2015
623737	113433		WASTE-016B-0815	WASTE	08/20/2015	08/21/2015

QC Batch Cross Reference Summary

Page 1 of 2

TETRA TECH
 ROBERT KONDRACK
 1 S WACKER DRIVE
 SUITE 3700
 CHICAGO, IL 60606

Project Name: KEWAUNEE MARQUETTE SC
 Project #:
 Report Date: 09/11/2015
 Date Received: 08/21/2015
 SDG #: 113433

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623728	Solids, Percent	EPA 8000C	SOIL		118074
623729	Solids, Percent	EPA 8000C	SOIL		118074
623730	Solids, Percent	EPA 8000C	SOIL		118074
623731	Solids, Percent	EPA 8000C	SOIL		118074
623732	Solids, Percent	EPA 8000C	SOIL		118074
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623650	pH	EPA 9040C	WASTE		118263
623727	pH	EPA 9040C	WASTE		118263
623733	pH	EPA 9040C	WASTE		118263
623734	pH	EPA 9040C	WASTE		118263
623735	pH	EPA 9040C	WASTE		118263
623736	pH	EPA 9040C	WASTE		118263
623737	pH	EPA 9040C	WASTE		118263
CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623650	Flashpoint	EPA 1010	WASTE		118112
623727	Flashpoint	EPA 1010A	WASTE		118112
623736	Flashpoint	EPA 1010	WASTE		118112
623737	Flashpoint	EPA 1010	WASTE		118112

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623727	ICP Metals QSM	EPA 6010C	WASTE	53962	118178
623728	ICP Metals QSM	EPA 6010C	SOIL	53962	118178



Project Name: KEWAUNEE MARQUETTE SC
 Project #:
 SDG #: 113433

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623729	ICP Metals QSM	EPA 6010C	SOIL	53962	118178
623730	ICP Metals QSM	EPA 6010C	SOIL	53962	118178
623731	ICP Metals QSM	EPA 6010C	SOIL	53962	118178
623732	ICP Metals QSM	EPA 6010C	SOIL	53962	118178
623733	ICP Metals QSM	EPA 6010C	WASTE	53962	118178
623734	ICP Metals QSM	EPA 6010C	WASTE	53962	118178
623735	ICP Metals QSM	EPA 6010C	WASTE	53962	118178
623737	ICP Metals QSM	EPA 6010C	WASTE	53962	118178
623727	ICP Metals QSM	EPA 6010C	WASTE	53962	118178
623737	ICP Metals QSM	EPA 6010C	WASTE	53962	118178

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623727	Mercury QSM	EPA 7471B	WASTE	53928	118139
623733	Mercury QSM	EPA 7471B	WASTE	53928	118139
623734	Mercury QSM	EPA 7471B	WASTE	53928	118139
623735	Mercury QSM	EPA 7471B	WASTE	53928	118139
623737	Mercury QSM	EPA 7471B	WASTE	53928	118139

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623727	SVOC 8270 QSM	EPA 8270D	WASTE	53971	118513

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
623727	PCB	EPA 8082A	WASTE	53921	118271
623728	PCB	EPA 8082A	SOIL	53929	118277
623729	PCB	EPA 8082A	SOIL	53929	118277
623730	PCB	EPA 8082A	SOIL	53929	118277
623731	PCB	EPA 8082A	SOIL	53929	118277
623732	PCB	EPA 8082A	SOIL	53929	118277
623733	PCB	EPA 8082A	WASTE	53921	118271
623734	PCB	EPA 8082A	WASTE	53921	118271
623735	PCB	EPA 8082A	WASTE	53921	118271
623737	PCB	EPA 8082A	WASTE	53921	118271

**SEMI-VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL SUMMARY
DOCUMENTS**



1B

SEMIVOLATILE ORGANICS ANALYSIS

Sample Description

WASTE-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>WASTE</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.02</u> (g/L)	CTL Sample ID:	<u>623727</u>
% Solids:		Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10.0</u> (mL)	Date/Time Prepared:	<u>08/31/2015 / 8:45</u>
Analytical Method:	<u>EPA 8270D</u>	Analytical Prep Batch #	<u>53971</u>
Analytical Run #:	<u>118513</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>09/09/2015 / 11:59</u>	GPC Cleanup Date/Time:	<u>/</u>
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):		<u>/</u>	
ICAL Calibration #:	<u>1S081715</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
90-12-0	1-Methylnaphthalene	5900	U	2500	5900	12000	12000
91-57-6	2-Methylnaphthalene	5900	U	2500	5900	12000	12000
83-32-9	Acenaphthene	5900	U	2400	5900	12000	12000
208-96-8	Acenaphthylene	5900	U	2400	5900	12000	12000
120-12-7	Anthracene	5900	U	2400	5900	12000	12000
56-55-3	Benzo(a)anthracene	5900	U	2500	5900	12000	12000
50-32-8	Benzo(a)pyrene	5900	U	2300	5900	12000	12000
205-99-2	Benzo(b)fluoranthene	5900	U	2500	5900	12000	12000
191-24-2	Benzo(g,h,i)perylene	5900	U	2200	5900	12000	12000
207-08-9	Benzo(k)fluoranthene	5900	U	2500	5900	12000	12000
218-01-9	Chrysene	5900	U	2500	5900	12000	12000
53-70-3	Dibenzo(a,h)anthracene	5900	U	2200	5900	12000	12000
206-44-0	Fluoranthene	5900	U	2500	5900	12000	12000
86-73-7	Fluorene	5900	U	2500	5900	12000	12000
91-20-3	Naphthalene	5900	U	2100	5900	12000	12000
85-01-8	Phenanthrene	5900	U	2500	5900	12000	12000
129-00-0	Pyrene	5900	U	2500	5900	12000	12000



1B-2

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC)

Sample Description

METHOD BLANK

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u></u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.00</u> (g/L)	CTL Sample ID:	<u>625718</u>
% Solids:	<u></u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>1.0</u> (mL)	Date/Time Prepared:	<u>08/31/2015 / 8:45</u>
Analytical Method:	<u>EPA 8270D</u>	Analytical Prep Batch #	<u>53971</u>
Analytical Run #:	<u>118513</u>	Dilution Factor:	<u>1.00</u>
Cleanup Date/Time/Type:	<u></u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>1S081715</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
120-82-1	1,2,4-Trichlorobenzene	09/09/2015	11:19	21	U	21	120	60
95-50-1	1,2-Dichlorobenzene	09/09/2015	11:19	24	U	24	120	60
541-73-1	1,3-Dichlorobenzene	09/09/2015	11:19	20	U	20	120	60
106-46-7	1,4-Dichlorobenzene	09/09/2015	11:19	19	U	19	120	60
90-12-0	1-Methylnaphthalene	09/09/2015	11:19	25	U	25	120	60
95-95-4	2,4,5-Trichlorophenol	09/09/2015	11:19	130	U	130	600	300
88-06-2	2,4,6-Trichlorophenol	09/09/2015	11:19	130	U	130	600	300
120-83-2	2,4-Dichlorophenol	09/09/2015	11:19	120	U	120	600	300
105-67-9	2,4-Dimethylphenol	09/09/2015	11:19	99	U	99	600	300
51-28-5	2,4-Dinitrophenol	09/09/2015	11:19	270	U	270	1000	500
121-14-2	2,4-Dinitrotoluene	09/09/2015	11:19	24	U	24	120	60
87-65-0	2,6-Dichlorophenol	09/09/2015	11:19	140	U	140	600	300
606-20-2	2,6-Dinitrotoluene	09/09/2015	11:19	24	U	24	120	60
91-58-7	2-Chloronaphthalene	09/09/2015	11:19	23	U	23	120	60
95-57-8	2-Chlorophenol	09/09/2015	11:19	340	U	340	2000	1000
91-57-6	2-Methylnaphthalene	09/09/2015	11:19	25	U	25	120	60
95-48-7	2-Methylphenol	09/09/2015	11:19	420	U	420	2000	1000
88-74-4	2-Nitroaniline	09/09/2015	11:19	23	U	23	120	60
88-75-5	2-Nitrophenol	09/09/2015	11:19	280	U	280	1000	500
1319-77-3	3 & 4-Methylphenol	09/09/2015	11:19	650	U	650	3600	1800
91-94-1	3,3'-Dichlorobenzidine	09/09/2015	11:19	150	U	150	500	250
99-09-2	3-Nitroaniline	09/09/2015	11:19	22	U	22	120	60
534-52-1	4,6-Dinitro-2-methylphenol	09/09/2015	11:19	270	U	270	1000	500



1B-2

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: _____ SDG No.: 113433

Sample wt/vol: 1.00 (g/L) CTL Sample ID: 625718

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 1.0 (mL) Date/Time Prepared: 08/31/2015 / 8:45

Analytical Method: EPA 8270D Analytical Prep Batch # 53971

Analytical Run #: 118513 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 1S081715 Concentration Units: ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
101-55-3	4-Bromophenyl-phenyl ether	09/09/2015	11:19	25	U	25	120	60
59-50-7	4-Chloro-3-methylphenol	09/09/2015	11:19	380	U	380	2000	1000
106-47-8	4-Chloroaniline	09/09/2015	11:19	39	U	39	200	100
7005-72-3	4-Chlorophenyl-phenyl ether	09/09/2015	11:19	26	U	26	120	60
100-01-6	4-Nitroaniline	09/09/2015	11:19	30	U	30	120	60
100-02-7	4-Nitrophenol	09/09/2015	11:19	400	U	400	2000	1000
83-32-9	Acenaphthene	09/09/2015	11:19	24	U	24	120	60
208-96-8	Acenaphthylene	09/09/2015	11:19	24	U	24	120	60
98-86-2	Acetophenone	09/09/2015	11:19	75	U	75	400	200
62-53-3	Aniline	09/09/2015	11:19	31	U	31	120	60
120-12-7	Anthracene	09/09/2015	11:19	24	U	24	120	60
103-33-3/122-66-7	Azobenzene & 1,2-Diphenylhydra	09/09/2015	11:19	55	U	55	240	120
92-87-5	Benzidine	09/09/2015	11:19	950	U	950	5000	2500
56-55-3	Benzo(a)anthracene	09/09/2015	11:19	25	U	25	120	60
50-32-8	Benzo(a)pyrene	09/09/2015	11:19	23	U	23	120	60
205-99-2	Benzo(b)fluoranthene	09/09/2015	11:19	25	U	25	120	60
191-24-2	Benzo(g,h,i)perylene	09/09/2015	11:19	22	U	22	120	60
207-08-9	Benzo(k)fluoranthene	09/09/2015	11:19	25	U	25	120	60
65-85-0	Benzoic acid	09/09/2015	11:19	291	U	291	3000	1500
100-51-6	Benzyl alcohol	09/09/2015	11:19	83	U	83	400	200
111-91-1	Bis(2-chloroethoxy)methane	09/09/2015	11:19	23	U	23	120	60
111-44-4	Bis(2-chloroethyl)ether	09/09/2015	11:19	25	U	25	120	60
108-60-1	Bis(2-chloroisopropyl)ether	09/09/2015	11:19	30	U	30	120	60

Sample Description

METHOD BLANK

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
117-81-7	Bis(2-ethylhexyl)phthalate	09/09/2015	11:19	87	U	87	400	200
85-68-7	Butylbenzylphthalate	09/09/2015	11:19	73	U	73	400	200
86-74-8	Carbazole	09/09/2015	11:19	28	U	28	120	60
218-01-9	Chrysene	09/09/2015	11:19	25	U	25	120	60
53-70-3	Dibenzo(a,h)anthracene	09/09/2015	11:19	22	U	22	120	60
132-64-9	Dibenzofuran	09/09/2015	11:19	24	U	24	120	60
84-66-2	Diethylphthalate	09/09/2015	11:19	64	U	64	400	200
131-11-3	Dimethylphthalate	09/09/2015	11:19	63	U	63	400	200
84-74-2	Di-n-butylphthalate	09/09/2015	11:19	79	U	79	400	200
117-84-0	Di-n-octylphthalate	09/09/2015	11:19	59	U	59	200	100
206-44-0	Fluoranthene	09/09/2015	11:19	26	U	26	120	60
86-73-7	Fluorene	09/09/2015	11:19	25	U	25	120	60
118-74-1	Hexachlorobenzene	09/09/2015	11:19	28	U	28	120	60
87-68-3	Hexachlorobutadiene	09/09/2015	11:19	62	U	62	400	200
77-47-4	Hexachlorocyclopentadiene	09/09/2015	11:19	52	U	52	200	100
67-72-1	Hexachloroethane	09/09/2015	11:19	33	U	33	120	60
193-39-5	Indeno(1,2,3-cd)pyrene	09/09/2015	11:19	23	U	23	120	60
78-59-1	Isophorone	09/09/2015	11:19	50	U	50	200	100
91-20-3	Naphthalene	09/09/2015	11:19	21	U	21	120	60
98-95-3	Nitrobenzene	09/09/2015	11:19	59	U	59	200	100
62-75-9	N-Nitrosodimethylamine	09/09/2015	11:19	78	U	78	400	200
621-64-7	N-Nitroso-di-n-propylamine	09/09/2015	11:19	70	U	70	400	200
86-30-6/122-39-4	N-Nitrosodiphenylamine & Diphn	09/09/2015	11:19	50	U	50	240	120

SEMIVOLATILE ORGANICS ANALYSIS (MB or CC)

Sample Description

METHOD BLANK

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: _____ SDG No.: 113433

Sample wt/vol: 1.00 (g/L) CTL Sample ID: 625718

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 1.0 (mL) Date/Time Prepared: 08/31/2015 / 8:45

Analytical Method: EPA 8270D Analytical Prep Batch # 53971

Analytical Run #: 118513 Dilution Factor: 1.00

Cleanup Date/Time/Type: _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 1S081715 Concentration Units: ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
930-55-2	N-Nitrosopyrrolidine	09/09/2015	11:19	56	U	56	200	100
87-86-5	Pentachlorophenol	09/09/2015	11:19	240	U	240	1000	500
85-01-8	Phenanthrene	09/09/2015	11:19	26	U	26	120	60
108-95-2	Phenol	09/09/2015	11:19	160	U	160	600	300
129-00-0	Pyrene	09/09/2015	11:19	26	U	26	120	60
110-86-1	Pyridine	09/09/2015	11:19	39	U	39	200	100

2D

SOIL SEMI VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Analytical Method: EPA 8270D SDG: 113433

Analytical Run #: 118513 ICAL Calibration #: 1S081715

CTLab #	623727				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	79	70	130	
Surr: 2-Fluorobiphenyl	100	103	70	130	
Surr: 2-Fluorophenol	100	81	70	130	
Surr: Nitrobenzene-d5	100	79	70	130	
Surr: Phenol-d5	100	73	70	130	
Surr: Terphenyl-d14	100	96	70	130	

CTLab #	625718	Sample Type:	Method Blank		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	92.6	35	125	
Surr: 2-Fluorobiphenyl	100	89.1	45	105	
Surr: 2-Fluorophenol	100	86.9	35	105	
Surr: Nitrobenzene-d5	100	99.2	35	100	
Surr: Phenol-d5	100	89.2	40	100	
Surr: Terphenyl-d14	100	86.7	30	125	

CTLab #	625719	Sample Type:	Lab Control Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	87.3	35	125	
Surr: 2-Fluorobiphenyl	100	81.5	45	105	
Surr: 2-Fluorophenol	100	72.6	35	105	
Surr: Nitrobenzene-d5	100	84.7	35	100	
Surr: Phenol-d5	100	70.9	40	100	
Surr: Terphenyl-d14	100	84.9	30	125	

CTLab #	625784				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	0	70	130	FAIL
Surr: 2-Fluorobiphenyl	100	0	70	130	FAIL
Surr: 2-Fluorophenol	100	0	70	130	FAIL
Surr: Nitrobenzene-d5	100	0	70	130	FAIL
Surr: Phenol-d5	100	0	70	130	FAIL
Surr: Terphenyl-d14	100	0	70	130	FAIL

CTLab #	625786				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: 2,4,6-Tribromophenol	100	88	70	130	
Surr: 2-Fluorobiphenyl	100	102	70	130	
Surr: 2-Fluorophenol	100	85	70	130	
Surr: Nitrobenzene-d5	100	87	70	130	
Surr: Phenol-d5	100	87	70	130	
Surr: Terphenyl-d14	100	98	70	130	

3D

Sample Description

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 Sample No.: 625719 SDG No.: 113433
 Analytical Method: EPA 8270D Concentration Units: ug/kg

Sample No.: 625719 Parent Sample No.: 0
 Analytical Prep Batch #: 53971 Analytical Preparation Date/Time: 08/31/2015 8:45
 Analytical Run #: 118513 ICAL Calibration #: 1S081715

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
1,2,4-Trichlorobenzene	09/09/2015	11:39	45-110	16900		20000	84
1,2-Dichlorobenzene	09/09/2015	11:39	45-95	15400		20000	77
1,3-Dichlorobenzene	09/09/2015	11:39	40-100	15300		20000	76
1,4-Dichlorobenzene	09/09/2015	11:39	35-105	15200		20000	76
1-Methylnaphthalene	09/09/2015	11:39	45-100	16400		20000	82
2,4,5-Trichlorophenol	09/09/2015	11:39	50-110	15300		20000	76
2,4,6-Trichlorophenol	09/09/2015	11:39	45-110	16600		20000	83
2,4-Dichlorophenol	09/09/2015	11:39	45-110	17200		20000	86
2,4-Dimethylphenol	09/09/2015	11:39	30-105	16400		20000	82
2,4-Dinitrophenol	09/09/2015	11:39	15-130	15700		20000	78
2,4-Dinitrotoluene	09/09/2015	11:39	50-115	16500		20000	82
2,6-Dichlorophenol	09/09/2015	11:39	44-100	13600		20000	68
2,6-Dinitrotoluene	09/09/2015	11:39	49-108	16500		20000	82
2-Chloronaphthalene	09/09/2015	11:39	45-105	13800		20000	69
2-Chlorophenol	09/09/2015	11:39	45-105	15000		20000	75
2-Methylnaphthalene	09/09/2015	11:39	45-105	16200		20000	81
2-Methylphenol	09/09/2015	11:39	40-105	14800		20000	74
2-Nitroaniline	09/09/2015	11:39	45-120	15500		20000	78
2-Nitrophenol	09/09/2015	11:39	40-110	17400		20000	87
3 & 4-Methylphenol	09/09/2015	11:39	40-105	15400		20000	77
3,3'-Dichlorobenzidine	09/09/2015	11:39	10-130	15200		20000	76
3-Nitroaniline	09/09/2015	11:39	25-110	12200		20000	61
4,6-Dinitro-2-methylphenol	09/09/2015	11:39	30-135	18000		20000	90
4-Bromophenyl-phenyl ether	09/09/2015	11:39	45-115	16800		20000	84
4-Chloro-3-methylphenol	09/09/2015	11:39	45-115	16400		20000	82
4-Chloroaniline	09/09/2015	11:39	10-95	7800		20000	39
4-Chlorophenyl-phenyl ether	09/09/2015	11:39	45-110	16500		20000	82
4-Nitroaniline	09/09/2015	11:39	35-115	16100		20000	80

3D

Sample Description

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 Sample No.: 625719 SDG No.: 113433
 Analytical Method: EPA 8270D Concentration Units: ug/kg

Sample No.: 625719 Parent Sample No.: 0
 Analytical Prep Batch #: 53971 Analytical Preparation Date/Time: 08/31/2015 8:45
 Analytical Run #: 118513 ICAL Calibration #: 1S081715

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
4-Nitrophenol	09/09/2015	11:39	15-140	16700		20000	84
Acenaphthene	09/09/2015	11:39	45-110	15400		20000	77
Acenaphthylene	09/09/2015	11:39	45-105	14900		20000	74
Acetophenone	09/09/2015	11:39	47-105	15100		20000	76
Aniline	09/09/2015	11:39	18-87	12300		20000	62
Anthracene	09/09/2015	11:39	55-105	16400		20000	82
Azobenzene & 1,2-Diphenylhydra	09/09/2015	11:39	47-105	32700		40000	82
Benzidine	09/09/2015	11:39	0-141	21400		20000	107
Benzo(a)anthracene	09/09/2015	11:39	55-110	16000		20000	80
Benzo(a)pyrene	09/09/2015	11:39	55-110	14000		20000	70
Benzo(b)fluoranthene	09/09/2015	11:39	45-115	14200		20000	71
Benzo(g,h,i)perylene	09/09/2015	11:39	40-125	13800		20000	69
Benzo(k)fluoranthene	09/09/2015	11:39	45-105	14000		20000	70
Benzoic acid	09/09/2015	11:39	0-110	17300		20000	86
Benzyl alcohol	09/09/2015	11:39	20-125	16000		20000	80
Bis(2-chloroethoxy)methane	09/09/2015	11:39	45-110	16200		20000	81
Bis(2-chloroethyl)ether	09/09/2015	11:39	40-105	14400		20000	72
Bis(2-chloroisopropyl)ether	09/09/2015	11:39	20-115	13500		20000	68
Bis(2-ethylhexyl)phthalate	09/09/2015	11:39	45-125	17900		20000	90
Butylbenzylphthalate	09/09/2015	11:39	50-125	16700		20000	84
Carbazole	09/09/2015	11:39	45-115	16700		20000	84
Chrysene	09/09/2015	11:39	55-110	16900		20000	84
Dibenzo(a,h)anthracene	09/09/2015	11:39	40-125	13900		20000	70
Dibenzofuran	09/09/2015	11:39	50-105	16200		20000	81
Diethylphthalate	09/09/2015	11:39	50-115	15600		20000	78
Dimethylphthalate	09/09/2015	11:39	50-110	15800		20000	79
Di-n-butylphthalate	09/09/2015	11:39	55-110	19000		20000	95
Di-n-octylphthalate	09/09/2015	11:39	40-130	16700		20000	84

3D

SOIL SEMIVOLATILE LAB CONTROL SAMPLE

Sample Description

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 Sample No.: 625719 SDG No.: 113433
 Analytical Method: EPA 8270D Concentration Units: ug/kg

Sample No.: 625719 Parent Sample No.: 0
 Analytical Prep Batch #: 53971 Analytical Preparation Date/Time: 08/31/2015 8:45
 Analytical Run #: 118513 ICAL Calibration #: 1S081715

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Fluoranthene	09/09/2015	11:39	55-115	16900		20000	84
Fluorene	09/09/2015	11:39	50-110	16300		20000	82
Hexachlorobenzene	09/09/2015	11:39	45-120	17100		20000	86
Hexachlorobutadiene	09/09/2015	11:39	40-115	17400		20000	87
Hexachlorocyclopentadiene	09/09/2015	11:39	35-106	16400		20000	82
Hexachloroethane	09/09/2015	11:39	35-110	14600		20000	73
Indeno(1,2,3-cd)pyrene	09/09/2015	11:39	40-120	13800		20000	69
Isophorone	09/09/2015	11:39	45-110	15300		20000	76
Naphthalene	09/09/2015	11:39	40-105	14300		20000	72
Nitrobenzene	09/09/2015	11:39	40-115	16400		20000	82
N-Nitrosodimethylamine	09/09/2015	11:39	20-115	14900		20000	74
N-Nitroso-di-n-propylamine	09/09/2015	11:39	40-115	15000		20000	75
N-Nitrosodiphenylamine & Diphn	09/09/2015	11:39	50-115	30100		40000	75
N-Nitrosopyrrolidine	09/09/2015	11:39	45-105	14900		20000	74
Pentachlorophenol	09/09/2015	11:39	25-120	17800		20000	89
Phenanthrene	09/09/2015	11:39	50-110	15500		20000	78
Phenol	09/09/2015	11:39	40-100	14900		20000	74
Pyrene	09/09/2015	11:39	45-125	15400		20000	77
Pyridine	09/09/2015	11:39	10-89	12800		20000	64

Spike Recovery: 0 out of 75 outside limits

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Sample ID:	<u>625718</u>	SDG No.:	<u>113433</u>
Matrix:	<u>SOLID</u>	Date Extracted:	<u>08/31/2015</u>
Date Analyzed:	<u>09/09/2015</u>	Time Analyzed:	<u>11:19</u>
Analytical Method:	<u>EPA 8270D</u>	Extraction Method:	<u>SW3546</u>
Analytical Run #:	<u>118513</u>	Extraction Batch #:	<u>53971</u>
		ICAL Calibration #:	<u>1S081715</u>

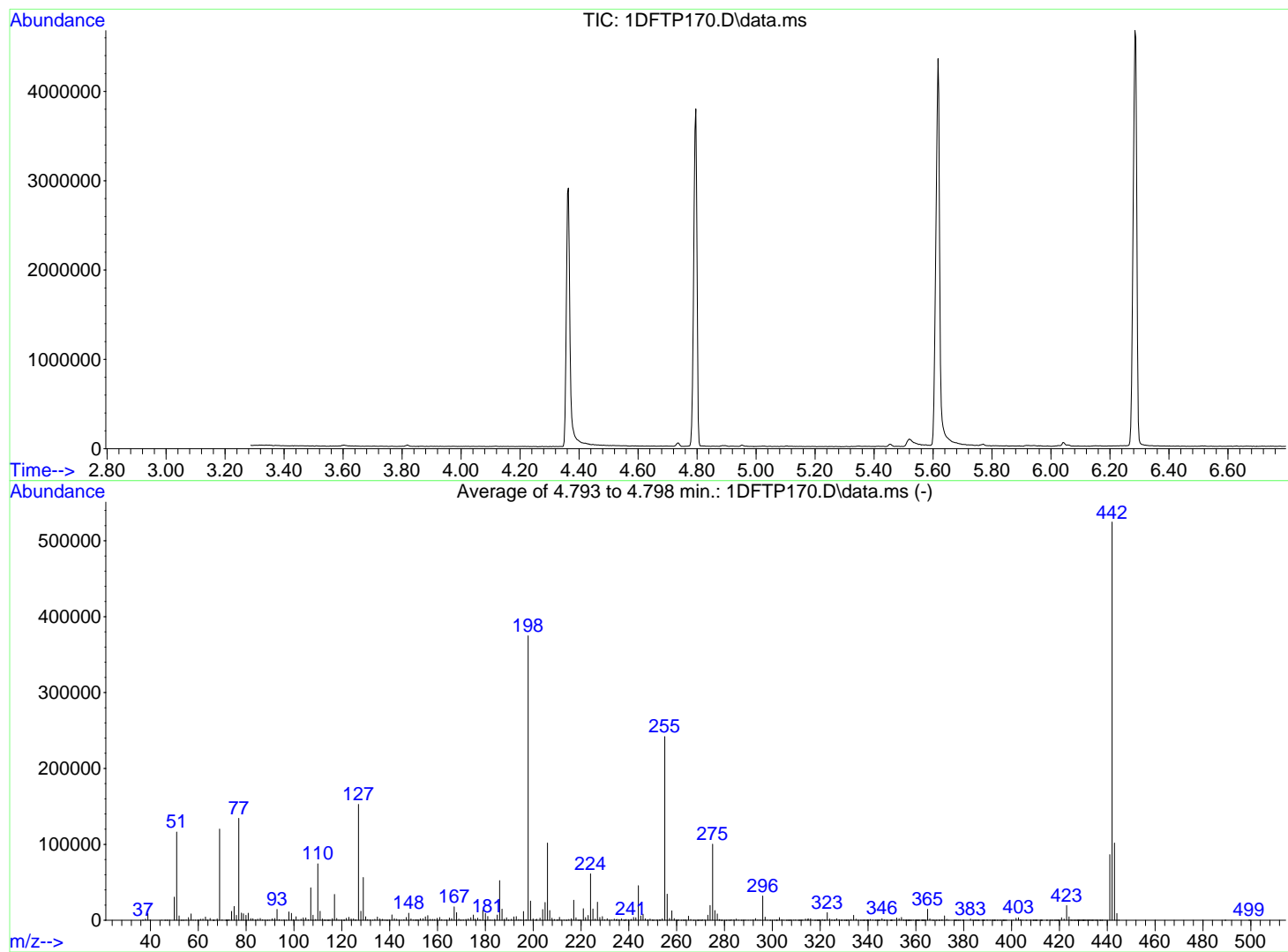
THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED
1	MBS	625718	09/09/2015 11:19
2	LCSS	625719	09/09/2015 11:39
3	WASTE-016-0815	623727	09/09/2015 11:59

Data File : C:\INSTARCH\Data\1S081715\1DFTP170.D
Acq On : 17 Aug 2015 17:08
Sample : DFTPP TUNE SVMS6642
Misc : SVMS1,25 ug DFTPP
Integrator: RTE

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
Title : DFTPP TUNE Method
Last Update : Wed Aug 19 09:43:09 2015



AutoFind: Scans 531, 532, 533; Background Corrected with Scan 522

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	22.1	116228	PASS
68	69	0.00	2	1.6	1871	PASS
70	69	0.00	2	0.5	623	PASS
127	442	10	80	29.1	152734	PASS
197	198	0.00	2	0.3	964	PASS
198	442	50	100	71.4	374954	PASS
199	198	5	9	6.7	25221	PASS
275	442	10	60	19.1	100296	PASS
365	198	1	100	3.9	14509	PASS
441	442	0.01	24	16.5	86498	PASS
442	442	50	100	100.0	524800	PASS
443	442	15	24	19.4	101885	PASS

Injection Log Summary Report

Method : Y:\METHODS\1S081715.M (RTE Integrator)
Title : Method for 8270 analysis
Start (Tune) File ID : Y:\DATA\1S081715\1DFTP170.D
Injection Date : 17 Aug 2015 Log Time Period (hrs) : ALL
Injection Time : 17:08 Total files within period : 23
Sample Directory : Y:\DATA\1S081715\

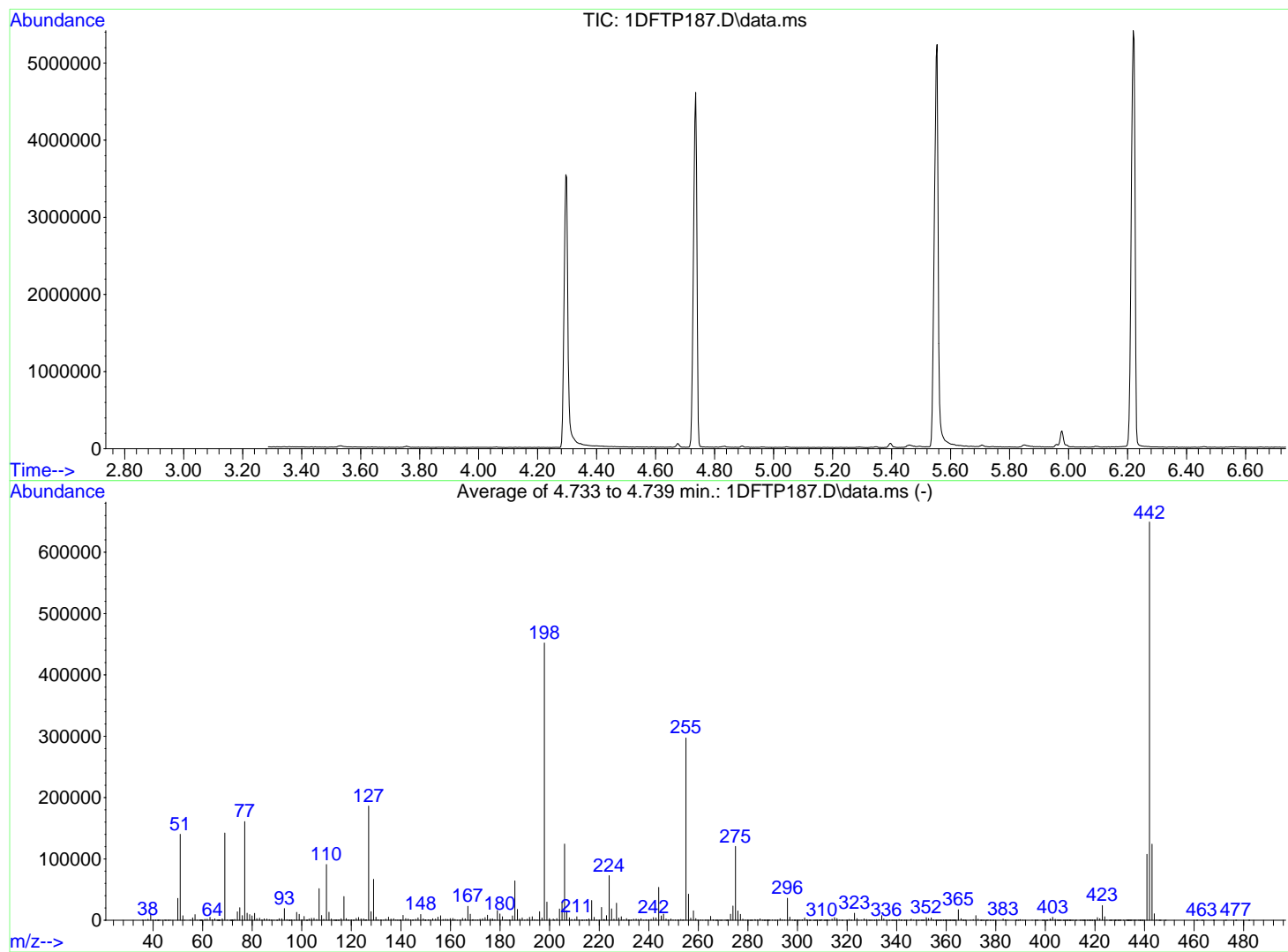
Injection Log Summary Table

File ID	Multiplier			Sample Name	Date	Time
	I	S	T	Misc Info		
1IB02	1.00	1.00	1.00	InstrumentBlank	17 Aug 2015	17:24
				500uL+5ul IS S3306C		
1ICAL7	1.00	1.00	1.00	ICAL 50ug/ml SVMS6777	17 Aug 2015	17:43
				500uL+5ul IS S3306D		
1ICAL6	1.00	1.00	1.00	ICAL 40ug/ml SVMS6776	17 Aug 2015	18:03
				500uL+5ul IS S3306D		
1ICAL5	1.00	1.00	1.00	ICAL 30ug/ml SVMS6775	17 Aug 2015	18:23
				500uL+5ul IS S3306D		
1ICAL4	1.00	1.00	1.00	ICAL 20ug/ml SVMS6774	17 Aug 2015	18:42
				500uL+5ul IS S3306D		
1ICAL3	1.00	1.00	1.00	ICAL 10ug/ml SVMS6773	17 Aug 2015	19:02
				500uL+5ul IS S3306D		
1ICAL2	1.00	1.00	1.00	ICAL 5ug/ml SVMS6772	17 Aug 2015	19:22
				500uL+5ul IS S3306D		
1ICAL1	1.00	1.00	1.00	ICAL 1ug/ml SVMS6771	17 Aug 2015	19:41
				500uL+5ul IS S3306D		
1ICAL4R	1.00	1.00	1.00	ICAL 20ug/ml SVMS6774	17 Aug 2015	20:01
				500uL+5ul IS S3306D		
1ICV1	1.00	1.00	1.00	ICV 20ug/ml SVMS6778	17 Aug 2015	20:21
				500uL+5ul IS S3306D		
1ICV2	1.00	1.00	1.00	ICV 40ug/ml SVMS6779	17 Aug 2015	20:40
				500uL+5ul IS S3306D		
1ICV1R	1.00	1.00	1.00	ICV 20ug/ml SVMS6778	17 Aug 2015	21:00
				500uL+5ul IS S3306D		
1ICV2R	1.00	1.00	1.00	ICV 40ug/ml SVMS6779	17 Aug 2015	21:19
				500uL+5ul IS S3306D		

Data File : C:\INSTARCH\Data\1S090915\1DFTP187.D
 Acq On : 9 Sep 2015 10:41
 Sample : DFTPP TUNE SVMS6642
 Misc : SVMS1,25 ug DFTPP
 Integrator: RTE

Vial: 1
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
 Title : DFTPP TUNE Method
 Last Update : Wed Sep 09 10:42:46 2015



AutoFind: Scans 510, 511, 512; Background Corrected with Scan 500

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	21.6	140176	PASS
68	69	0.00	2	1.6	2284	PASS
70	69	0.00	2	0.4	588	PASS
127	442	10	80	28.7	186240	PASS
197	198	0.00	2	0.8	3619	PASS
198	442	50	100	69.6	452053	PASS
199	198	5	9	6.6	29733	PASS
275	442	10	60	18.5	120304	PASS
365	198	1	100	3.8	17304	PASS
441	442	0.01	24	16.5	107392	PASS
442	442	50	100	100.0	649344	PASS
443	442	15	24	19.1	124066	PASS

Injection Log Summary Report

Method : Y:\METHODS\1S081715.M (RTE Integrator)
 Title : Method for 8270 analysis
 Start (Tune) File ID : Y:\DATA\1S090915\1DFTP187.D
 Injection Date : 9 Sep 2015 Log Time Period (hrs) : ALL
 Injection Time : 10:41 Total files within period : 24
 Sample Directory : Y:\DATA\1S090915\

Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
1CCV261	1.00	1.00	1.00	CCV 20ug/ml SVMS6780 500uL+5ul IS S3306D	9 Sep 2015	10:58
1MBS01	1.00	1.00	1.00	118513,MBS, 625718,500uL+5ul IS S3348	9 Sep 2015	11:19
1LCSS01	1.00	1.00	1.00	118513,LCSS, 625719,500uL+5ul IS S3348	9 Sep 2015	11:39
623727	1.00	1.00	1.00	118513,623727, 500uL+5ul IS S3348A	9 Sep 2015	11:59
625784	1.00	1.00	1.00	118513,625784, 500uL+5ul IS S3348A	9 Sep 2015	12:19
625786	1.00	1.00	1.00	118513,625786, 500uL+5ul IS S3348A	9 Sep 2015	12:39
625784D	1.00	1.00	1.00	118513,625784,20 500uL+5ul IS S3348A	9 Sep 2015	12:59
625784D2	1.00	1.00	1.00	118513,625784,200 500uL+5ul IS S3348A	9 Sep 2015	13:20
1IB02	1.00	1.00	1.00	InstrumentBlank 500uL+5ul IS S3306B	9 Sep 2015	13:40
627031	1.00	1.00	1.00	118454,627031, 500uL+5ul IS S3306B	9 Sep 2015	14:00
627031MS	1.00	1.00	1.00	118454,MSW627031, 627391,500uL+5ul IS S3306	9 Sep 2015	14:20
627031SD	1.00	1.00	1.00	118454,MSDW627031, 627392,500uL+5ul IS S3306	9 Sep 2015	14:40
627031D	1.00	1.00	1.00	118454,627031,5 500uL+5ul IS S3306B	9 Sep 2015	15:04
627031SR	1.00	1.00	1.00	118454,MSW627031,5 627391,500uL+5ul IS S3306	9 Sep 2015	15:24
627031DR	1.00	1.00	1.00	118454,MSDW627031,5 627392,500uL+5ul IS S3306	9 Sep 2015	15:45
627942	1.00	1.00	1.00	118515,627942, 500uL+5ul IS S3306B	9 Sep 2015	16:04
627942MS	1.00	1.00	1.00	118515,MSW627942, 628263,500uL+5ul IS S3306	9 Sep 2015	16:24
627942SD	1.00	1.00	1.00	118515,MSDW627942, 628264,500uL+5ul IS S3306	9 Sep 2015	16:44
627943	1.00	1.00	1.00	118515,627943, 500uL+5ul IS S3306B	9 Sep 2015	17:04
627944	1.00	1.00	1.00	118515,627944, 500uL+5ul IS S3306B	9 Sep 2015	17:24
627945	1.00	1.00	1.00	118515,627945, 500uL+5ul IS S3306B	9 Sep 2015	17:44
627942D	1.00	1.00	1.00	118515,627942,20 500uL+5ul IS S3306B	9 Sep 2015	18:04

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): 1ICAL4.D Date Analyzed : 17 Aug 2015
 Instrument ID : SVMS1 Time Analyzed : 18:42
 GC Column : ID : (mm) Heated Purge (Y:N) :

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
Area	# RT	# Area	# RT	# Area	# RT	# Area	# RT
12 HOUR STD	266290	3.52	1059213	5.08	642548	6.90	
UPPER LIMIT	532580	4.02	2118426	5.58	1285096	7.40	
LOWER LIMIT	133145	3.02	529607	4.58	321274	6.40	
File ID	Sample						
1CCV261	CCV 20ug/	299956	3.43	1106534	4.97	726745	6.84
1LCSS01	118513,LC	285934	3.43	1022320	4.97	701122	6.83
1MBS01	118513,MB	276049	3.43	977463	4.97	718698	6.83
623727	118513,62	265786	3.43	926430	4.97	677695	6.83
625784	118513,62	129879 *	3.49	416489 *	5.10	1371 *	6.99
625784D	118513,62	272042	3.43	960961	4.98	688843	6.83
625784D2	118513,62	280587	3.43	983138	4.97	697240	6.83
625786	118513,62	276784	3.43	977713	4.97	694041	6.83
627031	118454,62	284623	3.43	1026784	4.97	679595	6.83
627031D	118454,62	290999	3.43	1045743	4.97	744107	6.83
627031DR	118454,MS	285125	3.43	1055400	4.97	727721	6.83
627031MS	118454,MS	292013	3.43	1072654	4.97	711020	6.83
627031SD	118454,MS	289391	3.43	1034044	4.97	690610	6.84
627031SR	118454,MS	289395	3.43	1024694	4.97	720885	6.83
627942	118515,62	280850	3.43	946664	4.97	671517	6.84
627942D	118515,62	289367	3.43	1007697	4.97	712325	6.83
627942DR	118515,MS	271557	3.43	949703	4.97	672811	6.83
627942MS	118515,MS	298629	3.43	1046649	4.97	710310	6.83
627942SD	118515,MS	290418	3.43	1045600	4.97	705975	6.83
627942SR	118515,MS	278617	3.43	992918	4.97	682163	6.83
627943	118515,62	286908	3.43	1033570	4.97	702522	6.83
627944	118515,62	286661	3.43	1025281	4.97	713624	6.84
627945	118515,62	282452	3.43	995795	4.97	693029	6.83

IS1 (DCB) = 14Diclbenzd4
 IS2 (NPT) = Naphthalened8
 IS3 (ANT) = Acenaphthened10

AREA UPPER LIMIT = 200% of internal standard area
 AREA LOWER LIMIT = 50% of internal standard area
 RT UPPER LIMIT = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name : Contract :
 Project : Site : Location : Group :
 Lab File ID (Standard): 1ICAL4.D Date Analyzed : 17 Aug 2015
 Instrument ID : SVMS1 Time Analyzed : 18:42
 GC Column : ID : (mm) Heated Purge (Y:N) :

		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		Area	# RT	Area	# RT	Area	# RT
12 HOUR STD		1355922	7.84	752769	9.26	763899	10.11
UPPER LIMIT		2711844	8.34	1505538	9.76	1527798	10.61
LOWER LIMIT		677961	7.34	376385	8.76	381950	9.61
File ID	Sample						
1CCV261	CCV 20ug/	1609294	7.80	898327	9.21	902022	10.05
1LCSS01	118513,LC	1457412	7.79	833819	9.21	958536	10.05
1MBS01	118513,MB	1496133	7.79	880043	9.20	938892	10.04
623727	118513,62	1426769	7.80	825742	9.20	890768	10.04
625784	118513,62	0 *	0.00 *	986199	9.21	629670	10.05
625784D	118513,62	1418559	7.79	887540	9.20	913719	10.05
625784D2	118513,62	1458375	7.79	890138	9.20	946456	10.05
625786	118513,62	1443778	7.79	883577	9.20	957590	10.05
627031	118454,62	1362147	7.79	829849	9.21	950619	10.05
627031D	118454,62	1512286	7.79	935512	9.21	999038	10.05
627031DR	118454,MS	1519979	7.79	917632	9.21	1000364	10.05
627031MS	118454,MS	1449029	7.79	835239	9.21	998638	10.05
627031SD	118454,MS	1410511	7.79	833370	9.21	961400	10.06
627031SR	118454,MS	1484161	7.79	907141	9.21	977406	10.05
627942	118515,62	1373806	7.80	840573	9.20	908109	10.05
627942D	118515,62	1493711	7.79	903157	9.21	981829	10.05
627942DR	118515,MS	1366254	7.79	857163	9.20	925006	10.05
627942MS	118515,MS	1474379	7.79	871183	9.21	989226	10.05
627942SD	118515,MS	1453549	7.79	869079	9.21	964701	10.05
627942SR	118515,MS	1455302	7.79	869661	9.20	925993	10.05
627943	118515,62	1444743	7.79	914485	9.21	987105	10.05
627944	118515,62	1464713	7.80	889493	9.20	938792	10.05
627945	118515,62	1453051	7.79	900826	9.21	975956	10.05

IS4 (PHN) = Phenanthrd10
 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 = 0.5 minutes of internal standard RT
 RT LOWER LIMIT = -0.5 minutes of internal standard RT

Column to be used to flag values outside QC limit with an asterisk
 * Values outside of contract required QC limits

**SEMI - VOLATILE ORGANIC ANALYSIS
SAMPLE DATA
DOCUMENTS**

Data File : C:\INSTARCH\Data\1S090915\623727.D
 Acq On : 9 Sep 2015 11:59
 Sample : 118513,623727,
 Misc : 500uL+5ul IS S3348A
 Integrator: RTE
 Quant Time: Sep 09 13:49:05 2015

Vial: 5
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Sep 08 17:39:01 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

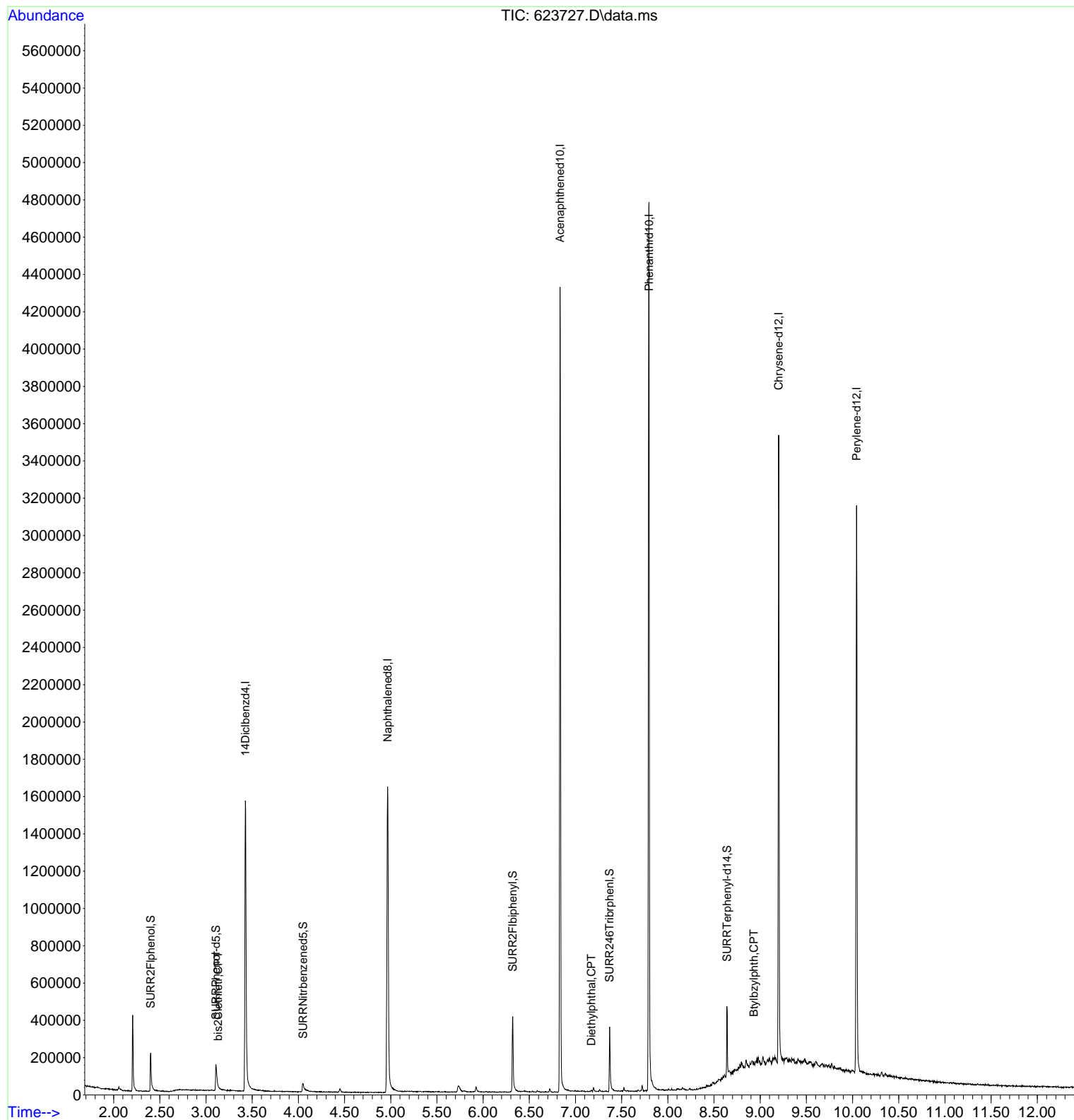
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.426	152	265786	20.00	ug/mL	-0.01
21) Naphthalened8	4.966	136	926430	20.00	ug/mL	-0.02
39) Acenaphthened10	6.833	164	677695	20.00	ug/mL	0.00
63) Phenanthrd10	7.796	188	1426769	20.00	ug/mL	0.00
75) Chrysene-d12	9.199	240	825742	20.00	ug/mL	-0.01
86) Perylene-d12	10.043	264	890768	20.00	ug/mL	-0.01
System Monitoring Compounds						
4) SURR2Flphenol	2.400	112	58503	8.14	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	8.14%#	
7) SURRPhenol-d5	3.107	99	64612	7.34	%REC	-0.01
Spiked Amount 100.000	Range 10	- 115	Recovery	=	7.34%#	
22) SURRNitrbenzened5	4.051	82	27238	7.98	%REC	-0.01
Spiked Amount 100.000	Range 40	- 110	Recovery	=	7.98%#	
44) SURR2Flbiphenyl	6.321	172	123632	10.34	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	10.34%#	
62) SURR246Tribphenl	7.370	330	29316	7.99	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	7.99%#	
78) SURRTerphenyl-d14	8.640	244	70047	9.62	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	9.62%#	
Target Compounds						
6) bis2Clethletr	3.130	93	1460	0.0803	ug/mL#	26
38) 1Methylnaphth	5.940	141	1112	Below Cal		78
50) Acenaphthene	6.835	154	2755	Below Cal	#	10
60) Diethylphthal	7.171	149	1847	0.0301	ug/mL	85
65) Ntrsdiphlam&Diphlam	7.341	169	240	Below Cal		93
70) Phenanthrene	7.807	178	2245	Below Cal		93
71) Anthracene	7.838	178	1289	Below Cal		87
73) Dinbtylphthal	8.157	149	2802	Below Cal		95
79) Btylbzylphth	8.932	149	638	0.0266	ug/mL	78
83) Chrysene	9.199	228	2606	Below Cal	#	61
84) bis2Ethlhxlph	9.225	149	2560	Below Cal		83

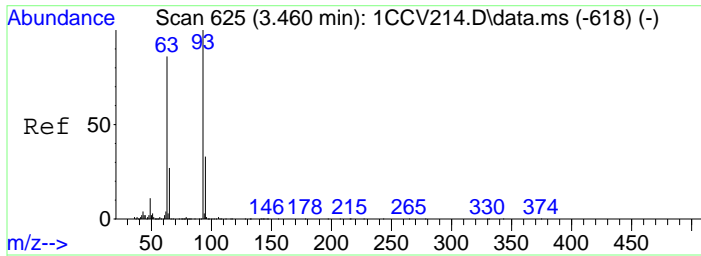
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S090915\623727.D
Acq On : 9 Sep 2015 11:59
Sample : 118513,623727,
Misc : 500uL+5ul IS S3348A
Integrator: RTE
Quant Time: Sep 09 13:49:05 2015

Vial: 5
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

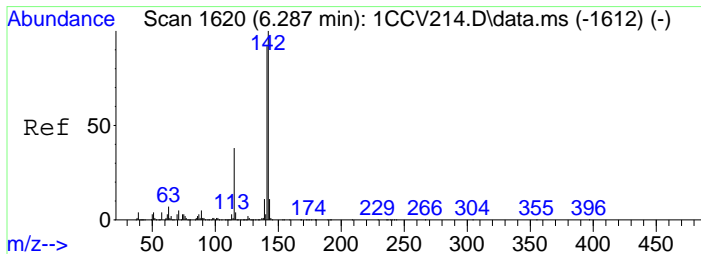
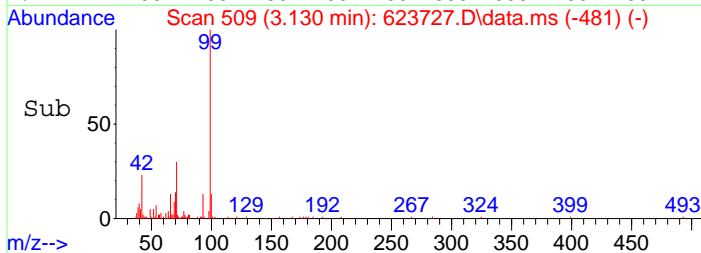
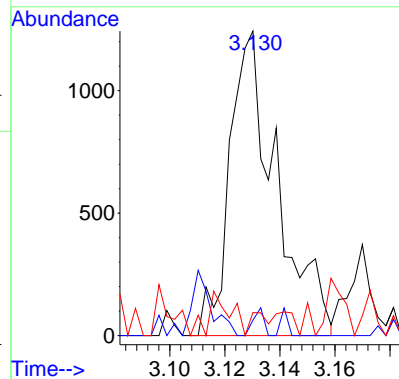
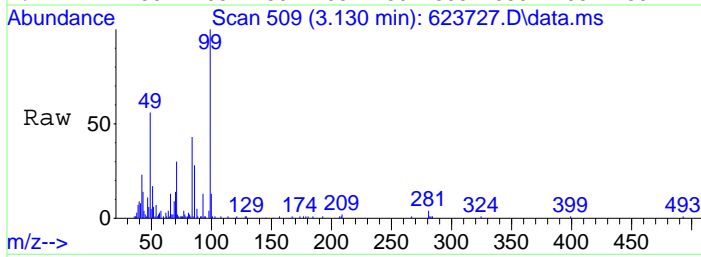
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Quant Title : Method for 8270 analysis
QLast Update : Tue Sep 08 17:39:01 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M





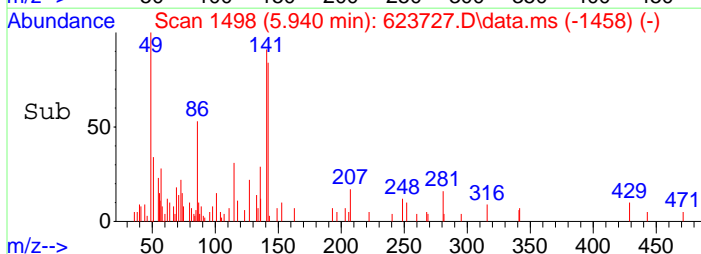
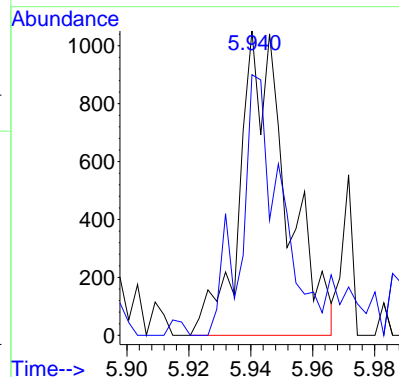
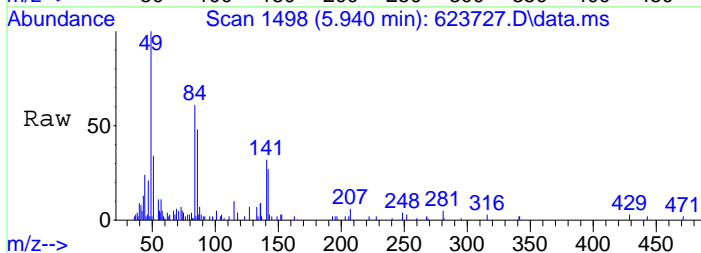
#6
bis2Clethletr
Concen: 0.08 ug/mL
RT: 3.130 min Scan# 509
Delta R.T. -0.071 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

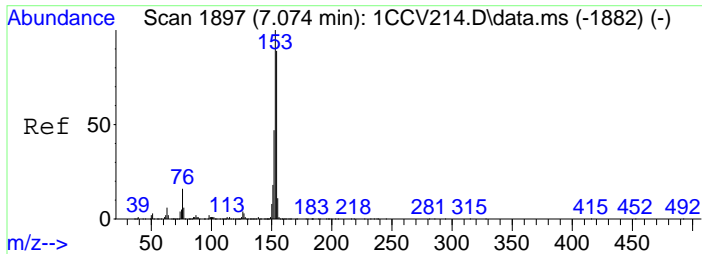
Tgt Ion: 93 Resp: 1460
Ion Ratio Lower Upper
93 100
95 5.1 2.5 62.5
63 7.6 63.4 103.4#



#38
1Methylnaphth
Concen: Below ug/mL
RT: 5.940 min Scan# 1498
Delta R.T. -0.006 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

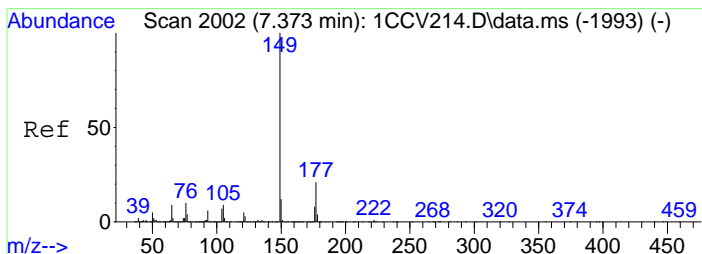
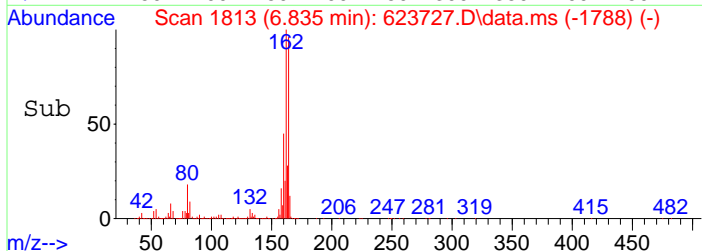
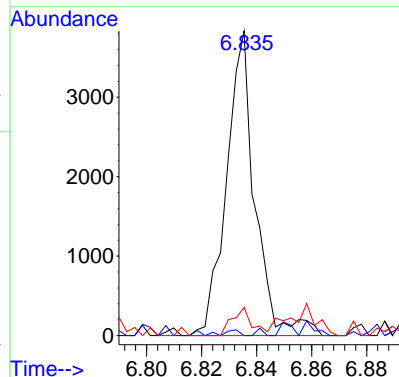
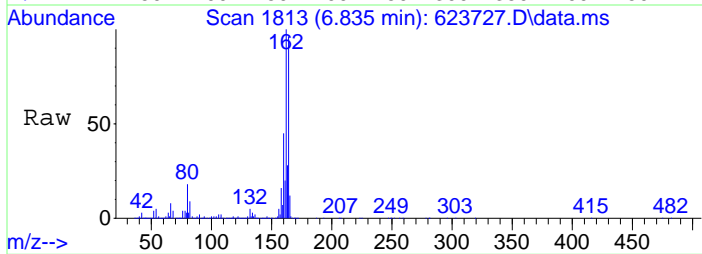
Tgt Ion: 141 Resp: 1112
Ion Ratio Lower Upper
141 100
142 85.6 79.3 139.3





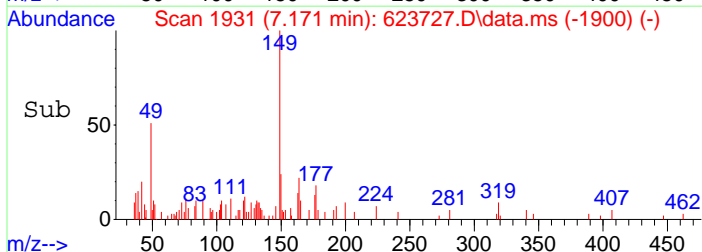
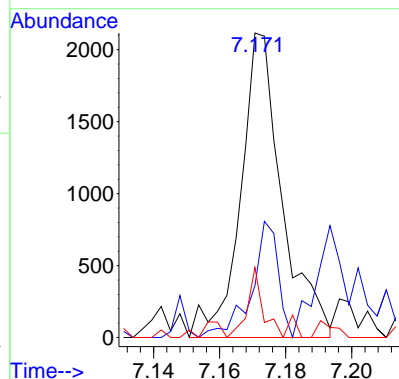
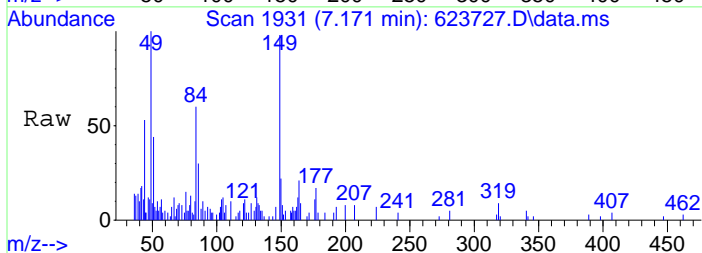
#50
Acenaphthene
Concen: Below ug/mL
RT: 6.835 min Scan# 1813
Delta R.T. -0.028 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

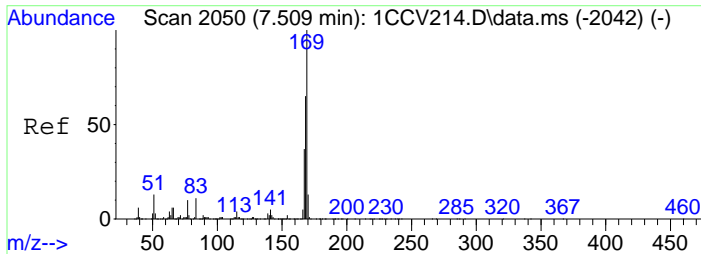
Tgt Ion:154	Resp:	2755
Ion Ratio	Lower	Upper
154	100	
152	0.0	23.9 83.9#
153	9.3	92.9 132.9#



#60
Diethylphthal
Concen: 0.03 ug/mL
RT: 7.171 min Scan# 1931
Delta R.T. -0.011 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

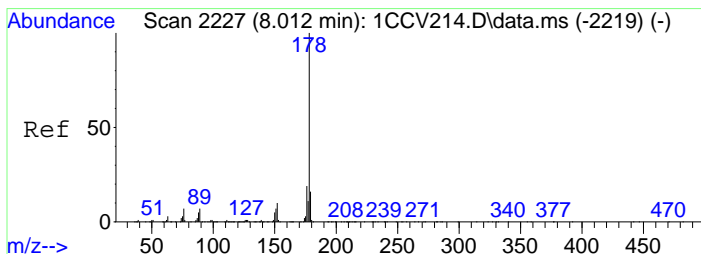
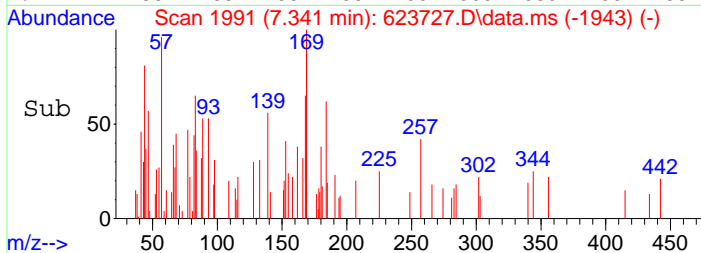
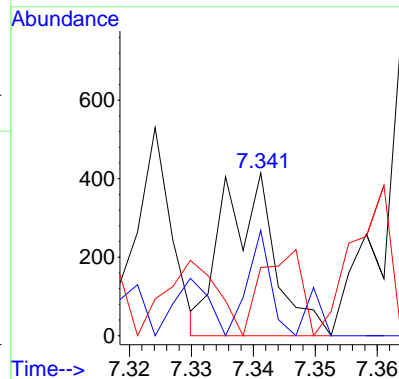
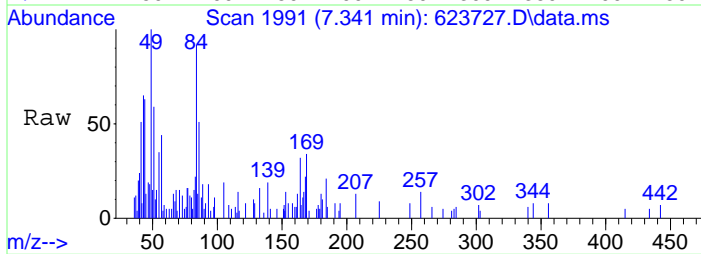
Tgt Ion:149	Resp:	1847
Ion Ratio	Lower	Upper
149	100	
177	15.4	0.0 49.9
150	20.2	0.0 41.4





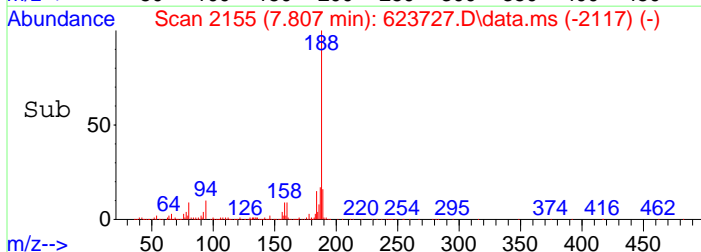
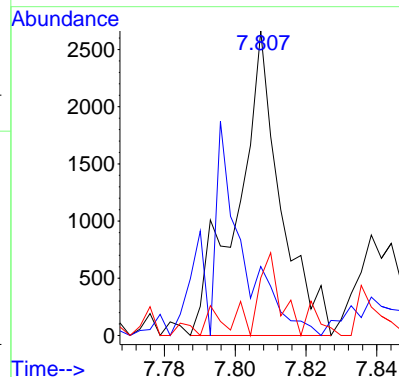
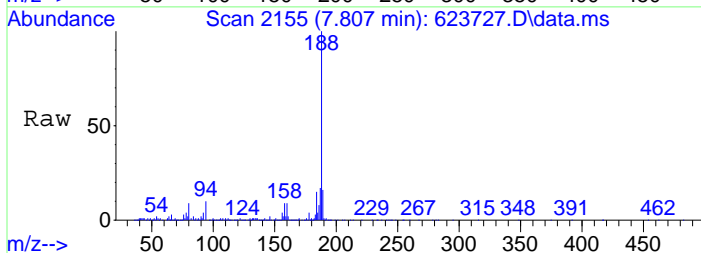
#65
Ntrsdiphlam&Diphlam
Concen: Below ug/mL
RT: 7.341 min Scan# 1991
Delta R.T. 0.023 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

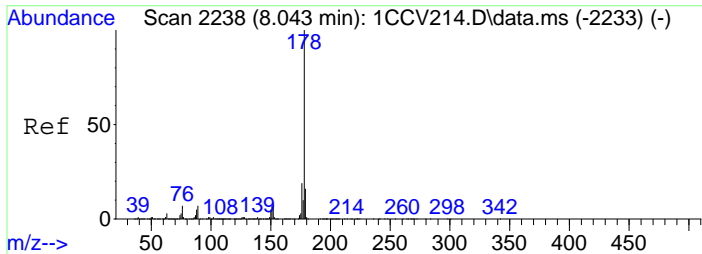
Tgt Ion	Ratio	Lower	Upper
169	100		
168	64.6	36.2	96.2
167	27.0	6.6	66.6



#70
Phenanthrene
Concen: Below ug/mL
RT: 7.807 min Scan# 2155
Delta R.T. -0.006 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

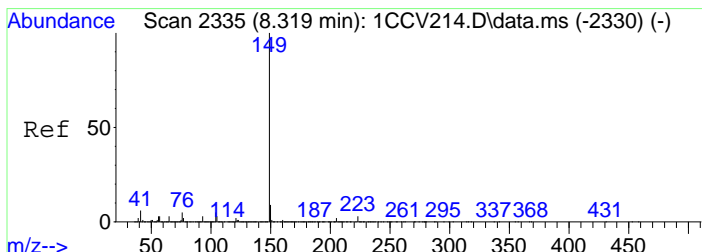
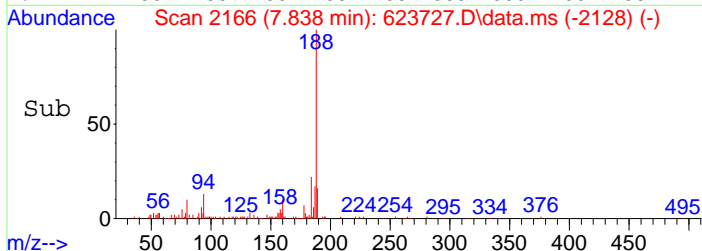
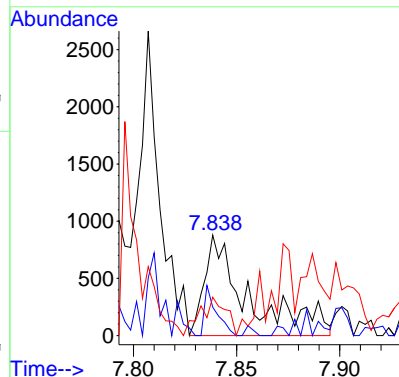
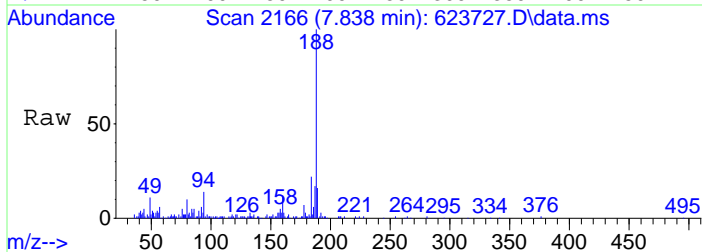
Tgt Ion	Ratio	Lower	Upper
178	100		
179	17.7	0.0	44.9
176	16.4	0.0	49.7





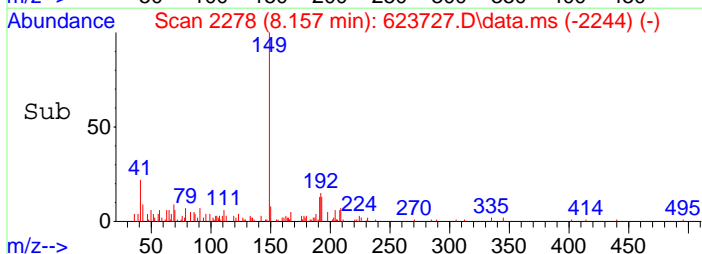
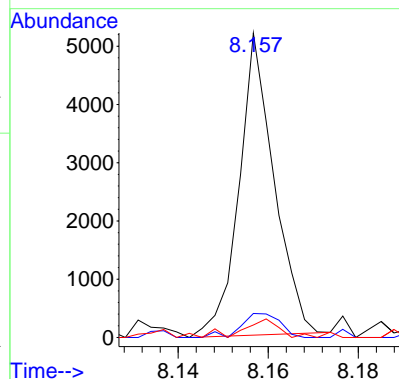
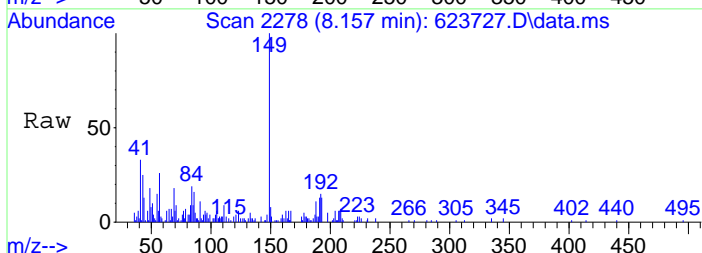
#71
 Anthracene
 Concen: Below ug/mL
 RT: 7.838 min Scan# 2166
 Delta R.T. -0.006 min
 Lab File: 623727.D
 Acq: 9 Sep 15 11:59 am

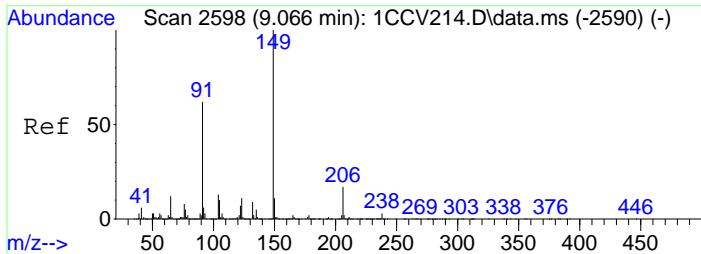
Tgt Ion	178	176	179
Resp	1289		
Ion Ratio	100	22.7	23.3
Lower		0.0	0.0
Upper		48.8	45.2



#73
 Dinbtylphthal
 Concen: Below ug/mL
 RT: 8.157 min Scan# 2278
 Delta R.T. -0.003 min
 Lab File: 623727.D
 Acq: 9 Sep 15 11:59 am

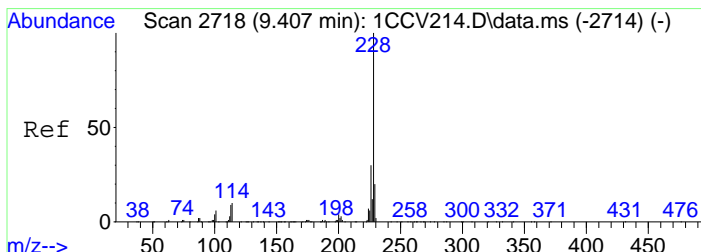
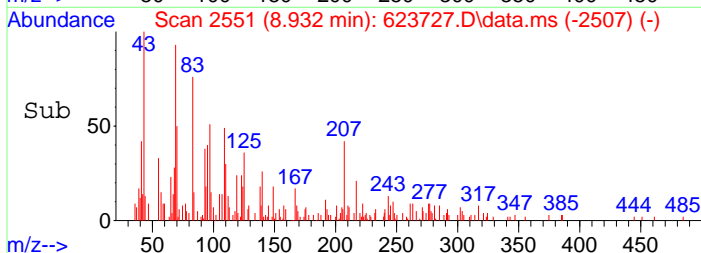
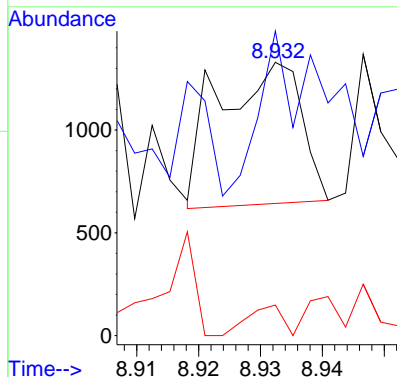
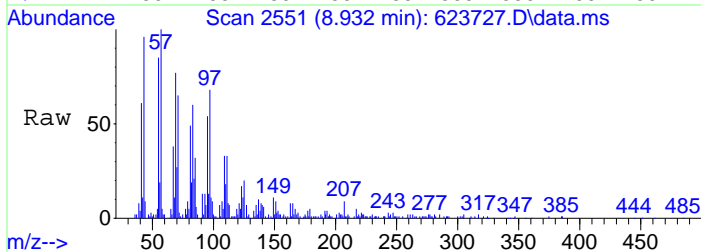
Tgt Ion	149	150	104
Resp	2802		
Ion Ratio	100	10.8	2.7
Lower		0.0	0.0
Upper		38.9	34.5





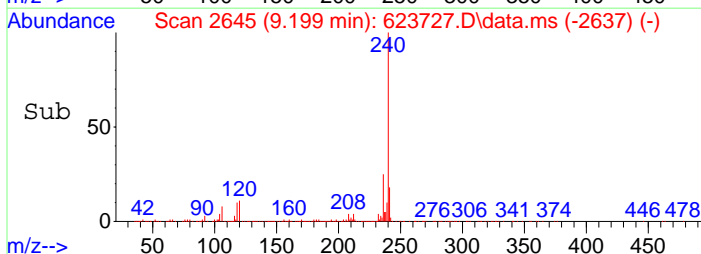
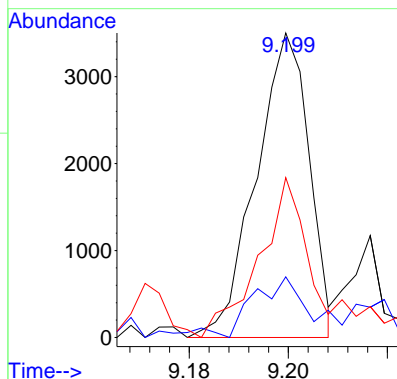
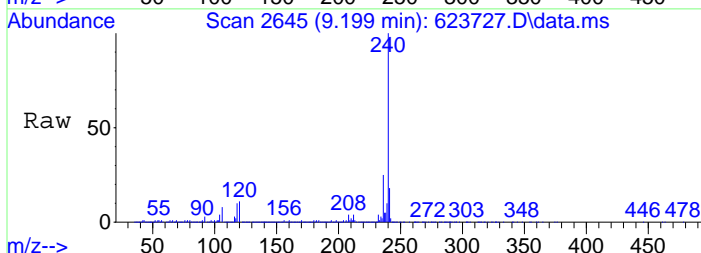
#79
Btylbzylphth
Concen: 0.03 ug/mL
RT: 8.932 min Scan# 2551
Delta R.T. 0.026 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

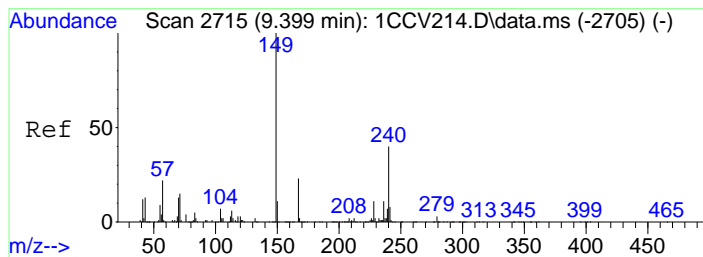
Tgt Ion	Ratio	Lower	Upper
149	100		
91	52.0	38.0	98.0
206	0.0	0.0	43.6



#83
Chrysene
Concen: Below ug/mL
RT: 9.199 min Scan# 2645
Delta R.T. -0.028 min
Lab File: 623727.D
Acq: 9 Sep 15 11:59 am

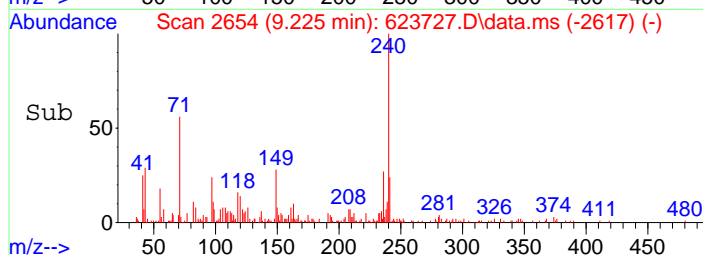
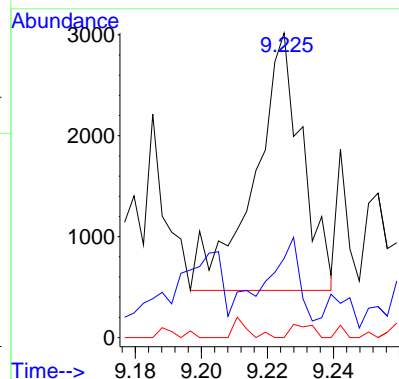
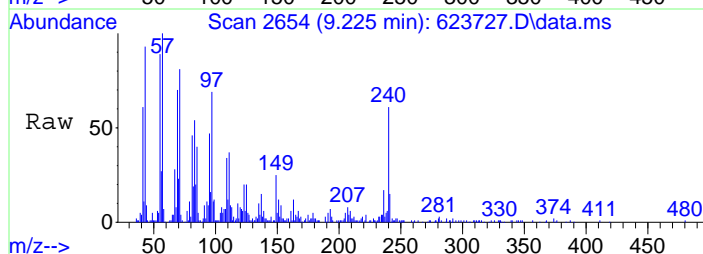
Tgt Ion	Ratio	Lower	Upper
228	100		
226	18.3	0.0	59.5
229	49.9	0.0	49.6#





#84
 bis2Ethlhxlph
 Concen: Below ug/mL
 RT: 9.225 min Scan# 2654
 Delta R.T. -0.008 min
 Lab File: 623727.D
 Acq: 9 Sep 15 11:59 am

Tgt Ion	Ratio	Lower	Upper
149	100		
167	13.9	0.0	52.6
279	0.0	0.0	32.3



**SEMI - VOLATILE ORGANIC ANALYSIS
INITIAL CALIBRATION
DOCUMENTS**

Injection Log Summary Report

Method : Y:\METHODS\1S081715.M (RTE Integrator)
 Title : Method for 8270 analysis
 Start (Tune) File ID : Y:\DATA\1S081715\1DFTP170.D
 Injection Date : 17 Aug 2015 Log Time Period (hrs) : ALL
 Injection Time : 17:08 Total files within period : 23
 Sample Directory : Y:\DATA\1S081715\

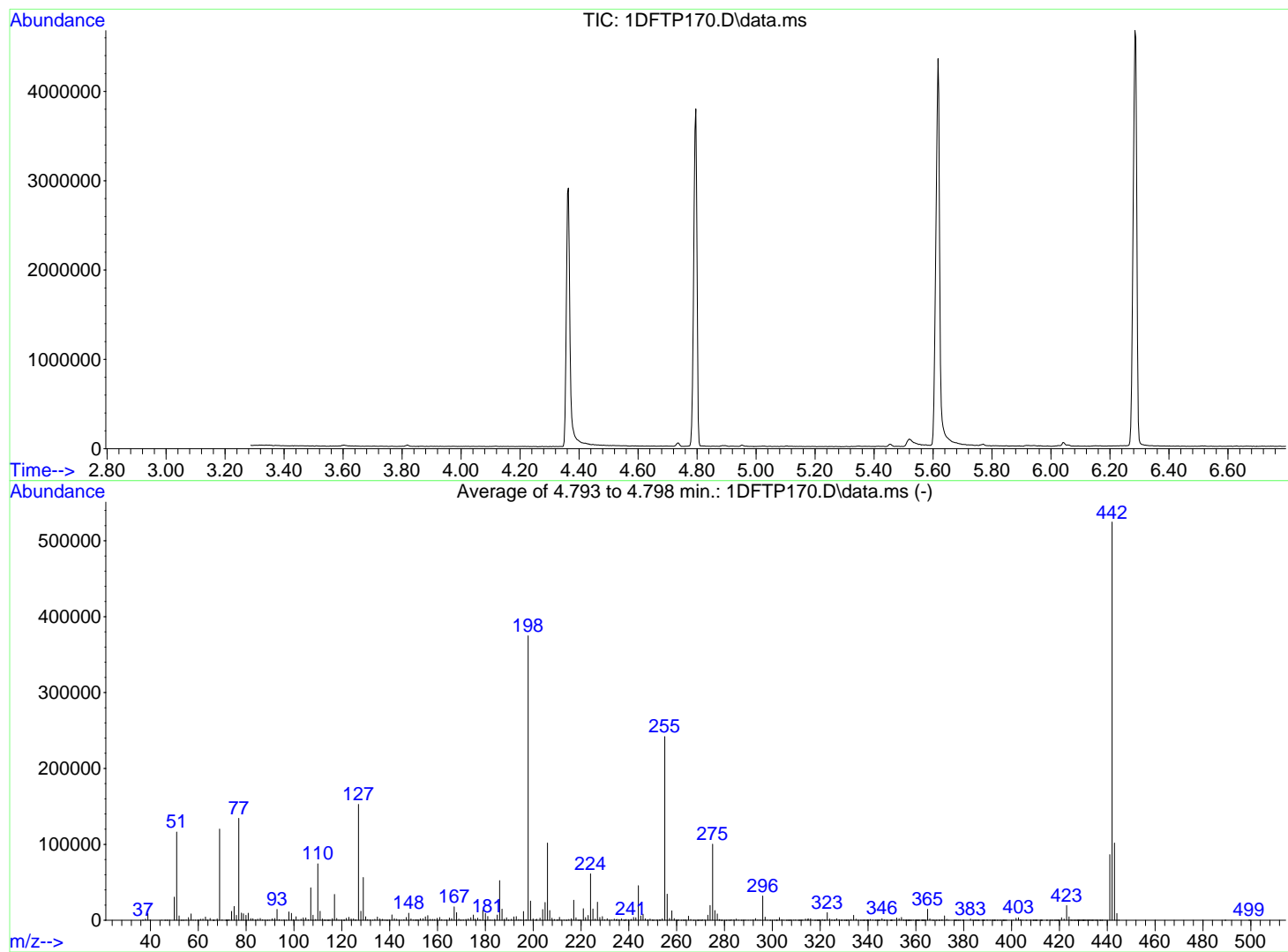
Injection Log Summary Table

File ID	Multiplier			Sample Name Misc Info	Date	Time
	I	S	T			
1IB02	1.00	1.00	1.00	InstrumentBlank	17 Aug 2015	17:24
				500uL+5ul IS S3306C		
1ICAL7	1.00	1.00	1.00	ICAL 50ug/ml SVMS6777	17 Aug 2015	17:43
				500uL+5ul IS S3306D		
1ICAL6	1.00	1.00	1.00	ICAL 40ug/ml SVMS6776	17 Aug 2015	18:03
				500uL+5ul IS S3306D		
1ICAL5	1.00	1.00	1.00	ICAL 30ug/ml SVMS6775	17 Aug 2015	18:23
				500uL+5ul IS S3306D		
1ICAL4	1.00	1.00	1.00	ICAL 20ug/ml SVMS6774	17 Aug 2015	18:42
				500uL+5ul IS S3306D		
1ICAL3	1.00	1.00	1.00	ICAL 10ug/ml SVMS6773	17 Aug 2015	19:02
				500uL+5ul IS S3306D		
1ICAL2	1.00	1.00	1.00	ICAL 5ug/ml SVMS6772	17 Aug 2015	19:22
				500uL+5ul IS S3306D		
1ICAL1	1.00	1.00	1.00	ICAL 1ug/ml SVMS6771	17 Aug 2015	19:41
				500uL+5ul IS S3306D		
1ICAL4R	1.00	1.00	1.00	ICAL 20ug/ml SVMS6774	17 Aug 2015	20:01
				500uL+5ul IS S3306D		
1ICV1	1.00	1.00	1.00	ICV 20ug/ml SVMS6778	17 Aug 2015	20:21
				500uL+5ul IS S3306D		
1ICV2	1.00	1.00	1.00	ICV 40ug/ml SVMS6779	17 Aug 2015	20:40
				500uL+5ul IS S3306D		
1ICV1R	1.00	1.00	1.00	ICV 20ug/ml SVMS6778	17 Aug 2015	21:00
				500uL+5ul IS S3306D		
1ICV2R	1.00	1.00	1.00	ICV 40ug/ml SVMS6779	17 Aug 2015	21:19
				500uL+5ul IS S3306D		

Data File : C:\INSTARCH\Data\1S081715\1DFTP170.D
Acq On : 17 Aug 2015 17:08
Sample : DFTPP TUNE SVMS6642
Misc : SVMS1,25 ug DFTPP
Integrator: RTE

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

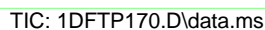
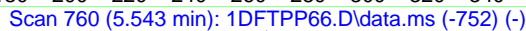
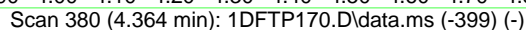
Method : C:\INSTARCH\Methods\1DFTPP.M
Title : DFTPP TUNE Method
Last Update : Wed Aug 19 09:43:09 2015



AutoFind: Scans 531, 532, 533; Background Corrected with Scan 522

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	22.1	116228	PASS
68	69	0.00	2	1.6	1871	PASS
70	69	0.00	2	0.5	623	PASS
127	442	10	80	29.1	152734	PASS
197	198	0.00	2	0.3	964	PASS
198	442	50	100	71.4	374954	PASS
199	198	5	9	6.7	25221	PASS
275	442	10	60	19.1	100296	PASS
365	198	1	100	3.9	14509	PASS
441	442	0.01	24	16.5	86498	PASS
442	442	50	100	100.0	524800	PASS
443	442	15	24	19.4	101885	PASS

lon 265.90 (265.60 to 266.60): 1DFTP170.D\data.ms
lon 263.90 (263.60 to 264.60): 1DFTP170.D\data.ms
lon 267.90 (267.60 to 268.60): 1DFTP170.D\data.ms

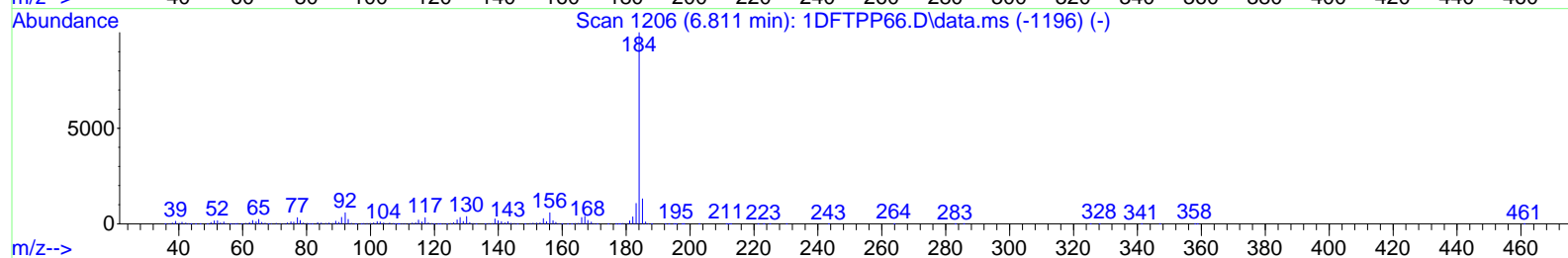
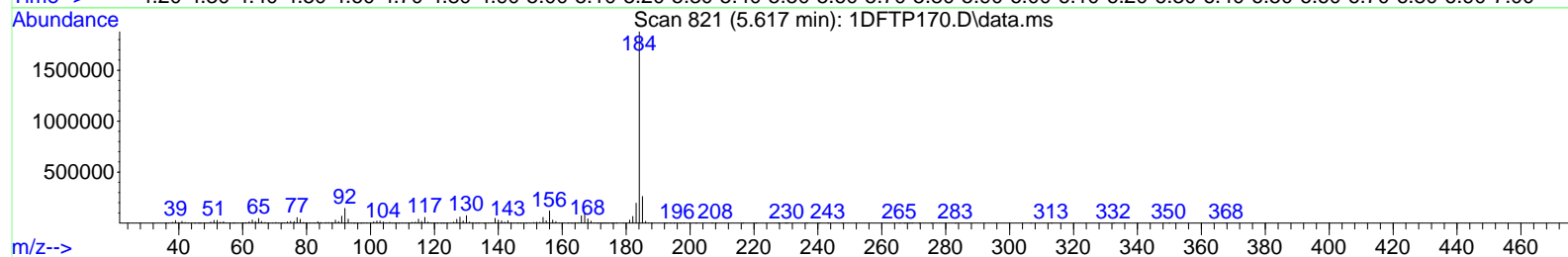
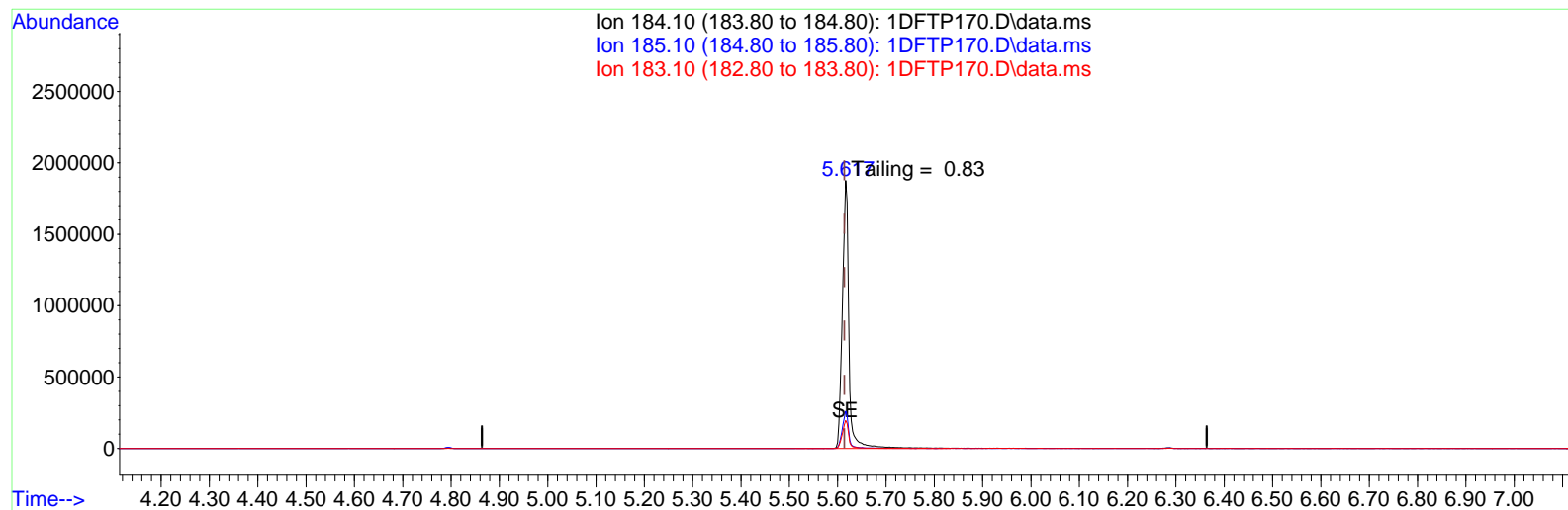


0.00 0.00 0.00

Data File : C:\INSTARCH\Data\1S081715\1DFTP170.D
Acq On : 17 Aug 2015 17:08
Sample : DFTPP TUNE SVMS6642
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Aug 20 10:06:29 2015

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Wed Aug 19 09:43:09 2015
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP170.D\data.ms

(3) Benzidine

5.617min (+0.003) 19.99 ng

response 1753036

Ion	Exp%	Act%
184.10	100	100
185.10	13.80	14.04
183.10	12.20	10.50
0.00	0.00	0.00

Data File : 1DFTP170.D
Data File Path : C:\INSTARCH\Data\1S081715\
Date Acquired : 8/17/2015 17:08
Sample Name : DFTPP TUNE SVMS6642
Misc Info : SVMS1,25 ug DFTPP

Vial Number : 1
Operator : RPN
Instrument Name: SVMS1
Sample Multiplier: 1

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Calibration Title : DFTPP TUNE Method
Last Update : Wed Aug 19 09:43:09 2015

Compound	R.T.	Qlon	Response
1) Pentachlorophenol	4.36	266	319424
2) DFTPP	4.80	198	321097
3) Benzidine	5.62	184	1753036
4) DDE	5.77	246	974
5) DDD	6.04	235	7431
6) DDT	6.28	235	789764

DDT %Degradation

DDD + DDE	x	100%	1.05 %
DDD + DDE + DDT			

Method Path : C:\INSTARCH\METHODS\
 Method File : 1S081715.M
 Title : Method for 8270 analysis
 Last Update : Wed Aug 19 13:23:03 2015
 Response Via : Initial Calibration

Calibration Files

1 =1ICAL1.D 5 =1ICAL2.D 10 =1ICAL3.D 20 =1CCV237.D 30 =1ICAL5.D 40 =1ICAL6.D 50 =1ICAL7.D

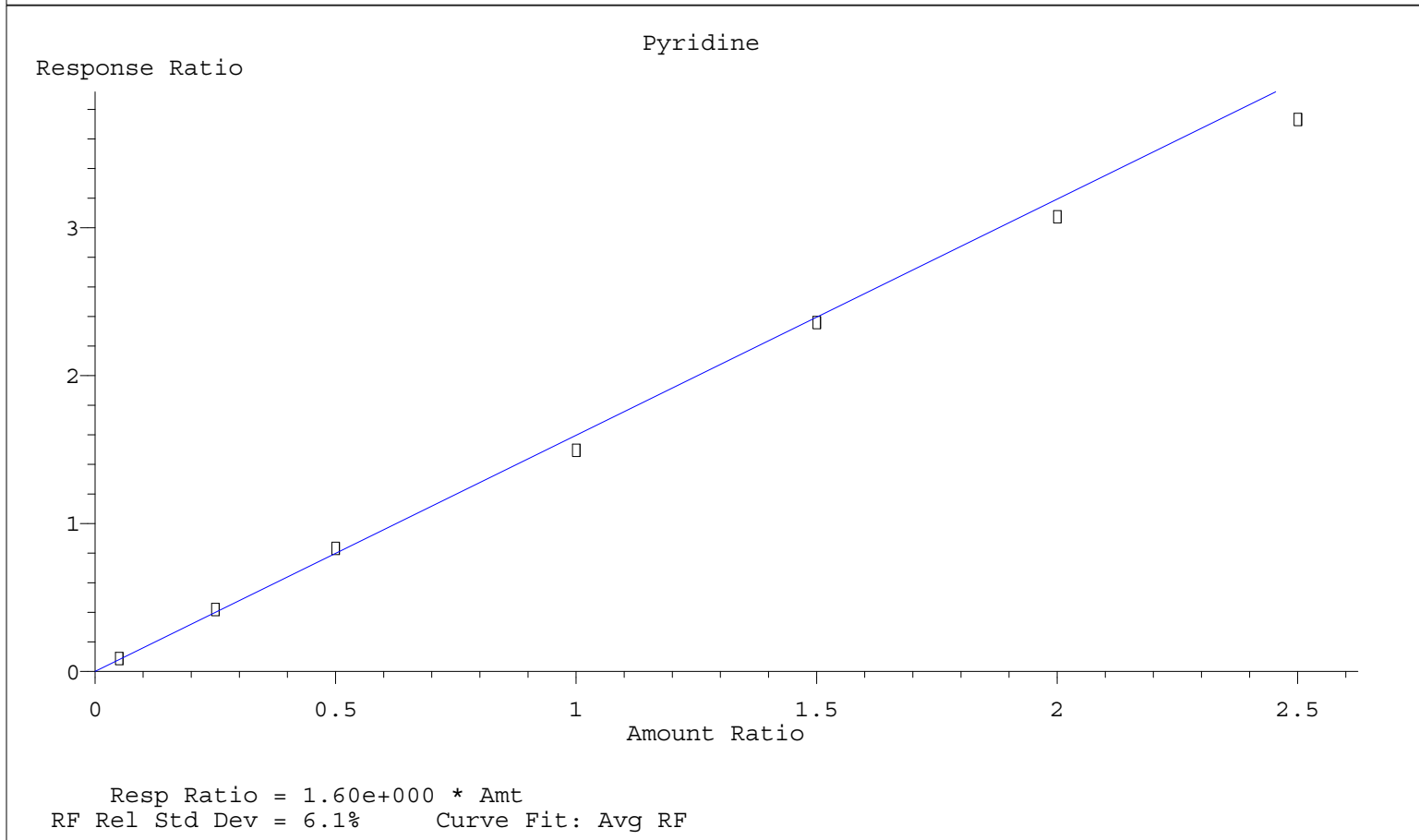
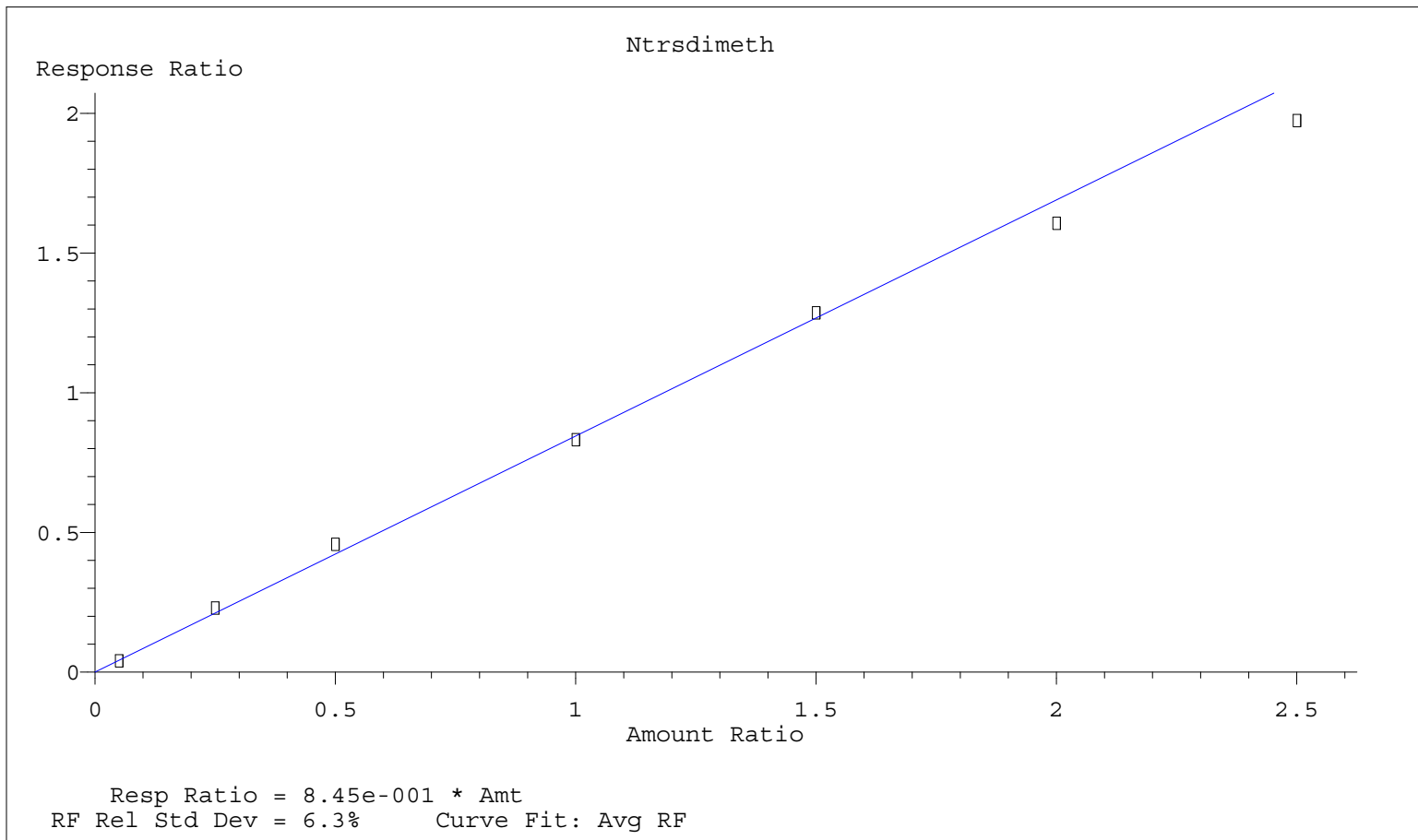
Compound		1	5	10	20	30	40	50	Avg	%RSD

1) I	14Diclbenzd4	-----ISTD-----								
2) CT	Ntrsdimeth	0.804	0.917	0.914	0.832	0.857	0.803	0.790	0.845	6.27
3) CT	Pyridine	1.740	1.675	1.664	1.494	1.572	1.536	1.493	1.596	6.09
4) S	SURR2Flphenol	0.522	0.581	0.589	0.521	0.541	0.531	0.500	0.541	6.05
5) CT	Aniline	1.926	2.153	2.085	1.835	1.926	1.789	1.659	1.911	8.89
6) CPT	bis2Clethletr	1.508	1.480	1.480	1.284	1.326	1.282	1.211	1.367	8.75
7) S	SURRPhenol-d5	0.689	0.742	0.717	0.634	0.656	0.625	0.576	0.663	8.64
8) CPT	Phenol	2.021	2.146	1.931	1.664	1.680	1.544	1.419	1.772	15.00
9) CPT	2-Cl-phenol	1.518	1.545	1.525	1.367	1.449	1.386	1.301	1.442	6.44
10) CT	13Diclbenz	1.767	1.738	1.689	1.482	1.531	1.484	1.399	1.584	9.13
11) CT	14Diclbenz	1.826	1.752	1.685	1.502	1.545	1.470	1.396	1.596	9.98
12) CT	12Diclbenz	1.760	1.737	1.639	1.401	1.407	1.324	1.215	1.498	14.27
13) CT	Benzyl alcoho	0.555	0.848	0.847	0.779	0.808	0.757	0.726	0.760	13.30
14) CPT	bis2clispreth	2.369	2.273	2.267	1.995	2.060	1.981	1.832	2.111	9.24
15) CPT	2Methylphenol	1.086	1.174	1.163	1.016	1.072	1.015	0.956	1.069	7.51
16) CT	Ntrspyrrol	0.641	0.737	0.728	0.647	0.679	0.639	0.588	0.665	7.97
17) CPT	Acetophenone	2.101	2.158	2.138	1.871	1.912	1.834	1.693	1.958	9.05
18) CPT	Hexaclethane	0.809	0.755	0.734	0.628	0.656	0.628	0.558	0.681	12.82
19) CPT	N-Ntrsdinprop	1.105	1.148	1.100	0.956	0.964	0.959	0.894	1.018	9.54
20) CPT	3&4Methylphenol	1.549	1.548	1.488	1.350	1.401	1.349	1.201	1.412	8.93
21) I	Naphthalened8	-----ISTD-----								
22) S	SURRNitrbenzened5	0.071	0.078	0.079	0.071	0.074	0.074	0.069	0.074	5.12
23) CPT	Nitrobenzene	0.328	0.388	0.386	0.362	0.367	0.367	0.340	0.363	6.07
24) CPT	Isophorone	0.838	0.802	0.747	0.673	0.682	0.695	0.659	0.728	9.53
25) CPT	2-Nitrophenol	0.108	0.150	0.162	0.153	0.162	0.160	0.152	0.150	12.79
26) CPT	24Dimthpheno	0.312	0.312	0.302	0.271	0.277	0.280	0.257	0.287	7.55
27) CPT	bis2clethoxym	0.434	0.460	0.444	0.395	0.409	0.407	0.378	0.418	6.95
28) CPT	24Diclphenol	0.292	0.339	0.337	0.301	0.312	0.304	0.283	0.310	6.91
29) CT	124Triclbenz	0.396	0.391	0.372	0.341	0.347	0.340	0.316	0.358	8.20
30) CT	Benzoic acid		0.078	0.119	0.132	0.157	0.157	0.160	0.134	23.77#
31) CPT	Naphthalene	1.375	1.343	1.236	1.126	1.142	1.128	1.056	1.201	10.02
32) CPT	4-Cl-aniline	0.648	0.633	0.573	0.503	0.491	0.464	0.418	0.533	16.32
33) CT	26Diclphenol	0.475	0.472	0.442	0.370	0.373	0.356	0.322	0.402	15.13
34) CT	Hexaclprop	0.309	0.358	0.345	0.306	0.316	0.302	0.270	0.315	9.22
35) CPT	Hexaclbutdien	0.365	0.369	0.343	0.303	0.308	0.306	0.277	0.324	10.74
36) CPT	4Cl3methylphe	0.476	0.533	0.509	0.444	0.440	0.443	0.407	0.465	9.50
37) CPT	2Methylnaphth	1.228	1.163	1.064	0.926	0.895	0.864	0.763	0.986	17.18
38) CT	1Methylnaphth	1.090	0.994	0.875	0.751	0.732	0.701	0.617	0.823	20.67#
39) I	Acenaphthened10	-----ISTD-----								
40) CPT	Hxclcycpentdi	0.276	0.413	0.440	0.404	0.450	0.434	0.410	0.404	14.56
41) CPT	1245Tetrclbenz	1.001	1.006	0.942	0.811	0.805	0.775	0.742	0.869	12.77
42) CPT	246Triclpheno	0.515	0.546	0.521	0.489	0.525	0.511	0.495	0.515	3.71

Method Path : C:\INSTARCH\METHODS\											
Method File : 1S081715.M											
43)	CPT	245Triclpheeno	0.576	0.647	0.617	0.561	0.602	0.600	0.561	0.595	5.28
44)	S	SURR2Flbiphenyl	0.419	0.399	0.365	0.331	0.329	0.322	0.305	0.353	12.11
45)	CPT	2Clnaphthalen	1.801	1.732	1.620	1.429	1.442	1.399	1.323	1.535	11.90
46)	CPT	2Nitroaniline	0.353	0.439	0.447	0.425	0.460	0.459	0.430	0.430	8.52
47)	CPT	Acnaphthylene	3.073	2.832	2.585	2.241	2.174	2.019	1.907	2.404	18.11
48)	CPT	Dimethylphtha	2.064	1.912	1.784	1.609	1.627	1.568	1.479	1.720	12.13
49)	CPT	26Dinitrotolu	0.329	0.382	0.365	0.328	0.325	0.306	0.279	0.331	10.37
50)	CPT	Acenaphthene	1.719	1.567	1.419	1.210	1.228	1.186	1.083	1.345	17.20
51)	CPT	3Nitroaniline	0.285	0.356	0.315	0.287	0.318	0.319	0.294	0.311	8.00
52)	CPT	24Dinitphenol		0.052	0.096	0.123	0.167	0.178	0.165	0.130	37.78#
53)	CPT	Dibenzofuran	2.609	2.436	2.220	1.895	1.879	1.783	1.620	2.063	17.68
54)	CPT	24Dinitrotolu	0.361	0.490	0.491	0.457	0.496	0.484	0.450	0.461	10.31
55)	CPT	4-Nitrophenol		0.253	0.277	0.250	0.265	0.250	0.231	0.254	6.07
56)	CT	2,3,5,6-Tetrac...	0.366	0.441	0.441	0.419	0.450	0.435	0.423	0.425	6.60
57)	CPT	2,3,4,6-Tetrac...	0.493	0.515	0.518	0.468	0.484	0.491	0.452	0.489	4.80
58)	CPT	Fluorene	2.106	1.953	1.772	1.521	1.469	1.414	1.268	1.643	18.68
59)	CPT	4Clphlphlethr	1.024	0.931	0.871	0.757	0.748	0.732	0.651	0.816	15.95
60)	CPT	Diethylphthal	2.187	1.990	1.827	1.635	1.712	1.721	1.590	1.809	11.76
61)	CPT	4Nitroaniline	0.304	0.334	0.330	0.294	0.336	0.341	0.324	0.323	5.44
62)	S	SURR246Tribrphenl	0.084	0.116	0.116	0.109	0.115	0.111	0.107	0.108	10.40
-----ISTD-----											
63)	I	Phenanthrd10									
64)	CPT	46Dinit2mylph		0.076	0.095	0.098	0.113	0.113	0.104	0.100	13.72
65)	CPT	Ntrsdiphlam&Di...	0.711	0.644	0.558	0.447	0.417	0.391	0.348	0.502	27.36#
66)	CT	Azobenz&12Diph...	0.212	0.192	0.175	0.138	0.129	0.124	0.112	0.155	24.63#
67)	CPT	4Brphlphlethr	0.308	0.297	0.275	0.239	0.230	0.218	0.190	0.251	17.28
68)	CPT	Hexaclbenzene	0.378	0.355	0.332	0.279	0.263	0.257	0.243	0.301	17.65
69)	CPT	Pentaclphenol		0.124	0.141	0.145	0.155	0.152	0.148	0.144	7.57
70)	CPT	Phenanthrene	1.558	1.409	1.265	1.054	1.000	0.950	0.885	1.160	21.92#
71)	CPT	Anthracene	1.594	1.460	1.326	1.094	1.026	0.990	0.912	1.200	21.69#
72)	CPT	Carbazole	1.404	1.195	1.135	0.969	0.971	0.923	0.864	1.066	17.76
73)	CPT	Dinbtylphthal	1.425	1.319	1.215	1.028	0.992	0.923	0.873	1.111	18.96
74)	CPT	Fluoranthene	0.929	0.856	0.801	0.694	0.675	0.664	0.612	0.747	15.56
-----ISTD-----											
75)	I	Chrysene-d12									
76)	CT	Benzidine	0.238	0.171	0.146	0.165	0.234	0.316		0.212	29.97#
77)	CPT	Pyrene	1.687	1.600	1.498	1.314	1.336	1.363	1.237	1.434	11.50
78)	S	SURRTerphenyl-d14	0.205	0.192	0.181	0.162	0.169	0.169	0.157	0.176	9.67
79)	CPT	Btylbzylphth	0.555	0.635	0.619	0.569	0.570	0.578	0.533	0.580	6.15
80)	TM	bis2Ethlhxlad	0.472	0.523	0.508	0.448	0.444	0.440	0.399	0.462	9.21
81)	CPT	33Diclbnzidin	0.466	0.323	0.291	0.274	0.282	0.295	0.281	0.316	21.56#
82)	CPT	B[a]anthracen	1.388	1.335	1.270	1.178	1.218	1.218	1.161	1.253	6.66
83)	CPT	Chrysene	1.406	1.249	1.153	1.001	1.003	0.988	0.898	1.100	16.24
84)	CPT	bis2Ethlhxlp	0.881	0.916	0.848	0.722	0.665	0.649	0.569	0.750	17.62
85)	CPT	Dinoctylphthl	1.276	1.572	1.608	1.487	1.467	1.476	1.395	1.469	7.52
-----ISTD-----											
86)	I	Perylene-d12									
87)	CPT	B[b]fluoranth	1.456	1.556	1.470	1.284	1.358	1.315	1.263	1.386	7.91
88)	CPT	B[k]fluoranth	1.576	1.475	1.323	1.347	1.187	1.177	1.104	1.313	13.00
89)	CPT	Benz[a]pyrene	1.620	1.523	1.402	1.319	1.263	1.277	1.200	1.372	11.07
90)	CPT	Indeno-pyrene	1.704	1.743	1.600	1.571	1.514	1.477	1.406	1.574	7.67
91)	CPT	Dib[ah]anthr	1.398	1.444	1.324	1.277	1.229	1.169	1.114	1.279	9.32
92)	CPT	B[ghi]perylen	1.536	1.525	1.414	1.397	1.339	1.339	1.268	1.403	7.08

Method Path : C:\INSTARCH\METHODS\
Method File : 1S081715.M
(#) = Out of Range

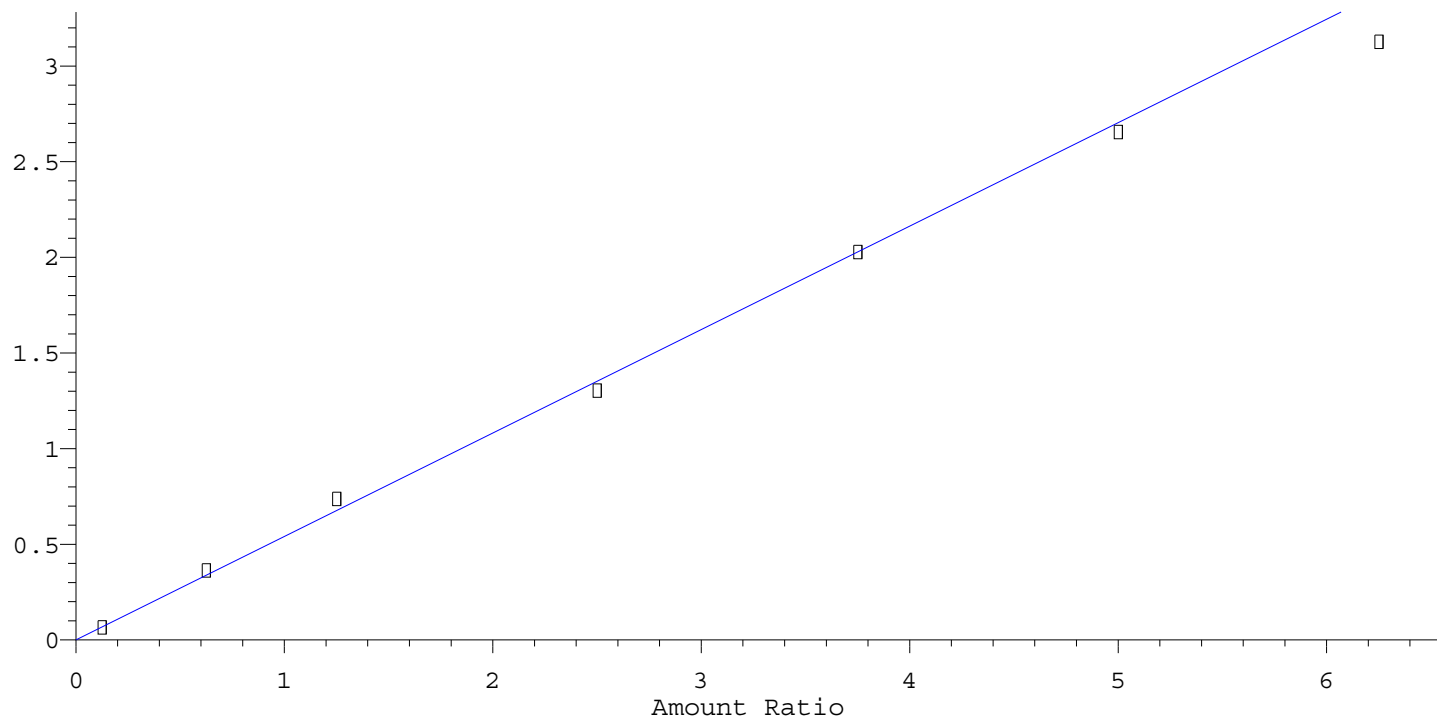
Calibration Plot Report



Calibration Plot Report

SURR2Flphenol

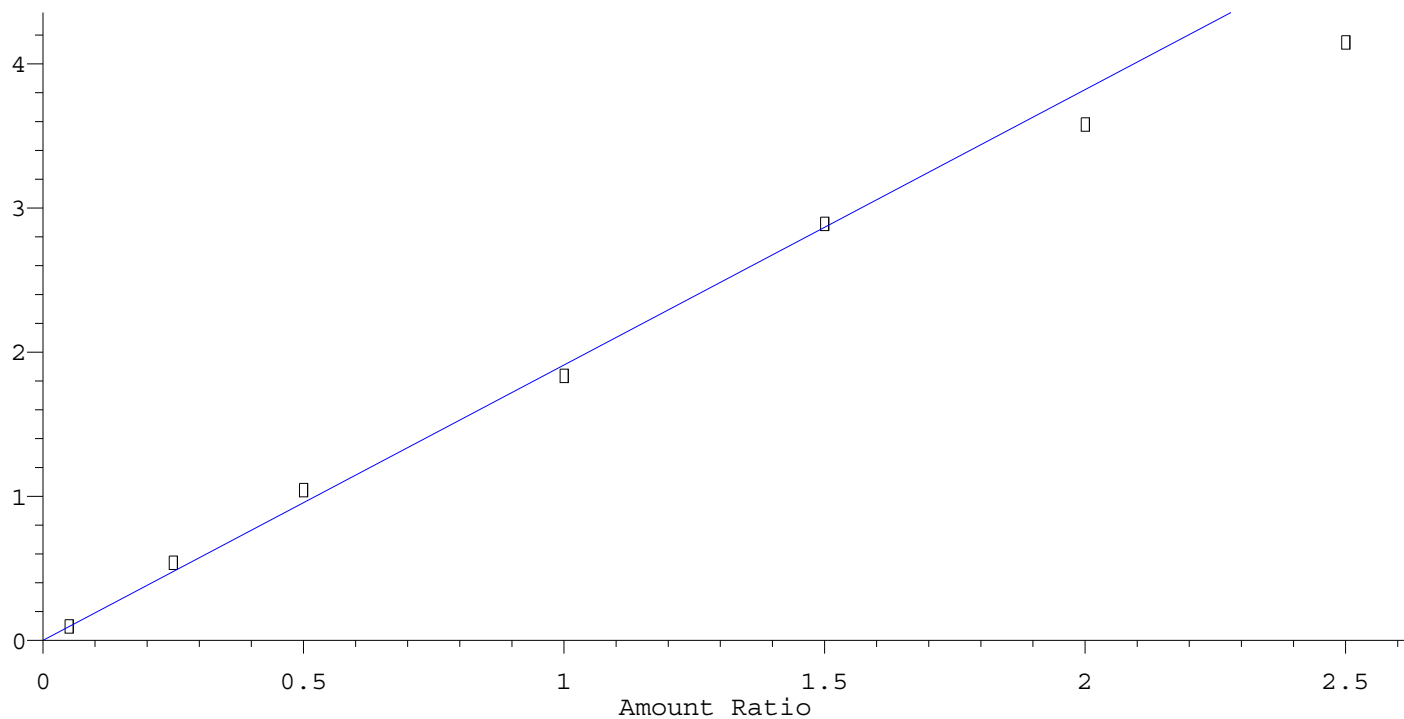
Response Ratio



Resp Ratio = 5.41×10^{-1} * Amt
RF Rel Std Dev = 6.1% Curve Fit: Avg RF

Aniline

Response Ratio

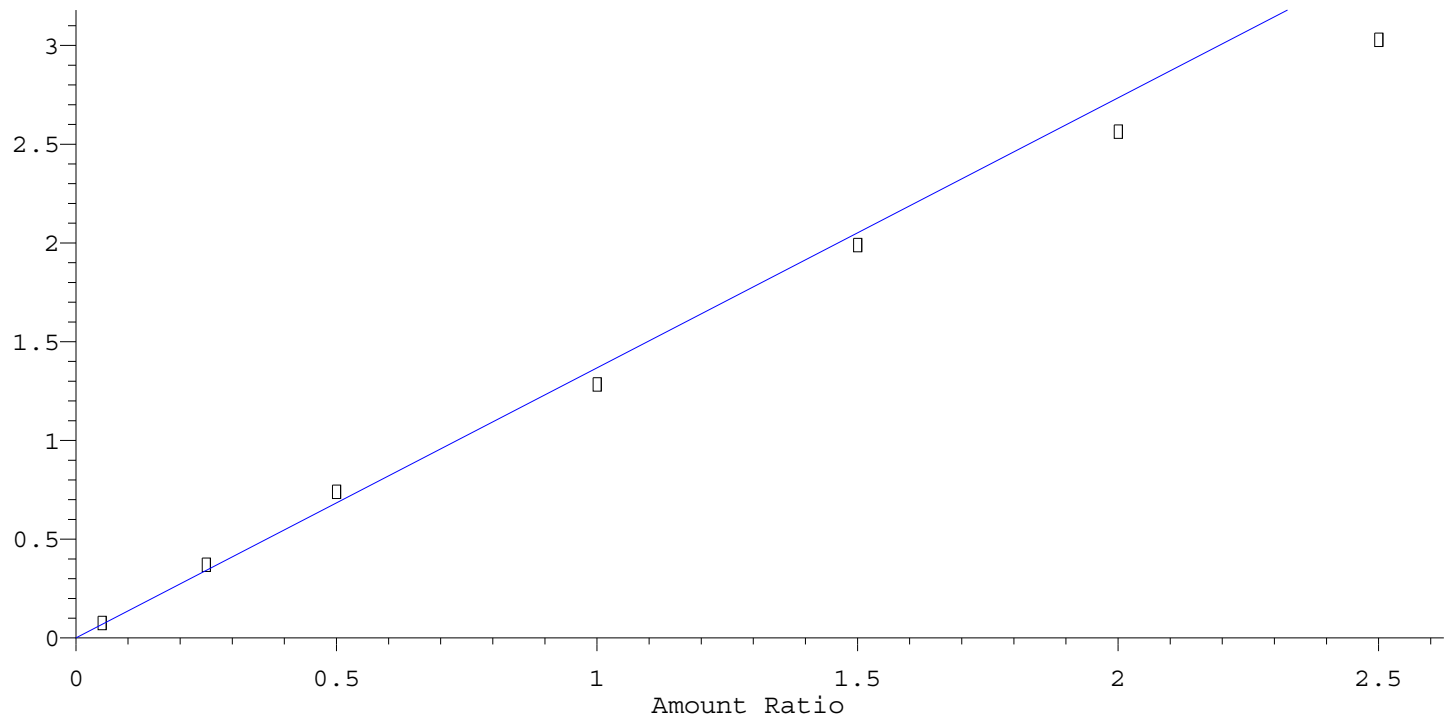


Resp Ratio = 1.91×10^0 * Amt
RF Rel Std Dev = 8.9% Curve Fit: Avg RF

Calibration Plot Report

bis2Clethletr

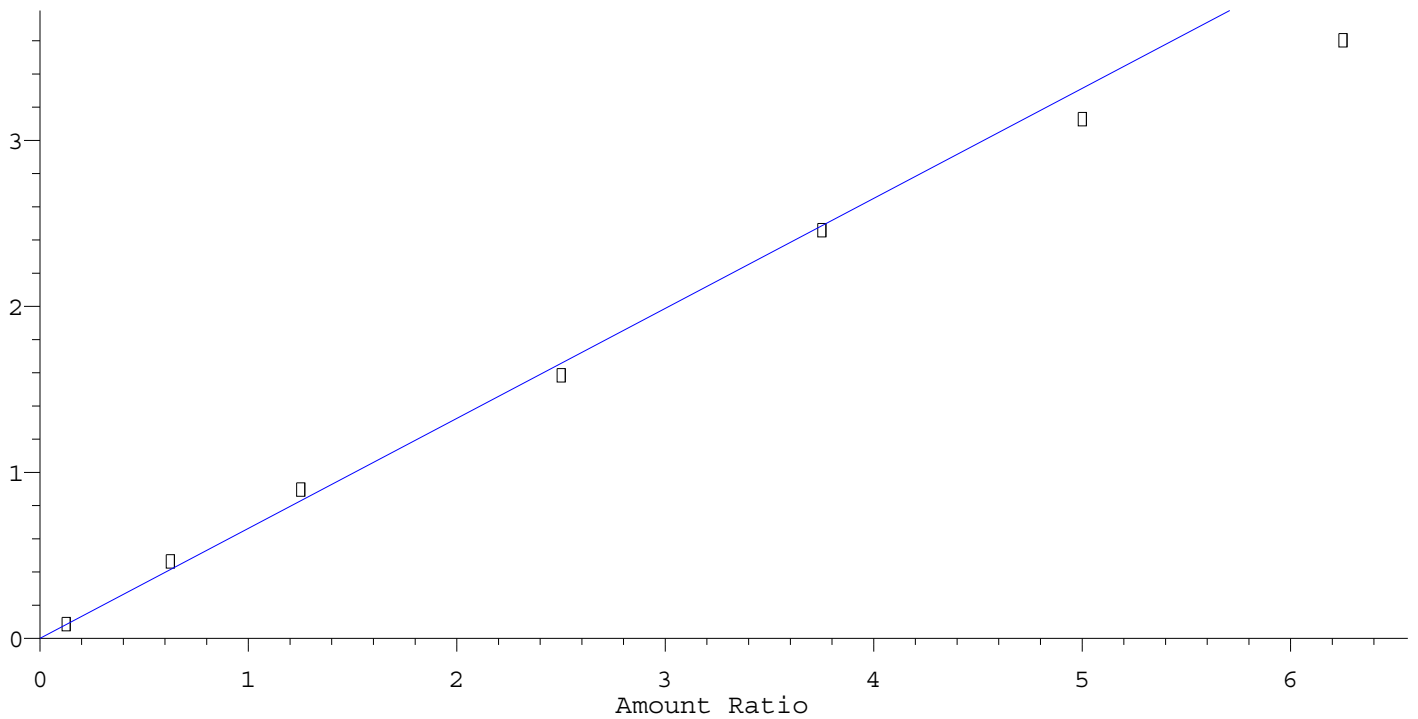
Response Ratio



Resp Ratio = 1.37e+000 * Amt
RF Rel Std Dev = 8.7% Curve Fit: Avg RF

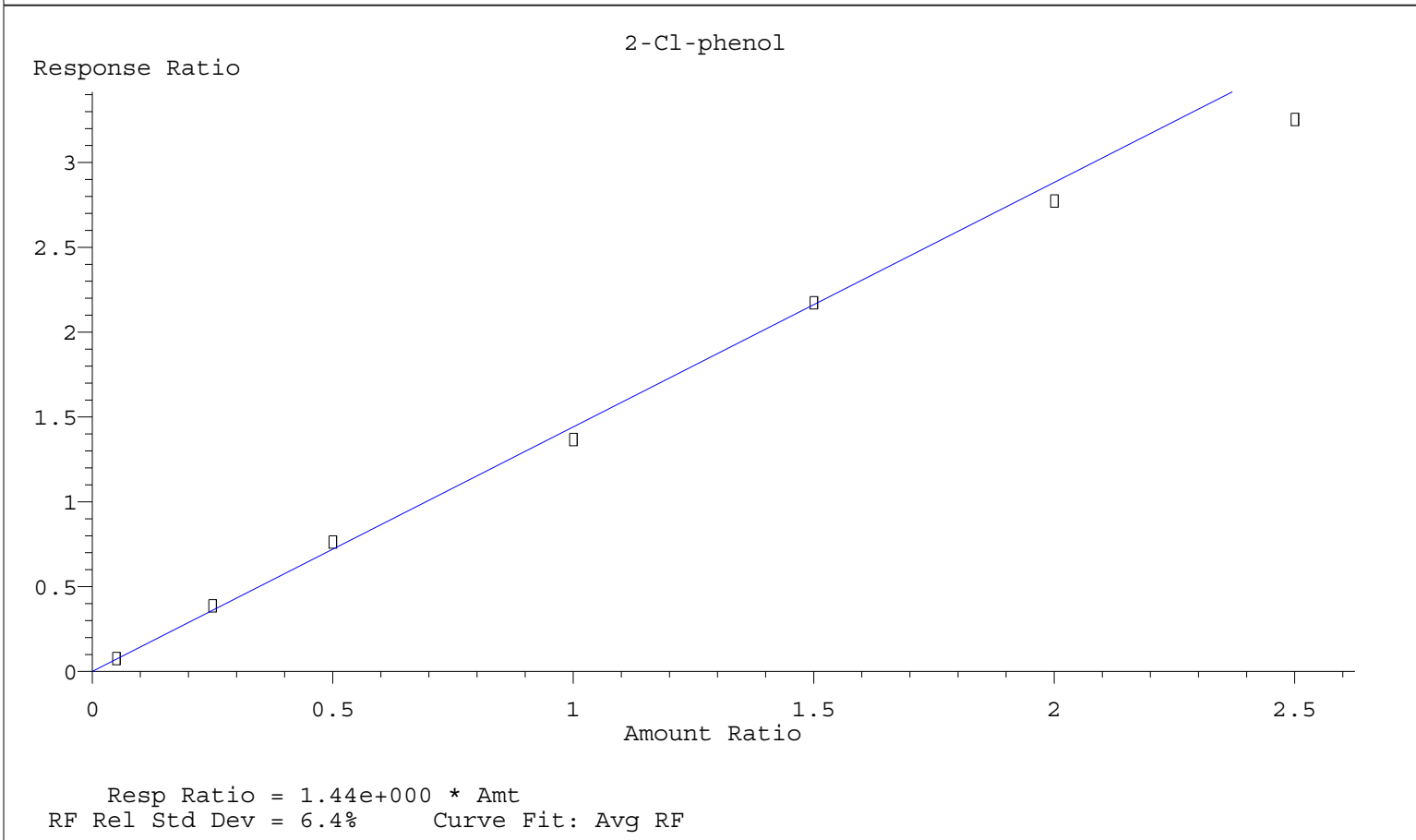
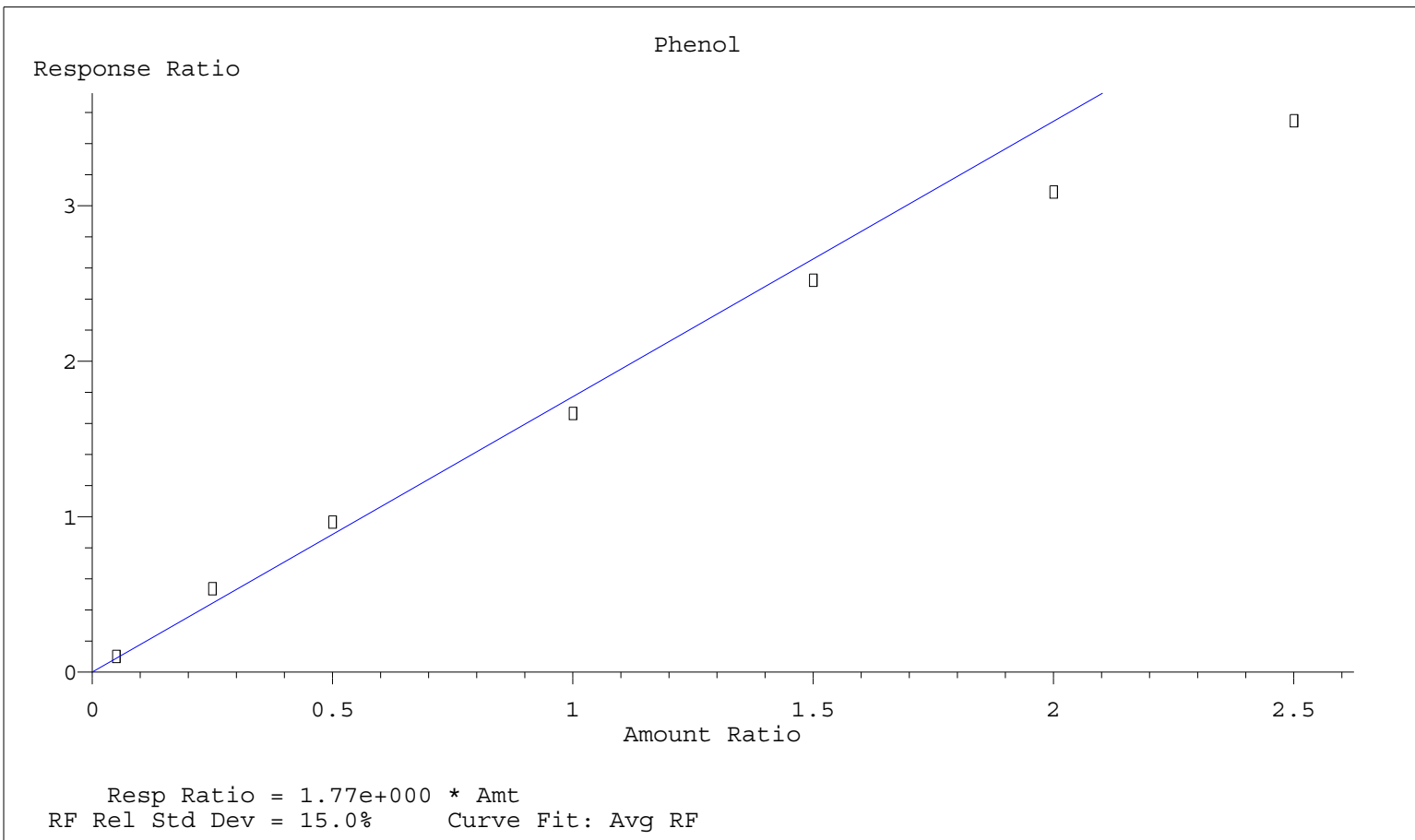
SURRPhenol-d5

Response Ratio



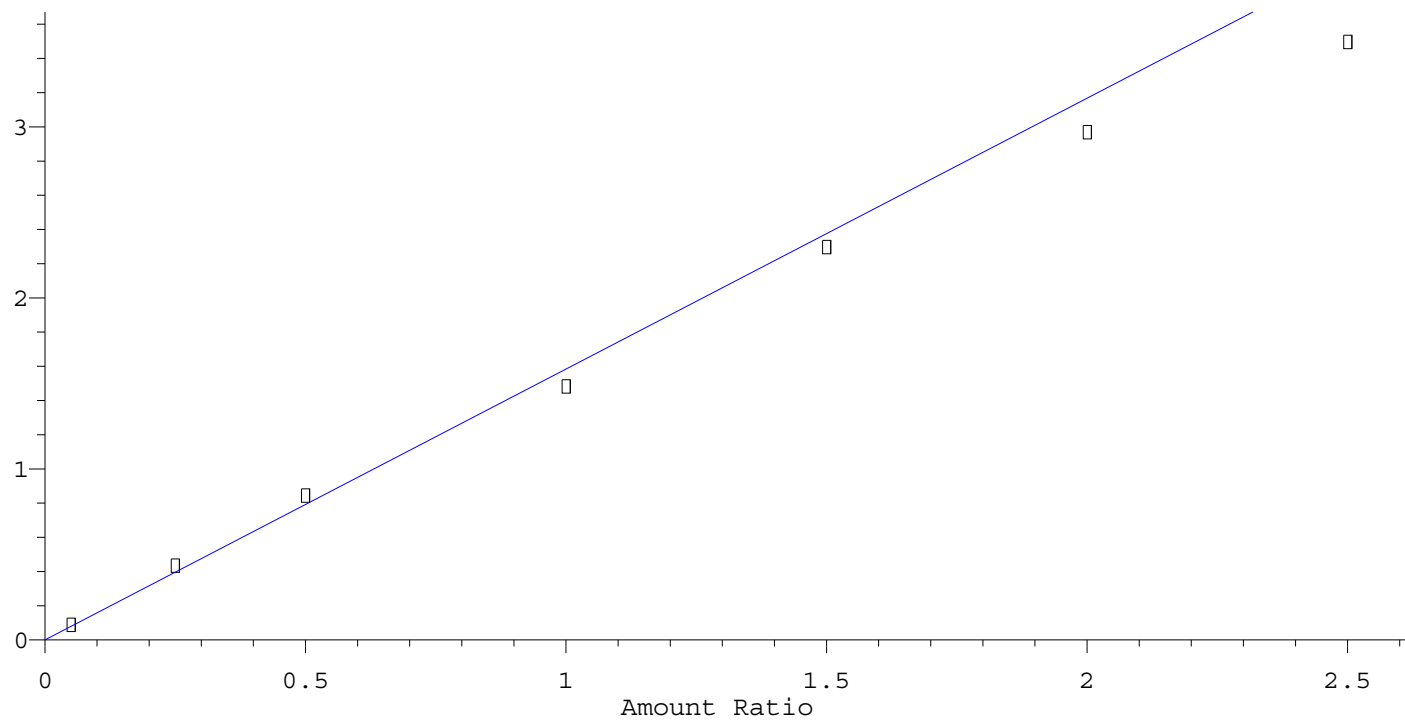
Resp Ratio = 6.63e-001 * Amt
RF Rel Std Dev = 8.6% Curve Fit: Avg RF

Calibration Plot Report



13Diclbenz

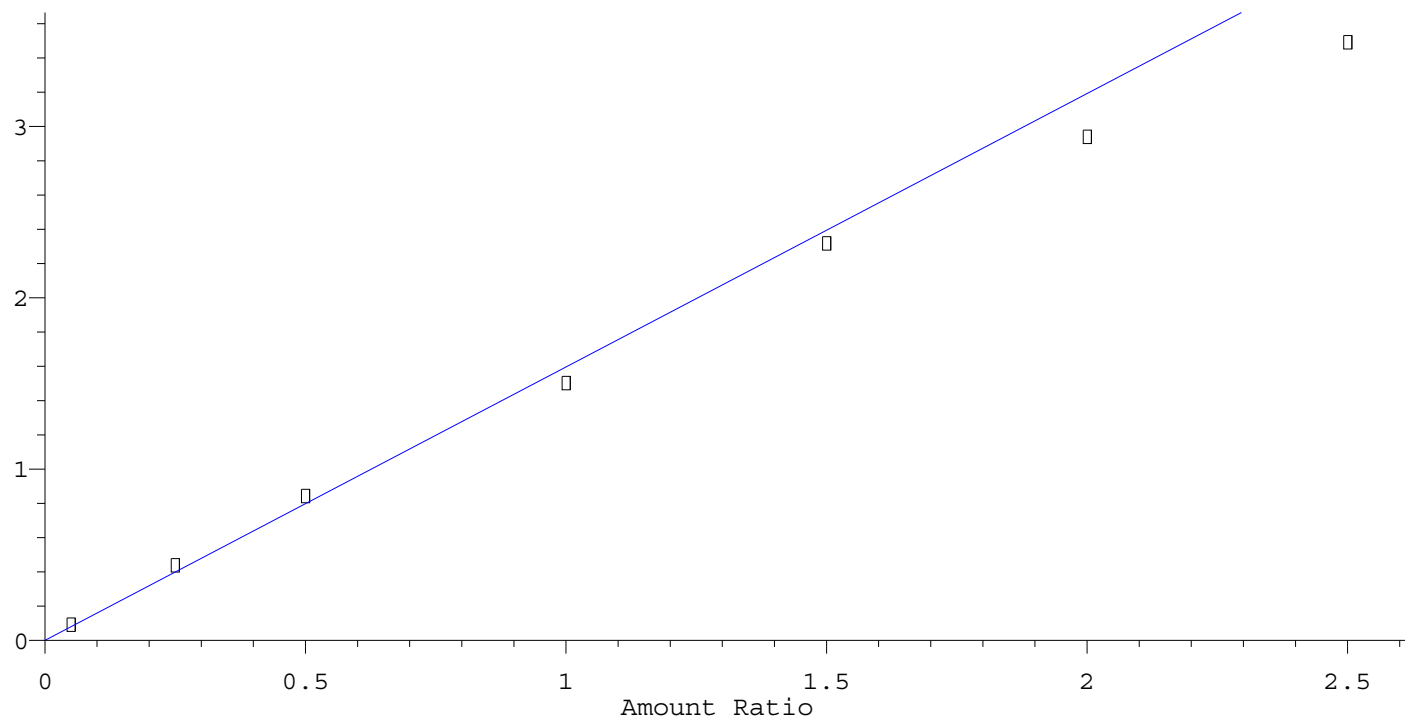
Response Ratio



Resp Ratio = 1.58×10^0 * Amt
RF Rel Std Dev = 9.1% Curve Fit: Avg RF

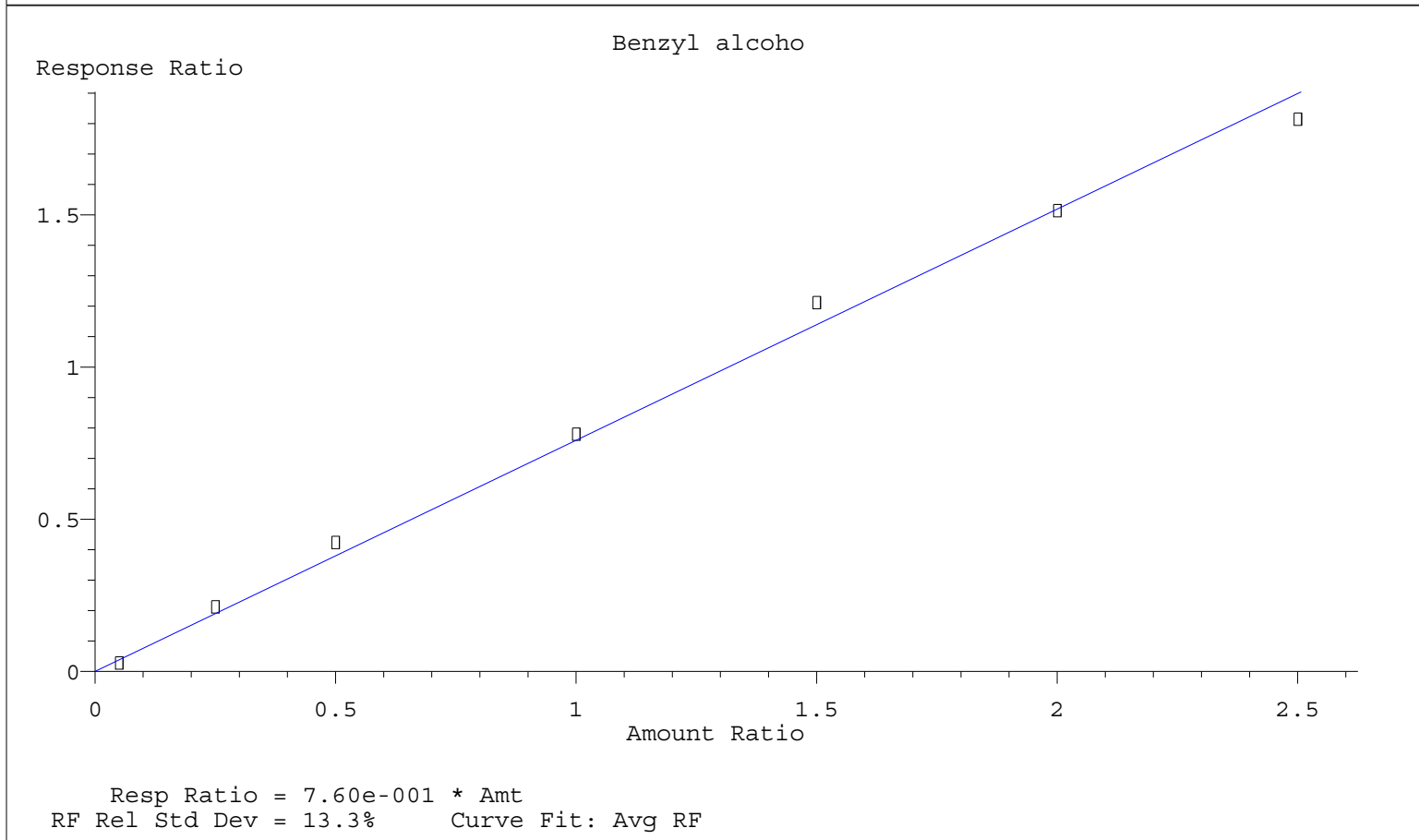
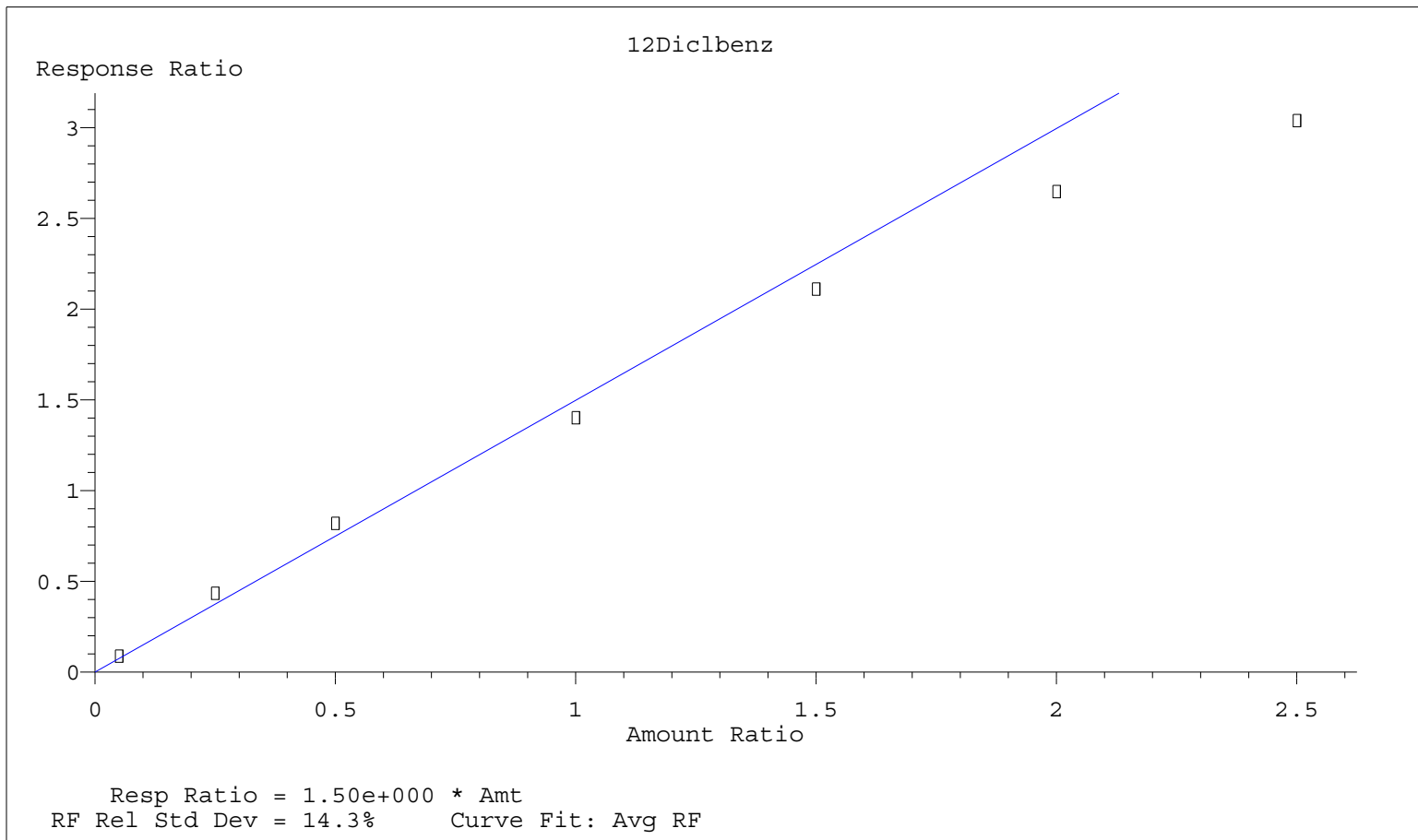
14Diclbenz

Response Ratio



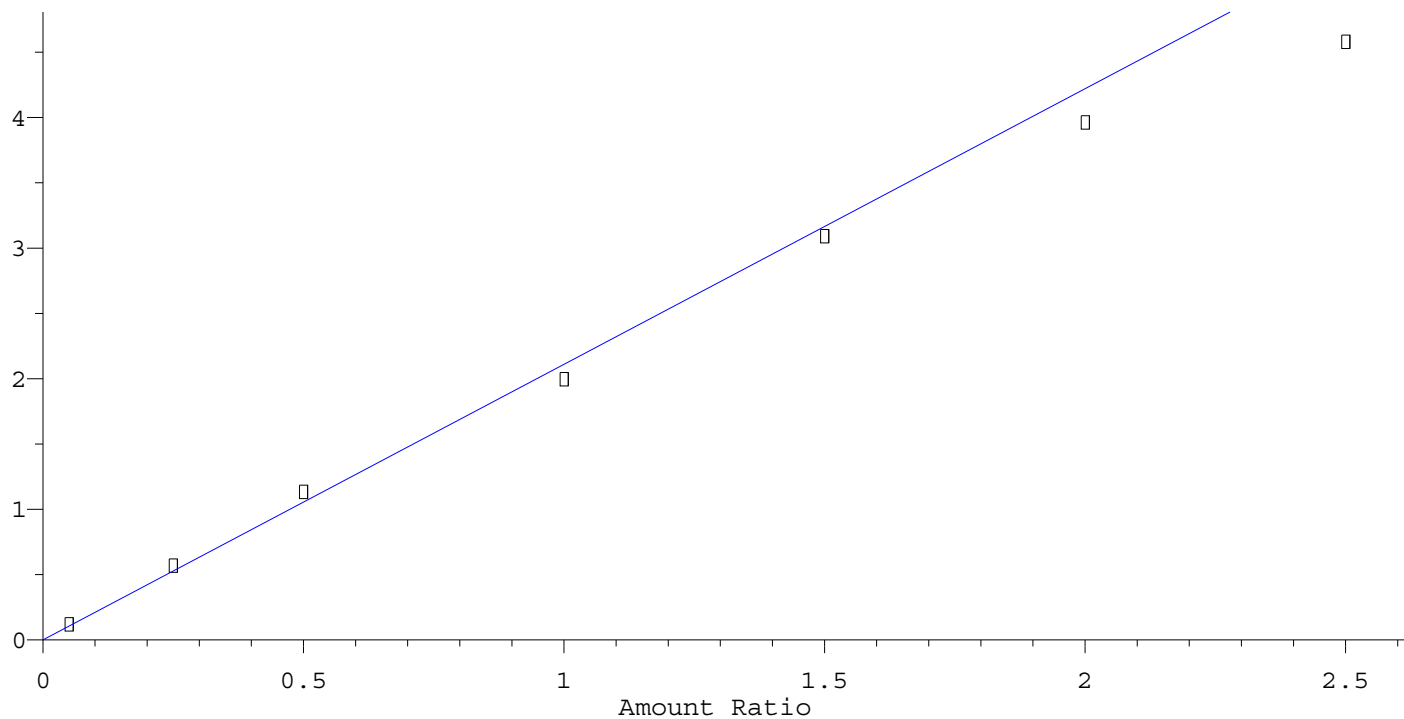
Resp Ratio = 1.60×10^0 * Amt
RF Rel Std Dev = 10.0% Curve Fit: Avg RF

Calibration Plot Report



bis2clispreth

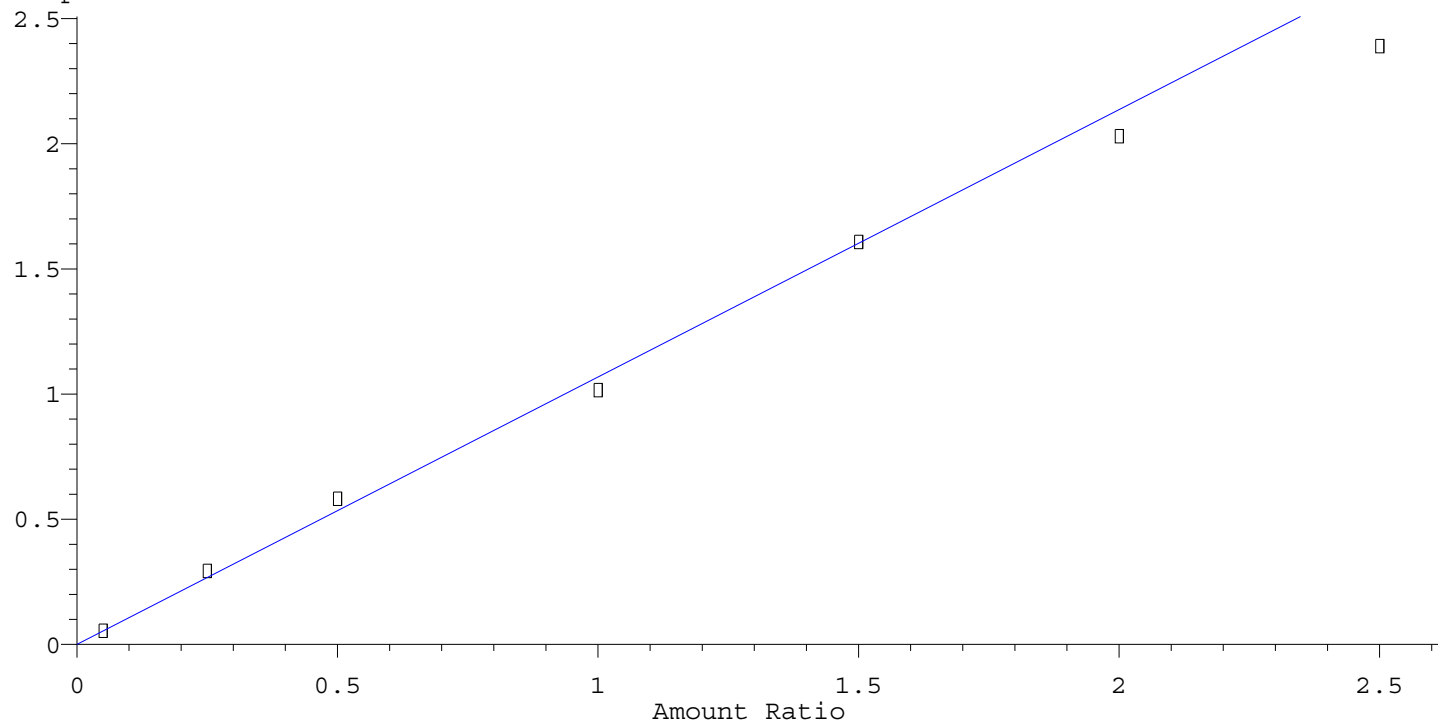
Response Ratio



Resp Ratio = 2.11×10^0 * Amt
RF Rel Std Dev = 9.2% Curve Fit: Avg RF

2Methylphenol

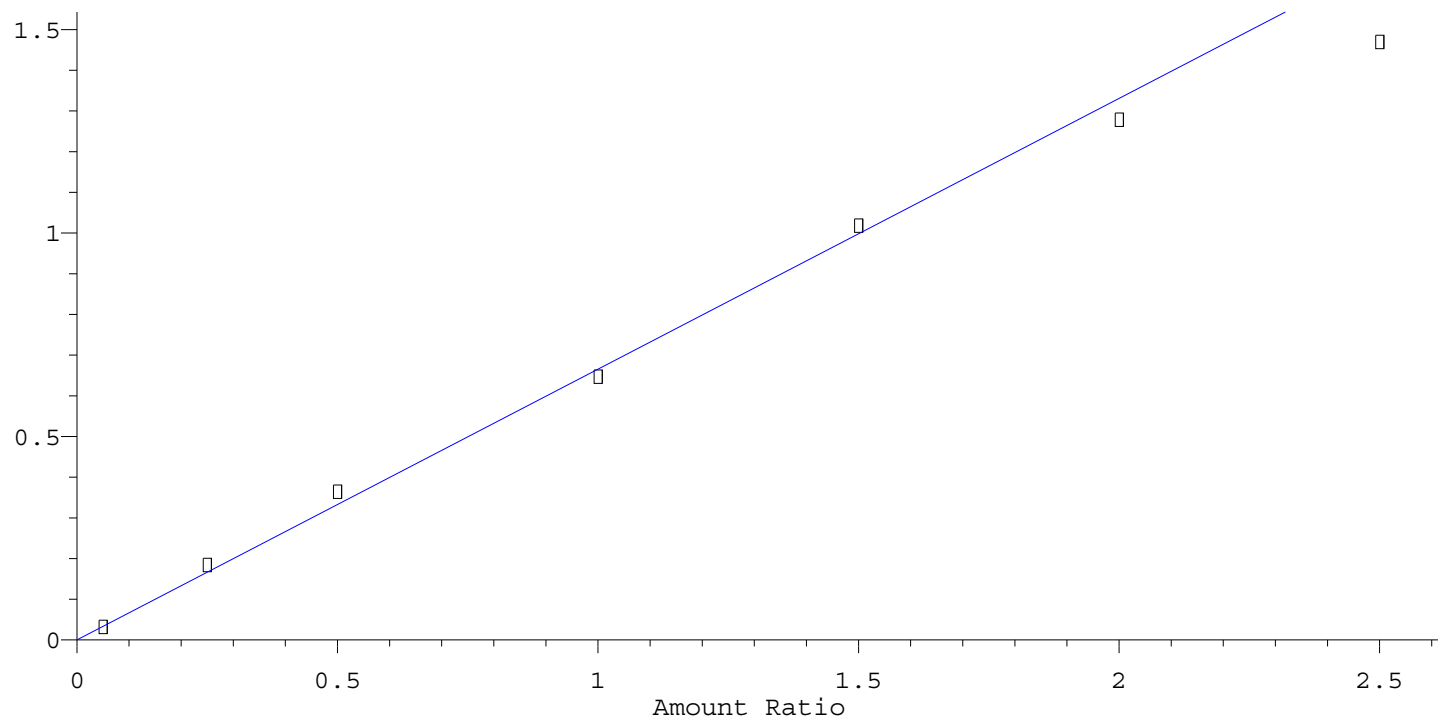
Response Ratio



Resp Ratio = 1.07×10^0 * Amt
RF Rel Std Dev = 7.5% Curve Fit: Avg RF

Ntrspyrrol

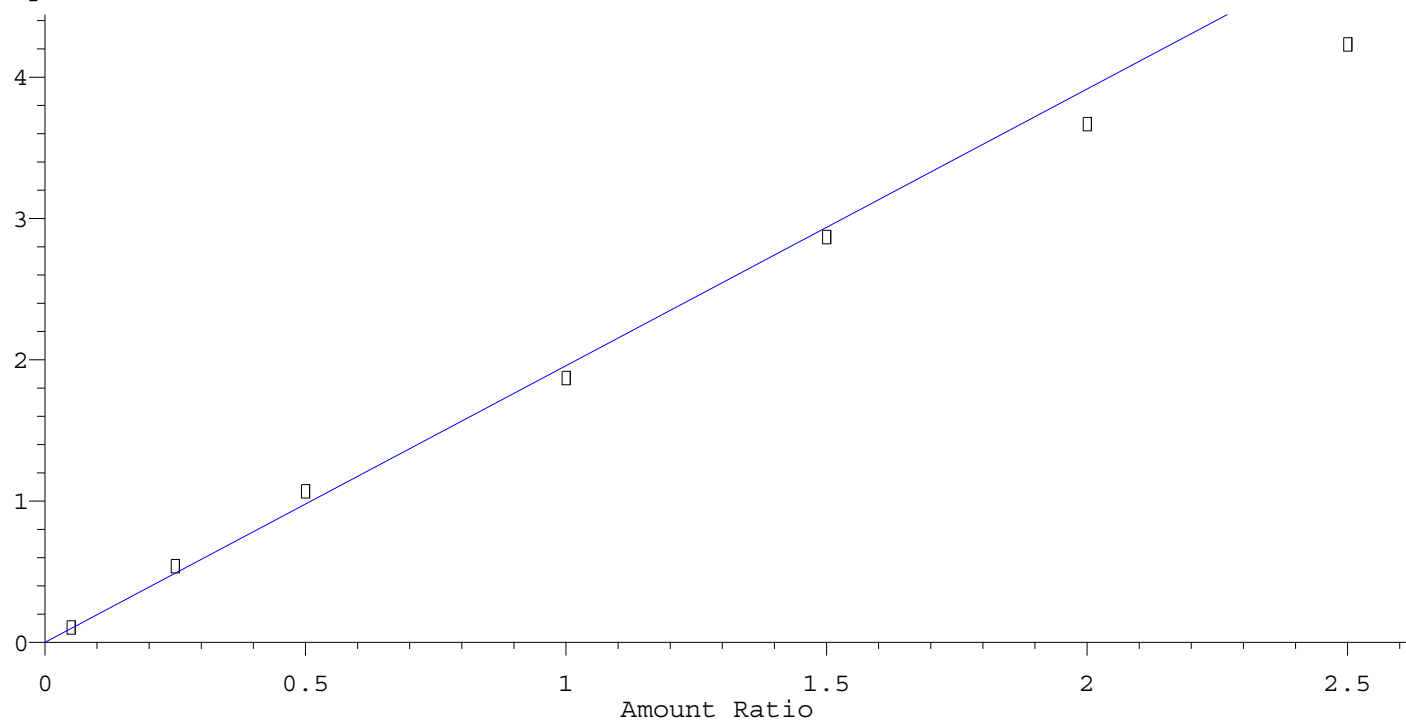
Response Ratio



Resp Ratio = 6.65×10^{-1} * Amt
RF Rel Std Dev = 8.0% Curve Fit: Avg RF

Acetophenone

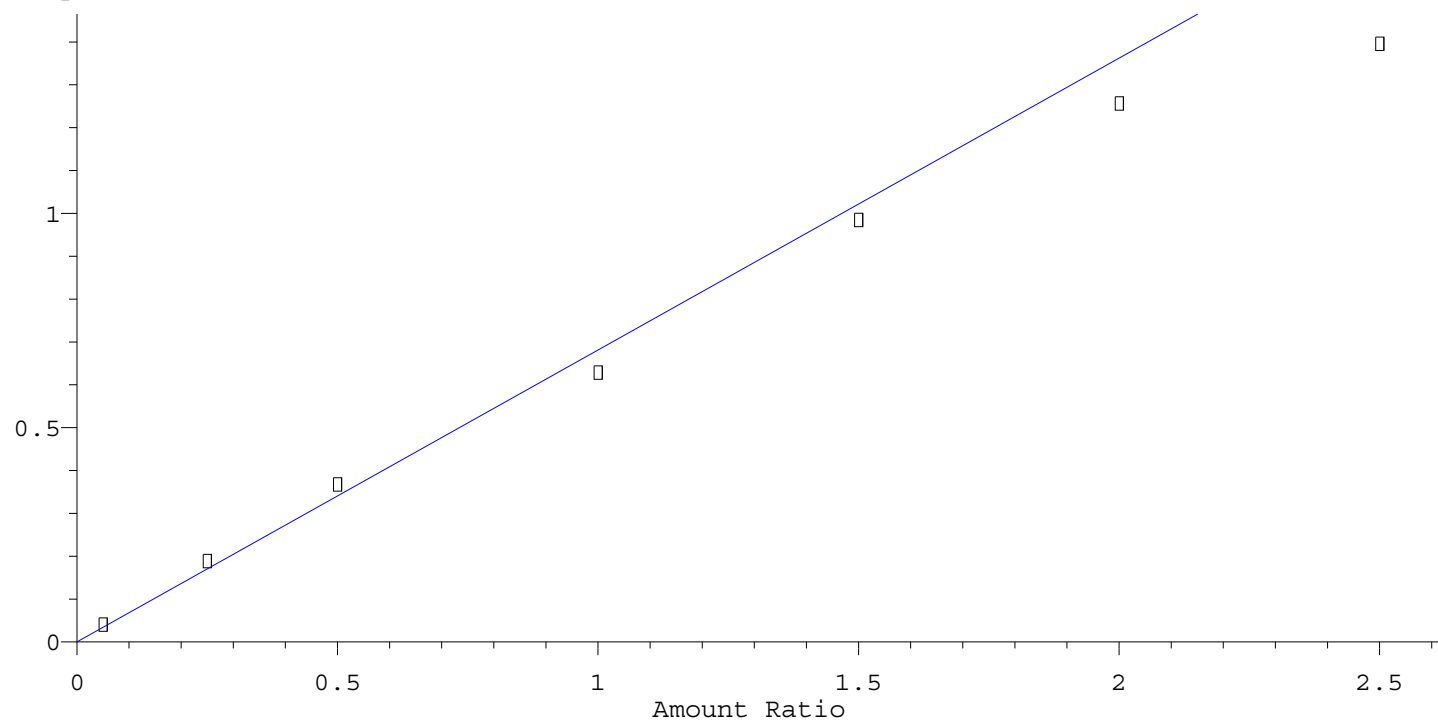
Response Ratio



Resp Ratio = 1.96×10^0 * Amt
RF Rel Std Dev = 9.1% Curve Fit: Avg RF

Hexaclethane

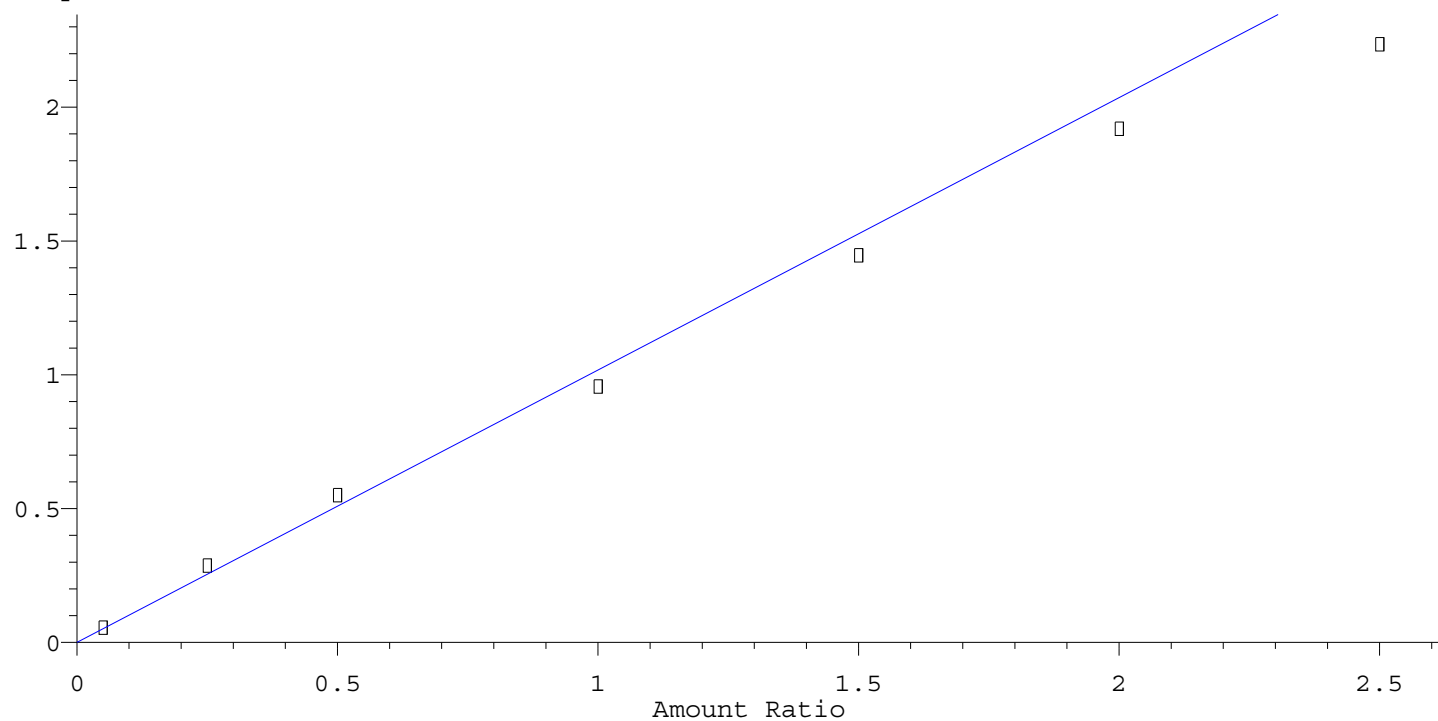
Response Ratio



Resp Ratio = $6.81e-001$ * Amt
 RF Rel Std Dev = 12.8% Curve Fit: Avg RF

N-Ntrsdinprop

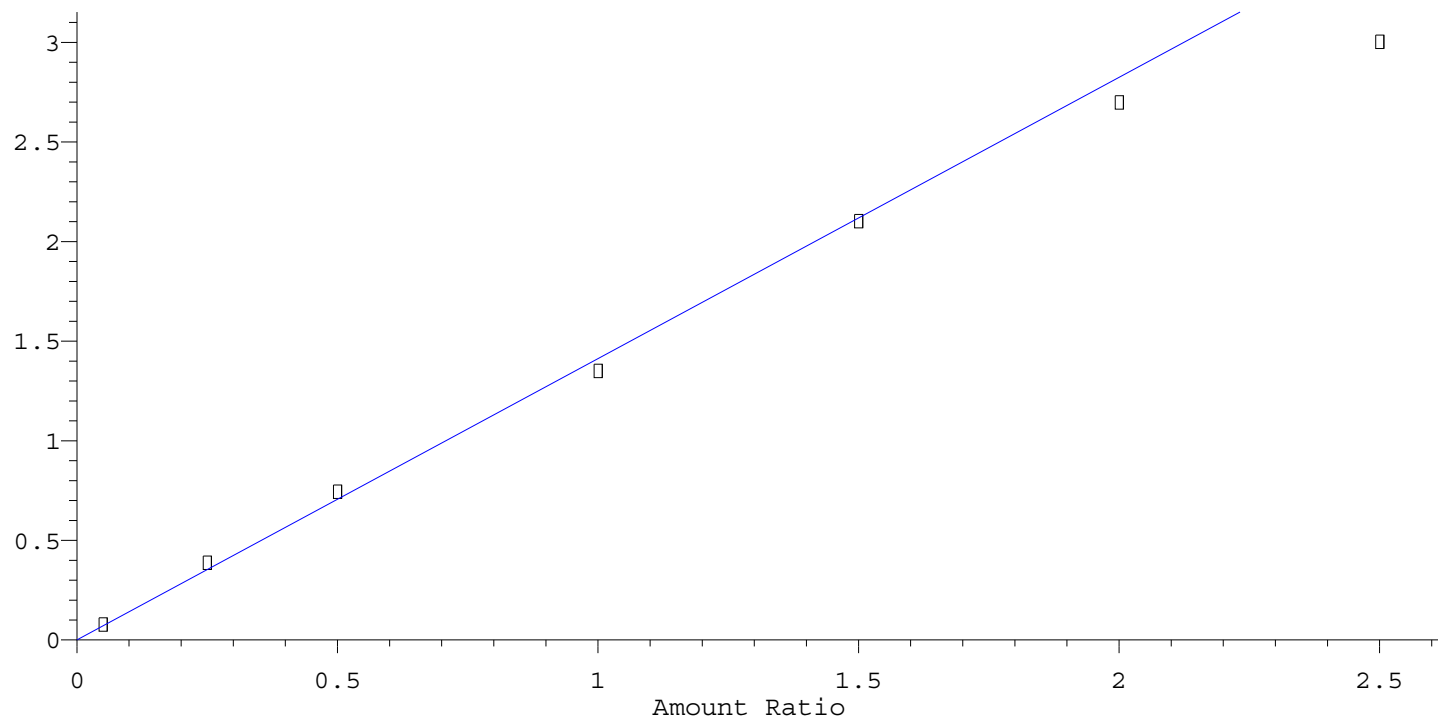
Response Ratio



Resp Ratio = $1.02e+000$ * Amt
 RF Rel Std Dev = 9.5% Curve Fit: Avg RF

3&4Methylphenol

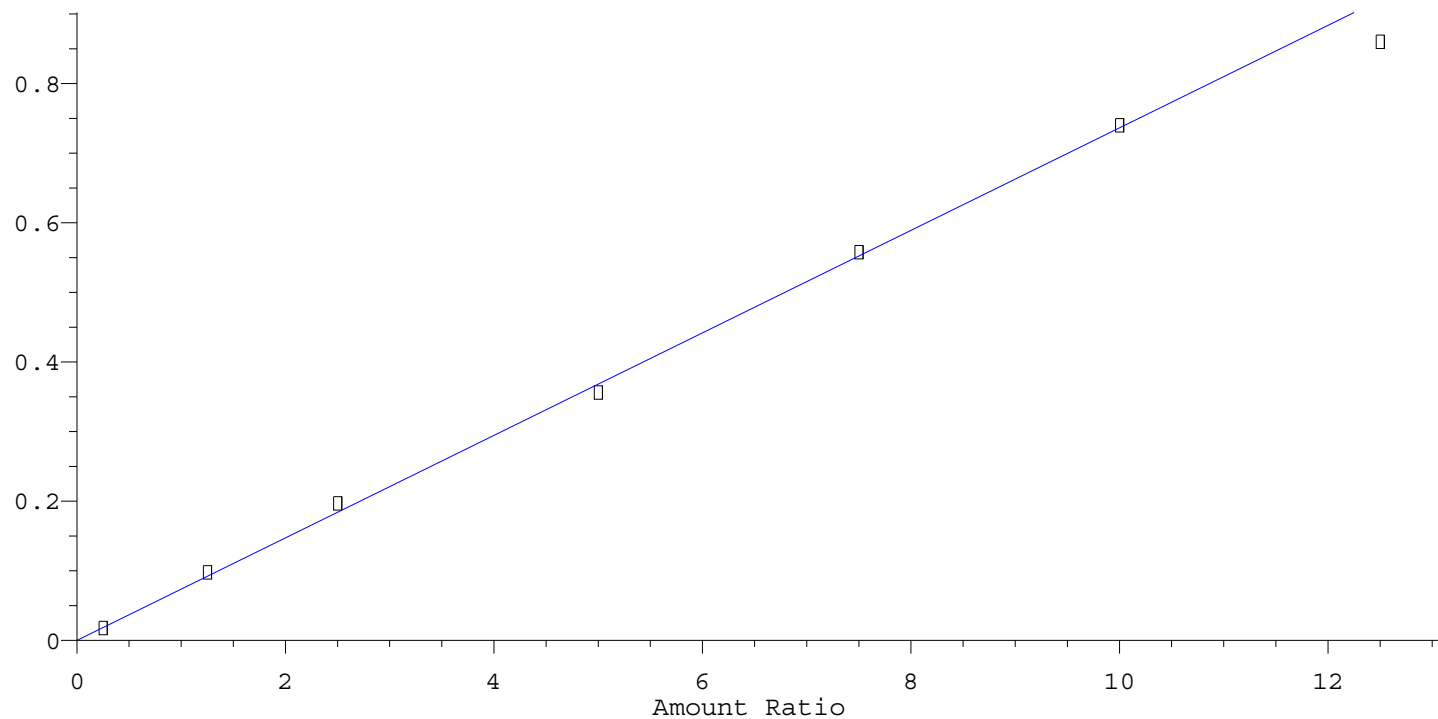
Response Ratio



Resp Ratio = $1.41\text{e}+000$ * Amt
RF Rel Std Dev = 8.9% Curve Fit: Avg RF

SURRNitrbenzened5

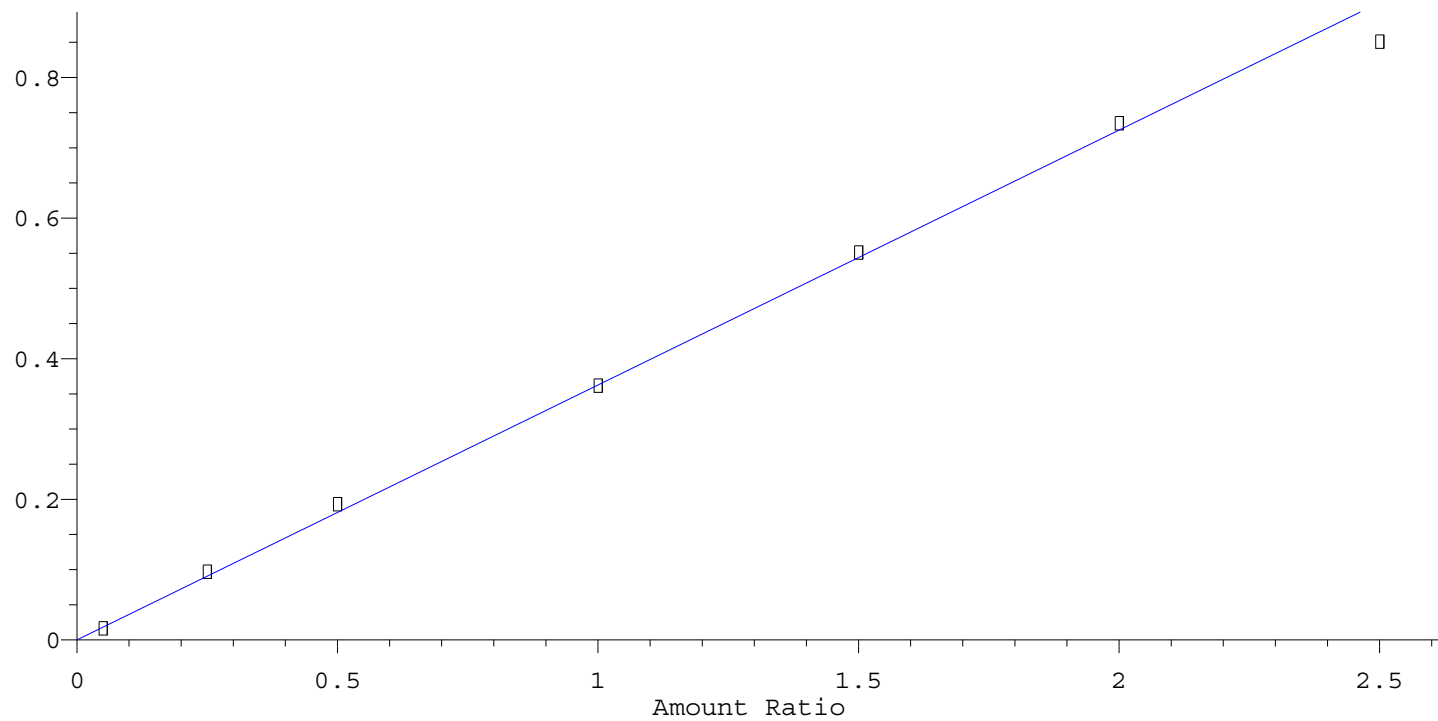
Response Ratio



Resp Ratio = $7.37\text{e}-002$ * Amt
RF Rel Std Dev = 5.1% Curve Fit: Avg RF

Nitrobenzene

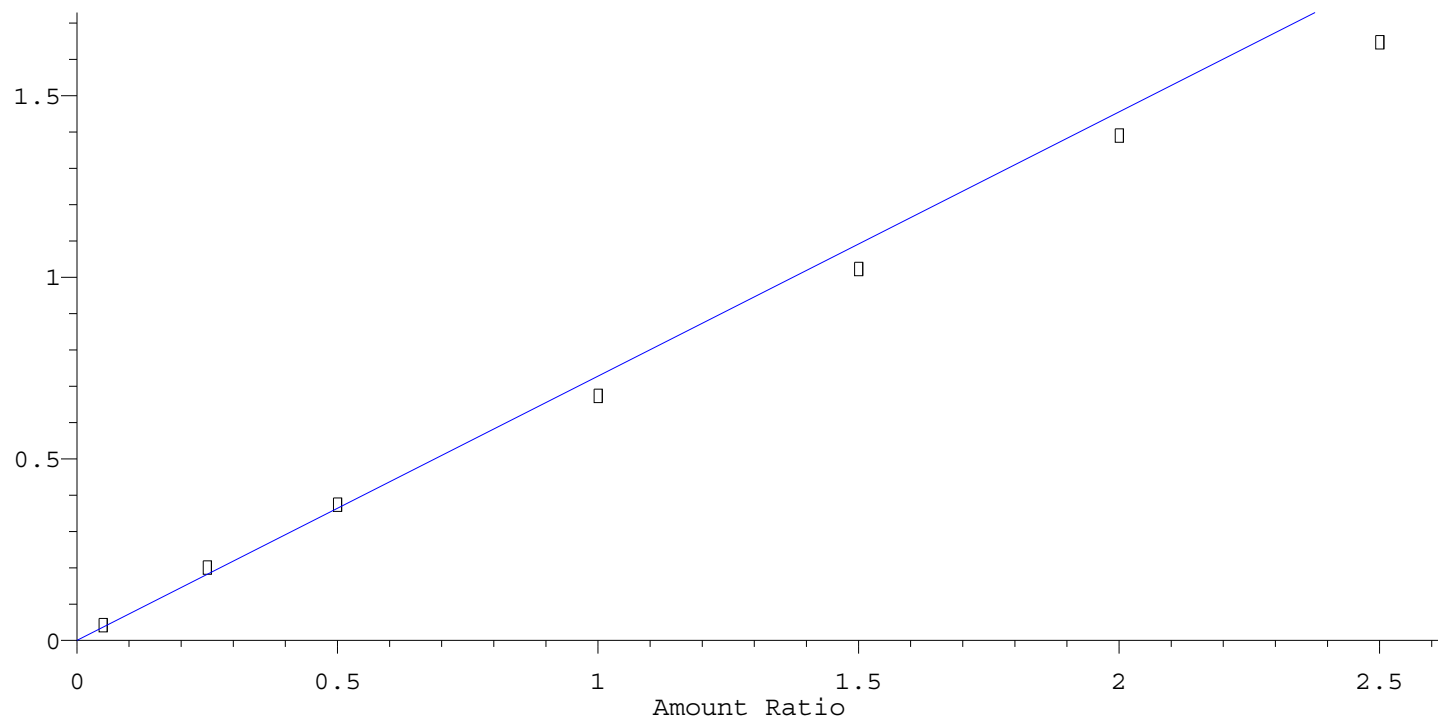
Response Ratio



Resp Ratio = 3.63×10^{-1} * Amt
RF Rel Std Dev = 6.1% Curve Fit: Avg RF

Isophorone

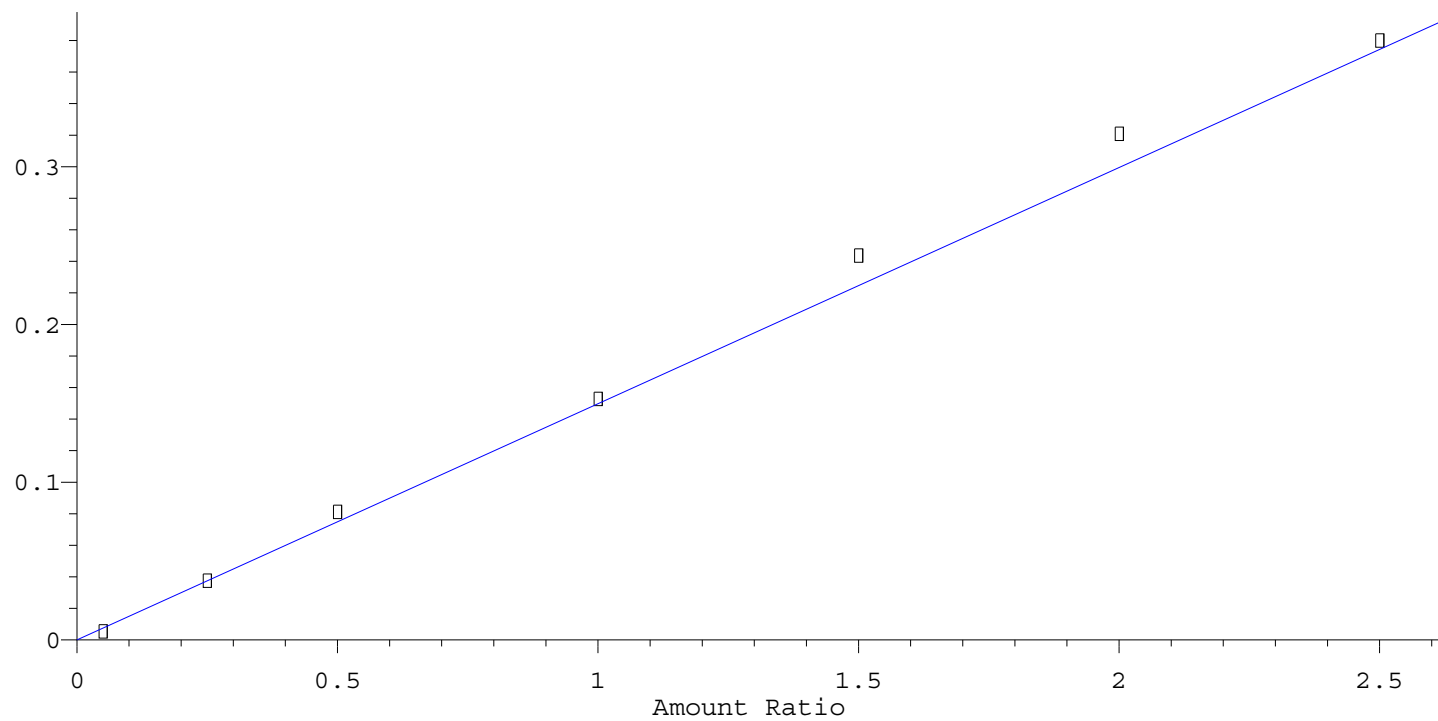
Response Ratio



Resp Ratio = 7.28×10^{-1} * Amt
RF Rel Std Dev = 9.5% Curve Fit: Avg RF

2-Nitrophenol

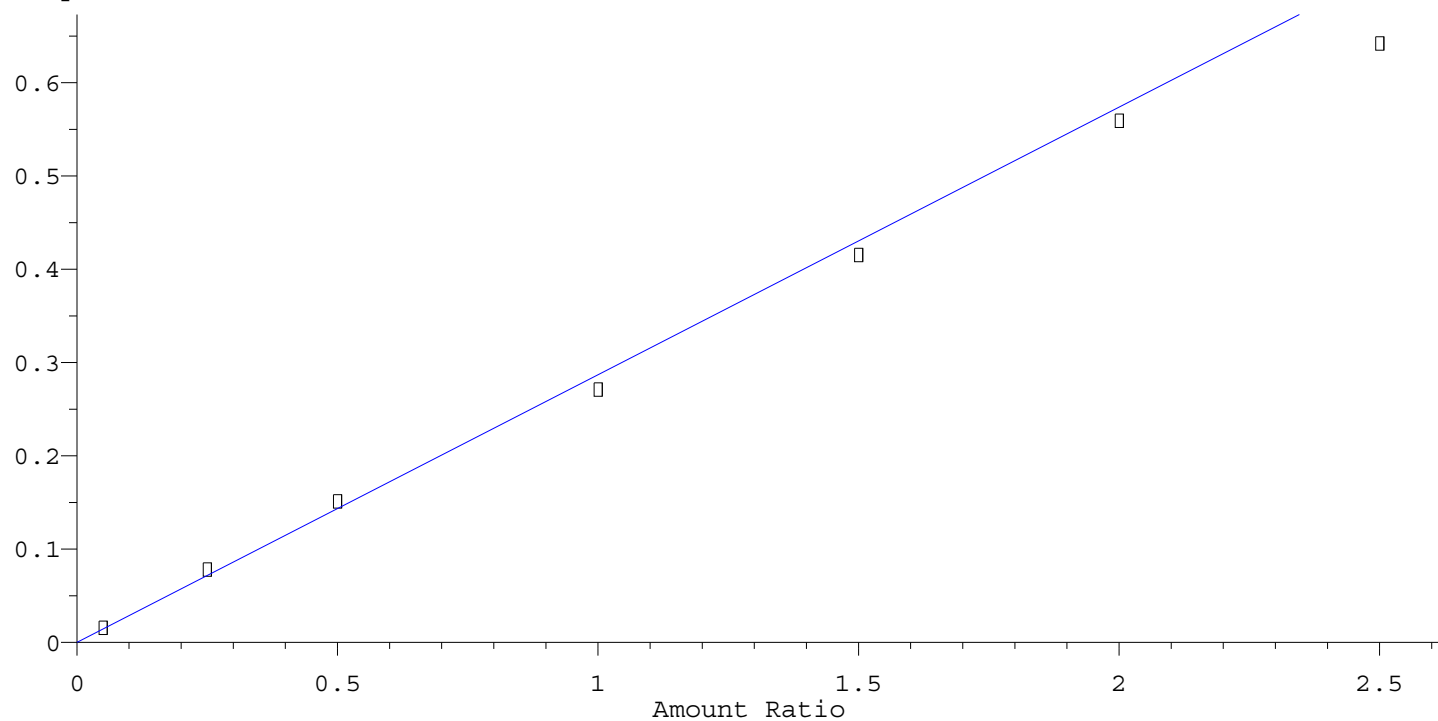
Response Ratio



Resp Ratio = 1.50×10^{-1} * Amt
RF Rel Std Dev = 12.8% Curve Fit: Avg RF

24Dimthpheno

Response Ratio

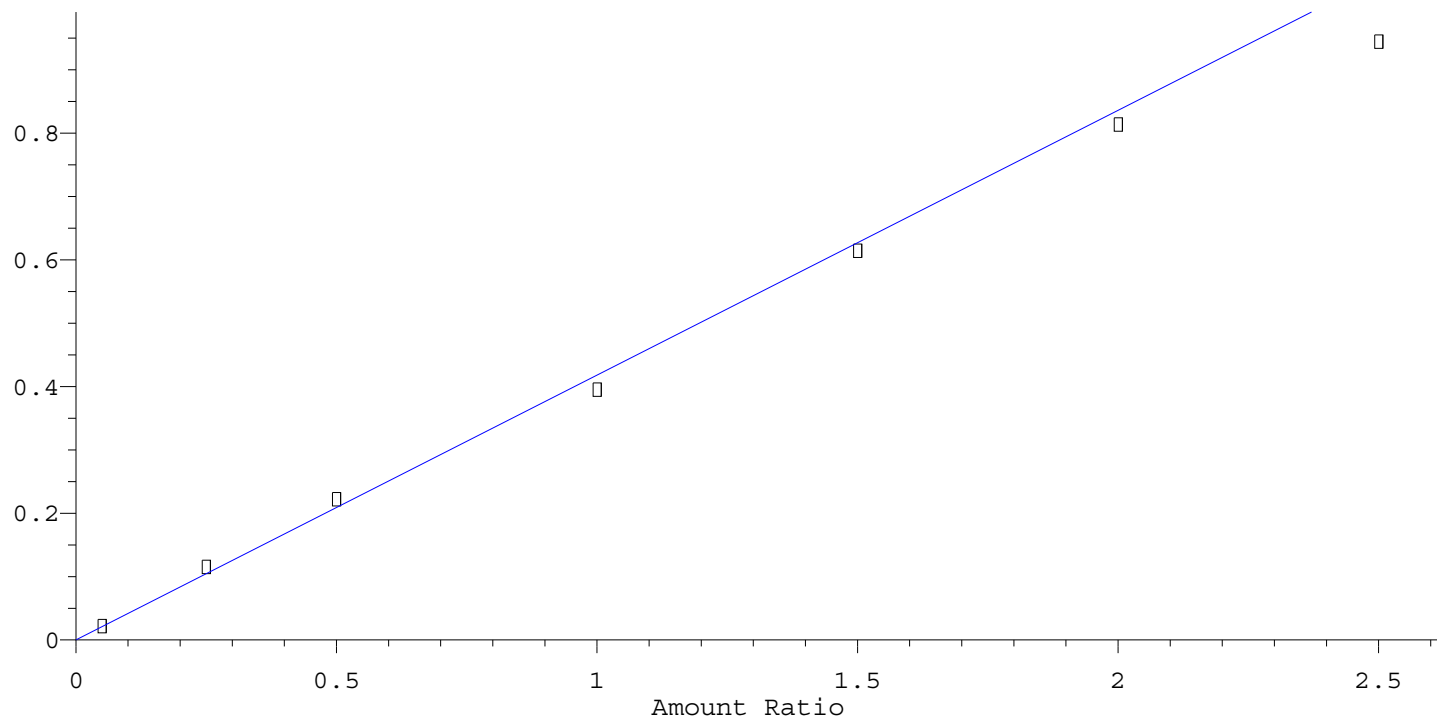


Resp Ratio = 2.87×10^{-1} * Amt
RF Rel Std Dev = 7.6% Curve Fit: Avg RF

Calibration Plot Report

bis2clethoxym

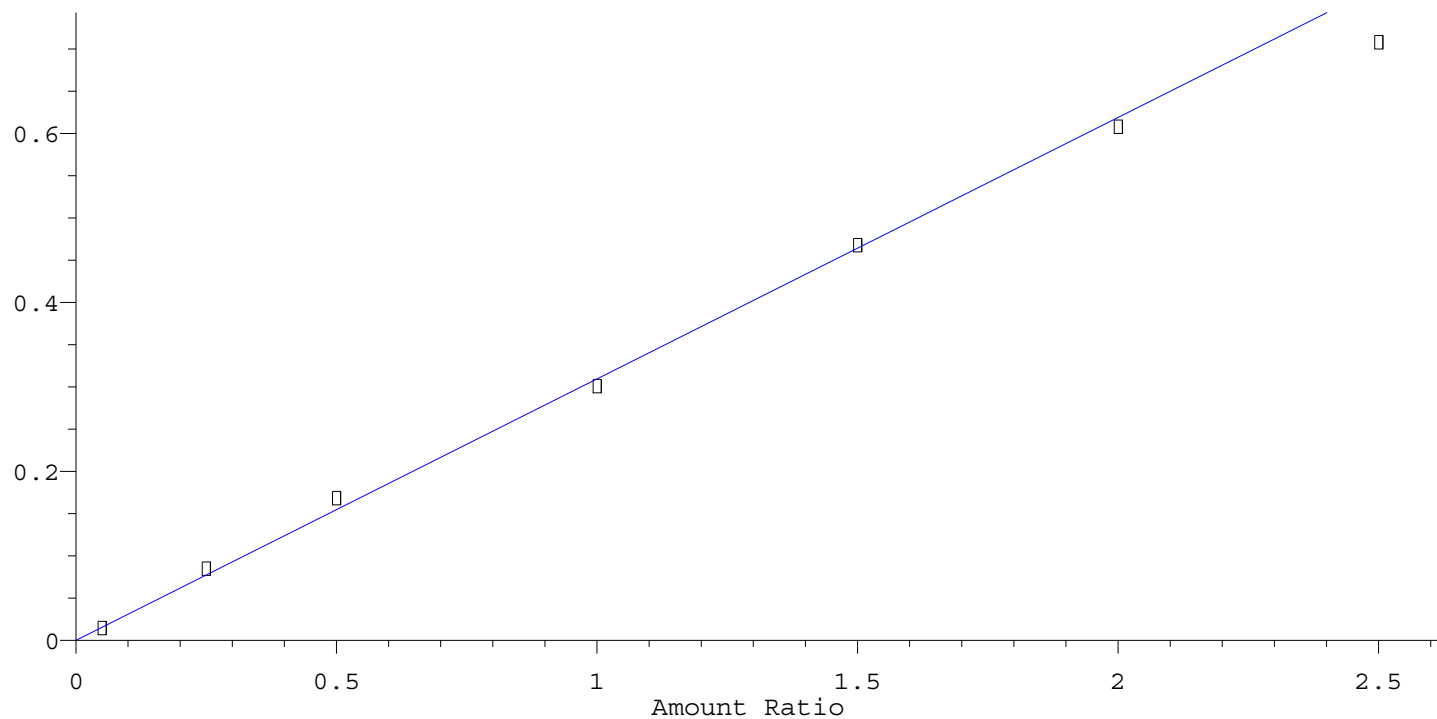
Response Ratio



Resp Ratio = 4.18e-001 * Amt
RF Rel Std Dev = 6.9% Curve Fit: Avg RF

24Diclphenol

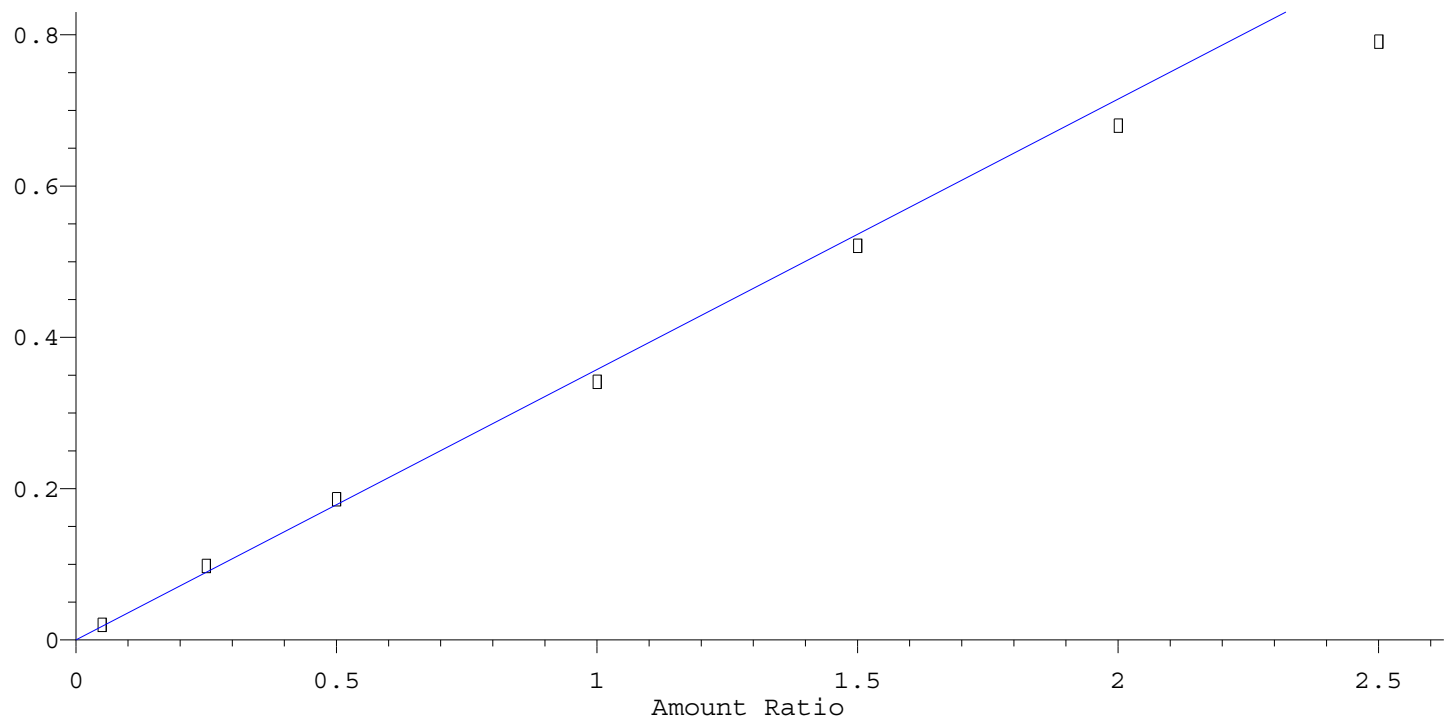
Response Ratio



Resp Ratio = 3.10e-001 * Amt
RF Rel Std Dev = 6.9% Curve Fit: Avg RF

124Triclbz

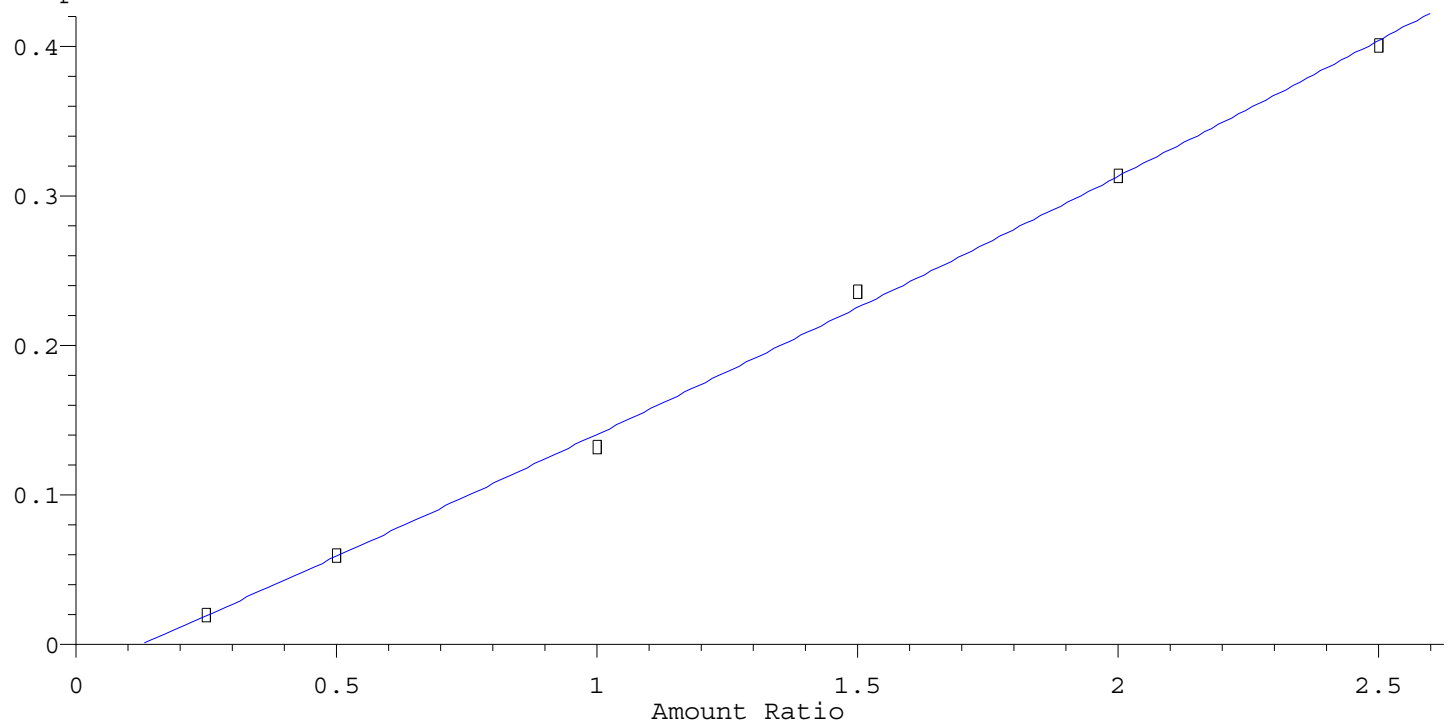
Response Ratio



Resp Ratio = $3.58 \times 10^{-1} \times \text{Amt}$
RF Rel Std Dev = 8.2% Curve Fit: Avg RF

Benzoic acid

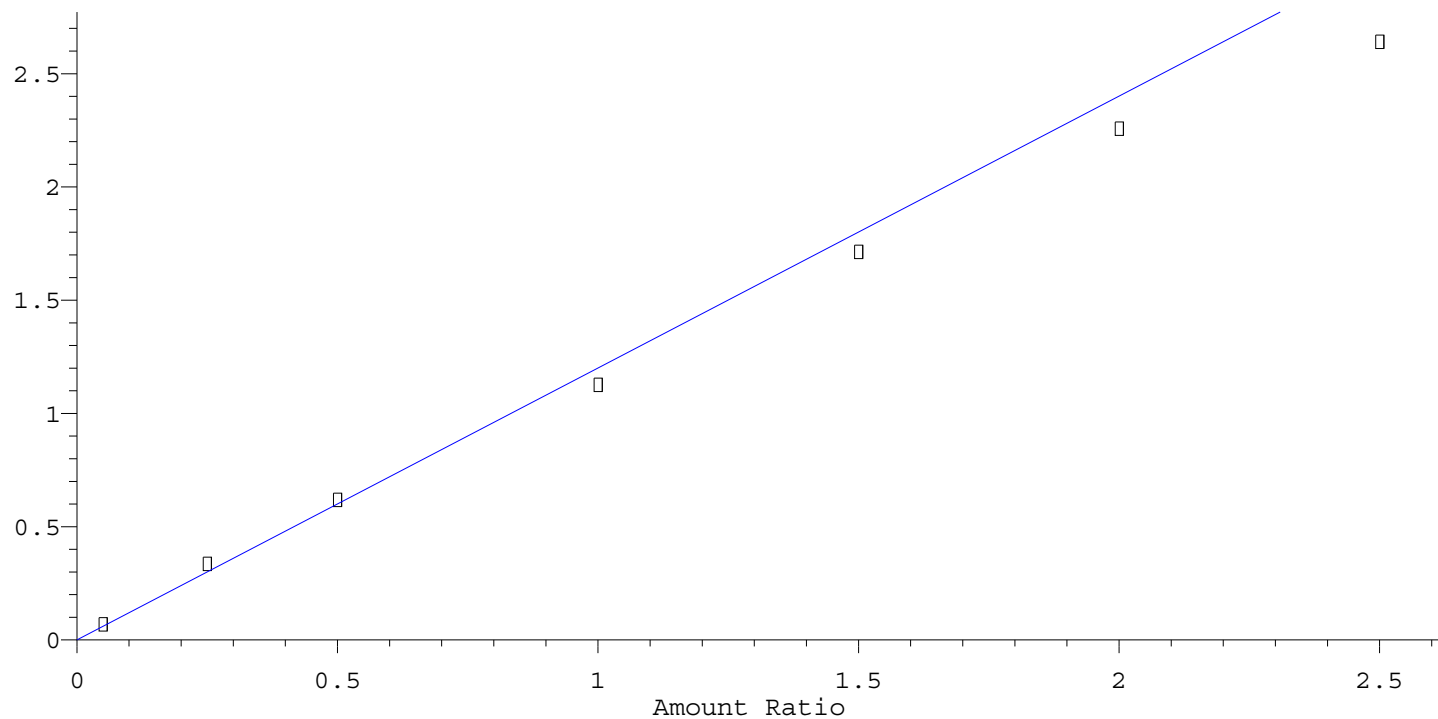
Response Ratio



$R = 6.22 \times 10^{-3} A^2 + 1.54 \times 10^{-1} A - 1.96 \times 10^{-2}$
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Naphthalene

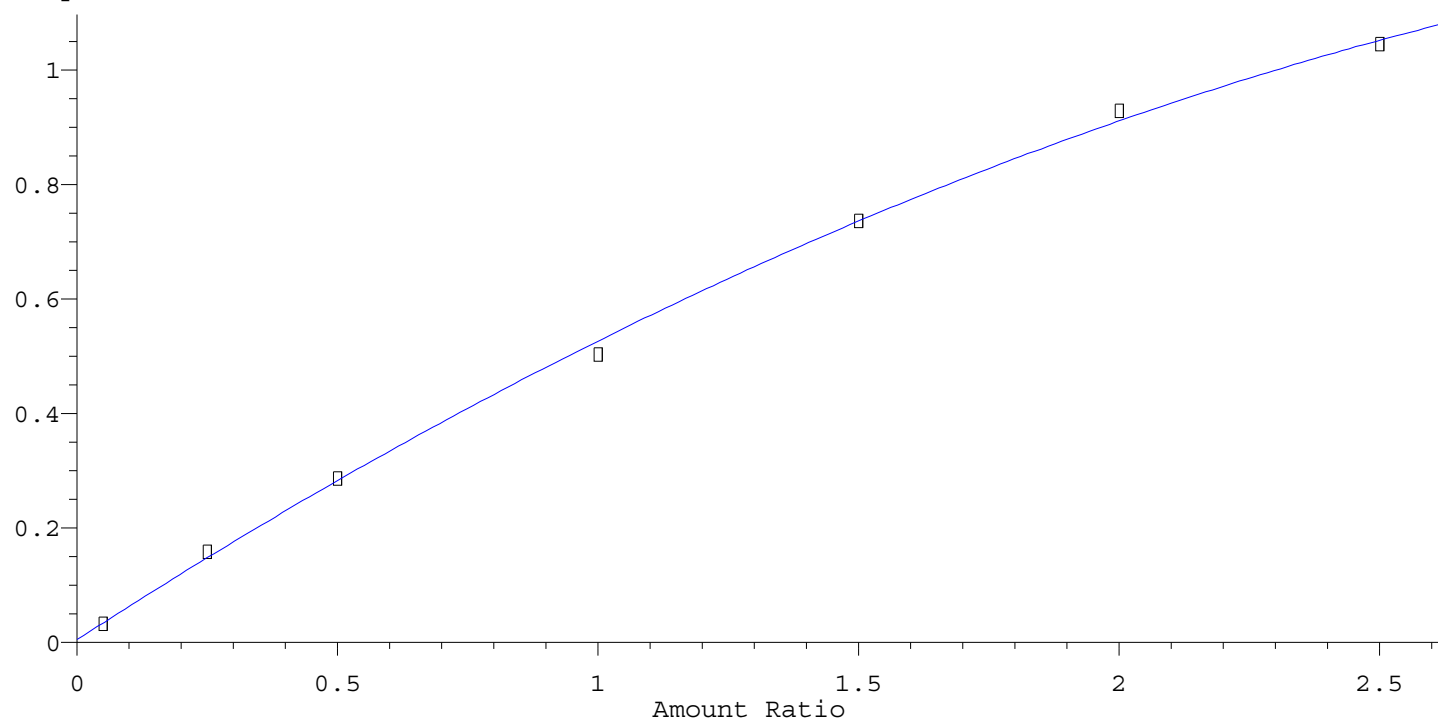
Response Ratio



Resp Ratio = 1.20×10^0 * Amt
RF Rel Std Dev = 10.0% Curve Fit: Avg RF

4-Cl-aniline

Response Ratio

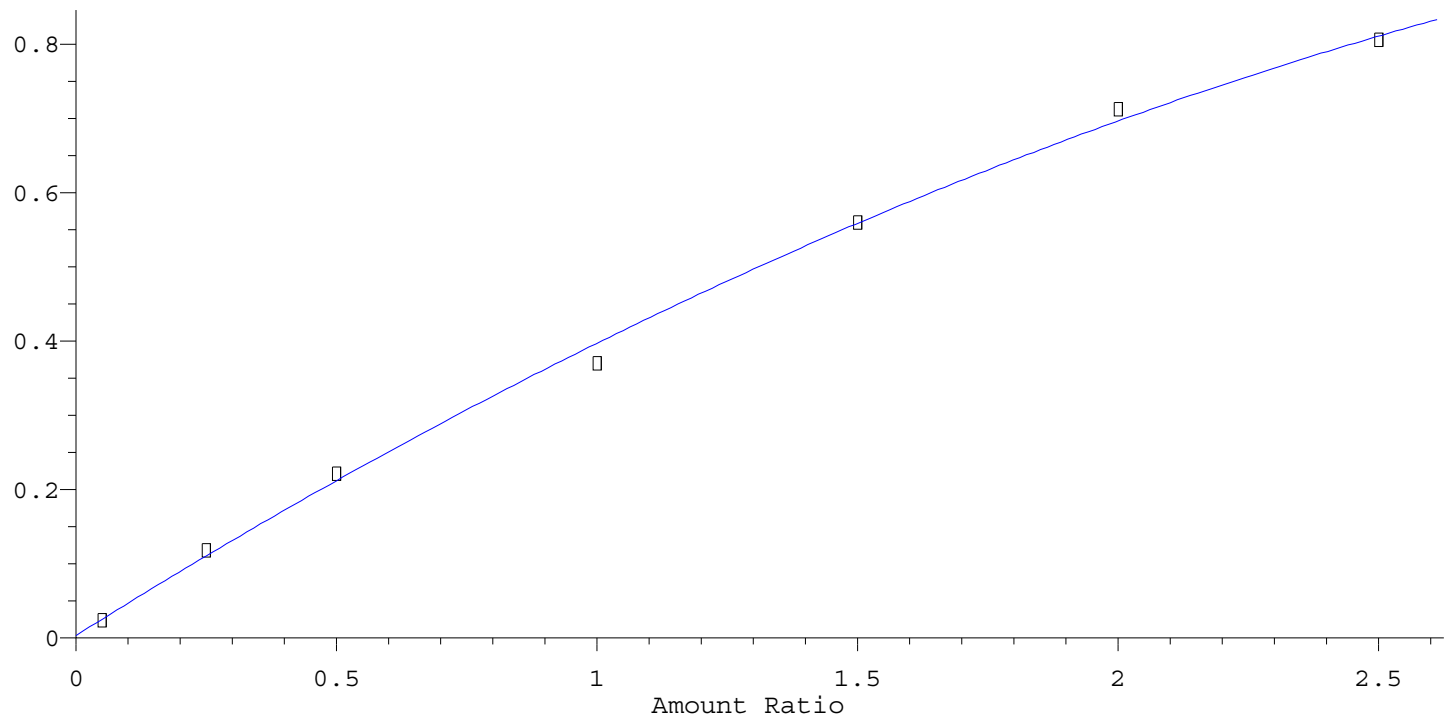


$R = -6.87 \times 10^{-2} A^2 + 5.91 \times 10^{-1} A + 4.59 \times 10^{-3}$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

26Diclphenol

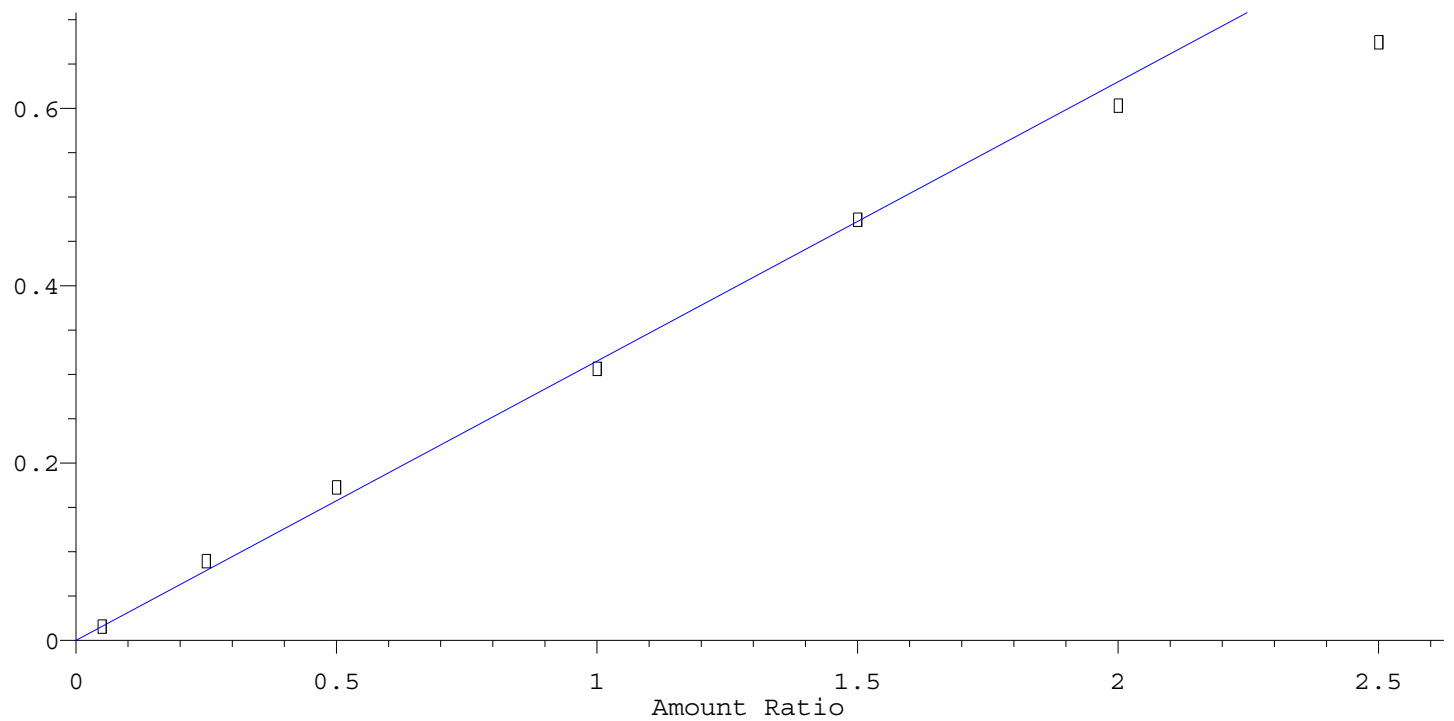
Response Ratio



$R = -4.72e-002 A^2 + 4.41e-001 A + 3.20e-003$
 Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Hexaclprop

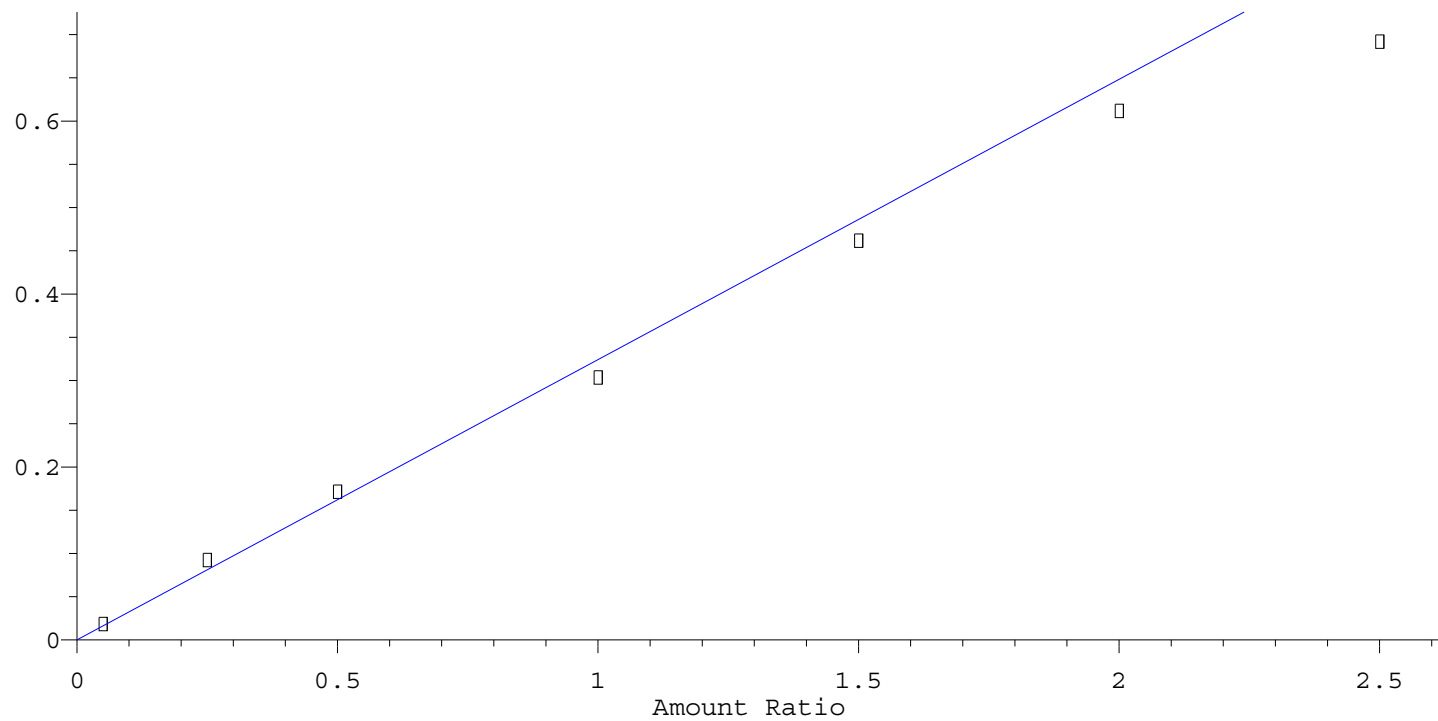
Response Ratio



Resp Ratio = $3.15e-001 * Amt$
 RF Rel Std Dev = 9.2% Curve Fit: Avg RF

Hexaclbutdien

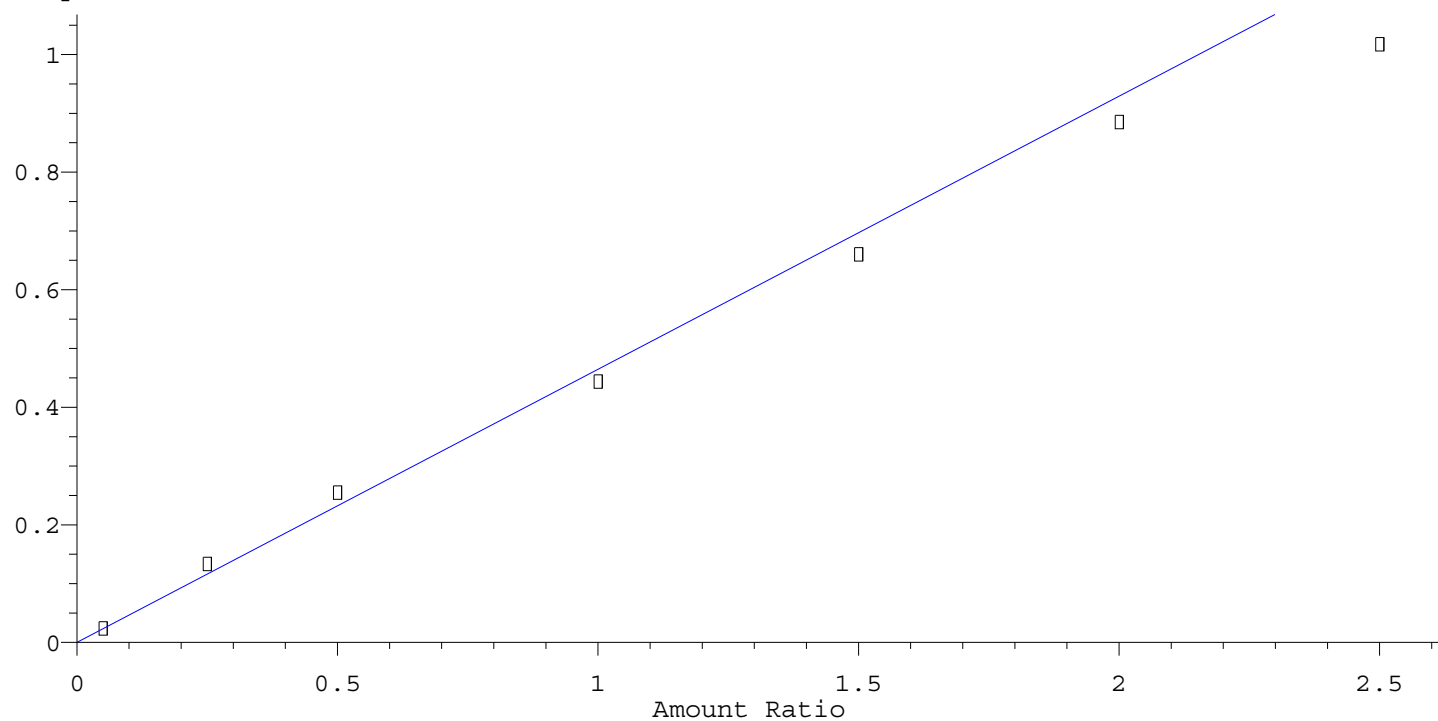
Response Ratio



Resp Ratio = $3.24\text{e-}001$ * Amt
RF Rel Std Dev = 10.7% Curve Fit: Avg RF

4Cl3methylnphe

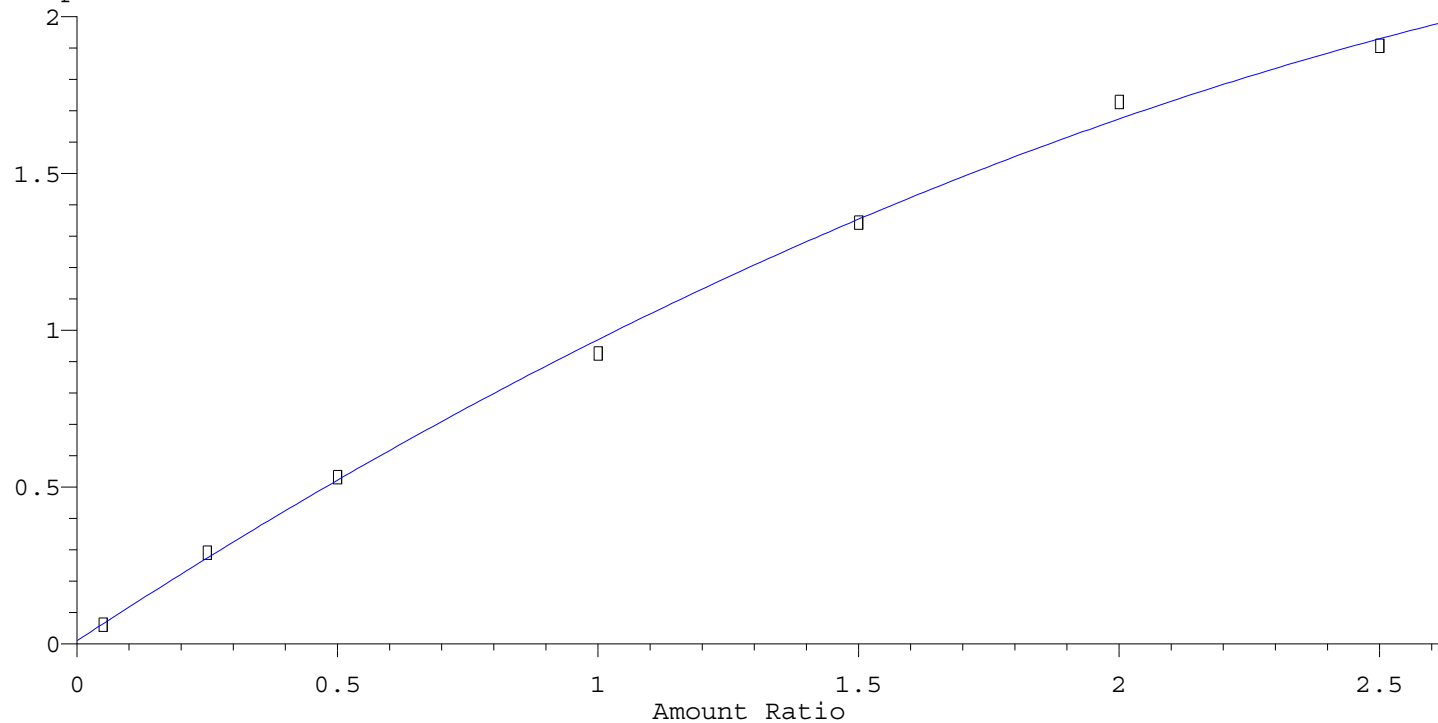
Response Ratio



Resp Ratio = $4.65\text{e-}001$ * Amt
RF Rel Std Dev = 9.5% Curve Fit: Avg RF

2Methylnaphth

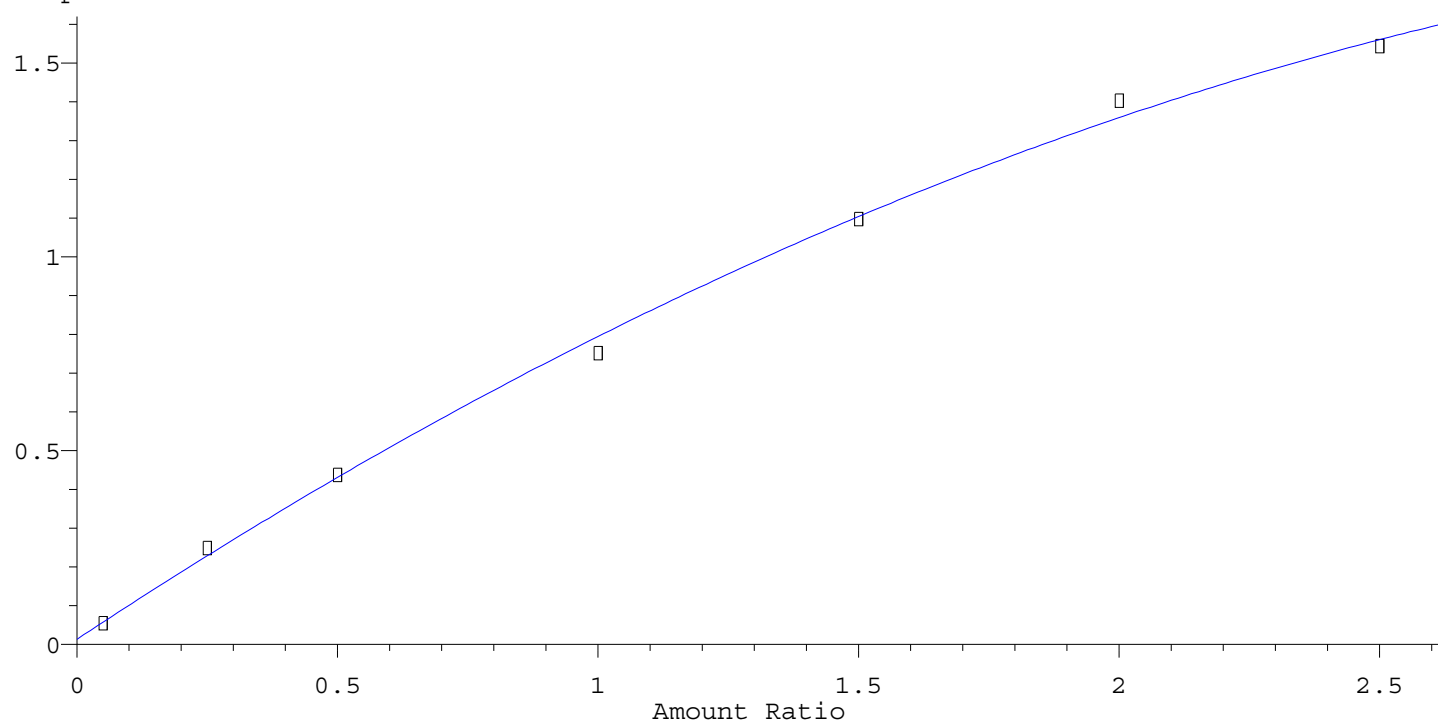
Response Ratio



$R = -1.28e-001 A^2 + 1.09e+000 A + 9.90e-003$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

1Methylnaphth

Response Ratio

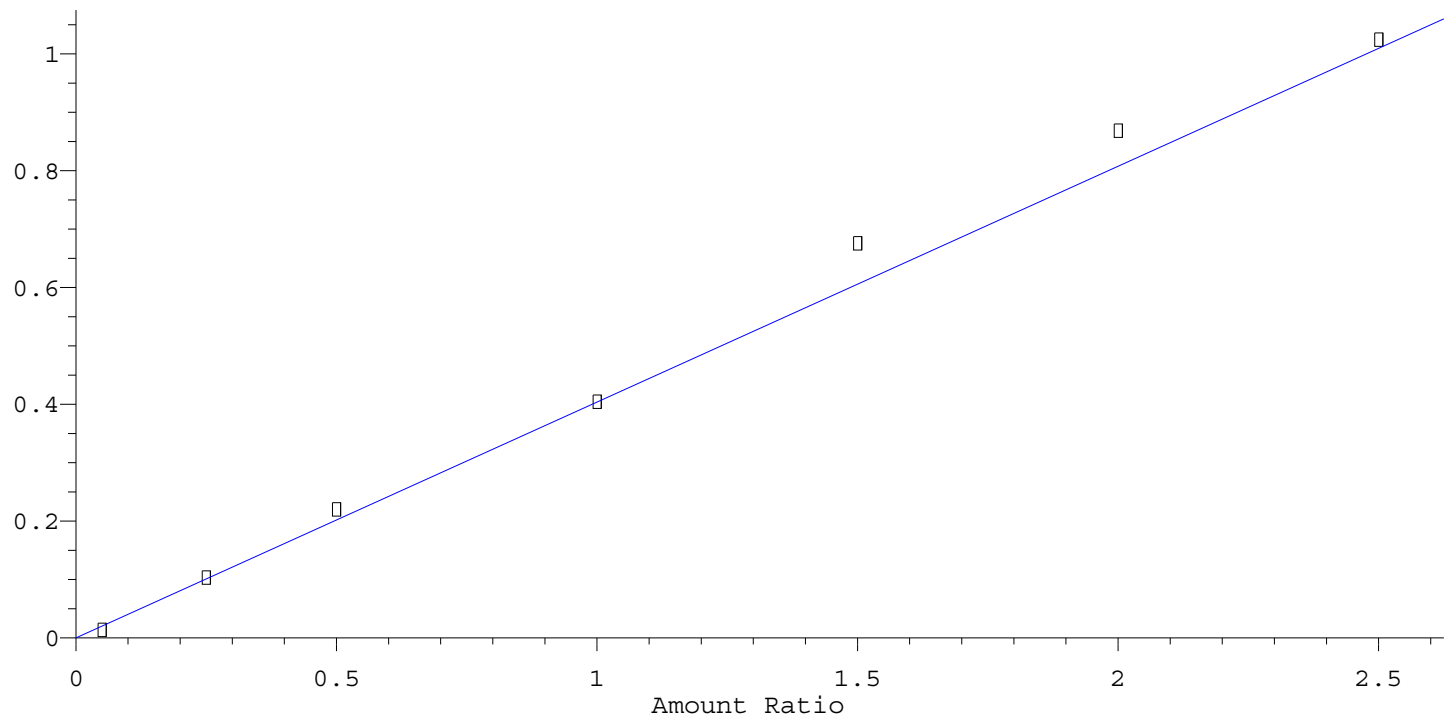


$R = -1.08e-001 A^2 + 8.90e-001 A + 1.32e-002$
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

Hxclcycpentdi

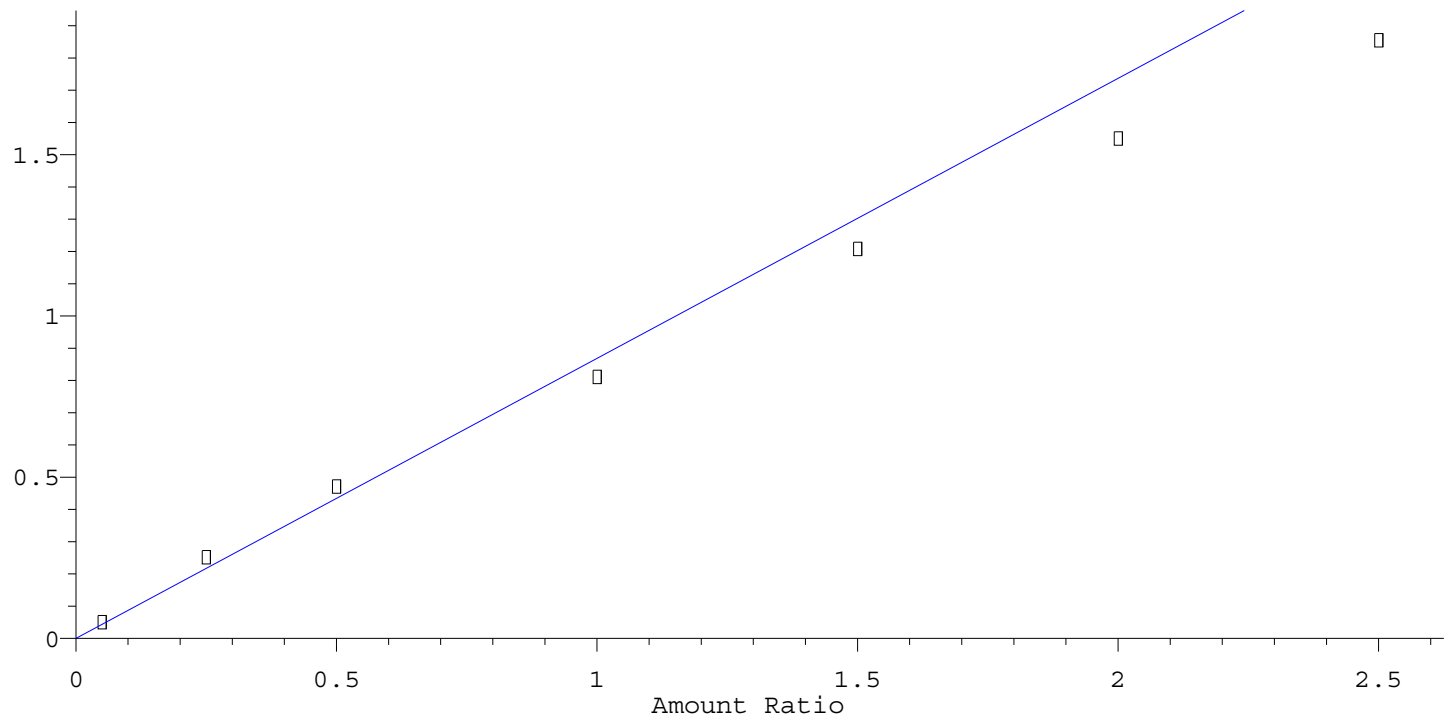
Response Ratio



Resp Ratio = 4.04×10^{-1} * Amt
RF Rel Std Dev = 14.6% Curve Fit: Avg RF

1245Tetrclbenz

Response Ratio

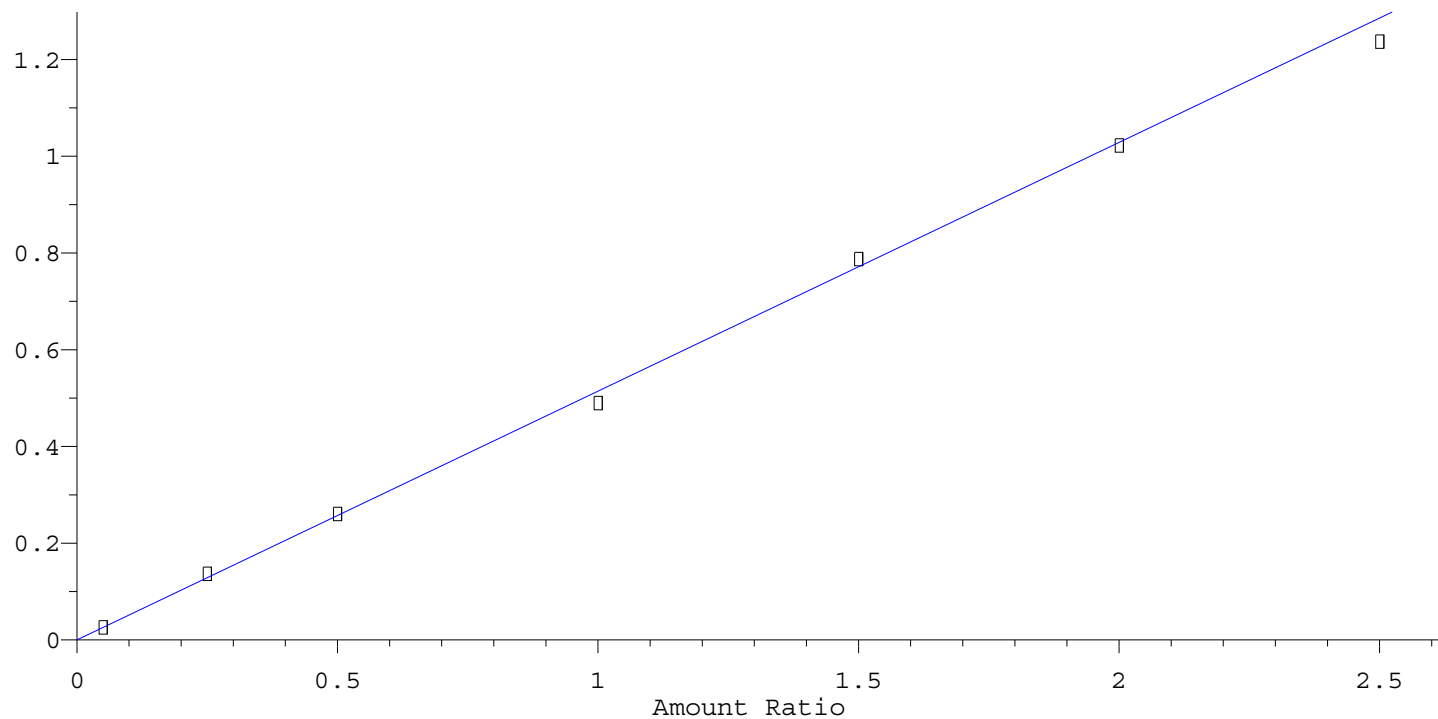


Resp Ratio = 8.69×10^{-1} * Amt
RF Rel Std Dev = 12.8% Curve Fit: Avg RF

Calibration Plot Report

246Triclpheno

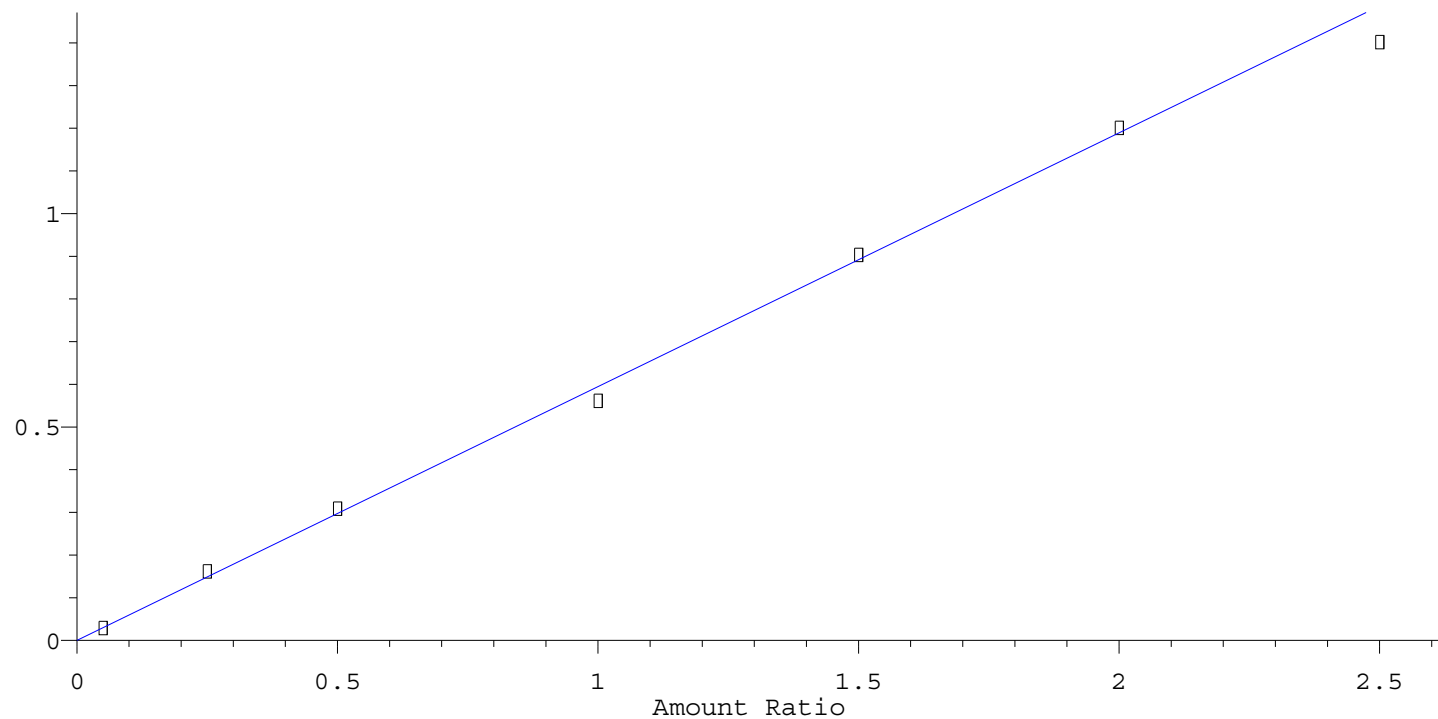
Response Ratio



Resp Ratio = 5.15e-001 * Amt
RF Rel Std Dev = 3.7% Curve Fit: Avg RF

245Triclpheno

Response Ratio

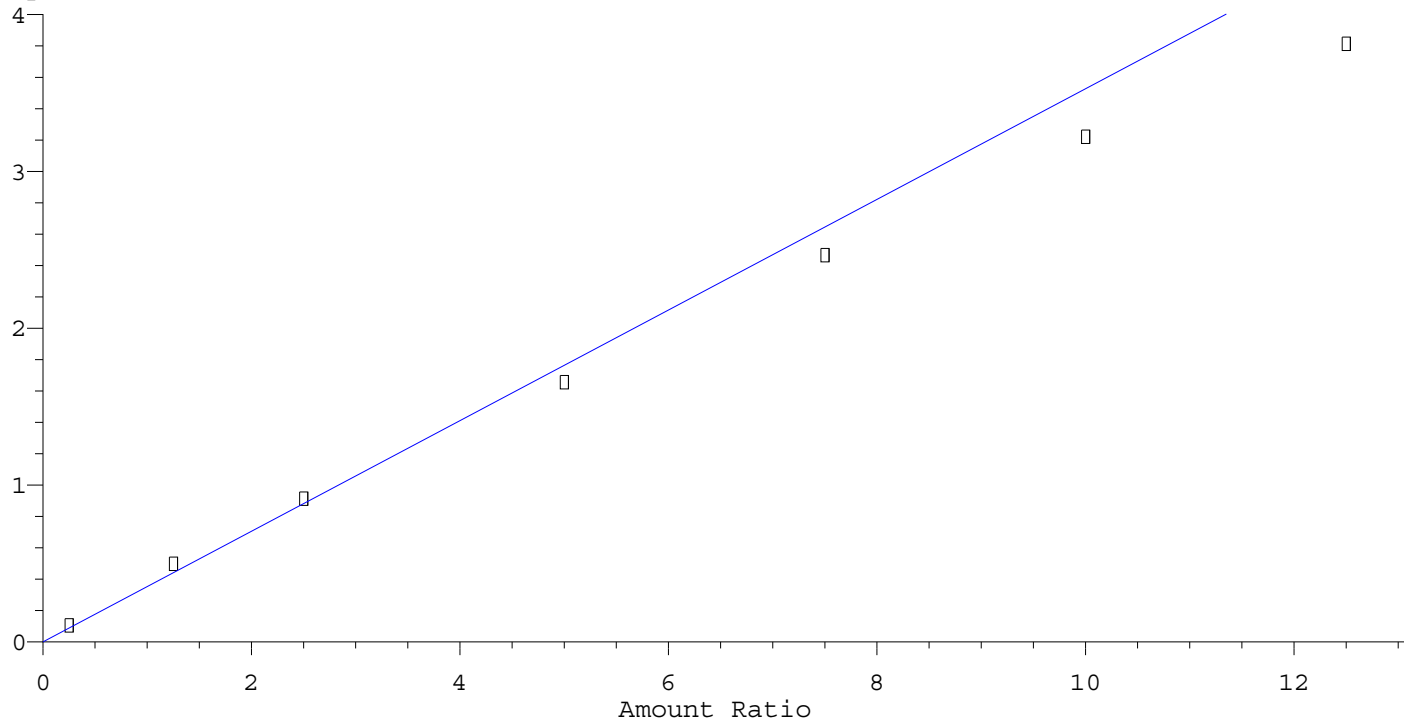


Resp Ratio = 5.95e-001 * Amt
RF Rel Std Dev = 5.3% Curve Fit: Avg RF

Calibration Plot Report

SURR2Flbiphenyl

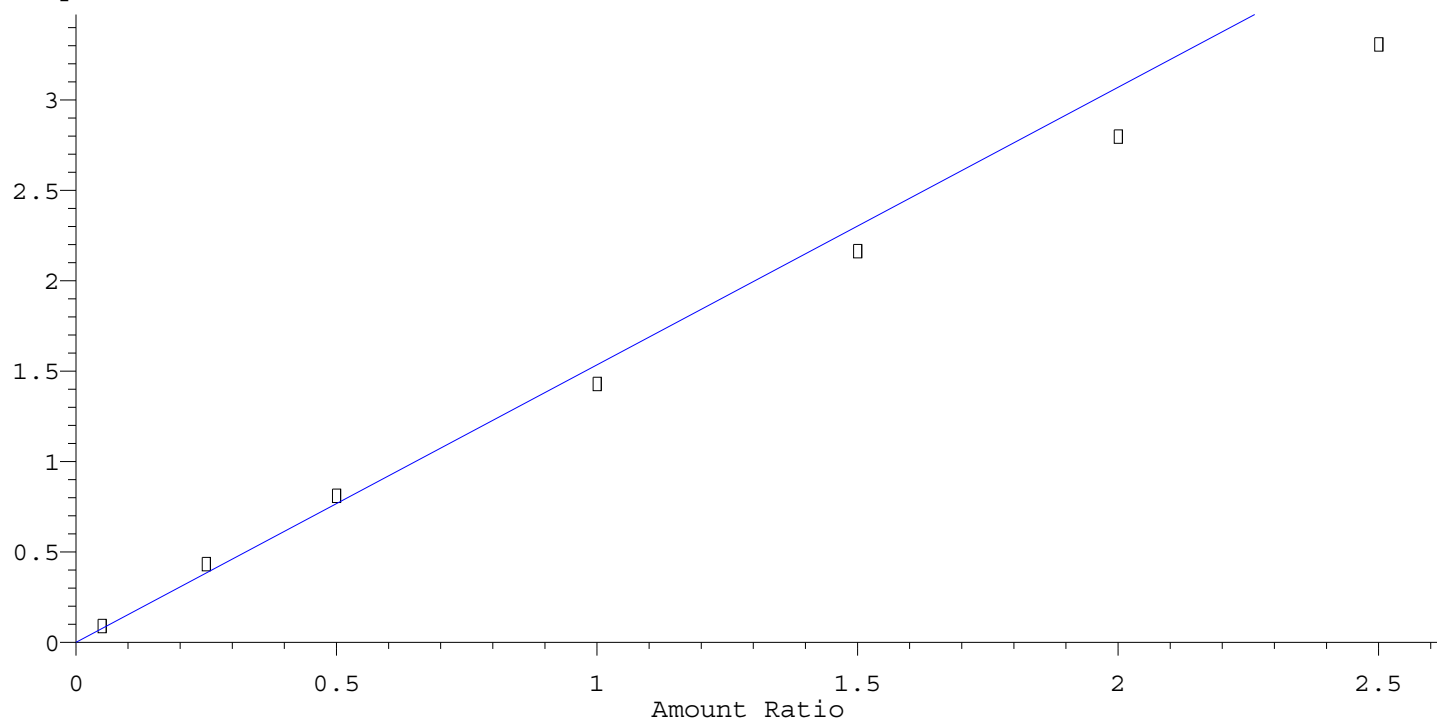
Response Ratio



Resp Ratio = 3.53×10^{-1} * Amt
RF Rel Std Dev = 12.1% Curve Fit: Avg RF

2Clnaphthalen

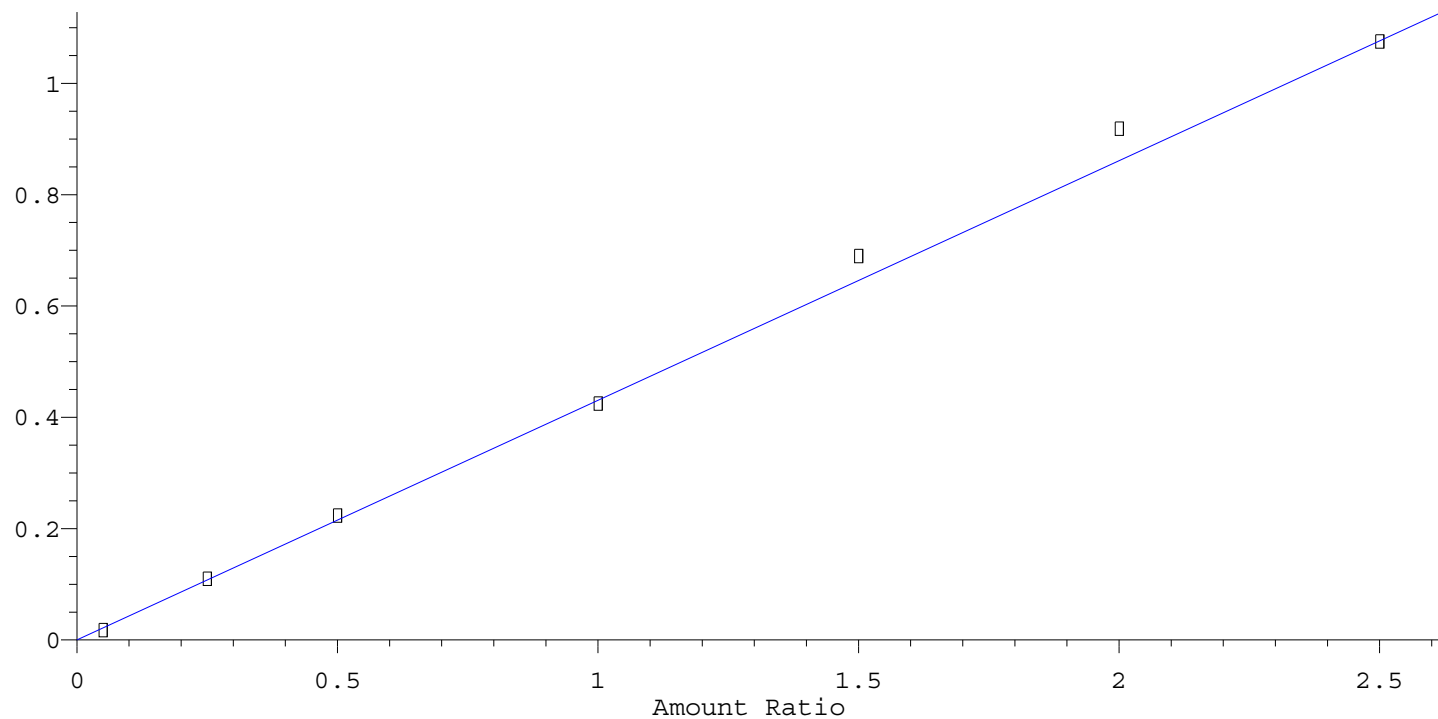
Response Ratio



Resp Ratio = 1.54×10^0 * Amt
RF Rel Std Dev = 11.9% Curve Fit: Avg RF

2Nitroaniline

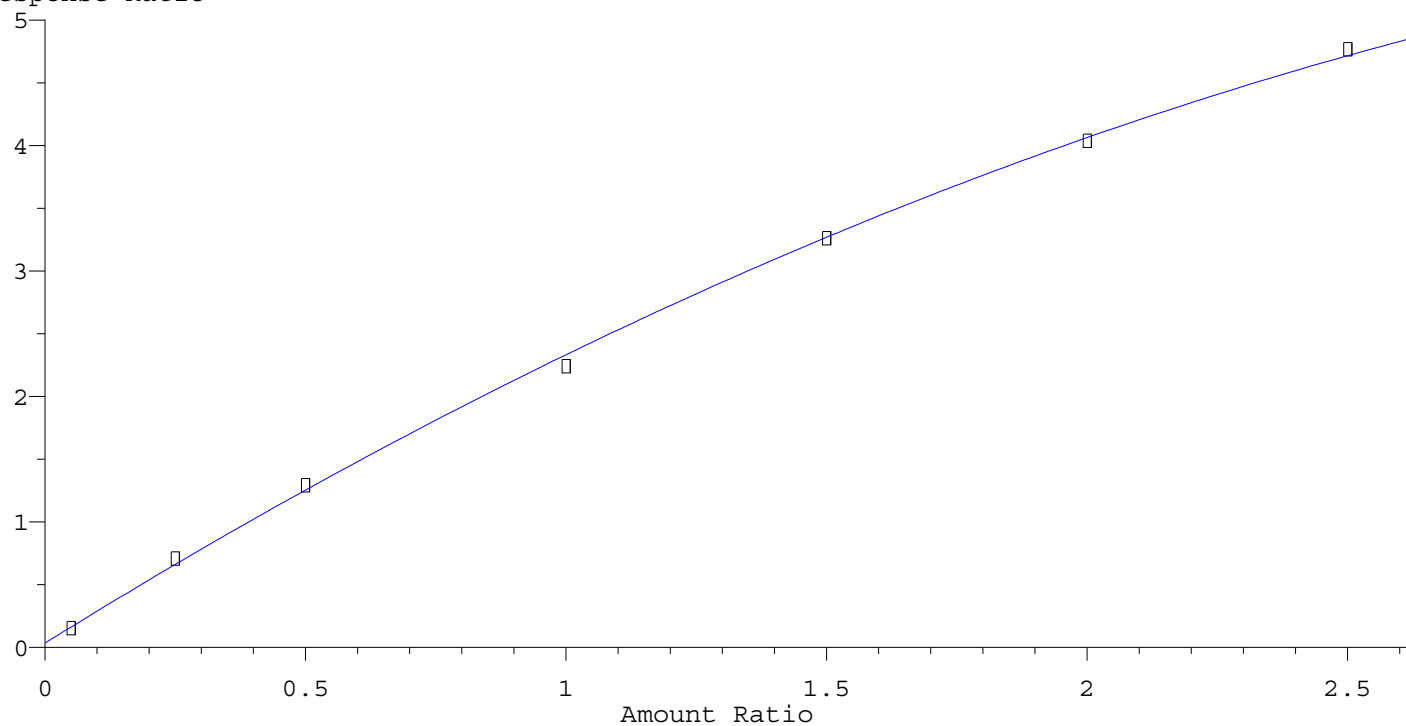
Response Ratio



Resp Ratio = $4.30\text{e-}001 \times \text{Amt}$
RF Rel Std Dev = 8.5% Curve Fit: Avg RF

Acnaphthylene

Response Ratio

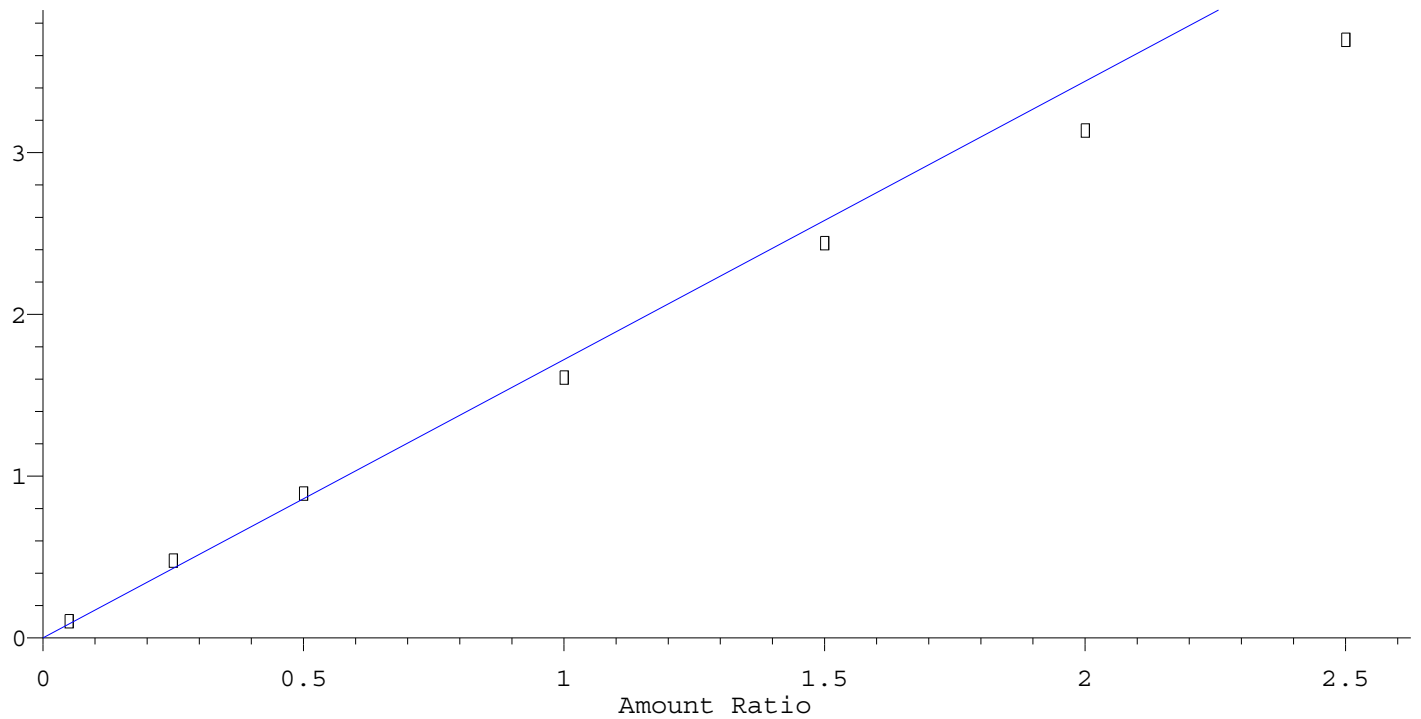


$R = -2.84\text{e-}001 A^2 + 2.58\text{e+}000 A + 3.38\text{e-}002$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

Dimethylphtha

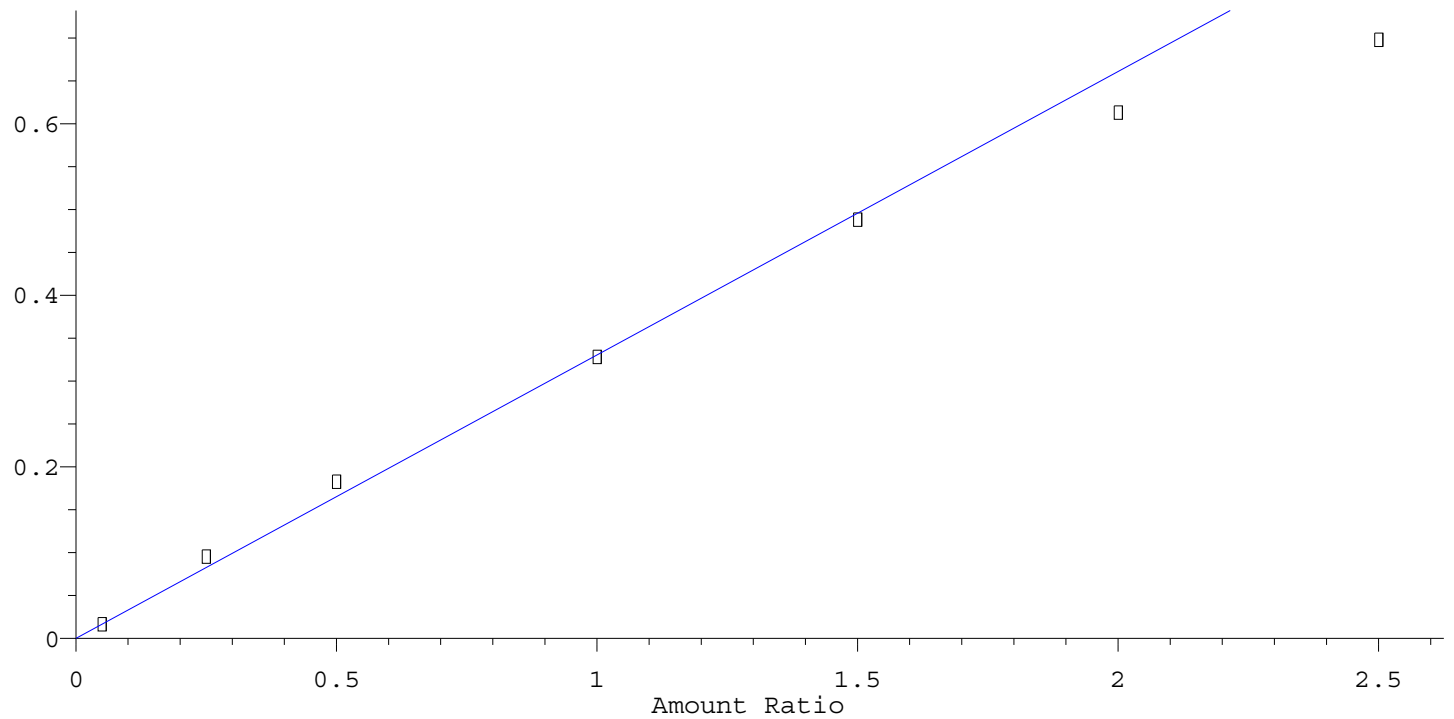
Response Ratio



Resp Ratio = 1.72e+000 * Amt
RF Rel Std Dev = 12.1% Curve Fit: Avg RF

26Dinitrotolu

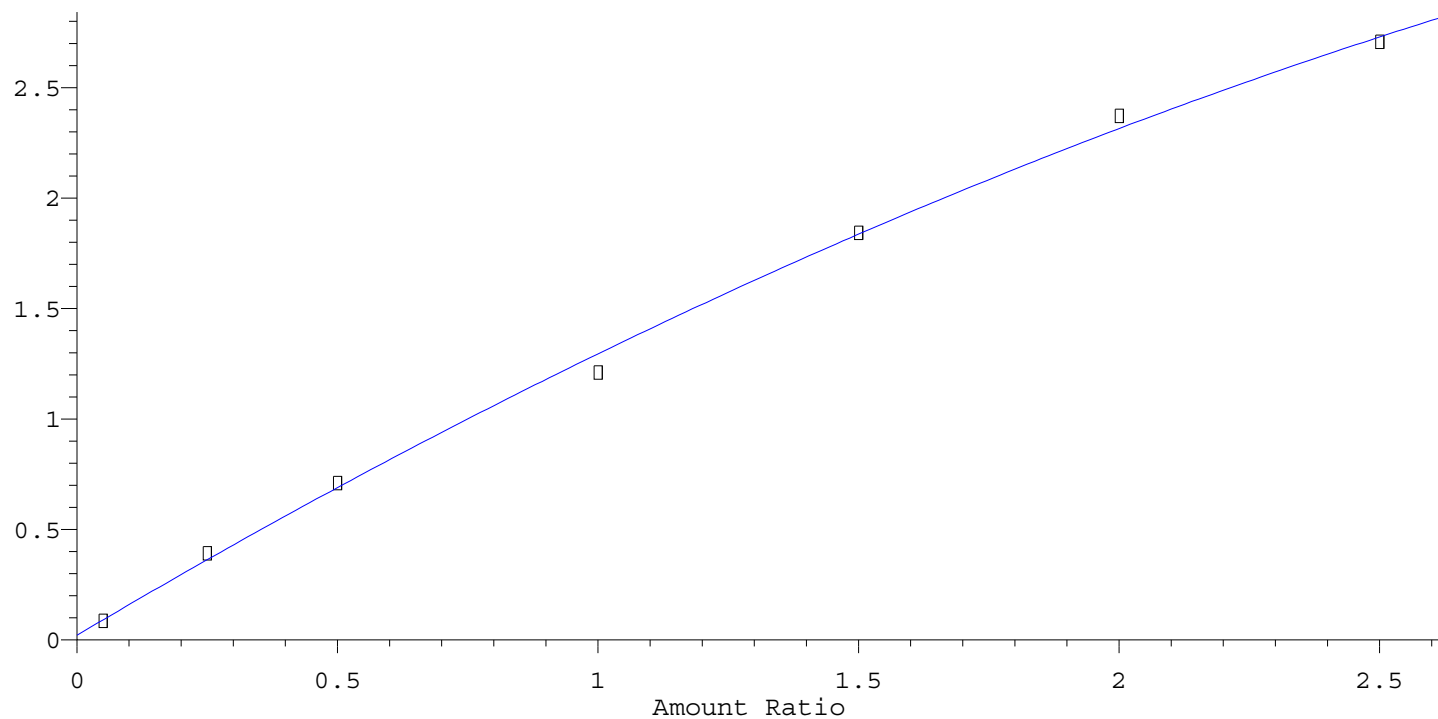
Response Ratio



Resp Ratio = 3.31e-001 * Amt
RF Rel Std Dev = 10.4% Curve Fit: Avg RF

Acenaphthene

Response Ratio

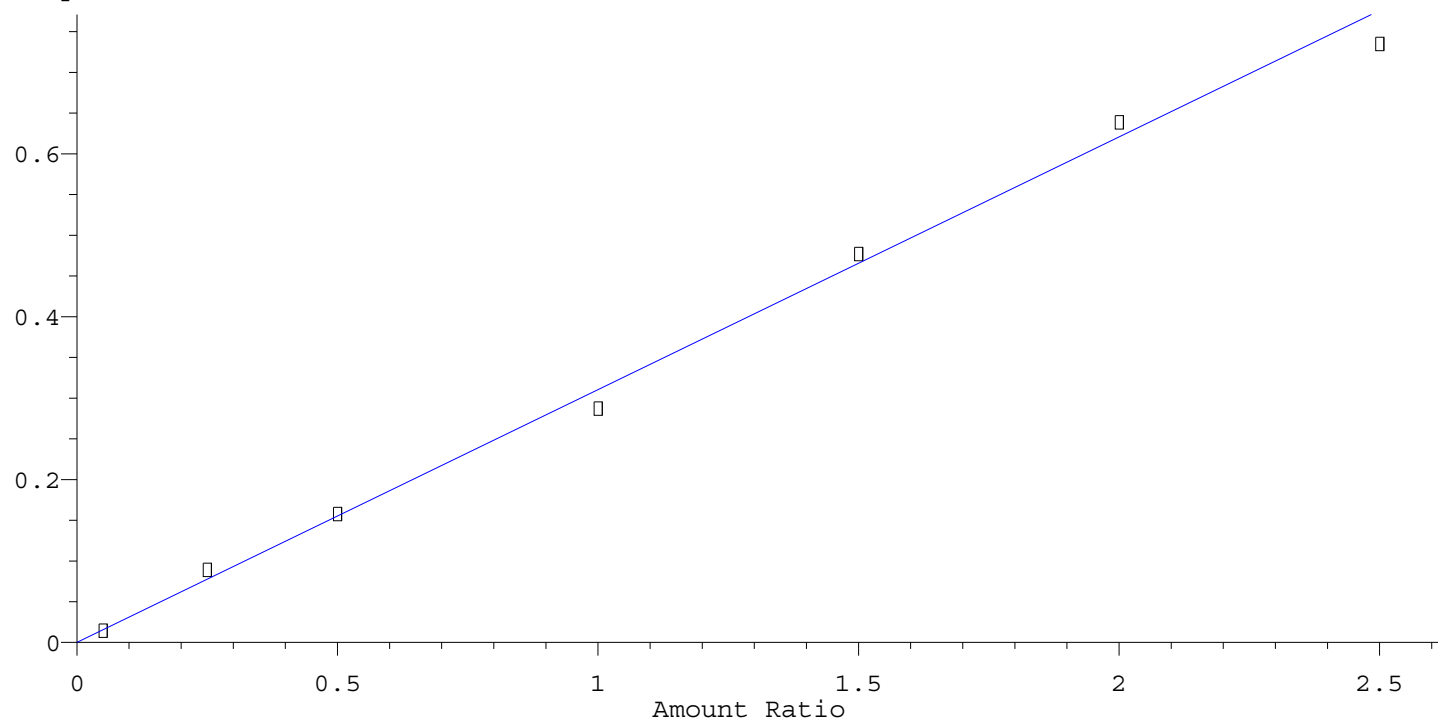


$$R = -1.27e-001 A^2 + 1.40e+000 A + 2.09e-002$$

Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

3Nitroaniline

Response Ratio

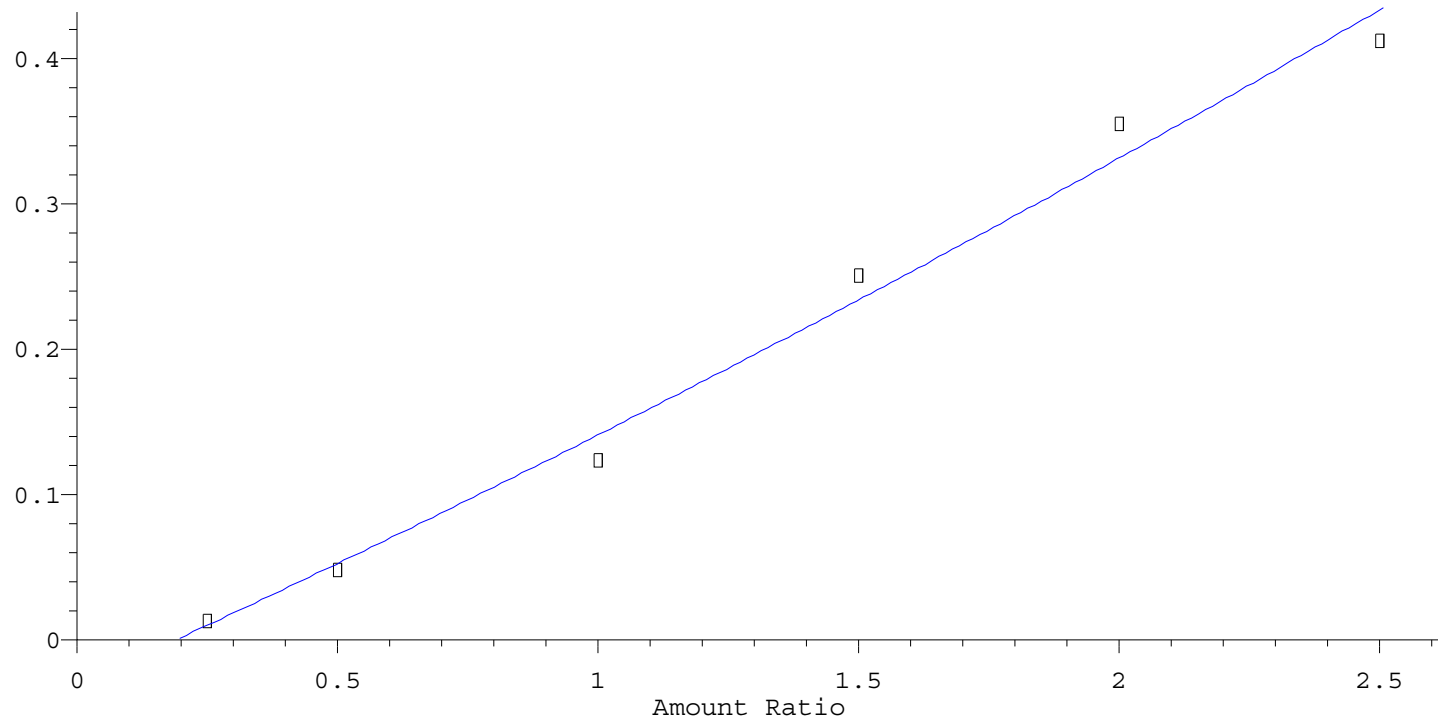


$$\text{Resp Ratio} = 3.11e-001 * \text{Amt}$$

RF Rel Std Dev = 8.0% Curve Fit: Avg RF

24Dinitphenol

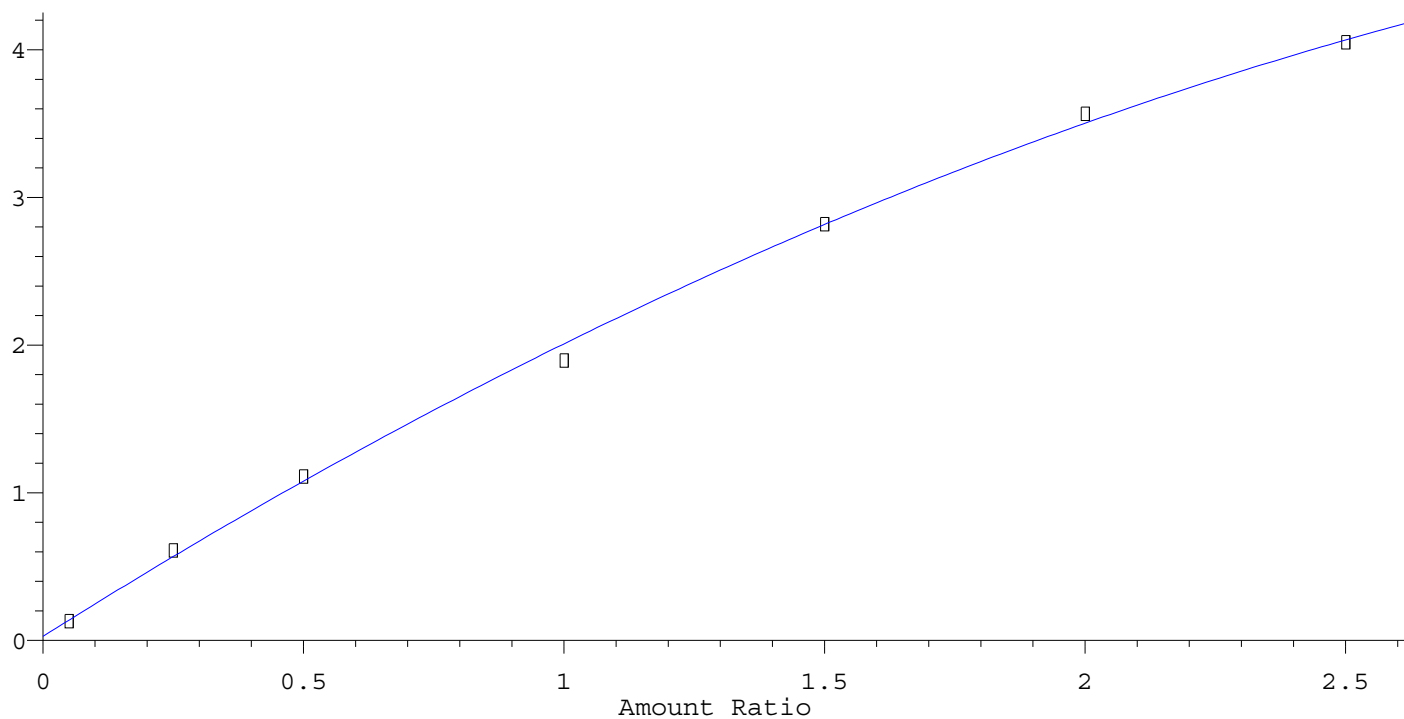
Response Ratio



$R = 8.98e-003 A^2 + 1.63e-001 A - 3.14e-002$
Coef of Det (r^2) = 0.992 Curve Fit: Quadratic w(1/a)

Dibenzofuran

Response Ratio

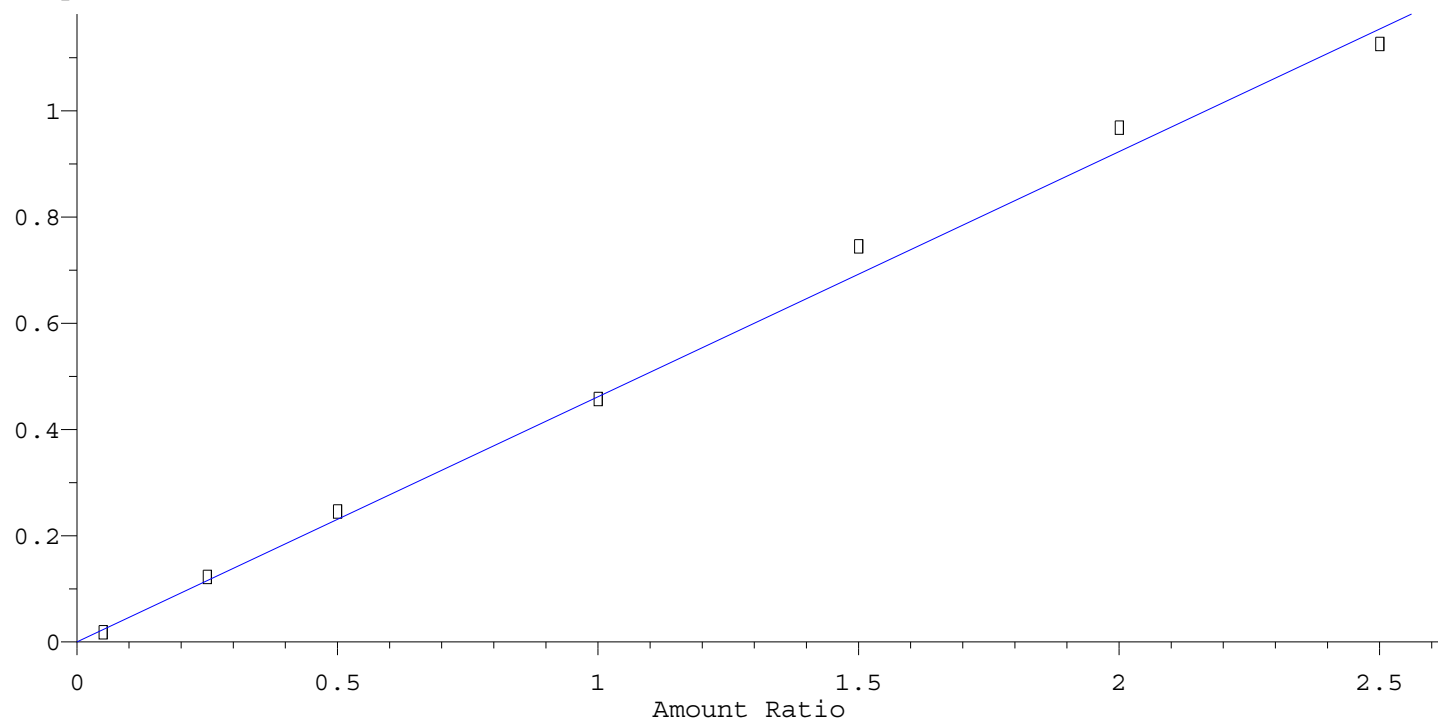


$R = -2.44e-001 A^2 + 2.23e+000 A + 2.66e-002$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

24Dinitrotolu

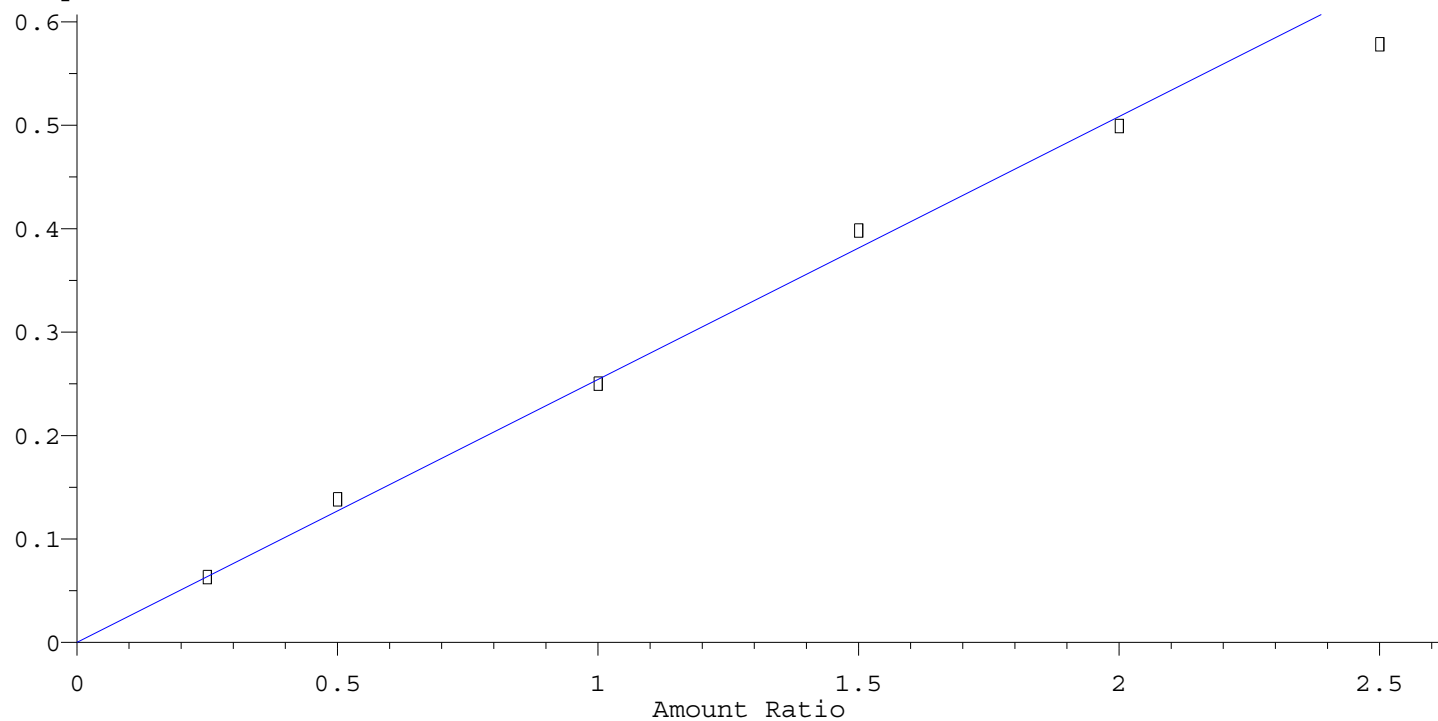
Response Ratio



Resp Ratio = 4.61×10^{-1} * Amt
RF Rel Std Dev = 10.3% Curve Fit: Avg RF

4-Nitrophenol

Response Ratio

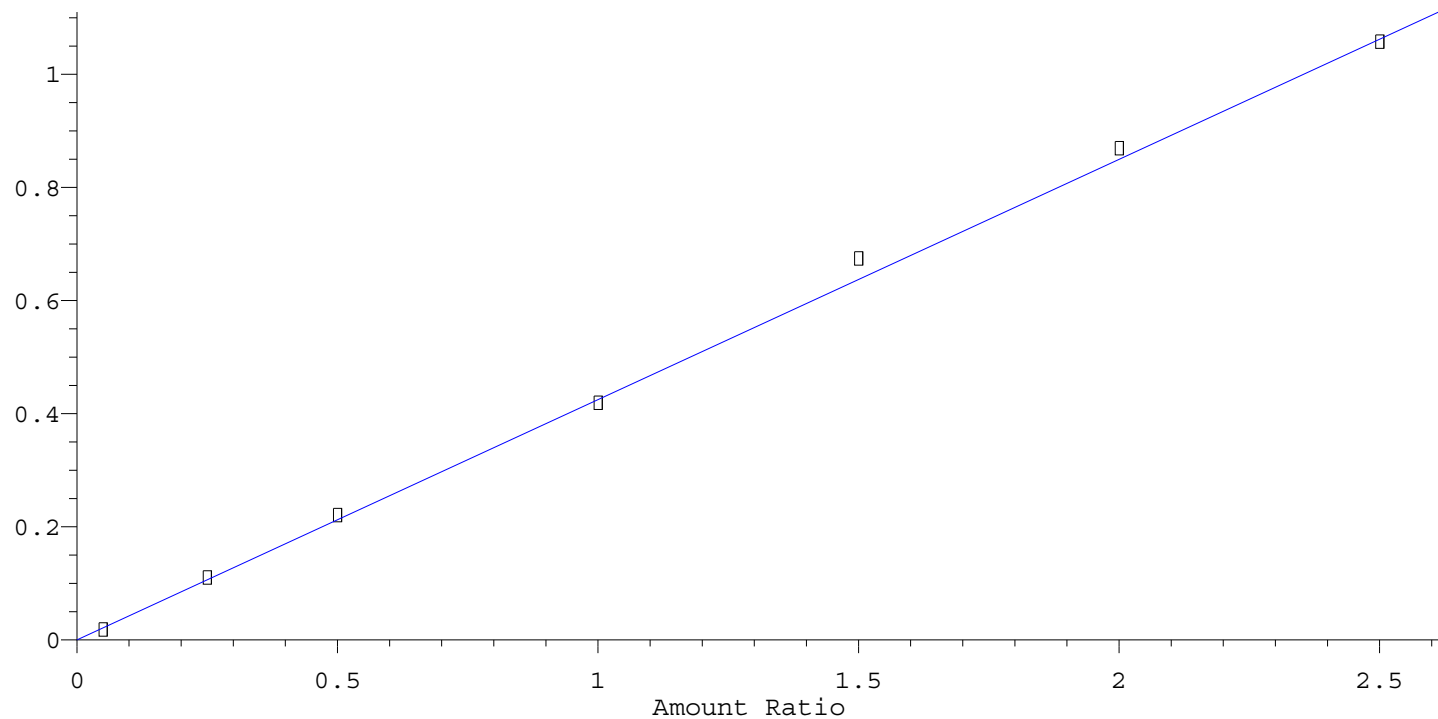


Resp Ratio = 2.54×10^{-1} * Amt
RF Rel Std Dev = 6.1% Curve Fit: Avg RF

Calibration Plot Report

2,3,5,6-Tetrachlorop

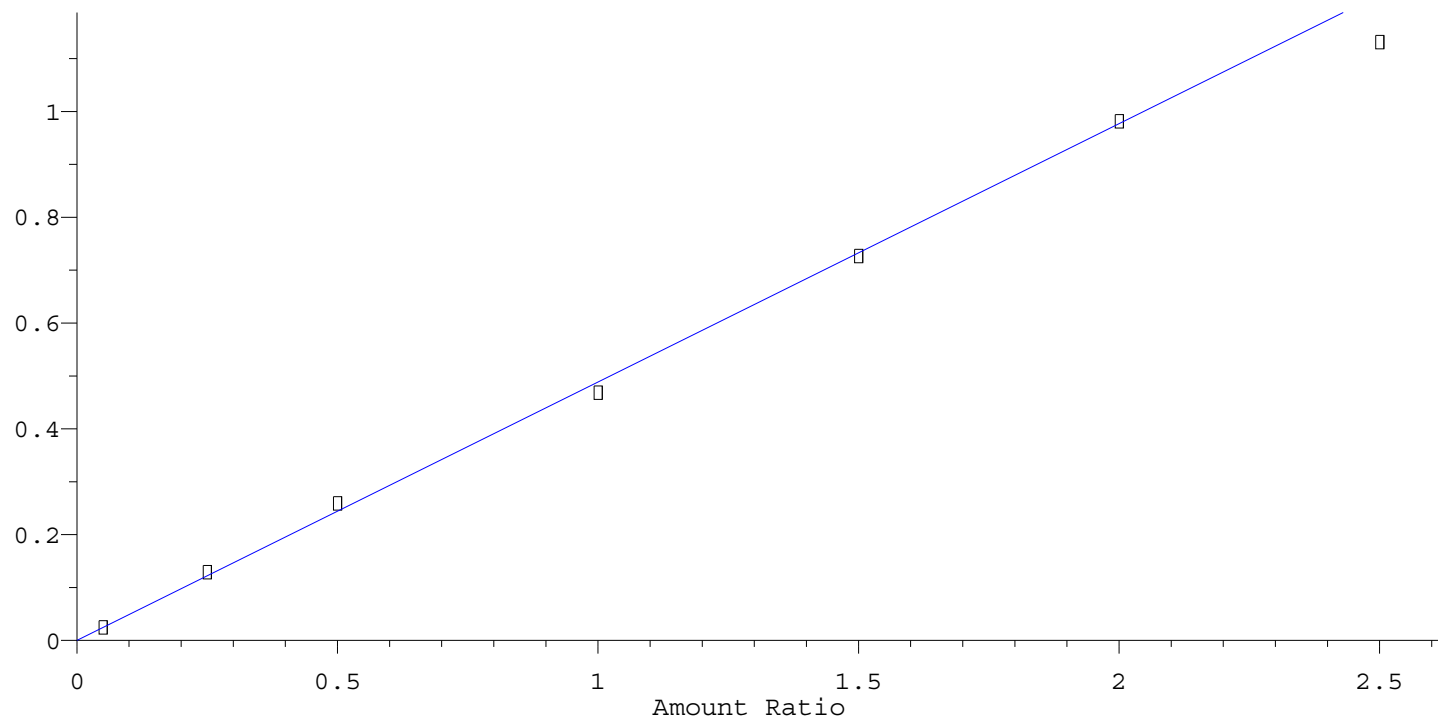
Response Ratio



Resp Ratio = 4.25×10^{-1} * Amt
RF Rel Std Dev = 6.6% Curve Fit: Avg RF

2,3,4,6-Tetrachlorop

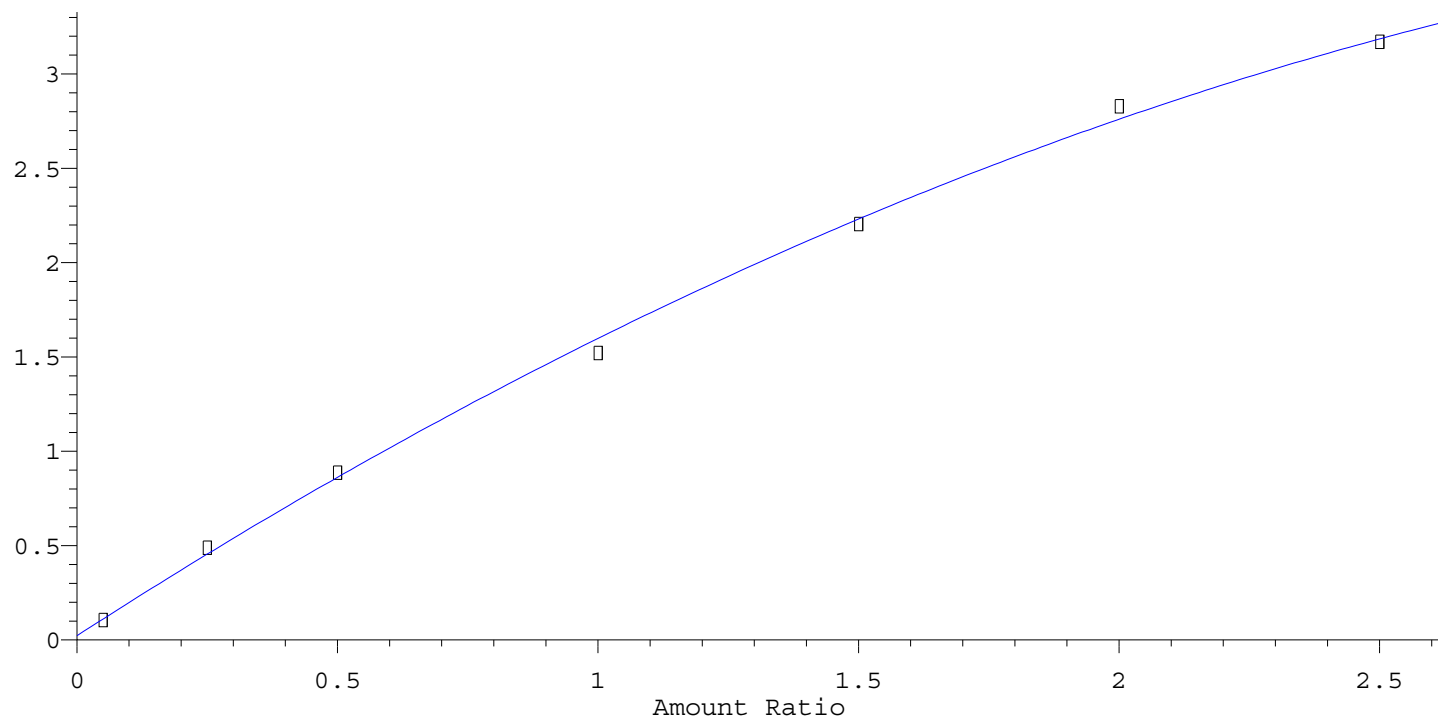
Response Ratio



Resp Ratio = 4.89×10^{-1} * Amt
RF Rel Std Dev = 4.8% Curve Fit: Avg RF

Fluorene

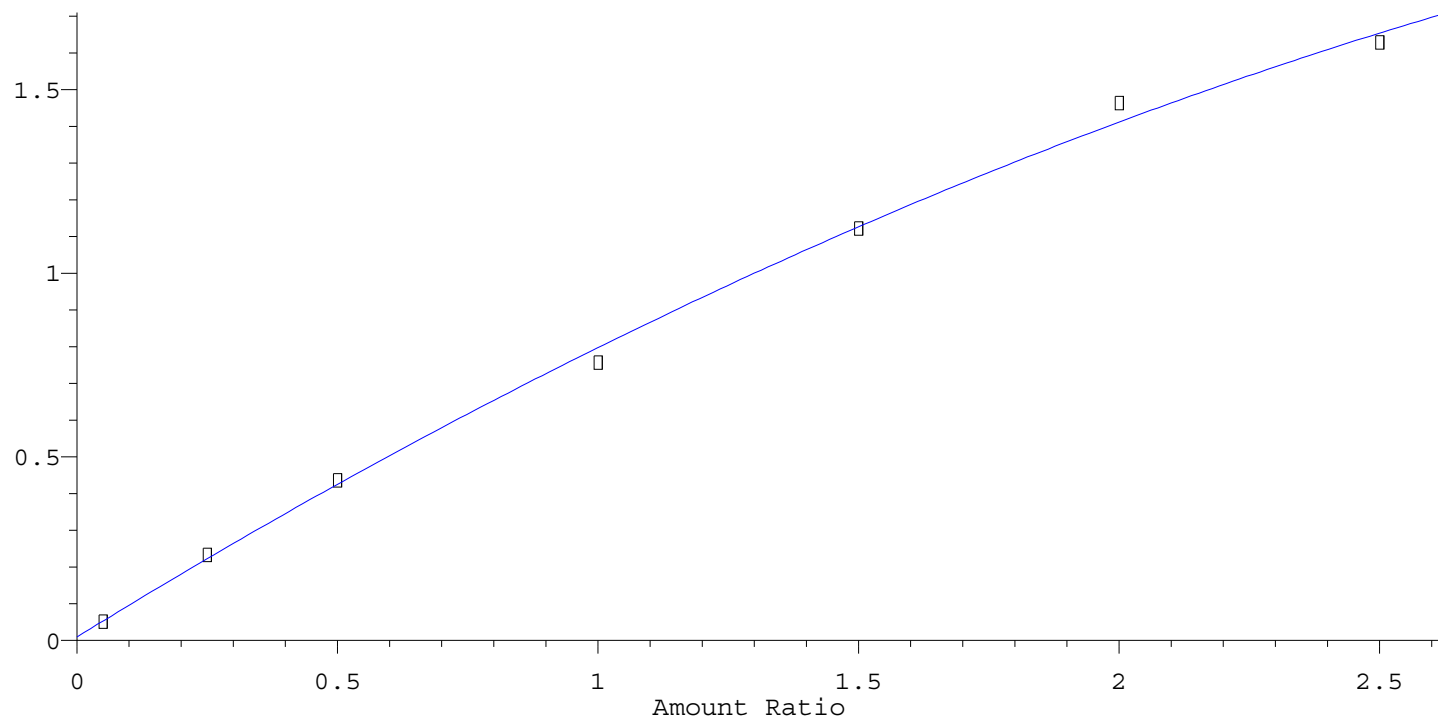
Response Ratio



$R = -2.07e-001 A^2 + 1.78e+000 A + 2.24e-002$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

4Clphlphlethr

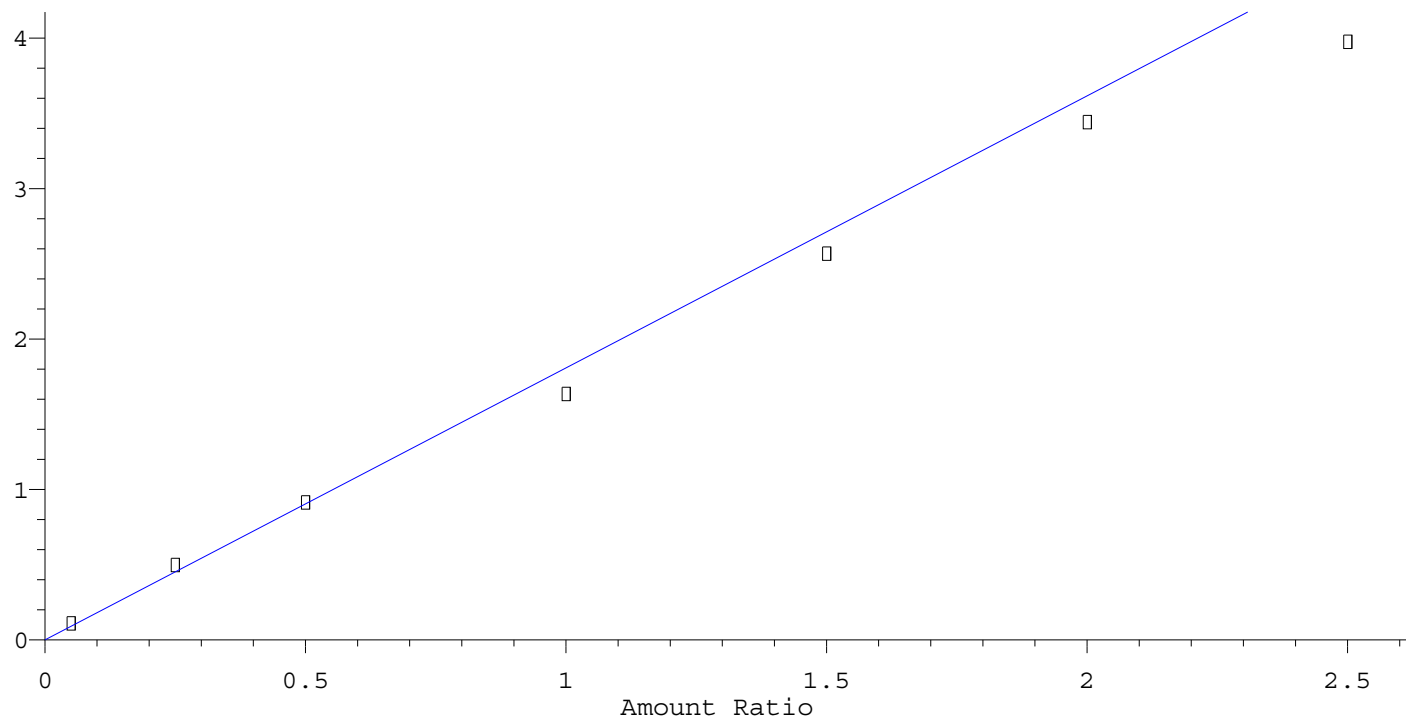
Response Ratio



$R = -8.69e-002 A^2 + 8.75e-001 A + 9.33e-003$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Diethylphthal

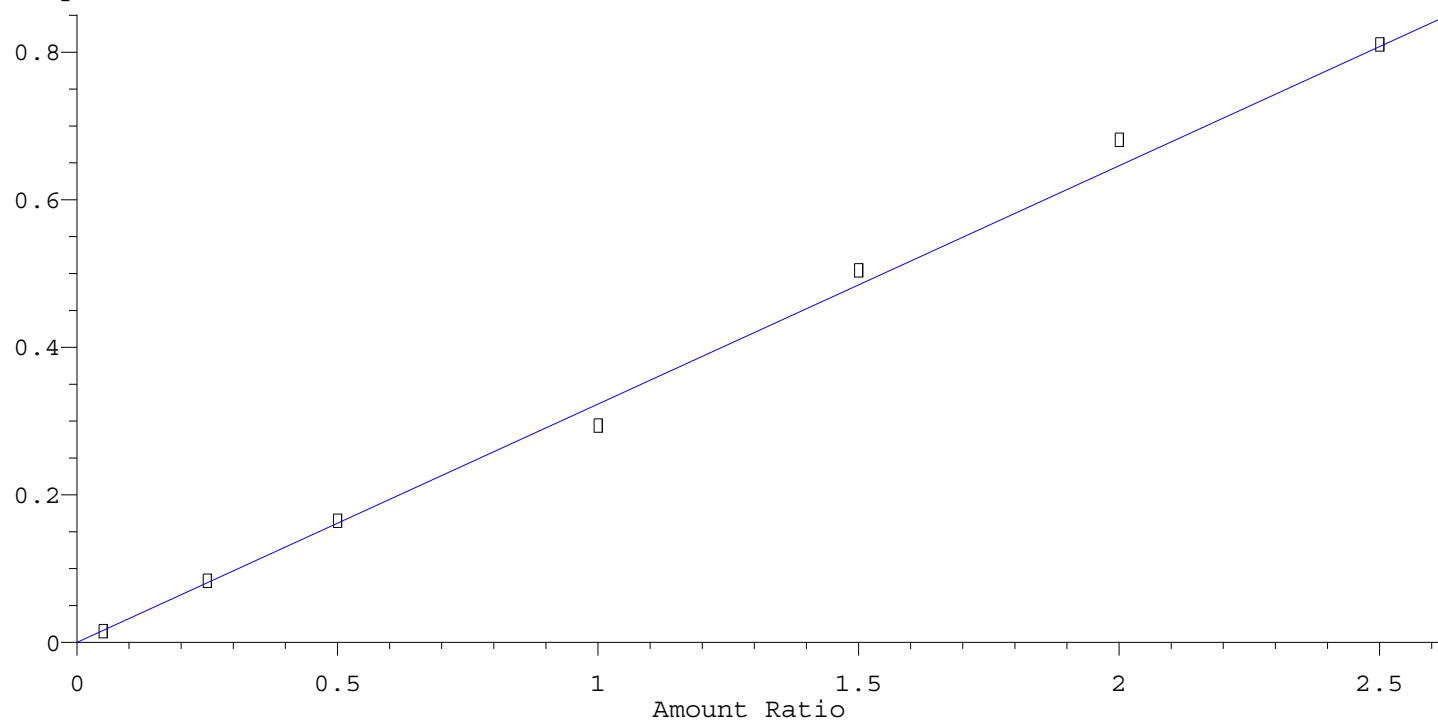
Response Ratio



Resp Ratio = 1.81×10^0 * Amt
RF Rel Std Dev = 11.8% Curve Fit: Avg RF

4Nitroaniline

Response Ratio

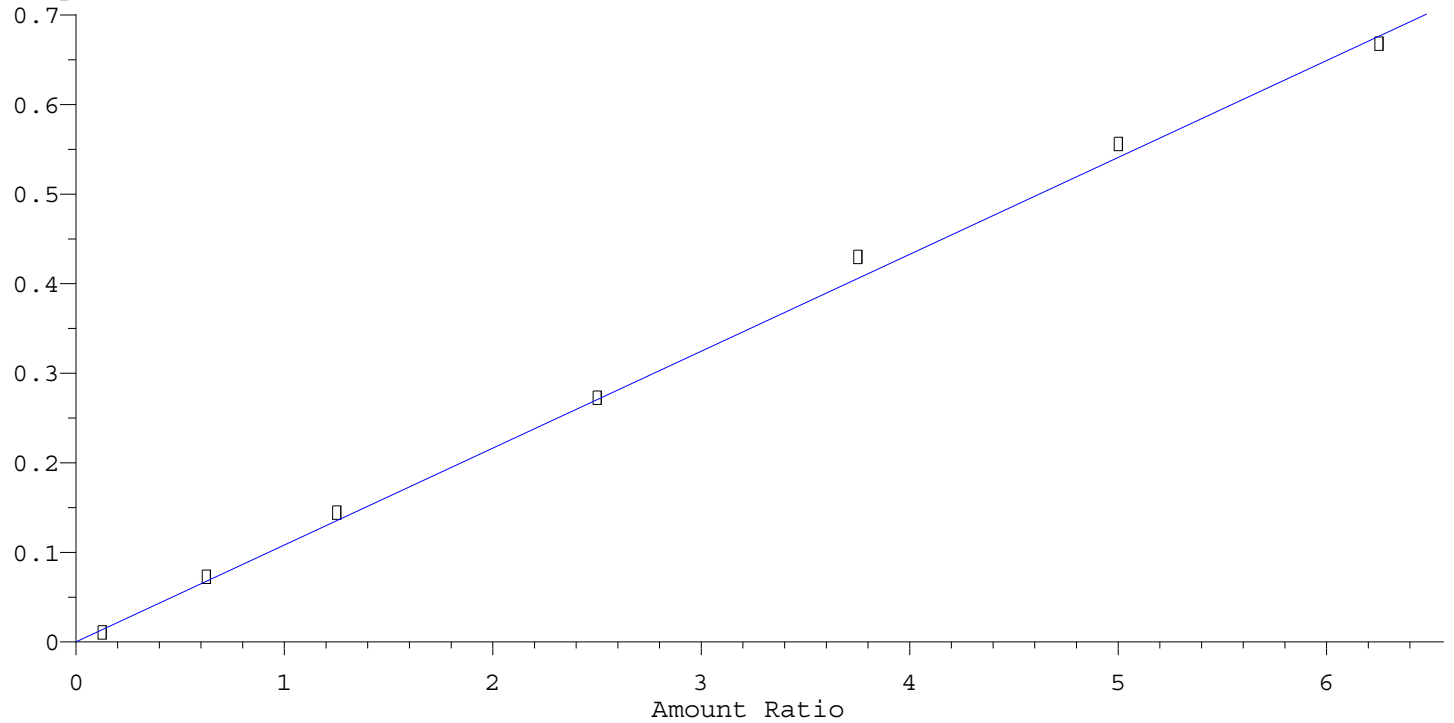


Resp Ratio = 3.23×10^{-1} * Amt
RF Rel Std Dev = 5.4% Curve Fit: Avg RF

Calibration Plot Report

SURR246Tribrphenl

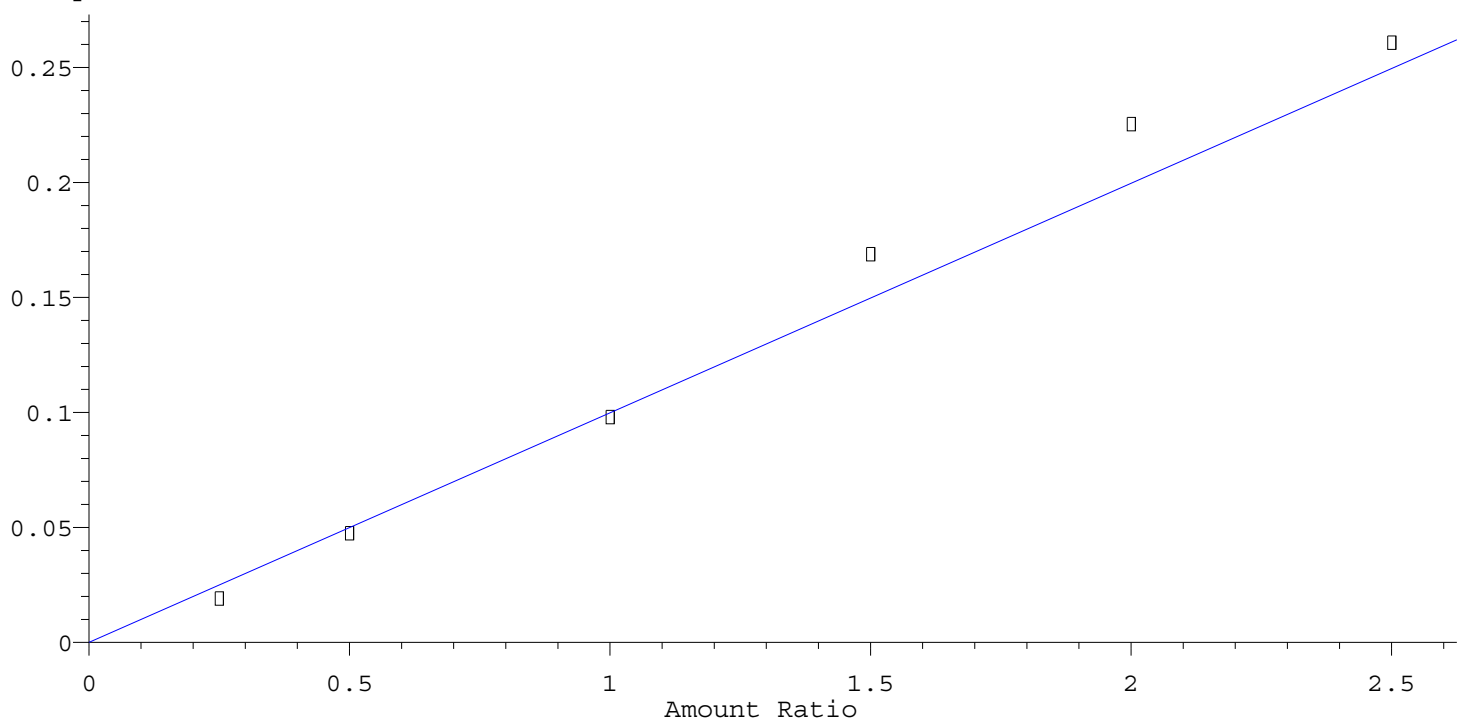
Response Ratio



Resp Ratio = 1.08e-001 * Amt
RF Rel Std Dev = 10.4% Curve Fit: Avg RF

46Dinit2mylph

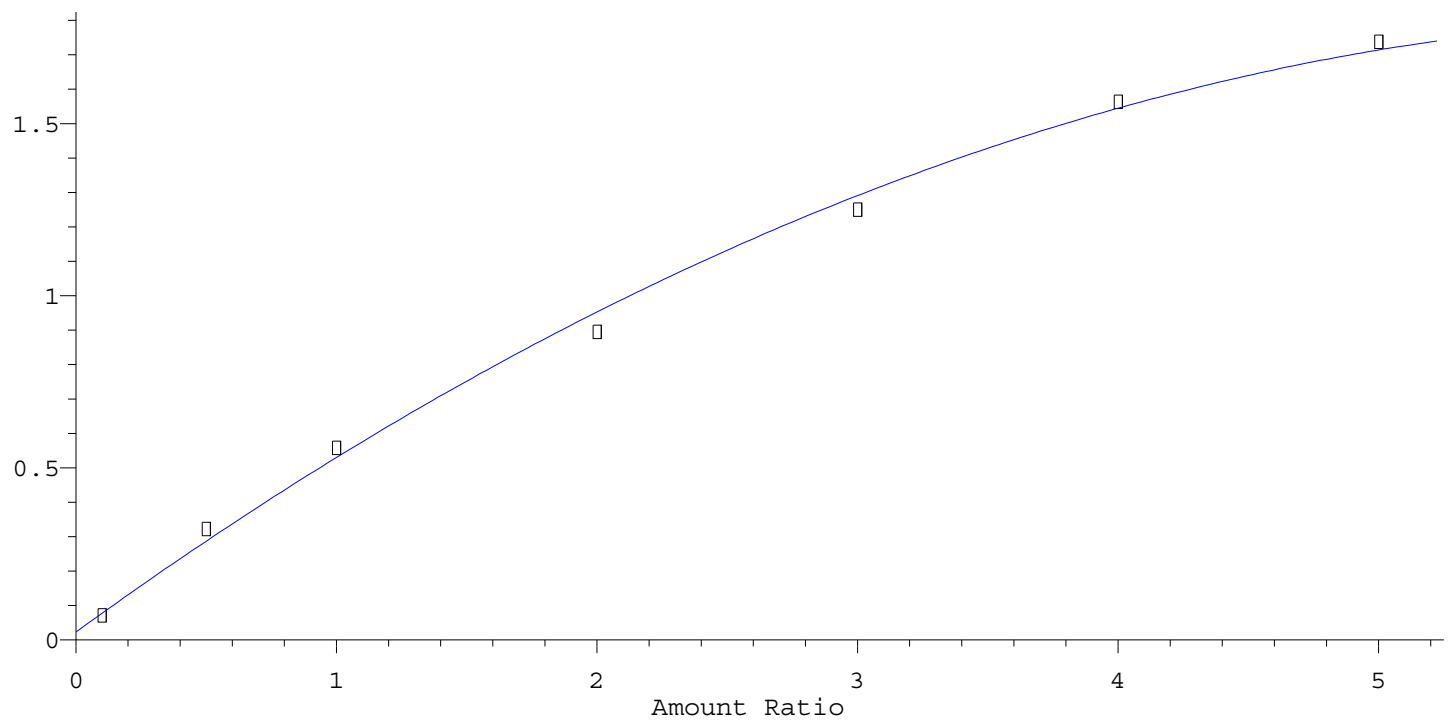
Response Ratio



Resp Ratio = 9.97e-002 * Amt
RF Rel Std Dev = 13.7% Curve Fit: Avg RF

Ntrsdiphlam&Diphlam

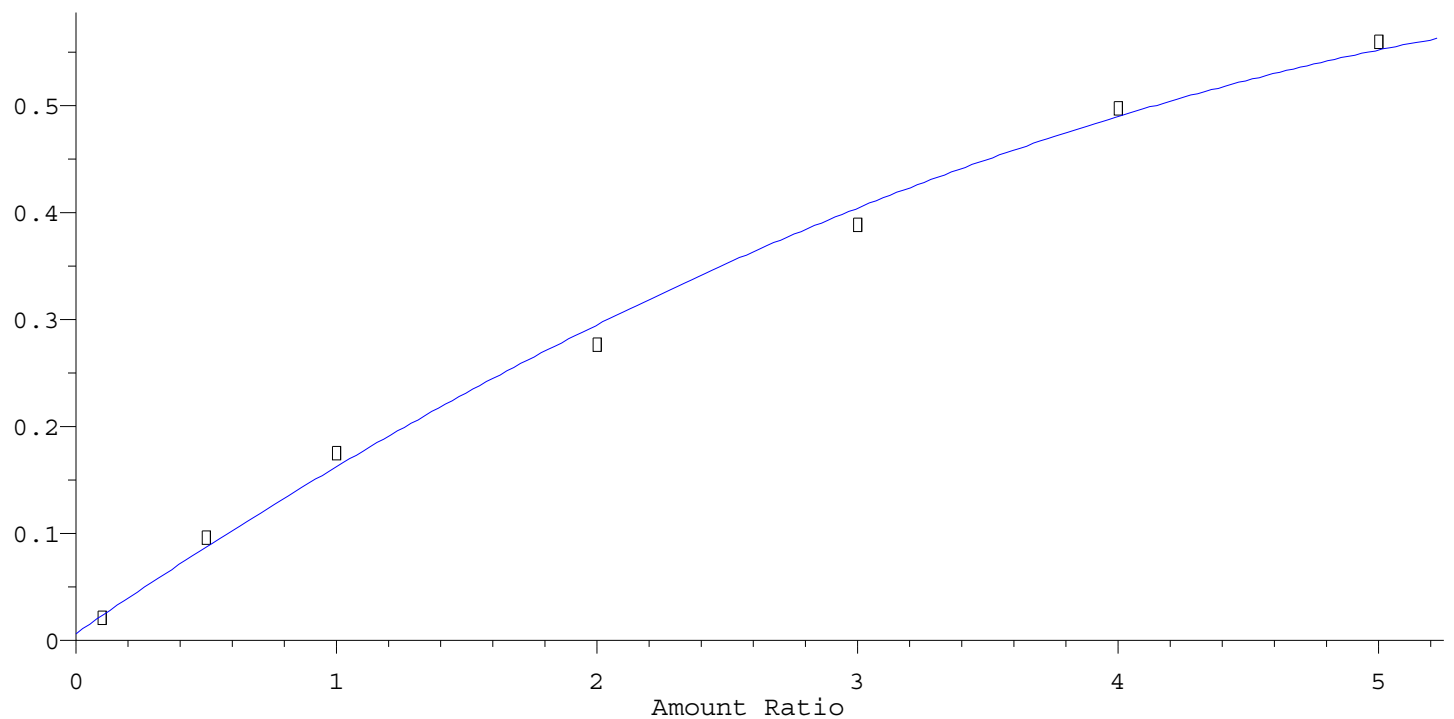
Response Ratio



$R = -4.22\text{e-}002 A^2 + 5.49\text{e-}001 A + 2.30\text{e-}002$
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

Azobenz&12Diphlhyd

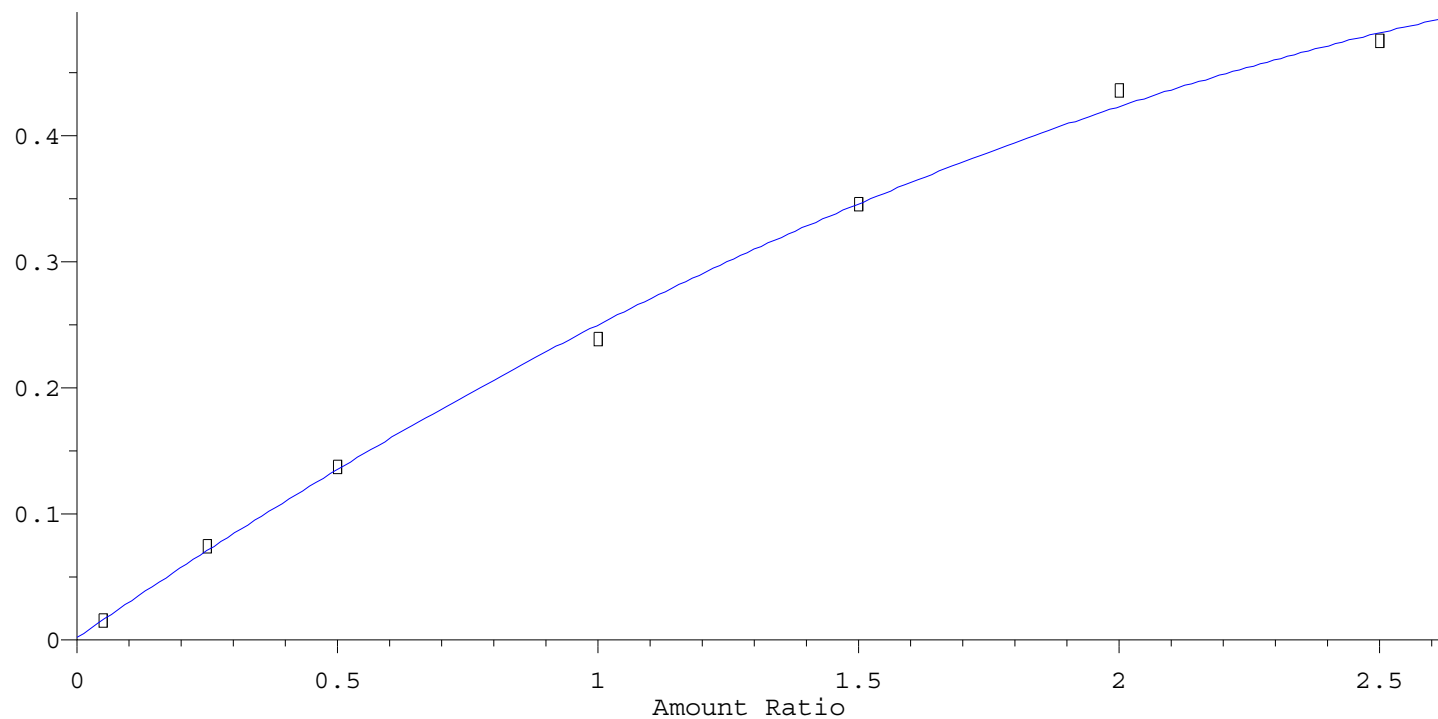
Response Ratio



$R = -1.17\text{e-}002 A^2 + 1.68\text{e-}001 A + 6.36\text{e-}003$
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w(1/a)

4Brphlphlethr

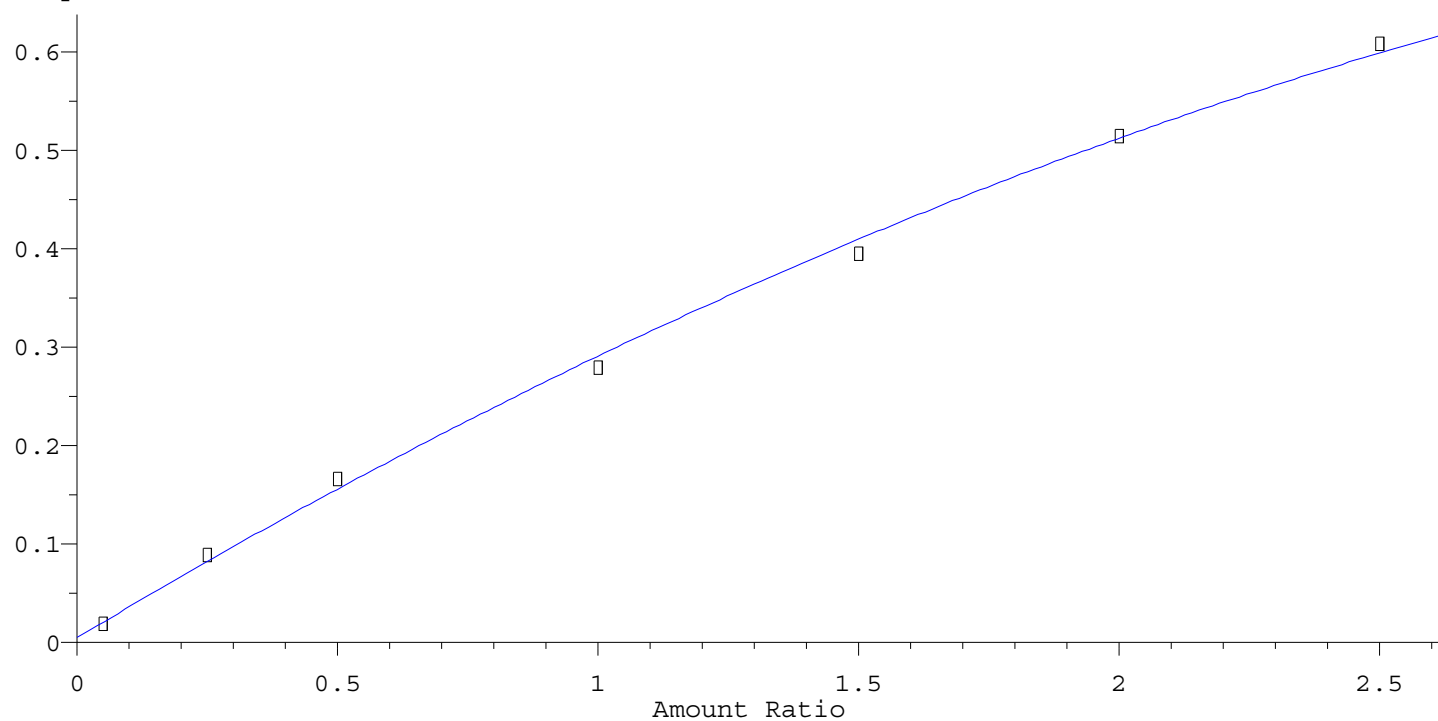
Response Ratio



$R = -3.75e-002 A^2 + 2.86e-001 A + 1.72e-003$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Hexaclbenzene

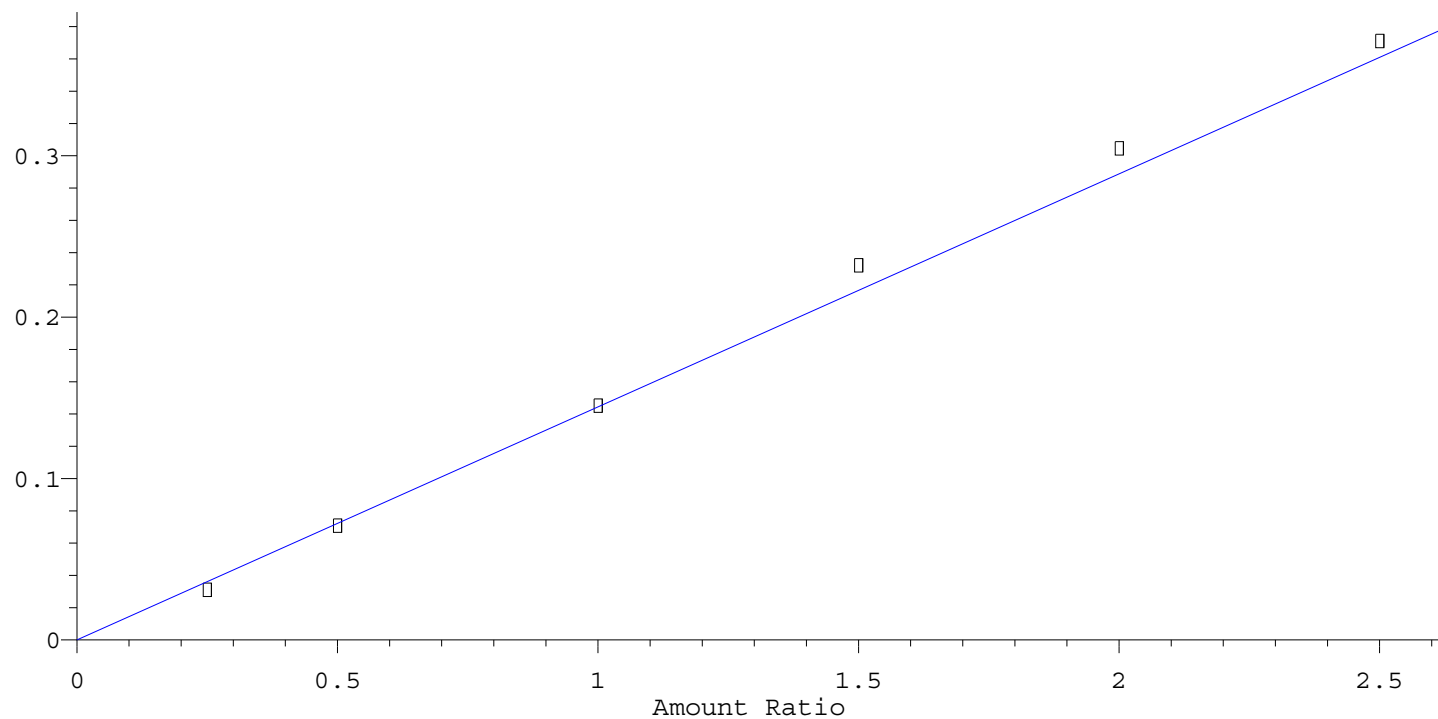
Response Ratio



$R = -3.24e-002 A^2 + 3.19e-001 A + 4.52e-003$
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Pentacclphenol

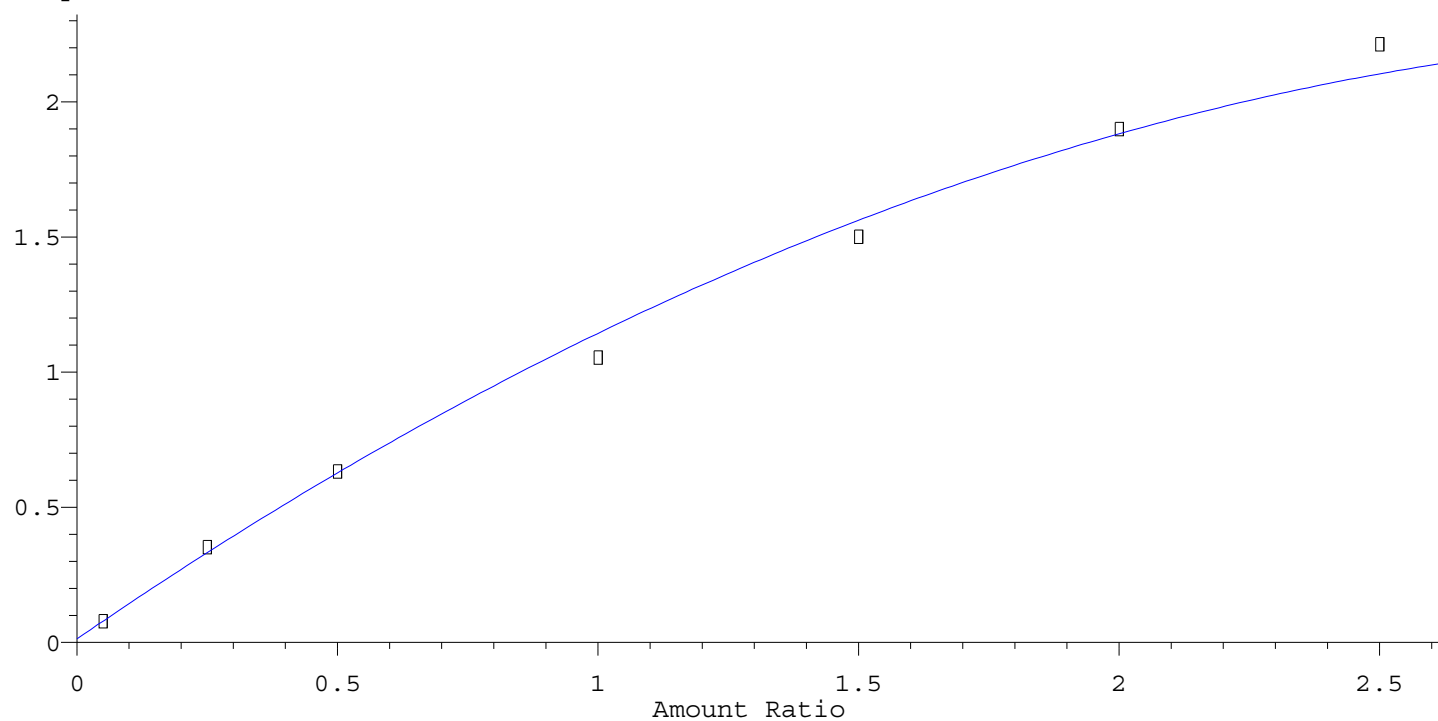
Response Ratio



Resp Ratio = $1.44\text{e-}001 * \text{Amt}$
RF Rel Std Dev = 7.6% Curve Fit: Avg RF

Phenanthrene

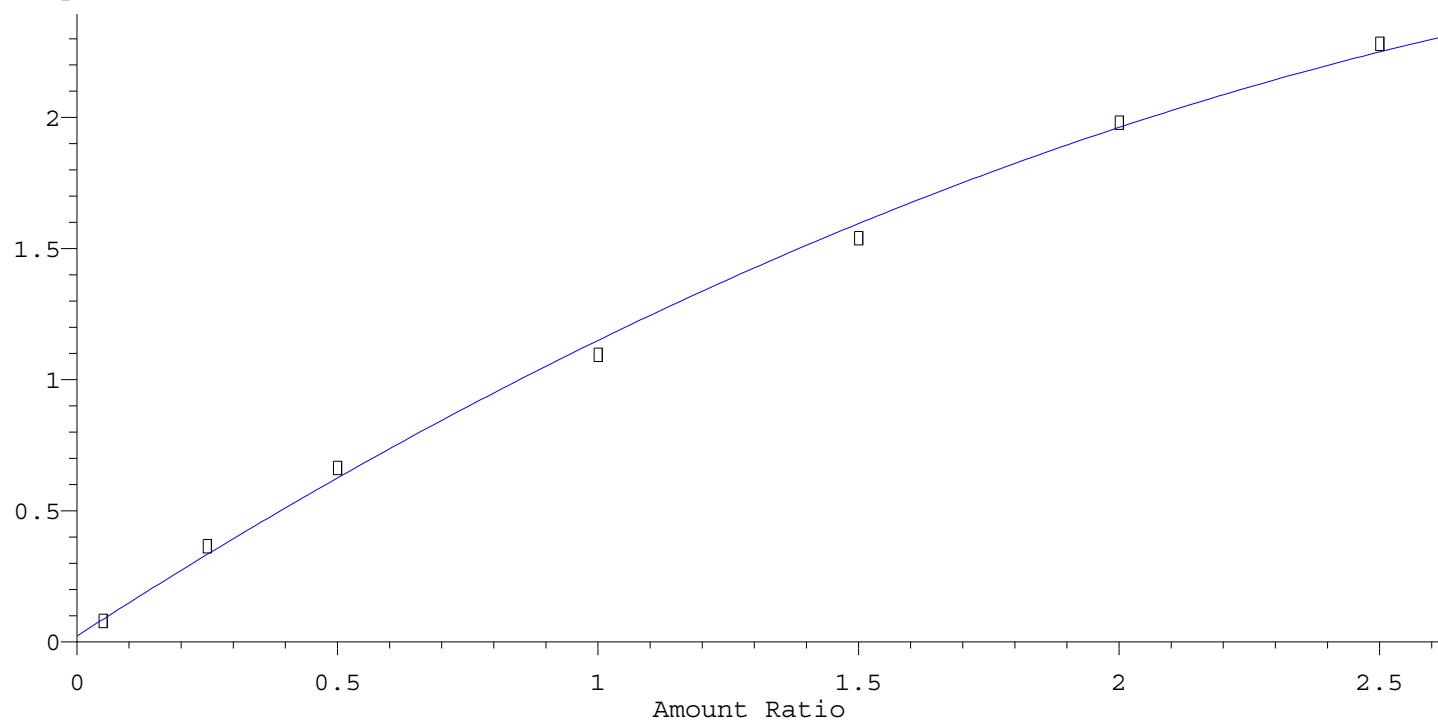
Response Ratio



$R = -1.96\text{e-}001 A^2 + 1.33\text{e+}000 A + 1.26\text{e-}002$
Coef of Det (r^2) = 0.997 Curve Fit: Quadratic w($1/a^2$)

Anthracene

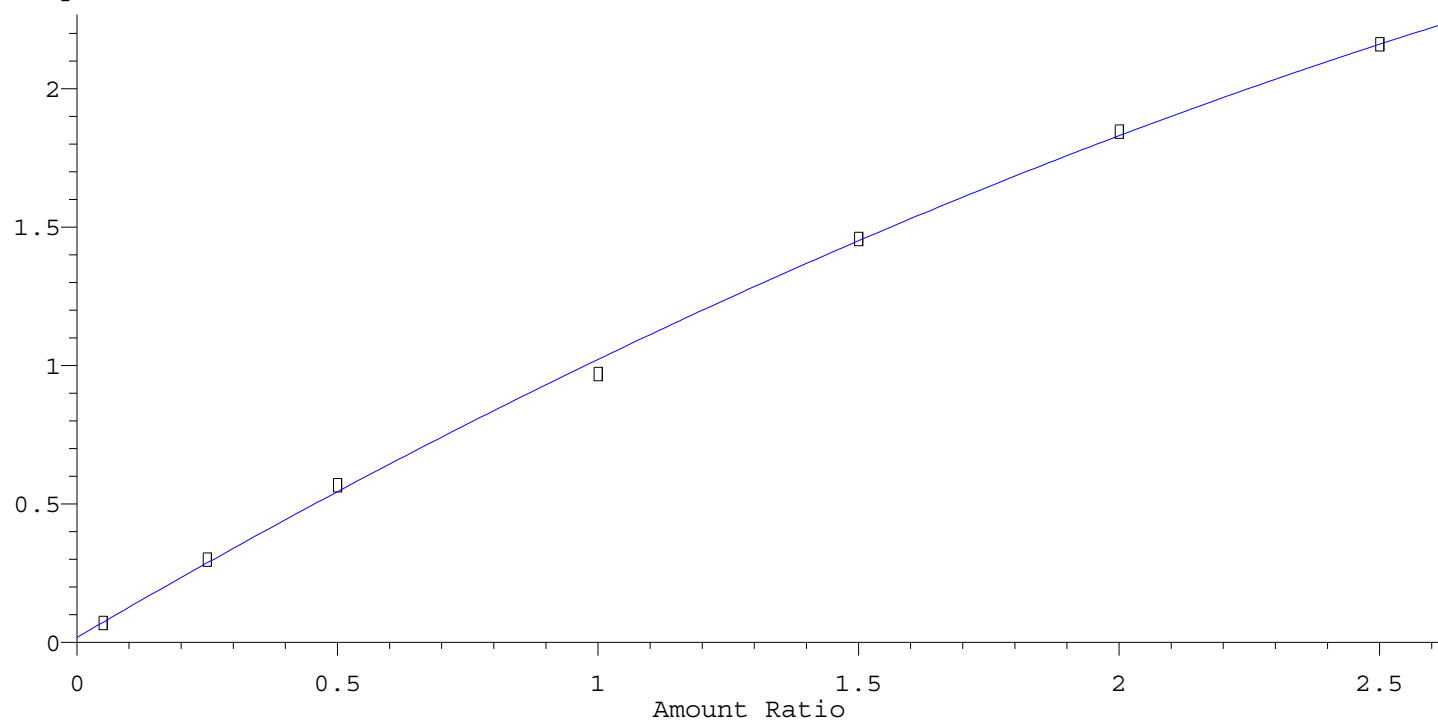
Response Ratio



$R = -1.58e-001 A^2 + 1.29e+000 A + 2.23e-002$
Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Carbazole

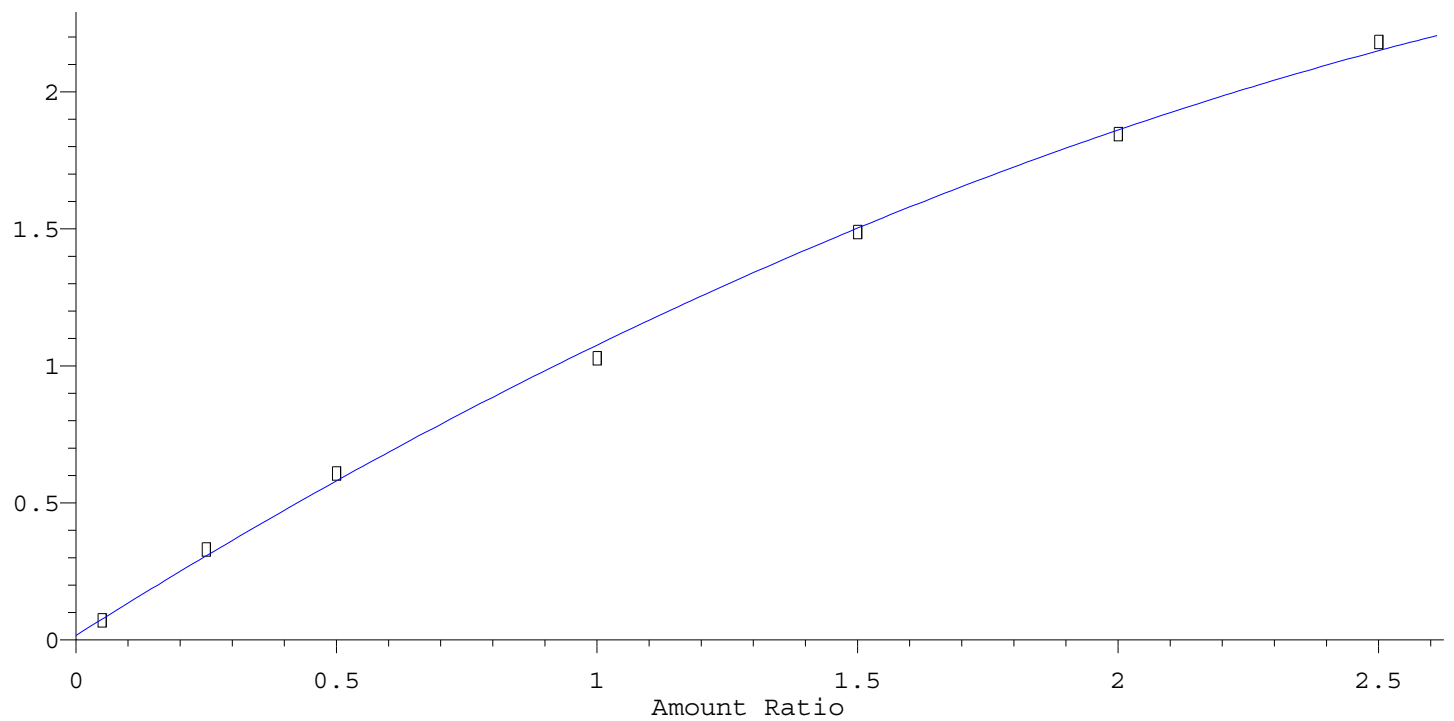
Response Ratio



$R = -9.81e-002 A^2 + 1.10e+000 A + 1.78e-002$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Dinbtylphthal

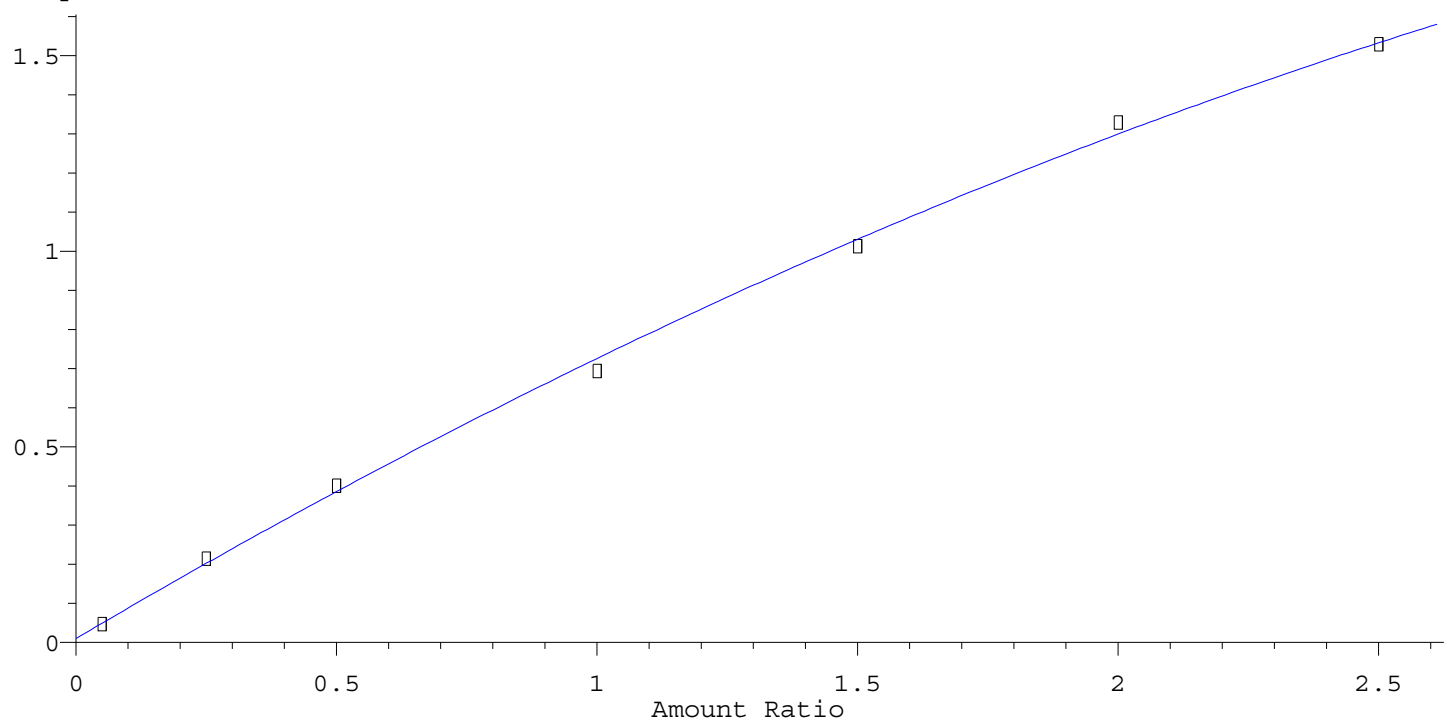
Response Ratio



$R = -1.37\text{e-}001 A^2 + 1.20\text{e+}000 A + 1.64\text{e-}002$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Fluoranthene

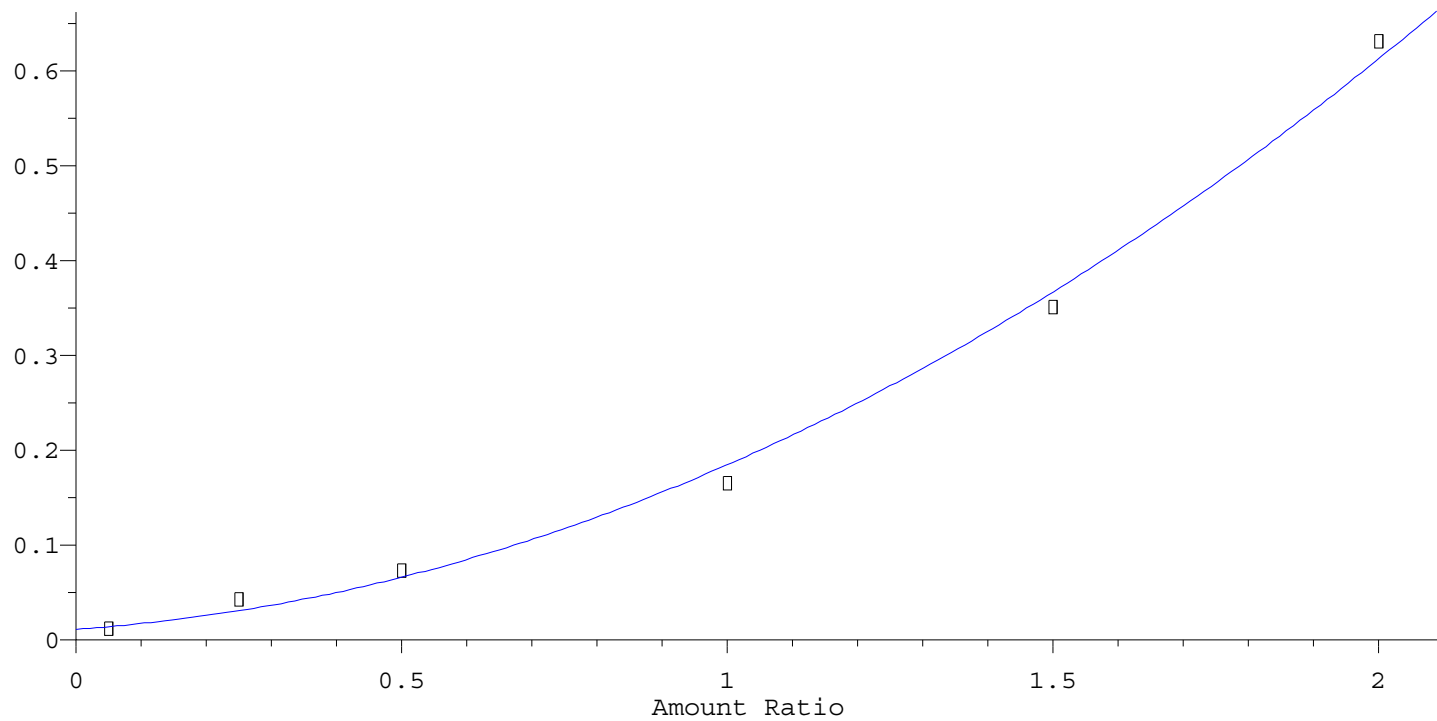
Response Ratio



$R = -7.13\text{e-}002 A^2 + 7.88\text{e-}001 A + 9.61\text{e-}003$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Benzidine

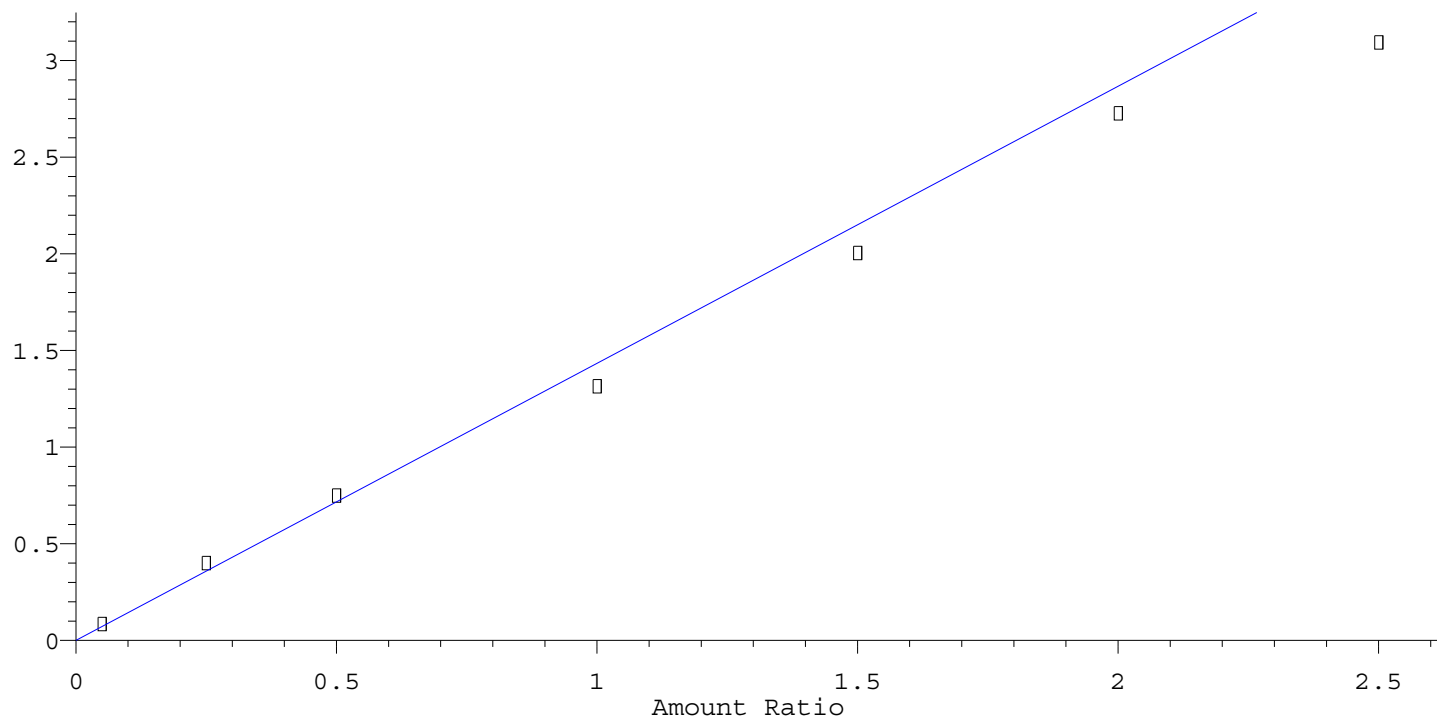
Response Ratio



$R = 1.27e-001 A^2 + 4.59e-002 A + 1.13e-002$
Coef of Det (r^2) = 0.995 Curve Fit: Quadratic w(1/a)

Pyrene

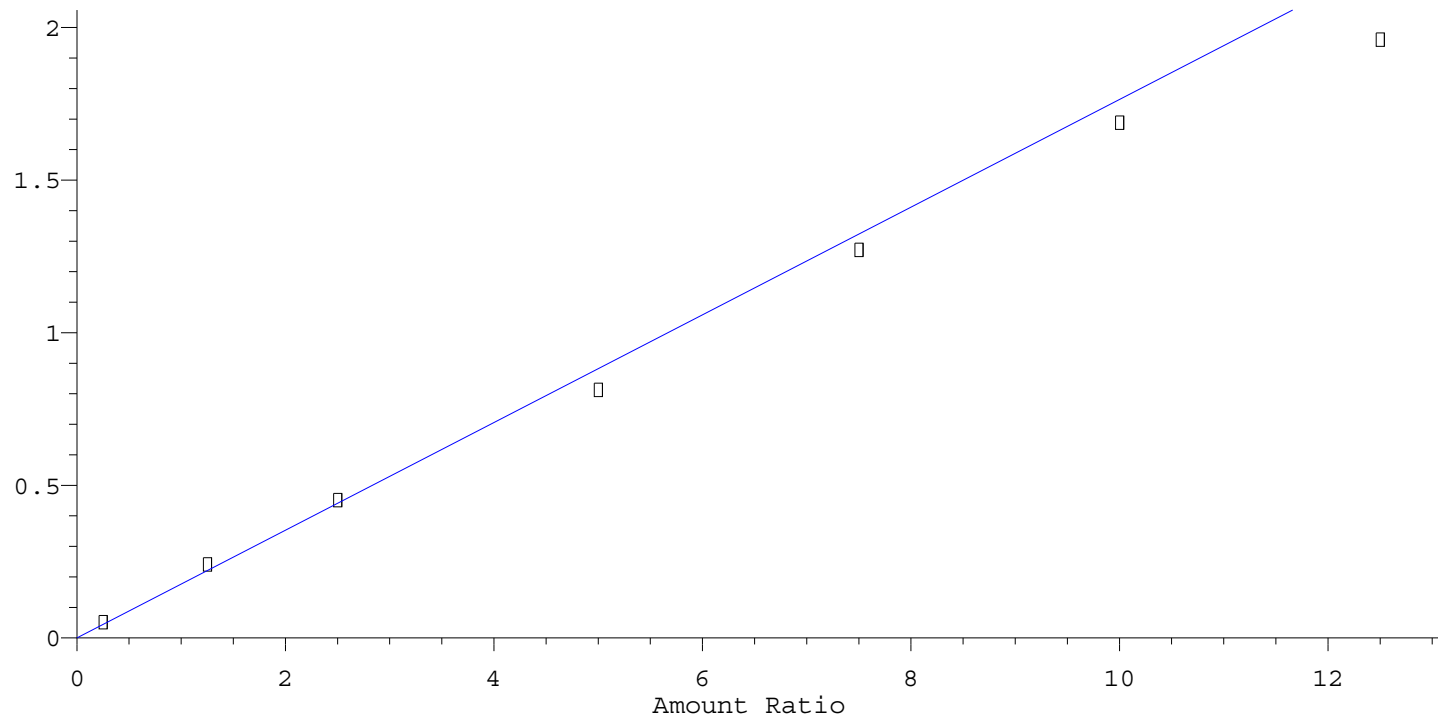
Response Ratio



Resp Ratio = $1.43e+000 * \text{Amt}$
RF Rel Std Dev = 11.5% Curve Fit: Avg RF

SURRTerphenyl-d14

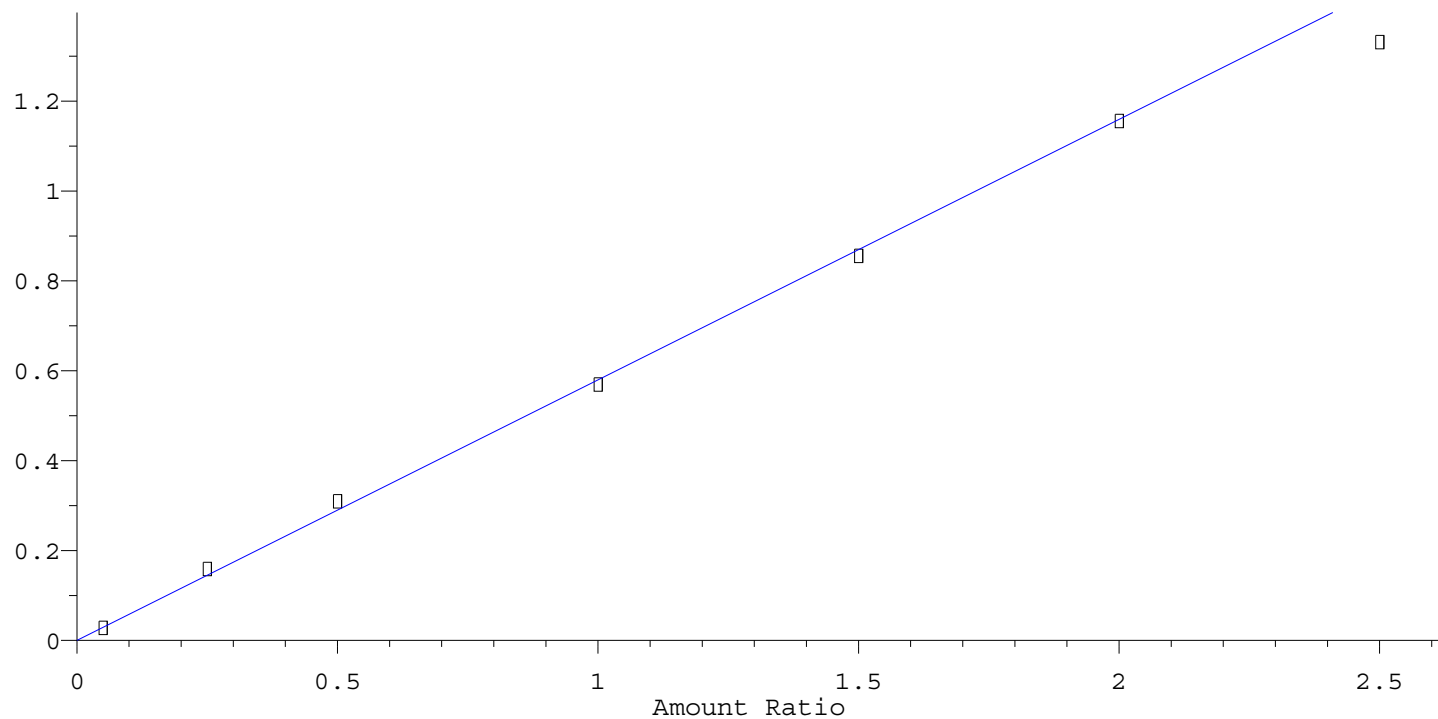
Response Ratio



Resp Ratio = 1.76e-001 * Amt
RF Rel Std Dev = 9.7% Curve Fit: Avg RF

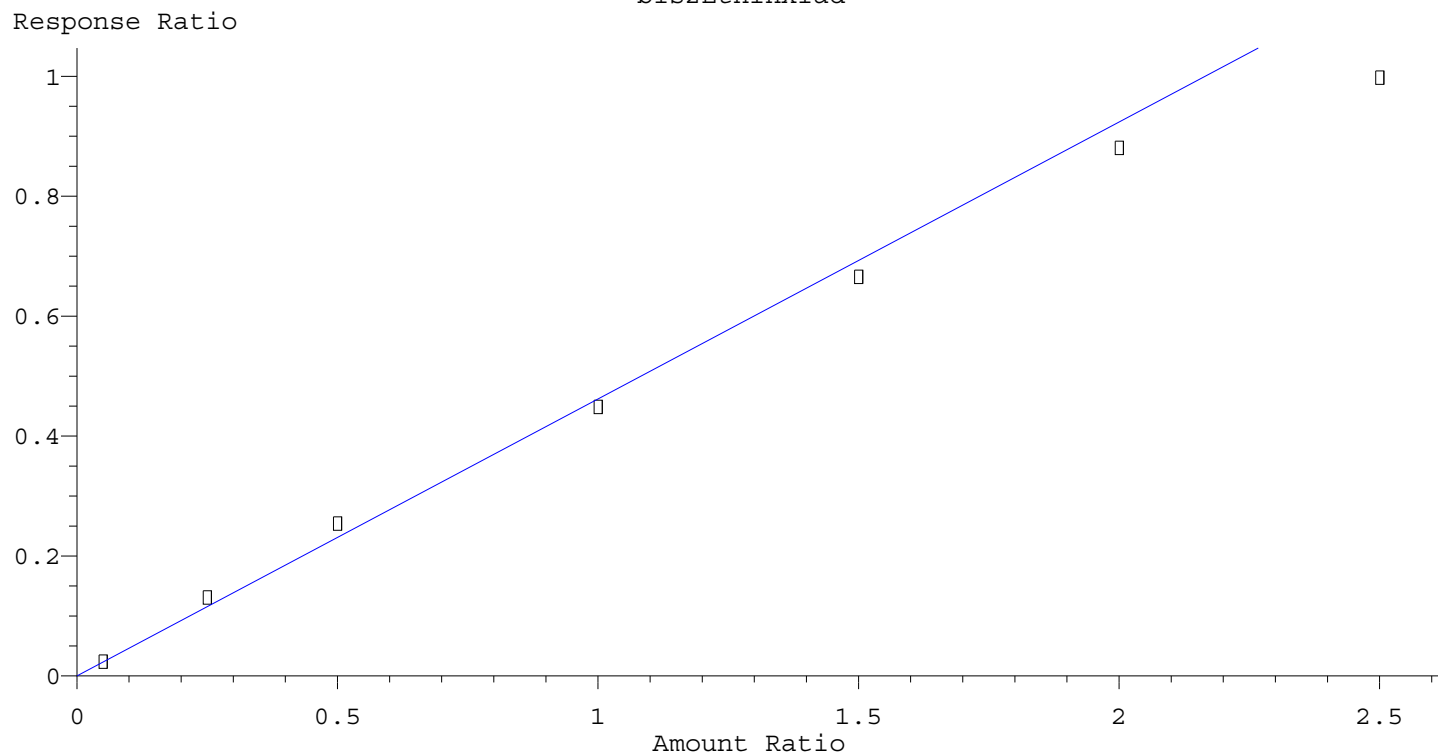
Btylbzylphth

Response Ratio



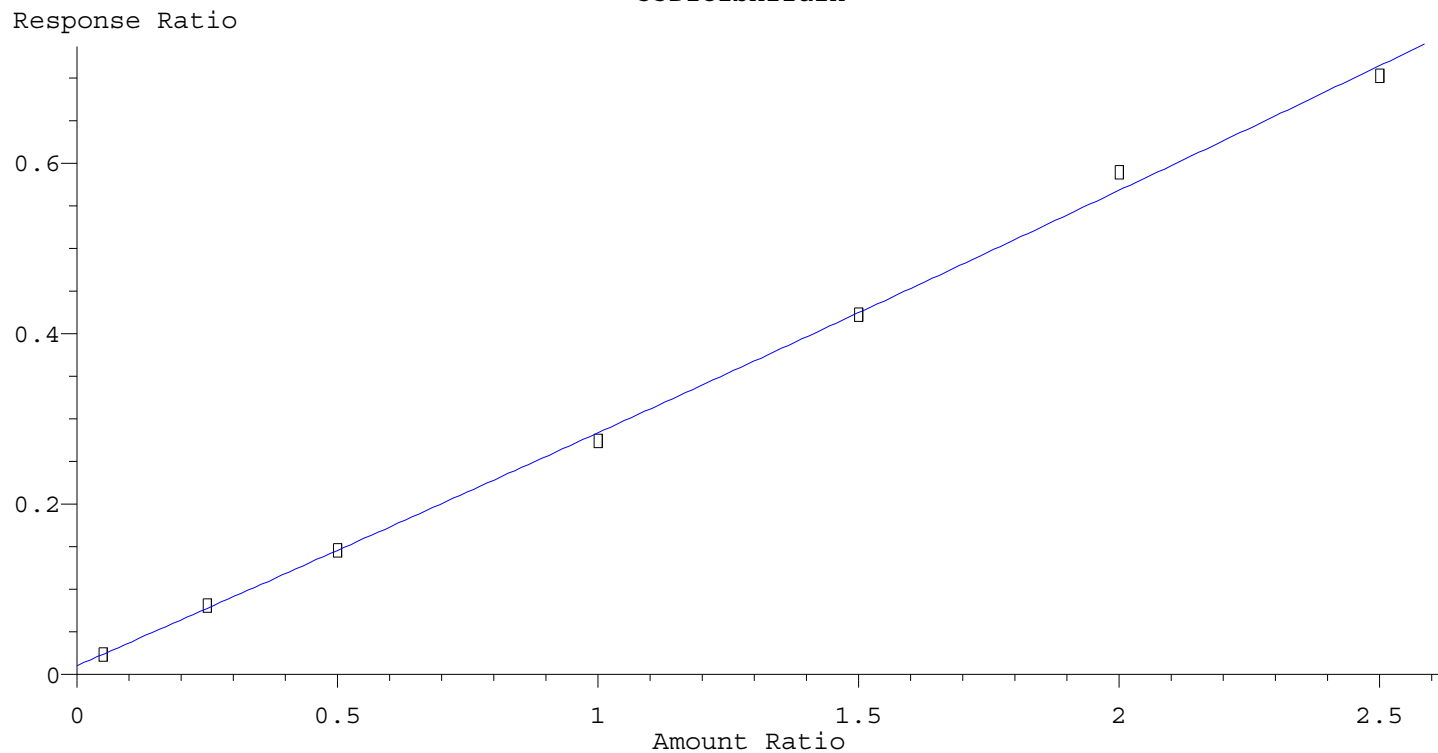
Resp Ratio = 5.80e-001 * Amt
RF Rel Std Dev = 6.2% Curve Fit: Avg RF

bis2Ethlhxlad



Resp Ratio = $4.62 \times 10^{-1} \times \text{Amt}$
 RF Rel Std Dev = 9.2% Curve Fit: Avg RF

33Diclbnzidin

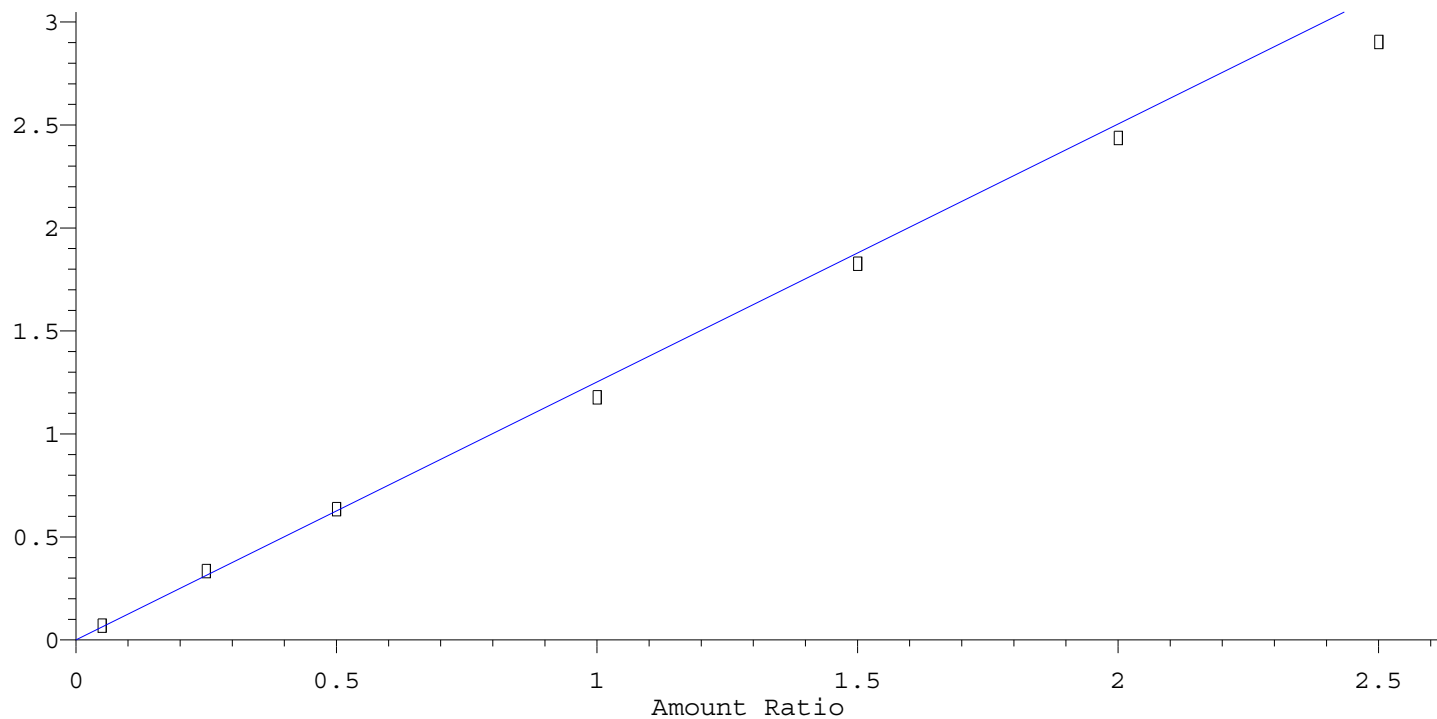


$R = 5.52 \times 10^{-3} A^2 + 2.68 \times 10^{-1} A + 1.03 \times 10^{-2}$
 Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

B[a]anthracen

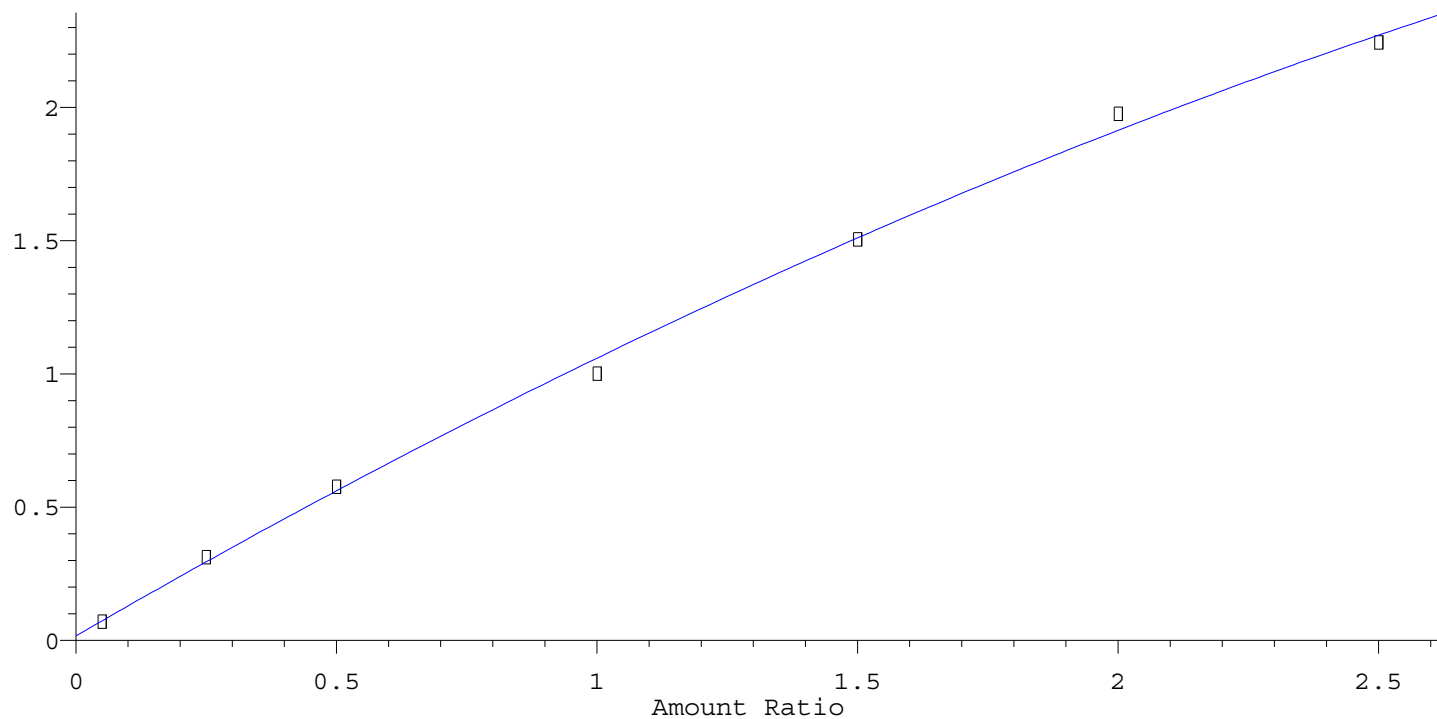
Response Ratio



Resp Ratio = 1.25e+000 * Amt
RF Rel Std Dev = 6.7% Curve Fit: Avg RF

Chrysene

Response Ratio

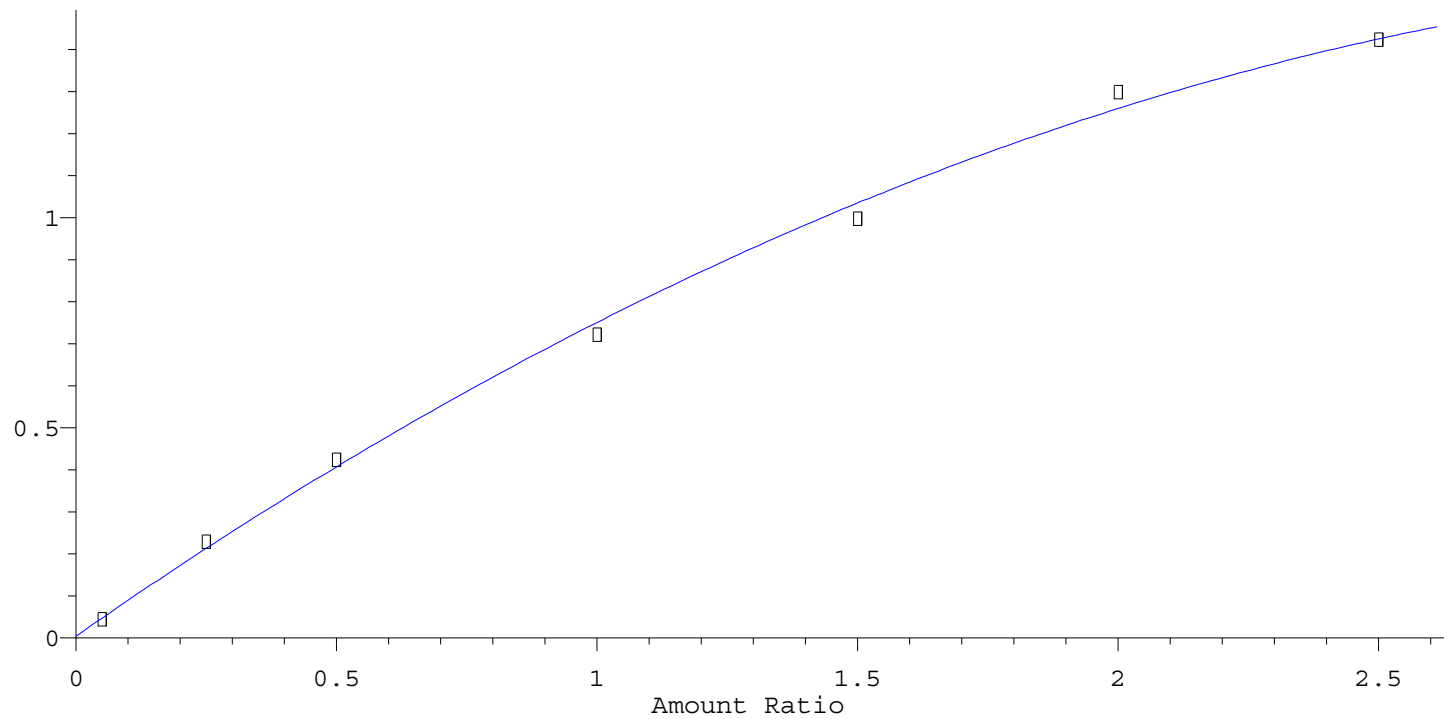


$R = -9.39e-002 A^2 + 1.14e+000 A + 1.66e-002$
Coef of Det (r^2) = 0.999 Curve Fit: Quadratic w(1/a)

Calibration Plot Report

bis2Ethlhxlph

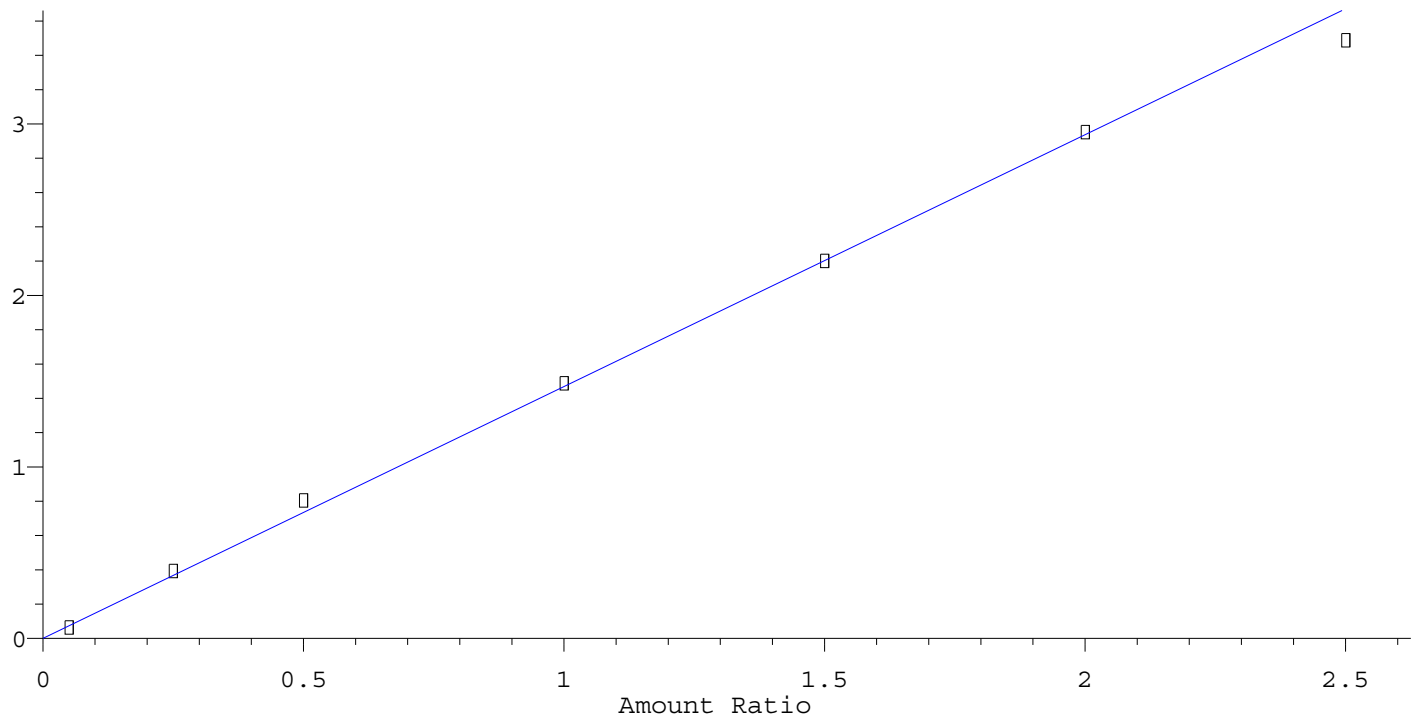
Response Ratio



$R = -1.19e-001 A^2 + 8.65e-001 A + 4.14e-003$
 Coef of Det (r^2) = 0.998 Curve Fit: Quadratic w(1/a)

Dinooctylphthl

Response Ratio

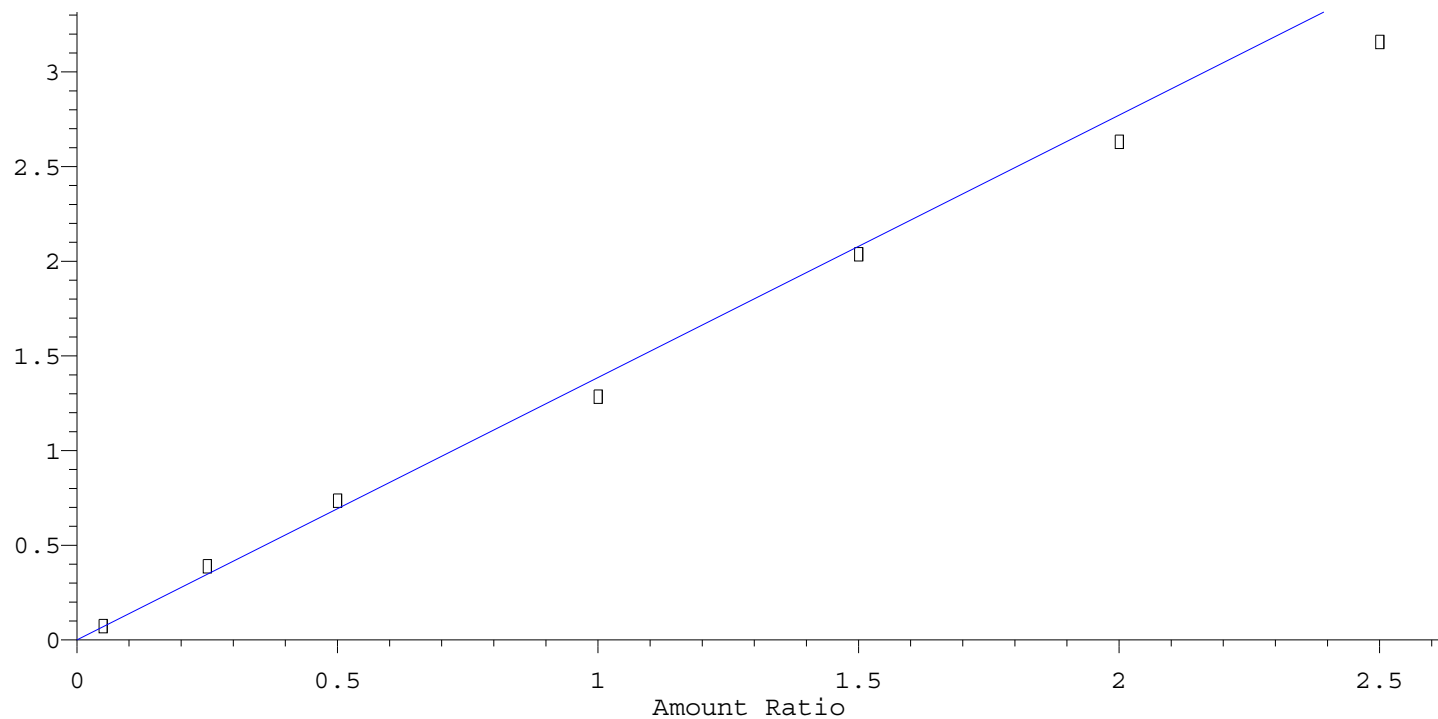


Resp Ratio = $1.47e+000 \times \text{Amt}$
 RF Rel Std Dev = 7.5% Curve Fit: Avg RF

Calibration Plot Report

B[b] fluoranth

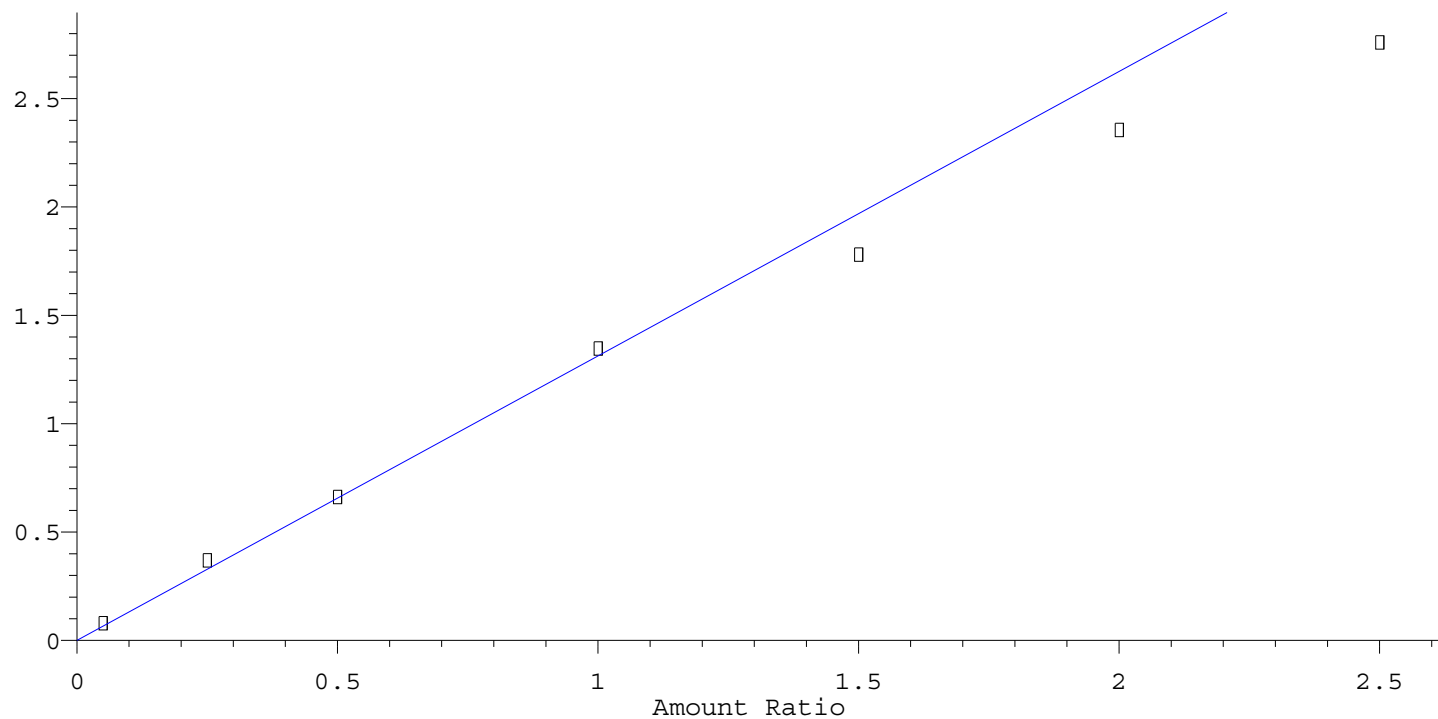
Response Ratio



Resp Ratio = 1.39e+000 * Amt
RF Rel Std Dev = 7.9% Curve Fit: Avg RF

B[k] fluoranth

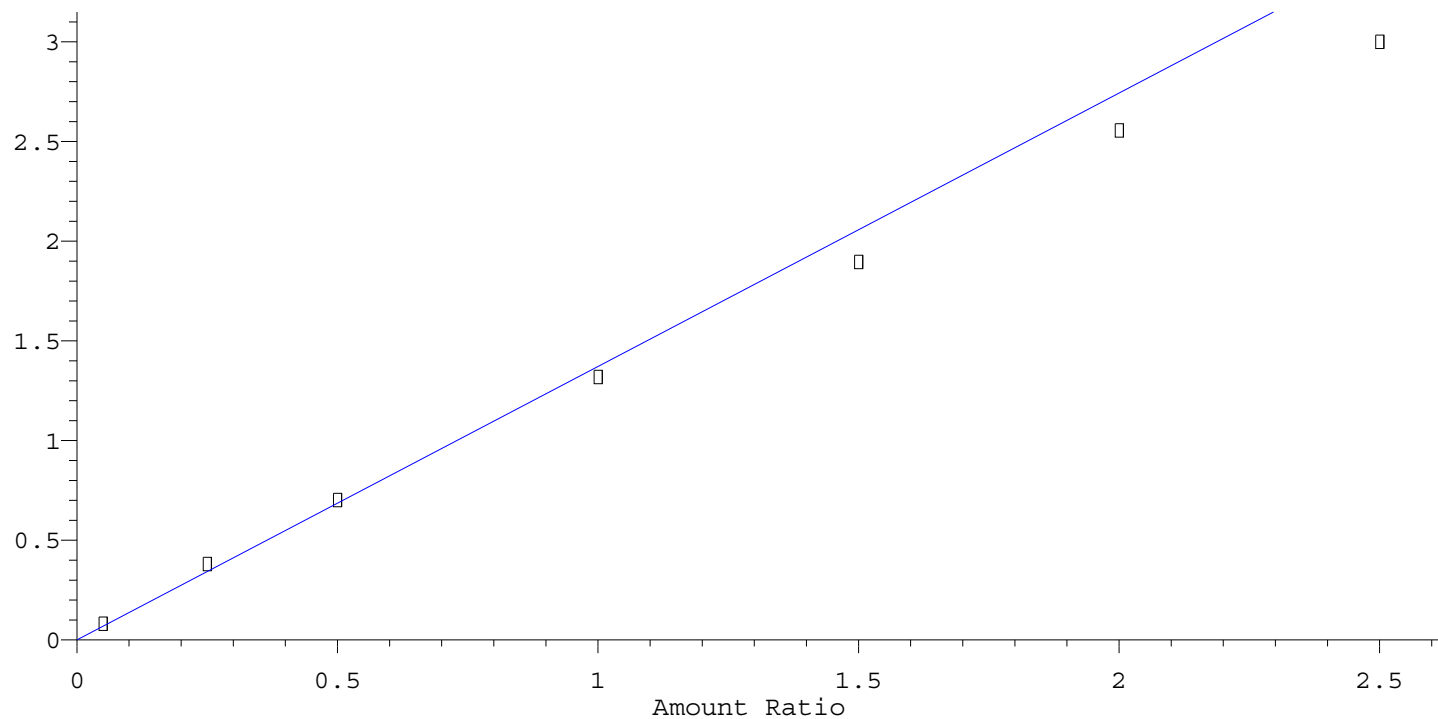
Response Ratio



Resp Ratio = 1.31e+000 * Amt
RF Rel Std Dev = 13.0% Curve Fit: Avg RF

Benz[a]pyrene

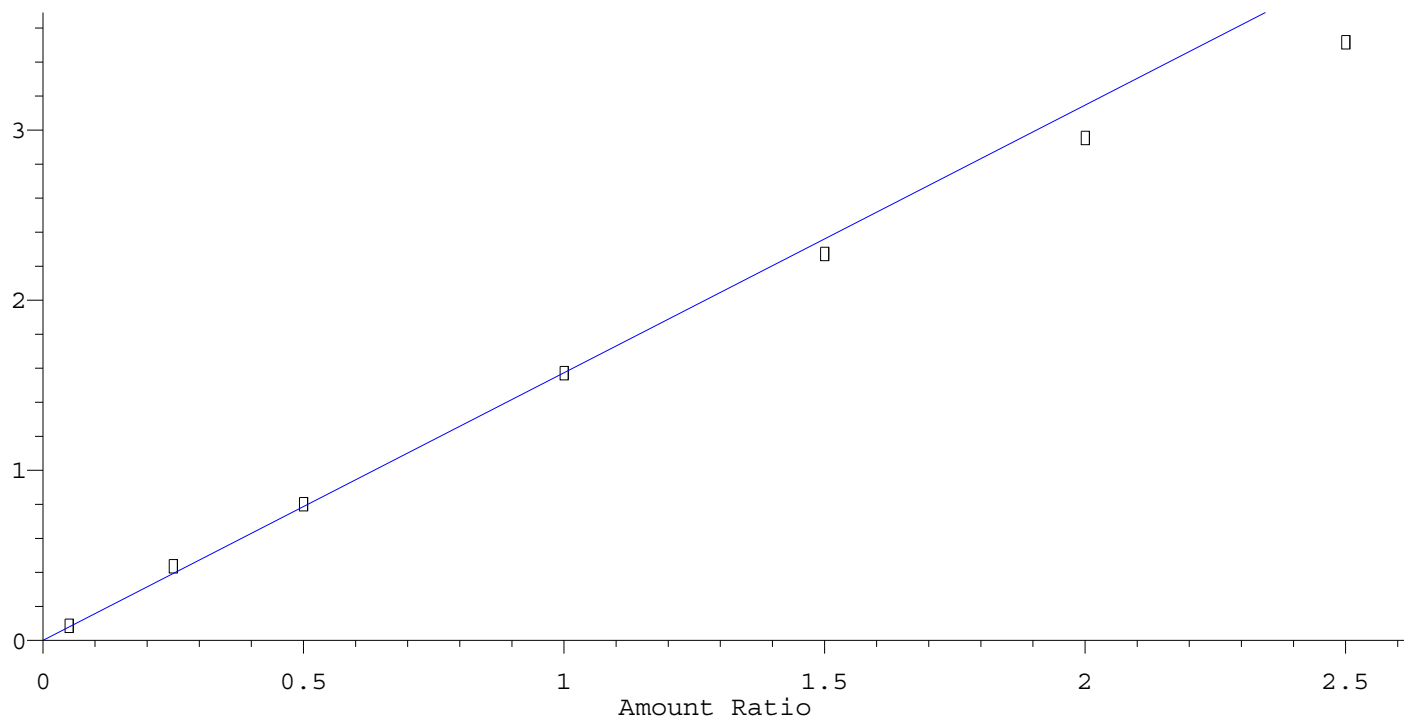
Response Ratio



Resp Ratio = $1.37\text{e}+000$ * Amt
RF Rel Std Dev = 11.1% Curve Fit: Avg RF

Indeno-pyrene

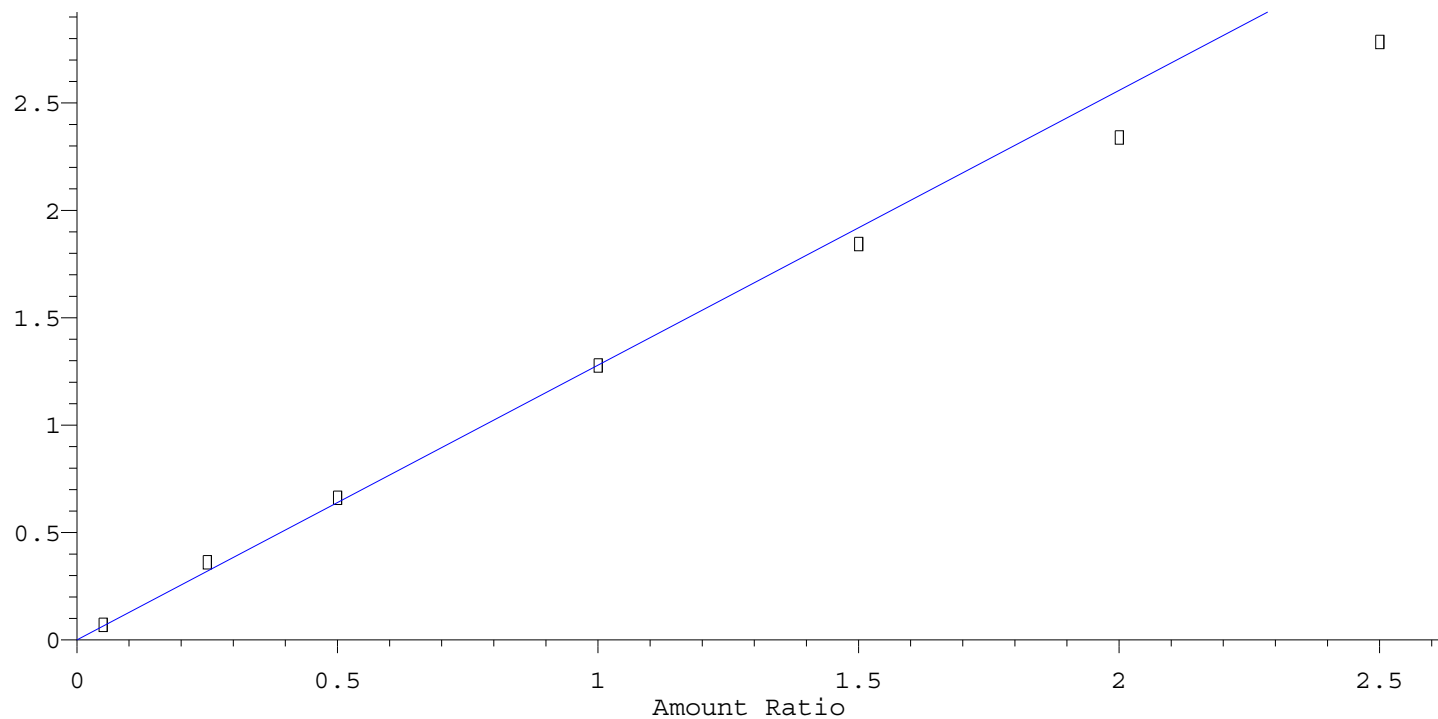
Response Ratio



Resp Ratio = $1.57\text{e}+000$ * Amt
RF Rel Std Dev = 7.7% Curve Fit: Avg RF

Dib[ah]anthr

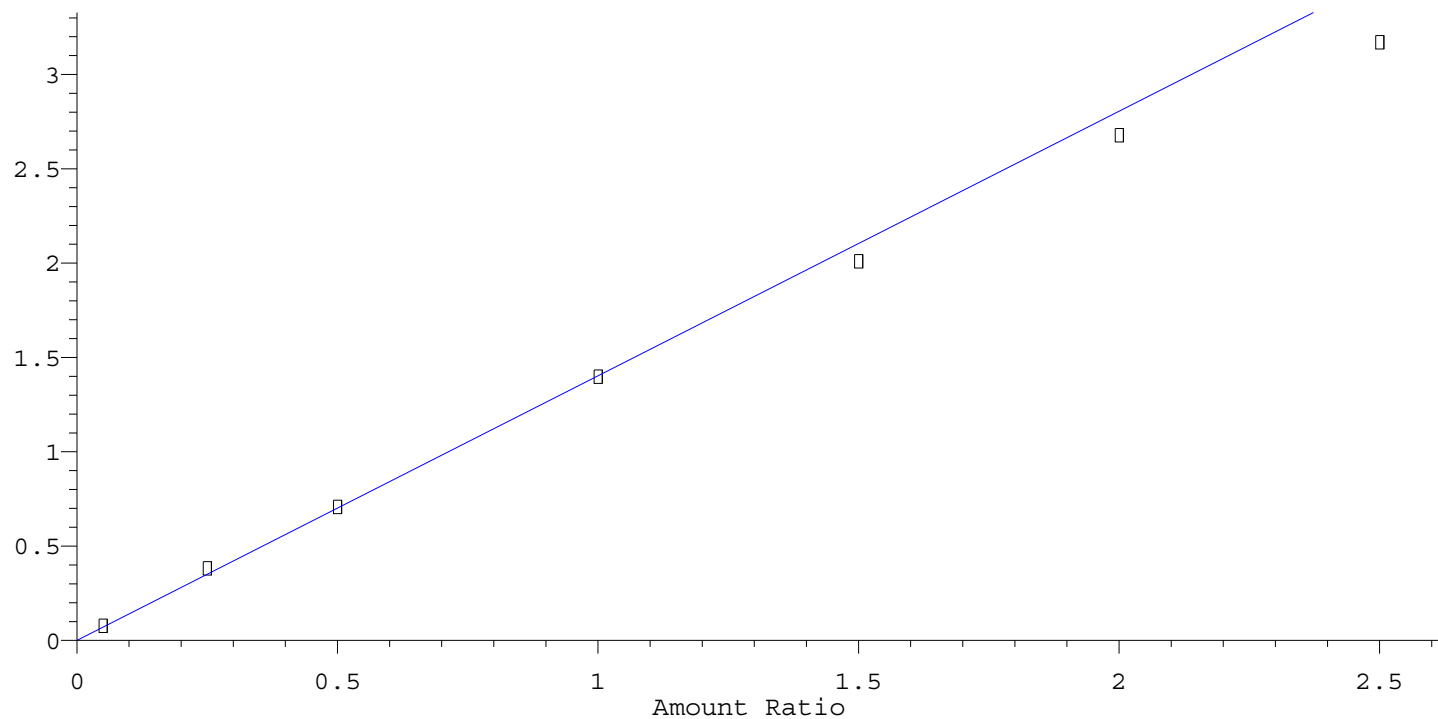
Response Ratio



Resp Ratio = 1.28×10^0 * Amt
RF Rel Std Dev = 9.3% Curve Fit: Avg RF

B[ghi]perylene

Response Ratio



Resp Ratio = 1.40×10^0 * Amt
RF Rel Std Dev = 7.1% Curve Fit: Avg RF

Data File : C:\INSTARCH\Data\1S081715\1IB02.D
 Acq On : 17 Aug 2015 17:24
 Sample : InstrumentBlank
 Misc : 500uL+5ul IS S3306C
 Integrator: RTE
 Quant Time: Aug 20 11:12:34 2015

Vial: 99
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Thu Aug 20 11:09:32 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

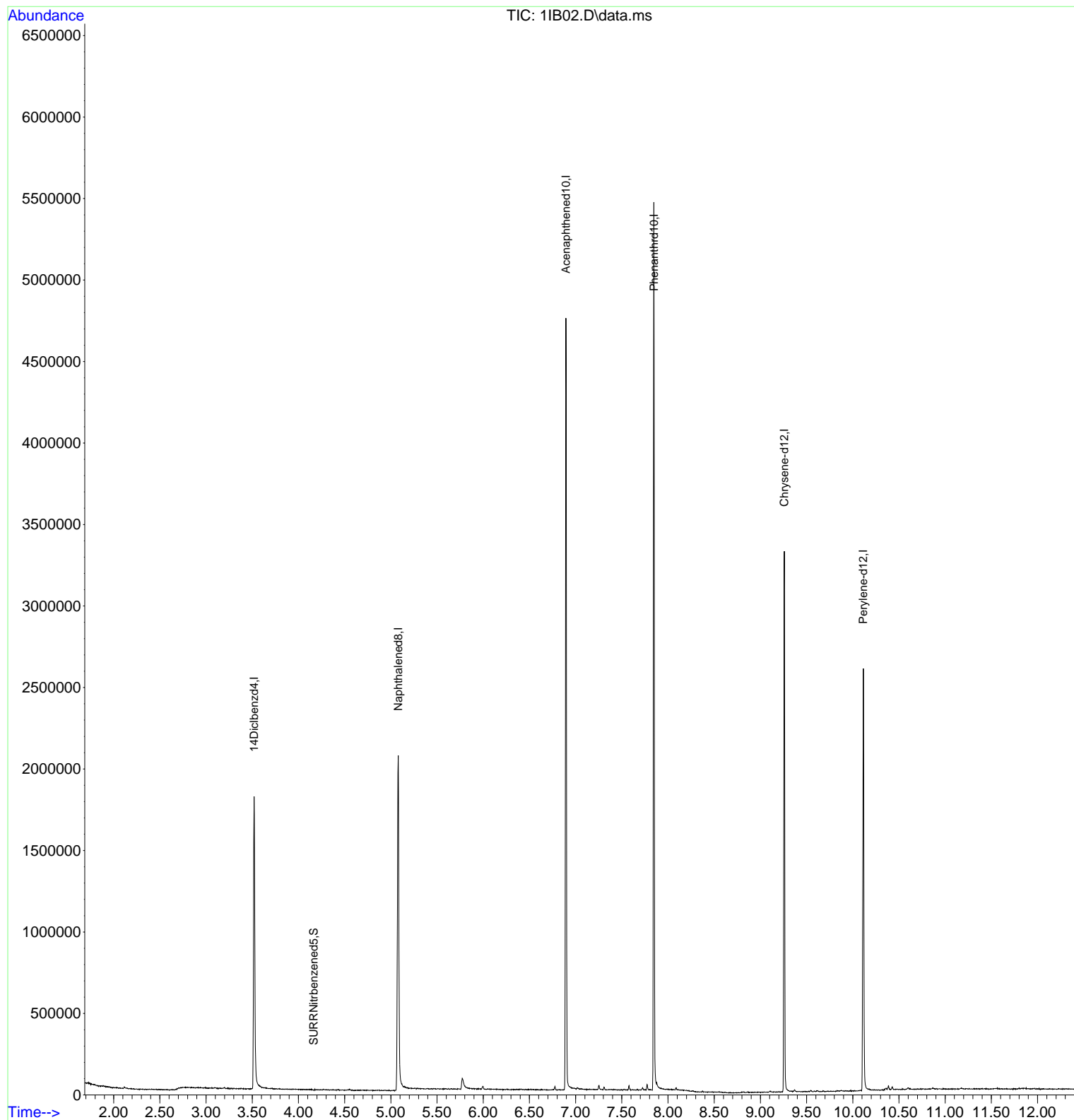
Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.520	152	297602	20.00	ug/mL	0.00
21) Naphthalened8	5.080	136	1135389	20.00	ug/mL	0.00
39) Acenaphthened10	6.895	164	736996	20.00	ug/mL	0.00
63) Phenanthrd10	7.847	188	1495936	20.00	ug/mL	0.00
75) Chrysene-d12	9.259	240	834636	20.00	ug/mL	0.00
86) Perylene-d12	10.115	264	773846	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	0.000	112	0	0.00	%REC	
Spiked Amount 100.000	Range 20	- 110	Recovery	=	0.00%#	
7) SURRPhenol-d5	0.000	99	0	0.00	%REC	
Spiked Amount 100.000	Range 10	- 115	Recovery	=	0.00%#	
22) SURRNitrbenzened5	4.165	82	325	0.08	%REC	0.01
Spiked Amount 100.000	Range 40	- 110	Recovery	=	0.08%#	
44) SURR2Flbiphenyl	0.000	172	0	0.00	%REC	
Spiked Amount 100.000	Range 50	- 110	Recovery	=	0.00%#	
62) SURR246Tribphenl	0.000	330	0	0.00	%REC	
Spiked Amount 100.000	Range 40	- 125	Recovery	=	0.00%#	
78) SURRTerphenyl-d14	0.000	244	0	0.00	%REC	
Spiked Amount 100.000	Range 50	- 135	Recovery	=	0.00%#	
Target Compounds						
50) Acenaphthene	6.898	154	3040	Below Cal	#	11
65) Ntrsdiphlam&Diphlam	7.370	169	125	Below Cal	#	30
71) Anthracene	7.844	178	556	Below Cal	#	1
73) Dinbtylphthal	8.200	149	928	Below Cal		74
83) Chrysene	9.257	228	2416	Below Cal		65

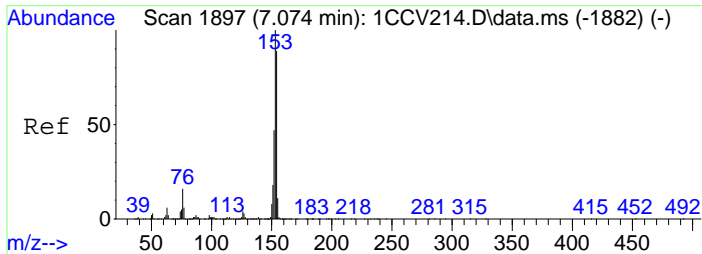
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S081715\1IB02.D
Acq On : 17 Aug 2015 17:24
Sample : InstrumentBlank
Misc : 500uL+5ul IS S3306C
Integrator: RTE
Quant Time: Aug 20 11:12:34 2015

Vial: 99
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

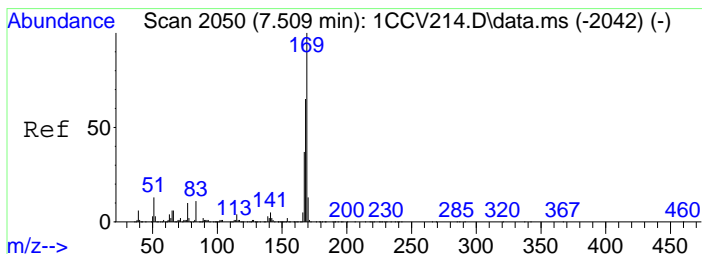
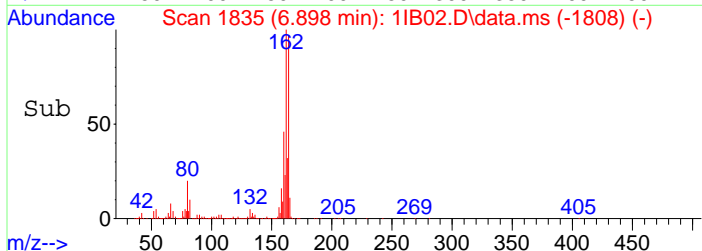
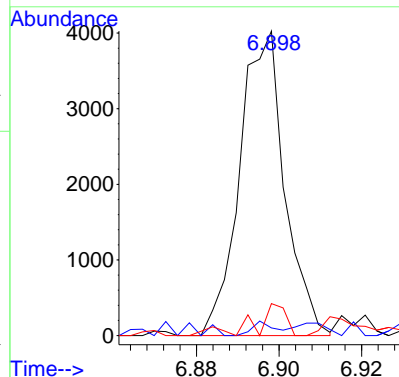
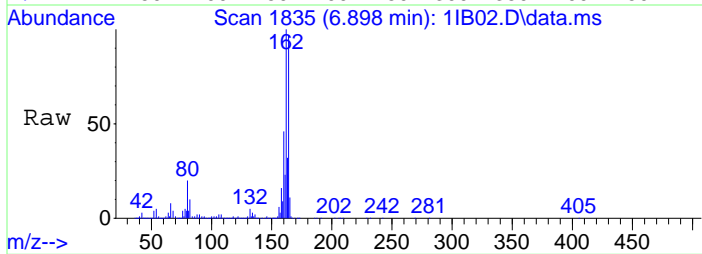
Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Thu Aug 20 11:09:32 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M





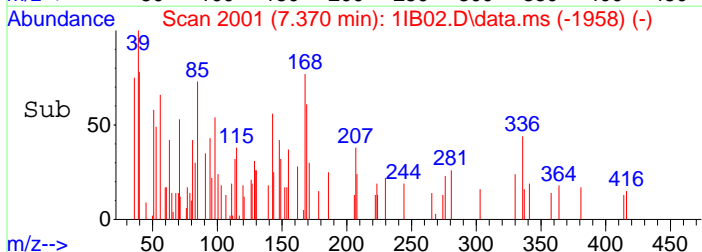
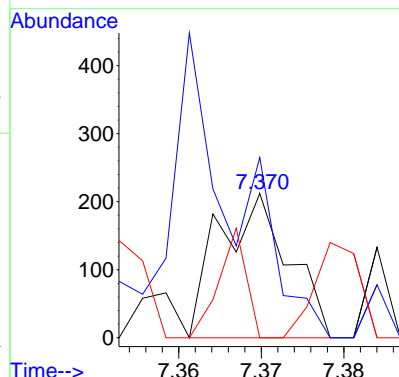
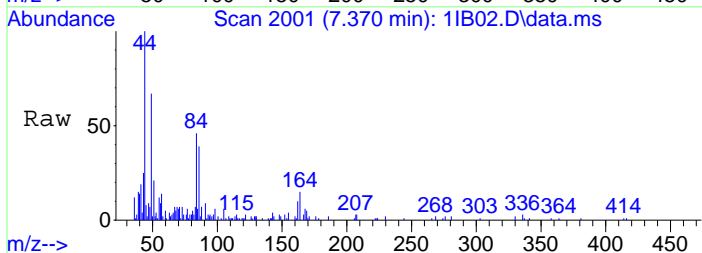
#50
Acenaphthene
Concen: Below ug/mL
RT: 6.898 min Scan# 1835
Delta R.T. -0.023 min
Lab File: 1IB02.D
Acq: 17 Aug 15 5:24 pm

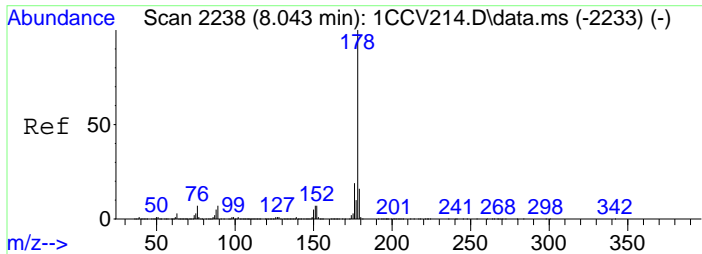
Tgt Ion	Ratio	Lower	Upper
154	100		
152	0.5	23.9	83.9#
153	10.5	92.9	132.9#



#65
Ntrsdiphlam&Diphlam
Concen: Below ug/mL
RT: 7.370 min Scan# 2001
Delta R.T. 0.006 min
Lab File: 1IB02.D
Acq: 17 Aug 15 5:24 pm

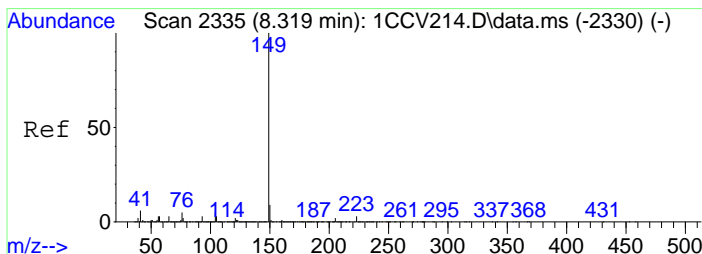
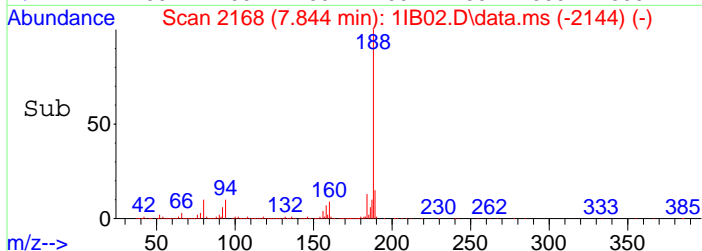
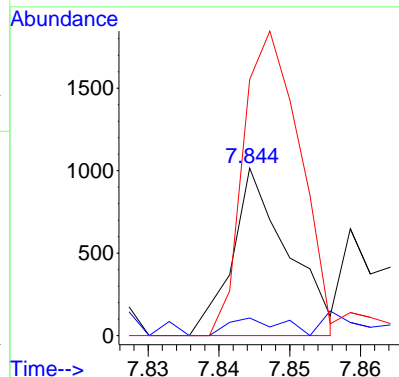
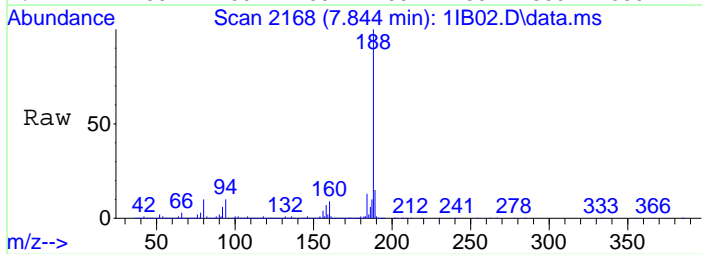
Tgt Ion	Ratio	Lower	Upper
169	100		
168	125.0	36.2	96.2#
167	0.0	6.6	66.6#





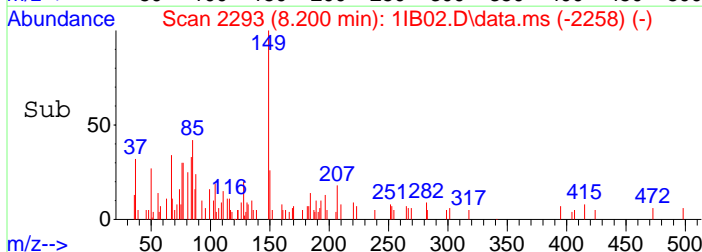
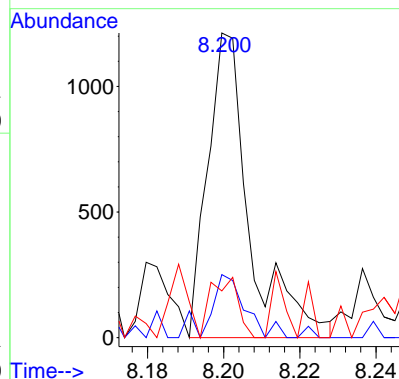
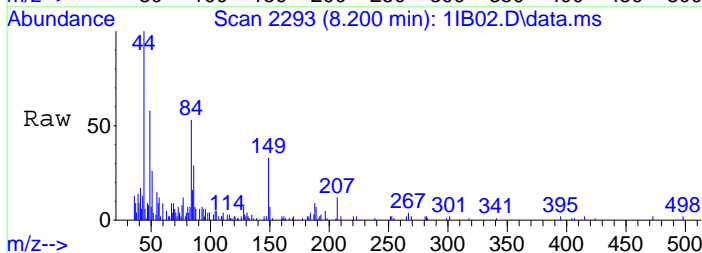
#71
 Anthracene
 Concen: Below ug/mL
 RT: 7.844 min Scan# 2168
 Delta R.T. -0.045 min
 Lab File: 1IB02.D
 Acq: 17 Aug 15 5:24 pm

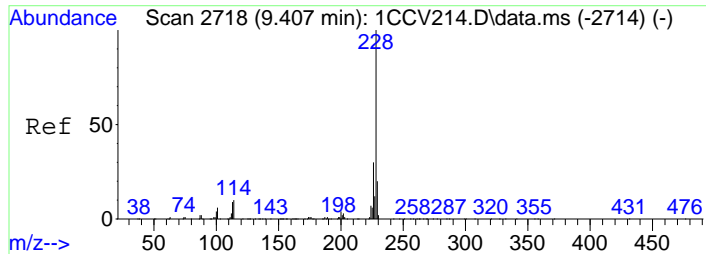
Tgt Ion:	178	Resp:	556
Ion Ratio	Lower	Upper	
178	100		
176	10.5	0.0	48.8
179	152.9	0.0	45.2#



#73
 Dinbtylphthal
 Concen: Below ug/mL
 RT: 8.200 min Scan# 2293
 Delta R.T. 0.000 min
 Lab File: 1IB02.D
 Acq: 17 Aug 15 5:24 pm

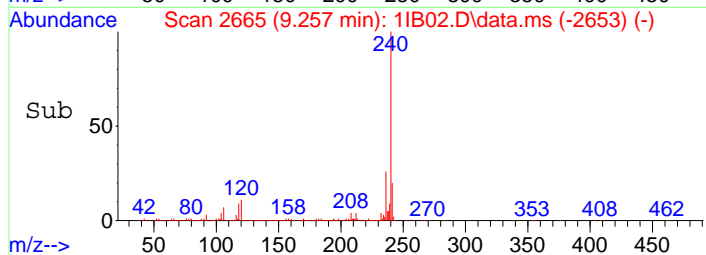
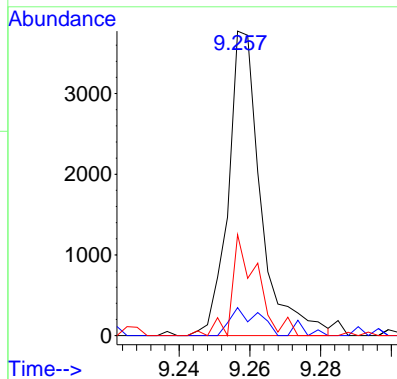
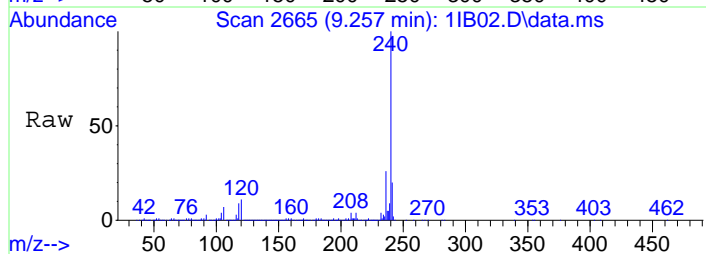
Tgt Ion:	149	Resp:	928
Ion Ratio	Lower	Upper	
149	100		
150	17.1	0.0	38.9
104	15.3	0.0	34.5





#83
 Chrysene
 Concen: Below ug/mL
 RT: 9.257 min Scan# 2665
 Delta R.T. -0.017 min
 Lab File: 1IB02.D
 Acq: 17 Aug 15 5:24 pm

Tgt Ion:	228	Resp:	2416
Ion Ratio		Lower	Upper
228	100		
226	9.2	0.0	59.5
229	33.1	0.0	49.6



Data File : C:\INSTARCH\Data\1S081715\1ICAL7.D
 Acq On : 17 Aug 2015 17:43
 Sample : ICAL 50ug/ml SVMS6777
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:54:00 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:53:51 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.522	152	257155	20.00	ug/mL	0.00
21) Naphthalened8	5.088	136	1021991	20.00	ug/mL	0.00
39) Acenaphthened10	6.901	164	570574	20.00	ug/mL	0.00
63) Phenanthrd10	7.850	188	1275580	20.00	ug/mL	0.00
75) Chrysene-d12	9.268	240	666912	20.00	ug/mL	0.00
86) Perylene-d12	10.117	264	714332	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.468	112	803871	112.43	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	112.43%#	
7) SURRPhenol-d5	3.196	99	926389	104.81	%REC	0.01
Spiked Amount 100.000	Range 10	- 115	Recovery	=	104.81%	
22) SURRNitrbenzened5	4.162	82	878796	230.48	%REC	0.01
Spiked Amount 100.000	Range 40	- 110	Recovery	=	230.48%#	
44) SURR2Flbiphenyl	6.395	172	2175616	214.44	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	214.44%#	
62) SURR246Tribphenl	7.435	330	381095	125.38	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	125.38%#	
78) SURRTerphenyl-d14	8.691	244	1307001	221.82	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	221.82%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.792	74	507566	45.1340	ug/mL	95
3) Pyridine	1.795	79	959607	45.5765	ug/mL	99
5) Aniline	3.215	93	1066848	41.5397	ug/mL	99
6) bis2Clethletr	3.286	93	778683	43.2374	ug/mL	99
8) Phenol	3.210	94	912106	38.1915	ug/mL	85
9) 2-Cl-phenol	3.318	128	836631	44.2345	ug/mL	98
10) 13Diclbenz	3.463	146	899099	43.1798	ug/mL	98
11) 14Diclbenz	3.542	146	897704	42.8009	ug/mL	99
12) 12Diclbenz	3.696	146	781363	39.3581	ug/mL	98
13) Benzyl alcoho	3.701	108	466521	44.1770	ug/mL	98
14) bis2clispreth	3.852	45	1177521	41.7088	ug/mL	99
15) 2Methylphenol	3.835	107	614458	43.8225	ug/mL	94
16) Ntrspyrrol	3.988	100	377917	43.4579	ug/mL	96
17) Acetophenone	3.997	105	1088184	42.3939	ug/mL	99
18) Hexaclethane	4.074	117	358905	40.0970	ug/mL	95
19) N-Ntrsdinprop	4.020	70	574673	43.1970	ug/mL	98
20) 3&4Methylphenol	4.039	107	772192	41.4719	ug/mL	97
23) Nitrobenzene	4.187	77	869506	46.6772	ug/mL	97
24) Isophorone	4.511	82	1683401	45.2891	ug/mL	98
25) 2-Nitrophenol	4.588	139	388254	49.6565	ug/mL	95
26) 24Dimthpheno	4.713	122	656003	44.3146	ug/mL	98
27) bis2clethoxym	4.838	93	965042	44.8020	ug/mL	99
28) 24Diclphenol	4.932	162	723314	45.4737	ug/mL	99
29) 124Triclbenz	5.023	180	808249	43.8742	ug/mL	98
30) Benzoic acid	4.983	122	409414	46.9977	ug/mL	87
31) Naphthalene	5.122	128	2698387	43.6275	ug/mL	99
32) 4-Cl-aniline	5.264	127	1068321	38.7160	ug/mL	98
33) 26Diclphenol	5.256	162	823635	39.8813	ug/mL	99
34) Hexaclprop	5.264	213	689327	42.3336	ug/mL	96
35) Hexaclbutdien	5.349	225	706921	42.9129	ug/mL	98
36) 4Cl3methylphe	5.940	107	1039698	44.2716	ug/mL	99
37) 2Methylnaphth	6.026	142	1948966	38.5751	ug/mL	99
38) 1Methylnaphth	6.119	141	1577498	37.7500	ug/mL	99
40) Hxclcycpentdi	6.190	237	584427	45.4717	ug/mL	98

Data File : C:\INSTARCH\Data\1S081715\1ICAL7.D

Acq On : 17 Aug 2015 17:43

Sample : ICAL 50ug/ml SVMS6777

Misc : 500uL+5ul IS S3306D

Integrator: RTE

Quant Time: Aug 18 09:54:00 2015

Vial: 2

Operator: RPN

Inst : SVMS1

Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M

Quant Title : Method for 8270 analysis

QLast Update : Tue Aug 18 09:53:51 2015

Response via : Initial Calibration

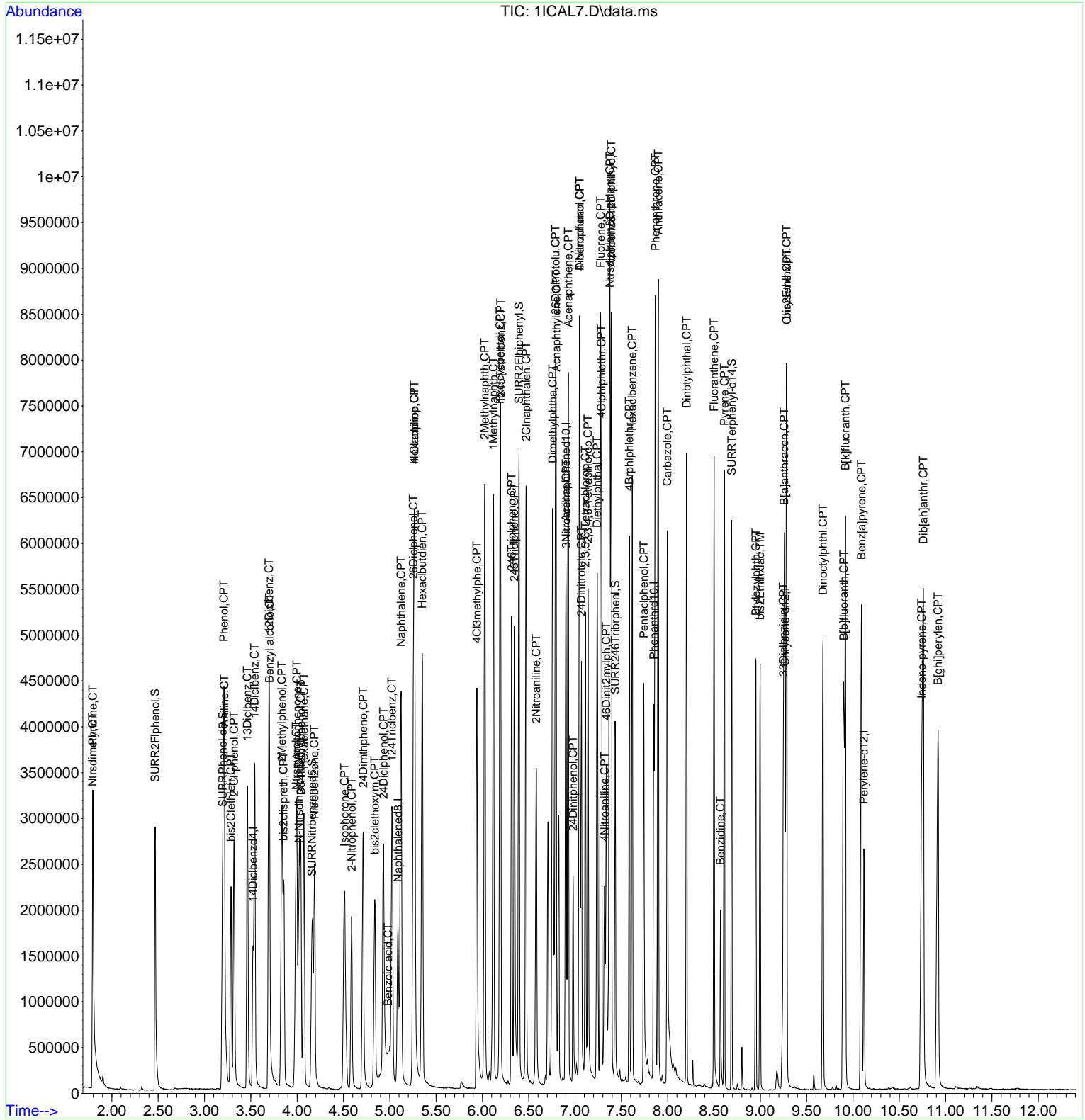
DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.196	216	1058296	42.4139	ug/mL	99
42) 246Triclpheno	6.315	196	705710	48.5139	ug/mL	98
43) 245Triclpheno	6.344	196	799822	47.4945	ug/mL	100
45) 2Clnaphthalen	6.472	162	1886831	43.0314	ug/mL	99
46) 2Nitroaniline	6.580	65	613371	49.8757	ug/mL	99
47) Acnaphthylene	6.796	152	2720217	39.2883	ug/mL	99
48) Dimethylphtha	6.759	163	2109396	42.8760	ug/mL	99
49) 26Dinitrotolu	6.790	165	398218	41.1784	ug/mL	91
50) Acenaphthene	6.926	154	1544672	39.5884	ug/mL	99
51) 3Nitroaniline	6.904	138	419275	46.5830	ug/mL	97
52) 24Dinitphenol	6.977	184	235211	46.2723	ug/mL	90
53) Dibenzofuran	7.048	168	2310819	38.6994	ug/mL	94
54) 24Dinitrotolu	7.068	165	642320	48.1875	ug/mL	98
55) 4-Nitrophenol	7.048	65	329955	43.5419	ug/mL#	6
56) 2,3,5,6-Tetrachlorop	7.111	232	603476	50.2945	ug/mL	98
57) 2,3,4,6-Tetrachlorop	7.139	232	645329	46.5900	ug/mL	99
58) Fluorene	7.276	166	1808821	37.8557	ug/mL	98
59) 4Clphlphlethr	7.284	204	929248	39.4980	ug/mL	99
60) Diethylphthal	7.239	149	2267992	44.0248	ug/mL	100
61) 4Nitroaniline	7.318	138	462450	47.6872	ug/mL	97
64) 46Dinit2mylph	7.338	198	332586	49.9532	ug/mL	99
65) Ntrsdiphlam&Diphlam	7.375	169	2216598	66.6044	ug/mL	98
66) Azobenz&12Diphlyhyd	7.392	182	713826	69.6903	ug/mL#	77
67) 4Brphlphlethr	7.586	248	606028	37.3662	ug/mL	97
68) Hexaclbenzene	7.617	284	775770	40.4849	ug/mL	98
69) Pentaclphenol	7.742	266	473369	51.7674	ug/mL	98
70) Phenanthrene	7.867	178	2822487	37.2001	ug/mL	99
71) Anthracene	7.898	178	2908723	37.0096	ug/mL	99
72) Carbazole	7.995	167	2755973	40.0557	ug/mL	99
73) Dinbtylphthal	8.205	149	2783360	38.4535	ug/mL	100
74) Fluoranthene	8.500	202	1950113	39.5838	ug/mL	100
76) Benzidine	8.569	184	479064	41.8450	ug/mL	97
77) Pyrene	8.611	202	2063124	42.6225	ug/mL	98
79) Btylbzylphth	8.952	149	887862	44.8681	ug/mL	91
80) bis2Ethlhxlad	8.998	129	665253	41.4658	ug/mL	99
81) 33Diclbnzidin	9.248	252	468568	43.7266	ug/mL	99
82) B[a]anthracen	9.259	228	1935971	46.1349	ug/mL	98
83) Chrysene	9.285	228	1496441	40.2253	ug/mL	99
84) bis2Ethlhxlph	9.282	149	949303	36.2947	ug/mL	98
85) Dinocetylphthl	9.677	149	2325540	46.3737	ug/mL	99
87) B[b]fluoranth	9.898	252	2255989	44.8098	ug/mL	98
88) B[k]fluoranth	9.918	252	1971012	42.9028	ug/mL	99
89) Benz[a]pyrene	10.092	252	2142915	43.5699	ug/mL	99
90) Indeno-pyrene	10.742	276	2511526	45.1805	ug/mL	99
91) Dib[ah]anthr	10.759	278	1988573	43.9828	ug/mL	99
92) B[ghi]perylene	10.919	276	2264672	46.0175	ug/mL	100

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

Vial: 2
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:53:51 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICAL6.D

Vial: 3

Acq On : 17 Aug 2015 18:03

Operator: RPN

Sample : ICAL 40ug/ml SVMS6776

Inst : SVMS1

Misc : 500uL+5uL IS S3306D

Multiplr: 1.00

Integrator: RTE

Quant Time: Aug 18 09:53:36 2015

Quant Method : C:\INSTARCH\METHODS\1S081715.M

Quant Title : Method for 8270 analysis

QLast Update : Tue Aug 18 09:53:27 2015

Response via : Initial Calibration

DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) 14Diclbenzd4	3.522	152	252558	20.00	ug/mL	0.00
21) Naphthalened8	5.085	136	990371	20.00	ug/mL	0.00
39) Acenaphthened10	6.898	164	569972	20.00	ug/mL	0.00
63) Phenanthrd10	7.850	188	1277318	20.00	ug/mL	0.00
75) Chrysene-d12	9.265	240	657128	20.00	ug/mL	0.00
86) Perylene-d12	10.117	264	698204	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	670469	93.32	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	93.32%	
7) SURRPhenol-d5	3.196	99	789870	88.49	%REC	0.01
Spiked Amount 100.000	Range 10	- 115	Recovery	=	88.49%	
22) SURRNitrbenzened5	4.159	82	732805	195.74	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	195.74%#	
44) SURR2Flbiphenyl	6.392	172	1835705	180.80	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	180.80%#	
62) SURR246Tribphenl	7.432	330	316835	106.08	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	106.08%	
78) SURRTerphenyl-d14	8.688	244	1109153	190.72	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	190.72%#	
Target Compounds						Qvalue
2) Ntrsdimeth	1.789	74	405657	35.5216	ug/mL	95
3) Pyridine	1.792	79	776078	36.6623	ug/mL	97
5) Aniline	3.213	93	903877	34.6077	ug/mL	100
6) bis2Clethletr	3.284	93	647341	35.9959	ug/mL	100
8) Phenol	3.207	94	779968	31.9051	ug/mL	88
9) 2-Cl-phenol	3.318	128	700219	37.1308	ug/mL	98
10) 13Diclbenz	3.463	146	749737	36.0342	ug/mL	99
11) 14Diclbenz	3.542	146	742442	35.2268	ug/mL	98
12) 12Diclbenz	3.696	146	668730	33.4769	ug/mL	99
13) Benzyl alcoho	3.696	108	382333	35.3746	ug/mL	99
14) bis2clispreth	3.850	45	1000481	35.0885	ug/mL	100
15) 2Methylphenol	3.832	107	512647	36.7292	ug/mL	97
16) Ntrspyrrol	3.983	100	322896	37.6320	ug/mL	98
17) Acetophenone	3.994	105	926133	36.3322	ug/mL	99
18) Hexaclethane	4.071	117	317297	35.8254	ug/mL	93
19) N-Ntrsdinprop	4.014	70	484623	36.7292	ug/mL	98
20) 3&4Methylphenol	4.031	107	681457	36.8327	ug/mL	96
23) Nitrobenzene	4.184	77	727707	39.8968	ug/mL	96
24) Isophorone	4.506	82	1376668	38.0866	ug/mL	99
25) 2-Nitrophenol	4.585	139	317721	40.9709	ug/mL	96
26) 24Dimthpheno	4.707	122	553762	38.3994	ug/mL	97
27) bis2clethoxym	4.835	93	805633	38.3255	ug/mL	99
28) 24Diclphenol	4.926	162	601887	38.8936	ug/mL	98
29) 124Triclbenz	5.023	180	673252	37.3932	ug/mL	96
30) Benzoic acid	4.974	122	310422	37.0015	ug/mL	94
31) Naphthalene	5.119	128	2235114	36.9432	ug/mL	99
32) 4-Cl-aniline	5.261	127	919845	34.0063	ug/mL	98
33) 26Diclphenol	5.253	162	705539	35.2289	ug/mL	97
34) Hexaclprop	5.264	213	597266	37.6868	ug/mL	97
35) Hexaclbutdien	5.349	225	605801	38.6016	ug/mL	97
36) 4Cl3methylphe	5.938	107	876675	39.3649	ug/mL	99
37) 2Methylnaphth	6.023	142	1711509	35.1090	ug/mL	100
38) 1Methylnaphth	6.117	141	1389270	34.7843	ug/mL	100
40) Hxclcycpenti	6.188	237	494937	37.7323	ug/mL	99

Data File : C:\INSTARCH\Data\1S081715\1ICAL6.D

Vial: 3

Acq On : 17 Aug 2015 18:03

Operator: RPN

Sample : ICAL 40ug/ml SVMS6776

Inst : SVMS1

Misc : 500uL+5ul IS S3306D

Multiplr: 1.00

Integrator: RTE

Quant Time: Aug 18 09:53:36 2015

Quant Method : C:\INSTARCH\METHODS\1S081715.M

Quant Title : Method for 8270 analysis

QLast Update : Tue Aug 18 09:53:27 2015

Response via : Initial Calibration

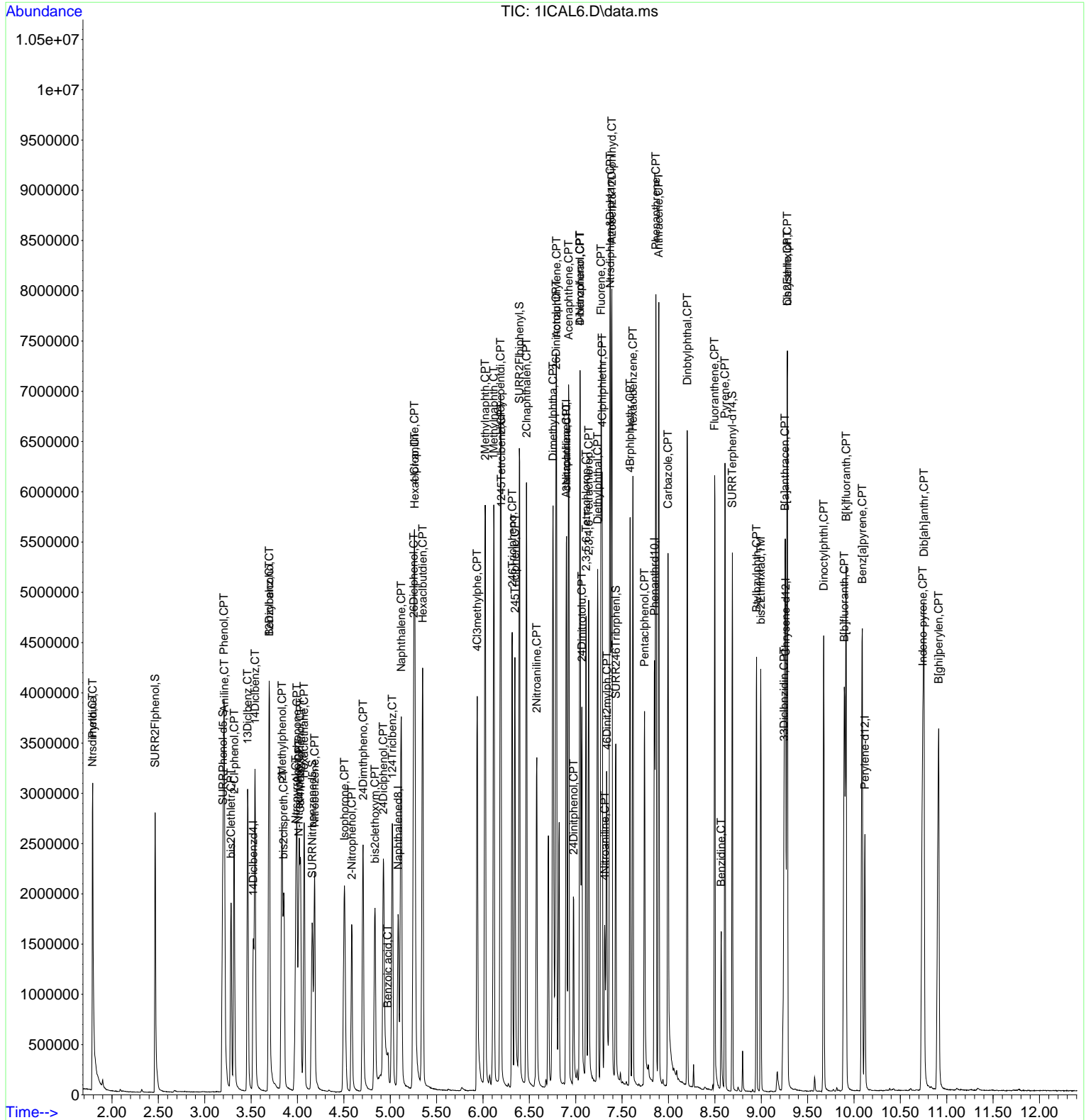
DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.196	216	883411	35.2025	ug/mL	100
42) 246Triclpheno	6.316	196	582570	40.4133	ug/mL	97
43) 245Triclpheno	6.344	196	684321	41.4482	ug/mL	98
45) 2Clnaphthalen	6.469	162	1594376	36.4345	ug/mL	100
46) 2Nitroaniline	6.580	65	523531	42.7915	ug/mL	96
47) Acnaphthylene	6.793	152	2301706	32.9516	ug/mL	99
48) Dimethylphtha	6.756	163	1787666	36.2808	ug/mL	99
49) 26Dinitrotolu	6.787	165	349391	35.2807	ug/mL	92
50) Acenaphthene	6.924	154	1352006	34.2496	ug/mL	99
51) 3Nitroaniline	6.901	138	363931	39.7950	ug/mL	98
52) 24Dinitphenol	6.978	184	202351	40.4570	ug/mL	93
53) Dibenzofuran	7.046	168	2032421	33.6180	ug/mL	92
54) 24Dinitrotolu	7.066	165	551803	41.0596	ug/mL	99
55) 4-Nitrophenol	7.046	65	284537	36.2425	ug/mL#	31
56) 2,3,5,6-Tetrachlorop	7.111	232	495522	41.5874	ug/mL	98
57) 2,3,4,6-Tetrachlorop	7.140	232	559338	41.0589	ug/mL	98
58) Fluorene	7.273	166	1612044	33.3273	ug/mL	98
59) 4Clphlphlethr	7.285	204	834121	35.2172	ug/mL	99
60) Diethylphthal	7.236	149	1961471	38.3667	ug/mL	99
61) 4Nitroaniline	7.313	138	388261	40.1493	ug/mL	98
64) 46Dinit2mylph	7.336	198	287823	41.6291	ug/mL	95
65) Ntrsdiphlam&Diphlam	7.373	169	1996825	58.1219	ug/mL	99
66) Azobenz&12Diphlyhyd	7.390	182	635249	60.0242	ug/mL#	87
67) 4Brphlphlethr	7.586	248	556661	34.2622	ug/mL	97
68) Hexaclbenzene	7.617	284	657093	34.4172	ug/mL	98
69) Pentaclphenol	7.742	266	389029	43.0681	ug/mL	97
70) Phenanthrene	7.864	178	2425719	31.2537	ug/mL	100
71) Anthracene	7.895	178	2529001	31.5249	ug/mL	100
72) Carbazole	7.995	167	2356711	34.1593	ug/mL	99
73) Dinbtylphthal	8.202	149	2357601	31.8084	ug/mL	100
74) Fluoranthene	8.498	202	1697207	33.4032	ug/mL	99
76) Benzidine	8.569	184	414740	37.7023	ug/mL	97
77) Pyrene	8.609	202	1791900	37.2486	ug/mL	99
79) Btylbzylphth	8.950	149	759386	38.2426	ug/mL	93
80) bis2Ethlhxlad	8.995	129	578571	35.3501	ug/mL	98
81) 33Diclbnzidin	9.245	252	387279	35.8693	ug/mL	99
82) B[a]anthracen	9.256	228	1601233	38.4466	ug/mL	98
83) Chrysene	9.282	228	1298512	35.0427	ug/mL	99
84) bis2Ethlhxlph	9.282	149	853401	31.7292	ug/mL	100
85) Dinocetylphthl	9.674	149	1939665	38.5616	ug/mL	99
87) B[b]fluoranth	9.896	252	1836572	36.5444	ug/mL	99
88) B[k]fluoranth	9.916	252	1644242	36.2936	ug/mL	99
89) Benz[a]pyrene	10.089	252	1783826	36.6361	ug/mL	99
90) Indeno-pyrene	10.743	276	2062294	37.6856	ug/mL	99
91) Dib[ah]anthr	10.754	278	1632870	36.5917	ug/mL	100
92) B[ghi]perylen	10.913	276	1869550	38.8188	ug/mL	99

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

Vial: 3
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:53:27 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICAL5.D

Vial: 4

Acq On : 17 Aug 2015 18:23

Operator: RPN

Sample : ICAL 30ug/ml SVMS6775

Inst : SVMS1

Misc : 500uL+5uL IS S3306D

Multiplr: 1.00

Integrator: RTE

Quant Time: Aug 18 09:49:38 2015

Quant Method : C:\INSTARCH\METHODS\1S081715.M

Quant Title : Method for 8270 analysis

QLast Update : Tue Aug 18 09:47:38 2015

Response via : Initial Calibration

DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) 14Diclbenzd4	3.522	152	265268	20.00	ug/mL	0.00
21) Naphthalened8	5.085	136	1067097	20.00	ug/mL	0.00
39) Acenaphthened10	6.898	164	618535	20.00	ug/mL	0.00
63) Phenanthrd10	7.847	188	1375067	20.00	ug/mL	0.00
75) Chrysene-d12	9.262	240	723119	20.00	ug/mL	0.00
86) Perylene-d12	10.115	264	744473	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	537786	66.35	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	66.35%	
7) SURRPhenol-d5	3.190	99	652249	64.53	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	64.53%	
22) SURRNitrbenzened5	4.156	82	594954	145.46	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	145.46%#	
44) SURR2Flbiphenyl	6.392	172	1525163	155.17	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	155.17%#	
62) SURR246Tribphenl	7.429	330	265836	98.79	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	98.79%	
78) SURRTerphenyl-d14	8.688	244	919114	148.45	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	148.45%#	
Target Compounds						Qvalue
2) Ntrsdimeth	1.789	74	341128	26.2251	ug/mL	94
3) Pyridine	1.795	79	625537	26.6916	ug/mL	99
5) Aniline	3.210	93	766497	24.7569	ug/mL	100
6) bis2Clethletr	3.281	93	527667	25.9463	ug/mL	99
8) Phenol	3.204	94	668603	23.9093	ug/mL	87
9) 2-Cl-phenol	3.315	128	576446	28.3472	ug/mL	98
10) 13Diclbenz	3.463	146	609248	26.9920	ug/mL	99
11) 14Diclbenz	3.539	146	614684	26.4007	ug/mL	98
12) 12Diclbenz	3.693	146	559856	25.8739	ug/mL	98
13) Benzyl alcoho	3.693	108	321350	26.8655	ug/mL	98
14) bis2clispreth	3.849	45	819821	24.3620	ug/mL	100
15) 2Methylphenol	3.829	107	426426	28.9935	ug/mL	93
16) Ntrspyrrol	3.974	100	270026	30.9030	ug/mL	97
17) Acetophenone	3.988	105	760873	29.5254	ug/mL	99
18) Hexaclethane	4.071	117	261117	28.2050	ug/mL	95
19) N-Ntrsdinprop	4.011	70	383634	27.8580	ug/mL	99
20) 3&4Methylphenol	4.025	107	557553	28.6211	ug/mL	97
23) Nitrobenzene	4.182	77	588008	29.3787	ug/mL	98
24) Isophorone	4.500	82	1091236	28.9587	ug/mL	98
25) 2-Nitrophenol	4.582	139	259998	28.4141	ug/mL	96
26) 24Dimthpheno	4.704	122	443083	29.4217	ug/mL	98
27) bis2clethoxym	4.832	93	655291	29.9985	ug/mL	99
28) 24Diclphenol	4.923	162	499031	31.6499	ug/mL	99
29) 124Triclbenz	5.023	180	555890	29.0942	ug/mL	98
30) Benzoic acid	4.957	122	251676	26.6561	ug/mL	94
31) Naphthalene	5.116	128	1827919	29.4992	ug/mL	99
32) 4-Cl-aniline	5.256	127	785871	30.3400	ug/mL	98
33) 26Diclphenol	5.250	162	597196	32.8597	ug/mL	99
34) Hexaclprop	5.261	213	506266	32.4370	ug/mL	97
35) Hexaclbutdien	5.349	225	492595	33.0964	ug/mL	98
36) 4Cl3methylphe	5.935	107	704291	37.1324	ug/mL	99
37) 2Methylnaphth	6.023	142	1433334	33.1409	ug/mL	98
38) 1Methylnaphth	6.117	141	1170877	35.5763	ug/mL	99
40) Hxclcycpentdi	6.188	237	417890	30.6584	ug/mL	99

Data File : C:\INSTARCH\Data\1S081715\1ICAL5.D
 Acq On : 17 Aug 2015 18:23
 Sample : ICAL 30ug/ml SVMS6775
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:49:38 2015

Vial: 4
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

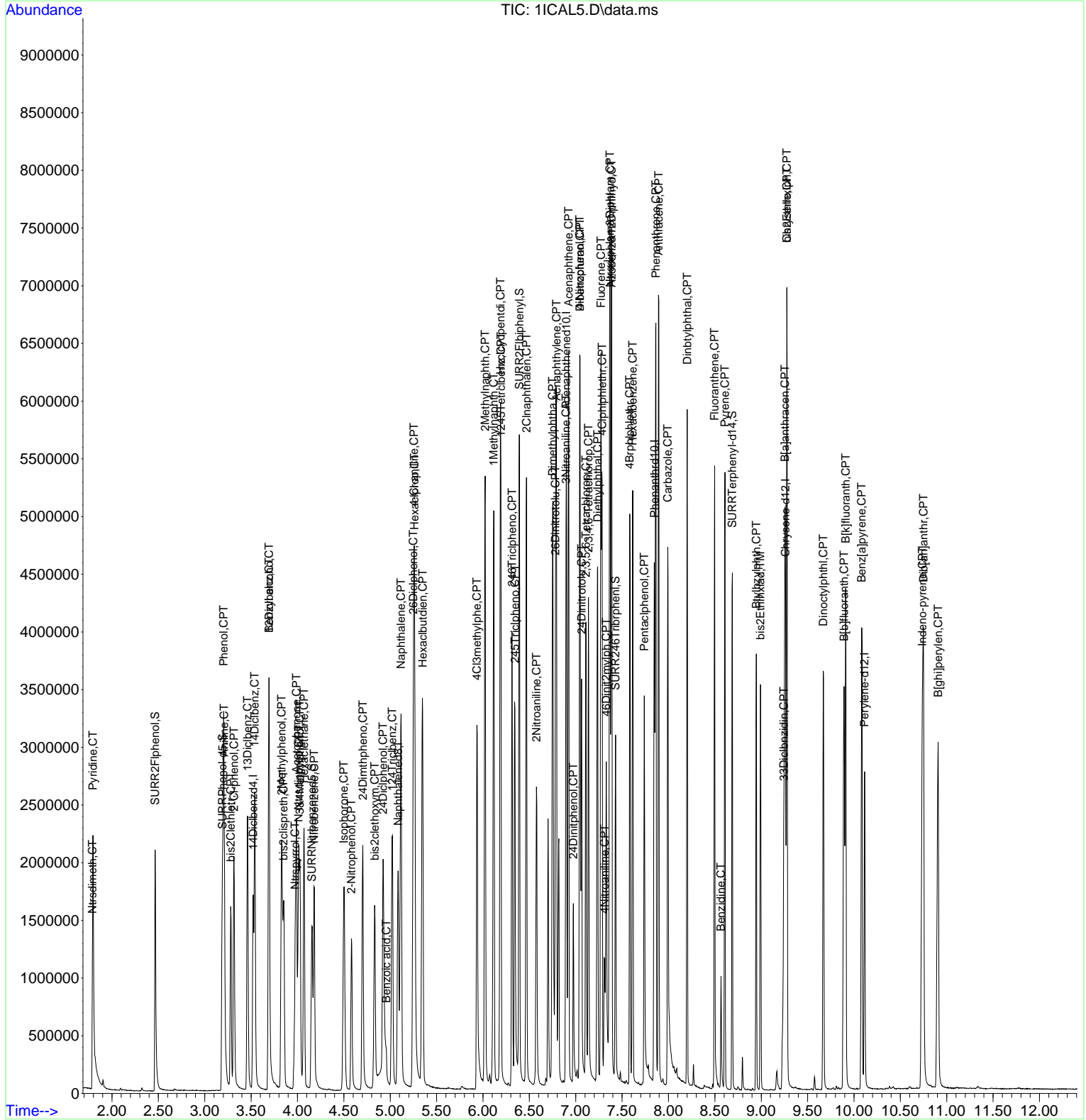
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:47:38 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.193	216	746971	31.2792	ug/mL	99
42) 246Triclpheno	6.313	196	486859	35.0943	ug/mL	99
43) 245Triclpheno	6.344	196	558616	36.1391	ug/mL	97
45) 2Clnaphthalen	6.469	162	1337996	32.4969	ug/mL	100
46) 2Nitroaniline	6.577	65	426614	34.6817	ug/mL	95
47) Acnaphthylene	6.793	152	2017017	30.3977	ug/mL	100
48) Dimethylphtha	6.750	163	1509193	31.4848	ug/mL	100
49) 26Dinitrotolu	6.782	165	301948	26.7827	ug/mL	96
50) Acenaphthene	6.924	154	1139569	29.1148	ug/mL	99
51) 3Nitroaniline	6.895	138	294964	28.5329	ug/mL	99
52) 24Dinitphenol	6.975	184	155086	28.4702	ug/mL	97
53) Dibenzofuran	7.046	168	1743244	28.9191	ug/mL	96
54) 24Dinitrotolu	7.063	165	460538	31.4118	ug/mL	96
55) 4-Nitrophenol	7.043	65	246319	29.2814	ug/mL#	35
56) 2,3,5,6-Tetrachlorop	7.108	232	417129	35.5299	ug/mL	99
57) 2,3,4,6-Tetrachlorop	7.137	232	449381	34.5717	ug/mL	96
58) Fluorene	7.273	166	1363364	28.2851	ug/mL	99
59) 4Clphlphlethr	7.284	204	693904	29.3718	ug/mL	98
60) Diethylphthal	7.236	149	1588018	32.2216	ug/mL	99
61) 4Nitroaniline	7.310	138	311860	30.4639	ug/mL	97
64) 46Dinit2mylph	7.330	198	232128	26.9912	ug/mL	99
65) Ntrsdiphlam&Diphlam	7.370	169	1718851	47.6741	ug/mL	99
66) Azobenz&12Diphylhyd	7.387	182	534111	46.3982	ug/mL	90
67) 4Brphlphlethr	7.583	248	475257	31.4251	ug/mL	97
68) Hexaclbenzene	7.614	284	543135	32.0934	ug/mL	99
69) Pentaclphenol	7.739	266	319149	35.2805	ug/mL	99
70) Phenanthrene	7.864	178	2063247	25.9534	ug/mL	100
71) Anthracene	7.895	178	2116551	25.4871	ug/mL	100
72) Carbazole	7.992	167	2003674	30.1210	ug/mL	99
73) Dinbtylphthal	8.202	149	2046506	26.9560	ug/mL	99
74) Fluoranthene	8.498	202	1392531	23.3109	ug/mL	99
76) Benzidine	8.566	184	253699	19.5567	ug/mL	97
77) Pyrene	8.609	202	1448815	27.1772	ug/mL	98
79) Btylbzylphth	8.947	149	618556	26.9480	ug/mL	95
80) bis2Ethlhxlad	8.992	129	481294	24.6276	ug/mL	99
81) 33Diclbnzidin	9.242	252	305372	23.7807	ug/mL	99
82) B[a]anthracen	9.256	228	1320692	28.3395	ug/mL	98
83) Chrysene	9.276	228	1087955	26.6160	ug/mL	99
84) bis2Ethlhxlph	9.276	149	721385	21.9351	ug/mL	100
85) Dinocetylphthl	9.668	149	1591398	26.9793	ug/mL	100
87) B[b]fluoranth	9.893	252	1516074	27.0654	ug/mL	99
88) B[k]fluoranth	9.910	252	1325420	27.0659	ug/mL	99
89) Benz[a]pyrene	10.083	252	1410909	27.2985	ug/mL	100
90) Indeno-pyrene	10.737	276	1691168	29.6874	ug/mL	99
91) Dib[ah]anthr	10.748	278	1372048	30.0917	ug/mL	99
92) B[ghi]perylen	10.907	276	1495577	30.5447	ug/mL	99

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

Vial: 4
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:47:38 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICAL4.D
 Acq On : 17 Aug 2015 18:42
 Sample : ICAL 20ug/ml SVMS6774
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:59:37 2015

Vial: 5
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:59:11 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.522	152	266290	20.00	ug/mL	0.00
21) Naphthalened8	5.082	136	1059213	20.00	ug/mL	0.00
39) Acenaphthened10	6.898	164	642548	20.00	ug/mL	0.00
63) Phenanthrd10	7.844	188	1355922	20.00	ug/mL	0.00
75) Chrysene-d12	9.259	240	752769	20.00	ug/mL	0.00
86) Perylene-d12	10.112	264	763899	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	347392	48.24	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	48.24%	
7) SURRPhenol-d5	3.184	99	417643	47.40	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	47.40%	
22) SURRNitrbenzened5	4.150	82	375754	96.32	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	96.32%	
44) SURR2Flbiphenyl	6.389	172	1086805	95.59	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	95.59%	
62) SURR246Tribphenl	7.427	330	178752	51.26	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	51.26%	
78) SURRTerphenyl-d14	8.685	244	612125	92.18	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	92.18%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.789	74	217360	19.3636	ug/mL	100
3) Pyridine	1.795	79	387569	18.2980	ug/mL	100
5) Aniline	3.207	93	494103	19.3936	ug/mL	100
6) bis2Clethletr	3.278	93	342621	18.8138	ug/mL	100
8) Phenol	3.199	94	444661	18.8361	ug/mL	100
9) 2-Cl-phenol	3.312	128	365779	19.0450	ug/mL	100
10) 13Diclbenz	3.460	146	405184	19.1423	ug/mL	100
11) 14Diclbenz	3.539	146	402351	18.9131	ug/mL	100
12) 12Diclbenz	3.693	146	381024	19.0520	ug/mL	100
13) Benzyl alcoho	3.687	108	208423	20.5881	ug/mL	100
14) bis2clispreth	3.846	45	537275	19.0860	ug/mL	100
15) 2Methylphenol	3.824	107	278964	19.5231	ug/mL	100
16) Ntrspyrrol	3.966	100	178074	20.0038	ug/mL	100
17) Acetophenone	3.983	105	504009	19.3012	ug/mL	100
18) Hexaclethane	4.068	117	170801	18.7791	ug/mL	100
19) N-Ntrsdinprop	4.003	70	252727	18.6642	ug/mL	100
20) 3&4Methylphenol	4.020	107	369322	19.5673	ug/mL	100
23) Nitrobenzene	4.173	77	366445	19.1929	ug/mL	100
24) Isophorone	4.494	82	713525	18.5051	ug/mL	100
25) 2-Nitrophenol	4.579	139	161998	20.4301	ug/mL	100
26) 24Dimthpheno	4.699	122	287842	18.9148	ug/mL	100
27) bis2clethoxym	4.830	93	421980	19.0336	ug/mL	100
28) 24Diclphenol	4.920	162	322766	19.6531	ug/mL	100
29) 124Triclbenz	5.020	180	359345	18.9893	ug/mL	100
30) Benzoic acid	4.915	122	149074	19.5852	ug/mL	100
31) Naphthalene	5.114	128	1187150	18.6774	ug/mL	100
32) 4-Cl-aniline	5.253	127	523525	18.7074	ug/mL	100
33) 26Diclphenol	5.247	162	400422	18.7750	ug/mL	100
34) Hexaclprop	5.261	213	331981	19.8329	ug/mL	100
35) Hexaclbutdien	5.347	225	327079	18.9998	ug/mL	100
36) 4Cl3methylphe	5.935	107	471483	19.1547	ug/mL	100
37) 2Methylnaphth	6.020	142	978875	18.9150	ug/mL	100
38) 1Methylnaphth	6.114	141	794820	18.7192	ug/mL	100
40) Hxclcycpentdi	6.185	237	266931	20.4871	ug/mL	100

Data File : C:\INSTARCH\Data\1S081715\1ICAL4.D
 Acq On : 17 Aug 2015 18:42
 Sample : ICAL 20ug/ml SVMS6774
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:59:37 2015

Vial: 5
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

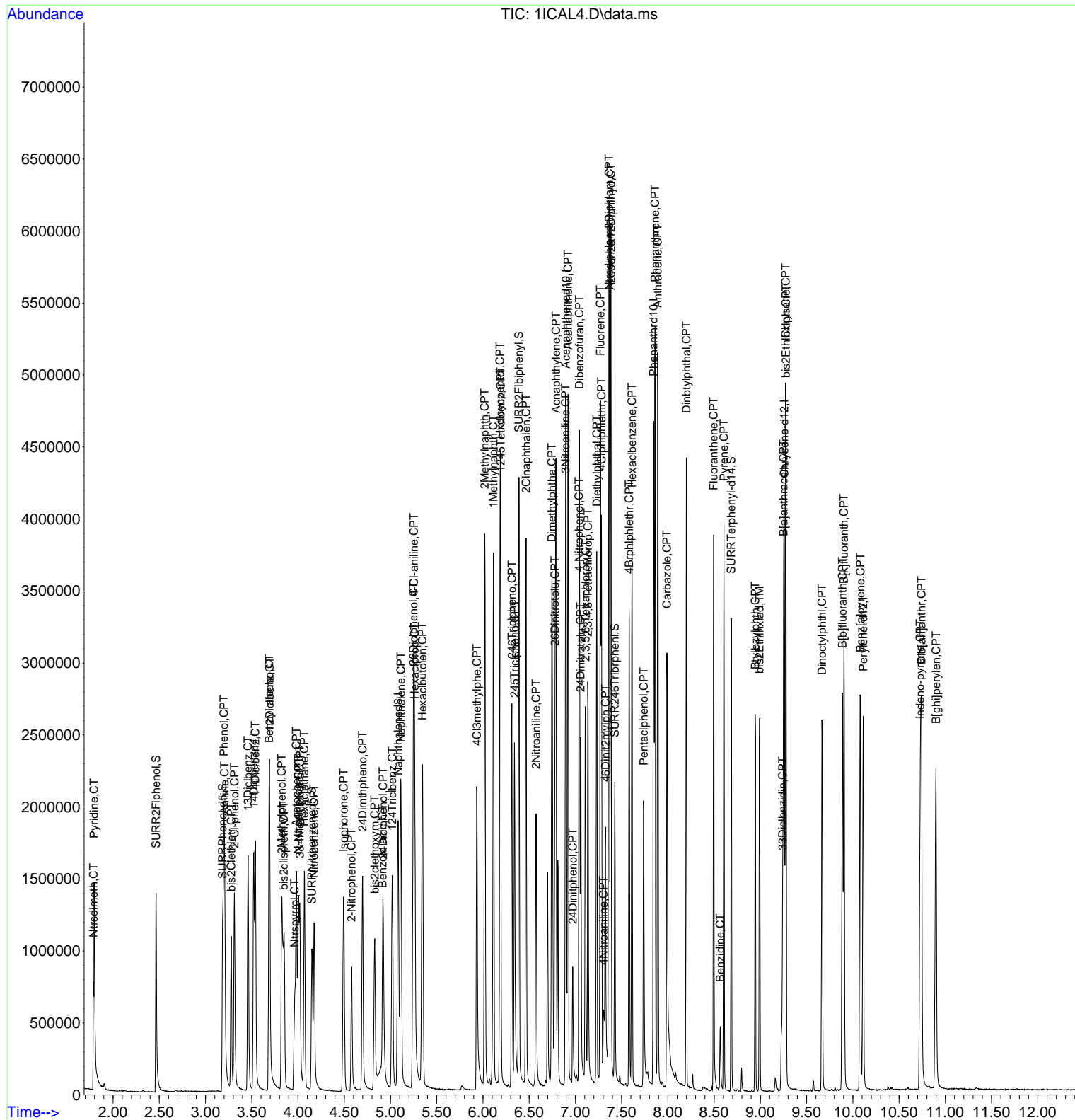
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:59:11 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.191	216	533356	19.0491	ug/mL	100
42) 246Triclpheno	6.313	196	314636	19.0311	ug/mL	100
43) 245Triclpheno	6.341	196	372361	19.3984	ug/mL	100
45) 2Clnaphthalen	6.466	162	925529	18.7462	ug/mL	100
46) 2Nitroaniline	6.574	65	279069	20.1184	ug/mL	100
47) Acnaphthylene	6.790	152	1432968	19.0230	ug/mL	100
48) Dimethylphtha	6.745	163	1045897	18.8941	ug/mL	100
49) 26Dinitrotolu	6.779	165	213632	20.0641	ug/mL	100
50) Acenaphthene	6.921	154	801836	18.9689	ug/mL	100
51) 3Nitroaniline	6.892	138	178157	17.9307	ug/mL	100
52) 24Dinitphenol	6.972	184	84376	18.5698	ug/mL	100
53) Dibenzofuran	7.043	168	1218802	18.7161	ug/mL	100
54) 24Dinitrotolu	7.057	165	296727	19.9857	ug/mL	100
55) 4-Nitrophenol	7.037	65	163136	19.9185	ug/mL	100
56) 2,3,5,6-Tetrachlorop	7.108	232	269022	19.7072	ug/mL	100
57) 2,3,4,6-Tetrachlorop	7.134	232	308754	19.5922	ug/mL	100
58) Fluorene	7.270	166	989263	19.0593	ug/mL	100
59) 4Clphlphlethr	7.282	204	495709	19.1244	ug/mL	100
60) Diethylphthal	7.231	149	1063347	18.2705	ug/mL	100
61) 4Nitroaniline	7.304	138	195824	18.7687	ug/mL	100
64) 46Dinit2mylph	7.324	198	136063	20.0420	ug/mL	100
65) Ntrsdiphlam&Diphlam	7.364	169	1241348	37.7158	ug/mL	100
66) Azobenz&12Diphylhyd	7.384	182	379194	37.3068	ug/mL	100
67) 4Brphlphlethr	7.583	248	326339	19.0687	ug/mL	100
68) Hexaclbenzene	7.611	284	380895	19.1734	ug/mL	100
69) Pentaclphenol	7.739	266	197406	20.1549	ug/mL	100
70) Phenanthrene	7.861	178	1441607	18.2692	ug/mL	100
71) Anthracene	7.890	178	1495266	18.9834	ug/mL	100
72) Carbazole	7.989	167	1352415	19.2503	ug/mL	100
73) Dinbtylphthal	8.199	149	1406793	19.1062	ug/mL	100
74) Fluoranthene	8.495	202	947017	19.1070	ug/mL	100
76) Benzydine	8.566	184	121876	14.5921	ug/mL	100
77) Pyrene	8.606	202	988903	18.3273	ug/mL	100
79) Btylbzylphth	8.944	149	423466	19.4337	ug/mL	100
80) bis2Ethlhxlad	8.992	129	339563	19.5101	ug/mL	100
81) 33Diclbnzidin	9.239	252	199351	16.8343	ug/mL	100
82) B[a]anthracen	9.251	228	872295	18.5430	ug/mL	100
83) Chrysene	9.274	228	769318	18.5363	ug/mL	100
84) bis2Ethlhxlph	9.276	149	533499	18.9492	ug/mL	100
85) Dinocetylphthl	9.666	149	1110832	20.1184	ug/mL	100
87) B[b]fluoranth	9.887	252	953852	18.0842	ug/mL	100
88) B[k]fluoranth	9.904	252	903711	18.3515	ug/mL	100
89) Benz[a]pyrene	10.080	252	964647	18.5144	ug/mL	100
90) Indeno-pyrene	10.728	276	1120787	18.8237	ug/mL	100
91) Dib[ah]anthr	10.743	278	910484	18.8152	ug/mL	100
92) B[ghi]perylen	10.899	276	981778	18.5371	ug/mL	100

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

Vial: 5
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:59:11 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICAL3.D
 Acq On : 17 Aug 2015 19:02
 Sample : ICAL 10ug/ml SVMS6773
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:52:53 2015

Vial: 6
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:52:46 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.522	152	271794	20.00	ug/mL	0.00
21) Naphthalened8	5.080	136	1074412	20.00	ug/mL	0.00
39) Acenaphthened10	6.895	164	680950	20.00	ug/mL	0.00
63) Phenanthrd10	7.844	188	1362236	20.00	ug/mL	0.00
75) Chrysene-d12	9.257	240	764175	20.00	ug/mL	0.00
86) Perylene-d12	10.109	264	735709	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	200200	25.67	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	25.67%	
7) SURRPhenol-d5	3.184	99	243627	25.29	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	25.29%	
22) SURRNitrbenzened5	4.148	82	211424	52.11	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	52.11%	
44) SURR2Flbiphenyl	6.389	172	621540	52.14	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	52.14%	
62) SURR246Tribphenl	7.424	330	98313	28.61	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	28.61%#	
78) SURRTerphenyl-d14	8.685	244	344955	51.60	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	51.60%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.786	74	124216	10.0187	ug/mL	98
3) Pyridine	1.798	79	226193	9.8132	ug/mL	98
5) Aniline	3.207	93	283317	9.9153	ug/mL	99
6) bis2Clethletr	3.275	93	201135	10.2979	ug/mL	99
8) Phenol	3.196	94	262359	9.8798	ug/mL	89
9) 2-Cl-phenol	3.312	128	207254	10.1928	ug/mL	98
10) 13Diclbenz	3.460	146	229471	10.2389	ug/mL	96
11) 14Diclbenz	3.540	146	228933	9.9866	ug/mL	99
12) 12Diclbenz	3.693	146	222798	10.3790	ug/mL	99
13) Benzyl alcoho	3.684	108	115084	10.4558	ug/mL	96
14) bis2clispreth	3.846	45	308112	9.9121	ug/mL	99
15) 2Methylphenol	3.824	107	158042	10.5633	ug/mL	96
16) Ntrspyrrol	3.954	100	98969	10.8551	ug/mL	96
17) Acetophenone	3.977	105	290553	10.7570	ug/mL	100
18) Hexaclethane	4.068	117	99811	10.5412	ug/mL	97
19) N-Ntrsdinprop	3.997	70	149447	10.6458	ug/mL	99
20) 3&4Methylphenol	4.014	107	202213	10.1844	ug/mL	95
23) Nitrobenzene	4.170	77	207308	10.6099	ug/mL	97
24) Isophorone	4.489	82	401389	10.2957	ug/mL	99
25) 2-Nitrophenol	4.577	139	87141	10.3794	ug/mL	98
26) 24Dimthpheno	4.696	122	162337	10.4128	ug/mL	96
27) bis2clethoxym	4.827	93	238471	10.5553	ug/mL	99
28) 24Diclphenol	4.918	162	180865	10.9581	ug/mL	97
29) 124Triclbenz	5.017	180	199770	10.3120	ug/mL	96
30) Benzoic acid	4.878	122	63840	9.6619	ug/mL	95
31) Naphthalene	5.111	128	664177	10.2107	ug/mL	99
32) 4-Cl-aniline	5.247	127	307562	10.6796	ug/mL	97
33) 26Diclphenol	5.247	162	237622	11.2781	ug/mL	97
34) Hexaclprop	5.259	213	185370	10.9537	ug/mL	98
35) Hexaclbutdien	5.344	225	184084	11.1280	ug/mL	94
36) 4Cl3methylphe	5.932	107	273603	11.8665	ug/mL	99
37) 2Methylnaphth	6.017	142	571431	11.1630	ug/mL	99
38) 1Methylnaphth	6.111	141	469884	11.3406	ug/mL	98
40) Hxclcycpentdi	6.185	237	149768	10.4447	ug/mL	94

Data File : C:\INSTARCH\Data\1S081715\1ICAL3.D
 Acq On : 17 Aug 2015 19:02
 Sample : ICAL 10ug/ml SVMS6773
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:52:53 2015

Vial: 6
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

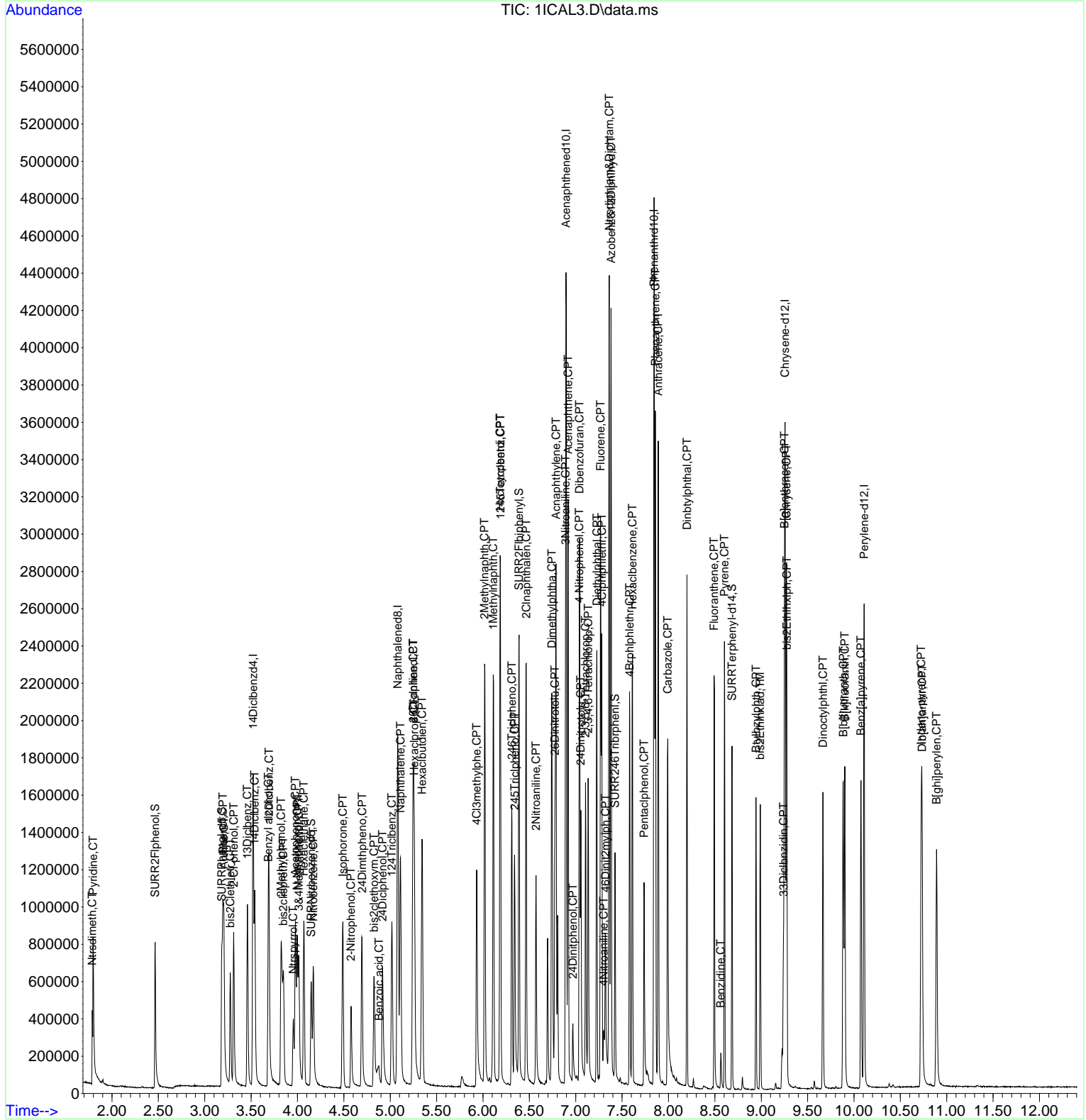
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:52:46 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.188	216	320697	10.9577	ug/mL	98
42) 246Triclpheno	6.310	196	177222	10.5083	ug/mL	97
43) 245Triclpheno	6.341	196	210089	10.8522	ug/mL	99
45) 2Clnaphthalen	6.466	162	551666	10.8332	ug/mL	99
46) 2Nitroaniline	6.571	65	152128	10.5997	ug/mL	96
47) Acnaphthylene	6.787	152	879991	10.8824	ug/mL	99
48) Dimethylphtha	6.742	163	607314	10.5833	ug/mL	99
49) 26Dinitrotolu	6.776	165	124386	10.5984	ug/mL	97
50) Acenaphthene	6.918	154	483259	10.4630	ug/mL	98
51) 3Nitroaniline	6.890	138	107329	9.7520	ug/mL	97
52) 24Dinitphenol	6.969	184	32775	9.0365	ug/mL	91
53) Dibenzofuran	7.040	168	755803	10.6800	ug/mL	98
54) 24Dinitrotolu	7.054	165	167257	10.4820	ug/mL	94
55) 4-Nitrophenol	7.037	65	94172	10.1757	ug/mL#	48
56) 2,3,5,6-Tetrachlorop	7.106	232	150297	10.8743	ug/mL	99
57) 2,3,4,6-Tetrachlorop	7.134	232	176311	11.1413	ug/mL	96
58) Fluorene	7.267	166	603388	10.6365	ug/mL	99
59) 4Clphlphlethr	7.282	204	296699	10.7296	ug/mL	98
60) Diethylphthal	7.228	149	622062	10.4559	ug/mL	98
61) 4Nitroaniline	7.302	138	112282	10.5213	ug/mL	97
64) 46Dinit2mylph	7.321	198	64592	8.5180	ug/mL	94
65) Ntrsdiphlam&Diphlam	7.361	169	759985	20.8625	ug/mL	99
66) Azobenz&12Diphlyhyd	7.381	182	238443	21.2127	ug/mL	97
67) 4Brphlphlethr	7.583	248	186970	11.0417	ug/mL	99
68) Hexaclbenzene	7.611	284	226088	11.5082	ug/mL	95
69) Pentaclphenol	7.736	266	96355	10.2156	ug/mL	92
70) Phenanthrene	7.859	178	861454	10.5494	ug/mL	99
71) Anthracene	7.890	178	903209	10.7311	ug/mL	100
72) Carbazole	7.992	167	773367	10.8828	ug/mL	99
73) Dinbtylphthal	8.199	149	827272	10.6354	ug/mL	100
74) Fluoranthene	8.492	202	545695	9.9665	ug/mL	97
76) Benzidine	8.563	184	55871	10.5089	ug/mL	97
77) Pyrene	8.603	202	572430	10.2486	ug/mL	99
79) Btylbzylphth	8.944	149	236388	10.2567	ug/mL	100
80) bis2Ethlhxlad	8.989	129	194029	10.1133	ug/mL	99
81) 33Diclbnzidin	9.239	252	111266	8.7388	ug/mL	97
82) B[a]anthracen	9.251	228	485120	10.0281	ug/mL	99
83) Chrysene	9.271	228	440677	10.2602	ug/mL	99
84) bis2Ethlhxlph	9.276	149	323842	10.2366	ug/mL	99
85) Dinocetylphthl	9.666	149	614516	10.4961	ug/mL	99
87) B[b]fluoranth	9.884	252	540772	10.2225	ug/mL	99
88) B[k]fluoranth	9.902	252	486703	10.2109	ug/mL	100
89) Benz[a]pyrene	10.075	252	515770	10.0552	ug/mL	100
90) Indeno-pyrene	10.726	276	588619	10.2824	ug/mL	97
91) Dib[ah]anthr	10.734	278	486898	10.4135	ug/mL	98
92) B[ghi]perylen	10.890	276	520099	10.3372	ug/mL	97

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

Vial: 6
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:52:46 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICAL2.D
 Acq On : 17 Aug 2015 19:22
 Sample : ICAL 5ug/ml SVMS6772
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:52:21 2015

Vial: 7
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:51:53 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.520	152	266835	20.00	ug/mL	0.00
21) Naphthalened8	5.080	136	1022890	20.00	ug/mL	0.00
39) Acenaphthened10	6.895	164	674620	20.00	ug/mL	0.00
63) Phenanthrd10	7.844	188	1359026	20.00	ug/mL	0.00
75) Chrysene-d12	9.254	240	768145	20.00	ug/mL	0.00
86) Perylene-d12	10.109	264	735724	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	96888	12.81	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	12.81%#	
7) SURRPhenol-d5	3.181	99	123771	12.99	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	12.99%	
22) SURRNitrbenzened5	4.145	82	99993	25.76	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	25.76%#	
44) SURR2Flbiphenyl	6.389	172	336122	30.10	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	30.10%#	
62) SURR246Tribphenl	7.424	330	49081	14.89	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	14.89%#	
78) SURRTerphenyl-d14	8.682	244	184704	27.89	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	27.89%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.792	74	61193	5.0830	ug/mL	99
3) Pyridine	1.803	79	111716	5.0368	ug/mL	99
5) Aniline	3.204	93	143616	5.0674	ug/mL	99
6) bis2Clethletr	3.275	93	98758	5.0909	ug/mL	98
8) Phenol	3.196	94	143174	5.5251	ug/mL	92
9) 2-Cl-phenol	3.312	128	103047	5.1105	ug/mL	99
10) 13Diclbenz	3.460	146	115914	5.2459	ug/mL	97
11) 14Diclbenz	3.537	146	116896	5.1655	ug/mL	98
12) 12Diclbenz	3.693	146	115905	5.5036	ug/mL	97
13) Benzyl alcoho	3.682	108	56564	5.4362	ug/mL	94
14) bis2clispreth	3.844	45	151628	4.9118	ug/mL	98
15) 2Methylphenol	3.821	107	78292	5.3811	ug/mL	97
16) Ntrspyrrol	3.949	100	49144	5.5828	ug/mL	98
17) Acetophenone	3.974	105	143962	5.5110	ug/mL	96
18) Hexaclethane	4.068	117	50335	5.4803	ug/mL	93
19) N-Ntrsdinprop	3.991	70	76556	5.6265	ug/mL	99
20) 3&4Methylphenol	4.008	107	103277	5.3477	ug/mL	89
23) Nitrobenzene	4.167	77	99277	5.3752	ug/mL	96
24) Isophorone	4.483	82	205129	5.5991	ug/mL	98
25) 2-Nitrophenol	4.579	139	38420	4.7689	ug/mL	94
26) 24Dimthpheno	4.693	122	79754	5.4192	ug/mL	95
27) bis2clethoxym	4.824	93	117675	5.5358	ug/mL	98
28) 24Diclphenol	4.915	162	86700	5.6125	ug/mL	94
29) 124Triclbenz	5.017	180	99947	5.4748	ug/mL	97
30) Benzoic acid	4.844	122	20055	4.0390	ug/mL	91
31) Naphthalene	5.108	128	343358	5.6615	ug/mL	98
32) 4-Cl-aniline	5.244	127	161786	6.1155	ug/mL	97
33) 26Diclphenol	5.244	162	120587	6.2588	ug/mL	95
34) Hexaclprop	5.256	213	91440	5.7812	ug/mL	94
35) Hexaclbutdien	5.344	225	94344	6.2367	ug/mL	96
36) 4Cl3methylphe	5.932	107	136360	6.7795	ug/mL	94
37) 2Methylnaphth	6.017	142	297312	6.6296	ug/mL	99
38) 1Methylnaphth	6.114	141	254068	7.0592	ug/mL	100
40) Hxclcycpentdi	6.185	237	69635	5.4233	ug/mL	97

Data File : C:\INSTARCH\Data\1S081715\1ICAL2.D
 Acq On : 17 Aug 2015 19:22
 Sample : ICAL 5ug/ml SVMS6772
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:52:21 2015

Vial: 7
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

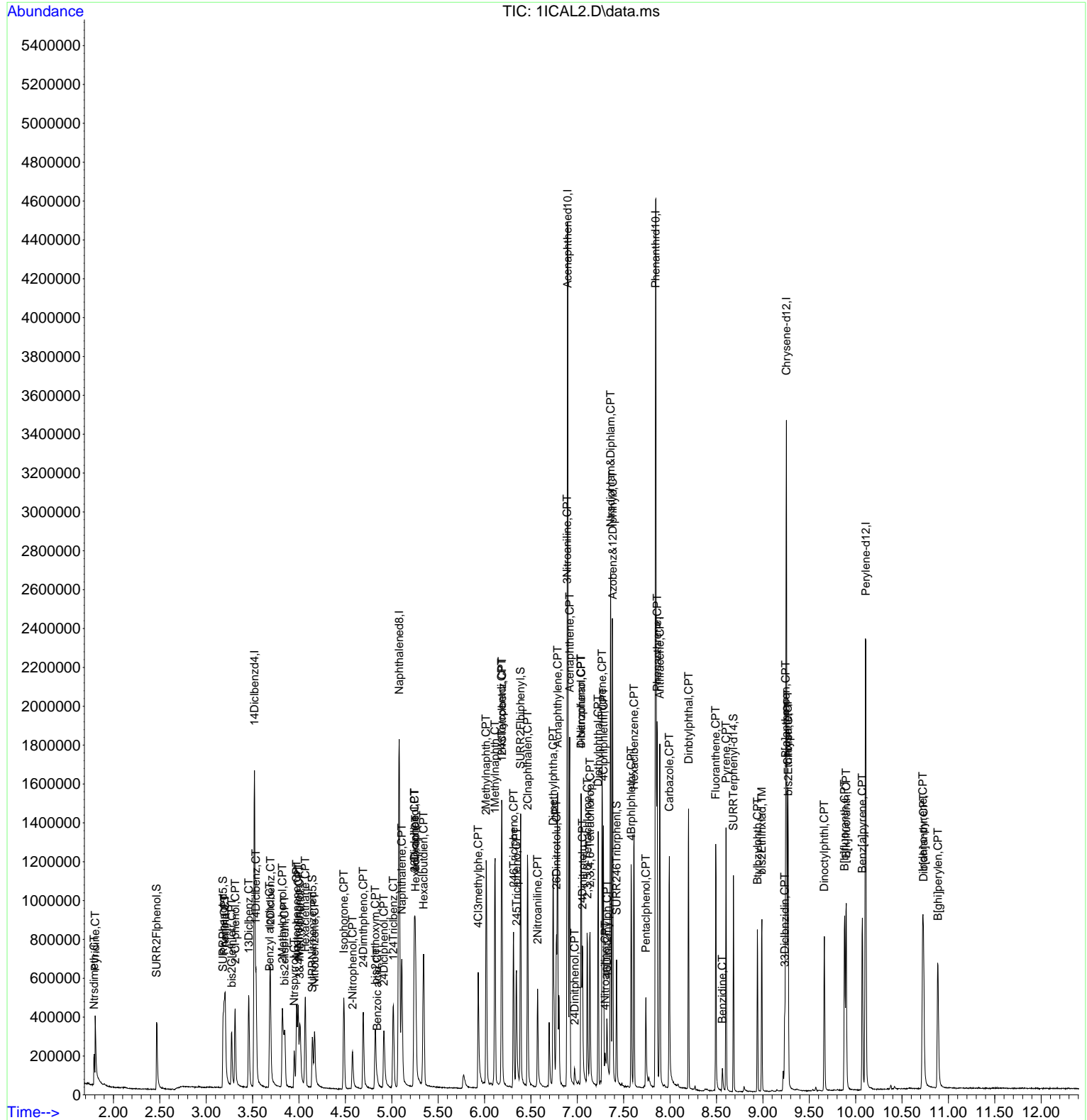
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:51:53 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.188	216	169638	6.1940	ug/mL	99
42) 246Triclpheno	6.313	196	92142	5.8164	ug/mL	97
43) 245Triclpheno	6.344	196	109084	6.0276	ug/mL	98
45) 2Clnaphthalen	6.463	162	292184	6.1608	ug/mL	99
46) 2Nitroaniline	6.571	65	74053	5.4435	ug/mL	98
47) Acnaphthylene	6.787	152	477617	6.2063	ug/mL	99
48) Dimethylphtha	6.739	163	322516	5.8024	ug/mL	100
49) 26Dinitrotolu	6.776	165	64354	5.4972	ug/mL	96
50) Acenaphthene	6.918	154	264325	5.9385	ug/mL	98
51) 3Nitroaniline	6.890	138	60073	5.5277	ug/mL	95
52) 24Dinitphenol	6.972	184	8786	5.0086	ug/mL	87
53) Dibenzofuran	7.040	168	410787	6.0233	ug/mL	100
54) 24Dinitrotolu	7.057	165	82600	5.2022	ug/mL	97
55) 4-Nitrophenol	7.040	65	42616	4.7140	ug/mL#	1
56) 2,3,5,6-Tetrachlorop	7.108	232	74338	5.6027	ug/mL	94
57) 2,3,4,6-Tetrachlorop	7.137	232	86853	5.7108	ug/mL	94
58) Fluorene	7.267	166	329426	6.0454	ug/mL	100
59) 4Clphlphlethr	7.282	204	157051	5.8696	ug/mL	99
60) Diethylphthal	7.225	149	335563	5.8774	ug/mL	99
61) 4Nitroaniline	7.302	138	56291	5.5827	ug/mL	95
64) 46Dinit2mylph	7.321	198	25869	3.2560	ug/mL	96
65) Ntrsdiphlam&Diphlam	7.358	169	437640	12.2852	ug/mL	99
66) Azobenz&12Diphlyhyd	7.381	182	130502	11.6864	ug/mL	99
67) 4Brphlphlethr	7.583	248	100976	6.1831	ug/mL	96
68) Hexaclbenzene	7.611	284	120542	6.4313	ug/mL	95
69) Pentaclphenol	7.739	266	42234	4.5541	ug/mL	98
70) Phenanthrene	7.861	178	478784	6.0195	ug/mL	99
71) Anthracene	7.890	178	496062	6.0229	ug/mL	98
72) Carbazole	7.992	167	405913	5.8800	ug/mL	98
73) Dinbtylphthal	8.199	149	448185	5.9183	ug/mL	100
74) Fluoranthene	8.492	202	290828	5.2318	ug/mL	97
76) Benzidine	8.563	184	32756	4.8368	ug/mL	97
77) Pyrene	8.603	202	307189	5.5161	ug/mL	99
79) Btylbzylphth	8.941	149	122026	5.2793	ug/mL	99
80) bis2Ethlhxlad	8.989	129	100384	5.1866	ug/mL	99
81) 33Diclbnzidin	9.237	252	62020	4.7504	ug/mL	99
82) B[a]anthracen	9.245	228	256459	5.2985	ug/mL	98
83) Chrysene	9.268	228	239927	5.5745	ug/mL	98
84) bis2Ethlhxlph	9.273	149	175816	5.4892	ug/mL	99
85) Dinocetylphthl	9.663	149	301786	5.0914	ug/mL	98
87) B[b]fluoranth	9.882	252	286153	5.3923	ug/mL	98
88) B[k]fluoranth	9.899	252	271338	5.7477	ug/mL	100
89) Benz[a]pyrene	10.072	252	280106	5.4813	ug/mL	98
90) Indeno-pyrene	10.723	276	320679	5.6712	ug/mL	98
91) Dib[ah]anthr	10.731	278	265580	5.7970	ug/mL	95
92) B[ghi]perylen	10.887	276	280522	5.7068	ug/mL	98

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

Vial: 7
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:51:53 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICAL1.D
 Acq On : 17 Aug 2015 19:41
 Sample : ICAL 1ug/ml SVMS6771
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:51:04 2015

Vial: 8
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:50:56 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.519	152	265591	20.00	ug/mL	0.00
21) Naphthalened8	5.079	136	1037075	20.00	ug/mL	0.00
39) Acenaphthened10	6.895	164	677831	20.00	ug/mL	0.00
63) Phenanthrd10	7.844	188	1378180	20.00	ug/mL	0.00
75) Chrysene-d12	9.251	240	807331	20.00	ug/mL	0.00
86) Perylene-d12	10.106	264	752987	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.468	112	17346	2.25	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	2.25%#	
7) SURRPhenol-d5	3.184	99	22861	2.38	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	2.38%#	
22) SURRNitrbenzened5	4.147	82	18314	4.66	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	4.66%#	
44) SURR2Flbiphenyl	6.386	172	71066	6.58	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	6.58%#	
62) SURR246Tribphenl	7.421	330	7114	2.19	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	2.19%#	
78) SURRTerphenyl-d14	8.682	244	41277	6.04	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	6.04%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.795	74	10677	0.8677	ug/mL	84
3) Pyridine	1.815	79	23106	1.0510	ug/mL	98
5) Aniline	3.207	93	25580	0.8788	ug/mL	99
6) bis2Clethletr	3.275	93	20030	1.0186	ug/mL	98
8) Phenol	3.198	94	26841	1.0183	ug/mL	89
9) 2-Cl-phenol	3.312	128	20154	1.0197	ug/mL	93
10) 13Diclbenz	3.463	146	23460	1.0756	ug/mL	92
11) 14Diclbenz	3.539	146	24243	1.0853	ug/mL	96
12) 12Diclbenz	3.696	146	23376	1.1249	ug/mL	96
13) Benzyl alcoho	3.696	108	7366	0.9302	ug/mL#	60
14) bis2clispreth	3.845	45	31462	0.9808	ug/mL	97
15) 2Methylphenol	3.824	107	14418	0.9979	ug/mL	89
16) Ntrspyrrol	3.951	100	8509	0.9669	ug/mL	89
17) Acetophenone	3.977	105	27906	1.0911	ug/mL	95
18) Hexaclethane	4.065	117	10739	1.1659	ug/mL	87
19) N-Ntrsdinprop	3.988	70	14675	1.0790	ug/mL	90
20) 3&4Methylphenol	4.014	107	20564	1.0662	ug/mL#	81
23) Nitrobenzene	4.170	77	17029	0.8899	ug/mL	96
24) Isophorone	4.483	82	43442	1.1973	ug/mL	97
25) 2-Nitrophenol	4.579	139	5593	0.6555	ug/mL	83
26) 24Dimthpheno	4.693	122	16201	1.1207	ug/mL	91
27) bis2clethoxym	4.824	93	22506	1.0677	ug/mL	89
28) 24Diclphenol	4.917	162	15117	0.9859	ug/mL	94
29) 124Triclbenz	5.017	180	20518	1.1232	ug/mL	93
30) Benzoic acid	4.849	122	1413	1.5365	ug/mL#	34
31) Naphthalene	5.108	128	71282	1.1947	ug/mL	97
32) 4-Cl-aniline	5.250	127	33620	1.3378	ug/mL	98
33) 26Diclphenol	5.244	162	24648	1.3679	ug/mL	96
34) Hexaclprop	5.258	213	16010	1.0495	ug/mL	88
35) Hexaclbutdien	5.341	225	18910	1.2592	ug/mL	97
36) 4Cl3methylphe	5.938	107	24692	1.2547	ug/mL	87
37) 2Methylnaphth	6.017	142	63669	1.4504	ug/mL	96
38) 1Methylnaphth	6.111	141	56507	1.6696	ug/mL	99
40) Hxclcycpenti	6.182	237	9366	1.1352	ug/mL	97

Data File : C:\INSTARCH\Data\1S081715\1ICAL1.D
 Acq On : 17 Aug 2015 19:41
 Sample : ICAL 1ug/ml SVMS6771
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 09:51:04 2015

Vial: 8
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

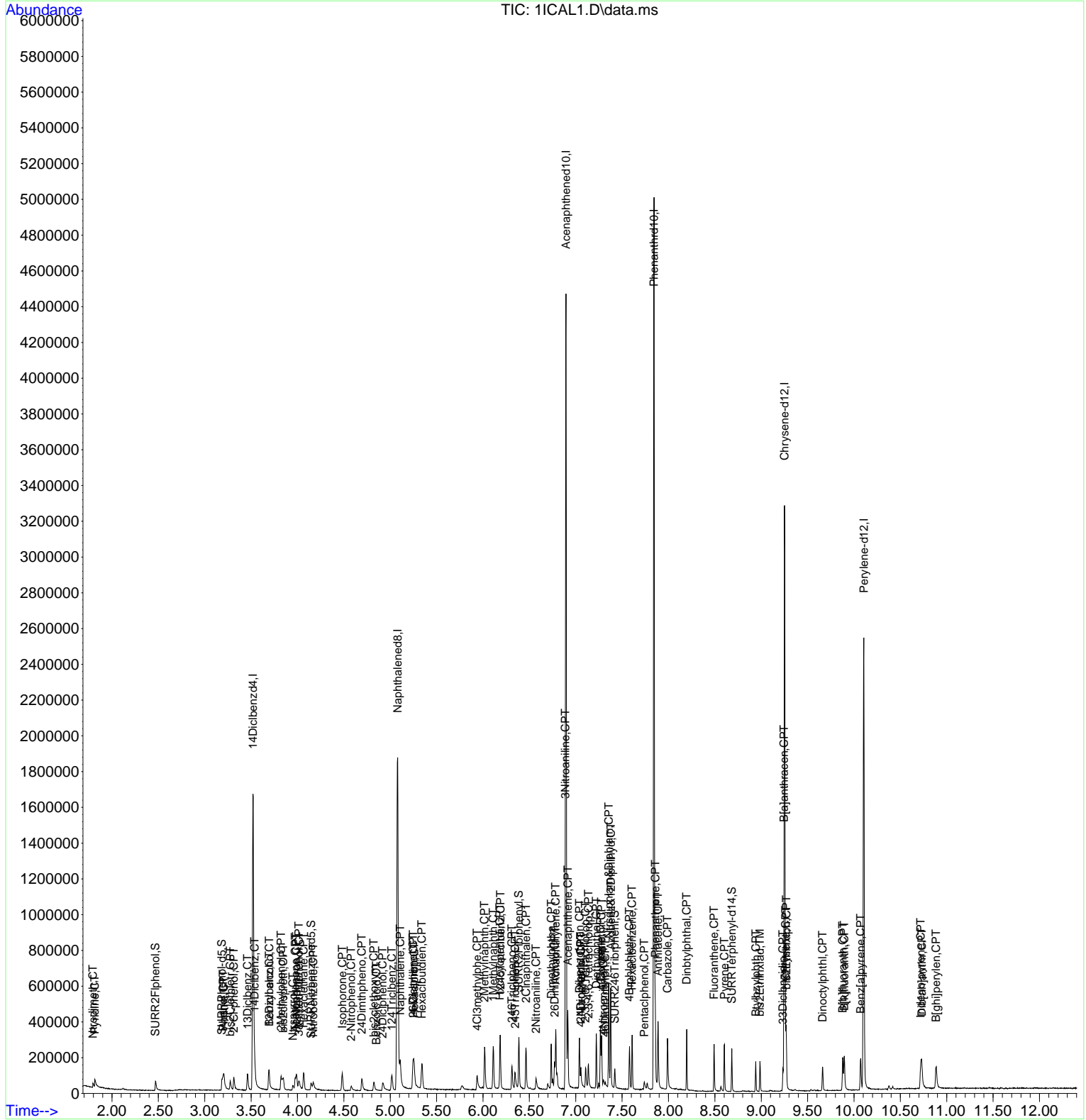
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 09:50:56 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.188	216	33916	1.2570	ug/mL	93
42) 246Triclpheno	6.310	196	17459	1.1270	ug/mL	93
43) 245Triclpheno	6.347	196	19518	1.1167	ug/mL	96
45) 2Clnaphthalen	6.463	162	61023	1.3372	ug/mL	97
46) 2Nitroaniline	6.571	65	11965	0.8723	ug/mL	94
47) Acnaphthylene	6.784	152	104137	1.4212	ug/mL	99
48) Dimethylphtha	6.736	163	69942	1.3130	ug/mL	98
49) 26Dinitrotolu	6.773	165	11164	0.9308	ug/mL	97
50) Acenaphthene	6.915	154	58272	1.3607	ug/mL	97
51) 3Nitroaniline	6.887	138	9661	0.8912	ug/mL#	46
52) 24Dinitphenol	0.000		0	N.D.		
53) Dibenzofuran	7.040	168	88408	1.3468	ug/mL	92
54) 24Dinitrotolu	7.054	165	12247	0.7388	ug/mL	87
55) 4-Nitrophenol	7.057	65	5713	0.6290	ug/mL#	12
56) 2,3,5,6-Tetrachlorop	7.105	232	12407	0.9516	ug/mL	96
57) 2,3,4,6-Tetrachlorop	7.137	232	16704	1.1323	ug/mL	89
58) Fluorene	7.267	166	71389	1.3608	ug/mL	98
59) 4Clphlphlethr	7.279	204	34690	1.3527	ug/mL	99
60) Diethylphthal	7.222	149	74120	1.3510	ug/mL	98
61) 4Nitroaniline	7.299	138	10305	1.5636	ug/mL	89
64) 46Dinit2mylph	7.318	198	1683	0.2089	ug/mL	80
65) Ntrsdiphlam&Diphlam	7.355	169	97934	2.8246	ug/mL	98
66) Azobenz&12Diphylhyd	7.378	182	29166	2.6548	ug/mL	97
67) 4Brphlphlethr	7.580	248	21193	1.3797	ug/mL	96
68) Hexaclbenzene	7.608	284	26054	1.4984	ug/mL	99
69) Pentaclphenol	7.739	266	4270	0.4540	ug/mL#	58
70) Phenanthrene	7.858	178	107351	1.3862	ug/mL	97
71) Anthracene	7.887	178	109813	1.3638	ug/mL	99
72) Carbazole	7.989	167	96731	1.4434	ug/mL	98
73) Dinbtylphthal	8.196	149	98209	1.3233	ug/mL	99
74) Fluoranthene	8.492	202	64021	1.1334	ug/mL	98
76) Benzydine	8.566	184	9601	Below Cal		96
77) Pyrene	8.603	202	68100	1.1760	ug/mL	96
79) Btylbzylphth	8.941	149	22416	0.9116	ug/mL	98
80) bis2Ethlhxlad	8.986	129	19065	0.9197	ug/mL	93
81) 33Diclbnzidin	9.234	252	18816	1.3794	ug/mL	95
82) B[a]anthracen	9.245	228	56021	1.0978	ug/mL	99
83) Chrysene	9.265	228	56736	1.2796	ug/mL	100
84) bis2Ethlhxlph	9.271	149	35544	1.0430	ug/mL	94
85) Dinocetylphthl	9.663	149	51489	0.8049	ug/mL	97
87) B[b]fluoranth	9.879	252	54817	1.0071	ug/mL	95
88) B[k]fluoranth	9.896	252	59322	1.2343	ug/mL	98
89) Benz[a]pyrene	10.072	252	61000	1.1803	ug/mL	97
90) Indeno-pyrene	10.720	276	64143	1.1265	ug/mL	94
91) Dib[ah]anthr	10.731	278	52621	1.1558	ug/mL	95
92) B[ghi]perylene	10.884	276	57832	1.1775	ug/mL	97

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

Vial: 8
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 09:50:56 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICV1.D
 Acq On : 17 Aug 2015 20:21
 Sample : ICV 20ug/ml SVMS6778
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:01:55 2015

Vial: 9
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	101	0.05
2 CT	Ntrsdimeth	20.000	21.382	-6.9	110	0.03
3 CT	Pyridine	20.000	20.509	-2.5	111	0.03
4 S	SURR2Flphenol	50.000	48.165	3.7	101	0.04
5 CT	Aniline	20.000	21.000	-5.0	110	0.05
6 CPT	bis2Clethletr	20.000	20.336	-1.7	109	0.05
7 S	SURRPhenol-d5	50.000	48.114	3.8	102	0.05
8 CPT	Phenol	20.000	20.168	-0.8	109	0.05
9 CPT	2-Cl-phenol	20.000	20.547	-2.7	110	0.05
10 CT	13Diclbenz	20.000	20.573	-2.9	111	0.05
11 CT	14Diclbenz	20.000	20.120	-0.6	108	0.05
12 CT	12Diclbenz	20.000	20.154	-0.8	109	0.05
13 CT	Benzyl alcoho	20.000	22.311	-11.6	110	0.05
14 CPT	bis2clispreth	20.000	20.131	-0.7	108	0.06
15 CPT	2Methylphenol	20.000	20.772	-3.9	110	0.02
16 CT	Ntrspyrrol	20.000	21.221	-6.1	110	0.06
17 CPT	Acetophenone	20.000	20.736	-3.7	110	0.06
18 CPT	Hexacethane	20.000	19.885	0.6	109	0.06
19 CPT	N-Ntrsdinprop	20.000	20.218	-1.1	109	0.06
20 CPT	3&4Methylphenol	20.000	20.731	-3.7	110	0.06
21 I	Naphthalened8	20.000	20.000	0.0	102	0.06
22 S	SURRNitrbenzened5	100.000	102.689	-2.7	109	0.05
23 CPT	Nitrobenzene	20.000	21.383	-6.9	110	0.05
24 CPT	Isophorone	20.000	19.902	0.5	110	0.05
25 CPT	2-Nitrophenol	20.000	22.342	-11.7	112	0.05
26 CPT	24Dimthpheno	20.000	20.277	-1.4	110	0.06
27 CPT	bis2clethoxym	20.000	20.791	-4.0	113	0.06
28 CPT	24Diclphenol	20.000	21.061	-5.3	111	0.06
29 CT	124Triclbenz	20.000	20.406	-2.0	110	0.06
30 CT	Benzoic acid	20.000	20.498	-2.5	112	0.07
31 CPT	Naphthalene	20.000	20.063	-0.3	110	0.06
32 CPT	4-Cl-aniline	20.000	20.802	-4.0	111	0.06
33 CT	26Diclphenol	20.000	19.908	0.5	111	0.06
34 CT	Hexaclprop	20.000	21.913	-9.6	115	0.06
35 CPT	Hexaclbutdien	20.000	20.060	-0.3	110	0.07
36 CPT	4Cl3methylphe	20.000	20.531	-2.7	110	0.07
37 CPT	2Methylnaphth	20.000	20.166	-0.8	108	0.07
38 CT	1Methylnaphth	20.000	20.457	-2.3	110	0.07
39 I	Acenaphthened10	20.000	20.000	0.0	101	0.03
40 CPT	Hxclcycpentdi	20.000	22.619	-13.1	114	0.03
41 CPT	1245Tetrclbenz	20.000	19.736	1.3	107	0.03
42 CPT	246Triclpheno	20.000	20.964	-4.8	112	0.03
43 CPT	245Triclpheno	20.000	20.830	-4.1	112	0.03
44 S	SURR2Flbiphenyl	100.000	99.670	0.3	107	0.03
45 CPT	2Cl-naphthalen	20.000	20.301	-1.5	110	0.03
46 CPT	2Nitroaniline	20.000	21.937	-9.7	113	0.03
47 CPT	Acnaphthylene	20.000	20.587	-2.9	108	0.03
48 CPT	Dimethylphtha	20.000	19.947	0.3	108	0.03
49 CPT	26Dinitrotolu	20.000	21.608	-8.0	110	0.03
50 CPT	Acenaphthene	20.000	20.228	-1.1	109	0.03
51 CPT	3Nitroaniline	20.000	20.939	-4.7	115	0.03

Data File : C:\INSTARCH\Data\1S081715\1ICV1.D
 Acq On : 17 Aug 2015 20:21
 Sample : ICV 20ug/ml SVMS6778
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:01:55 2015

Vial: 9
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	20.000	21.230	-6.2	125	0.03
53 CPT	Dibenzofuran	20.000	19.835	0.8	107	0.03
54 CPT	24Dinitrotolu	20.000	21.649	-8.2	111	0.03
55 CPT	4-Nitrophenol	20.000	21.806	-9.0	112	-0.03
56 CT	2,3,5,6-Tetrachlorop	20.000	21.263	-6.3	109	0.03
57 CPT	2,3,4,6-Tetrachlorop	20.000	21.055	-5.3	111	0.03
58 CPT	Fluorene	20.000	20.470	-2.3	109	0.03
59 CPT	4Clphlphlethr	20.000	21.084	-5.4	112	0.03
60 CPT	Diethylphthal	20.000	19.683	1.6	110	0.03
61 CPT	4Nitroaniline	20.000	21.701	-8.5	121	0.03
62 S	SURR246Tribphenl	50.000	52.770	-5.5	106	0.03
63 I	Phenanthrd10	20.000	20.000	0.0	104	0.03
64 CPT	46Dinit2mylph	20.000	23.041	-15.2	122	0.03
65 CPT	Ntrsdiphlam&Diphlam	40.000	41.777	-4.4	115	0.03
66 CT	Azobenz&12Diphlyd	40.000	39.795	0.5	111	0.03
67 CPT	4Brphlphlethr	20.000	20.338	-1.7	110	0.03
68 CPT	Hexaclbenzene	20.000	19.923	0.4	108	0.03
69 CPT	Pentaclphenol	20.000	21.810	-9.0	113	0.03
70 CPT	Phenanthrene	20.000	19.537	2.3	111	0.03
71 CPT	Anthracene	20.000	19.858	0.7	109	0.03
72 CPT	Carbazole	20.000	20.739	-3.7	113	0.03
73 CPT	Dinbtylphthal	20.000	20.005	-0.0	109	0.03
74 CPT	Fluoranthene	20.000	20.216	-1.1	110	0.03
75 I	Chrysene-d12	20.000	20.000	0.0	101	0.03
76 CT	Benzidine	20.000	21.913	-9.6	132	0.03
77 CPT	Pyrene	20.000	19.731	1.3	109	0.03
78 S	SURRTerphenyl-d14	100.000	99.291	0.7	109	0.03
79 CPT	Btylbzylphth	20.000	20.431	-2.2	105	0.03
80 TM	bis2Ethlhxlad	20.000	20.182	-0.9	105	0.03
81 CPT	33Diclbnzidin	20.000	20.182	-0.9	106	0.03
82 CPT	B[a]anthracen	20.000	20.160	-0.8	109	0.03
83 CPT	Chrysene	20.000	20.778	-3.9	111	0.03
84 CPT	bis2Ethlhxlph	20.000	19.871	0.6	105	0.03
85 CPT	Dinoctylphthl	20.000	21.067	-5.3	105	0.03
86 I	Perylene-d12	20.000	20.000	0.0	105	0.00
87 CPT	B[b]fluoranth	20.000	19.311	3.4	109	0.00
88 CPT	B[k]fluoranth	20.000	19.902	0.5	102	0.00
89 CPT	Benz[a]pyrene	20.000	19.388	3.1	106	0.00
90 CPT	Indeno-pyrene	20.000	19.704	1.5	103	0.00
91 CPT	Dib[ah]anthr	20.000	19.934	0.3	105	0.00
92 CPT	B[ghi]perylene	20.000	19.631	1.8	103	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S081715\1ICV1.D
 Acq On : 17 Aug 2015 20:21
 Sample : ICV 20ug/ml SVMS6778
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:01:55 2015

Vial: 9
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	101	0.05
2 CT	Ntrsdimeth	0.845	0.904	-7.0	110	0.03
3 CT	Pyridine	1.596	1.637	-2.6	111	0.03
4 S	SURR2Flphenol	0.541	0.521	3.7	101	0.04
5 CT	Aniline	1.911	2.006	-5.0	110	0.05
6 CPT	bis2Clethletr	1.367	1.390	-1.7	109	0.05
7 S	SURRPhenol-d5	0.663	0.638	3.8	102	0.05
8 CPT	Phenol	1.772	1.787	-0.8	109	0.05
9 CPT	2-Cl-phenol	1.442	1.481	-2.7	110	0.05
10 CT	13Diclbenz	1.584	1.629	-2.8	111	0.05
11 CT	14Diclbenz	1.596	1.606	-0.6	108	0.05
12 CT	12Diclbenz	1.498	1.509	-0.7	109	0.05
13 CT	Benzyl alcoho	0.760	0.848	-11.6	110	0.05
14 CPT	bis2clispreth	2.111	2.125	-0.7	108	0.06
15 CPT	2Methylphenol	1.069	1.110	-3.8	110	0.02
16 CT	Ntrspyrrol	0.665	0.706	-6.2	110	0.06
17 CPT	Acetophenone	1.958	2.030	-3.7	110	0.06
18 CPT	Hexaclethane	0.681	0.677	0.6	109	0.06
19 CPT	N-Ntrsdinprop	1.018	1.029	-1.1	109	0.06
20 CPT	3&4Methylphenol	1.412	1.464	-3.7	110	0.06
21 I	Naphthalened8	1.000	1.000	0.0	102	0.06
22 S	SURRNitrbenzened5	0.074	0.076	-2.7	109	0.05
23 CPT	Nitrobenzene	0.363	0.388	-6.9	110	0.05
24 CPT	Isophorone	0.728	0.724	0.5	110	0.05
25 CPT	2-Nitrophenol	0.150	0.167	-11.3	112	0.05
26 CPT	24Dimthpheno	0.287	0.291	-1.4	110	0.06
27 CPT	bis2clethoxym	0.418	0.435	-4.1	113	0.06
28 CPT	24Diclphenol	0.310	0.326	-5.2	111	0.06
29 CT	124Triclbenz	0.358	0.365	-2.0	110	0.06
30 CT	Benzoic acid	0.134	0.145	-8.2	112	0.07
31 CPT	Naphthalene	1.201	1.205	-0.3	110	0.06
32 CPT	4-Cl-aniline	0.533	0.545	-2.3	111	0.06
33 CT	26Diclphenol	0.402	0.400	0.5	111	0.06
34 CT	Hexaclprop	0.315	0.345	-9.5	115	0.06
35 CPT	Hexaclbutdien	0.324	0.325	-0.3	110	0.07
36 CPT	4Cl3methylphe	0.465	0.477	-2.6	110	0.07
37 CPT	2Methylnaphth	0.986	0.977	0.9	108	0.07
38 CT	1Methylnaphth	0.823	0.810	1.6	110	0.07
39 I	Acenaphthened10	1.000	1.000	0.0	101	0.03
40 CPT	Hxclcycpentdi	0.404	0.457	-13.1	114	0.03
41 CPT	1245Tetrclbenz	0.869	0.857	1.4	107	0.03
42 CPT	246Triclpheno	0.515	0.539	-4.7	112	0.03
43 CPT	245Triclpheno	0.595	0.620	-4.2	112	0.03
44 S	SURR2Flbiphenyl	0.353	0.352	0.3	107	0.03
45 CPT	2Cl-naphthalen	1.535	1.558	-1.5	110	0.03
46 CPT	2Nitroaniline	0.430	0.472	-9.8	113	0.03
47 CPT	Acnaphthylene	2.404	2.392	0.5	108	0.03
48 CPT	Dimethylphtha	1.720	1.716	0.2	108	0.03
49 CPT	26Dinitrotolu	0.331	0.357	-7.9	110	0.03
50 CPT	Acenaphthene	1.345	1.308	2.8	109	0.03
51 CPT	3Nitroaniline	0.311	0.325	-4.5	115	0.03

Data File : C:\INSTARCH\Data\1S081715\1ICV1.D
 Acq On : 17 Aug 2015 20:21
 Sample : ICV 20ug/ml SVMS6778
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:01:55 2015

Vial: 9
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	0.130	0.152	-16.9	125	0.03
53 CPT	Dibenzofuran	2.063	1.994	3.3	107	0.03
54 CPT	24Dinitrotolu	0.461	0.500	-8.5	111	0.03
55 CPT	4-Nitrophenol	0.254	0.277	-9.1	112	-0.03
56 CT	2,3,5,6-Tetrachlorop	0.425	0.452	-6.4	109	0.03
57 CPT	2,3,4,6-Tetrachlorop	0.489	0.515	-5.3	111	0.03
58 CPT	Fluorene	1.643	1.630	0.8	109	0.03
59 CPT	4Clphlphlethr	0.816	0.835	-2.3	112	0.03
60 CPT	Diethylphthal	1.809	1.780	1.6	110	0.03
61 CPT	4Nitroaniline	0.323	0.351	-8.7	121	0.03
62 S	SURR246Tribrphenl	0.108	0.114	-5.6	106	0.03
63 I	Phenanthrd10	1.000	1.000	0.0	104	0.03
64 CPT	46Dinit2mylph	0.100	0.115	-15.0	122	0.03
65 CPT	Ntrsdiphlam&Diphlam	0.502	0.493	1.8	115	0.03
66 CT	Azobenz&12Diphhlhyd	0.155	0.147	5.2	111	0.03
67 CPT	4Brphlphlethr	0.251	0.253	-0.8	110	0.03
68 CPT	Hexaclbenzene	0.301	0.290	3.7	108	0.03
69 CPT	Pentaclphenol	0.144	0.157	-9.0	113	0.03
70 CPT	Phenanthrene	1.160	1.122	3.3	111	0.03
71 CPT	Anthracene	1.200	1.143	4.7	109	0.03
72 CPT	Carbazole	1.066	1.056	0.9	113	0.03
73 CPT	Dinbtylphthal	1.111	1.076	3.2	109	0.03
74 CPT	Fluoranthene	0.747	0.733	1.9	110	0.03
75 I	Chrysene-d12	1.000	1.000	0.0	101	0.03
76 CT	Benzidine	0.212	0.215	-1.4	132	0.03
77 CPT	Pyrene	1.434	1.414	1.4	109	0.03
78 S	SURRTerphenyl-d14	0.176	0.175	0.6	109	0.03
79 CPT	Btylbzylphth	0.580	0.592	-2.1	105	0.03
80 TM	bis2Ethlhxlad	0.462	0.466	-0.9	105	0.03
81 CPT	33Diclbnzidin	0.316	0.286	9.5	106	0.03
82 CPT	B[a]anthracen	1.253	1.263	-0.8	109	0.03
83 CPT	Chrysene	1.100	1.096	0.4	111	0.03
84 CPT	bis2Ethlhxlph	0.750	0.747	0.4	105	0.03
85 CPT	Dinoctylphthl	1.469	1.547	-5.3	105	0.03
86 I	Perylene-d12	1.000	1.000	0.0	105	0.00
87 CPT	B[b]fluoranth	1.386	1.338	3.5	109	0.00
88 CPT	B[k]fluoranth	1.313	1.306	0.5	102	0.00
89 CPT	Benz[a]pyrene	1.372	1.330	3.1	106	0.00
90 CPT	Indeno-pyrene	1.574	1.550	1.5	103	0.00
91 CPT	Dib[ah]anthr	1.279	1.275	0.3	105	0.00
92 CPT	B[ghi]perylen	1.403	1.377	1.9	103	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S081715\1ICV1.D
 Acq On : 17 Aug 2015 20:21
 Sample : ICV 20ug/ml SVMS6778
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:01:55 2015

Vial: 9
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)

Internal Standards						
1) 14Diclbenzd4	3.522	152	270871	20.00	ug/mL	0.00
21) Naphthalened8	5.082	136	1070350	20.00	ug/mL	0.00
39) Acenaphthened10	6.898	164	647342	20.00	ug/mL	0.00
63) Phenanthrd10	7.844	188	1403541	20.00	ug/mL	0.00
75) Chrysene-d12	9.256	240	750654	20.00	ug/mL	0.00
86) Perylene-d12	10.109	264	750565	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	352798	48.17	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	48.17%	
7) SURRPhenol-d5	3.187	99	431857	48.11	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	48.11%	
22) SURRNitrbenzened5	4.153	82	405037	102.69	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	102.69%	
44) SURR2Flbiphenyl	6.389	172	1138399	99.67	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	99.67%	
62) SURR246Tribphenl	7.426	330	184844	52.77	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	52.77%	
78) SURRTerphenyl-d14	8.685	244	657468	99.29	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	99.29%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.789	74	244781	21.3816	ug/mL	96
3) Pyridine	1.795	79	443419	20.5089	ug/mL	96
5) Aniline	3.207	93	543407	21.0001	ug/mL	100
6) bis2Clethletr	3.278	93	376590	20.3358	ug/mL	97
8) Phenol	3.198	94	484057	20.1683	ug/mL	98
9) 2-Cl-phenol	3.312	128	401144	20.5472	ug/mL	99
10) 13Diclbenz	3.460	146	441366	20.5730	ug/mL	99
11) 14Diclbenz	3.539	146	435038	20.1205	ug/mL	99
12) 12Diclbenz	3.693	146	408844	20.1541	ug/mL	98
13) Benzyl alcoho	3.687	108	229607	22.3110	ug/mL	98
14) bis2clispreth	3.847	45	575567	20.1312	ug/mL	99
15) 2Methylphenol	3.826	107	300643	20.7725	ug/mL	97
16) Ntrspyrrol	3.966	100	191256	21.2213	ug/mL	100
17) Acetophenone	3.983	105	549917	20.7359	ug/mL	99
18) Hexaclethane	4.068	117	183471	19.8848	ug/mL	98
19) N-Ntrsdinprop	4.002	70	278753	20.2179	ug/mL	99
20) 3&4Methylphenol	4.020	107	396542	20.7313	ug/mL	96
23) Nitrobenzene	4.176	77	415125	21.3830	ug/mL	99
24) Isophorone	4.494	82	775430	19.9020	ug/mL	100
25) 2-Nitrophenol	4.579	139	178993	22.3421	ug/mL	95
26) 24Dimthpheno	4.699	122	311705	20.2769	ug/mL	99
27) bis2clethoxym	4.829	93	465228	20.7905	ug/mL	99
28) 24Diclphenol	4.920	162	348905	21.0610	ug/mL	97
29) 124Triclbenz	5.020	180	390506	20.4064	ug/mL	98
30) Benzoic acid	4.923	122	154817	20.4977	ug/mL	90
31) Naphthalene	5.114	128	1289447	20.0632	ug/mL	99
32) 4-Cl-aniline	5.253	127	582942	20.8020	ug/mL	97
33) 26Diclphenol	5.247	162	427823	19.9079	ug/mL	97
34) Hexaclprop	5.261	213	369431	21.9125	ug/mL	97
35) Hexaclbutdien	5.346	225	348140	20.0596	ug/mL	96
36) 4Cl3methylphe	5.935	107	510469	20.5315	ug/mL	98
37) 2Methylnaphth	6.020	142	1045882	20.1662	ug/mL	99
38) 1Methylnaphth	6.114	141	866798	20.4575	ug/mL	100
40) Hxclcycpenti	6.185	237	295744	22.6194	ug/mL	95

Data File : C:\INSTARCH\Data\1S081715\1ICV1.D
 Acq On : 17 Aug 2015 20:21
 Sample : ICV 20ug/ml SVMS6778
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:01:55 2015

Vial: 9
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

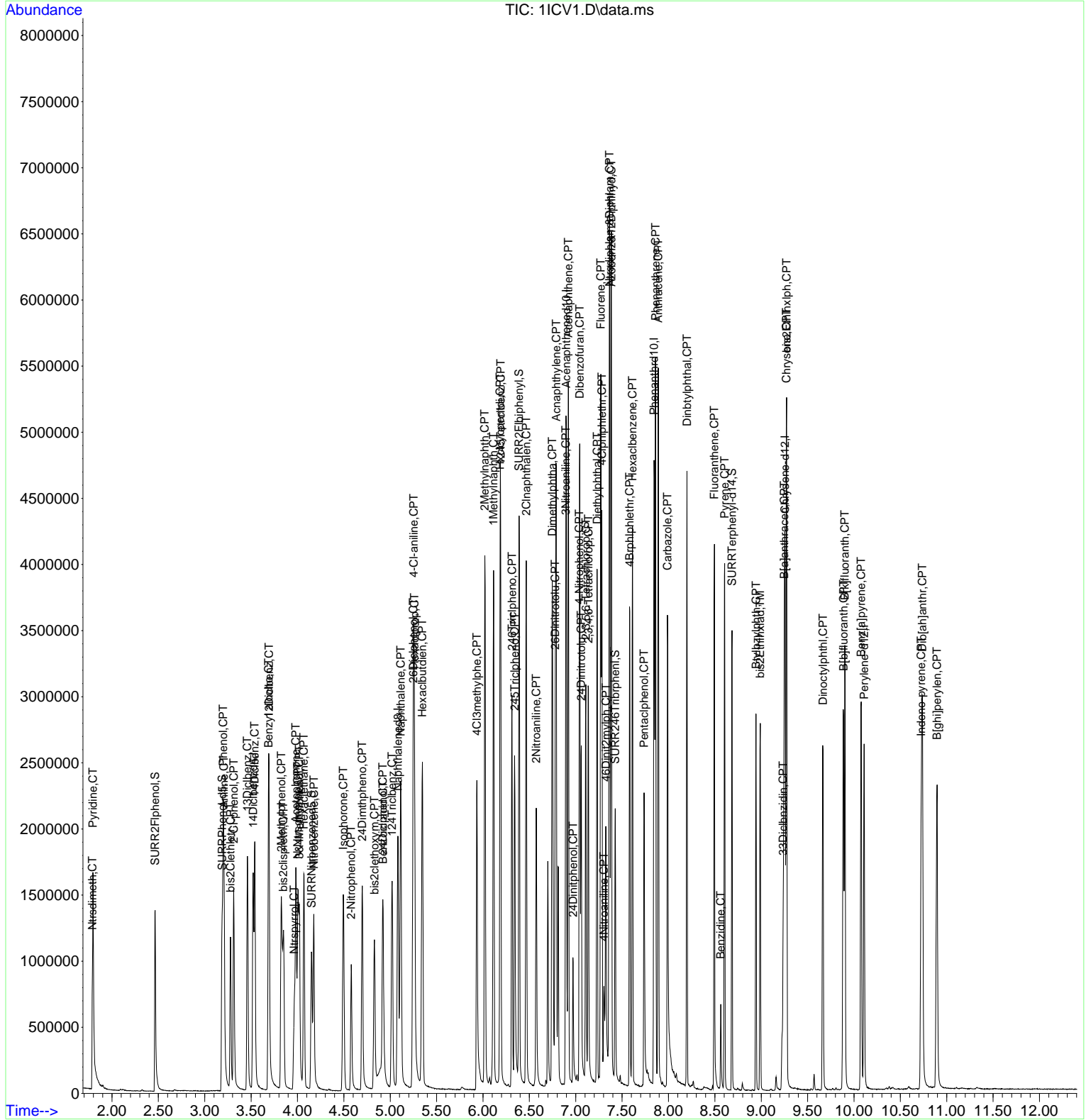
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.190	216	554931	19.7359	ug/mL	99
42) 246Triclpheno	6.313	196	349151	20.9638	ug/mL	97
43) 245Triclpheno	6.341	196	401062	20.8299	ug/mL	98
45) 2Clnaphthalen	6.466	162	1008698	20.3013	ug/mL	99
46) 2Nitroaniline	6.574	65	305565	21.9366	ug/mL	95
47) Acnaphthylene	6.790	152	1548210	20.5872	ug/mL	99
48) Dimethylphtha	6.747	163	1110702	19.9475	ug/mL	99
49) 26Dinitrotolu	6.779	165	231348	21.6077	ug/mL	98
50) Acenaphthene	6.921	154	846712	20.2276	ug/mL	100
51) 3Nitroaniline	6.892	138	210554	20.9392	ug/mL	99
52) 24Dinitphenol	6.972	184	98556	21.2300	ug/mL	98
53) Dibenzofuran	7.043	168	1291054	19.8346	ug/mL	98
54) 24Dinitrotolu	7.060	165	323358	21.6486	ug/mL	98
55) 4-Nitrophenol	7.037	65	179495	21.8064	ug/mL	89
56) 2,3,5,6-Tetrachlorop	7.108	232	292496	21.2633	ug/mL	99
57) 2,3,4,6-Tetrachlorop	7.137	232	333106	21.0551	ug/mL	98
58) Fluorene	7.270	166	1055329	20.4702	ug/mL	99
59) 4Clphlphlethr	7.282	204	540666	21.0836	ug/mL	99
60) Diethylphthal	7.230	149	1152304	19.6834	ug/mL	99
61) 4Nitroaniline	7.304	138	227012	21.7007	ug/mL	97
64) 46Dinit2mylph	7.324	198	161274	23.0405	ug/mL	97
65) Ntrsdiphlam&Diphlam	7.364	169	1384206	41.7767	ug/mL	98
66) Azobenz&12Diphylhyd	7.384	182	412437	39.7951	ug/mL	92
67) 4Brphlphlethr	7.583	248	355720	20.3384	ug/mL	98
68) Hexaclbenzene	7.611	284	406907	19.9232	ug/mL	99
69) Pentaclphenol	7.736	266	221018	21.8103	ug/mL	92
70) Phenanthrene	7.861	178	1574595	19.5369	ug/mL	99
71) Anthracene	7.890	178	1603921	19.8577	ug/mL	100
72) Carbazole	7.989	167	1481491	20.7394	ug/mL	99
73) Dinbtylphthal	8.199	149	1510230	20.0052	ug/mL	100
74) Fluoranthene	8.495	202	1028477	20.2156	ug/mL	100
76) Benzidine	8.563	184	161038	21.9135	ug/mL	99
77) Pyrene	8.606	202	1061736	19.7311	ug/mL	99
79) Btylbzylphth	8.944	149	444702	20.4312	ug/mL	95
80) bis2Ethlhxlad	8.989	129	349987	20.1821	ug/mL	100
81) 33Diclbnzidin	9.236	252	214875	20.1824	ug/mL	99
82) B[a]anthracen	9.248	228	947737	20.1600	ug/mL	99
83) Chrysene	9.271	228	822787	20.7783	ug/mL	100
84) bis2Ethlhxlph	9.273	149	560464	19.8712	ug/mL	99
85) Dinocetylphthl	9.665	149	1161215	21.0673	ug/mL	99
87) B[b]fluoranth	9.887	252	1004473	19.3115	ug/mL	99
88) B[k]fluoranth	9.901	252	980414	19.9019	ug/mL	99
89) Benz[a]pyrene	10.077	252	998316	19.3878	ug/mL	98
90) Indeno-pyrene	10.725	276	1163718	19.7040	ug/mL	99
91) Dib[ah]anthr	10.737	278	956889	19.9338	ug/mL	98
92) B[ghi]perylen	10.896	276	1033360	19.6309	ug/mL	99

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

Vial: 9
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 10:01:25 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



Data File : C:\INSTARCH\Data\1S081715\1ICV2.D
 Acq On : 17 Aug 2015 20:40
 Sample : ICV 40ug/ml SVMS6779
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 20 11:09:42 2015

Vial: 10
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Thu Aug 20 11:09:32 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	106	0.00
2 CT	Ntrsdimeth	40.000	39.521	1.2	110	0.00
3 CT	Pyridine	40.000	38.771	3.1	107	0.00
4 S	SURR2Flphenol	100.000	93.378	6.6	101	0.00
5 CT	Aniline	40.000	38.080	4.8	108	0.00
6 CPT	bis2Clethletr	40.000	37.787	5.5	107	0.00
7 S	SURRPhenol-d5	100.000	88.817	11.2	100	0.00
8 CPT	Phenol	40.000	35.541	11.1	108	0.00
9 CPT	2-Cl-phenol	40.000	38.691	3.3	107	0.00
10 CT	13Diclbenz	40.000	38.063	4.8	108	0.00
11 CT	14Diclbenz	40.000	36.315	9.2	105	0.00
12 CT	12Diclbenz	40.000	35.130	12.2	105	0.00
13 CT	Benzyl alcoho	40.000	41.044	-2.6	109	0.01
14 CPT	bis2clispreth	40.000	37.387	6.5	106	0.00
15 CPT	2Methylphenol	40.000	38.395	4.0	107	0.00
16 CT	Ntrspyrrol	40.000	39.301	1.7	108	0.02
17 CPT	Acetophenone	40.000	38.544	3.6	109	0.01
18 CPT	Hexacethane	40.000	37.090	7.3	107	0.00
19 CPT	N-Ntrsdinprop	40.000	38.688	3.3	109	0.01
20 CPT	3&4Methylphenol	40.000	38.065	4.8	106	0.01
21 I	Naphthalened8	20.000	20.000	0.0	110	0.00
22 S	SURRNitrbenzened5	200.000	194.751	2.6	107	0.01
23 CPT	Nitrobenzene	40.000	39.863	0.3	108	0.01
24 CPT	Isophorone	40.000	37.318	6.7	107	0.01
25 CPT	2-Nitrophenol	40.000	42.985	-7.5	110	0.00
26 CPT	24Dimthpheno	40.000	37.075	7.3	105	0.00
27 CPT	bis2clethoxym	40.000	38.489	3.8	109	0.00
28 CPT	24Diclphenol	40.000	39.198	2.0	110	0.00
29 CT	124Triclbenz	40.000	37.740	5.6	109	0.00
30 CT	Benzoic acid	40.000	43.924	-9.8	122	0.07
31 CPT	Naphthalene	40.000	36.843	7.9	108	0.00
32 CPT	4-Cl-aniline	40.000	39.194	2.0	106	0.01
33 CT	26Diclphenol	40.000	38.992	2.5	106	0.00
34 CT	Hexaclprop	40.000	38.381	4.0	110	0.00
35 CPT	Hexaclbutdien	40.000	36.593	8.5	107	0.00
36 CPT	4Cl3methylphe	40.000	36.792	8.0	106	0.00
37 CPT	2Methylnaphth	40.000	39.174	2.1	105	0.00
38 CT	1Methylnaphth	40.000	40.243	-0.6	107	0.00
39 I	Acenaphthened10	20.000	20.000	0.0	108	0.00
40 CPT	Hxclcycpentdi	40.000	44.870	-12.2	112	0.00
41 CPT	1245Tetrclbenz	40.000	35.250	11.9	106	0.00
42 CPT	246Triclpheno	40.000	40.074	-0.2	108	0.00
43 CPT	245Triclpheno	40.000	40.441	-1.1	108	0.00
44 S	SURR2Flbiphenyl	200.000	179.985	10.0	106	0.00
45 CPT	2Cl-naphthalen	40.000	36.871	7.8	109	0.00
46 CPT	2Nitroaniline	40.000	43.032	-7.6	108	0.00
47 CPT	Acnaphthylene	40.000	40.387	-1.0	109	0.00
48 CPT	Dimethylphtha	40.000	35.531	11.2	105	0.01
49 CPT	26Dinitrotolu	40.000	36.313	9.2	105	0.00
50 CPT	Acenaphthene	40.000	40.509	-1.3	106	0.00
51 CPT	3Nitroaniline	40.000	42.026	-5.1	110	0.00

Data File : C:\INSTARCH\Data\1S081715\1ICV2.D
 Acq On : 17 Aug 2015 20:40
 Sample : ICV 40ug/ml SVMS6779
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 20 11:09:42 2015

Vial: 10
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Thu Aug 20 11:09:32 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	40.000	45.592	-14.0	117	0.00
53 CPT	Dibenzofuran	40.000	38.498	3.8	103	0.00
54 CPT	24Dinitrotolu	40.000	42.274	-5.7	108	0.00
55 CPT	4-Nitrophenol	40.000	39.822	0.4	109	0.00
56 CT	2,3,5,6-Tetrachlorop	40.000	41.638	-4.1	109	0.00
57 CPT	2,3,4,6-Tetrachlorop	40.000	39.578	1.1	106	0.00
58 CPT	Fluorene	40.000	39.691	0.8	104	0.00
59 CPT	4Clphlphlethr	40.000	40.880	-2.2	105	0.00
60 CPT	Diethylphthal	40.000	37.739	5.7	107	0.00
61 CPT	4Nitroaniline	40.000	42.830	-7.1	109	0.01
62 S	SURR246Tribphenl	100.000	99.225	0.8	104	0.00
63 I	Phenanthrd10	20.000	20.000	0.0	110	0.00
64 CPT	46Dinit2mylph	40.000	47.544	-18.9	116	0.01
65 CPT	Ntrsdiphlam&Diphlam	80.000	82.916	-3.6	111	0.00
66 CT	Azobenz&12Diphlyd	80.000	77.639	3.0	107	0.00
67 CPT	4Brphlphlethr	40.000	39.784	0.5	107	0.00
68 CPT	Hexaclbenzene	40.000	39.444	1.4	109	0.00
69 CPT	Pentaclphenol	40.000	43.144	-7.9	113	0.00
70 CPT	Phenanthrene	40.000	38.731	3.2	107	0.00
71 CPT	Anthracene	40.000	38.947	2.6	107	0.00
72 CPT	Carbazole	40.000	39.010	2.5	107	0.00
73 CPT	Dinbtylphthal	40.000	37.909	5.2	107	0.00
74 CPT	Fluoranthene	40.000	39.227	1.9	106	0.00
75 I	Chrysene-d12	20.000	20.000	0.0	108	0.00
76 CT	Benzidine	40.000	40.225	-0.6	106	0.00
77 CPT	Pyrene	40.000	36.716	8.2	105	0.00
78 S	SURRTerphenyl-d14	200.000	184.503	7.7	105	0.00
79 CPT	Btylbzylphth	40.000	38.438	3.9	105	0.00
80 TM	bis2Ethlhxlad	40.000	37.446	6.4	107	0.00
81 CPT	33Diclbnzidin	40.000	41.672	-4.2	109	0.00
82 CPT	B[a]anthracen	40.000	38.584	3.5	108	0.00
83 CPT	Chrysene	40.000	40.977	-2.4	107	0.00
84 CPT	bis2Ethlhxlph	40.000	38.766	3.1	103	0.00
85 CPT	Dinoctylphthl	40.000	39.777	0.6	107	0.00
86 I	Perylene-d12	20.000	20.000	0.0	106	0.00
87 CPT	B[b]fluoranth	40.000	37.502	6.2	105	0.00
88 CPT	B[k]fluoranth	40.000	35.145	12.1	104	0.00
89 CPT	Benz[a]pyrene	40.000	36.273	9.3	104	0.00
90 CPT	Indeno-pyrene	40.000	36.345	9.1	103	0.00
91 CPT	Dib[ah]anthr	40.000	35.402	11.5	103	0.00
92 CPT	B[ghi]perylene	40.000	35.557	11.1	99	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S081715\1ICV2.D
 Acq On : 17 Aug 2015 20:40
 Sample : ICV 40ug/ml SVMS6779
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:04:22 2015

Vial: 10
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.522	152	267830	20.00	ug/mL	0.00
21) Naphthalened8	5.088	136	1093724	20.00	ug/mL	0.00
39) Acenaphthened10	6.898	164	612788	20.00	ug/mL	0.00
63) Phenanthrd10	7.847	188	1408692	20.00	ug/mL	0.00
75) Chrysene-d12	9.262	240	717219	20.00	ug/mL	0.00
86) Perylene-d12	10.112	264	743390	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.465	112	676294	93.38	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	93.38%	
7) SURRPhenol-d5	3.193	99	788245	88.82	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	88.82%	
22) SURRNitrbenzened5	4.162	82	781560	193.91	%REC	0.01
Spiked Amount 100.000	Range 40	- 110	Recovery	=	193.91%#	
44) SURR2Flbiphenyl	6.395	172	1946043	179.99	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	179.99%#	
62) SURR246Tribphenl	7.432	330	331698	100.03	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	100.03%	
78) SURRTerphenyl-d14	8.688	244	1159775	183.31	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	183.31%#	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.789	74	447369	39.5213	ug/mL	93
3) Pyridine	1.795	79	828843	38.7707	ug/mL	99
5) Aniline	3.215	93	974311	38.0799	ug/mL	100
6) bis2Clethletr	3.284	93	691913	37.7875	ug/mL	98
8) Phenol	3.207	94	843444	35.5412	ug/mL	87
9) 2-Cl-phenol	3.315	128	746893	38.6913	ug/mL	97
10) 13Diclbenz	3.463	146	807416	38.0627	ug/mL	98
11) 14Diclbenz	3.542	146	776371	36.3148	ug/mL	99
12) 12Diclbenz	3.696	146	704634	35.1296	ug/mL	98
13) Benzyl alcoho	3.699	108	417651	41.0442	ug/mL	99
14) bis2clispreth	3.850	45	1056917	37.3868	ug/mL	99
15) 2Methylphenol	3.832	107	549460	38.3952	ug/mL	97
16) Ntrspyrrol	3.985	100	350224	39.3012	ug/mL	95
17) Acetophenone	3.994	105	1010703	38.5436	ug/mL	98
18) Hexaclethane	4.071	117	338376	37.0900	ug/mL	93
19) N-Ntrsdinprop	4.017	70	527420	38.6881	ug/mL	98
20) 3&4Methylphenol	4.034	107	719917	38.0647	ug/mL	97
23) Nitrobenzene	4.184	77	787401	39.6921	ug/mL	97
24) Isophorone	4.505	82	1479357	37.1575	ug/mL	100
25) 2-Nitrophenol	4.585	139	361114	44.1113	ug/mL	96
26) 24Dimthpheno	4.707	122	579867	36.9152	ug/mL	98
27) bis2clethoxym	4.838	93	876280	38.3231	ug/mL	99
28) 24Diclphenol	4.929	162	660700	39.0296	ug/mL	99
29) 124Triclbenz	5.023	180	734816	37.5781	ug/mL	98
30) Benzoic acid	4.989	122	379400	43.7583	ug/mL	94
31) Naphthalene	5.119	128	2409164	36.6844	ug/mL	99
32) 4-Cl-aniline	5.264	127	978286	38.9547	ug/mL	98
33) 26Diclphenol	5.256	162	744596	33.9078	ug/mL	96
34) Hexaclprop	5.264	213	662372	38.4484	ug/mL	98
35) Hexaclbutdien	5.349	225	646160	36.4357	ug/mL	97
36) 4Cl3methylphe	5.938	107	930717	36.6342	ug/mL	99
37) 2Methylnaphth	6.026	142	1796881	38.9330	ug/mL	98
38) 1Methylnaphth	6.119	141	1483918	39.8934	ug/mL	99
40) Hxclcycpenti	6.188	237	555357	44.8706	ug/mL	97

Data File : C:\INSTARCH\Data\1S081715\1ICV2.D
 Acq On : 17 Aug 2015 20:40
 Sample : ICV 40ug/ml SVMS6779
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Aug 18 10:04:22 2015

Vial: 10
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

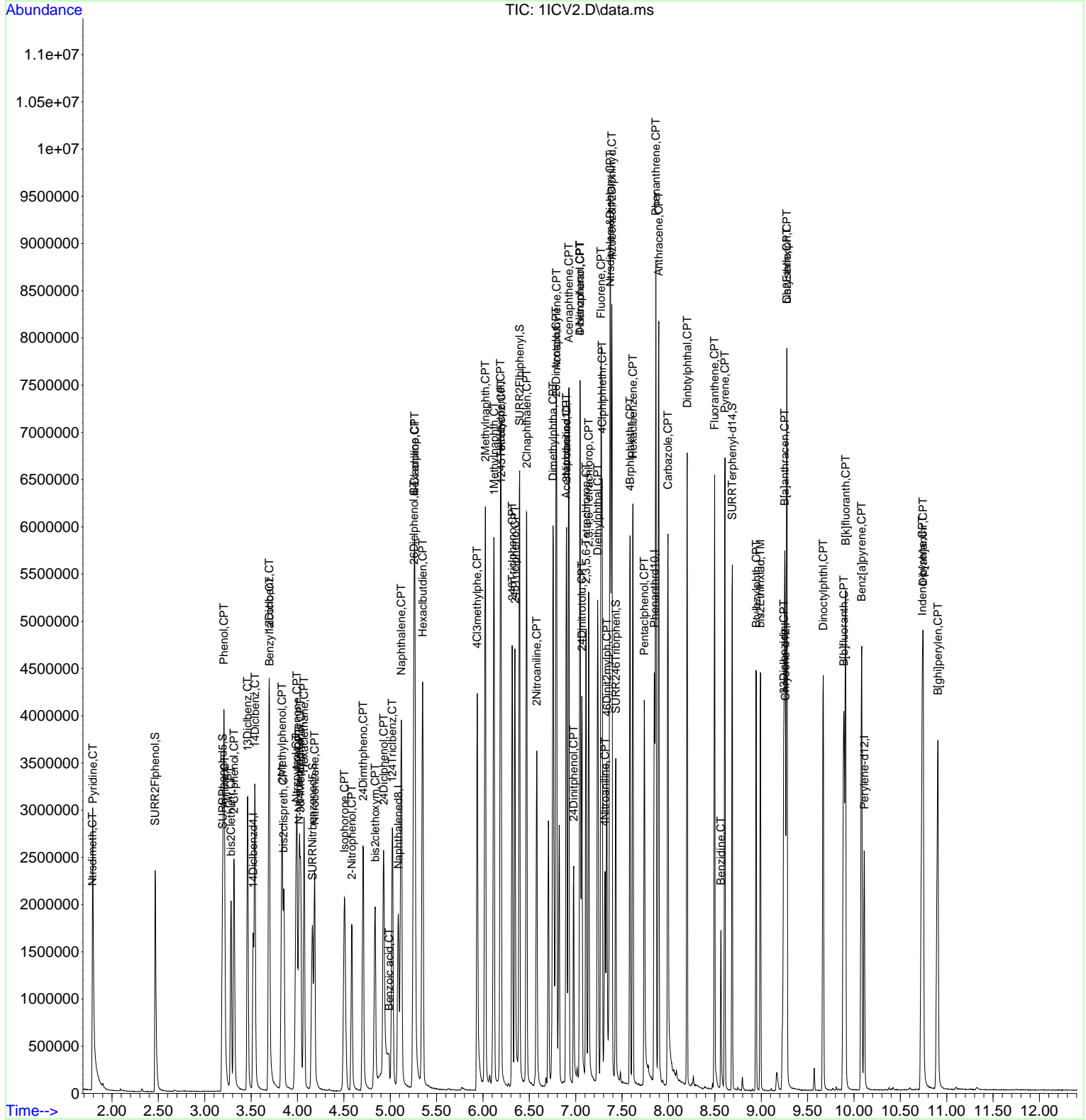
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Aug 18 10:01:25 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.196	216	938258	35.2504	ug/mL	98
42) 246Triclpheno	6.315	196	631821	40.0752	ug/mL	98
43) 245Triclpheno	6.344	196	737117	40.4423	ug/mL	98
45) 2Clnaphthalen	6.472	162	1734248	36.8721	ug/mL	99
46) 2Nitroaniline	6.580	65	567431	43.0331	ug/mL	96
47) Acnaphthylene	6.793	152	2507644	40.3889	ug/mL	99
48) Dimethylphtha	6.756	163	1872832	35.5314	ug/mL	99
49) 26Dinitrotolu	6.787	165	368051	36.3140	ug/mL	91
50) Acenaphthene	6.926	154	1432368	40.5104	ug/mL	99
51) 3Nitroaniline	6.901	138	400047	42.0273	ug/mL	97
52) 24Dinitphenol	6.978	184	237743	45.5929	ug/mL	91
53) Dibenzofuran	7.046	168	2087990	38.4988	ug/mL	91
54) 24Dinitrotolu	7.066	165	597750	42.2755	ug/mL	98
55) 4-Nitrophenol	7.046	65	310300	39.8233	ug/mL#	24
56) 2,3,5,6-Tetrachlorop	7.111	232	542214	41.6395	ug/mL	98
57) 2,3,4,6-Tetrachlorop	7.139	232	592740	39.5788	ug/mL	98
58) Fluorene	7.273	166	1682302	39.6926	ug/mL	100
59) 4Clphlphlethr	7.284	204	879331	40.8817	ug/mL	98
60) Diethylphthal	7.236	149	2091466	37.7404	ug/mL	100
61) 4Nitroaniline	7.316	138	473121	47.7773	ug/mL	97
64) 46Dinit2mylph	7.336	198	337262	48.0070	ug/mL	96
65) Ntrsdiphlam&Diphlam	7.372	169	2217499	82.8734	ug/mL	97
66) Azobenz&12Diphylhyd	7.390	182	677352	77.6055	ug/mL#	85
67) 4Brphlphlethr	7.586	248	593681	39.7677	ug/mL	99
68) Hexaclbenzene	7.617	284	714215	39.4297	ug/mL	98
69) Pentaclphenol	7.739	266	438696	43.1328	ug/mL	97
70) Phenanthrene	7.864	178	2600603	38.7134	ug/mL	99
71) Anthracene	7.895	178	2713672	38.9312	ug/mL	99
72) Carbazole	7.995	167	2612528	40.6880	ug/mL	99
73) Dinbtylphthal	8.202	149	2522795	37.8944	ug/mL	99
74) Fluoranthene	8.498	202	1802592	39.2134	ug/mL	100
76) Benzidine	8.566	184	441058	40.0818	ug/mL	98
77) Pyrene	8.609	202	1884933	36.6622	ug/mL	98
79) Btylbzylphth	8.947	149	794220	38.1903	ug/mL	91
80) bis2Ethlhxlad	8.992	129	616444	37.2046	ug/mL	99
81) 33Diclbnzidin	9.242	252	422198	41.4092	ug/mL	99
82) B[a]anthracen	9.254	228	1721927	38.3358	ug/mL	98
83) Chrysene	9.276	228	1390383	40.6434	ug/mL	100
84) bis2Ethlhxlph	9.276	149	880254	38.3752	ug/mL	98
85) Dinocetylphthl	9.668	149	2081346	39.5211	ug/mL	99
87) B[b]fluoranth	9.890	252	1931991	37.5019	ug/mL	100
88) B[k]fluoranth	9.910	252	1714753	35.1446	ug/mL	99
89) Benz[a]pyrene	10.083	252	1849915	36.2731	ug/mL	99
90) Indeno-pyrene	10.737	276	2138466	36.5579	ug/mL	99
91) Dib[ah]anthr	10.745	278	1697512	35.7036	ug/mL	99
92) B[ghi]perylene	10.904	276	1853793	35.5566	ug/mL	100

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

Vial: 10
Operator: RPN
Inst : SVM51
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Aug 18 10:01:25 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M

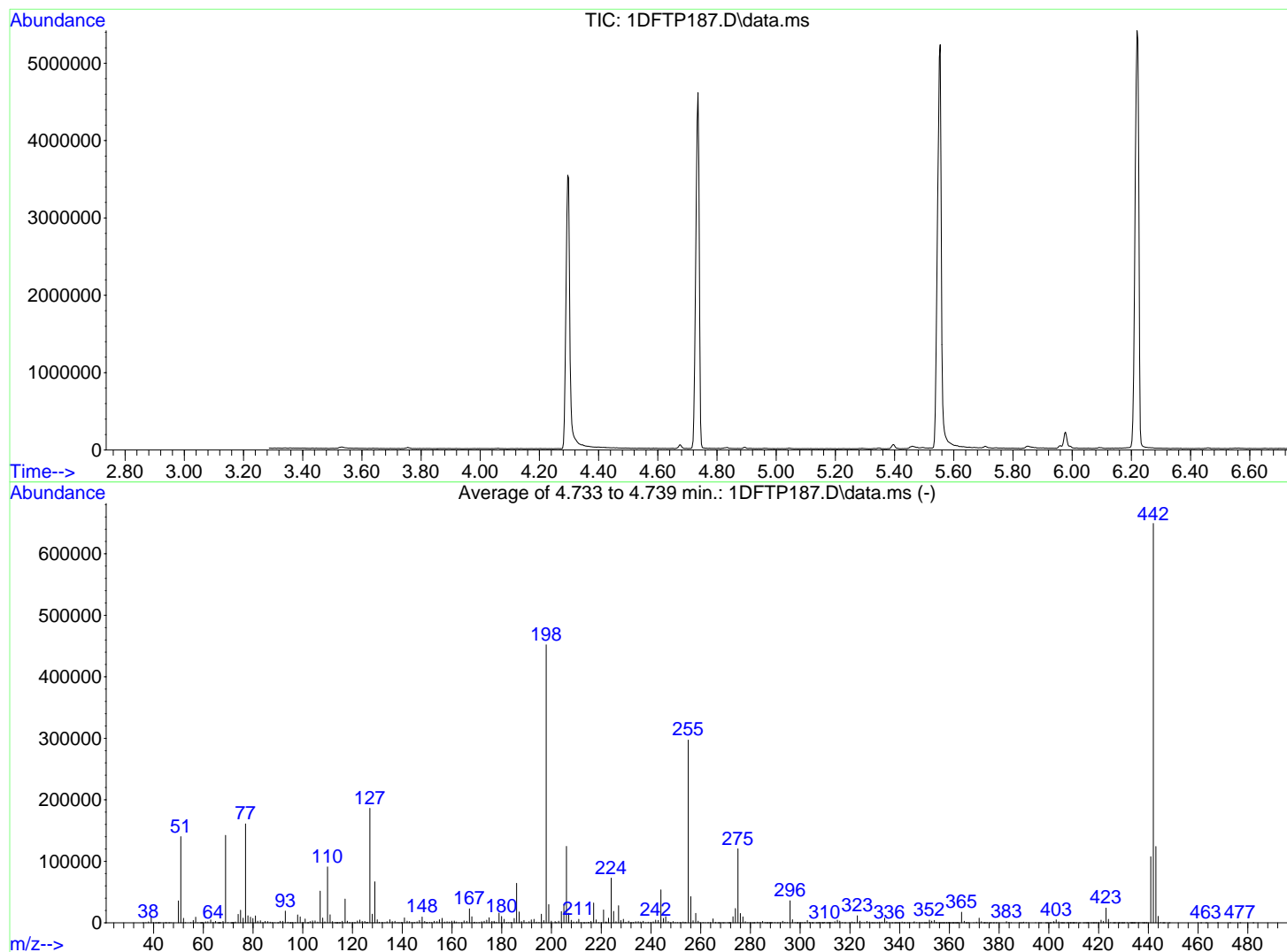


**SEMI - VOLATILE ORGANIC ANALYSIS
CONTINUING CALIBRATION
DOCUMENTS**

Data File : C:\INSTARCH\Data\1S090915\1DFTP187.D
Acq On : 9 Sep 2015 10:41
Sample : DFTPP TUNE SVMS6642
Misc : SVMS1,25 ug DFTPP
Integrator: RTE

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Method : C:\INSTARCH\Methods\1DFTPP.M
Title : DFTPP TUNE Method
Last Update : Wed Sep 09 10:42:46 2015



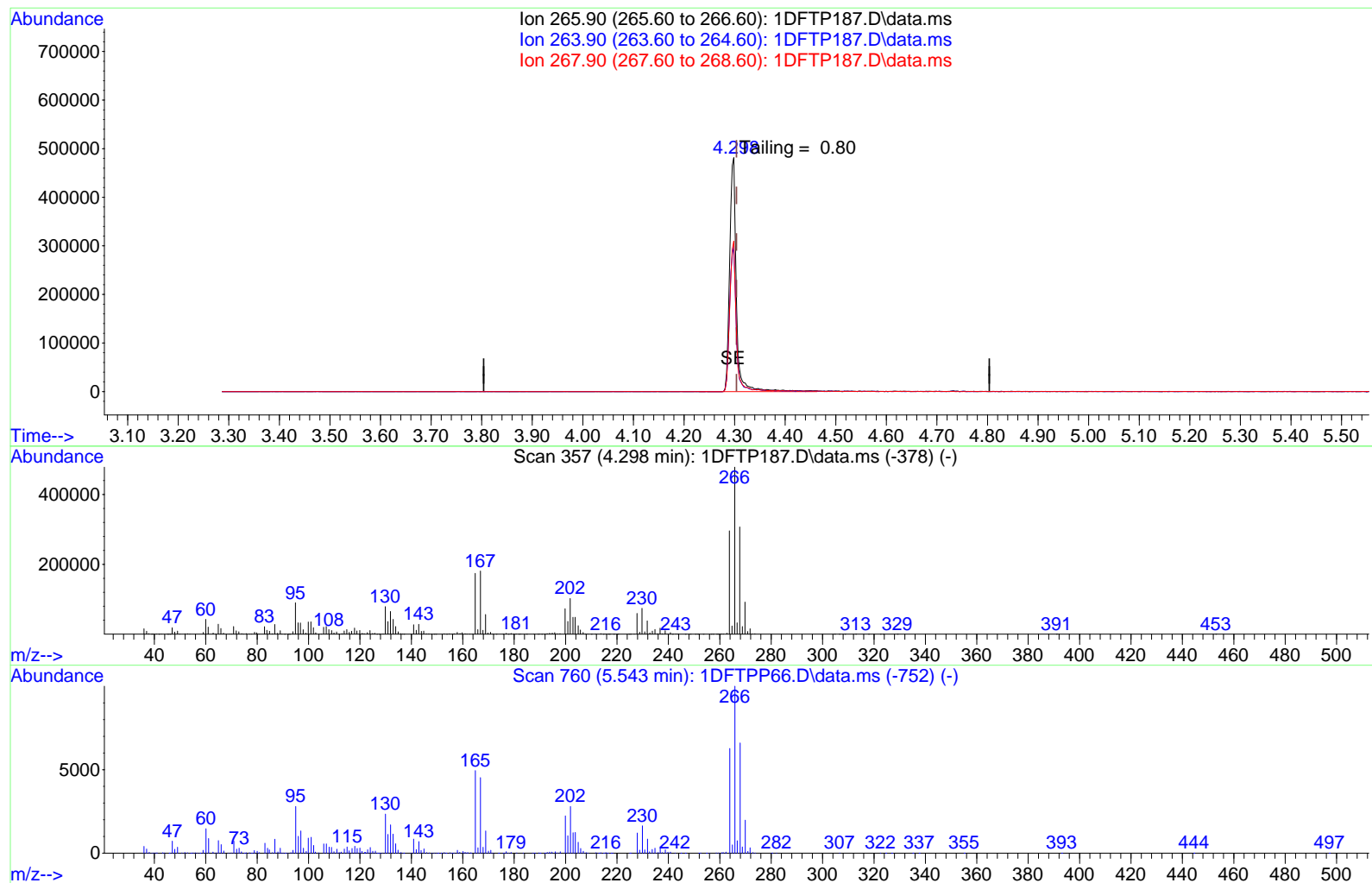
AutoFind: Scans 510, 511, 512; Background Corrected with Scan 500

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	442	10	80	21.6	140176	PASS
68	69	0.00	2	1.6	2284	PASS
70	69	0.00	2	0.4	588	PASS
127	442	10	80	28.7	186240	PASS
197	198	0.00	2	0.8	3619	PASS
198	442	50	100	69.6	452053	PASS
199	198	5	9	6.6	29733	PASS
275	442	10	60	18.5	120304	PASS
365	198	1	100	3.8	17304	PASS
441	442	0.01	24	16.5	107392	PASS
442	442	50	100	100.0	649344	PASS
443	442	15	24	19.1	124066	PASS

Data File : C:\INSTARCH\Data\1S090915\1DFTP187.D
Acq On : 9 Sep 2015 10:41
Sample : DFTPP TUNE SVMS6642
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Sep 09 13:38:47 2015

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Wed Sep 09 10:42:46 2015
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP187.D\data.ms

(1) Pentachlorophenol

4.298min (-0.006) 28.95 ng

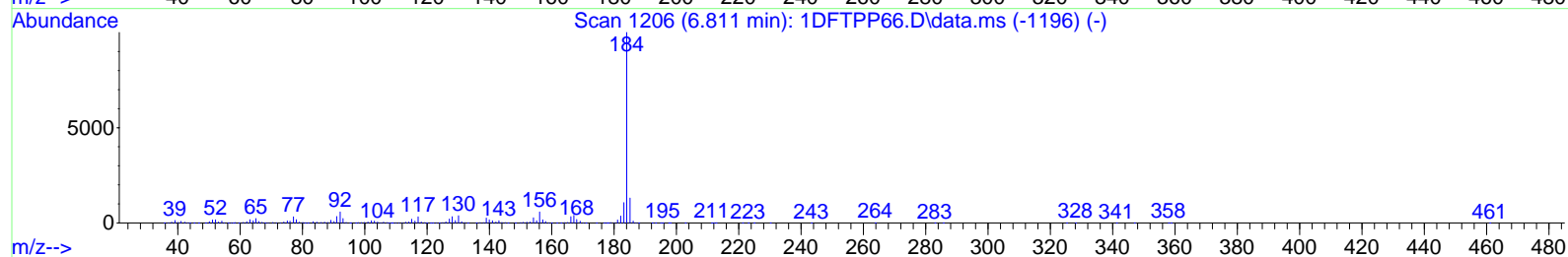
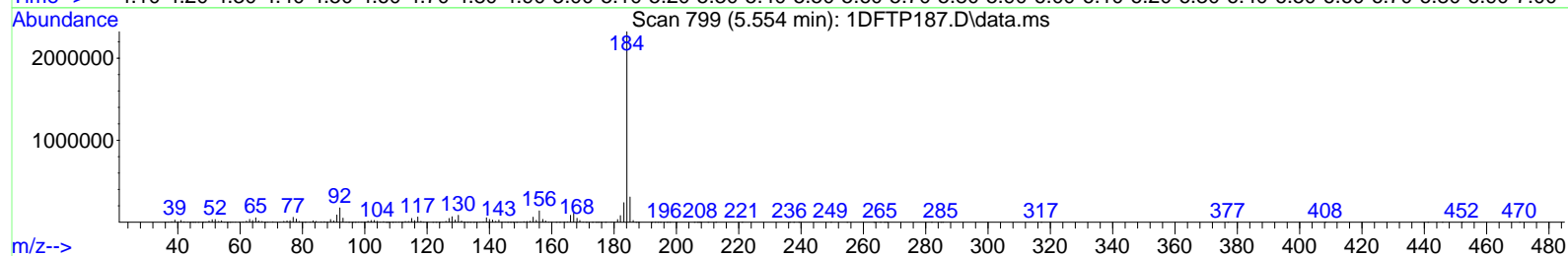
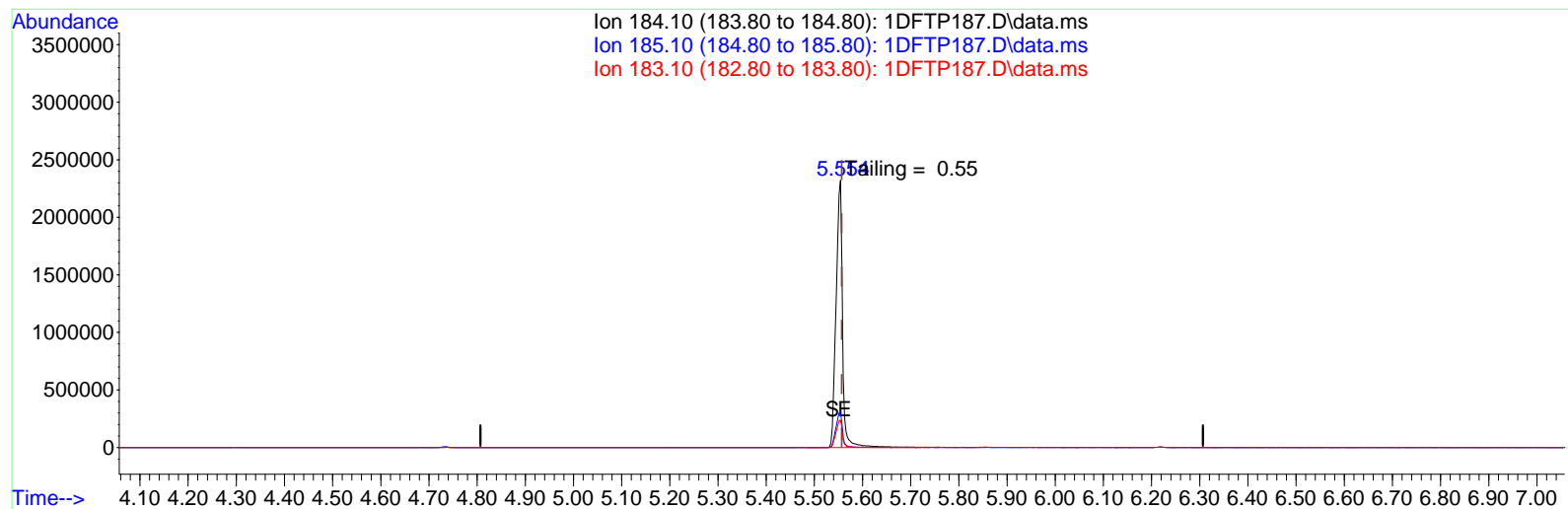
response 430372

Ion	Exp%	Act%
265.90	100	100
263.90	66.20	62.17
267.90	60.90	64.35
0.00	0.00	0.00

Data File : C:\INSTARCH\Data\1S090915\1DFTP187.D
Acq On : 9 Sep 2015 10:41
Sample : DFTPP TUNE SVMS6642
Misc : SVMS1,25 ug DFTPP
Integrator: RTE
Quant Time: Sep 09 13:38:47 2015

Vial: 1
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Quant Title : DFTPP TUNE Method
QLast Update : Wed Sep 09 10:42:46 2015
Response via : Initial Calibration
DataAcq Meth:1DFTPP.M



TIC: 1DFTP187.D\data.ms

(3) Benzidine

5.554min (-0.003) 24.29 ng

response 2130007

Ion	Exp%	Act%
184.10	100	100
185.10	13.80	13.90
183.10	12.20	10.56
0.00	0.00	0.00

Data File : 1DFTP187.D
Data File Path : C:\INSTARCH\Data\1S090915\
Date Acquired : 9/9/2015 10:41
Sample Name : DFTPP TUNE SVMS6642
Misc Info : SVMS1,25 ug DFTPP

Vial Number : 1
Operator : RPN
Instrument Name: SVMS1
Sample Multiplier: 1

Quant Method : C:\INSTARCH\Methods\1DFTPP.M
Calibration Title : DFTPP TUNE Method
Last Update : Wed Sep 09 10:42:46 2015

Compound	R.T.	Qlon	Response
1) Pentachlorophenol	4.30	266	430372
2) DFTPP	4.74	198	401448
3) Benzidine	5.55	184	2130007
4) DDE	5.71	246	1300
5) DDD	5.98	235	34717
6) DDT	6.22	235	987635

DDT %Degradation

DDD + DDE	x	100%	3.52 %
DDD + DDE + DDT			

Data File : C:\INSTARCH\Data\1S090915\1CCV261.D
 Acq On : 9 Sep 2015 10:58
 Sample : CCV 20ug/ml SVMS6780
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Sep 09 11:13:41 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 11:13:37 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	20.000	20.000	0.0	112	0.00
2 CT	Ntrsdimeth	20.000	20.856	-4.3	119	0.00
3 CT	Pyridine	20.000	19.969	0.2	119	0.00
4 S	SURR2Flphenol	50.000	48.307	3.4	112	0.00
5 CT	Aniline	20.000	19.312	3.4	113	0.00
6 CPT	bis2Clethletr	20.000	19.320	3.4	115	0.00
7 S	SURRPhenol-d5	50.000	45.922	8.2	107	0.00
8 CPT	Phenol	20.000	20.358	-1.8	121	0.00
9 CPT	2-Cl-phenol	20.000	20.590	-2.9	122	0.00
10 CT	13Diclbenz	20.000	21.034	-5.2	126	0.00
11 CT	14Diclbenz	20.000	19.937	0.3	119	0.00
12 CT	12Diclbenz	20.000	20.637	-3.2	123	0.00
13 CT	Benzyl alcoho	20.000	21.352	-6.8	116	0.00
14 CPT	bis2clispreth	20.000	18.274	8.6	108	0.00
15 CPT	2Methylphenol	20.000	20.017	-0.1	118	0.00
16 CT	Ntrspyrrol	20.000	20.153	-0.8	116	0.00
17 CPT	Acetophenone	20.000	20.495	-2.5	120	-0.01
18 CPT	Hexaclethane	20.000	20.206	-1.0	123	0.00
19 CPT	N-Ntrsdinprop	20.000	19.859	0.7	118	-0.01
20 CPT	3&4Methylphenol	20.000	20.554	-2.8	120	0.00
21 I	Naphthalened8	20.000	20.000	0.0	106	-0.01
22 S	SURRNitrbenzened5	100.000	109.546	-9.5	120	0.00
23 CPT	Nitrobenzene	20.000	22.064	-10.3	117	-0.01
24 CPT	Isophorone	20.000	19.717	1.4	113	-0.01
25 CPT	2-Nitrophenol	20.000	22.758	-13.8	118	-0.01
26 CPT	24Dimthpheno	20.000	19.999	0.0	112	-0.01
27 CPT	bis2clethoxym	20.000	20.541	-2.7	115	0.00
28 CPT	24Diclphenol	20.000	22.661	-13.3	123	-0.01
29 CT	124Triclbenz	20.000	22.447	-12.2	125	-0.01
30 CT	Benzoic acid	20.000	22.797	-14.0	131	-0.01
31 CPT	Naphthalene	20.000	18.340	8.3	104	-0.01
32 CPT	4-Cl-aniline	20.000	19.168	4.2	107	-0.01
33 CT	26Diclphenol	20.000	18.524	7.4	106	-0.01
34 CT	Hexaclprop	20.000	22.096	-10.5	120	-0.01
35 CPT	Hexaclbutdien	20.000	23.116	-15.6	131	-0.01
36 CPT	4Cl3methylphe	20.000	21.528	-7.6	119	0.00
37 CPT	2Methylnaphth	20.000	22.476	-12.4	123	0.00
38 CT	1Methylnaphth	20.000	21.887	-9.4	121	0.09
39 I	Acenaphthened10	20.000	20.000	0.0	114	0.00
40 CPT	Hxclcycpentdi	20.000	23.642	-18.2	134	0.00
41 CPT	1245Tetrclbenz	20.000	20.387	-1.9	124	0.00
42 CPT	246Triclpheno	20.000	21.704	-8.5	130	0.00
43 CPT	245Triclpheno	20.000	21.274	-6.4	128	0.00
44 S	SURR2Flbiphenyl	100.000	101.044	-1.0	122	0.00
45 CPT	2Cl-naphthalen	20.000	20.039	-0.2	122	0.00
46 CPT	2Nitroaniline	20.000	20.746	-3.7	120	0.00
47 CPT	Acnaphthylene	20.000	19.538	2.3	116	0.00
48 CPT	Dimethylphtha	20.000	19.854	0.7	121	0.00
49 CPT	26Dinitrotolu	20.000	20.280	-1.4	116	0.00
50 CPT	Acenaphthene	20.000	20.507	-2.5	124	0.00
51 CPT	3Nitroaniline	20.000	21.302	-6.5	131	0.00

Data File : C:\INSTARCH\Data\1S090915\1CCV261.D
 Acq On : 9 Sep 2015 10:58
 Sample : CCV 20ug/ml SVMS6780
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Sep 09 11:13:41 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 11:13:37 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	20.000	22.426	-12.1	150	0.00
53 CPT	Dibenzofuran	20.000	21.675	-8.4	129	0.00
54 CPT	24Dinitrotolu	20.000	22.181	-10.9	127	0.00
55 CPT	4-Nitrophenol	20.000	23.937	-19.7	138	0.00
56 CT	2,3,5,6-Tetrachlorop	20.000	23.023	-15.1	133	0.00
57 CPT	2,3,4,6-Tetrachlorop	20.000	22.094	-10.5	131	0.00
58 CPT	Fluorene	20.000	21.040	-5.2	125	0.00
59 CPT	4Clphlphlethr	20.000	21.611	-8.1	128	0.00
60 CPT	Diethylphthal	20.000	19.525	2.4	123	0.00
61 CPT	4Nitroaniline	20.000	22.070	-10.4	138	0.00
62 S	SURR246Tribphenl	50.000	55.572	-11.1	125	0.00
63 I	Phenanthrd10	20.000	20.000	0.0	119	0.00
64 CPT	46Dinit2mylph	20.000	22.521	-12.6	137	0.00
65 CPT	Ntrsdiphlam&Diphlam	40.000	41.458	-3.6	131	0.00
66 CT	Azobenz&12Diphhlhyd	40.000	39.841	0.4	127	0.00
67 CPT	4Brphlphlethr	20.000	20.651	-3.3	128	0.00
68 CPT	Hexaclbenzene	20.000	20.635	-3.2	128	0.00
69 CPT	Pentaclphenol	20.000	22.982	-14.9	136	0.00
70 CPT	Phenanthrene	20.000	19.136	4.3	125	0.00
71 CPT	Anthracene	20.000	19.917	0.4	125	0.00
72 CPT	Carbazole	20.000	19.005	5.0	120	0.00
73 CPT	Dinbtylphthal	20.000	21.987	-9.9	135	0.00
74 CPT	Fluoranthene	20.000	19.493	2.5	122	0.00
75 I	Chrysene-d12	20.000	20.000	0.0	121	0.00
76 CT	Benzidine	20.000	20.847	-4.2	145	0.00
77 CPT	Pyrene	20.000	19.140	4.3	127	0.00
78 S	SURRTerphenyl-d14	100.000	95.333	4.7	126	0.00
79 CPT	Btylbzylphth	20.000	19.707	1.5	122	0.00
80 TM	bis2Ethlhxlad	20.000	19.690	1.5	123	0.00
81 CPT	33Diclbnzidin	20.000	22.553	-12.8	141	0.00
82 CPT	B[a]anthracen	20.000	19.413	2.9	125	0.00
83 CPT	Chrysene	20.000	21.328	-6.6	136	0.00
84 CPT	bis2Ethlhxlph	20.000	21.036	-5.2	132	0.00
85 CPT	Dinoctylphthl	20.000	20.244	-1.2	121	0.00
86 I	Perylene-d12	20.000	20.000	0.0	126	-0.01
87 CPT	B[b]fluoranth	20.000	18.825	5.9	128	0.00
88 CPT	B[k]fluoranth	20.000	17.724	11.4	109	0.00
89 CPT	Benz[a]pyrene	20.000	19.035	4.8	125	0.00
90 CPT	Indeno-pyrene	20.000	19.144	4.3	121	0.00
91 CPT	Dib[ah]anthr	20.000	19.204	4.0	121	-0.01
92 CPT	B[ghi]perylen	20.000	19.108	4.5	121	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data File : C:\INSTARCH\Data\1S090915\1CCV261.D
 Acq On : 9 Sep 2015 10:58
 Sample : CCV 20ug/ml SVMS6780
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Sep 09 11:13:41 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 11:13:37 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	14Diclbenzd4	1.000	1.000	0.0	112	0.00
2 CT	Ntrsdimeth	0.845	0.881	-4.3	119	0.00
3 CT	Pyridine	1.596	1.594	0.1	119	0.00
4 S	SURR2Flphenol	0.541	0.523	3.3	112	0.00
5 CT	Aniline	1.911	1.845	3.5	113	0.00
6 CPT	bis2Clethletr	1.367	1.321	3.4	115	0.00
7 S	SURRPhenol-d5	0.663	0.609	8.1	107	0.00
8 CPT	Phenol	1.772	1.804	-1.8	121	0.00
9 CPT	2-Cl-phenol	1.442	1.484	-2.9	122	0.00
10 CT	13Diclbenz	1.584	1.666	-5.2	126	0.00
11 CT	14Diclbenz	1.596	1.591	0.3	119	0.00
12 CT	12Diclbenz	1.498	1.546	-3.2	123	0.00
13 CT	Benzyl alcoho	0.760	0.811	-6.7	116	0.00
14 CPT	bis2clispreth	2.111	1.929	8.6	108	0.00
15 CPT	2Methylphenol	1.069	1.070	-0.1	118	0.00
16 CT	Ntrspyrrol	0.665	0.671	-0.9	116	0.00
17 CPT	Acetophenone	1.958	2.007	-2.5	120	-0.01
18 CPT	Hexaclethane	0.681	0.688	-1.0	123	0.00
19 CPT	N-Ntrsdinprop	1.018	1.011	0.7	118	-0.01
20 CPT	3&4Methylphenol	1.412	1.451	-2.8	120	0.00
21 I	Naphthalened8	1.000	1.000	0.0	106	-0.01
22 S	SURRNitrbenzened5	0.074	0.081	-9.5	120	0.00
23 CPT	Nitrobenzene	0.363	0.400	-10.2	117	-0.01
24 CPT	Isophorone	0.728	0.718	1.4	113	-0.01
25 CPT	2-Nitrophenol	0.150	0.170	-13.3	118	-0.01
26 CPT	24Dimthpheno	0.287	0.287	0.0	112	-0.01
27 CPT	bis2clethoxym	0.418	0.429	-2.6	115	0.00
28 CPT	24Diclphenol	0.310	0.351	-13.2	123	-0.01
29 CT	124Triclbenz	0.358	0.401	-12.0	125	-0.01
30 CT	Benzoic acid	0.134	0.164	-22.4#	131	-0.01
31 CPT	Naphthalene	1.201	1.101	8.3	104	-0.01
32 CPT	4-Cl-aniline	0.533	0.508	4.7	107	-0.01
33 CT	26Diclphenol	0.402	0.372	7.5	106	-0.01
34 CT	Hexaclprop	0.315	0.348	-10.5	120	-0.01
35 CPT	Hexaclbutdien	0.324	0.375	-15.7	131	-0.01
36 CPT	4Cl3methylphe	0.465	0.500	-7.5	119	0.00
37 CPT	2Methylnaphth	0.986	1.071	-8.6	123	0.00
38 CT	1Methylnaphth	0.823	0.857	-4.1	121	0.09
39 I	Acenaphthened10	1.000	1.000	0.0	114	0.00
40 CPT	Hxclcycpentdi	0.404	0.478	-18.3	134	0.00
41 CPT	1245Tetrclbenz	0.869	0.886	-2.0	124	0.00
42 CPT	246Triclpheno	0.515	0.558	-8.3	130	0.00
43 CPT	245Triclpheno	0.595	0.633	-6.4	128	0.00
44 S	SURR2Flbiphenyl	0.353	0.357	-1.1	122	0.00
45 CPT	2Cl-naphthalen	1.535	1.538	-0.2	122	0.00
46 CPT	2Nitroaniline	0.430	0.446	-3.7	120	0.00
47 CPT	Acnaphthylene	2.404	2.286	4.9	116	0.00
48 CPT	Dimethylphtha	1.720	1.708	0.7	121	0.00
49 CPT	26Dinitrotolu	0.331	0.335	-1.2	116	0.00
50 CPT	Acenaphthene	1.345	1.324	1.6	124	0.00
51 CPT	3Nitroaniline	0.311	0.331	-6.4	131	0.00

Data File : C:\INSTARCH\Data\1S090915\1CCV261.D
 Acq On : 9 Sep 2015 10:58
 Sample : CCV 20ug/ml SVMS6780
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Sep 09 11:13:41 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 11:13:37 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
52 CPT	24Dinitphenol	0.130	0.163	-25.4#	150#	0.00
53 CPT	Dibenzofuran	2.063	2.153	-4.4	129	0.00
54 CPT	24Dinitrotolu	0.461	0.512	-11.1	127	0.00
55 CPT	4-Nitrophenol	0.254	0.304	-19.7	138	0.00
56 CT	2,3,5,6-Tetrachlorop	0.425	0.489	-15.1	133	0.00
57 CPT	2,3,4,6-Tetrachlorop	0.489	0.540	-10.4	131	0.00
58 CPT	Fluorene	1.643	1.669	-1.6	125	0.00
59 CPT	4Clphlphlethr	0.816	0.853	-4.5	128	0.00
60 CPT	Diethylphthal	1.809	1.766	2.4	123	0.00
61 CPT	4Nitroaniline	0.323	0.357	-10.5	138	0.00
62 S	SURR246Tribrphenl	0.108	0.120	-11.1	125	0.00
63 I	Phenanthrd10	1.000	1.000	0.0	119	0.00
64 CPT	46Dinit2mylph	0.100	0.112	-12.0	137	0.00
65 CPT	Ntrsdiphlam&Diphlam	0.502	0.490	2.4	131	0.00
66 CT	Azobenz&12Diphhlhyd	0.155	0.147	5.2	127	0.00
67 CPT	4Brphlphlethr	0.251	0.257	-2.4	128	0.00
68 CPT	Hexaclbenzene	0.301	0.299	0.7	128	0.00
69 CPT	Pentaclphenol	0.144	0.166	-15.3	136	0.00
70 CPT	Phenanthrene	1.160	1.103	4.9	125	0.00
71 CPT	Anthracene	1.200	1.146	4.5	125	0.00
72 CPT	Carbazole	1.066	0.977	8.3	120	0.00
73 CPT	Dinbtylphthal	1.111	1.166	-5.0	135	0.00
74 CPT	Fluoranthene	0.747	0.709	5.1	122	0.00
75 I	Chrysene-d12	1.000	1.000	0.0	121	0.00
76 CT	Benzidine	0.212	0.198	6.6	145	0.00
77 CPT	Pyrene	1.434	1.372	4.3	127	0.00
78 S	SURRTerphenyl-d14	0.176	0.168	4.5	126	0.00
79 CPT	Btylbzylphth	0.580	0.571	1.6	122	0.00
80 TM	bis2Ethlhxlad	0.462	0.455	1.5	123	0.00
81 CPT	33Diclbnzidin	0.316	0.319	-0.9	141	0.00
82 CPT	B[a]anthracen	1.253	1.216	3.0	125	0.00
83 CPT	Chrysene	1.100	1.122	-2.0	136	0.00
84 CPT	bis2Ethlhxlph	0.750	0.783	-4.4	132	0.00
85 CPT	Dinoctylphthl	1.469	1.486	-1.2	121	0.00
86 I	Perylene-d12	1.000	1.000	0.0	126	-0.01
87 CPT	B[b]fluoranth	1.386	1.305	5.8	128	0.00
88 CPT	B[k]fluoranth	1.313	1.163	11.4	109	0.00
89 CPT	Benz[a]pyrene	1.372	1.306	4.8	125	0.00
90 CPT	Indeno-pyrene	1.574	1.506	4.3	121	0.00
91 CPT	Dib[ah]anthr	1.279	1.228	4.0	121	-0.01
92 CPT	B[ghi]perylen	1.403	1.340	4.5	121	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 2

Data File : C:\INSTARCH\Data\1S090915\1CCV261.D
 Acq On : 9 Sep 2015 10:58
 Sample : CCV 20ug/ml SVMS6780
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Sep 09 11:13:41 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 11:13:37 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.429	152	299956	20.00	ug/mL	0.00
21) Naphthalened8	4.971	136	1106534	20.00	ug/mL	0.00
39) Acenaphthened10	6.838	164	726745	20.00	ug/mL	0.00
63) Phenanthrd10	7.796	188	1609294	20.00	ug/mL	0.00
75) Chrysene-d12	9.208	240	898327	20.00	ug/mL	0.00
86) Perylene-d12	10.046	264	902022	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.394	112	391832	48.31	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	48.31%	
7) SURRPhenol-d5	3.110	99	456440	45.92	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	45.92%	
22) SURRNitrbenzened5	4.054	82	446689	109.55	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	109.55%	
44) SURR2Flbiphenyl	6.324	172	1295645	101.04	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	101.04%	
62) SURR246Tribphenl	7.378	330	218535	55.57	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	55.57%	
78) SURRTerphenyl-d14	8.643	244	755448	95.33	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	95.33%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.724	74	264401	20.8560	ug/mL	96
3) Pyridine	1.729	79	478100	19.9688	ug/mL	100
5) Aniline	3.122	93	553377	19.3117	ug/mL	98
6) bis2Clethletr	3.193	93	396196	19.3201	ug/mL	100
8) Phenol	3.122	94	541071	20.3578	ug/mL	74
9) 2-Cl-phenol	3.227	128	445150	20.5903	ug/mL	98
10) 13Diclbenz	3.369	146	499703	21.0337	ug/mL	98
11) 14Diclbenz	3.446	146	477351	19.9367	ug/mL	99
12) 12Diclbenz	3.599	146	463585	20.6367	ug/mL	99
13) Benzyl alcoho	3.596	108	243336	21.3524	ug/mL	97
14) bis2clispreth	3.753	45	578559	18.2737	ug/mL	92
15) 2Methylphenol	3.738	107	320813	20.0168	ug/mL	93
16) Ntrspyrrol	3.875	100	201129	20.1529	ug/mL	96
17) Acetophenone	3.886	105	601901	20.4954	ug/mL	100
18) Hexaclethane	3.968	117	206450	20.2057	ug/mL	94
19) N-Ntrsdinprop	3.909	70	303211	19.8594	ug/mL	98
20) 3&4Methylphenol	3.931	107	435373	20.5543	ug/mL	98
23) Nitrobenzene	4.076	77	442831	22.0642	ug/mL	100
24) Isophorone	4.392	82	794175	19.7166	ug/mL	99
25) 2-Nitrophenol	4.477	139	188493	22.7585	ug/mL	94
26) 24Dimthpheno	4.599	122	317829	19.9992	ug/mL	100
27) bis2clethoxym	4.727	93	475175	20.5406	ug/mL	99
28) 24Diclphenol	4.818	162	388106	22.6612	ug/mL	99
29) 124Triclbenz	4.909	180	444086	22.4474	ug/mL	97
30) Benzoic acid	4.835	122	181344	22.7971	ug/mL	95
31) Naphthalene	5.000	128	1218568	18.3403	ug/mL	100
32) 4-Cl-aniline	5.133	127	561655	19.1678	ug/mL	97
33) 26Diclphenol	5.128	162	411537	18.5238	ug/mL	97
34) Hexaclprop	5.136	213	385117	22.0959	ug/mL	96
35) Hexaclbutdien	5.230	225	414743	23.1158	ug/mL	96
36) 4Cl3methylphe	5.861	107	553337	21.5279	ug/mL	97
37) 2Methylnaphth	5.940	142	1185379	22.4755	ug/mL	98
38) 1Methylnaphth	6.037	141	948317	21.8868	ug/mL	99
40) Hxclcycpentdi	6.111	237	347035	23.6424	ug/mL	99

Data File : C:\INSTARCH\Data\1S090915\1CCV261.D
 Acq On : 9 Sep 2015 10:58
 Sample : CCV 20ug/ml SVMS6780
 Misc : 500uL+5ul IS S3306D
 Integrator: RTE
 Quant Time: Sep 09 11:13:41 2015

Vial: 2
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

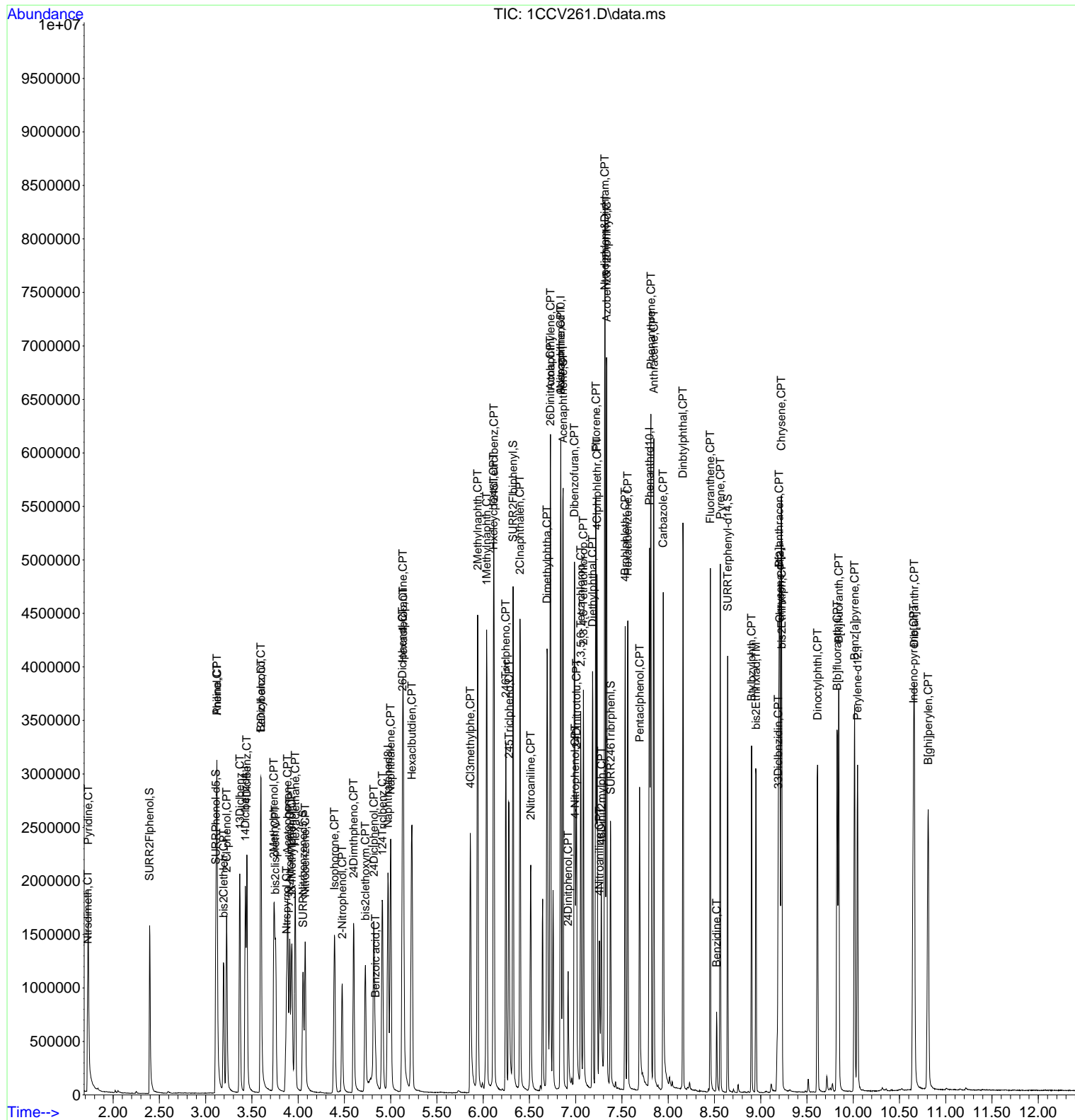
Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 11:13:37 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.117	216	643547	20.3868	ug/mL	98
42) 246Triclpheno	6.244	196	405810	21.7036	ug/mL	99
43) 245Triclpheno	6.278	196	459846	21.2736	ug/mL	97
45) 2Clnaphthalen	6.398	162	1117765	20.0385	ug/mL	99
46) 2Nitroaniline	6.514	65	324425	20.7459	ug/mL	92
47) Acnaphthylene	6.727	152	1661365	19.5381	ug/mL	99
48) Dimethylphtha	6.690	163	1241121	19.8544	ug/mL	99
49) 26Dinitrotolu	6.725	165	243766	20.2800	ug/mL#	82
50) Acenaphthene	6.864	154	962160	20.5069	ug/mL	99
51) 3Nitroaniline	6.838	138	240475	21.3019	ug/mL	96
52) 24Dinitphenol	6.918	184	118601	22.4258	ug/mL	94
53) Dibenzofuran	6.986	168	1564434	21.6755	ug/mL	93
54) 24Dinitrotolu	7.009	165	371947	22.1809	ug/mL	94
55) 4-Nitrophenol	6.995	65	221198	23.9367	ug/mL#	33
56) 2,3,5,6-Tetrachlorop	7.054	232	355550	23.0231	ug/mL	99
57) 2,3,4,6-Tetrachlorop	7.083	232	392411	22.0937	ug/mL	96
58) Fluorene	7.219	166	1212797	21.0401	ug/mL	99
59) 4Clphlphlethr	7.230	204	620210	21.6114	ug/mL	97
60) Diethylphthal	7.182	149	1283270	19.5255	ug/mL	99
61) 4Nitroaniline	7.256	138	259189	22.0696	ug/mL	95
64) 46Dinit2mylph	7.279	198	180750	22.5215	ug/mL	91
65) Ntrsdiphlam&Diphlam	7.316	169	1577539	41.4578	ug/mL	100
66) Azobenz&12Diphylhyd	7.335	182	473348	39.8413	ug/mL#	85
67) 4Brphlphlethr	7.534	248	413118	20.6509	ug/mL	98
68) Hexaclbenzene	7.563	284	481056	20.6353	ug/mL	97
69) Pentaclphenol	7.691	266	267033	22.9821	ug/mL	96
70) Phenanthrene	7.813	178	1774848	19.1359	ug/mL	99
71) Anthracene	7.844	178	1843657	19.9166	ug/mL	100
72) Carbazole	7.946	167	1572041	19.0052	ug/mL	99
73) Dinbtylphthal	8.159	149	1876504	21.9873	ug/mL	100
74) Fluoranthene	8.455	202	1141693	19.4931	ug/mL	99
76) Benzidine	8.523	184	177479	20.8475	ug/mL	94
77) Pyrene	8.563	202	1232530	19.1398	ug/mL	98
79) Btylbzylphth	8.901	149	513327	19.7071	ug/mL	96
80) bis2Ethlhxlad	8.949	129	408624	19.6899	ug/mL	97
81) 33Diclbnzidin	9.188	252	286934	22.5532	ug/mL	98
82) B[a]anthracen	9.199	228	1092157	19.4130	ug/mL	98
83) Chrysene	9.222	228	1007820	21.3277	ug/mL	98
84) bis2Ethlhxlph	9.228	149	703297	21.0364	ug/mL	100
85) Dinocetylphthl	9.614	149	1335347	20.2440	ug/mL	99
87) B[b]fluoranth	9.827	252	1176776	18.8253	ug/mL	100
88) B[k]fluoranth	9.844	252	1049296	17.7237	ug/mL	99
89) Benz[a]pyrene	10.015	252	1177901	19.0345	ug/mL	100
90) Indeno-pyrene	10.651	276	1358803	19.1441	ug/mL	97
91) Dib[ah]anthr	10.660	278	1107859	19.2036	ug/mL	99
92) B[ghi]perylen	10.811	276	1208797	19.1079	ug/mL	97

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

Vial: 2
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Wed Sep 09 11:13:37 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M



**SEMI - VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL
DOCUMENTS**

Data File : C:\INSTARCH\Data\1S090915\1MBS01.D
 Acq On : 9 Sep 2015 11:19
 Sample : 118513,MBS,
 Misc : 625718,500uL+5ul IS S3348A
 Integrator: RTE
 Quant Time: Sep 09 13:47:42 2015

Vial: 3
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Tue Sep 08 17:39:01 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

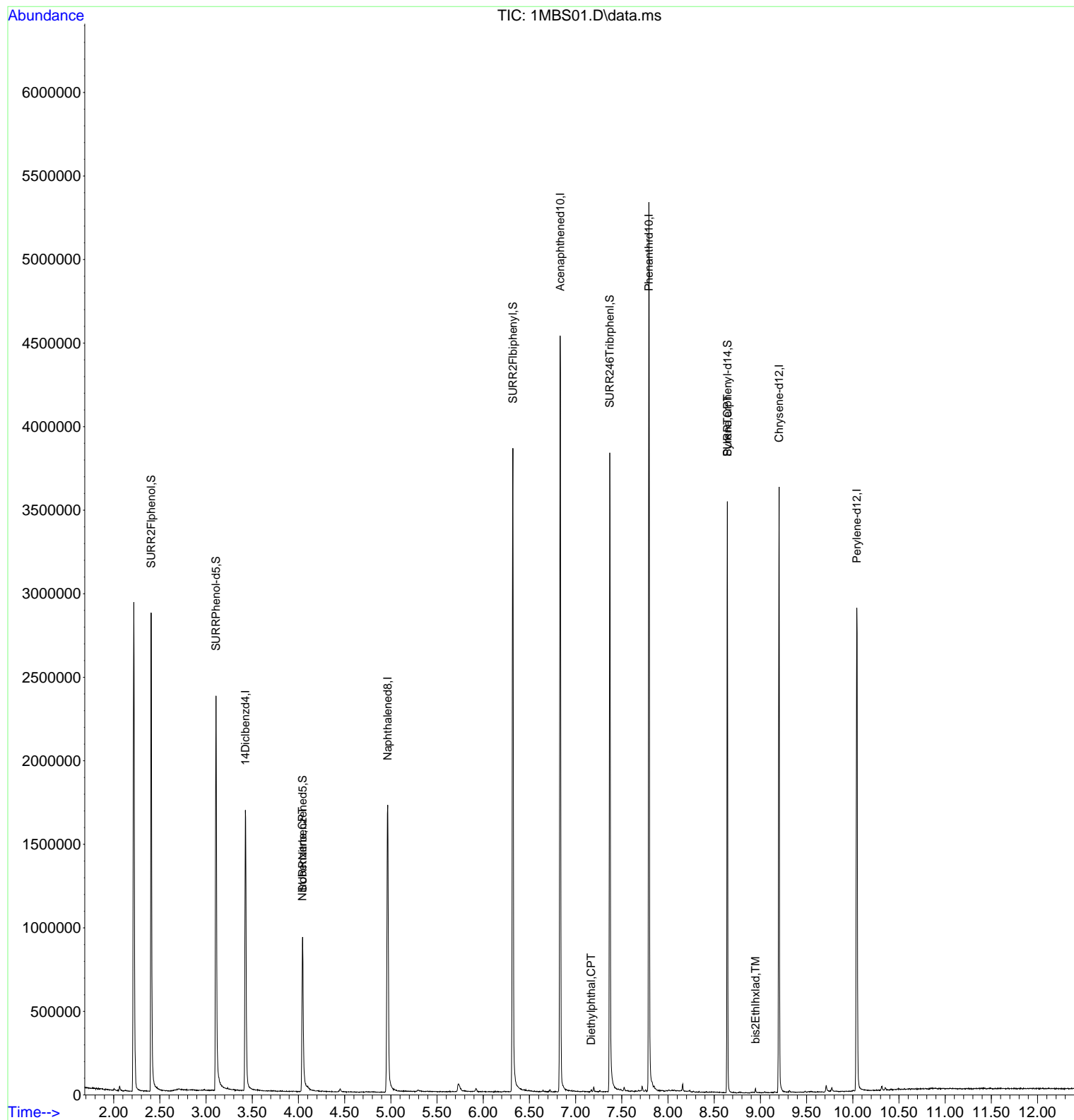
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 14Diclbenzd4	3.426	152	276049	20.00	ug/mL	-0.01
21) Naphthalened8	4.966	136	977463	20.00	ug/mL	-0.02
39) Acenaphthened10	6.833	164	718698	20.00	ug/mL	0.00
63) Phenanthrd10	7.793	188	1496133	20.00	ug/mL	0.00
75) Chrysene-d12	9.202	240	880043	20.00	ug/mL	-0.01
86) Perylene-d12	10.044	264	938892	20.00	ug/mL	-0.01
System Monitoring Compounds						
4) SURR2Flphenol	2.406	112	649196	86.97	%REC	0.00
Spiked Amount 100.000	Range 20	- 110	Recovery	=	86.97%	
7) SURRPhenol-d5	3.108	99	816103	89.22	%REC	-0.01
Spiked Amount 100.000	Range 10	- 115	Recovery	=	89.22%	
22) SURRNitrbenzened5	4.045	82	357436	99.23	%REC	-0.02
Spiked Amount 100.000	Range 40	- 110	Recovery	=	99.23%	
44) SURR2Flbiphenyl	6.321	172	1130981	89.19	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	89.19%	
62) SURR246Tribphenl	7.370	330	360159	92.61	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	92.61%	
78) SURRTerphenyl-d14	8.643	244	673029	86.70	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	86.70%	
Target Compounds						
23) Nitrobenzene	4.042	77	1192	0.0672	ug/mL#	57
50) Acenaphthene	6.836	154	3328	Below Cal	#	9
60) Diethylphthal	7.168	149	3602	0.0554	ug/mL	92
65) Ntrsdiphlam&Diphlam	7.307	169	105	Below Cal	#	37
71) Anthracene	7.807	178	873	Below Cal		70
73) Dinbtylphthal	8.160	149	13960	Below Cal		97
77) Pyrene	8.643	202	2113	0.0335	ug/mL#	39
80) bis2Ethlhxlad	8.947	129	3013	0.1482	ug/mL#	81
83) Chrysene	9.202	228	2617	Below Cal	#	48

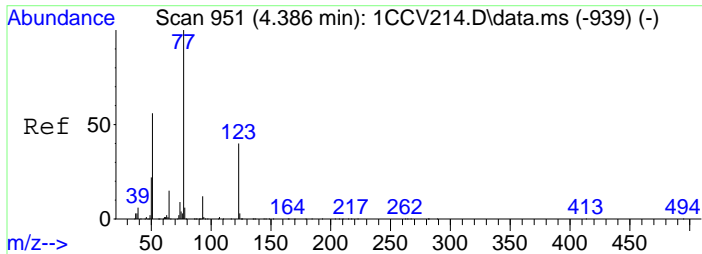
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data File : C:\INSTARCH\Data\1S090915\1MBS01.D
Acq On : 9 Sep 2015 11:19
Sample : 118513,MBS,
Misc : 625718,500uL+5ul IS S3348A
Integrator: RTE
Quant Time: Sep 09 13:47:42 2015

Vial: 3
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

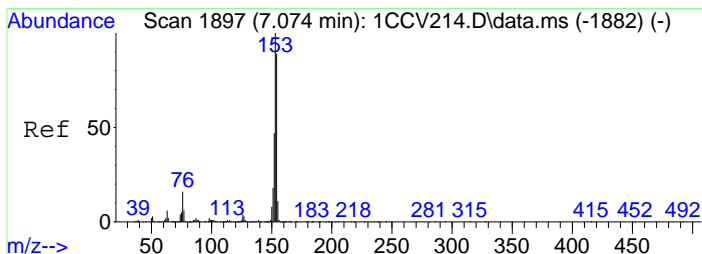
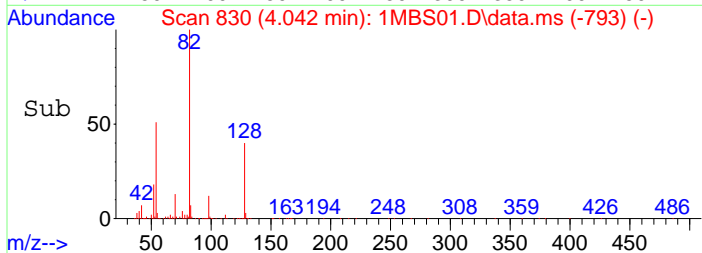
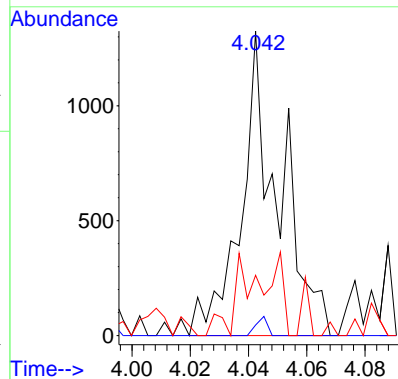
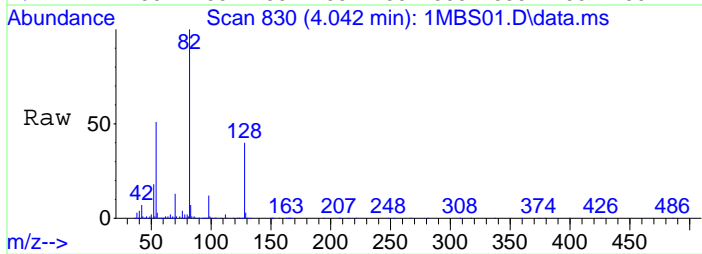
Quant Method : C:\INSTARCH\METHODS\1S081715.M
Quant Title : Method for 8270 analysis
QLast Update : Tue Sep 08 17:39:01 2015
Response via : Initial Calibration
DataAcq Meth:1S081715.M





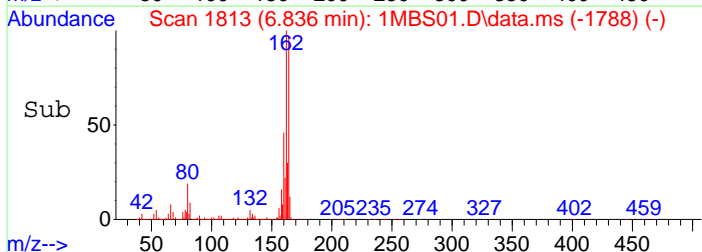
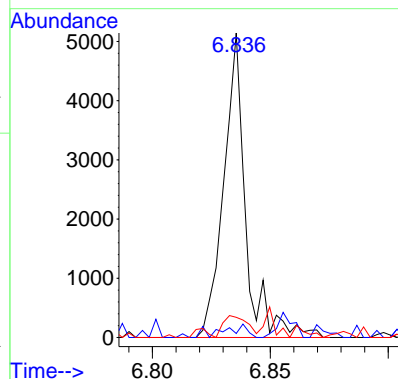
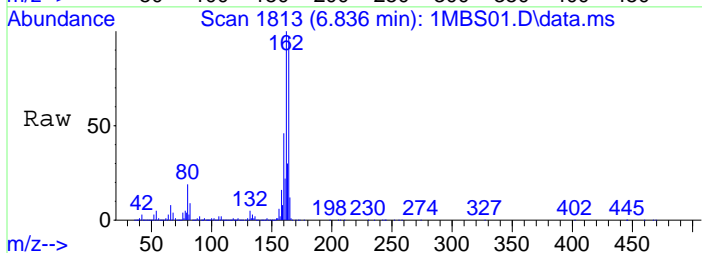
#23
Nitrobenzene
Concen: 0.07 ug/mL
RT: 4.042 min Scan# 830
Delta R.T. -0.045 min
Lab File: 1MBS01.D
Acq: 9 Sep 15 11:19 am

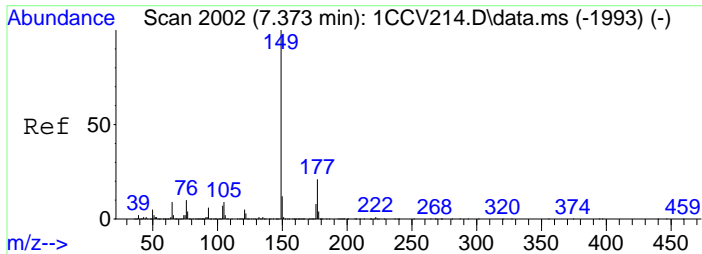
Tgt Ion: 77 Resp: 1192
Ion Ratio Lower Upper
77 100
123 11.0 15.6 75.6#
65 16.5 0.0 43.0



#50
Acenaphthene
Concen: Below ug/mL
RT: 6.836 min Scan# 1813
Delta R.T. -0.028 min
Lab File: 1MBS01.D
Acq: 9 Sep 15 11:19 am

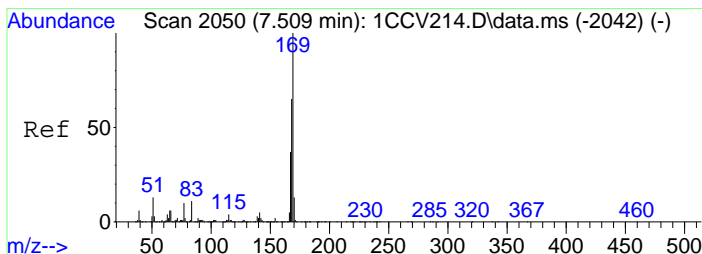
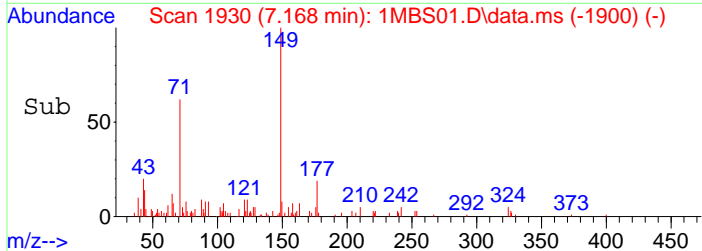
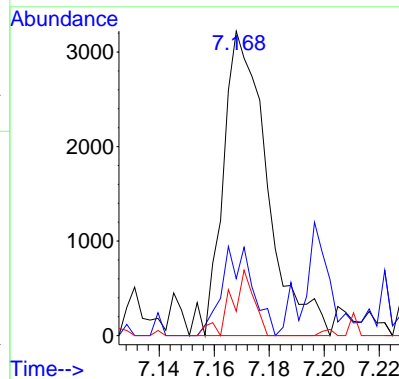
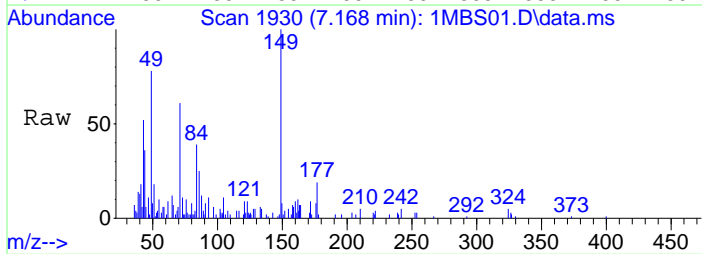
Tgt Ion: 154 Resp: 3328
Ion Ratio Lower Upper
154 100
152 1.3 23.9 83.9#
153 6.6 92.9 132.9#





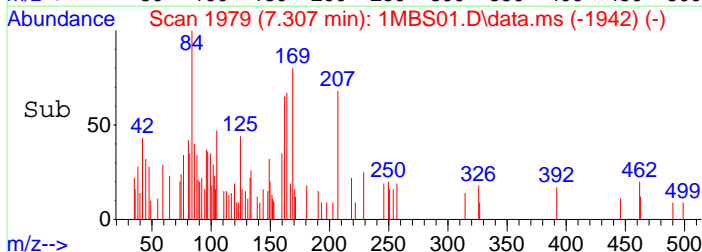
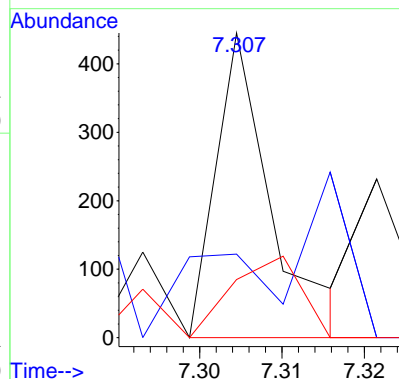
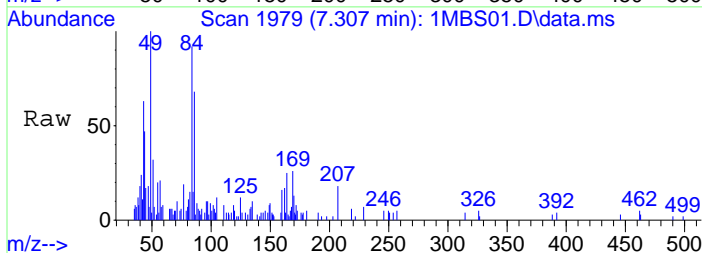
#60
Diethylphthal
Concen: 0.06 ug/mL
RT: 7.168 min Scan# 1930
Delta R.T. -0.014 min
Lab File: 1MBS01.D
Acq: 9 Sep 15 11:19 am

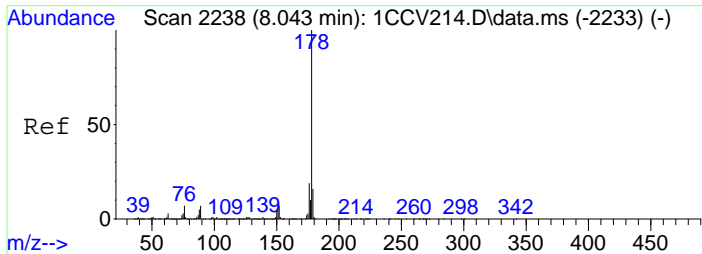
Tgt Ion:149	Resp:	3602
Ion Ratio	Lower	Upper
149	100	
177	15.7	0.0 49.9
150	9.0	0.0 41.4



#65
Ntrsdiphlam&Diphlam
Concen: Below ug/mL
RT: 7.307 min Scan# 1979
Delta R.T. -0.011 min
Lab File: 1MBS01.D
Acq: 9 Sep 15 11:19 am

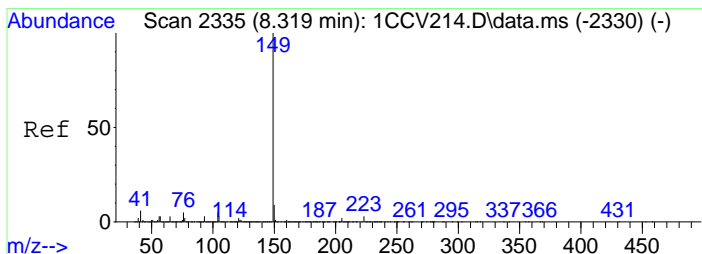
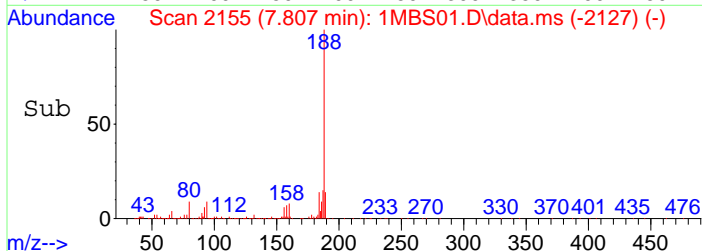
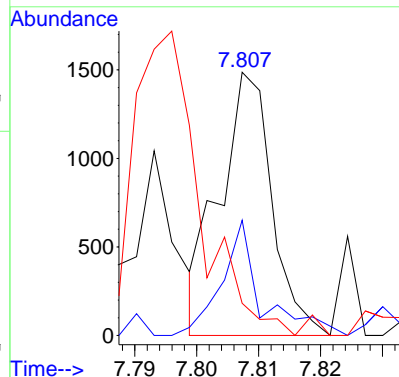
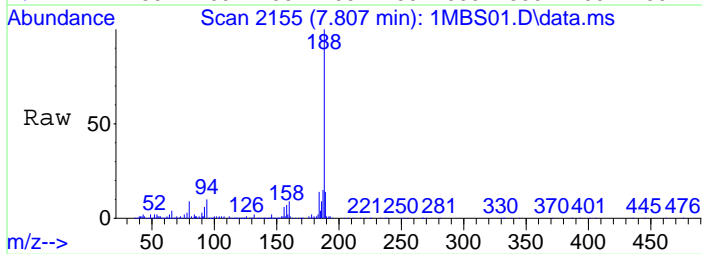
Tgt Ion:169	Resp:	105
Ion Ratio	Lower	Upper
169	100	
168	0.9	36.2 96.2#
167	19.1	6.6 66.6





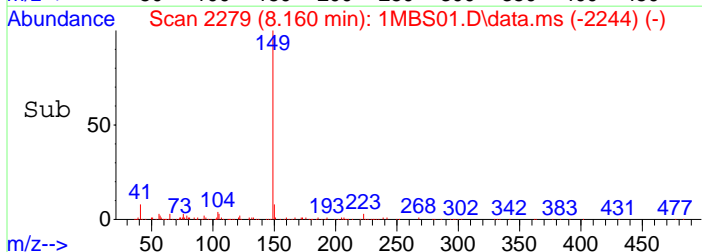
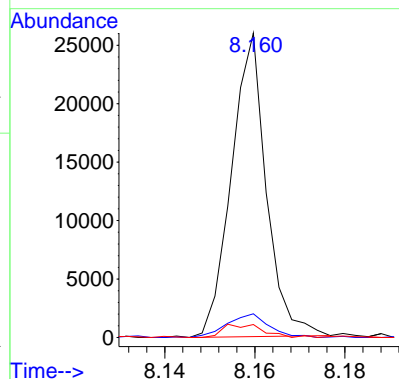
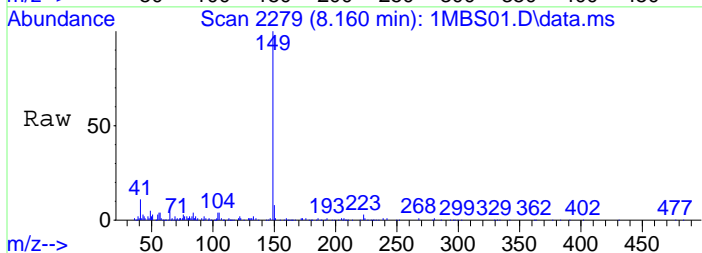
#71
 Anthracene
 Concen: Below ug/mL
 RT: 7.807 min Scan# 2155
 Delta R.T. -0.037 min
 Lab File: 1MBS01.D
 Acq: 9 Sep 15 11:19 am

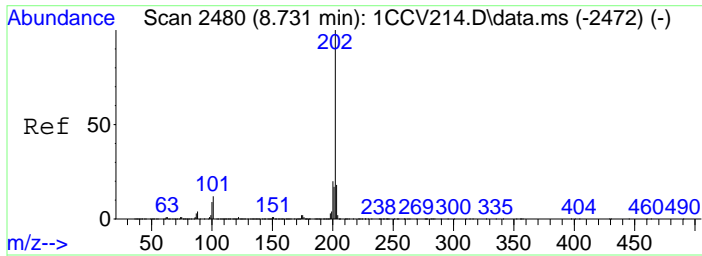
Tgt Ion:178	Resp:	873
Ion Ratio	Lower	Upper
178	100	
176	40.7	0.0 48.8
179	12.2	0.0 45.2



#73
 Dinbtylphthal
 Concen: Below ug/mL
 RT: 8.160 min Scan# 2279
 Delta R.T. 0.000 min
 Lab File: 1MBS01.D
 Acq: 9 Sep 15 11:19 am

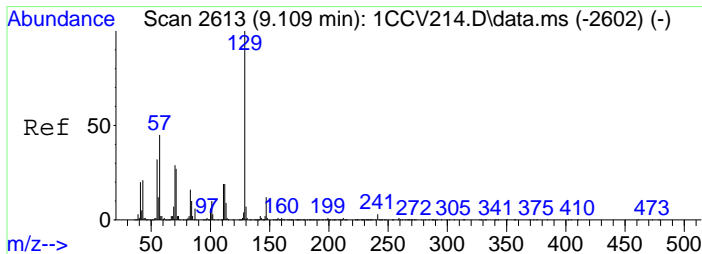
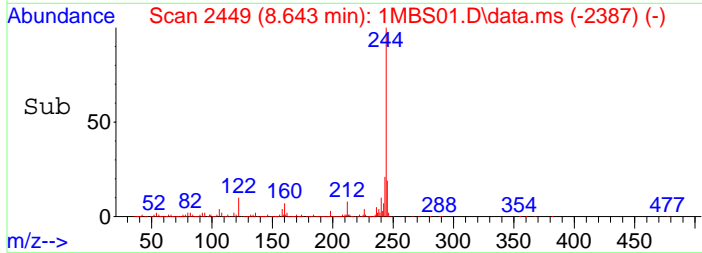
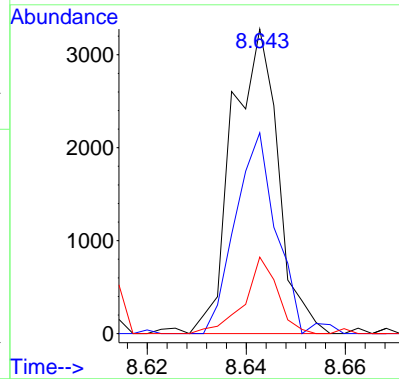
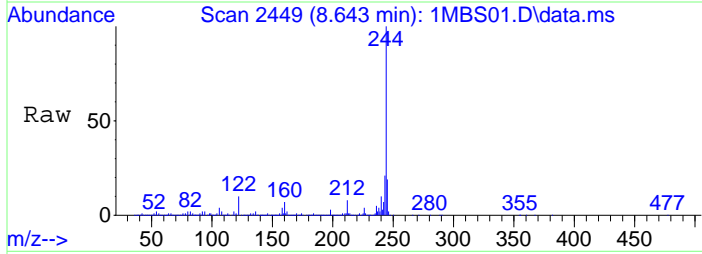
Tgt Ion:149	Resp:	13960
Ion Ratio	Lower	Upper
149	100	
150	7.6	0.0 38.9
104	3.9	0.0 34.5





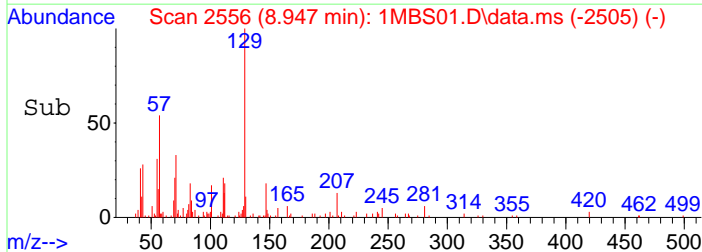
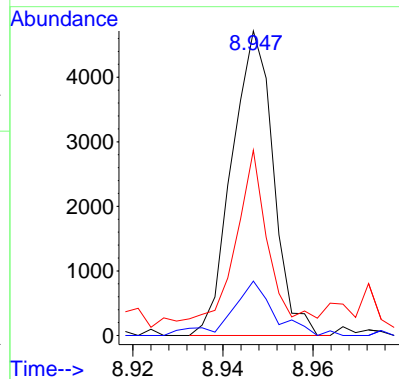
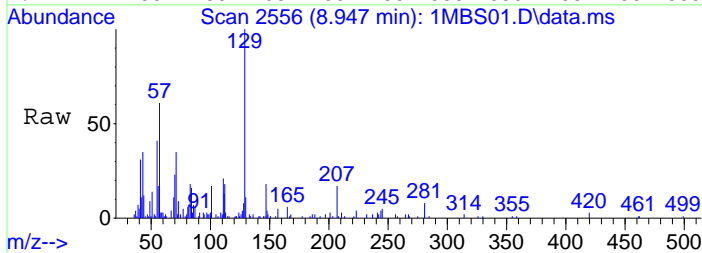
#77
 Pyrene
 Concen: 0.03 ug/mL
 RT: 8.643 min Scan# 2449
 Delta R.T. 0.077 min
 Lab File: 1MBS01.D
 Acq: 9 Sep 15 11:19 am

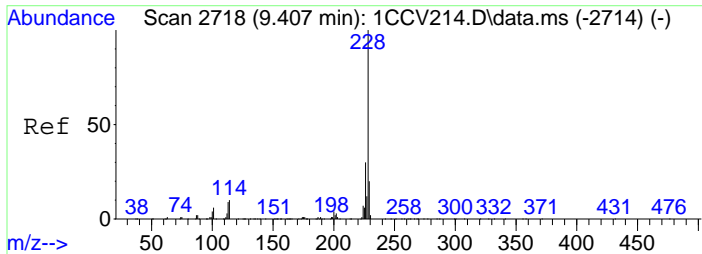
Tgt Ion	202	Resp	2113
Ion Ratio	Lower	Upper	
202	100		
200	66.0	0.0	50.6#
203	25.1	0.0	47.5



#80
 bis2Ethlhxlad
 Concen: 0.15 ug/mL
 RT: 8.947 min Scan# 2556
 Delta R.T. -0.006 min
 Lab File: 1MBS01.D
 Acq: 9 Sep 15 11:19 am

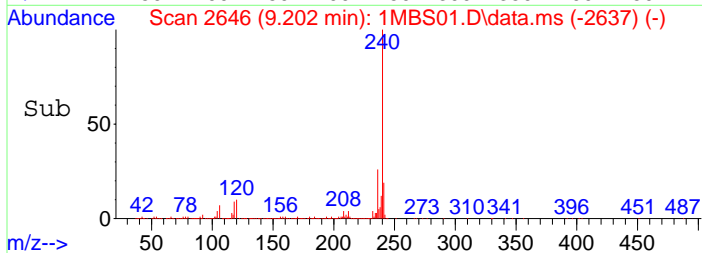
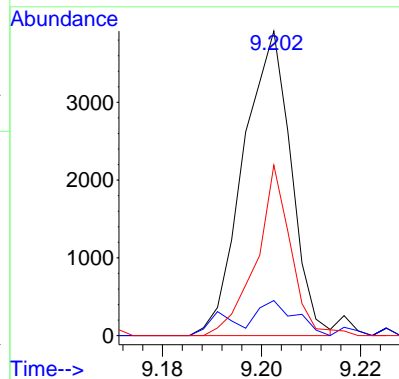
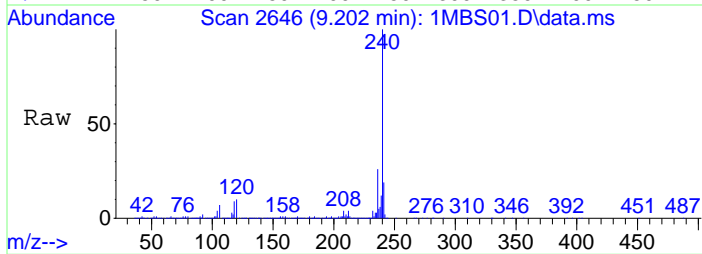
Tgt Ion	129	Resp	3013
Ion Ratio	Lower	Upper	
129	100		
112	0.0	13.8	20.8#
57	55.8	38.6	58.0





#83
 Chrysene
 Concen: Below ug/mL
 RT: 9.202 min Scan# 2646
 Delta R.T. -0.025 min
 Lab File: 1MBS01.D
 Acq: 9 Sep 15 11:19 am

Tgt Ion:228	Resp:	2617
Ion Ratio	Lower	Upper
228	100	
226	11.5	0.0 59.5
229	55.9	0.0 49.6#



Data File : C:\INSTARCH\Data\1S090915\1LCSS01.D
 Acq On : 9 Sep 2015 11:39
 Sample : 118513,LCSS,
 Misc : 625719,500uL+5ul IS S3348A
 Integrator: RTE
 Quant Time: Sep 09 13:54:56 2015

Vial: 4
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 13:54:16 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
Internal Standards						
1) 14Diclbenzd4	3.429	152	285934	20.00	ug/mL	0.00
21) Naphthalened8	4.969	136	1022320	20.00	ug/mL	0.00
39) Acenaphthened10	6.830	164	701122	20.00	ug/mL	0.00
63) Phenanthrd10	7.790	188	1457412	20.00	ug/mL	0.00
75) Chrysene-d12	9.208	240	833819	20.00	ug/mL	0.00
86) Perylene-d12	10.049	264	958536	20.00	ug/mL	0.00
System Monitoring Compounds						
4) SURR2Flphenol	2.408	112	561660	72.64	%REC	0.01
Spiked Amount 100.000	Range 20	- 110	Recovery	=	72.64%	
7) SURRPhenol-d5	3.113	99	672642	70.99	%REC	0.00
Spiked Amount 100.000	Range 10	- 115	Recovery	=	70.99%	
22) SURRNitrbenzened5	4.048	82	319142	84.71	%REC	0.00
Spiked Amount 100.000	Range 40	- 110	Recovery	=	84.71%	
44) SURR2Flbiphenyl	6.318	172	1008732	81.54	%REC	0.00
Spiked Amount 100.000	Range 50	- 110	Recovery	=	81.54%	
62) SURR246Tribphenl	7.370	330	331261	87.32	%REC	0.00
Spiked Amount 100.000	Range 40	- 125	Recovery	=	87.32%	
78) SURRTerphenyl-d14	8.640	244	625115	84.99	%REC	0.00
Spiked Amount 100.000	Range 50	- 135	Recovery	=	84.99%	
Target Compounds						
					Qvalue	
2) Ntrsdimeth	1.755	74	179907	14.8870	ug/mL	97
3) Pyridine	1.766	79	292147	12.8005	ug/mL	99
5) Aniline	3.122	93	337125	12.3419	ug/mL	89
6) bis2Clethletr	3.193	93	281738	14.4124	ug/mL	94
8) Phenol	3.124	94	376985	14.8797	ug/mL	84
9) 2-Cl-phenol	3.230	128	308452	14.9670	ug/mL	97
10) 13Diclbenz	3.369	146	345904	15.2739	ug/mL	99
11) 14Diclbenz	3.446	146	347146	15.2097	ug/mL	99
12) 12Diclbenz	3.596	146	330711	15.4437	ug/mL	99
13) Benzyl alcoho	3.596	108	173504	15.9713	ug/mL	95
14) bis2clispreth	3.751	45	408392	13.5316	ug/mL	90
15) 2Methylphenol	3.741	107	225623	14.7679	ug/mL	91
16) Ntrspyrrol	3.866	100	142015	14.9275	ug/mL	96
17) Acetophenone	3.880	105	422391	15.0882	ug/mL	99
18) Hexaclethane	3.966	117	141739	14.5526	ug/mL	97
19) N-Ntrsdinprop	3.903	70	218090	14.9848	ug/mL	96
20) 3&4Methylphenol	3.926	107	311019	15.4035	ug/mL	94
23) Nitrobenzene	4.071	77	304282	16.4099	ug/mL	96
24) Isophorone	4.389	82	568340	15.2722	ug/mL	100
25) 2-Nitrophenol	4.474	139	132897	17.3677	ug/mL	94
26) 24Dimthpheno	4.596	122	241308	16.4350	ug/mL	95
27) bis2clethoxym	4.721	93	346136	16.1951	ug/mL	100
28) 24Diclphenol	4.815	162	272410	17.2161	ug/mL	97
29) 124Triclbenz	4.909	180	308221	16.8632	ug/mL	98
30) Benzoic acid	4.801	122	120476	17.2627	ug/mL	93
31) Naphthalene	4.997	128	879762	14.3318	ug/mL	98
32) 4-Cl-aniline	5.128	127	229393	7.7957	ug/mL	97
33) 26Diclphenol	5.125	162	279859	13.6345	ug/mL	98
34) Hexaclprop	5.133	213	274376	17.0390	ug/mL	98
35) Hexaclbutdien	5.224	225	288145	17.3828	ug/mL	98
36) 4Cl3methylphe	5.866	107	388578	16.3632	ug/mL	99
37) 2Methylnaphth	5.935	142	826738	16.2266	ug/mL	99
38) 1Methylnaphth	6.031	141	685256	16.4127	ug/mL	100
40) Hxclcycpenti	6.105	237	232396	16.4110	ug/mL	99

Data File : C:\INSTARCH\Data\1S090915\1LCSS01.D
 Acq On : 9 Sep 2015 11:39
 Sample : 118513,LCSS,
 Misc : 625719,500uL+5ul IS S3348A
 Integrator: RTE
 Quant Time: Sep 09 13:54:56 2015

Vial: 4
 Operator: RPN
 Inst : SVMS1
 Multiplr: 1.00

Quant Method : C:\INSTARCH\METHODS\1S081715.M
 Quant Title : Method for 8270 analysis
 QLast Update : Wed Sep 09 13:54:16 2015
 Response via : Initial Calibration
 DataAcq Meth:1S081715.M

Compound	R.T.	QIon	Response	Conc	Units	Dev (Min)
41) 1245Tetrclbenz	6.111	216	481278	15.8035	ug/mL	100
42) 246Triclpheno	6.242	196	298878	16.5688	ug/mL	99
43) 245Triclpheno	6.278	196	319707	15.3309	ug/mL	94
45) 2Clnaphthalen	6.392	162	742216	13.7922	ug/mL	96
46) 2Nitroaniline	6.506	65	233806	15.4975	ug/mL	94
47) Acnaphthylene	6.722	152	1264202	14.9252	ug/mL	99
48) Dimethylphtha	6.682	163	951030	15.7697	ug/mL	99
49) 26Dinitrotolu	6.716	165	191555	16.5187	ug/mL	85
50) Acenaphthene	6.855	154	717246	15.3763	ug/mL	99
51) 3Nitroaniline	6.827	138	132589	12.1743	ug/mL	96
52) 24Dinitphenol	6.912	184	71577	15.6588	ug/mL	95
53) Dibenzofuran	6.980	168	1169566	16.1823	ug/mL	90
54) 24Dinitrotolu	7.000	165	266633	16.4816	ug/mL	96
55) 4-Nitrophenol	6.989	65	148664	16.6755	ug/mL#	27
56) 2,3,5,6-Tetrachlorop	7.049	232	256285	17.2018	ug/mL	100
57) 2,3,4,6-Tetrachlorop	7.077	232	288096	16.8133	ug/mL	96
58) Fluorene	7.210	166	937093	16.2820	ug/mL	99
59) 4Clphlphlethr	7.225	204	470083	16.4559	ug/mL	99
60) Diethylphthal	7.176	149	986745	15.5624	ug/mL	99
61) 4Nitroaniline	7.247	138	182440	16.1022	ug/mL	95
64) 46Dinit2mylph	7.270	198	130784	17.9939	ug/mL	92
65) Ntrsdiphlam&Diphlam	7.307	169	1099860	30.1263	ug/mL	98
66) Azobenz&12Diphylhyd	7.327	182	363681	32.7198	ug/mL	97
67) 4Brphlphlethr	7.529	248	314349	16.8416	ug/mL	99
68) Hexaclbenzene	7.554	284	369433	17.1076	ug/mL	98
69) Pentaclphenol	7.685	266	187600	17.8283	ug/mL	93
70) Phenanthrene	7.804	178	1348128	15.5317	ug/mL	99
71) Anthracene	7.836	178	1412845	16.3884	ug/mL	100
72) Carbazole	7.941	167	1266019	16.6724	ug/mL	99
73) Dinbtylphthal	8.154	149	1500351	19.0029	ug/mL	99
74) Fluoranthene	8.449	202	909171	16.8902	ug/mL	99
76) Benzidine	8.520	184	171504	21.3633	ug/mL	96
77) Pyrene	8.557	202	922437	15.4326	ug/mL	98
79) Btylbzylphth	8.901	149	404116	16.7147	ug/mL	94
80) bis2Ethlhxlad	8.949	129	314689	16.3367	ug/mL	97
81) 33Diclbnzidin	9.188	252	181433	15.2378	ug/mL	99
82) B[a]anthracen	9.199	228	833704	15.9655	ug/mL	98
83) Chrysene	9.222	228	760139	16.9337	ug/mL	99
84) bis2Ethlhxlph	9.231	149	569176	17.8744	ug/mL	99
85) Dinocetylphthl	9.614	149	1024064	16.7260	ug/mL	100
87) B[b]fluoranth	9.827	252	944446	14.2179	ug/mL	99
88) B[k]fluoranth	9.844	252	878549	13.9647	ug/mL	99
89) Benz[a]pyrene	10.018	252	919120	13.9770	ug/mL	100
90) Indeno-pyrene	10.651	276	1038041	13.7626	ug/mL	98
91) Dib[ah]anthr	10.663	278	850851	13.8791	ug/mL	100
92) B[ghi]perylen	10.811	276	924716	13.7555	ug/mL	96

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

Vial: 4
Operator: RPN
Inst : SVMS1
Multiplr: 1.00

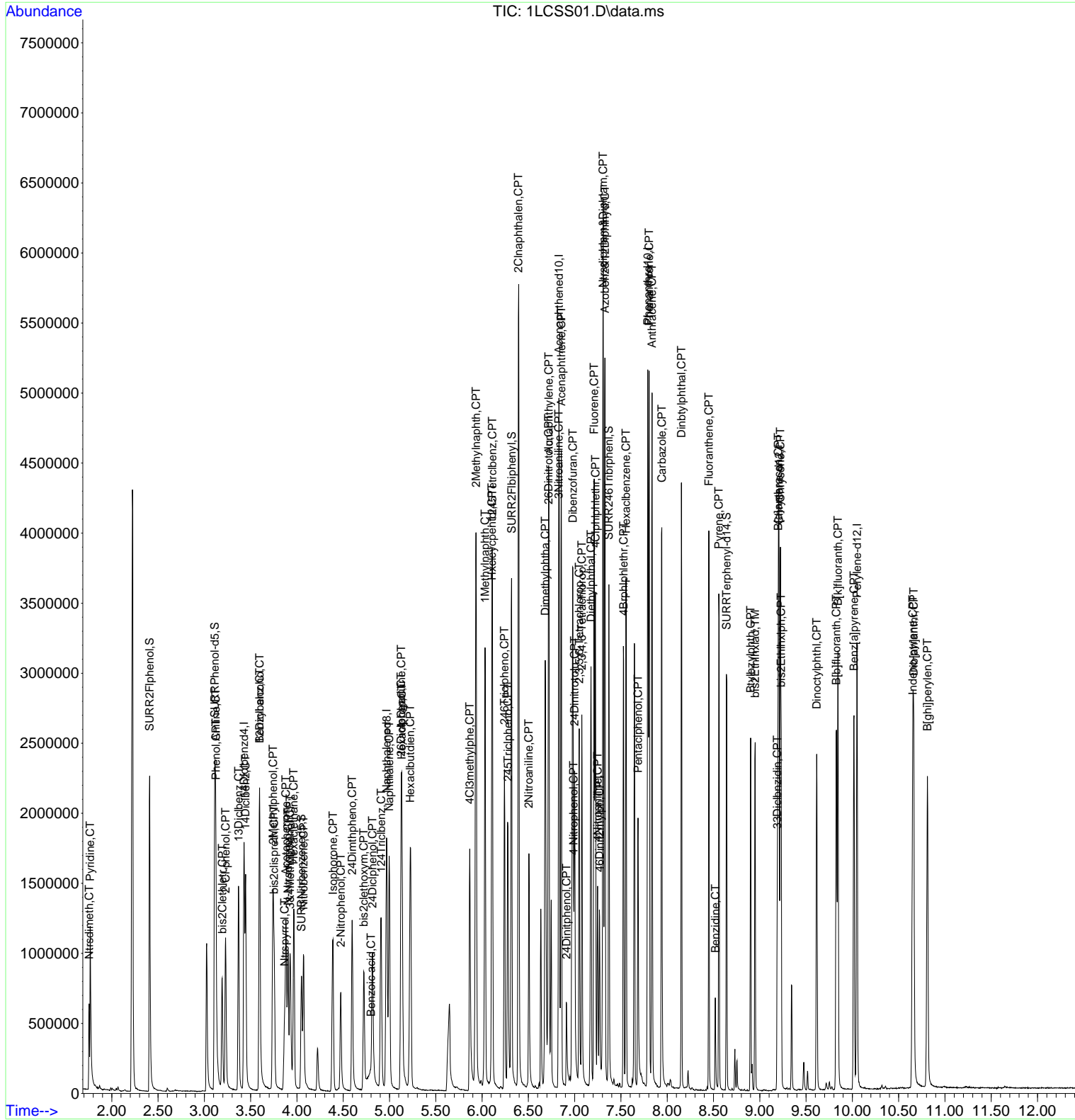
Quant Method : C:\INSTARCH\METHODS\1S081715.M

Quant Title : Method for 8270 analysis

QLast Update : Wed Sep 09 13:54:16 2015

Response via : Initial Calibration

DataAcq Meth:1S081715.M



**SEMI - VOLATILE ORGANIC ANALYSIS
LOGBOOK
DOCUMENTS**

S SVOC 8270 SOIL Analytical Run
118513 on 9/8/2015

Date Analyzed: 09/09/2015

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623727		8/20/2015 0910		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	SVOC 8270 QSM		M	4	
		WASTE-016-0815						53971			
	625718			MBS			SVOC 8270 QSM	53971			
	625719			LCSS			SVOC 8270 QSM	53971			
113545	625784		8/27/2015 1030		ENVIRONMENTAL QUALITY MGT	WAUNAKEE ALLOY	SVOC 8270 QSM		M	4	
		004						53971			
113545	625786		8/27/2015 1050		ENVIRONMENTAL QUALITY MGT	WAUNAKEE ALLOY	SVOC 8270 QSM		M	4	
		006						53971			
5	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Semi

C:\LIMSREPS\ANALYTICALRUN.RPT

Page 1 of 1

PREP WORKSHEET
on 9/8/2015

Prep Batch 53,971 Date Prepped: 8/31/2015 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	625718	MBS		SVOC 8270 QSM	SOLID	1.0	1.00			
	625719	LCSS		SVOC 8270 QSM	SOLID	1.0	1.00			
113433	623727			SVOC 8270 QSM	WASTE	1.0	1.02		4	
113545	625784			SVOC 8270 QSM	WASTE	1.0	1.03		4	
	625786			SVOC 8270 QSM	WASTE	1.0	1.01		4	

Notes: _____

PREP WORKSHEET
on 9/8/2015

Prep Batch 53,971 Date Prepped: 8/31/2015 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	625718	MBS		SVOC 8270 QSM	SOLID	1.0	1.00			
	625719	LCSS		SVOC 8270 QSM	SOLID	1.0	1.00			
113433	623727			SVOC 8270 QSM	WASTE	1.0	1.02		4	
113545	625784			SVOC 8270 QSM	WASTE	1.0	1.03		4	
	625786			SVOC 8270 QSM	WASTE	1.0	1.01		4	

Notes: _____

Method 8270-SV GC/MS Extraction Bench Sheet

3510=WATER

3545=PFE or 3546=Microwave >>

(PFE=Pressurized Fluid Extraction)

Matrix:	WASTE
Balance Used:	SVB02
Ave MW temp(°C):	NA

Reagent Lots>>>

Initial Concentration By:	JLH
Date:	08/31/2015
GPC Cleanup? (yes/no):	YES
Date:	08/31/2015
Final Concentration By:	AJZ/JLH
Date:	09/08/2015

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike & MSD=Matrix Spike Duplicate

Reviewed By: RED
Date: 09/09/2015

FSV6-01

8270 SVOC Analysis Data Review Checklist

Analytical Run #: 118513	Independent Reviewer: RED
Sequence Date: 09/9/2015	Date of Review: 9/10/2015
Analyst/Data Interpreter: RPN	Approval: yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each “No” response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. INITIAL CALIBRATION (ICAL)						
a. Was the initial calibration performed using a minimum of five standard concentration levels?	Lowest standard at or near MRL	Yes		Yes		
b. SPCC responses.	Avg. RRF ≥ 0.05	Yes		Yes		
c. Is the variation between calibration response factors for all concentration levels $<15\%$ RSD, is $r > .995$, or $r^2 > 0.990$ for the regression line. RSD $\leq 15\%$, $\leq 30\%$ for CCCs.	RSD $\leq 15\%$, $\leq 30\%$ for CCCs	Yes		Yes		
d. Were the standards used for the ICAL uniquely identified?		Yes		Yes		
e. Was there a DFTPP standard analyzed prior to the ICAL?		Yes		Yes		
f. Was an instrument blank (IB) analyzed prior to the ICAL?		Yes		Yes		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there a second source ICVs for all target analytes analyzed after the initial calibration and prior to analysis of any samples?	Second source	Yes		Yes		
b. Were the SPCC within QC limits	RRF ≥ 0.05	Yes		Yes		
c. Were the CCCs within QC limits	%D $\leq 20\%$	Yes		Yes		
d. Were the ICVs uniquely identified (i.e. Standard Number)?		Yes		Yes		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs for target analytes analyzed at the beginning of the sequence and after every 12 hours.		Yes		Yes		
b. Were SPCC compounds acceptable?	RRF ≥ 0.050	Yes		Yes		
c. Were the CCCs compounds acceptable?	%D $\leq 20\%$	Yes		Yes		
d. Were the recoveries for the CCVs acceptable?	%D $\leq 20\%$	Yes		Yes		
e. Was each CCV uniquely identified (i.e. Standard Number)?		Yes		Yes		

Additional Comments:

FSV6-01

8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. DFTPP						
a. Was a DFTPP tune check ran at the beginning of every twelve hour shift?		Yes		Yes		
b. Were the relative abundance criteria met?		Yes		Yes		
c. Was the peak tailing <2 on Pentachlorophenol and <2 on Benzidine?	Tailing <2%	Yes		Yes		
d. Was the breakdown of DDT to DDE and DDD less than 20%	Breakdown ≤20%	Yes		Yes		
5. BLANKS						
a. Was method blank (MB) analyzed prior to the analysis of samples?		Yes		Yes		
b. Were the MB results less than the reporting limit (RL)?	< MRL	Yes		Yes		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	Yes		Yes		
6. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed prior to the analysis of samples?		Yes		Yes		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	In-house limits or client specified limits	Yes		Yes		
7. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch?	Batch <20 samples		No		No	
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	N/A		N/A		
8. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples		No		No	
b. Were MSD or LCSD recoveries within the acceptance criteria?	In-house limits or client specified limits	N/A		N/A		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its' duplicate (MSD) or laboratory control spike (LCS) and its' duplicate (LCSD) within the acceptance criteria?	In-house limits or client specified limits	N/A		N/A		

Additional Comments:

FSV6-01
8270 SVOC Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
9. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		Yes		Yes		See Below
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		Yes		Yes		See Below
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	Yes		Yes		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, acid-base fractioning, and GPC)	GPC, Acid/Base, Treatments	Yes		Yes		GPC
10. RECORDS AND REPORTING						
a. Are Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, initial and rerun raw and process data present in the data file?		Yes		Yes		
b. Are all chromatograms dated and initialed?		Yes		Yes		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier and, if needed, a NCR completed?		Yes		Yes		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		Yes		Yes		
e. Is the ICAL method referenced on the Raw Data?		Yes		Yes		

Additional Comments:

All samples were extracted using waste dilution method with final extract volume at 10ml. The surrogate amount was adjusted in lims accordingly. Sample 625784 was analyzed at a dilution of 1:20 and 1:200 for matrix and phenol and naphthalene detected in amounts exceeding calibration limit. The surrogates were diluted out. "D".

Sequence Name: C:\INSTARCH\Sequence\1S081715.S

Comment: 8270

Operator: RPN

Data Path: C:\INSTARCH\DATA\1S081715\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch

(X) Full Method (X) Inject Anyway

() Reprocessing Only () Don't Inject

```
-----  
Line      Sample Name/Misc Info  
1) Sample 99 1IB01 1S073115 InstrumentBlank  
2) Sample 2 1PRIM01 1S081715 PRIMER 50ug/ml  
3) DFTPP 1 1DFTP170 1DFTPP DFTPP TUNE SVMS6642  
4) Sample 99 1IB02 1S081715 InstrumentBlank  
5) Sample 2 1ICAL7 1S081715 ICAL 50ug/ml SVMS6777  
6) Sample 3 1ICAL6 1S081715 ICAL 40ug/ml SVMS6776  
7) Sample 4 1ICAL5 1S081715 ICAL 30ug/ml SVMS6775  
8) Sample 5 1ICAL4 1S081715 ICAL 20ug/ml SVMS6774  
9) Sample 6 1ICAL3 1S081715 ICAL 10ug/ml SVMS6773  
10) Sample 7 1ICAL2 1S081715 ICAL 5ug/ml SVMS6772  
11) Sample 8 1ICAL1 1S081715 ICAL 1ug/ml SVMS6771  
12) Sample 5 1ICAL4R 1S081715 ICAL 20ug/ml SVMS6774  
13) Sample 9 1ICV1 1S081715 ICV 20ug/ml SVMS6778  
14) Sample 10 1ICV2 1S081715 ICV 40ug/ml SVMS6779  
15) Sample 9 1ICV1R 1S081715 ICV 20ug/ml SVMS6778  
16) Sample 10 1ICV2R 1S081715 ICV 40ug/ml SVMS6779  
17) Sample 99 1IB05 1S081715 InstrumentBlank  
18) Sample 11 1ICAL7A 1S081715 ICAL 50ug/ml SVMS6733  
19) Sample 12 1ICAL6A 1S081715 ICAL 40ug/ml SVMS6732  
20) Sample 13 1ICAL5A 1S081715 ICAL 30ug/ml SVMS6731  
21) Sample 14 1ICAL4A 1S081715 ICAL 20ug/ml SVMS6730  
22) Sample 15 1ICAL3A 1S081715 ICAL 10ug/ml SVMS6729  
23) Sample 16 1ICAL2A 1S081715 ICAL 5ug/ml SVMS6728  
24) Sample 17 1ICAL1A 1S081715 ICAL 1ug/ml SVMS6727  
25) Sample 18 1ICV1A 1S081715 ICV 20ug/ml SVMS6734  
26) Sample 19 1ICV2A 1S081715 ICV 40ug/ml SVMS6735
```

Sequence Name: C:\INSTARCH\SEQUENCE\1S090915.S

Comment: 8270

Operator: RPN

Data Path: C:\INSTARCH\DATA\1S090915\

Instrument Control Pre-Seq Cmd:

Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:

Data Analysis Post-Seq Cmd:

Method Sections To Run On A Barcode Mismatch

(X) Full Method (X) Inject Anyway

() Reprocessing Only () Don't Inject

```
-----
Line      Sample Name/Misc Info
1) Sample      99 1IB01      1S081715 InstrumentBlank
2) DFTPP        1 1DFTP187 1DFTPP      DFTPP TUNE SVMS6642
3) Sample       2 1CCV261 1S081715 CCV 20ug/ml SVMS6780
4) Sample       3 1MBS01  1S081715 118513,MBS,
5) Sample       4 1LCSS01 1S081715 118513,LCSS,
6) Sample       5 623727 1S081715 118513,623727,
7) Sample       6 625784 1S081715 118513,625784,
8) Sample       7 625786 1S081715 118513,625786,
9) Sample       6 625784D 1S081715 118513,625784,20
10) Sample      6 625784D2 1S081715 118513,625784,200
11) Sample     99 1IB02      1S081715 InstrumentBlank
12) Sample       8 827031 1S081715 118454,827031,
13) Sample       9 827031MS 1S081715 118454,MSW827031,
14) Sample      10 827031SD 1S081715 118454,MSDW827031,
15) Sample       8 827031D 1S081715 118454,827031,5
16) Sample       9 827031SR 1S081715 118454,MSW827031,5
17) Sample      10 627031DR 1S081715 118454,MSDW627031,5
18) Sample      11 627942 1S081715 118515,627942,
19) Sample      12 627942MS 1S081715 118515,MSW627942,
20) Sample      13 627942SD 1S081715 118515,MSDW627942,
21) Sample      14 627943 1S081715 118515,627943,
22) Sample      15 627944 1S081715 118515,627944,
23) Sample      16 627945 1S081715 118515,627945,
24) Sample      11 627942D 1S081715 118515,627942,20
25) Sample      12 627942SR 1S081715 118515,MSW627942,20
26) Sample      13 627942DR 1S081715 118515,MSDW627942,20
```

8270 SIM Acid Surr LVI 40ug/ml

SVMS6637 JJY 4/30/2015 x 10/29/2015	Std: Name	Parent Std.	Parent Conc.ug/ml	Vol Std.ml	Vol Final, ml	Conc Final,ug/ml
	8270 SIM Acid Surr	S3254A	10000	40	10	40
	MeCl2	EMD		52432		

8270 Pentachlorophenol LVI SIM Spike 25 ug/ml

SVMS6638 JJY 4/30/2015 x 10/29/2015	Std. Name	Parent Std.	Parent Conc.ug/ml	Vol Std.ml	Vol Final, ml	Conc Final,ug/ml
	8270 SIM Pentachlorophenol	S3276	2000	125	10	25
	MeCl2	EMD		52432		

8270 SIM SURROGATES 1.0 ug/mL

SVMS 6639 RPN 05/01/15 x11/1/2015	STD NAME	Manuf	Cat. #	CTL STD #	Lot #	Conc. ug/mL	V added uL	V final mL	CONC final ug/mL
	B/N SURR.	RESTEK	31062	S3282	A0105489	5000	40	200	1
	Acetone	JT Baker		N/A	88128	99.9%			

8270 SIM Internal Standards @ 100ug/ml for LVI

SVMS 6640 JJY 5/4/2015 x11/04/2015	STD NAME	Manuf	Cat. #	CTL STD #	Lot #	Conc. ug/mL	V added uL	V final mL	CONC final ug/mL
	SV Internal Standards	Restek	31206	S3281A	A0108945	2000	50	1	100
	MeCl2	EMD			52342	99%			

DFTPP TUNE MIX 10ug/ml

SVMS 6641 JJY 5/5/2015 x11/5/2015	STD NAME	Manuf	Cat. #	CTL STD #	Lot #	Conc. ug/mL	V added uL	V final mL	CONC final ug/mL
	GC/MS Tuning Mix	Restek	31615	S3263	A0107835	1000	10	1	10
	MeCl2	EMD			52342	99%			

DFTPP TUNE MIX 50ug/ml

SVMS 6642 RPN 05/07/2015 x11/7/2015	STD NAME	Manuf	Cat. #	CTL STD #	Lot #	Conc. ug/mL	V added uL	V final mL	CONC final ug/mL
	GC/MS Tuning Mix	Restek	31615	S 3263	A0107835	1000	500	10	50
	MeCl2	EMD			52342	99%			

DFTPP TUNE MIX 5ug/ml

SVMS 65642 JJY 5/7/2015 X11/7/2015	STD NAME	Manuf	Cat. #	CTL STD #	Lot #	Conc. ug/mL	V added uL	V final mL	CONC final ug/mL
	GC/MS Tuning Mix	Restek	31615	S3263	A0107835	1000	50	10	5
	MeCl2	EMD			52342	99%			

Continued on Page _____

Read and Understood By _____

Signed _____

Date _____

Signed _____

Date _____

SVOC Logbook 01

01/19/2015

NOTEBOOK VIEW: LTN_SVOC_Logbook01_Default, NOTEBOOK: SVOC_Logbook01, PAGE: 13

Page is Unlocked

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Project: Unassigned

Page Title: 081215

	Initial Calibration	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date		
	8270 ICal Working Stds.	MeCl2 JTBaker 112378	RPN	08/12/15	12/25/15		
Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
SVMS 6771	ICAL 1	SVMS 6689	100	ug/ml	0.005	0.5	1
SVMS 6772	ICAL 2	SVMS 6689			0.025		5
SVMS 6773	ICAL 3	SVMS 6689			0.050		10
SVMS 6774	ICAL 4	SVMS 6689			0.100		20
SVMS 6775	ICAL 5	SVMS 6689			0.150		30
SVMS 6776	ICAL 6	SVMS 6689			0.200		40
SVMS 6777	ICAL 7	SVMS 6689			0.250		50
SVMS 6778	ICV1	SVMS 6670	100	ug/ml	0.100	0.5	20
SVMS 6779	ICV2	SVMS 6670			0.200		40
SVMS 6780	CCV	SVMS 6689	100	ug/ml	0.100	0.5	20
SVMS		SVMS					
SVMS		SVMS					
SVMS		SVMS					

1

CT Laboratories LLC

SVOC Logbook 01

01/19/2015

NOTEBOOK VIEW: LTN_SVOC_Logbook01_Default, NOTEBOOK: SVOC_Logbook01, PAGE: 16

Page is Unlocked

Page is not Witnessed

Project: Unassigned

Page Title: 090315

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS 6799	8270Matrix Spike	Acetone EMD 53115	RPN	09/03/15	03/03/16
STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3357	1000	ug/ml	1.0	50	20
S3342B	1000	ug/ml	1.0	50	20
S3358	1000	ug/ml	1.0	50	20
S3337	2000	ug/ml	0.5	50	20
S3341	2000	ug/ml	0.5	50	20

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS6800	8270Matrix Spike	Acetone EMD 53115	RPN	09/03/15	03/03/16
STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3357	1000	ug/ml	0.2	10	20
S3342B	1000	ug/ml	0.2	10	20
S3358	1000	ug/ml	0.2	10	20
S3337	2000	ug/ml	0.1	10	20
S3341	2000	ug/ml	0.1	10	20

SVOC Logbook 01

01/19/2015

NOTEBOOK VIEW: LTN_SVOC_Logbook01_Default, NOTEBOOK: SVOC_Logbook01, PAGE: 18

Page is Unlocked

Page is not Witnessed

Project: Unassigned

Page Title: 091015

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
SVMS 6803	8270 Surrogate	Acetone EMD 53115	RPN	09/10/15	03/10/16
STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3304C B/N Surr	5000	ug/ml	1.0	250	20
S3305D Acid Surr	10000	ug/ml	1.0	250	40

**POLYCHLORINATED BIPHENYL
QUALITY CONTROL SUMMARY
DOCUMENTS**

1D-2
PCB ORGANICS ANALYSIS

Sample Description

PAINT-004-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.04</u> (g/L)	CTL Sample ID:	<u>623731</u>
% Solids:	<u>100</u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/28/2015 / 8:50</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53929</u>
Analytical Run #:	<u>118277</u>	Dilution Factor:	<u>10.00</u>
Date & Time Analyzed:	<u>09/03/2015 / 18:06</u>		
Cleanup Date/Time/Type:	<u>, 08/31/2015 14:00 (Sulfur) , 08/31/2015 13:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	1900	U	480	1900	2900	2900
11104-28-2	Aroclor-1221	1900	U	670	1900	2900	2900
11141-16-5	Aroclor-1232	1900	U	870	1900	2900	2900
53469-21-9	Aroclor-1242	1900	U	670	1900	2900	2900
12672-29-6	Aroclor-1248	1900	U	670	1900	2900	2900
11097-69-1	Aroclor-1254	12200		870	1900	2900	2900
11096-82-5	Aroclor-1260	1900	U	580	1900	2900	2900
37324-23-5	Aroclor-1262	9520		670	1900	2900	2900
11100-14-4	Aroclor-1268	1900	U	480	1900	2900	2900

1D-2
PCB ORGANICS ANALYSIS

Sample Description

PAINT-008-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.03</u> (g/L)	CTL Sample ID:	<u>623728</u>
% Solids:	<u>100</u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/28/2015 / 8:50</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53929</u>
Analytical Run #:	<u>118277</u>	Dilution Factor:	<u>100.00</u>
Date & Time Analyzed:	<u>09/02/2015 / 16:19</u>		
Cleanup Date/Time/Type:	<u>, 08/31/2015 14:00 (Sulfur) , 08/31/2015 13:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	19000	U	4900	19000	29000	29000
11104-28-2	Aroclor-1221	19000	U	6800	19000	29000	29000
11141-16-5	Aroclor-1232	19000	U	8700	19000	29000	29000
53469-21-9	Aroclor-1242	19000	U	6800	19000	29000	29000
12672-29-6	Aroclor-1248	19000	U	6800	19000	29000	29000
11097-69-1	Aroclor-1254	158000		8700	19000	29000	29000
11096-82-5	Aroclor-1260	19000	U	5800	19000	29000	29000
37324-23-5	Aroclor-1262	95100		6800	19000	29000	29000
11100-14-4	Aroclor-1268	19000	U	4900	19000	29000	29000

1D-2
PCB ORGANICS ANALYSIS

Sample Description

PAINT-015-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.01</u> (g/L)	CTL Sample ID:	<u>623729</u>
% Solids:	<u>100</u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/28/2015 / 8:50</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53929</u>
Analytical Run #:	<u>118277</u>	Dilution Factor:	<u>100.00</u>
Date & Time Analyzed:	<u>09/02/2015 / 16:41</u>		
Cleanup Date/Time/Type:	<u>, 08/31/2015 14:00 (Sulfur) , 08/31/2015 13:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	20000	U	5000	20000	30000	30000
11104-28-2	Aroclor-1221	20000	U	6900	20000	30000	30000
11141-16-5	Aroclor-1232	20000	U	8900	20000	30000	30000
53469-21-9	Aroclor-1242	20000	U	6900	20000	30000	30000
12672-29-6	Aroclor-1248	20000	U	6900	20000	30000	30000
11097-69-1	Aroclor-1254	109000		8900	20000	30000	30000
11096-82-5	Aroclor-1260	24800	J P	5900	20000	30000	30000
37324-23-5	Aroclor-1262	20000	U	6900	20000	30000	30000
11100-14-4	Aroclor-1268	20000	U	5000	20000	30000	30000

1D-2
PCB ORGANICS ANALYSIS

Sample Description

PAINT-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.06</u> (g/L)	CTL Sample ID:	<u>623732</u>
% Solids:	<u>100</u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/28/2015 / 8:50</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53929</u>
Analytical Run #:	<u>118277</u>	Dilution Factor:	<u>100.00</u>
Date & Time Analyzed:	<u>09/02/2015 / 17:24</u>		
Cleanup Date/Time/Type:	<u>, 08/31/2015 14:00 (Sulfur) , 08/31/2015 13:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	19000	U	4700	19000	28000	28000
11104-28-2	Aroclor-1221	19000	U	6600	19000	28000	28000
11141-16-5	Aroclor-1232	19000	U	8500	19000	28000	28000
53469-21-9	Aroclor-1242	19000	U	6600	19000	28000	28000
12672-29-6	Aroclor-1248	19000	U	6600	19000	28000	28000
11097-69-1	Aroclor-1254	182000		8500	19000	28000	28000
11096-82-5	Aroclor-1260	95300	P	5700	19000	28000	28000
37324-23-5	Aroclor-1262	19000	U	6600	19000	28000	28000
11100-14-4	Aroclor-1268	19000	U	4700	19000	28000	28000

1D-2
PCB ORGANICS ANALYSIS

Sample Description

PAINT-018-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>SOIL</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.05</u> (g/L)	CTL Sample ID:	<u>623730</u>
% Solids:	<u>100</u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/28/2015 / 8:50</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53929</u>
Analytical Run #:	<u>118277</u>	Dilution Factor:	<u>10.00</u>
Date & Time Analyzed:	<u>09/03/2015 / 19:11</u>		
Cleanup Date/Time/Type:	<u>, 08/31/2015 14:00 (Sulfur) , 08/31/2015 13:30 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	1900	U	480	1900	2900	2900
11104-28-2	Aroclor-1221	1900	U	670	1900	2900	2900
11141-16-5	Aroclor-1232	1900	U	860	1900	2900	2900
53469-21-9	Aroclor-1242	1900	U	670	1900	2900	2900
12672-29-6	Aroclor-1248	1900	U	670	1900	2900	2900
11097-69-1	Aroclor-1254	15900		860	1900	2900	2900
11096-82-5	Aroclor-1260	1900	U	570	1900	2900	2900
37324-23-5	Aroclor-1262	16300		670	1900	2900	2900
11100-14-4	Aroclor-1268	1900	U	480	1900	2900	2900

**1D-2
PCB ORGANICS ANALYSIS**

Sample Description

WASTE-001-0815

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: WASTE SDG No.: 113433

Sample wt/vol: 1.05 (g/L) CTL Sample ID: 623735

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 08/31/2015 / 8:45

Analytical Method: EPA 8082A Analytical Prep Batch # 53921

Analytical Run #: 118271 Dilution Factor: 1.00

Date & Time Analyzed: 09/03/2015 / 11:39

Cleanup Date/Time/Type: _____, 08/31/2015 11:30 (Sulfur), 08/31/2015 11:00 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 080715PCBIC Concentration Units: ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	190	U	48	190	290	290
11104-28-2	Aroclor-1221	190	U	67	190	290	290
11141-16-5	Aroclor-1232	190	U	86	190	290	290
53469-21-9	Aroclor-1242	190	U	67	190	290	290
12672-29-6	Aroclor-1248	190	U	67	190	290	290
11097-69-1	Aroclor-1254	333		86	190	290	290
11096-82-5	Aroclor-1260	190	U	57	190	290	290
37324-23-5	Aroclor-1262	448		67	190	290	290
11100-14-4	Aroclor-1268	190	U	48	190	290	290

1D-2
PCB ORGANICS ANALYSIS

Sample Description

WASTE-003-0815

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: WASTE SDG No.: 113433

Sample wt/vol: 1.08 (g/L) CTL Sample ID: 623733

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 08/31/2015 / 8:45

Analytical Method: EPA 8082A Analytical Prep Batch # 53921

Analytical Run #: 118271 Dilution Factor: 1.00

Date & Time Analyzed: 09/03/2015 / 10:56

Cleanup Date/Time/Type: _____, 08/31/2015 11:30 (Sulfur), 08/31/2015 11:00 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 080715PCBIC Concentration Units: ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	190	U	46	190	280	280
11104-28-2	Aroclor-1221	190	U	65	190	280	280
11141-16-5	Aroclor-1232	190	U	83	190	280	280
53469-21-9	Aroclor-1242	190	U	65	190	280	280
12672-29-6	Aroclor-1248	190	U	65	190	280	280
11097-69-1	Aroclor-1254	713		83	190	280	280
11096-82-5	Aroclor-1260	190	U	56	190	280	280
37324-23-5	Aroclor-1262	537		65	190	280	280
11100-14-4	Aroclor-1268	190	U	46	190	280	280

1D-2
PCB ORGANICS ANALYSIS

Sample Description

WASTE-003B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>WASTE</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.01</u> (g/L)	CTL Sample ID:	<u>623734</u>
% Solids:	<u> </u>	Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/31/2015 / 8:45</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53921</u>
Analytical Run #:	<u>118271</u>	Dilution Factor:	<u>1.00</u>
Date & Time Analyzed:	<u>09/03/2015 / 11:18</u>		
Cleanup Date/Time/Type:	<u> , 08/31/2015 11:30 (Sulfur) , 08/31/2015 11:00 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u> /</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	200	U	50	200	300	300
11104-28-2	Aroclor-1221	200	U	69	200	300	300
11141-16-5	Aroclor-1232	200	U	89	200	300	300
53469-21-9	Aroclor-1242	200	U	69	200	300	300
12672-29-6	Aroclor-1248	200	U	69	200	300	300
11097-69-1	Aroclor-1254	505		89	200	300	300
11096-82-5	Aroclor-1260	200	U	59	200	300	300
37324-23-5	Aroclor-1262	386		69	200	300	300
11100-14-4	Aroclor-1268	200	U	50	200	300	300

1D-2
PCB ORGANICS ANALYSIS

Sample Description

WASTE-016-0815

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: WASTE SDG No.: 113433

Sample wt/vol: 1.01 (g/L) CTL Sample ID: 623727

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 08/31/2015 / 8:45

Analytical Method: EPA 8082A Analytical Prep Batch # 53921

Analytical Run #: 118271 Dilution Factor: 1.00

Date & Time Analyzed: 09/03/2015 / 10:35

Cleanup Date/Time/Type: _____, 08/31/2015 11:30 (Sulfur), 08/31/2015 11:00 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 080715PCBIC Concentration Units: ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	200	U	50	200	300	300
11104-28-2	Aroclor-1221	200	U	69	200	300	300
11141-16-5	Aroclor-1232	200	U	89	200	300	300
53469-21-9	Aroclor-1242	200	U	69	200	300	300
12672-29-6	Aroclor-1248	200	U	69	200	300	300
11097-69-1	Aroclor-1254	861		89	200	300	300
11096-82-5	Aroclor-1260	99.0	J P	59	200	300	300
37324-23-5	Aroclor-1262	200	U	69	200	300	300
11100-14-4	Aroclor-1268	200	U	50	200	300	300

1D-2
PCB ORGANICS ANALYSIS

Sample Description

WASTE-016B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix:	<u>WASTE</u>	SDG No.:	<u>113433</u>
Sample wt/vol:	<u>1.03</u> (g/L)	CTL Sample ID:	<u>623737</u>
% Solids:		Date Received:	<u>08/21/2015</u>
Conc. Extract Vol:	<u>10</u> (mL)	Date/Time Prepared:	<u>08/31/2015 / 8:45</u>
Analytical Method:	<u>EPA 8082A</u>	Analytical Prep Batch #	<u>53921</u>
Analytical Run #:	<u>118271</u>	Dilution Factor:	<u>10.00</u>
Date & Time Analyzed:	<u>09/03/2015 / 12:01</u>		
Cleanup Date/Time/Type:	<u>, 08/31/2015 11:30 (Sulfur) , 08/31/2015 11:00 (Acid) ,</u>		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable):	<u>/</u>		
ICAL Calibration #:	<u>080715PCBIC</u>	Concentration Units:	<u>ug/kg</u>

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	1900	U	490	1900	2900	2900
11104-28-2	Aroclor-1221	1900	U	680	1900	2900	2900
11141-16-5	Aroclor-1232	1900	U	870	1900	2900	2900
53469-21-9	Aroclor-1242	1900	U	680	1900	2900	2900
12672-29-6	Aroclor-1248	1900	U	680	1900	2900	2900
11097-69-1	Aroclor-1254	6310		870	1900	2900	2900
11096-82-5	Aroclor-1260	1900	U	580	1900	2900	2900
37324-23-5	Aroclor-1262	1900	U	680	1900	2900	2900
11100-14-4	Aroclor-1268	1900	U	490	1900	2900	2900

PCB ORGANICS ANALYSIS (MB)

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: _____ SDG No.: 113433

Sample wt/vol: 1.00 (g/L) CTL Sample ID: 623918

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 08/31/2015 / 8:45

Analytical Method: EPA 8082A Analytical Prep Batch # 53921

Analytical Run #: 118271 Dilution Factor: ug/kg

Cleanup Date/Time/Type: _____, 08/31/2015 11:30 (Sulfur), 08/31/2015 11:00 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 080715PCBIC Concentration Units: MBS

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
12674-11-2	Aroclor-1016	09/02/2015	06:27	5	U	5	30	15
11104-28-2	Aroclor-1221	09/02/2015	06:27	7	U	7	30	15
11141-16-5	Aroclor-1232	09/02/2015	06:27	9	U	9	30	15
53469-21-9	Aroclor-1242	09/02/2015	06:27	7	U	7	30	15
12672-29-6	Aroclor-1248	09/02/2015	06:27	7	U	7	30	15
11097-69-1	Aroclor-1254	09/02/2015	06:27	9	U	9	30	15
11096-82-5	Aroclor-1260	09/02/2015	06:27	6	U	6	30	15
37324-23-5	Aroclor-1262	09/02/2015	06:27	7	U	7	30	15
11100-14-4	Aroclor-1268	09/02/2015	06:27	5	U	5	30	15

PCB ORGANICS ANALYSIS (MB)

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: _____ SDG No.: 113433

Sample wt/vol: 1.00 (g/L) CTL Sample ID: 624035

% Solids: _____ Date Received: 08/21/2015

Conc. Extract Vol: 10 (mL) Date/Time Prepared: 08/28/2015 / 8:50

Analytical Method: EPA 8082A Analytical Prep Batch # 53929

Analytical Run #: 118277 Dilution Factor: ug/kg

Cleanup Date/Time/Type: _____, 08/31/2015 14:00 (Sulfur), 08/31/2015 13:30 (Acid), _____

TCLP / SPLP / MLP or ASTM Procedure Extraction Date (if applicable): _____ / _____

ICAL Calibration #: 080715PCBIC Concentration Units: MBS

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	Control Limit
12674-11-2	Aroclor-1016	09/01/2015	23:18	5	U	5	30	15
11104-28-2	Aroclor-1221	09/01/2015	23:18	7	U	7	30	15
11141-16-5	Aroclor-1232	09/01/2015	23:18	9	U	9	30	15
53469-21-9	Aroclor-1242	09/01/2015	23:18	7	U	7	30	15
12672-29-6	Aroclor-1248	09/01/2015	23:18	7	U	7	30	15
11097-69-1	Aroclor-1254	09/01/2015	23:18	9	U	9	30	15
11096-82-5	Aroclor-1260	09/01/2015	23:18	6	U	6	30	15
37324-23-5	Aroclor-1262	09/01/2015	23:18	7	U	7	30	15
11100-14-4	Aroclor-1268	09/01/2015	23:18	5	U	5	30	15

2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Analytical Method: EPA 8082A SDG: 113433

Analytical Run #: 118271 ICAL Calibration #: 080715PCBIC

GC Column(1): Restek RTX ID: 0.32 (mm)

GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	623727				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	81	60	125	
CTLab #	623733				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	109	60	125	
CTLab #	623734				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	108	60	125	
CTLab #	623735				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	86	60	125	
CTLab #	623737				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	74	60	125	
CTLab #	623918	Sample Type:	Method Blank		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	111	60	125	
CTLab #	623919	Sample Type:	Lab Control Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	120	60	125	
CTLab #	625783				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	23	60	125	FAIL
CTLab #	625784				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	126	60	125	FAIL
CTLab #	625788				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	79	60	125	

2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Analytical Method: EPA 8082A SDG: 113433

Analytical Run #: 118277 ICAL Calibration #: 080715PCBIC

GC Column(1): Restek RTX ID: 0.32 (mm) GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	623728				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	0	60	125	FAIL
CTLab #	623729				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	0	60	125	FAIL
CTLab #	623730				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	107	60	125	
CTLab #	623731				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	37	60	125	FAIL
CTLab #	623732				
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	0	60	125	FAIL
CTLab #	624035	Sample Type:	Method Blank		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	102	60	125	
CTLab #	624036	Sample Type:	Lab Control Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	99.8	60	125	
CTLab #	624038	Sample Type:	Matrix Spike		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	79.8	60	125	
CTLab #	624039	Sample Type:	Matrix Spike Duplicate		
Surrogate	Spike Amount	% Recovery	Lower Limit	Upper Limit	Qualifier
Surr: DCBP	100	87.1	60	125	

3F

Sample Description

SOIL PCB MATRIX SPIKE RECOVERY

PAINT-018-0815

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 Matrix: SOIL SDG No.: 113433
 Analytical Method: EPA 8082A Concentration Units: ug/kg
 Analytical Run #: 118277 Sample No.: 624038 Parent Sample No.: 623730
 Analytical Prep Batch #: 53929 Analytical Preparation Date/Time: 08/28/2015 8:50
 ICAL Calibration #: _____

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R	
Aroclor-1016	09/03/2015	19:32	40-140	12000	BDL	4810	249	FAIL
Aroclor-1260	09/03/2015	19:32	60-130	24900	BDL	4810	518	FAIL

Spike Recovery: 2 out of 2 outside QC limits

3F

Sample Description

SOIL PCB MATRIX SPIKE DUPLICATE RECOVERY

PAINT-018-0815

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SC
 Matrix: SOIL SDG No.: 113433
 Analytical Method: EPA 8082A Concentration Units: ug/kg
 Analytical Run #: 118277 Sample No.: 624039 Parent Sample No.: 624038
 Analytical Prep Batch #: 53929 Analytical Preparation Date/Time: 08/28/2015 8:50
 ICAL Calibration #: _____

Analyte	Analysis Date/Time		Spike Result	Spike Amount	%R	%RPD	Control Limits		
							(%R)	(%RPD)	
Aroclor-1016	09/03/2015	19:54	12100	4950	244	2	40-140	30	FAIL
Aroclor-1260	09/03/2015	19:54	24900	4950	503	3	60-130	30	FAIL

RPD or
 Spike Recovery: 2 out of 2 outside QC limits

3F

Sample Description

SOIL PCB LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 Sample No.: 623919 SDG No.: 113433
 Analytical Method: EPA 8082A Concentration Units: ug/kg

Sample No.: 623919 Parent Sample No.: 0
 Analytical Prep Batch #: 53921 Analytical Preparation Date/Time: 08/31/2015 8:45
 Analytical Run #: 118271 ICAL Calibration #: _____

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	09/02/2015	06:49	40-140	5460		5000	109
Aroclor-1260	09/02/2015	06:49	60-130	5780		5000	116

Spike Recovery: 0 out of 2 outside limits

3F

Sample Description

SOIL PCB LAB CONTROL SAMPLE

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 Sample No.: 624036 SDG No.: 113433
 Analytical Method: EPA 8082A Concentration Units: ug/kg

Sample No.: 624036 Parent Sample No.: 0
 Analytical Prep Batch #: 53929 Analytical Preparation Date/Time: 08/28/2015 8:50
 Analytical Run #: 118277 ICAL Calibration #: _____

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	09/01/2015	23:40	40-140	4640		5000	93
Aroclor-1260	09/01/2015	23:40	60-130	4880		5000	98

Spike Recovery: 0 out of 2 outside limits

CT Laboratories**4C-2****PCB METHOD BLANK SUMMARY**

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Sample ID:	<u>623918</u>	SDG No.:	<u>113433</u>
Matrix:	<u>SOLID</u>	Date Extracted:	<u>08/31/2015</u>
Date Analyzed:	<u>09/02/2015</u>	Time Analyzed:	<u>06:27</u>
Analytical Method:	<u>EPA 8082A</u>	Extraction Method:	<u>SW3546</u>
Analytical Run #:	<u>118271</u>	Extraction Batch #:	<u>53921</u>
		ICAL Calibration #:	<u></u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED
1	WASTE-016-0815	623727	09/03/2015 10:35
2	WASTE-003-0815	623733	09/03/2015 10:56
3	WASTE-003B-0815	623734	09/03/2015 11:18
4	WASTE-001-0815	623735	09/03/2015 11:39
5	WASTE-016B-0815	623737	09/03/2015 12:01
6	MBS	623918	09/02/2015 06:27
7	LCSS	623919	09/02/2015 06:49

CT Laboratories**4C-2****PCB METHOD BLANK SUMMARY**

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Sample ID:	<u>624035</u>	SDG No.:	<u>113433</u>
Matrix:	<u>SOLID</u>	Date Extracted:	<u>08/28/2015</u>
Date Analyzed:	<u>09/01/2015</u>	Time Analyzed:	<u>23:18</u>
Analytical Method:	<u>EPA 8082A</u>	Extraction Method:	<u>SW3546</u>
Analytical Run #:	<u>118277</u>	Extraction Batch #:	<u>53929</u>
		ICAL Calibration #:	<u></u>

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

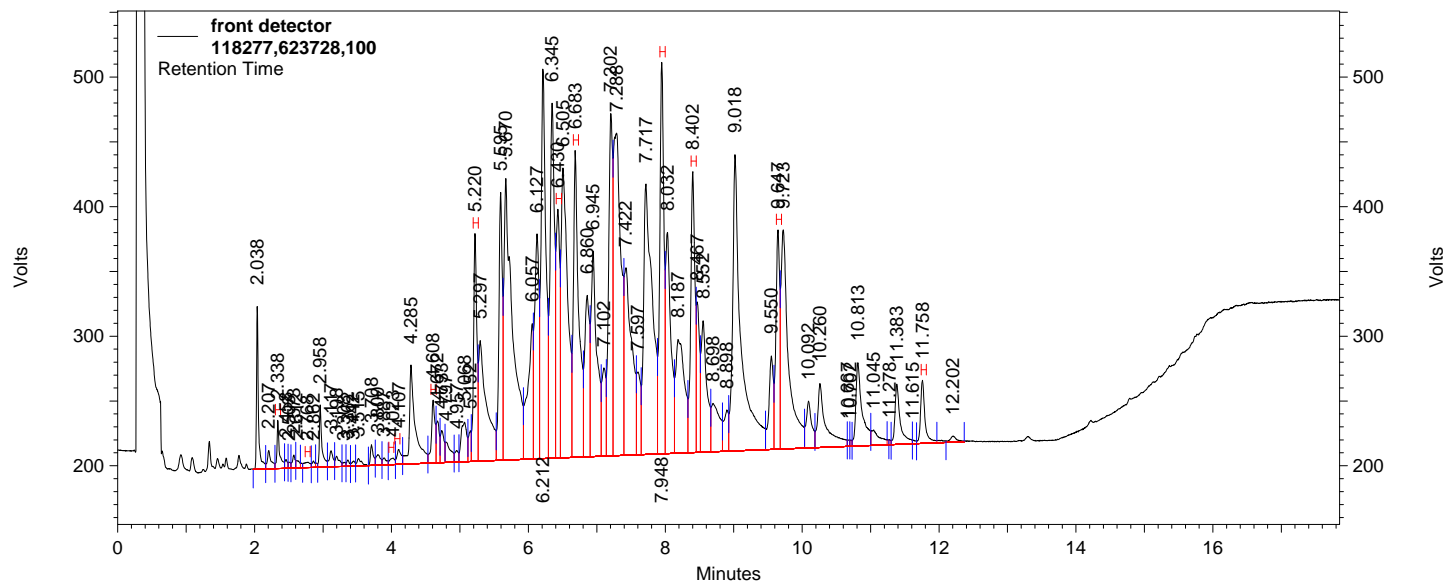
SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED
1	PAINT-008-0815	623728	09/02/2015 16:19
2	PAINT-015-0815	623729	09/02/2015 16:41
3	PAINT-018-0815	623730	09/03/2015 19:11
4	PAINT-004-0815	623731	09/03/2015 18:06
5	PAINT-016-0815	623732	09/02/2015 17:24
6	MBS	624035	09/01/2015 23:18
7	LCSS	624036	09/01/2015 23:40
8	PAINT-018-0815MSS	624038	09/03/2015 19:32
9	PAINT-018-0815MSDS	624039	09/03/2015 19:54

**POLYCHLORINATED BIPHENYL
SAMPLE DATA
DOCUMENTS**

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623728,100
Acquired: Sep 02,2015 16:19:55
Printed: Sep 03,2015 14:33:46

Data Summary: {Data Description}



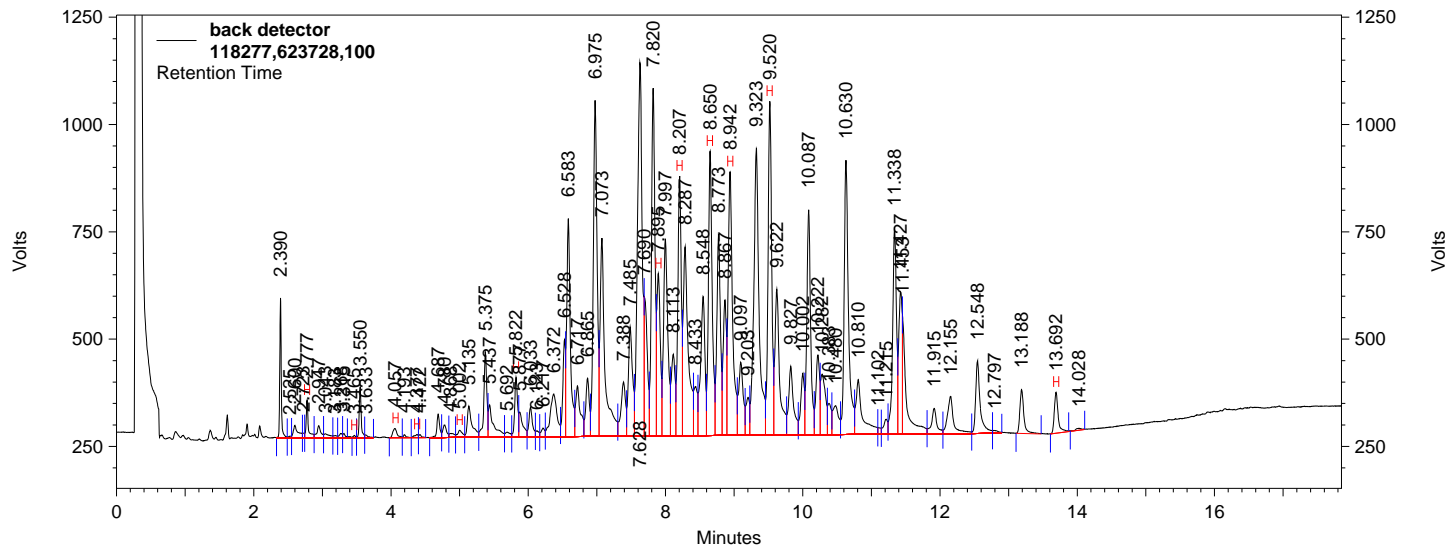
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.338	741373	0.000
Aroclor 1016 #1	2.768	206481	0.000
Aroclor 1016 #2	4.023	195783	0.000
Aroclor 1016 #3	4.107	385186	0.000
Aroclor 1016 #4	4.608	1351000	0.002
Aroclor 1016 #5	5.220	4589706	0.038
Aroclor 1260 #1	6.430	5421054	0.033
Aroclor 1260 #2	6.683	10006651	0.029
Aroclor 1260 #3	7.948	9776821	0.034
Aroclor 1260 #4	8.402	7145544	0.023
Aroclor 1260 #5	9.647	5038260	0.026
SURRDCBPCB	11.758	1679928	2.744
Aroclor 1016		6728156	0.039
Aroclor 1260		37388330	0.146

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623728,100
Acquired: Sep 02,2015 16:19:55
Printed: Sep 03,2015 14:33:46

Data Summary: {Data Description}



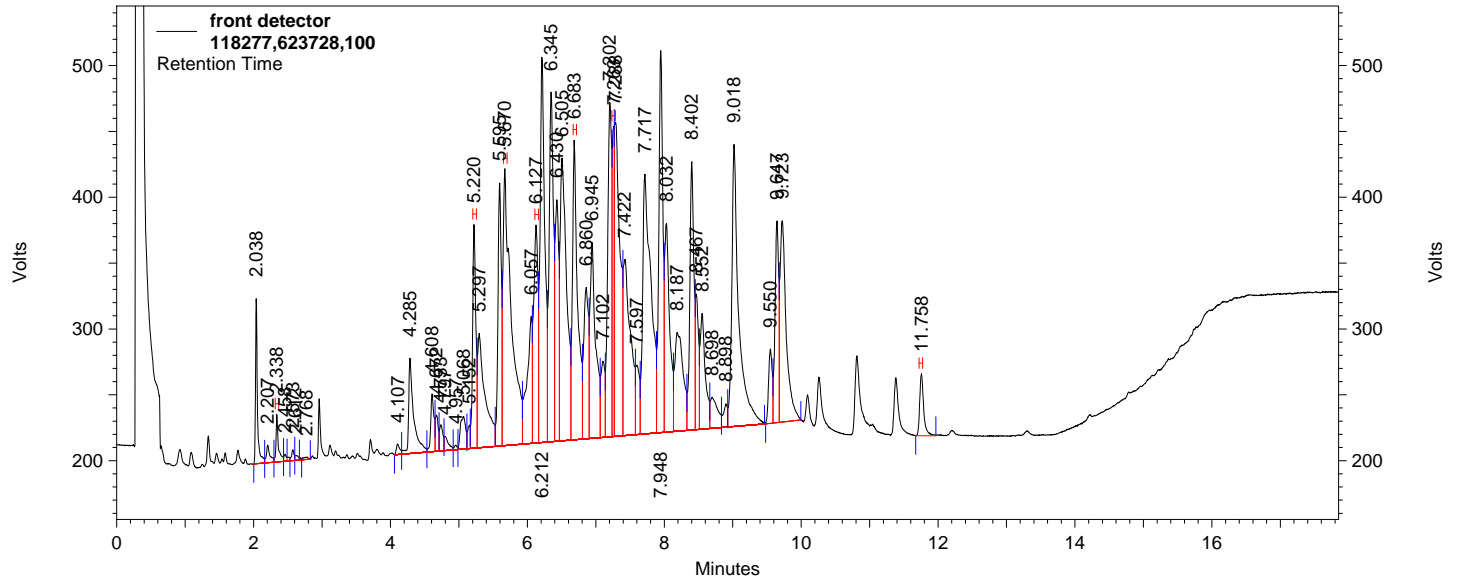
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	1515416	0.365
Aroclor 1016 #1	3.465	100031	0.000
Aroclor 1016 #2	4.057	724062	0.000
Aroclor 1016 #3	4.377	207921	0.000
Aroclor 1016 #4	5.002	624288	0.000
Aroclor 1016 #5	5.822	3145837	0.006
Aroclor 1260 #1	7.895	10224656	0.029
Aroclor 1260 #2	8.207	16225831	0.022
Aroclor 1260 #3	8.650	19556664	0.023
Aroclor 1260 #4	8.942	21395524	0.037
Aroclor 1260 #5	9.520	22119917	0.036
SURRDCBPCB	13.692	2879975	3.127
Aroclor 1016		4802139	0.006
Aroclor 1260		89522592	0.147

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623728,100
Acquired: Sep 02,2015 16:19:55
Printed: Sep 04,2015 07:57:44

Data Summary: {Data Description}



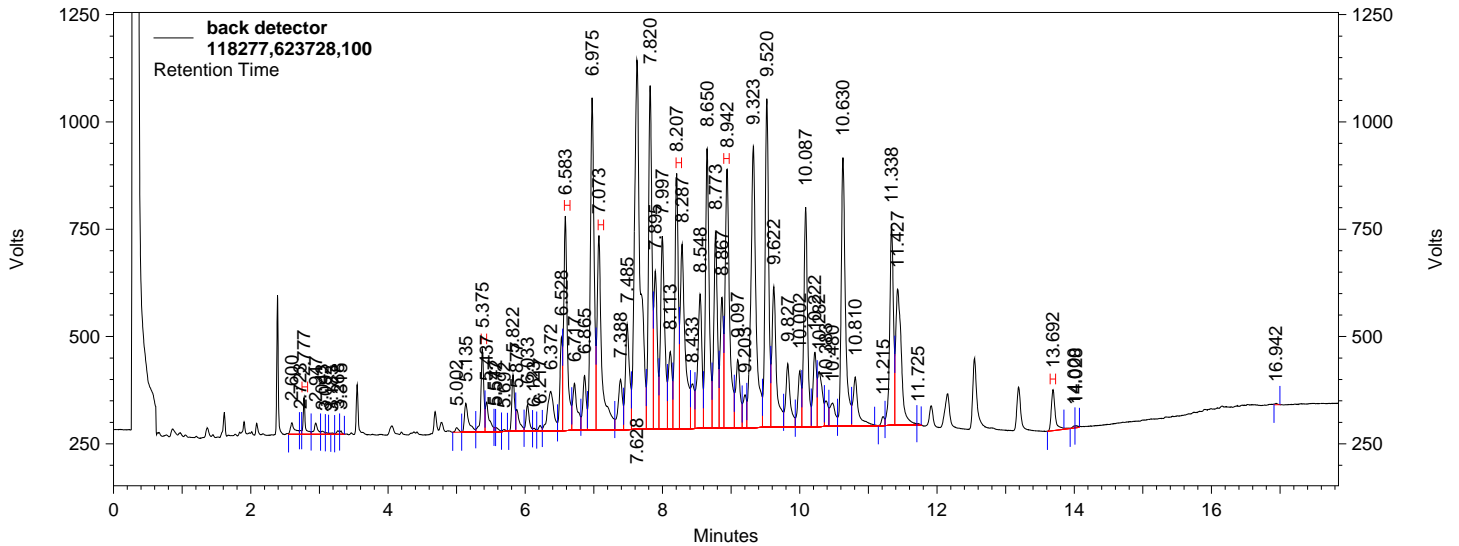
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	662088	1.760
Aroclor 1254 #1	5.220	4310918	0.022
Aroclor 1254 #2	5.670	13601775	0.056
Aroclor 1254 #3	6.127	5446061	0.026
Aroclor 1254 #4	6.683	9278244	0.047
Aroclor 1254 #5	7.263	3343869	0.012
SURRDCB	11.758	1474261	5.156
Aroclor 1254		35980867	0.163

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623728,100
Acquired: Sep 02,2015 16:19:55
Printed: Sep 04,2015 07:57:44

Data Summary: {Data Description}



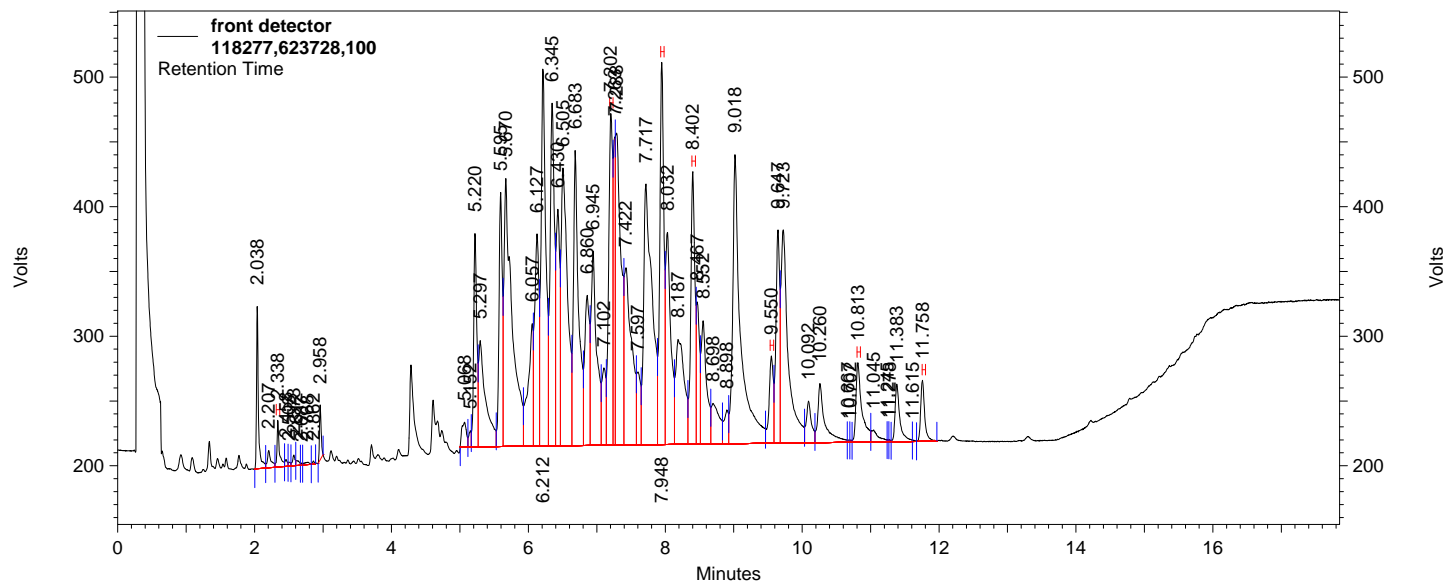
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	1374836	1.998
Aroclor 1254 #1	5.375	4253640	0.016
Aroclor 1254 #2	6.583	14033987	0.026
Aroclor 1254 #3	7.073	16774439	0.035
Aroclor 1254 #4	8.207	15789824	0.046
Aroclor 1254 #5	8.942	20621662	0.041
SURRDCB	13.692	2865630	6.010
Aroclor 1254		71473552	0.165

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118277,623728,100
Acquired: Sep 02,2015 16:19:55
Printed: Sep 04,2015 07:58:04

Data Summary: {Data Description}



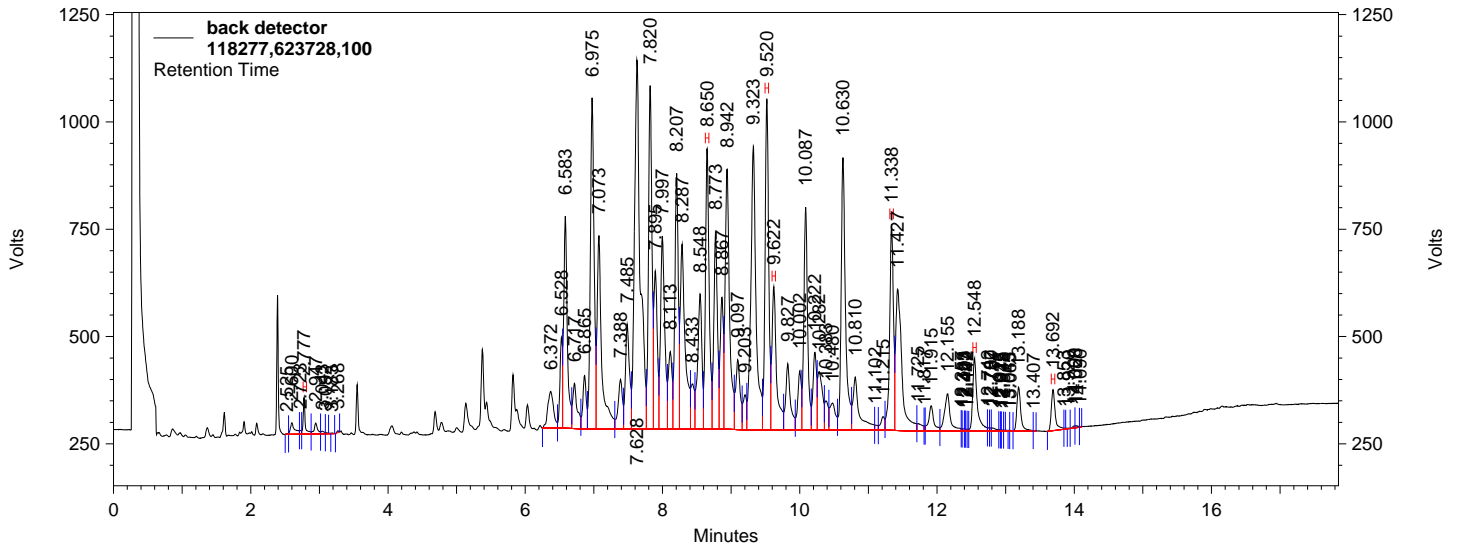
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	662933	1.765
Aroclor 1262 #1	7.202	7928004	0.032
Aroclor 1262 #2	7.948	9409676	0.026
Aroclor 1262 #3	8.402	6787624	0.021
Aroclor 1262 #4	9.550	2196958	0.010
Aroclor 1262 #5	10.813	2855938	0.010
SURRDCB	11.758	1487055	5.174
Aroclor 1262		29178200	0.098

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118277,623728,100
Acquired: Sep 02,2015 16:19:55
Printed: Sep 04,2015 07:58:04

Data Summary: {Data Description}



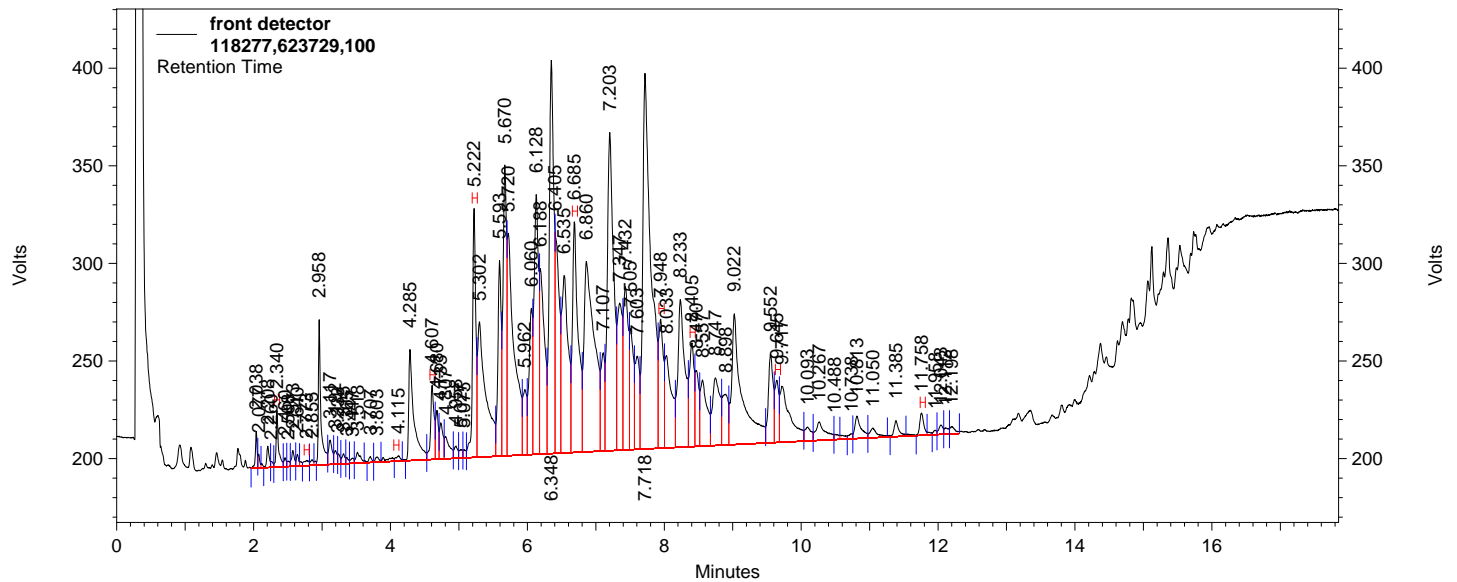
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	1330759	1.939
Aroclor 1262 #1	8.650	19090370	0.031
Aroclor 1262 #2	9.520	21772452	0.027
Aroclor 1262 #3	9.622	12053306	0.029
Aroclor 1262 #4	11.338	14297650	0.015
Aroclor 1262 #5	12.548	6015799	0.012
SURRDCB	13.692	2865630	6.038
Aroclor 1262		73229577	0.113

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623729,100
Acquired: Sep 02,2015 16:41:20
Printed: Sep 03,2015 14:33:49

Data Summary: {Data Description}



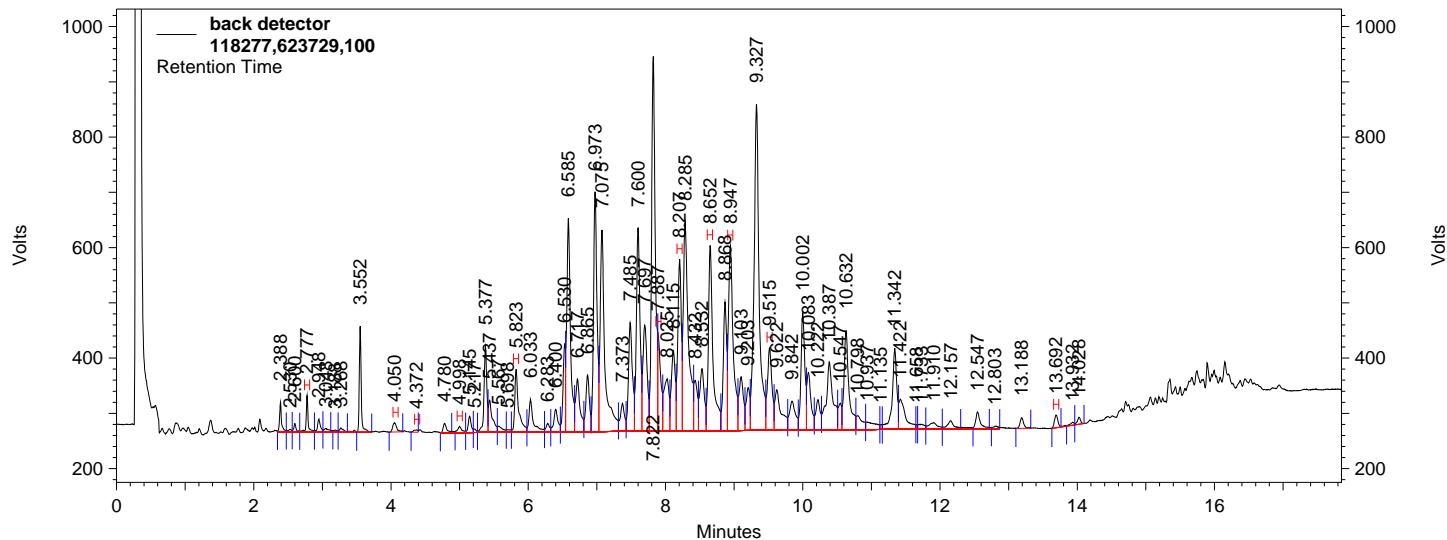
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	546747	0.000
Aroclor 1016 #1	2.773	101779	0.000
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	4.115	93472	0.000
Aroclor 1016 #4	4.607	1024500	0.000
Aroclor 1016 #5	5.222	3301614	0.026
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	6.685	5425666	0.014
Aroclor 1260 #3	7.948	2413379	0.006
Aroclor 1260 #4	8.405	1932391	0.004
Aroclor 1260 #5	9.645	984823	0.002
SURRDCBPCB	11.758	358024	0.000
Aroclor 1016		4521365	0.026
Aroclor 1260		10756259	0.025

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\005.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: 118277,623729,100
 Acquired: Sep 02,2015 16:41:20
 Printed: Sep 03,2015 14:33:49

Data Summary: {Data Description}



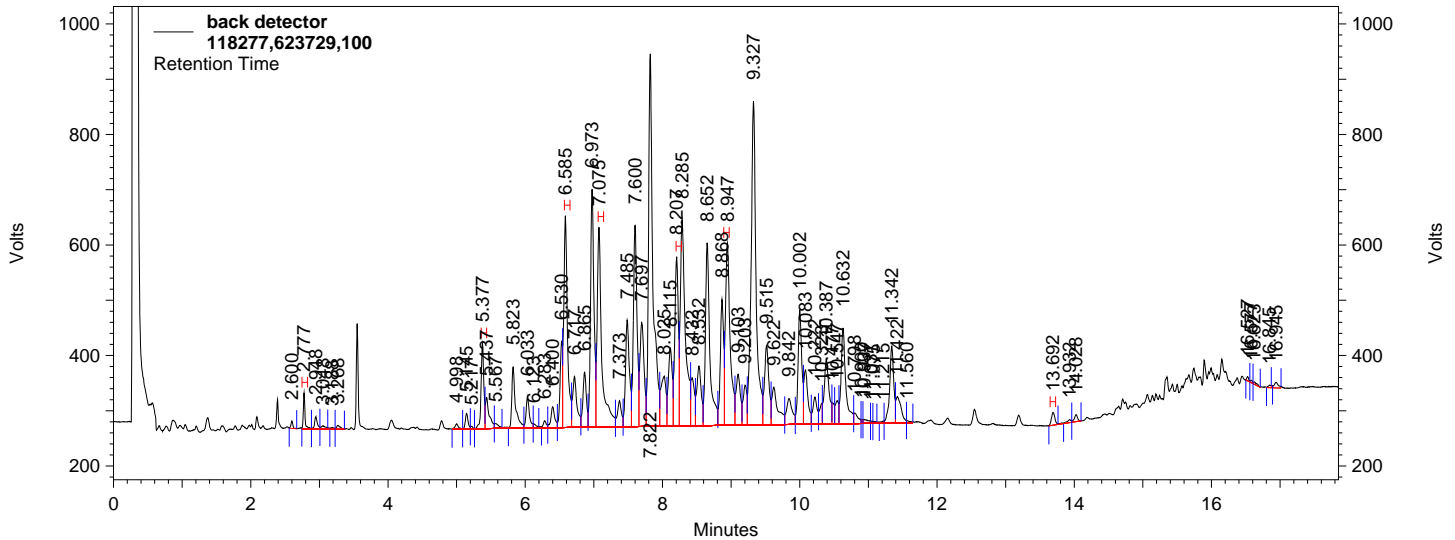
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	1007577	0.000
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2	4.050	524012	0.000
Aroclor 1016 #3	4.372	134464	0.000
Aroclor 1016 #4	4.998	366247	0.000
Aroclor 1016 #5	5.823	3463015	0.007
Aroclor 1260 #1	7.887	4012457	0.010
Aroclor 1260 #2	8.207	8525029	0.010
Aroclor 1260 #3	8.652	12035472	0.013
Aroclor 1260 #4	8.947	12539828	0.021
Aroclor 1260 #5	9.515	5316310	0.006
SURRDCBPCB	13.692	611132	0.000
Aroclor 1016		4487738	0.007
Aroclor 1260		42429096	0.059

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623729,100
Acquired: Sep 02,2015 16:41:20
Printed: Sep 04,2015 09:06:11

Data Summary: {Data Description}



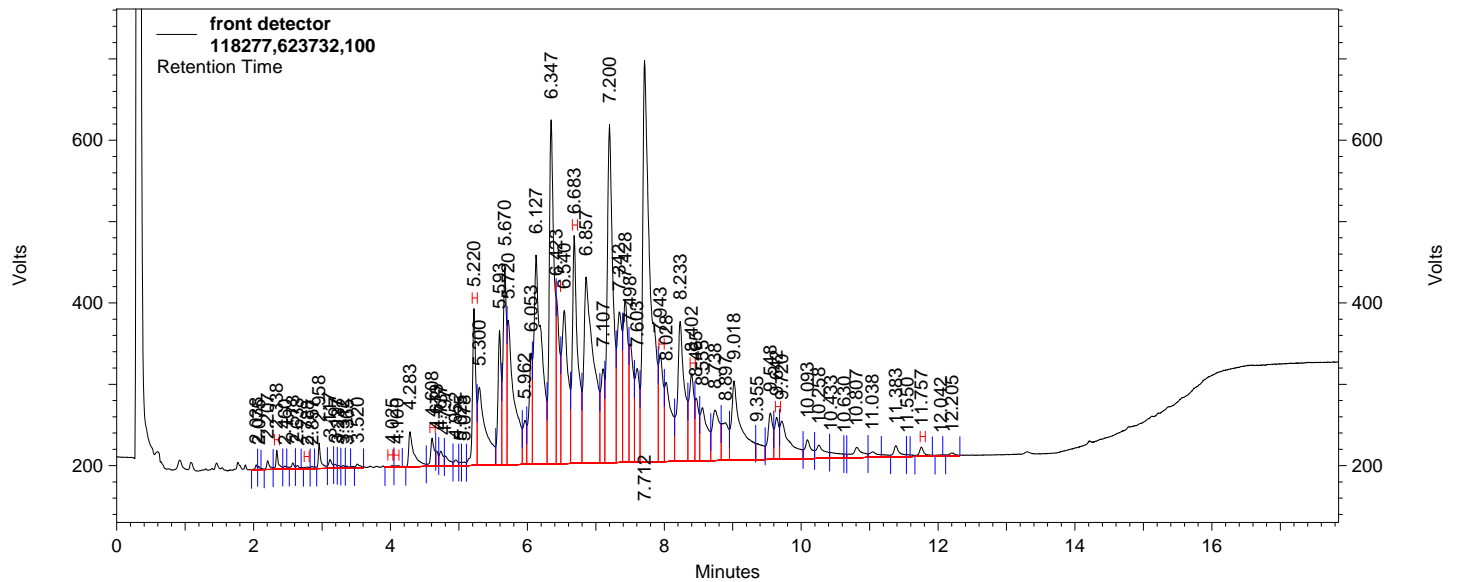
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	848503	1.233
Aroclor 1254 #1	5.377	3285104	0.013
Aroclor 1254 #2	6.585	10980455	0.020
Aroclor 1254 #3	7.075	13144653	0.028
Aroclor 1254 #4	8.207	8354352	0.024
Aroclor 1254 #5	8.947	12198156	0.024
SURRDCB	13.692	611491	1.282
Aroclor 1254		47962720	0.109

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623732,100
Acquired: Sep 02,2015 17:24:19
Printed: Sep 03,2015 14:33:54

Data Summary: {Data Description}



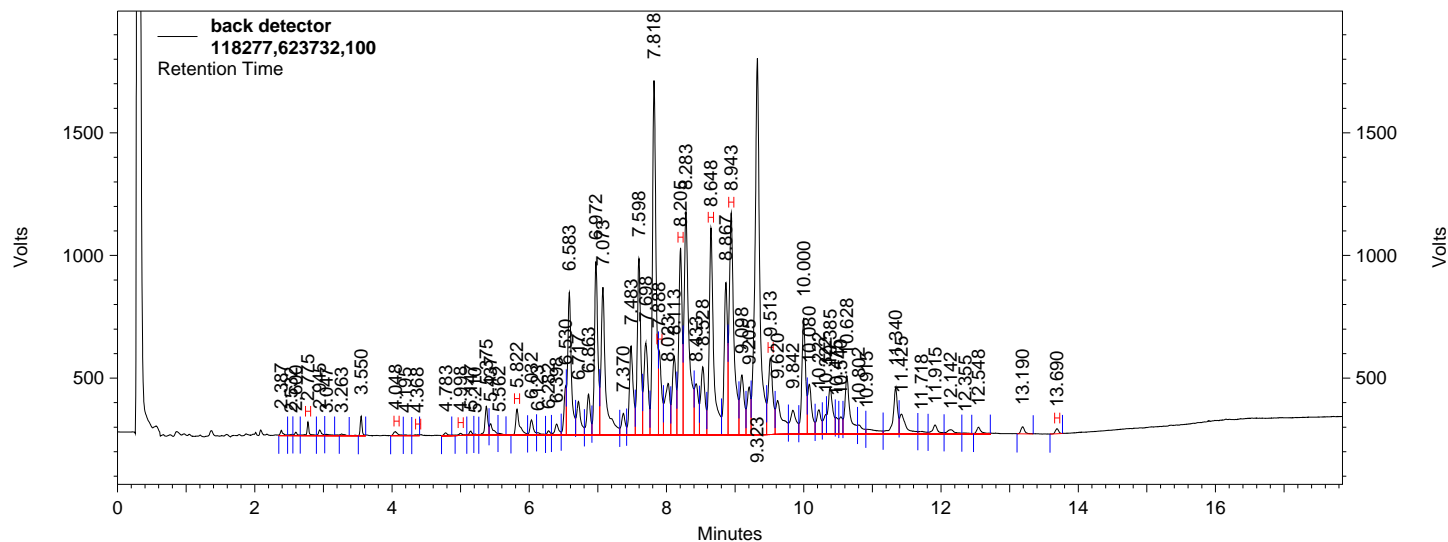
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.338	441986	0.000
Aroclor 1016 #1	2.788	79206	0.000
Aroclor 1016 #2	4.025	55279	0.000
Aroclor 1016 #3	4.100	61735	0.000
Aroclor 1016 #4	4.608	987239	0.000
Aroclor 1016 #5	5.220	5045639	0.042
Aroclor 1260 #1	6.423	5362998	0.033
Aroclor 1260 #2	6.683	11987232	0.035
Aroclor 1260 #3	7.943	4685644	0.014
Aroclor 1260 #4	8.402	4232318	0.013
Aroclor 1260 #5	9.642	1731678	0.006
SURRDCBPCB	11.757	447126	0.000
Aroclor 1016		6229098	0.042
Aroclor 1260		27999870	0.101

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623732,100
Acquired: Sep 02,2015 17:24:19
Printed: Sep 03,2015 14:33:54

Data Summary: {Data Description}



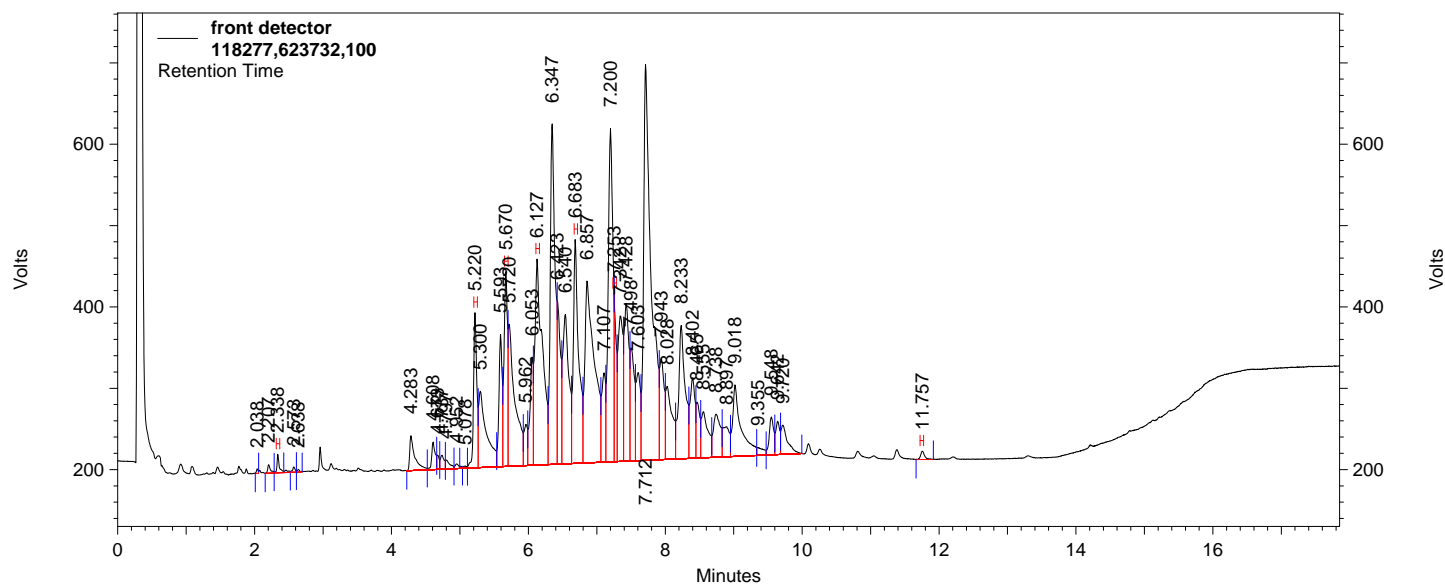
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.775	932434	0.000
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2	4.048	581442	0.000
Aroclor 1016 #3	4.368	143006	0.000
Aroclor 1016 #4	4.998	298398	0.000
Aroclor 1016 #5	5.822	3280252	0.007
Aroclor 1260 #1	7.888	8029757	0.022
Aroclor 1260 #2	8.205	20303587	0.029
Aroclor 1260 #3	8.648	28710773	0.035
Aroclor 1260 #4	8.943	32531855	0.058
Aroclor 1260 #5	9.513	11351411	0.017
SURRDCBPCB	13.690	530061	0.000
Aroclor 1016		4303098	0.007
Aroclor 1260		100927383	0.161

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623732,100
Acquired: Sep 02,2015 17:24:19
Printed: Sep 04,2015 08:01:47

Data Summary: {Data Description}



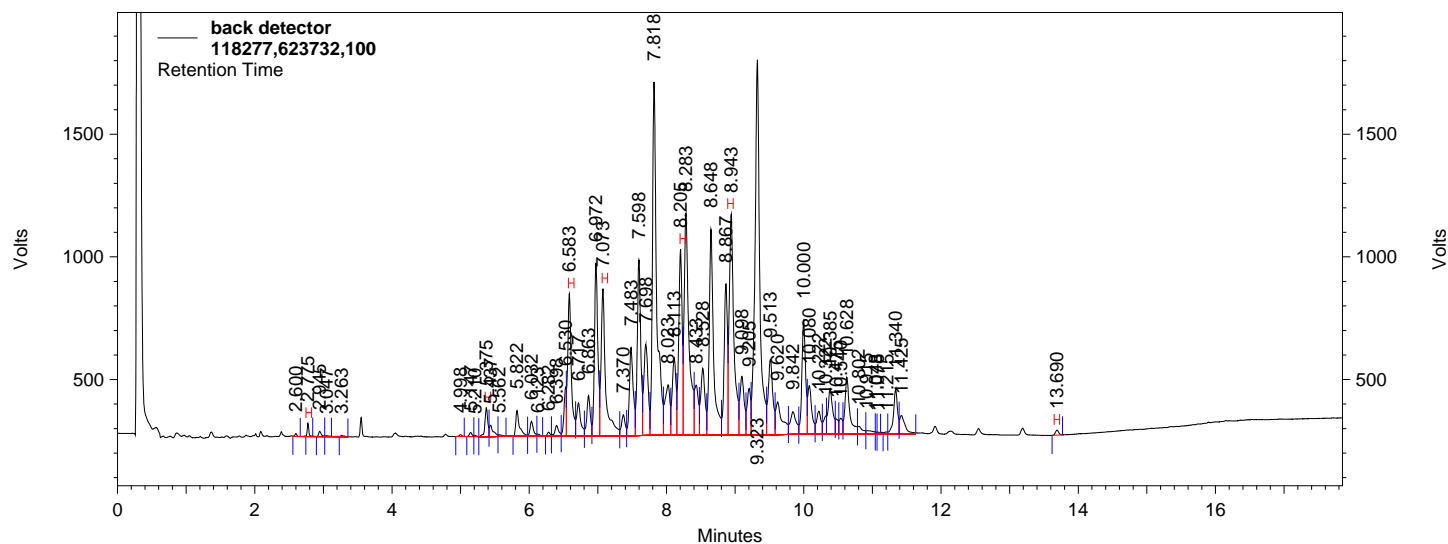
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.338	401801	1.068
Aroclor 1254 #1	5.220	4894230	0.025
Aroclor 1254 #2	5.670	6345168	0.026
Aroclor 1254 #3	6.127	15031639	0.071
Aroclor 1254 #4	6.683	11596675	0.059
Aroclor 1254 #5	7.253	3333997	0.012
SURRDCB	11.757	324561	1.135
Aroclor 1254		41201709	0.193

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623732,100
Acquired: Sep 02,2015 17:24:19
Printed: Sep 04,2015 08:01:47

Data Summary: {Data Description}



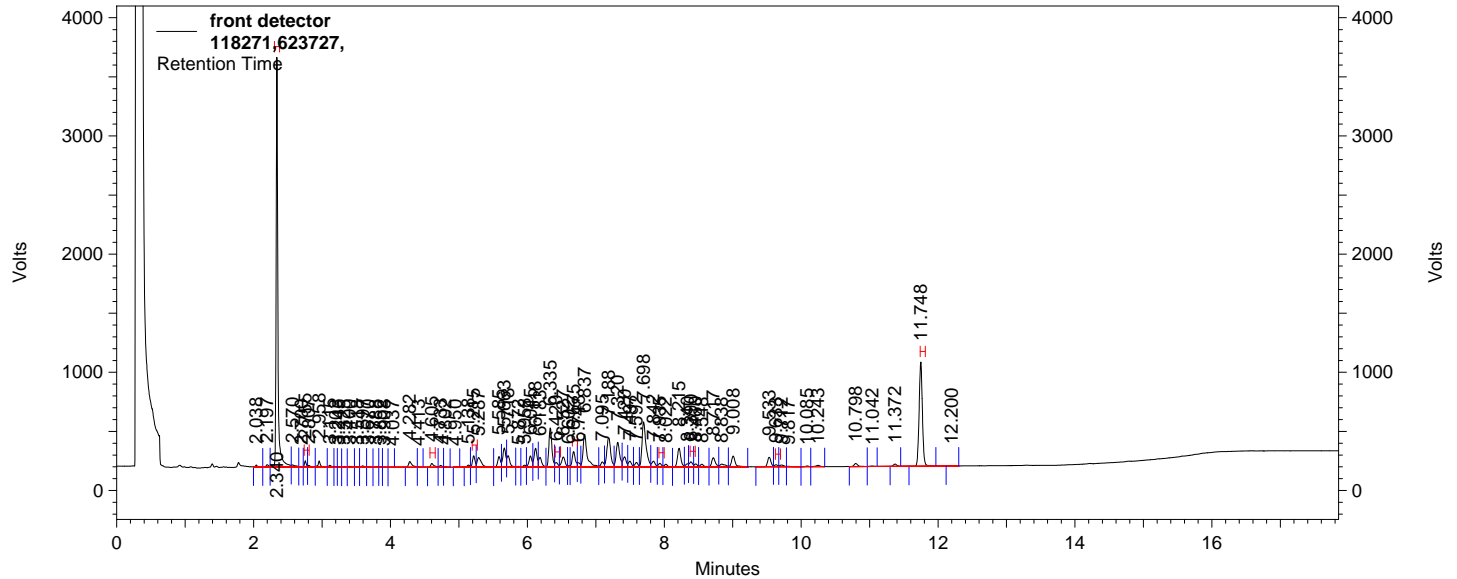
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.775	692953	1.007
Aroclor 1254 #1	5.375	2575768	0.010
Aroclor 1254 #2	6.583	16584986	0.031
Aroclor 1254 #3	7.073	21151266	0.045
Aroclor 1254 #4	8.205	20130762	0.059
Aroclor 1254 #5	8.943	32169954	0.064
SURRDCB	13.690	528309	1.108
Aroclor 1254		92612736	0.208

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\042.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623727,
Acquired: Sep 03,2015 10:35:14
Printed: Sep 03,2015 14:35:47

Data Summary: {Data Description}



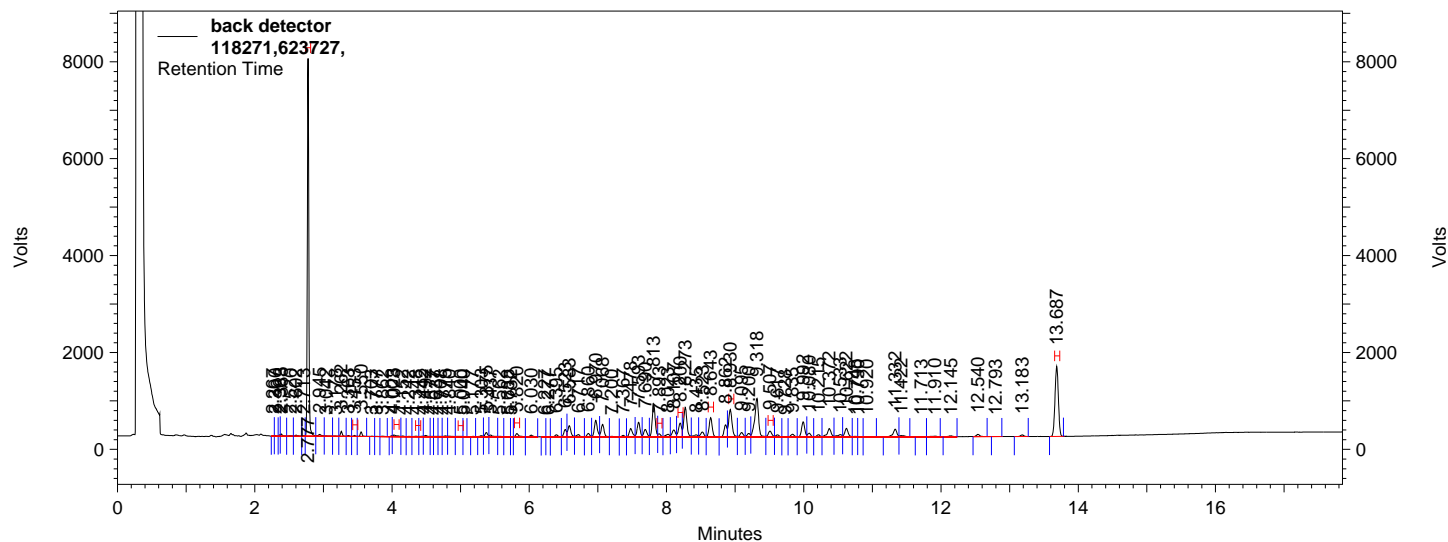
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	46039243	118.910
Aroclor 1016 #1	2.755	757315	0.002
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4	4.605	854391	0.000
Aroclor 1016 #5	5.215	1988573	0.014
Aroclor 1260 #1	6.420	911830	0.003
Aroclor 1260 #2	6.675	3242085	0.007
Aroclor 1260 #3	7.935	767565	0.000
Aroclor 1260 #4	8.390	1111232	0.001
Aroclor 1260 #5	9.633	453598	0.000
SURRDCBPCB	11.748	22855111	80.766
Aroclor 1016		3600279	0.016
Aroclor 1260		6486310	0.010

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\042.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623727,
Acquired: Sep 03,2015 10:35:14
Printed: Sep 03,2015 14:35:47

Data Summary: {Data Description}



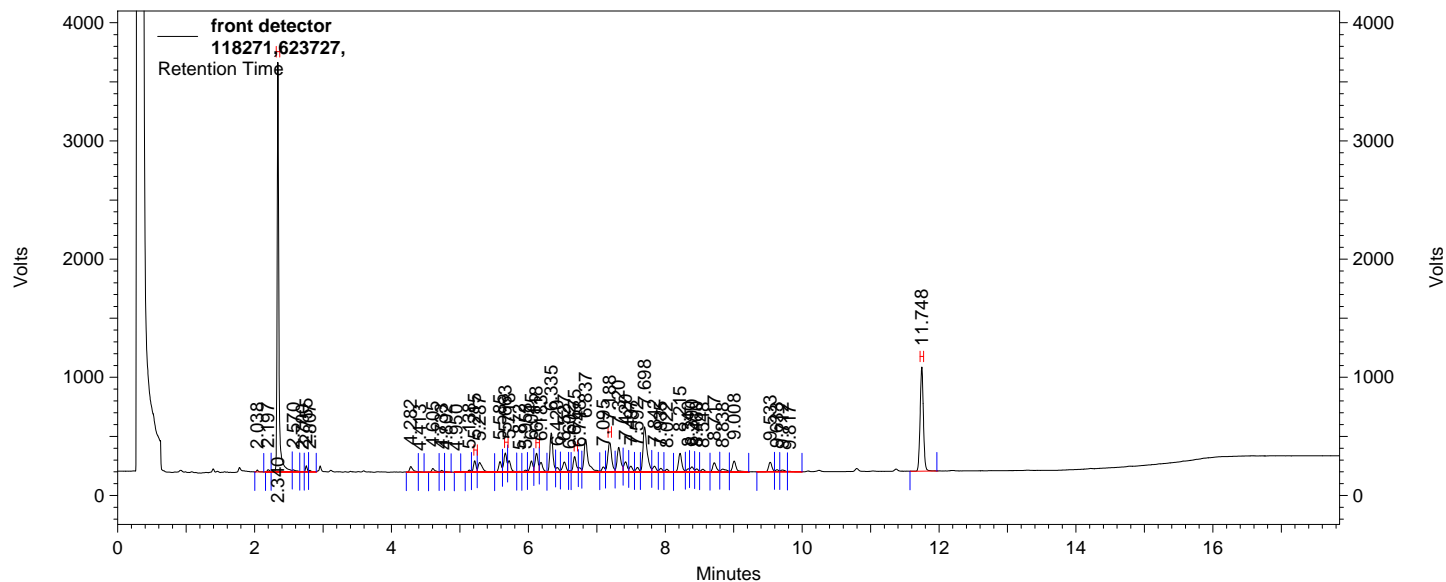
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	89742221	132.152
Aroclor 1016 #1	3.453	361708	0.000
Aroclor 1016 #2	4.028	1060983	0.000
Aroclor 1016 #3	4.348	307477	0.000
Aroclor 1016 #4	5.000	379757	0.000
Aroclor 1016 #5	5.820	1826103	0.002
Aroclor 1260 #1	7.893	1376172	0.001
Aroclor 1260 #2	8.200	6941359	0.007
Aroclor 1260 #3	8.643	9564420	0.009
Aroclor 1260 #4	8.930	14767599	0.025
Aroclor 1260 #5	9.507	3265324	0.003
SURRDCBPCB	13.687	37942193	83.605
Aroclor 1016		3936028	0.002
Aroclor 1260		35914874	0.045

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\042.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623727,
Acquired: Sep 03,2015 10:35:14
Printed: Sep 04,2015 08:10:27

Data Summary: {Data Description}



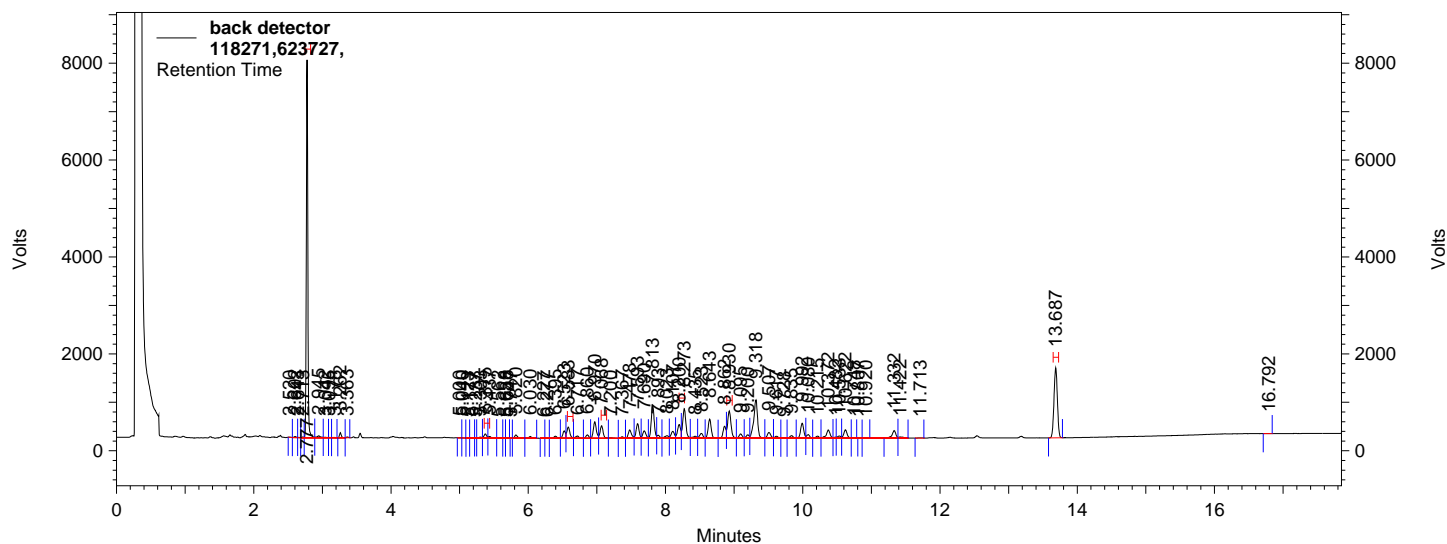
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	45891183	121.990
Aroclor 1254 #1	5.215	1988573	0.010
Aroclor 1254 #2	5.663	3732495	0.015
Aroclor 1254 #3	6.118	3725731	0.018
Aroclor 1254 #4	6.675	3242085	0.016
Aroclor 1254 #5	7.188	7484058	0.027
SURRDCB	11.748	22814960	79.796
Aroclor 1254		20172942	0.087

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\042.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623727,
Acquired: Sep 03,2015 10:35:14
Printed: Sep 04,2015 08:10:27

Data Summary: {Data Description}



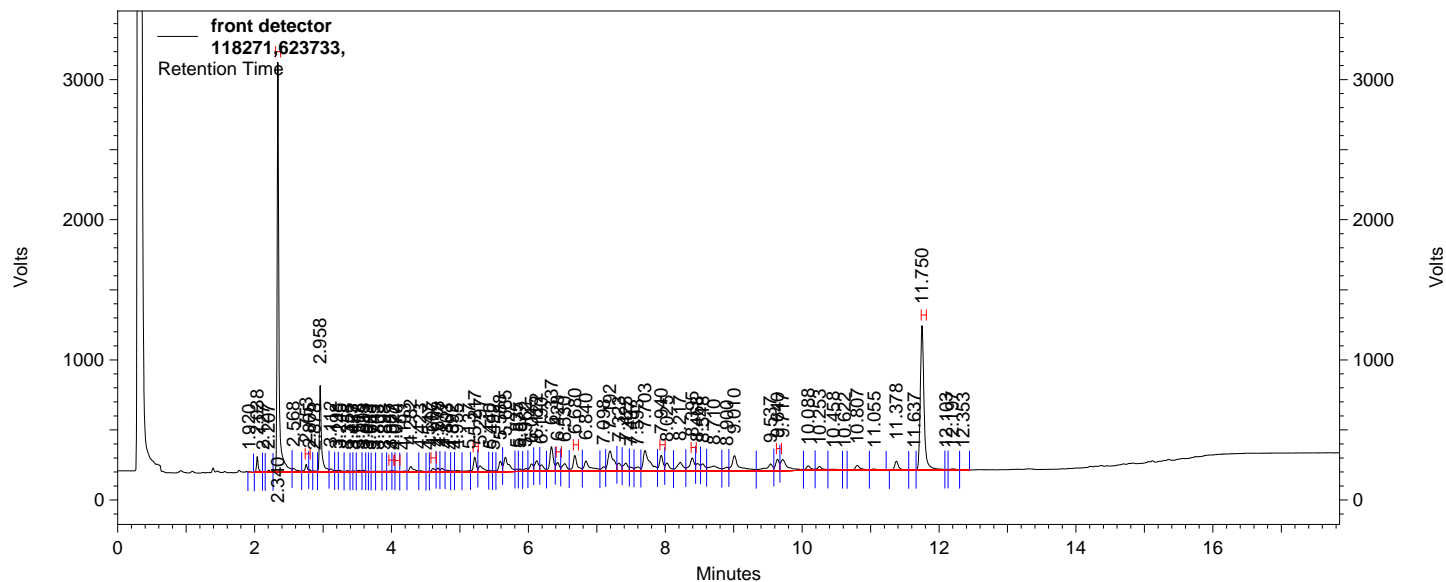
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	89722939	130.423
Aroclor 1254 #1	5.375	1821075	0.007
Aroclor 1254 #2	6.583	5500164	0.010
Aroclor 1254 #3	7.068	6151126	0.013
Aroclor 1254 #4	8.273	14979477	0.044
Aroclor 1254 #5	8.930	14767754	0.030
SURRDCB	13.687	37942193	79.570
Aroclor 1254		43219596	0.103

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623733,
Acquired: Sep 03,2015 10:56:39
Printed: Sep 03,2015 14:35:50

Data Summary: {Data Description}



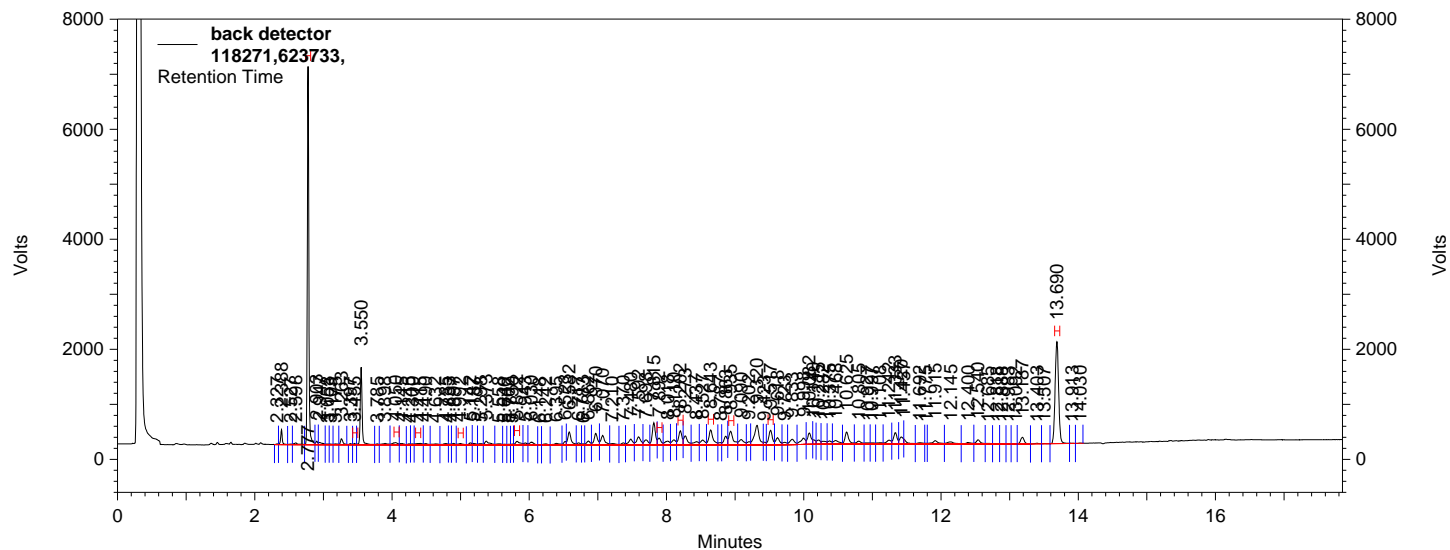
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	41249894	106.252
Aroclor 1016 #1	2.753	1137536	0.005
Aroclor 1016 #2	3.987	221029	0.000
Aroclor 1016 #3	4.070	147689	0.000
Aroclor 1016 #4	4.607	638341	0.000
Aroclor 1016 #5	5.217	2294383	0.017
Aroclor 1260 #1	6.428	1726469	0.008
Aroclor 1260 #2	6.680	3844684	0.009
Aroclor 1260 #3	7.940	3133933	0.008
Aroclor 1260 #4	8.395	3334401	0.009
Aroclor 1260 #5	9.640	2247684	0.010
SURRDCBPCB	11.750	30589285	109.264
Aroclor 1016		4438978	0.022
Aroclor 1260		14287171	0.044

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623733,
Acquired: Sep 03,2015 10:56:39
Printed: Sep 03,2015 14:35:50

Data Summary: {Data Description}



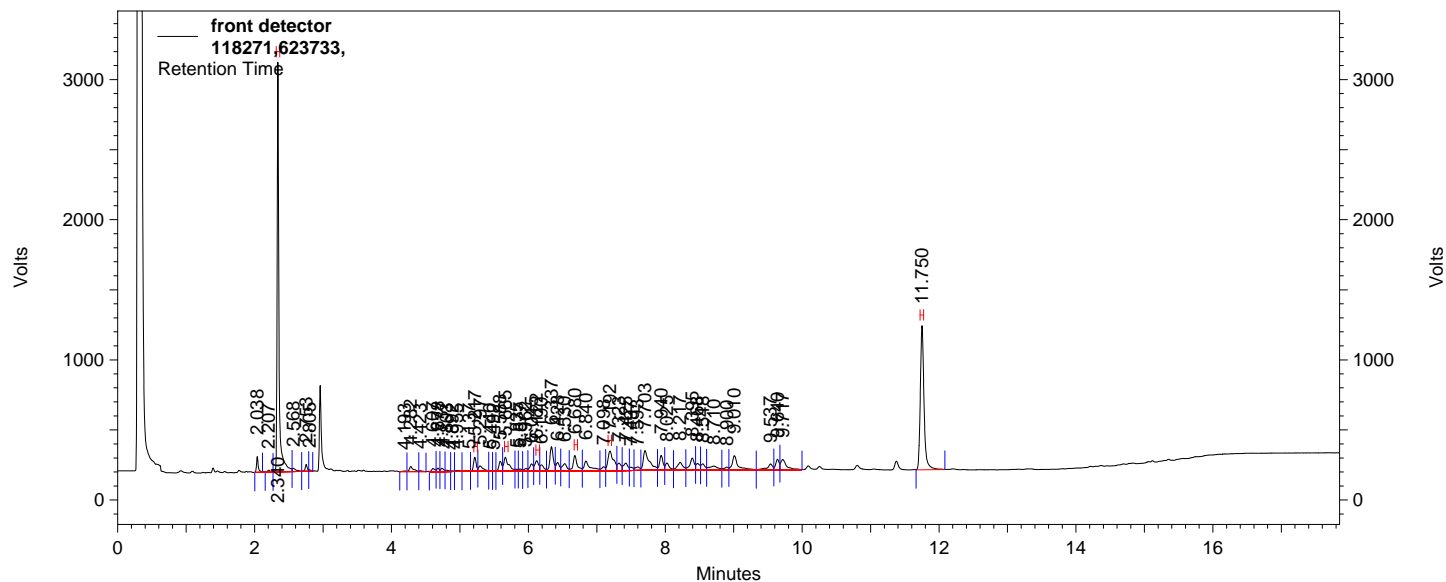
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.777	79912775	117.469
Aroclor 1016 #1	3.455	365692	0.000
Aroclor 1016 #2	4.050	1585907	0.000
Aroclor 1016 #3	4.415	1244810	0.005
Aroclor 1016 #4	4.992	926043	0.000
Aroclor 1016 #5	5.822	2394103	0.004
Aroclor 1260 #1	7.892	3168711	0.007
Aroclor 1260 #2	8.202	6588013	0.006
Aroclor 1260 #3	8.643	8561310	0.008
Aroclor 1260 #4	8.935	7874095	0.012
Aroclor 1260 #5	9.517	7178664	0.009
SURRDCBPCB	13.690	50733151	112.964
Aroclor 1016		6516555	0.009
Aroclor 1260		33370793	0.043

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623733,
Acquired: Sep 03,2015 10:56:39
Printed: Sep 04,2015 08:11:53

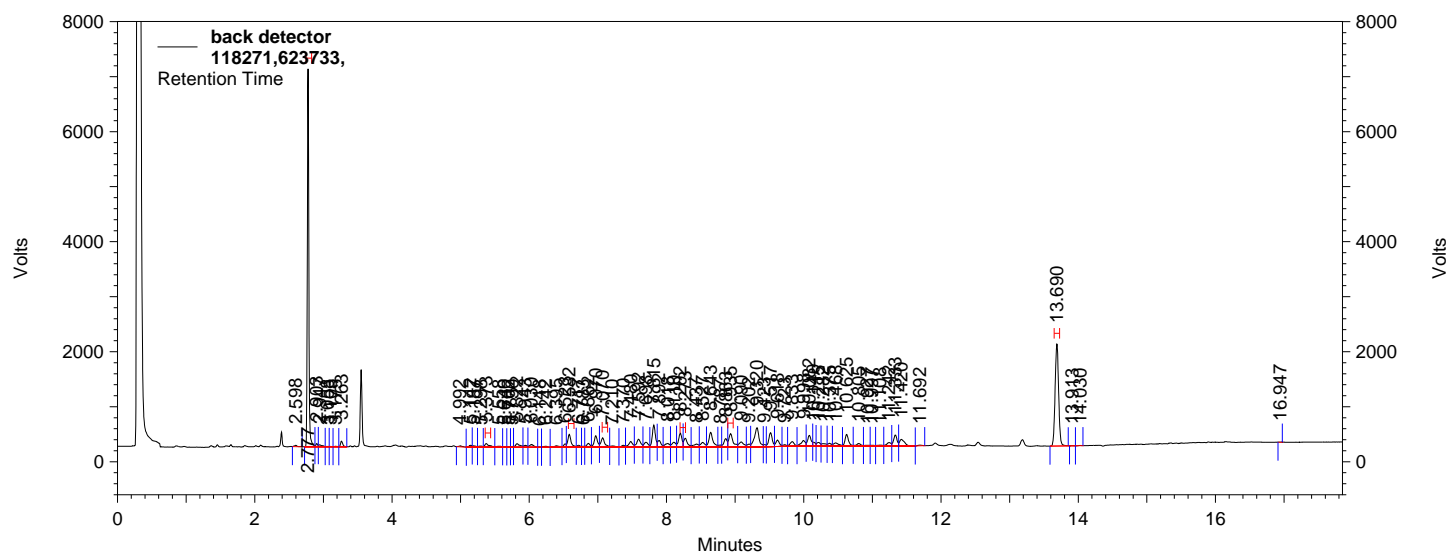
Data Summary: {Data Description}



PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623733,
Acquired: Sep 03,2015 10:56:39
Printed: Sep 04,2015 08:11:53

Data Summary: {Data Description}



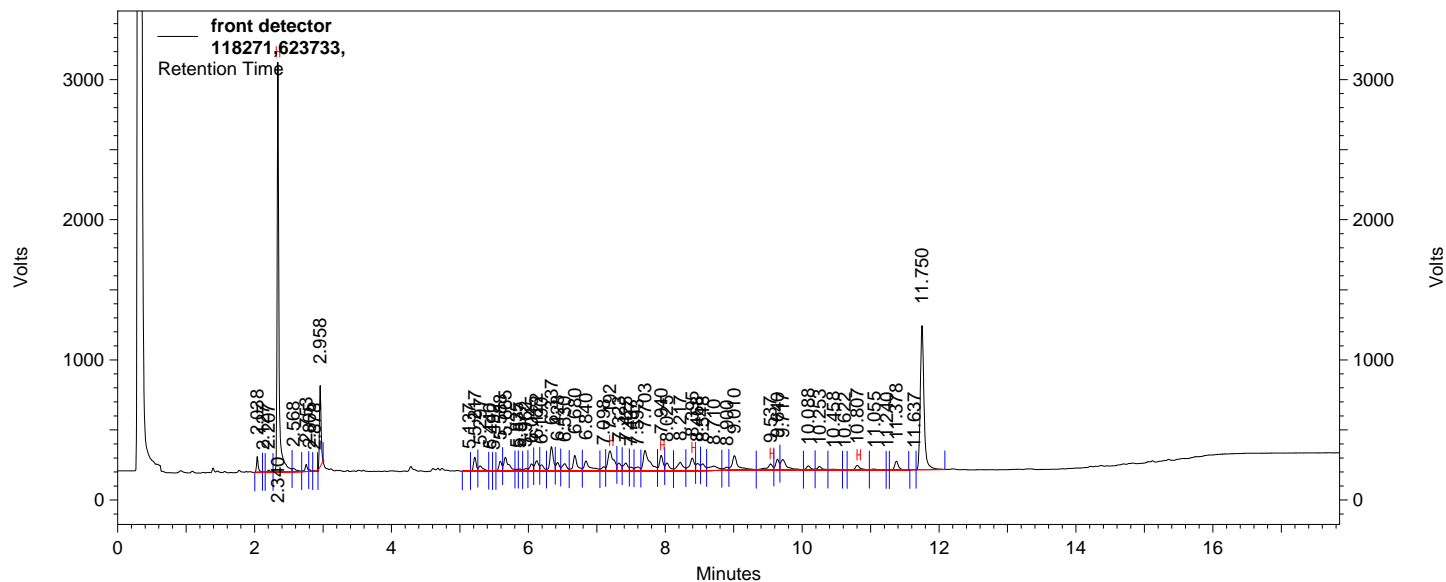
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMX	2.777	79548985	115.634
Aroclor 1254 #1	5.373	2436793	0.009
Aroclor 1254 #2	6.582	6189052	0.011
Aroclor 1254 #3	7.070	5108418	0.011
Aroclor 1254 #4	8.273	4373644	0.013
Aroclor 1254 #5	8.935	7467981	0.015
SURRDCB	13.690	50703078	106.332
Aroclor 1254		25575888	0.059

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\043.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 User: JJY
 Sample ID: 118271,623733,
 Acquired: Sep 03,2015 10:56:39
 Printed: Sep 04,2015 08:12:29

Data Summary: {Data Description}



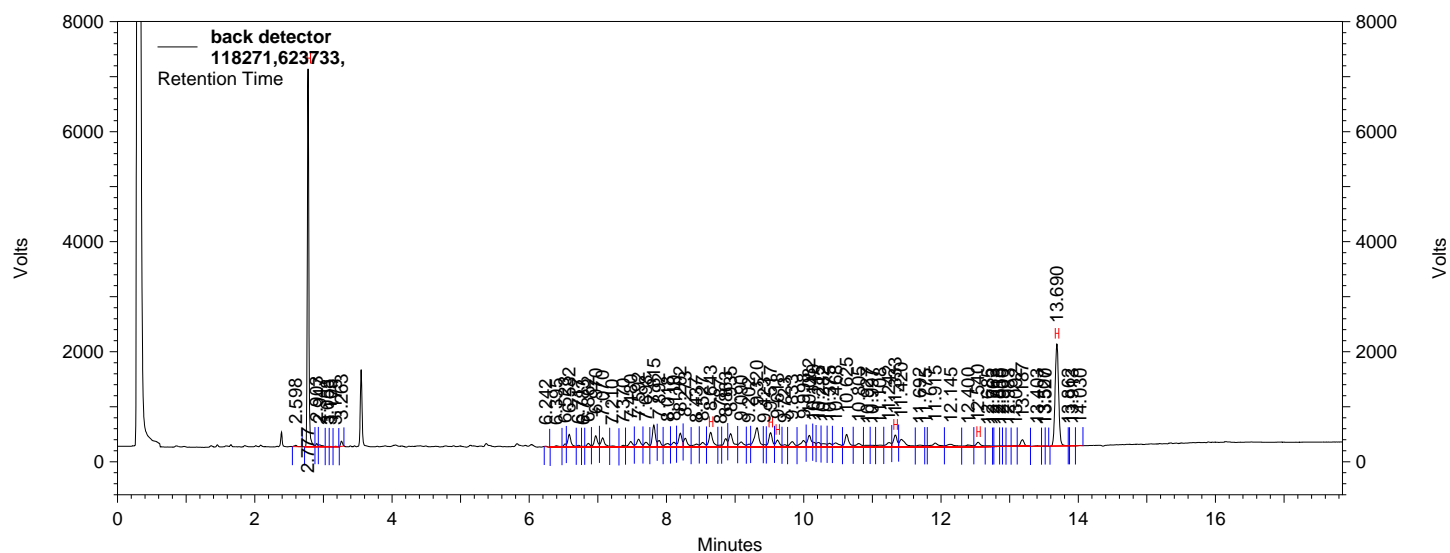
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	40810542	108.662
Aroclor 1262 #1	7.192	6139965	0.025
Aroclor 1262 #2	7.940	3018373	0.008
Aroclor 1262 #3	8.395	3186348	0.010
Aroclor 1262 #4	9.537	2239312	0.010
Aroclor 1262 #5	10.807	1455630	0.005
SURRDCB			0.000 BDL
Aroclor 1262		16039628	0.058

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\043.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118271,623733,
Acquired: Sep 03,2015 10:56:39
Printed: Sep 04,2015 08:12:29

Data Summary: {Data Description}



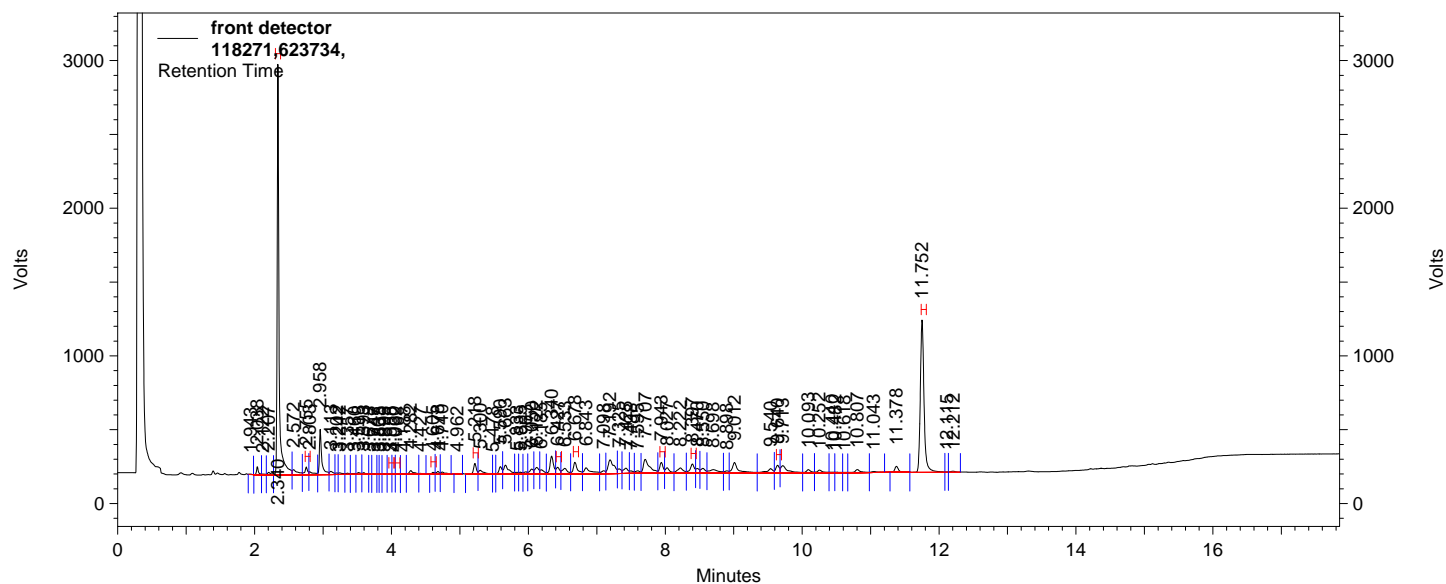
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	79534234	115.892
Aroclor 1262 #1	8.643	8561310	0.014
Aroclor 1262 #2	9.517	7178664	0.009
Aroclor 1262 #3	9.618	3692817	0.009
Aroclor 1262 #4	11.333	5984988	0.006
Aroclor 1262 #5	12.540	2595381	0.005
SURRDCB	13.690	50703078	106.826
Aroclor 1262		28013160	0.043

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623734,
Acquired: Sep 03,2015 11:18:09
Printed: Sep 03,2015 14:35:57

Data Summary: {Data Description}



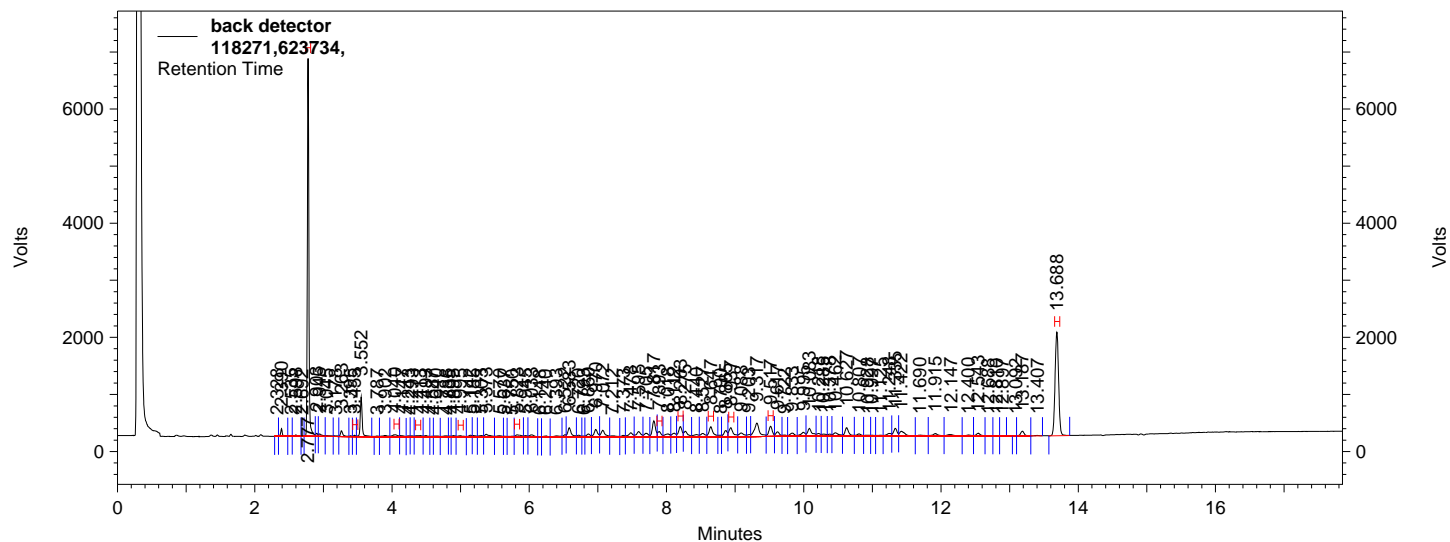
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	40203830	103.488
Aroclor 1016 #1	2.755	1063670	0.005
Aroclor 1016 #2	3.988	141437	0.000
Aroclor 1016 #3	4.062	125171	0.000
Aroclor 1016 #4	4.605	273879	0.000
Aroclor 1016 #5	5.218	1619759	0.011
Aroclor 1260 #1	6.427	1165864	0.004
Aroclor 1260 #2	6.678	2480346	0.004
Aroclor 1260 #3	7.943	2025004	0.004
Aroclor 1260 #4	8.397	2046935	0.004
Aroclor 1260 #5	9.640	1416965	0.004
SURRDCBPCB	11.752	30285011	108.143
Aroclor 1016		3223916	0.015
Aroclor 1260		9135114	0.022

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623734,
Acquired: Sep 03,2015 11:18:09
Printed: Sep 03,2015 14:35:57

Data Summary: {Data Description}



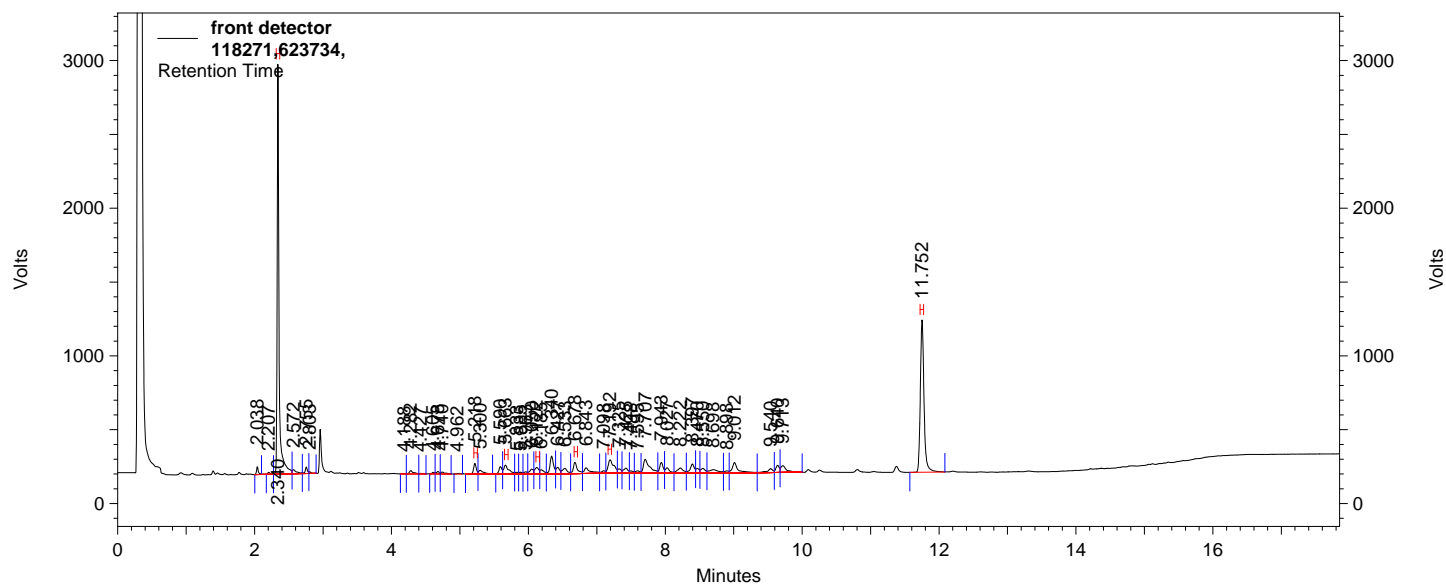
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.777	78136511	114.816
Aroclor 1016 #1	3.455	368382	0.000
Aroclor 1016 #2	4.040	1402937	0.000
Aroclor 1016 #3	4.413	1002195	0.003
Aroclor 1016 #4	4.995	838211	0.000
Aroclor 1016 #5	5.823	1598709	0.001
Aroclor 1260 #1	7.893	2397615	0.005
Aroclor 1260 #2	8.203	4760834	0.003
Aroclor 1260 #3	8.647	5476198	0.004
Aroclor 1260 #4	8.937	5070647	0.007
Aroclor 1260 #5	9.517	4984351	0.006
SURRDCBPCB	13.688	49924241	111.108
Aroclor 1016		5210434	0.004
Aroclor 1260		22689645	0.024

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623734,
Acquired: Sep 03,2015 11:18:09
Printed: Sep 04,2015 08:13:53

Data Summary: {Data Description}



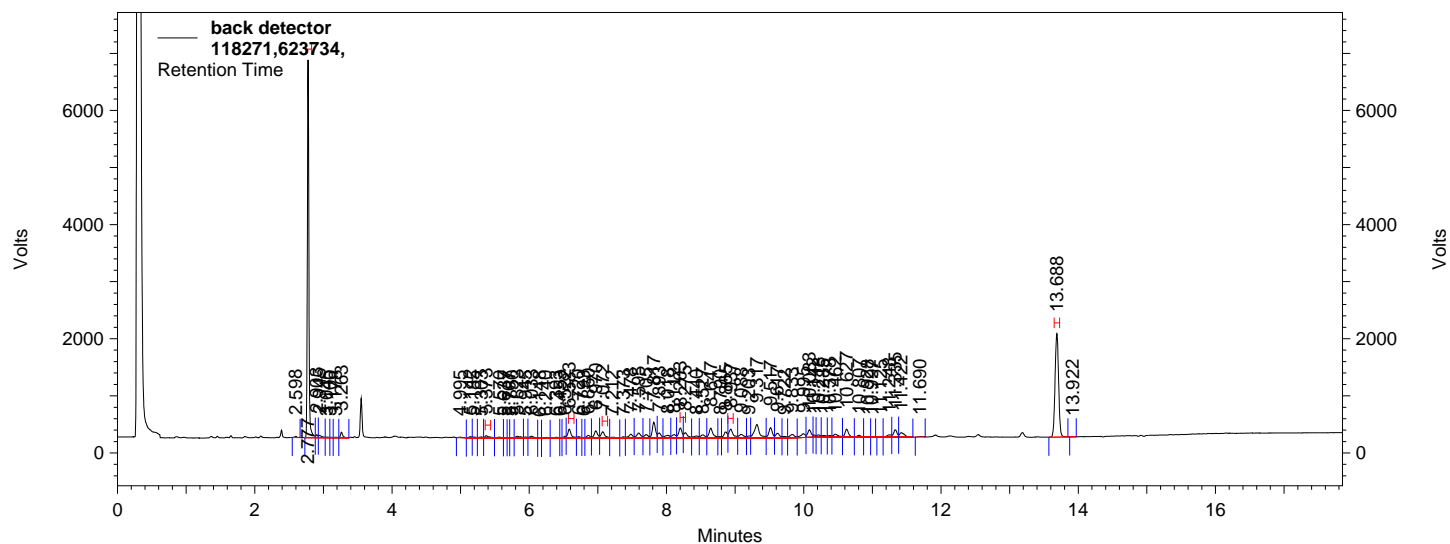
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	39713742	105.568
Aroclor 1254 #1	5.218	1615180	0.008
Aroclor 1254 #2	5.663	2301367	0.009
Aroclor 1254 #3	6.122	1316564	0.006
Aroclor 1254 #4	6.678	2401556	0.012
Aroclor 1254 #5	7.192	4100649	0.015
SURRDCB	11.752	30020188	104.997
Aroclor 1254		11735316	0.051

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623734,
Acquired: Sep 03,2015 11:18:09
Printed: Sep 04,2015 08:13:53

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	77732803	112.994
Aroclor 1254 #1	5.373	1616682	0.006
Aroclor 1254 #2	6.583	4489262	0.008
Aroclor 1254 #3	7.072	3505291	0.007
Aroclor 1254 #4	8.203	4626206	0.014
Aroclor 1254 #5	8.937	4793123	0.010
SURRDCB	13.688	49898196	104.644
Aroclor 1254		19030564	0.045

Data File: C:\Instarch\Semi7\Data\090215pcb\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118271,623734,
Acquired: Sep 03,2015 11:18:09
Printed: Sep 04,2015 08:13:23

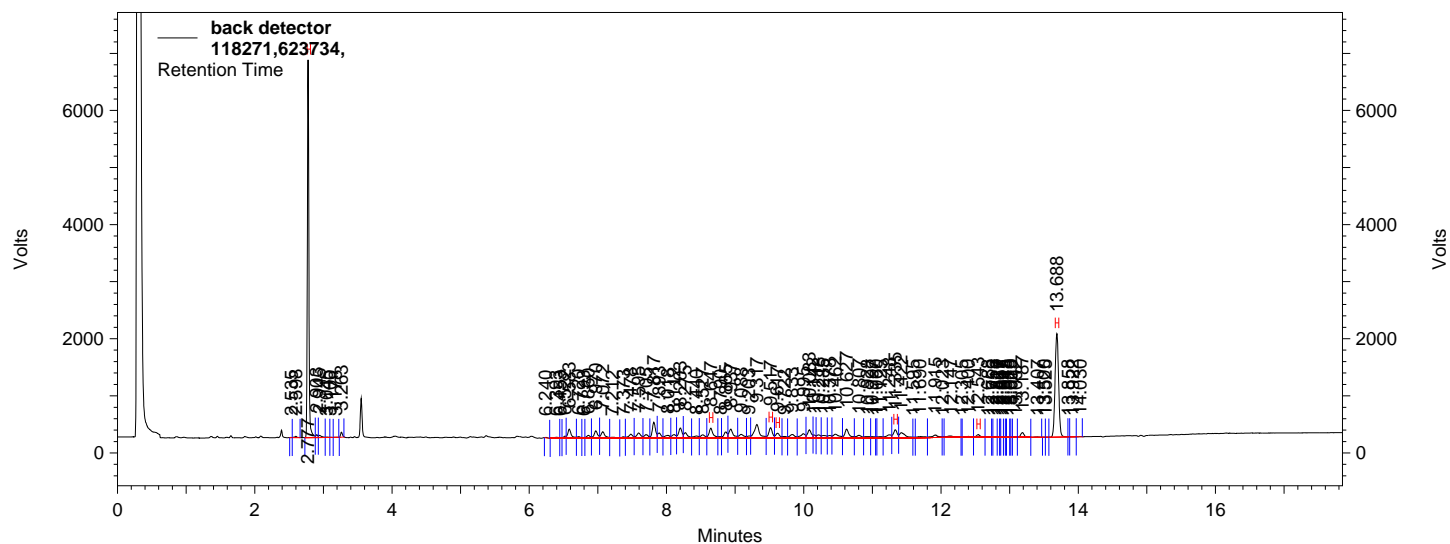
Chromatogram plot showing detector response over time. The x-axis is labeled "Minutes" and ranges from 0 to 16. The y-axis is labeled "Volts" and ranges from 0 to 3000. A legend indicates "front detector" and "118271,623734, Retention Time". The plot shows a baseline with numerous small peaks and two prominent peaks at 11.752 and 11.758 minutes. A red horizontal line is drawn at approximately 200 Volts.

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	39787990	105.939
Aroclor 1262 #1	7.192	4201285	0.017
Aroclor 1262 #2	7.943	2025004	0.006
Aroclor 1262 #3	8.397	2046935	0.006
Aroclor 1262 #4	9.540	1454210	0.007
Aroclor 1262 #5	10.807	926785	0.003
SURRDCB			0.000 BDL
Aroclor 1262		10654219	0.039

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\044.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118271,623734,
Acquired: Sep 03,2015 11:18:09
Printed: Sep 04,2015 08:13:23

Data Summary: {Data Description}



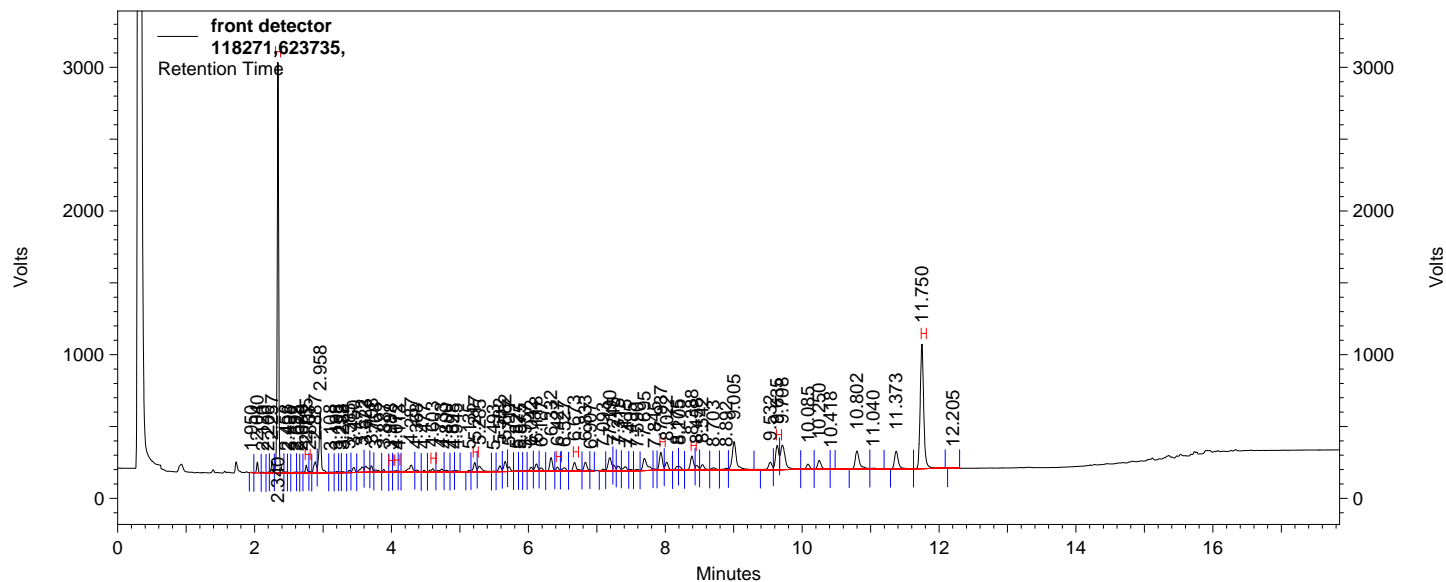
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMX	2.777	77700703	113.221
Aroclor 1262 #1	8.647	5476198	0.009
Aroclor 1262 #2	9.517	4984351	0.006
Aroclor 1262 #3	9.617	2494781	0.006
Aroclor 1262 #4	11.335	3889365	0.004
Aroclor 1262 #5	12.543	1701373	0.003
SURRDCB	13.688	49898196	105.131
Aroclor 1262		18546068	0.028

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623735,
Acquired: Sep 03,2015 11:39:39
Printed: Sep 03,2015 14:36:00

Data Summary: {Data Description}



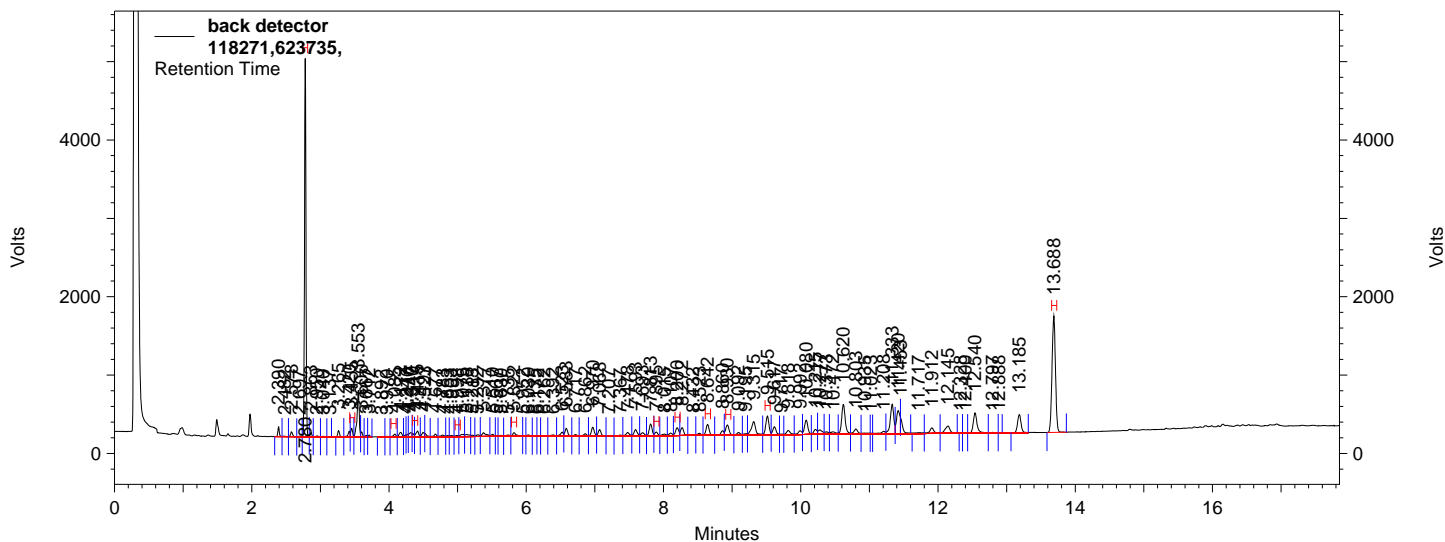
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	32115536	82.111
Aroclor 1016 #1	2.755	735949	0.002
Aroclor 1016 #2	3.988	129552	0.000
Aroclor 1016 #3	4.072	294932	0.000
Aroclor 1016 #4	4.603	605767	0.000
Aroclor 1016 #5	5.217	1297895	0.008
Aroclor 1260 #1	6.427	585958	0.000
Aroclor 1260 #2	6.673	1550023	0.001
Aroclor 1260 #3	7.937	3068500	0.008
Aroclor 1260 #4	8.388	2538607	0.006
Aroclor 1260 #5	9.635	4307531	0.022
SURRDCBPCB	11.750	24165966	85.596
Aroclor 1016		3064095	0.010
Aroclor 1260		12050619	0.038

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623735,
Acquired: Sep 03,2015 11:39:39
Printed: Sep 03,2015 14:36:00

Data Summary: {Data Description}



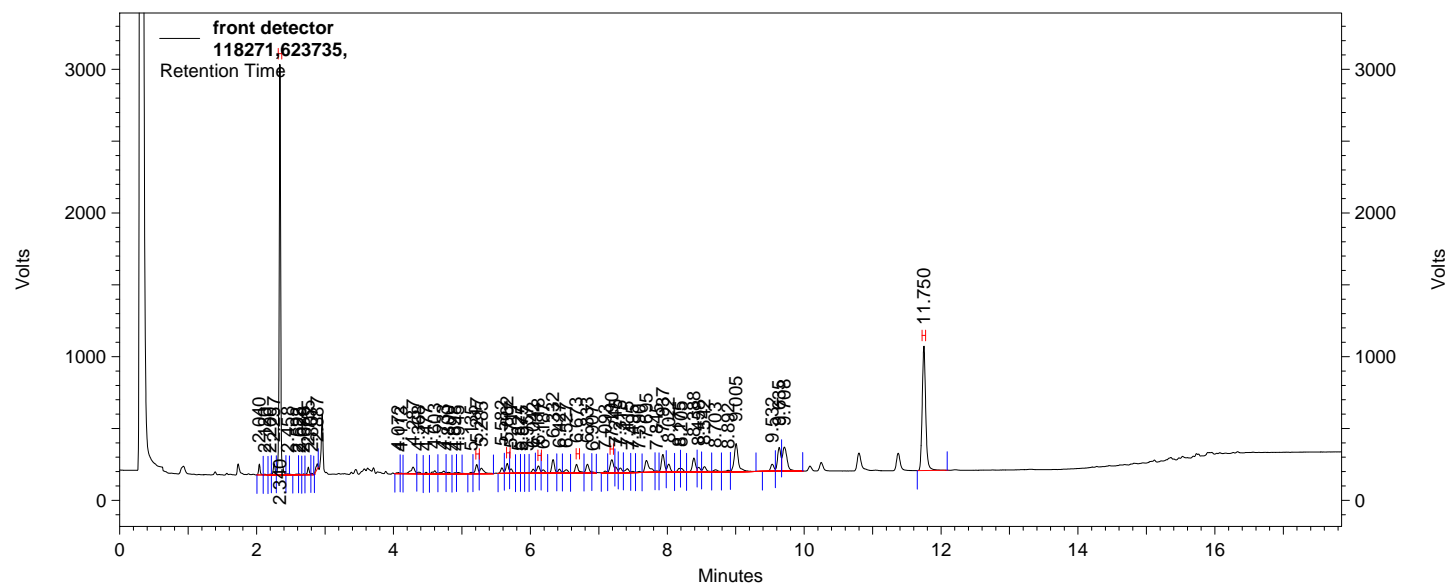
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.780	54378988	79.329
Aroclor 1016 #1	3.455	1583904	0.004
Aroclor 1016 #2	4.085	690829	0.000
Aroclor 1016 #3	4.415	1556231	0.007
Aroclor 1016 #4	4.998	364677	0.000
Aroclor 1016 #5	5.822	1558037	0.001
Aroclor 1260 #1	7.895	1046754	0.000
Aroclor 1260 #2	8.200	2453427	0.000
Aroclor 1260 #3	8.642	3392605	0.001
Aroclor 1260 #4	8.930	3474098	0.004
Aroclor 1260 #5	9.515	5969839	0.007
SURRDCBPCB	13.688	39633743	87.488
Aroclor 1016		5753678	0.012
Aroclor 1260		16336723	0.013

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623735,
Acquired: Sep 03,2015 11:39:39
Printed: Sep 04,2015 08:15:05

Data Summary: {Data Description}



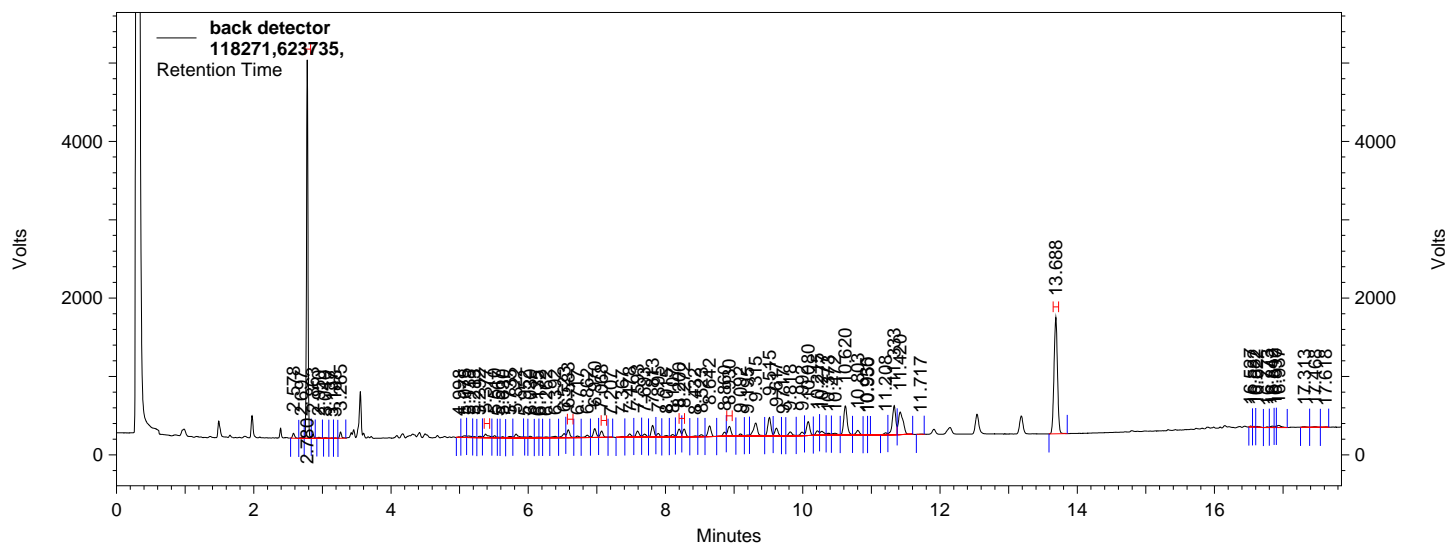
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	32101884	85.334
Aroclor 1254 #1	5.217	1297631	0.007
Aroclor 1254 #2	5.662	1469997	0.006
Aroclor 1254 #3	6.118	1154402	0.005
Aroclor 1254 #4	6.673	1550023	0.008
Aroclor 1254 #5	7.190	2407554	0.009
SURRDCB	11.750	24012406	83.984
Aroclor 1254		7879607	0.035

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623735,
Acquired: Sep 03,2015 11:39:39
Printed: Sep 04,2015 08:15:05

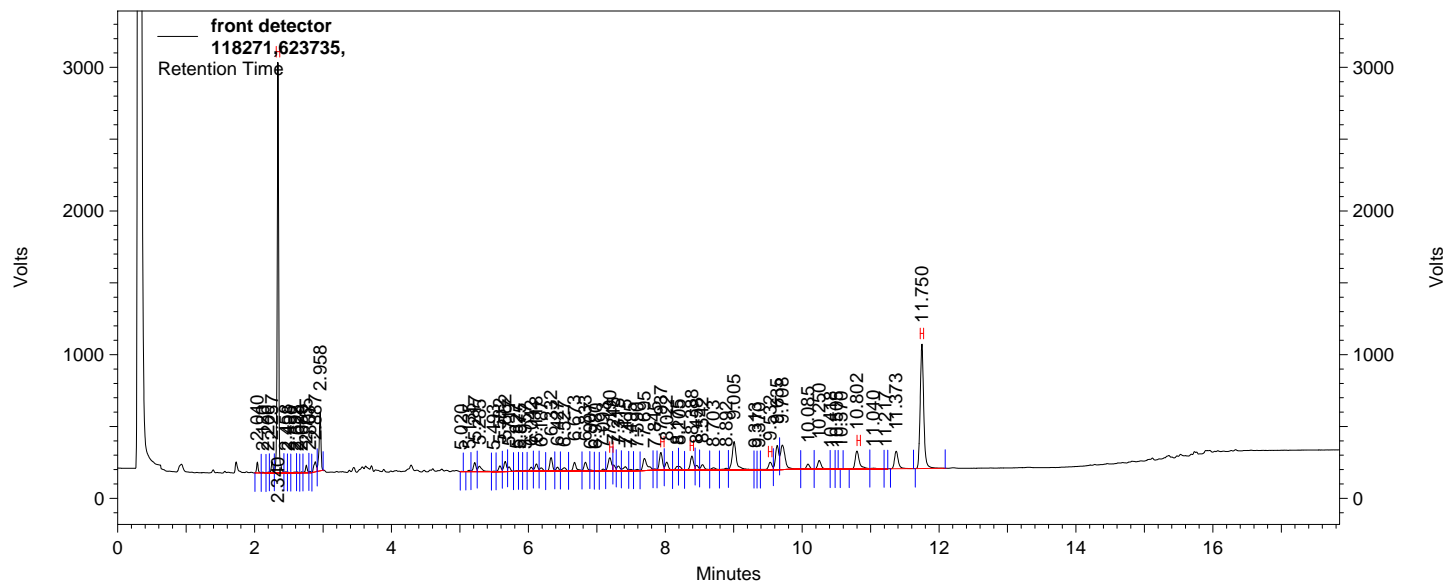
Data Summary: {Data Description}



PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118271,623735,
Acquired: Sep 03,2015 11:39:39
Printed: Sep 04,2015 08:16:22

Data Summary: {Data Description}



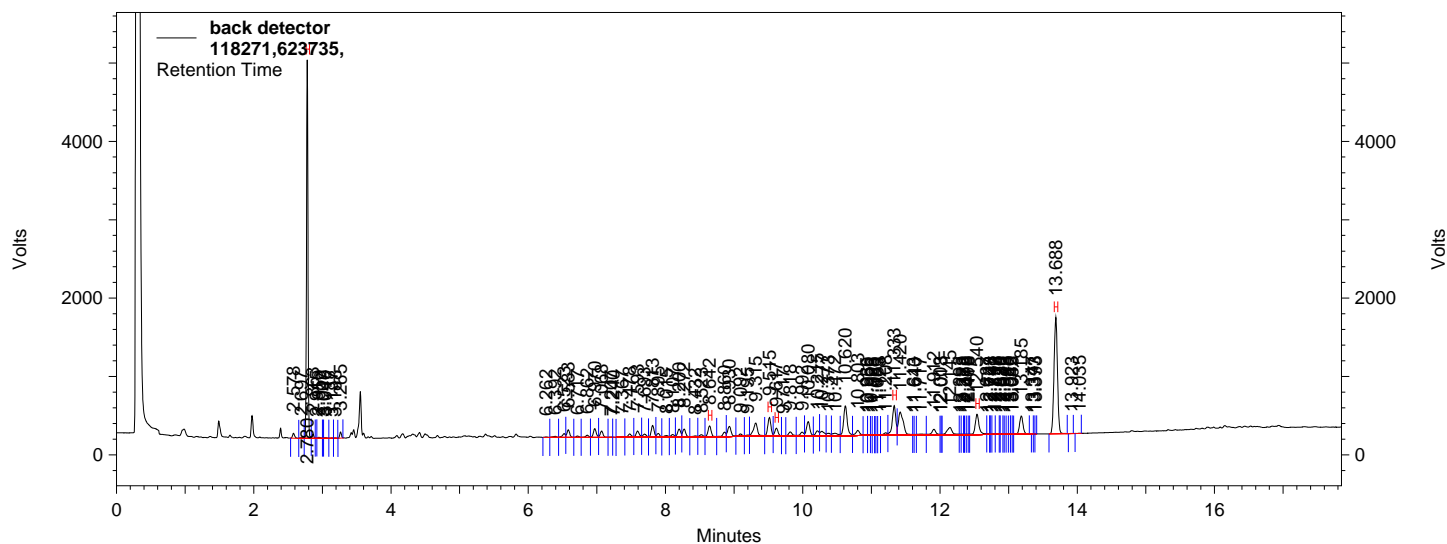
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	32101884	85.474
Aroclor 1262 #1	7.190	2411329	0.010
Aroclor 1262 #2	7.937	3064724	0.008
Aroclor 1262 #3	8.388	2530423	0.008
Aroclor 1262 #4	9.532	1436888	0.007
Aroclor 1262 #5	10.802	4136532	0.014
SURRDCB	11.750	24012406	83.543
Aroclor 1262		13579896	0.047

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\045.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118271,623735,
Acquired: Sep 03,2015 11:39:39
Printed: Sep 04,2015 08:16:22

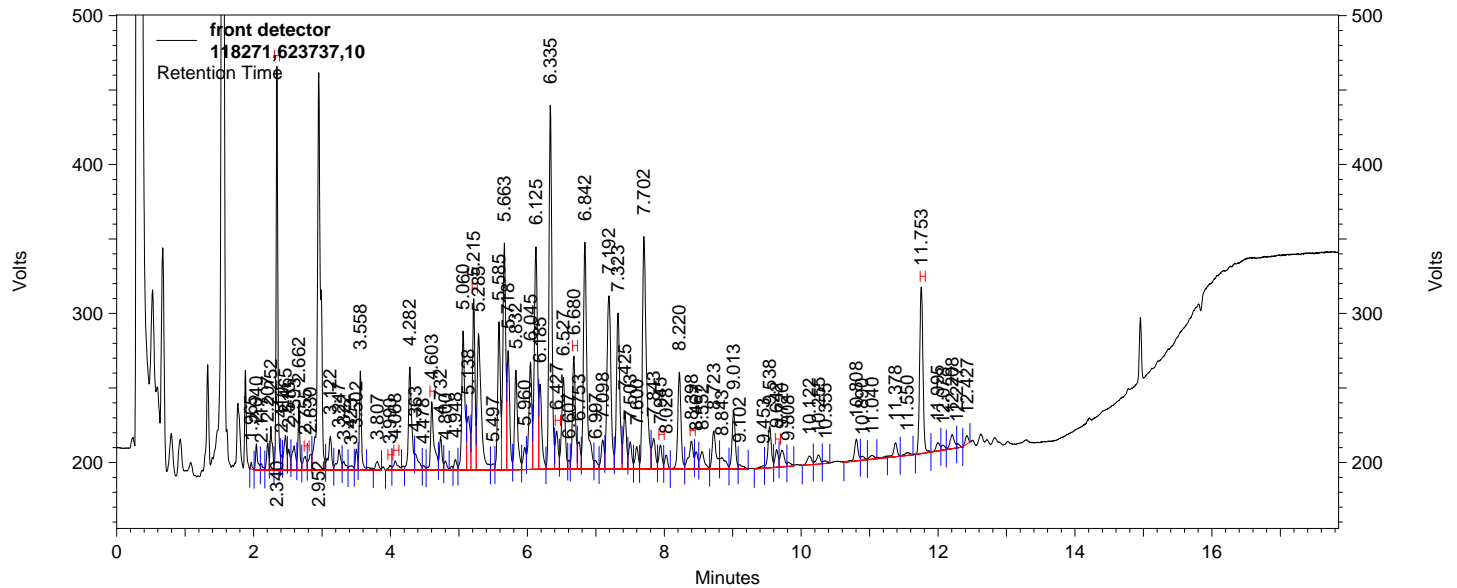
Data Summary: {Data Description}



PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\046.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623737,10
Acquired: Sep 03,2015 12:01:11
Printed: Sep 03,2015 14:36:02

Data Summary: {Data Description}



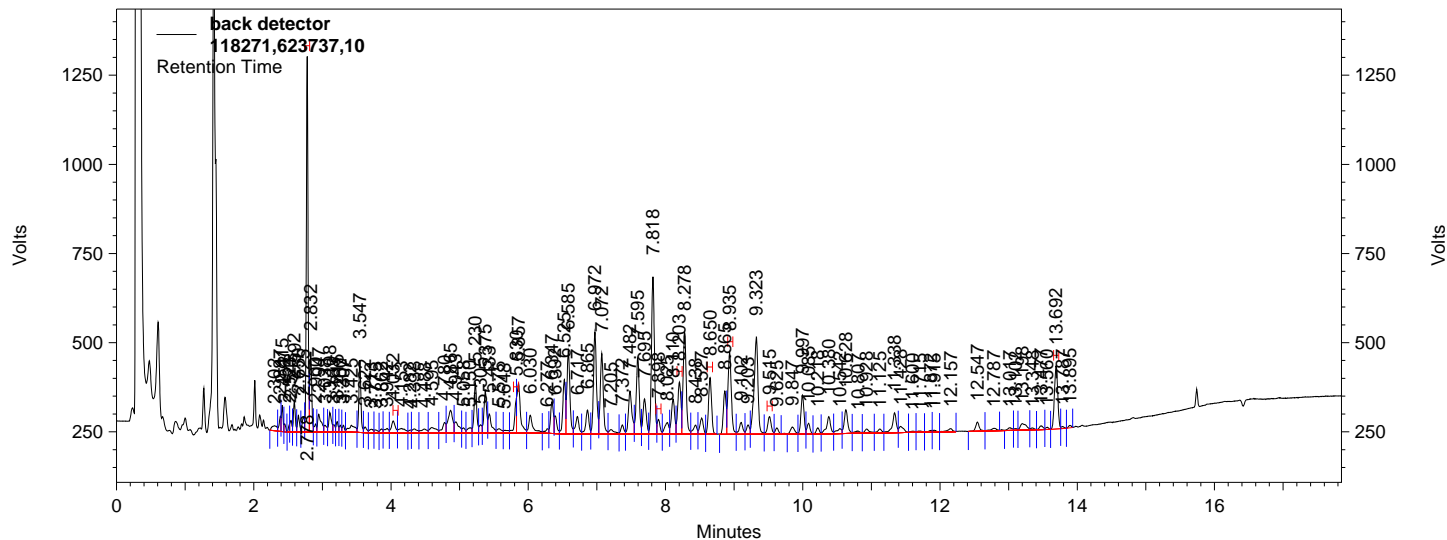
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.340	3452485	6.357
Aroclor 1016 #1	2.755	242589	0.000
Aroclor 1016 #2	3.990	64757	0.000
Aroclor 1016 #3	4.068	199843	0.000
Aroclor 1016 #4	4.603	1198633	0.001
Aroclor 1016 #5	5.215	2345138	0.017
Aroclor 1260 #1	6.427	594922	0.001
Aroclor 1260 #2	6.680	1782929	0.002
Aroclor 1260 #3	7.945	397728	0.000
Aroclor 1260 #4	8.398	638445	0.000
Aroclor 1260 #5	9.642	288166	0.000
SURRDCBPCB	11.753	2932933	7.361
Aroclor 1016		4050960	0.018
Aroclor 1260		3702190	0.003

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\046.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118271,623737,10
Acquired: Sep 03,2015 12:01:11
Printed: Sep 03,2015 14:36:02

Data Summary: {Data Description}



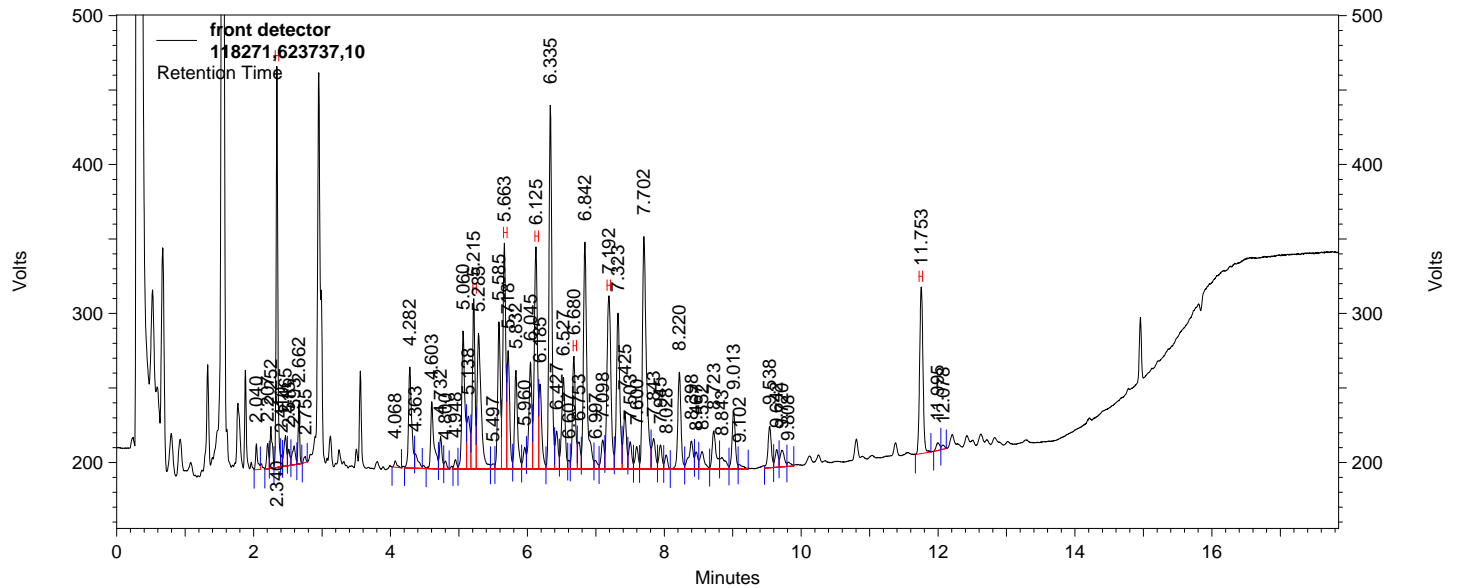
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.778	13880806	18.836
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2	4.032	974411	0.000
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.830	1481968	0.001
Aroclor 1260 #1	7.898	897984	0.000
Aroclor 1260 #2	8.203	3590244	0.001
Aroclor 1260 #3	8.650	3793718	0.002
Aroclor 1260 #4	8.935	5933135	0.008
Aroclor 1260 #5	9.515	1373046	0.000
SURRDCBPCB	13.692	4565182	6.995
Aroclor 1016		2456379	0.001
Aroclor 1260		15588127	0.012

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\046.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623737,10
Acquired: Sep 03,2015 12:01:11
Printed: Sep 04,2015 08:17:50

Data Summary: {Data Description}



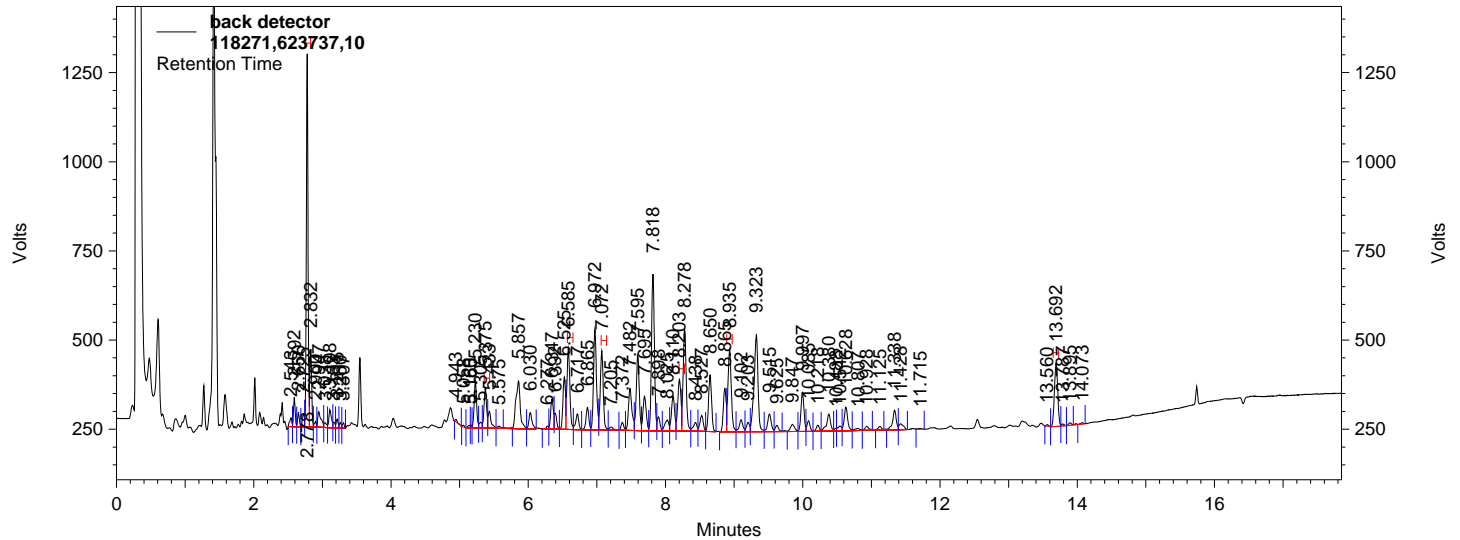
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.340	3384209	8.996
Aroclor 1254 #1	5.215	2334103	0.012
Aroclor 1254 #2	5.663	3367081	0.014
Aroclor 1254 #3	6.125	3696881	0.017
Aroclor 1254 #4	6.680	1774708	0.009
Aroclor 1254 #5	7.192	3554270	0.013
SURRDCB	11.753	2929523	10.246
Aroclor 1254		14727043	0.065

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\046.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118271,623737,10
Acquired: Sep 03,2015 12:01:11
Printed: Sep 04,2015 08:17:50

Data Summary: {Data Description}



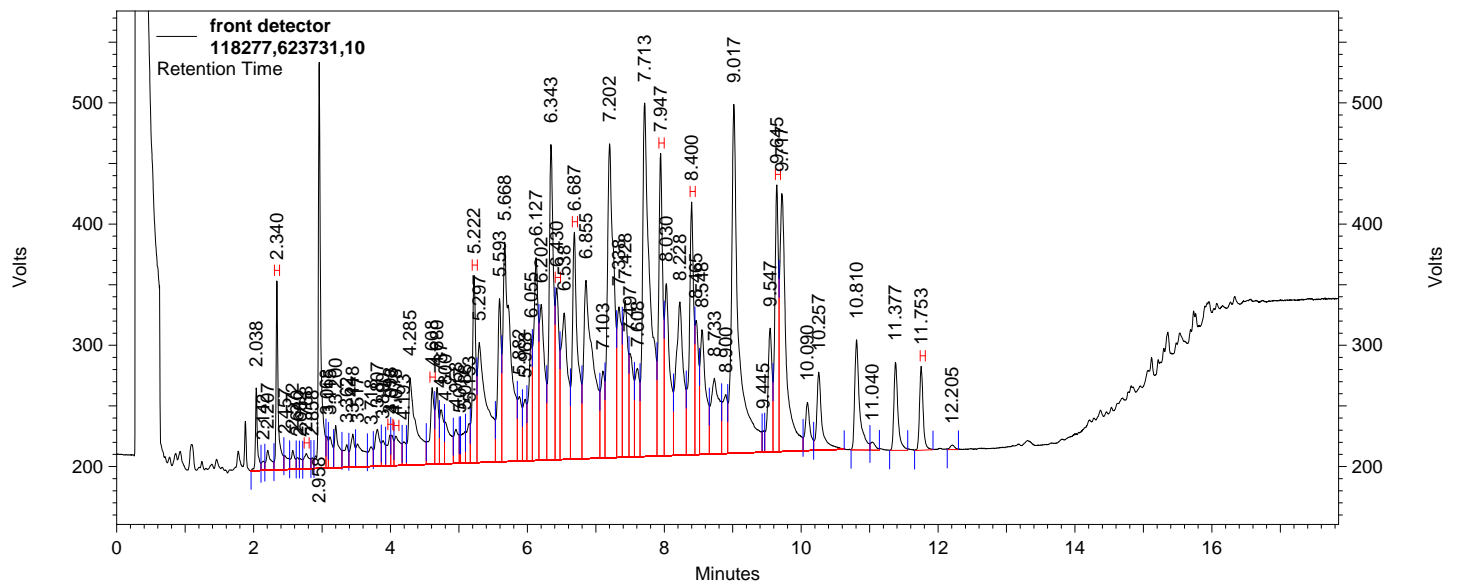
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.778	13657397	19.853
Aroclor 1254 #1	5.375	2203824	0.009
Aroclor 1254 #2	6.585	5147281	0.009
Aroclor 1254 #3	7.072	5089606	0.011
Aroclor 1254 #4	8.203	3554163	0.010
Aroclor 1254 #5	8.935	5929007	0.012
SURRDCB	13.692	4568240	9.580
Aroclor 1254		21923881	0.051

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\063.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623731,10
Acquired: Sep 03,2015 18:06:41
Printed: Sep 04,2015 07:51:47

Data Summary: {Data Description}



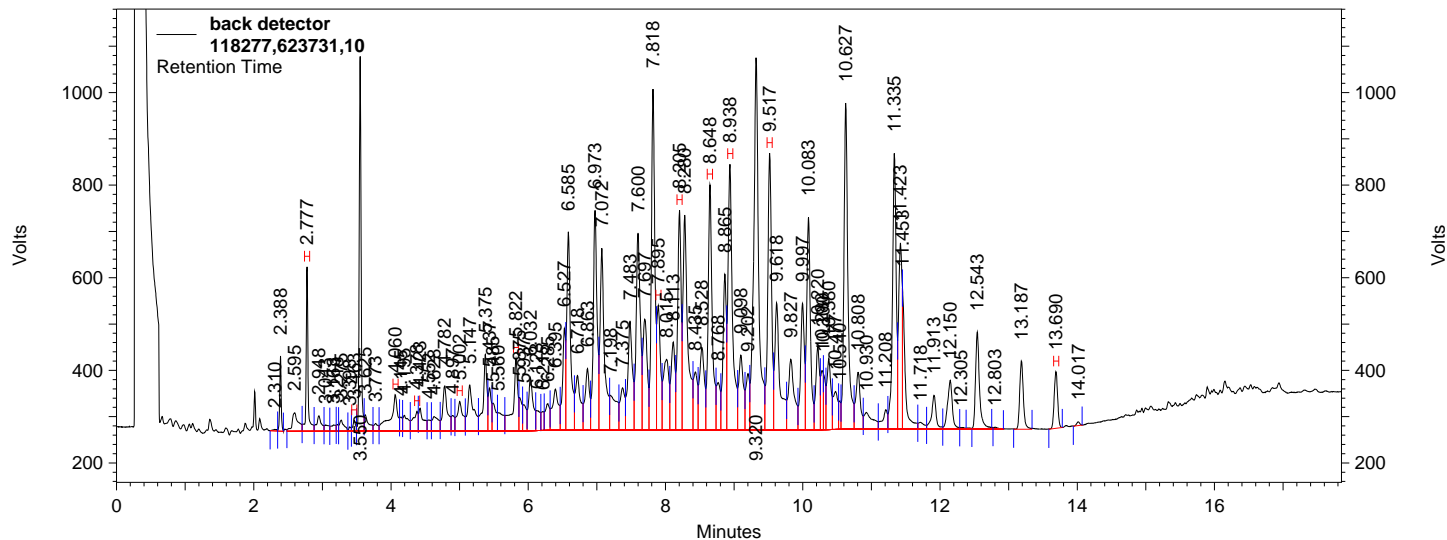
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	2658692	4.259
Aroclor 1016 #1	2.768	532283	0.001
Aroclor 1016 #2	3.993	690217	0.000
Aroclor 1016 #3	4.078	1114132	0.002
Aroclor 1016 #4	4.608	2082540	0.005
Aroclor 1016 #5	5.222	4165601	0.034
Aroclor 1260 #1	6.430	4030798	0.024
Aroclor 1260 #2	6.687	8046985	0.022
Aroclor 1260 #3	7.947	7889870	0.027
Aroclor 1260 #4	8.400	7133967	0.023
Aroclor 1260 #5	9.645	6195464	0.033
SURRDCBPCB	11.753	1949270	3.736
Aroclor 1016		8584773	0.042
Aroclor 1260		33297084	0.130

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\063.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: 118277,623731,10
 Acquired: Sep 03,2015 18:06:41
 Printed: Sep 04,2015 07:51:47

Data Summary: {Data Description}



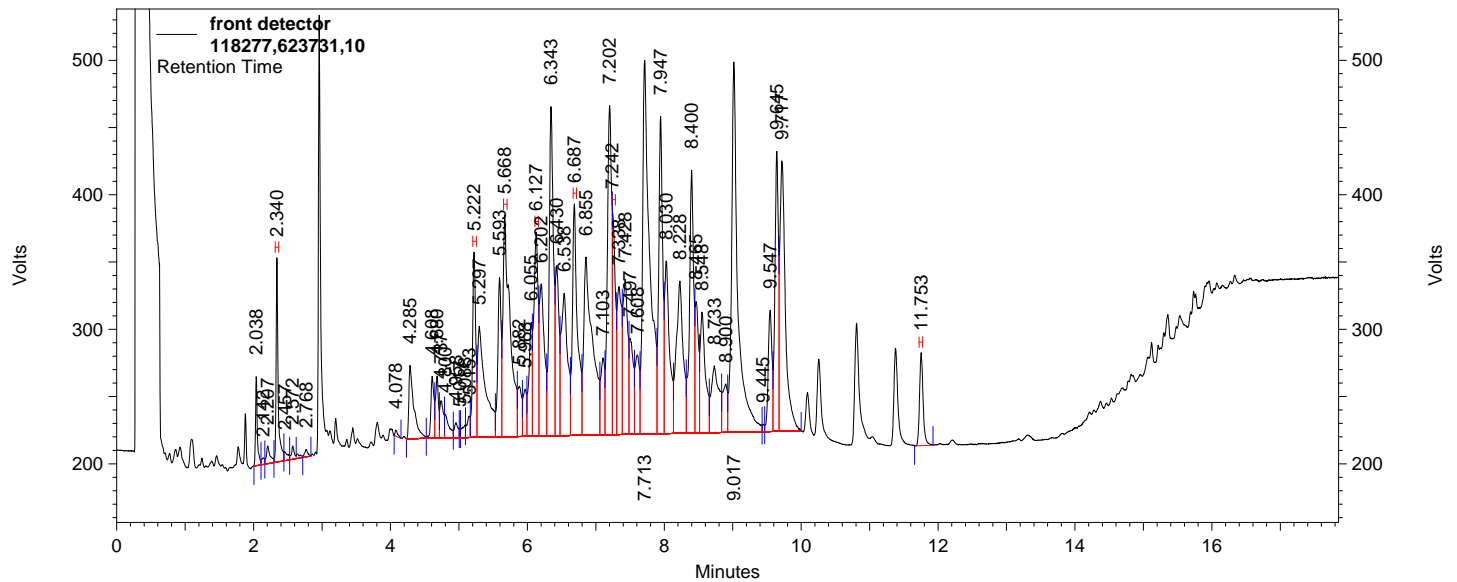
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	5191545	5.856
Aroclor 1016 #1	3.463	475080	0.000
Aroclor 1016 #2	4.060	4241074	0.005
Aroclor 1016 #3	4.378	1645120	0.008
Aroclor 1016 #4	5.002	2762550	0.003
Aroclor 1016 #5	5.822	5791330	0.015
Aroclor 1260 #1	7.895	7484095	0.020
Aroclor 1260 #2	8.205	12936099	0.017
Aroclor 1260 #3	8.648	16897036	0.019
Aroclor 1260 #4	8.938	20071044	0.035
Aroclor 1260 #5	9.517	18033216	0.028
SURRDCBPCB	13.690	3265984	4.013
Aroclor 1016		14915154	0.031
Aroclor 1260		75421490	0.120

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\063.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623731,10
Acquired: Sep 03,2015 18:06:41
Printed: Sep 04,2015 08:03:10

Data Summary: {Data Description}



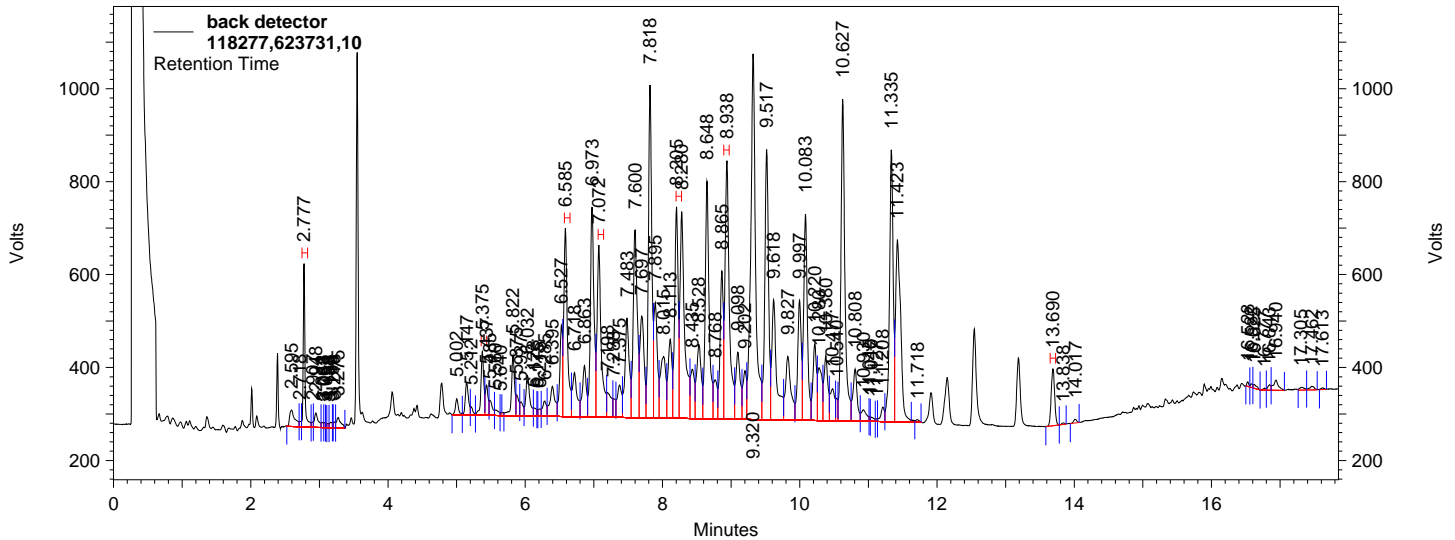
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	2374082	6.311
Aroclor 1254 #1	5.222	3419594	0.018
Aroclor 1254 #2	5.668	9007611	0.037
Aroclor 1254 #3	6.127	5036379	0.024
Aroclor 1254 #4	6.687	6901736	0.035
Aroclor 1254 #5	7.242	3777839	0.014
SURRDCB	11.753	1949270	6.818
Aroclor 1254		28143159	0.127

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\063.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623731,10
Acquired: Sep 03,2015 18:06:41
Printed: Sep 04,2015 08:03:10

Data Summary: {Data Description}



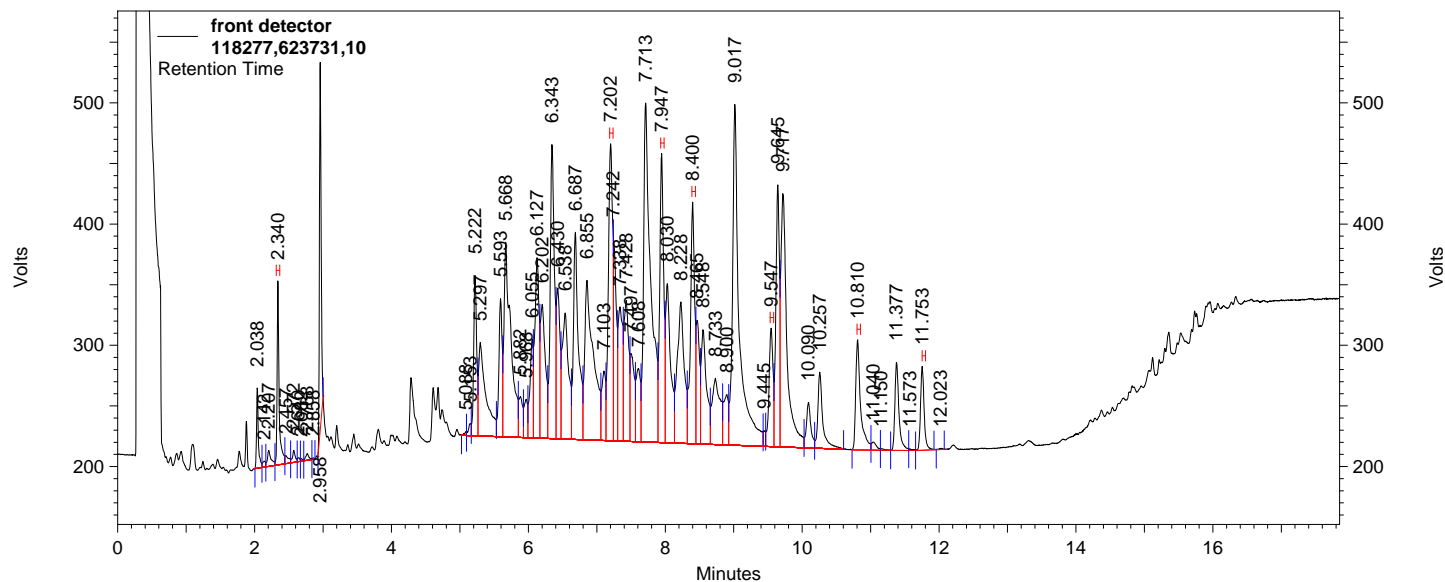
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	4744194	6.896
Aroclor 1254 #1	5.375	3008489	0.012
Aroclor 1254 #2	6.585	11452817	0.021
Aroclor 1254 #3	7.072	11858345	0.025
Aroclor 1254 #4	8.205	12112785	0.035
Aroclor 1254 #5	8.938	18808065	0.038
SURRDCB	13.690	3271315	6.860
Aroclor 1254		57240501	0.131

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\063.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118277,623731,10
Acquired: Sep 03,2015 18:06:41
Printed: Sep 04,2015 08:04:35

Data Summary: {Data Description}



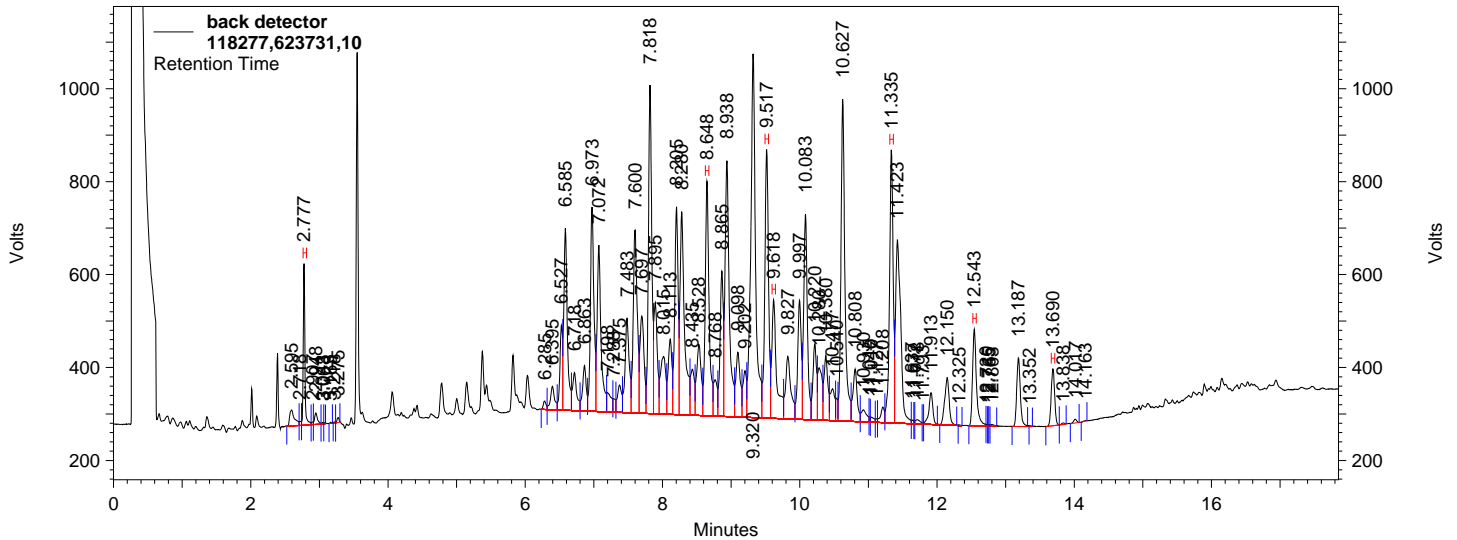
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	2374082	6.321
Aroclor 1262 #1	7.202	8063226	0.032
Aroclor 1262 #2	7.947	7358038	0.020
Aroclor 1262 #3	8.400	6597432	0.020
Aroclor 1262 #4	9.547	3072666	0.014
Aroclor 1262 #5	10.810	3462366	0.012
SURRDCB	11.753	1949270	6.782
Aroclor 1262		28553728	0.099

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\063.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118277,623731,10
Acquired: Sep 03,2015 18:06:41
Printed: Sep 04,2015 08:04:35

Data Summary: {Data Description}



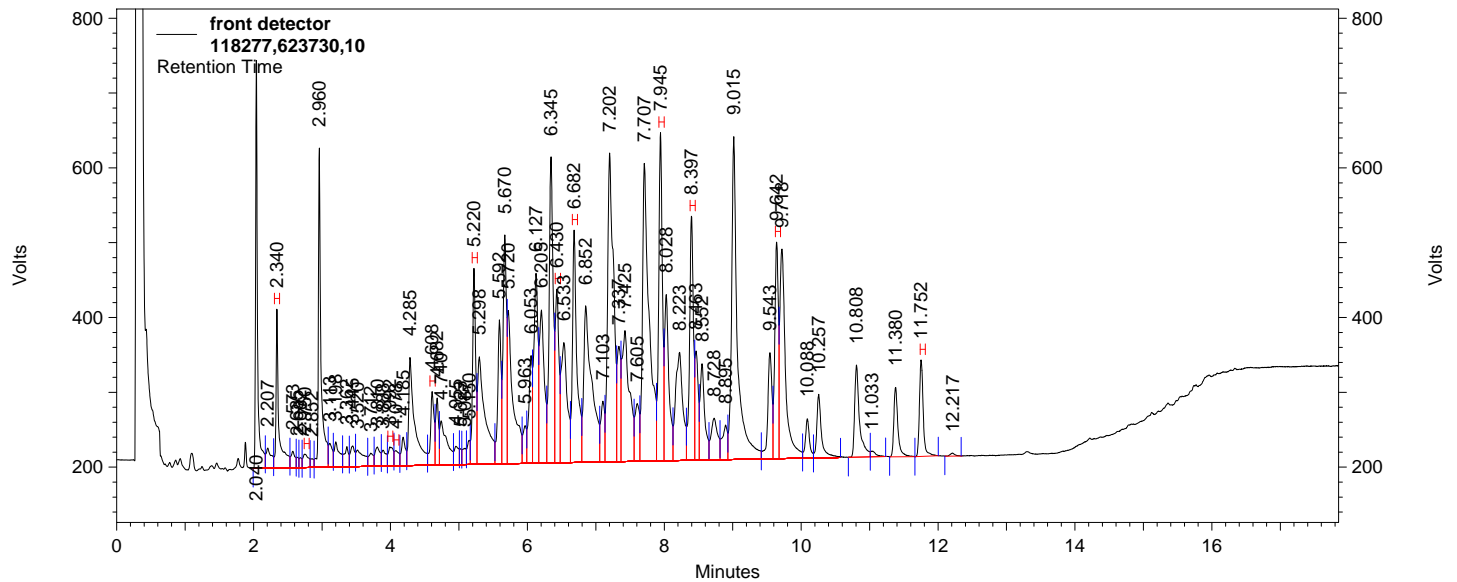
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	4451733	6.487
Aroclor 1262 #1	8.648	15215440	0.025
Aroclor 1262 #2	9.517	16891187	0.021
Aroclor 1262 #3	9.618	9421645	0.023
Aroclor 1262 #4	11.335	16599668	0.017
Aroclor 1262 #5	12.543	6319955	0.012
SURRDCB	13.690	3271315	6.892
Aroclor 1262		64447895	0.098

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\066.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623730,10
Acquired: Sep 03,2015 19:11:13
Printed: Sep 04,2015 07:51:57

Data Summary: {Data Description}



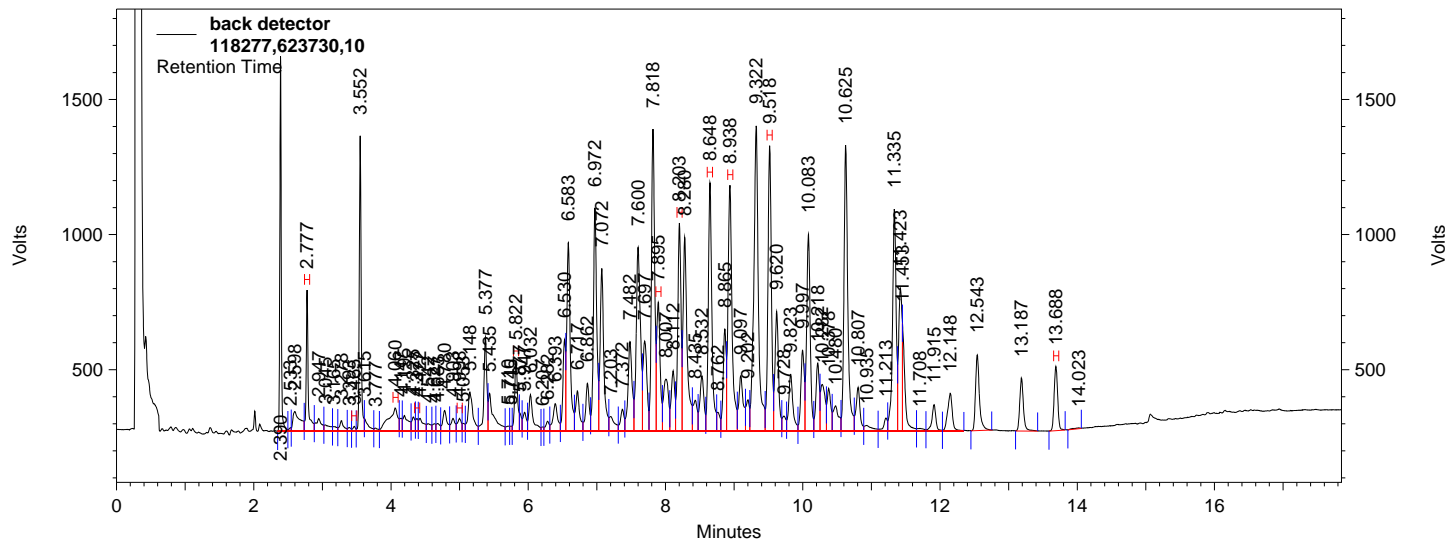
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.340	4698572	9.650
Aroclor 1016 #1	2.750	790310	0.003
Aroclor 1016 #2	3.992	979781	0.002
Aroclor 1016 #3	4.078	726725	0.000
Aroclor 1016 #4	4.608	2731191	0.008
Aroclor 1016 #5	5.220	6343625	0.053
Aroclor 1260 #1	6.430	6605838	0.041
Aroclor 1260 #2	6.682	10960584	0.032
Aroclor 1260 #3	7.945	12586953	0.044
Aroclor 1260 #4	8.397	9681111	0.033
Aroclor 1260 #5	9.642	8208040	0.046
SURRDCBPCB	11.752	3833042	10.677
Aroclor 1016		11571632	0.066
Aroclor 1260		48042526	0.196

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\066.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,623730,10
Acquired: Sep 03,2015 19:11:13
Printed: Sep 04,2015 07:51:57

Data Summary: {Data Description}



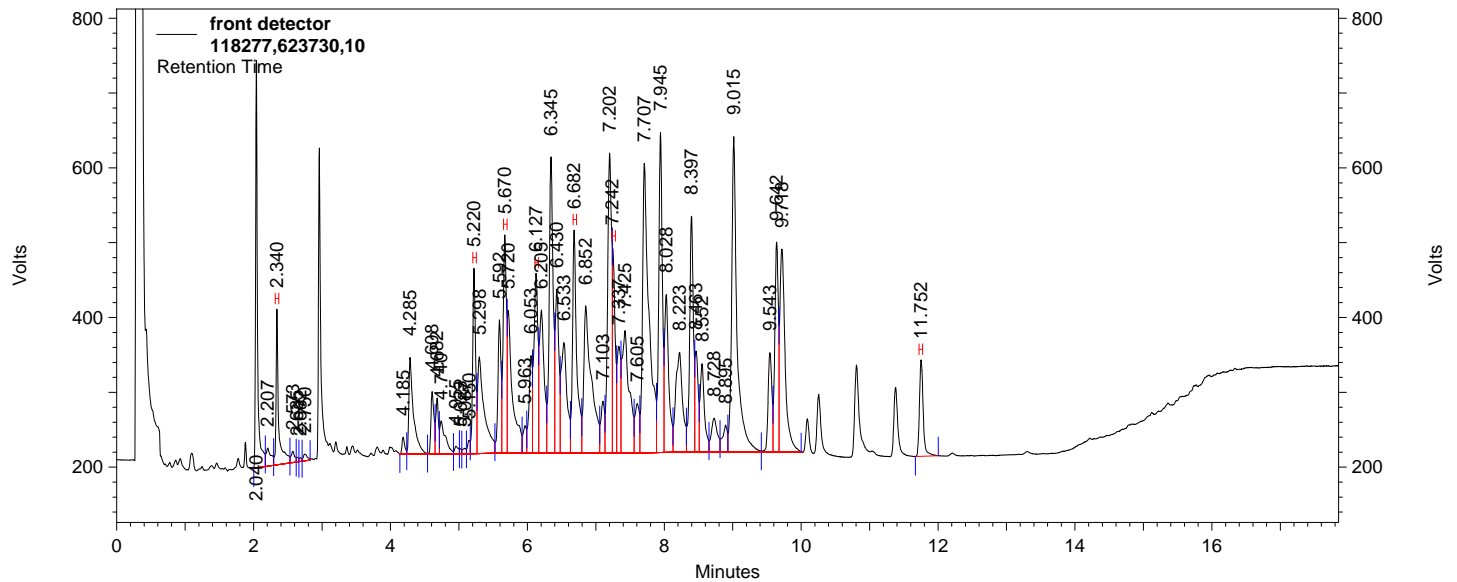
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.777	8056586	10.136
Aroclor 1016 #1	3.465	393899	0.000
Aroclor 1016 #2	4.060	6150472	0.010
Aroclor 1016 #3	4.377	882955	0.002
Aroclor 1016 #4	4.998	1466362	0.000
Aroclor 1016 #5	5.822	6046255	0.016
Aroclor 1260 #1	7.895	12919767	0.038
Aroclor 1260 #2	8.203	19384525	0.027
Aroclor 1260 #3	8.648	25746641	0.031
Aroclor 1260 #4	8.938	28475332	0.051
Aroclor 1260 #5	9.518	28319141	0.046
SURRDCBPCB	13.688	6501136	11.439
Aroclor 1016		14939943	0.028
Aroclor 1260		114845406	0.193

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\066.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623730,10
Acquired: Sep 03,2015 19:11:13
Printed: Sep 04,2015 08:07:02

Data Summary: {Data Description}



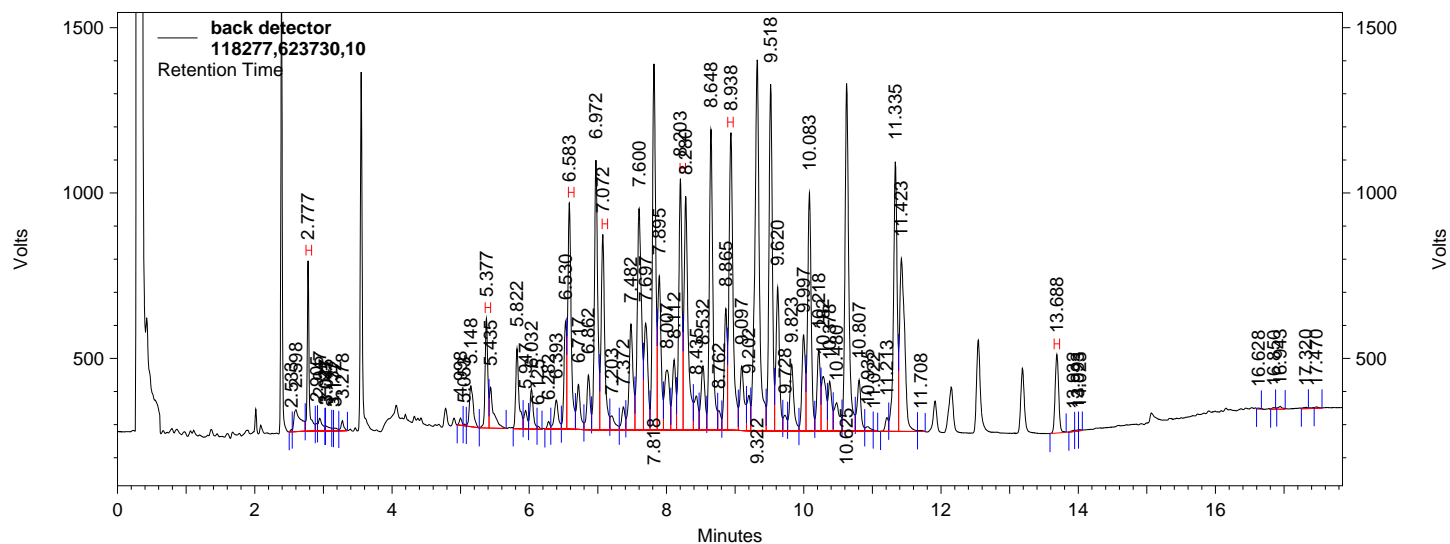
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.340	4145539	11.020
Aroclor 1254 #1	5.220	5685802	0.030
Aroclor 1254 #2	5.670	7549754	0.031
Aroclor 1254 #3	6.127	7483827	0.035
Aroclor 1254 #4	6.682	9983314	0.051
Aroclor 1254 #5	7.242	5772297	0.021
SURRDCB	11.752	3831228	13.400
Aroclor 1254		36474994	0.167

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\066.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 118277,623730,10
Acquired: Sep 03,2015 19:11:13
Printed: Sep 04,2015 08:07:02

Data Summary: {Data Description}



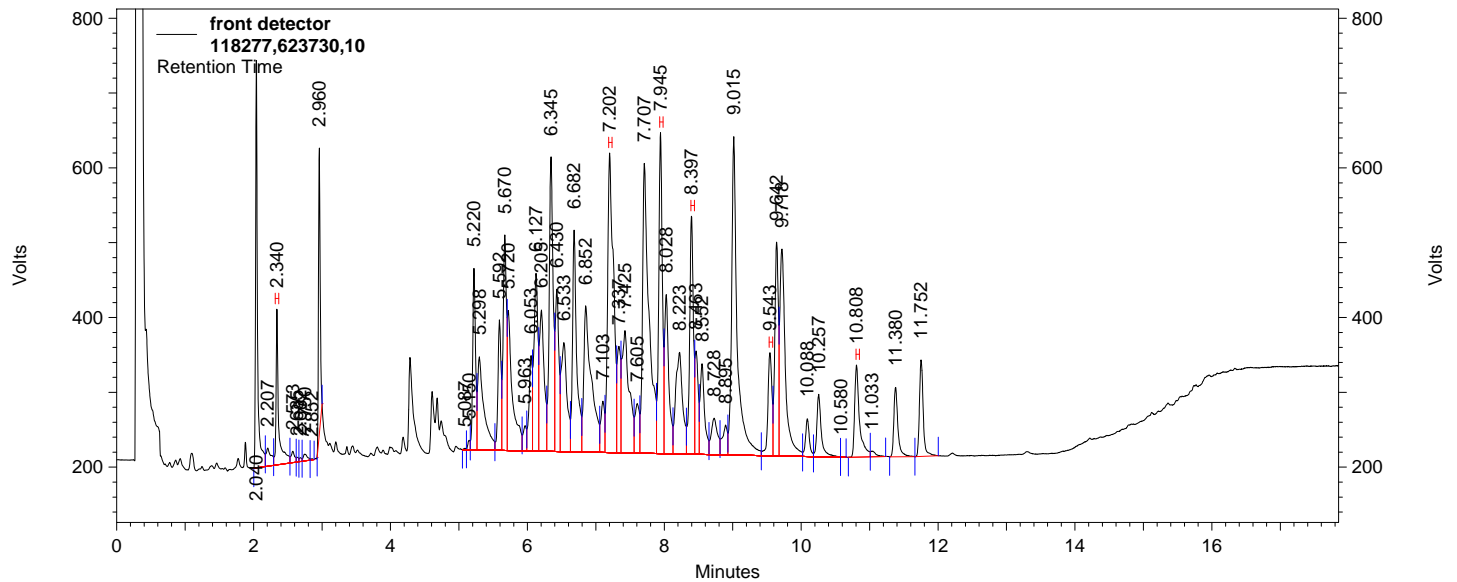
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	7505763	10.911
Aroclor 1254 #1	5.377	6857069	0.027
Aroclor 1254 #2	6.583	18019004	0.033
Aroclor 1254 #3	7.072	16515412	0.035
Aroclor 1254 #4	8.203	18933827	0.055
Aroclor 1254 #5	8.938	27807396	0.056
SURRDCB	13.688	6513816	13.660
Aroclor 1254		88132708	0.205

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\066.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118277,623730,10
Acquired: Sep 03,2015 19:11:13
Printed: Sep 04,2015 08:06:13

Data Summary: {Data Description}



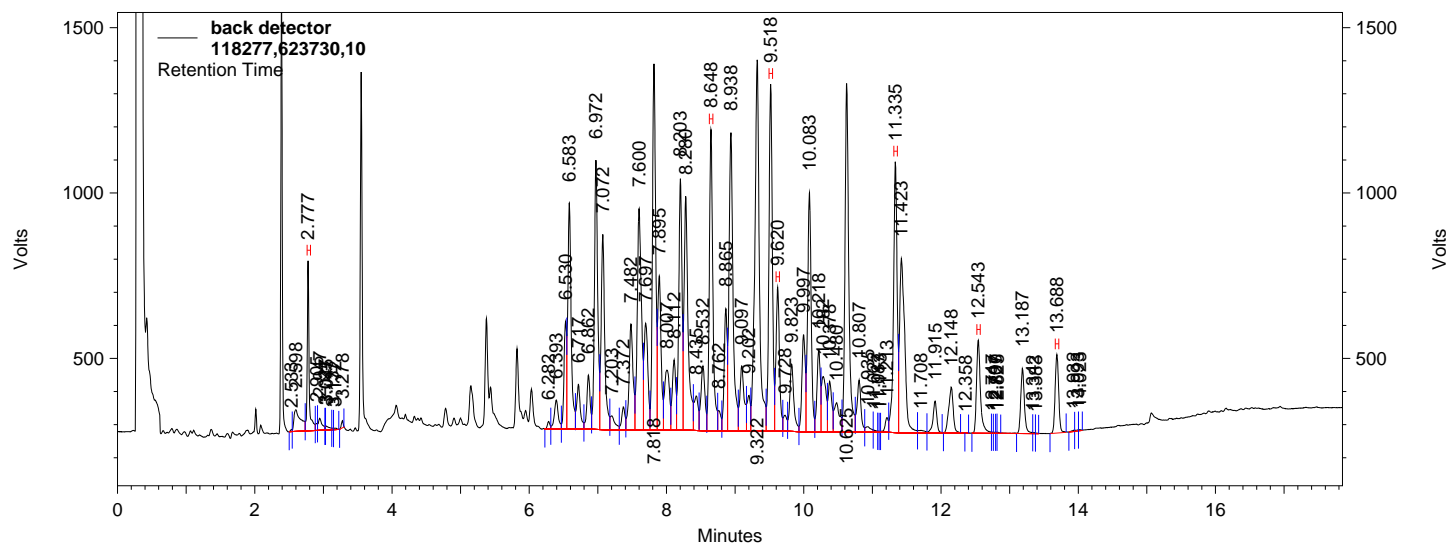
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.340	4145539	11.038
Aroclor 1262 #1	7.202	18178288	0.073
Aroclor 1262 #2	7.945	12100857	0.033
Aroclor 1262 #3	8.397	9229937	0.028
Aroclor 1262 #4	9.543	4321882	0.020
Aroclor 1262 #5	10.808	4710066	0.016
SURRDCB			0.000 BDL
Aroclor 1262		48541030	0.171

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\066.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 118277,623730,10
Acquired: Sep 03,2015 19:11:13
Printed: Sep 04,2015 08:06:13

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.777	7397730	10.780
Aroclor 1262 #1	8.648	25104705	0.041
Aroclor 1262 #2	9.518	27932557	0.034
Aroclor 1262 #3	9.620	11882990	0.028
Aroclor 1262 #4	11.335	23261414	0.024
Aroclor 1262 #5	12.543	8663424	0.017
SURRDCB	13.688	6513816	13.724
Aroclor 1262		96845090	0.144

**POLYCHLORINATED BIPHENYL
INITIAL CALIBRATION
DOCUMENTS**

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:18
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMXPCB (front detector)

Average RF: 434804. RF StDev: 51548.0 RF %RSD: 11.8555
 Scaling: None LSQ Weighting: None Force Through Zero: Off

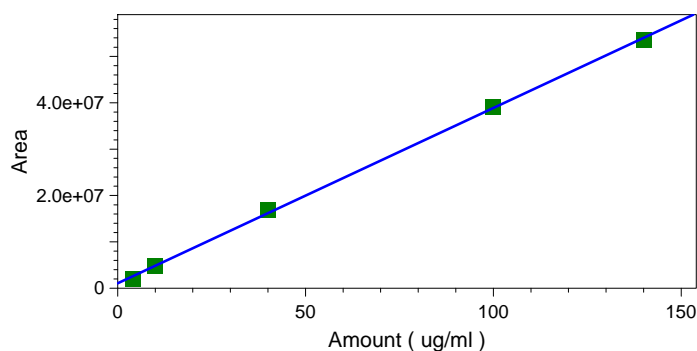
Replicate Mode: Replace

Fit Type: Linear

$y = 378369.x + 1.04735e+006$

Goodness of fit (r^2): 0.999460

Peak: SURRTCMXPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1999838	4759777	16948526	39107131	53661899
RF	499959.5	475977.7	423713.15	391071.31	383299.27857
					1429
Last Area					
Residual	1.48265	0.188341	-2.0256	-0.58912	0.943729
Rep StDev					
Rep %RSD					
Rep 1 Area	1999838	4759777	16948526	39107131	53661899
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\005. dat	C:\Instarch\Sem i7\Data\080715 pcbic\006.dat	C:\Instarch\Semi 7\Data\080715p cbic\007.dat	C:\Instarch\Semi 7\Data\080715p cbic\008.dat	C:\Instarch\Se mi7\Data\0807 15pcbic\009.da t
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:20
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #1 (front detector)

Average RF: 1.55188e+008 RF StDev: 2.56122e+007 RF %RSD: 16.5040

Scaling: None LSQ Weighting: None Force Through Zero: Off

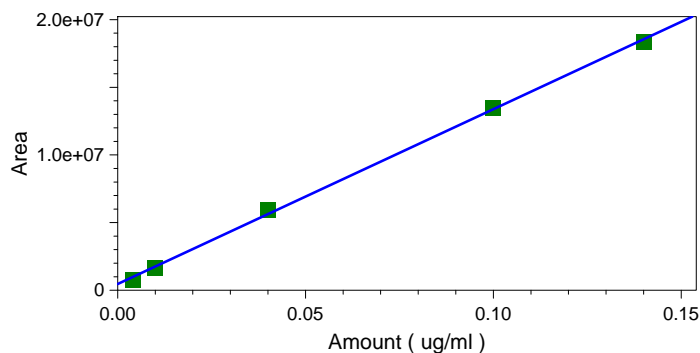
Replicate Mode: Replace

Fit Type: Linear

$y = 1.29241e+008x + 459466$.

Goodness of fit (r^2): 0.999140

Peak: Aroclor 1016 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	774270	1668919	5967185	13495336	18388493
RF	193567500	166891900	149179625	134953360	131346378.571429
Last Area					
Residual	0.00156421	0.00064188	-0.00261586	-0.000864766	0.00127454
Rep StDev					
Rep %RSD					
Rep 1 Area	774270	1668919	5967185	13495336	18388493
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:22
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #2 (front detector)

Average RF: 2.37868e+008 RF StDev: 3.06459e+007 RF %RSD: 12.8836

Scaling: None LSQ Weighting: None Force Through Zero: Off

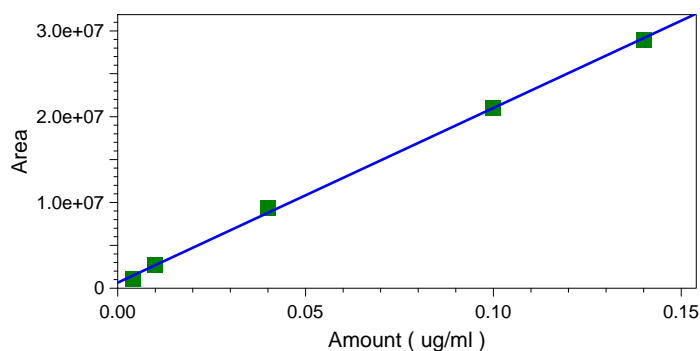
Replicate Mode: Replace

Fit Type: Linear

$y = 2.03618e+008x + 646848$.

Goodness of fit (r^2): 0.999258

Peak: Aroclor 1016 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1091627	2661730	9311154	21035817	28997553
RF	272906750	266173000	232778850	210358170	207125378.571429
Last Area					
Residual	0.00181562	0.000104591	-0.0025518	-0.000133518	0.000765111
Rep StDev					
Rep %RSD					
Rep 1 Area	1091627	2661730	9311154	21035817	28997553
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:24
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #3 (front detector)

Average RF: 2.01784e+008 RF StDev: 3.24569e+007 RF %RSD: 16.0850

Scaling: None LSQ Weighting: None Force Through Zero: Off

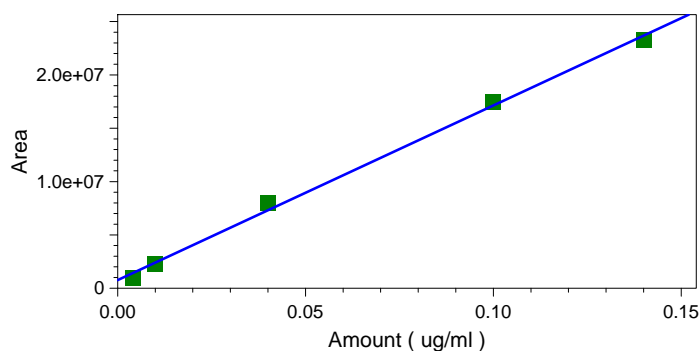
Replicate Mode: Replace

Fit Type: Linear

$y = 1.63777e+008x + 760764$.

Goodness of fit (r^2): 0.997764

Peak: Aroclor 1016 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	958076	2297745	7952249	17421639	23324691
RF	239519000	229774500	198806225	174216390	166604935.714286
Last Area					
Residual	0.00279524	0.00061543	-0.0039101	-0.00172873	0.00222815
Rep StDev					
Rep %RSD					
Rep 1 Area	958076	2297745	7952249	17421639	23324691
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:25
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #4 (front detector)

Average RF: 2.73493e+008 RF StDev: 5.56231e+007 RF %RSD: 20.3381

Scaling: None LSQ Weighting: None Force Through Zero: Off

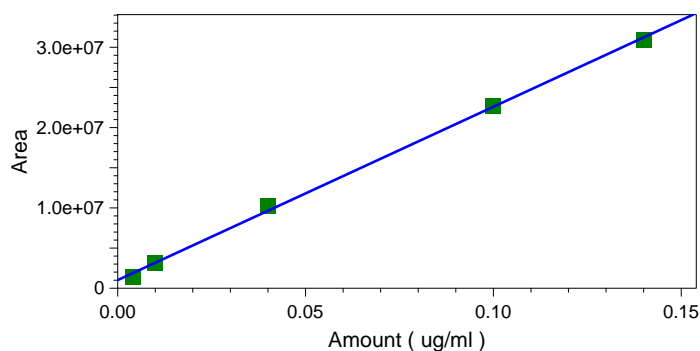
Replicate Mode: Replace

Fit Type: Linear

$y = 2.15896e+008x + 1.00638e+006$

Goodness of fit (r^2): 0.998911

Peak: Aroclor 1016 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1393946	3136061	10273608	22731181	30970617
RF	348486500	313606100	256840200	227311810	221218692.857143
Last Area					
Residual	0.00220483	0.000135616	-0.00292444	-0.000626079	0.00121007
Rep StDev					
Rep %RSD					
Rep 1 Area	1393946	3136061	10273608	22731181	30970617
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:27
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #5 (front detector)

Average RF: 1.33246e+008 RF StDev: 1.98395e+007 RF %RSD: 14.8894

Scaling: None LSQ Weighting: None Force Through Zero: Off

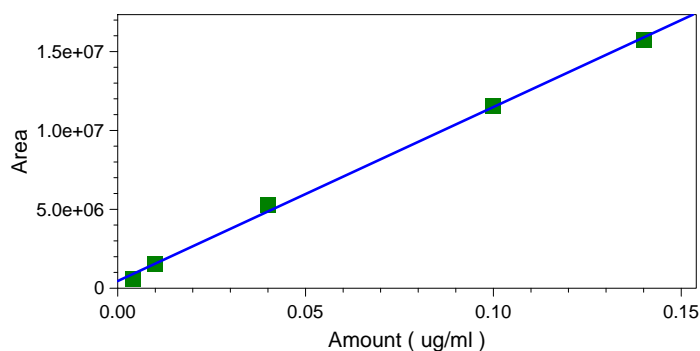
Replicate Mode: Replace

Fit Type: Linear

$y = 1.10285e+008x + 452894$.

Goodness of fit (r^2): 0.998516

Peak: Aroclor 1016 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	615143	1531556	5261027	11516353	15764124
RF	153785750	153155600	131525675	115163530	112600885.714286
Last Area					
Residual	0.00252882	0.000219304	-0.00359742	-0.000317163	0.00116646
Rep StDev					
Rep %RSD					
Rep 1 Area	615143	1531556	5261027	11516353	15764124
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:28
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #1 (front detector)

Average RF: 1.73322e+008 RF StDev: 2.21627e+007 RF %RSD: 12.7870

Scaling: None LSQ Weighting: None Force Through Zero: Off

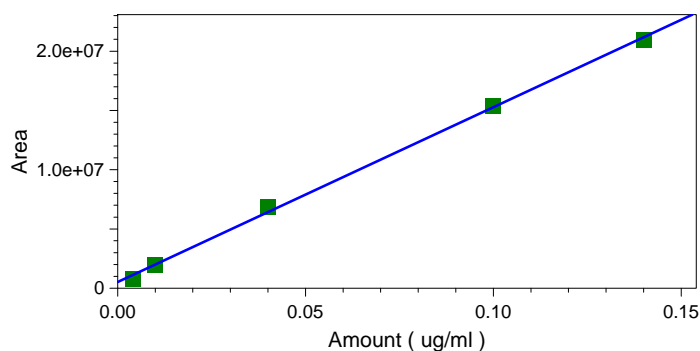
Replicate Mode: Replace

Fit Type: Linear

$y = 1.47565e+008x + 518416$.

Goodness of fit (r^2): 0.998889

Peak: Aroclor 1260 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	772191	1986850	6844984	15382429	20989658
RF	193047750	198685000	171124600	153824290	149926128.571429
Last Area					
Residual	0.00228024	4.888e-005	-0.00287317	-0.00072876	0.00127281
Rep StDev					
Rep %RSD					
Rep 1 Area	772191	1986850	6844984	15382429	20989658
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:30
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #2 (front detector)

Average RF: 3.65610e+008 RF StDev: 5.07440e+007 RF %RSD: 13.8793

Scaling: None LSQ Weighting: None Force Through Zero: Off

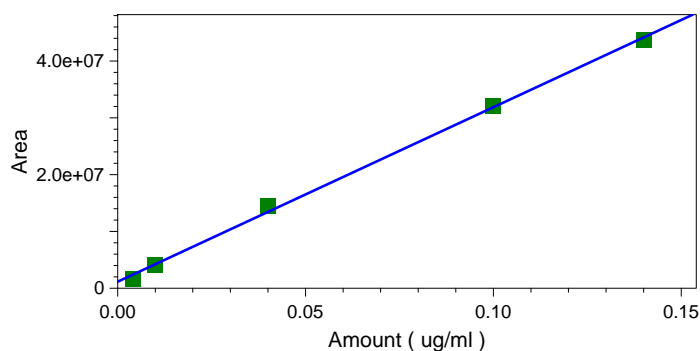
Replicate Mode: Replace

Fit Type: Linear

$y = 3.07266e+008x + 1.14020e+006$

Goodness of fit (r^2): 0.998819

Peak: Aroclor 1260 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1686579	4133945	14397429	32027824	43791330
RF	421644750	413394500	359935725	320278240	312795214.285714
Last Area					
Residual	0.00222179	0.000256808	-0.00314582	-0.000524152	0.00119138
Rep StDev					
Rep %RSD					
Rep 1 Area	1686579	4133945	14397429	32027824	43791330
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:32
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #3 (front detector)

Average RF: 3.11281e+008 RF StDev: 4.37579e+007 RF %RSD: 14.0574

Scaling: None LSQ Weighting: None Force Through Zero: Off

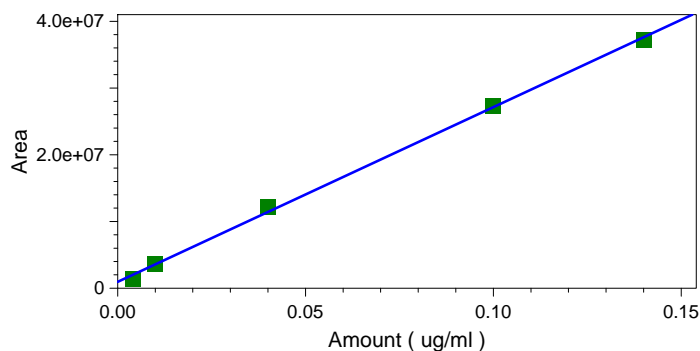
Replicate Mode: Replace

Fit Type: Linear

$y = 2.61827e+008x + 951389$.

Goodness of fit (r^2): 0.998984

Peak: Aroclor 1260 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1432404	3553547	12130192	27347559	37270399
RF	358101000	355354700	303254800	273475590	266217135.714286
Last Area					
Residual	0.00216285	6.15403e-005	-0.00269537	-0.000815287	0.00128626
Rep StDev					
Rep %RSD					
Rep 1 Area	1432404	3553547	12130192	27347559	37270399
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:34
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #4 (front detector)

Average RF: 3.12562e+008 RF StDev: 3.77690e+007 RF %RSD: 12.0837

Scaling: None LSQ Weighting: None Force Through Zero: Off

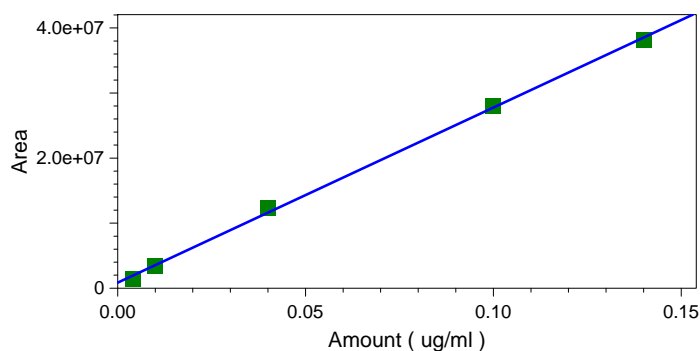
Replicate Mode: Replace

Fit Type: Linear

$y = 2.69216e+008x + 845738.$

Goodness of fit (r^2): 0.999140

Peak: Aroclor 1260 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1423795	3463784	12320554	27938670	38231340
RF	355948750	346378400	308013850	279386700	273081000
Last Area					
Residual	0.00185281	0.00027529	-0.00262311	-0.000636476	0.00113148
Rep StDev					
Rep %RSD					
Rep 1 Area	1423795	3463784	12320554	27938670	38231340
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\005. dat	C:\Instarch\Sem i7\Data\080715 pcbic\006.dat	C:\Instarch\Semi 7\Data\080715p cbic\007.dat	C:\Instarch\Semi 7\Data\080715p cbic\008.dat	C:\Instarch\Se mi7\Data\0807 15pcbic\009.da t
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:35
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #5 (front detector)

Average RF: 2.00835e+008 RF StDev: 3.15721e+007 RF %RSD: 15.7204

Scaling: None LSQ Weighting: None Force Through Zero: Off

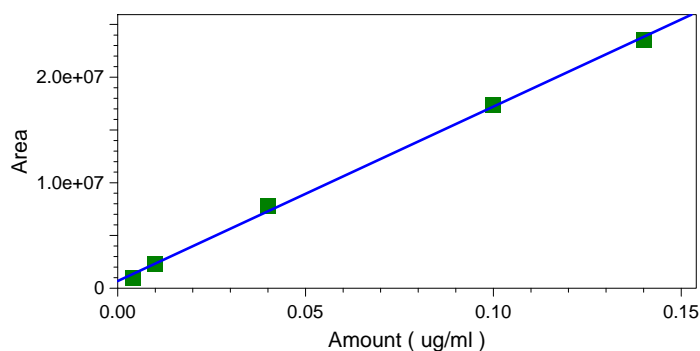
Replicate Mode: Replace

Fit Type: Linear

$y = 1.65387e+008x + 675806$.

Goodness of fit (r^2): 0.998671

Peak: Aroclor 1260 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	955561	2277829	7811461	17380589	23577272
RF	238890250	227782900	195286525	173805890	168409085.714286
Last Area					
Residual	0.00230848	0.000313471	-0.00314528	-0.00100441	0.00152774
Rep StDev					
Rep %RSD					
Rep 1 Area	955561	2277829	7811461	17380589	23577272
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:37
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCBPCB (front detector)

Average RF: 317945. RF StDev: 39717.3 RF %RSD: 12.4919
 Scaling: None LSQ Weighting: None Force Through Zero: Off

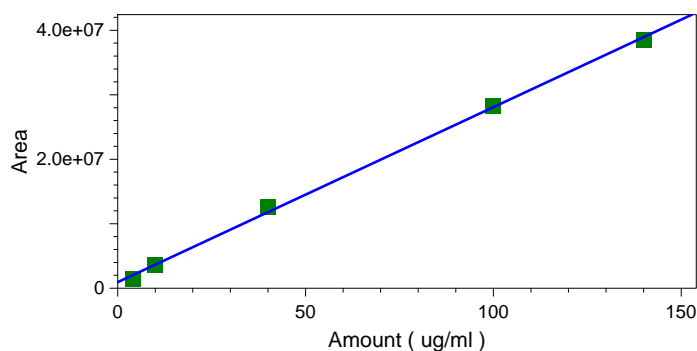
Replicate Mode: Replace

Fit Type: Linear

$y = 271399.x + 935189.$

Goodness of fit (r^2): 0.998885

Peak: SURRDCBPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1430174	3592078	12581872	28291942	38571190
RF	357543.5	359207.8	314546.8	282919.42	275508.5
Last Area					
Residual	2.17617	0.210396	-2.9135	-0.799013	1.32595
Rep StDev					
Rep %RSD					
Rep 1 Area	1430174	3592078	12581872	28291942	38571190
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\005. dat	C:\Instarch\Sem i7\Data\080715 pcbic\006.dat	C:\Instarch\Semi 7\Data\080715p cbic\007.dat	C:\Instarch\Semi 7\Data\080715p cbic\008.dat	C:\Instarch\Se mi7\Data\0807 15pcbic\009.da t
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:43
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMXPCB (back detector)

Average RF: 735389. RF StDev: 58273.1 RF %RSD: 7.92412
 Scaling: None LSQ Weighting: None Force Through Zero: Off

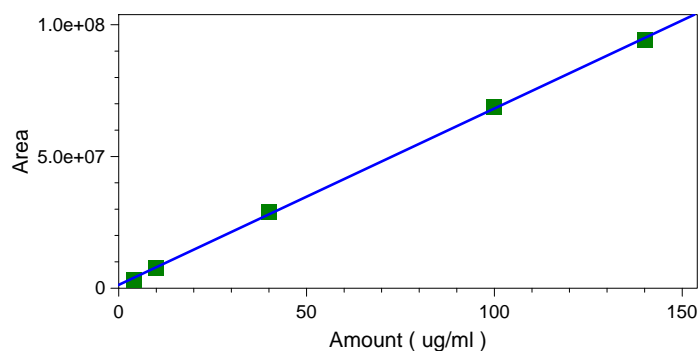
Replicate Mode: Replace

Fit Type: Linear

$y = 669465.x + 1.27102e+006$

Goodness of fit (r^2): 0.999682

Peak: SURRTCMXPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	3225231	7841061	29013130	68674223	94424276
RF	806307.75	784106.1	725328.25	686742.23	674459.114285714
Last Area					
Residual	1.08094	0.186138	-1.4392	-0.682134	0.854259
Rep StDev					
Rep %RSD					
Rep 1 Area	3225231	7841061	29013130	68674223	94424276
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:46
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #1 (back detector)

Average RF: 2.71768e+008 RF StDev: 2.73476e+007 RF %RSD: 10.0629

Scaling: None LSQ Weighting: None Force Through Zero: Off

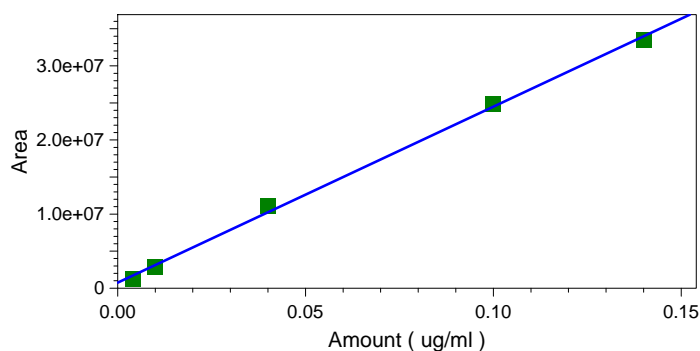
Replicate Mode: Replace

Fit Type: Linear

$y = 2.37453e+008x + 751235$.

Goodness of fit (r^2): 0.998409

Peak: Aroclor 1016 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1217008	2898366	11074288	24818928	33558706
RF	304252000	289836600	276857200	248189280	239705042.857143
Last Area					
Residual	0.00203846	0.000957649	-0.00347413	-0.0013578	0.00183582
Rep StDev					
Rep %RSD					
Rep 1 Area	1217008	2898366	11074288	24818928	33558706
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:47
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #2 (back detector)

Average RF: 5.37123e+008 RF StDev: 8.22535e+007 RF %RSD: 15.3137

Scaling: None LSQ Weighting: None Force Through Zero: Off

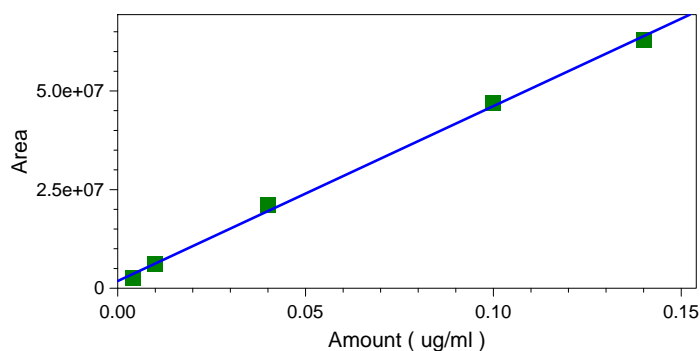
Replicate Mode: Replace

Fit Type: Linear

$y = 4.43441e+008x + 1.82087e+006$

Goodness of fit (r^2): 0.998436

Peak: Aroclor 1016 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2549929	6048918	20975364	46845552	63056319
RF	637482250	604891800	524384100	468455520	450402278.571429
Last Area					
Residual	0.0023559	0.000465364	-0.00319511	-0.00153471	0.00190856
Rep StDev					
Rep %RSD					
Rep 1 Area	2549929	6048918	20975364	46845552	63056319
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:49
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #3 (back detector)

Average RF: 1.71892e+008 RF StDev: 3.75637e+007 RF %RSD: 21.8530

Scaling: None LSQ Weighting: None Force Through Zero: Off

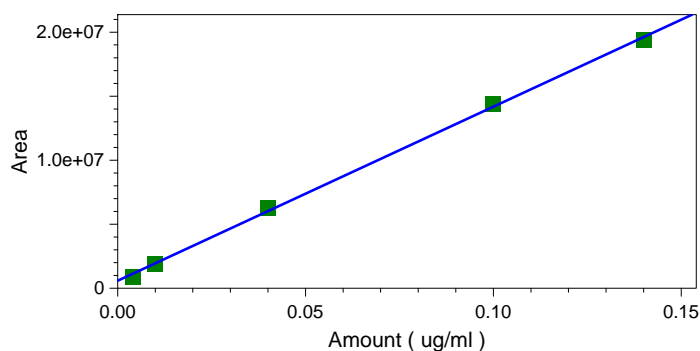
Replicate Mode: Replace

Fit Type: Linear

$y = 1.35969e+008x + 584231.$

Goodness of fit (r^2): 0.999328

Peak: Aroclor 1016 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	908666	1933093	6263803	14360476	19430103
RF	227166500	193309300	156595075	143604760	138786450
Last Area					
Residual	0.00161391	7.96615e-005	-0.00177098	-0.00131876	0.00139616
Rep StDev					
Rep %RSD					
Rep 1 Area	908666	1933093	6263803	14360476	19430103
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\005. dat	C:\Instarch\Sem i7\Data\080715 pcbic\006.dat	C:\Instarch\Semi 7\Data\080715p cbic\007.dat	C:\Instarch\Semi 7\Data\080715p cbic\008.dat	C:\Instarch\Se mi7\Data\0807 15pcbic\009.da t
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:51
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #4 (back detector)

Average RF: 4.89618e+008 RF StDev: 8.10000e+007 RF %RSD: 16.5435

Scaling: None LSQ Weighting: None Force Through Zero: Off

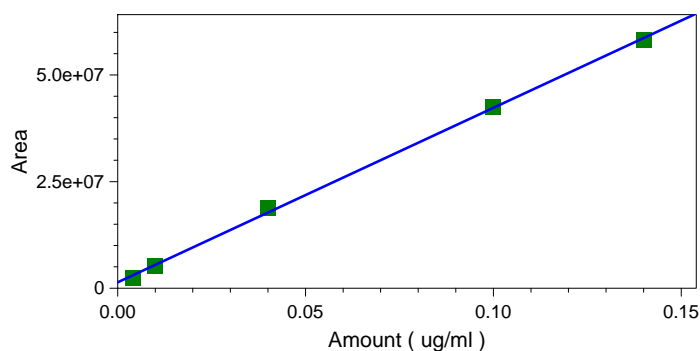
Replicate Mode: Replace

Fit Type: Linear

$y = 4.09168e+008x + 1.37639e+006$

Goodness of fit (r^2): 0.999412

Peak: Aroclor 1016 #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2440347	5299247	18689406	42423439	58324974
RF	610086750	529924700	467235150	424234390	416606957.14 2857
Last Area					
Residual	0.00139972	0.000412615	-0.0023127	-0.000318274	0.000818647
Rep StDev					
Rep %RSD					
Rep 1 Area	2440347	5299247	18689406	42423439	58324974
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\005. dat	C:\Instarch\Sem i7\Data\080715 pcbic\006.dat	C:\Instarch\Semi 7\Data\080715p cbic\007.dat	C:\Instarch\Semi 7\Data\080715p cbic\008.dat	C:\Instarch\Se mi7\Data\0807 15pcbic\009.da t
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:52
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1016 #5 (back detector)

Average RF: 3.67506e+008 RF StDev: 4.55827e+007 RF %RSD: 12.4032

Scaling: None LSQ Weighting: None Force Through Zero: Off

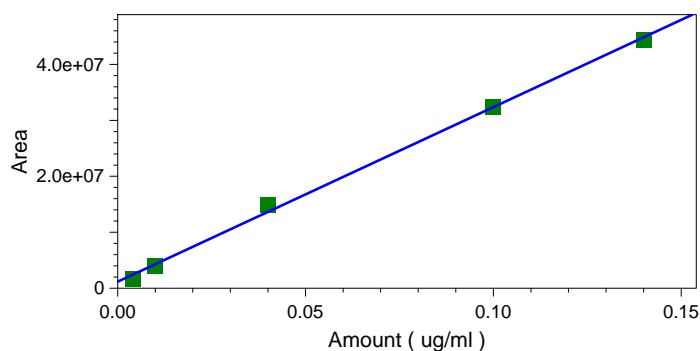
Replicate Mode: Replace

Fit Type: Linear

$y = 3.12004e+008x + 1.16047e+006$

Goodness of fit (r^2): 0.998279

Peak: Aroclor 1016 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1670696	4052016	14904948	32451192	44452724
RF	417674000	405201600	372623700	324511920	317519457.14 2857
Last Area					
Residual	0.00236467	0.000732341	-0.00405223	-0.000289429	0.00124464
Rep StDev					
Rep %RSD					
Rep 1 Area	1670696	4052016	14904948	32451192	44452724
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\005. dat	C:\Instarch\Sem i7\Data\080715 pcbic\006.dat	C:\Instarch\Semi 7\Data\080715p cbic\007.dat	C:\Instarch\Semi 7\Data\080715p cbic\008.dat	C:\Instarch\Se mi7\Data\0807 15pcbic\009.da t
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:54
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #1 (back detector)

Average RF: 3.69237e+008 RF StDev: 4.51699e+007 RF %RSD: 12.2333

Scaling: None LSQ Weighting: None Force Through Zero: Off

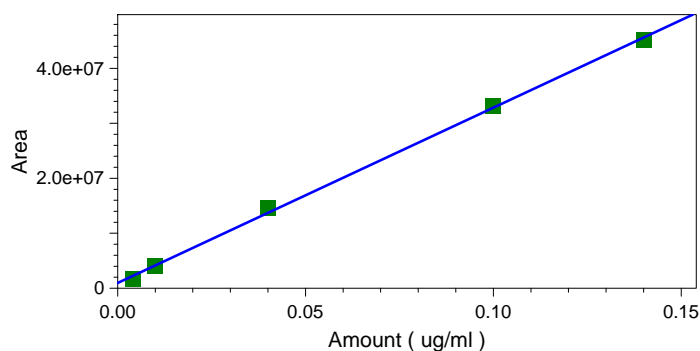
Replicate Mode: Replace

Fit Type: Linear

$y = 3.18932e+008x + 956117$.

Goodness of fit (r^2): 0.999248

Peak: Aroclor 1260 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1711508	4019505	14500014	33061220	45254372
RF	427877000	401950500	362500350	330612200	323245514.285714
Last Area					
Residual	0.0016315	0.000394858	-0.0024664	-0.000664386	0.00110443
Rep StDev					
Rep %RSD					
Rep 1 Area	1711508	4019505	14500014	33061220	45254372
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:55
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #2 (back detector)

Average RF: 7.77560e+008 RF StDev: 1.76898e+008 RF %RSD: 22.7504

Scaling: None LSQ Weighting: None Force Through Zero: Off

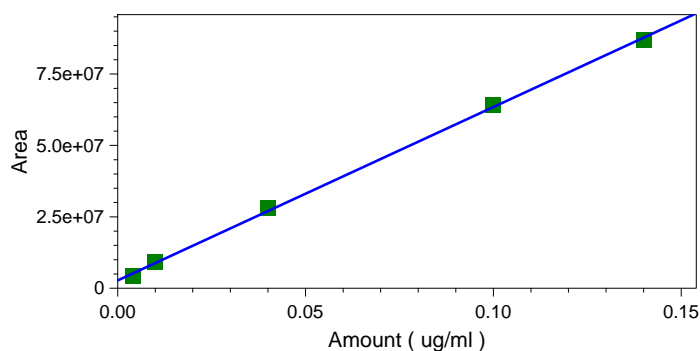
Replicate Mode: Replace

Fit Type: Linear

$y = 6.07177e+008x + 2.73457e+006$

Goodness of fit (r^2): 0.999465

Peak: Aroclor 1260 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	4085296	9057374	27947164	63987688	87105304
RF	1021324000	905737400	698679100	639876880	622180742.857143
Last Area					
Residual	0.00177539	-0.000413453	-0.00152431	-0.000881846	0.00104421
Rep StDev					
Rep %RSD					
Rep 1 Area	4085296	9057374	27947164	63987688	87105304
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:57
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #3 (back detector)

Average RF: 8.90254e+008 RF StDev: 1.17152e+008 RF %RSD: 13.1594

Scaling: None LSQ Weighting: None Force Through Zero: Off

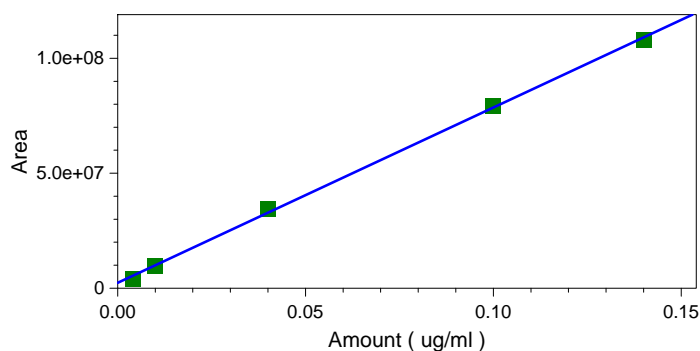
Replicate Mode: Replace

Fit Type: Linear

$y = 7.62165e+008x + 2.38512e+006$

Goodness of fit (r^2): 0.999263

Peak: Aroclor 1260 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	4172895	9769875	34635924	79248061	108175408
RF	1043223750	976987500	865898100	792480610	772681485.714286
Last Area					
Residual	0.00165434	0.000310819	-0.00231472	-0.000848139	0.00119769
Rep StDev					
Rep %RSD					
Rep 1 Area	4172895	9769875	34635924	79248061	108175408
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:20:58
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #4 (back detector)

Average RF: 6.12129e+008 RF StDev: 7.45273e+007 RF %RSD: 12.1751

Scaling: None LSQ Weighting: None Force Through Zero: Off

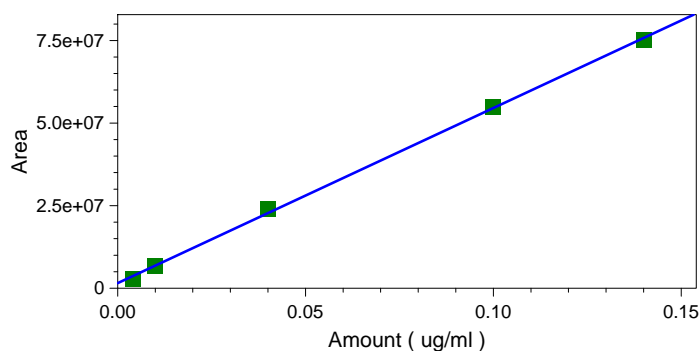
Replicate Mode: Replace

Fit Type: Linear

$y = 5.30401e+008x + 1.52197e+006$

Goodness of fit (r^2): 0.999392

Peak: Aroclor 1260 #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2834590	6675879	23947778	54776093	75313451
RF	708647500	667587900	598694450	547760930	537953221.428571
Last Area					
Residual	0.00152524	0.000283006	-0.00228084	-0.000403488	0.000876081
Rep StDev					
Rep %RSD					
Rep 1 Area	2834590	6675879	23947778	54776093	75313451
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:21:00
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1260 #5 (back detector)

Average RF: 6.69937e+008 RF StDev: 9.13237e+007 RF %RSD: 13.6317

Scaling: None LSQ Weighting: None Force Through Zero: Off

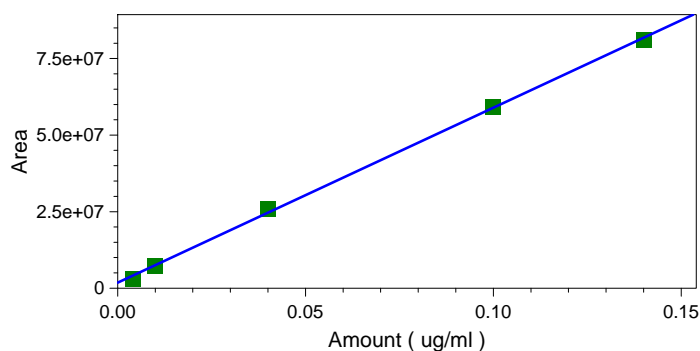
Replicate Mode: Replace

Fit Type: Linear

$y = 5.71447e+008x + 1.80299e+006$

Goodness of fit (r^2): 0.999330

Peak: Aroclor 1260 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	3160478	7369864	25984376	59274755	81230776
RF	790119500	736986400	649609400	592747550	580219828.571429
Last Area					
Residual	0.00162448	0.000258283	-0.00231609	-0.000572421	0.00100575
Rep StDev					
Rep %RSD					
Rep 1 Area	3160478	7369864	25984376	59274755	81230776
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 Print Time: Aug 07,2015 19:21:01
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCBPCB (back detector)

Average RF: 514035. RF StDev: 69459.7 RF %RSD: 13.5126
 Scaling: None LSQ Weighting: None Force Through Zero: Off

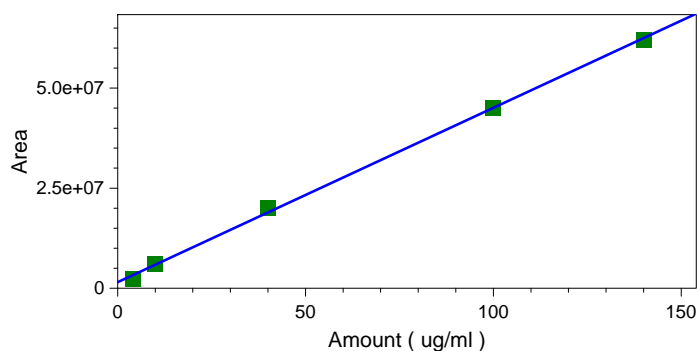
Replicate Mode: Replace

Fit Type: Linear

$y = 435674.x + 1.51757e+006$

Goodness of fit (r^2): 0.999078

Peak: SURRDCBPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	2314764	5926201	20139173	45144345	62151459
RF	578691	592620.1	503479.325	451443.45	443938.992857143
Last Area					
Residual	2.1702	-0.119118	-2.74208	-0.136326	0.827331
Rep StDev					
Rep %RSD					
Rep 1 Area	2314764	5926201	20139173	45144345	62151459
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\005.dat	C:\Instarch\Semi7\Data\080715pcbic\006.dat	C:\Instarch\Semi7\Data\080715pcbic\007.dat	C:\Instarch\Semi7\Data\080715pcbic\008.dat	C:\Instarch\Semi7\Data\080715pcbic\009.dat
Rep 1 Sample ID	PCB ICAL 1 PP 4716	PCB ICAL 2 PP 4717	PCB ICAL 3 PP 4718	PCB ICAL 4 PP 4719	PCB ICAL 5 PP 4720
Rep 1 Calib. Time	Aug 07,2015 13:40:30	Aug 07,2015 13:40:46	Aug 07,2015 13:40:55	Aug 07,2015 13:41:03	Aug 07,2015 13:41:10

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:39
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 388732.

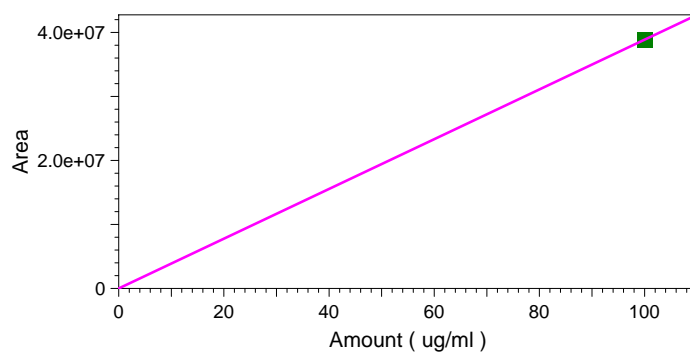
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 388732.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	38873186
RF	388731.86
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	38873186
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:42
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1221 #1 (front detector)

Average RF: 5.04177e+007

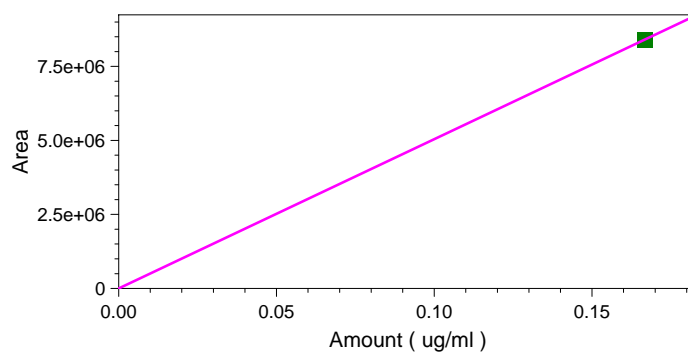
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.04177e+007

Peak: Aroclor 1221 #1 -- ESTD -- front detector



Level 1	
Amount	0.166667
Area	8402955
RF	50417730.00
	0002
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8402955
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:43
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1221 #2 (front detector)

Average RF: 2.23480e+007

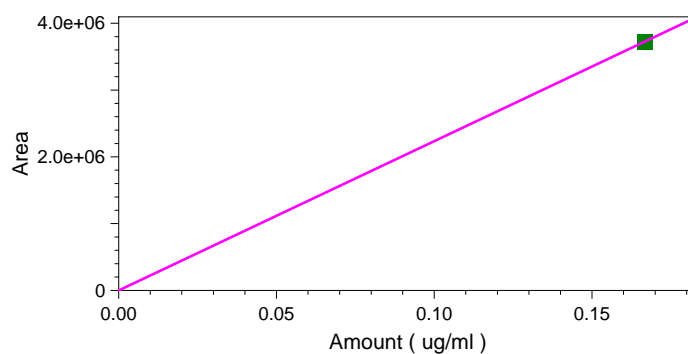
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.23480e+007

Peak: Aroclor 1221 #2 -- ESTD -- front detector



Level 1	
Amount	0.166667
Area	3724664
RF	22347984.00
	00009
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	3724664
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:46
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1221 #3 (front detector)

Average RF: 1.31273e+007

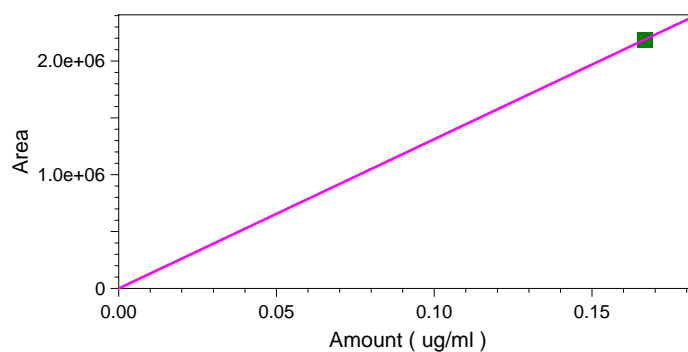
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.31273e+007

Peak: Aroclor 1221 #3 -- ESTD -- front detector



Level 1	
Amount	0.166667
Area	2187887
RF	13127322.00
	00005
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	2187887
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:48
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 268626.

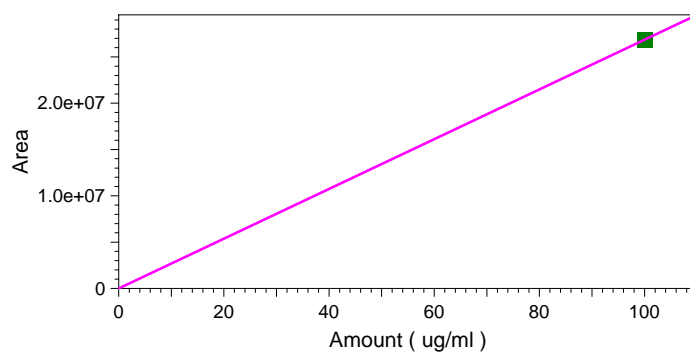
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 268626.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	26862648
RF	268626.48
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	26862648
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\013.dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:55
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 674097.

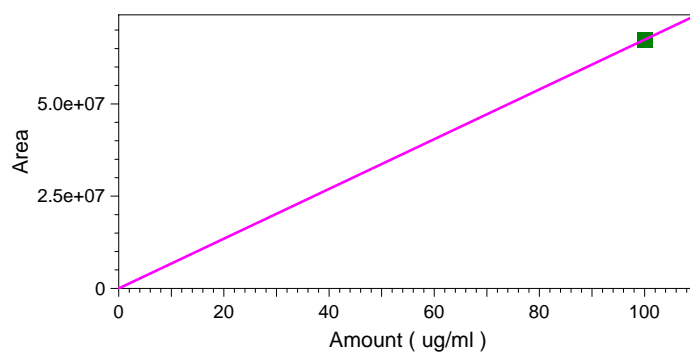
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 674097.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	67409734
RF	674097.34
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	67409734
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\013.dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:27:59
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1221 #1 (back detector)

Average RF: 8.09258e+007

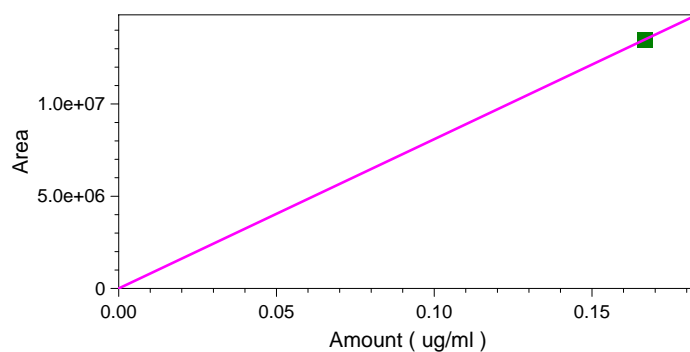
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 8.09258e+007

Peak: Aroclor 1221 #1 -- ESTD -- back detector



Level 1	
Amount	0.166667
Area	13487627
RF	80925762.00
	00032
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13487627
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:28:01
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1221 #2 (back detector)

Average RF: 5.35266e+007

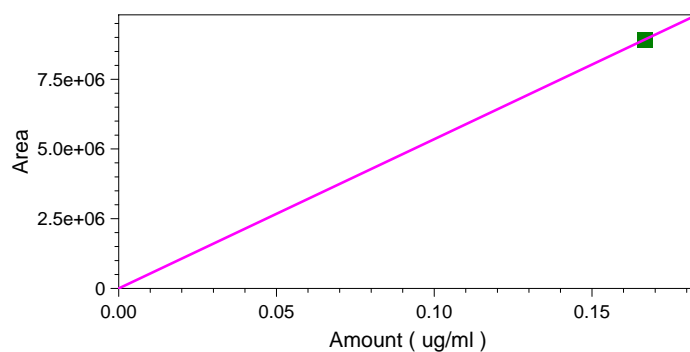
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.35266e+007

Peak: Aroclor 1221 #2 -- ESTD -- back detector



Level 1	
Amount	0.166667
Area	8921107
RF	53526642.00
	00021
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8921107
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:28:03
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1221 #3 (back detector)

Average RF: 4.08571e+007

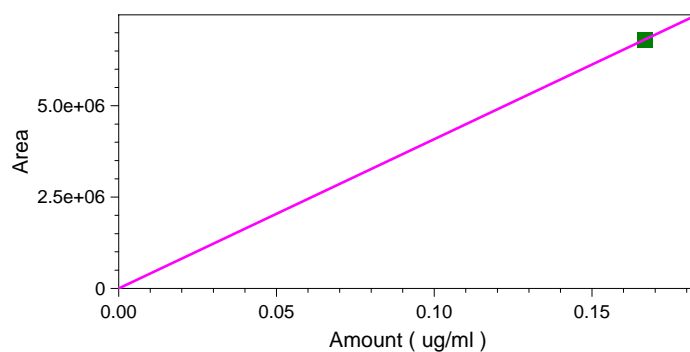
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.08571e+007

Peak: Aroclor 1221 #3 -- ESTD -- back detector



Level 1	
Amount	0.166667
Area	6809514
RF	40857084.00
	00016
Last Area	
Residual	-2.77556e-01
	7
Rep StDev	
Rep %RSD	
Rep 1 Area	6809514
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
 Print Time: Aug 07,2015 19:28:04
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 448533.

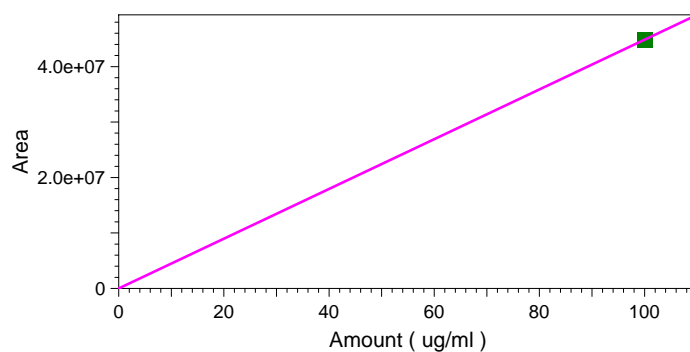
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 448533.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	44853343
RF	448533.43
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	44853343
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\013. dat
Rep 1 Sample ID	1221 CF PP4627
Rep 1 Calib. Time	Aug 07,2015 19:26:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:37:22
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 398508.

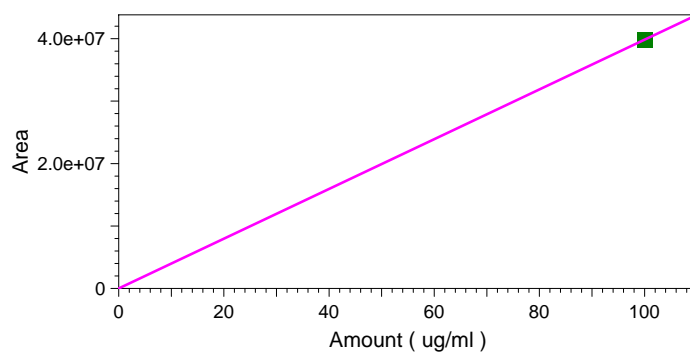
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 398508.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	39850776
RF	398507.76
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39850776
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:37:25
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #1 (front detector)

Average RF: 1.60504e+008

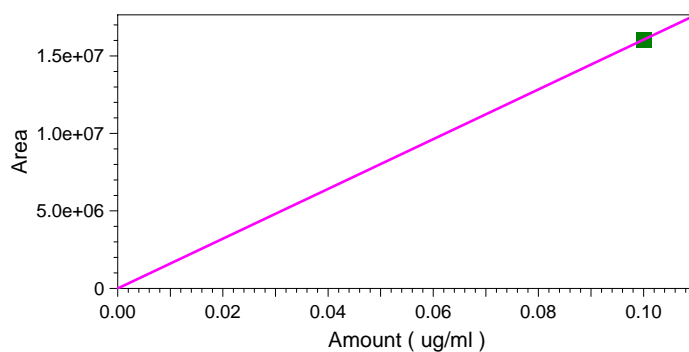
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.60504e+008

Peak: Aroclor 1232 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	16050383
RF	160503830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16050383
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:37:26
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #2 (front detector)

Average RF: 1.31140e+008

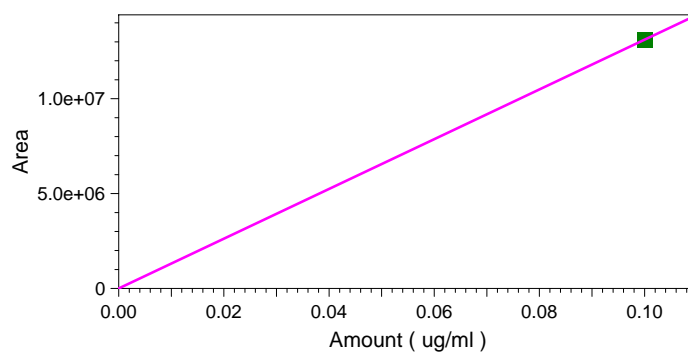
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.31140e+008

Peak: Aroclor 1232 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	13113951
RF	131139510
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13113951
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:05
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #3 (front detector)

Average RF: 2.82098e+007

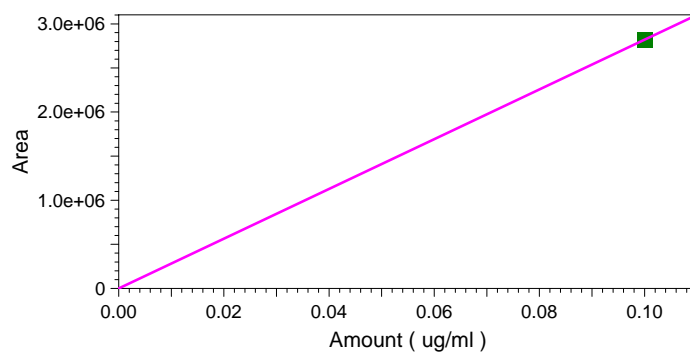
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.82098e+007

Peak: Aroclor 1232 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	2820983
RF	28209830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	2820983
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:07
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #4 (front detector)

Average RF: 1.89064e+008

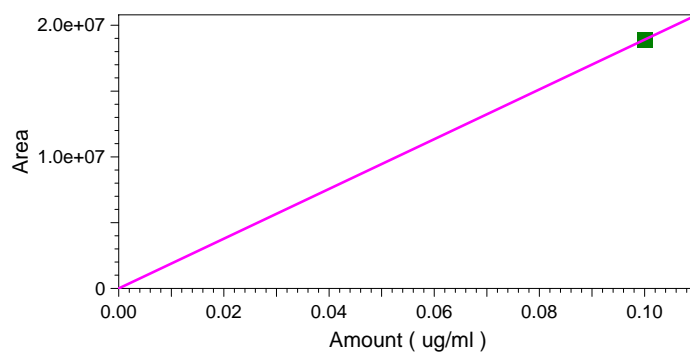
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.89064e+008

Peak: Aroclor 1232 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	18906418
RF	189064180
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18906418
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:09
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #5 (front detector)

Average RF: 8.54473e+007

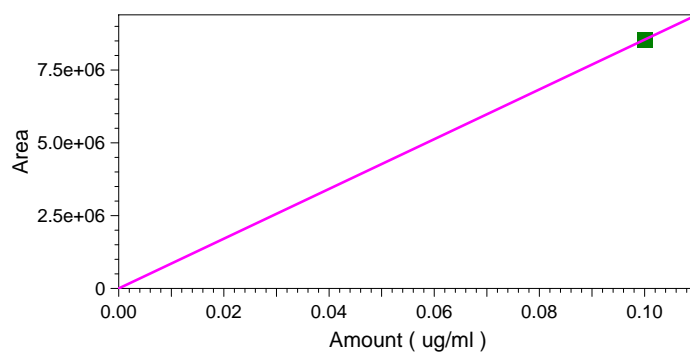
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 8.54473e+007

Peak: Aroclor 1232 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	8544733
RF	85447330
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8544733
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:10
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 292543.

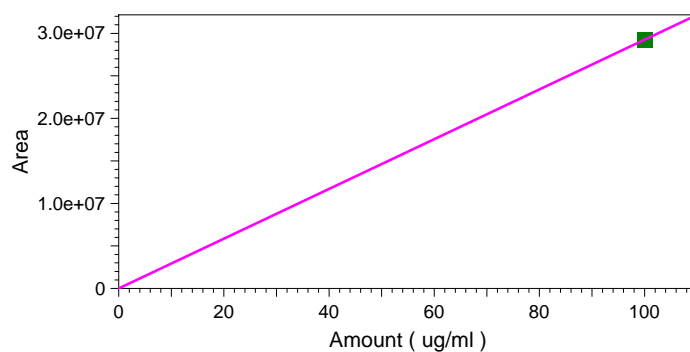
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 292543.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	29254284
RF	292542.84
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	29254284
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\014.dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:16
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 694961.

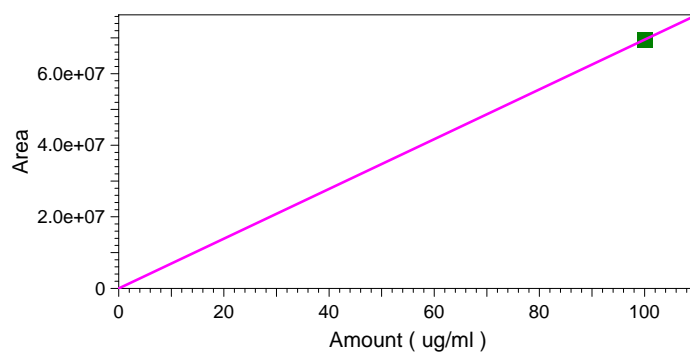
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 694961.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	69496145
RF	694961.45
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	69496145
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\014.dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:19
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #1 (back detector)

Average RF: 1.00853e+008

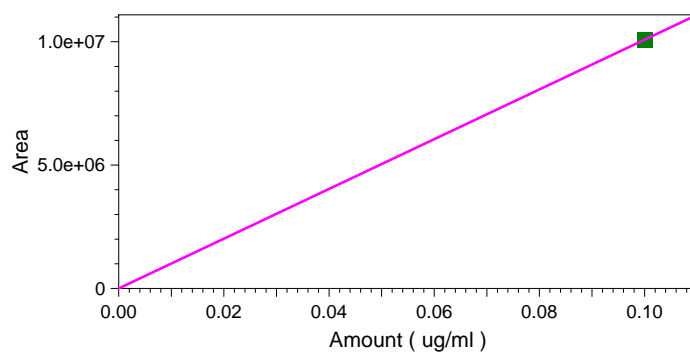
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.00853e+008

Peak: Aroclor 1232 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	10085286
RF	100852860
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10085286
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:20
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #2 (back detector)

Average RF: 2.93621e+008

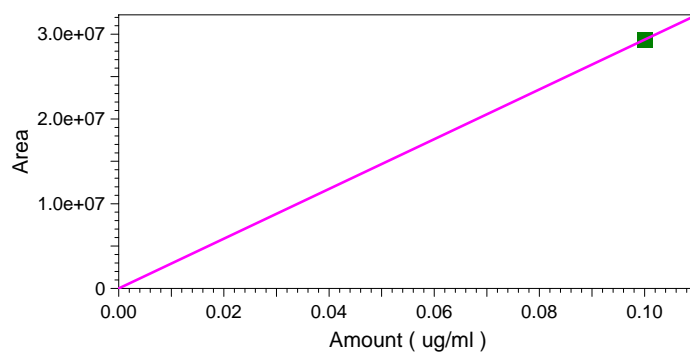
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.93621e+008

Peak: Aroclor 1232 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	29362056
RF	293620560
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29362056
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:22
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #3 (back detector)

Average RF: 2.34346e+008

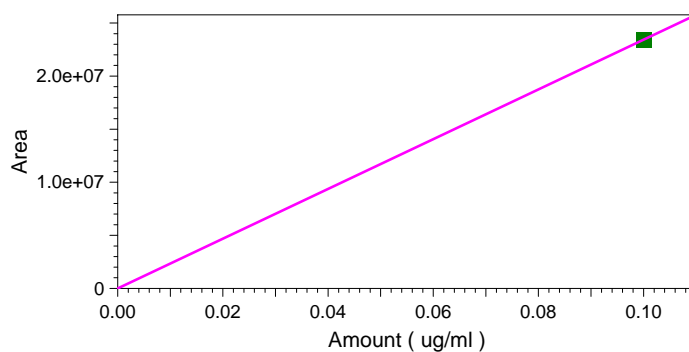
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.34346e+008

Peak: Aroclor 1232 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	23434583
RF	234345830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	23434583
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:24
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #4 (back detector)

Average RF: 2.18643e+008

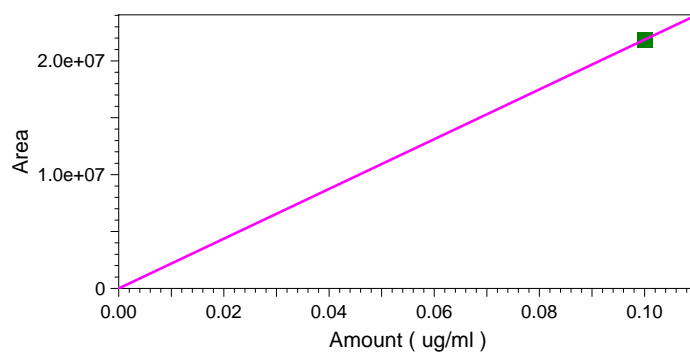
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.18643e+008

Peak: Aroclor 1232 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	21864252
RF	218642520
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21864252
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:25
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1232 #5 (back detector)

Average RF: 1.72295e+008

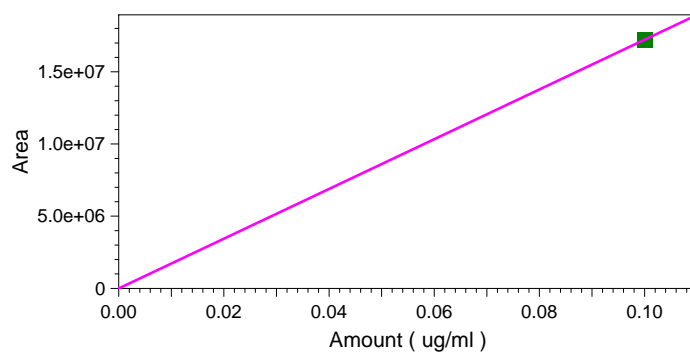
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.72295e+008

Peak: Aroclor 1232 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	17229462
RF	172294620
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	17229462
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
 Print Time: Aug 07,2015 19:38:27
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 477613.

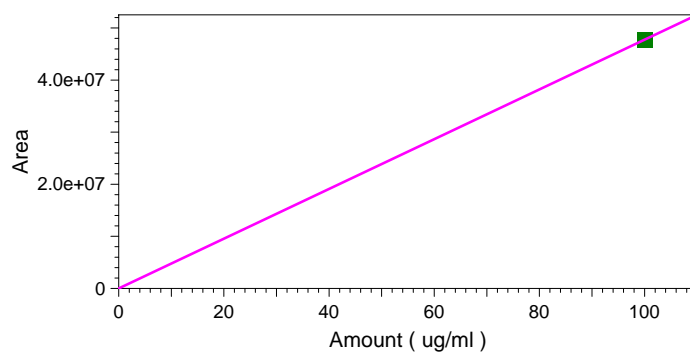
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 477613.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	47761293
RF	477612.93
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47761293
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\014. dat
Rep 1 Sample ID	1232 CF PP4628
Rep 1 Calib. Time	Aug 07,2015 19:36:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:17
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 393393.

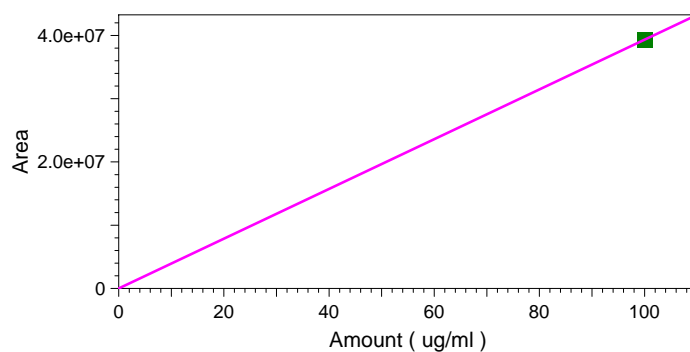
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 393393.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	39339287
RF	393392.87
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39339287
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\015.dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:20
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #1 (front detector)

Average RF: 1.15362e+008

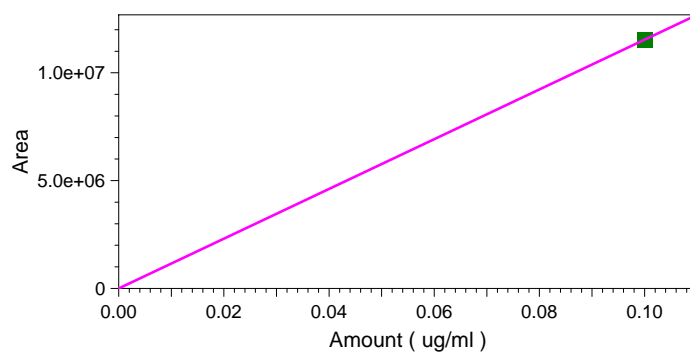
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.15362e+008

Peak: Aroclor 1242 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	11536168
RF	115361680
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11536168
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:22
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #2 (front detector)

Average RF: 2.16628e+008

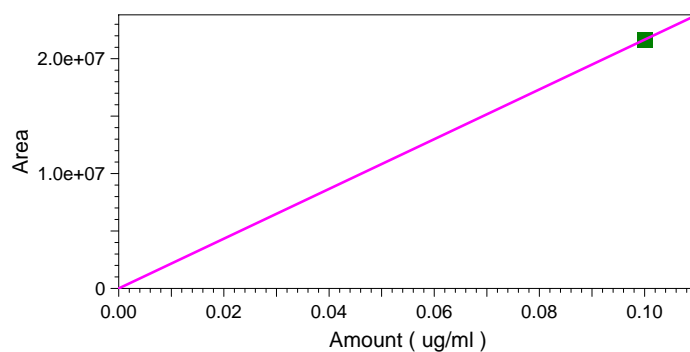
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.16628e+008

Peak: Aroclor 1242 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	21662804
RF	216628040
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21662804
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:24
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #3 (front detector)

Average RF: 5.14726e+007

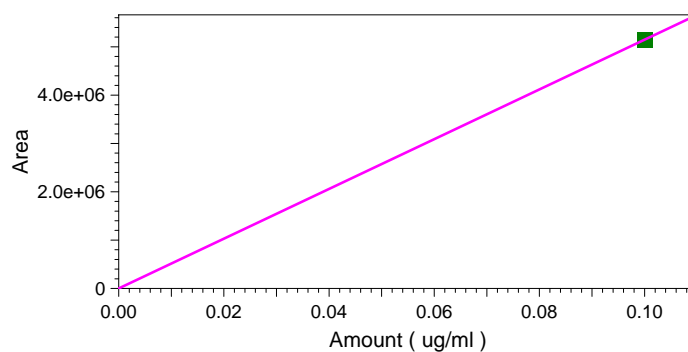
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.14726e+007

Peak: Aroclor 1242 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	5147255
RF	51472550
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5147255
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:25
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #4 (front detector)

Average RF: 1.44958e+008

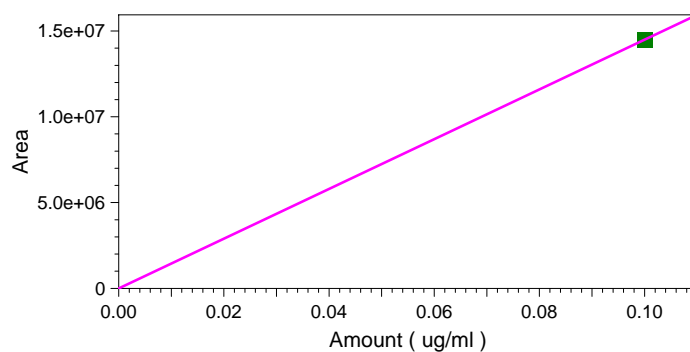
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.44958e+008

Peak: Aroclor 1242 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	14495818
RF	144958180
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14495818
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\015.dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:26
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #5 (front detector)

Average RF: 7.43036e+007

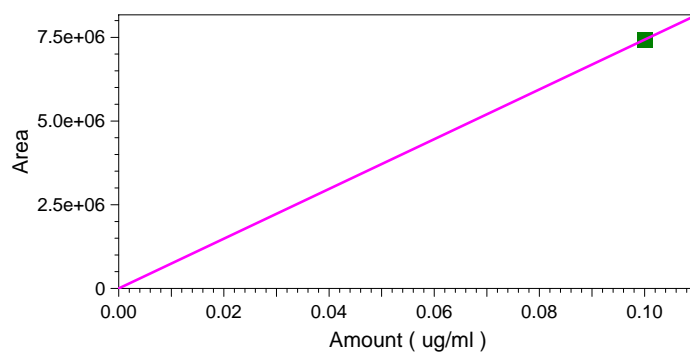
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 7.43036e+007

Peak: Aroclor 1242 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	7430355
RF	74303550
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7430355
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\015.dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:28
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 286210.

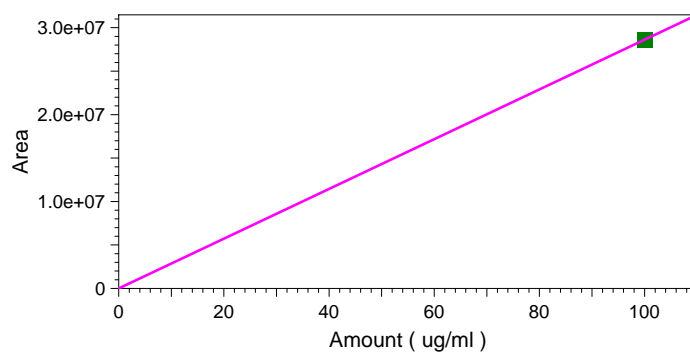
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 286210.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	28620977
RF	286209.77
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28620977
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\015.dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:33
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 698812.

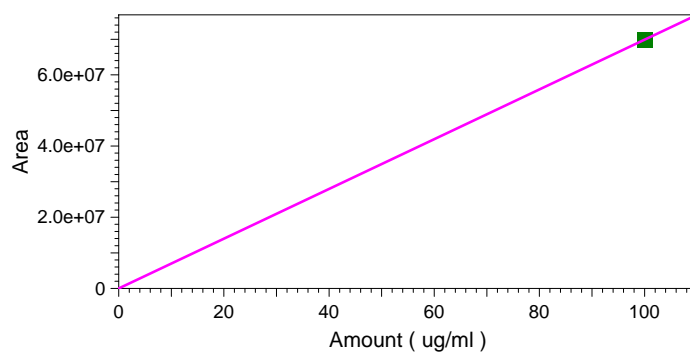
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 698812.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	69881246
RF	698812.46
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	69881246
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:35
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #1 (back detector)

Average RF: 2.10039e+008

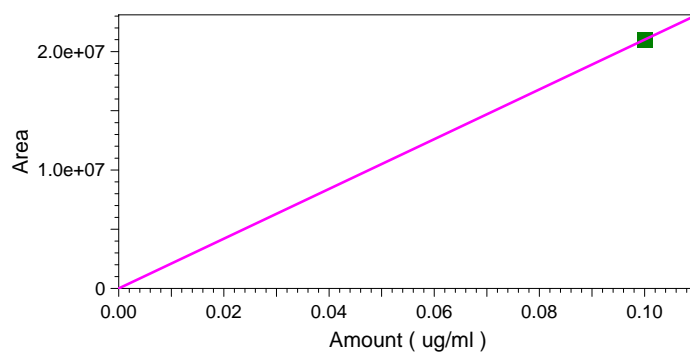
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.10039e+008

Peak: Aroclor 1242 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	21003890
RF	210038900
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21003890
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:36
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #2 (back detector)

Average RF: 3.90137e+008

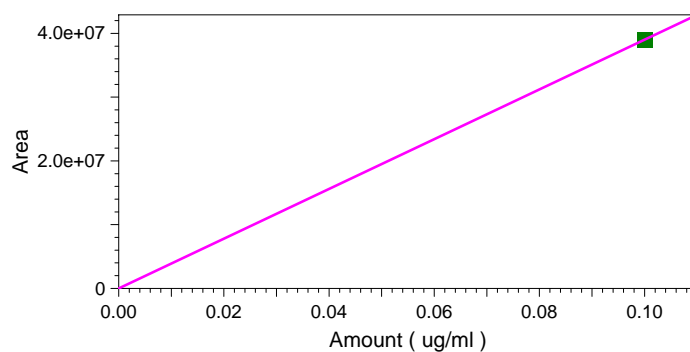
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.90137e+008

Peak: Aroclor 1242 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	39013678
RF	390136780
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	39013678
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:38
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #3 (back detector)

Average RF: 1.84108e+008

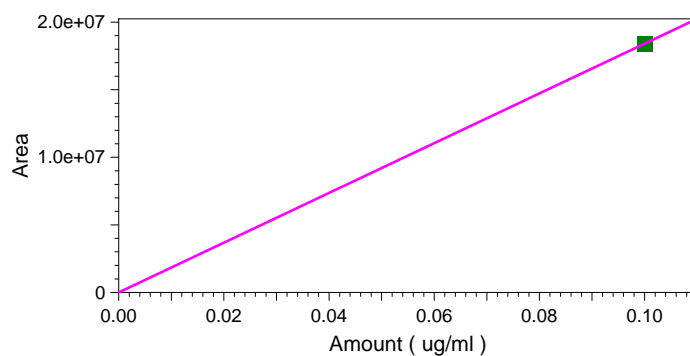
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.84108e+008

Peak: Aroclor 1242 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	18410762
RF	184107620
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18410762
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:39
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #4 (back detector)

Average RF: 3.89875e+008

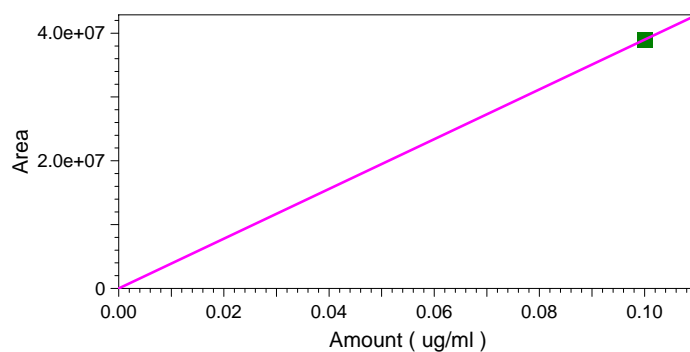
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.89875e+008

Peak: Aroclor 1242 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	38987520
RF	389875200
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	38987520
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:40
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1242 #5 (back detector)

Average RF: 1.94500e+008

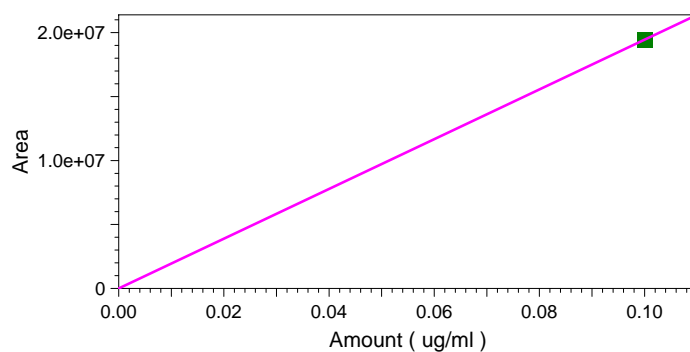
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.94500e+008

Peak: Aroclor 1242 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	19450028
RF	194500280
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19450028
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 Print Time: Aug 07,2015 19:44:42
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 476220.

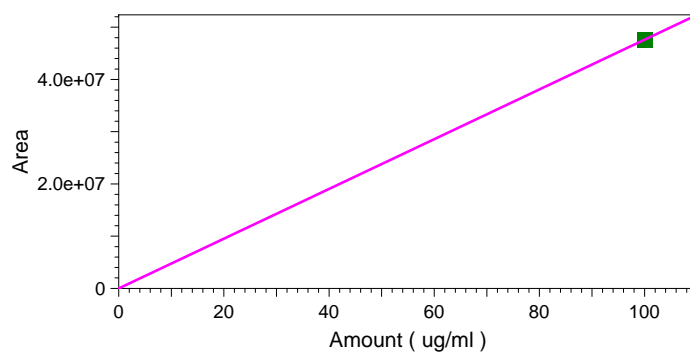
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 476220.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	47621993
RF	476219.93
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47621993
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\015. dat
Rep 1 Sample ID	1242 CF PP4629
Rep 1 Calib. Time	Aug 07,2015 19:43:17

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:50:54
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 386286.

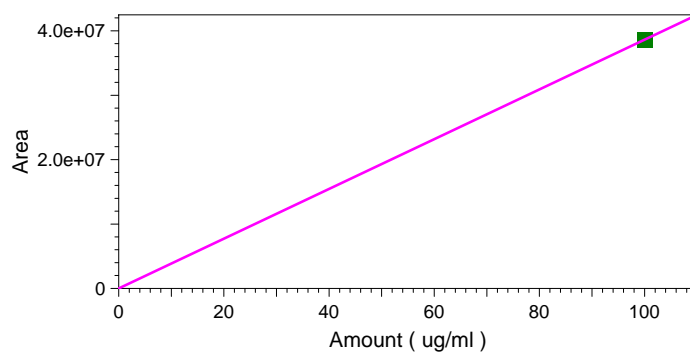
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 386286.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	38628637
RF	386286.37
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	38628637
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\016.dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:50:57
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #1 (front detector)

Average RF: 1.17291e+008

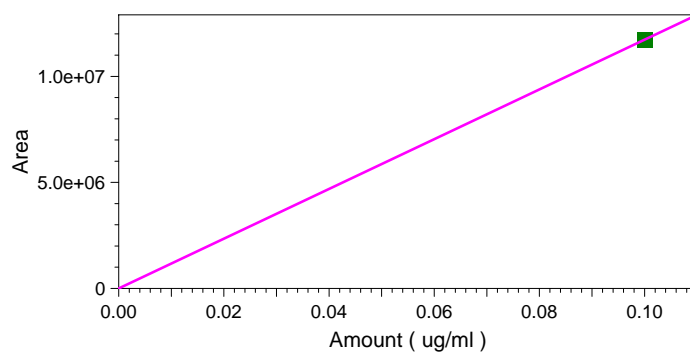
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.17291e+008

Peak: Aroclor 1248 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	11729135
RF	117291350
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11729135
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:50:58
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #2 (front detector)

Average RF: 2.13584e+008

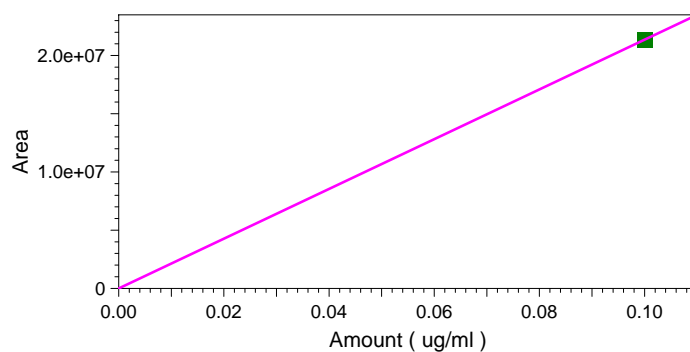
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.13584e+008

Peak: Aroclor 1248 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	21358398
RF	213583980
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21358398
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:00
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #3 (front detector)

Average RF: 1.68045e+008

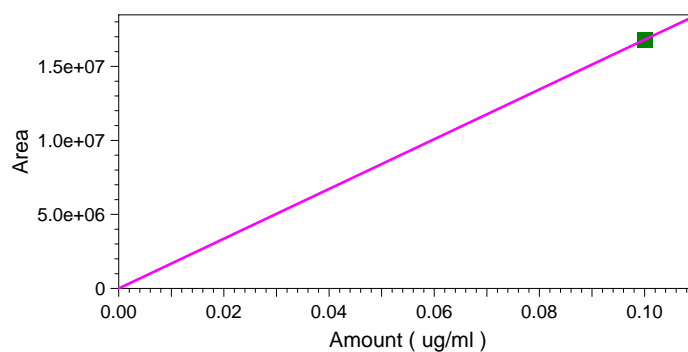
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.68045e+008

Peak: Aroclor 1248 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	16804462
RF	168044620
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16804462
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:02
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #4 (front detector)

Average RF: 1.01440e+008

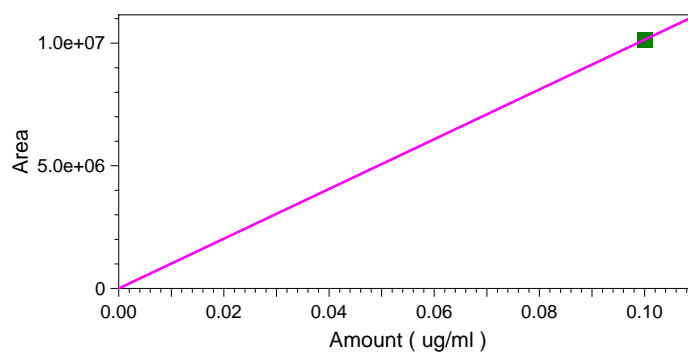
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.01440e+008

Peak: Aroclor 1248 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	10143976
RF	101439760
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10143976
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:03
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #5 (front detector)

Average RF: 1.39221e+008

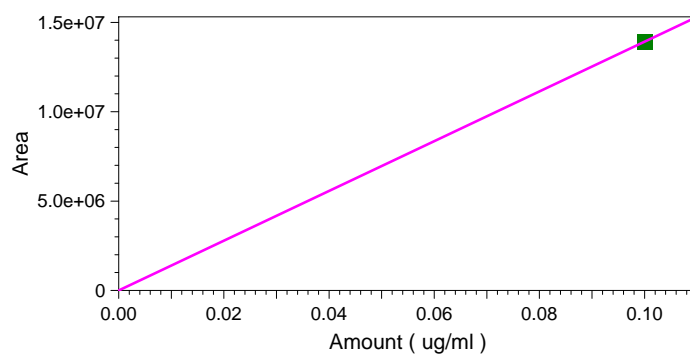
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.39221e+008

Peak: Aroclor 1248 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	13922050
RF	139220500
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13922050
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\016.dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:05
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 287953.

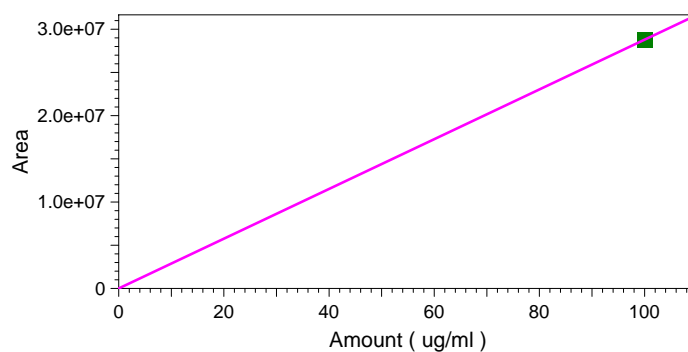
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 287953.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	28795268
RF	287952.68
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28795268
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\016.dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:10
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 696410.

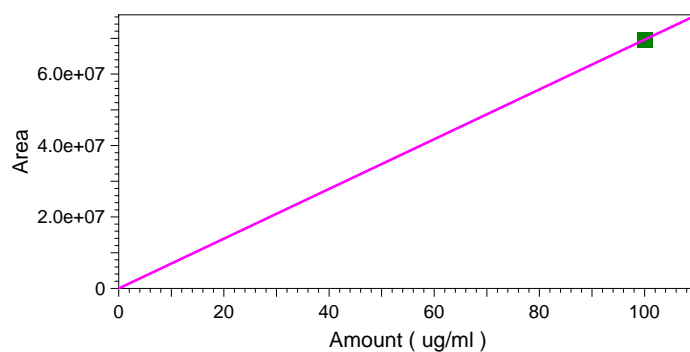
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 696410.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	69640960
RF	696409.6
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	69640960
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:12
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #1 (back detector)

Average RF: 2.13388e+008

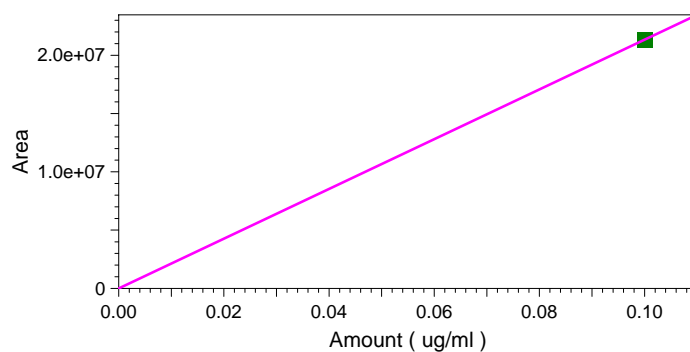
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.13388e+008

Peak: Aroclor 1248 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	21338770
RF	213387700
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21338770
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:14
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #2 (back detector)

Average RF: 2.94683e+008

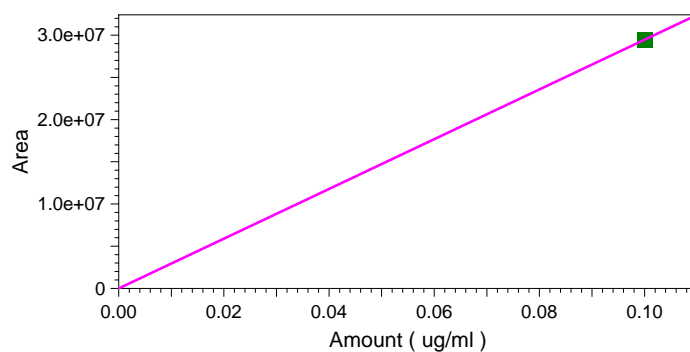
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.94683e+008

Peak: Aroclor 1248 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	29468318
RF	294683180
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29468318
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:15
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #3 (back detector)

Average RF: 4.22280e+008

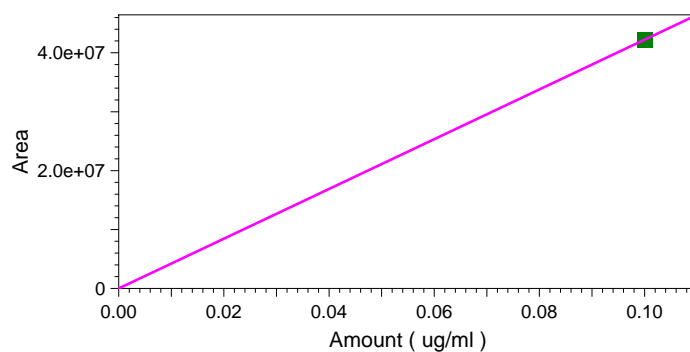
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.22280e+008

Peak: Aroclor 1248 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	42228002
RF	422280020
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	42228002
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:17
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #4 (back detector)

Average RF: 5.00769e+008

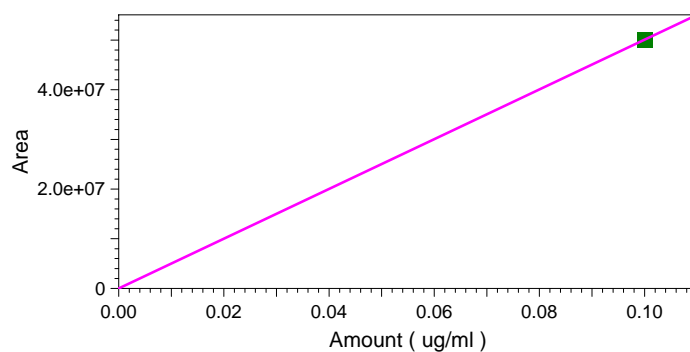
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.00769e+008

Peak: Aroclor 1248 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	50076909
RF	500769090
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	50076909
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:18
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1248 #5 (back detector)

Average RF: 3.19987e+008

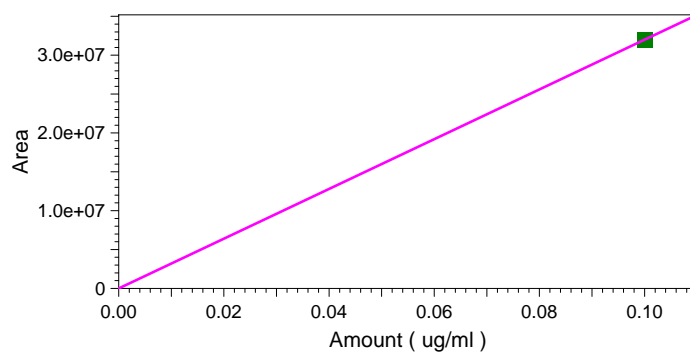
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.19987e+008

Peak: Aroclor 1248 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	31998742
RF	319987420
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	31998742
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\016. dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 Print Time: Aug 07,2015 19:51:20
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 475702.

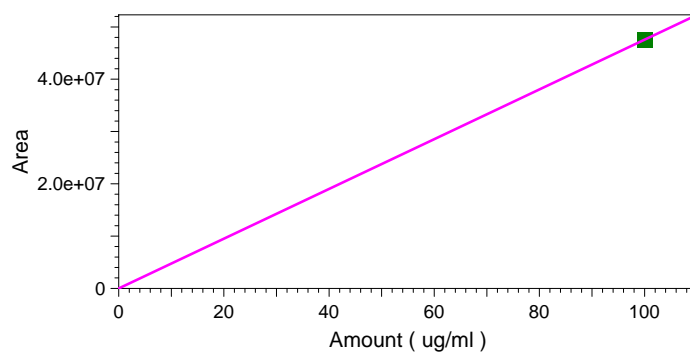
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 475702.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	47570153
RF	475701.53
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47570153
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\016.dat
Rep 1 Sample ID	1248 CF PP4630
Rep 1 Calib. Time	Aug 07,2015 19:49:59

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:57:51
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 376190.

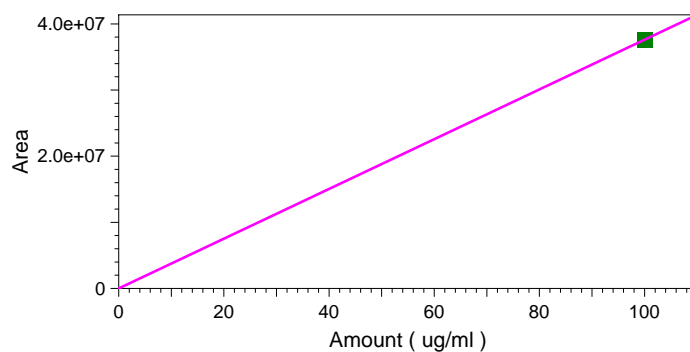
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 376190.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	37618952
RF	376189.52
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37618952
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:57:53
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #1 (front detector)

Average RF: 1.92290e+008

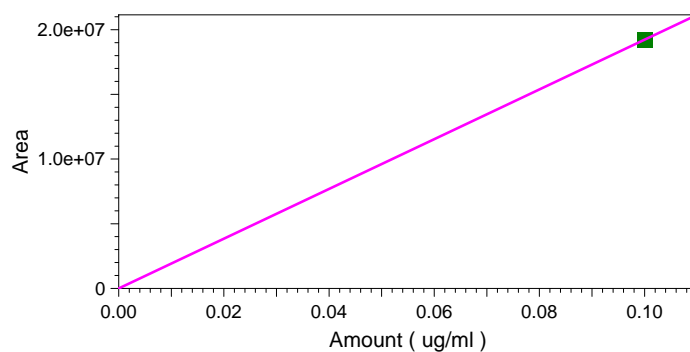
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.92290e+008

Peak: Aroclor 1254 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	19228974
RF	192289740
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19228974
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:57:55
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #2 (front detector)

Average RF: 2.42458e+008

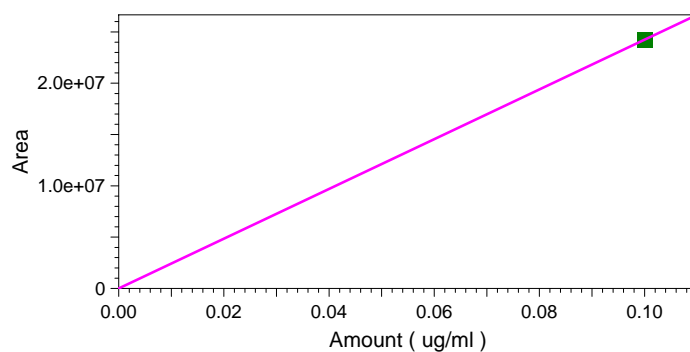
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.42458e+008

Peak: Aroclor 1254 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	24245841
RF	242458410
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	24245841
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:57:57
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #3 (front detector)

Average RF: 2.11541e+008

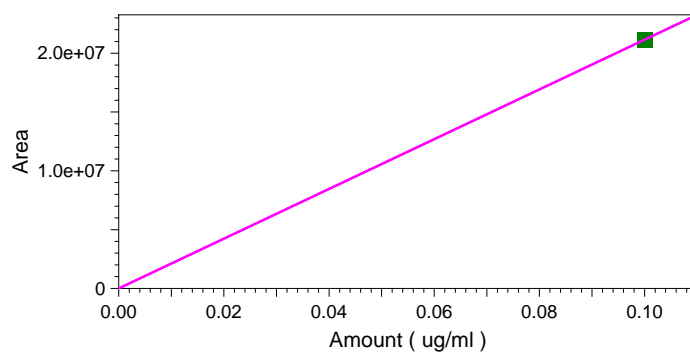
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.11541e+008

Peak: Aroclor 1254 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	21154084
RF	211540840
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21154084
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\017.dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:57:58
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #4 (front detector)

Average RF: 1.97629e+008

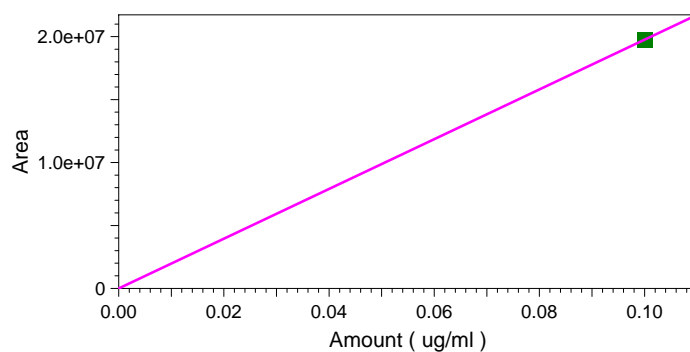
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.97629e+008

Peak: Aroclor 1254 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	19762870
RF	197628700
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19762870
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:00
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #5 (front detector)

Average RF: 2.77176e+008

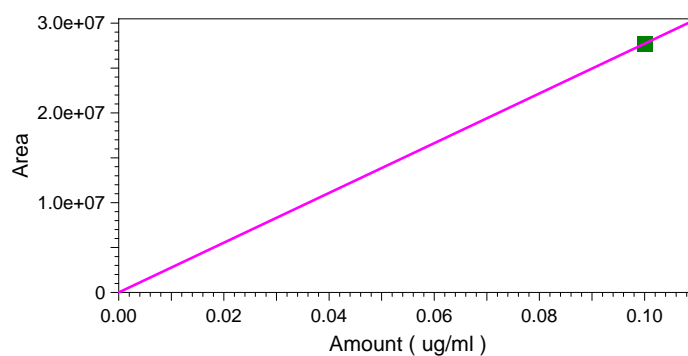
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.77176e+008

Peak: Aroclor 1254 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	27717608
RF	277176080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27717608
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:02
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 285915.

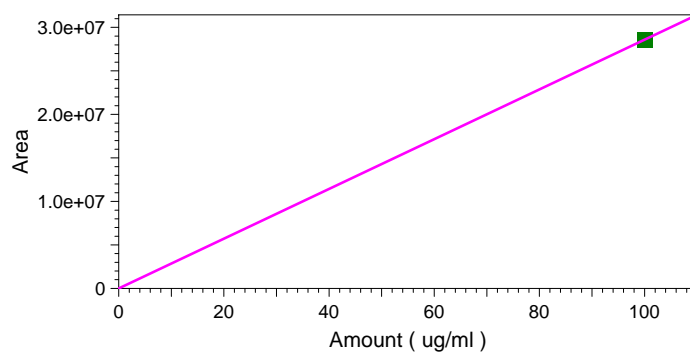
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 285915.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	28591490
RF	285914.9
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	28591490
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\017.dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:08
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 687936.

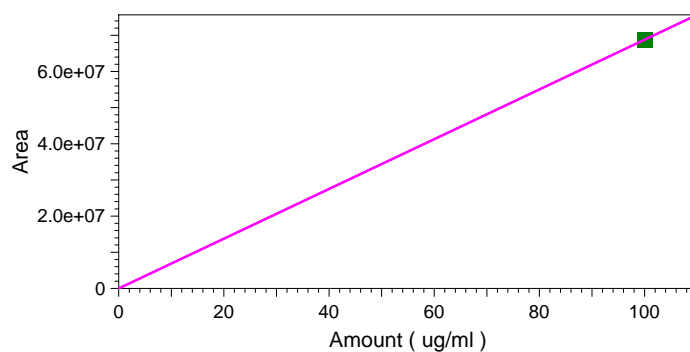
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 687936.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	68793582
RF	687935.82
Last Area	
Residual	-1.42109e-01
	4
Rep StDev	
Rep %RSD	
Rep 1 Area	68793582
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:10
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #1 (back detector)

Average RF: 2.58063e+008

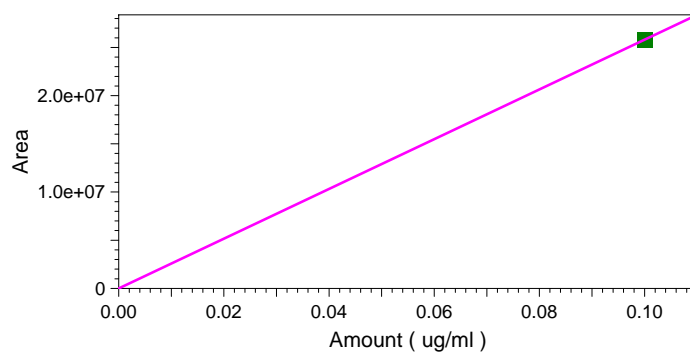
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.58063e+008

Peak: Aroclor 1254 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	25806297
RF	258062970
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25806297
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:12
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #2 (back detector)

Average RF: 5.43314e+008

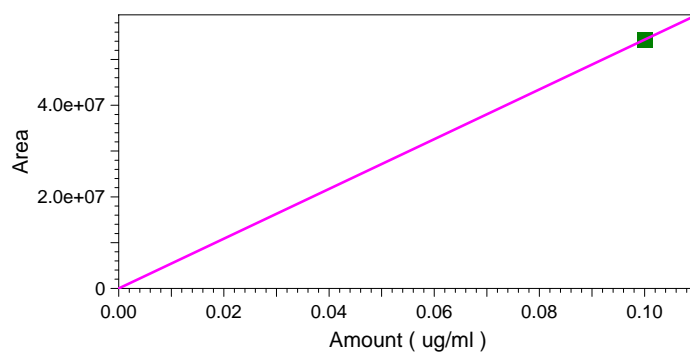
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.43314e+008

Peak: Aroclor 1254 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	54331387
RF	543313870
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	54331387
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:14
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #3 (back detector)

Average RF: 4.73131e+008

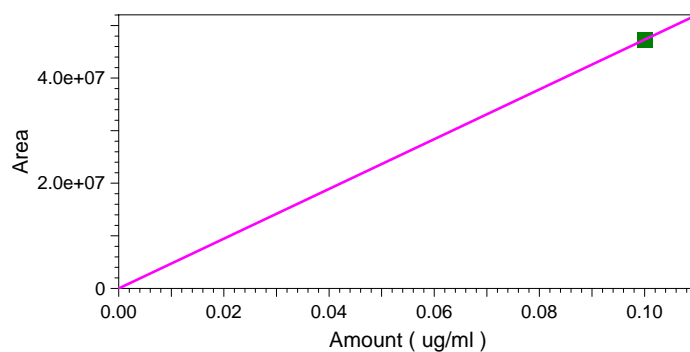
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.73131e+008

Peak: Aroclor 1254 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	47313092
RF	473130920
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47313092
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:15
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #4 (back detector)

Average RF: 3.42430e+008

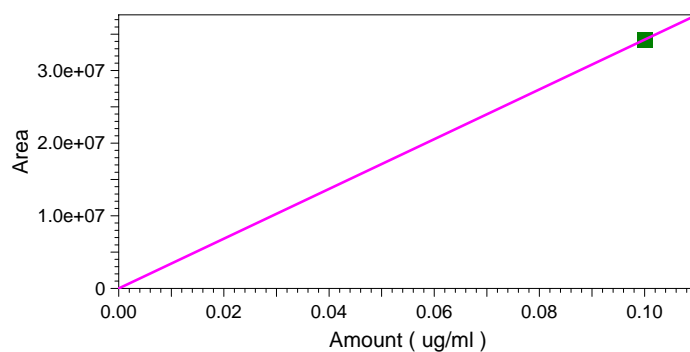
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.42430e+008

Peak: Aroclor 1254 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	34242955
RF	342429550
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	34242955
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:17
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1254 #5 (back detector)

Average RF: 5.00586e+008

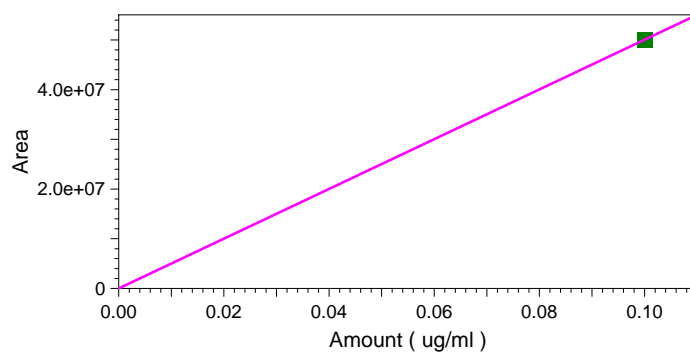
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.00586e+008

Peak: Aroclor 1254 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	50058563
RF	500585630
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	50058563
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
 Print Time: Aug 07,2015 19:58:18
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 476838.

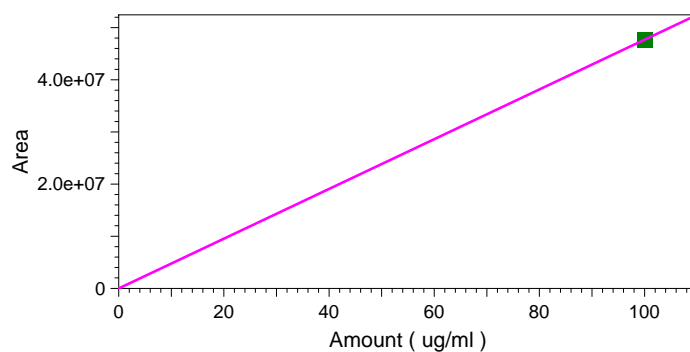
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 476838.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	47683769
RF	476837.69
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47683769
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\017. dat
Rep 1 Sample ID	1254 CF PP4631
Rep 1 Calib. Time	Aug 07,2015 19:56:56

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:39
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 375573.

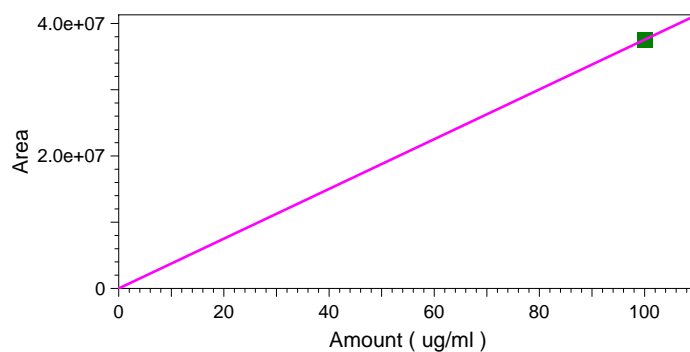
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 375573.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	37557276
RF	375572.76
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37557276
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:42
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #1 (front detector)

Average RF: 2.48399e+008

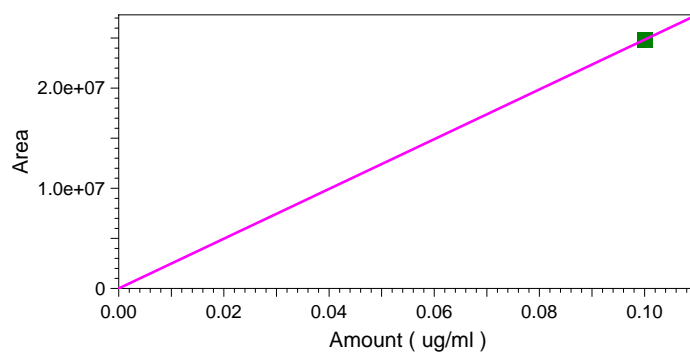
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.48399e+008

Peak: Aroclor 1262 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	24839869
RF	248398690
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	24839869
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:43
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #2 (front detector)

Average RF: 3.65450e+008

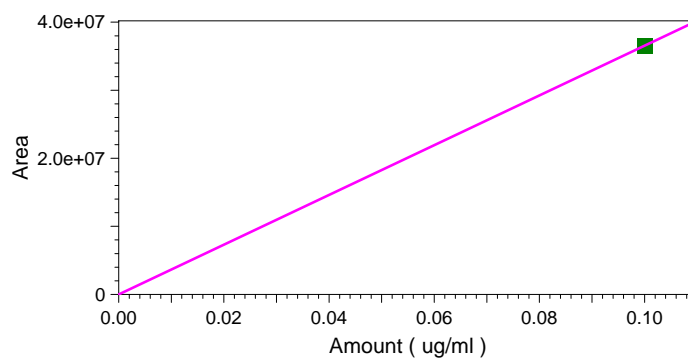
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.65450e+008

Peak: Aroclor 1262 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	36545004
RF	365450040
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	36545004
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:45
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #3 (front detector)

Average RF: 3.26886e+008

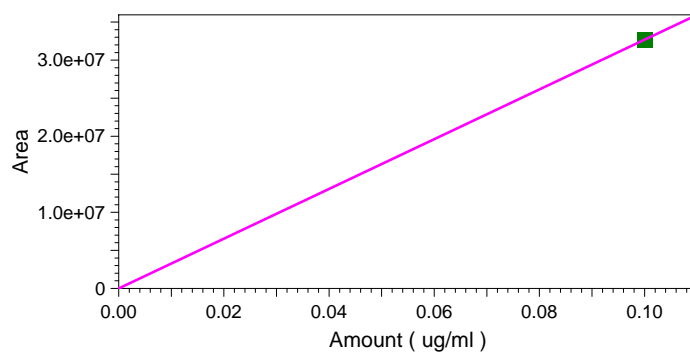
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.26886e+008

Peak: Aroclor 1262 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	32688621
RF	326886210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	32688621
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:47
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #4 (front detector)

Average RF: 2.16488e+008

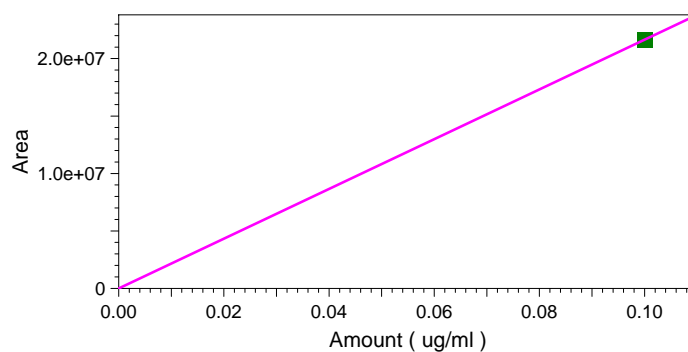
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.16488e+008

Peak: Aroclor 1262 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	21648756
RF	216487560
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21648756
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:48
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #5 (front detector)

Average RF: 2.91636e+008

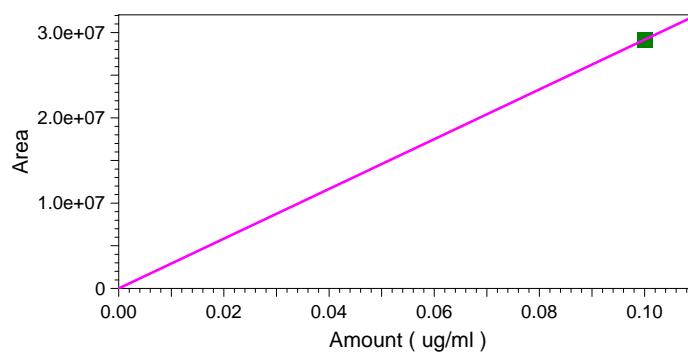
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.91636e+008

Peak: Aroclor 1262 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	29163574
RF	291635740
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29163574
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:50
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 287427.

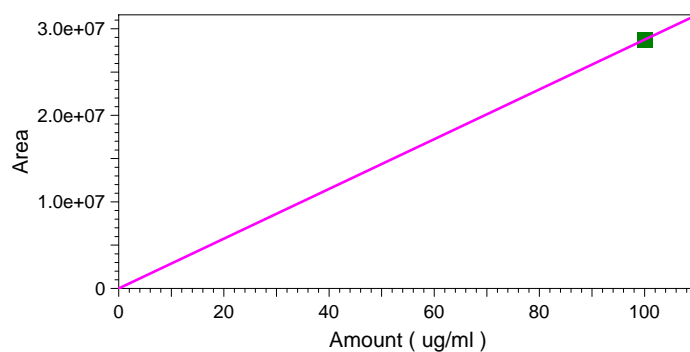
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 287427.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	28742658
RF	287426.58
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28742658
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\018.dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:54
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 686276.

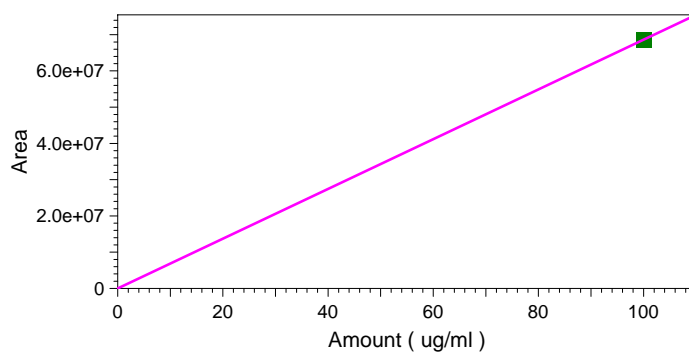
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 686276.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	68627647
RF	686276.47
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	68627647
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\018.dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:56
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #1 (back detector)

Average RF: 6.16480e+008

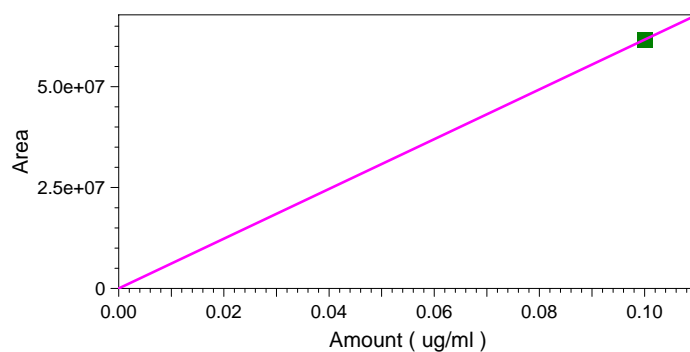
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 6.16480e+008

Peak: Aroclor 1262 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	61648022
RF	616480220
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	61648022
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:58
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #2 (back detector)

Average RF: 8.15361e+008

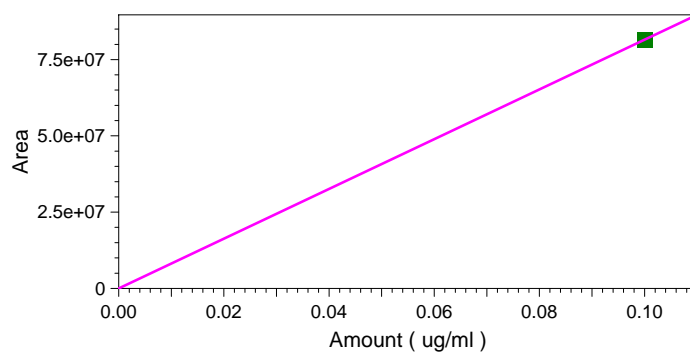
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 8.15361e+008

Peak: Aroclor 1262 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	81536090
RF	815360900
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	81536090
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:08:59
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #3 (back detector)

Average RF: 4.17215e+008

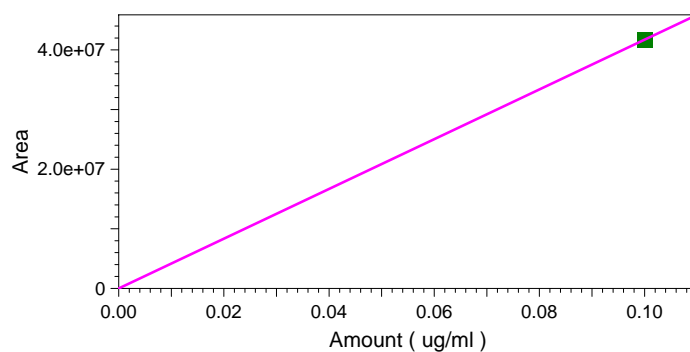
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.17215e+008

Peak: Aroclor 1262 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	41721460
RF	417214600
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	41721460
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:09:00
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #4 (back detector)

Average RF: 9.61029e+008

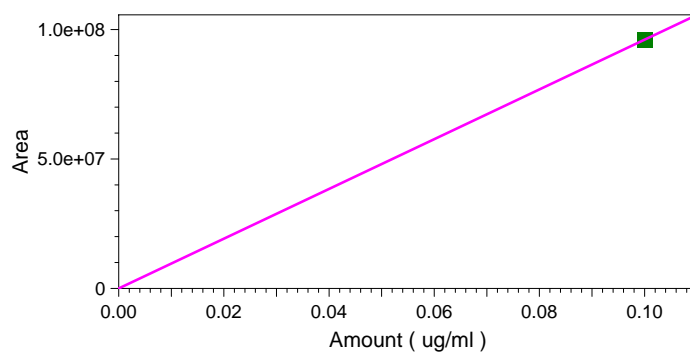
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 9.61029e+008

Peak: Aroclor 1262 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	96102892
RF	961028920
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	96102892
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\018.dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:09:01
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1262 #5 (back detector)

Average RF: 5.15128e+008

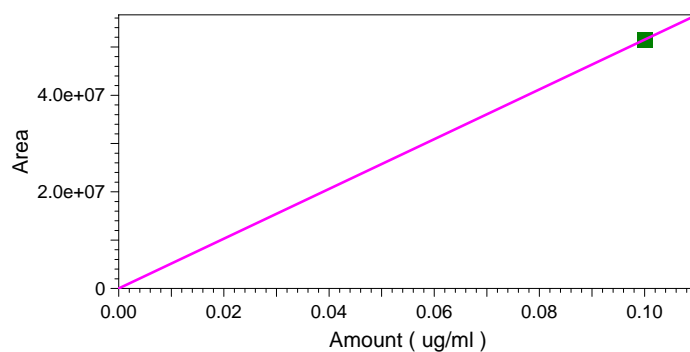
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.15128e+008

Peak: Aroclor 1262 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	51512765
RF	515127650
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	51512765
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
 Print Time: Aug 07,2015 20:09:03
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 474630.

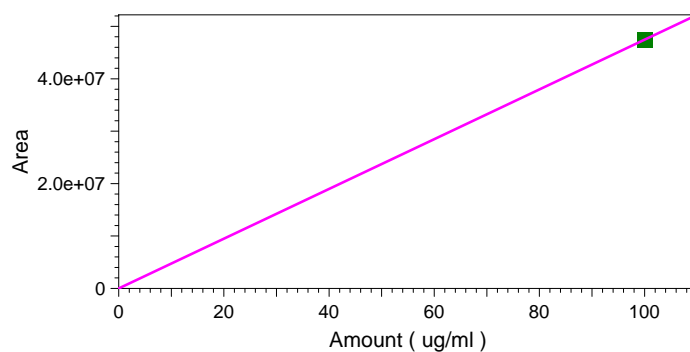
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 474630.

Peak: SURRDCB -- ESTD -- back detector



Level 1	
Amount	100
Area	47463047
RF	474630.47
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47463047
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\018. dat
Rep 1 Sample ID	1262 CF PP4632
Rep 1 Calib. Time	Aug 07,2015 20:01:58

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:19
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (front detector)

Average RF: 379233.

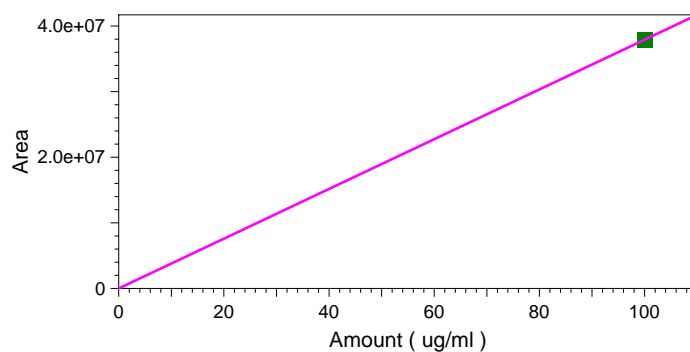
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 379233.

Peak: SURRTCMX -- ESTD -- front detector



Level 1	
Amount	100
Area	37923328
RF	379233.28
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	37923328
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:22
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #1 (front detector)

Average RF: 1.84392e+008

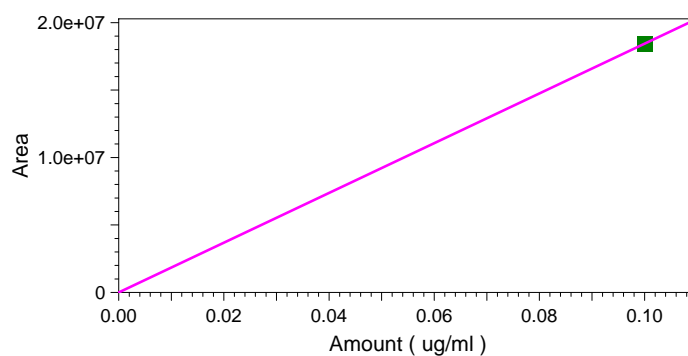
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.84392e+008

Peak: Aroclor 1268 #1 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	18439210
RF	184392100
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18439210
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:23
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #2 (front detector)

Average RF: 2.17471e+008

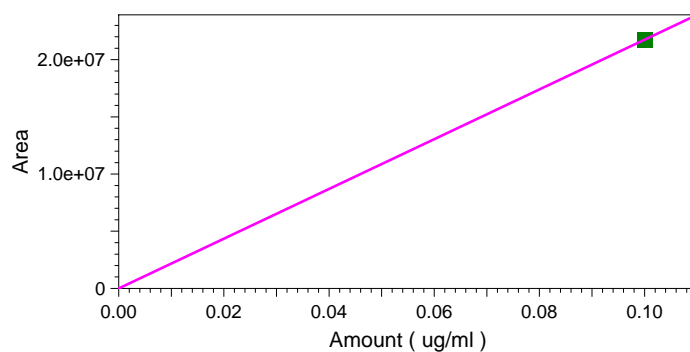
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 2.17471e+008

Peak: Aroclor 1268 #2 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	21747115
RF	217471150
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21747115
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:25
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #3 (front detector)

Average RF: 9.08147e+008

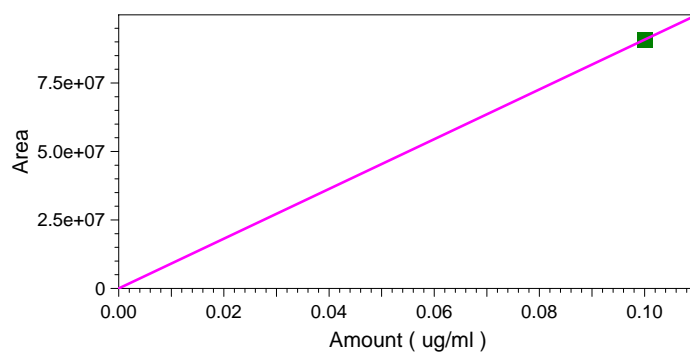
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 9.08147e+008

Peak: Aroclor 1268 #3 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	90814683
RF	908146830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	90814683
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:26
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #4 (front detector)

Average RF: 6.52550e+008

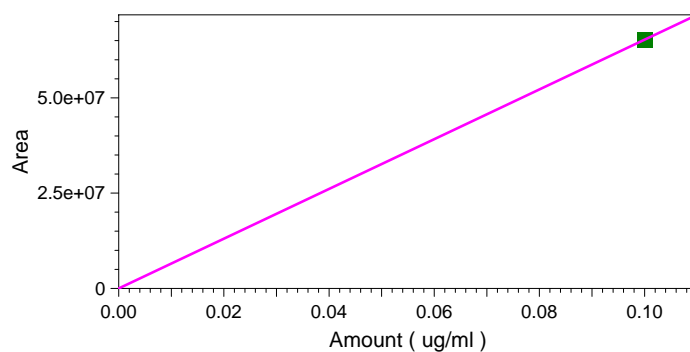
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 6.52550e+008

Peak: Aroclor 1268 #4 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	65254967
RF	652549670
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	65254967
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:28
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #5 (front detector)

Average RF: 3.01643e+008

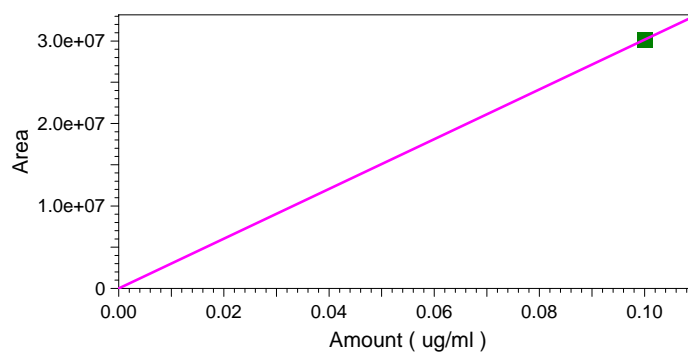
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.01643e+008

Peak: Aroclor 1268 #5 -- ESTD -- front detector



Level 1	
Amount	0.1
Area	30164290
RF	301642900
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30164290
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:29
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (front detector)

Average RF: 671990.

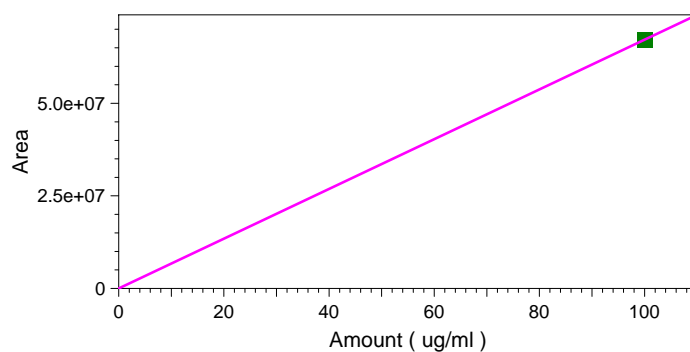
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 671990.

Peak: SURRDCB -- ESTD -- front detector



Level 1	
Amount	100
Area	67198980
RF	671989.8
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	67198980
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:36
 User: JJY
 Instrument: Semi 7 (Offline)

SURRTCMX (back detector)

Average RF: 695910.

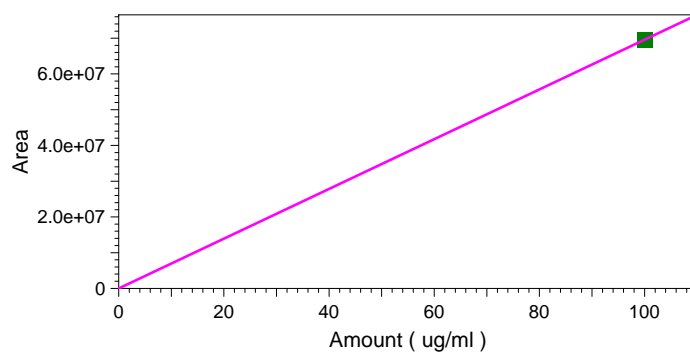
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 695910.

Peak: SURRTCMX -- ESTD -- back detector



Level 1	
Amount	100
Area	69590972
RF	695909.72
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	69590972
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\080715pcbic\019.dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:38
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #1 (back detector)

Average RF: 3.34106e+008

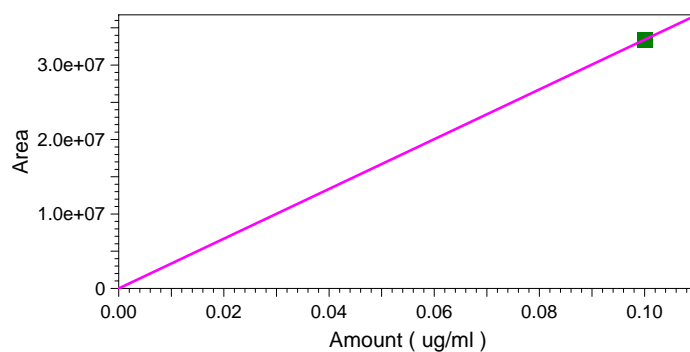
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 3.34106e+008

Peak: Aroclor 1268 #1 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	33410647
RF	334106470
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	33410647
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:39
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #2 (back detector)

Average RF: 4.34161e+008

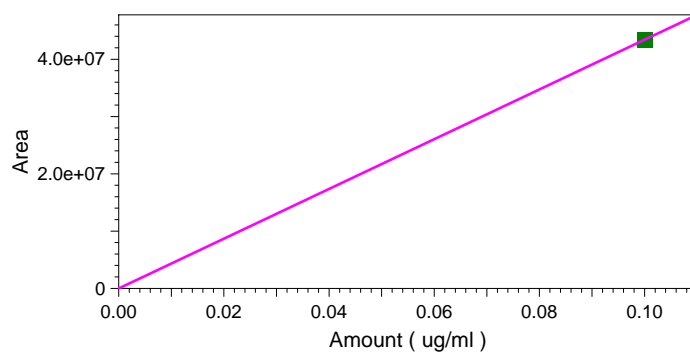
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 4.34161e+008

Peak: Aroclor 1268 #2 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	43416101
RF	434161010
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	43416101
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:41
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #3 (back detector)

Average RF: 1.53155e+009

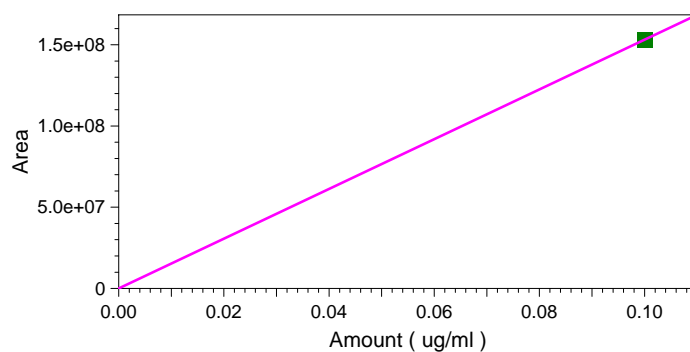
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.53155e+009

Peak: Aroclor 1268 #3 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	153154799
RF	1531547990
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	153154799
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:42
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #4 (back detector)

Average RF: 1.22045e+009

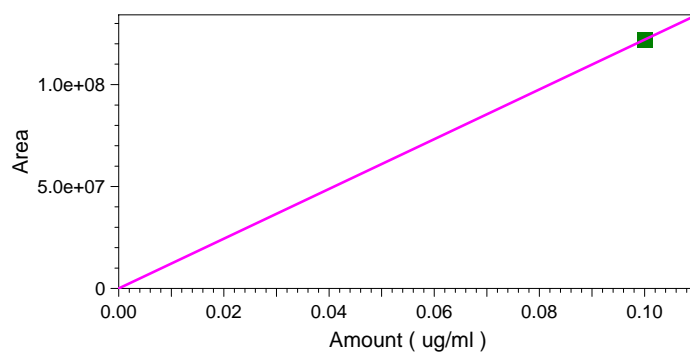
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.22045e+009

Peak: Aroclor 1268 #4 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	122044818
RF	1220448180
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	122044818
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:44
 User: JJY
 Instrument: Semi 7 (Offline)

Aroclor 1268 #5 (back detector)

Average RF: 5.44181e+008

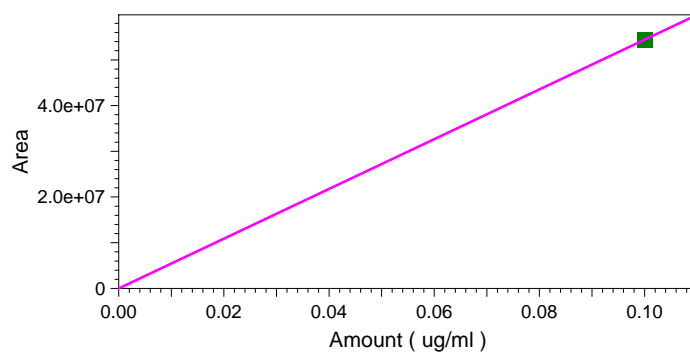
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 5.44181e+008

Peak: Aroclor 1268 #5 -- ESTD -- back detector



Level 1	
Amount	0.1
Area	54418080
RF	544180800
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	54418080
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
 Print Time: Aug 07,2015 20:07:45
 User: JJY
 Instrument: Semi 7 (Offline)

SURRDCB (back detector)

Average RF: 1.06145e+006

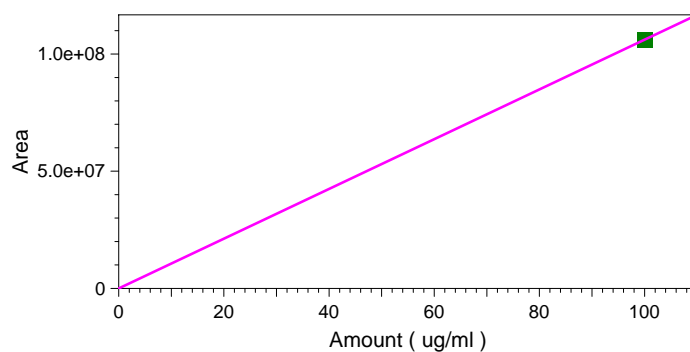
Scaling: None LSQ Weighting: None Force Through Zero: Off

Replicate Mode: Replace

Fit Type: Average RF

Average Slope: 1.06145e+006

Peak: SURRDCB -- ESTD -- back detector

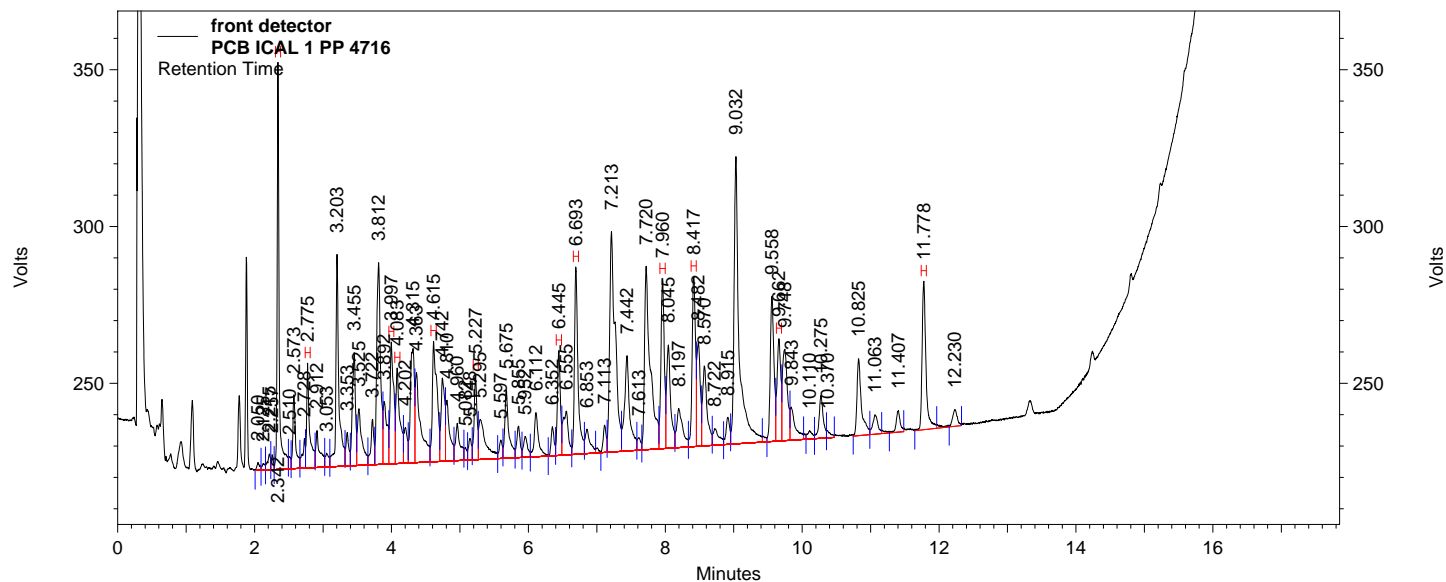


Level 1	
Amount	100
Area	106144995
RF	1061449.95
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	106144995
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Se mi7\Data\080 715pcbic\019. dat
Rep 1 Sample ID	1268 CF PP4633
Rep 1 Calib. Time	Aug 07,2015 20:05:34

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 1 PP 4716
Acquired: Aug 07,2015 11:02:31
Printed: Aug 07,2015 19:18:36

Data Summary: {Data Description}



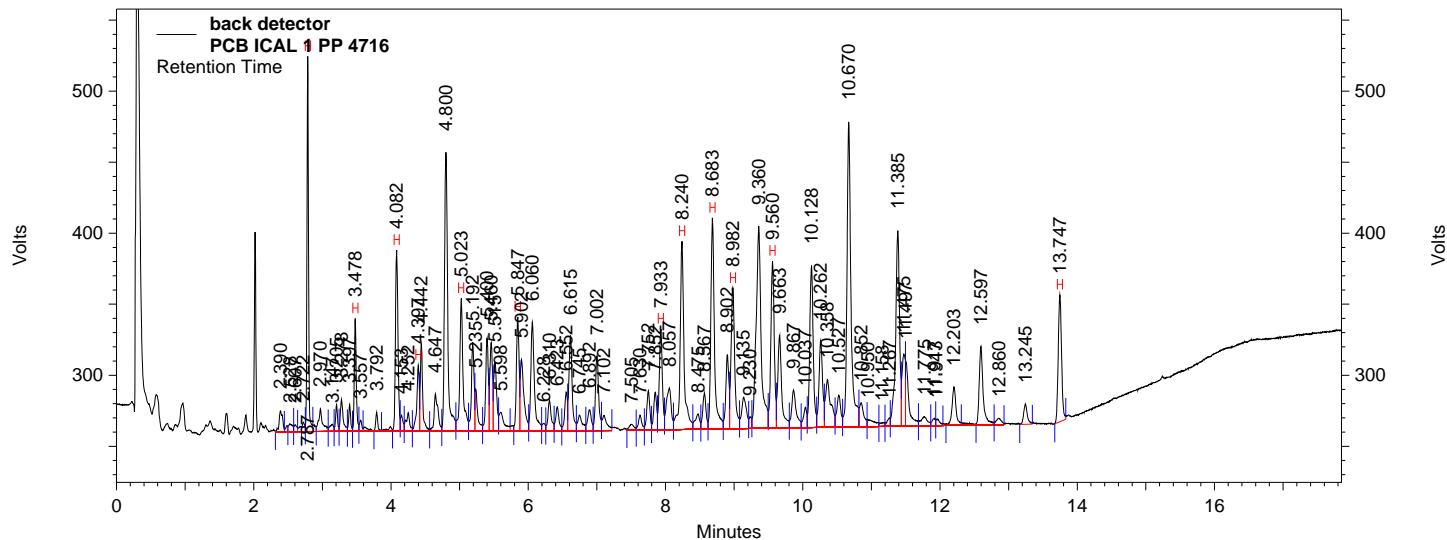
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.342	1999838	4.000 CAL
Aroclor 1016 #1	2.775	774270	0.004 CAL
Aroclor 1016 #2	3.997	1091627	0.004 CAL
Aroclor 1016 #3	4.083	958076	0.004 CAL
Aroclor 1016 #4	4.615	1393946	0.004 CAL
Aroclor 1016 #5	5.227	615143	0.004 CAL
Aroclor 1260 #1	6.445	772191	0.004 CAL
Aroclor 1260 #2	6.693	1686579	0.004 CAL
Aroclor 1260 #3	7.960	1432404	0.004 CAL
Aroclor 1260 #4	8.417	1423795	0.004 CAL
Aroclor 1260 #5	9.662	955561	0.004 CAL
SURRDCBPCB	11.778	1430174	4.000 CAL
Aroclor 1016		4833062	0.020 CAL
Aroclor 1260		6270530	0.020 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\005.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 User: JJY
 Sample ID: PCB ICAL 1 PP 4716
 Acquired: Aug 07,2015 11:02:31
 Printed: Aug 07,2015 19:18:36

Data Summary: {Data Description}



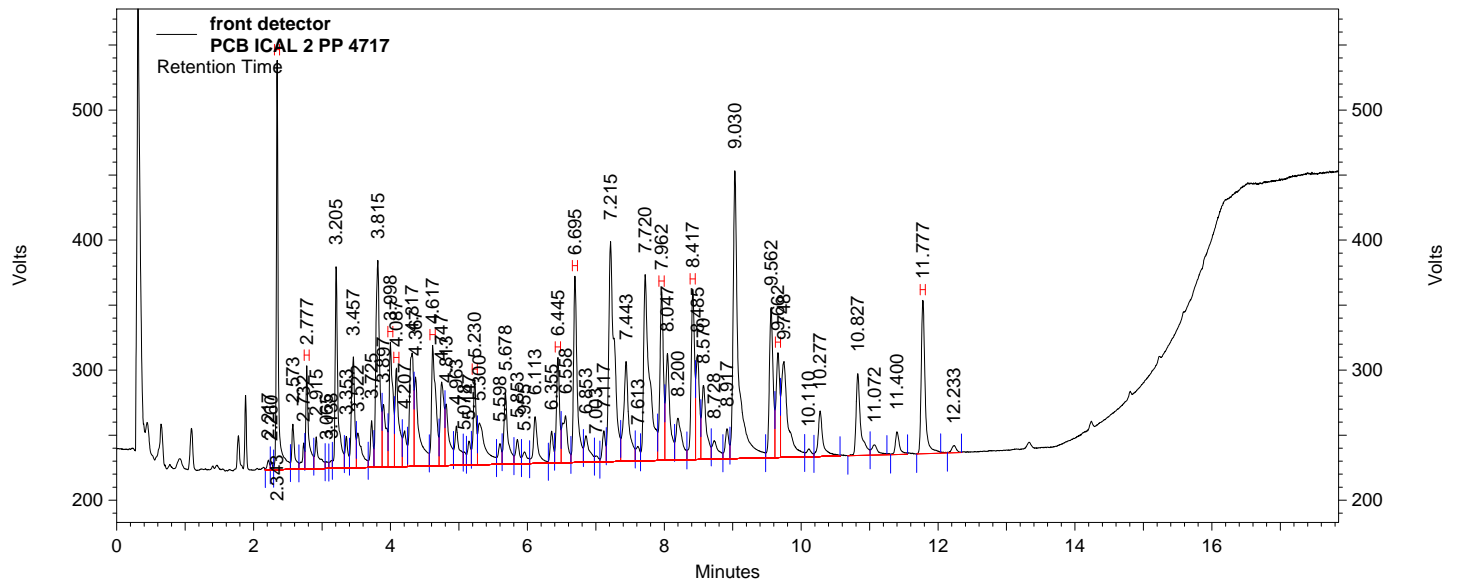
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.787	3225231	4.000 CAL
Aroclor 1016 #1	3.478	1217008	0.004 CAL
Aroclor 1016 #2	4.082	2549929	0.004 CAL
Aroclor 1016 #3	4.397	908666	0.004 CAL
Aroclor 1016 #4	5.023	2440347	0.004 CAL
Aroclor 1016 #5	5.847	1670696	0.004 CAL
Aroclor 1260 #1	7.933	1711508	0.004 CAL
Aroclor 1260 #2	8.240	4085296	0.004 CAL
Aroclor 1260 #3	8.683	4172895	0.004 CAL
Aroclor 1260 #4	8.982	2834590	0.004 CAL
Aroclor 1260 #5	9.560	3160478	0.004 CAL
SURRDCBPCB	13.747	2314764	4.000 CAL
Aroclor 1016		8786646	0.020 CAL
Aroclor 1260		15964767	0.020 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 2 PP 4717
Acquired: Aug 07,2015 11:24:01
Printed: Aug 07,2015 19:18:44

Data Summary: {Data Description}



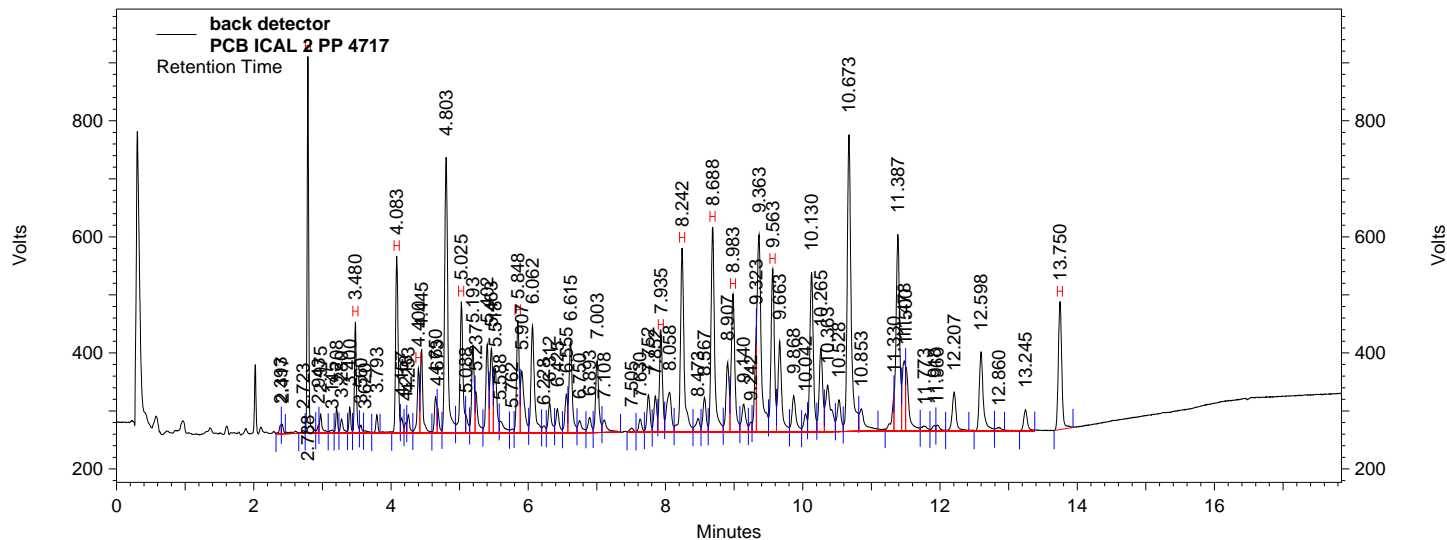
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.343	4759777	10.000 CAL
Aroclor 1016 #1	2.777	1668919	0.010 CAL
Aroclor 1016 #2	3.998	2661730	0.010 CAL
Aroclor 1016 #3	4.087	2297745	0.010 CAL
Aroclor 1016 #4	4.617	3136061	0.010 CAL
Aroclor 1016 #5	5.230	1531556	0.010 CAL
Aroclor 1260 #1	6.445	1986850	0.010 CAL
Aroclor 1260 #2	6.695	4133945	0.010 CAL
Aroclor 1260 #3	7.962	3553547	0.010 CAL
Aroclor 1260 #4	8.417	3463784	0.010 CAL
Aroclor 1260 #5	9.662	2277829	0.010 CAL
SURRDCBPCB	11.777	3592078	10.000 CAL
Aroclor 1016		11296011	0.050 CAL
Aroclor 1260		15415955	0.050 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 2 PP 4717
Acquired: Aug 07,2015 11:24:01
Printed: Aug 07,2015 19:18:44

Data Summary: {Data Description}



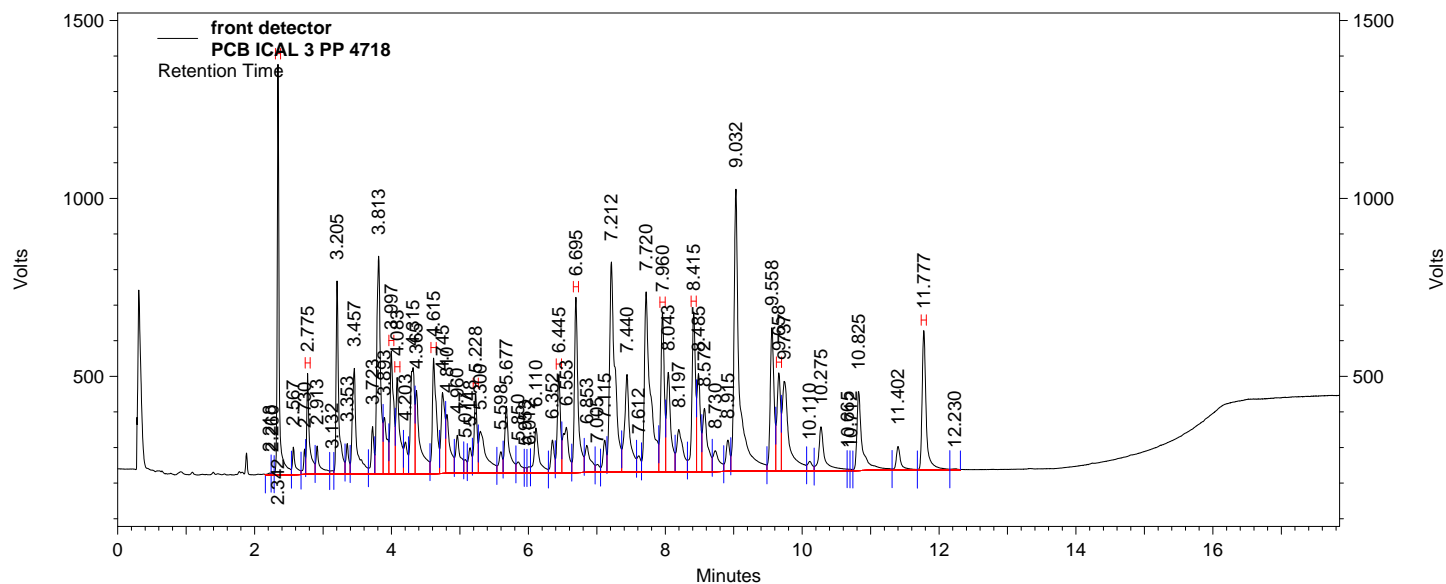
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.788	7841061	10.000 CAL
Aroclor 1016 #1	3.480	2898366	0.010 CAL
Aroclor 1016 #2	4.083	6048918	0.010 CAL
Aroclor 1016 #3	4.400	1933093	0.010 CAL
Aroclor 1016 #4	5.025	5299247	0.010 CAL
Aroclor 1016 #5	5.848	4052016	0.010 CAL
Aroclor 1260 #1	7.935	4019505	0.010 CAL
Aroclor 1260 #2	8.242	9057374	0.010 CAL
Aroclor 1260 #3	8.688	9769875	0.010 CAL
Aroclor 1260 #4	8.983	6675879	0.010 CAL
Aroclor 1260 #5	9.563	7369864	0.010 CAL
SURRDCBPCB	13.750	5926201	10.000 CAL
Aroclor 1016		20231640	0.050 CAL
Aroclor 1260		36892497	0.050 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 3 PP 4718
Acquired: Aug 07,2015 11:45:29
Printed: Aug 07,2015 19:18:46

Data Summary: {Data Description}



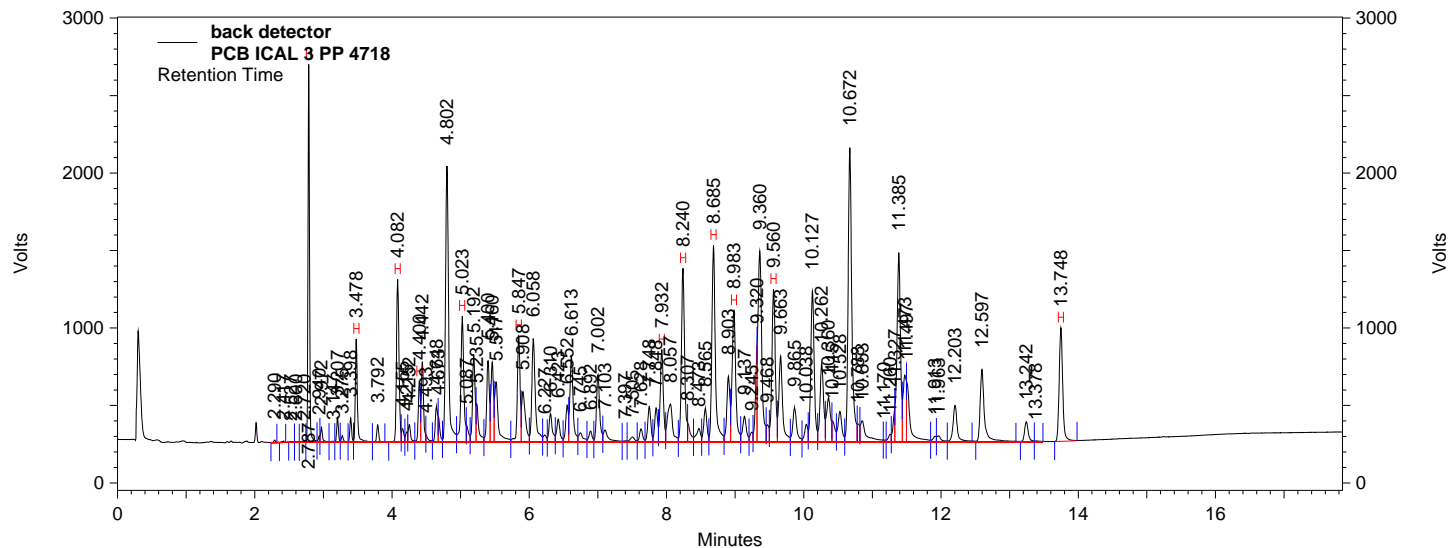
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.342	16948526	40.000 CAL
Aroclor 1016 #1	2.775	5967185	0.040 CAL
Aroclor 1016 #2	3.997	9311154	0.040 CAL
Aroclor 1016 #3	4.083	7952249	0.040 CAL
Aroclor 1016 #4	4.615	10273608	0.040 CAL
Aroclor 1016 #5	5.228	5261027	0.040 CAL
Aroclor 1260 #1	6.445	6844984	0.040 CAL
Aroclor 1260 #2	6.695	14397429	0.040 CAL
Aroclor 1260 #3	7.960	12130192	0.040 CAL
Aroclor 1260 #4	8.415	12320554	0.040 CAL
Aroclor 1260 #5	9.658	7811461	0.040 CAL
SURRDCBPCB	11.777	12581872	40.000 CAL
Aroclor 1016		38765223	0.200 CAL
Aroclor 1260		53504620	0.200 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\007.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 User: JJY
 Sample ID: PCB ICAL 3 PP 4718
 Acquired: Aug 07,2015 11:45:29
 Printed: Aug 07,2015 19:18:46

Data Summary: {Data Description}



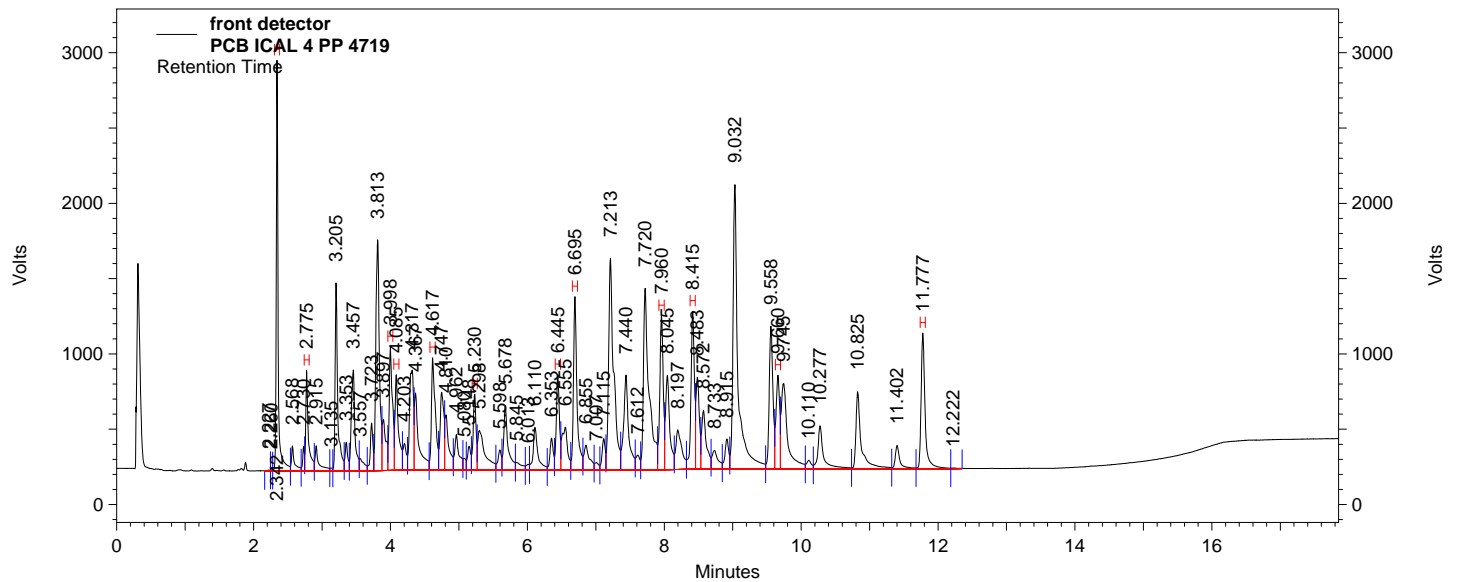
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.787	29013130	40.000 CAL
Aroclor 1016 #1	3.478	11074288	0.040 CAL
Aroclor 1016 #2	4.082	20975364	0.040 CAL
Aroclor 1016 #3	4.400	6263803	0.040 CAL
Aroclor 1016 #4	5.023	18689406	0.040 CAL
Aroclor 1016 #5	5.847	14904948	0.040 CAL
Aroclor 1260 #1	7.932	14500014	0.040 CAL
Aroclor 1260 #2	8.240	27947164	0.040 CAL
Aroclor 1260 #3	8.685	34635924	0.040 CAL
Aroclor 1260 #4	8.983	23947778	0.040 CAL
Aroclor 1260 #5	9.560	25984376	0.040 CAL
SURRDCBPCB	13.748	20139173	40.000 CAL
Aroclor 1016		71907809	0.200 CAL
Aroclor 1260		127015256	0.200 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 4 PP 4719
Acquired: Aug 07,2015 12:06:59
Printed: Aug 07,2015 19:18:49

Data Summary: {Data Description}



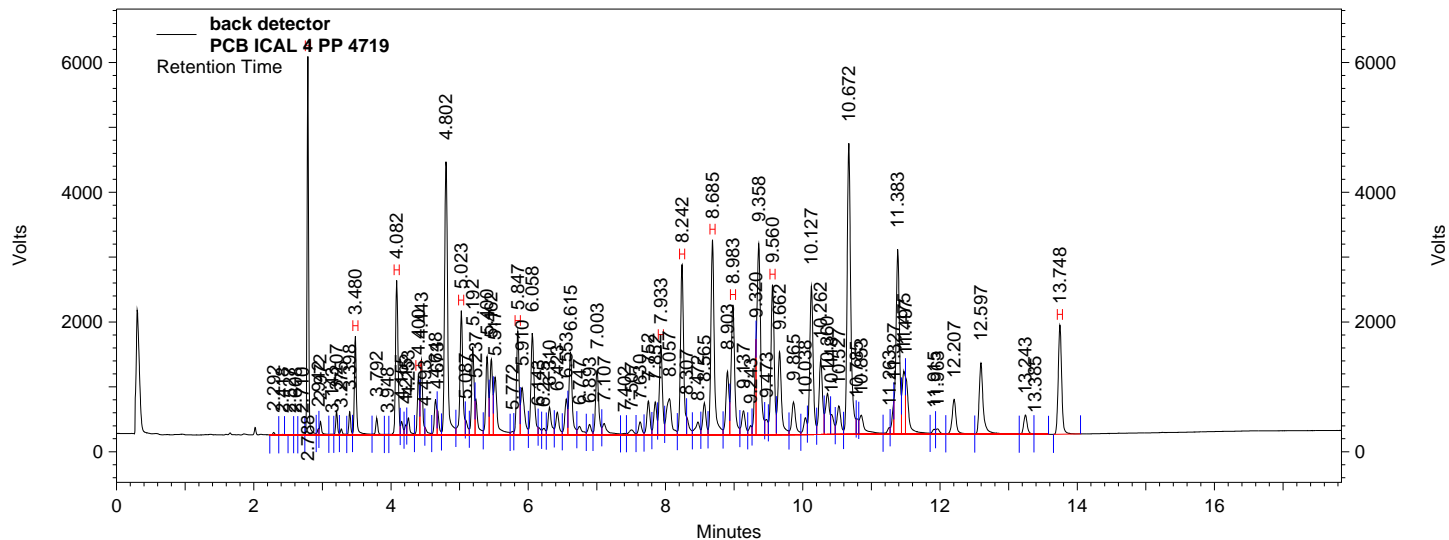
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.342	39107131	100.000 CAL
Aroclor 1016 #1	2.775	13495336	0.100 CAL
Aroclor 1016 #2	3.998	21035817	0.100 CAL
Aroclor 1016 #3	4.085	17421639	0.100 CAL
Aroclor 1016 #4	4.617	22731181	0.100 CAL
Aroclor 1016 #5	5.230	11516353	0.100 CAL
Aroclor 1260 #1	6.445	15382429	0.100 CAL
Aroclor 1260 #2	6.695	32027824	0.100 CAL
Aroclor 1260 #3	7.960	27347559	0.100 CAL
Aroclor 1260 #4	8.415	27938670	0.100 CAL
Aroclor 1260 #5	9.660	17380589	0.100 CAL
SURRDCBPCB	11.777	28291942	100.000 CAL
Aroclor 1016		86200326	0.500 CAL
Aroclor 1260		120077071	0.500 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 4 PP 4719
Acquired: Aug 07,2015 12:06:59
Printed: Aug 07,2015 19:18:49

Data Summary: {Data Description}



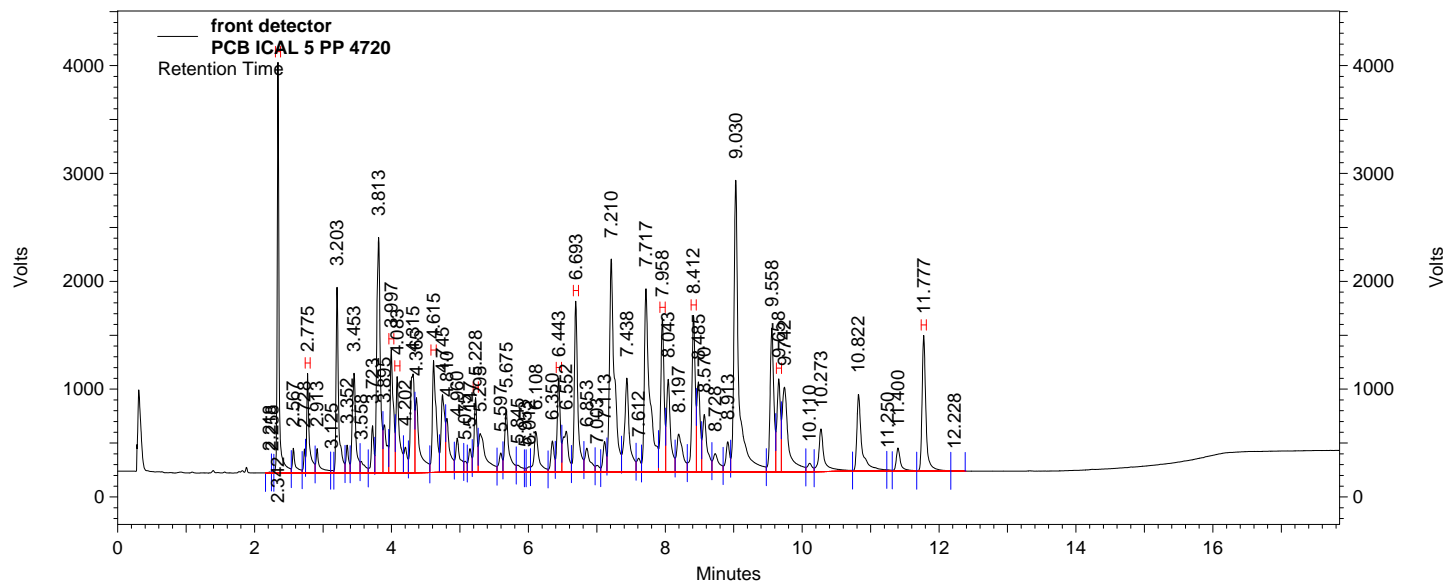
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.788	68674223	100.000 CAL
Aroclor 1016 #1	3.480	24818928	0.100 CAL
Aroclor 1016 #2	4.082	46845552	0.100 CAL
Aroclor 1016 #3	4.400	14360476	0.100 CAL
Aroclor 1016 #4	5.023	42423439	0.100 CAL
Aroclor 1016 #5	5.847	32451192	0.100 CAL
Aroclor 1260 #1	7.933	33061220	0.100 CAL
Aroclor 1260 #2	8.242	63987688	0.100 CAL
Aroclor 1260 #3	8.685	79248061	0.100 CAL
Aroclor 1260 #4	8.983	54776093	0.100 CAL
Aroclor 1260 #5	9.560	59274755	0.100 CAL
SURRDCBPCB	13.748	45144345	100.000 CAL
Aroclor 1016		160899587	0.500 CAL
Aroclor 1260		290347817	0.500 CAL

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 5 PP 4720
Acquired: Aug 07,2015 12:28:24
Printed: Aug 07,2015 19:18:50

Data Summary: {Data Description}



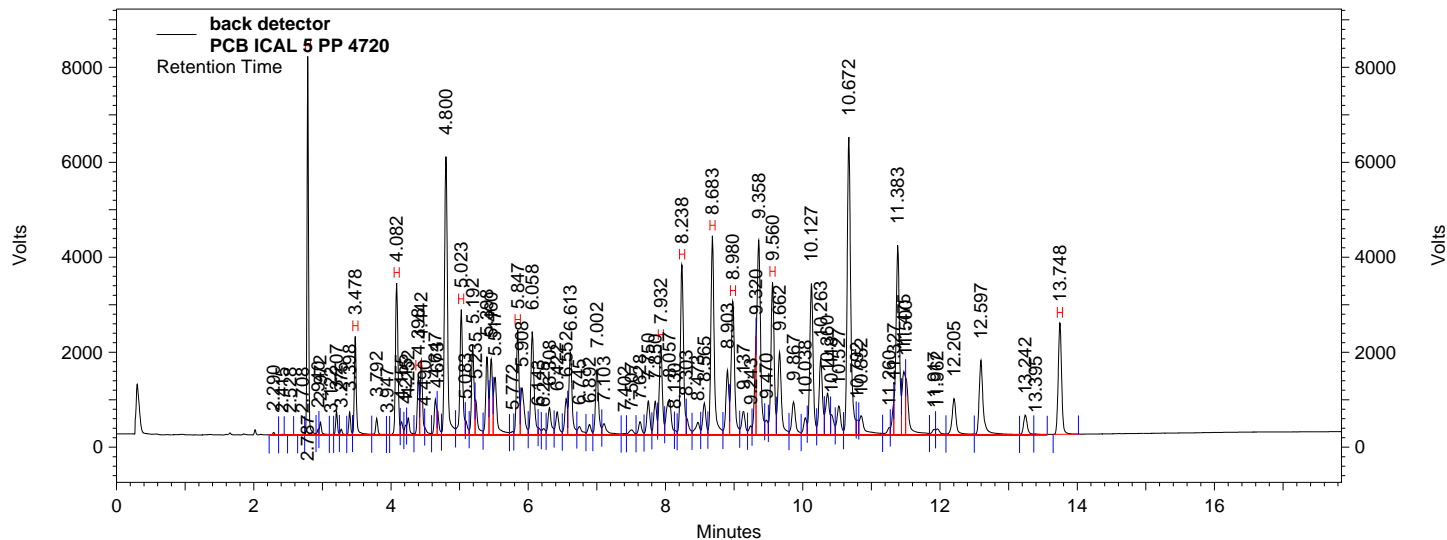
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.342	53661899	140.000 CAL
Aroclor 1016 #1	2.775	18388493	0.140 CAL
Aroclor 1016 #2	3.997	28997553	0.140 CAL
Aroclor 1016 #3	4.083	23324691	0.140 CAL
Aroclor 1016 #4	4.615	30970617	0.140 CAL
Aroclor 1016 #5	5.228	15764124	0.140 CAL
Aroclor 1260 #1	6.443	20989658	0.140 CAL
Aroclor 1260 #2	6.693	43791330	0.140 CAL
Aroclor 1260 #3	7.958	37270399	0.140 CAL
Aroclor 1260 #4	8.412	38231340	0.140 CAL
Aroclor 1260 #5	9.658	23577272	0.140 CAL
SURRDCBPCB	11.777	38571190	140.000 CAL
Aroclor 1016		117445478	0.700 CAL
Aroclor 1260		163859999	0.700 CAL

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICAL 5 PP 4720
Acquired: Aug 07,2015 12:28:24
Printed: Aug 07,2015 19:18:50

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.787	94424276	140.000 CAL
Aroclor 1016 #1	3.478	33558706	0.140 CAL
Aroclor 1016 #2	4.082	63056319	0.140 CAL
Aroclor 1016 #3	4.398	19430103	0.140 CAL
Aroclor 1016 #4	5.023	58324974	0.140 CAL
Aroclor 1016 #5	5.847	44452724	0.140 CAL
Aroclor 1260 #1	7.932	45254372	0.140 CAL
Aroclor 1260 #2	8.238	87105304	0.140 CAL
Aroclor 1260 #3	8.683	108175408	0.140 CAL
Aroclor 1260 #4	8.980	75313451	0.140 CAL
Aroclor 1260 #5	9.560	81230776	0.140 CAL
SURRDCBPCB	13.748	62151459	140.000 CAL
Aroclor 1016		218822826	0.700 CAL
Aroclor 1260		397079311	0.700 CAL

QC Check Standard Report

Page 1 of 1 (13)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
 User : JJY
 Printed : Aug 07,2015 19:19:51

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\011.d at	PCB ICV PP 4721	Aug 07,2015 19:19:51

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	102.249	2.249	20.000	Passed
Aroclor 1016 #1	0.100	0.102	2.117	20.000	Passed
Aroclor 1016 #2	0.100	0.102	1.802	20.000	Passed
Aroclor 1016 #3	0.100	0.104	4.433	20.000	Passed
Aroclor 1016 #4	0.100	0.106	5.578	20.000	Passed
Aroclor 1016 #5	0.100	0.112	11.599	20.000	Passed
Aroclor 1260 #1	0.100	0.102	2.317	20.000	Passed
Aroclor 1260 #2	0.100	0.104	4.479	20.000	Passed
Aroclor 1260 #3	0.100	0.096	4.233	20.000	Passed
Aroclor 1260 #4	0.100	0.097	2.505	20.000	Passed
Aroclor 1260 #5	0.100	0.095	5.225	20.000	Passed
SURRDCBPCB	100.000	102.407	2.407	20.000	Passed
Aroclor 1016	0.500	0.526	5.106	20.000	Passed
Aroclor 1260	0.500	0.495	1.033	20.000	Passed

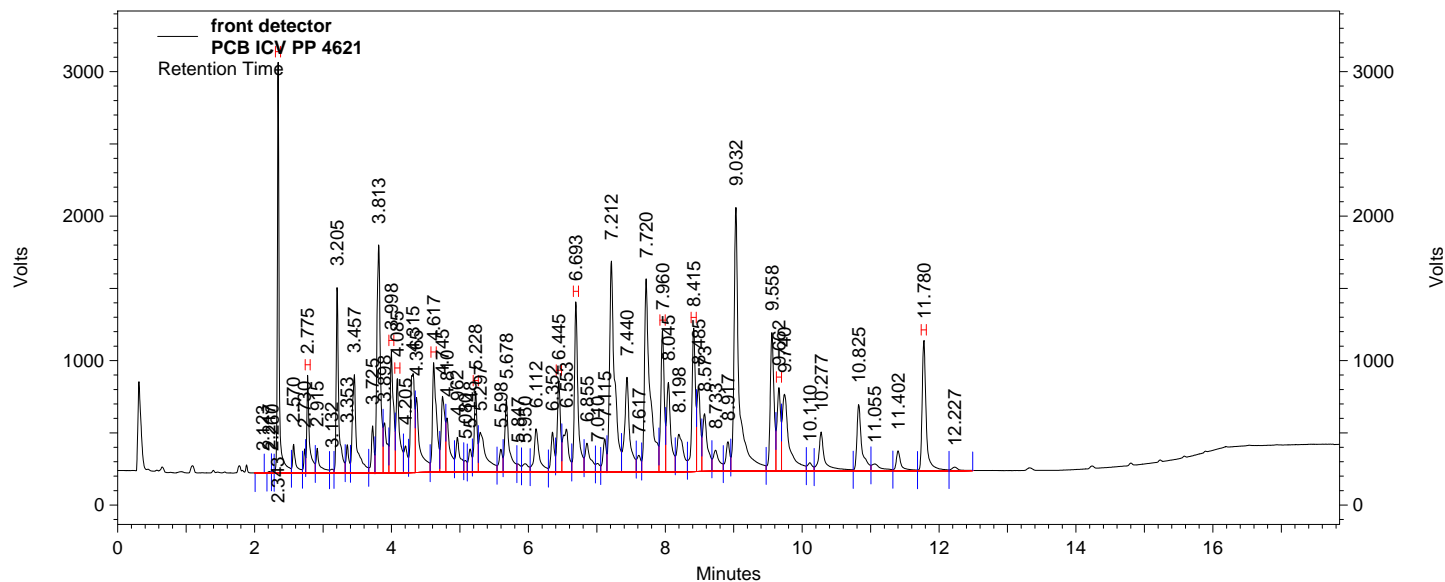
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	103.087	3.087	20.000	Passed
Aroclor 1016 #1	0.100	0.104	3.960	20.000	Passed
Aroclor 1016 #2	0.100	0.099	0.884	20.000	Passed
Aroclor 1016 #3	0.100	0.101	0.685	20.000	Passed
Aroclor 1016 #4	0.100	0.105	4.765	20.000	Passed
Aroclor 1016 #5	0.100	0.104	4.041	20.000	Passed
Aroclor 1260 #1	0.100	0.101	1.289	20.000	Passed
Aroclor 1260 #2	0.100	0.101	1.045	20.000	Passed
Aroclor 1260 #3	0.100	0.105	5.091	20.000	Passed
Aroclor 1260 #4	0.100	0.103	3.164	20.000	Passed
Aroclor 1260 #5	0.100	0.095	5.286	20.000	Passed
SURRDCBPCB	100.000	103.487	3.487	20.000	Passed
Aroclor 1016	0.500	0.513	2.514	20.000	Passed
Aroclor 1260	0.500	0.505	1.061	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
User: JJY
Sample ID: PCB ICV PP 4721
Acquired: Aug 07,2015 13:11:21
Printed: Aug 07,2015 19:19:49

Data Summary: {Data Description}



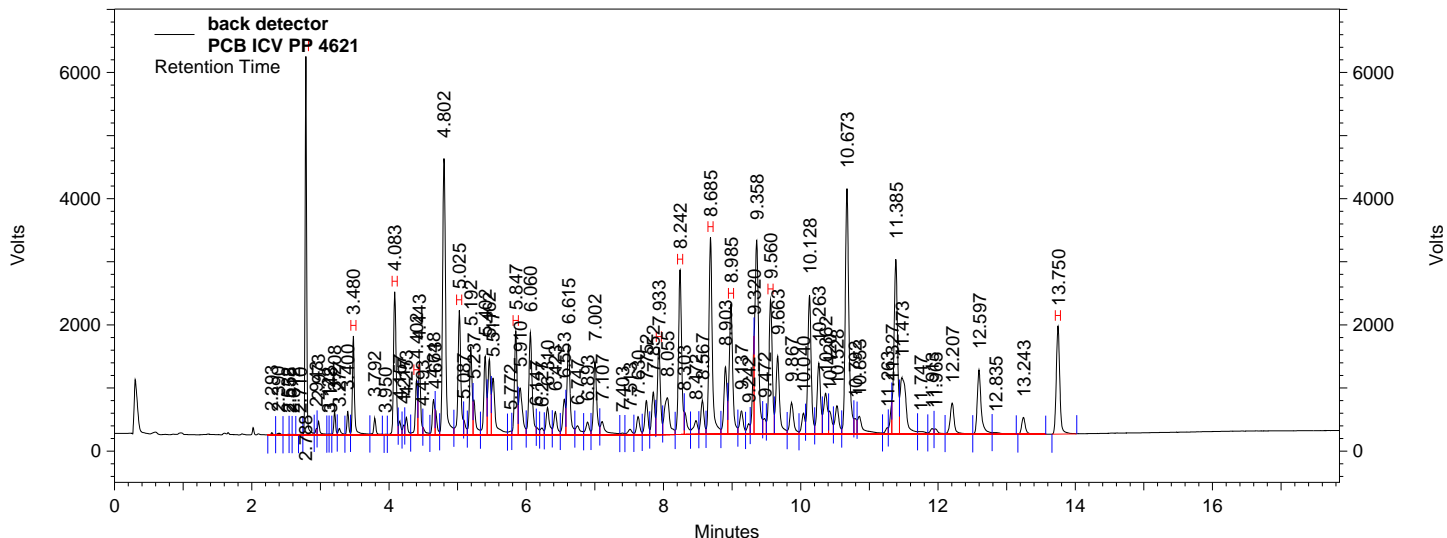
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.343	39734993	102.249
Aroclor 1016 #1	2.775	13657167	0.102
Aroclor 1016 #2	3.998	21375626	0.102
Aroclor 1016 #3	4.085	17864554	0.104
Aroclor 1016 #4	4.617	23800212	0.106
Aroclor 1016 #5	5.228	12760537	0.112
Aroclor 1260 #1	6.445	15616842	0.102
Aroclor 1260 #2	6.693	33242916	0.104
Aroclor 1260 #3	7.960	26025750	0.096
Aroclor 1260 #4	8.415	27092864	0.097
Aroclor 1260 #5	9.662	16350319	0.095
SURRDCBPCB	11.780	28728319	102.407
Aroclor 1016		89458096	0.526
Aroclor 1260		118328691	0.495

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\011.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\080715PCBIC.met
 User: JJY
 Sample ID: PCB ICV PP 4721
 Acquired: Aug 07,2015 13:11:21
 Printed: Aug 07,2015 19:19:49

Data Summary: {Data Description}



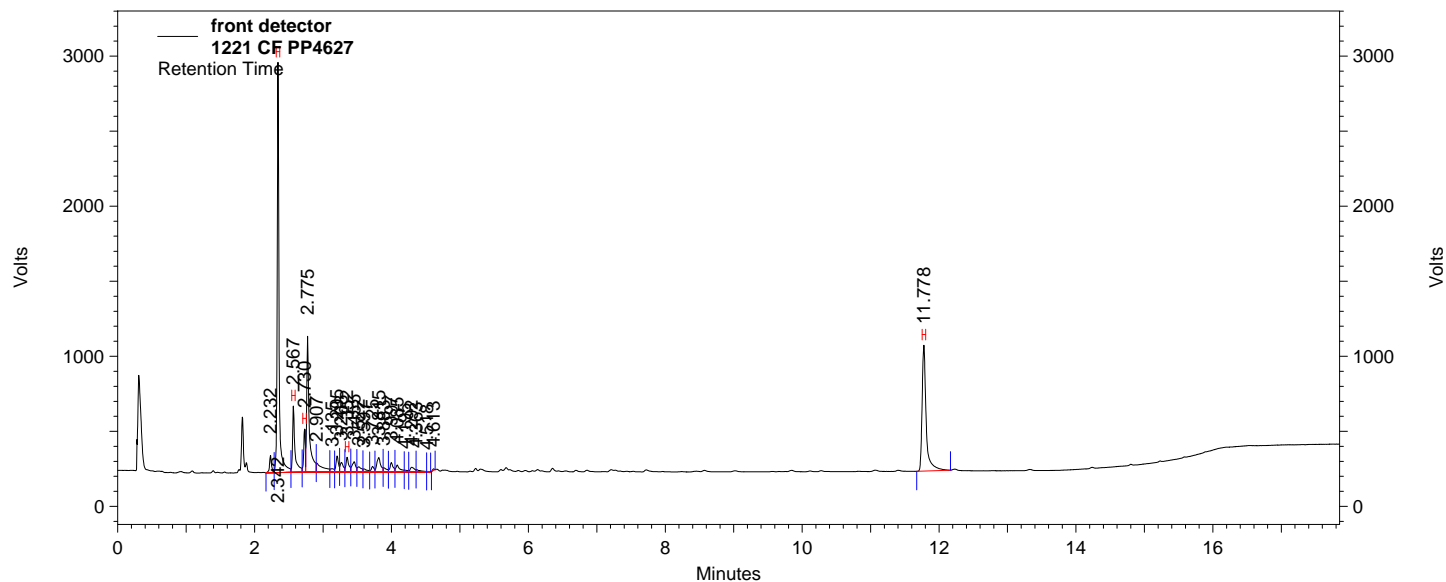
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.788	70284183	103.087
Aroclor 1016 #1	3.480	25436874	0.104
Aroclor 1016 #2	4.083	45772977	0.099
Aroclor 1016 #3	4.402	14274362	0.101
Aroclor 1016 #4	5.025	44243076	0.105
Aroclor 1016 #5	5.847	33621737	0.104
Aroclor 1260 #1	7.933	33260332	0.101
Aroclor 1260 #2	8.242	64086859	0.101
Aroclor 1260 #3	8.685	82481805	0.105
Aroclor 1260 #4	8.985	56240254	0.103
Aroclor 1260 #5	9.560	55927009	0.095
SURRDCBPCB	13.750	46604050	103.487
Aroclor 1016		163349026	0.513
Aroclor 1260		291996259	0.505

PCB Analysis Report (1221) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
User: JJY
Sample ID: 1221 CF PP4627
Acquired: Aug 07,2015 13:57:03
Printed: Aug 07,2015 19:26:55

Data Summary: {Data Description}



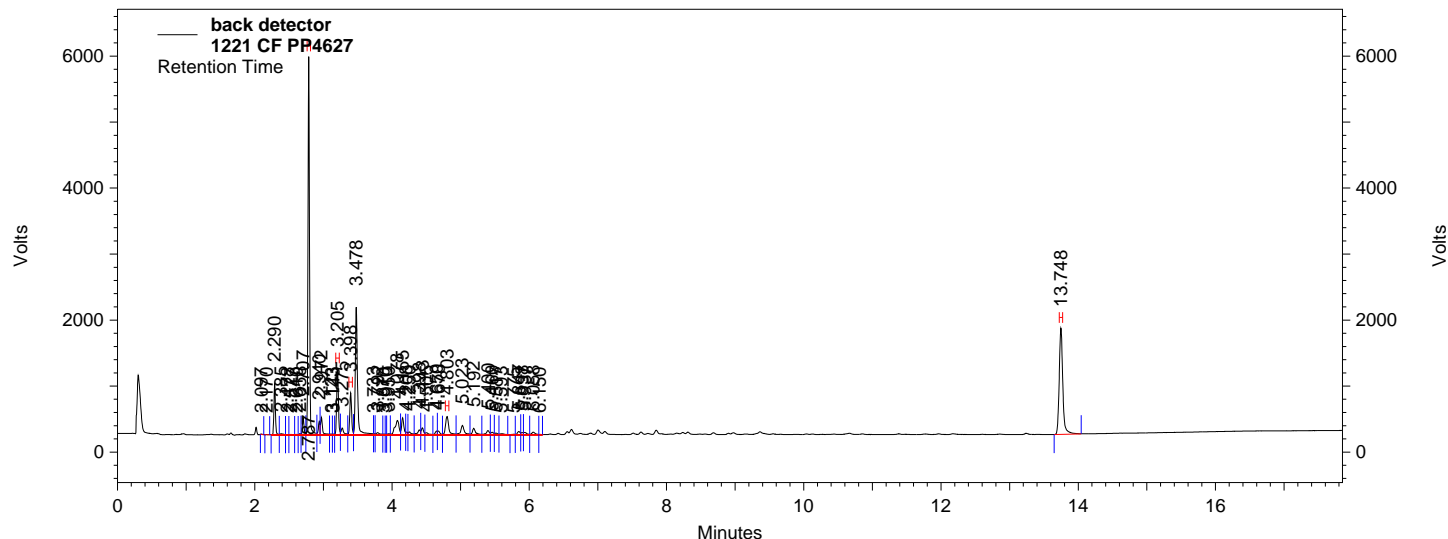
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	38873186	100.000 CAL
Aroclor 1221 #1	2.567	8402955	0.167 CAL
Aroclor 1221 #2	2.730	3724664	0.167 CAL
Aroclor 1221 #3	3.352	2187887	0.167 CAL
SURRDCB	11.778	26862648	100.000 CAL
Aroclor 1221		14315506	0.500 CAL

PCB Analysis Report (1221) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
User: JJY
Sample ID: 1221 CF PP4627
Acquired: Aug 07,2015 13:57:03
Printed: Aug 07,2015 19:26:55

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.787	67409734	100.000 CAL
Aroclor 1221 #1	3.205	13487627	0.167 CAL
Aroclor 1221 #2	3.398	8921107	0.167 CAL
Aroclor 1221 #3	4.803	6809514	0.167 CAL
SURRDCB	13.748	44853343	100.000 CAL
Aroclor 1221		29218248	0.500 CAL

Data File: C:\Instarch\Semi7\Data\080715pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
User: JJY
Sample ID: 1232 CF PP4628
Acquired: Aug 07,2015 14:18:35
Printed: Aug 07,2015 19:36:37

Chromatogram showing detector response over time. The x-axis is labeled 'Minutes' and ranges from 0 to 16. The y-axis is labeled 'Volts' and ranges from 0 to 3000. A legend indicates 'front detector' (black line) and '1232 CF PP4628' (red line). The chromatogram shows a large peak at 2.342 minutes and a smaller peak at 11.778 minutes. Numerous other peaks are labeled with their retention times.

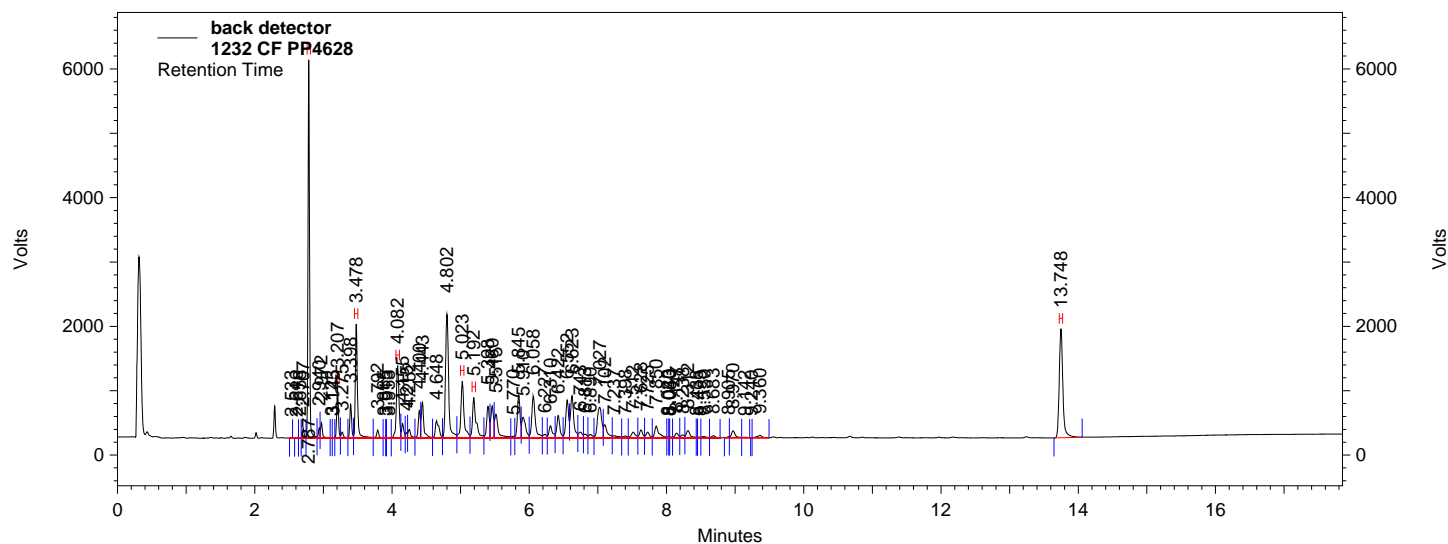
Retention Time (Minutes)
2.042
2.342
2.568
2.775
3.125
3.205
3.352
3.455
3.703
3.813
4.089
4.205
4.315
4.417
4.512
4.612
4.712
4.812
4.912
5.012
5.112
5.212
5.312
5.412
5.512
5.612
5.712
5.812
5.912
6.012
6.112
6.212
6.312
6.412
6.512
6.612
6.712
6.812
6.912
7.012
7.112
7.212
7.312
7.412
7.512
7.612
7.712
7.812
7.912
8.012
8.112
8.212
8.312
8.412
8.512
8.612
8.712
8.812
8.912
9.012
9.112
9.212
9.312
9.412
9.512
9.612
9.712
9.812
9.912
10.012
10.112
10.212
10.312
10.412
10.512
10.612
10.712
10.812
10.912
11.012
11.112
11.212
11.312
11.412
11.512
11.612
11.712
11.778
11.812
11.912
12.012
12.112
12.212
12.312
12.412
12.512
12.612
12.712
12.812
12.912
13.012
13.112
13.212
13.312
13.412
13.512
13.612
13.712
13.812
13.912
14.012
14.112
14.212
14.312
14.412
14.512
14.612
14.712
14.812
14.912
15.012
15.112
15.212
15.312
15.412
15.512
15.612
15.712
15.812
15.912
16.012
16.112
16.212
16.312
16.412
16.512
16.612
16.712
16.812
16.912
17.012

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	39850776	100.000 CAL
Aroclor 1232 #1	2.775	16050383	0.100 CAL
Aroclor 1232 #2	3.205	13113951	0.100 CAL
Aroclor 1232 #3	3.352	2820983	0.100 CAL
Aroclor 1232 #4	3.813	18906418	0.100 CAL
Aroclor 1232 #5	4.083	8544733	0.100 CAL
SURRDCB	11.778	29254284	100.000 CAL
Aroclor 1232		59436468	0.500 CAL

PCB Analysis Report (1232) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
User: JJY
Sample ID: 1232 CF PP4628
Acquired: Aug 07,2015 14:18:35
Printed: Aug 07,2015 19:36:37

Data Summary: {Data Description}



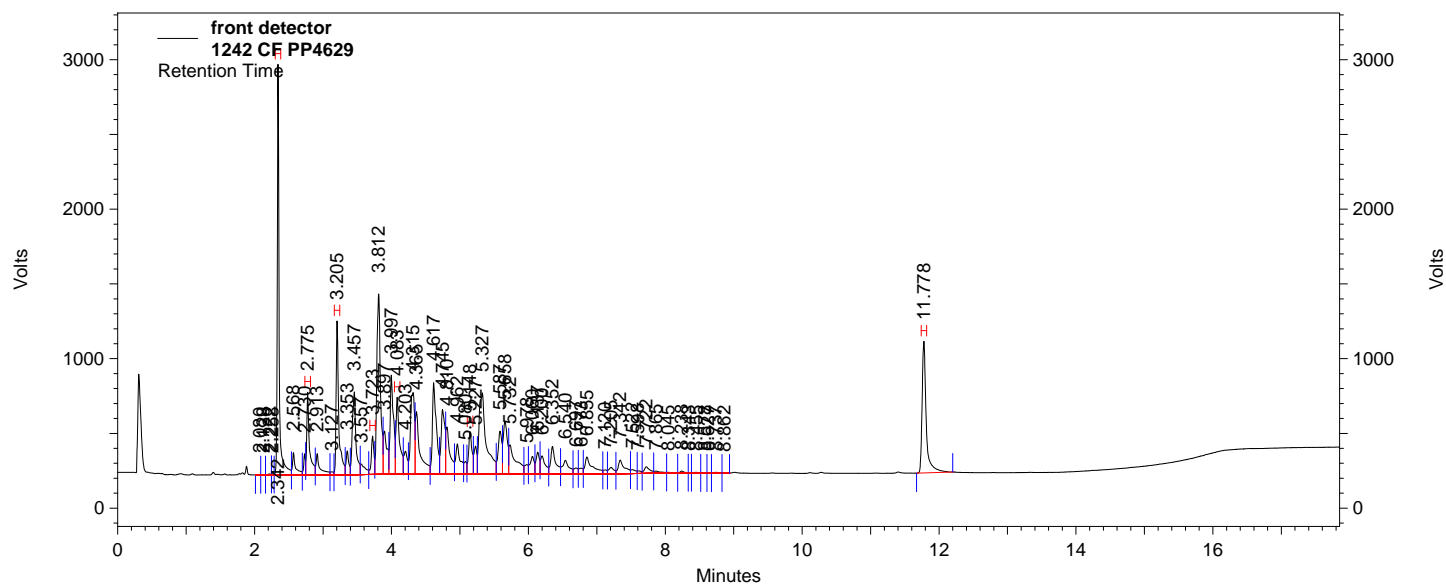
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.787	69496145	100.000 CAL
Aroclor 1232 #1	3.207	10085286	0.100 CAL
Aroclor 1232 #2	3.478	29362056	0.100 CAL
Aroclor 1232 #3	4.082	23434583	0.100 CAL
Aroclor 1232 #4	5.023	21864252	0.100 CAL
Aroclor 1232 #5	5.192	17229462	0.100 CAL
SURRDCB	13.748	47761293	100.000 CAL
Aroclor 1232		101975639	0.500 CAL

PCB Analysis Report (1242) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
User: JJY
Sample ID: 1242 CF PP4629
Acquired: Aug 07,2015 14:40:08
Printed: Aug 07,2015 19:43:30

Data Summary: {Data Description}



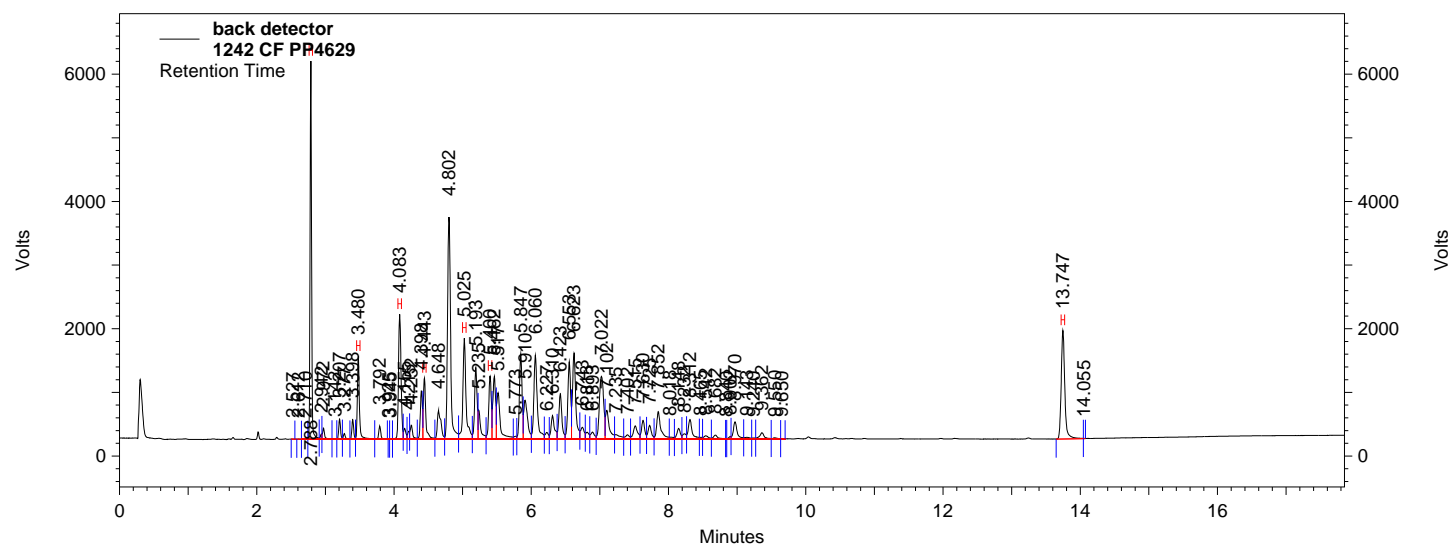
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	39339287	100.000 CAL
Aroclor 1242 #1	2.775	11536168	0.100 CAL
Aroclor 1242 #2	3.205	21662804	0.100 CAL
Aroclor 1242 #3	3.723	5147255	0.100 CAL
Aroclor 1242 #4	4.083	14495818	0.100 CAL
Aroclor 1242 #5	5.148	7430355	0.100 CAL
SURRDCB	11.778	28620977	100.000 CAL
Aroclor 1242		60272400	0.500 CAL

PCB Analysis Report (1242) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
User: JJY
Sample ID: 1242 CF PP4629
Acquired: Aug 07,2015 14:40:08
Printed: Aug 07,2015 19:43:30

Data Summary: {Data Description}



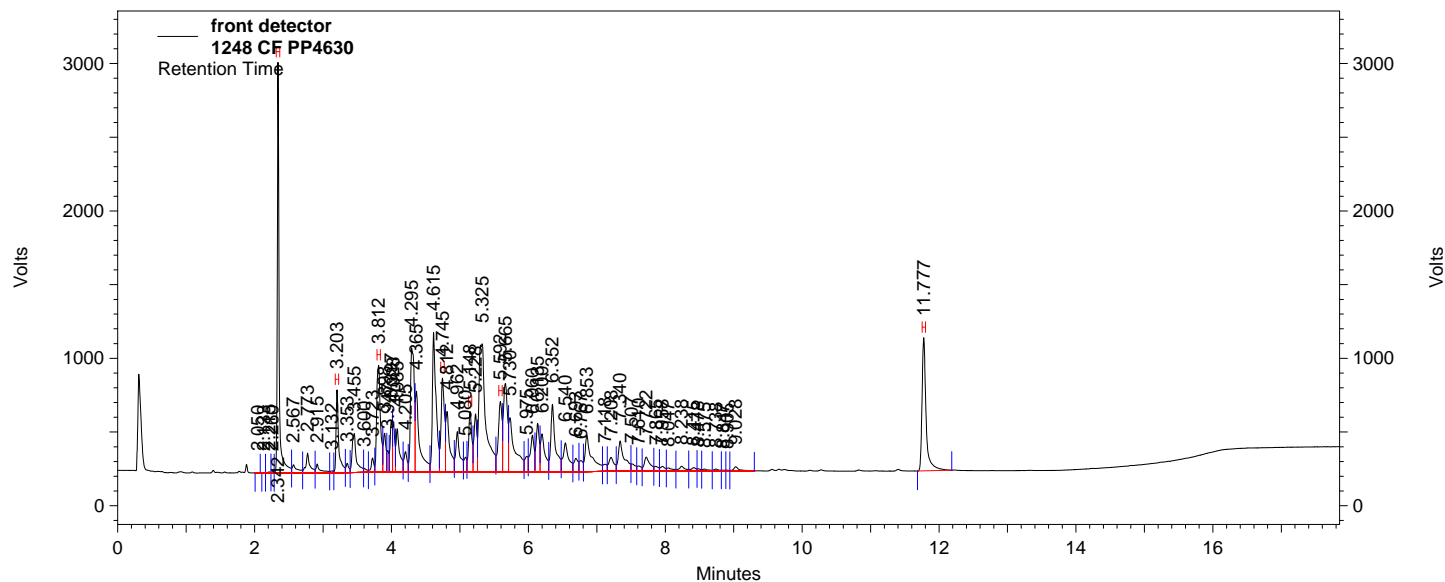
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	69881246	100.000 CAL
Aroclor 1242 #1	3.480	21003890	0.100 CAL
Aroclor 1242 #2	4.083	39013678	0.100 CAL
Aroclor 1242 #3	4.443	18410762	0.100 CAL
Aroclor 1242 #4	5.025	38987520	0.100 CAL
Aroclor 1242 #5	5.400	19450028	0.100 CAL
SURRDCB	13.747	47621993	100.000 CAL
Aroclor 1242		136865878	0.500 CAL

PCB Analysis Report (1248) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
User: JJY
Sample ID: 1248 CF PP4630
Acquired: Aug 07,2015 15:01:42
Printed: Aug 07,2015 19:50:10

Data Summary: {Data Description}



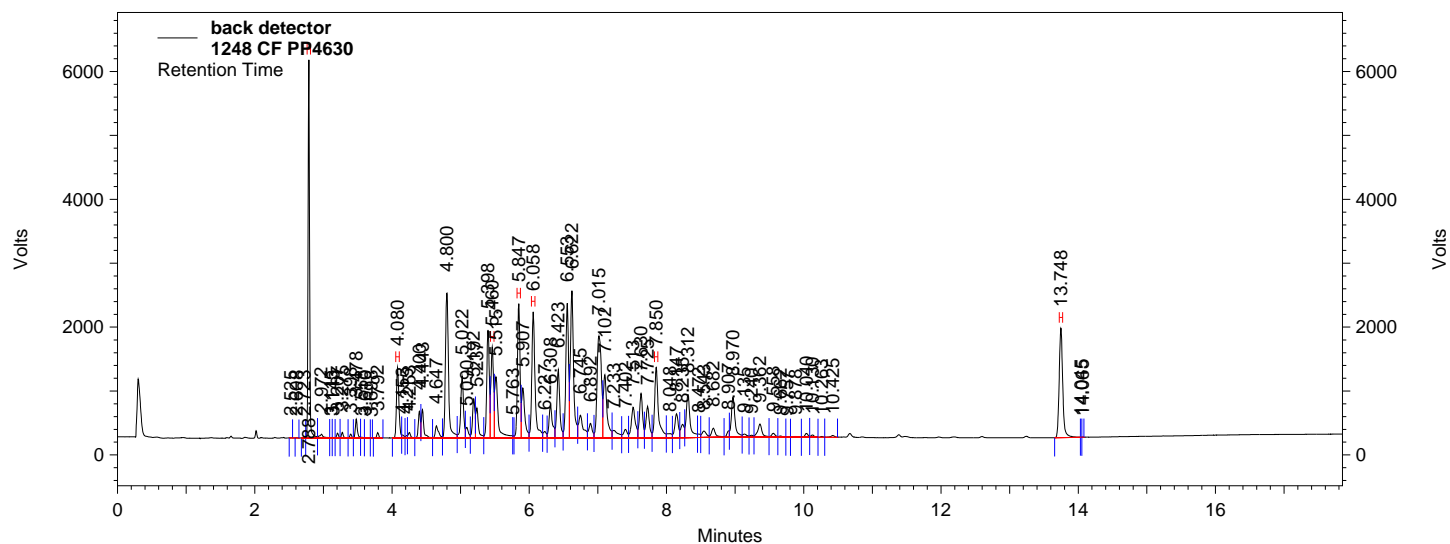
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	38628637	100.000 CAL
Aroclor 1248 #1	3.203	11729135	0.100 CAL
Aroclor 1248 #2	3.812	21358398	0.100 CAL
Aroclor 1248 #3	4.745	16804462	0.100 CAL
Aroclor 1248 #4	5.148	10143976	0.100 CAL
Aroclor 1248 #5	5.592	13922050	0.100 CAL
SURRDCB	11.777	28795268	100.000 CAL
Aroclor 1248		73958021	0.500 CAL

PCB Analysis Report (1248) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
User: JJY
Sample ID: 1248 CF PP4630
Acquired: Aug 07,2015 15:01:42
Printed: Aug 07,2015 19:50:10

Data Summary: {Data Description}



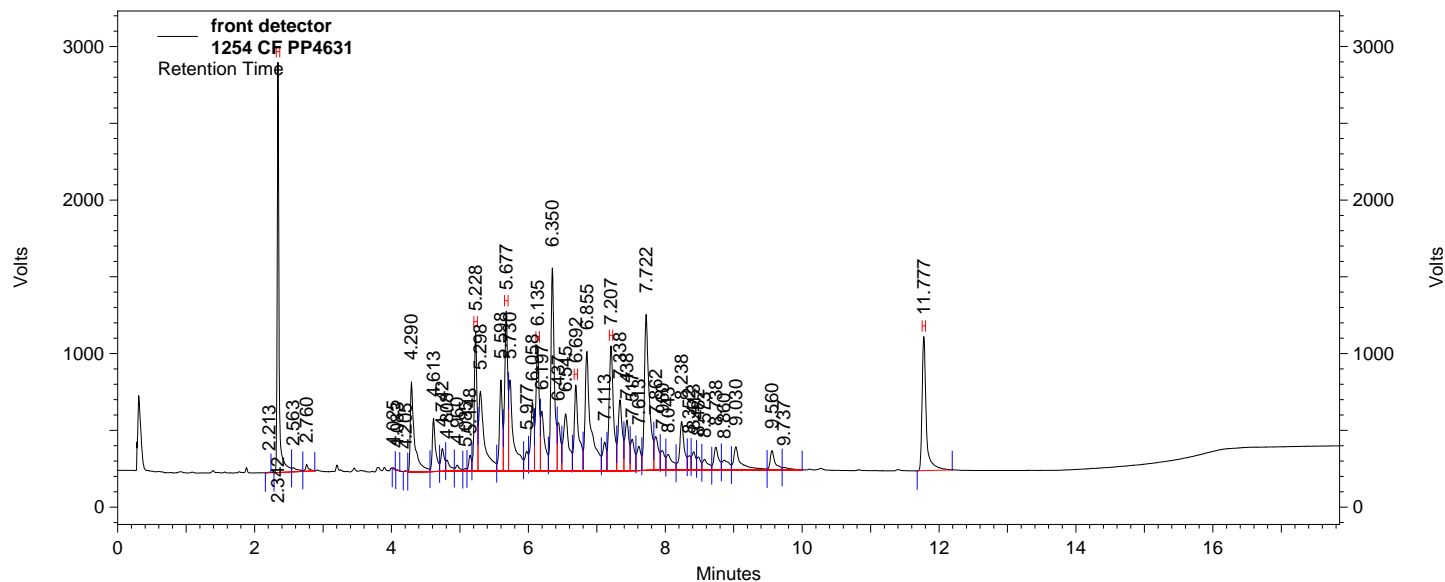
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	69640960	100.000 CAL
Aroclor 1248 #1	4.080	21338770	0.100 CAL
Aroclor 1248 #2	5.460	29468318	0.100 CAL
Aroclor 1248 #3	5.847	42228002	0.100 CAL
Aroclor 1248 #4	6.058	50076909	0.100 CAL
Aroclor 1248 #5	7.850	31998742	0.100 CAL
SURRDCB	13.748	47570153	100.000 CAL
Aroclor 1248		175110741	0.500 CAL

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 1254 CF PP4631
Acquired: Aug 07,2015 15:23:15
Printed: Aug 07,2015 19:57:06

Data Summary: {Data Description}



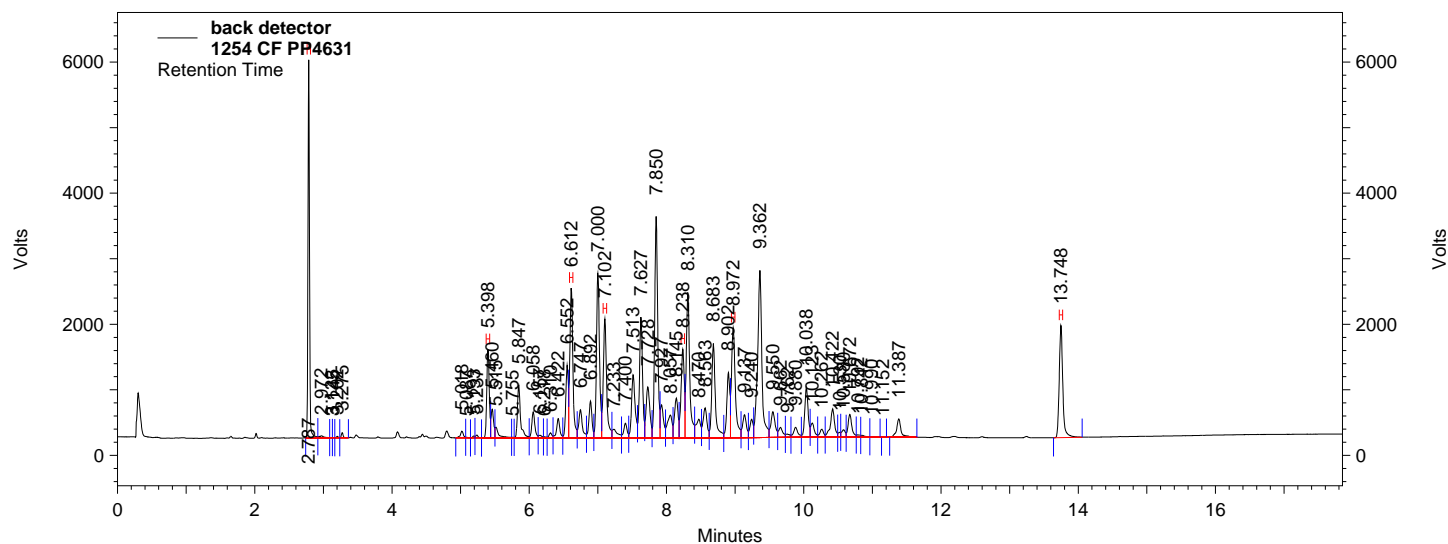
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	37618952	100.000 CAL
Aroclor 1254 #1	5.228	19228974	0.100 CAL
Aroclor 1254 #2	5.677	24245841	0.100 CAL
Aroclor 1254 #3	6.135	21154084	0.100 CAL
Aroclor 1254 #4	6.692	19762870	0.100 CAL
Aroclor 1254 #5	7.207	27717608	0.100 CAL
SURRDCB	11.777	28591490	100.000 CAL
Aroclor 1254		112109377	0.500 CAL

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 1254 CF PP4631
Acquired: Aug 07,2015 15:23:15
Printed: Aug 07,2015 19:57:06

Data Summary: {Data Description}



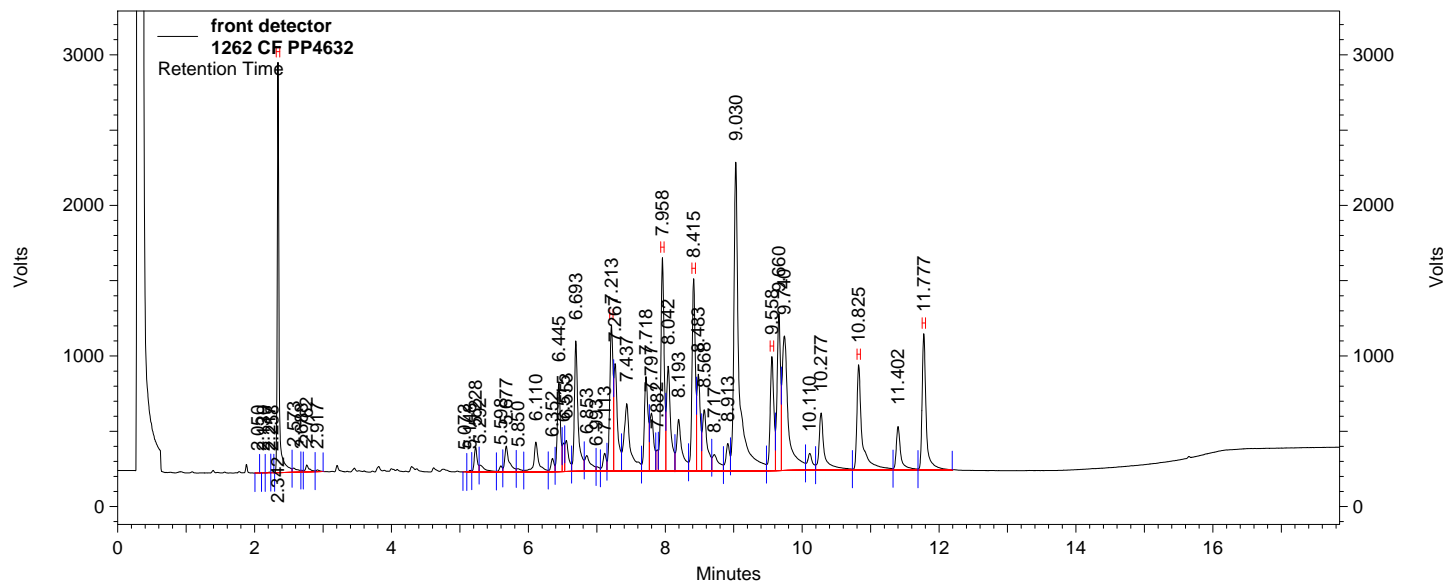
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.787	68793582	100.000 CAL
Aroclor 1254 #1	5.398	25806297	0.100 CAL
Aroclor 1254 #2	6.612	54331387	0.100 CAL
Aroclor 1254 #3	7.102	47313092	0.100 CAL
Aroclor 1254 #4	8.238	34242955	0.100 CAL
Aroclor 1254 #5	8.972	50058563	0.100 CAL
SURRDCB	13.748	47683769	100.000 CAL
Aroclor 1254		211752294	0.500 CAL

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 1262 CF PP4632
Acquired: Aug 07,2015 15:44:48
Printed: Aug 07,2015 20:02:07

Data Summary: {Data Description}



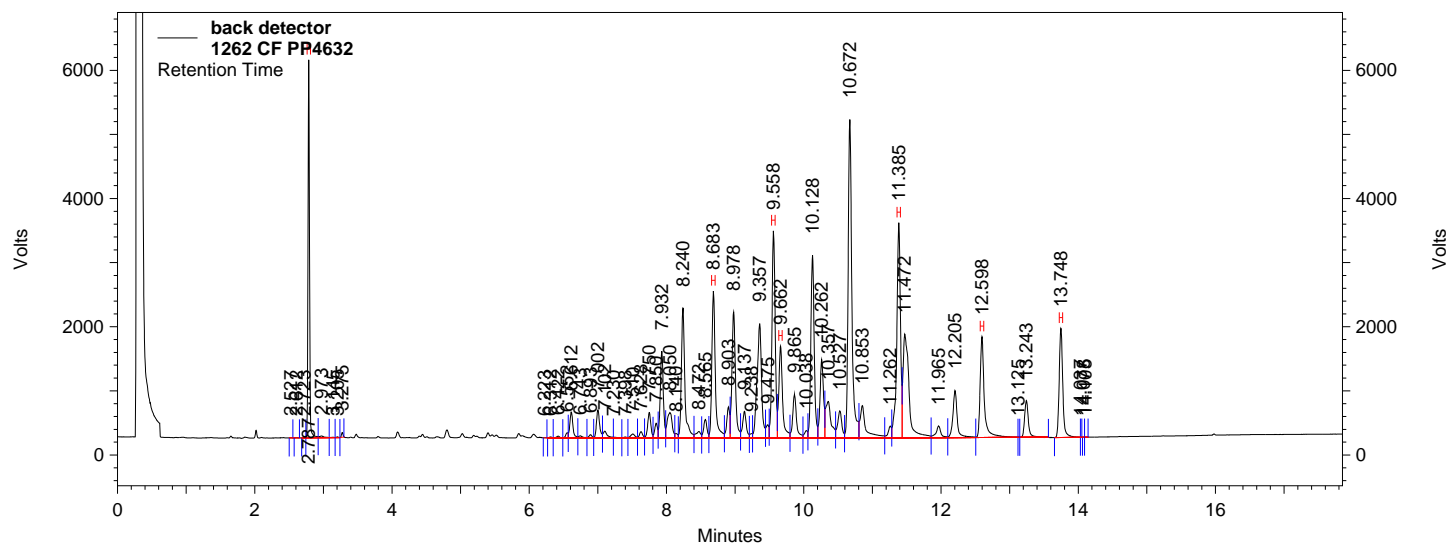
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	37557276	100.000 CAL
Aroclor 1262 #1	7.213	24839869	0.100 CAL
Aroclor 1262 #2	7.958	36545004	0.100 CAL
Aroclor 1262 #3	8.415	32688621	0.100 CAL
Aroclor 1262 #4	9.558	21648756	0.100 CAL
Aroclor 1262 #5	10.825	29163574	0.100 CAL
SURRDCB	11.777	28742658	100.000 CAL
Aroclor 1262		144885824	0.500 CAL

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\018.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 1262 CF PP4632
Acquired: Aug 07,2015 15:44:48
Printed: Aug 07,2015 20:02:07

Data Summary: {Data Description}



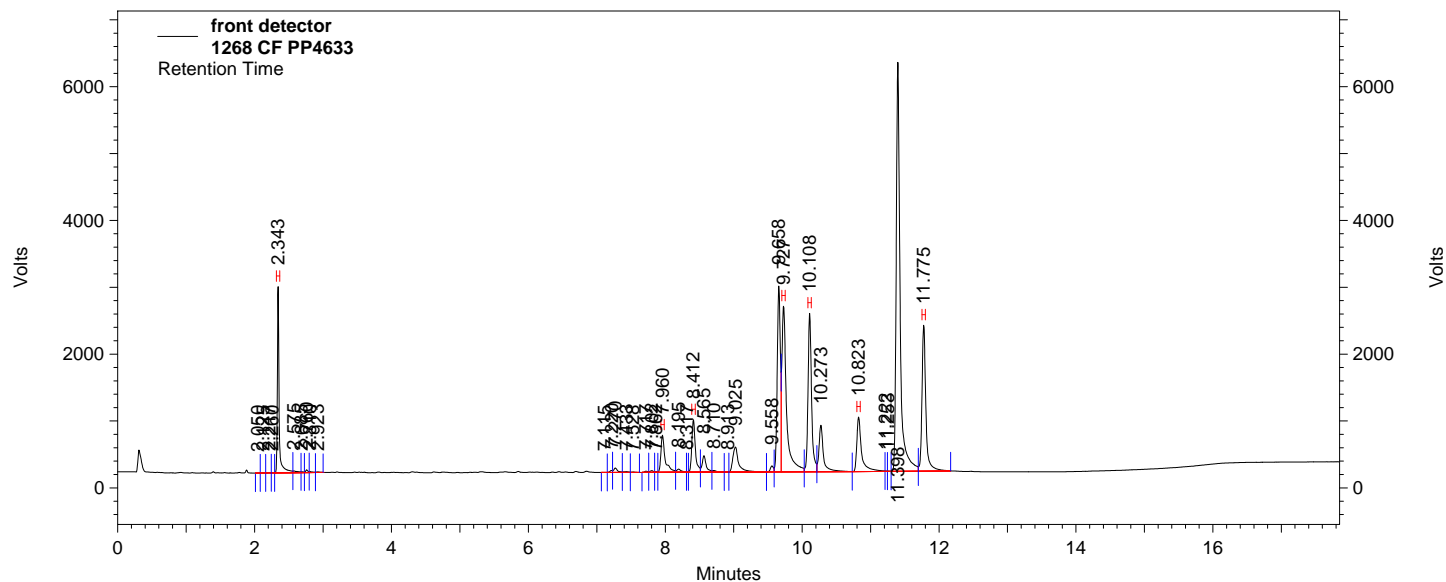
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.787	68627647	100.000 CAL
Aroclor 1262 #1	8.683	61648022	0.100 CAL
Aroclor 1262 #2	9.558	81536090	0.100 CAL
Aroclor 1262 #3	9.662	41721460	0.100 CAL
Aroclor 1262 #4	11.385	96102892	0.100 CAL
Aroclor 1262 #5	12.598	51512765	0.100 CAL
SURRDCB	13.748	47463047	100.000 CAL
Aroclor 1262		332521229	0.500 CAL

PCB Analysis Report (1268) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
User: JJY
Sample ID: 1268 CF PP4633
Acquired: Aug 07,2015 16:06:18
Printed: Aug 07,2015 20:05:41

Data Summary: {Data Description}



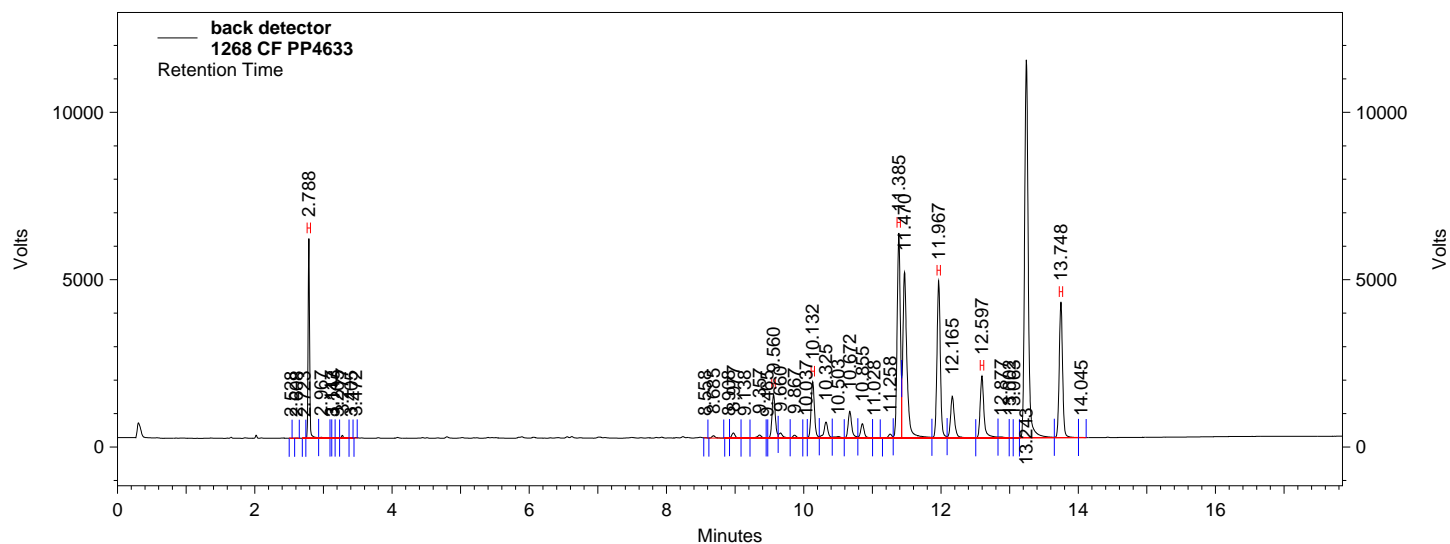
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.343	37923328	100.000 CAL
Aroclor 1268 #1	7.960	18439210	0.100 CAL
Aroclor 1268 #2	8.412	21747115	0.100 CAL
Aroclor 1268 #3	9.727	90814683	0.100 CAL
Aroclor 1268 #4	10.108	65254967	0.100 CAL
Aroclor 1268 #5	10.823	30164290	0.100 CAL
SURRDCB	11.775	67198980	100.000 CAL
Aroclor 1268		226420265	0.500 CAL

PCB Analysis Report (1268) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
User: JJY
Sample ID: 1268 CF PP4633
Acquired: Aug 07,2015 16:06:18
Printed: Aug 07,2015 20:05:41

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	69590972	100.000 CAL
Aroclor 1268 #1	9.560	33410647	0.100 CAL
Aroclor 1268 #2	10.132	43416101	0.100 CAL
Aroclor 1268 #3	11.385	153154799	0.100 CAL
Aroclor 1268 #4	11.967	122044818	0.100 CAL
Aroclor 1268 #5	12.597	54418080	0.100 CAL
SURRDCB	13.748	106144995	100.000 CAL
Aroclor 1268		406444445	0.500 CAL

QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 19:27:24

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\021.d at	1221 ICV PP4634	Aug 07,2015 19:27:24

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.272	2.272	20.000	Passed
Aroclor 1221 #1	0.167	0.168	0.322	20.000	Passed
Aroclor 1221 #2	0.167	0.173	3.732	20.000	Passed
Aroclor 1221 #3	0.167	0.170	1.776	20.000	Passed
SURRDCB	100.000	102.132	2.132	20.000	Passed
Aroclor 1221	0.500	0.511	2.147	20.000	Passed

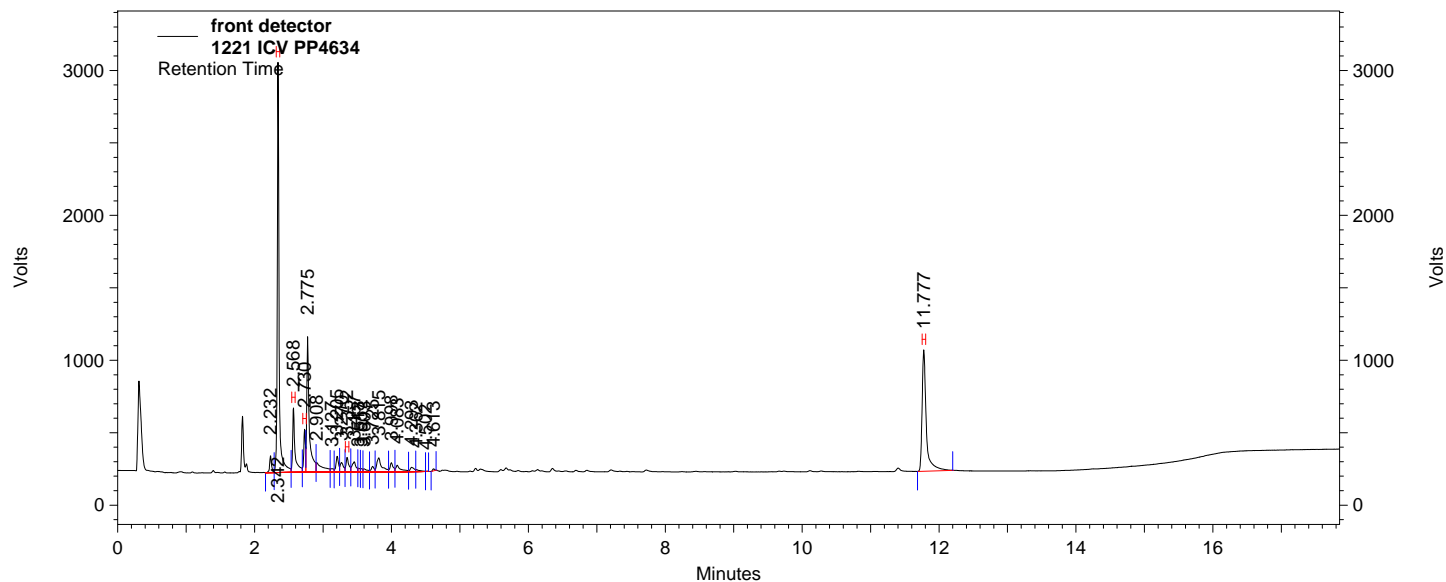
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.150	3.150	20.000	Passed
Aroclor 1221 #1	0.167	0.172	3.084	20.000	Passed
Aroclor 1221 #2	0.167	0.172	2.888	20.000	Passed
Aroclor 1221 #3	0.167	0.166	0.778	20.000	Passed
SURRDCB	100.000	103.568	3.568	20.000	Passed
Aroclor 1221	0.500	0.510	1.935	20.000	Passed

PCB Analysis Report (1221) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
User: JJY
Sample ID: 1221 ICV PP4634
Acquired: Aug 07,2015 16:49:13
Printed: Aug 07,2015 19:27:20

Data Summary: {Data Description}



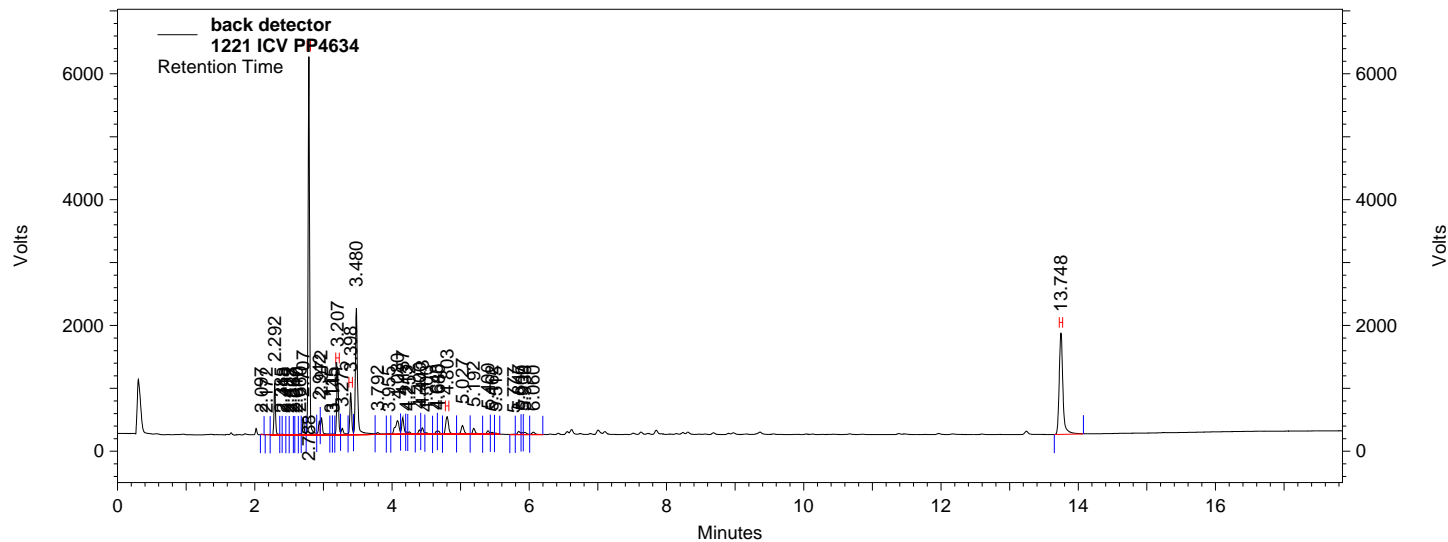
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	39756284	102.272
Aroclor 1221 #1	2.568	8446905	0.168
Aroclor 1221 #2	2.730	3871404	0.173
Aroclor 1221 #3	3.352	2231202	0.170
SURRDCB	11.777	27435262	102.132
Aroclor 1221		14549511	0.511

PCB Analysis Report (1221) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1221.met
User: JJY
Sample ID: 1221 ICV PP4634
Acquired: Aug 07,2015 16:49:13
Printed: Aug 07,2015 19:27:20

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	69533249	103.150
Aroclor 1221 #1	3.207	13931381	0.172
Aroclor 1221 #2	3.398	9197067	0.172
Aroclor 1221 #3	4.803	6770066	0.166
SURRDCB	13.748	46453716	103.568
Aroclor 1221		29898514	0.510

QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 19:36:59

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\022.d at	1232 ICV PP4635	Aug 07,2015 19:36:59

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	98.485	1.515	20.000	Passed
Aroclor 1232 #1	0.100	0.097	3.475	20.000	Passed
Aroclor 1232 #2	0.100	0.097	2.883	20.000	Passed
Aroclor 1232 #3	0.100	0.096	3.897	20.000	Passed
Aroclor 1232 #4	0.100	0.095	4.584	20.000	Passed
Aroclor 1232 #5	0.100	0.098	2.188	20.000	Passed
SURRDCB	100.000	100.144	0.144	20.000	Passed
Aroclor 1232	0.500	0.483	3.406	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	99.695	0.305	20.000	Passed
Aroclor 1232 #1	0.100	0.098	1.674	20.000	Passed
Aroclor 1232 #2	0.100	0.099	1.348	20.000	Passed
Aroclor 1232 #3	0.100	0.099	1.329	20.000	Passed
Aroclor 1232 #4	0.100	0.099	1.380	20.000	Passed
Aroclor 1232 #5	0.100	0.098	1.941	20.000	Passed
SURRDCB	100.000	101.888	1.888	20.000	Passed
Aroclor 1232	0.500	0.492	1.535	20.000	Passed

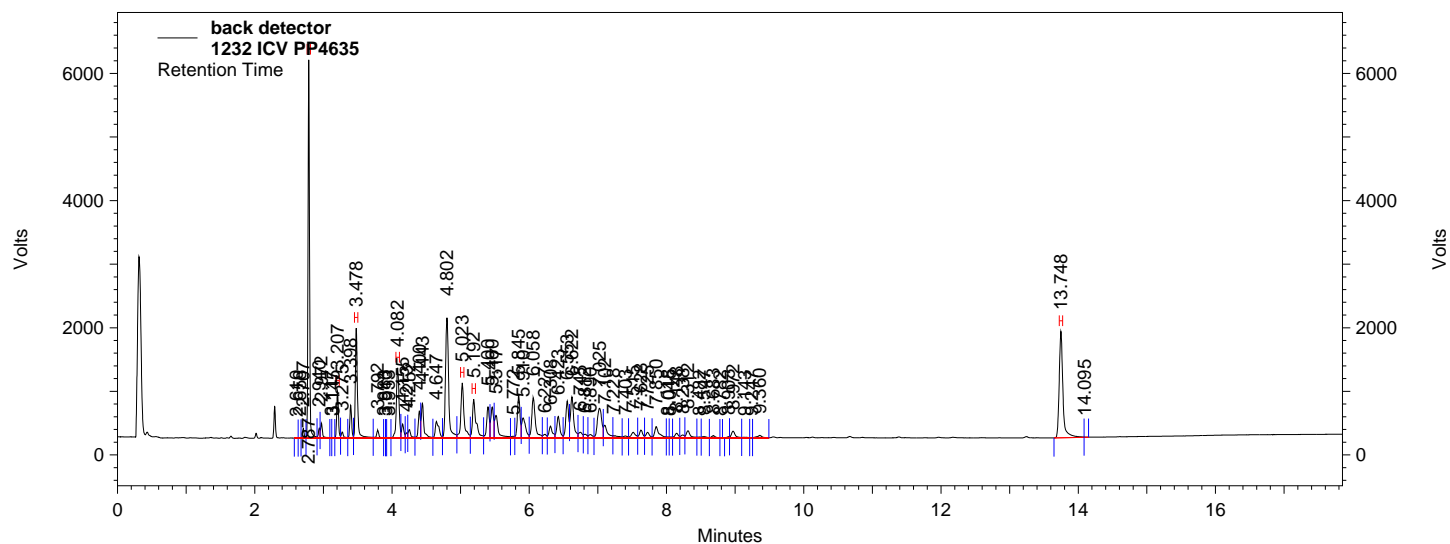
Data File: C:\Instarch\Semi7\Data\080715pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
User: JJY
Sample ID: 1232 ICV PP4635
Acquired: Aug 07,2015 17:10:40
Printed: Aug 07,2015 19:36:56

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	39247098	98.485
Aroclor 1232 #1	2.773	15492608	0.097
Aroclor 1232 #2	3.203	12735813	0.097
Aroclor 1232 #3	3.352	2711039	0.096
Aroclor 1232 #4	3.813	18039655	0.095
Aroclor 1232 #5	4.083	8357745	0.098
SURRDCB	11.777	29296421	100.144
Aroclor 1232		57336860	0.483

PCB Analysis Report (1232) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1232.met
User: JJY
Sample ID: 1232 ICV PP4635
Acquired: Aug 07,2015 17:10:40
Printed: Aug 07,2015 19:36:56

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.787	69284297	99.695
Aroclor 1232 #1	3.207	9916459	0.098
Aroclor 1232 #2	3.478	28966331	0.099
Aroclor 1232 #3	4.082	23123041	0.099
Aroclor 1232 #4	5.023	21562431	0.099
Aroclor 1232 #5	5.192	16894987	0.098
SURRDCB	13.748	48662909	101.888
Aroclor 1232		100463249	0.492

QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 19:44:01

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\023.d at	1242 ICV PP4636	Aug 07,2015 19:44:01

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	99.304	0.696	20.000	Passed
Aroclor 1242 #1	0.100	0.099	1.297	20.000	Passed
Aroclor 1242 #2	0.100	0.099	0.835	20.000	Passed
Aroclor 1242 #3	0.100	0.102	1.575	20.000	Passed
Aroclor 1242 #4	0.100	0.100	0.003	20.000	Passed
Aroclor 1242 #5	0.100	0.097	2.704	20.000	Passed
SURRDCB	100.000	99.363	0.637	20.000	Passed
Aroclor 1242	0.500	0.497	0.652	20.000	Passed

back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	100.563	0.563	20.000	Passed
Aroclor 1242 #1	0.100	0.100	0.340	20.000	Passed
Aroclor 1242 #2	0.100	0.100	0.179	20.000	Passed
Aroclor 1242 #3	0.100	0.100	0.432	20.000	Passed
Aroclor 1242 #4	0.100	0.100	0.010	20.000	Passed
Aroclor 1242 #5	0.100	0.103	3.402	20.000	Passed
SURRDCB	100.000	101.528	1.528	20.000	Passed
Aroclor 1242	0.500	0.504	0.801	20.000	Passed

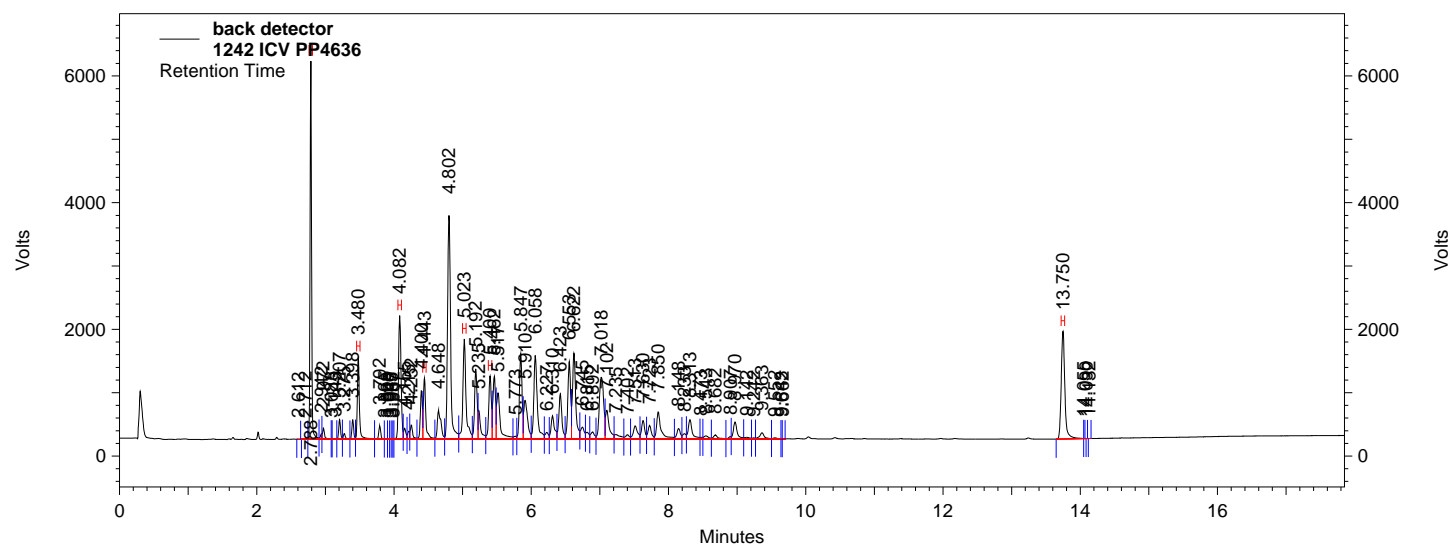
Data File: C:\Instarch\Semi7\Data\080715pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
User: JJY
Sample ID: 1242 ICV PP4636
Acquired: Aug 07,2015 17:32:10
Printed: Aug 07,2015 19:43:59

<i>Component</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMX	2.342	39065645	99.304
Aroclor 1242 #1	2.775	11386576	0.099
Aroclor 1242 #2	3.203	21481849	0.099
Aroclor 1242 #3	3.723	5228322	0.102
Aroclor 1242 #4	4.083	14496181	0.100
Aroclor 1242 #5	5.147	7229475	0.097
SURRDCB	11.778	28438578	99.363
Aroclor 1242		59822403	0.497

PCB Analysis Report (1242) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\023.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1242.met
 User: JJY
 Sample ID: 1242 ICV PP4636
 Acquired: Aug 07,2015 17:32:10
 Printed: Aug 07,2015 19:43:59

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	70274992	100.563
Aroclor 1242 #1	3.480	21075338	0.100
Aroclor 1242 #2	4.082	38943659	0.100
Aroclor 1242 #3	4.443	18490323	0.100
Aroclor 1242 #4	5.023	38991553	0.100
Aroclor 1242 #5	5.400	20111800	0.103
SURRDCB	13.750	48349530	101.528
Aroclor 1242		137612673	0.504

QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 19:50:37

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\024.d at	1248 ICV PP4637	Aug 07,2015 19:50:37

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	101.784	1.784	20.000	Passed
Aroclor 1248 #1	0.100	0.102	2.249	20.000	Passed
Aroclor 1248 #2	0.100	0.099	1.144	20.000	Passed
Aroclor 1248 #3	0.100	0.102	1.956	20.000	Passed
Aroclor 1248 #4	0.100	0.100	0.019	20.000	Passed
Aroclor 1248 #5	0.100	0.099	1.026	20.000	Passed
SURRDCB	100.000	100.701	0.701	20.000	Passed
Aroclor 1248	0.500	0.502	0.411	20.000	Passed

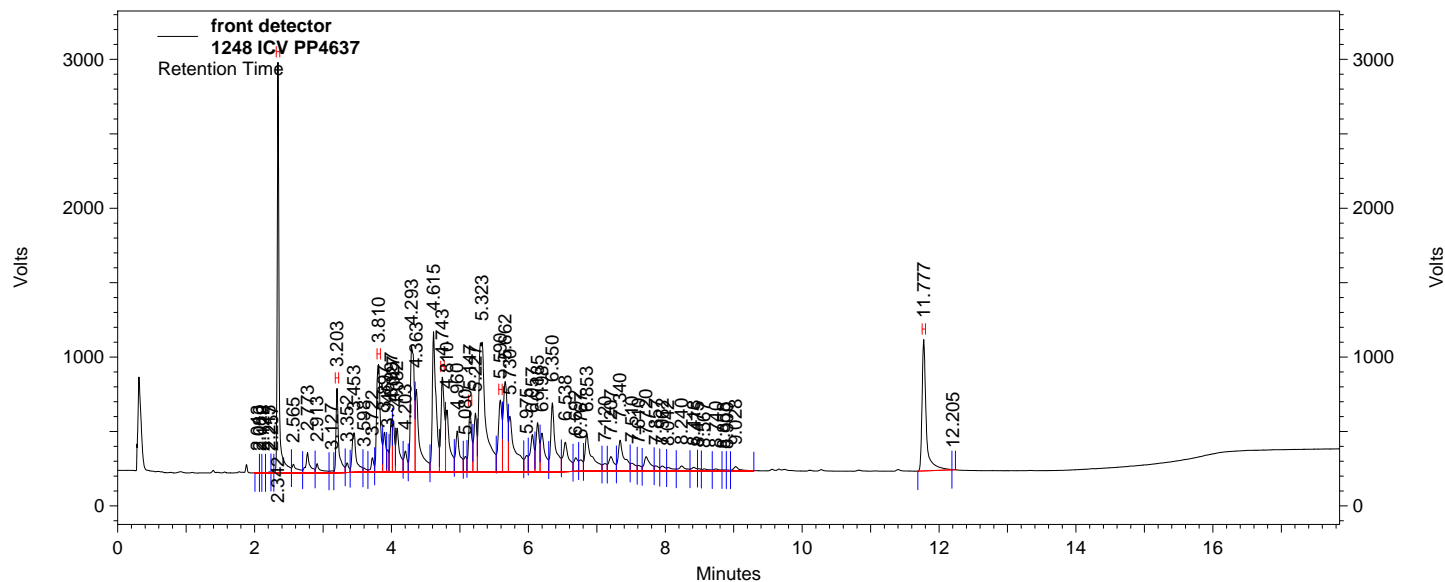
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.035	3.035	20.000	Passed
Aroclor 1248 #1	0.100	0.104	3.908	20.000	Passed
Aroclor 1248 #2	0.100	0.101	1.164	20.000	Passed
Aroclor 1248 #3	0.100	0.103	3.475	20.000	Passed
Aroclor 1248 #4	0.100	0.103	3.347	20.000	Passed
Aroclor 1248 #5	0.100	0.104	4.265	20.000	Passed
SURRDCB	100.000	104.759	4.759	20.000	Passed
Aroclor 1248	0.500	0.516	3.232	20.000	Passed

PCB Analysis Report (1248) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\024.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
 User: JJY
 Sample ID: 1248 ICV PP4637
 Acquired: Aug 07,2015 17:53:40
 Printed: Aug 07,2015 19:50:35

Data Summary: {Data Description}



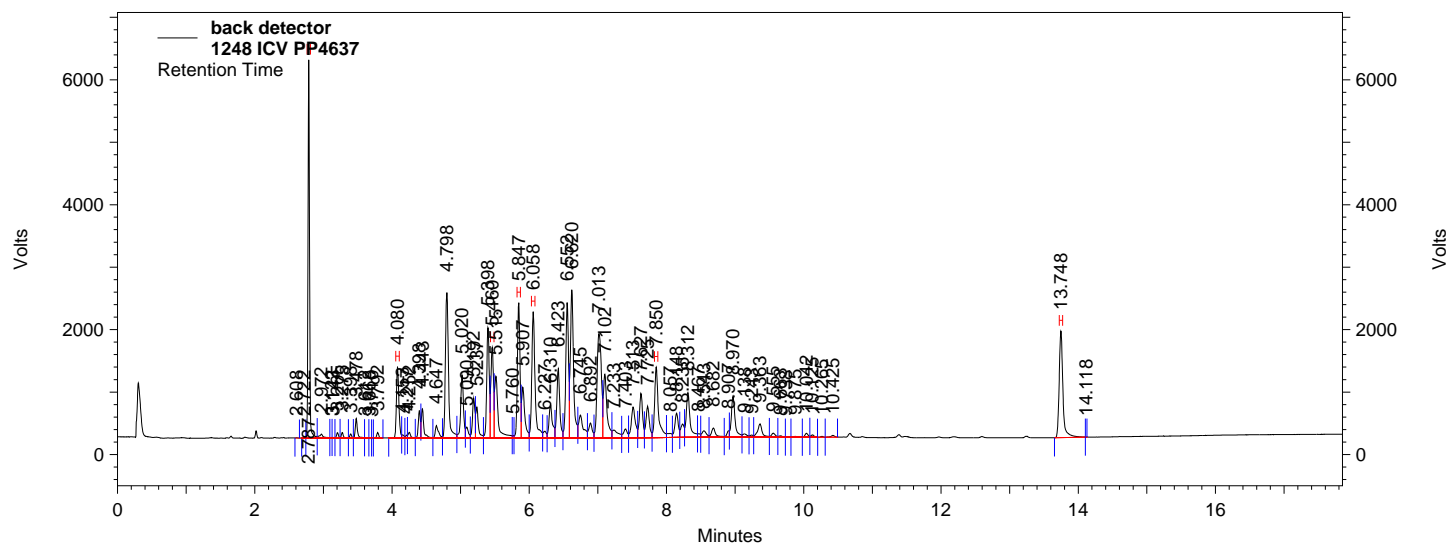
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	39317735	101.784
Aroclor 1248 #1	3.203	11992934	0.102
Aroclor 1248 #2	3.810	21114125	0.099
Aroclor 1248 #3	4.743	17133094	0.102
Aroclor 1248 #4	5.147	10145898	0.100
Aroclor 1248 #5	5.590	13779177	0.099
SURRDCB	11.777	28997057	100.701
Aroclor 1248		74165228	0.502

PCB Analysis Report (1248) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1248.met
User: JJY
Sample ID: 1248 ICV PP4637
Acquired: Aug 07,2015 17:53:40
Printed: Aug 07,2015 19:50:35

Data Summary: {Data Description}



QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 19:57:35

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\025.d at	1254 ICV PP4638	Aug 07,2015 19:57:35

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	101.152	1.152	20.000	Passed
Aroclor 1254 #1	0.100	0.101	0.629	20.000	Passed
Aroclor 1254 #2	0.100	0.100	0.486	20.000	Passed
Aroclor 1254 #3	0.100	0.101	1.483	20.000	Passed
Aroclor 1254 #4	0.100	0.101	1.092	20.000	Passed
Aroclor 1254 #5	0.100	0.101	0.648	20.000	Passed
SURRDCB	100.000	100.388	0.388	20.000	Passed
Aroclor 1254	0.500	0.504	0.867	20.000	Passed

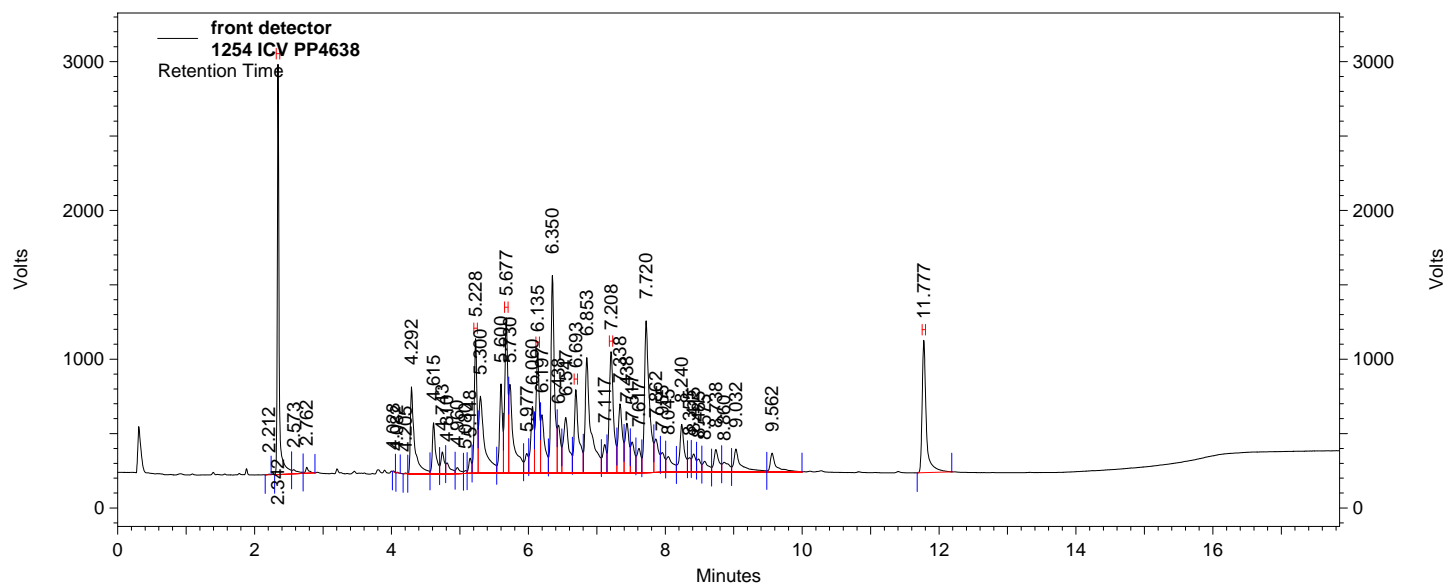
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.680	2.680	20.000	Passed
Aroclor 1254 #1	0.100	0.102	2.449	20.000	Passed
Aroclor 1254 #2	0.100	0.102	1.970	20.000	Passed
Aroclor 1254 #3	0.100	0.102	1.816	20.000	Passed
Aroclor 1254 #4	0.100	0.102	1.784	20.000	Passed
Aroclor 1254 #5	0.100	0.102	2.206	20.000	Passed
SURRDCB	100.000	102.880	2.880	20.000	Passed
Aroclor 1254	0.500	0.510	2.045	20.000	Passed

PCB Analysis Report (1254) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 1254 ICV PP4638
Acquired: Aug 07,2015 18:15:07
Printed: Aug 07,2015 19:57:33

Data Summary: {Data Description}



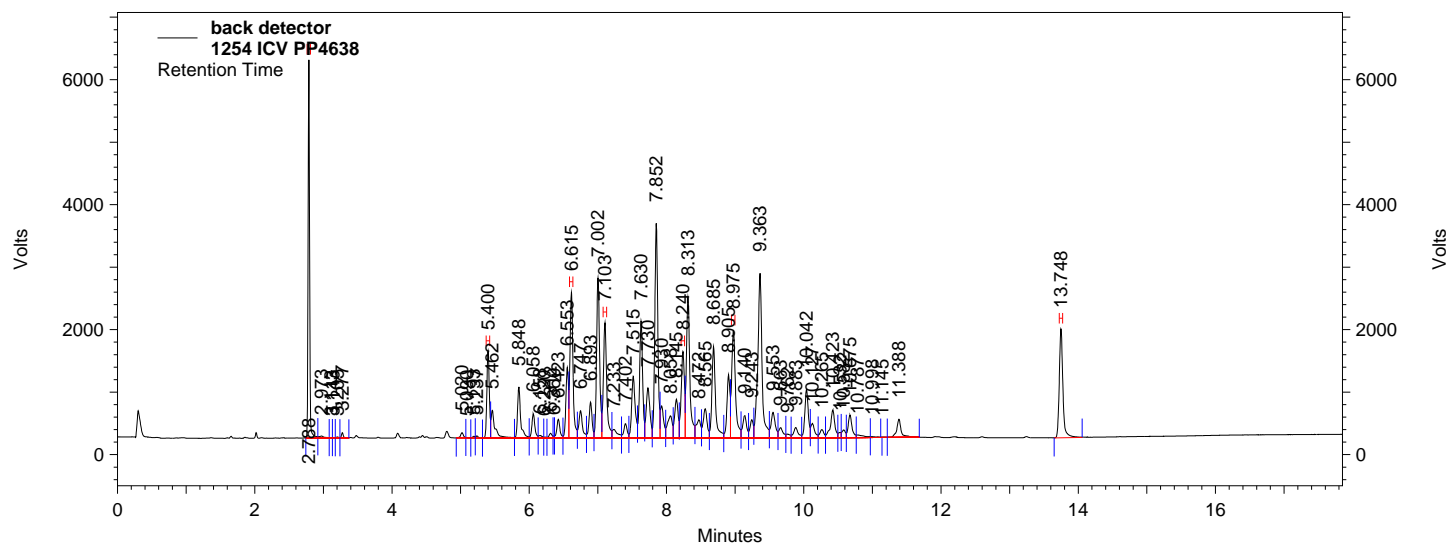
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.342	38052293	101.152
Aroclor 1254 #1	5.228	19349830	0.101
Aroclor 1254 #2	5.677	24363615	0.100
Aroclor 1254 #3	6.135	21467825	0.101
Aroclor 1254 #4	6.693	19978629	0.101
Aroclor 1254 #5	7.208	27897277	0.101
SURRDCB	11.777	28702546	100.388
Aroclor 1254		113057176	0.504

PCB Analysis Report (1254) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1254.met
User: JJY
Sample ID: 1254 ICV PP4638
Acquired: Aug 07,2015 18:15:07
Printed: Aug 07,2015 19:57:33

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	70637433	102.680
Aroclor 1254 #1	5.400	26438398	0.102
Aroclor 1254 #2	6.615	55401560	0.102
Aroclor 1254 #3	7.103	48172376	0.102
Aroclor 1254 #4	8.240	34853905	0.102
Aroclor 1254 #5	8.975	51162995	0.102
SURRDCB	13.748	49057105	102.880
Aroclor 1254		216029234	0.510

QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 20:02:41

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\026.d at	1262 ICV PP4639	Aug 07,2015 20:02:41

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.286	3.286	20.000	Passed
Aroclor 1262 #1	0.100	0.103	3.304	20.000	Passed
Aroclor 1262 #2	0.100	0.102	1.641	20.000	Passed
Aroclor 1262 #3	0.100	0.103	2.855	20.000	Passed
Aroclor 1262 #4	0.100	0.103	2.656	20.000	Passed
Aroclor 1262 #5	0.100	0.103	2.678	20.000	Passed
SURRDCB	100.000	101.583	1.583	20.000	Passed
Aroclor 1262	0.500	0.513	2.627	20.000	Passed

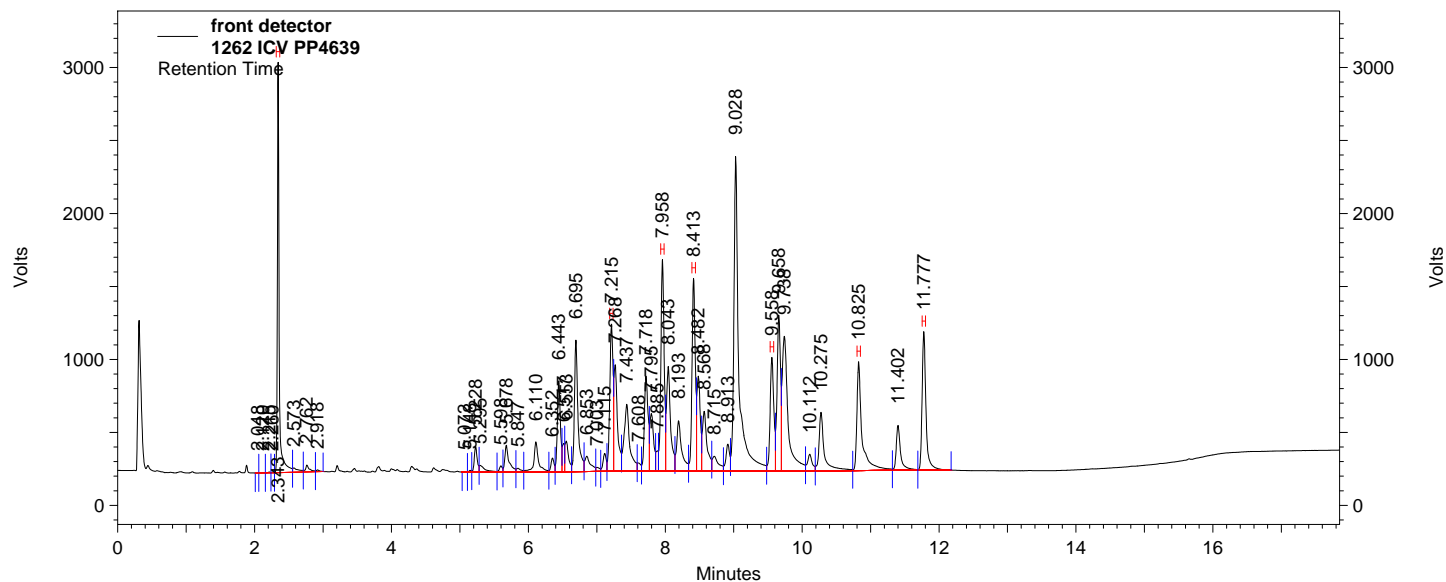
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.815	3.815	20.000	Passed
Aroclor 1262 #1	0.100	0.103	3.388	20.000	Passed
Aroclor 1262 #2	0.100	0.104	3.690	20.000	Passed
Aroclor 1262 #3	0.100	0.101	0.759	20.000	Passed
Aroclor 1262 #4	0.100	0.105	4.572	20.000	Passed
Aroclor 1262 #5	0.100	0.103	2.793	20.000	Passed
SURRDCB	100.000	102.332	2.332	20.000	Passed
Aroclor 1262	0.500	0.515	3.040	20.000	Passed

PCB Analysis Report (1262) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 1262 ICV PP4639
Acquired: Aug 07,2015 18:36:36
Printed: Aug 07,2015 20:02:39

Data Summary: {Data Description}



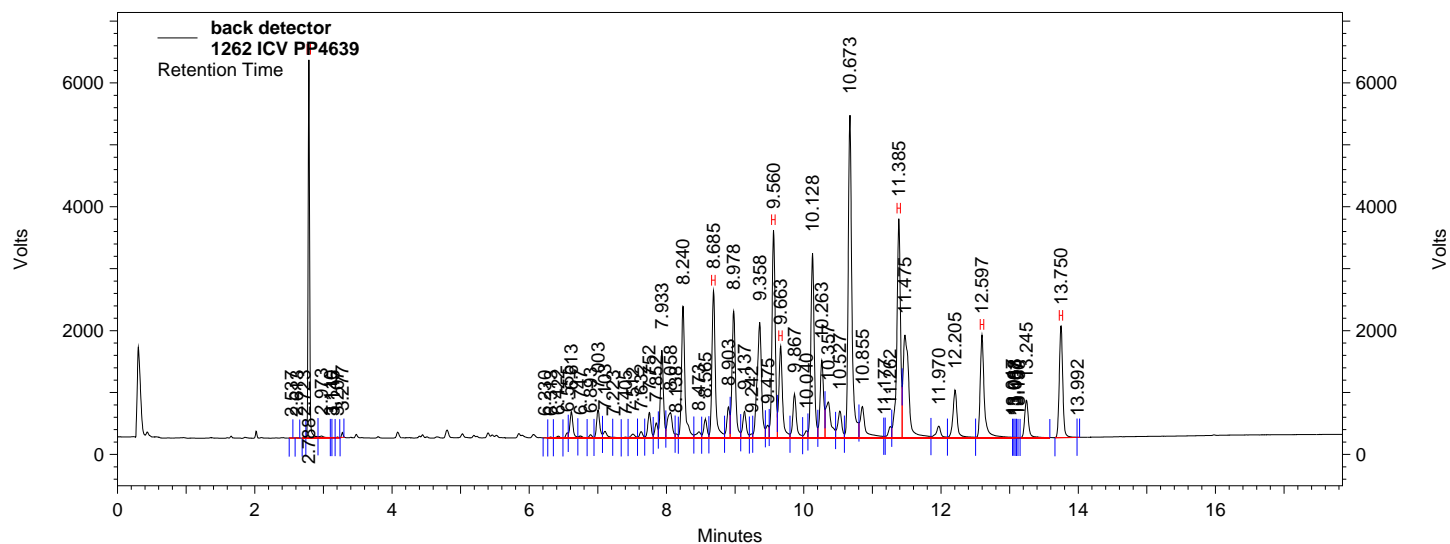
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.343	38791283	103.286
Aroclor 1262 #1	7.215	25660458	0.103
Aroclor 1262 #2	7.958	37144527	0.102
Aroclor 1262 #3	8.413	33621737	0.103
Aroclor 1262 #4	9.558	22223777	0.103
Aroclor 1262 #5	10.825	29944592	0.103
SURRDCB	11.777	29197660	101.583
Aroclor 1262		148595091	0.513

PCB Analysis Report (1262) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1262.met
User: JJY
Sample ID: 1262 ICV PP4639
Acquired: Aug 07,2015 18:36:36
Printed: Aug 07,2015 20:02:39

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	71245840	103.815
Aroclor 1262 #1	8.685	63736880	0.103
Aroclor 1262 #2	9.560	84544508	0.104
Aroclor 1262 #3	9.663	42038291	0.101
Aroclor 1262 #4	11.385	100496529	0.105
Aroclor 1262 #5	12.597	52951441	0.103
SURRDCB	13.750	48569945	102.332
Aroclor 1262		343767649	0.515

QC Check Standard Report

Page 1 of 1 (3)

Sequence : C:\Instarch\Semi7\Sequence\080715PCBIC.seq
User : JJY
Printed : Aug 07,2015 20:06:48

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\080715pcbic\027.d at	1268 ICV PP4640	Aug 07,2015 20:06:48

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.215	2.215	20.000	Passed
Aroclor 1268 #1	0.100	0.103	3.139	20.000	Passed
Aroclor 1268 #2	0.100	0.104	4.260	20.000	Passed
Aroclor 1268 #3	0.100	0.104	4.377	20.000	Passed
Aroclor 1268 #4	0.100	0.103	3.129	20.000	Passed
Aroclor 1268 #5	0.100	0.100	0.073	20.000	Passed
SURRDCB	100.000	103.909	3.909	20.000	Passed
Aroclor 1268	0.500	0.515	2.967	20.000	Passed

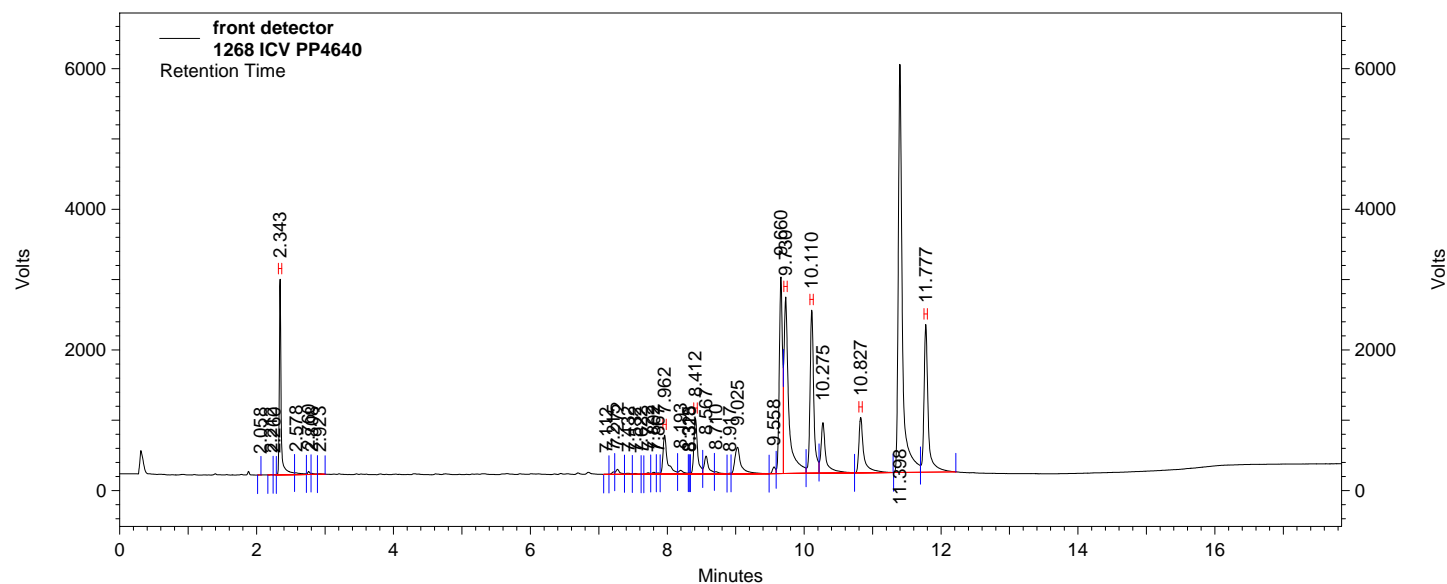
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.280	3.280	20.000	Passed
Aroclor 1268 #1	0.100	0.106	5.907	20.000	Passed
Aroclor 1268 #2	0.100	0.107	6.934	20.000	Passed
Aroclor 1268 #3	0.100	0.104	4.266	20.000	Passed
Aroclor 1268 #4	0.100	0.107	6.567	20.000	Passed
Aroclor 1268 #5	0.100	0.106	6.421	20.000	Passed
SURRDCB	100.000	105.085	5.085	20.000	Passed
Aroclor 1268	0.500	0.530	6.019	20.000	Passed

PCB Analysis Report (1268) (Channel A)

Data File: C:\Instarch\Semi7\Data\080715pcbic\027.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
User: JJY
Sample ID: 1268 ICV PP4640
Acquired: Aug 07,2015 18:58:09
Printed: Aug 07,2015 20:06:46

Data Summary: {Data Description}



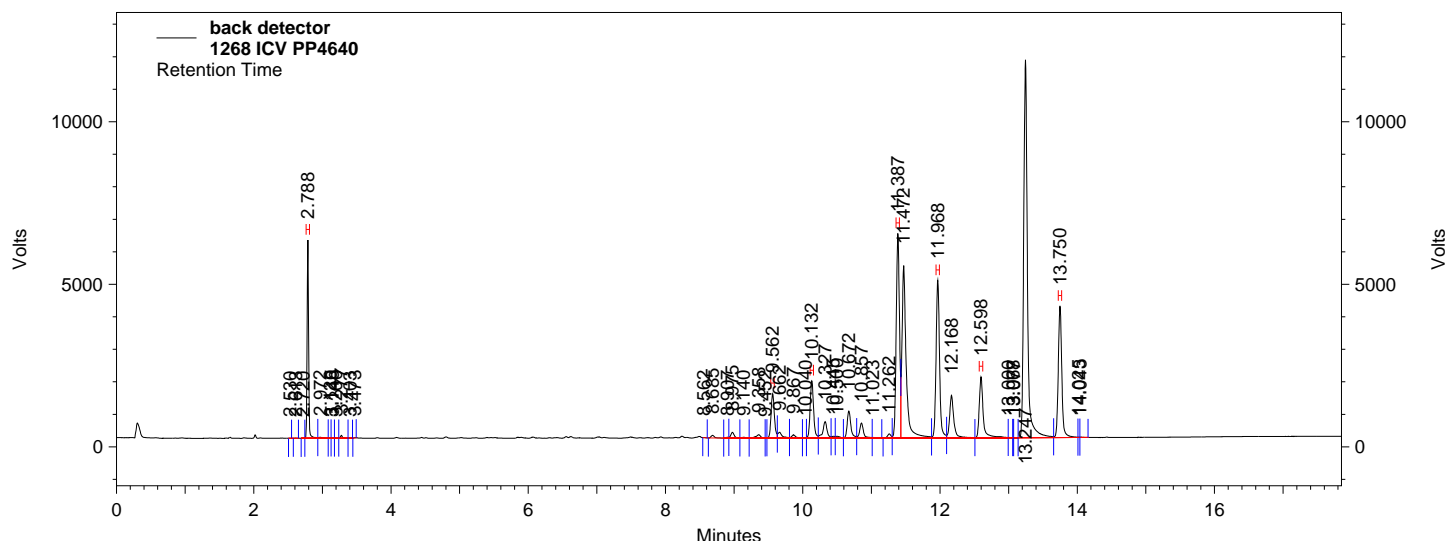
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMX	2.343	38763421	102.215
Aroclor 1268 #1	7.962	19018077	0.103
Aroclor 1268 #2	8.412	22673541	0.104
Aroclor 1268 #3	9.730	94790077	0.104
Aroclor 1268 #4	10.110	67296755	0.103
Aroclor 1268 #5	10.827	30142357	0.100
SURRDCB	11.777	69825678	103.909
Aroclor 1268		233920807	0.515

PCB Analysis Report (1268) (Channel B)

Data File: C:\Instarch\Semi7\Data\080715pcbic\027.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\1268.met
User: JJY
Sample ID: 1268 ICV PP4640
Acquired: Aug 07,2015 18:58:09
Printed: Aug 07,2015 20:06:46

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMX	2.788	71873276	103.280
Aroclor 1268 #1	9.562	35384275	0.106
Aroclor 1268 #2	10.132	46426673	0.107
Aroclor 1268 #3	11.387	159688684	0.104
Aroclor 1268 #4	11.968	130058929	0.107
Aroclor 1268 #5	12.598	57912328	0.106
SURRDCB	13.750	111542569	105.085
Aroclor 1268		429470889	0.530

**POLYCHLORINATED BIPHENYL
CONTINUING AND ENDING STANDARDS
DOCUMENTS**

QC Check Standard Report

Page 1 of 1 (80)

Sequence : C:\Instarch\Semi7\Sequence\090115pcb.seq
 User : JJY
 Printed : Sep 02,2015 09:37:55

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090115pcb\036.dat	PCB CCV PP4626	Sep 02,2015 09:37:55

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	100.130	0.130	20.000	Passed
Aroclor 1016 #1	0.100	0.091	8.578	20.000	Passed
Aroclor 1016 #2	0.100	0.094	5.913	20.000	Passed
Aroclor 1016 #3	0.100	0.104	3.876	20.000	Passed
Aroclor 1016 #4	0.100	0.103	2.646	20.000	Passed
Aroclor 1016 #5	0.100	0.122	21.722	20.000	FAILED
Aroclor 1260 #1	0.100	0.105	5.383	20.000	Passed
Aroclor 1260 #2	0.100	0.107	7.324	20.000	Passed
Aroclor 1260 #3	0.100	0.100	0.037	20.000	Passed
Aroclor 1260 #4	0.100	0.096	4.029	20.000	Passed
Aroclor 1260 #5	0.100	0.101	1.016	20.000	Passed
SURRDCBPCB	100.000	110.346	10.346	20.000	Passed
Aroclor 1016	0.500	0.514	2.751	20.000	Passed
Aroclor 1260	0.500	0.510	1.931	20.000	Passed

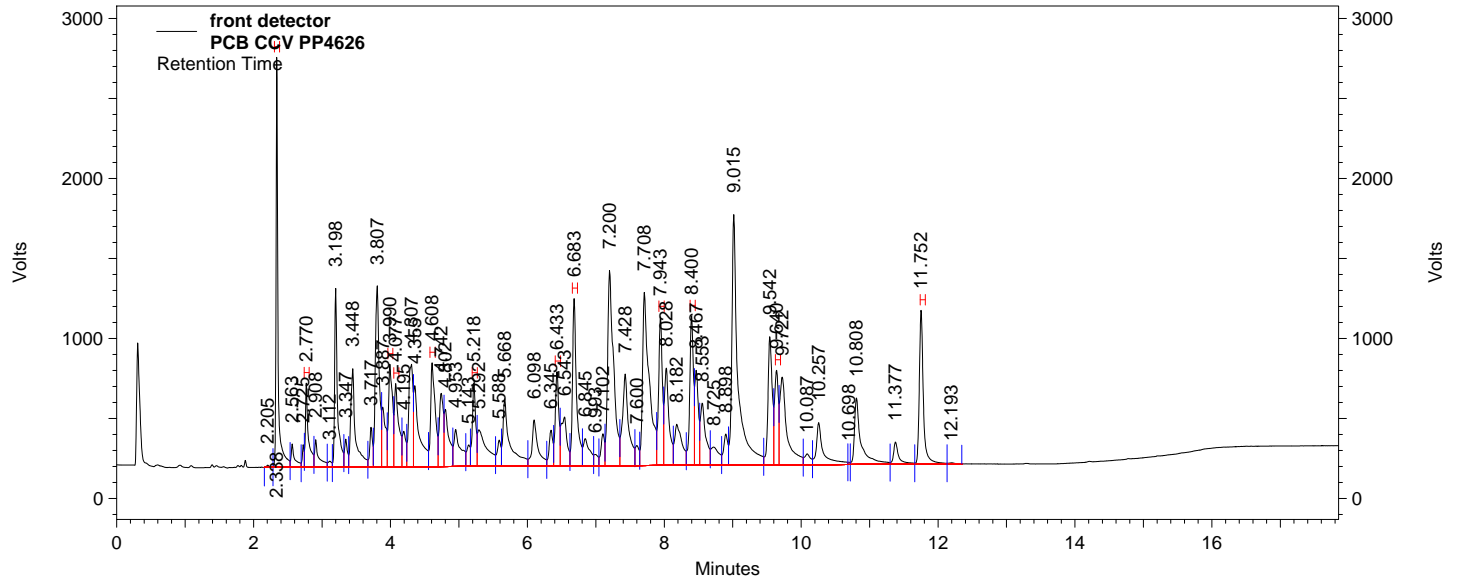
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	110.742	10.742	20.000	Passed
Aroclor 1016 #1	0.100	0.112	12.292	20.000	Passed
Aroclor 1016 #2	0.100	0.109	9.018	20.000	Passed
Aroclor 1016 #3	0.100	0.110	10.225	20.000	Passed
Aroclor 1016 #4	0.100	0.111	10.944	20.000	Passed
Aroclor 1016 #5	0.100	0.116	15.889	20.000	Passed
Aroclor 1260 #1	0.100	0.112	12.497	20.000	Passed
Aroclor 1260 #2	0.100	0.112	12.493	20.000	Passed
Aroclor 1260 #3	0.100	0.114	13.513	20.000	Passed
Aroclor 1260 #4	0.100	0.112	12.181	20.000	Passed
Aroclor 1260 #5	0.100	0.105	4.931	20.000	Passed
SURRDCBPCB	100.000	111.284	11.284	20.000	Passed
Aroclor 1016	0.500	0.558	11.674	20.000	Passed
Aroclor 1260	0.500	0.556	11.123	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\036.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 01,2015 22:57:10
Printed: Sep 02,2015 09:37:52

Data Summary: {Data Description}



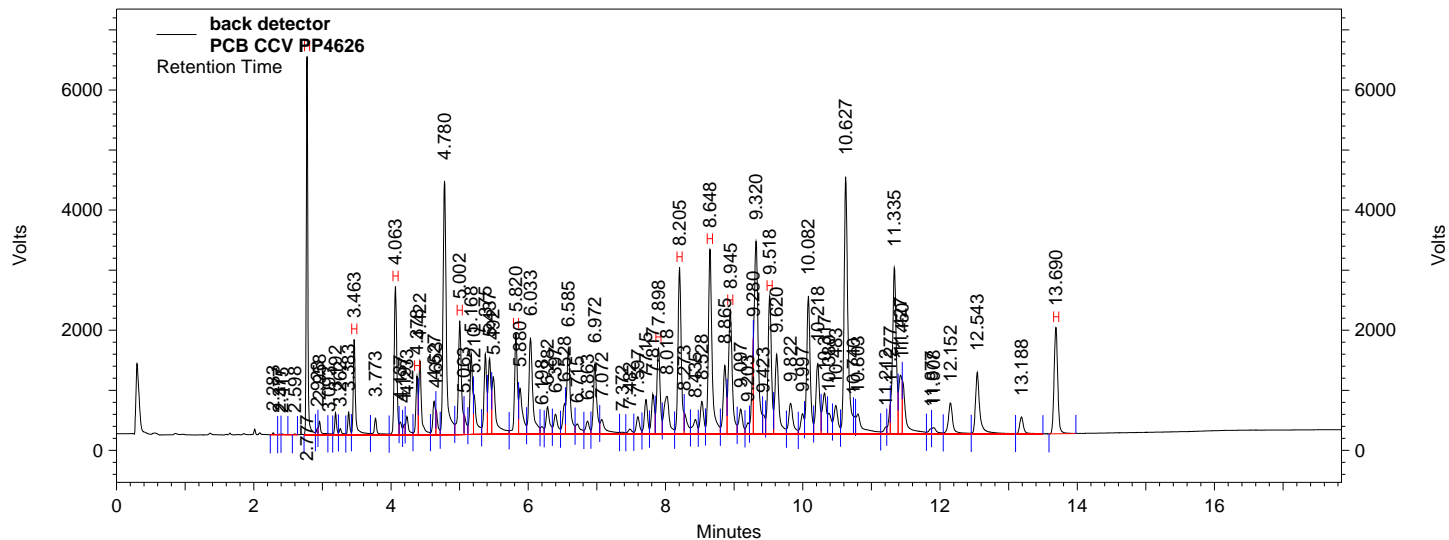
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.338	38933543	100.130
Aroclor 1016 #1	2.770	12274950	0.091
Aroclor 1016 #2	3.990	19804713	0.094
Aroclor 1016 #3	4.077	17773358	0.104
Aroclor 1016 #4	4.608	23167262	0.103
Aroclor 1016 #5	5.218	13876975	0.122
Aroclor 1260 #1	6.433	16069226	0.105
Aroclor 1260 #2	6.683	34117248	0.107
Aroclor 1260 #3	7.943	27124448	0.100
Aroclor 1260 #4	8.400	26682652	0.096
Aroclor 1260 #5	9.640	17382491	0.101
SURRDCBPCB	11.752	30882913	110.346
Aroclor 1016		86897258	0.514
Aroclor 1260		121376065	0.510

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\036.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 01,2015 22:57:10
 Printed: Sep 02,2015 09:37:52

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	75409249	110.742
Aroclor 1016 #1	3.463	27415253	0.112
Aroclor 1016 #2	4.063	50163735	0.109
Aroclor 1016 #3	4.378	15571441	0.110
Aroclor 1016 #4	5.002	46771268	0.111
Aroclor 1016 #5	5.820	37318364	0.116
Aroclor 1260 #1	7.898	36834992	0.112
Aroclor 1260 #2	8.205	71037807	0.112
Aroclor 1260 #3	8.648	88900607	0.114
Aroclor 1260 #4	8.945	61023106	0.112
Aroclor 1260 #5	9.518	61765478	0.105
SURRDCBPCB	13.690	50000886	111.284
Aroclor 1016		177240061	0.558
Aroclor 1260		319561990	0.556

QC Check Standard Report

Page 1 of 1 (103)

Sequence : C:\Instarch\Semi7\Sequence\090115pcb.seq
User : JJY
Printed : Sep 02,2015 09:38:26

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090115pcb\047.dat	PCB CCV PP4626	Sep 02,2015 09:38:26

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	100.241	0.241	20.000	Passed
Aroclor 1016 #1	0.100	0.090	9.858	20.000	Passed
Aroclor 1016 #2	0.100	0.092	7.614	20.000	Passed
Aroclor 1016 #3	0.100	0.103	2.685	20.000	Passed
Aroclor 1016 #4	0.100	0.102	1.813	20.000	Passed
Aroclor 1016 #5	0.100	0.113	12.644	20.000	Passed
Aroclor 1260 #1	0.100	0.107	6.756	20.000	Passed
Aroclor 1260 #2	0.100	0.106	6.070	20.000	Passed
Aroclor 1260 #3	0.100	0.106	5.816	20.000	Passed
Aroclor 1260 #4	0.100	0.100	0.013	20.000	Passed
Aroclor 1260 #5	0.100	0.109	9.299	20.000	Passed
SURRDCBPCB	100.000	107.354	7.354	20.000	Passed
Aroclor 1016	0.500	0.500	0.066	20.000	Passed
Aroclor 1260	0.500	0.528	5.591	20.000	Passed

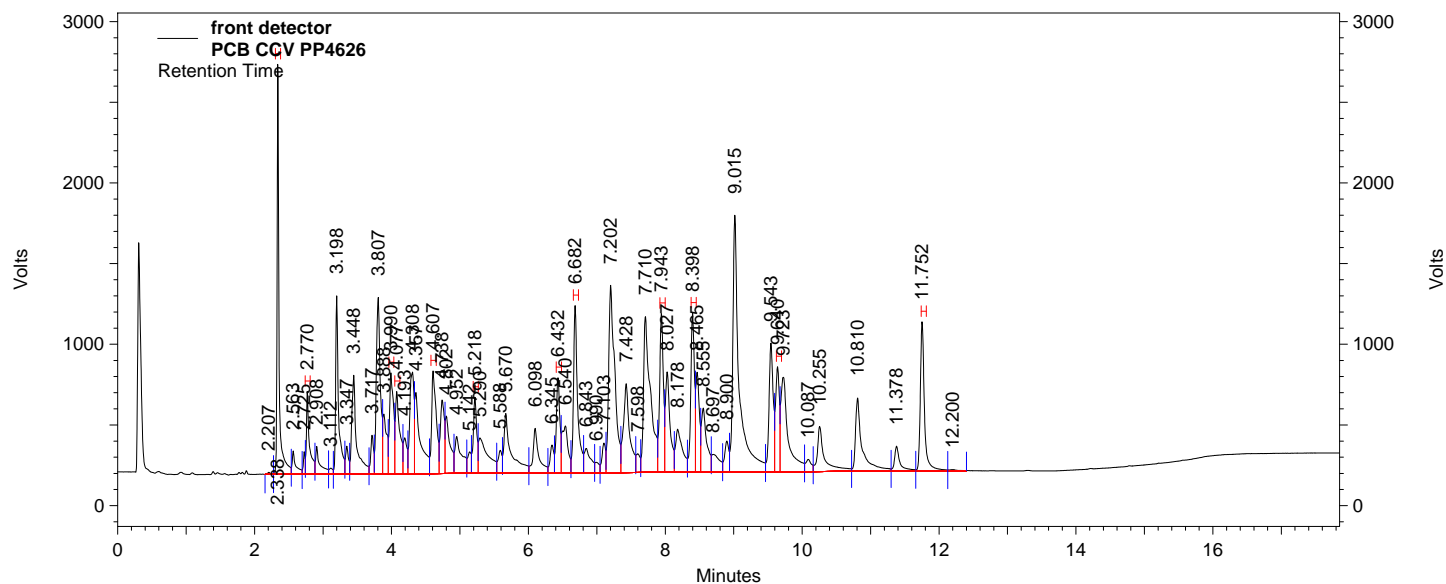
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	111.429	11.429	20.000	Passed
Aroclor 1016 #1	0.100	0.112	11.932	20.000	Passed
Aroclor 1016 #2	0.100	0.110	9.586	20.000	Passed
Aroclor 1016 #3	0.100	0.109	8.695	20.000	Passed
Aroclor 1016 #4	0.100	0.111	10.779	20.000	Passed
Aroclor 1016 #5	0.100	0.114	13.830	20.000	Passed
Aroclor 1260 #1	0.100	0.115	14.677	20.000	Passed
Aroclor 1260 #2	0.100	0.112	11.667	20.000	Passed
Aroclor 1260 #3	0.100	0.112	11.837	20.000	Passed
Aroclor 1260 #4	0.100	0.113	13.218	20.000	Passed
Aroclor 1260 #5	0.100	0.112	12.228	20.000	Passed
SURRDCBPCB	100.000	107.992	7.992	20.000	Passed
Aroclor 1016	0.500	0.555	10.964	20.000	Passed
Aroclor 1260	0.500	0.564	12.725	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\047.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 02,2015 02:53:22
Printed: Sep 02,2015 09:38:23

Data Summary: {Data Description}



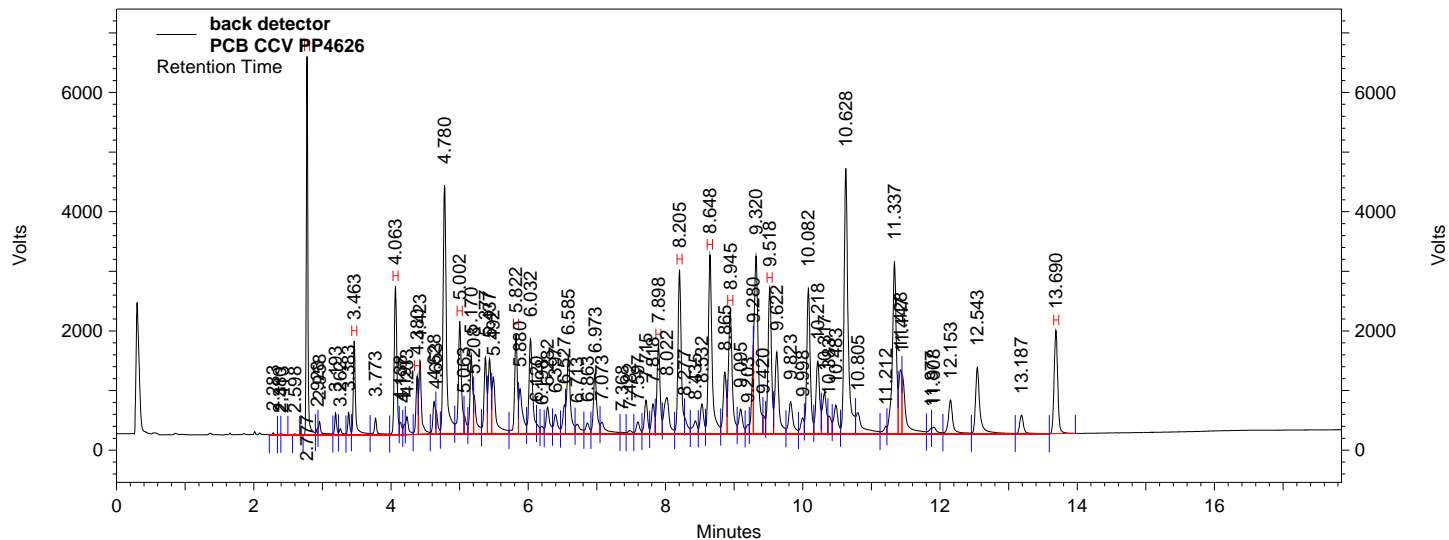
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.338	38975460	100.241
Aroclor 1016 #1	2.770	12109539	0.090
Aroclor 1016 #2	3.990	19458239	0.092
Aroclor 1016 #3	4.077	17578243	0.103
Aroclor 1016 #4	4.607	22987492	0.102
Aroclor 1016 #5	5.218	12875864	0.113
Aroclor 1260 #1	6.432	16271841	0.107
Aroclor 1260 #2	6.682	33731730	0.106
Aroclor 1260 #3	7.943	28656907	0.106
Aroclor 1260 #4	8.398	27770728	0.100
Aroclor 1260 #5	9.640	18752453	0.109
SURRDCBPCB	11.752	30070984	107.354
Aroclor 1016		85009377	0.500
Aroclor 1260		125183659	0.528

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\047.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 02,2015 02:53:22
 Printed: Sep 02,2015 09:38:23

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	75868552	111.429
Aroclor 1016 #1	3.463	27329853	0.112
Aroclor 1016 #2	4.063	50415697	0.110
Aroclor 1016 #3	4.380	15363404	0.109
Aroclor 1016 #4	5.002	46703696	0.111
Aroclor 1016 #5	5.822	36675905	0.114
Aroclor 1260 #1	7.898	37530327	0.115
Aroclor 1260 #2	8.205	70536264	0.112
Aroclor 1260 #3	8.648	87623503	0.112
Aroclor 1260 #4	8.945	61572895	0.113
Aroclor 1260 #5	9.518	65935017	0.112
SURRDCBPCB	13.690	48567053	107.992
Aroclor 1016		176488555	0.555
Aroclor 1260		323198006	0.564

QC Check Standard Report

Page 1 of 1 (122)

Sequence : C:\Instarch\Semi7\Sequence\090115pcb.seq
 User : JJY
 Printed : Sep 02,2015 09:38:53

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090115pcb\056.dat	PCB CCV PP4626	Sep 02,2015 09:38:53

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	99.849	0.151	20.000	Passed
Aroclor 1016 #1	0.100	0.090	10.278	20.000	Passed
Aroclor 1016 #2	0.100	0.092	8.064	20.000	Passed
Aroclor 1016 #3	0.100	0.103	2.804	20.000	Passed
Aroclor 1016 #4	0.100	0.102	2.148	20.000	Passed
Aroclor 1016 #5	0.100	0.121	21.456	20.000	FAILED
Aroclor 1260 #1	0.100	0.105	5.497	20.000	Passed
Aroclor 1260 #2	0.100	0.107	6.722	20.000	Passed
Aroclor 1260 #3	0.100	0.099	1.149	20.000	Passed
Aroclor 1260 #4	0.100	0.094	6.036	20.000	Passed
Aroclor 1260 #5	0.100	0.104	3.851	20.000	Passed
SURRDCBPCB	100.000	106.861	6.861	20.000	Passed
Aroclor 1016	0.500	0.508	1.613	20.000	Passed
Aroclor 1260	0.500	0.509	1.777	20.000	Passed

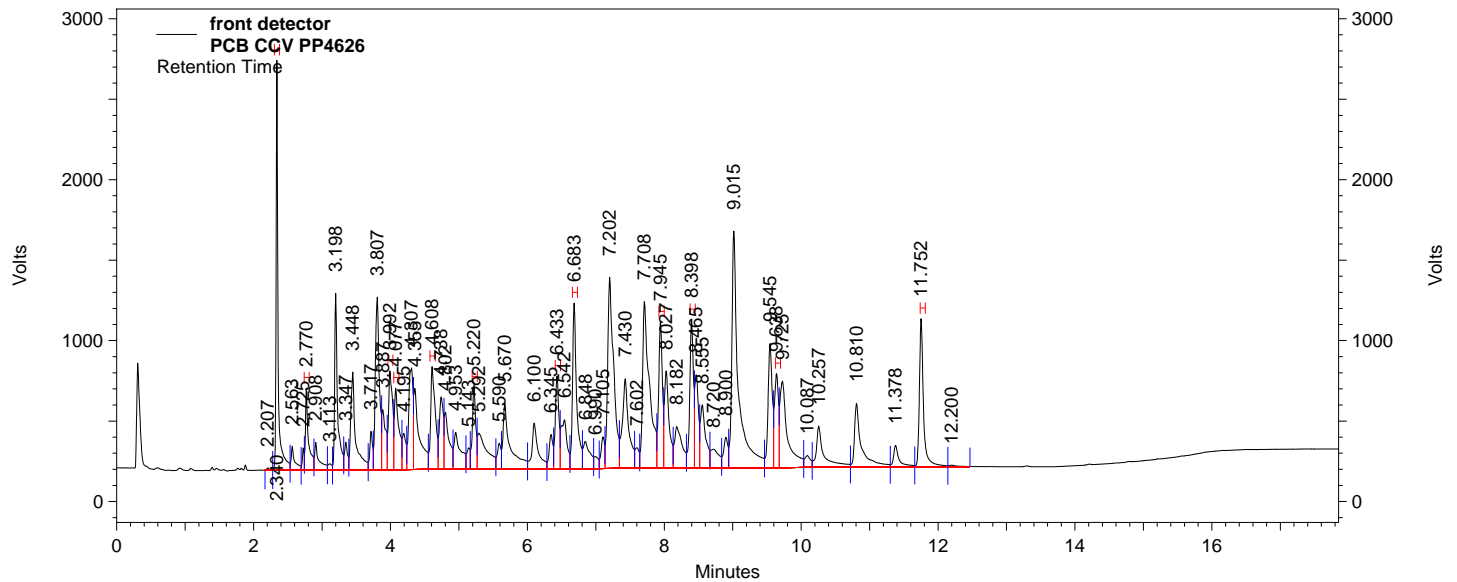
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	111.728	11.728	20.000	Passed
Aroclor 1016 #1	0.100	0.112	12.383	20.000	Passed
Aroclor 1016 #2	0.100	0.109	9.452	20.000	Passed
Aroclor 1016 #3	0.100	0.112	11.704	20.000	Passed
Aroclor 1016 #4	0.100	0.110	10.307	20.000	Passed
Aroclor 1016 #5	0.100	0.115	15.352	20.000	Passed
Aroclor 1260 #1	0.100	0.113	12.920	20.000	Passed
Aroclor 1260 #2	0.100	0.112	12.370	20.000	Passed
Aroclor 1260 #3	0.100	0.114	13.969	20.000	Passed
Aroclor 1260 #4	0.100	0.113	13.051	20.000	Passed
Aroclor 1260 #5	0.100	0.105	5.368	20.000	Passed
SURRDCBPCB	100.000	107.103	7.103	20.000	Passed
Aroclor 1016	0.500	0.559	11.840	20.000	Passed
Aroclor 1260	0.500	0.558	11.536	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\056.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 02,2015 06:06:20
Printed: Sep 02,2015 09:38:51

Data Summary: {Data Description}



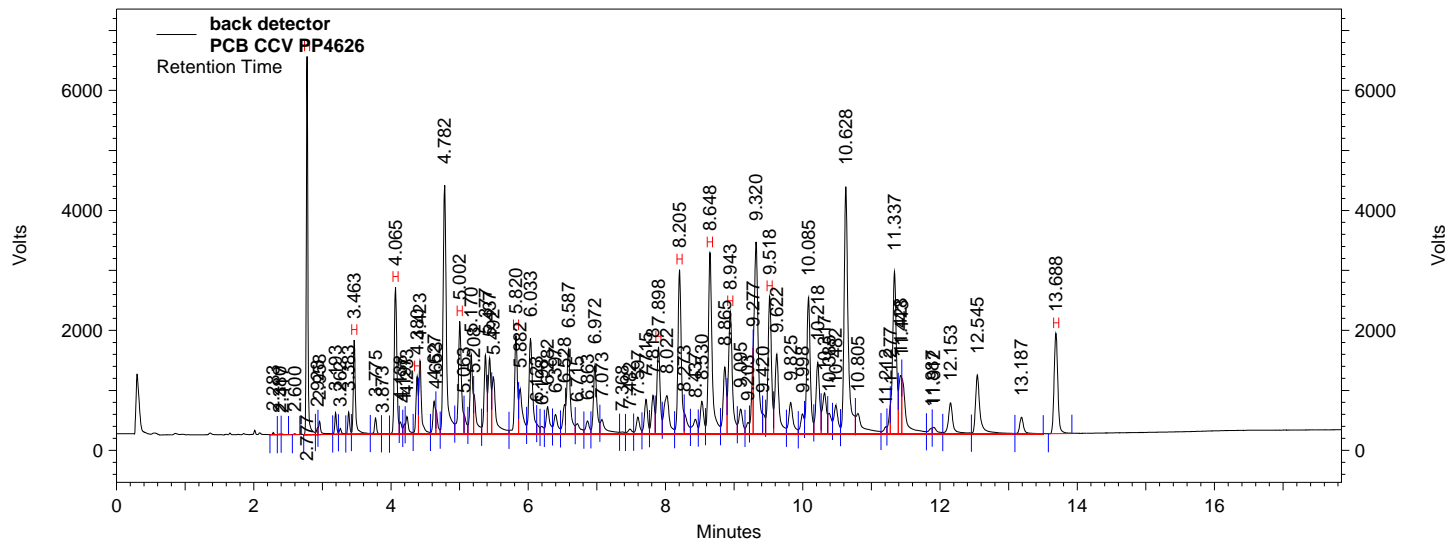
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	38827182	99.849
Aroclor 1016 #1	2.770	12055198	0.090
Aroclor 1016 #2	3.992	19366680	0.092
Aroclor 1016 #3	4.077	17597704	0.103
Aroclor 1016 #4	4.608	23059778	0.102
Aroclor 1016 #5	5.220	13847591	0.121
Aroclor 1260 #1	6.433	16086042	0.105
Aroclor 1260 #2	6.683	33932286	0.107
Aroclor 1260 #3	7.945	26833167	0.099
Aroclor 1260 #4	8.398	26142249	0.094
Aroclor 1260 #5	9.638	17851384	0.104
SURRDCBPCB	11.752	29937084	106.861
Aroclor 1016		85926951	0.508
Aroclor 1260		120845128	0.509

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\056.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 02,2015 06:06:20
 Printed: Sep 02,2015 09:38:51

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	76069290	111.728
Aroclor 1016 #1	3.463	27436862	0.112
Aroclor 1016 #2	4.065	50356377	0.109
Aroclor 1016 #3	4.380	15772592	0.112
Aroclor 1016 #4	5.002	46510605	0.110
Aroclor 1016 #5	5.820	37150659	0.115
Aroclor 1260 #1	7.898	36969849	0.113
Aroclor 1260 #2	8.205	70962866	0.112
Aroclor 1260 #3	8.648	89248442	0.114
Aroclor 1260 #4	8.943	61484611	0.113
Aroclor 1260 #5	9.518	62014899	0.105
SURRDCBPCB	13.688	48179714	107.103
Aroclor 1016		177227095	0.559
Aroclor 1260		320680667	0.558

QC Check Standard Report

Page 1 of 1 (9)

Sequence : C:\Instarch\Semi7\Sequence\090115pcb.seq
 User : JJY
 Printed : Sep 02,2015 15:04:12

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090115pcb\068.dat	PCB CCV PP4626	Sep 02,2015 15:04:12

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	99.778	0.222	20.000	Passed
Aroclor 1016 #1	0.100	0.088	11.951	20.000	Passed
Aroclor 1016 #2	0.100	0.091	9.368	20.000	Passed
Aroclor 1016 #3	0.100	0.103	2.847	20.000	Passed
Aroclor 1016 #4	0.100	0.101	1.033	20.000	Passed
Aroclor 1016 #5	0.100	0.120	20.192	20.000	FAILED
Aroclor 1260 #1	0.100	0.105	4.755	20.000	Passed
Aroclor 1260 #2	0.100	0.108	7.979	20.000	Passed
Aroclor 1260 #3	0.100	0.101	0.527	20.000	Passed
Aroclor 1260 #4	0.100	0.093	7.176	20.000	Passed
Aroclor 1260 #5	0.100	0.102	2.246	20.000	Passed
SURRDCBPCB	100.000	108.592	8.592	20.000	Passed
Aroclor 1016	0.500	0.503	0.550	20.000	Passed
Aroclor 1260	0.500	0.508	1.666	20.000	Passed

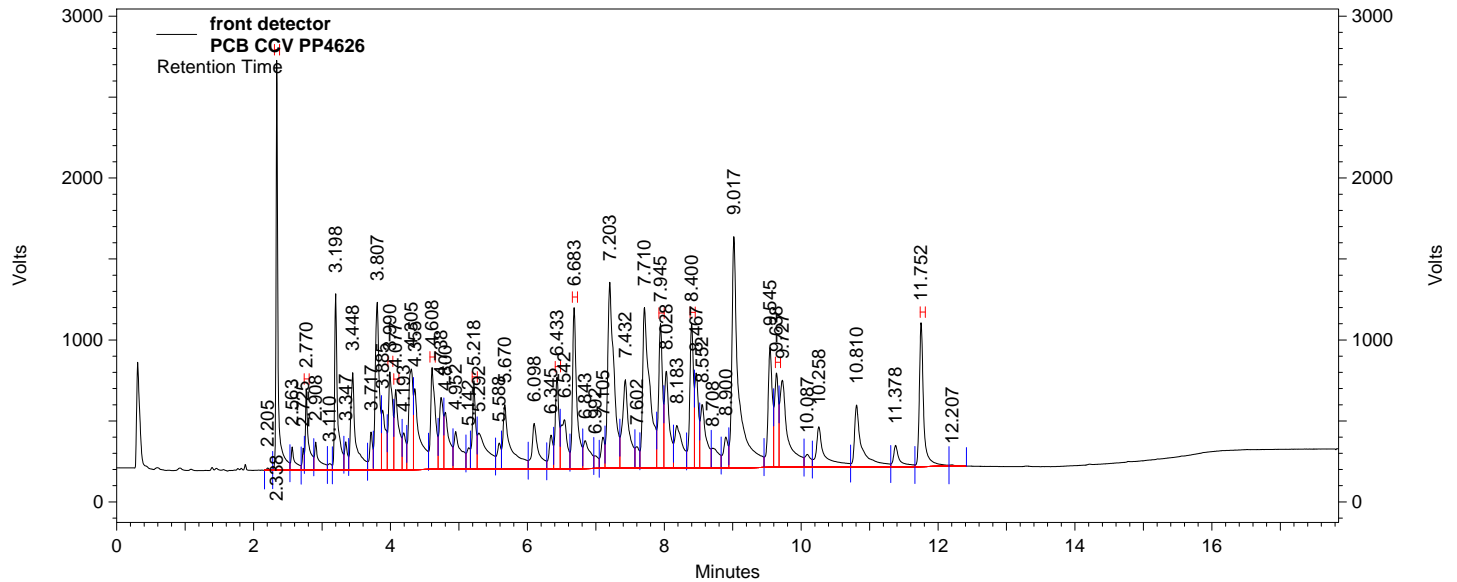
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	111.615	11.615	20.000	Passed
Aroclor 1016 #1	0.100	0.113	12.601	20.000	Passed
Aroclor 1016 #2	0.100	0.109	9.433	20.000	Passed
Aroclor 1016 #3	0.100	0.109	8.976	20.000	Passed
Aroclor 1016 #4	0.100	0.110	9.999	20.000	Passed
Aroclor 1016 #5	0.100	0.115	14.685	20.000	Passed
Aroclor 1260 #1	0.100	0.113	12.819	20.000	Passed
Aroclor 1260 #2	0.100	0.113	13.202	20.000	Passed
Aroclor 1260 #3	0.100	0.114	13.777	20.000	Passed
Aroclor 1260 #4	0.100	0.113	13.217	20.000	Passed
Aroclor 1260 #5	0.100	0.106	5.916	20.000	Passed
SURRDCBPCB	100.000	108.285	8.285	20.000	Passed
Aroclor 1016	0.500	0.556	11.139	20.000	Passed
Aroclor 1260	0.500	0.559	11.786	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\068.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 02,2015 10:23:51
Printed: Sep 02,2015 15:04:05

Data Summary: {Data Description}



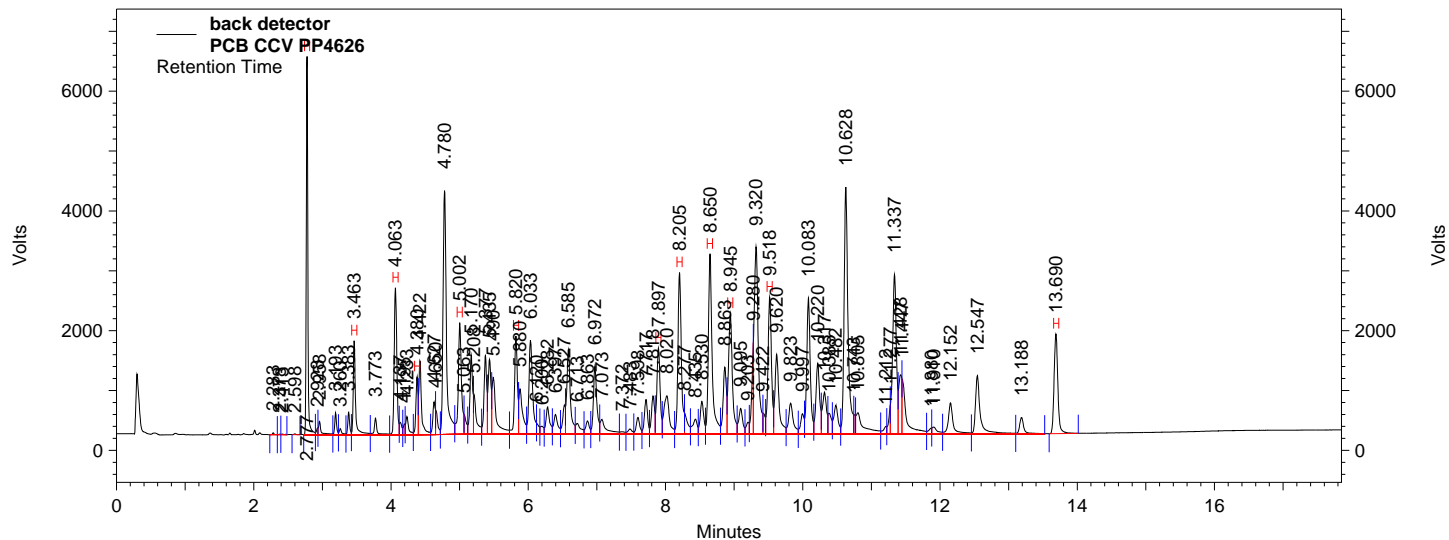
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.338	38800152	99.778
Aroclor 1016 #1	2.770	11838992	0.088
Aroclor 1016 #2	3.990	19101080	0.091
Aroclor 1016 #3	4.077	17604785	0.103
Aroclor 1016 #4	4.608	22819043	0.101
Aroclor 1016 #5	5.218	13708191	0.120
Aroclor 1260 #1	6.433	15976611	0.105
Aroclor 1260 #2	6.683	34318472	0.108
Aroclor 1260 #3	7.945	27272180	0.101
Aroclor 1260 #4	8.400	25835401	0.093
Aroclor 1260 #5	9.638	17585929	0.102
SURRDCBPCB	11.752	30407043	108.592
Aroclor 1016		85072091	0.503
Aroclor 1260		120988593	0.508

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\068.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 02,2015 10:23:51
Printed: Sep 02,2015 15:04:05

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	75993690	111.615
Aroclor 1016 #1	3.463	27488647	0.113
Aroclor 1016 #2	4.063	50347892	0.109
Aroclor 1016 #3	4.380	15401573	0.109
Aroclor 1016 #4	5.002	46384419	0.110
Aroclor 1016 #5	5.820	36942690	0.115
Aroclor 1260 #1	7.897	36937674	0.113
Aroclor 1260 #2	8.205	71468276	0.113
Aroclor 1260 #3	8.650	89101986	0.114
Aroclor 1260 #4	8.945	61572633	0.113
Aroclor 1260 #5	9.518	62328074	0.106
SURRDCBPCB	13.690	48694661	108.285
Aroclor 1016		176565221	0.556
Aroclor 1260		321408643	0.559

QC Check Standard Report

Page 1 of 1 (7)

Sequence : C:\Instarch\Semi7\Sequence\090215PCB.seq
 User : JJY
 Printed : Sep 03,2015 14:33:44

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090215pcb\003.dat	PCB CCV PP4626	Sep 03,2015 14:33:44

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	100.169	0.169	20.000	Passed
Aroclor 1016 #1	0.100	0.090	9.618	20.000	Passed
Aroclor 1016 #2	0.100	0.091	9.077	20.000	Passed
Aroclor 1016 #3	0.100	0.105	4.648	20.000	Passed
Aroclor 1016 #4	0.100	0.102	2.281	20.000	Passed
Aroclor 1016 #5	0.100	0.123	23.149	20.000	FAILED
Aroclor 1260 #1	0.100	0.108	7.501	20.000	Passed
Aroclor 1260 #2	0.100	0.108	7.962	20.000	Passed
Aroclor 1260 #3	0.100	0.100	0.075	20.000	Passed
Aroclor 1260 #4	0.100	0.092	7.798	20.000	Passed
Aroclor 1260 #5	0.100	0.106	6.198	20.000	Passed
SURRDCBPCB	100.000	107.233	7.233	20.000	Passed
Aroclor 1016	0.500	0.511	2.276	20.000	Passed
Aroclor 1260	0.500	0.514	2.758	20.000	Passed

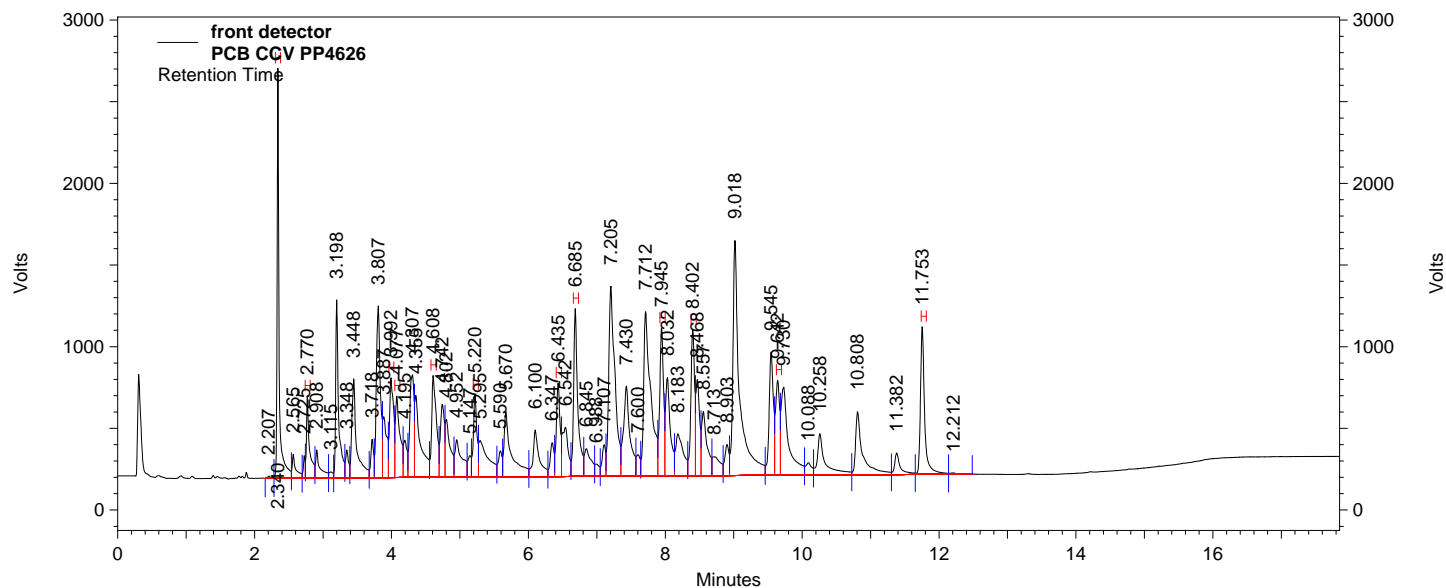
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	111.217	11.217	20.000	Passed
Aroclor 1016 #1	0.100	0.113	12.624	20.000	Passed
Aroclor 1016 #2	0.100	0.110	9.655	20.000	Passed
Aroclor 1016 #3	0.100	0.111	11.284	20.000	Passed
Aroclor 1016 #4	0.100	0.110	9.918	20.000	Passed
Aroclor 1016 #5	0.100	0.115	14.955	20.000	Passed
Aroclor 1260 #1	0.100	0.112	12.204	20.000	Passed
Aroclor 1260 #2	0.100	0.112	11.636	20.000	Passed
Aroclor 1260 #3	0.100	0.113	12.966	20.000	Passed
Aroclor 1260 #4	0.100	0.113	12.713	20.000	Passed
Aroclor 1260 #5	0.100	0.105	5.068	20.000	Passed
SURRDCBPCB	100.000	106.981	6.981	20.000	Passed
Aroclor 1016	0.500	0.558	11.687	20.000	Passed
Aroclor 1260	0.500	0.555	10.917	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 02,2015 15:58:27
Printed: Sep 03,2015 14:33:42

Data Summary: {Data Description}



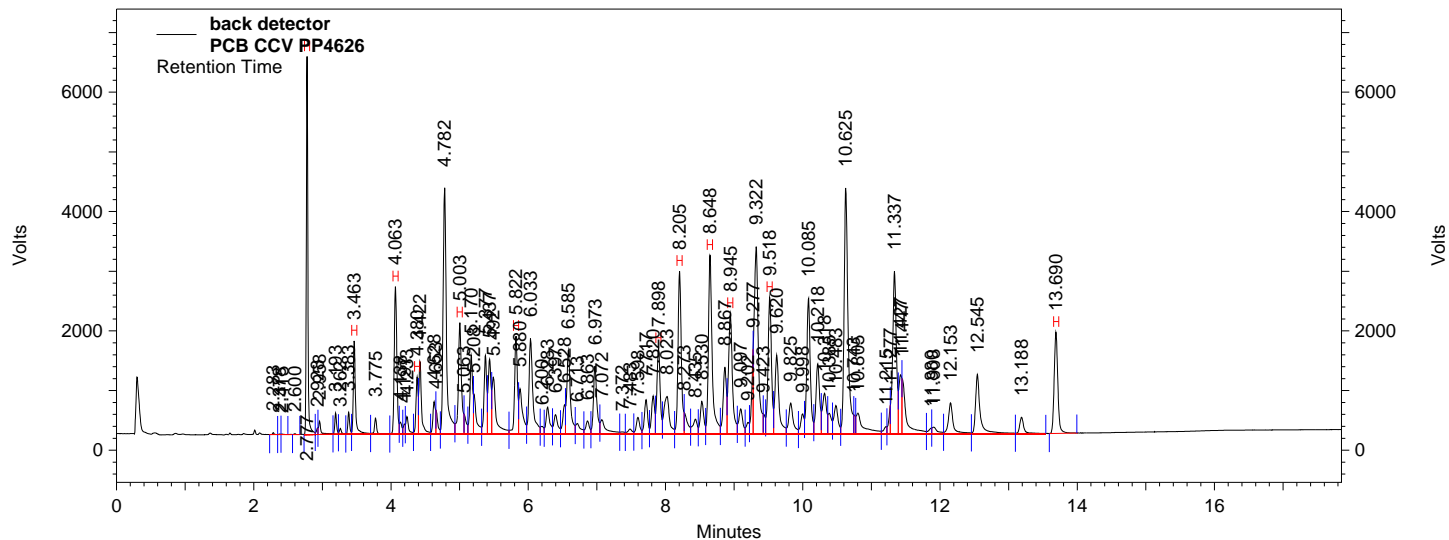
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	38948338	100.169
Aroclor 1016 #1	2.770	12140496	0.090
Aroclor 1016 #2	3.992	19160478	0.091
Aroclor 1016 #3	4.077	17899766	0.105
Aroclor 1016 #4	4.608	23088384	0.102
Aroclor 1016 #5	5.220	14034306	0.123
Aroclor 1260 #1	6.435	16381841	0.108
Aroclor 1260 #2	6.685	34313345	0.108
Aroclor 1260 #3	7.945	27114361	0.100
Aroclor 1260 #4	8.402	25668097	0.092
Aroclor 1260 #5	9.642	18239580	0.106
SURRDCBPCB	11.753	30038087	107.233
Aroclor 1016		86323430	0.511
Aroclor 1260		121717224	0.514

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\003.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 02,2015 15:58:27
 Printed: Sep 03,2015 14:33:42

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	75726905	111.217
Aroclor 1016 #1	3.463	27494193	0.113
Aroclor 1016 #2	4.063	50446599	0.110
Aroclor 1016 #3	4.380	15715508	0.111
Aroclor 1016 #4	5.003	46351239	0.110
Aroclor 1016 #5	5.822	37026824	0.115
Aroclor 1260 #1	7.898	36741476	0.112
Aroclor 1260 #2	8.205	70517209	0.112
Aroclor 1260 #3	8.648	88483556	0.113
Aroclor 1260 #4	8.945	61304845	0.113
Aroclor 1260 #5	9.518	61843924	0.105
SURRDCBPCB	13.690	48126560	106.981
Aroclor 1016		177034363	0.558
Aroclor 1260		318891010	0.555

QC Check Standard Report

Page 1 of 1 (32)

Sequence : C:\Instarch\Semi7\Sequence\090215PCB.seq
 User : JJY
 Printed : Sep 03,2015 14:34:16

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090215pcb\015.dat	PCB CCV PP4626	Sep 03,2015 14:34:16

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	101.348	1.348	20.000	Passed
Aroclor 1016 #1	0.100	0.090	10.135	20.000	Passed
Aroclor 1016 #2	0.100	0.090	9.521	20.000	Passed
Aroclor 1016 #3	0.100	0.105	5.446	20.000	Passed
Aroclor 1016 #4	0.100	0.102	2.296	20.000	Passed
Aroclor 1016 #5	0.100	0.124	24.195	20.000	FAILED
Aroclor 1260 #1	0.100	0.108	8.380	20.000	Passed
Aroclor 1260 #2	0.100	0.110	9.681	20.000	Passed
Aroclor 1260 #3	0.100	0.101	1.464	20.000	Passed
Aroclor 1260 #4	0.100	0.093	6.850	20.000	Passed
Aroclor 1260 #5	0.100	0.105	4.735	20.000	Passed
SURRDCBPCB	100.000	108.197	8.197	20.000	Passed
Aroclor 1016	0.500	0.512	2.456	20.000	Passed
Aroclor 1260	0.500	0.517	3.482	20.000	Passed

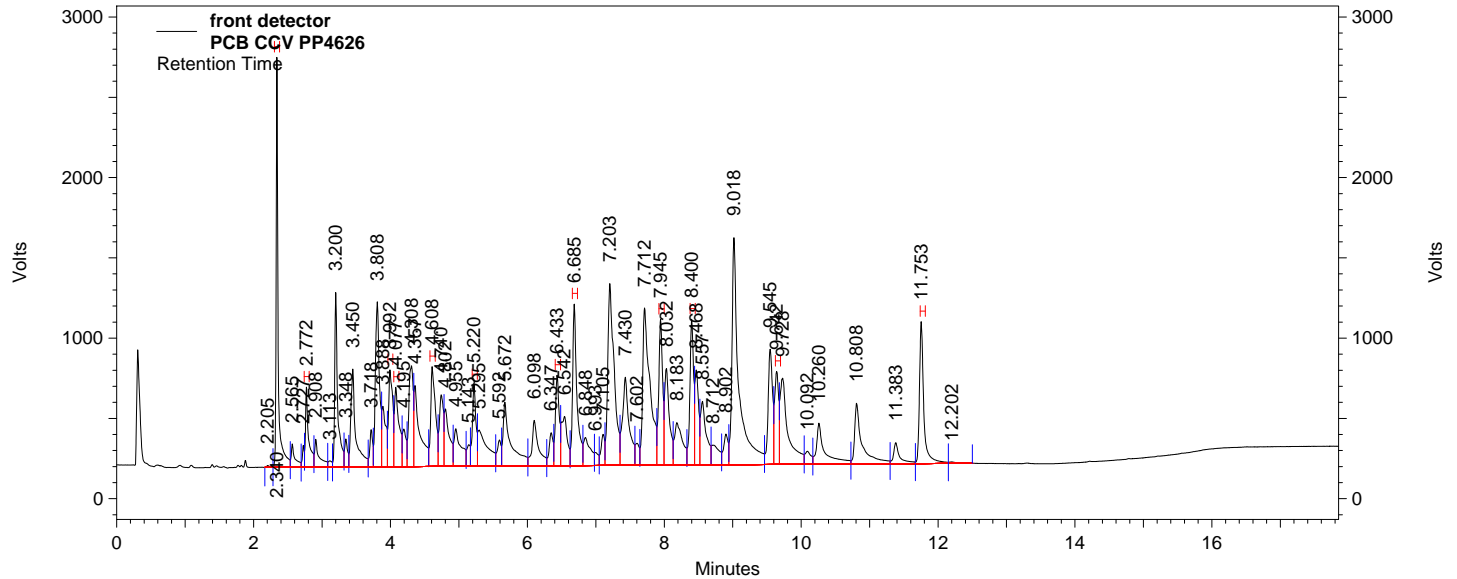
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	113.704	13.704	20.000	Passed
Aroclor 1016 #1	0.100	0.115	14.870	20.000	Passed
Aroclor 1016 #2	0.100	0.112	11.823	20.000	Passed
Aroclor 1016 #3	0.100	0.114	13.828	20.000	Passed
Aroclor 1016 #4	0.100	0.112	12.202	20.000	Passed
Aroclor 1016 #5	0.100	0.117	16.563	20.000	Passed
Aroclor 1260 #1	0.100	0.114	14.375	20.000	Passed
Aroclor 1260 #2	0.100	0.113	13.450	20.000	Passed
Aroclor 1260 #3	0.100	0.115	15.278	20.000	Passed
Aroclor 1260 #4	0.100	0.114	14.452	20.000	Passed
Aroclor 1260 #5	0.100	0.107	6.898	20.000	Passed
SURRDCBPCB	100.000	108.031	8.031	20.000	Passed
Aroclor 1016	0.500	0.569	13.857	20.000	Passed
Aroclor 1260	0.500	0.564	12.891	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 02,2015 20:16:20
Printed: Sep 03,2015 14:34:15

Data Summary: {Data Description}



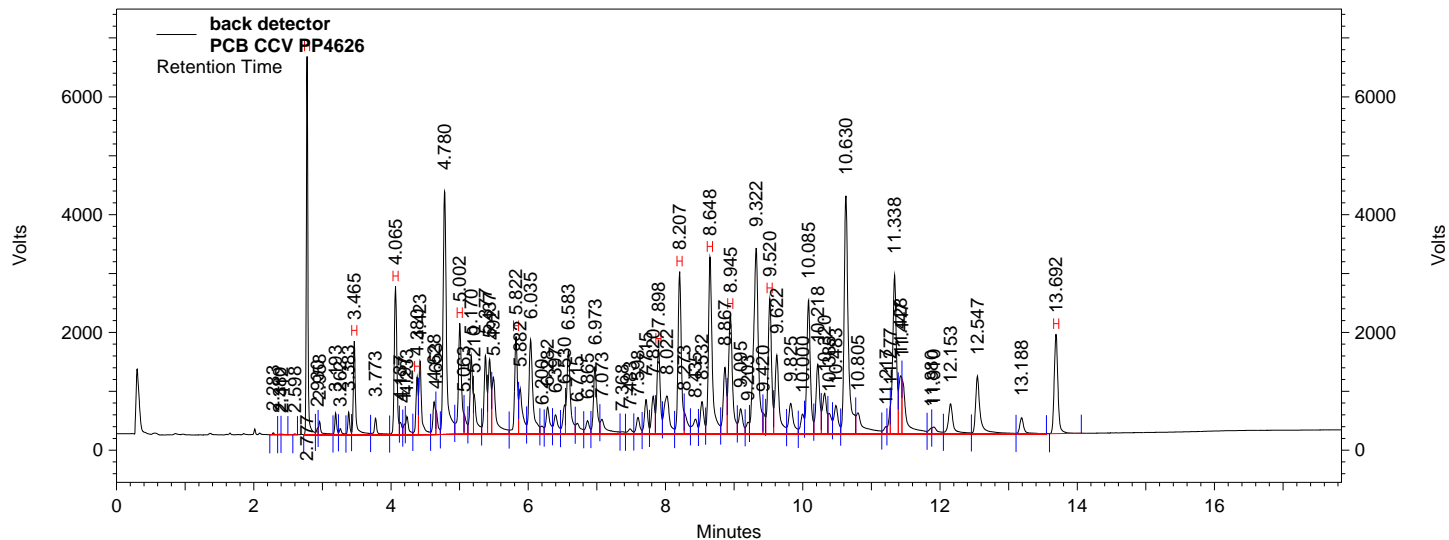
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	39394444	101.348
Aroclor 1016 #1	2.772	12073746	0.090
Aroclor 1016 #2	3.992	19069910	0.090
Aroclor 1016 #3	4.077	18030370	0.105
Aroclor 1016 #4	4.608	23091805	0.102
Aroclor 1016 #5	5.220	14149728	0.124
Aroclor 1260 #1	6.433	16511527	0.108
Aroclor 1260 #2	6.685	34841296	0.110
Aroclor 1260 #3	7.945	27517385	0.101
Aroclor 1260 #4	8.400	25923178	0.093
Aroclor 1260 #5	9.642	17997624	0.105
SURRDCBPCB	11.753	30299673	108.197
Aroclor 1016		86415559	0.512
Aroclor 1260		122791010	0.517

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\015.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 02,2015 20:16:20
 Printed: Sep 03,2015 14:34:15

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	77392040	113.704
Aroclor 1016 #1	3.465	28027344	0.115
Aroclor 1016 #2	4.065	51407961	0.112
Aroclor 1016 #3	4.380	16061285	0.114
Aroclor 1016 #4	5.002	47285802	0.112
Aroclor 1016 #5	5.822	37528714	0.117
Aroclor 1260 #1	7.898	37434075	0.114
Aroclor 1260 #2	8.207	71618736	0.113
Aroclor 1260 #3	8.648	90246049	0.115
Aroclor 1260 #4	8.945	62227665	0.114
Aroclor 1260 #5	9.520	62889706	0.107
SURRDCBPCB	13.692	48583928	108.031
Aroclor 1016		180311106	0.569
Aroclor 1260		324416231	0.564

QC Check Standard Report

Page 1 of 1 (85)

Sequence : C:\Instarch\Semi7\Sequence\090215PCB.seq
 User : JJY
 Printed : Sep 03,2015 14:35:34

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090215pcb\040.dat	PCB CCV PP4626	Sep 03,2015 14:35:34

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	98.603	1.397	20.000	Passed
Aroclor 1016 #1	0.100	0.089	10.648	20.000	Passed
Aroclor 1016 #2	0.100	0.090	9.854	20.000	Passed
Aroclor 1016 #3	0.100	0.101	1.218	20.000	Passed
Aroclor 1016 #4	0.100	0.100	0.255	20.000	Passed
Aroclor 1016 #5	0.100	0.118	18.368	20.000	Passed
Aroclor 1260 #1	0.100	0.103	2.964	20.000	Passed
Aroclor 1260 #2	0.100	0.106	5.702	20.000	Passed
Aroclor 1260 #3	0.100	0.097	3.184	20.000	Passed
Aroclor 1260 #4	0.100	0.092	7.842	20.000	Passed
Aroclor 1260 #5	0.100	0.099	0.502	20.000	Passed
SURRDCBPCB	100.000	103.713	3.713	20.000	Passed
Aroclor 1016	0.500	0.499	0.132	20.000	Passed
Aroclor 1260	0.500	0.497	0.572	20.000	Passed

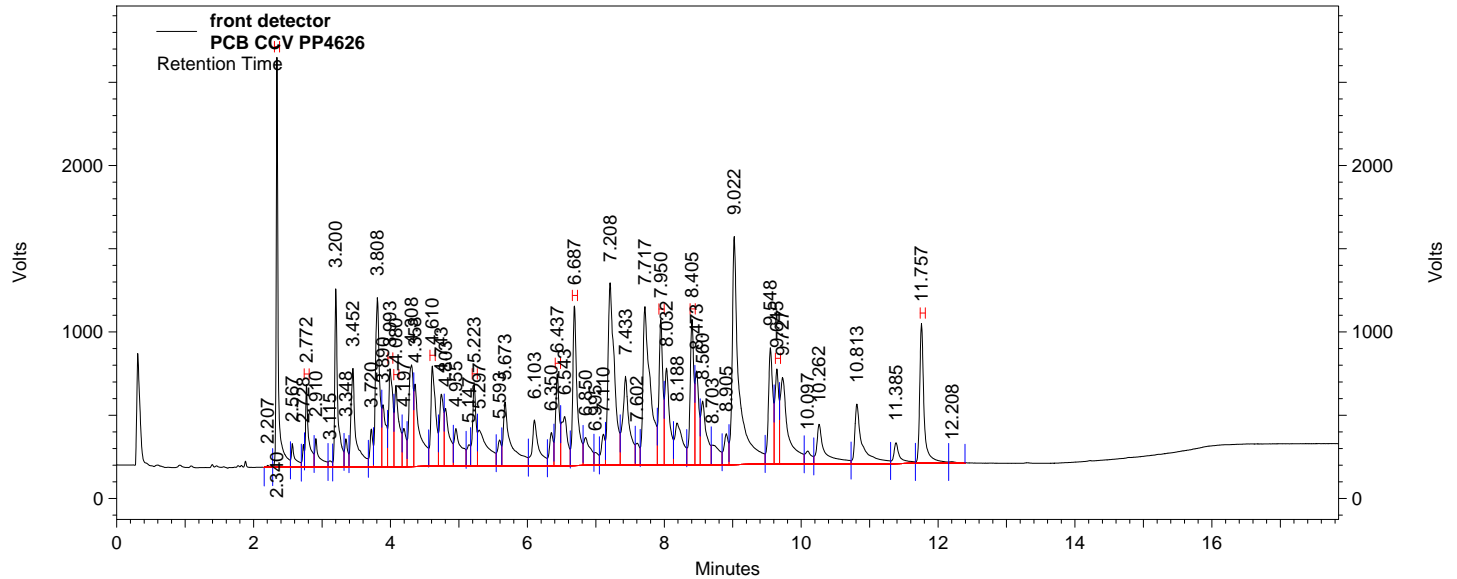
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	115.128	15.128	20.000	Passed
Aroclor 1016 #1	0.100	0.116	15.723	20.000	Passed
Aroclor 1016 #2	0.100	0.112	12.359	20.000	Passed
Aroclor 1016 #3	0.100	0.113	12.658	20.000	Passed
Aroclor 1016 #4	0.100	0.113	12.592	20.000	Passed
Aroclor 1016 #5	0.100	0.117	16.974	20.000	Passed
Aroclor 1260 #1	0.100	0.116	15.559	20.000	Passed
Aroclor 1260 #2	0.100	0.116	15.728	20.000	Passed
Aroclor 1260 #3	0.100	0.116	16.306	20.000	Passed
Aroclor 1260 #4	0.100	0.116	16.126	20.000	Passed
Aroclor 1260 #5	0.100	0.108	7.871	20.000	Passed
SURRDCBPCB	100.000	106.901	6.901	20.000	Passed
Aroclor 1016	0.500	0.570	14.061	20.000	Passed
Aroclor 1260	0.500	0.572	14.318	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\040.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 03,2015 09:52:18
Printed: Sep 03,2015 14:35:31

Data Summary: {Data Description}



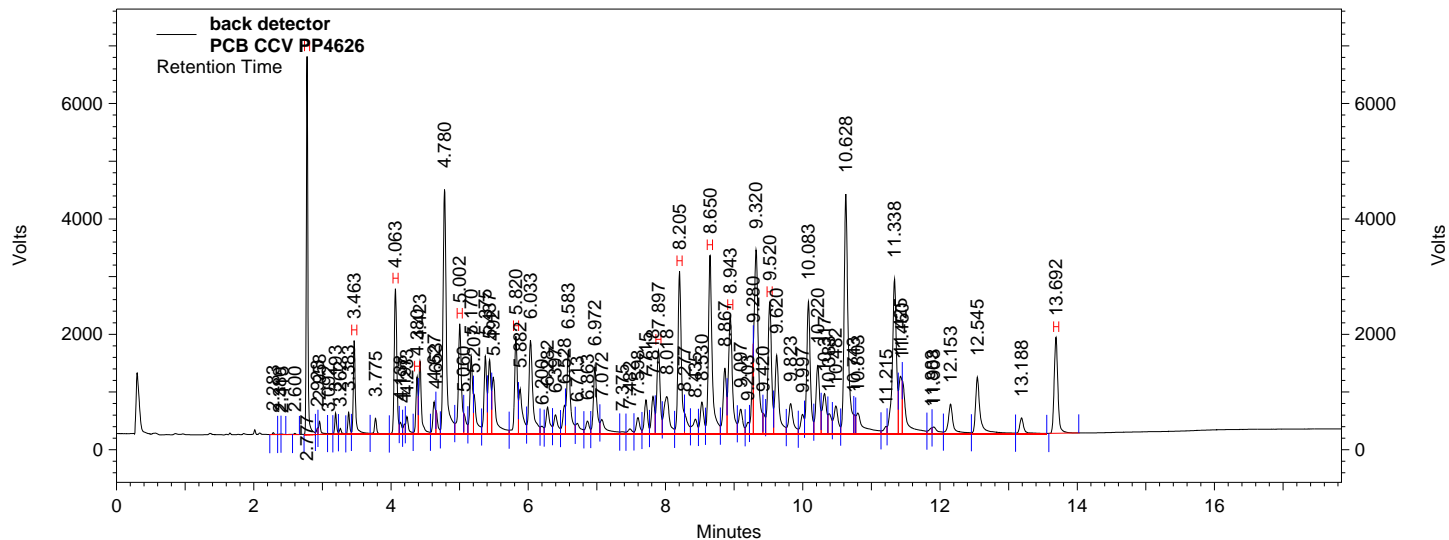
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	38355697	98.603
Aroclor 1016 #1	2.772	12007380	0.089
Aroclor 1016 #2	3.993	19002163	0.090
Aroclor 1016 #3	4.080	17337988	0.101
Aroclor 1016 #4	4.610	22651093	0.100
Aroclor 1016 #5	5.223	13507127	0.118
Aroclor 1260 #1	6.437	15712313	0.103
Aroclor 1260 #2	6.687	33618750	0.106
Aroclor 1260 #3	7.950	26300481	0.097
Aroclor 1260 #4	8.405	25656178	0.092
Aroclor 1260 #5	9.645	17131387	0.099
SURRDCBPCB	11.757	29082923	103.713
Aroclor 1016		84505751	0.499
Aroclor 1260		118419109	0.497

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\040.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 03,2015 09:52:18
 Printed: Sep 03,2015 14:35:31

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	78345053	115.128
Aroclor 1016 #1	3.463	28230071	0.116
Aroclor 1016 #2	4.063	51645664	0.112
Aroclor 1016 #3	4.380	15902313	0.113
Aroclor 1016 #4	5.002	47445254	0.113
Aroclor 1016 #5	5.820	37656879	0.117
Aroclor 1260 #1	7.897	37811602	0.116
Aroclor 1260 #2	8.205	73002028	0.116
Aroclor 1260 #3	8.650	91029844	0.116
Aroclor 1260 #4	8.943	63115218	0.116
Aroclor 1260 #5	9.520	63445294	0.108
SURRDCBPCB	13.692	48091389	106.901
Aroclor 1016		180880181	0.570
Aroclor 1260		328403986	0.572

QC Check Standard Report

Page 1 of 1 (110)

Sequence : C:\Instarch\Semi7\Sequence\090215PCB.seq
 User : JJY
 Printed : Sep 03,2015 14:36:22

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090215pcb\052.dat	PCB CCV PP4626	Sep 03,2015 14:36:22

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	103.084	3.084	20.000	Passed
Aroclor 1016 #1	0.100	0.094	6.431	20.000	Passed
Aroclor 1016 #2	0.100	0.095	4.664	20.000	Passed
Aroclor 1016 #3	0.100	0.108	7.644	20.000	Passed
Aroclor 1016 #4	0.100	0.105	5.221	20.000	Passed
Aroclor 1016 #5	0.100	0.124	24.323	20.000	FAILED
Aroclor 1260 #1	0.100	0.109	9.065	20.000	Passed
Aroclor 1260 #2	0.100	0.111	10.963	20.000	Passed
Aroclor 1260 #3	0.100	0.102	1.670	20.000	Passed
Aroclor 1260 #4	0.100	0.095	4.877	20.000	Passed
Aroclor 1260 #5	0.100	0.106	6.366	20.000	Passed
SURRDCBPCB	100.000	113.757	13.757	20.000	Passed
Aroclor 1016	0.500	0.526	5.219	20.000	Passed
Aroclor 1260	0.500	0.523	4.637	20.000	Passed

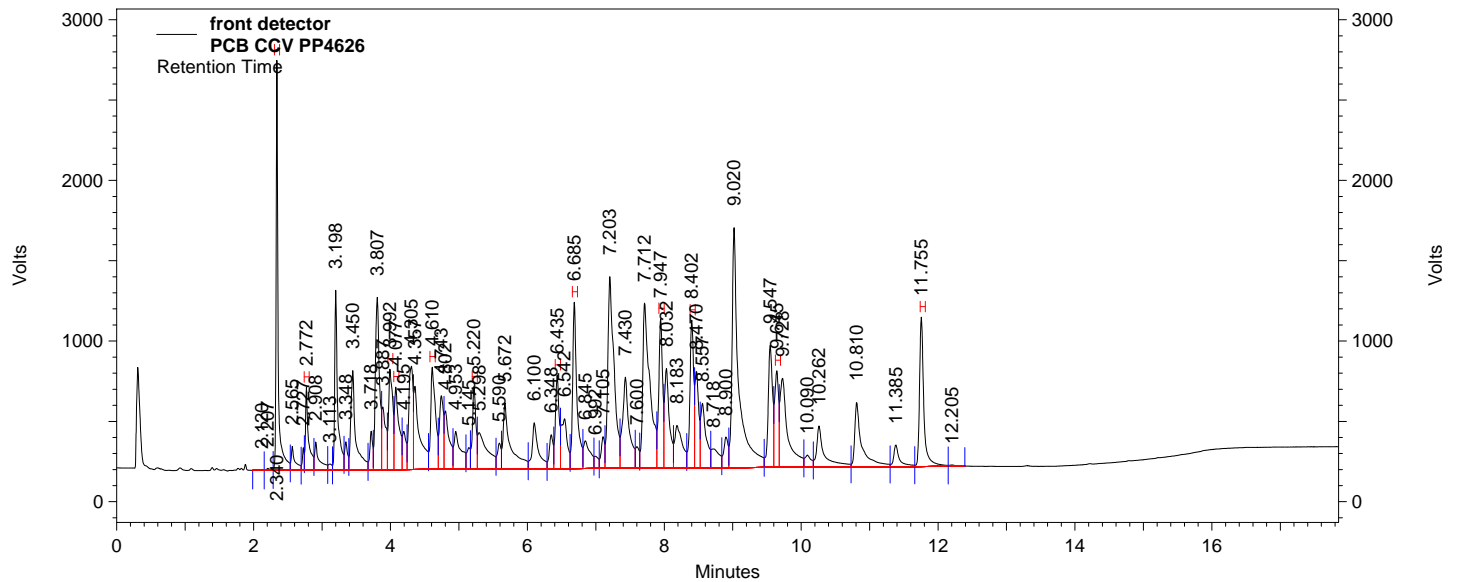
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	113.891	13.891	20.000	Passed
Aroclor 1016 #1	0.100	0.115	15.290	20.000	Passed
Aroclor 1016 #2	0.100	0.112	11.593	20.000	Passed
Aroclor 1016 #3	0.100	0.114	13.547	20.000	Passed
Aroclor 1016 #4	0.100	0.112	12.438	20.000	Passed
Aroclor 1016 #5	0.100	0.117	17.048	20.000	Passed
Aroclor 1260 #1	0.100	0.115	14.504	20.000	Passed
Aroclor 1260 #2	0.100	0.115	14.915	20.000	Passed
Aroclor 1260 #3	0.100	0.116	16.096	20.000	Passed
Aroclor 1260 #4	0.100	0.116	15.540	20.000	Passed
Aroclor 1260 #5	0.100	0.107	6.815	20.000	Passed
SURRDCBPCB	100.000	112.581	12.581	20.000	Passed
Aroclor 1016	0.500	0.570	13.983	20.000	Passed
Aroclor 1260	0.500	0.568	13.574	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\052.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 03,2015 14:10:08
Printed: Sep 03,2015 14:36:20

Data Summary: {Data Description}



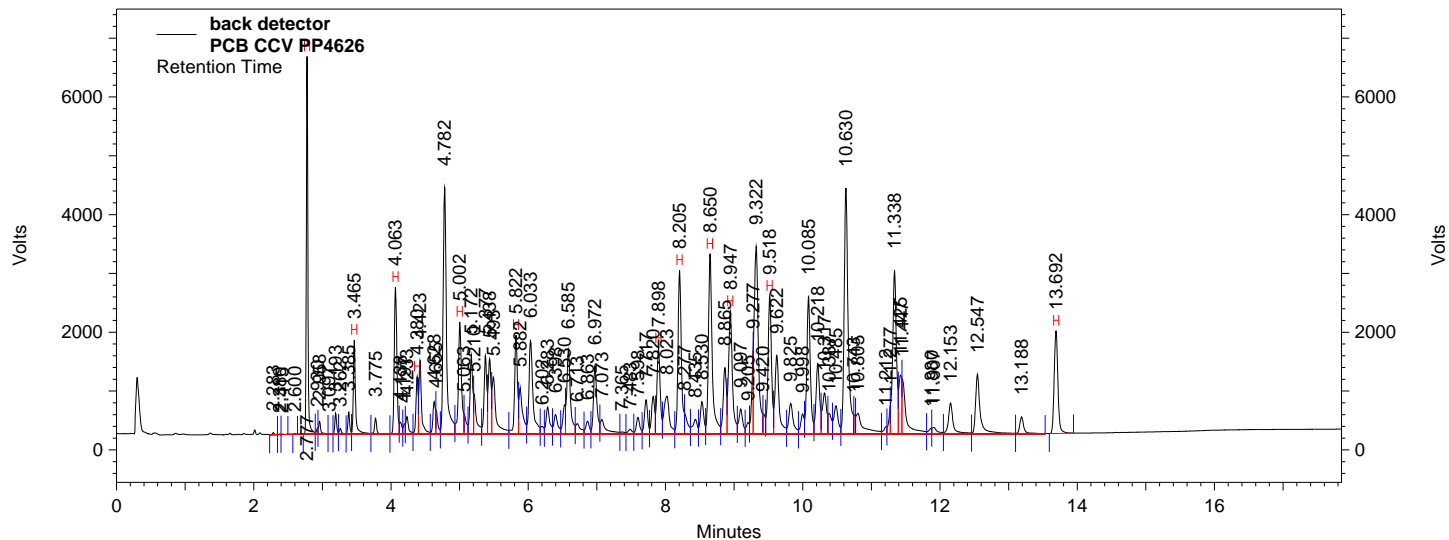
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	40051210	103.084
Aroclor 1016 #1	2.772	12552477	0.094
Aroclor 1016 #2	3.992	20059003	0.095
Aroclor 1016 #3	4.077	18390354	0.108
Aroclor 1016 #4	4.610	23723273	0.105
Aroclor 1016 #5	5.220	14163858	0.124
Aroclor 1260 #1	6.435	16612580	0.109
Aroclor 1260 #2	6.685	35235397	0.111
Aroclor 1260 #3	7.947	27571273	0.102
Aroclor 1260 #4	8.402	26454433	0.095
Aroclor 1260 #5	9.645	18267320	0.106
SURRDCBPCB	11.755	31808774	113.757
Aroclor 1016		88888965	0.526
Aroclor 1260		124141003	0.523

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\052.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 03,2015 14:10:08
 Printed: Sep 03,2015 14:36:20

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	77517243	113.891
Aroclor 1016 #1	3.465	28127208	0.115
Aroclor 1016 #2	4.063	51305898	0.112
Aroclor 1016 #3	4.380	16023112	0.114
Aroclor 1016 #4	4.782	47382571	0.112
Aroclor 1016 #5	5.002	37679889	0.117
Aroclor 1260 #1	5.822	37475249	0.115
Aroclor 1260 #2	8.205	72508156	0.115
Aroclor 1260 #3	8.650	90869700	0.116
Aroclor 1260 #4	8.947	62804378	0.116
Aroclor 1260 #5	9.518	62842014	0.107
SURRDCBPCB	13.692	50566072	112.581
Aroclor 1016		180518678	0.570
Aroclor 1260		326499497	0.568

QC Check Standard Report

Page 1 of 1 (27)

Sequence : C:\Instarch\Semi7\Sequence\090215PCB.seq
 User : JJY
 Printed : Sep 04,2015 07:51:53

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090215pcb\065.dat	PCB CCV PP4626	Sep 04,2015 07:51:53

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	105.078	5.078	20.000	Passed
Aroclor 1016 #1	0.100	0.095	5.212	20.000	Passed
Aroclor 1016 #2	0.100	0.096	4.341	20.000	Passed
Aroclor 1016 #3	0.100	0.108	8.248	20.000	Passed
Aroclor 1016 #4	0.100	0.107	6.832	20.000	Passed
Aroclor 1016 #5	0.100	0.120	19.879	20.000	Passed
Aroclor 1260 #1	0.100	0.112	11.650	20.000	Passed
Aroclor 1260 #2	0.100	0.111	10.940	20.000	Passed
Aroclor 1260 #3	0.100	0.111	11.372	20.000	Passed
Aroclor 1260 #4	0.100	0.105	4.540	20.000	Passed
Aroclor 1260 #5	0.100	0.121	21.069	20.000	FAILED
SURRDCBPCB	100.000	113.019	13.019	20.000	Passed
Aroclor 1016	0.500	0.525	5.081	20.000	Passed
Aroclor 1260	0.500	0.560	11.914	20.000	Passed

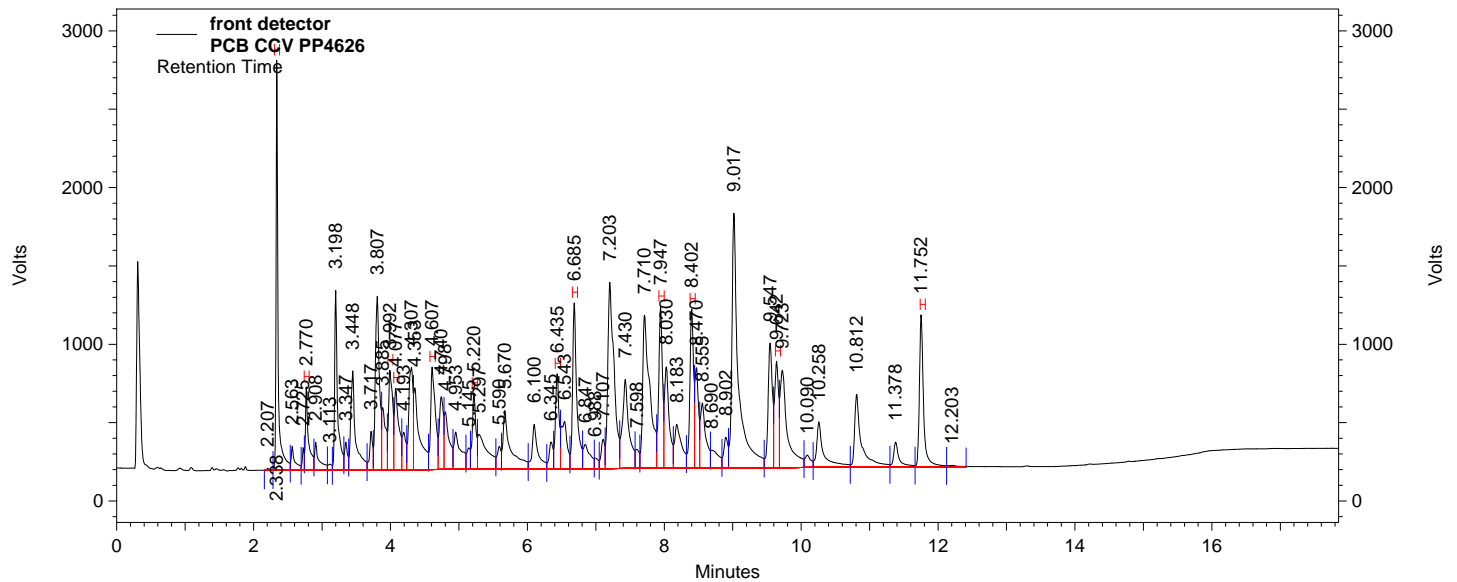
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	116.320	16.320	20.000	Passed
Aroclor 1016 #1	0.100	0.117	16.573	20.000	Passed
Aroclor 1016 #2	0.100	0.114	14.045	20.000	Passed
Aroclor 1016 #3	0.100	0.115	14.707	20.000	Passed
Aroclor 1016 #4	0.100	0.115	14.931	20.000	Passed
Aroclor 1016 #5	0.100	0.119	18.618	20.000	Passed
Aroclor 1260 #1	0.100	0.119	19.304	20.000	Passed
Aroclor 1260 #2	0.100	0.116	15.970	20.000	Passed
Aroclor 1260 #3	0.100	0.116	16.383	20.000	Passed
Aroclor 1260 #4	0.100	0.118	18.070	20.000	Passed
Aroclor 1260 #5	0.100	0.117	17.339	20.000	Passed
SURRDCBPCB	100.000	112.391	12.391	20.000	Passed
Aroclor 1016	0.500	0.579	15.775	20.000	Passed
Aroclor 1260	0.500	0.587	17.413	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\065.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 03,2015 18:49:44
Printed: Sep 04,2015 07:51:52

Data Summary: {Data Description}



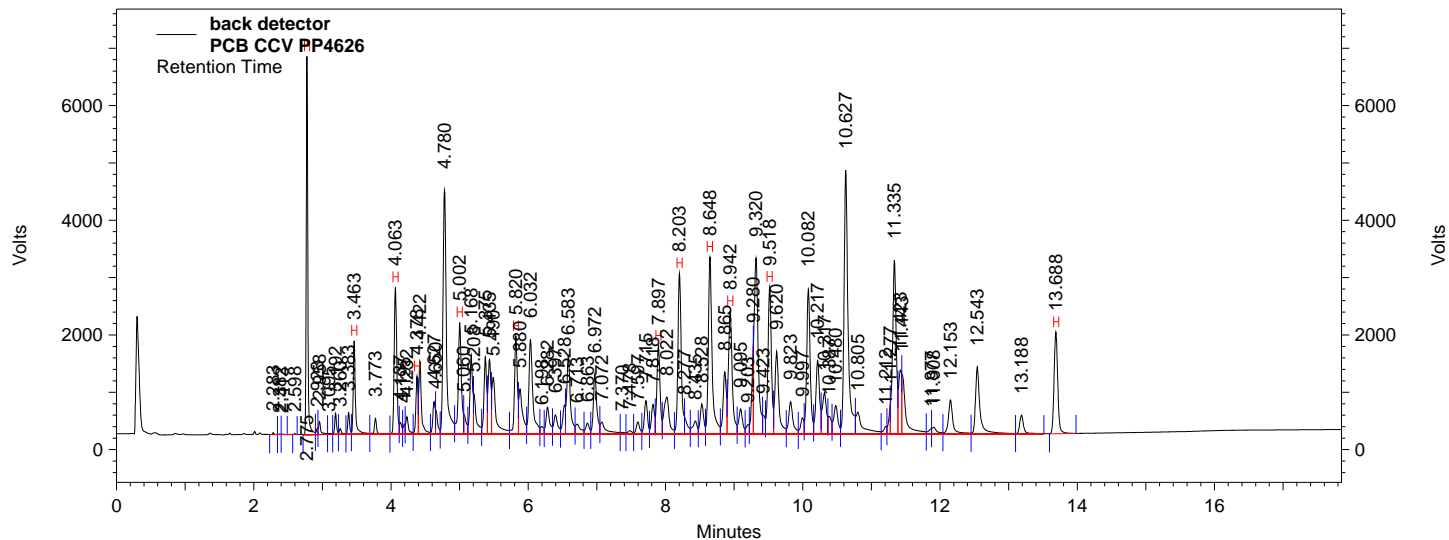
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.338	40805584	105.078
Aroclor 1016 #1	2.770	12709917	0.095
Aroclor 1016 #2	3.992	20124772	0.096
Aroclor 1016 #3	4.077	18489388	0.108
Aroclor 1016 #4	4.607	24071097	0.107
Aroclor 1016 #5	5.220	13673693	0.120
Aroclor 1260 #1	6.435	16994010	0.112
Aroclor 1260 #2	6.685	35228128	0.111
Aroclor 1260 #3	7.947	30111700	0.111
Aroclor 1260 #4	8.402	28989474	0.105
Aroclor 1260 #5	9.642	20698934	0.121
SURRDCBPCB	11.752	31608364	113.019
Aroclor 1016		89068867	0.525
Aroclor 1260		132022246	0.560

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\065.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 03,2015 18:49:44
 Printed: Sep 04,2015 07:51:52

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.775	79143031	116.320
Aroclor 1016 #1	3.463	28431804	0.117
Aroclor 1016 #2	4.063	52393029	0.114
Aroclor 1016 #3	4.378	16180828	0.115
Aroclor 1016 #4	5.002	48402322	0.115
Aroclor 1016 #5	5.820	38169854	0.119
Aroclor 1260 #1	7.897	39005910	0.119
Aroclor 1260 #2	8.203	73148968	0.116
Aroclor 1260 #3	8.648	91087976	0.116
Aroclor 1260 #4	8.942	64146223	0.118
Aroclor 1260 #5	9.518	68855862	0.117
SURRDCBPCB	13.688	50483267	112.391
Aroclor 1016		183577837	0.579
Aroclor 1260		336244939	0.587

QC Check Standard Report

Page 1 of 1 (42)

Sequence : C:\Instarch\Semi7\Sequence\090215PCB.seq
 User : JJY
 Printed : Sep 04,2015 07:52:17

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\090215pcb\072.dat	PCB CCV PP4626	Sep 04,2015 07:52:17

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	102.940	2.940	20.000	Passed
Aroclor 1016 #1	0.100	0.093	7.129	20.000	Passed
Aroclor 1016 #2	0.100	0.093	6.715	20.000	Passed
Aroclor 1016 #3	0.100	0.110	9.716	20.000	Passed
Aroclor 1016 #4	0.100	0.103	3.390	20.000	Passed
Aroclor 1016 #5	0.100	0.126	25.997	20.000	FAILED
Aroclor 1260 #1	0.100	0.108	8.465	20.000	Passed
Aroclor 1260 #2	0.100	0.111	11.325	20.000	Passed
Aroclor 1260 #3	0.100	0.103	2.702	20.000	Passed
Aroclor 1260 #4	0.100	0.097	3.236	20.000	Passed
Aroclor 1260 #5	0.100	0.104	4.130	20.000	Passed
SURRDCBPCB	100.000	111.780	11.780	20.000	Passed
Aroclor 1016	0.500	0.525	5.052	20.000	Passed
Aroclor 1260	0.500	0.523	4.677	20.000	Passed

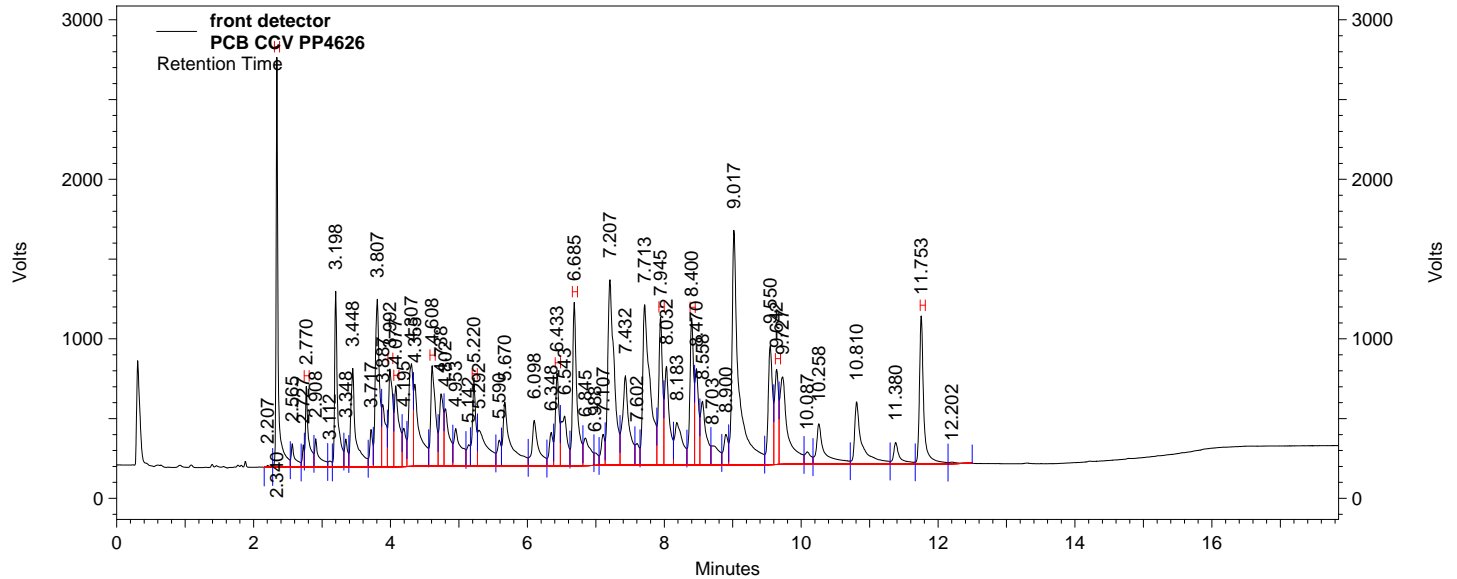
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	114.676	14.676	20.000	Passed
Aroclor 1016 #1	0.100	0.116	16.062	20.000	Passed
Aroclor 1016 #2	0.100	0.113	12.645	20.000	Passed
Aroclor 1016 #3	0.100	0.112	11.954	20.000	Passed
Aroclor 1016 #4	0.100	0.113	13.175	20.000	Passed
Aroclor 1016 #5	0.100	0.117	16.810	20.000	Passed
Aroclor 1260 #1	0.100	0.117	16.855	20.000	Passed
Aroclor 1260 #2	0.100	0.117	16.528	20.000	Passed
Aroclor 1260 #3	0.100	0.117	17.355	20.000	Passed
Aroclor 1260 #4	0.100	0.117	17.426	20.000	Passed
Aroclor 1260 #5	0.100	0.109	8.652	20.000	Passed
SURRDCBPCB	100.000	111.845	11.845	20.000	Passed
Aroclor 1016	0.500	0.571	14.129	20.000	Passed
Aroclor 1260	0.500	0.577	15.363	20.000	Passed

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\072.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: PCB CCV PP4626
Acquired: Sep 03,2015 21:20:10
Printed: Sep 04,2015 07:52:15

Data Summary: {Data Description}



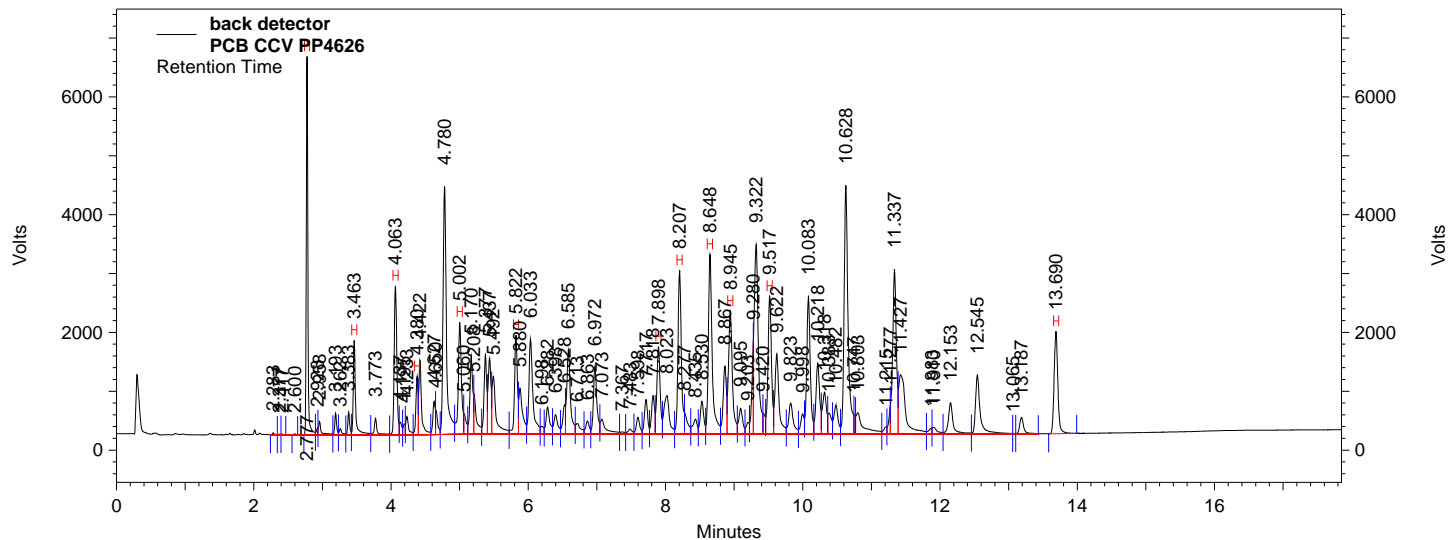
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	39996669	102.940
Aroclor 1016 #1	2.770	12462219	0.093
Aroclor 1016 #2	3.992	19641419	0.093
Aroclor 1016 #3	4.077	18729748	0.110
Aroclor 1016 #4	4.608	23327844	0.103
Aroclor 1016 #5	5.220	14348423	0.126
Aroclor 1260 #1	6.433	16523985	0.108
Aroclor 1260 #2	6.685	35346473	0.111
Aroclor 1260 #3	7.945	27841564	0.103
Aroclor 1260 #4	8.400	26896227	0.097
Aroclor 1260 #5	9.642	17897485	0.104
SURRDCBPCB	11.753	31272130	111.780
Aroclor 1016		88509653	0.525
Aroclor 1260		124505734	0.523

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\072.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
 User: JJY
 Sample ID: PCB CCV PP4626
 Acquired: Sep 03,2015 21:20:10
 Printed: Sep 04,2015 07:52:15

Data Summary: {Data Description}



back detector Results

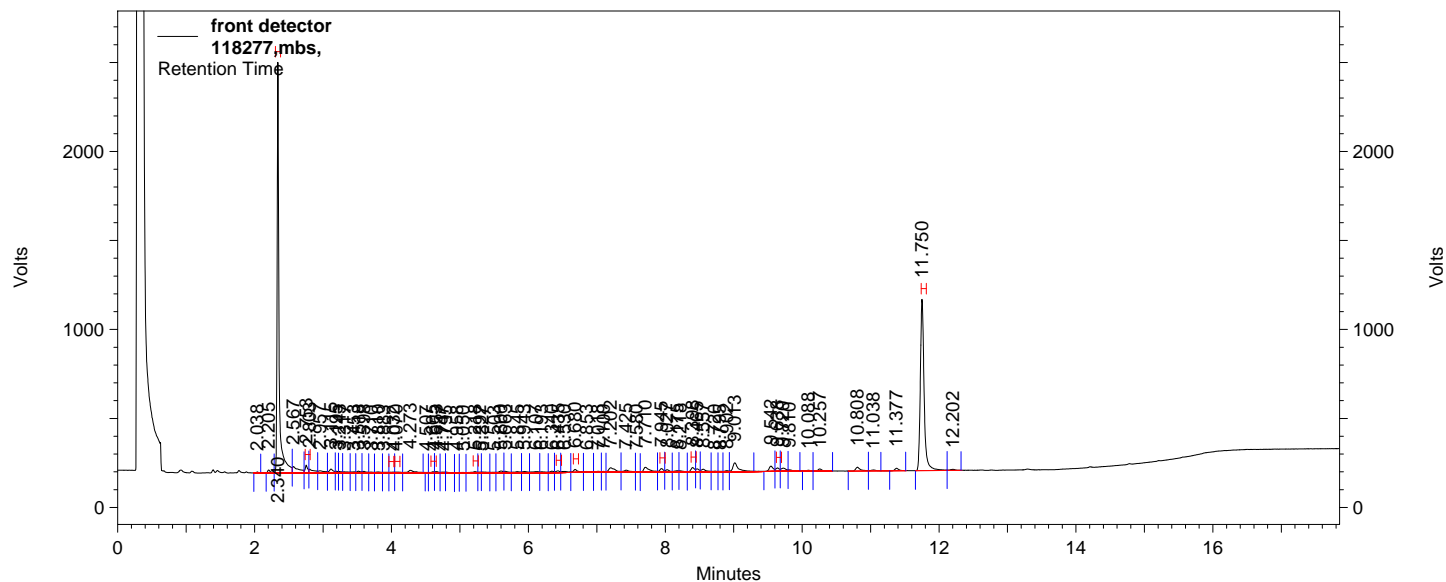
Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	78042581	114.676
Aroclor 1016 #1	3.463	28310448	0.116
Aroclor 1016 #2	4.063	51772201	0.113
Aroclor 1016 #3	4.380	15806487	0.112
Aroclor 1016 #4	5.002	47684202	0.113
Aroclor 1016 #5	5.822	37605544	0.117
Aroclor 1260 #1	7.898	38224835	0.117
Aroclor 1260 #2	8.207	73487959	0.117
Aroclor 1260 #3	8.648	91829120	0.117
Aroclor 1260 #4	8.945	63804976	0.117
Aroclor 1260 #5	9.517	63892014	0.109
SURRDCBPCB	13.690	50245458	111.845
Aroclor 1016		181178882	0.571
Aroclor 1260		331238904	0.577

**POLYCHLORINATED BIPHENYL
QUALITY CONTROL
DOCUMENTS**

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\037.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118277,mbs,
Acquired: Sep 01,2015 23:18:37
Printed: Sep 02,2015 09:37:57

Data Summary: {Data Description}



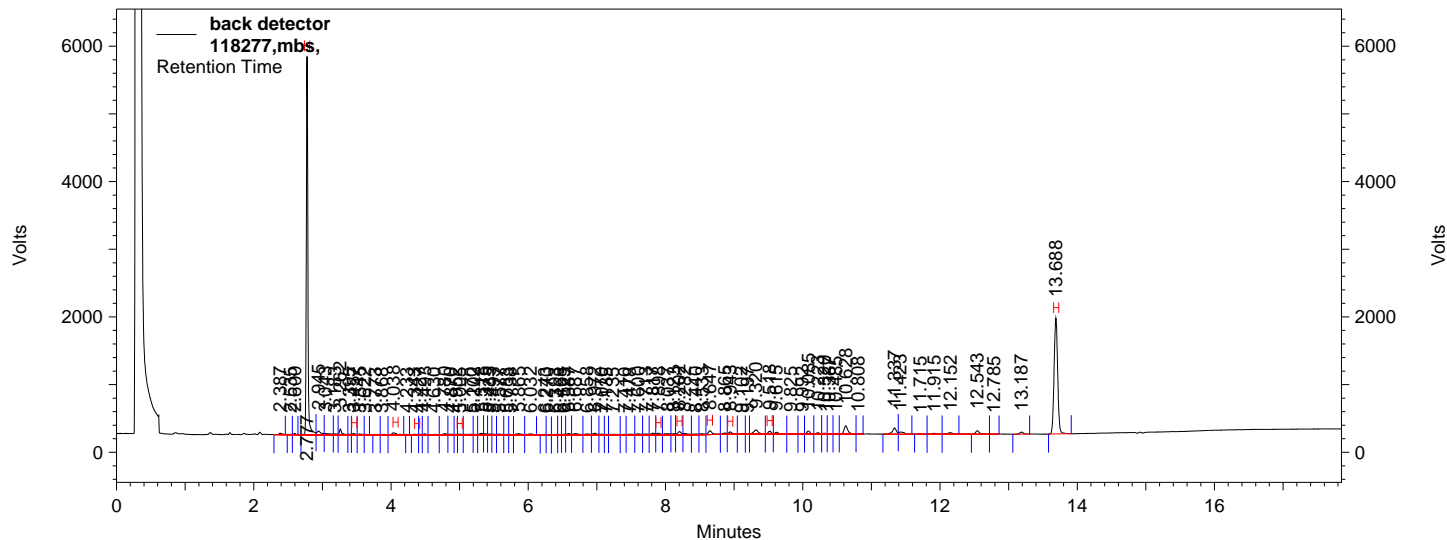
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	34329013	87.961
Aroclor 1016 #1	2.753	845351	0.003
Aroclor 1016 #2	4.032	153734	0.000
Aroclor 1016 #3	4.070	222555	0.000
Aroclor 1016 #4	4.605	181009	0.000
Aroclor 1016 #5	5.218	295287	0.000
Aroclor 1260 #1	6.435	265442	0.000
Aroclor 1260 #2	6.680	585503	0.000
Aroclor 1260 #3	7.945	539998	0.000
Aroclor 1260 #4	8.398	672567	0.000
Aroclor 1260 #5	9.638	556830	0.000
SURRDCBPCB	11.750	28681132	102.233
Aroclor 1016		1697936	0.003
Aroclor 1260		2620340	0.000

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\037.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118277,mbs,
Acquired: Sep 01,2015 23:18:37
Printed: Sep 02,2015 09:37:57

Data Summary: {Data Description}



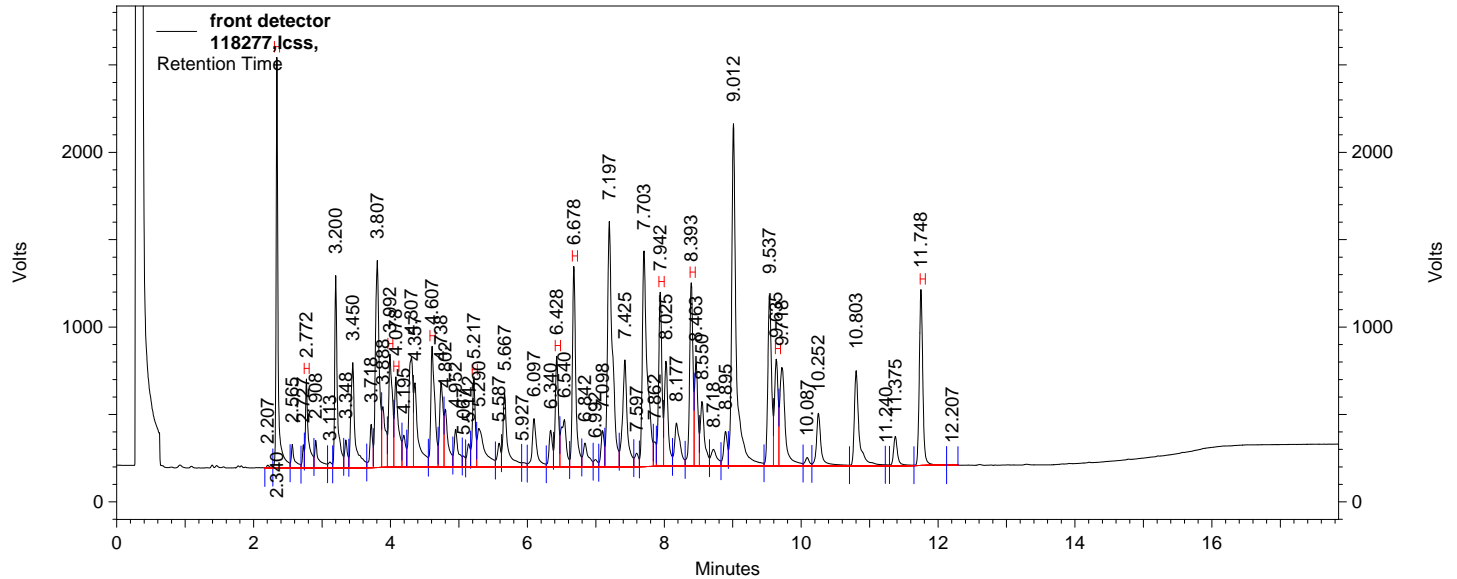
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	67039395	98.240
Aroclor 1016 #1	3.457	369522	0.000
Aroclor 1016 #2	4.038	1046720	0.000
Aroclor 1016 #3	4.343	294439	0.000
Aroclor 1016 #4	5.005	334797	0.000
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	7.898	625803	0.000
Aroclor 1260 #2	8.202	1227747	0.000
Aroclor 1260 #3	8.647	1744838	0.000
Aroclor 1260 #4	8.943	1182948	0.000
Aroclor 1260 #5	9.518	1243628	0.000
SURRDCBPCB	13.688	47277896	105.033
Aroclor 1016		2045478	0.000
Aroclor 1260		6024964	0.000

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\038.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118277,lcss,
Acquired: Sep 01,2015 23:40:04
Printed: Sep 02,2015 09:38:00

Data Summary: {Data Description}



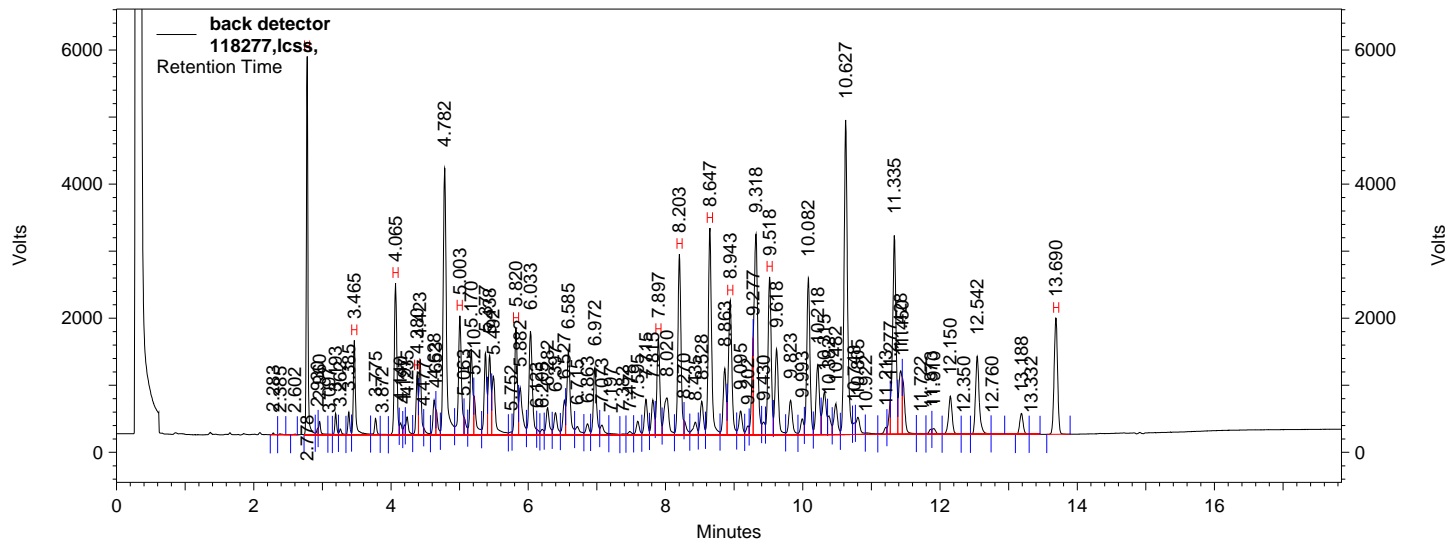
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.340	35204852	90.276
Aroclor 1016 #1	2.772	11453843	0.085
Aroclor 1016 #2	3.992	18654556	0.088
Aroclor 1016 #3	4.078	16126431	0.094
Aroclor 1016 #4	4.607	21658413	0.096
Aroclor 1016 #5	5.217	11604960	0.101
Aroclor 1260 #1	6.428	15318192	0.100
Aroclor 1260 #2	6.678	30492390	0.096
Aroclor 1260 #3	7.942	25538506	0.094
Aroclor 1260 #4	8.393	27671202	0.100
Aroclor 1260 #5	9.635	16974908	0.099
SURRDCBPCB	11.748	28019121	99.794
Aroclor 1016		79498203	0.464
Aroclor 1260		115995198	0.488

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\038.dat
 Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
 User: JJY
 Sample ID: 118277,lcss,
 Acquired: Sep 01,2015 23:40:04
 Printed: Sep 02,2015 09:38:00

Data Summary: {Data Description}



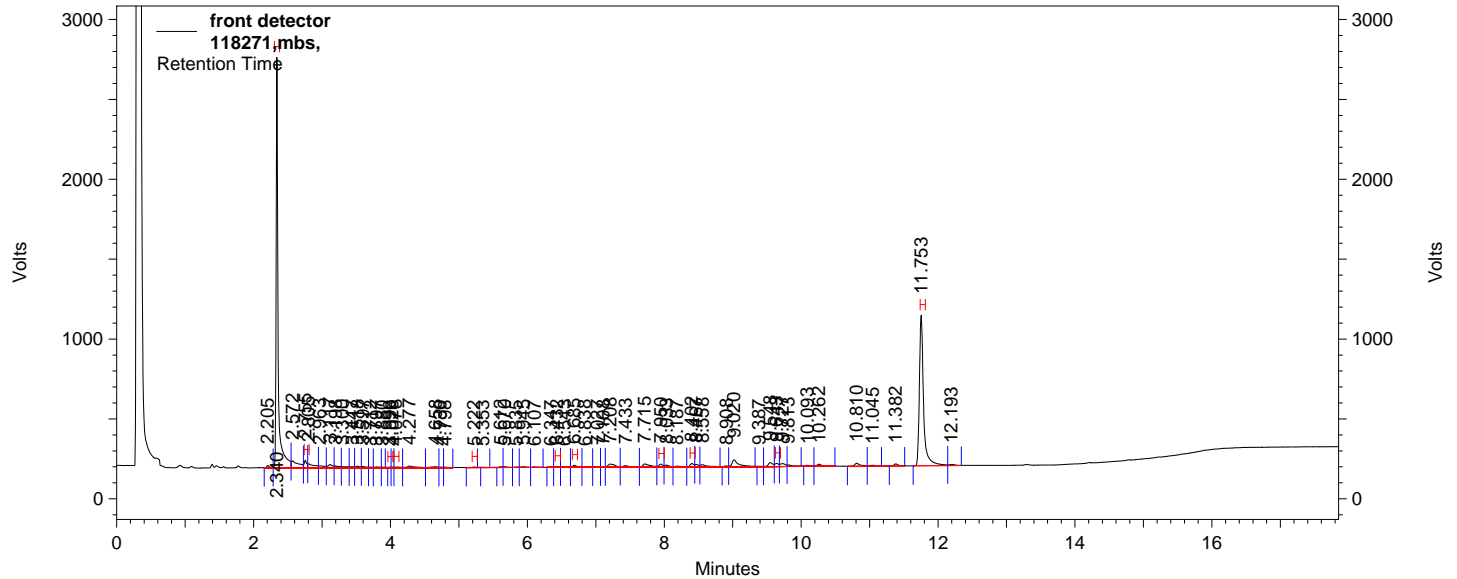
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.778	67650311	99.153
Aroclor 1016 #1	3.465	23973778	0.098
Aroclor 1016 #2	4.065	45349848	0.098
Aroclor 1016 #3	4.380	14058872	0.099
Aroclor 1016 #4	5.003	42079719	0.099
Aroclor 1016 #5	5.820	32672970	0.101
Aroclor 1260 #1	7.897	33302433	0.101
Aroclor 1260 #2	8.203	64055631	0.101
Aroclor 1260 #3	8.647	77826395	0.099
Aroclor 1260 #4	8.943	52954268	0.097
Aroclor 1260 #5	9.518	58526911	0.099
SURRDCBPCB	13.690	46340445	102.882
Aroclor 1016		158135187	0.496
Aroclor 1260		286665638	0.498

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\057.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118271,mbs,
Acquired: Sep 02,2015 06:27:47
Printed: Sep 02,2015 09:38:56

Data Summary: {Data Description}



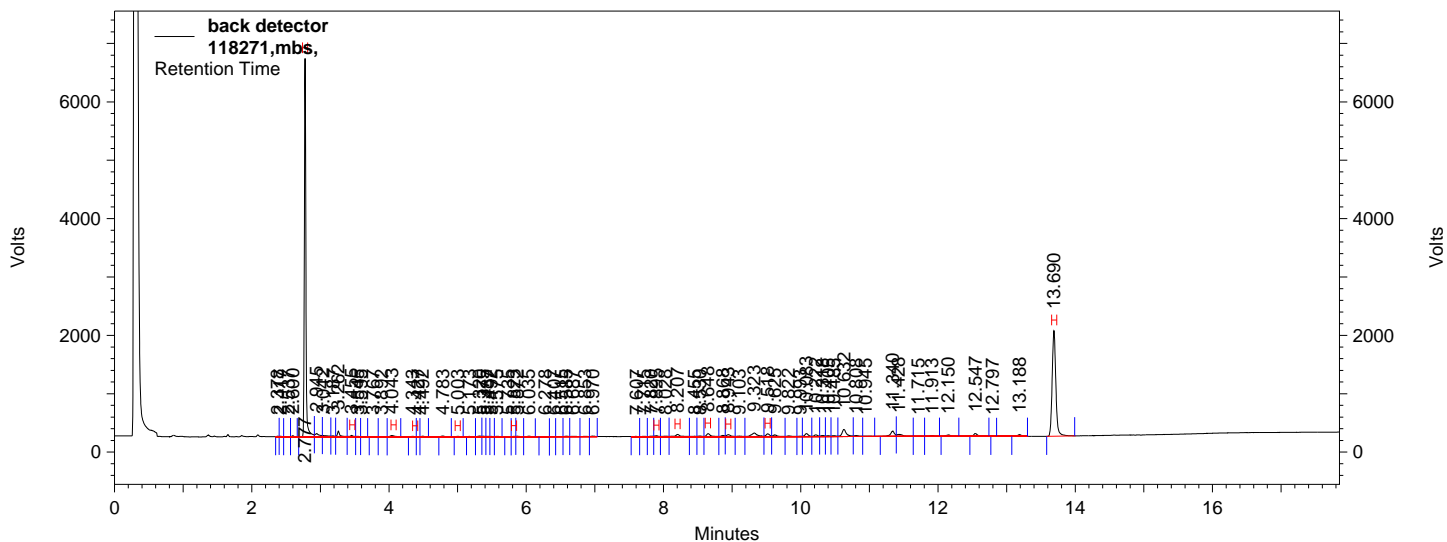
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	38743324	99.628
Aroclor 1016 #1	2.755	937402	0.004
Aroclor 1016 #2	3.990	66204	0.000
Aroclor 1016 #3	4.078	175079	0.000
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.222	120952	0.000
Aroclor 1260 #1	6.432	163783	0.000
Aroclor 1260 #2	6.685	422056	0.000
Aroclor 1260 #3	7.950	522757	0.000
Aroclor 1260 #4	8.402	585099	0.000
Aroclor 1260 #5	9.643	555132	0.000
SURRDCBPCB	11.753	31144951	111.311
Aroclor 1016		1299637	0.004
Aroclor 1260		2248827	0.000

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\057.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118271,mbs,
Acquired: Sep 02,2015 06:27:47
Printed: Sep 02,2015 09:38:56

Data Summary: {Data Description}



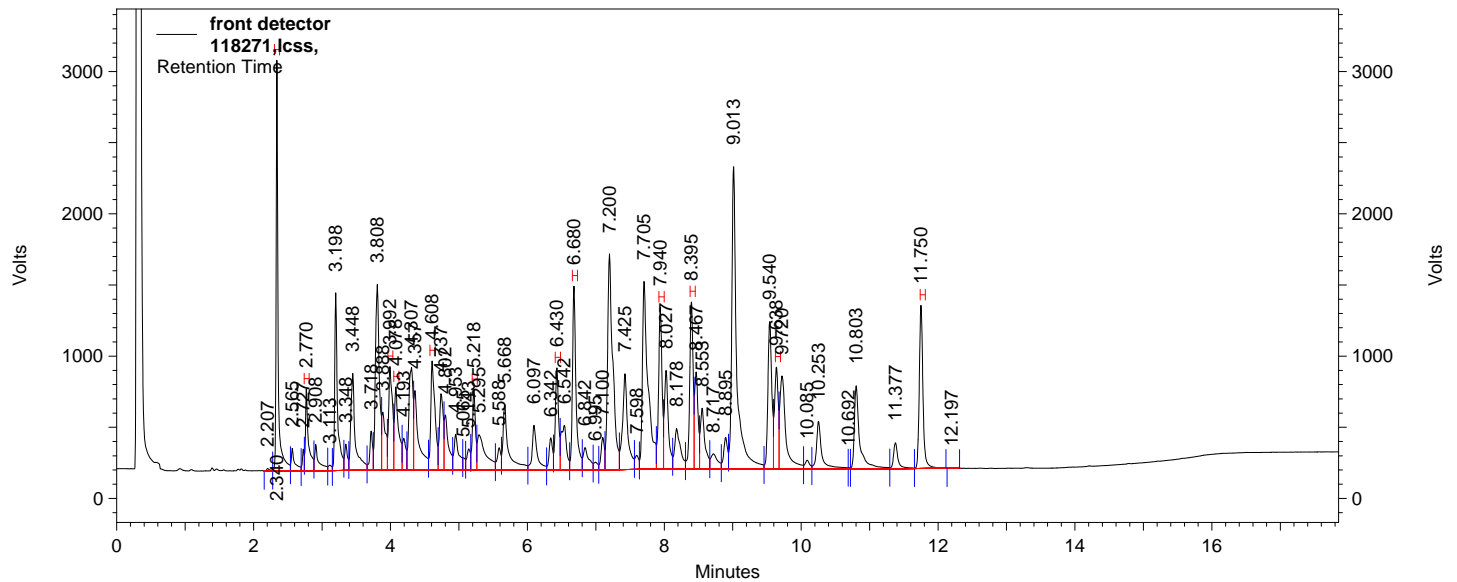
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.777	77785091	114.291
Aroclor 1016 #1	3.455	576943	0.000
Aroclor 1016 #2	4.043	787258	0.000
Aroclor 1016 #3	4.343	210555	0.000
Aroclor 1016 #4	5.003	263379	0.000
Aroclor 1016 #5	5.823	202323	0.000
Aroclor 1260 #1	7.895	437549	0.000
Aroclor 1260 #2	8.207	1574561	0.000
Aroclor 1260 #3	8.648	1641367	0.000
Aroclor 1260 #4	8.943	1101538	0.000
Aroclor 1260 #5	9.518	1325886	0.000
SURRDCBPCB	13.690	51455355	114.622
Aroclor 1016		2040458	0.000
Aroclor 1260		6080901	0.000

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090115pcb\058.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118271,lcss,
Acquired: Sep 02,2015 06:49:13
Printed: Sep 02,2015 09:38:59

Data Summary: {Data Description}



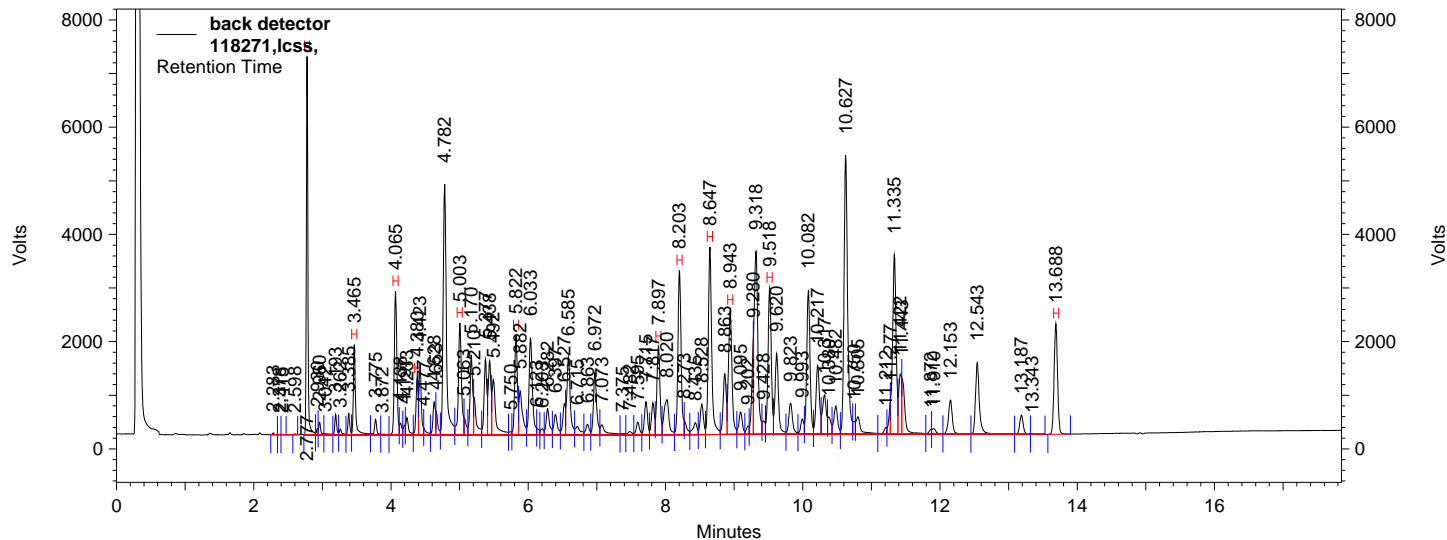
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	43506214	112.216
Aroclor 1016 #1	2.770	13316438	0.099
Aroclor 1016 #2	3.992	21546959	0.103
Aroclor 1016 #3	4.078	19222861	0.113
Aroclor 1016 #4	4.608	25267382	0.112
Aroclor 1016 #5	5.218	13545010	0.119
Aroclor 1260 #1	6.430	17998558	0.118
Aroclor 1260 #2	6.680	36090648	0.114
Aroclor 1260 #3	7.940	30725132	0.114
Aroclor 1260 #4	8.395	31244487	0.113
Aroclor 1260 #5	9.638	20399974	0.119
SURRDCBPCB	11.750	33437991	119.760
Aroclor 1016		92898650	0.546
Aroclor 1260		136458799	0.578

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090115pcb\058.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090115pcb.met
User: JJY
Sample ID: 118271,lcss,
Acquired: Sep 02,2015 06:49:13
Printed: Sep 02,2015 09:38:59

Data Summary: {Data Description}



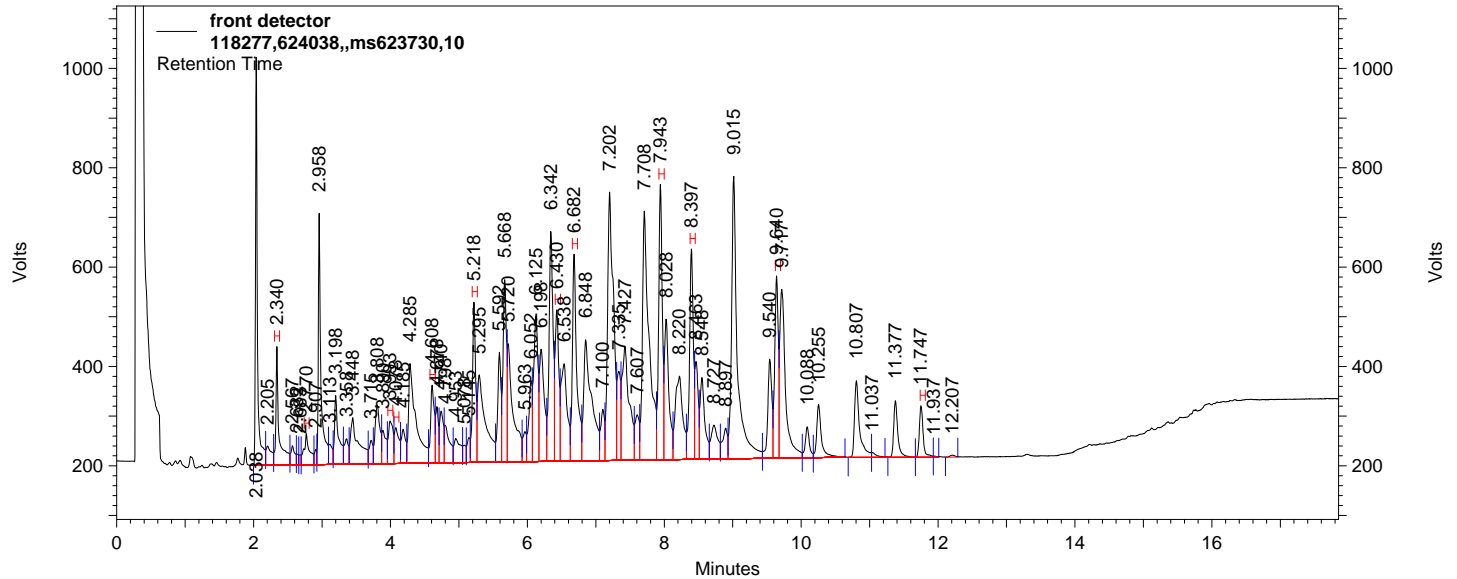
back detector Results

<i>Name</i>	<i>Retention Time</i>	<i>Area Counts</i>	<i>Concentration (ug/ml)</i>
SURRTCMXPCB	2.777	84252651	123.952
Aroclor 1016 #1	3.465	28869387	0.118
Aroclor 1016 #2	4.065	53964236	0.118
Aroclor 1016 #3	4.380	16681859	0.118
Aroclor 1016 #4	5.003	49988991	0.119
Aroclor 1016 #5	5.822	38608261	0.120
Aroclor 1260 #1	7.897	39513654	0.121
Aroclor 1260 #2	8.203	75297623	0.120
Aroclor 1260 #3	8.647	92576071	0.118
Aroclor 1260 #4	8.943	63618110	0.117
Aroclor 1260 #5	9.518	69944358	0.119
SURRDCBPCB	13.688	55007836	122.776
Aroclor 1016		188112734	0.593
Aroclor 1260		340949816	0.595

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\067.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,624038,,ms623730,10
Acquired: Sep 03,2015 19:32:44
Printed: Sep 04,2015 07:51:59

Data Summary: {Data Description}



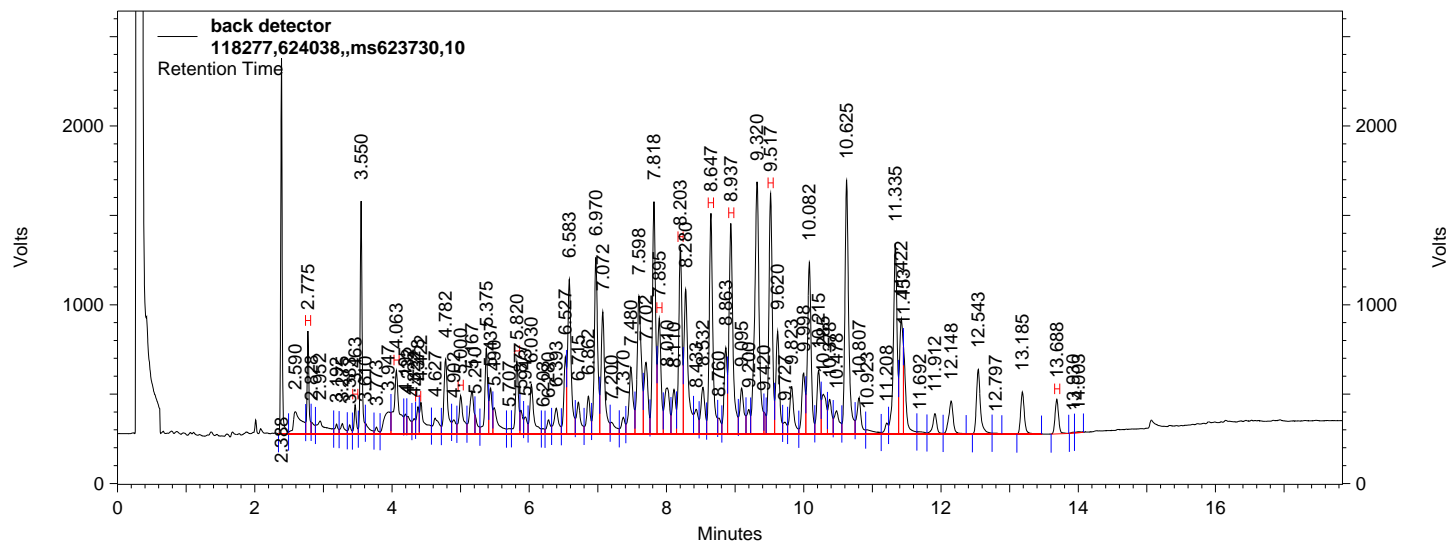
front detector Results

<u>Component</u>	<u>Retention Time</u>	<u>Area Counts</u>	<u>Concentration (ug/ml)</u>
SURRTCMXPCB	2.340	5924202	12.889
Aroclor 1016 #1	2.770	2694257	0.017
Aroclor 1016 #2	3.993	3111711	0.012
Aroclor 1016 #3	4.078	2615852	0.011
Aroclor 1016 #4	4.608	4533910	0.016
Aroclor 1016 #5	5.218	7999858	0.068
Aroclor 1260 #1	6.430	9042646	0.058
Aroclor 1260 #2	6.682	14632691	0.044
Aroclor 1260 #3	7.943	15798093	0.057
Aroclor 1260 #4	8.397	12430187	0.043
Aroclor 1260 #5	9.640	10126382	0.057
SURRDCBPCB	11.747	3100936	7.980
Aroclor 1016		20955588	0.125
Aroclor 1260		62029999	0.259

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\067.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,624038,,ms623730,10
Acquired: Sep 03,2015 19:32:44
Printed: Sep 04,2015 07:51:59

Data Summary: {Data Description}



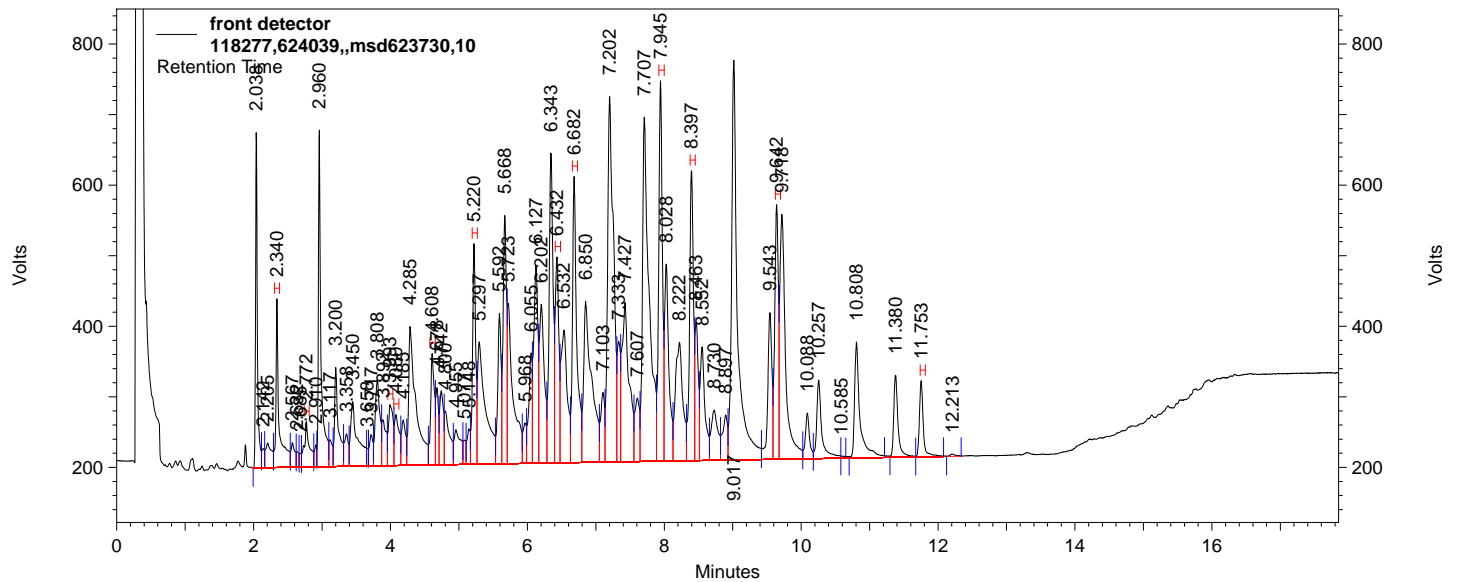
back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.775	8170504	10.306
Aroclor 1016 #1	3.463	2765504	0.008
Aroclor 1016 #2	4.063	14281406	0.028
Aroclor 1016 #3	4.378	2961887	0.017
Aroclor 1016 #4	5.000	7017341	0.014
Aroclor 1016 #5	5.820	9502663	0.027
Aroclor 1260 #1	7.895	17101000	0.051
Aroclor 1260 #2	8.203	26481619	0.039
Aroclor 1260 #3	8.647	34145783	0.042
Aroclor 1260 #4	8.937	35620329	0.064
Aroclor 1260 #5	9.517	35784076	0.059
SURRDCBPCB	13.688	5204697	8.463
Aroclor 1016		36528801	0.095
Aroclor 1260		149132807	0.255

PCB Analysis Report (1016/1260) (Channel A)

Data File: C:\Instarch\Semi7\Data\090215pcb\068.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,624039,,msd623730,10
Acquired: Sep 03,2015 19:54:17
Printed: Sep 04,2015 07:52:02

Data Summary: {Data Description}



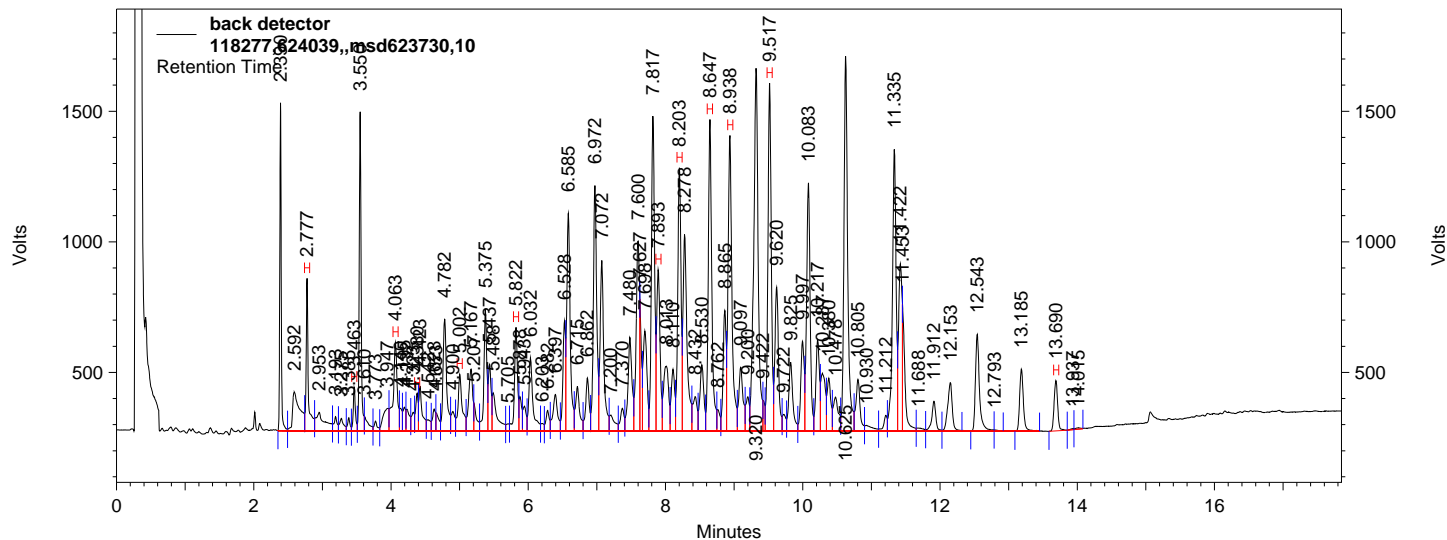
front detector Results

Component	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.340	5889798	12.798
Aroclor 1016 #1	2.772	2602785	0.017
Aroclor 1016 #2	3.993	3119637	0.012
Aroclor 1016 #3	4.080	2607916	0.011
Aroclor 1016 #4	4.608	4597919	0.017
Aroclor 1016 #5	5.220	7669869	0.065
Aroclor 1260 #1	6.432	8322741	0.053
Aroclor 1260 #2	6.682	13981105	0.042
Aroclor 1260 #3	7.945	15482918	0.056
Aroclor 1260 #4	8.397	12410399	0.043
Aroclor 1260 #5	9.642	10312378	0.058
SURRDCBPCB	11.753	3299549	8.712
Aroclor 1016		20598126	0.122
Aroclor 1260		60509541	0.251

PCB Analysis Report (1016/1260) (Channel B)

Data File: C:\Instarch\Semi7\Data\090215pcb\068.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\080715PCBIC\090215PCB.met
User: JJY
Sample ID: 118277,624039,,msd623730,10
Acquired: Sep 03,2015 19:54:17
Printed: Sep 04,2015 07:52:02

Data Summary: {Data Description}



back detector Results

Name	Retention Time	Area Counts	Concentration (ug/ml)
SURRTCMXPCB	2.777	9781549	12.712
Aroclor 1016 #1	3.463	2777565	0.009
Aroclor 1016 #2	4.063	10881483	0.020
Aroclor 1016 #3	4.380	2798000	0.016
Aroclor 1016 #4	5.002	7063286	0.014
Aroclor 1016 #5	5.822	9506639	0.027
Aroclor 1260 #1	7.893	16458386	0.049
Aroclor 1260 #2	8.203	25546015	0.038
Aroclor 1260 #3	8.647	32955175	0.040
Aroclor 1260 #4	8.938	34198430	0.062
Aroclor 1260 #5	9.517	34675358	0.058
SURRDCBPCB	13.690	5312752	8.711
Aroclor 1016		33026973	0.086
Aroclor 1260		143833364	0.245

**POLYCHLORINATED BIPHENYLS
LOGBOOK
DOCUMENTS**

S PCB Analytical Run
118271 on 8/31/2015

SRT

Date Analyzed: _____

Date Reviewed: - 09/08/2015

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623727		8/20/2015	0910	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM		M	4	
		WASTE-016-0815						53921			
113433	623733		8/20/2015	1137	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM		M	4	
		WASTE-003-0815						53921			
113433	623734		8/20/2015	1137	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM		M	4	
		WASTE-003B-0815						53921			
113433	623735		8/20/2015	1141	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM		M	4	
		WASTE-001-0815						53921			
113433	623737		8/20/2015	1240	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM		M	4	
		WASTE-016B-0815						53921			
	623918						PCB QSM				
				MBS				53921			
	623919						PCB QSM				
				LCSS				53921			
113545	625783		8/27/2015	1030	ENVIRONMENTAL QUALITY MGT	WAUNAKEE ALLOY	PCB QSM		M	4	
		003						53921			
113545	625784		8/27/2015	1030	ENVIRONMENTAL QUALITY MGT	WAUNAKEE ALLOY	PCB QSM		M	4	
		004						53921			
113545	625788		8/27/2015	1400	ENVIRONMENTAL QUALITY MGT	WAUNAKEE ALLOY	PCB QSM		M	4	
		007						53921			
10	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Semi

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Page 1 of 1

PREP WORKSHEET
on 8/31/2015

Prep Batch 53,921 Date Prepped: 8/31/2015 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	623918	MBS		PCB QSM	SOLID	10	1.00			
	623919	LCSS		PCB QSM	SOLID	10	1.00			
113433	623727			PCB QSM	WASTE	10	1.01		4	
	623733			PCB QSM	WASTE	10	1.08		4	
	623734			PCB QSM	WASTE	10	1.01		4	
	623735			PCB QSM	WASTE	10	1.05		4	
	623737			PCB QSM	WASTE	10	1.03		4	
113545	625783			PCB QSM	WASTE	10	1.02		4	
	625784			PCB QSM	WASTE	10	1.03		4	
	625788			PCB QSM	WASTE	10	1.02		4	

Notes: _____

Pesticides/PCB Extraction Bench Sheet

(SOP Reference # SV002 & SV004)

3510=WATER

3545=PFE or 3546=Microwave >>

(PFE=Pressurized Fluid Extraction)

Prep Batch #:	53921
Prep Method:	waste dil
Analyst:	JLH
Date:	8/31/2015
Start Time:	8:45
End Date:	8/31/2015
End Time:	10:25

Analysis Methods

8081 = Pesticides

8082 = PCBs

Matrix: WASTE

Balance Used: SVB03

Ave MW Temp (°C): NA

Reagent Lots>>>

NA ₂ SO ₄	S3343
Diatomaceous Earth	NA
Dionex Solution	NA
Methylene Chloride	NA
Acetone	NA
Hexane	106169

Concentration By: JLH

Concentration Date: 8/31/2015

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (ml)	pH Adj. 5-9 (Yes/No)
	623918	(MB)	1.00		10	
	623919	(LCS)	1.00		10	
	623727	OILY	1.01		10	
	623733	DIRT	1.08		10	
	623734	DIRT	1.01		10	
	623735	DIRT	1.05		10	
	623737	OIL	1.03		10	
	625783	OIL	1.02		10	
	625784	OIL	1.03		10	
	625788	DIRT	1.02		10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
		(MS) Parent Sample			10	
		(MSD)			10	

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike, MSD=Matrix Spike Duplicate, Tox=Toxaphene & Chlor=Technical chlordane

MS/MSD/ LCS Spike Amount (ml):	0.5	Surrogate Spike Amount (ml):	0.5
Spike Concentration (ug/mL):	10	Surrogate Spike Conc. (ug/mL):	0.5
Spike Reference #:	PP4830	Surrogate Spike Reference #:	PP4828
Tox/Chlor Spike Amount (ml):	NA		
Tox/Chlor Spike Conc. (ug/mL):	NA	Tox/Chlor Spike Reference:	NA
Relinquished to:	SRT	Reviewed By:	SRT
Date:	8/31/2015	Date:	8/31/2015

FSV4-01
8082 PCB Analysis Data Review Checklist

Analytical Run #: 118271 - Waste	Independent Reviewer: RED
Sequence Date: 09/01/2015, 09/02/2015	Date of Review: 09/04/2015
Analyst/Data Interpreter: SRT	Approval: Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each “No” response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	Yes		Yes		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is $r^2 > .990$, or $r > 0.990$ for the regression line?	RSD<20%, $r^2 > 0.990$, or $r > 0.990$	Yes		Yes		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		Yes		Yes		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		Yes		Yes		
e. Was an initial calibration blank (ICB) analyzed?		Yes		Yes		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		Yes		Yes		
b. Were the recoveries for the ICVs within program limits?	Second source	Yes		Yes		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	% Recovery	Yes		Yes		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		Yes		Yes		
b. Were the recoveries for the CCVs within program limits?	% Recovery		No		No	see below
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		Yes		Yes		
d. Was each CCV uniquely identified (i.e. Standard Number)?		Yes		Yes		

Additional Comments:

The CCV's #56 and #68 on sequence 090115pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV's #3, #15, #38, #52, and #72 on sequence 090215pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV #65 on sequence 090215pcb had one peak for 1260 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		Yes		Yes		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	Yes		Yes		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	Yes		Yes		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequency of one per Prep Batch?	In-house limits or client specified limits	Yes		Yes		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	Yes		Yes		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	NA		NA		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	NA		NA		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	NA		NA		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	NA		NA		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	NA		NA		

Additional Comments:

Analytical Run #: 118271 - Waste

FSV4-01
8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?			No		No	see below
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		Yes		Yes		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	Yes		Yes		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	Yes		Yes		acid, sulfur
f. Was there a hexane injection performed prior to sample analysis?		Yes		Yes		
g. Was there a priming standard injected prior to sample analysis?		Yes		Yes		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		Yes		Yes		
b. Are all manually integrated chromatograms stamped with initials and date?		Yes		Yes		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		Yes		Yes		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		Yes		Yes		
e. Is the ICAL method referenced on the Raw Data?		Yes		Yes		

Additional Comments:

Samples 625794 and 625783 were outside QC limits for surrogate recovery, possibly due to matrix. They were "S" flagged.
Sample 625783 was run at a 1:20 dilution due to matrix. It was also "V" flagged for no detects.

S PCB Analytical Run
118277 on 8/31/2015

SRT
09/08/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DECRPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623728		8/20/2015	0852	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM		S	4	
113433	623729	PAINT-008-0815	8/20/2015	0845	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM	53929	S	4	
113433	623730	PAINT-015-0815	8/20/2015	0930	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM	53929	S	4	
113433	623731	PAINT-018-0815	8/20/2015	1126	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM	53929	S	4	
113433	623732	PAINT-004-0815	8/20/2015	1238	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PCB QSM	53929	S	4	
	624035	PAINT-016-0815					PCB QSM	53929			
	624036			MBS			PCB QSM	53929			
	624038		8/20/2015	0930			PCB QSM	53929			
	624039	PAINT-018-0815	8/20/2015	0930	MSS	623730	PCB QSM	53929			
		PAINT-018-0815		MSDS	624038			53929			
9	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\LIMSREPS\ANALYTICALRUN.RPT

Page 1 of 1

PREP WORKSHEET
on 8/31/2015

Prep Batch 53,929 Date Prepped: 8/28/2015 Prepped By JLH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	624035	MBS		PCB QSM	SOLID	10	1.00			
	624036	LCSS		PCB QSM	SOLID	10	1.00			
113433	623728			PCB QSM	SOIL	10	1.03		4	
	623729			PCB QSM	SOIL	10	1.01		4	
	623730			PCB QSM	SOIL	10	1.05		4	
	623731			PCB QSM	SOIL	10	1.04		4	
	623732			PCB QSM	SOIL	10	1.06		4	
	624038	MSS	623730	PCB QSM	SOIL	10	1.04			
	624039	MSDS	624038	PCB QSM	SOIL	10	1.01			

Notes: _____

(SOP Reference # SV002 & SV004)

(PFE=Pressurized Fluid Extraction)

8082 = PCBs

Ave MW Temp (°C):	110.0
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Hexane	106169
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Concentration Date: 8/31/2015

Reviewed By: SRT
Date: 8/31/2015

FSV4-01
8082 PCB Analysis Data Review Checklist

Analytical Run #: 118277 - Paint Chips	Independent Reviewer: RED
Sequence Date: 09/01/2015, 09/02/2015	Date of Review: 09/04/2015
Analyst/Data Interpreter: SRT	Approval: Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each “No” response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	Yes		Yes		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is $r^2 > .990$, or $r > 0.990$ for the regression line?	RSD<20%, $r^2 > 0.990$, or $r > 0.990$	Yes		Yes		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		Yes		Yes		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		Yes		Yes		
e. Was an initial calibration blank (ICB) analyzed?		Yes		Yes		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		Yes		Yes		
b. Were the recoveries for the ICVs within program limits?	Second source	Yes		Yes		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	% Recovery	Yes		Yes		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		Yes		Yes		
b. Were the recoveries for the CCVs within program limits?	% Recovery		No		No	see below
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		Yes		Yes		
d. Was each CCV uniquely identified (i.e. Standard Number)?		Yes		Yes		

Additional Comments:

The CCV #36 on sequence 090115pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV's #3, #15, #38, #52, and #72 on sequence 090215pcb had one peak for 1016 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

The CCV #65 on sequence 090215pcb had one peak for 1260 outside QC limits on channel A. The totals for 1016 passed, so no data qualification was necessary.

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		Yes		Yes		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	Yes		Yes		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	Yes		Yes		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequency of one per Prep Batch?	In-house limits or client specified limits	Yes		Yes		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	Yes		Yes		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	Yes		Yes		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits		No		No	see below
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a frequency one per Prep Batch?	Batch <20 samples	Yes		Yes		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits		No		No	see below
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	Yes		Yes		

Additional Comments:

The MS/MSD, performed on sample 623730 were above QC limits for spike recovery of 1016 and 1260.

The parent sample was not flagged, due ot no hits for 1016/1260.

Analytical Run #: 118277 - Paint Chips

FSV4-01
8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		Yes		Yes		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?			No		No	see below
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		Yes		Yes		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	Yes		Yes		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	Yes		Yes		acid, sulfur
f. Was there a hexane injection performed prior to sample analysis?		Yes		Yes		
g. Was there a priming standard injected prior to sample analysis?		Yes		Yes		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		Yes		Yes		
b. Are all manually integrated chromatograms stamped with initials and date?		Yes		Yes		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		Yes		Yes		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		Yes		Yes		
e. Is the ICAL method referenced on the Raw Data?		Yes		Yes		

Additional Comments:

Sample 623731 was outside QC limits for surrogate recovery, possibly due to matrix. It was "S" flagged.
Samples 623728, 623729, and 623732 were "D" flagged for surrogate recovery due to 1:100 dilutions.

Summary Report

Instrument ID: Semi 7

Data Path: C:\Instarch\Semi7\Sequence\080715PCBIC.seq

User ID: JJY

Printed Date: Aug 10,2015 08:35:36

SRT
09/08/2015

<u>Run Number</u>	<u>Sample ID</u>	<u>Data Filename</u>	<u>Method Filename</u>	<u>Analysis Date</u>	<u>Data Description</u>
1	Prime PP 4612 1:10	001.dat	080715PCBIC.met	Aug 07,2015 09:33:26	
2	Prime PP 4612 1:10	002.dat	080715PCBIC.met	Aug 07,2015 09:54:50	
3	Hexane	003.dat	080715PCBIC.met	Aug 07,2015 10:19:41	
4	Hexane	004.dat	080715PCBIC.met	Aug 07,2015 10:41:06	
5	PCB ICAL 1 PP 4716	005.dat	080715PCBIC.met	Aug 07,2015 11:02:31	
6	PCB ICAL 2 PP 4717	006.dat	080715PCBIC.met	Aug 07,2015 11:24:01	
7	PCB ICAL 3 PP 4718	007.dat	080715PCBIC.met	Aug 07,2015 11:45:29	
8	PCB ICAL 4 PP 4719	008.dat	080715PCBIC.met	Aug 07,2015 12:06:59	
9	PCB ICAL 5 PP 4720	009.dat	080715PCBIC.met	Aug 07,2015 12:28:24	
10	Hexane	010.dat	080715PCBIC.met	Aug 07,2015 12:49:52	
11	PCB ICV PP 4721	011.dat	080715PCBIC.met	Aug 07,2015 13:11:21	
12	Hexane	012.dat	080715PCBIC.met	Aug 07,2015 13:35:33	
13	1221 CF PP4627	013.dat	1221.met	Aug 07,2015 13:57:03	
14	1232 CF PP4628	014.dat	1232.met	Aug 07,2015 14:18:35	
15	1242 CF PP4629	015.dat	1242.met	Aug 07,2015 14:40:08	
16	1248 CF PP4630	016.dat	1248.met	Aug 07,2015 15:01:42	
17	1254 CF PP4631	017.dat	1254.met	Aug 07,2015 15:23:15	
18	1262 CF PP4632	018.dat	1262.met	Aug 07,2015 15:44:48	
19	1268 CF PP4633	019.dat	1268.met	Aug 07,2015 16:06:18	
20	Hexane	020.dat	080715PCBIC.met	Aug 07,2015 16:27:48	
21	1221 ICV PP4634	021.dat	1221.met	Aug 07,2015 16:49:13	
22	1232 ICV PP4635	022.dat	1232.met	Aug 07,2015 17:10:40	
23	1242 ICV PP4636	023.dat	1242.met	Aug 07,2015 17:32:10	
24	1248 ICV PP4637	024.dat	1248.met	Aug 07,2015 17:53:40	
25	1254 ICV PP4638	025.dat	1254.met	Aug 07,2015 18:15:07	
26	1262 ICV PP4639	026.dat	1262.met	Aug 07,2015 18:36:36	
27	1268 ICV PP4640	027.dat	1268.met	Aug 07,2015 18:58:09	
28	Hexane	028.dat	080715PCBIC.met	Aug 07,2015 19:19:37	
29	PCB CCV PP 4626	029.dat	080715PCBIC.met	Aug 07,2015 19:41:07	
30	117473,mbs,	030.dat	080715PCBIC.met	Aug 07,2015 20:02:40	
31	117473,lcss,	031.dat	080715PCBIC.met	Aug 07,2015 20:24:08	
32	117473,612628,	032.dat	080715PCBIC.met	Aug 07,2015 20:45:34	
33	117473,614486,,msd612628,	033.dat	080715PCBIC.met	Aug 07,2015 21:07:01	
34	117473,614487,,msd612628,	034.dat	080715PCBIC.met	Aug 07,2015 21:28:24	
35	Hexane	035.dat	080715PCBIC.met	Aug 07,2015 21:49:50	
36	117417,mbs,	036.dat	080715PCBIC.met	Aug 07,2015 22:11:20	
37	117417,lcss,	037.dat	080715PCBIC.met	Aug 07,2015 22:32:50	
38	117417,608581,	038.dat	080715PCBIC.met	Aug 07,2015 22:54:19	
39	117417,610528,,msd608581,	039.dat	080715PCBIC.met	Aug 07,2015 23:15:49	
40	117417,610528,,msd608581,	040.dat	080715PCBIC.met	Aug 07,2015 23:37:20	
41	PCB CCV PP 4626	041.dat	080715PCBIC.met	Aug 07,2015 23:58:49	
42	117153,mbs,	042.dat	080715PCBIC.met	Aug 08,2015 00:20:19	
43	117153,lcss,	043.dat	080715PCBIC.met	Aug 08,2015 00:41:48	
44	117153,610779,	044.dat	080715PCBIC.met	Aug 08,2015 01:03:19	
45	117153,610773,	045.dat	080715PCBIC.met	Aug 08,2015 01:24:50	
46	117153,611098,,msd610773,	046.dat	080715PCBIC.met	Aug 08,2015 01:46:20	
47	117153,611099,,msd610773,	047.dat	080715PCBIC.met	Aug 08,2015 02:07:44	
48	Hexane	048.dat	080715PCBIC.met	Aug 08,2015 02:29:11	
49	117158,mbs,	049.dat	080715PCBIC.met	Aug 08,2015 02:50:39	
50	117158,lcss,	050.dat	080715PCBIC.met	Aug 08,2015 03:12:08	
51	117158,611433,	051.dat	080715PCBIC.met	Aug 08,2015 03:33:35	
52	117158,611434,	052.dat	080715PCBIC.met	Aug 08,2015 03:55:02	

53	PCB CCV PP 4626	053.dat	080715PCBIC.met	Aug 08,2015 04:16:31
54	117158,611435,	054.dat	080715PCBIC.met	Aug 08,2015 04:38:01
55	117158,611436,	055.dat	080715PCBIC.met	Aug 08,2015 04:59:31
56	117158,611462	056.dat	080715PCBIC.met	Aug 08,2015 05:21:01
57	117158,611432,	057.dat	080715PCBIC.met	Aug 08,2015 05:42:31
58	117158,612623,,msd611432,	058.dat	080715PCBIC.met	Aug 08,2015 06:04:02
59	117158,612624,,msd611432,	059.dat	080715PCBIC.met	Aug 08,2015 06:25:34
60	PCB CCV PP 4626	060.dat	080715PCBIC.met	Aug 08,2015 06:47:09

Summary Report

Instrument ID: Semi 7 (Offline)

Data Path: C:\Instarch\Semi7\Sequence\090115pcb.seq

User ID: JJY

Printed Date: Sep 08,2015 14:12:07

SRT
09/08/2015

<u>Run Number</u>	<u>Sample ID</u>	<u>Data Filename</u>	<u>Method Filename</u>	<u>Analysis Date</u>	<u>Data Description</u>
1	Prime PP 4612 1:10	001.dat	090115pcb.met	Sep 01,2015 10:25:24	
2	Hexane	002.dat	090115pcb.met	Sep 01,2015 10:46:48	
3	PCB CCV PP4626	003.dat	090115pcb.met	Sep 01,2015 11:08:16	
4	118225,625557,100000	004.dat	090115pcb.met	Sep 01,2015 11:29:45	
5	PCB CCV PP4626	005.dat	090115pcb.met	Sep 01,2015 11:51:13	
6	118278,mbs,	006.dat	090115pcb.met	Sep 01,2015 12:12:43	
7	118278,lcss,	007.dat	090115pcb.met	Sep 01,2015 12:34:10	
8	118278,623476,	008.dat	090115pcb.met	Sep 01,2015 12:55:37	
9	118278,623477,	009.dat	090115pcb.met	Sep 01,2015 13:17:09	
10	118278,623478,	010.dat	090115pcb.met	Sep 01,2015 13:38:38	
11	118278,623479,	011.dat	1254.met	Sep 01,2015 14:00:06	
12	118278,623480,	012.dat	1254.met	Sep 01,2015 14:21:37	
13	118278,623465,	013.dat	090115pcb.met	Sep 01,2015 14:43:08	
14	118278,623924,,ms623465,	014.dat	090115pcb.met	Sep 01,2015 15:04:39	
15	118278,623925,,msd623465,	015.dat	090115pcb.met	Sep 01,2015 15:26:10	
16	Hexane	016.dat	090115pcb.met	Sep 01,2015 15:47:42	
17	PCB CCV PP4626	017.dat	090115pcb.met	Sep 01,2015 16:09:09	
18	118278,623481,	018.dat	090115pcb.met	Sep 01,2015 16:30:34	
19	118278,623483,	019.dat	090115pcb.met	Sep 01,2015 16:52:01	
20	118278,623482,	020.dat	090115pcb.met	Sep 01,2015 17:13:31	
21	Hexane	021.dat	090115pcb.met	Sep 01,2015 17:34:58	
22	Hexane	022.dat	090115pcb.met	Sep 01,2015 17:56:25	
23	1248 CCV PP4773	023.dat	083115_1248IC.met	Sep 01,2015 18:17:51	
24	1254 CCV PP4713	024.dat	1254IC.met	Sep 01,2015 18:39:21	
25	118326,mbs,	025.dat	090115pcb.met	Sep 01,2015 19:00:51	
26	118326,lcss,	026.dat	090115pcb.met	Sep 01,2015 19:22:21	
27	118326,626801,	027.dat	090115pcb.met	Sep 01,2015 19:43:52	
28	118326,626803,	028.dat	090115pcb.met	Sep 01,2015 20:05:25	
29	118326,626799,	029.dat	090115pcb.met	Sep 01,2015 20:26:53	
30	118326,626869,,ms626799,	030.dat	090115pcb.met	Sep 01,2015 20:48:24	
31	118326,626870,,msd626799,	031.dat	090115pcb.met	Sep 01,2015 21:09:52	
32	Hexane	032.dat	090115pcb.met	Sep 01,2015 21:31:19	
33	Hexane	033.dat	090115pcb.met	Sep 01,2015 21:52:46	
34	1248 CCV PP4773	034.dat	090115pcb.met	Sep 01,2015 22:14:13	
35	1254 CCV PP4713	035.dat	090115pcb.met	Sep 01,2015 22:35:43	
36	PCB CCV PP4626	036.dat	090115pcb.met	Sep 01,2015 22:57:10	
37	118277,mbs,	037.dat	090115pcb.met	Sep 01,2015 23:18:37	
38	118277,lcss,	038.dat	090115pcb.met	Sep 01,2015 23:40:04	
39	118277,623728,10000	039.dat	090115pcb.met	Sep 02,2015 00:01:27	
40	118277,623729,10000	040.dat	090115pcb.met	Sep 02,2015 00:22:57	
41	118277,623731,10000	041.dat	090115pcb.met	Sep 02,2015 00:44:28	
42	118277,623732,10000	042.dat	090115pcb.met	Sep 02,2015 01:05:57	
43	118277,623731,10000	043.dat	090115pcb.met	Sep 02,2015 01:27:29	
44	118277,624038,,ms623731,10000	044.dat	090115pcb.met	Sep 02,2015 01:48:57	
45	118277,624039,,msd623731,100...	045.dat	090115pcb.met	Sep 02,2015 02:10:31	
46	Hexane	046.dat	090115pcb.met	Sep 02,2015 02:31:57	
47	PCB CCV PP4626	047.dat	090115pcb.met	Sep 02,2015 02:53:22	
48	118276,mbs,	048.dat	090115pcb.met	Sep 02,2015 03:14:46	
49	118276,lcss,	049.dat	090115pcb.met	Sep 02,2015 03:36:12	
50	118276,625766,10000	050.dat	090115pcb.met	Sep 02,2015 03:57:42	
51	118276,625767,10000	051.dat	090115pcb.met	Sep 02,2015 04:19:09	
52	118276,625768,10000	052.dat	090115pcb.met	Sep 02,2015 04:40:36	

53	118276,625769,10000	053.dat	090115pcb.met	Sep 02,2015 05:02:02
54	118276,625770,10000	054.dat	090115pcb.met	Sep 02,2015 05:23:29
55	Hexane	055.dat	090115pcb.met	Sep 02,2015 05:44:54
56	PCB CCV PP4626	056.dat	090115pcb.met	Sep 02,2015 06:06:20
57	118271,mbs,	057.dat	090115pcb.met	Sep 02,2015 06:27:47
58	118271,lcss,	058.dat	090115pcb.met	Sep 02,2015 06:49:13
59	118271,623727,10000	059.dat	090115pcb.met	Sep 02,2015 07:10:42
60	118271,623733,10000	060.dat	090115pcb.met	Sep 02,2015 07:32:16
61	118271,623734,10000	061.dat	090115pcb.met	Sep 02,2015 07:53:39
62	118271,623735,10000	062.dat	090115pcb.met	Sep 02,2015 08:15:06
63	118271,623737,10000	063.dat	090115pcb.met	Sep 02,2015 08:36:32
64	118271,625783,10000	064.dat	090115pcb.met	Sep 02,2015 08:58:00
65	118271,625784,10000	065.dat	090115pcb.met	Sep 02,2015 09:19:31
66	118271,625788,10000	066.dat	090115pcb.met	Sep 02,2015 09:40:54
67	Hexane	067.dat	090115pcb.met	Sep 02,2015 10:02:24
68	PCB CCV PP4626	068.dat	090115pcb.met	Sep 02,2015 10:23:51
69	1248 CCV PP4773	069.dat	083115_1248IC.met	Sep 02,2015 10:45:14
70	1254 CCV PP4713	070.dat	1254IC.met	Sep 02,2015 11:06:41
71	118326,626801,	071.dat	1254IC.met	Sep 02,2015 11:28:08
72	118326,626803,	072.dat	1254IC.met	Sep 02,2015 11:49:33
73	118326,626799,	073.dat	1254IC.met	Sep 02,2015 12:10:56
74	118326,626869,,ms626799,2	074.dat	090115pcb.met	Sep 02,2015 12:32:18
75	118326,626870,,msd626799,2	075.dat	090115pcb.met	Sep 02,2015 12:53:48
76	118326,626869,,ms626799,40	076.dat	090115pcb.met	Sep 02,2015 13:16:28
77	118326,626870,,msd626799,40	077.dat	090115pcb.met	Sep 02,2015 13:37:55
78	1248 CCV PP4773	078.dat	083115_1248IC.met	Sep 02,2015 13:59:23
79	1254 CCV PP4713	079.dat	1254IC.met	Sep 02,2015 14:20:51
80	PCB CCV PP4626	080.dat	090115pcb.met	Sep 02,2015 14:42:23

Summary Report

Instrument ID: Semi 7

Data Path: C:\Instarch\Semi7\Sequence\090215PCB.seq

User ID: JJY

Printed Date: Sep 04,2015 12:08:25

SRT
09/08/2015

<u>Run Number</u>	<u>Sample ID</u>	<u>Data Filename</u>	<u>Method Filename</u>	<u>Analysis Date</u>	<u>Data Description</u>
1	Prime PP4612 1:10	001.dat	090215PCB.met	Sep 02,2015 15:15:31	
2	Hexane	002.dat	090215PCB.met	Sep 02,2015 15:36:58	
3	PCB CCV PP4626	003.dat	090215PCB.met	Sep 02,2015 15:58:27	
4	118277,623728,100	004.dat	1262.met	Sep 02,2015 16:19:55	
5	118277,623729,100	005.dat	1254.met	Sep 02,2015 16:41:20	
6	118277,623731,100	006.dat	090215PCB.met	Sep 02,2015 17:02:50	
7	118277,623732,100	007.dat	1254.met	Sep 02,2015 17:24:19	
8	118277,623730,100	008.dat	090215PCB.met	Sep 02,2015 17:45:47	
9	118277,624038,,ms623730,100	009.dat	090215PCB.met	Sep 02,2015 18:07:14	
10	118277,624039,,msd623730,100	010.dat	090215PCB.met	Sep 02,2015 18:28:43	
11	118271,623727,100	011.dat	090215PCB.met	Sep 02,2015 18:50:13	
12	118271,623733,100	012.dat	090215PCB.met	Sep 02,2015 19:11:44	
13	118271,623734,100	013.dat	090215PCB.met	Sep 02,2015 19:33:15	
14	Hexane	014.dat	090215PCB.met	Sep 02,2015 19:54:48	
15	PCB CCV PP4626	015.dat	090215PCB.met	Sep 02,2015 20:16:20	
16	118271,623735,100	016.dat	090215PCB.met	Sep 02,2015 20:37:48	
17	118271,623737,1000	017.dat	090215PCB.met	Sep 02,2015 20:59:14	
18	118271,625784,100	018.dat	090215PCB.met	Sep 02,2015 21:20:43	
19	118271,625788,100	019.dat	090215PCB.met	Sep 02,2015 21:42:11	
20	118271,625783,100	020.dat	090215PCB.met	Sep 02,2015 22:03:39	
21	118276,625766,100	021.dat	090215PCB.met	Sep 02,2015 22:25:07	
22	118276,625767,100	022.dat	090215PCB.met	Sep 02,2015 22:46:35	
23	118276,625768,100	023.dat	090215PCB.met	Sep 02,2015 23:08:05	
24	118276,625770,100	024.dat	1254.met	Sep 02,2015 23:29:35	
25	118276,625769,1000	025.dat	090215PCB.met	Sep 02,2015 23:51:07	
26	Hexane	026.dat	090215PCB.met	Sep 03,2015 00:12:38	
27	PCB CCV PP4626	027.dat	090215PCB.met	Sep 03,2015 00:34:08	
28	118292,,mbs,	028.dat	090215PCB.met	Sep 03,2015 00:55:40	
29	118292,,lcss,	029.dat	090215PCB.met	Sep 03,2015 01:17:10	
30	118292,625771,10000	030.dat	090215PCB.met	Sep 03,2015 01:38:44	
31	118292,625772,10000	031.dat	090215PCB.met	Sep 03,2015 02:00:12	
32	Hexane	032.dat	090215PCB.met	Sep 03,2015 02:21:38	
33	118372,mbs,	033.dat	090215PCB.met	Sep 03,2015 02:43:08	
34	118372,lcss,	034.dat	090215PCB.met	Sep 03,2015 03:04:36	
35	118372,627313,10000	035.dat	090215PCB.met	Sep 03,2015 03:26:04	
36	Hexane	036.dat	090215PCB.met	Sep 03,2015 03:47:32	
37	Hexane	037.dat	090215PCB.met	Sep 03,2015 04:09:03	
38	PCB CCV PP4626	038.dat	090215PCB.met	Sep 03,2015 04:30:31	
39	Hexane	039.dat	090215PCB.met	Sep 03,2015 09:30:54	
40	PCB CCV PP4626	040.dat	090215PCB.met	Sep 03,2015 09:52:18	
41	118372,627313,50000	041.dat	090215PCB.met	Sep 03,2015 10:13:45	
42	118271,623727,	042.dat	1254.met	Sep 03,2015 10:35:14	
43	118271,623733,	043.dat	1262.met	Sep 03,2015 10:56:39	
44	118271,623734,	044.dat	1254.met	Sep 03,2015 11:18:09	
45	118271,623735,	045.dat	1262.met	Sep 03,2015 11:39:39	
46	118271,623737,10	046.dat	1254.met	Sep 03,2015 12:01:11	
47	118271,625784,	047.dat	090215PCB.met	Sep 03,2015 12:22:41	
48	118271,625788,	048.dat	1254.met	Sep 03,2015 12:44:11	
49	118271,625783,	049.dat	090215PCB.met	Sep 03,2015 13:05:41	
50	118276,625766,	050.dat	090215PCB.met	Sep 03,2015 13:27:09	
51	Hexane	051.dat	090215PCB.met	Sep 03,2015 13:48:41	
52	PCB CCV PP4626	052.dat	090215PCB.met	Sep 03,2015 14:10:08	

53	118276,625767,	053.dat	1248.met	Sep 03,2015 14:31:41
54	118276,625768,	054.dat	090215PCB.met	Sep 03,2015 14:53:12
55	118292,625772,	055.dat	090215PCB.met	Sep 03,2015 15:14:40
56	118292,625771,	056.dat	090215PCB.met	Sep 03,2015 15:36:10
57	Hexane	057.dat	090215PCB.met	Sep 03,2015 15:57:38
58	118292,625772,10	058.dat	1254.met	Sep 03,2015 16:19:10
59	118292,625771,10	059.dat	1254.met	Sep 03,2015 16:40:38
60	118292,626381,,ms625771,10	060.dat	090215PCB.met	Sep 03,2015 17:02:11
61	118292,626382,,msd625771,10	061.dat	090215PCB.met	Sep 03,2015 17:23:39
62	118276,625769,100	062.dat	1248.met	Sep 03,2015 17:45:11
63	118277,623731,10	063.dat	1262.met	Sep 03,2015 18:06:41
64	Hexane	064.dat	090215PCB.met	Sep 03,2015 18:28:12
65	PCB CCV PP4626	065.dat	090215PCB.met	Sep 03,2015 18:49:44
66	118277,623730,10	066.dat	1254.met	Sep 03,2015 19:11:13
67	118277,624038,,ms623730,10	067.dat	090215PCB.met	Sep 03,2015 19:32:44
68	118277,624039,,msd623730,10	068.dat	090215PCB.met	Sep 03,2015 19:54:17
69	118271,625783,20	069.dat	090215PCB.met	Sep 03,2015 20:15:46
70	118276,625766,2	070.dat	1262.met	Sep 03,2015 20:37:15
71	Hexane	071.dat	090215PCB.met	Sep 03,2015 20:58:45
72	PCB CCV PP4626	072.dat	090215PCB.met	Sep 03,2015 21:20:10
73	Hexane	073.dat	090215PCB.met	Sep 04,2015 08:47:20
74	Hexane	074.dat	090215PCB.met	Sep 04,2015 09:58:50
75	PCB CCV PP4626	075.dat	090215PCB.met	Sep 04,2015 10:20:14
76	118276,625768,5	076.dat	1248.met	Sep 04,2015 10:41:38
77	118277,624038,,ms623730,50	077.dat	090215PCB.met	Sep 04,2015 11:03:05
78	118277,624039,,msd623730,50	078.dat	090215PCB.met	Sep 04,2015 11:24:30
79	PCB CCV PP4626	079.dat	090215PCB.met	Sep 04,2015 11:45:59

Project

Notebook No.

Continued from Page

Standard Number	Standard Description	Solvent/Lot	Prep Date/Analyst/Exp. Date	STD Parent ID & Concentration			Standard Volume (ml)	Final Volume (ml)	Final Concentration	
PP 4604	1016/1260 Intermed standard	Hexane JT Baker lot 98655	05-Mar-15 JJY 05-Sep-15	S3180	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4605	1221 Intermed standard			S3168	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4606	1232 Intermed standard			S3170	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4607	1242 Intermed standard			S3172	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4608	1248 Intermed standard			S3174	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4069	1254 Intermed standard			S3176	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4610	1262 Intermed standard			S3178	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4611	1268 Intermed standard			S3192	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4612	1016/1260 2nd Sree			S3181	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4613	1221 2nd Sree			S3169	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4614	1232 2nd Sree			S3171	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4615	1242 2nd Sree			S3173	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4616	1248 2nd Sree			S3175	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4617	1254 2nd Sree			S3177	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4618	1262 2nd Sree			S3179	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml
PP 4619	1268 2nd Sree			S3193	1000	ug/mL	0.100	10.0	10.0	ug/ml
				S3280A	200	ug/mL	0.025	10.0	0.5	ug/ml

JJY 3/5/15

Continued on Page

Read and Understood By

Signed

Date

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Date

Project

Notebook No.

Continued from Page

Standard Number	Standard Description	Solvent/Lot	Prep Date/Analyst/Exp. Date			STD Parent ID & Concentration			Standard Volume (ml)	Final Volume (ml)	Final Concentration	
PP 4620	PCB ICA 1	Hexane	05-Mar-15	JY	05-Sep-15	PP4604	10	ug/mL	0.030	10.0	0.03	ug/ml
PP 4621	PCB ICA 2	JT Baker				PP4604	10	ug/mL	0.050	10.0	0.05	ug/ml
PP 4622	PCB ICA 3	lot 98655				PP4604	10	ug/mL	0.200	10.0	0.20	ug/ml
PP 4623	PCB ICA 4					PP4604	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4624	PCB ICA 5					PP4604	10	ug/mL	1.000	10.0	1.00	ug/ml
PP 4625	PCB ICV					PP4612	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4626	PCB CCV					PP4604	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4627	1221 CF					PP4605	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4628	1232 CF					PP4606	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4629	1242 CF					PP4607	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4630	1248 CF					PP4608	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4631	1254 CF					PP4609	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4632	1262 CF					PP4610	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4633	1268 CF					PP4611	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4634	1221 ICV					PP4613	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4635	1232 ICV					PP4614	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4636	1242 ICV					PP4615	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4637	1248 ICV					PP4616	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4638	1254 ICV					PP4617	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4639	1263 ICV					PP4618	10	ug/mL	0.500	10.0	0.50	ug/ml
PP 4640	1268 ICV					PP4619	10	ug/mL	0.500	10.0	0.50	ug/ml

JY 3/5/15

JY 3/6/15

Continued on Page

Read and Understood By

Signed

Date

Signed

Date

Project
Continued from Page _____

Standard Number	Standard Description	Solvent/Lot	Prep Date/Analyst/Exp. Date	STD Parent ID & Concentration	Standard Volume (ml)	Final Volume (ml)	Final Concentration
PP 4700	1242 Spike	Acetone JT Baker lot 88128	19-Mar-15 JJY 15-Sep-15	S3172 1000 ug/mL	0.500	50.0	10.00 ug/ml
PP 4701	1254 Spike			S3176 1000 ug/mL	0.500	50.0	10.00 ug/ml
JY 3/19/15							
Standard Number	Standard Description	Solvent/Lot	Prep Date/Analyst/Exp. Date	STD Parent ID & Concentration	Standard Volume (ml)	Final Volume (ml)	Final Concentration
PP 4702	PCB Spike	Acetone JT Baker lot 88128	19-Mar-15 JJY 15-Sep-15	S3180 1000 ug/mL	0.500	50.0	10.00 ug/ml
JY 3/19/15							
Standard Number	Standard Description	Solvent/Lot	Prep Date/Analyst/Exp. Date	STD Parent ID & Concentration	Standard Volume (ml)	Final Volume (ml)	Final Concentration
PP 4703	Tox/Chlor Spike	Acetone JT Baker lot 88128	19-Mar-15 JJY 15-Sep-15	S3184 1000 ug/mL	0.250	50.0	5.00 ug/ml
				S3195 1000 ug/mL	0.250	50.0	5.00 ug/ml
JY 3/19/15							
Standard Number	Standard Description	Solvent/Lot	Prep Date/Analyst/Exp. Date	STD Parent ID & Concentration	Standard Volume (ml)	Final Volume (ml)	Final Concentration
PP 4704	1242 ICAL 1	Hexane JT Baker Lot# 98655	23-Mar-15 SRT 05-Sep-15	PP 4607 10 ug/mL	0.020	10.0	0.02 ug/ml
PP 4705	1242 ICAL 2			PP 4607 10 ug/mL	0.050	10.0	0.05 ug/ml
PP 4706	1242 ICAL 3			PP 4607 10 ug/mL	0.200	10.0	0.20 ug/ml
PP 4707	1242 ICAL 4			PP 4607 10 ug/mL	0.500	10.0	0.50 ug/ml
PP 4708	1242 ICAL 5			PP 4607 10 ug/mL	0.700	10.0	0.70 ug/ml
PP 4709	1242 ICV			PP4615 10 ug/mL	0.500	10.0	0.50 ug/ml
PP 4710	1254 ICAL 1			PP 4069 10 ug/mL	0.500	10.0	0.02 ug/ml
PP 4711	1254 ICAL 2			PP 4069 10 ug/mL	0.500	10.0	0.05 ug/ml
PP 4712	1254 ICAL 3			PP 4069 10 ug/mL	0.500	10.0	0.20 ug/ml
PP 4713	1254 ICAL 4			PP 4069 10 ug/mL	0.500	10.0	0.50 ug/ml
PP 4714	1254 ICAL 5			PP 4069 10 ug/mL	0.050	10.0	0.70 ug/ml
PP 4715	1254 ICV			PP 4617 10 ug/mL	0.500	10.0	0.50 ug/ml
PP 4716	1016/1260 ICAL 1			PP 4604 10 ug/mL	0.020	10.0	0.02 ug/ml
PP 4717	1016/1260 ICAL 2			PP 4604 10 ug/mL	0.050	10.0	0.05 ug/ml
PP 4718	1016/1260 ICAL 3			PP 4604 10 ug/mL	0.200	10.0	0.20 ug/ml
PP 4719	1016/1260 ICAL 4			PP 4604 10 ug/mL	0.500	10.0	0.50 ug/ml
PP 4720	1016/1260 ICAL 5			PP 4604 10 ug/mL	0.700	10.0	0.70 ug/ml
PP 4721	1016/1260 ICV			PP4612 10 ug/mL	0.500	10.0	0.50 ug/ml
JY 3/23/15							

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Read and Understood By _____

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Pest PCB Logbook 01

01/19/2015

NOTEBOOK VIEW: LTN_Pest_PCB_Logbook01_Default, NOTEBOOK: Pest_PCB_Logbook01, PAGE: 12

Page is Unlocked

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Project: Unassigned

Page Title: 081815

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP4828	PEST/PCB SURROGATE	ACETONE OMNISOLV LOT#53115	SRT	08/18/2015	02/18/2016

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3280B	200	ug/ml	0.500	200	0.5

1

CT Laboratories LLC

Pest PCB Logbook 01

01/19/2015

NOTEBOOK VIEW: LTN_Pest_PCB_Logbook01_Default, NOTEBOOK: Pest_PCB_Logbook01, PAGE: 14

Page is Unlocked

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Project: Unassigned

Page Title: 082115

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP4830	PCB SPIKE	ACETONE OMNISOLV LOT#53115	SRT	08/21/2015	02/21/2016

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S3138B	1000	ug/ml	0.500	50.0	10.0

1

CT Laboratories LLC

**METALS
CLP FORMS
DOCUMENTS**

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-004-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623731</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>20.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>09/01/2015 20:37</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	45900		3.0	9.3	19	19

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-008-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623728</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 14:46</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	2510		0.15	0.46	0.93	0.93

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-015-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623729</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 15:07</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	2430		0.16	0.50	1.0	1.0

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623732</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 15:46</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	3670		0.14	0.45	0.89	0.89

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-018-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623730</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>20.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>09/01/2015 19:58</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	86400	M	2.7	8.5	17	17

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-001-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623735</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118139</u>	Analysis Date/Time	<u>08/26/2015 13:53</u>
Analytical Prep Batch #:	<u>53928</u>	Prep. Date/Time:	<u>08/25/2015 12:00</u>
ICAL Calibration #:	<u>08262015</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.036		0.0023	0.0046	0.0091	0.0091

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-001-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623735</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 16:13</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	11.3		0.39	1.2	2.4	2.4
7440-39-3	Barium	53.4		0.027	0.075	0.15	0.15
7440-43-9	Cadmium	5.6		0.018	0.060	0.12	0.12
7440-47-3	Chromium	287		0.069	0.21	0.42	0.42
7439-92-1	Lead	21.9		0.12	0.37	0.75	0.75
7782-49-2	Selenium	0.60	U	0.18	0.60	1.2	1.2
7440-22-4	Silver	1.4		0.051	0.15	0.30	0.30

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-003-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623733</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>50.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118139</u>	Analysis Date/Time	<u>08/26/2015 14:16</u>
Analytical Prep Batch #:	<u>53928</u>	Prep. Date/Time:	<u>08/25/2015 12:00</u>
ICAL Calibration #:	<u>08262015</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	17.1		0.11	0.22	0.43	0.43

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-003-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623733</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 15:51</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	105		0.43	1.3	2.7	2.7
7440-39-3	Barium	34.0		0.030	0.083	0.17	0.17
7440-43-9	Cadmium	1.0		0.020	0.067	0.13	0.13
7440-47-3	Chromium	13.0		0.077	0.23	0.47	0.47
7439-92-1	Lead	27.2		0.13	0.42	0.83	0.83
7782-49-2	Selenium	17.2		0.20	0.67	1.3	1.3
7440-22-4	Silver	0.34		0.057	0.17	0.33	0.33

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-003B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623734</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>50.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118139</u>	Analysis Date/Time	<u>08/28/2015 07:07</u>
Analytical Prep Batch #:	<u>53928</u>	Prep. Date/Time:	<u>08/25/2015 12:00</u>
ICAL Calibration #:	<u>08272015</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	17.7		0.11	0.22	0.44	0.44

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-003B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623734</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 16:08</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	94.0		0.39	1.2	2.4	2.4
7440-39-3	Barium	28.5		0.027	0.075	0.15	0.15
7440-43-9	Cadmium	0.91		0.018	0.060	0.12	0.12
7440-47-3	Chromium	10.8		0.069	0.21	0.42	0.42
7439-92-1	Lead	19.6		0.12	0.37	0.75	0.75
7782-49-2	Selenium	13.8		0.18	0.60	1.2	1.2
7440-22-4	Silver	0.21	J B	0.051	0.15	0.30	0.30

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623727</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118139</u>	Analysis Date/Time	<u>08/26/2015 13:34</u>
Analytical Prep Batch #:	<u>53928</u>	Prep. Date/Time:	<u>08/25/2015 12:00</u>
ICAL Calibration #:	<u>08262015</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.0044	U M	0.0022	0.0044	0.0087	0.0087

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623727</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 14:18</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	1.5	U	0.50	1.5	3.1	3.1
7440-39-3	Barium	0.36		0.035	0.096	0.19	0.19
7440-43-9	Cadmium	0.077	U	0.023	0.077	0.15	0.15
7440-47-3	Chromium	0.11	J B	0.088	0.27	0.54	0.54
7782-49-2	Selenium	0.77	U	0.23	0.77	1.5	1.5
7440-22-4	Silver	0.19	U B	0.065	0.19	0.38	0.38

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623727</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>09/01/2015 19:53</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	2.4	M	0.15	0.48	0.96	0.96

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623737</u>
Analytical Method:	<u>EPA 7471B</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118139</u>	Analysis Date/Time	<u>08/26/2015 13:59</u>
Analytical Prep Batch #:	<u>53928</u>	Prep. Date/Time:	<u>08/25/2015 12:00</u>
ICAL Calibration #:	<u>08262015</u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.0044	U	0.0022	0.0044	0.0087	0.0087

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623737</u>
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118178</u>	Analysis Date/Time	<u>08/31/2015 16:17</u>
Analytical Prep Batch #:	<u>53962</u>	Prep. Date/Time:	<u>08/27/2015 06:00</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	1.5	U	0.49	1.5	3.0	3.0
7440-39-3	Barium	1.1		0.034	0.094	0.19	0.19
7440-43-9	Cadmium	1.7		0.023	0.075	0.15	0.15
7440-47-3	Chromium	1.7		0.087	0.26	0.53	0.53
7439-92-1	Lead	25.3		0.15	0.47	0.94	0.94
7782-49-2	Selenium	0.75	U	0.23	0.75	1.5	1.5
7440-22-4	Silver	0.19	U	0.064	0.19	0.38	0.38



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625374

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	11:35	3.00	3.08	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625774

ICAL Calibration #: 08272015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/28/15	07:03	3.00	3.08	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626808

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	13:34	2000	2030	102	90	110
Barium	8/31/15	13:34	2000	2020	101	90	110
Cadmium	8/31/15	13:34	50.00	45.30	91	90	110
Chromium	8/31/15	13:34	200.0	204.0	102	90	110
Lead	8/31/15	13:34	500.0	494.0	99	90	110
Selenium	8/31/15	13:34	2000	1970	98	90	110
Silver	8/31/15	13:34	50.00	49.70	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Sample No.

LLQC

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626809

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	13:38	60.00	58.70	98	80	120
Barium	8/31/15	13:38	30.00	29.70	99	80	120
Cadmium	8/31/15	13:38	15.00	14.00	93	80	120
Chromium	8/31/15	13:38	30.00	31.50	105	80	120
Lead	8/31/15	13:38	30.00	28.90	96	80	120
Selenium	8/31/15	13:38	60.00	63.50	106	80	120
Silver	8/31/15	13:38	60.00	69.30	116	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

Sample No.

LLQC

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626814

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	8/31/15	14:05	10.00	9.07	91	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

INITIAL CALIBRATION VERIFICATION

Sample No.

ICV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627466

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	15:15	2000	2040	102	90	110
Barium	9/1/15	15:15	2000	2010	100	90	110
Cadmium	9/1/15	15:15	50.00	48.50	97	90	110
Chromium	9/1/15	15:15	200.0	196.0	98	90	110
Lead	9/1/15	15:15	500.0	475.0	95	90	110
Selenium	9/1/15	15:15	2000	2020	101	90	110
Silver	9/1/15	15:15	50.00	48.70	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Sample No.

LLQC

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627467

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	15:19	60.00	64.30	107	80	120
Barium	9/1/15	15:19	30.00	29.70	99	80	120
Cadmium	9/1/15	15:19	15.00	14.20	95	80	120
Chromium	9/1/15	15:19	30.00	28.90	96	80	120
Lead	9/1/15	15:19	30.00	26.20	87	80	120
Selenium	9/1/15	15:19	60.00	61.80	103	80	120
Silver	9/1/15	15:19	60.00	70.30	117	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-1

Sample No.

LLQC

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627472

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	9/1/15	15:46	10.00	9.59	96	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625382

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	13:06	3.00	2.49	83	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625384

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	13:28	3.00	3.01	100	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625388

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	13:55	3.00	2.86	95	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625390

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	14:01	3.00	2.95	98	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625392

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	14:12	3.00	2.89	96	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625394

ICAL Calibration #: 08262015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/26/15	14:20	3.00	2.82	94	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION

Sample No.

CCV

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139

Lab Sample ID: 625776

ICAL Calibration #: 08272015

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	8/28/15	07:09	3.00	3.12	104	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626817

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	14:51	5000	4990	100	90	110
Barium	8/31/15	14:51	5000	4810	96	90	110
Cadmium	8/31/15	14:51	500.0	509.0	102	90	110
Chromium	8/31/15	14:51	5000	4850	97	90	110
Lead	8/31/15	14:51	5000	4960	99	90	110
Selenium	8/31/15	14:51	5000	4860	97	90	110
Silver	8/31/15	14:51	500.0	486.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626818

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	14:56	500.0	501.0	100	90	110
Barium	8/31/15	14:56	500.0	493.0	99	90	110
Cadmium	8/31/15	14:56	50.00	50.40	101	90	110
Chromium	8/31/15	14:56	500.0	475.0	95	90	110
Lead	8/31/15	14:56	500.0	495.0	99	90	110
Selenium	8/31/15	14:56	500.0	498.0	100	90	110
Silver	8/31/15	14:56	50.00	47.40	95	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626822

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	15:55	5000	4920	98	90	110
Barium	8/31/15	15:55	5000	4670	93	90	110
Cadmium	8/31/15	15:55	500.0	500.0	100	90	110
Chromium	8/31/15	15:55	5000	4810	96	90	110
Lead	8/31/15	15:55	5000	4880	98	90	110
Selenium	8/31/15	15:55	5000	4870	97	90	110
Silver	8/31/15	15:55	500.0	482.0	96	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626823

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	16:00	500.0	495.0	99	90	110
Barium	8/31/15	16:00	500.0	487.0	97	90	110
Cadmium	8/31/15	16:00	50.00	50.20	100	90	110
Chromium	8/31/15	16:00	500.0	486.0	97	90	110
Lead	8/31/15	16:00	500.0	507.0	101	90	110
Selenium	8/31/15	16:00	500.0	496.0	99	90	110
Silver	8/31/15	16:00	50.00	49.40	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626825

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	16:54	5000	4940	99	90	110
Barium	8/31/15	16:54	5000	4780	96	90	110
Cadmium	8/31/15	16:54	500.0	501.0	100	90	110
Chromium	8/31/15	16:54	5000	4840	97	90	110
Lead	8/31/15	16:54	5000	4870	97	90	110
Selenium	8/31/15	16:54	5000	4800	96	90	110
Silver	8/31/15	16:54	500.0	487.0	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 626826

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	8/31/15	16:58	500.0	505.0	101	90	110
Barium	8/31/15	16:58	500.0	487.0	97	90	110
Cadmium	8/31/15	16:58	50.00	50.60	101	90	110
Chromium	8/31/15	16:58	500.0	489.0	98	90	110
Lead	8/31/15	16:58	500.0	495.0	99	90	110
Selenium	8/31/15	16:58	500.0	496.0	99	90	110
Silver	8/31/15	16:58	50.00	49.90	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627473

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	19:22	5000	5270	105	90	110
Barium	9/1/15	19:22	5000	5100	102	90	110
Cadmium	9/1/15	19:22	500.0	535.0	107	90	110
Chromium	9/1/15	19:22	5000	5020	100	90	110
Lead	9/1/15	19:22	5000	5340	107	90	110
Selenium	9/1/15	19:22	5000	5250	105	90	110
Silver	9/1/15	19:22	500.0	507.0	101	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627474

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	19:27	500.0	537.0	107	90	110
Barium	9/1/15	19:27	500.0	503.0	101	90	110
Cadmium	9/1/15	19:27	50.00	52.50	105	90	110
Chromium	9/1/15	19:27	500.0	483.0	97	90	110
Lead	9/1/15	19:27	500.0	516.0	103	90	110
Selenium	9/1/15	19:27	500.0	513.0	103	90	110
Silver	9/1/15	19:27	50.00	52.90	106	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627476

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	20:20	5000	5190	104	90	110
Barium	9/1/15	20:20	5000	4900	98	90	110
Cadmium	9/1/15	20:20	500.0	524.0	105	90	110
Chromium	9/1/15	20:20	5000	4830	97	90	110
Lead	9/1/15	20:20	5000	5280	106	90	110
Selenium	9/1/15	20:20	5000	5180	104	90	110
Silver	9/1/15	20:20	500.0	499.0	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627477

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	20:24	500.0	538.0	108	90	110
Barium	9/1/15	20:24	500.0	485.0	97	90	110
Cadmium	9/1/15	20:24	50.00	52.20	104	90	110
Chromium	9/1/15	20:24	500.0	468.0	94	90	110
Lead	9/1/15	20:24	500.0	518.0	104	90	110
Selenium	9/1/15	20:24	500.0	542.0	108	90	110
Silver	9/1/15	20:24	50.00	52.30	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Sample No.

**CCV High
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627479

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	20:46	5000	5270	105	90	110
Barium	9/1/15	20:46	5000	4910	98	90	110
Cadmium	9/1/15	20:46	500.0	533.0	107	90	110
Chromium	9/1/15	20:46	5000	4830	97	90	110
Lead	9/1/15	20:46	5000	5370	107	90	110
Selenium	9/1/15	20:46	5000	5250	105	90	110
Silver	9/1/15	20:46	500.0	500.0	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130



2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Sample No.

**CCV Low
Level**

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178

Lab Sample ID: 627480

ICAL Calibration #: _____

Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Arsenic	9/1/15	20:51	500.0	542.0	108	90	110
Barium	9/1/15	20:51	500.0	486.0	97	90	110
Cadmium	9/1/15	20:51	50.00	52.60	105	90	110
Chromium	9/1/15	20:51	500.0	467.0	93	90	110
Lead	9/1/15	20:51	500.0	519.0	104	90	110
Selenium	9/1/15	20:51	500.0	551.0	110	90	110
Silver	9/1/15	20:51	50.00	52.40	105	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 626810

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	08/31/2015	13:47	2.71	U	4	16
Barium	08/31/2015	13:47	-0.546	U	0.29	1.0
Cadmium	08/31/2015	13:47	-0.109	U	0.3	0.8
Chromium	08/31/2015	13:47	-0.603	U	0.6	2.8
Lead	08/31/2015	13:47	-1.91	U	1.4	5.0
Selenium	08/31/2015	13:47	-4.38	U	2.2	8.0
Silver	08/31/2015	13:47	1.14		0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 627468

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	09/01/2015	15:28	0.0400	U	4	16
Barium	09/01/2015	15:28	0.0200	U	0.29	1.0
Cadmium	09/01/2015	15:28	-0.418	U	0.3	0.8
Chromium	09/01/2015	15:28	-0.495	U	0.6	2.8
Lead	09/01/2015	15:28	-4.29	U	1.4	5.0
Selenium	09/01/2015	15:28	0.541	U	2.2	8.0
Silver	09/01/2015	15:28	0.169	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625375

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 11:37	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

INITIAL CALIBRATION BLANKS

Sample No

ICB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625775

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08272015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/28/2015 07:05	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 626819

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	08/31/2015	15:02	0.155	U	4	16
Barium	08/31/2015	15:02	-0.488	U	0.29	1.0
Cadmium	08/31/2015	15:02	-0.0160	U	0.3	0.8
Chromium	08/31/2015	15:02	-0.406	U	0.6	2.8
Lead	08/31/2015	15:02	-3.29	U	1.4	5.0
Selenium	08/31/2015	15:02	2.95		2.2	8.0
Silver	08/31/2015	15:02	1.66		0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 626824

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	08/31/2015	16:04	0	U	4	16
Barium	08/31/2015	16:04	0	U	0.29	1.0
Cadmium	08/31/2015	16:04	0	U	0.3	0.8
Chromium	08/31/2015	16:04	0	U	0.6	2.8
Lead	08/31/2015	16:04	1.49		1.4	5.0
Selenium	08/31/2015	16:04	0	U	2.2	8.0
Silver	08/31/2015	16:04	0	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 626827

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	08/31/2015	17:02	0.913	U	4	16
Barium	08/31/2015	17:02	0	U	0.29	1.0
Cadmium	08/31/2015	17:02	0	U	0.3	0.8
Chromium	08/31/2015	17:02	0.741		0.6	2.8
Lead	08/31/2015	17:02	1.53		1.4	5.0
Selenium	08/31/2015	17:02	2.51		2.2	8.0
Silver	08/31/2015	17:02	0.787		0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 627475

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	09/01/2015	19:31	3.58	U	4	16
Barium	09/01/2015	19:31	0.211	U	0.29	1.0
Cadmium	09/01/2015	19:31	-0.467	U	0.3	0.8
Chromium	09/01/2015	19:31	-1.11	U	0.6	2.8
Lead	09/01/2015	19:31	-3.86	U	1.4	5.0
Selenium	09/01/2015	19:31	1.65	U	2.2	8.0
Silver	09/01/2015	19:31	0.121	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 627478

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	09/01/2015	20:28	1.78	U	4	16
Barium	09/01/2015	20:28	0.239	U	0.29	1.0
Cadmium	09/01/2015	20:28	-0.458	U	0.3	0.8
Chromium	09/01/2015	20:28	-2.13	U	0.6	2.8
Lead	09/01/2015	20:28	-1.62	U	1.4	5.0
Selenium	09/01/2015	20:28	0.301	U	2.2	8.0
Silver	09/01/2015	20:28	-0.496	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 627481

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit
Arsenic	09/01/2015	20:55	3.77	U	4	16
Barium	09/01/2015	20:55	0.232	U	0.29	1.0
Cadmium	09/01/2015	20:55	-0.567	U	0.3	0.8
Chromium	09/01/2015	20:55	-0.300	U	0.6	2.8
Lead	09/01/2015	20:55	-4.53	U	1.4	5.0
Selenium	09/01/2015	20:55	1.84	U	2.2	8.0
Silver	09/01/2015	20:55	-0.207	U	0.7	2.0

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625383

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 13:08	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625385

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 13:30	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625389

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 13:57	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625391

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 14:03	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625393

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 14:13	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625395

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08262015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 14:22	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CONTINUING CALIBRATION BLANKS

CCB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 625777

Analytical Prep Batch # 0 Preparation Date/Time: _____

ICAL Calibration #: 08272015 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/28/2015 07:11	0.0100	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 625448

Analytical Prep Batch # 53962 Preparation Date/Time: 08/27/2015 06:00

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: ReRun Re-Analysis #2

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Barium	08/31/2015 14:14	-0.028	U	0.009	0.025

Analysis Type: ReRun Re-Analysis #1

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Lead	09/01/2015 19:49	0	U	0.04	0.125

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118178 Lab Sample ID: 625448

Analytical Prep Batch # 53962 Preparation Date/Time: 08/27/2015 06:00

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Measured Concentration	C***	Detection Limit**	Control Limit	
Arsenic	08/31/2015	14:14	-0.85	U	0.13	0.40	
Cadmium	08/31/2015	14:14	-0.039	U	0.006	0.020	
Chromium	08/31/2015	14:14	0.046		0.023	0.125	FAIL
Selenium	08/31/2015	14:14	-0.13	U	0.06	0.20	
Silver	08/31/2015	14:14	0.030		0.017	0.050	FAIL

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Analytical Run #: 118139 Lab Sample ID: 624002

Analytical Prep Batch # 53928 Preparation Date/Time: 08/25/2015 12:00

ICAL Calibration #: 08262015 Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	08/26/2015 13:32	0	U	0.0021	0.00415

** Detection Limit only reported if value was less than the control limit.

***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 113433
 ICS Source: SPEX

 Analytical Run #: 118178 Lab Sample ID: 626812
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	08/31/2015 13:56	500000	468000	94	80	120
Arsenic	08/31/2015 13:56	0	0.106		-16	16
Barium	08/31/2015 13:56	0	0.0110		-1	1
Cadmium	08/31/2015 13:56	0	0.0210		-0.8	0.8
Calcium	08/31/2015 13:56	500000	430000	86	80	120
Chromium	08/31/2015 13:56	0	.000		-2.8	2.8
Iron	08/31/2015 13:56	500000	424000	85	80	120
Lead	08/31/2015 13:56	0	0		-5	5
Magnesium	08/31/2015 13:56	500000	420000	84	80	120
Selenium	08/31/2015 13:56	0	0		-8	8
Silver	08/31/2015 13:56	0	0		-2	2

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 113433
 ICS Source: SPEX
 Analytical Run #: 118178 Lab Sample ID: 627470
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/01/2015 15:37	500000	497000	99	80	120
Arsenic	09/01/2015 15:37	0	-0.278		-16	16
Barium	09/01/2015 15:37	0	-0.168		-1	1
Cadmium	09/01/2015 15:37	0	0		-0.8	0.8
Calcium	09/01/2015 15:37	500000	497000	99	80	120
Chromium	09/01/2015 15:37	0	-0.00600		-2.8	2.8
Iron	09/01/2015 15:37	500000	452000	90	80	120
Lead	09/01/2015 15:37	0	0.133		-5	5
Magnesium	09/01/2015 15:37	500000	507000	101	80	120
Selenium	09/01/2015 15:37	0	-0.306		-8	8
Silver	09/01/2015 15:37	0	-0.0180		-2	2

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 113433
 ICS Source: SPEX, Ultra
 Analytical Run #: 118178 Lab Sample ID: 626813
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	08/31/2015 14:01	500000	486000	97	80	120
Arsenic	08/31/2015 14:01	500.0	465.0	93	80	120
Barium	08/31/2015 14:01	500.0	431.0	86	80	120
Cadmium	08/31/2015 14:01	500.0	478.0	96	80	120
Calcium	08/31/2015 14:01	500000	447000	89	80	120
Chromium	08/31/2015 14:01	500.0	476.0	95	80	120
Iron	08/31/2015 14:01	500000	446000	89	80	120
Lead	08/31/2015 14:01	500.0	504.0	101	80	120
Magnesium	08/31/2015 14:01	500000	420000	84	80	120
Selenium	08/31/2015 14:01	500.0	492.0	98	80	120
Silver	08/31/2015 14:01	500.0	477.0	95	80	120

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 ICP ID Number: TJA 6000 SDG No.: 113433
 ICS Source: SPEX, Ultra
 Analytical Run #: 118178 Lab Sample ID: 627471
 Inorganics MRL Standard Source: SPEX, Ultra, Inorganic Ventures and Mallinkrodt
 ICAL Calibration #: _____ Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	09/01/2015 15:42	500000	503000	101	80	120
Arsenic	09/01/2015 15:42	500.0	464.0	93	80	120
Barium	09/01/2015 15:42	500.0	411.0	82	80	120
Cadmium	09/01/2015 15:42	500.0	427.0	85	80	120
Calcium	09/01/2015 15:42	500000	499000	100	80	120
Chromium	09/01/2015 15:42	500.0	457.0	91	80	120
Iron	09/01/2015 15:42	500000	459000	92	80	120
Lead	09/01/2015 15:42	500.0	531.0	106	80	120
Magnesium	09/01/2015 15:42	500000	508000	102	80	120
Selenium	09/01/2015 15:42	500.0	425.0	85	80	120
Silver	09/01/2015 15:42	500.0	457.0	91	80	120

5A

Sample Description

SPIKE SAMPLE RECOVERY

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solids for Sample:

Concentration Units: mg/kg

Sample No 625452

Parent Sample No.: 623727

Analytical Prep Batch # 53962

Analytical Preparation Date/Time: 08/27/2015 06:00

Analytical Run #: 118178

ICAL Calibration #:

Analysis Type	Initial Analysis	Analysis Date: -----	08/31/2015	Analysis Time: -----	14:32
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	327		BDL	U	377	87		P
Barium	80-120	324		0.36		377	86		P
Cadmium	80-120	9.5		BDL	U	9.4	101		P
Chromium	80-120	33.9		0.11	J	37.7	90		P
Lead	80-120	81.7		2.4		94.3	84		P
Selenium	80-120	292		BDL	U	377	77		P <i>FAIL</i>
Silver	75-125	7.8		BDL	U	9.4	83		P

BDL = analyte concentration was below detection limit

5A

Sample Description

SPIKE SAMPLE RECOVERY

PAINT-018-0815

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 100
 Sample No 625461
 Analytical Prep Batch # 53962
 Analytical Run #: 118178

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 SDG No.: 113433
 Concentration Units: mg/kg
 Parent Sample No.: 623730
 Analytical Preparation Date/Time: 08/27/2015 06:00
 ICAL Calibration #: _____

Analysis Type	Initial Analysis	Analysis Date: -----	09/01/2015	Analysis Time: -----	20:11
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Lead	80-120	79800		86400		92.6	0		P FAIL

BDL = analyte concentration was below detection limit

5A

Sample Description

SPIKE SAMPLE RECOVERY

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solids for Sample:

Concentration Units: mg/kg

Sample No 624005

Parent Sample No.: 623727

Analytical Prep Batch # 53928

Analytical Preparation Date/Time: 08/25/2015 12:00

Analytical Run #: 118139

ICAL Calibration #: 08262015

Analysis Type	Initial Analysis	Analysis Date: -----	08/26/2015	Analysis Time: -----	13:40
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	80-120	0.076		BDL	U	0.083	92		CV

BDL = analyte concentration was below detection limit

5B

Sample Description

POST DIGESTION SPIKE SAMPLE RECOVERY

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solids for Sample:

Concentration Units: ug/L

Sample No 626816

Parent Sample No.: 623727

Analytical Prep Batch # 0

Analytical Preparation Date/Time:

Analytical Run #: 118178

ICAL Calibration #:

Analysis Type	Initial Analysis	Analysis Date: -----	08/31/2015	Analysis Time: -----	14:41
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	3840.		BDL	U	4000	96		P
Barium	80-120	3710.		3.75		4000	93		P
Cadmium	80-120	114.		BDL	U	100	114		P
Chromium	80-120	378.		1.18		400	94		P
Lead	80-120	789.		25.2		1000	76		P <i>FAIL</i>
Selenium	80-120	3430.		BDL	U	4000	86		P
Silver	80-120	88.5		BDL	U	100	88		P

BDL = analyte concentration was below detection limit

5B

Sample Description

POST DIGESTION SPIKE SAMPLE RECOVERY

PAINT-018-0815

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 100
 Sample No 627021
 Analytical Prep Batch #
 Analytical Run #: 118178

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 SDG No.: 113433
 Concentration Units: ug/L
 Parent Sample No.: 623730
 Analytical Preparation Date/Time:
 ICAL Calibration #:

Analysis Type	Initial Analysis	Analysis Date: -----	09/01/2015	Analysis Time: -----	20:33
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Lead	80-120	33000		51000		1000	0		P FAIL

BDL = analyte concentration was below detection limit

5B

Sample Description

POST DIGESTION SPIKE SAMPLE RECOVERY

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solids for Sample:

Concentration Units: mg/kg

Sample No 625387

Parent Sample No.: 623727

Analytical Prep Batch # 0

Analytical Preparation Date/Time:

Analytical Run #: 118139

ICAL Calibration #: 08262015

Analysis Type	Initial Analysis	Analysis Date: -----	08/26/2015	Analysis Time: -----	13:43
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	80-120	1.84		BDL	U	2	92		CV

BDL = analyte concentration was below detection limit

5C

Sample Description

SPIKE DUPLICATE SAMPLE RECOVERY

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solids for Sample:

Concentration Units: mg/kg

Sample No 625453

Parent Sample No.: 625452

Analytical Prep Batch # 53962

Analytical Preparation Date/Time: 08/27/2015 06:00

Analytical Run #: 118178

ICAL Calibration #:

Analysis Type	Initial Analysis	Analysis Date: -----	08/31/2015	Analysis Time: -----	14:36
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Arsenic	80-120	290		BDL	U	333	87		P
Barium	80-120	288		0.36		333	86		P
Cadmium	80-120	8.6		BDL	U	8.3	104		P
Chromium	80-120	30.1		0.11	J	33.3	90		P
Lead	80-120	73.0		2.4		83.3	85		P
Selenium	80-120	262		BDL	U	333	79		P
Silver	75-125	7.0		BDL	U	8.3	84		P

BDL = analyte concentration was below detection limit

5C

Sample Description

SPIKE DUPLICATE SAMPLE RECOVERY

PAINT-018-0815

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: 100
 Sample No 625462
 Analytical Prep Batch # 53962
 Analytical Run #: 118178

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 SDG No.: 113433
 Concentration Units: mg/kg
 Parent Sample No.: 625461
 Analytical Preparation Date/Time: 08/27/2015 06:00
 ICAL Calibration #: _____

Analysis Type	Initial Analysis	Analysis Date: -----	09/01/2015	Analysis Time: -----	20:15
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Lead	80-120	60800		86400		94.3	0		P FAIL

BDL = analyte concentration was below detection limit

SPIKE DUPLICATE SAMPLE RECOVERY

WASTE-016-0815

Lab Name: CT Laboratories
 Matrix: SOLID
 % Solids for Sample: _____
 Sample No 624006
 Analytical Prep Batch # 53928
 Analytical Run #: 118139

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 SDG No.: 113433
 Concentration Units: mg/kg
 Parent Sample No.: 624005
 Analytical Preparation Date/Time: 08/25/2015 12:00
 ICAL Calibration #: 08262015

Analysis Type	Initial Analysis	Analysis Date: -----	08/26/2015	Analysis Time: -----	13:41
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Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	80-120	0.068		BDL	U	0.088	77		CV FAIL

BDL = analyte concentration was below detection limit

6

Sample Description

DUPLICATES

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: _____

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 53962

Analytical Run #: 118178

ICAL Calibration #: _____

Sample #: 625451

Parent Sample #: 623727

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Arsenic	08/31/2015 14:27	20	0.50	U	0.50	U	0		P
Barium	08/31/2015 14:27	20	0.36		0.19		62		P <i>FAIL</i>
Cadmium	08/31/2015 14:27	20	0.023	U	0.023	U	0		P
Chromium	08/31/2015 14:27	20	0.11	J	0.28	J	87		P <i>FAIL</i>
Lead	08/31/2015 14:27	20	2.4		1.2		67		P <i>FAIL</i>
Selenium	08/31/2015 14:27	20	0.23	U	0.23	U	0		P
Silver	08/31/2015 14:27	20	0.065	U	0.16	J	200		P <i>FAIL</i>

6

Sample Description

DUPLICATES

PAINT-018-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: 100

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 53962

Analytical Run #: 118178

ICAL Calibration #:

Sample #: 625460

Parent Sample #: 623730

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Lead	09/01/2015 20:07	20	86400		90700		5		P

6

Sample Description

DUPLICATES

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: _____

Concentration Units: mg/kg

Analytical Prep Batch # 1

Analytical Preparation Date/Time 53928

Analytical Run #: 118139

ICAL Calibration #: 08262015

Sample #: 624004

Parent Sample #: 623727

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Mercury	08/26/2015 13:38	20	0.0022	U	0.0022	U	0		CV

6A

Sample Description

MATRIX SPIKE DUPLICATES

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: _____

Concentration Units: mg/kg

Analytical Prep Batch # 53962

Analytical Preparation Date/Time 08/27/2015 06:00

Analytical Run #: 118178

ICAL Calibration #: _____

Sample #: 625453

Parent Sample #: 625452

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Arsenic	08/31/2015	14:36	20	327	290	0			P
Barium	08/31/2015	14:36	20	324	288	1			P
Cadmium	08/31/2015	14:36	20	9.5	8.6	2			P
Chromium	08/31/2015	14:36	20	33.9	30.1	1			P
Lead	08/31/2015	14:36	20	81.7	73.0	1			P
Selenium	08/31/2015	14:36	20	292	262	1			P
Silver	08/31/2015	14:36	20	7.8	7.0	1			P

6A

Sample Description

MATRIX SPIKE DUPLICATES

PAINT-018-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: 100

Concentration Units: mg/kg

Analytical Prep Batch # 53962

Analytical Preparation Date/Time 08/27/2015 06:00

Analytical Run #: 118178

ICAL Calibration #:

Sample #: 625462

Parent Sample #: 625461

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Lead	09/01/2015 20:15	20	79800		60800		29		P <i>FAIL</i>

6A

Sample Description

MATRIX SPIKE DUPLICATES

WASTE-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: _____

Concentration Units: mg/kg

Analytical Prep Batch # 53928

Analytical Preparation Date/Time 08/25/2015 12:00

Analytical Run #: 118139

ICAL Calibration #: 08262015

Sample #: 624006

Parent Sample #: 624005

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Mercury	08/26/2015	13:41	20	0.076	0.068	15			CV

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

LCS Source: SPEX and Ultra SDG No.: 113433

Concentration Units: mg/kg

Analytical Run #: 118178 Sample No.:# 625449

Analytical Prep Batch #: 53962 Preparation Date/Time: 08/27/2015 06:00

ICAL Calibration #: _____

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Arsenic	08/31/2015	14:10	80-120	355		400	89		P
Barium	08/31/2015	14:10	80-120	355		400	89		P
Cadmium	08/31/2015	14:10	80-120	10.4		10.0	104		P
Chromium	08/31/2015	14:10	80-120	36.6		40.0	92		P
Lead	08/31/2015	14:10	80-120	88.8		100	89		P
Selenium	08/31/2015	14:10	80-120	323		400	81		P
Silver	08/31/2015	14:10	75-120	8.6		10.0	86		P

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

LCS Source: SPEX and Ultra SDG No.: 113433

Concentration Units: mg/kg

Analytical Run #: 118139 Sample No.:# 624003

Analytical Prep Batch #: 53928 Preparation Date/Time: 08/25/2015 12:00

ICAL Calibration #: 08262015

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Mercury	08/26/2015	13:26	80-120	0.082		0.083	99		CV

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID SDG No.: 113433

Concentration Units: _____

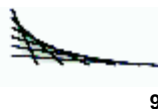
Sample No.: 626815 Parent Sample No.: 623727

LIMS Run #: 118178 ICAL Calibration #.: _____

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M
Arsenic	08/31/2015	14:23	BDL	U	0.65	U	0		P
Barium	08/31/2015	14:23	3.75		1.785		52		P
Cadmium	08/31/2015	14:23	BDL	U	0.03	U	0		P
Chromium	08/31/2015	14:23	1.18		0.115	U	100		P
Lead	08/31/2015	14:23	25.2		22.8		10		P
Selenium	08/31/2015	14:23	BDL	U	20.4		0		P
Silver	08/31/2015	14:23	BDL	U	8.35		0		P



ICP SERIAL DILUTION

Sample Description

PAINT-018-0815

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID SDG No.: 113433

Concentration Units: ug/L

Sample No.: 626820 Parent Sample No.: 623730

LIMS Run #: 118178 ICAL Calibration #.:

Analysis Type -----

Initial Analysis

Analyte	Analysis Date/Time		Initial Sample Result (I)	C (I)	Serial Dilution Result (S)	C (S)	% Diff.	Q	M
Lead	09/01/2015	20:02	51000		67500		32		P
									FAIL

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 ICP ID Number: TJA SDG No.: 113433
 Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Arsenic	193.7			0.13	P
Barium	455.4			0.009	P
Cadmium	226.502			0.006	P
Chromium	267.716			0.023	P
Lead	220.35			0.04	P
Selenium	196.02			0.06	P
Silver	328.068			0.017	P

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

 SDG No.: 113433

 Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Mercury	253.7			0.0021	CV

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)

ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1
Ag 328.068 {103}	<input checked="" type="checkbox"/>	1	Fe	0.000006
Al 308.215 {109}	<input checked="" type="checkbox"/>	None		
Al 309.271 {109}	<input checked="" type="checkbox"/>	None		
Al 396.152 {85}	<input checked="" type="checkbox"/>	None		
Al 167.079 {502}	<input checked="" type="checkbox"/>	1	Fe	0.000627
As 193.759 {474}	<input checked="" type="checkbox"/>	3	Fe	-0.000324
			Mo	0.000000
			Co	0.000000
As 189.042 {479}	<input checked="" type="checkbox"/>	1	Fe	0.000027
Ba 455.403 {74}	<input checked="" type="checkbox"/>	1	Fe	-0.000000
Ba 493.409 {68}	<input checked="" type="checkbox"/>	1	Fe	0.000106
Be 313.042 {108}	<input checked="" type="checkbox"/>	1	Fe	0.000000
Be 234.861 {144}	<input checked="" type="checkbox"/>	1	Fe	0.000101
Ca 315.887 {107}	<input checked="" type="checkbox"/>	None		
Ca 317.933 {106}	<input checked="" type="checkbox"/>	None		
Ca 393.366 {86}	<input checked="" type="checkbox"/>	None		
Ca 396.847 {85}	<input checked="" type="checkbox"/>	None		
Cd 226.502 {449}	<input checked="" type="checkbox"/>	2	Fe	0.000381
			Ag	-0.049000
Cd 228.802 {447}	<input checked="" type="checkbox"/>	1	Fe	0.000100
Co 228.616 {447}	<input checked="" type="checkbox"/>	6	Ti	-0.002110
			Mo	-0.001300
			Cr	-0.000235
			Ba	0.000315
			Ni	0.000000
			Fe	0.000017
Co 238.892 {141}	<input checked="" type="checkbox"/>	1	Fe	0.000242
Cr 267.716 {126}	<input checked="" type="checkbox"/>	1	Fe	0.000010
Cr 283.563 {119}	<input checked="" type="checkbox"/>	1	Fe	0.000949
Cu 224.700 {450}	<input checked="" type="checkbox"/>	2	Fe	0.000062
			Ag	-0.050000
Cu 324.754 {104}	<input checked="" type="checkbox"/>	1	Fe	0.000200
Cu 327.396 {103}	<input checked="" type="checkbox"/>	1	Fe	-0.000016
Fe 234.349 {144}	<input checked="" type="checkbox"/>	None		
Fe 239.562 {141}	<input checked="" type="checkbox"/>	None		
Fe 259.940 {130}	<input checked="" type="checkbox"/>	None		
Mg 202.582 {466}	<input checked="" type="checkbox"/>	None		
Mg 279.079 {121}	<input checked="" type="checkbox"/>	None		
Mg 280.270 {120}	<input checked="" type="checkbox"/>	None		
Mn 257.610 {131}	<input checked="" type="checkbox"/>	1	Al	-0.000055
Mn 259.373 {130}	<input checked="" type="checkbox"/>	1	Mg	0.001246
Mo 203.844 {465}	<input checked="" type="checkbox"/>	1	Fe	-0.000027
Mo 202.030 {467}	<input checked="" type="checkbox"/>	1	Fe	-0.000020
Mo 204.598 {465}	<input checked="" type="checkbox"/>	1	Fe	-0.000100

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)

ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1
Ni 221.647 {452}	<input checked="" type="checkbox"/>	1	Ca	0.000022
Ni 231.604 {445}	<input checked="" type="checkbox"/>	4	Fe	0.000117
			Co	-0.050000
			Ag	-0.050000
			Mo	-0.000200
Pb 216.999 {455}	<input checked="" type="checkbox"/>	2	Al	0.000478
			Na	0.000000
Pb 220.353 {153}	<input checked="" type="checkbox"/>	1	Fe	0.000024
Pb 220.353 {453}	<input checked="" type="checkbox"/>	9	Fe	0.000071
			Si	0.000940
			Ti	0.000640
			Cu	0.000370
			Ni	0.000109
			Al	0.000000
			Co	-0.000149
			Mn	0.000074
			Ti	0.000004
Sh 206.833 {463}	<input checked="" type="checkbox"/>	1	Fe	0.000032
Sb 217.581 {455}	<input checked="" type="checkbox"/>	1	Fe	-0.000048
Se 196.090 {172}	<input checked="" type="checkbox"/>	1	Fe	-0.000205
Se 196.090 {472}	<input checked="" type="checkbox"/>	1	Fe	0.000022
Se 206.279 {463}	<input checked="" type="checkbox"/>	1	Fe	0.001119
Ti 276.787 {122}	<input checked="" type="checkbox"/>	1	Mg	0.006492
Ti 190.856 {477}	<input checked="" type="checkbox"/>	10	Ti	0.000050
			Al	-0.000002
			V	0.000586
			Mn	0.000398
			Mo	-0.000120
			Be	-0.000013
			Fe	-0.000033
			Sr	-0.000027
			Co	0.000016
			Cr	0.000251
V 290.882 {116}	<input checked="" type="checkbox"/>	1	Fe	0.000170
V 292.402 {115}	<input checked="" type="checkbox"/>	1	Fe	0.000041
Zn 206.200 {463}	<input checked="" type="checkbox"/>	1	Fe	0.000173
Zn 213.856 {458}	<input checked="" type="checkbox"/>	1	Fe	0.000380
Y 360.073 {94}*	<input checked="" type="checkbox"/>	None		
Na 330.298 {102}	<input checked="" type="checkbox"/>	1	Fe	0.000991
Si 251.611 {134}	<input checked="" type="checkbox"/>	1	Fe	-0.000042
Ti 334.941 {101}	<input checked="" type="checkbox"/>	1	Fe	0.000050
Ti 337.280 {100}	<input checked="" type="checkbox"/>	1	Fe	0.000006
Gr 407.771 {83}	<input checked="" type="checkbox"/>	1	Fe	0.000039
Sr 421.552 {80}	<input checked="" type="checkbox"/>	1	Fe	0.000039

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)

ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1
Sn 189.989 {477}	<input checked="" type="checkbox"/>	1	Fe	0.000011
Sn 283.999 {119}	<input checked="" type="checkbox"/>	1	Fe	-0.003092
B 249.678 {135}	<input checked="" type="checkbox"/>	1	Fe	-0.000918
B 249.773 {135}	<input checked="" type="checkbox"/>	1	Fe	0.000199
Li 670.784 {50}	<input checked="" type="checkbox"/>	1	Fe	0.000029
K 766.490 {44}	<input checked="" type="checkbox"/>	1	Fe	0.006630

Element, Wavelength and Order	Use?	# IECs	IEC	k1
K 766.490 {44}	<input checked="" type="checkbox"/>	1	Fe	0.000178
Na 330.237 {102}	<input checked="" type="checkbox"/>	1	Fe	-0.004289
Na 589.592 {57}	<input checked="" type="checkbox"/>	1	Fe	0.000173
Y 350.073 {94}	<input checked="" type="checkbox"/>	None		
Y 320.332 {105}*	<input checked="" type="checkbox"/>	None		
Al 308.215 {109}	<input checked="" type="checkbox"/>	1	Fe	0.000000
Al 396.152 {85}	<input checked="" type="checkbox"/>	None		
Mg 285.213 {118}	<input checked="" type="checkbox"/>	None		
Ca 317.933 {106}	<input checked="" type="checkbox"/>	None		
Fe 234.349 {144}	<input checked="" type="checkbox"/>	None		

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL
 ICP ID Number: TA SDG No.: 113433

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

PREPARATION LOG

Lab Name: CT Laboratories Project: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Method: EPA 7471A SDG No.: 113433

Preparation Batch #: 53928 Preparation Date/Time: 08/25/2015 / 12:00

Lab Sample #	QC Type	Sample Description	Matrix	Weight (g for solid/soil) or Volume (mL for liquid/aqueous)
623727	Normal Sample	WASTE-016-0815	WASTE	0.57
623733	Normal Sample	WASTE-003-0815	WASTE	0.58
623734	Normal Sample	WASTE-003B-0815	WASTE	0.56
623735	Normal Sample	WASTE-001-0815	WASTE	0.55
623737	Normal Sample	WASTE-016B-0815	WASTE	0.57
624002	Method Blank		SOLID	0.60
624003	Lab Control Spike		SOLID	0.60
624004	Lab Duplicate	WASTE-016-0815	WASTE	0.57
624005	Matrix Spike	WASTE-016-0815	WASTE	0.60
624006	Matrix Spike Duplicate	WASTE-016-0815	WASTE	0.57

PREPARATION LOG

Lab Name: <u>CT Laboratories</u>	Project: <u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Method: <u>EPA 3050B</u>	SDG No.: <u>113433</u>
Preparation Batch #: <u>53962</u>	Preparation Date/Time: <u>08/27/2015 / 06:00</u>

Lab Sample #	QC Type	Sample Description	Matrix	Weight (g for solid/soil) or Volume (mL for liquid/aqueous)
623727	Normal Sample	WASTE-016-0815	WASTE	0.52
623728	Normal Sample	PAINT-008-0815	SOIL	0.54
623729	Normal Sample	PAINT-015-0815	SOIL	0.50
623730	Normal Sample	PAINT-018-0815	SOIL	0.59
623731	Normal Sample	PAINT-004-0815	SOIL	0.54
623732	Normal Sample	PAINT-016-0815	SOIL	0.56
623733	Normal Sample	WASTE-003-0815	WASTE	0.60
623734	Normal Sample	WASTE-003B-0815	WASTE	0.67
623735	Normal Sample	WASTE-001-0815	WASTE	0.67
623737	Normal Sample	WASTE-016B-0815	WASTE	0.53
625448	Method Blank		SOLID	0.50
625449	Lab Control Spike		SOLID	0.50
625451	Lab Duplicate	WASTE-016-0815	WASTE	0.55
625452	Matrix Spike	WASTE-016-0815	WASTE	0.53
625453	Matrix Spike Duplicate	WASTE-016-0815	WASTE	0.60
625460	Lab Duplicate	PAINT-018-0815	SOIL	0.56
625461	Matrix Spike	PAINT-018-0815	SOIL	0.54
625462	Matrix Spike Duplicate	PAINT-018-0815	SOIL	0.53

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: TJA

Start & End Date: 08/31/2015 to 09/01/2015

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Method Number: P

Analytical Run #: 118178

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
626808	ICV	1.00	8/31 13:34			X	X			X		X				X								X		X							
626809	ICVLL	1.00	8/31 13:38			X	X			X		X				X								X		X							
626810	ICB	1.00	8/31 13:47			X	X			X		X				X								X		X							
626812	ICSA	1.00	8/31 13:56	X		X	X			X	X	X			X	X	X							X		X							
626813	ICSAB	1.00	8/31 14:01	X		X	X			X	X	X			X	X	X							X		X							
626814	ICVLL	1.00	8/31 14:05																														
625449	LCSS	1.00	8/31 14:10			X	X			X		X				X								X		X							
625448	MBS	1.00	8/31 14:14			X				X		X												X		X							
625448	MBS	1.00	8/31 14:14				X																										
623727	Initial	1.00	8/31 14:18			X	X			X		X												X		X							
626815	L	5	8/31 14:23			X	X			X		X				X								X		X							
625451	DUP	1.00	8/31 14:27			X	X			X		X				X								X		X							
625452	MSS	1.00	8/31 14:32			X	X			X		X				X								X		X							
625453	MSDS	1.00	8/31 14:36			X	X			X		X				X								X		X							
626816	PDSS	1.00	8/31 14:41			X	X			X		X				X								X		X							
623728	Initial	1.00	8/31 14:46													X																	
626817	CCV1	1.00	8/31 14:51			X	X			X		X				X								X		X							
626818	CCV2	1.00	8/31 14:56			X	X			X		X				X								X		X							
626819	CCB	1.00	8/31 15:02			X	X			X		X				X								X		X							
623729	Initial	1.00	8/31 15:07													X																	
623732	Initial	1.00	8/31 15:46													X																	
623733	Initial	1.00	8/31 15:51			X	X			X		X				X								X		X							
626822	CCV1	1.00	8/31 15:55			X	X			X		X				X								X		X							
626823	CCV2	1.00	8/31 16:00			X	X			X		X				X								X		X							
626824	CCB	1.00	8/31 16:04			X	X			X		X				X								X		X							
623734	Initial	1.00	8/31 16:08			X	X			X		X				X								X		X							
623735	Initial	1.00	8/31 16:13			X	X			X		X				X								X		X							
623737	Initial	1.00	8/31 16:17			X				X		X				X								X		X							
623737	Re-Analysis	1.00	8/31 16:17				X																										

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: TJA

Start & End Date: 08/31/2015 to 09/01/2015

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Method Number: P

Analytical Run #: 118178

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
626825	CCV1	1.00	8/31 16:54			X	X			X		X				X								X		X							
626826	CCV2	1.00	8/31 16:58			X	X			X		X				X								X		X							
626827	CCB	1.00	8/31 17:02			X	X			X		X				X								X		X							
627466	ICV	1.00	9/01 15:15			X	X			X		X				X								X		X							
627467	ICVLL	1.00	9/01 15:19			X	X			X		X				X								X		X							
627468	ICB	1.00	9/01 15:28			X	X			X		X				X								X		X							
627470	ICSA	1.00	9/01 15:37	X		X	X			X	X	X			X	X	X							X		X							
627471	ICSAB	1.00	9/01 15:42	X		X	X			X	X	X			X	X	X							X		X							
627472	ICVLL	1.00	9/01 15:46																														
627473	CCV1	1.00	9/01 19:22			X	X			X		X				X								X		X							
627474	CCV2	1.00	9/01 19:27			X	X			X		X				X								X		X							
627475	CCB	1.00	9/01 19:31			X	X			X		X				X								X		X							
625448	MBS	1.00	9/01 19:49													X																	
623727	Re-Analysis	1.00	9/01 19:53													X																	
623730	Initial	20.00	9/01 19:58													X																	
626820	L	5	9/01 20:02													X																	
625460	DUP	20.00	9/01 20:07													X																	
625461	MSS	20.00	9/01 20:11													X																	
625462	MSDS	20.00	9/01 20:15													X																	
627476	CCV1	1.00	9/01 20:20			X	X			X		X				X								X		X							
627477	CCV2	1.00	9/01 20:24			X	X			X		X				X								X		X							
627478	CCB	1.00	9/01 20:28			X	X			X		X				X								X		X							
627021	PDSS	1.00	9/01 20:33													X																	
623731	Initial	20.00	9/01 20:37													X																	
627479	CCV1	1.00	9/01 20:46			X	X			X		X				X								X		X							
627480	CCV2	1.00	9/01 20:51			X	X			X		X				X								X		X							
627481	CCB	1.00	9/01 20:55			X	X			X		X				X								X		X							



14

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: TJA

Start & End Date: 08/31/2015 to 09/01/2015

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Method Number: P

Analytical Run #: 118178

ANALYSIS RUN LOG

Lab Name: CT Laboratories

Lab Code: CTL

Instrument ID Number: CETAC

Start & End Date: 08/26/2015 to 08/28/2015

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

SDG No.: 113433

Method Number: CV

Analytical Run #: 118139

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
625374	ICV	1.00	8/26 11:35																X														
625375	ICB	1.00	8/26 11:37																X														
625382	CCV	1.00	8/26 13:06																X														
625383	CCB	1.00	8/26 13:08																X														
624003	LCSS	1.00	8/26 13:26																X														
625384	CCV	1.00	8/26 13:28																X														
625385	CCB	1.00	8/26 13:30																X														
624002	MBS	1.00	8/26 13:32																X														
623727	Initial	1.00	8/26 13:34																X														
624004	DUP	1.00	8/26 13:38																X														
624005	MSS	1.00	8/26 13:40																X														
624006	MSDS	1.00	8/26 13:41																X														
625387	PDSS	1.00	8/26 13:43																X														
623735	Initial	1.00	8/26 13:53																X														
625388	CCV	1.00	8/26 13:55																X														
625389	CCB	1.00	8/26 13:57																X														
623737	Initial	1.00	8/26 13:59																X														
625390	CCV	1.00	8/26 14:01																X														
625391	CCB	1.00	8/26 14:03																X														
625392	CCV	1.00	8/26 14:12																X														
625393	CCB	1.00	8/26 14:13																X														
623733	Initial	50.00	8/26 14:16																X														
625394	CCV	1.00	8/26 14:20																X														
625395	CCB	1.00	8/26 14:22																X														
625774	ICV	1.00	8/28 07:03																X														
625775	ICB	1.00	8/28 07:05																X														
623734	Initial	50.00	8/28 07:07																X														
625776	CCV	1.00	8/28 07:09																X														



14

ANALYSIS RUN LOGLab Name: CT LaboratoriesLab Code: CTLInstrument ID Number: CETACStart & End Date: 08/26/2015 to 08/28/2015Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOLSDG No.: 113433Method Number: CVAnalytical Run #: 118139

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
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625777	CCB	1.00	8/28 07:11																														X
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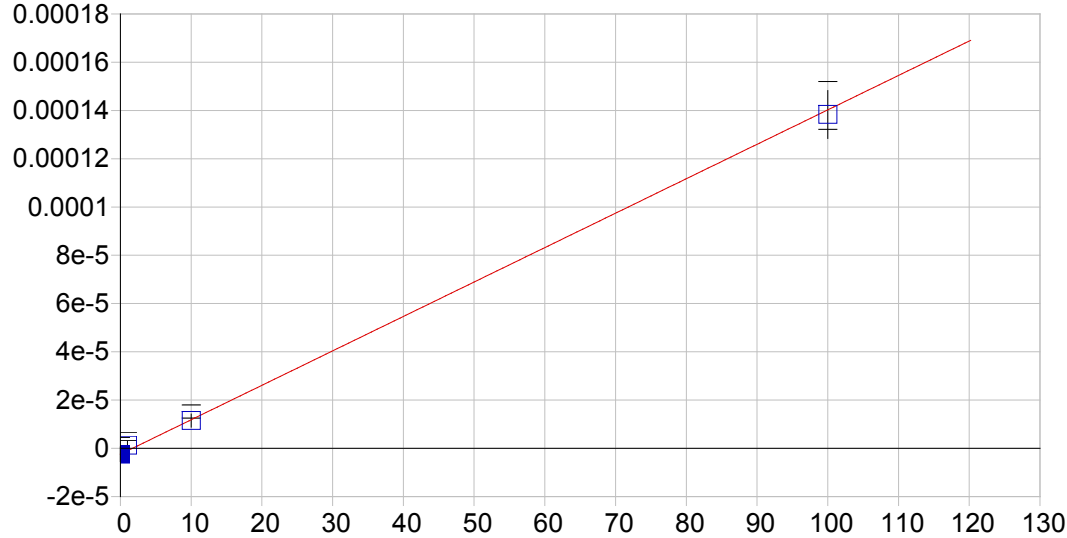
**METALS
RAW DATA
DOCUMENTS**

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resl Slope
Ag 328.068 {103}	09/01/2015 09:59:44	08/31/2015 13:01:03	Linear	1/Conc	-0.000002	0.000001	0.000000	1.000000	0.988828	0.000000	2.594546	8.648485	OK	1.000000
Ag 338.289 {100}	09/01/2015 09:59:44	08/31/2015 13:04:54	Linear	None	0.000018	0.000001	0.000000	1.000000	0.999172	0.000032	5.199254	17.330848	OK	1.000000
Al 308.215 {109}	09/01/2015 09:59:44	08/31/2015 13:29:29	Linear	1/Conc	0.000042	0.000001	0.000000	1.000000	0.999896	0.000011	10.254104	34.180348	OK	1.000000
Al 309.271 {109}	09/01/2015 09:59:44	08/31/2015 13:19:23	Full Fit	1/Conc	0.000081	0.000001	0.000000	1.030000	1.000000	0.000000	9.830528	32.768425	OK	1.000000
Al 396.152 {85}	09/01/2015 09:59:44	08/31/2015 13:29:29	Curvilinear	1/Var	-0.000003	0.000003	0.000000	1.000000	0.999494	0.000010	4.016829	13.389430	OK	1.000000
Al 167.079 {502}	09/01/2015 09:59:44	08/31/2015 13:04:54	Linear	1/Var	0.000001	0.000000	0.000000	1.000000	0.999101	0.000000	2.564625	8.548750	OK	1.000000
As 193.759 {474}	09/01/2015 09:59:44	08/31/2015 13:04:54	Linear	1/Var	-0.000000	0.000000	0.000000	1.000000	0.999253	0.000000	6.688521	22.295069	OK	1.000000
As 189.042 {479}	09/01/2015 09:59:44	08/31/2015 13:10:12	Linear	None	0.000000	0.000000	0.000000	1.000000	0.999999	0.000000	19.539078	65.130260	OK	1.000000
Ba 455.403 {74}	09/01/2015 09:59:44	08/31/2015 13:04:54	Linear	None	0.000124	0.000170	0.000000	1.000000	0.999997	0.000150	0.078238	0.260794	OK	1.000000
Ba 493.409 {68}	09/01/2015 09:59:44	08/31/2015 13:10:12	Linear	1/Var	-0.001718	0.000146	0.000000	1.000000	0.999686	0.000042	0.313715	1.045717	OK	1.000000
Be 313.042 {108}	09/01/2015 09:59:44	08/31/2015 13:04:54	Linear	1/Conc	0.456241	27.274556	0.000000	1.000000	0.999993	0.062722	0.050106	0.167019	OK	1.000000
Be 234.861 {144}	09/01/2015 09:59:44	08/31/2015 13:04:54	Linear	1/Conc	0.000002	0.000003	0.000000	1.000000	0.999998	0.000000	0.619723	2.065742	OK	1.000000
Ca 315.887 {107}	09/01/2015 09:59:44	08/31/2015 13:29:29	Full Fit	1/Conc	0.000060	0.000001	0.000000	1.040000	0.999911	0.000023	8.141339	27.137795	OK	1.000000
Ca 317.933 {106}	09/01/2015 09:59:44	08/31/2015 13:29:29	Linear	1/Var	0.003217	0.000001	0.000000	1.000000	0.997657	0.000453	2.544694	8.482313	OK	1.000000
Ca 393.366 {86}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	0.003289	0.000344	0.000000	1.000000	0.999927	0.002424	0.021854	0.072846	OK	1.000000
Ca 396.847 {85}	09/01/2015 09:59:44	08/31/2015 13:10:12	Linear	None	0.000882	0.000167	0.000000	1.000000	0.999999	0.001572	0.039319	0.131065	OK	1.000000
Cd 214.438 {457}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	0.000004	0.000013	0.000000	1.000000	0.999999	0.000005	0.086356	0.287852	OK	1.000000
Cd 226.502 {149}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	-0.000002	0.000001	0.000000	1.000000	0.999988	0.000002	2.990007	9.996689	OK	1.000000
Cd 226.502 {449}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	-0.231996	3.908171	0.000000	1.000000	0.999999	1.785289	0.144100	0.480334	OK	1.000000
Cd 228.802 {447}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	0.000010	0.000014	0.000000	1.000000	1.000000	0.000002	0.117886	0.392954	OK	1.000000
Co 228.616 {147}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	-0.000000	0.000001	0.000000	1.000000	0.999995	0.000001	3.130940	10.436467	OK	1.000000
Co 228.616 {447}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	1/Conc	-0.000003	0.000008	0.000000	1.000000	0.999957	0.000000	0.183858	0.612859	OK	1.000000
Co 238.892 {141}	09/01/2015 09:59:44	08/31/2015 13:10:12	Linear	1/Var	0.000001	0.000001	0.000000	1.000000	0.999606	0.000003	3.038917	10.129722	OK	1.000000
Cr 267.716 {126}	09/01/2015 09:59:44	08/31/2015 13:04:55	Linear	None	0.000001	0.000002	0.000000	1.000000	0.999997	0.000002	1.616455	5.388183	OK	1.000000
Cr 283.563 {119}	09/01/2015 09:59:44	08/31/2015 13:14:42	Linear	1/Conc	0.000016	0.000003	0.000000	1.000000	0.999990	0.000001	1.432841	4.776136	OK	1.000000
Cu 224.700 {450}	09/01/2015 09:59:44	08/31/2015 13:10:13	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999905	0.000000	0.849116	2.830386	OK	1.000000
Cu 324.754 {104}	09/01/2015 09:59:44	08/31/2015 13:14:42	Linear	None	0.000183	0.000004	0.000000	1.000000	0.999999	0.000262	1.303307	4.344356	OK	1.000000
Cu 327.396 {103}	09/01/2015 09:59:44	08/31/2015 13:14:42	Linear	1/Conc	-0.000052	0.000002	0.000000	1.000000	0.999951	0.000001	3.265890	10.886300	OK	1.000000
Fe 234.349 {144}	09/01/2015 09:59:44	08/31/2015 13:29:29	Full Fit	1/Var	0.000002	0.000000	0.000000	0.990000	0.999809	0.000003	9.523454	31.744847	OK	1.000000
Fe 239.562 {141}	09/01/2015 09:59:44	08/31/2015 13:19:23	Curvilinear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999985	0.000001	4.771883	15.906276	OK	1.000000
Fe 259.940 {130}	09/01/2015 09:59:44	08/31/2015 13:10:13	Linear	None	0.000016	0.000002	0.000000	1.000000	0.999964	0.000064	1.772775	5.909249	OK	1.000000
Mg 202.582 {466}	09/01/2015 09:59:44	08/31/2015 13:29:29	Full Fit	None	0.000123	0.000000	0.000000	0.970000	0.999995	0.000297	3.059483	10.198277	OK	1.000000
Mg 279.079 {121}	09/01/2015 09:59:44	08/31/2015 13:29:29	Full Fit	None	0.000013	0.000000	0.000000	1.090000	1.000000	0.000030	51.107875	170.359582	OK	1.000000
Mg 280.270 {120}	09/01/2015 09:59:44	08/31/2015 13:10:14	Linear	1/Conc	0.000038	0.000023	0.000000	1.000000	0.999971	0.000005	0.084136	0.280452	OK	1.000000
Mn 257.610 {131}	09/01/2015 09:59:44	08/31/2015 13:10:14	Linear	1/Conc	-0.000001	0.000006	0.000000	1.000000	0.999940	0.000001	0.301308	1.004361	OK	1.000000
Mn 259.373 {130}	09/01/2015 09:59:44	08/31/2015 13:14:42	Linear	1/Conc	0.000004	0.000008	0.000000	1.000000	0.999837	0.000072	0.382309	1.274364	OK	1.000000
Mn 293.930 {115}	09/01/2015 09:59:44	08/31/2015 13:10:14	Linear	1/Conc	-0.000000	0.000002	0.000000	1.000000	0.999884	0.000000	1.748154	5.827179	OK	1.000000
Mo 203.844 {465}	09/01/2015 09:59:44	08/31/2015 13:04:56	Linear	1/Conc	0.000002	0.000001	0.000000	1.000000	0.999373	0.000000	0.895932	2.986439	OK	1.000000
Mo 202.030 {467}	09/01/2015 09:59:44	08/31/2015 13:04:56	Linear	1/Var	-0.000000	0.000001	0.000000	1.000000	0.999747	0.000000	0.806161	2.687203	OK	1.000000
Mo 204.598 {465}	09/01/2015 09:59:44	08/31/2015 13:10:14	Linear	None	0.000002	0.000001	0.000000	1.000000	1.000000	0.000002	1.217485	4.058282	OK	1.000000
Ni 221.647 {452}	09/01/2015 09:59:44	08/31/2015 13:10:14	Linear	1/Conc	0.000004	0.000004	0.000000	1.000000	0.999847	0.000003	0.424388	1.414626	OK	1.000000
Ni 231.604 {146}	09/01/2015 09:59:44	08/31/2015 13:10:15	Linear	None	0.000000	0.000000	0.000000	1.000000	0.999965	0.000006	21.352302	71.174340	OK	1.000000
Ni 231.604 {445}	09/01/2015 09:59:44	08/31/2015 13:10:15	Linear	1/Var	0.000002	0.000005	0.000000	1.000000	0.999892	0.000002	0.354047	1.180157	OK	1.000000
Pb 216.999 {455}	09/01/2015 09:59:44	08/31/2015 13:14:42	Curvilinear	1/Conc	0.000003	0.000000	0.000000	1.000000	0.999973	0.000000	3.112944	10.376479	OK	1.000000
Pb 220.353 {153}	09/01/2015 09:59:44	08/31/2015 13:14:42	Linear	1/Var	-0.000000	0.000000	0.000000	1.000000	0.998681	0.000001	41.068356	136.894522	OK	1.000000
Pb 220.353 {453}	09/01/2015 09:59:44	08/31/2015 13:04:57	Linear	1/Conc	0.000001	0.000001	0.000000	1.000000	0.999874	0.000000	2.066845	6.889482	OK	1.000000

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resl Slope
Pb 283.306 {119}	09/01/2015 09:59:44	08/31/2015 13:14:42	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999971	0.000000	44.362129	147.873763	OK.	1.000000
Sb 206.833 {463}	09/01/2015 09:59:44	08/31/2015 13:10:15	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	0.999997	0.000000	2.678759	8.929198	OK.	1.000000
Sb 217.581 {455}	09/01/2015 09:59:44	08/31/2015 13:04:57	Linear	1/Conc	-0.000001	0.000001	0.000000	1.000000	0.999945	0.000000	1.641457	5.471522	OK.	1.000000
Se 196.090 {172}	09/01/2015 09:59:44	08/31/2015 13:10:15	Linear	None	0.000003	0.000000	0.000000	1.000000	0.999739	0.000001	301.513201	1005.04400	OK.	1.000000
Se 196.090 {472}	09/01/2015 09:59:44	08/31/2015 13:10:15	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999925	0.000000	8.388332	27.961106	OK.	1.000000
Se 206.279 {463}	09/01/2015 09:59:44	08/31/2015 13:10:16	Linear	None	0.000001	0.000000	0.000000	1.000000	0.999996	0.000001	22.979225	76.597417	OK.	1.000000
Tl 190.856 {476}	09/01/2015 09:59:44	08/31/2015 13:04:58	Linear	1/Var	-0.000001	0.000000	0.000000	1.000000	0.999874	0.000000	2.713145	9.043817	OK.	1.000000
Tl 190.856 {477}	09/01/2015 09:59:44	08/31/2015 13:04:58	Linear	1/Var	0.000001	0.000000	0.000000	1.000000	0.999702	0.000000	8.579680	28.598935	OK.	1.000000
Tl 276.787 {122}	09/01/2015 09:59:44	08/31/2015 13:10:16	Linear	None	0.000000	0.000000	0.000000	1.000000	0.999988	0.000001	118.302428	394.341427	OK.	1.000000
V 290.882 {116}	09/01/2015 09:59:44	08/31/2015 13:10:16	Linear	1/Conc	0.000027	0.000003	0.000000	1.000000	0.999842	0.000002	1.657654	5.525513	OK.	1.000000
V 292.402 {115}	09/01/2015 09:59:44	08/31/2015 13:04:58	Linear	1/Conc	-0.000000	0.000005	0.000000	1.000000	0.999860	0.000000	1.332243	4.440809	OK.	1.000000
Zn 206.200 {463}	09/01/2015 09:59:44	08/31/2015 13:14:43	Full Fit	1/Conc	0.000005	0.000003	-0.000000	0.980000	1.000000	0.000000	0.337580	1.125268	OK.	1.000000
Zn 213.856 {457}	09/01/2015 09:59:44	08/31/2015 13:14:43	Curvlin	1/Conc	0.000026	0.000009	-0.000000	1.000000	0.999885	0.000010	0.135167	0.450556	OK.	1.000000
Zn 213.856 {458}	09/01/2015 09:59:44	08/31/2015 13:10:16	Curvlin	1/Conc	0.000010	0.000004	-0.000000	1.000000	0.999985	0.000000	0.229321	0.764402	OK.	1.000000
Y 224.306 {450}	09/01/2015 09:59:44	08/31/2015 12:25:58	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 371.030 { 91}*	09/01/2015 09:59:44	08/31/2015 12:25:58	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Na 330.298 {102}	09/01/2015 09:59:44	08/31/2015 13:10:16	Linear	1/Conc	0.000005	0.000000	0.000000	1.000000	1.000000	0.000000	549.520807	1831.73602	OK.	1.000000
Na 588.995 { 57}	09/01/2015 09:59:44	08/31/2015 13:10:16	Linear	1/Conc	0.010587	0.000013	0.000000	1.000000	1.000000	0.000000	1.970706	6.569019	OK.	1.000000
Si 251.611 {134}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	None	0.000009	0.000001	0.000000	1.000000	0.999995	0.000017	4.658324	15.527748	OK.	1.000000
Ti 334.941 {101}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	1/Conc	0.000001	0.000009	0.000000	1.000000	0.999823	0.000001	0.605188	2.017295	OK.	1.000000
Ti 337.280 {100}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	1/Conc	0.000000	0.000009	0.000000	1.000000	0.999780	0.000002	0.799113	2.663709	OK.	1.000000
Sr 407.771 { 83}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	1/Conc	-0.000602	0.000205	0.000000	1.000000	0.999992	0.000003	0.047639	0.158798	OK.	1.000000
Sr 421.552 { 80}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	1/Conc	-0.000017	0.000204	0.000000	1.000000	0.999939	0.000009	0.044036	0.146787	OK.	1.000000
Sn 189.989 {477}	09/01/2015 09:59:44	08/31/2015 13:10:17	Curvlin	1/Conc	0.000001	0.000000	-0.000000	1.000000	0.999993	0.000000	1.492292	4.974307	OK.	1.000000
Sn 189.989 {478}	09/01/2015 09:59:44	08/31/2015 13:10:17	Curvlin	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999850	0.000000	4.393110	14.643701	OK.	1.000000
Sn 283.999 {119}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	1/Conc	-0.000001	0.000000	0.000000	1.000000	0.999836	0.000000	21.004311	70.014371	OK.	1.000000
B 249.678 {135}	09/01/2015 09:59:44	08/31/2015 13:10:17	Linear	1/Conc	0.000000	0.000001	0.000000	1.000000	0.999700	0.000000	2.739131	9.130438	OK.	1.000000
B 249.773 {135}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	-0.000003	0.000002	0.000000	1.000000	0.999818	0.000000	1.729866	5.766221	OK.	1.000000
Li 670.784 { 50}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	0.000215	0.000045	0.000000	1.000000	0.999799	0.000012	0.460957	1.536523	OK.	1.000000
K 766.490 { 44}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	0.000351	0.000002	0.000000	1.000000	1.000000	0.000000	10.815792	36.052642	OK.	1.000000
K 769.896 { 44}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	0.000232	0.000001	0.000000	1.000000	1.000000	0.000000	22.109263	73.697545	OK.	1.000000
P 177.495 {489}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	4.524625	15.082084	OK.	1.000000
P 213.618 {158}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	1.000000	0.000000	80.948655	269.828851	OK.	1.000000
P 213.618 {457}	09/01/2015 09:59:44	08/31/2015 13:10:18	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	6.114848	20.382827	OK.	1.000000
S 180.731 {486}	09/01/2015 09:59:44	08/31/2015 13:19:24	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.352180	0.000129	26.887603	89.625344	OK.	1.000000
S 182.034 {485}	09/01/2015 09:59:44	08/31/2015 13:19:24	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.309487	0.000072	53.916606	179.722018	OK.	1.000000
S 182.624 {484}	09/01/2015 09:59:44	08/31/2015 13:19:24	Linear	None	-0.001112	0.000000	0.000000	1.000000	0.424281	0.001668	72.384174	241.280581	OK.	1.000000
W 239.709 {140}	09/01/2015 09:59:44	08/31/2015 13:04:59	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	16.301859	54.339531	OK.	1.000000
W 245.148 {137}	09/01/2015 09:59:44	08/31/2015 13:04:59	Linear	1/Conc	-0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	69.928279	233.094263	OK.	1.000000

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Ag 328.068 {103}	0.000000	1	0
Ag 338.289 {100}	0.000000	1	0
Al 308.215 {109}	0.000000	1	0
Al 309.271 {109}	0.000000	1	0
Al 396.152 {85}	0.000000	1	0
Al 167.079 {502}	0.000000	1	0
As 193.759 {474}	0.000000	1	0
As 189.042 {479}	0.000000	1	0
Ba 455.403 {74}	0.000000	1	0
Ba 493.409 {68}	0.000000	1	0
Be 313.042 {108}	0.000000	1	0
Be 234.861 {144}	0.000000	1	0
Ca 315.887 {107}	0.000000	1	0
Ca 317.933 {106}	0.000000	1	0
Ca 393.366 {86}	0.000000	1	0
Ca 396.847 {85}	0.000000	1	0
Cd 214.438 {457}	0.000000	1	0
Cd 226.502 {149}	0.000000	1	0
Cd 226.502 {449}	0.000000	1	0
Cd 228.802 {447}	0.000000	1	0
Co 228.616 {147}	0.000000	1	0
Co 228.616 {447}	0.000000	1	0
Co 238.892 {141}	0.000000	1	0
Cr 267.716 {126}	0.000000	1	0
Cr 283.563 {119}	0.000000	1	0
Cu 224.700 {450}	0.000000	1	0
Cu 324.754 {104}	0.000000	1	0
Cu 327.396 {103}	0.000000	1	0
Fe 234.349 {144}	0.000000	1	0
Fe 239.562 {141}	0.000000	1	0
Fe 259.940 {130}	0.000000	1	0
Mg 202.582 {466}	0.000000	1	0
Mg 279.079 {121}	0.000000	1	0
Mg 280.270 {120}	0.000000	1	0
Mn 257.610 {131}	0.000000	1	0
Mn 259.373 {130}	0.000000	1	0
Mn 293.930 {115}	0.000000	1	0
Mo 203.844 {465}	0.000000	1	0
Mo 202.030 {467}	0.000000	1	0
Mo 204.598 {465}	0.000000	1	0
Ni 221.647 {452}	0.000000	1	0
Ni 231.604 {146}	0.000000	1	0
Ni 231.604 {445}	0.000000	1	0
Pb 216.999 {455}	0.000000	1	0
Pb 220.353 {153}	0.000000	1	0
Pb 220.353 {453}	0.000000	1	0

Element, Wavelength and Order	Slope Y-int	QC Norm	
		Slope factor	Offset
Pb 283.306 {119}	0.000000	1	0
Sb 206.833 {463}	0.000000	1	0
Sb 217.581 {455}	0.000000	1	0
Se 196.090 {172}	0.000000	1	0
Se 196.090 {472}	0.000000	1	0
Se 206.279 {463}	0.000000	1	0
Tl 190.856 {476}	0.000000	1	0
Tl 190.856 {477}	0.000000	1	0
Tl 276.787 {122}	0.000000	1	0
V 290.882 {116}	0.000000	1	0
V 292.402 {115}	0.000000	1	0
Zn 206.200 {463}	0.000000	1	0
Zn 213.856 {457}	0.000000	1	0
Zn 213.856 {458}	0.000000	1	0
Y 224.306 {450}	0.000000	1	0
Y 371.030 { 91}*	0.000000	1	0
Na 330.298 {102}	0.000000	1	0
Na 588.995 { 57}	0.000000	1	0
Si 251.611 {134}	0.000000	1	0
Ti 334.941 {101}	0.000000	1	0
Ti 337.280 {100}	0.000000	1	0
Sr 407.771 { 83}	0.000000	1	0
Sr 421.552 { 80}	0.000000	1	0
Sn 189.989 {477}	0.000000	1	0
Sn 189.989 {478}	0.000000	1	0
Sn 283.999 {119}	0.000000	1	0
B 249.678 {135}	0.000000	1	0
B 249.773 {135}	0.000000	1	0
Li 670.784 { 50}	0.000000	1	0
K 766.490 { 44}	0.000000	1	0
K 769.896 { 44}	0.000000	1	0
P 177.495 {489}	0.000000	1	0
P 213.618 {158}	0.000000	1	0
P 213.618 {457}	0.000000	1	0
S 180.731 {486}	0.000000	1	0
S 182.034 {485}	0.000000	1	0
S 182.624 {484}	0.000000	1	0
W 239.709 {140}	0.000000	1	0
W 245.148 {137}	0.000000	1	0

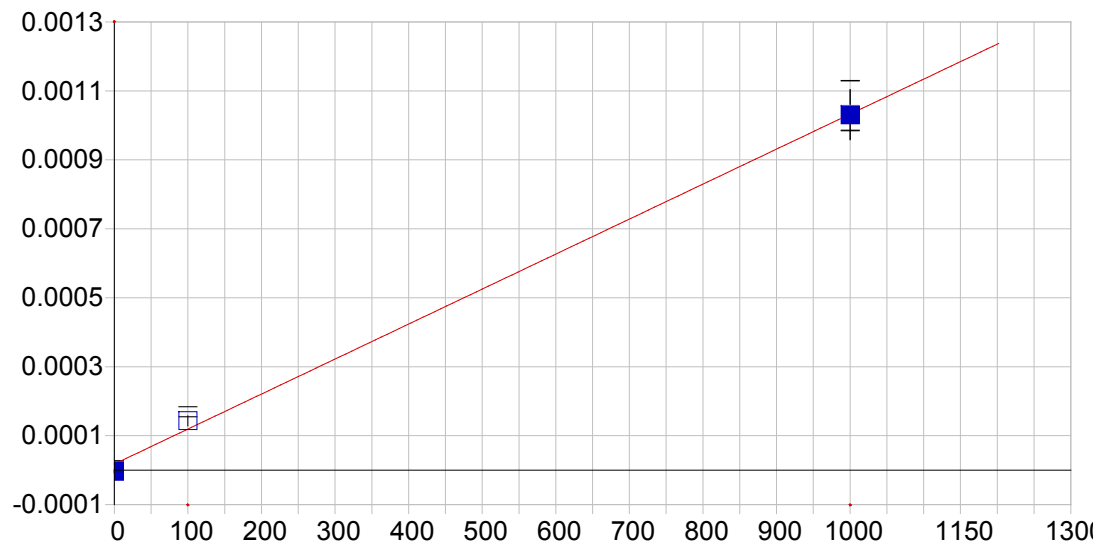


Ag 328.068 {103}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
A1 (Gain): 0.000001 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.988828 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 2.594546
Predicted MQL: 8.648485

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00154	-.002	.000	.00000	.000	1
CalStd5=10	10.000	9.7495	-.250	-2.50	.00001	.000	1
CalStd8=100	100.00	98.671	-1.33	-1.33	.00014	.000	1
CalStd3=1	1.0000	2.5798	1.58	158.	.00000	.000	1

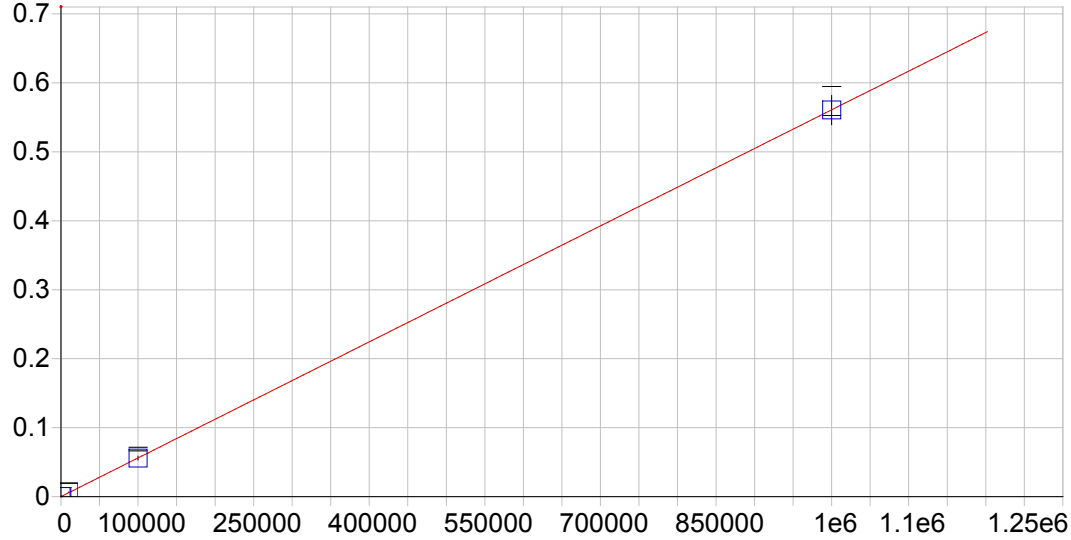


Ag 338.289 {100}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000018 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999172 Status: OK.
 Std Error of Est: 0.000032
 Predicted MDL: 5.199254
 Predicted MQL: 17.330848

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-21.203	-21.2	.000	.00000	.000	1
CalStd8=100	100.00	123.55	23.6	23.6	.00014	.000	1
CalStd9=100	1000.0	997.65	-2.35	-.235	.00103	.000	1

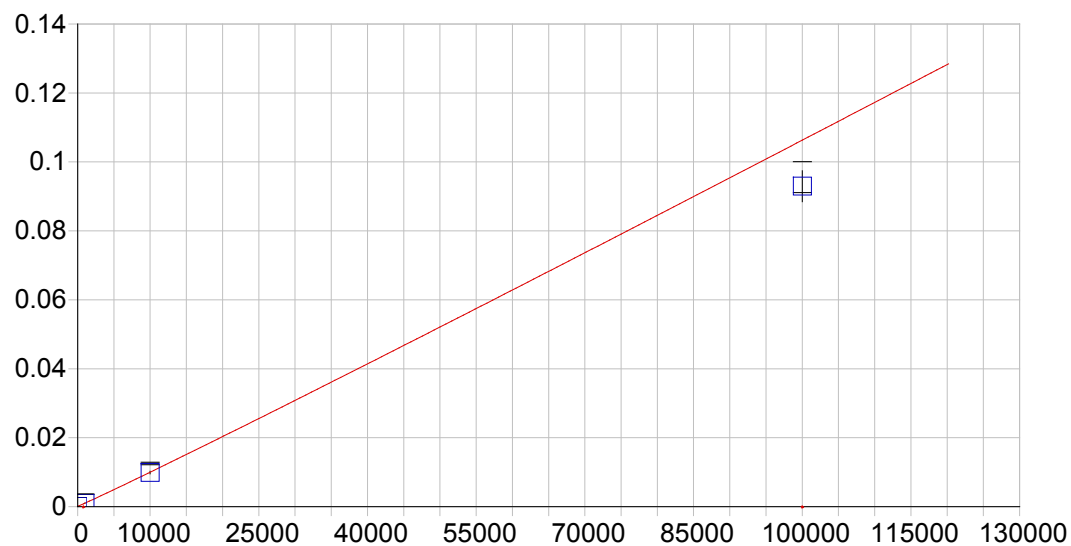


AI 308.215 {109}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000042	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	10.254104		
Predicted MQL:	34.180348		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.22862	-.229	.000	.00004	.000	1
CalStd10=10	10000.	11479.	1480.	14.8	.00648	.000	1
CalStd9=100	1000.0	1088.5	88.5	8.85	.00065	.000	1
CalStd12=100	100000.	99314.	-686.	-.686	.05574	.003	1
CalStd14=100	1000000.	999120.	-881.	-.088	.56041	.021	1

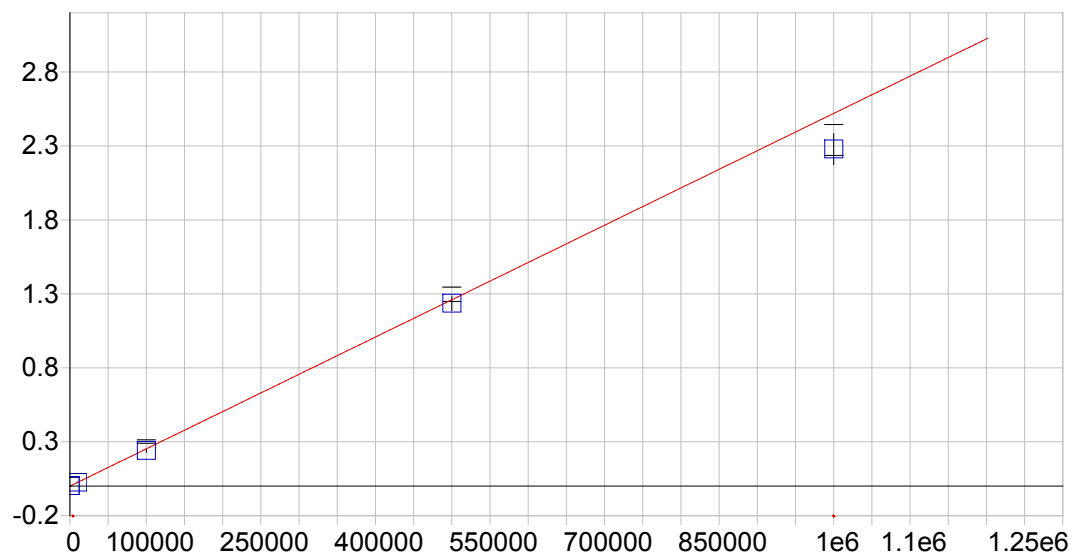


AI 309.271 {109}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Full Fit Weighting: 1/Conc

A0 (Offset): 0.000081 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.030000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 9.830528
 Predicted MQL: 32.768425

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01091	.011	.000	.00008	.000	1
CalStd10=10	10000.	9894.0	-106.	-1.06	.00989	.000	1
CalStd9=100	1000.0	990.57	-9.43	-.943	.00100	.000	1
CalStd12=100	100000.	87770.	-12200.	-12.2	.09295	.004	1

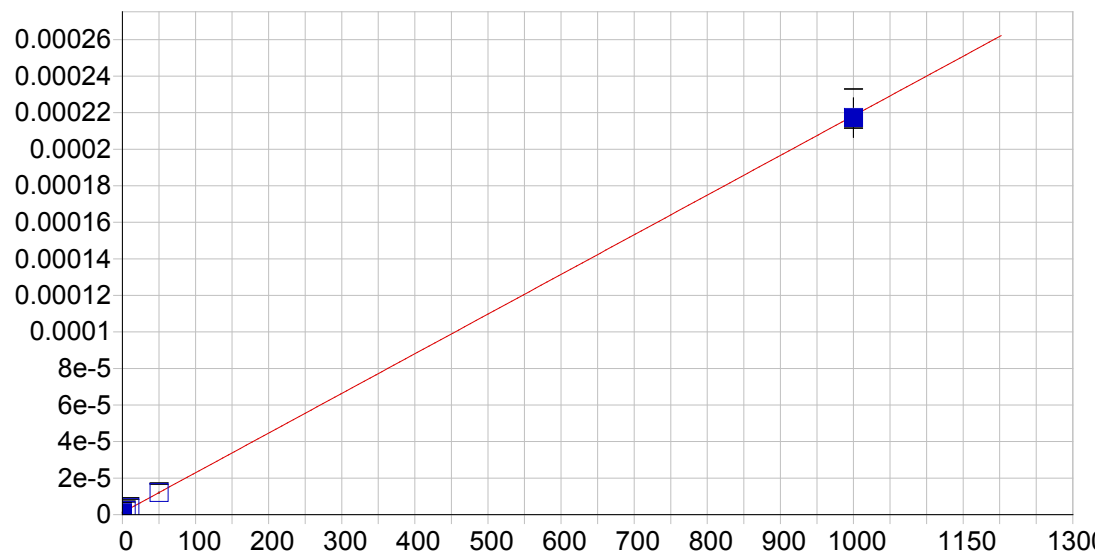


AI 396.152 { 85}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): -0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999494 Status: OK.
 Std Error of Est: 0.000010
 Predicted MDL: 4.016829
 Predicted MQL: 13.389430

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03819	.038	.000	.00000	.000	1
CalStd14-100 1000000.		904360.	-95600.	-9.56	2.2789	.104	1
CalStd13=50 500000.		490420.	-9580.	-1.92	1.2358	.049	1
CalStd10=10 10000.		10360.	360.	3.60	.02610	.001	1
CalStd12-100 100000.		95370.	-4630.	-4.63	.24032	.012	1
CalStd9=100 1000.0		956.52	-43.5	-4.35	.00241	.000	1

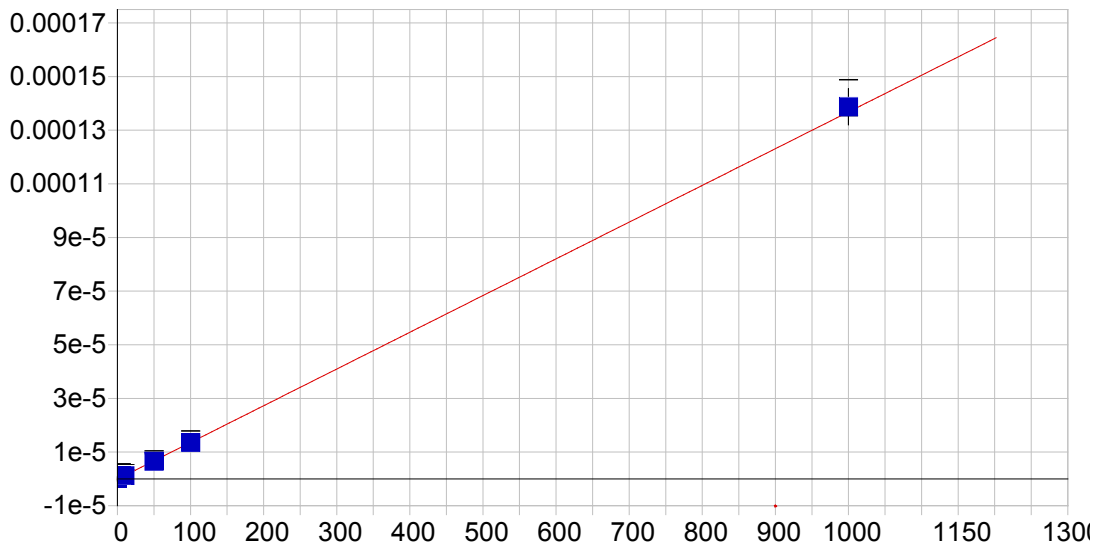


AI 167.079 {502}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999101	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2.564625	
Predicted MQL:	8.548750	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.1056	-1.11	.000	.00000	.000	1
CalStd9=100	1000.0	995.10	-4.90	-.490	.00022	.000	1
CalStd5=10	10.000	12.347	2.35	23.5	.00000	.000	1
CalStd4=5	5.0000	4.5556	-.444	-8.89	.00000	.000	1
CalStd7=50	50.000	49.874	-.126	-.253	.00001	.000	1

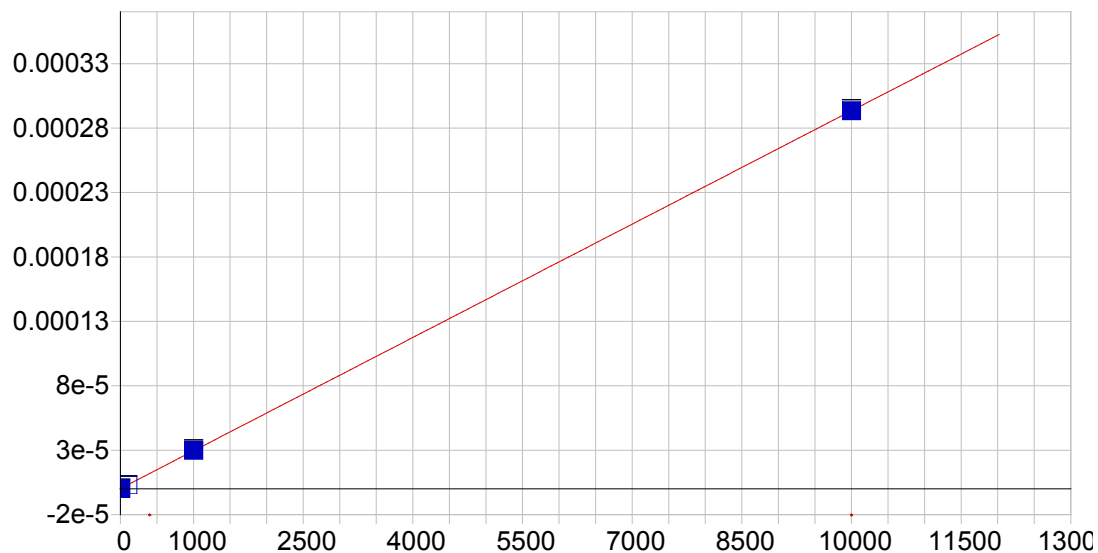


As 193.759 {474}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999253 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 6.688521
 Predicted MQL: 22.295069

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.64801	.648	.000	.00000	.000	1
CalStd9=100	1000.0	1013.5	13.5	1.35	.00014	.000	1
CalStd7=50	50.000	48.335	-1.67	-3.33	.00001	.000	1
CalStd5=10	10.000	8.8123	-1.19	-11.9	.00000	.000	1
CalStd8=100	100.00	99.623	-.377	-.377	.00001	.000	1
CalStd4=5	5.0000	10.234	5.23	105.	.00000	.000	1

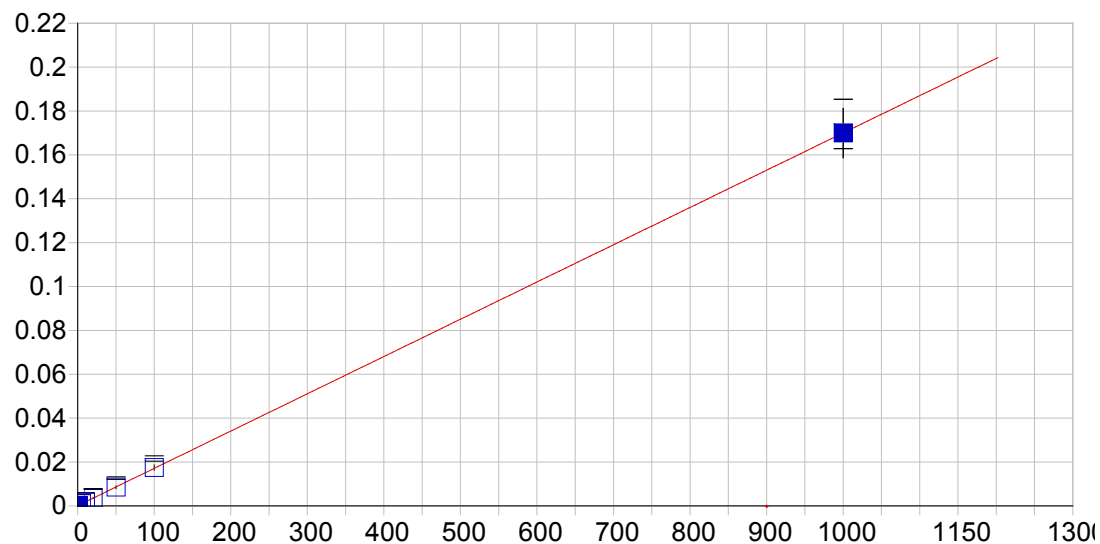


As 189.042 {479}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999999	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	19.539078	
Predicted MQL:	65.130260	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.18234	.182	.000	.00000	.000	1
CalStd9=100	1000.0	1009.3	9.35	.935	.00003	.000	1
CalStd10=10	10000.	9999.1	-.886	-.009	.00029	.000	1
CalStd8=100	100.00	95.361	-4.64	-4.64	.00000	.000	1
CalStd4=5	5.0000	.99456	-4.01	-80.1	.00000	.000	1

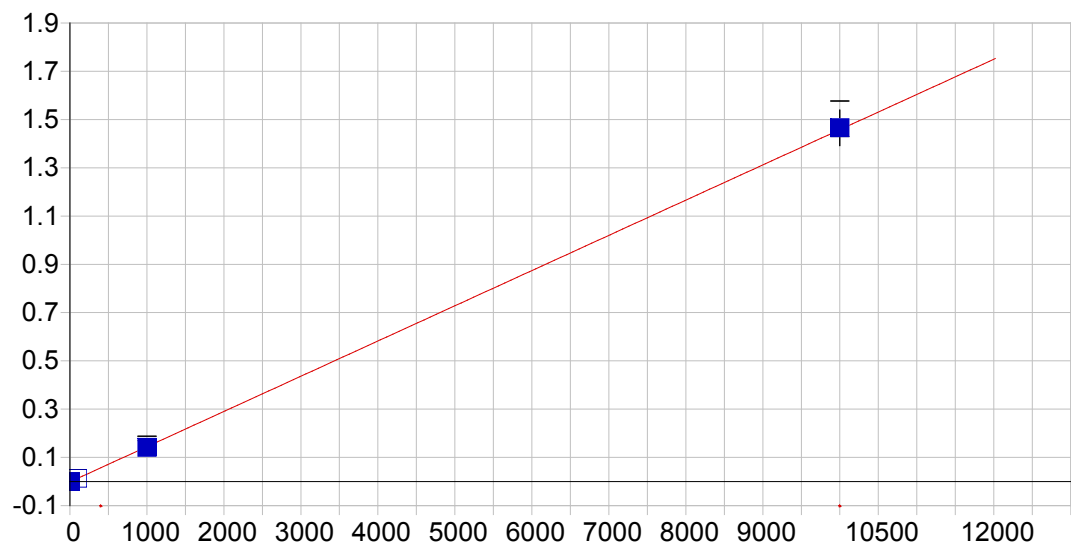


Ba 455.403 { 74}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000124 Re-Slope: 1.000000
 A1 (Gain): 0.000170 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999997 Status: OK.
 Std Error of Est: 0.000150
 Predicted MDL: 0.078238
 Predicted MQL: 0.260794

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.55183	-.552	.000	.00003	.000	1
CalStd7=50	50.000	49.284	-.716	-1.43	.00850	.001	1
CalStd5=10	10.000	9.9730	-.027	-.270	.00182	.000	1
CalStd6=20	20.000	20.311	.311	1.56	.00357	.000	1
CalStd8=100	100.00	102.05	2.05	2.05	.01746	.001	1
CalStd4=5	5.0000	4.9391	-.061	-1.22	.00096	.000	1
CalStd9=100	1000.0	999.83	-.174	-.017	.16998	.011	1
CalStd3=1	1.0000	.56486	-.435	-43.5	.00022	.000	1
CalStd2=0.5	.50000	.10715	-.393	-78.6	.00014	.000	1

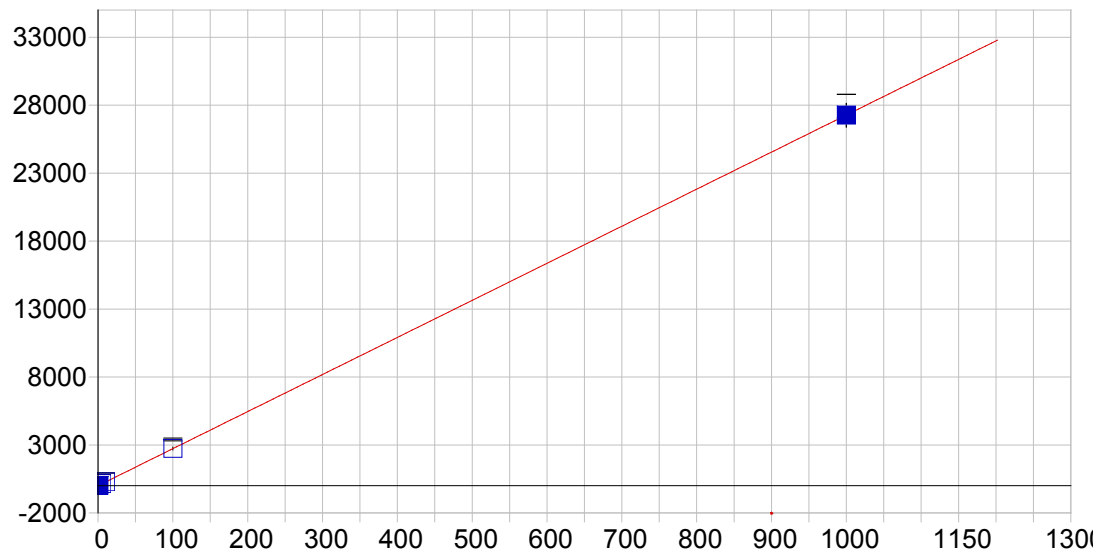


Ba 493.409 { 68}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.001718 Re-Slope: 1.000000
 A1 (Gain): 0.000146 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999686 Status: OK.
 Std Error of Est: 0.000042
 Predicted MDL: 0.313715
 Predicted MQL: 1.045717

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.32712	-.327	.000	-.00177	.000	1
CalStd9=100	1000.0	977.97	-22.0	-2.20	.14107	.009	1
CalStd10=10	10000.	10051.	51.1	.511	1.4658	.074	1
CalStd8=100	100.00	99.367	-.633	-.633	.01279	.001	1
CalStd4=5	5.0000	5.1150	.115	2.30	-.00097	.000	1

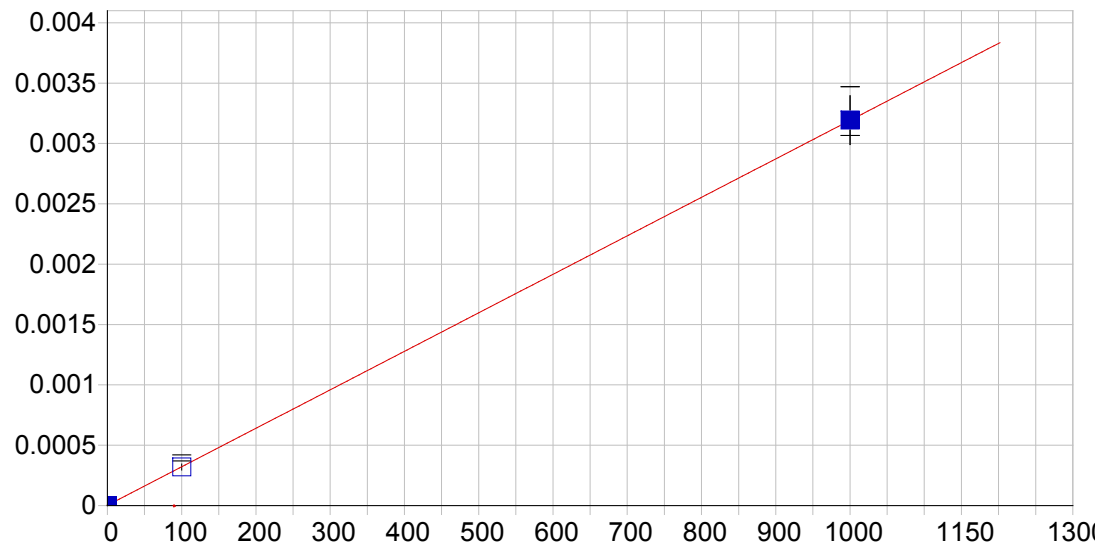


Be 313.042 {108}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.456241 Re-Slope: 1.000000
 A1 (Gain): 27.274556 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999993 Status: OK.
 Std Error of Est: 0.062722
 Predicted MDL: 0.050106
 Predicted MQL: 0.167019

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	.000	.000	.45506	1.95	1
CalStd5=10	10.000	10.164	.164	1.64	277.69	9.27	1
CalStd8=100	100.00	100.17	.167	.167	2732.5	104.	1
CalStd2=0.5	.50000	.50407	.004	.814	14.204	1.44	1
CalStd4=5	5.0000	5.1915	.191	3.83	142.05	3.38	1
CalStd1=0.25	.25000	.26020	.010	4.08	7.5532	.983	1
CalStd9=100	1000.0	999.39	-.606	-.061	27258.	866.	1
CalStd3=1	1.0000	1.0690	.069	6.90	29.612	1.41	1

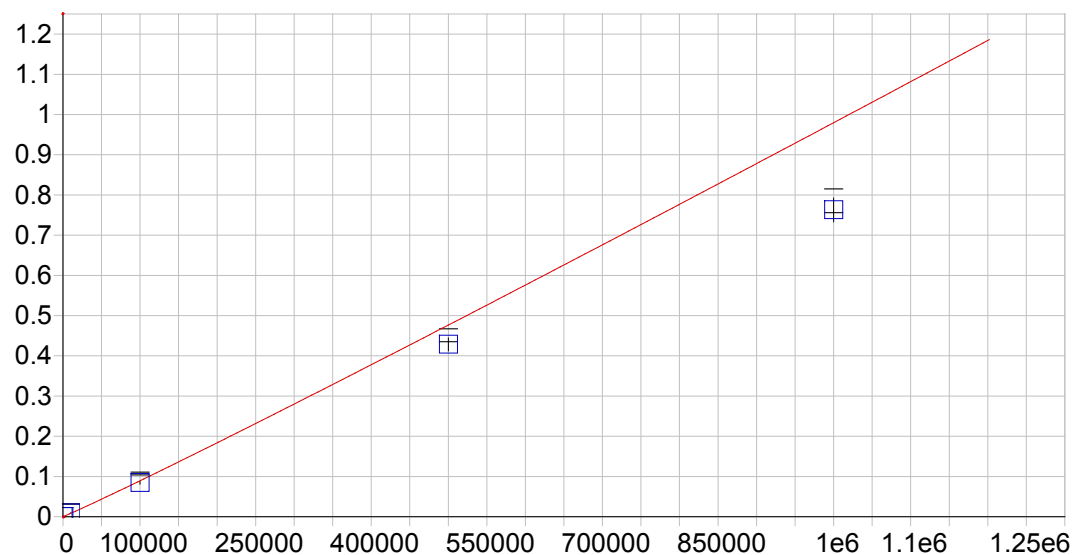


Be 234.861 {144}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000003	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999998	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.619723	
Predicted MQL:	2.065742	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00049	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.5	.549	.055	.00319	.000	1
CalStd8=100	100.00	99.451	-.549	-.549	.00032	.000	1

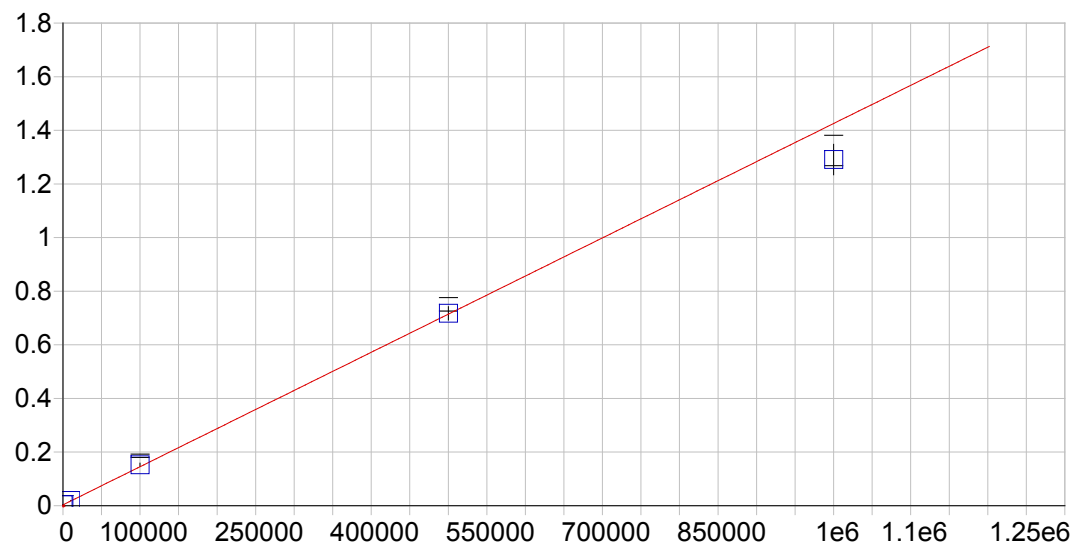


Ca 315.887 {107}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Full Fit Weighting: 1/Conc

A0 (Offset): 0.000060 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.040000
 Correlation: 0.999911 Status: OK.
 Std Error of Est: 0.000023
 Predicted MDL: 8.141339
 Predicted MQL: 27.137795

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00006	.000	1
CalStd10=10	10000.	10993.	993.	9.93	.00905	.000	1
CalStd13=50	500000.	451570.	-48400.	-9.69	.42856	.016	1
CalStd14=100	1000000.	786390.	-214000.	-21.4	.76303	.030	1
CalStd9=100	1000.0	1143.3	143.	14.3	.00091	.000	1
CalStd12=100	100000.	95060.	-4940.	-4.94	.08481	.004	1

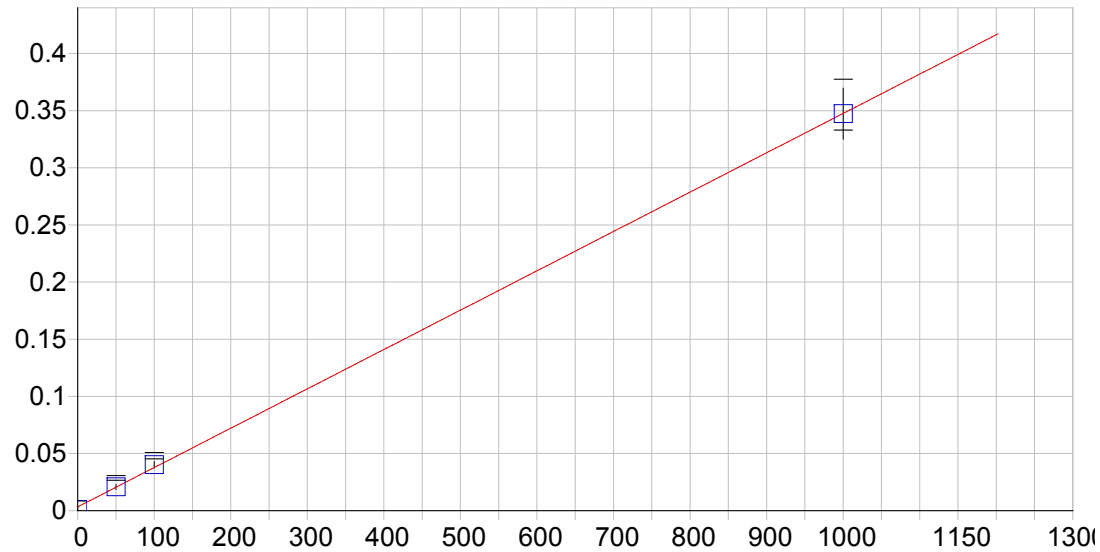


Ca 317.933 {106}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.003217 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.997657 Status: OK.
 Std Error of Est: 0.000453
 Predicted MDL: 2.544694
 Predicted MQL: 8.482313

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-38.418	-38.4	.000	.00316	.000	1
CalStd10=10	10000.	11078.	1080.	10.8	.01897	.001	1
CalStd13=50	500000.	502190.	2190.	.437	.71744	.025	1
CalStd14=100	1000000.	905480.	-94500.	-9.45	1.2910	.057	1
CalStd9=100	1000.0	1004.7	4.75	.475	.00465	.000	1
CalStd12=100	100000.	104890.	4890.	4.89	.15239	.006	1

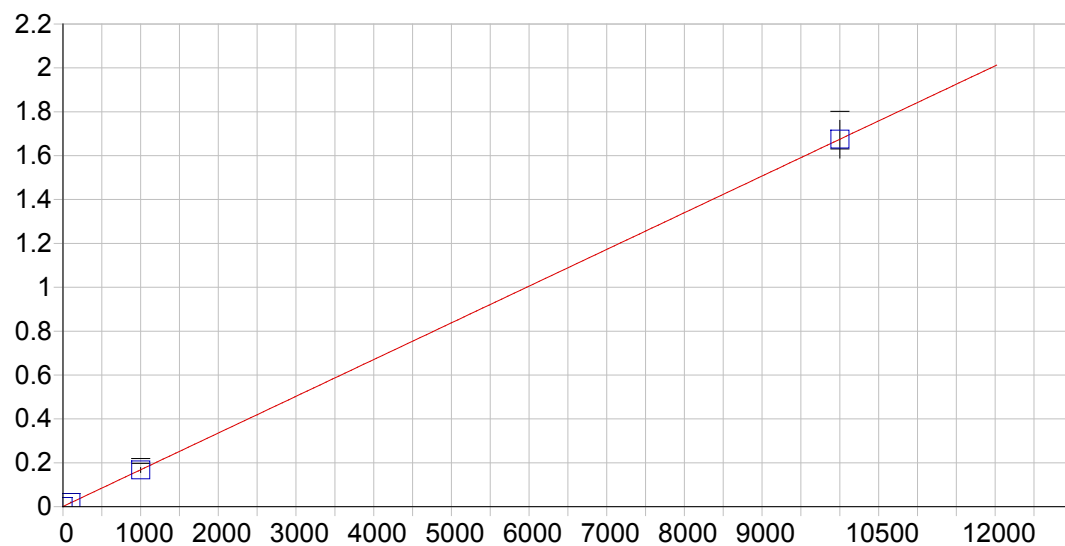


Ca 393.366 { 86}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.003289 Re-Slope: 1.000000
 A1 (Gain): 0.000344 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999927 Status: OK.
 Std Error of Est: 0.002424
 Predicted MDL: 0.021854
 Predicted MQL: 0.072846

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.9671	-6.97	.000	.00089	.000	1
CalStd7=50	50.000	50.657	.657	1.31	.02073	.002	1
CalStd9=100	1000.0	999.26	-.738	-.074	.34731	.022	1
CalStd8=100	100.00	107.05	7.05	7.05	.04014	.003	1

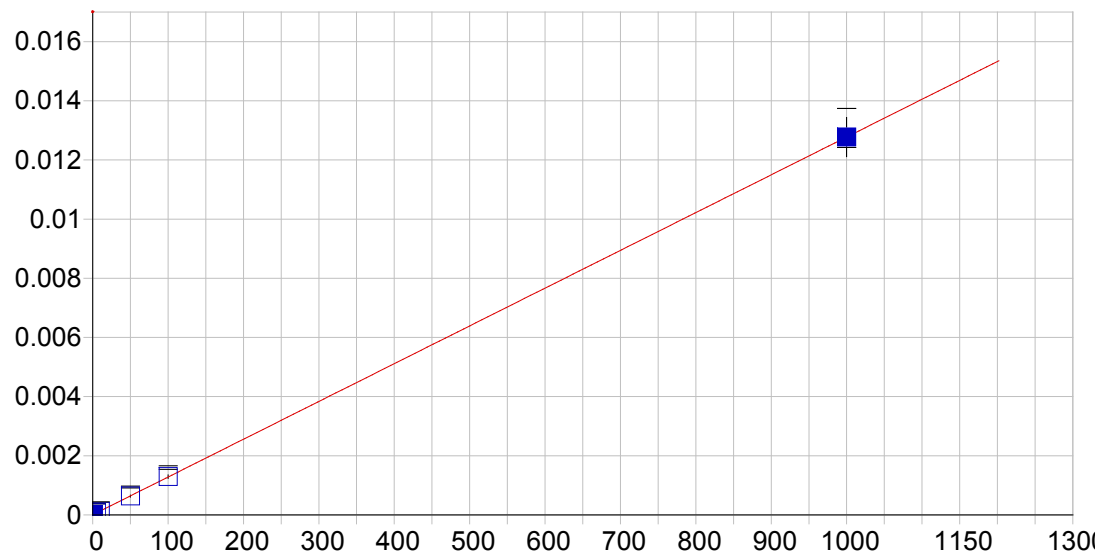


Ca 396.847 { 85}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000882 Re-Slope: 1.000000
 A1 (Gain): 0.000167 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.001572
 Predicted MDL: 0.039319
 Predicted MQL: 0.131065

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.7278	-2.73	.000	.00043	.000	1
CalStd10=10	10000.	10001.	.710	.007	1.6748	.086	1
CalStd8=100	100.00	110.13	10.1	10.1	.01932	.001	1
CalStd9=100	1000.0	991.89	-8.11	-.811	.16690	.011	1

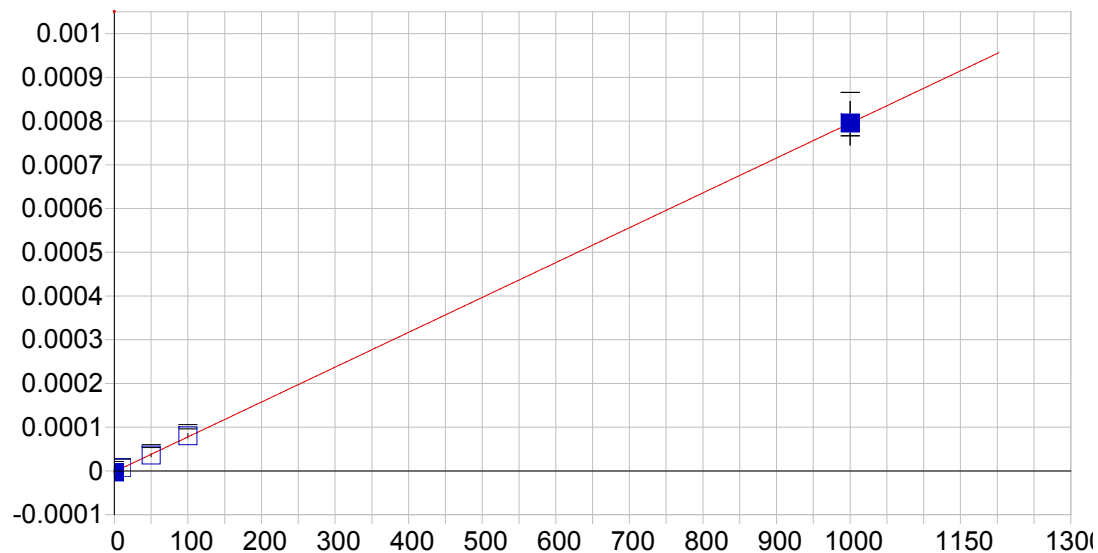


Cd 214.438 {457}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000004 Re-Slope: 1.000000
 A1 (Gain): 0.000013 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.000005
 Predicted MDL: 0.086356
 Predicted MQL: 0.287852

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.04547	-.045	.000	.00000	.000	1
CalStd7=50	50.000	49.579	-.421	-.842	.00064	.000	1
CalStd3=1	1.0000	.88120	-.119	-11.9	.00002	.000	1
CalStd2=0.5	.50000	.41862	-.081	-16.3	.00001	.000	1
CalStd4=5	5.0000	5.0062	.006	.124	.00007	.000	1
CalStd8=100	100.00	100.87	.869	.869	.00129	.000	1
CalStd5=10	10.000	9.8556	-.144	-1.44	.00013	.000	1
CalStd9=100	1000.0	999.94	-.064	-.006	.01277	.001	1

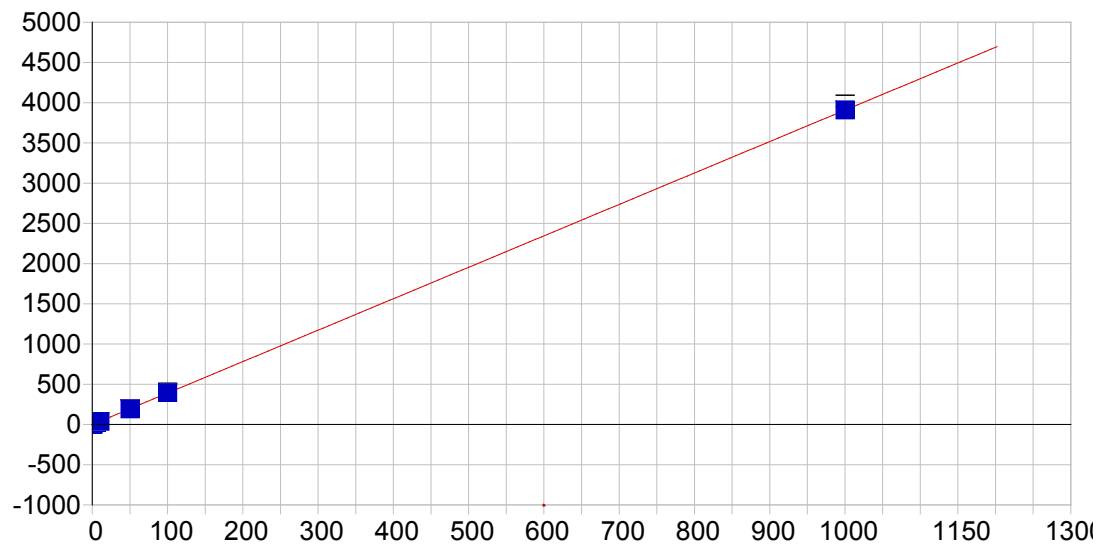


Cd 226.502 {149}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset):	-0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999988	Status: OK.
Std Error of Est:	0.000002	
Predicted MDL:	2.999007	
Predicted MQL:	9.996689	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.1225	-1.12	.000	.00000	.000	1
CalStd7=50	50.000	47.440	-2.56	-5.12	.00004	.000	1
CalStd8=100	100.00	102.90	2.90	2.90	.00008	.000	1
CalStd5=10	10.000	10.951	.951	9.51	.00001	.000	1
CalStd9=100	1000.0	999.83	-.172	-.017	.00080	.000	1

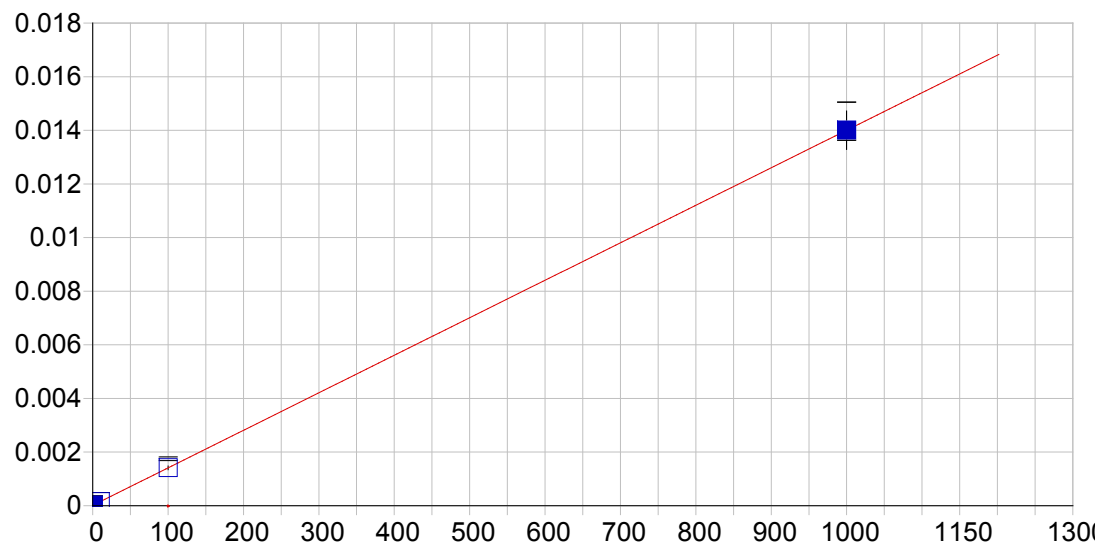


Cd 226.502 {449}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): -0.231996 Re-Slope: 1.000000
 A1 (Gain): 3.908171 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 1.785289
 Predicted MDL: 0.144100
 Predicted MQL: 0.480334

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.05915	-.059	.000	-.46318	.444	1
CalStd7=50	50.000	49.505	-.495	-.990	193.24	3.91	1
CalStd3=1	1.0000	.85389	-.146	-14.6	3.1052	.276	1
CalStd2=0.5	.50000	.28488	-.215	-43.0	.88135	.467	1
CalStd4=5	5.0000	5.0387	.039	.775	19.460	.288	1
CalStd8=100	100.00	100.96	.964	.964	394.35	6.66	1
CalStd5=10	10.000	9.9838	-.016	-.162	38.786	.353	1
CalStd9=100	1000.0	999.93	-.071	-.007	3911.1	71.3	1

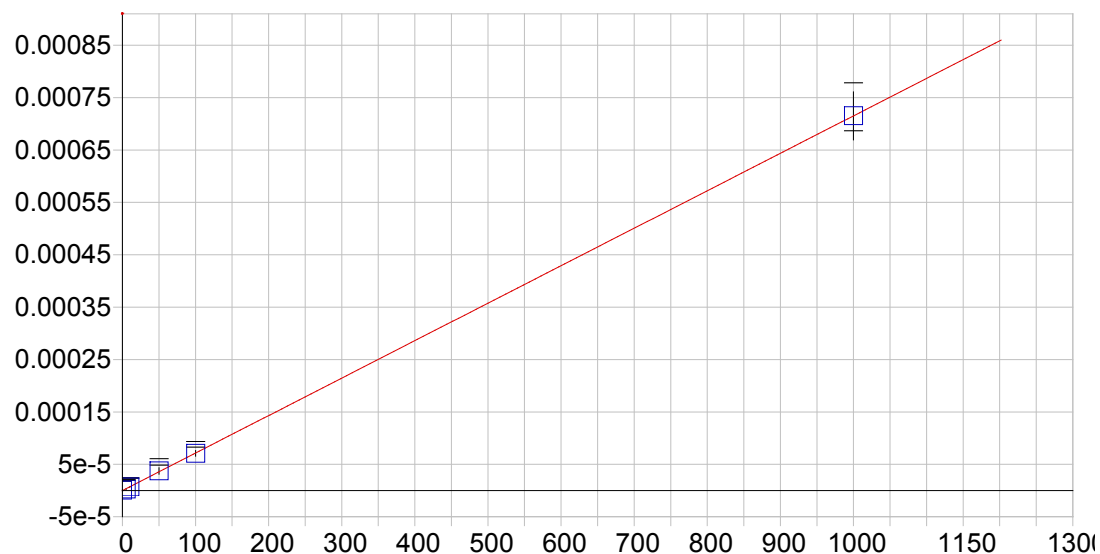


Cd 228.802 {447}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000010 Re-Slope: 1.000000
 A1 (Gain): 0.000014 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.117886
 Predicted MQL: 0.392954

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06890	.069	.000	.00001	.000	1
CalStd9=100	1000.0	999.99	-.012	-.001	.01400	.001	1
CalStd8=100	100.00	100.13	.132	.132	.00141	.000	1
CalStd2=0.5	.50000	.42114	-.079	-15.8	.00002	.000	1
CalStd3=1	1.0000	1.0308	.031	3.08	.00002	.000	1
CalStd5=10	10.000	9.8592	-.141	-1.41	.00015	.000	1

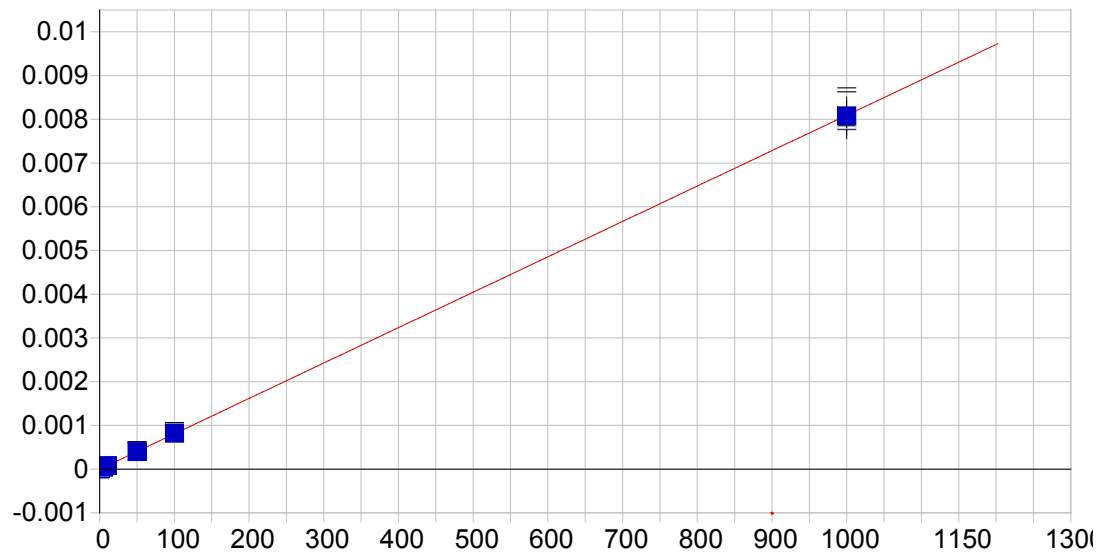


Co 228.616 {147}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 3.130940
 Predicted MQL: 10.436467

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.61939	.619	.000	.00000	.000	1
CalStd7=50	50.000	52.136	2.14	4.27	.00004	.000	1
CalStd5=10	10.000	9.3575	-.642	-6.42	.00001	.000	1
CalStd4=5	5.0000	3.7291	-1.27	-25.4	.00000	.000	1
CalStd8=100	100.00	99.169	-.831	-.831	.00007	.000	1
CalStd9=100	1000.0	999.99	-.011	-.001	.00072	.000	1

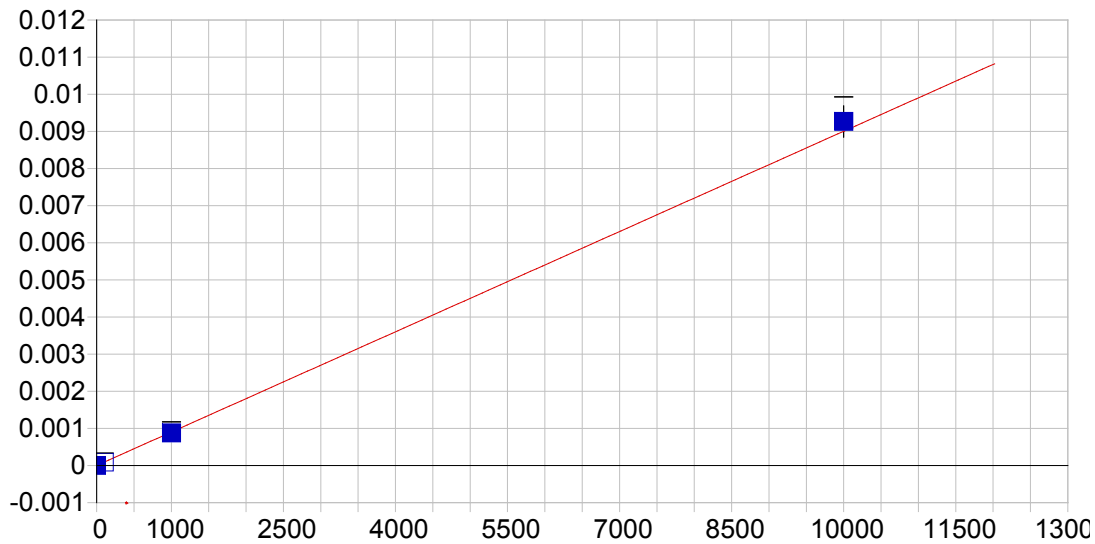


Co 228.616 {447}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000008 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999957 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.183858
 Predicted MQL: 0.612859

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00029	.000	.000	.00000	.000	1
CalStd7=50	50.000	49.539	-.461	-.921	.00039	.000	1
CalStd5=10	10.000	10.225	.225	2.25	.00008	.000	1
CalStd4=5	5.0000	5.3448	.345	6.90	.00004	.000	1
CalStd8=100	100.00	101.50	1.50	1.50	.00081	.000	1
CalStd9=100	1000.0	998.19	-1.81	-.181	.00799	.000	1
CalStd3=1	1.0000	1.1955	.196	19.6	.00001	.000	1

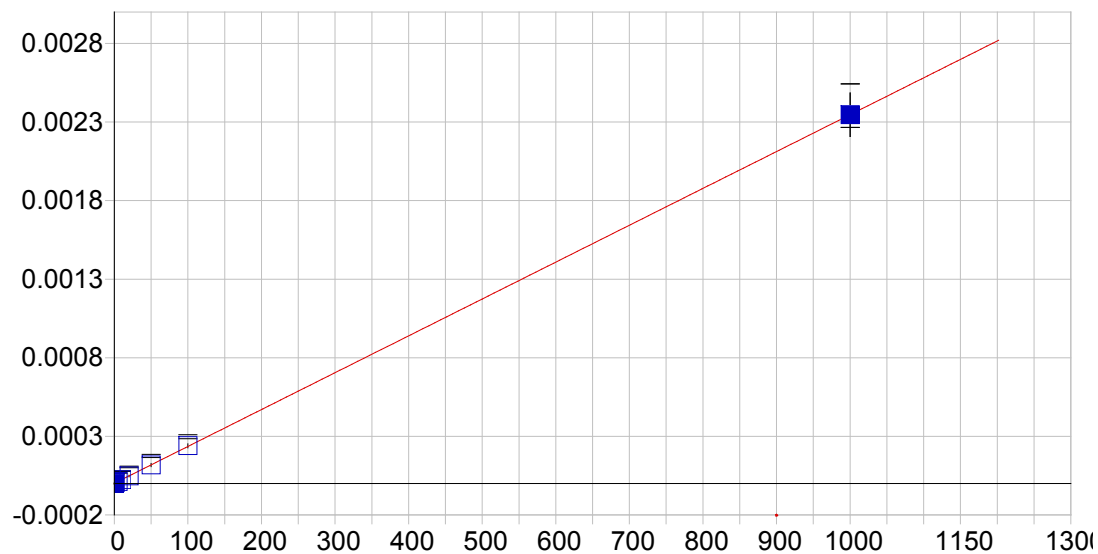


Co 238.892 {141}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999606 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 3.038917
 Predicted MQL: 10.129722

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.90926	.909	.000	.00000	.000	1
CalStd9=100	1000.0	972.63	-27.4	-2.74	.00088	.000	1
CalStd10=10	10000.	10290.	290.	2.90	.00927	.000	1
CalStd8=100	100.00	98.339	-1.66	-1.66	.00009	.000	1

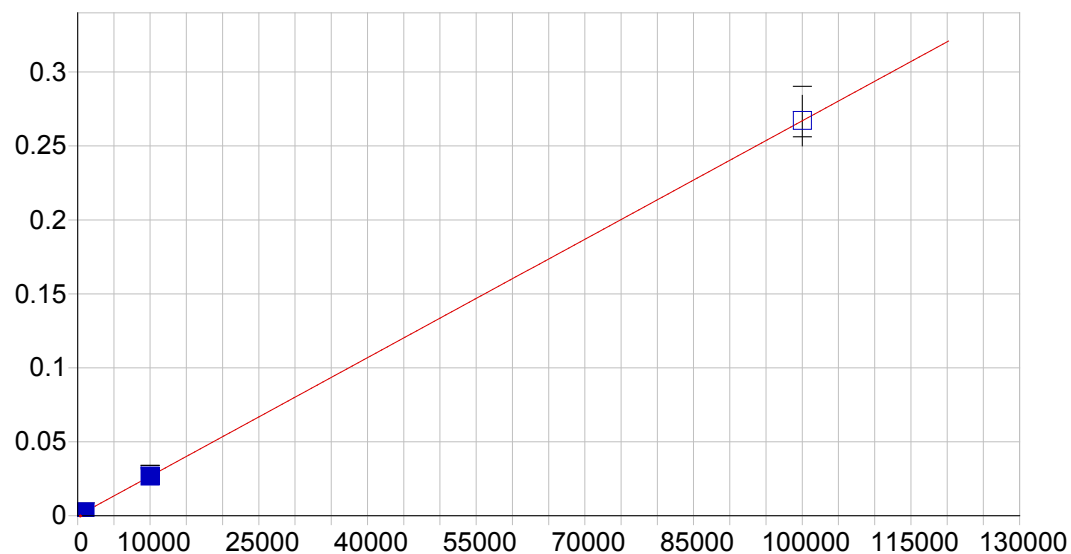


Cr 267.716 {126}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999997 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 1.616455
 Predicted MQL: 5.388183

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.90119	-.901	.000	.00000	.000	1
CalStd5=10	10.000	9.4526	-.547	-5.47	.00002	.000	1
CalStd7=50	50.000	49.704	-.296	-.592	.00012	.000	1
CalStd9=100	1000.0	999.87	-.133	-.013	.00235	.000	1
CalStd6=20	20.000	19.633	-.367	-1.83	.00005	.000	1
CalStd8=100	100.00	101.61	1.61	1.61	.00024	.000	1
CalStd3=1	1.0000	1.9526	.953	95.3	.00001	.000	1
CalStd4=5	5.0000	4.6776	-.322	-6.45	.00001	.000	1

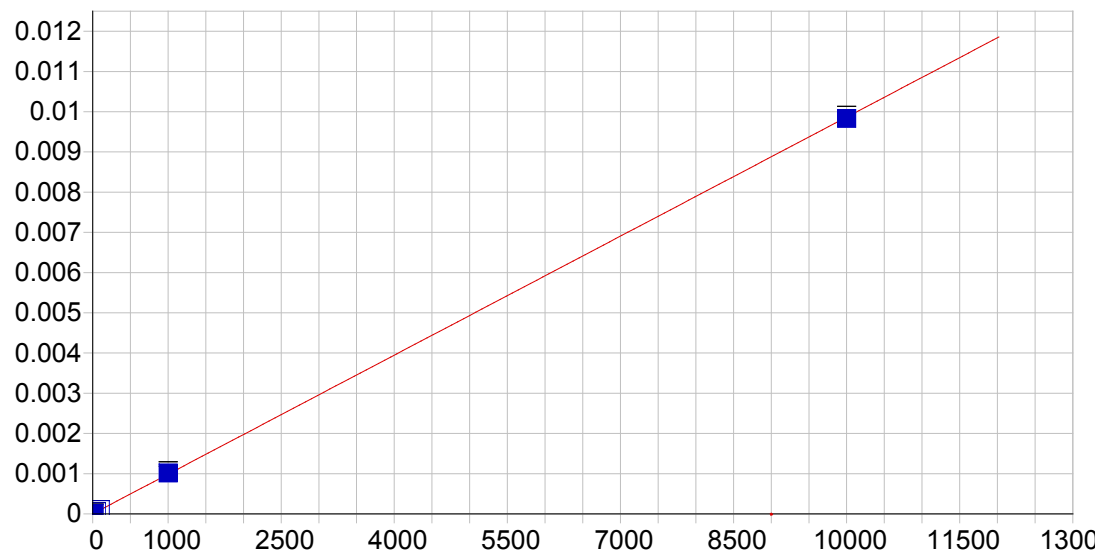


Cr 283.563 {119}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000016 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999990 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 1.432841
 Predicted MQL: 4.776136

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00536	.005	.000	.00002	.000	1
CalStd7=50	50.000	47.788	-2.21	-4.42	.00014	.000	1
CalStd8=100	100.00	98.067	-1.93	-1.93	.00028	.000	1
CalStd9=100	1000.0	955.77	-44.2	-4.42	.00257	.000	1
CalStd10=10	10000.	10000.	.325	.003	.02674	.001	1
CalStd11=100	100000.	100050.	48.1	.048	.26714	.017	1

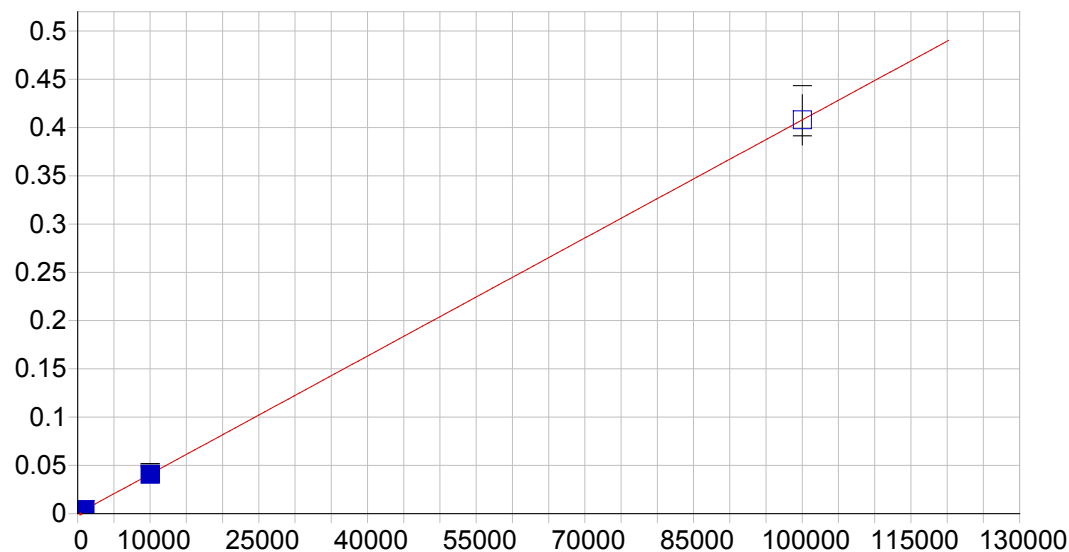


Cu 224.700 {450}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999905 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.849116
 Predicted MQL: 2.830386

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00072	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1027.8	27.8	2.78	.00101	.000	1
CalStd7=50	50.000	51.357	1.36	2.71	.00005	.000	1
CalStd8=100	100.00	104.42	4.42	4.42	.00010	.000	1
CalStd5=10	10.000	10.579	.579	5.79	.00001	.000	1
CalStd10=10	10000.	9962.6	-37.4	-.374	.00983	.000	1
CalStd4=5	5.0000	7.1035	2.10	42.1	.00001	.000	1
CalStd6=20	20.000	21.014	1.01	5.07	.00002	.000	1
CalStd3=1	1.0000	1.0940	.094	9.40	.00000	.000	1

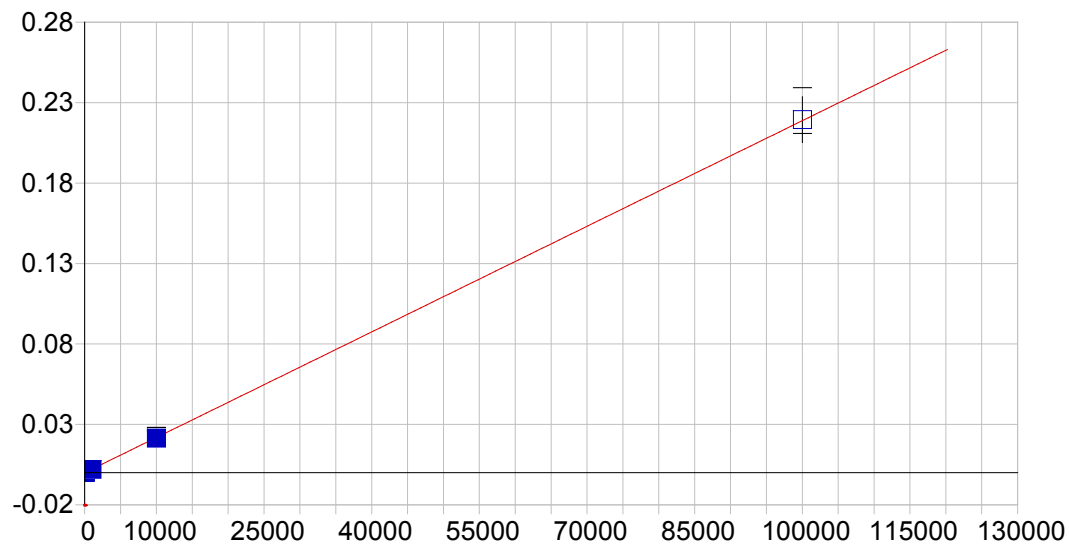


Cu 324.754 {104}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset):	0.000183	Re-Slope: 1.000000
A1 (Gain):	0.000004	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999999	Status: OK.
Std Error of Est:	0.000262	
Predicted MDL:	1.303307	
Predicted MQL:	4.344356	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	51.646	51.6	.000	.00039	.000	1
CalStd9=100	1000.0	978.73	-21.3	-2.13	.00417	.000	1
CalStd8=100	100.00	145.43	45.4	45.4	.00078	.000	1
CalStd10=10	10000.	9915.6	-84.4	-.844	.04061	.002	1
CalStd11=100	100000.	100010.	8.61	.009	.40795	.026	1

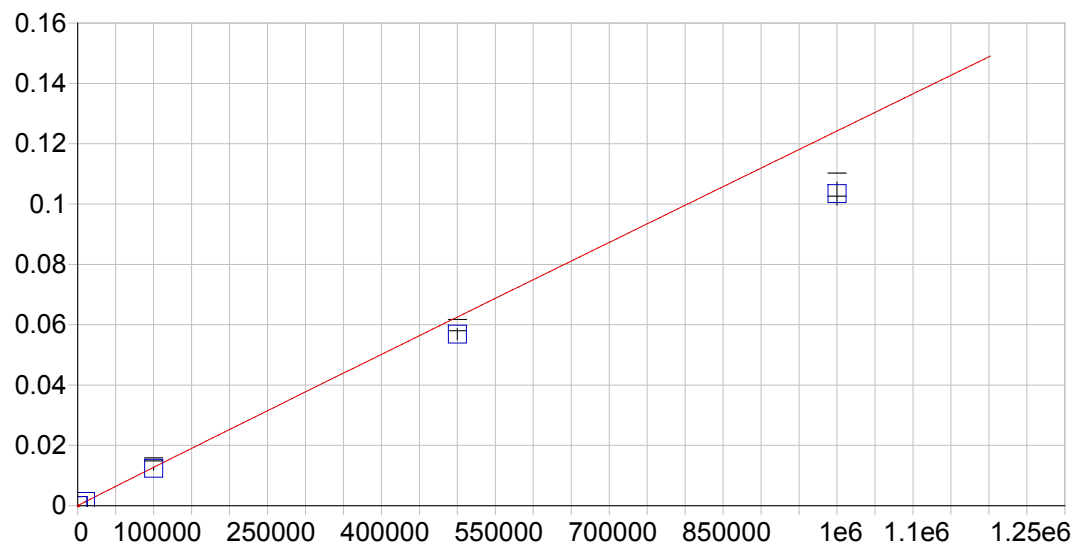


Cu 327.396 {103}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000052	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999951	Status: OK.
Std Error of Est:	0.000001	
Predicted MDL:	3.265890	
Predicted MQL:	10.886300	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00348	.003	.000	-.00005	.000	1
CalStd6=20	20.000	20.841	.841	4.20	-.00001	.000	1
CalStd7=50	50.000	46.265	-3.74	-7.47	.00005	.000	1
CalStd8=100	100.00	94.903	-5.10	-5.10	.00016	.000	1
CalStd9=100	1000.0	927.26	-72.7	-7.27	.00198	.000	1
CalStd10=10	10000.	9796.8	-203.	-2.03	.02139	.001	1
CalStd11=100	100000.	100280.	284.	.284	.21941	.014	1

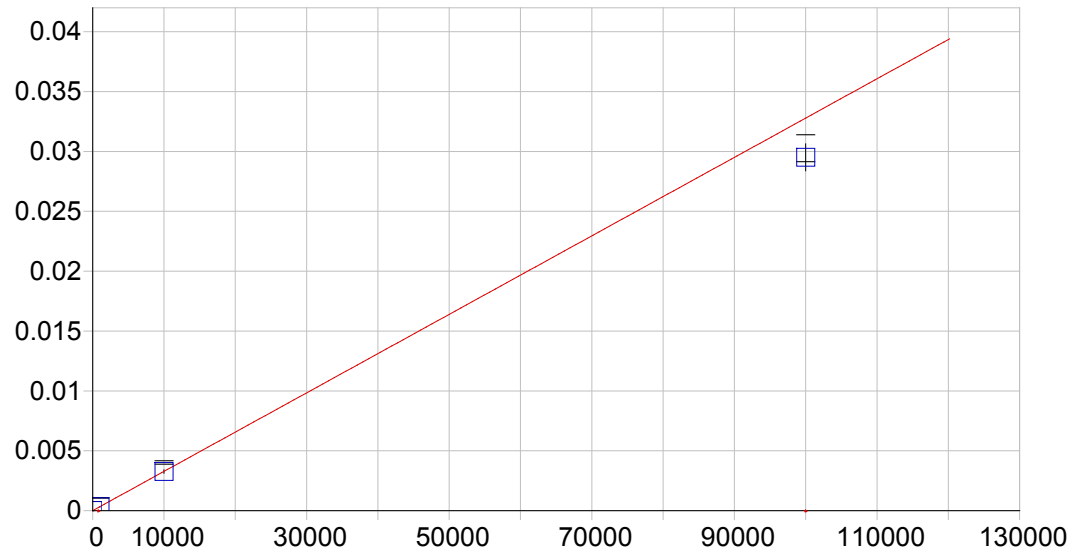


Fe 234.349 {144}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Full Fit Weighting: 1/Var

A0 (Offset):	0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	0.990000	
Correlation:	0.999809	Status: OK.
Std Error of Est:	0.000003	
Predicted MDL:	9.523454	
Predicted MQL:	31.744847	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.86903	.869	.000	.00000	.000	1
CalStd10=10	10000.	10402.	402.	4.02	.00135	.000	1
CalStd13=50	500000.	454070.	-45900.	-9.19	.05686	.002	1
CalStd14=100	1000000.	831120.	-169000.	-16.9	.10345	.004	1
CalStd9=100	1000.0	971.41	-28.6	-2.86	.00013	.000	1
CalStd12=100	100000.	97024.	-2980.	-2.98	.01234	.000	1

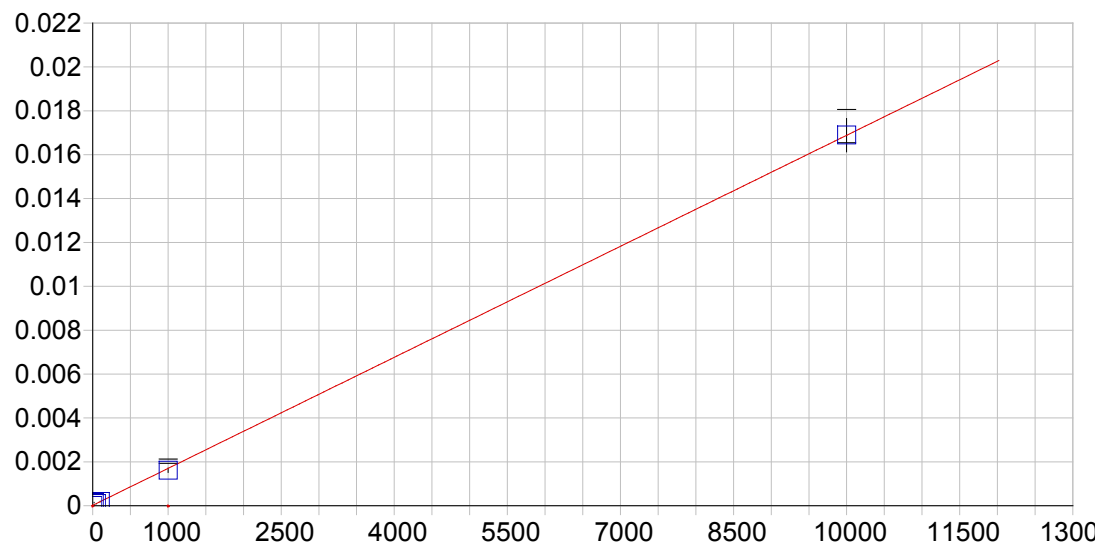


Fe 239.562 {141}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999985 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 4.771883
 Predicted MQL: 15.906276

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.04395	.044	.000	.00000	.000	1
CalStd9=100	1000.0	949.68	-50.3	-5.03	.00031	.000	1
CalStd10=10	10000.	9954.3	-45.7	-.457	.00327	.000	1
CalStd12=100	100000.	90001.	-10000.	-10.00	.02951	.001	1

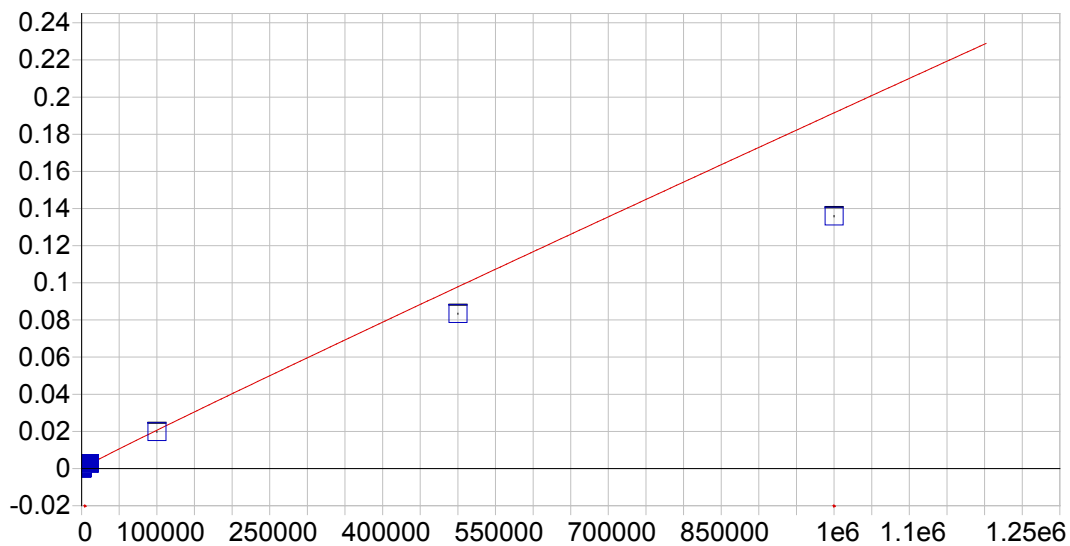


Fe 259.940 {130}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000016 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999964 Status: OK.
 Std Error of Est: 0.000064
 Predicted MDL: 1.772775
 Predicted MQL: 5.909249

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.0081	-6.01	.000	.00001	.000	1
CalStd9=100	1000.0	948.31	-51.7	-5.17	.00162	.000	1
CalStd7=50	50.000	45.535	-4.46	-8.93	.00009	.000	1
CalStd8=100	100.00	102.46	2.46	2.46	.00019	.000	1
CalStd6=20	20.000	74.647	54.6	273.	.00014	.000	1
CalStd10=10	10000.	10005.	5.06	.051	.01689	.001	1

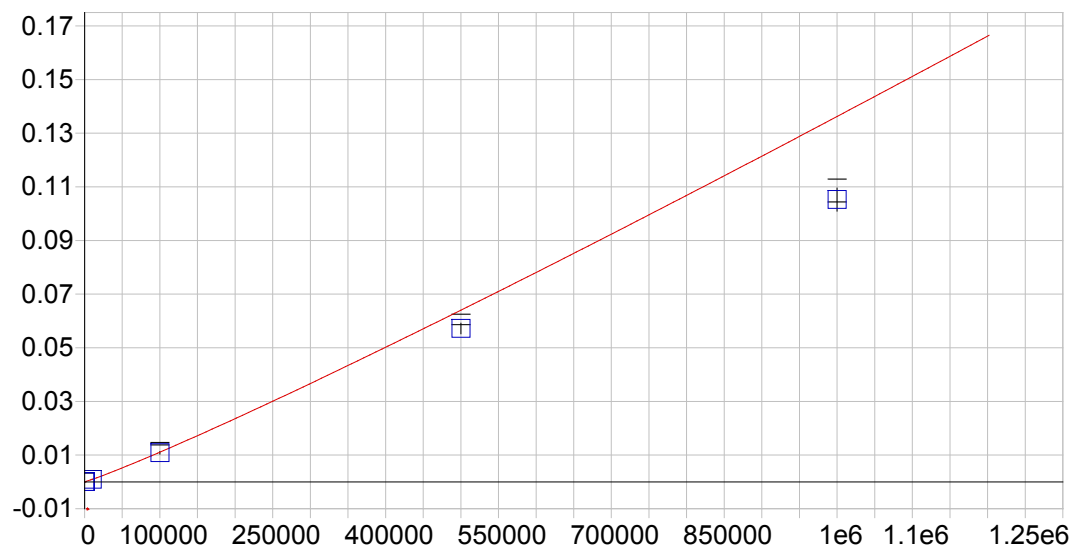


Mg 202.582 {466}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Full Fit Weighting: None

A0 (Offset): 0.000123 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 0.970000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 0.000297
 Predicted MDL: 3.059483
 Predicted MQL: 10.198277

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd13=50	500000.	423970.	-76000.	-15.2	.08338	.000	1
CalStd10=10	10000.	11598.	1600.	16.0	.00266	.000	1
CalStd14=100	1000000.	701830.	-298000.	-29.8	.13588	.000	1
CalStd12=100	100000.	95930.	-4070.	-4.07	.01982	.000	1
CalStd9=100	1000.0	611.30	-389.	-38.9	.00027	.000	1

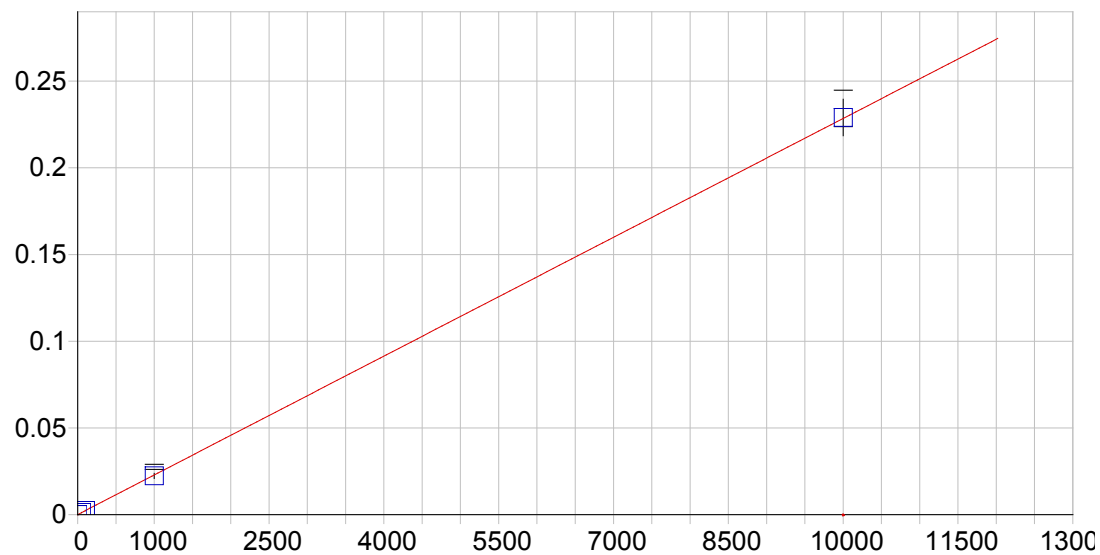


Mg 279.079 {121}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Full Fit Weighting: None

A0 (Offset): 0.000013 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.090000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000030
 Predicted MDL: 51.107875
 Predicted MQL: 170.359582

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd13=50	500000.	450820.	-49200.	-9.84	.05718	.002	1
CalStd10=10	10000.	10195.	195.	1.95	.00093	.000	1
CalStd14=100	1000000.	789140.	-211000.	-21.1	.10525	.004	1
CalStd12=100	100000.	98050.	-1950.	-1.95	.01085	.000	1
CalStd9=100	1000.0	1200.6	201.	20.1	.00010	.000	1

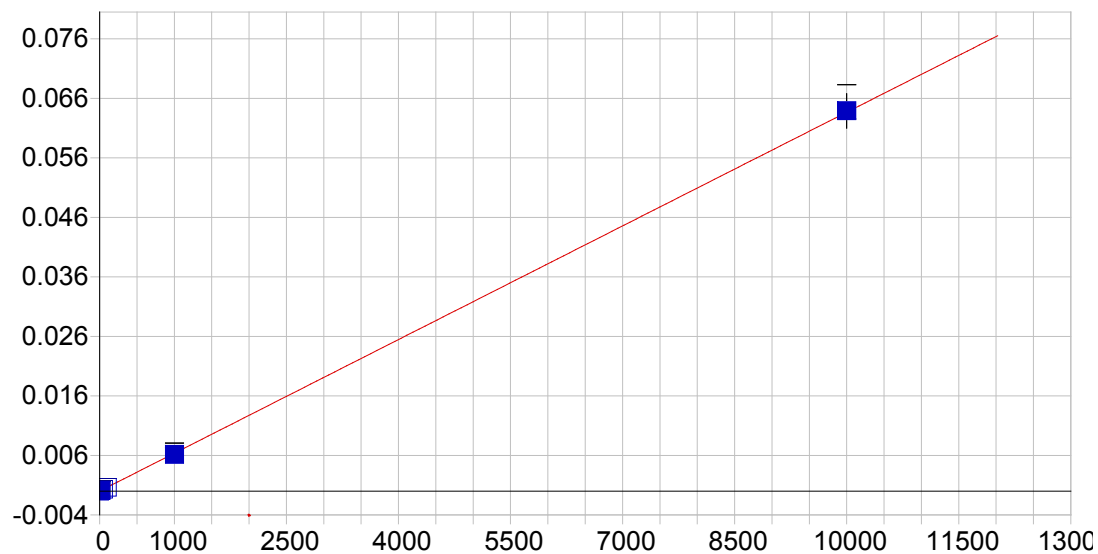


Mg 280.270 {120}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000038 Re-Slope: 1.000000
A1 (Gain): 0.000023 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999971 Status: OK.
Std Error of Est: 0.000005
Predicted MDL: 0.084136
Predicted MQL: 0.280452

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00127	.001	.000	.00004	.000	1
CalStd9=100	1000.0	976.01	-24.0	-2.40	.02233	.001	1
CalStd10=10	10000.	10024.	23.6	.236	.22902	.011	1
CalStd8=100	100.00	101.11	1.11	1.11	.00235	.000	1
CalStd7=50	50.000	49.251	-.749	-1.50	.00116	.000	1

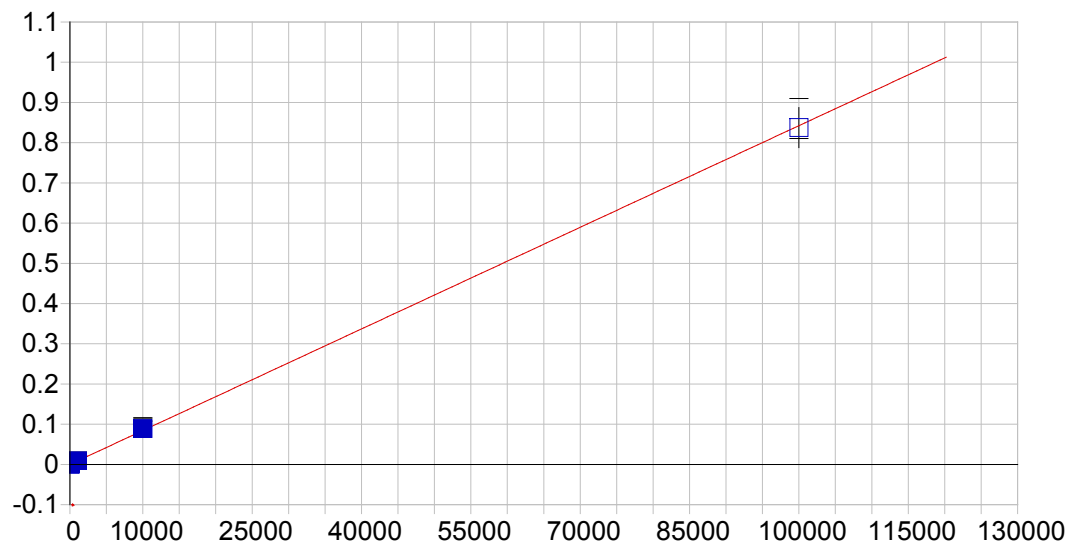


Mn 257.610 {131}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000006 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999940 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.301308
 Predicted MQL: 1.004361

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00021	.000	.000	.00000	.000	1
CalStd5=10	10.000	9.9960	-.004	-.040	.00006	.000	1
CalStd7=50	50.000	47.841	-2.16	-4.32	.00030	.000	1
CalStd6=20	20.000	20.100	.100	.501	.00013	.000	1
CalStd8=100	100.00	98.396	-1.60	-1.60	.00063	.000	1
CalStd4=5	5.0000	5.2082	.208	4.16	.00003	.000	1
CalStd9=100	1000.0	967.04	-33.0	-3.30	.00616	.000	1
CalStd10=10	10000.	10036.	36.4	.364	.06389	.003	1

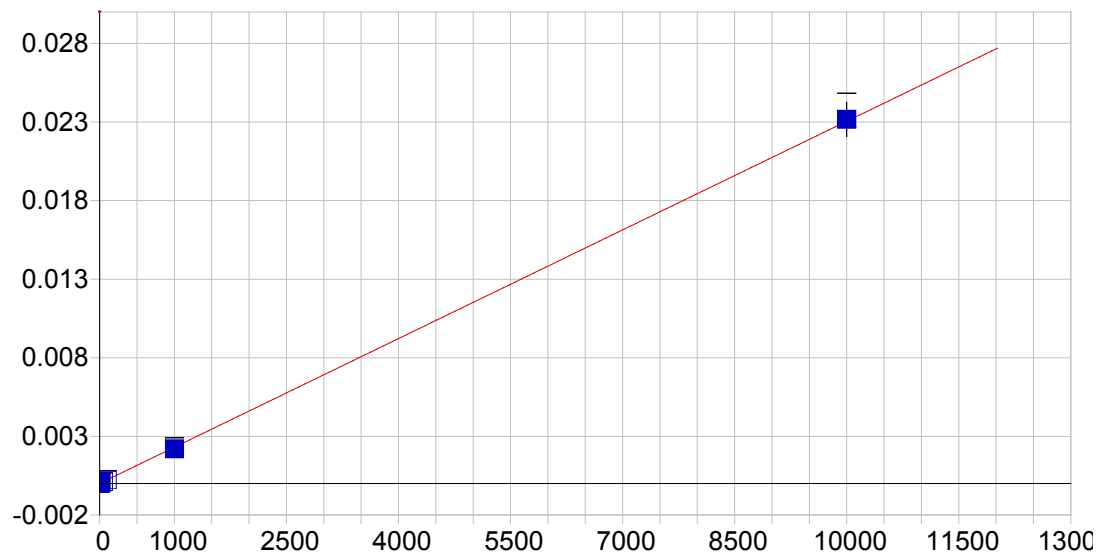


Mn 259.373 {130}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000004	Re-Slope: 1.000000
A1 (Gain):	0.000008	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999837	Status: OK.
Std Error of Est:	0.000072	
Predicted MDL:	0.382309	
Predicted MQL:	1.274364	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.06183	-.062	.000	.00000	.000	1
CalStd10=10	10000.	10571.	571.	5.71	.08915	.004	1
CalStd11=100	100000.	99418.	-582.	-.582	.83741	.050	1
CalStd9=100	1000.0	1010.5	10.5	1.05	.00853	.001	1

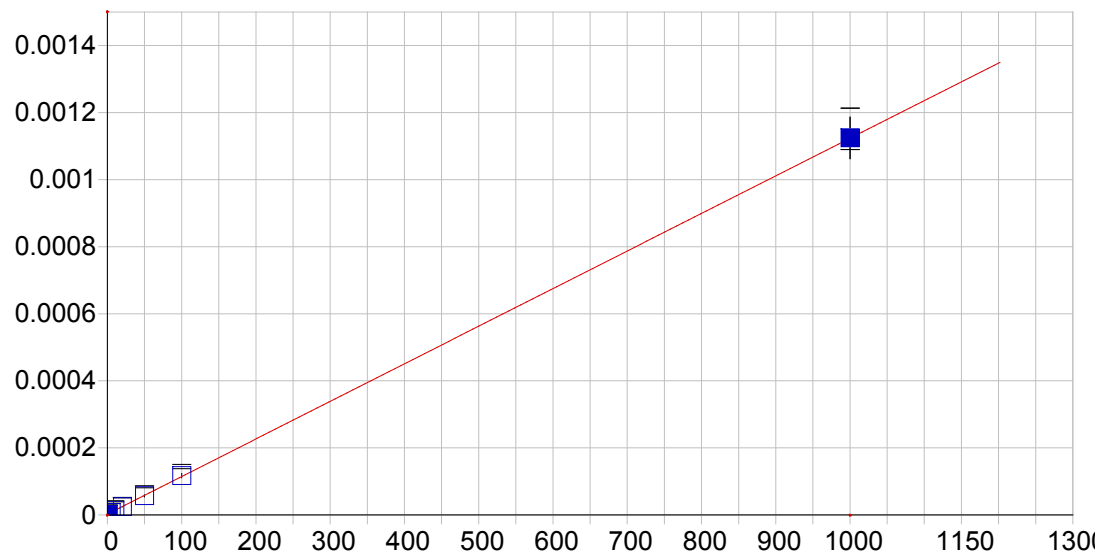


Mn 293.930 {115}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999884 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 1.748154
 Predicted MQL: 5.827179

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00094	.001	.000	.00000	.000	1
CalStd5=10	10.000	9.9006	-.099	-.994	.00002	.000	1
CalStd7=50	50.000	47.836	-2.16	-4.33	.00011	.000	1
CalStd6=20	20.000	18.945	-1.05	-5.27	.00004	.000	1
CalStd8=100	100.00	97.972	-2.03	-2.03	.00023	.000	1
CalStd4=5	5.0000	4.8925	-.107	-2.15	.00001	.000	1
CalStd9=100	1000.0	953.87	-46.1	-4.61	.00220	.000	1
CalStd10=10	10000.	10052.	51.6	.516	.02317	.001	1

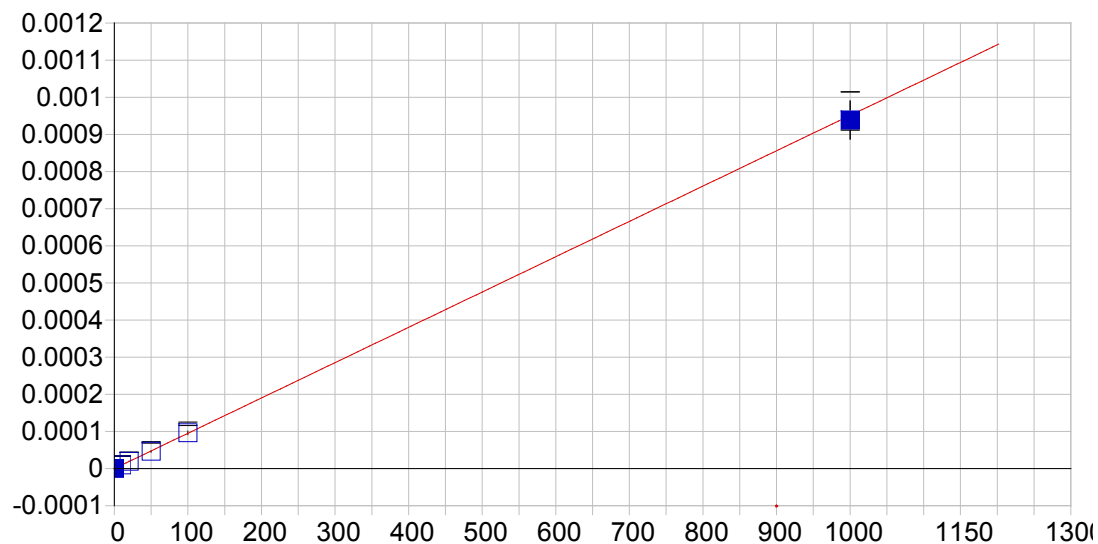


Mo 203.844 {465}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999373 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.895932
 Predicted MQL: 2.986439

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00129	.001	.000	.00000	.000	1
CalStd7=50	50.000	48.717	-1.28	-2.57	.00006	.000	1
CalStd3=1	1.0000	-.10053	-1.10	-110.	.00000	.000	1
CalStd6=20	20.000	19.801	-.199	-.993	.00002	.000	1
CalStd5=10	10.000	10.143	.143	1.43	.00001	.000	1
CalStd8=100	100.00	102.43	2.43	2.43	.00012	.000	1
CalStd4=5	5.0000	4.0570	-.943	-18.9	.00001	.000	1
CalStd9=100	1000.0	1000.9	.949	.095	.00112	.000	1

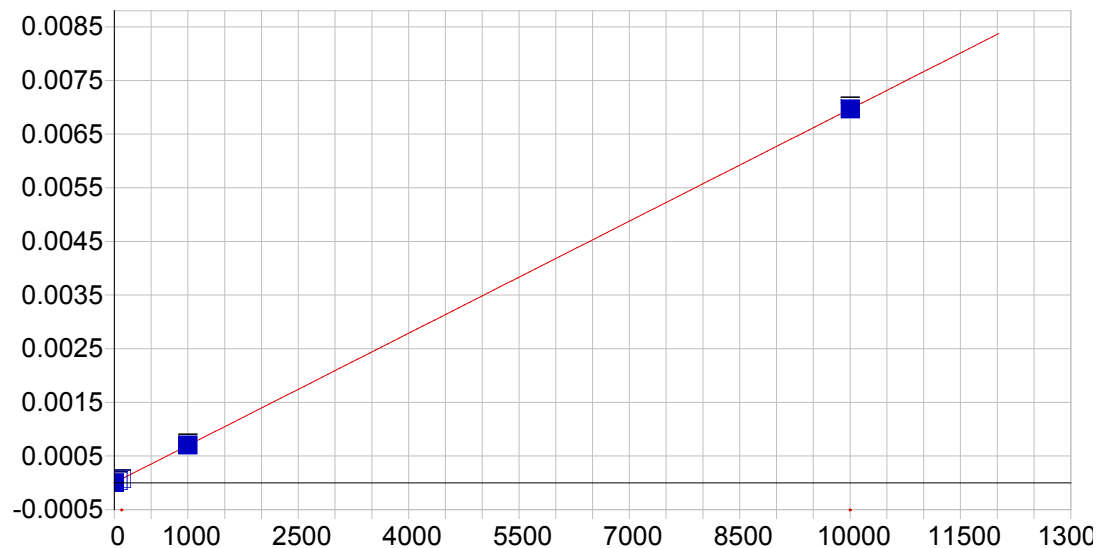


Mo 202.030 {467}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999747 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.806161
 Predicted MQL: 2.687203

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.06822	-.068	.000	.00000	.000	1
CalStd7=50	50.000	48.689	-1.31	-2.62	.00005	.000	1
CalStd6=20	20.000	20.458	.458	2.29	.00002	.000	1
CalStd5=10	10.000	10.117	.117	1.17	.00001	.000	1
CalStd8=100	100.00	101.03	1.03	1.03	.00010	.000	1
CalStd9=100	1000.0	986.95	-13.1	-1.31	.00094	.000	1

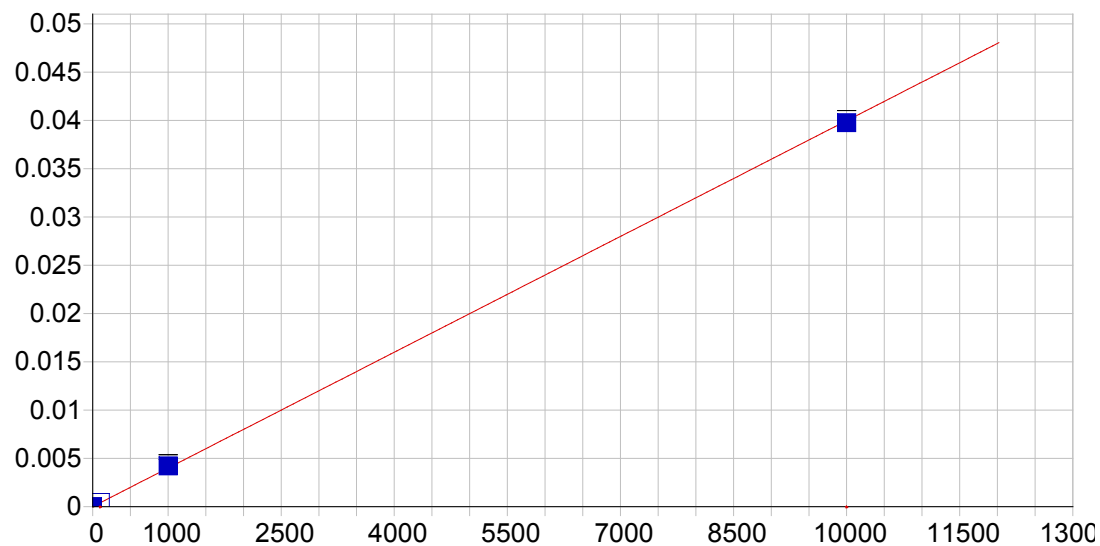


Mo 204.598 {465}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 1.217485
 Predicted MQL: 4.058282

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.0651	-2.07	.000	.00000	.000	1
CalStd9=100	1000.0	1004.5	4.45	.445	.00070	.000	1
CalStd10=10	10000.	9999.6	-.435	-.004	.00697	.000	1
CalStd7=50	50.000	48.054	-1.95	-3.89	.00004	.000	1
CalStd8=100	100.00	99.995	-.005	-.005	.00007	.000	1

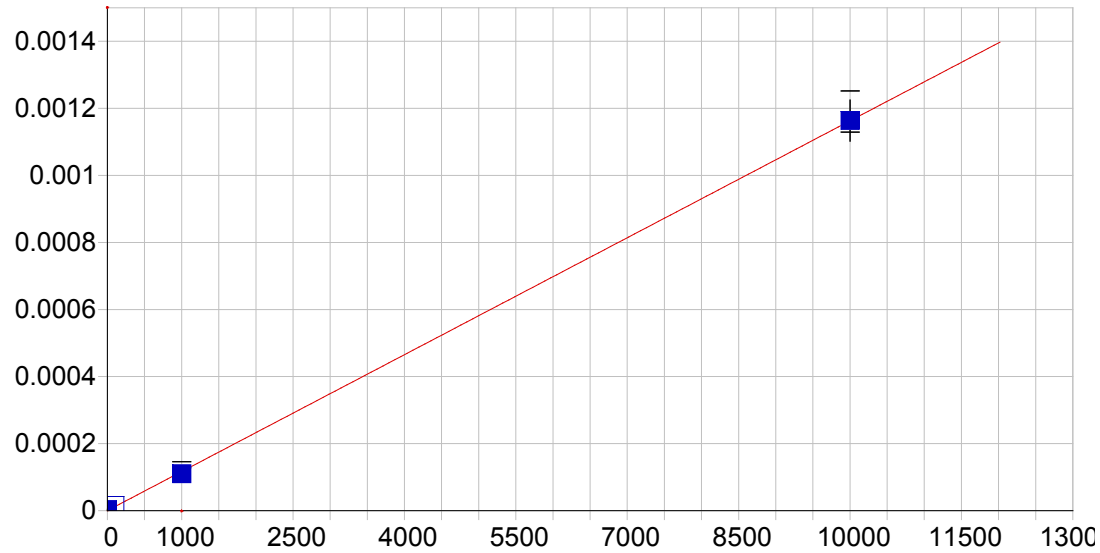


Ni 221.647 {452}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000004 Re-Slope: 1.000000
 A1 (Gain): 0.000004 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999847 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.424388
 Predicted MQL: 1.414626

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01202	-.012	.000	.00000	.000	1
CalStd10=10	10000.	9942.5	-57.5	-.575	.03974	.000	1
CalStd8=100	100.00	107.61	7.61	7.61	.00043	.000	1
CalStd9=100	1000.0	1049.9	49.9	4.99	.00420	.000	1

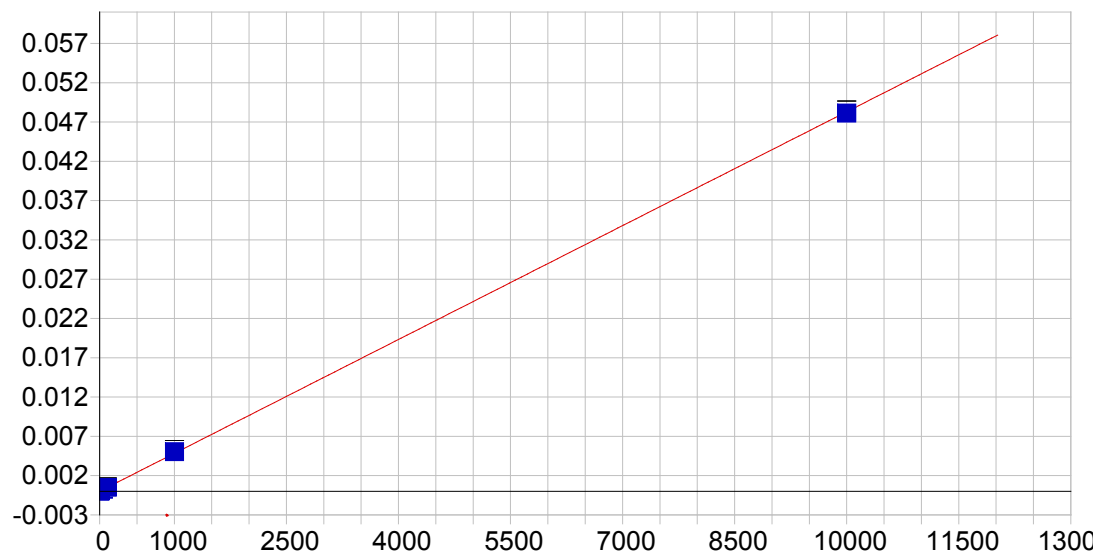


Ni 231.604 {146}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999965 Status: OK.
 Std Error of Est: 0.000006
 Predicted MDL: 21.352302
 Predicted MQL: 71.174340

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	22.310	22.3	.000	.00000	.000	1
CalStd10=10	10000.	10006.	5.54	.055	.00116	.000	1
CalStd8=100	100.00	130.62	30.6	30.6	.00002	.000	1
CalStd9=100	1000.0	941.53	-58.5	-5.85	.00011	.000	1

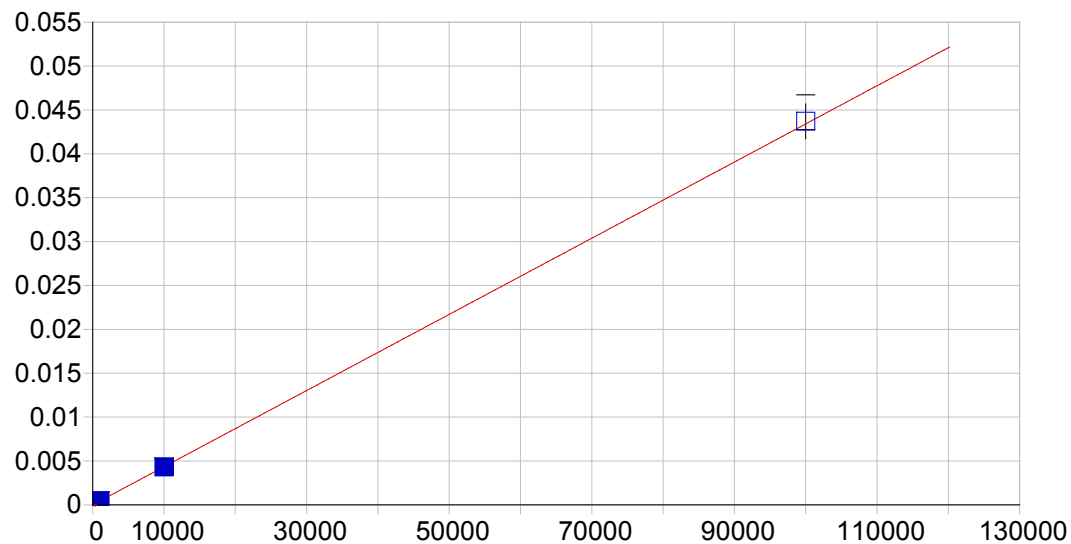


Ni 231.604 {445}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000005 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999892 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.354047
 Predicted MQL: 1.180157

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19730	-.197	.000	.00000	.000	1
CalStd7=50	50.000	51.494	1.49	2.99	.00025	.000	1
CalStd5=10	10.000	10.503	.503	5.03	.00005	.000	1
CalStd8=100	100.00	106.18	6.18	6.18	.00051	.000	1
CalStd4=5	5.0000	4.9845	-.016	-.310	.00003	.000	1
CalStd9=100	1000.0	1040.4	40.4	4.04	.00503	.000	1
CalStd3=1	1.0000	.95409	-.046	-4.59	.00001	.000	1
CalStd10=10	10000.	9960.7	-39.3	-.393	.04812	.000	1

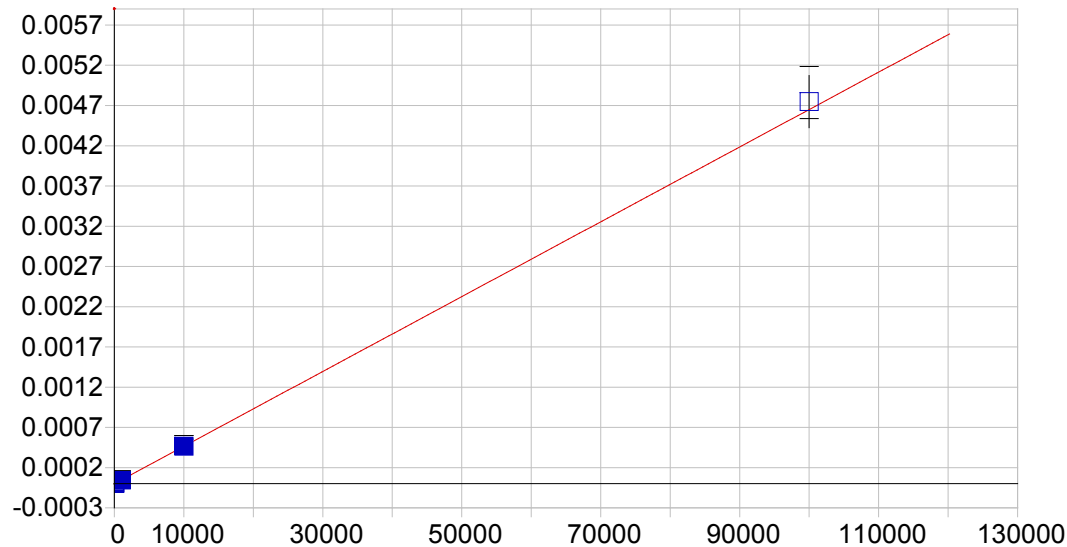


Pb 216.999 {455}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000003	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999973	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	3.112944	
Predicted MQL:	10.376479	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00054	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	1070.5	70.5	7.05	.00047	.000	1
CalStd10=10	10000.	9924.1	-75.9	-.759	.00431	.000	1
CalStd11=100	100000.	100690.	686.	.686	.04371	.002	1
CalStd8=100	100.00	104.17	4.17	4.17	.00005	.000	1
CalStd4=5	5.0000	4.5098	-.490	-9.80	.00001	.000	1
CalStd5=10	10.000	11.020	1.02	10.2	.00001	.000	1

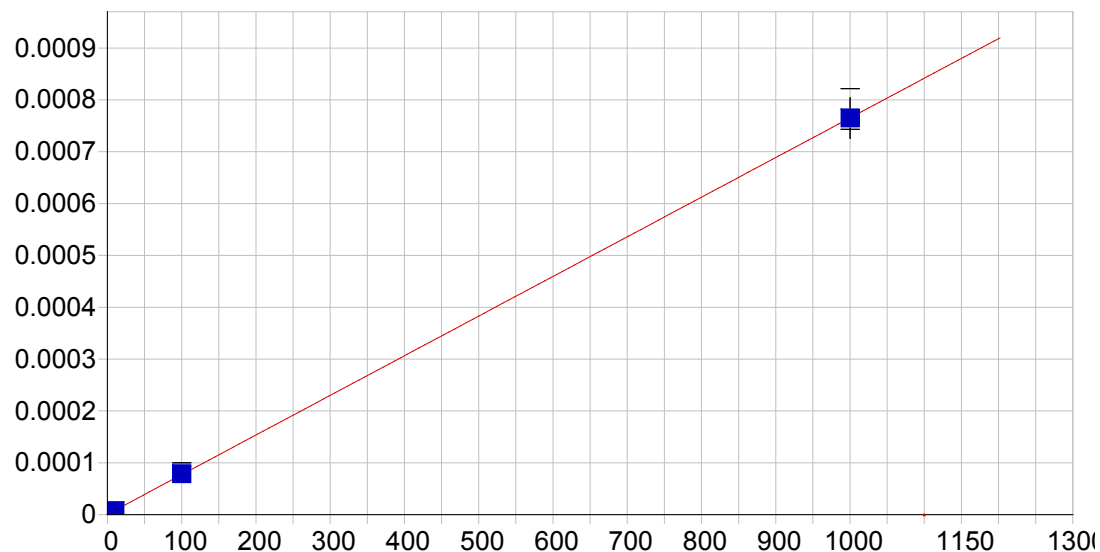


Pb 220.353 {153}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998681 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 41.068356
 Predicted MQL: 136.894522

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-23.402	-23.4	.000	.00000	.000	1
CalStd9=100	1000.0	968.97	-31.0	-3.10	.00004	.000	1
CalStd10=10	10000.	9976.8	-23.2	-.232	.00046	.000	1
CalStd8=100	100.00	111.01	11.0	11.0	.00000	.000	1
CalStd4=5	5.0000	-7.4646	-12.5	-249.	.00000	.000	1
CalStd5=10	10.000	-18.831	-28.8	-288.	.00000	.000	1
CalStd11=100	100000.	102110.	2110.	2.11	.00475	.000	1

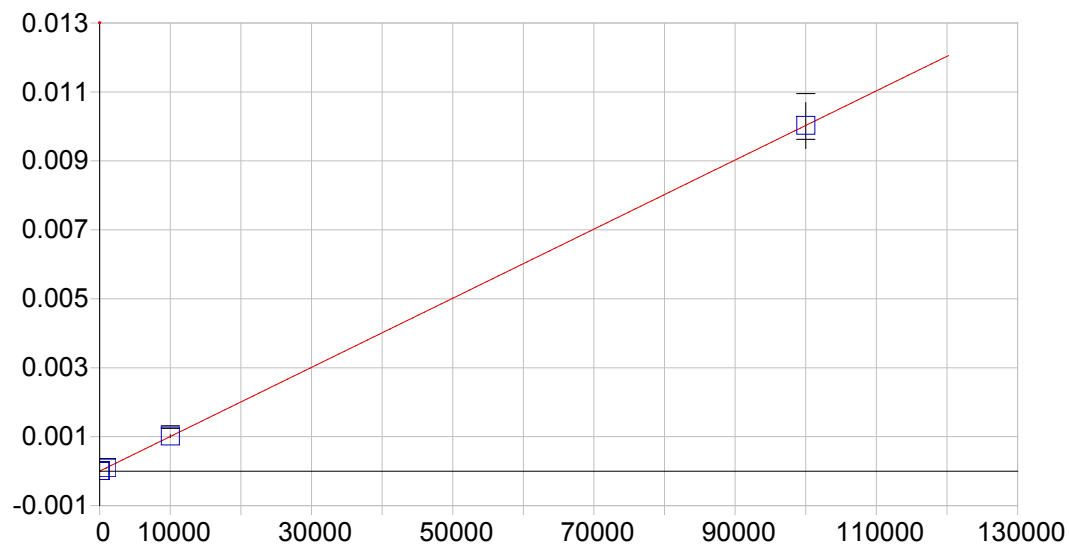


Pb 220.353 {453}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999874	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2.066845	
Predicted MQL:	6.889482	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00117	.001	.000	.00000	.000	1
CalStd5=10	10.000	8.7829	-1.22	-12.2	.00001	.000	1
CalStd8=100	100.00	102.12	2.12	2.12	.00008	.000	1
CalStd4=5	5.0000	4.3358	-.664	-13.3	.00000	.000	1
CalStd9=100	1000.0	999.76	-.241	-.024	.00076	.000	1

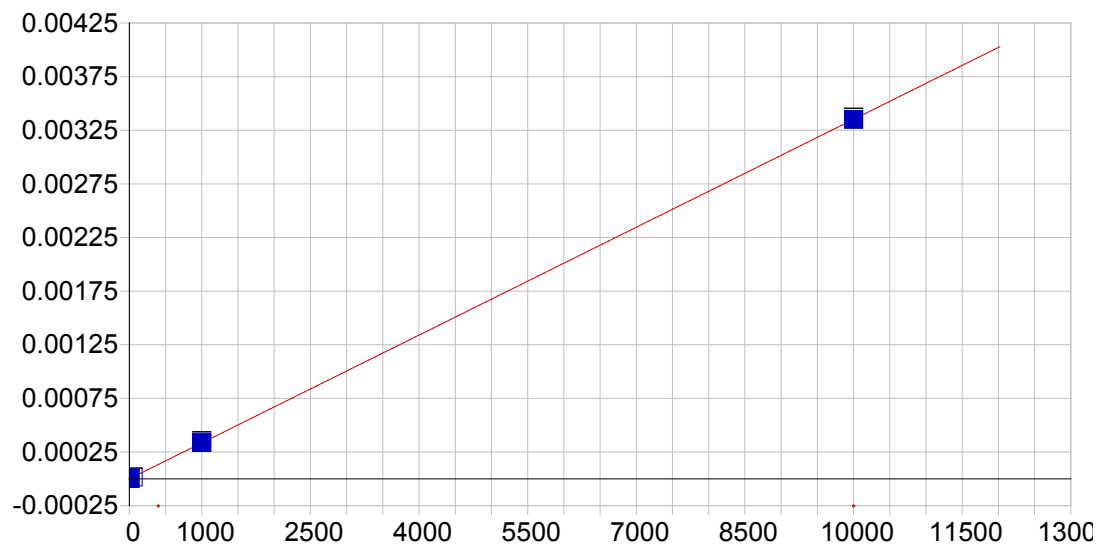


Pb 283.306 {119}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999971	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	44.362129	
Predicted MQL:	147.873763	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01492	.015	.000	.00000	.000	1
CalStd9=100	1000.0	932.00	-68.0	-6.80	.00010	.000	1
CalStd10=10	10000.	10098.	98.0	.980	.00101	.000	1
CalStd11=100	100000.	99979.	-20.9	-.021	.01003	.001	1
CalStd8=100	100.00	90.920	-9.08	-9.08	.00001	.000	1

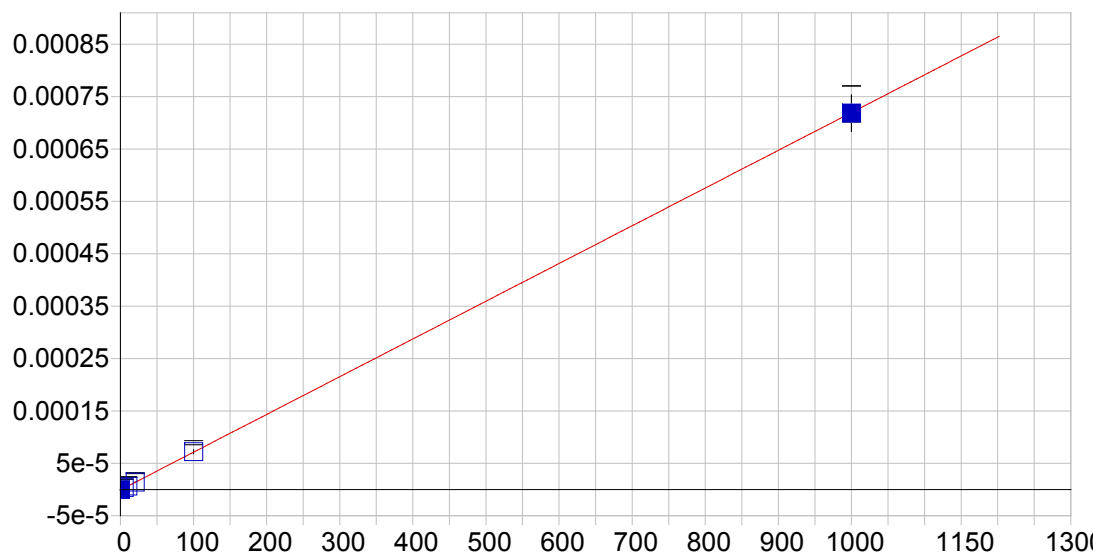


Sb 206.833 {463}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999997	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2.678759	
Predicted MQL:	8.929198	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00032	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1007.5	7.49	.749	.00034	.000	1
CalStd5=10	10.000	10.263	.263	2.63	.00000	.000	1
CalStd7=50	50.000	49.968	-.032	-.063	.00002	.000	1
CalStd10=10	10000.	9992.3	-7.72	-.077	.00335	.000	1

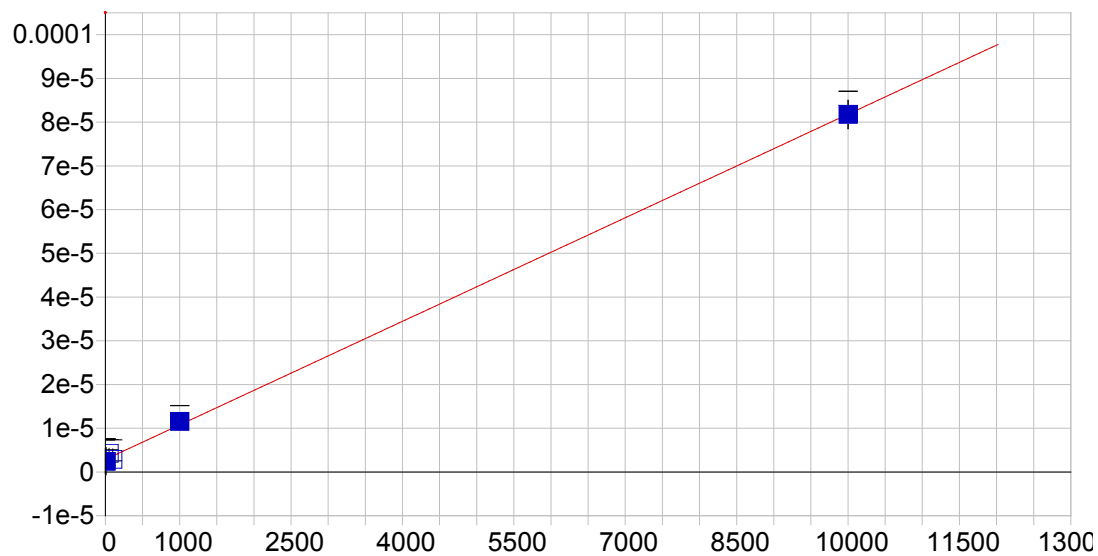


Sb 217.581 {455}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999945 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 1.641457
 Predicted MQL: 5.471522

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00060	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	998.39	-1.61	-.161	.00072	.000	1
CalStd6=20	20.000	20.398	.398	1.99	.00001	.000	1
CalStd5=10	10.000	9.5967	-.403	-4.03	.00001	.000	1
CalStd8=100	100.00	100.95	.951	.951	.00007	.000	1
CalStd4=5	5.0000	5.6650	.665	13.3	.00000	.000	1

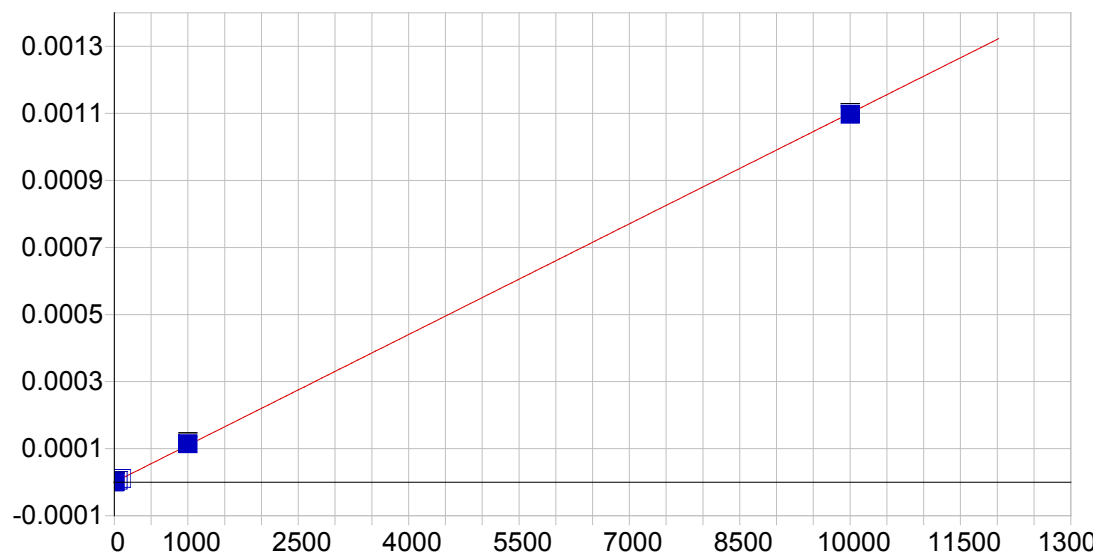


Se 196.090 {172}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999739 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 301.513201
 Predicted MQL: 1005.044004

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-51.297	-51.3	.000	.00000	.000	1
CalStd7=50	50.000	176.95	127.	254.	.00000	.000	1
CalStd9=100	1000.0	1095.8	95.8	9.58	.00001	.000	1
CalStd5=10	10.000	-51.206	-61.2	-612.	.00000	.000	1
CalStd8=100	100.00	-1.1209	-101.	-101.	.00000	.000	1
CalStd10=10	10000.	9990.9	-9.14	-.091	.00008	.000	1

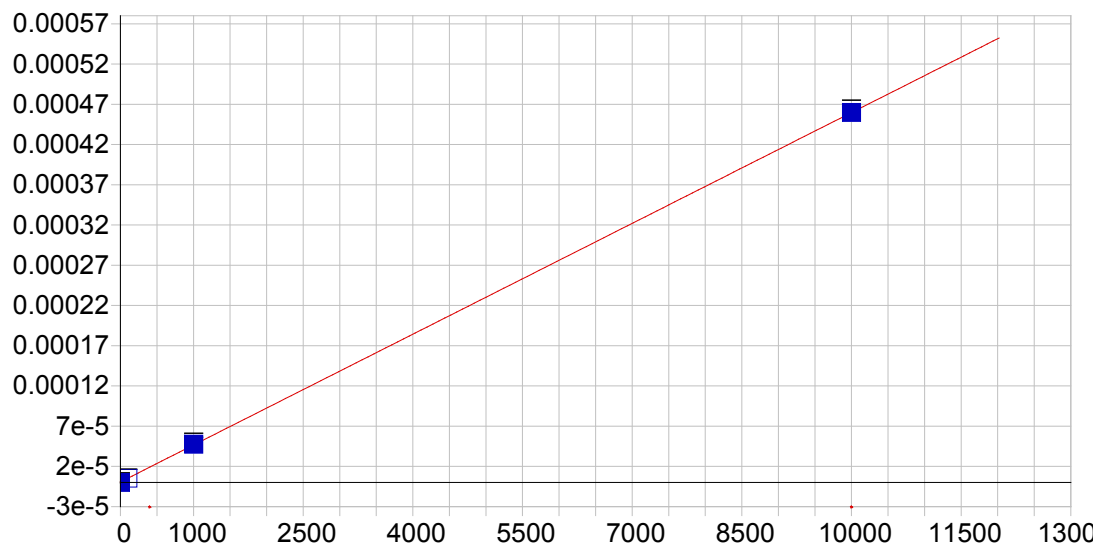


Se 196.090 {472}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999925 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 8.388332
 Predicted MQL: 27.961106

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00066	.001	.000	.00000	.000	1
CalStd7=50	50.000	48.164	-1.84	-3.67	.00001	.000	1
CalStd9=100	1000.0	1037.7	37.7	3.77	.00011	.000	1
CalStd5=10	10.000	9.6265	-.373	-3.73	.00000	.000	1
CalStd8=100	100.00	97.377	-2.62	-2.62	.00001	.000	1
CalStd10=10	10000.	9967.1	-32.9	-.329	.00110	.000	1

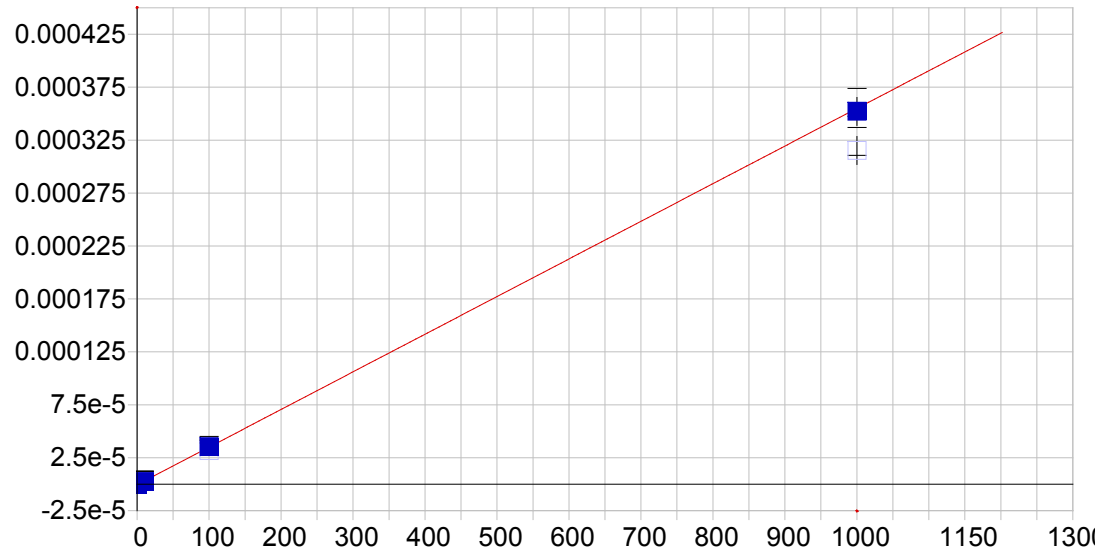


Se 206.279 {463}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999996 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 22.979225
 Predicted MQL: 76.597417

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-16.019	-16.0	.000	.00000	.000	1
CalStd9=100	1000.0	1018.4	18.4	1.84	.00005	.000	1
CalStd10=10	10000.	9998.2	-1.83	-.018	.00046	.000	1
CalStd8=100	100.00	99.484	-.516	-.516	.00001	.000	1

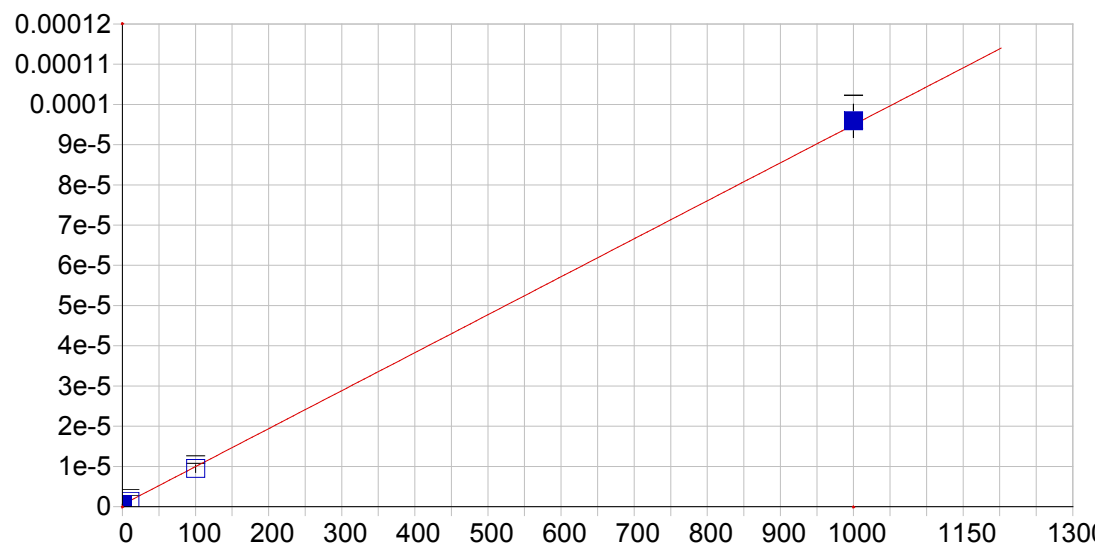


TI 190.856 {476}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999874 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 2.713145
 Predicted MQL: 9.043817

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.09042	.090	.000	.00000	.000	1
CalStd9=100	1000.0	992.07	-7.93	-.793	.00032	.000	1
CalStd8=100	100.00	100.82	.822	.822	.00003	.000	1
CalStd5=10	10.000	8.2513	-1.75	-17.5	.00000	.000	1

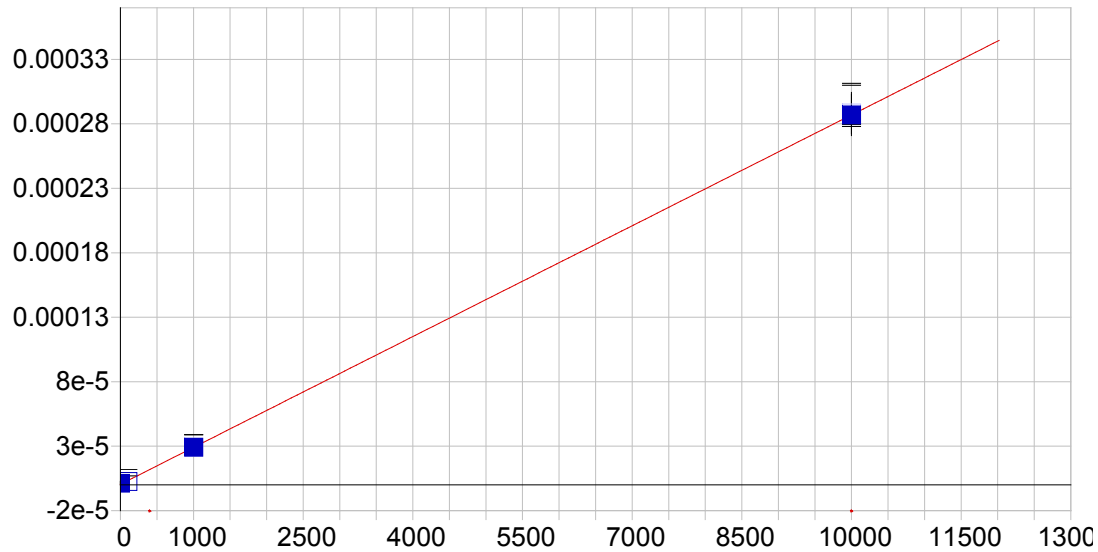


TI 190.856 {477}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999702 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 8.579680
 Predicted MQL: 28.598935

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.10427	.104	.000	.00000	.000	1
CalStd9=100	1000.0	1010.6	10.6	1.06	.00010	.000	1
CalStd8=100	100.00	94.834	-5.17	-5.17	.00001	.000	1
CalStd5=10	10.000	8.6368	-1.36	-13.6	.00000	.000	1

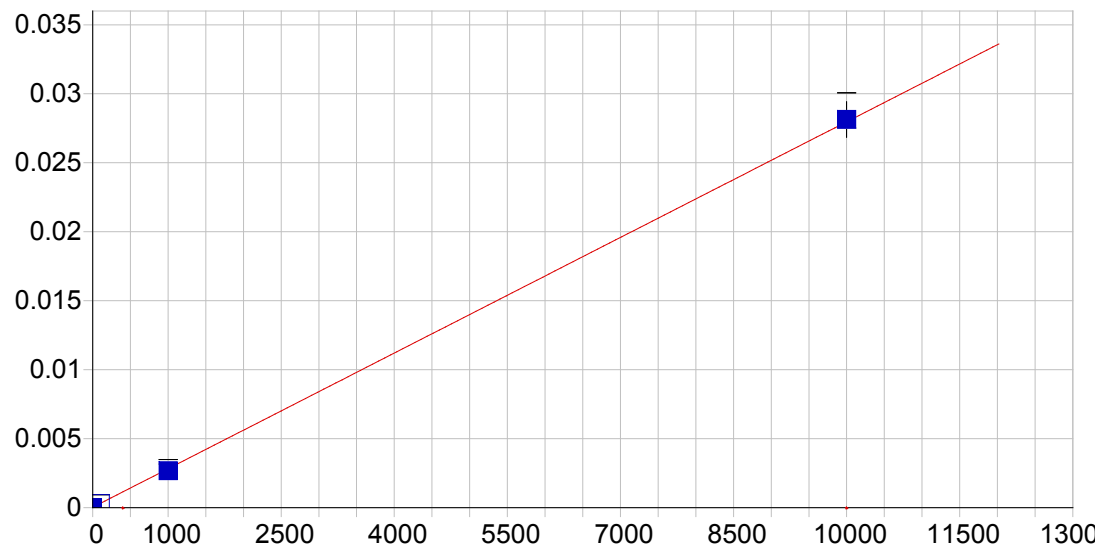


TI 276.787 {122}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999988 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 118.302428
 Predicted MQL: 394.341427

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	30.249	30.2	.000	.00000	.000	1
CalStd9=100	1000.0	998.19	-1.81	-.181	.00003	.000	1
CalStd10=10	10000.	10000.	.469	.005	.00029	.000	1
CalStd8=100	100.00	71.094	-28.9	-28.9	.00000	.000	1

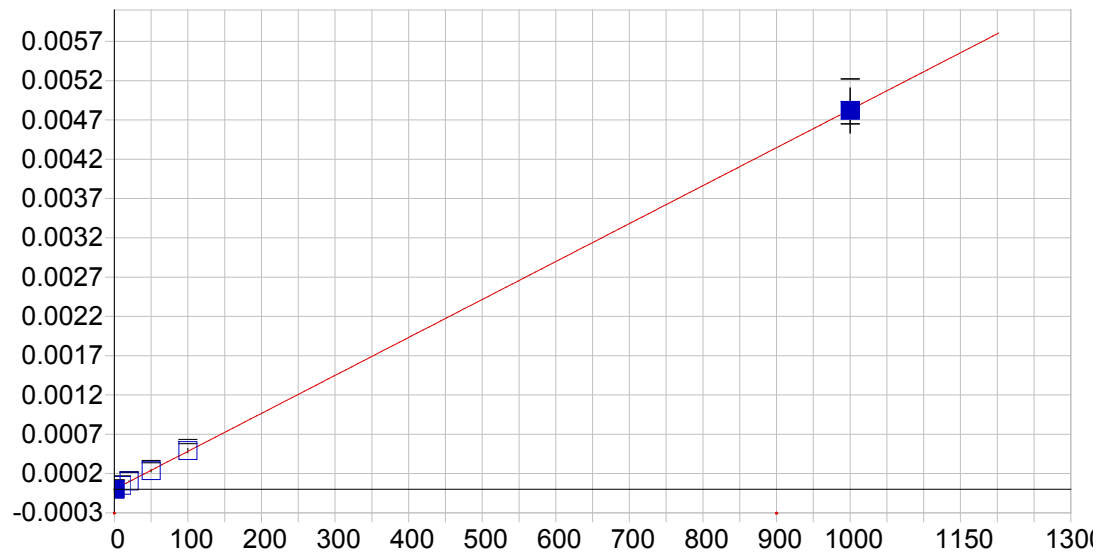


V 290.882 {116}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000027 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999842 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 1.657654
 Predicted MQL: 5.525513

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01018	.010	.000	.00003	.000	1
CalStd9=100	1000.0	946.38	-53.6	-5.36	.00267	.000	1
CalStd10=10	10000.	10059.	59.0	.590	.02814	.001	1
CalStd8=100	100.00	94.596	-5.40	-5.40	.00029	.000	1

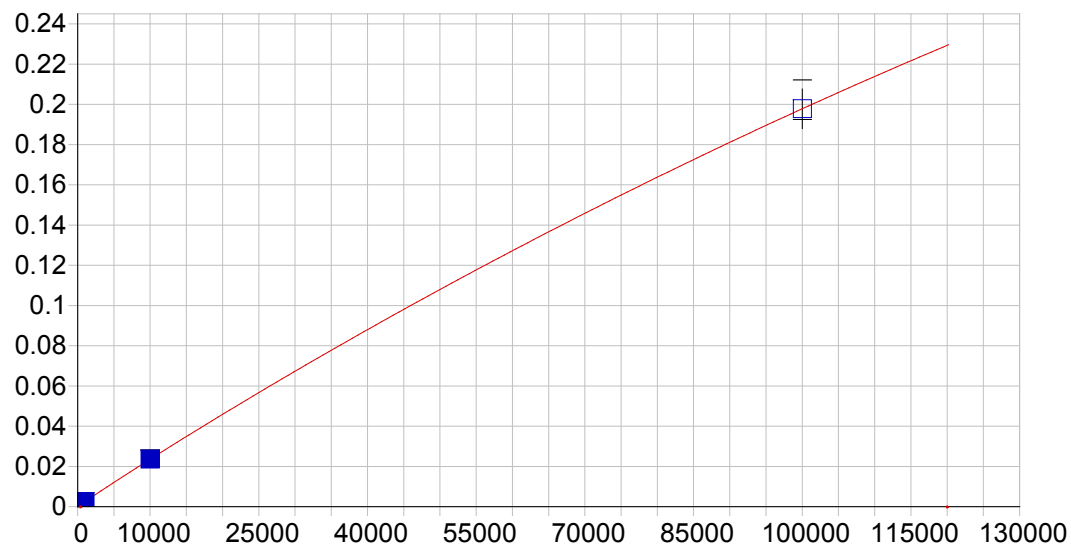


V 292.402 {115}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000005	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999860	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	1.332243	
Predicted MQL:	4.440809	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00030	.000	.000	.00000	.000	1
CalStd7=50	50.000	48.967	-1.03	-2.07	.00024	.000	1
CalStd9=100	1000.0	997.91	-2.09	-.209	.00482	.000	1
CalStd6=20	20.000	21.515	1.51	7.57	.00010	.000	1
CalStd5=10	10.000	10.176	.176	1.76	.00005	.000	1
CalStd8=100	100.00	101.83	1.83	1.83	.00049	.000	1
CalStd3=1	1.0000	.60671	-.393	-39.3	.00000	.000	1

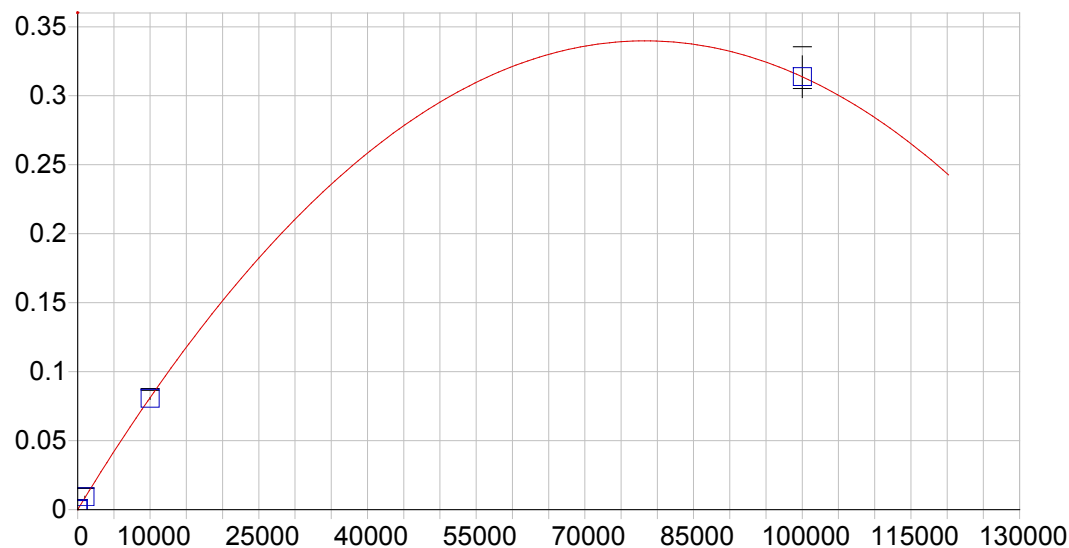


Zn 206.200 {463}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Full Fit Weighting: 1/Conc

A0 (Offset): 0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000003 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 0.980000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 0.337580
 Predicted MQL: 1.125268

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10001.	1.02	.010	.02359	.000	1
Blank	.00000	.00053	.001	.000	.00001	.000	1
CalStd9=100	1000.0	999.18	-.819	-.082	.00250	.000	1
CalStd11=100	100000.	100000.	-.141	.000	.19780	.010	1

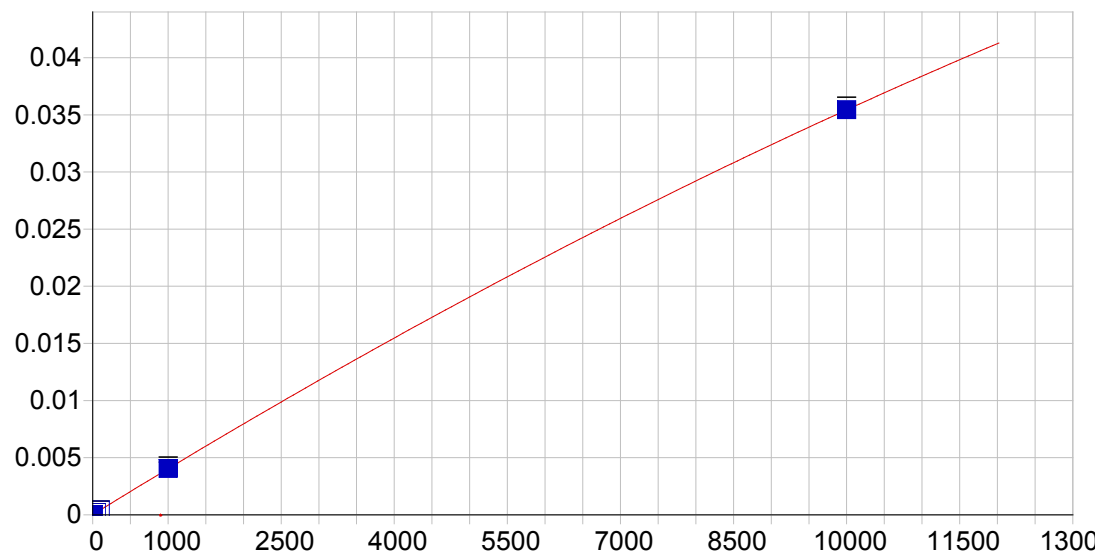


Zn 213.856 {457}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000026 Re-Slope: 1.000000
 A1 (Gain): 0.000009 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999885 Status: OK.
 Std Error of Est: 0.000010
 Predicted MDL: 0.135167
 Predicted MQL: 0.450556

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9909.8	-90.2	-.902	.08057	.001	1
Blank	.00000	-.01187	-.012	.000	.00003	.000	1
CalStd9=100	1000.0	1066.3	66.3	6.63	.00921	.000	1
CalStd11=100	100000.	56671.	-43300.	-43.3	.31383	.015	1
CalStd8=100	100.00	106.12	6.12	6.12	.00095	.000	1



Zn 213.856 {458}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000010	Re-Slope: 1.000000
A1 (Gain):	0.000004	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999985	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	0.229321	
Predicted MQL:	0.764402	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00074	-.001	.000	.00001	.000	1
CalStd8=100	100.00	99.293	-.707	-.707	.00041	.000	1
CalStd7=50	50.000	47.911	-2.09	-4.18	.00020	.000	1
CalStd5=10	10.000	10.151	.151	1.51	.00005	.000	1
CalStd9=100	1000.0	1002.0	1.97	.197	.00405	.000	1
CalStd4=5	5.0000	5.8955	.895	17.9	.00003	.000	1
CalStd10=10	10000.	9999.8	-.238	-.002	.03544	.000	1

50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0

Y 224.306 {450}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.000000 Status: Warning Zero Gain
 Std Error of Est: 0.000000
 Predicted MDL: n/a
 Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	41925.	156.	1

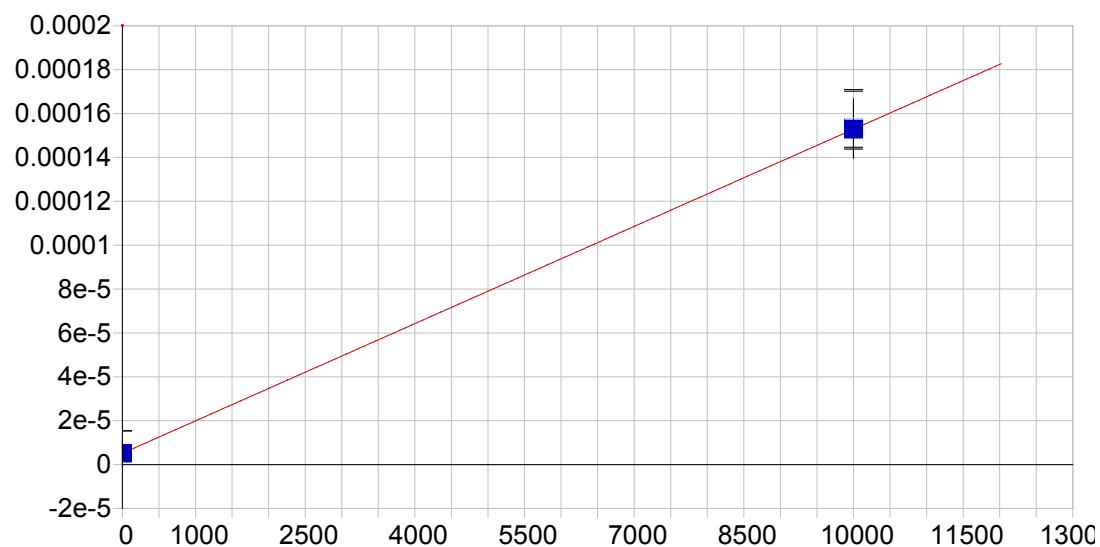
500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0

Y 371.030 { 91}* |

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.000000 Status: Warning Zero Gain
 Std Error of Est: 0.000000
 Predicted MDL: n/a
 Predicted MQL: n/a

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	429800.	21100.	1

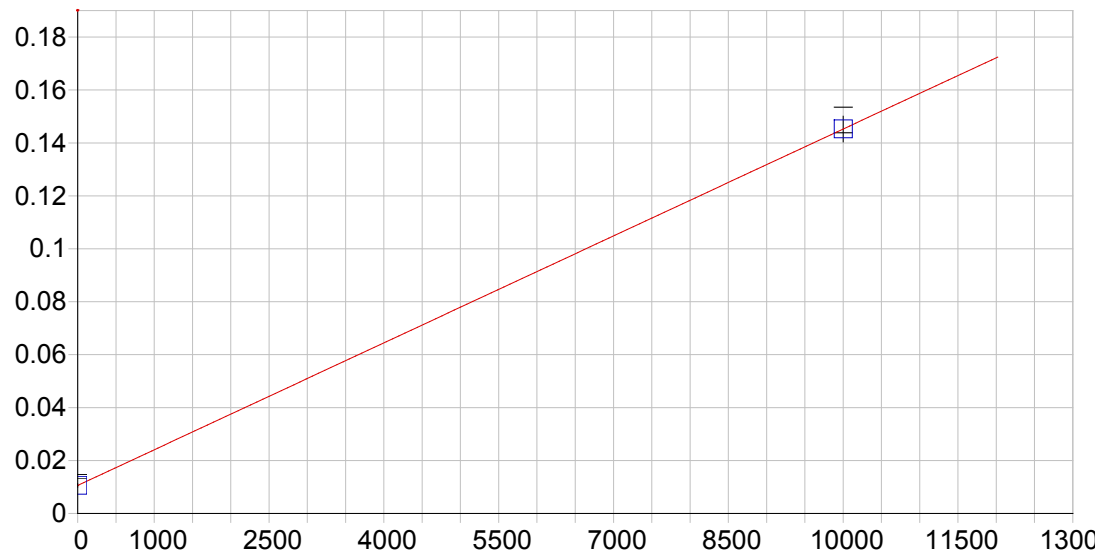


Na 330.298 {102}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 549.520807
 Predicted MQL: 1831.736025

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00001	.000	1
CalStd10=10	10000.	10000.0	.000	.000	.00015	.000	1

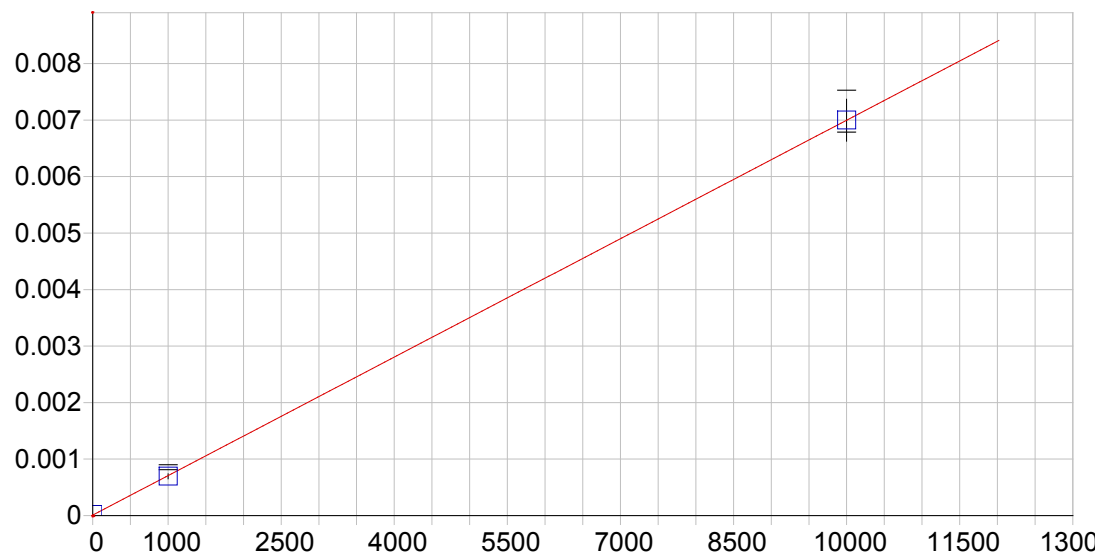


Na 588.995 { 57}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.010587 Re-Slope: 1.000000
 A1 (Gain): 0.000013 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 1.970706
 Predicted MQL: 6.569019

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.01059	.001	1
CalStd10=10	10000.	10000.	.000	.000	.14526	.005	1

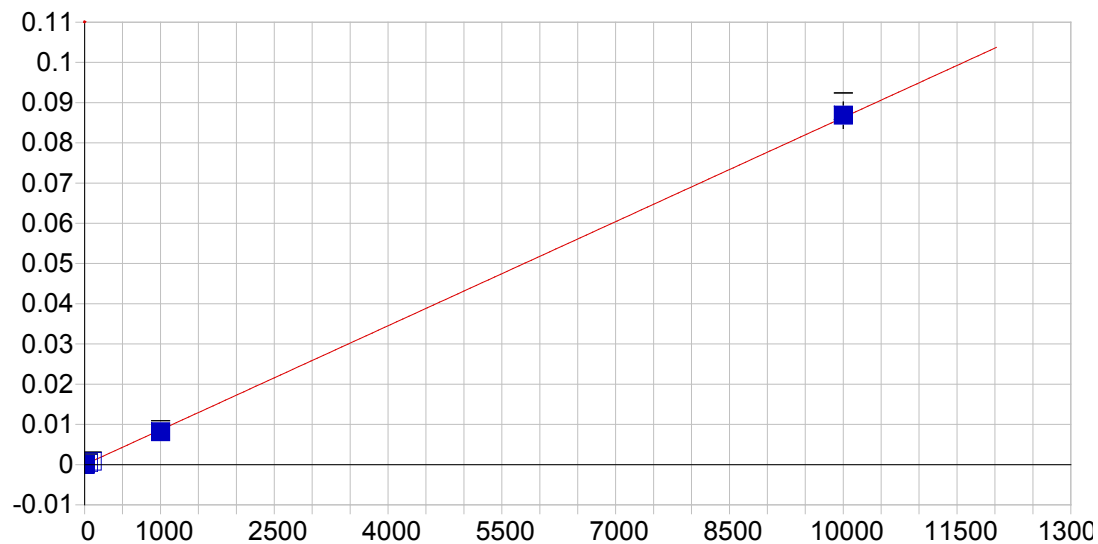


Si 251.611 {134}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset):	0.000009	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999995	Status: OK.
Std Error of Est:	0.000017	
Predicted MDL:	4.658324	
Predicted MQL:	15.527748	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	16.522	16.5	.000	.00002	.000	1
CalStd10=10	10000.	10002.	1.84	.018	.00700	.000	1
CalStd9=100	1000.0	981.64	-18.4	-1.84	.00070	.000	1

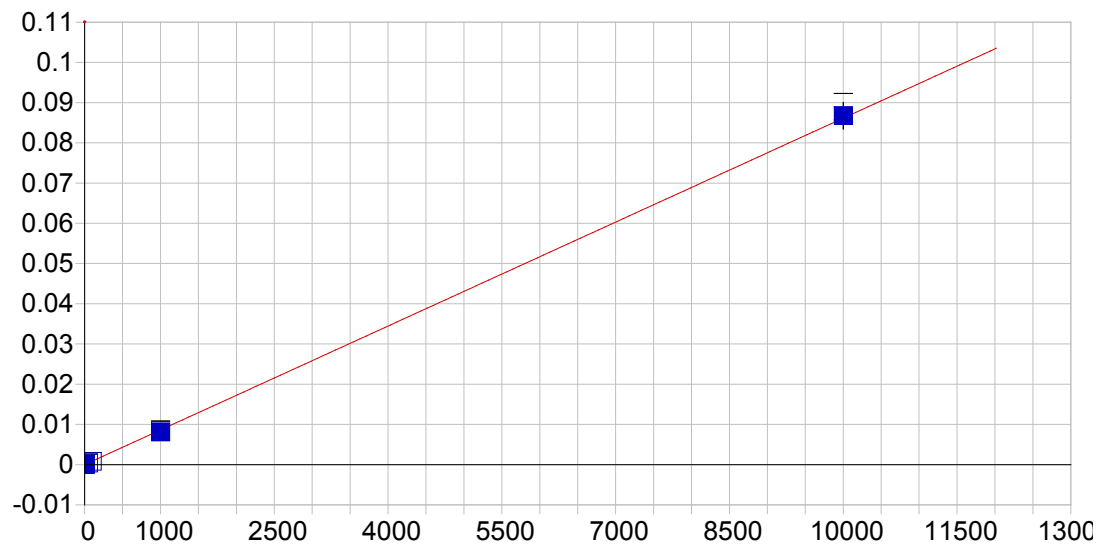


Ti 334.941 {101}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000009 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999823 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.605188
 Predicted MQL: 2.017295

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00088	.001	.000	.00000	.000	1
CalStd5=10	10.000	9.9177	-.082	-.823	.00009	.000	1
CalStd8=100	100.00	95.742	-4.26	-4.26	.00083	.000	1
CalStd9=100	1000.0	943.48	-56.5	-5.65	.00814	.001	1
CalStd10=10	10000.	10064.	63.9	.639	.08687	.003	1
CalStd7=50	50.000	47.048	-2.95	-5.90	.00041	.000	1
CalStd4=5	5.0000	4.9180	-.082	-1.64	.00004	.000	1

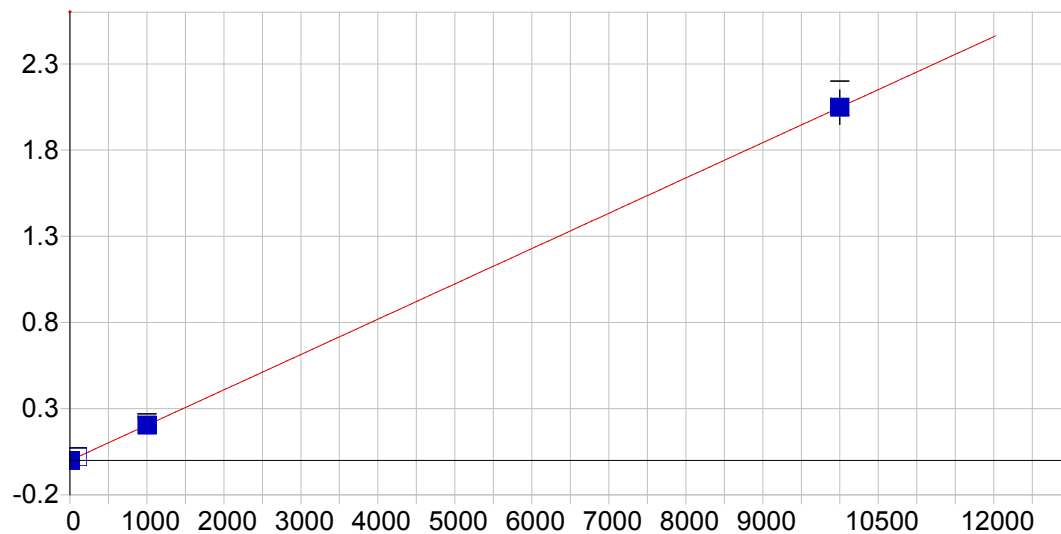


Ti 337.280 {100}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000009 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999780 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.799113
 Predicted MQL: 2.663709

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00208	.002	.000	.00000	.000	1
CalStd5=10	10.000	9.1851	-.815	-8.15	.00008	.000	1
CalStd8=100	100.00	94.518	-5.48	-5.48	.00081	.000	1
CalStd9=100	1000.0	939.54	-60.5	-6.05	.00809	.000	1
CalStd10=10	10000.	10071.	71.2	.712	.08676	.003	1
CalStd7=50	50.000	46.309	-3.69	-7.38	.00040	.000	1
CalStd4=5	5.0000	4.2372	-.763	-15.3	.00004	.000	1

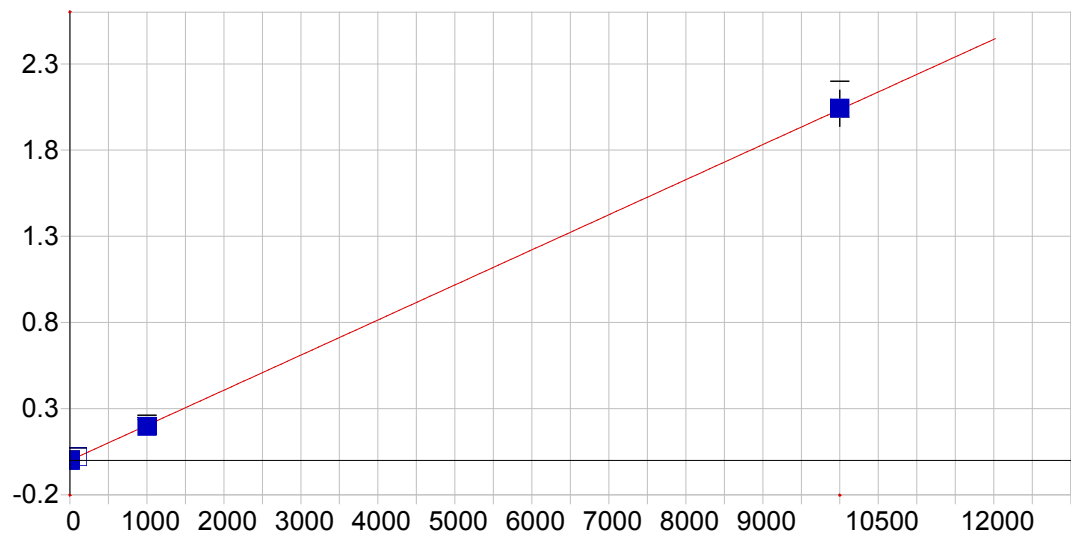


Sr 407.771 { 83}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000602 Re-Slope: 1.000000
 A1 (Gain): 0.000205 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999992 Status: OK.
 Std Error of Est: 0.000003
 Predicted MDL: 0.047639
 Predicted MQL: 0.158798

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00038	.000	.000	-.00060	.000	1
CalStd3=1	1.0000	1.2118	.212	21.2	-.00035	.000	1
CalStd4=5	5.0000	5.4391	.439	8.78	.00051	.000	1
CalStd5=10	10.000	10.572	.572	5.72	.00156	.000	1
CalStd8=100	100.00	102.23	2.23	2.23	.02034	.001	1
CalStd9=100	1000.0	996.63	-3.37	-.337	.20360	.013	1
CalStd10=10	10000.	9999.9	-.087	-.001	2.0483	.099	1

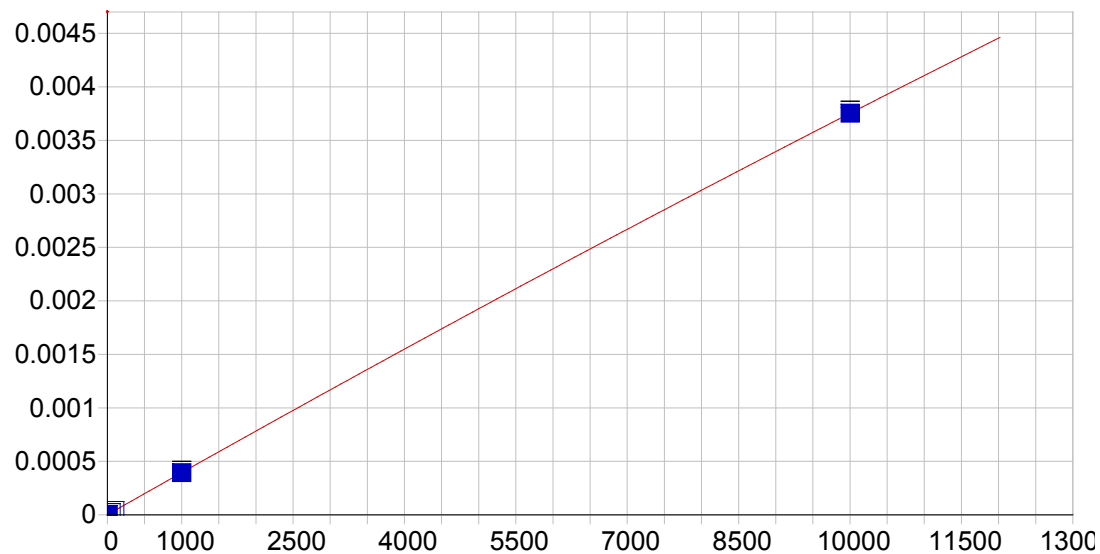


Sr 421.552 { 80}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000017 Re-Slope: 1.000000
 A1 (Gain): 0.000204 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999939 Status: OK.
 Std Error of Est: 0.000009
 Predicted MDL: 0.044036
 Predicted MQL: 0.146787

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00016	.000	.000	-.00002	.000	1
CalStd3=1	1.0000	1.1540	.154	15.4	.00022	.000	1
CalStd4=5	5.0000	5.1353	.135	2.71	.00103	.000	1
CalStd5=10	10.000	10.141	.141	1.41	.00205	.000	1
CalStd8=100	100.00	99.139	-.861	-.861	.02016	.001	1
CalStd9=100	1000.0	965.34	-34.7	-3.47	.19649	.013	1
CalStd10=10	10000.	10035.	35.1	.351	2.0427	.104	1

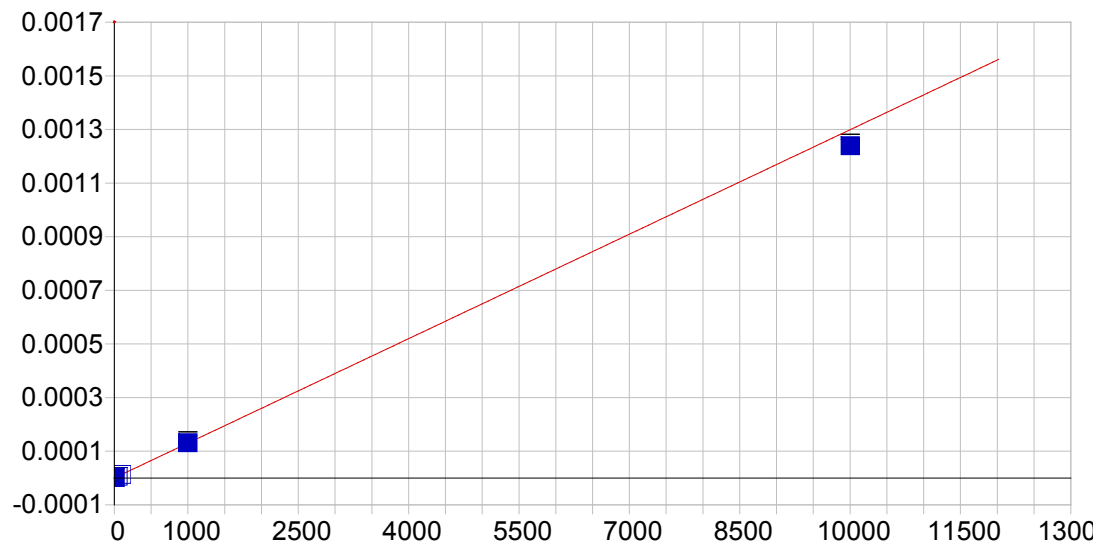


Sn 189.989 {477}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999993	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	1.492292	
Predicted MQL:	4.974307	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00051	.001	.000	.00000	.000	1
CalStd10=10	10000.	10000.0	-.023	.000	.00375	.000	1
CalStd9=100	1000.0	1000.1	.120	.012	.00039	.000	1
CalStd8=100	100.00	101.57	1.57	1.57	.00004	.000	1
CalStd5=10	10.000	10.253	.253	2.53	.00000	.000	1
CalStd7=50	50.000	48.662	-1.34	-2.68	.00002	.000	1
CalStd4=5	5.0000	4.4195	-.580	-11.6	.00000	.000	1

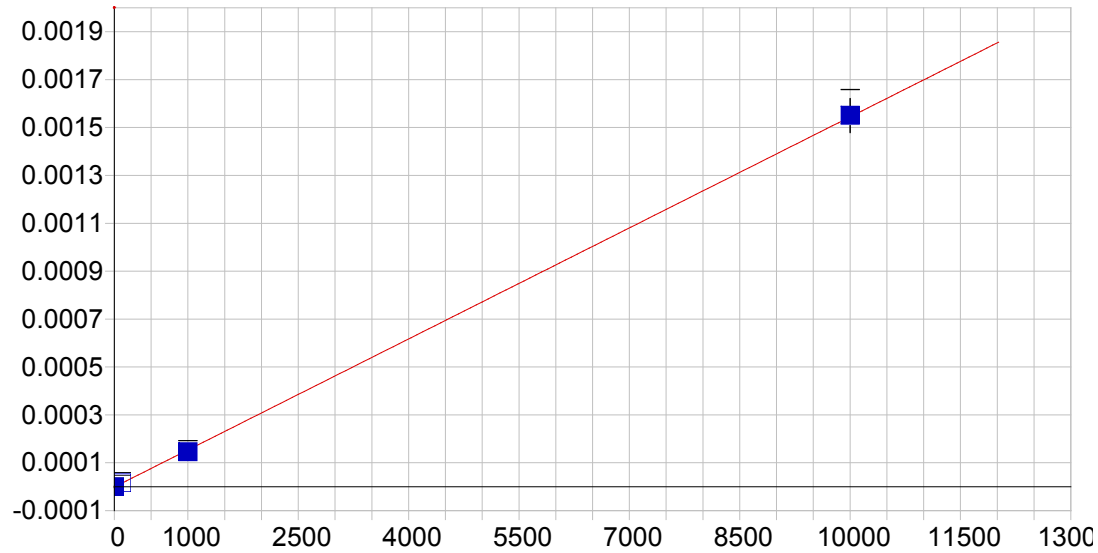


Sn 189.989 {478}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999850 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 4.393110
 Predicted MQL: 14.643701

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00470	.005	.000	.00000	.000	1
CalStd10=10	10000.	9537.4	-463.	-4.63	.00124	.000	1
CalStd9=100	1000.0	1007.1	7.08	.708	.00013	.000	1
CalStd8=100	100.00	99.021	-.979	-.979	.00001	.000	1
CalStd5=10	10.000	6.0535	-3.95	-39.5	.00000	.000	1
CalStd7=50	50.000	46.723	-3.28	-6.55	.00001	.000	1
CalStd4=5	5.0000	2.5887	-2.41	-48.2	.00000	.000	1

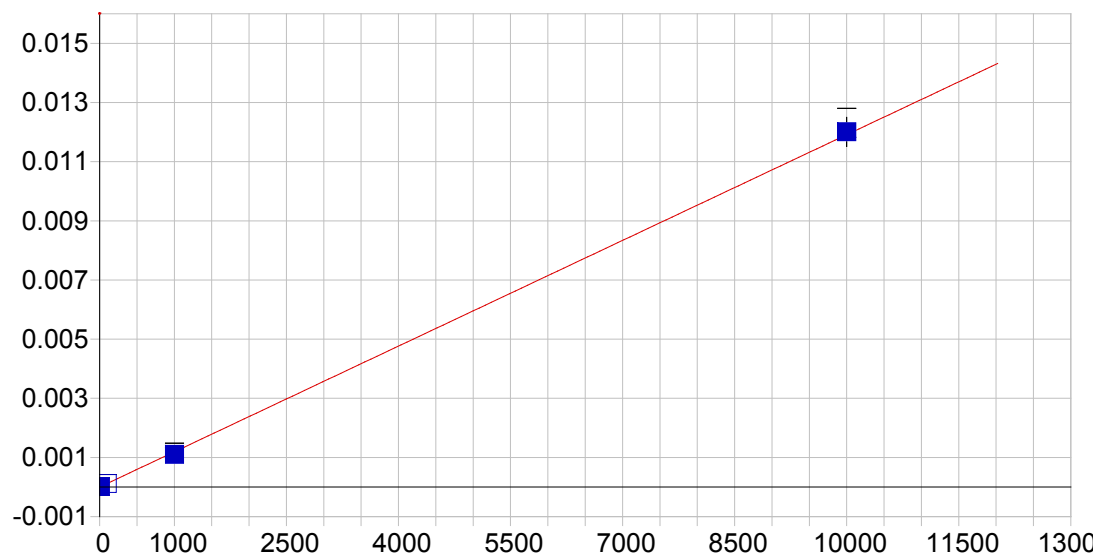


Sn 283.999 {119}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999836 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 21.004311
 Predicted MQL: 70.014371

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00443	-.004	.000	.00000	.000	1
CalStd10=10	10000.	10042.	42.1	.421	.00155	.000	1
CalStd9=100	1000.0	948.74	-51.3	-5.13	.00015	.000	1
CalStd8=100	100.00	109.14	9.14	9.14	.00002	.000	1

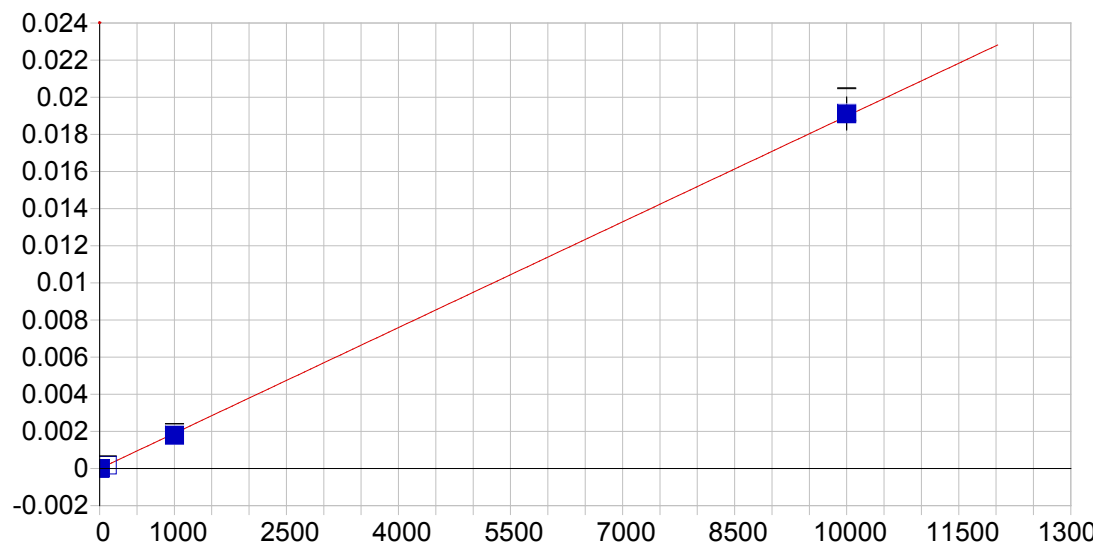


B 249.678 {135}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999700	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2.739131	
Predicted MQL:	9.130438	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00139	.001	.000	.00000	.000	1
CalStd8=100	100.00	95.801	-4.20	-4.20	.00011	.000	1
CalStd5=10	10.000	9.7161	-.284	-2.84	.00001	.000	1
CalStd9=100	1000.0	923.71	-76.3	-7.63	.00110	.000	1
CalStd10=10	10000.	10081.	80.8	.808	.01200	.000	1

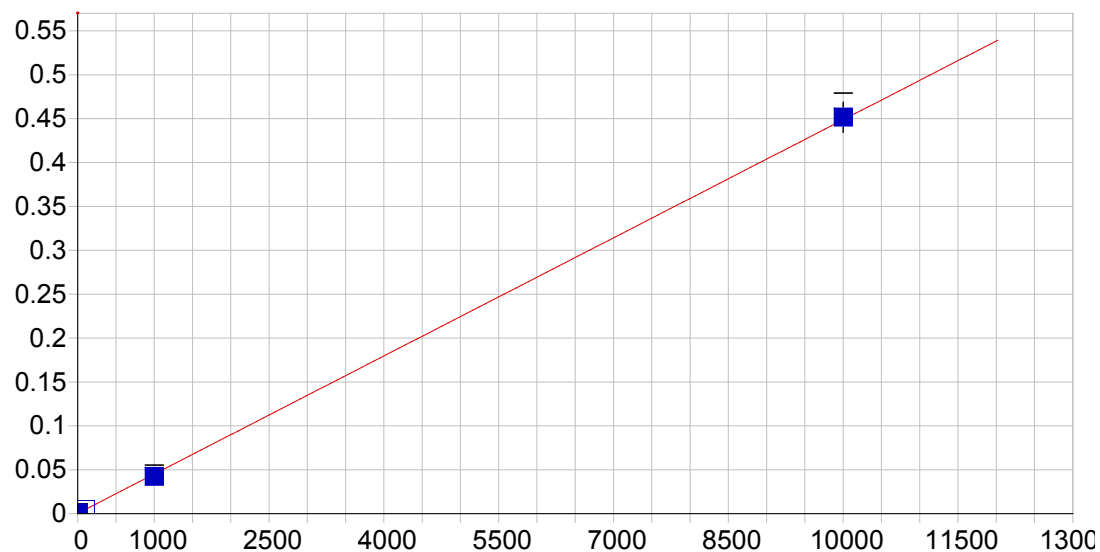


B 249.773 {135}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000003	Re-Slope: 1.000000
A1 (Gain):	0.000002	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999818	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	1.729866	
Predicted MQL:	5.766221	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00224	.002	.000	.00000	.000	1
CalStd8=100	100.00	96.044	-3.96	-3.96	.00018	.000	1
CalStd5=10	10.000	8.6707	-1.33	-13.3	.00001	.000	1
CalStd9=100	1000.0	942.32	-57.7	-5.77	.00179	.000	1
CalStd10=10	10000.	10063.	62.9	.629	.01915	.001	1

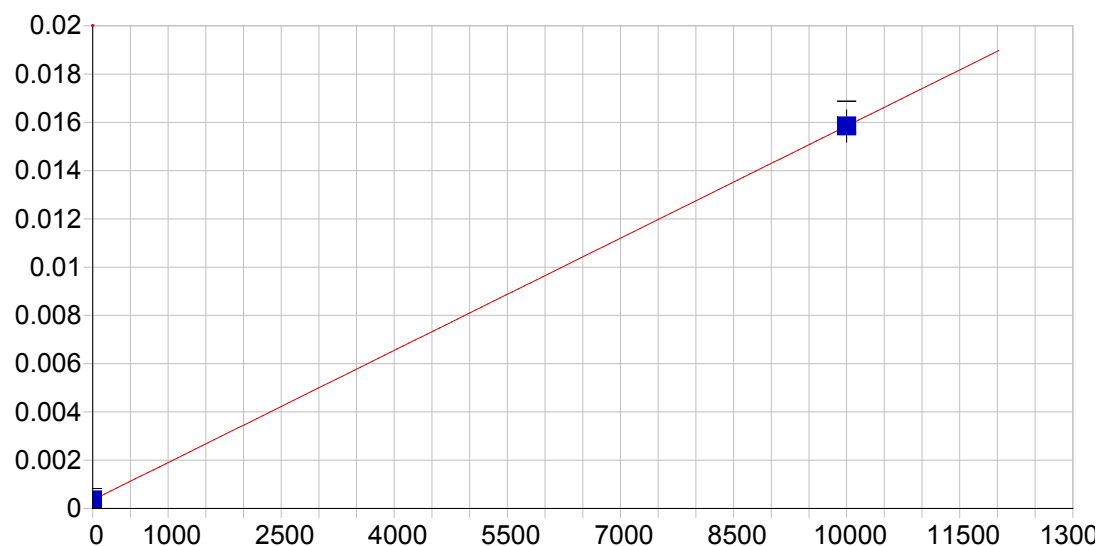


Li 670.784 { 50}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000215	Re-Slope: 1.000000
A1 (Gain):	0.000045	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999799	Status: OK.
Std Error of Est:	0.000012	
Predicted MDL:	0.460957	
Predicted MQL:	1.536523	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00016	.000	.000	.00022	.000	1
CalStd5=10	10.000	10.806	.806	8.06	.00070	.000	1
CalStd8=100	100.00	99.231	-.769	-.769	.00467	.000	1
CalStd9=100	1000.0	936.83	-63.2	-6.32	.04224	.003	1
CalStd10=10	10000.	10063.	63.1	.631	.45160	.017	1

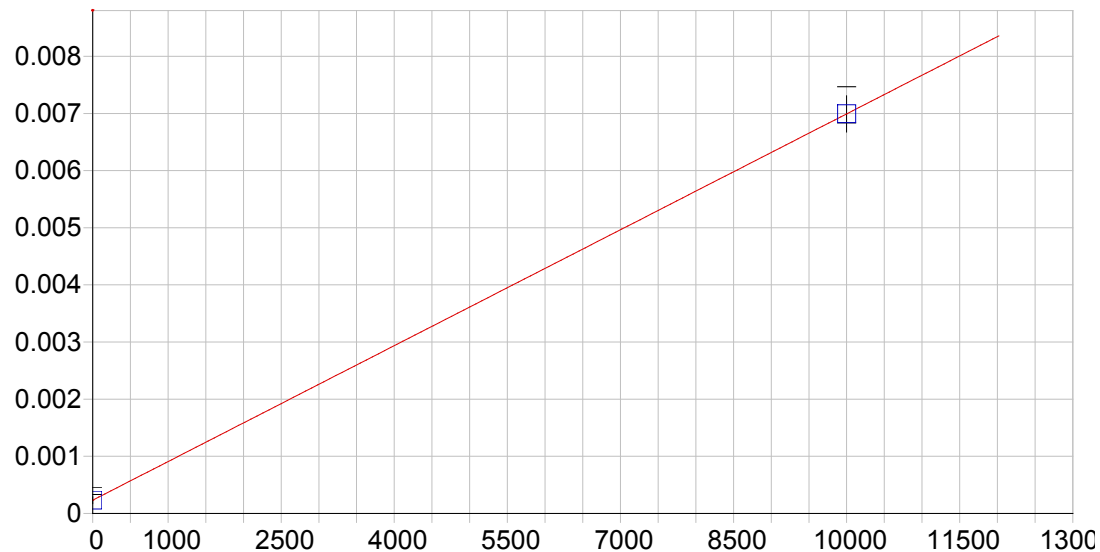


K 766.490 { 44}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000351 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 10.815792
 Predicted MQL: 36.052642

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00035	.000	1
CalStd10=10	10000.	10000.	.000	.000	.01585	.001	1

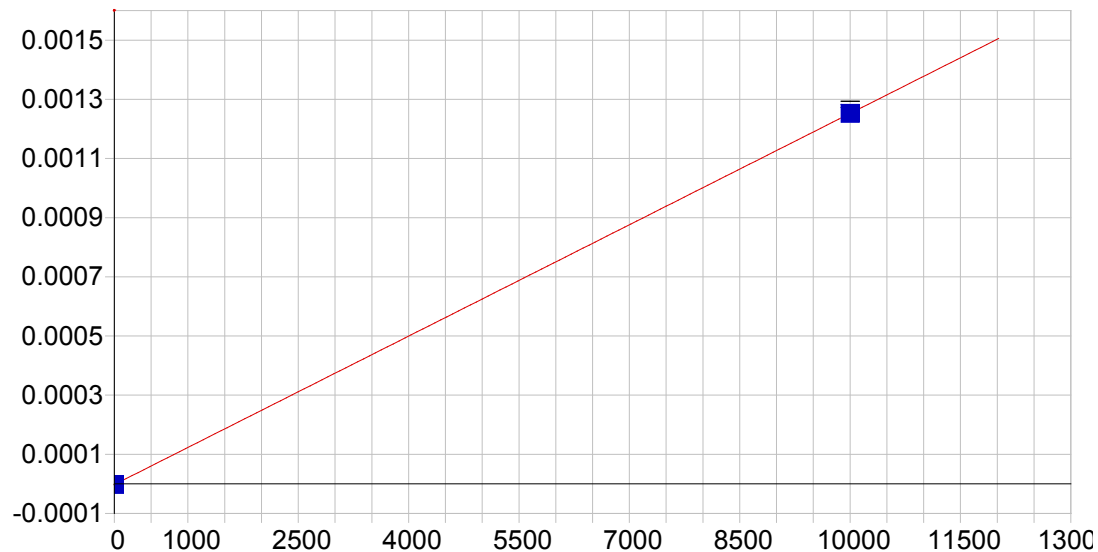


K 769.896 { 44}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000232 Re-Slope: 1.000000
 A1 (Gain): 0.000001 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 22.109263
 Predicted MQL: 73.697545

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00023	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00699	.000	1

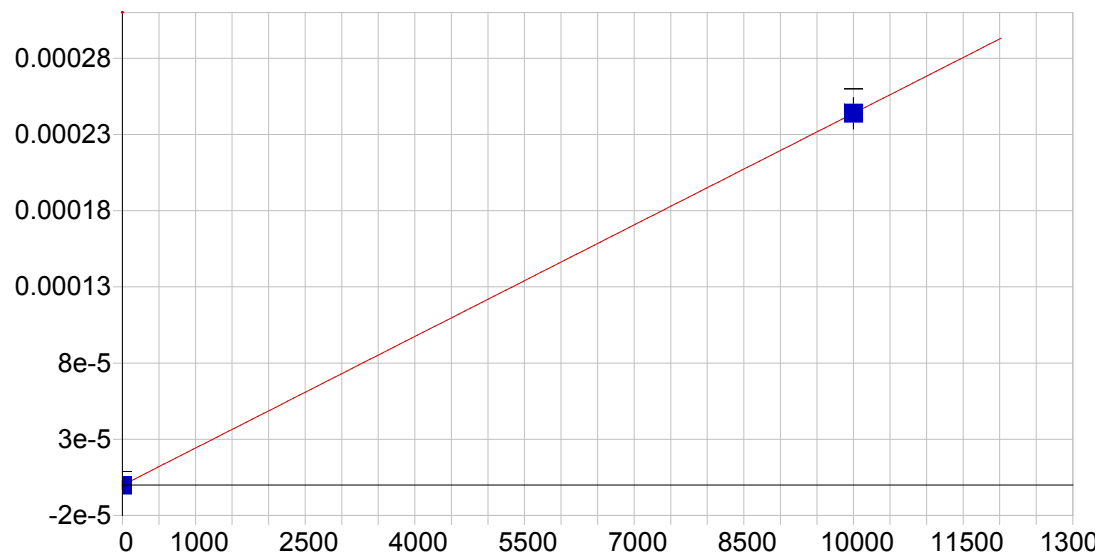


P 177.495 {489}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
A1 (Gain): 0.000000 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 1.000000 Status: OK.
Std Error of Est: 0.000000
Predicted MDL: 4.524625
Predicted MQL: 15.082084

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00125	.000	1

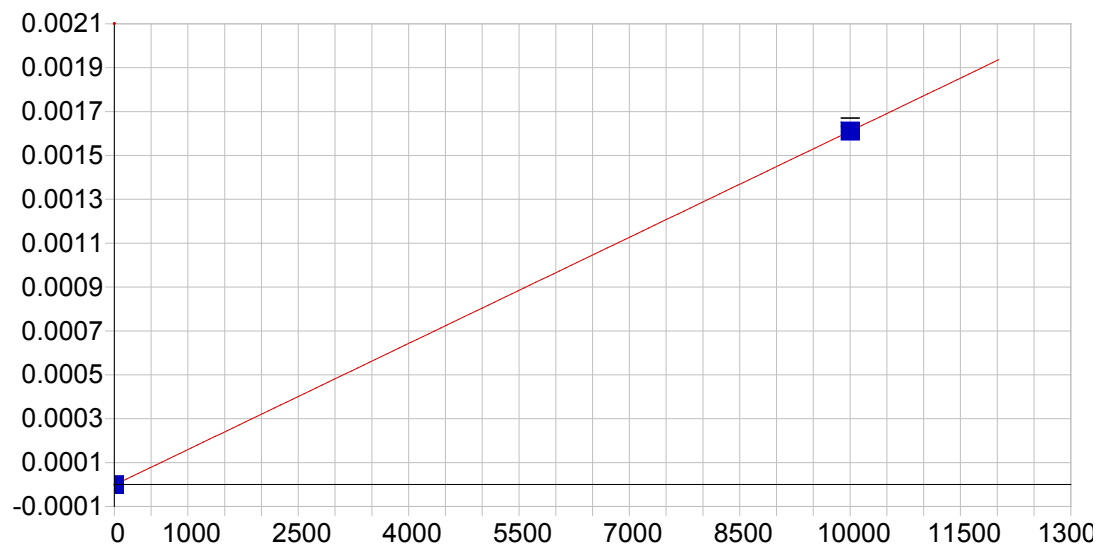


P 213.618 {158}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	80.948655	
Predicted MQL:	269.828851	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00024	.000	1

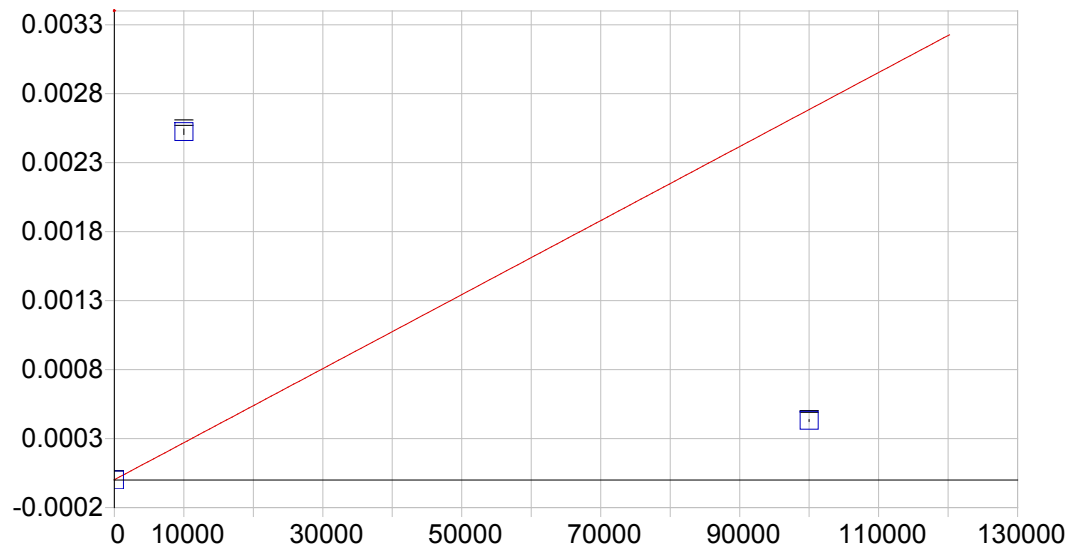


P 213.618 {457}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 6.114848
 Predicted MQL: 20.382827

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00161	.000	1

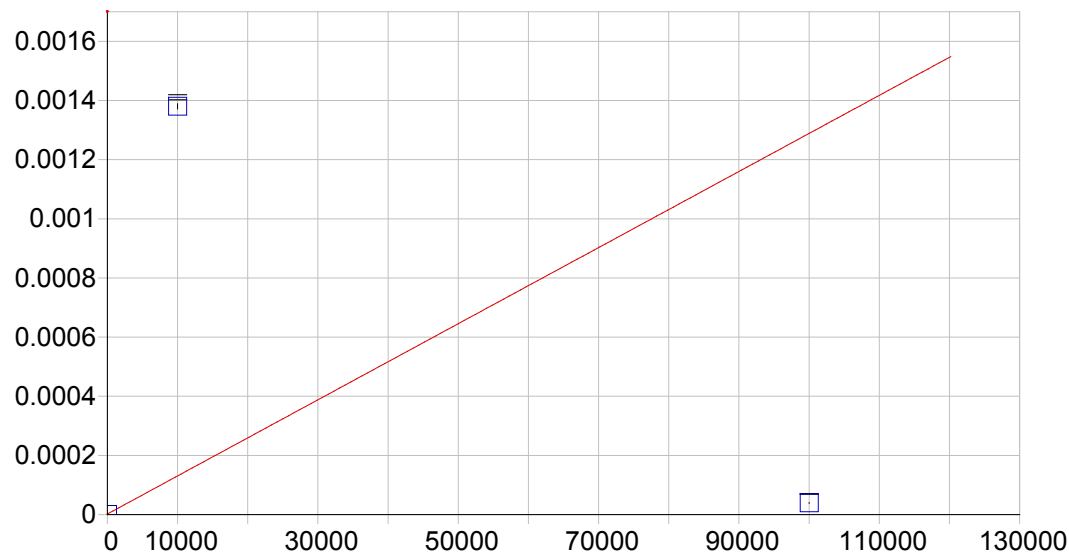


S 180.731 {486}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.352180	Status: OK.
Std Error of Est:	0.000129	
Predicted MDL:	26.887603	
Predicted MQL:	89.625344	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-75.593	-75.6	.000	.00000	.000	1
CalStd12-100 100000.		16008.	-84000.	-84.0	.00043	.000	1
CalStd10=10 10000.		93992.	84000.	840.	.00252	.000	1

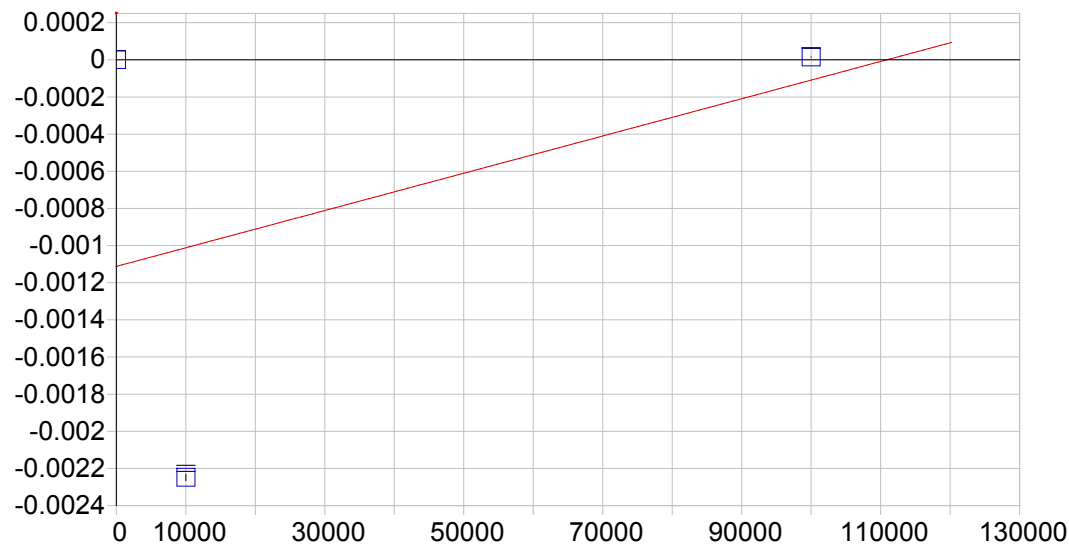


S 182.034 {485}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000002	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.309487	Status: OK.
Std Error of Est:	0.000072	
Predicted MDL:	53.916606	
Predicted MQL:	179.722018	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-87.397	-87.4	.000	.00000	.000	1
CalStd12-100 100000.		2891.8	-97100.	-97.1	.00004	.000	1
CalStd10=10 10000.		107110.	97100.	971.	.00138	.000	1

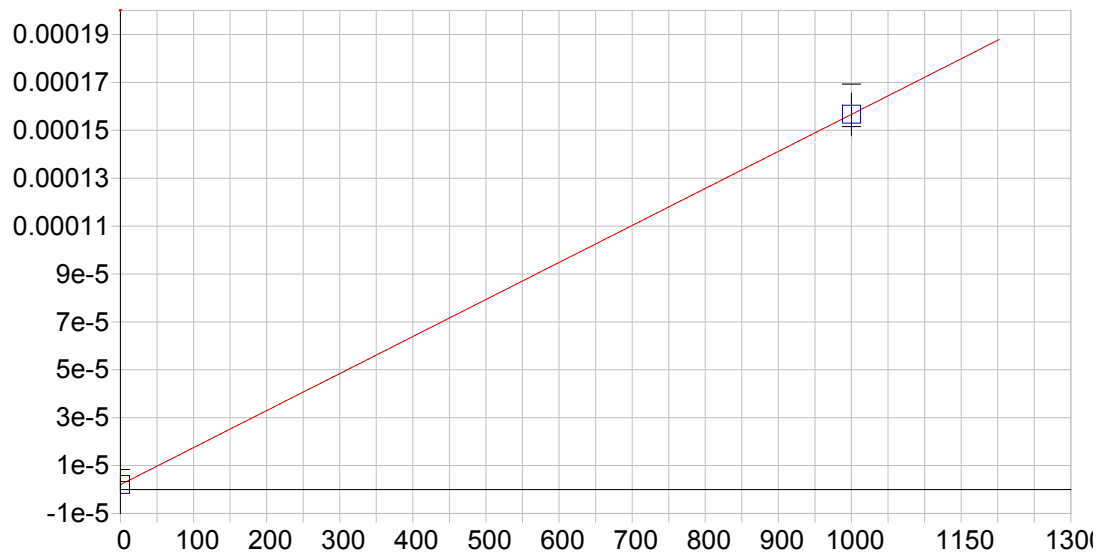


S 182.624 {484}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: None

A0 (Offset):	-0.001112	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.424281	Status: OK.
Std Error of Est:	0.001668	
Predicted MDL:	72.384174	
Predicted MQL:	241.280581	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	110900.	111000.	.000	.00000	.000	1
CalStd12-100 100000.		112320.	12300.	12.3	.00001	.000	1
CalStd10=10 10000.		-113220.	-123000.	-1230.	-.00225	.000	1

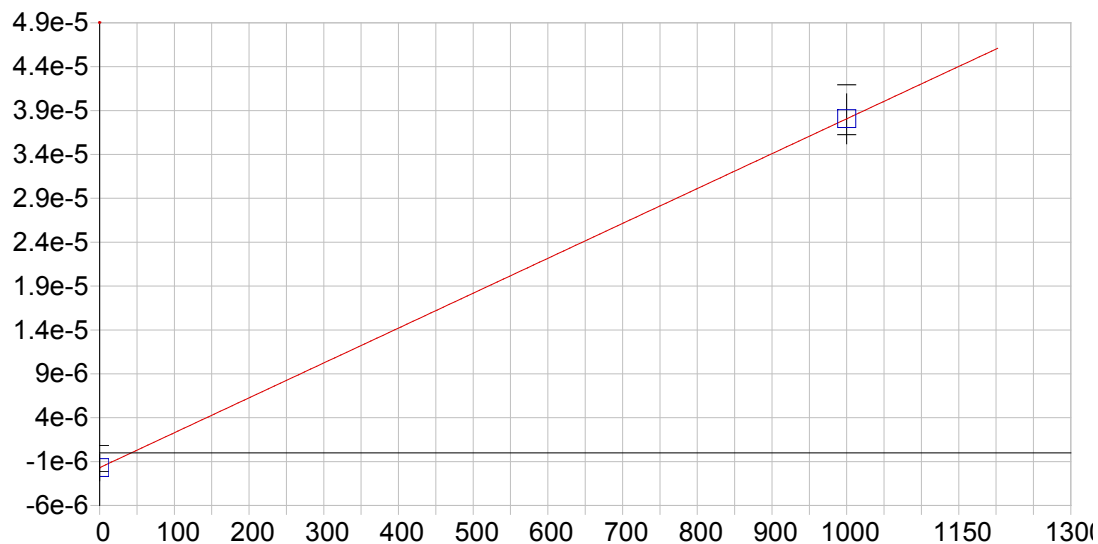


W 239.709 {140}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 16.301859
 Predicted MQL: 54.339531

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00016	.000	1



W 245.148 {137}

Date of Fit: 09/01/2015 09:59:44 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 69.928279
 Predicted MQL: 233.094263

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00004	.000	1

Sample Name: Blank Acquired: 08/31/2015 12:21:42 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	Al1670	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3158	Ca3933
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	-.002	.455	.000	.000	.001
Stddev	.00	.000	.00	.000	.00	.000	.000	.000	1.95	.000	.000	.000
%RSD	125.	10.3	191.	50.4	3000.	167.	32.1	4.88	428.	82.3	8.02	31.6

Elem	Cd2265	Cd2288	Co2286	Co2388	Cr2677	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Fe2599	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.463	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.444	.000	.00	.000	.00	.000	.000	.000	.000	.000	.000	.00
%RSD	95.8	3.34	42.7	164.	504.	20.3	53.0	5.62	69.2	49.9	35.8	42.8

Elem	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.00	.000	.00	.000	.000	.000	.000	.000	.00	.00	.000
%RSD	10.6	395.	104.	295.	255.	56.1	210.	39.8	49.7	194.	154.	611.

Elem	Se2062	Tl1908	Tl2767	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000
Stddev	.00	.00	.000	.000	.00	.000	.000
%RSD	2180.	106.	110.	7.44	1260.	16.4	13.7

Int. Std.	Y_3710
Units	Cts/S
Avg	429800.
Stddev	21118.
%RSD	4.9134

Sample Name: CalStd1=0.25 Acquired: 08/31/2015 12:26:09 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130
Units	Cts/S
Avg	7.55
Stddev	.98
%RSD	13.0

Sample Name: CalStd2=0.5 Acquired: 08/31/2015 12:30:36 Type: Cal
 Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ba4554	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	14.2	.881	.000
Stddev	.000	1.4	.467	.000
%RSD	8.45	10.1	53.0	14.9

Int. Std.	Y_3710
Units	Cts/S
Avg	425940.
Stddev	14585.
%RSD	3.4241

Sample Name: CalStd3=1 Acquired: 08/31/2015 12:35:01 Type: Cal
 Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Ba4554	Be3130	Cd2265	Cd2288	Co2286	Cr2677	Cu2247	Ni2316	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	29.6	3.11	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	1.4	.28	.000	.000	.000	.000	.000	.000
%RSD	135.	9.58	4.77	8.89	1.90	11.2	53.1	39.1	22.6	97.3
Int. Std.	Y_3710									
Units	Cts/S									
Avg	428780.									
Stddev	13437.									
%RSD	3.1337									

Sample Name: CalStd4=5 Acquired: 08/31/2015 12:39:26 Type: Cal
 Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al1670	As1937	As1890	Ba4554	Ba4934	Be3130	Cd2265	Co2286	Cr2677	Cu2247	Mn2576	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.001	-.001	142.	19.5	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	3.	.3	.000	.000	.000	.000	.000
%RSD	14.2	74.5	196.	5.36	5.21	2.38	1.48	6.13	35.3	5.54	3.70	5.64

Elem	Pb2169	Pb2203	Sb2175	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000
Stddev	.000	.000	.000	.000
%RSD	19.1	44.3	39.7	4.32

Int. Std.	Y_3710
Units	Cts/S
Avg	427290.
Stddev	16633.
%RSD	3.8927

Sample Name: CalStd5=10 Acquired: 08/31/2015 12:43:53 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Cd2265	Cd2288	Co2286	Cr2677	Cu2247	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.002	278.	38.8	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	9.	.4	.000	.000	.000	.000	.000	.000
%RSD	23.5	12.5	90.9	7.11	3.34	.909	3.10	4.89	18.1	8.71	8.59	14.6

Elem	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.17	15.8	12.5	29.5	18.3	23.7	72.1	10.5	3.67

Int. Std.	Y_3710
Units	Cts/S
Avg	429210.
Stddev	14416.
%RSD	3.3588

Sample Name: CalStd6=20 Acquired: 08/31/2015 12:48:20 Type: Cal
 Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ba4554	Cr2677	Cu2247	Fe2599	Mn2576	Mo2020	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.004	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	6.07	9.98	4.76	6.36	7.02	3.83	6.73	4.54

Int. Std.	Y_3710
Units	Cts/S
Avg	432250.
Stddev	13300.
%RSD	3.0769

Sample Name: CalStd7=50 Acquired: 08/31/2015 12:52:38 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al1670	As1937	Ba4554	Ca3933	Cd2265	Co2286	Cr2677	Cr2835	Cu2247	Fe2599	Mg2802	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.008	.021	193.	.000	.000	.000	.000	.000	.001	.000
Stddev	.000	.000	.001	.002	4.	.000	.000	.000	.000	.000	.000	.000
%RSD	3.61	8.47	7.05	9.96	2.02	4.96	8.65	6.91	2.77	6.86	7.43	6.74

Elem	Mo2020	Mo2045	Ni2316	Sb2068	Se1960	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000
%RSD	4.26	5.86	5.33	6.24	9.59	6.68	5.14

Int. Std.	Y_3710
Units	Cts/S
Avg	429540.
Stddev	14282.
%RSD	3.3249

Sample Name: CalStd8=100 Acquired: 08/31/2015 12:56:59 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3933	Cd2265	Cd2288	Co2286	Co2388
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.017	.013	2730.	.000	.040	394.	.001	.001	.000
Stddev	.000	.000	.000	.001	.001	104.	.000	.003	7.	.000	.000	.000
%RSD	7.15	6.82	14.1	6.79	7.97	3.81	7.96	7.09	1.69	4.66	4.96	5.37

Elem	Cr2677	Cr2835	Cu2247	Cu3247	Fe2599	Mg2802	Mn2576	Mo2020	Mo2045	Ni2316	Ni2316	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.001	.000	.002	.001	.000	.000	.000	.001	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	5.49	6.14	5.55	4.84	6.81	6.62	7.04	4.91	3.91	6.93	5.06	4.30

Elem	Pb2203	Sb2175	Se1960	Se2062	Tl1908	Tl2767	V_2908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.51	5.41	6.96	6.09	3.91	102.	6.98	5.45	5.45

Int. Std.	Y_3710
Units	Cts/S
Avg	428680.
Stddev	14690.
%RSD	3.4268

Sample Name: CalStd9=1000 Acquired: 08/31/2015 13:01:17 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3092	Al3961	Al1670	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3158	Ca3933
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.002	.000	.000	.000	.170	.141	27300.	.003	.001	.347
Stddev	.000	.000	.000	.000	.000	.011	.009	866.	.000	.000	.022
%RSD	6.10	5.92	4.93	4.81	3.87	6.63	6.55	3.18	6.32	7.01	6.40

Elem	Cd2265	Cd2288	Co2286	Co2388	Cr2677	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3910.	.014	.008	.001	.002	.003	.001	.004	.000	.000	.002
Stddev	71.	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.82	5.07	5.42	6.16	5.89	6.00	5.44	5.98	5.80	6.62	5.92

Elem	Mg2025	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Ni2316	Pb2169	Pb2203	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.022	.006	.009	.001	.001	.000	.005	.000	.001	.000
Stddev	.000	.001	.000	.001	.000	.000	.000	.000	.000	.000	.000
%RSD	5.53	6.52	6.35	6.46	5.46	5.31	8.20	5.55	5.49	5.12	4.75

Elem	Sb2175	Se1960	Se2062	Tl1908	Tl2767	V_2908	V_2924	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.000	.000	.000	.000	.003	.005	.003	.004
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.81	4.84	5.24	4.18	9.26	6.06	5.94	5.53	5.47

Int. Std.	Y_3710
Units	Cts/S
Avg	429060.
Stddev	15414.
%RSD	3.5925

Sample Name: CalStd10=10000 Acquired: 08/31/2015 13:05:10 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3092	Al3961	As1890	Ba4934	Ca3158	Co2388	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.010	.026	.000	1.47	.009	.009	.027	.010	.041	.001	.003	.017
Stddev	.000	.001	.000	.07	.000	.000	.001	.000	.002	.000	.000	.001
%RSD	3.73	3.95	.528	5.02	5.06	4.52	4.49	.797	4.08	4.54	4.42	4.49

Elem	Mg2025	Mg2802	Mn2576	Mn2593	Mo2045	Ni2316	Ni2316	Pb2169	Sb2068	Se1960	Se2062	Tl2767
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.003	.229	.064	.089	.007	.001	.048	.004	.003	.001	.000	.000
Stddev	.000	.011	.003	.004	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.669	4.59	4.51	4.32	.762	5.28	.829	.547	.655	.477	.906	5.56

Elem	V_2908	Zn2062	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	.028	.024	.035
Stddev	.001	.000	.000
%RSD	4.53	1.04	.888

Int. Std.	Y_3710
Units	Cts/S
Avg	413960.
Stddev	1568.
%RSD	.37888

Sample Name: CalStd11-100k Acquired: 08/31/2015 13:10:30 Type: Cal
 Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Cr2835	Cu3247	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.267	.408	.837	.044	.198
Stddev	.017	.026	.050	.002	.010
%RSD	6.40	6.37	5.94	4.54	4.98

Int. Std.	Y_3710
Units	Cts/S
Avg	407230.
Stddev	17499.
%RSD	4.2971

Sample Name: CalStd12-100000 Acquired: 08/31/2015 13:14:54 Type: Cal
 Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3092	Al3961	Ca3158	Fe2343	Fe2395	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.093	.240	.085	.012	.030	.020
Stddev	.004	.012	.004	.000	.001	.000
%RSD	4.80	4.83	4.36	4.04	3.83	1.42

Int. Std.	Y_3710
Units	Cts/S
Avg	412800.
Stddev	3610.
%RSD	.87450

Sample Name: CalStd13=500000 Acquired: 08/31/2015 13:19:36 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2343	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.24	.429	.057	.083
Stddev	.05	.016	.002	.000
%RSD	3.94	3.72	3.29	.296

Int. Std.	Y_3710
Units	Cts/S
Avg	390390.
Stddev	821.
%RSD	.21019

Sample Name: CalStd14-1000k Acquired: 08/31/2015 13:24:21 Type: Cal
Method: DOD Calibration Updated 060614(v794) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2343	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.28	.763	.103	.136
Stddev	.10	.030	.004	.000
%RSD	4.58	3.87	3.70	.236

Int. Std.	Y_3710
Units	Cts/S
Avg	376470.
Stddev	1448.
%RSD	.38458

Sample Name: icv Acquired: 08/31/2015 13:34:03 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388	Cr2677	Cu2247
Avg	49.7	11300.	11500.	2030.	2020.	49.3	10600.	45.3	494.	491.	204.	253.
Stddev	3.8	606.	602.	40.	109.	2.3	626.	.4	12.	30.	11.	5.
%RSD	7.62	5.36	5.22	1.95	5.36	4.75	5.88	.809	2.43	6.02	5.18	1.95

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Fe2343	Fe2395	Mg2025	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068
Avg	5000.	4820.	9880.	9710.	491.	509.	507.	516.	525.	534.	494.	503.
Stddev	265.	271.	206.	493.	27.	30.	11.	12.	12.	9.	9.	6.
%RSD	5.31	5.62	2.09	5.07	5.48	5.80	2.16	2.24	2.23	1.72	1.83	1.22

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Sb2175	Se1960	Se2062	Tl2767	V_2908	V_2924	Zn2062	Zn2138
Avg	500.	2000.	1970.	1790.	483.	509.	488.	494.
Stddev	8.	35.	37.	97.	26.	26.	14.	11.
%RSD	1.50	1.77	1.90	5.42	5.40	5.03	2.85	2.27

Check ? Value Range	None	None	None	None	None	None	None	None
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Sample Name: icv Acquired: 08/31/2015 13:34:03 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	422460.
Stddev	5144.
%RSD	1.2177

Sample Name: ICVLL Acquired: 08/31/2015 13:38:20 Type: QC
 Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Al3092	Al1670	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247
Avg	69.3	1200.	1180.	58.7	29.7	12.2	1680.	1490.	14.0	28.8	31.5	31.7
Stddev	5.3	78.	56.	5.6	2.1	.4	120.	99.	.2	1.4	1.6	1.4
%RSD	7.61	6.48	4.77	9.58	7.00	3.15	7.18	6.64	1.20	4.99	5.07	4.45

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
 Value
 Range

Elem	Fe2343	Fe2395	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Avg	878.	868.	866.	1470.	30.9	31.1	30.5	28.9	58.5	63.5	52.4	30.1
Stddev	51.	59.	58.	102.	2.1	1.3	1.3	2.7	3.5	8.7	2.8	2.8
%RSD	5.76	6.83	6.67	6.94	6.74	4.12	4.12	9.27	6.01	13.7	5.36	9.27

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
 Value
 Range

Elem	Zn2138
Avg	30.8
Stddev	1.5
%RSD	4.96

Check ? **Chk Pass**
 Value
 Range

Sample Name: ICVLL Acquired: 08/31/2015 13:38:20 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	433660.
Stddev	14091.
%RSD	3.2494

Sample Name: icb Acquired: 08/31/2015 13:47:32 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	1.14	-.742	2.71	-.546	.021	-3.54	-.109	.064	-.603	.719	-3.93	1.36
Stddev	2.28	1.53	3.80	.061	.014	.97	.094	.241	.679	1.72	1.81	.19
%RSD	200.	206.	140.	11.2	69.5	27.3	85.9	377.	113.	240.	46.1	13.7

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.167	.700	-.285	-1.91	.746	-4.38	2.40	-.148	.090
Stddev	.297	.706	.446	.59	1.64	4.09	1.43	1.69	.145
%RSD	178.	101.	156.	31.0	219.	93.2	59.7	1140.	161.

Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Int. Std.	Y_3710
Avg	430440.
Stddev	9999.
%RSD	2.3229

Sample Name: icsa Acquired: 08/31/2015 13:56:22 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2343
Avg	.000	468000.	.106	.011	.000	430000.	-.021	-.558	.000	.000	424000.
Stddev	2.47	21900.	16.9	.098	.06	23000.	1.95	.143	2.12	3.07	21700.
%RSD	1669e15	4.67	15900.	858.	566e6	5.35	9450.	25.6	4410000.	4590000.	5.12

Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit											
Low Limit											

Elem	Mg2025	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	420000.	.000	-.702	-.009	.000	.008	.000	-.372	.800	-.122
Stddev	6290.	.40	3.99	2.45	2.00	.702	7.33	2.06	.851	3.72
%RSD	1.50	606000.	569.	28800.	2930000.	9240.	21e6	554.	106.	3050.

Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Int. Std.	Y_3710
Avg	393950.
Stddev	3304.
%RSD	.83866

Sample Name: icsab Acquired: 08/31/2015 14:01:07 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288
Avg	477.	486000.	465.	453.	538.	431.	455.	492.	447000.	492.	478.
Stddev	24.	33300.	27.	43.	34.	27.	19.	26.	24100.	26.	11.
%RSD	4.97	6.85	5.82	9.52	6.29	6.24	4.13	5.29	5.40	5.19	2.39

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Co2286	Co2388	Cr2677	Cr2835	Cu2247	Cu3247	Fe2343	Mg2025	Mn2576	Mn2593	Mo2020
Avg	409.	438.	501.	476.	409.	496.	446000.	420000.	485.	477.	446.
Stddev	10.	18.	28.	28.	9.	30.	23600.	10600.	28.	36.	11.
%RSD	2.38	4.08	5.52	5.86	2.24	5.95	5.29	2.52	5.68	7.50	2.40

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924
Avg	436.	407.	525.	504.	480.	478.	460.	492.	463.	440.	521.
Stddev	12.	9.	19.	66.	13.	14.	7.	48.	19.	23.	33.
%RSD	2.73	2.11	3.61	13.2	2.69	2.95	1.59	9.68	4.05	5.31	6.31

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: icsab Acquired: 08/31/2015 14:01:07 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Zn2062	Zn2138
Avg	408.	449.
Stddev	10.	8.
%RSD	2.46	1.68

Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	Y_3710
Avg	395110.
Stddev	7622.
%RSD	1.9291

Sample Name: ICVLL ag Acquired: 08/31/2015 14:05:35 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9.07	4.42	.917	-.563	.039	15.1	-.224	.010	-.316	-.122	34.2	19.7
Stddev	2.21	4.39	4.17	.074	.021	7.9	.060	.046	.571	.374	7.4	7.5
%RSD	24.4	99.4	454.	13.1	52.4	52.7	26.7	460.	181.	307.	21.7	37.8

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.079	1.01	-.463	-1.96	.092	4.52	.691	-.261	-.306
Stddev	.159	.76	.283	2.28	.768	8.67	1.80	.859	.238
%RSD	201.	75.6	61.1	116.	831.	192.	260.	329.	77.8

Int. Std.	Y_3710
Units	Cts/S
Avg	430670.
Stddev	17192.
%RSD	3.9920

Sample Name: lc553962 Acquired: 08/31/2015 14:10:08 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	As1890	Ba4934	Be3130	Ca3933	Cd2265	Cd2288	Co2388	Cr2677	Cu2247	Cu3247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	85.7	3490.	3550.	3550.	93.3	34.3	86.1	104.	897.	366.	459.	483.
Stddev	4.9	133.	31.	159.	5.6	2.0	.8	1.	50.	17.	7.	20.
%RSD	5.73	3.81	.858	4.46	6.05	5.82	.960	.840	5.55	4.73	1.42	4.07

Elem	Fe2343	Fe2395	Mg2802	Mn2576	Mn2593	Mo2020	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1930.	1870.	6.64	897.	938.	2.96	916.	888.	883.	864.	3270.	3230.
Stddev	98.	100.	.87	47.	50.	.56	9.	8.	8.	6.	25.	15.
%RSD	5.06	5.35	13.2	5.22	5.36	18.9	.927	.867	.952	.741	.774	.456

Elem	Tl2767	V_2908	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avg	3550.	891.	891.	853.
Stddev	126.	47.	12.	9.
%RSD	3.54	5.28	1.38	1.06

Int. Std.	Y_3710
Units	Cts/S
Avg	431410.
Stddev	3207.
%RSD	.74343

Sample Name: mbs53962 Acquired: 08/31/2015 14:14:34 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.299	38.9	-8.45	-.275	.051	64.6	-.388	-.147	.456	.487	25.5	5.61
Stddev	1.71	2.6	6.33	.099	.046	5.1	.060	.152	1.23	.899	4.8	.52
%RSD	573.	6.59	74.9	35.9	90.3	7.90	15.4	103.	269.	184.	18.9	9.30

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.30	1.27	.439	14.9	-.376	-1.26	-1.97	.536	10.0
Stddev	.29	.52	.170	2.1	1.47	6.54	1.41	1.09	.6
%RSD	22.1	40.7	38.8	14.4	392.	521.	71.8	203.	6.18

Int. Std.	Y_3710
Units	Cts/S
Avg	439750.
Stddev	12089.
%RSD	2.7491

Sample Name: 623727 Acquired: 08/31/2015 14:18:58 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.349	7.46	-16.1	3.75	.068	432.	-.246	-.125	1.18	1.70	45.6	139.
Stddev	1.82	2.41	10.6	.40	.047	34.	.064	.162	1.85	.98	2.9	11.
%RSD	520.	32.4	65.6	10.5	69.8	7.75	26.1	130.	156.	57.8	6.44	7.91

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.45	1.62	.526	25.0	-1.09	-.101	-1.46	-.359	46.2
Stddev	.23	.79	.178	4.2	.47	7.11	1.24	1.52	2.2
%RSD	16.2	49.1	33.8	16.7	42.9	7040.	85.0	423.	4.67

Int. Std.	Y_3710
Units	Cts/S
Avg	441560.
Stddev	15303.
%RSD	3.4657

Sample Name: I623727 Acquired: 08/31/2015 14:23:18 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.67	-3.33	-2.54	.357	.021	96.9	-.181	.087	-.810	.783	6.67	32.4
Stddev	1.53	1.79	5.59	.071	.037	6.8	.079	.089	1.08	.694	1.48	2.0
%RSD	91.5	53.7	220.	20.0	170.	6.99	43.5	103.	134.	88.6	22.2	6.09

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.279	.087	-.206	4.56	.366	4.08	1.08	.530	9.33
Stddev	.154	.708	.170	2.45	.829	6.45	1.34	1.01	.32
%RSD	55.2	814.	82.4	53.7	227.	158.	124.	190.	3.38

Int. Std.	Y_3710
Units	Cts/S
Avg	441130.
Stddev	17984.
%RSD	4.0768

Sample Name: dup623727 Acquired: 08/31/2015 14:27:43 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1.79	8.89	-7.71	2.06	.003	589.	-.131	-.137	3.13	11.0	64.2	247.
Stddev	.44	2.09	5.75	.20	.049	40.	.085	.160	.98	.5	5.3	18.
%RSD	24.8	23.5	74.6	9.71	1820.	6.78	64.4	117.	31.3	4.32	8.31	7.40

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	2.00	1.15	.493	13.3	-.732	-6.28	-3.31	-.392	178.
Stddev	.43	1.19	.139	1.5	.291	10.1	.74	1.16	7.
%RSD	21.5	104.	28.3	11.3	39.8	160.	22.2	295.	3.94

Int. Std.	Y_3710
Units	Cts/S
Avg	435880.
Stddev	9421.
%RSD	2.1614

Sample Name: mss623727 Acquired: 08/31/2015 14:32:01 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	As1890	Ba4934	Be3130	Ca3933	Cd2265	Cd2288	Co2286	Co2388	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	83.1	3440.	3470.	3430.	92.3	678.	84.4	101.	884.	879.	359.	456.
Stddev	6.9	188.	54.	201.	4.8	39.	.8	2.	21.	51.	21.	9.
%RSD	8.34	5.45	1.56	5.87	5.20	5.73	.989	1.98	2.34	5.85	5.86	2.03

Elem	Cu3247	Fe2343	Fe2395	Mg2802	Mn2576	Mn2593	Mo2020	Pb2169	Pb2203	Sb2068	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	484.	1880.	1830.	291.	881.	919.	1.08	896.	866.	861.	840.	3160.
Stddev	26.	115.	115.	18.	57.	57.	.98	20.	17.	17.	19.	45.
%RSD	5.45	6.13	6.30	6.21	6.53	6.16	91.3	2.23	1.94	1.97	2.28	1.41

Elem	Se2062	Tl2767	V_2908	Zn2062
Units	ug/L	ug/L	ug/L	ug/L
Avg	3100.	3460.	870.	1110.
Stddev	73.	200.	51.	27.
%RSD	2.35	5.78	5.86	2.42

Int. Std.	Y_3710
Units	Cts/S
Avg	436480.
Stddev	5144.
%RSD	1.1785

Sample Name: msds623727 Acquired: 08/31/2015 14:36:38 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	As1890	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Cd2288	Co2286	Co2388	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	83.9	3420.	3480.	3450.	92.1	1180.	1030.	84.9	103.	891.	885.	361.
Stddev	6.8	156.	51.	211.	5.0	76.	55.	1.0	2.	19.	48.	20.
%RSD	8.14	4.54	1.46	6.12	5.47	6.41	5.30	1.17	1.91	2.08	5.39	5.47

Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2802	Mn2576	Mn2593	Mo2020	Pb2169	Pb2203	Sb2068	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	464.	495.	1930.	1870.	511.	887.	922.	1.15	912.	876.	862.	847.
Stddev	8.	24.	120.	113.	30.	51.	54.	.88	16.	15.	14.	14.
%RSD	1.64	4.92	6.20	6.03	5.86	5.69	5.87	76.2	1.72	1.72	1.62	1.72

Elem	Se1960	Se2062	Tl2767	V_2908	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3190.	3140.	3450.	873.	1240.
Stddev	44.	33.	195.	51.	26.
%RSD	1.38	1.06	5.64	5.81	2.05

Int. Std.	Y_3710
Units	Cts/S
Avg	433960.
Stddev	1795.
%RSD	.41370

Sample Name: pdss623727 Acquired: 08/31/2015 14:41:01 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	88.5	4020.	3840.	3710.	91.5	97.5	376000.	75.0	114.	831.	925.
Stddev	5.7	167.	66.	261.	4.2	4.7	18700.	.6	1.	5.	42.
%RSD	6.42	4.15	1.71	7.04	4.56	4.82	4.98	.788	.482	.591	4.53
Elem	Cr2677	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2045	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	378.	435.	527.	1930.	1870.	190000.	934.	748.	1880.	851.	968.
Stddev	18.	4.	28.	111.	98.	1290.	46.	42.	8.	5.	5.
%RSD	4.75	.957	5.23	5.74	5.22	.680	4.90	5.63	.422	.592	.548
Elem	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl2767	V_2908	Zn2062			
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
Avg	789.	938.	915.	3500.	3430.	3680.	925.	1010.			
Stddev	3.	6.	5.	32.	23.	190.	46.	2.			
%RSD	.402	.656	.576	.902	.662	5.16	4.97	.194			
Int. Std.	Y_3710										
Units	Cts/S										
Avg	399910.										
Stddev	3220.										
%RSD	.80517										

Sample Name: 623728 Acquired: 08/31/2015 14:46:27 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2388	Cr2835	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-1.95	12800.	12900.	.917	14200.	-5.09	611000.	12.4	977.	3280.	101.
Stddev	2.31	561.	563.	5.68	890.	.21	26000.	9.8	51.	165.	34.
%RSD	118.	4.40	4.35	619.	6.26	4.05	4.25	79.0	5.17	5.03	34.0

Elem	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	17600.	16800.	60900.	1480.	1470.	6.46	26.7	27100.	-17.6	-8.75	322.
Stddev	903.	869.	21300.	78.	89.	2.12	9.1	9260.	5.2	11.2	19.
%RSD	5.14	5.18	35.1	5.23	6.04	32.9	34.1	34.1	29.5	128.	5.89

Elem	V_2924	Zn2138
Units	ug/L	ug/L
Avg	28.8	.000
Stddev	3.2	.000
%RSD	11.2	.000

Int. Std.	Y_3710
Units	Cts/S
Avg	396280.
Stddev	2209.
%RSD	.55752

Sample Name: ccv1 Acquired: 08/31/2015 14:51:30 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2388	Cr2835
Avg	486.	4840.	4890.	4990.	4810.	497.	511.	5480.	490.	509.	4960.	4850.
Stddev	21.	216.	162.	100.	297.	11.	20.	178.	1.	8.	187.	162.
%RSD	4.25	4.47	3.30	2.00	6.18	2.21	3.98	3.25	.303	1.59	3.77	3.34

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
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Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175
Avg	4990.	4690.	5050.	4850.	5490.	4880.	5120.	5060.	4900.	4960.	4960.	4830.
Stddev	55.	141.	197.	159.	112.	170.	177.	76.	237.	68.	65.	69.
%RSD	1.11	3.00	3.89	3.29	2.04	3.48	3.47	1.50	4.84	1.38	1.31	1.43

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
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Elem	Se1960	Se2062	Tl2767	V_2908	Zn2062
Avg	4900.	4860.	4810.	4830.	5130.
Stddev	79.	38.	289.	167.	83.
%RSD	1.61	.781	6.00	3.45	1.63

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: ccv1 Acquired: 08/31/2015 14:51:30 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	425270.
Stddev	4963.
%RSD	1.1670

Sample Name: ccv2 Acquired: 08/31/2015 14:56:17 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cr2835	Cu2247	Fe2599
Avg	47.4	538.	501.	493.	50.2	502.	50.4	494.	498.	475.	503.	475.
Stddev	2.3	22.	12.	36.	2.1	36.	.5	21.	31.	33.	18.	29.
%RSD	4.94	4.10	2.30	7.25	4.27	7.23	1.05	4.18	6.30	6.86	3.60	6.03

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value													
Range													

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	487.	482.	498.	514.	495.	483.	498.	453.	494.	480.
Stddev	34.	33.	20.	21.	16.	18.	24.	18.	35.	19.
%RSD	6.89	6.76	3.93	4.10	3.22	3.81	4.87	3.94	6.99	3.88

Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Int. Std.	Y_3710
Avg	433450.
Stddev	13060.
%RSD	3.0131

Sample Name: ccb Acquired: 08/31/2015 15:02:51 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	1.66	-2.88	.155	-.488	.012	-1.73	-.016	.125	-.406	-1.60	-5.28	1.39
Stddev	1.42	1.14	4.80	.075	.014	2.89	.073	.169	1.80	.65	1.35	.41
%RSD	85.4	39.6	3090.	15.3	114.	167.	449.	135.	444.	40.5	25.6	29.8

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.068	2.39	-.019	-3.29	-.185	2.95	.897	-.233	-.085
Stddev	.150	.73	.564	.75	1.94	3.82	2.38	2.16	.134
%RSD	220.	30.6	2970.	22.8	1050.	129.	265.	926.	158.

Check ? Value Range	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_3710
Avg	423760.
Stddev	3412.
%RSD	.80527

Sample Name: 623729 Acquired: 08/31/2015 15:07:17 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4554	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-4.06	46700.	49700.	-26.8	439.	428.	-7.69	400000.	3.23	814.	670.
Stddev	1.97	1640.	1860.	10.6	17.	15.	.38	20000.	3.27	86.	34.
%RSD	48.5	3.51	3.74	39.7	3.92	3.59	4.89	5.02	101.	10.5	5.01

Elem	Cr2835	Cu2247	Fe2343	Fe2395	Mg2025	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	4440.	198.	16500.	15800.	20200.	364.	3.97	19.1	24300.	-17.5	7.54
Stddev	185.	31.	747.	703.	3640.	17.	1.44	3.8	4130.	2.3	5.14
%RSD	4.16	15.7	4.51	4.46	18.0	4.65	36.3	19.9	17.0	13.3	68.1

Elem	Tl1908	V_2924	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L
Avg	422.	46.6	65200.	.000
Stddev	15.	2.8	9970.	.000
%RSD	3.51	6.11	15.3	.000

Int. Std.	Y_3710
Units	Cts/S
Avg	405080.
Stddev	1857.
%RSD	.45850

Sample Name: 623730 Acquired: 08/31/2015 15:11:56 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2288	Co2286	Cr2835
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	7.37	30800.	32100.	39.5	14700.	-820	1080000.	2160.	188.	1090.
Stddev	.02	1240.	1140.	1.6	803.	.068	53000.	3.	2.	41.
%RSD	.244	4.04	3.55	4.12	5.47	8.35	4.90	.149	1.17	3.75

Elem	Cu2247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169	Sb2175
Units	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	506.	11600.	11100.	53800.	614.	582.	.900	16.2	540000.	-512.
Stddev	13.	372.	331.	256.	24.	20.	.076	.5	1550.	2.
%RSD	2.52	3.19	2.98	.476	3.84	3.42	8.47	2.96	.288	.299

Elem	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-22.2	42.7	39.6	62100.	.000
Stddev	11.2	.4	2.3	162.	.000
%RSD	50.3	.996	5.83	.260	.000

Int. Std.	Y_3710
Units	Cts/S
Avg	389250.
Stddev	252.
%RSD	.06480

Sample Name: I623730 Acquired: 08/31/2015 15:17:11 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	4.69	9040.	9090.	11.6	4540.	-.241	359000.	377.	417.	43.0	336.
Stddev	1.72	325.	310.	9.4	160.	.027	12700.	28.	30.	2.8	13.
%RSD	36.8	3.59	3.41	80.8	3.52	11.0	3.53	7.53	7.26	6.50	3.74

Elem	Cu2247	Fe2343	Fe2395	Mg2025	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908
Units	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	102.	3410.	3310.	9720.	184.	-.149	3.35	138000.	-101.	-12.4	15.5
Stddev	9.	136.	126.	671.	7.	.645	.38	10000.	9.	9.8	2.4
%RSD	9.30	3.98	3.79	6.90	3.84	432.	11.5	7.29	9.02	79.4	15.7

Elem	V_2924	Zn2062
Units	ug/L	ug/L
Avg	10.2	13600.
Stddev	1.0	835.
%RSD	9.50	6.14

Int. Std.	Y_3710
Units	Cts/S
Avg	404740.
Stddev	3172.
%RSD	.78363

Sample Name: dup623730 Acquired: 08/31/2015 15:21:58 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4554	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2835
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.029	65500.	70400.	-6.05	23300.	-1.18	911000.	136.	177.	223.	879.
Stddev	2.17	3600.	3520.	7.95	1880.	.02	53000.	.	3.	5.	59.
%RSD	7400.	5.49	5.00	131.	8.04	2.02	5.81	.343	1.58	2.40	6.66

Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169	Sb2175
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	374.	418.	9100.	8690.	34800.	479.	468.	1.14	40.8	90900.	-45.4
Stddev	7.	15.	624.	537.	556.	32.	30.	2.68	1.5	1390.	2.4
%RSD	1.86	3.64	6.86	6.17	1.60	6.71	6.43	236.	3.57	1.53	5.27

Elem	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L
Avg	-4.13	80.8	57.2	10200.
Stddev	5.07	8.1	2.8	168.
%RSD	123.	9.98	4.87	1.65

Int. Std.	Y_3710
Units	Cts/S
Avg	396910.
Stddev	3556.
%RSD	.89596

Sample Name: mss623730 Acquired: 08/31/2015 15:27:09 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2288	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	87.6	41400.	43800.	3000.	26600.	83.4	91.0	1020000.	2270.	1050.
Stddev	3.4	1730.	1710.	107.	1530.	4.5	3.4	67700.	68.	53.
%RSD	3.90	4.17	3.91	3.56	5.76	5.41	3.71	6.61	2.98	5.04

Elem	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L
Avg	873.	706.	700.	8980.	8660.	48700.	1490.	1510.	3.79	740.
Stddev	41.	23.	28.	467.	429.	1540.	78.	83.	1.45	17.
%RSD	4.71	3.26	4.01	5.20	4.95	3.15	5.20	5.52	38.2	2.26

Elem	Pb2169	Sb2175	Se1960	Se2062	Tl2767	V_2908	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	298000.	40.9	3120.	3180.	3290.	897.	44200.	.000
Stddev	8880.	2.0	77.	73.	184.	42.	936.	.000
%RSD	2.98	4.88	2.47	2.30	5.61	4.71	2.12	.000

Int. Std.	Y_3710
Units	Cts/S
Avg	391050.
Stddev	1651.
%RSD	.42230

Sample Name: msds623730 Acquired: 08/31/2015 15:32:13 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2288	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	90.5	33000.	34700.	3090.	12000.	84.7	91.4	969000.	2860.	878.	1050.
Stddev	7.8	1210.	1350.	276.	713.	4.3	3.9	55100.	236.	62.	50.
%RSD	8.56	3.67	3.90	8.94	5.93	5.13	4.23	5.69	8.26	7.07	4.75

Elem	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	1020.	771.	661.	9670.	9260.	49000.	1480.	1490.	.788	742.	434000.
Stddev	39.	54.	26.	424.	412.	4660.	68.	73.	1.53	54.	32500.
%RSD	3.79	7.02	3.95	4.39	4.45	9.51	4.57	4.89	195.	7.20	7.49

Elem	Sb2175	Se1960	Se2062	Tl2767	V_2908	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-31.6	3110.	3160.	3470.	917.	64200.	.000
Stddev	8.6	290.	294.	296.	35.	4060.	.000
%RSD	27.2	9.30	9.32	8.55	3.76	6.33	.000

Int. Std.	Y_3710
Units	Cts/S
Avg	389190.
Stddev	1986.
%RSD	.51028

Sample Name: pdsW623730 Acquired: 08/31/2015 15:37:20 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	87.9	67600.	73200.	3790.	26300.	83.8	93.9	1160000.	184.	285.
Stddev	5.9	2320.	2340.	42.	905.	3.9	2.8	65200.	1.	1.
%RSD	6.71	3.43	3.20	1.10	3.45	4.61	2.96	5.60	.614	.447

Elem	Co2388	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2045
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L
Avg	1050.	1170.	717.	875.	10400.	9980.	216000.	1320.	1130.	1720.
Stddev	48.	39.	.	28.	435.	390.	23.	50.	54.	2.
%RSD	4.55	3.32	.062	3.22	4.19	3.91	.010	3.82	4.78	.092

Elem	Ni2316	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl2767	V_2908	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	773.	89100.	938.	853.	3480.	3500.	3370.	917.	10300.
Stddev	.	38.	9.	5.	1.	42.	151.	39.	46.
%RSD	.043	.043	1.01	.601	.031	1.19	4.47	4.23	.452

Int. Std.	Y_3710
Units	Cts/S
Avg	383060.
Stddev	974.
%RSD	.25422

Sample Name: 623731 Acquired: 08/31/2015 15:42:29 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4934	Be3130	Ca3158	Co2286	Co2388	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	6.66	19000.	19500.	54.1	6300.	-2.47	93700.	632.	563.	237.	620.
Stddev	1.22	952.	977.	9.2	413.	.11	5390.	14.	27.	11.	10.
%RSD	18.3	5.00	5.00	17.0	6.56	4.49	5.75	2.27	4.78	4.52	1.55

Elem	Cu3247	Fe2343	Mg2025	Mn2593	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	477.	317000.	16400.	5530.	11.7	98.8	326000.	-244.	-3.62	140.	134.
Stddev	22.	17100.	237.	312.	1.8	.8	3400.	1.	7.74	10.	6.
%RSD	4.57	5.39	1.45	5.64	15.7	.807	1.05	.529	213.	7.06	4.65

Elem	Zn2062
Units	ug/L
Avg	12200.
Stddev	251.
%RSD	2.06

Int. Std.	Y_3710
Units	Cts/S
Avg	414850.
Stddev	3416.
%RSD	.82343

Sample Name: 623732 Acquired: 08/31/2015 15:46:52 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-1.07	25800.	26800.	6.89	297.	-1.81	1340000.	-64.0	613.	605.
Stddev	2.67	1200.	1360.	12.6	16.	.06	82600.	4.6	10.	35.
%RSD	251.	4.67	5.09	182.	5.24	3.10	6.15	7.25	1.60	5.73

Elem	Cr2835	Cu2247	Fe2343	Fe2395	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	2780.	110.	106000.	97800.	47800.	653.	732.	4.43	78.1	41100.
Stddev	138.	3.	5000.	4880.	625.	34.	41.	2.76	1.4	458.
%RSD	4.96	2.73	4.74	4.99	1.31	5.27	5.58	62.2	1.84	1.11

Elem	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-27.7	29.6	150.	33.8	80100.	.000
Stddev	.4	10.1	7.	2.3	1020.	.000
%RSD	1.31	34.1	4.85	6.70	1.28	.000

Int. Std.	Y_3710
Units	Cts/S
Avg	383510.
Stddev	2635.
%RSD	.68719

Sample Name: 623733 Acquired: 08/31/2015 15:51:18 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	4.05	58800.	62900.	1260.	408.	2.39	560000.	12.1	34.9	156.	208.
Stddev	4.00	3340.	3450.	39.	24.	.12	25200.	5.6	1.2	7.	5.
%RSD	98.7	5.69	5.48	3.12	5.85	5.15	4.51	46.6	3.47	4.74	2.33

Elem	Fe2343	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960	Tl1908
Units	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	122000.	144000.	765.	756.	17.1	75.9	414.	326.	19.6	206.	27.0
Stddev	6800.	2370.	43.	46.	1.5	1.0	7.	2.	2.3	5.	2.3
%RSD	5.59	1.65	5.68	6.09	8.56	1.36	1.65	.727	11.5	2.32	8.34

Elem	V_2924	Zn2062
Units	ug/L	ug/L
Avg	159.	970.
Stddev	10.	13.
%RSD	6.49	1.32

Int. Std.	Y_3710
Units	Cts/S
Avg	399510.
Stddev	2678.
%RSD	.67031

Sample Name: ccv1 Acquired: 08/31/2015 15:55:40 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2388	Cr2835
Avg	482.	4750.	4830.	4920.	4670.	501.	506.	5490.	489.	500.	4940.	4810.
Stddev	20.	143.	161.	91.	186.	13.	17.	147.	1.	5.	164.	159.
%RSD	4.09	3.01	3.33	1.85	3.97	2.68	3.41	2.69	.303	.991	3.33	3.31

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
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Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175
Avg	5010.	4650.	5050.	4820.	5350.	4850.	5060.	5020.	4870.	4880.	4890.	4760.
Stddev	24.	169.	184.	142.	88.	151.	160.	48.	146.	40.	47.	42.
%RSD	.484	3.64	3.64	2.95	1.64	3.12	3.16	.948	3.00	.812	.962	.872

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
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Elem	Se1960	Se2062	Tl2767	V_2908	Zn2062
Avg	4840.	4870.	4810.	4790.	5030.
Stddev	36.	5.	154.	160.	51.
%RSD	.734	.095	3.19	3.33	1.01

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: ccv1 Acquired: 08/31/2015 15:55:40 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	430690.
Stddev	4058.
%RSD	.94221

Sample Name: ccv2 Acquired: 08/31/2015 16:00:14 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	49.4	531.	495.	487.	49.5	499.	50.2	492.	486.	507.	469.	477.
Stddev	4.4	17.	20.	36.	2.2	35.	.5	20.	32.	21.	29.	33.
%RSD	8.96	3.15	3.93	7.27	4.53	6.93	1.08	4.00	6.65	4.22	6.24	6.92

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	476.	496.	515.	507.	479.	496.	450.	485.	480.
Stddev	32.	19.	20.	17.	16.	23.	16.	34.	18.
%RSD	6.65	3.74	3.95	3.31	3.38	4.56	3.45	6.93	3.82

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Int. Std.	Y_3710
Avg	432820.
Stddev	12791.
%RSD	2.9552

Sample Name: ccb Acquired: 08/31/2015 16:04:14 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	-1.09	-1.179	-1.46	-4.79	-.025	-.774	-.085	-.037	-.371	.419	-5.00	1.17
Stddev	.59	2.70	1.15	.071	.053	1.04	.080	.104	.486	.497	1.44	.09
%RSD	54.3	1510.	78.9	14.9	213.	134.	94.1	278.	131.	119.	28.7	7.37

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.145	3.09	-.245	1.49	-1.02	-.943	.329	.163	-.383
Stddev	.274	.64	.300	.85	1.01	4.41	1.40	.509	.176
%RSD	189.	20.6	123.	57.2	98.5	467.	426.	312.	45.9

Check ?	None	None	None	None	None	None	None	None	None
Value									
Range									

Int. Std.	Y_3710
Avg	432770.
Stddev	13155.
%RSD	3.0398

Sample Name: 623734 Acquired: 08/31/2015 16:08:40 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	2.86	61600.	65800.	1260.	382.	2.40	588000.	12.2	39.3	145.	192.
Stddev	2.59	2700.	3020.	15.	19.	.14	24300.	5.9	1.3	11.	1.
%RSD	90.6	4.39	4.59	1.18	4.83	6.04	4.13	48.5	3.27	7.21	.539

Elem	Fe2343	Mg2025	Mn2576	Mn2593	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Units	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	110000.	164000.	761.	712.	17.1	73.0	262.	17.5	185.	34.2	167.
Stddev	6320.	1520.	42.	46.	.6	.3	2.	1.9	4.	2.3	9.
%RSD	5.75	.928	5.57	6.48	3.70	.372	.799	11.1	2.02	6.61	5.56

Elem	Zn2062	Zn2138
Units	ug/L	ug/L
Avg	840.	888.
Stddev	9.	6.
%RSD	1.11	.640

Int. Std.	Y_3710
Units	Cts/S
Avg	394770.
Stddev	1301.
%RSD	.32959

Sample Name: 623735 Acquired: 08/31/2015 16:13:06 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1937	Ba4554	Ba4934	Be3130	Ca3158	Cd2265	Co2286
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	18.6	25000.	25500.	151.	715.	449.	-.035	1870000.	74.6	145.
Stddev	2.4	1230.	1350.	21.	40.	20.	.072	140000.	6.4	2.
%RSD	12.9	4.94	5.30	13.6	5.52	4.51	205.	7.48	8.62	1.30

Elem	Cr2835	Cu3247	Fe2343	Mg2025	Mn2593	Mo2020	Mo2045	Ni2316	Ni2316	Pb2169
Units	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	3840.	46300.	1210000.	424000.	10700.	246.	149.	1090.	838.	649.
Stddev	200.	2550.	61900.	7390.	644.	6.	1.	35.	12.	10.
%RSD	5.22	5.51	5.10	1.74	6.05	2.59	.993	3.16	1.48	1.49

Elem	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	293.	25.3	-20.7	14.6	32.3	8250.
Stddev	1.	3.4	8.6	1.0	3.0	117.
%RSD	.297	13.2	41.8	7.14	9.44	1.42

Int. Std.	Y_3710
Units	Cts/S
Avg	355310.
Stddev	4932.
%RSD	1.3881

Sample Name: 623737 Acquired: 08/31/2015 16:17:55 Type: Unk
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2343	Fe2395
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-.102	191.	-15.7	11.7	.035	6900.	1.64	.024	17.6	275.	1890.	1850.
Stddev	1.12	1.	6.6	.5	.041	370.	2.26	.057	1.3	6.	77.	85.
%RSD	1090.	.759	41.9	4.60	115.	5.36	137.	240.	7.50	2.04	4.08	4.59

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	2810.	16.7	13.4	4.29	268.	1.36	-15.8	-2.38	1.10	3380.
Stddev	148.	.9	.3	.40	2.	.60	9.1	.89	.63	38.
%RSD	5.25	5.22	2.24	9.41	.840	44.3	57.4	37.5	57.1	1.12

Int. Std.	Y_3710
Units	Cts/S
Avg	429730.
Stddev	1354.
%RSD	.31496

Sample Name: ccv1 Acquired: 08/31/2015 16:54:16 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3092	Al3961	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2388	Cr2835
Avg	487.	4850.	4860.	4940.	4780.	497.	509.	5470.	488.	501.	4970.	4840.
Stddev	16.	154.	177.	16.	280.	18.	21.	228.	2.	1.	211.	182.
%RSD	3.37	3.18	3.65	.321	5.86	3.66	4.11	4.16	.400	.157	4.25	3.75

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
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Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175
Avg	4900.	4660.	5030.	4860.	5430.	4860.	5100.	5010.	4900.	4870.	4890.	4770.
Stddev	16.	192.	191.	175.	39.	192.	209.	15.	186.	24.	8.	18.
%RSD	.316	4.13	3.80	3.59	.710	3.95	4.10	.300	3.80	.498	.163	.374

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
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Elem	Se1960	Se2062	Tl2767	V_2908	Zn2062
Avg	4860.	4800.	5010.	4810.	5070.
Stddev	4.	14.	200.	191.	14.
%RSD	.091	.290	3.98	3.97	.282

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Sample Name: ccv1 Acquired: 08/31/2015 16:54:16 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	426950.
Stddev	1659.
%RSD	.38857

Sample Name: ccv2 Acquired: 08/31/2015 16:58:50 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	49.9	548.	505.	487.	48.9	495.	50.6	493.	489.	497.	469.	477.
Stddev	4.7	31.	27.	36.	1.9	36.	.7	25.	33.	25.	33.	33.
%RSD	9.40	5.70	5.40	7.35	3.85	7.30	1.35	5.11	6.69	4.99	7.02	7.01

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	473.	499.	511.	495.	477.	496.	453.	483.	473.
Stddev	34.	24.	26.	24.	22.	24.	22.	32.	25.
%RSD	7.10	4.73	5.03	4.94	4.61	4.93	4.79	6.70	5.25

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Int. Std.	Y_3710
Avg	430920.
Stddev	15628.
%RSD	3.6266

Sample Name: ccb Acquired: 08/31/2015 17:02:50 Type: QC
Method: DOD Calibration Updated 060614(v794) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba4554	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	.787	-.226	.913	-.511	.033	-.921	-.100	.181	.741	.615	-2.88	1.58
Stddev	1.25	2.67	5.13	.032	.038	.996	.044	.163	1.03	.870	1.32	.09
%RSD	158.	1180.	562.	6.19	116.	108.	44.3	89.9	139.	142.	45.9	5.84

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	.117	3.36	-.446	1.53	-.523	2.51	-.076	.565	-.890
Stddev	.108	.56	.430	.45	.913	7.94	2.06	.564	.184
%RSD	92.4	16.6	96.6	29.5	175.	317.	2700.	99.8	20.7

Check ? Value Range	None	None	None	None	None	None	None	None	None
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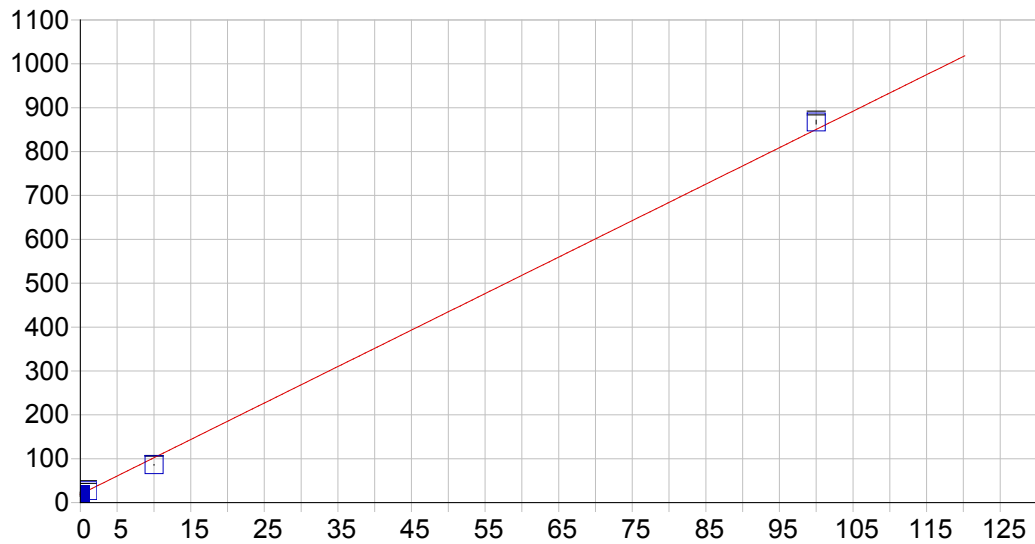
Int. Std.	Y_3710
Avg	429350.
Stddev	14573.
%RSD	3.3942

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resi
														Slope
Ag 328.068 {103}	09/02/2015 11:01:36	09/01/2015 14:43:01	Linear	1/Conc	19.041717	8.314647	0.000000	1.000000	0.998111	0.240988	0.465259	1.550863	OK	1.000000
Al 308.215 {109}	09/02/2015 11:01:36	09/01/2015 15:10:44	Curvilinear	1/Conc	24.421309	0.216509	-0.000000	1.000000	0.999919	4.221993	14.812651	49.375502	OK	1.000000
Al 309.271 {109}	09/02/2015 11:01:36	09/01/2015 15:00:42	Curvilinear	None	104.975842	0.336056	-0.000000	1.000000	1.000000	5.577350	11.409961	38.033204	OK	1.000000
Al 396.152 {85}	09/02/2015 11:01:36	09/01/2015 15:10:44	Curvilinear	1/Var	-2.105025	0.955779	-0.000000	1.000000	0.999859	5.895445	6.339500	21.131668	OK	1.000000
Al 167.079 {502}	09/02/2015 11:01:36	09/01/2015 14:47:05	Linear	1/Conc	0.837790	0.211068	0.000000	1.000000	0.999552	0.018828	1.765445	5.884817	OK	1.000000
As 193.759 {474}	09/02/2015 11:01:36	09/01/2015 14:51:40	Linear	1/Conc	0.017469	0.104640	0.000000	1.000000	0.999770	0.019837	6.301682	21.005606	OK	1.000000
As 189.042 {479}	09/02/2015 11:01:36	09/01/2015 14:51:40	Linear	1/Var	0.193095	0.017969	0.000000	1.000000	0.999911	0.616447	21.929884	73.099614	OK	1.000000
Ba 455.403 {74}	09/02/2015 11:01:36	09/01/2015 14:47:05	Linear	1/Conc	-11.317066	57.841257	0.000000	1.000000	0.999889	0.750955	0.144303	0.481010	OK	1.000000
Ba 493.409 {68}	09/02/2015 11:01:36	09/01/2015 14:51:40	Linear	1/Var	-439.36355	51.723917	0.000000	1.000000	0.999736	26.407505	0.494938	1.649794	OK	1.000000
Be 313.042 {108}	09/02/2015 11:01:36	09/01/2015 14:47:05	Linear	1/Var	-2.667903	25.522178	0.000000	1.000000	0.999515	0.662015	0.066449	0.221497	OK	1.000000
Be 234.861 {144}	09/02/2015 11:01:36	09/01/2015 14:47:05	Linear	1/Conc	0.651693	1.226734	0.000000	1.000000	0.999933	0.258238	0.732514	2.441714	OK	1.000000
Ca 315.887 {107}	09/02/2015 11:01:36	09/01/2015 15:10:44	Curvilinear	1/Conc	41.700708	0.538734	-0.000000	1.000000	0.999954	7.822477	5.135685	17.118950	OK	1.000000
Ca 317.933 {106}	09/02/2015 11:01:36	09/01/2015 15:10:44	Curvilinear	1/Var	1714.56756	0.659749	-0.000000	1.000000	0.999238	33.244487	3.025794	10.085981	OK	1.000000
Ca 393.366 {86}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	None	1061.87734	126.145006	0.000000	1.000000	0.999923	916.192530	0.034811	0.116038	OK	1.000000
Ca 396.847 {85}	09/02/2015 11:01:36	09/01/2015 14:51:40	Linear	None	1103.41605	56.895937	0.000000	1.000000	0.999995	1038.00404	0.065218	0.217394	OK	1.000000
Cd 226.502 {149}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	None	1.055783	0.332592	0.000000	1.000000	0.999983	0.955216	3.126712	10.422372	OK	1.000000
Cd 226.502 {449}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	None	2.454227	5.187433	0.000000	1.000000	0.999997	4.969826	0.160820	0.536065	OK	1.000000
Cd 228.802 {447}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	None	7.132144	9.060042	0.000000	1.000000	0.999998	7.689196	0.128867	0.429557	OK	1.000000
Co 228.616 {447}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	None	0.420757	0.289801	0.000000	1.000000	0.999989	6.010616	3.666939	12.223131	OK	1.000000
Co 228.616 {447}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	1/Conc	-1.231540	5.072110	0.000000	1.000000	0.999926	0.077196	0.206979	0.689930	OK	1.000000
Co 238.892 {141}	09/02/2015 11:01:36	09/01/2015 14:51:40	Linear	1/Var	0.504039	0.342161	0.000000	1.000000	0.999565	0.718000	3.891096	12.970319	OK	1.000000
Cr 267.716 {126}	09/02/2015 11:01:36	09/01/2015 14:47:06	Linear	1/Conc	1.420147	0.966443	0.000000	1.000000	0.999552	0.036365	2.048264	6.827547	OK	1.000000
Cr 283.563 {119}	09/02/2015 11:01:36	09/01/2015 14:56:08	Linear	1/Conc	7.325312	1.063044	0.000000	1.000000	0.999995	0.306582	1.938056	6.460188	OK	1.000000
Cu 224.700 {450}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	0.248924	0.828867	0.000000	1.000000	0.999595	0.089448	1.113161	3.710538	OK	1.000000
Cu 324.754 {104}	09/02/2015 11:01:36	09/01/2015 14:56:08	Linear	None	1945.46891	1.092957	0.000000	1.000000	0.999993	200.149679	2.844607	9.482022	OK	1.000000
Cu 327.396 {103}	09/02/2015 11:01:36	09/01/2015 14:56:08	Linear	1/Conc	-29.365065	0.491614	0.000000	1.000000	0.999990	0.122111	7.392771	24.642571	OK	1.000000
Fe 234.349 {144}	09/02/2015 11:01:36	09/01/2015 15:10:44	Curvilinear	1/Var	1.412158	0.049299	-0.000000	1.000000	0.999553	0.611731	12.468651	41.562171	OK	1.000000
Fe 239.562 {141}	09/02/2015 11:01:36	09/01/2015 15:00:42	Curvilinear	1/Conc	1.540829	0.126666	-0.000000	1.000000	0.999999	0.131099	5.615870	18.719567	OK	1.000000
Fe 259.940 {130}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	5.832707	0.641695	0.000000	1.000000	0.998147	0.715464	2.341162	7.803872	OK	1.000000
Mg 202.582 {466}	09/02/2015 11:01:36	09/01/2015 15:10:44	Full Fit	None	-71.298749	0.386789	-0.000000	0.920000	0.999999	65.123295	1.729992	5.766641	OK	1.000000
Mg 279.079 {121}	09/02/2015 11:01:36	09/01/2015 15:10:44	Full Fit	None	-2.170706	0.025592	-0.000000	1.050000	1.000000	12.854978	40.252198	134.173992	OK	1.000000
Mg 280.270 {120}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	20.599977	8.860651	0.000000	1.000000	0.999960	2.402158	0.115066	0.383554	OK	1.000000
Mn 257.610 {131}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	-0.242617	2.385412	0.000000	1.000000	0.999986	0.109307	0.400305	1.334350	OK	1.000000
Mn 259.373 {130}	09/02/2015 11:01:36	09/01/2015 14:56:08	Linear	1/Conc	0.745241	3.780825	0.000000	1.000000	0.999795	36.069697	0.462693	1.542310	OK	1.000000
Mo 203.844 {465}	09/02/2015 11:01:36	09/01/2015 14:47:07	Linear	None	0.811249	0.701723	0.000000	1.000000	0.999994	0.904128	0.987035	3.290118	OK	1.000000
Mo 202.030 {467}	09/02/2015 11:01:36	09/01/2015 14:47:07	Linear	None	0.720570	0.318249	0.000000	1.000000	0.999999	0.235380	2.212671	7.375572	OK	1.000000
Mo 204.598 {465}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	None	6.785307	0.418271	0.000000	1.000000	0.999988	10.224770	1.391795	4.639318	OK	1.000000
Ni 221.647 {452}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	1.097219	2.687533	0.000000	1.000000	0.999483	4.072072	0.443451	1.478169	OK	1.000000
Ni 231.604 {146}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	None	0.914078	0.046000	0.000000	1.000000	0.999998	0.606557	24.479716	81.599052	OK	1.000000
Ni 231.604 {445}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	-3.131153	2.163561	0.000000	1.000000	0.999498	0.264421	0.516201	1.720669	OK	1.000000
Pb 216.999 {455}	09/02/2015 11:01:36	09/01/2015 14:56:08	Curvilinear	1/Conc	1.877099	0.240313	0.000000	1.000000	0.999892	0.110211	3.928874	13.096246	Warnin	1.000000
Pb 220.353 {153}	09/02/2015 11:01:36	09/01/2015 14:56:08	Linear	None	-0.000141	0.000003	0.000000	1.000000	1.000000	0.000091	37.762120	125.873735	OK	1.000000
Pb 220.353 {453}	09/02/2015 11:01:36	09/01/2015 14:47:07	Linear	1/Var	2.905162	0.674162	0.000000	1.000000	0.999659	1.795429	1.792152	5.973840	OK	1.000000
Pb 283.306 {119}	09/02/2015 11:01:36	09/01/2015 14:56:09	Curvilinear	1/Conc	0.000003	0.000000	0.000000	1.000000	0.999949	0.000000	60.837268	202.790892	OK	1.000000
Sb 206.833 {463}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	-0.127875	0.189621	0.000000	1.000000	0.999870	0.041545	3.238428	10.794761	OK	1.000000
Sb 217.581 {455}	09/02/2015 11:01:36	09/01/2015 14:47:07	Linear	1/Conc	-0.260902	0.406170	0.000000	1.000000	0.999927	0.014324	2.040125	6.800415	OK	1.000000

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Resi Slope
Se 196.090 {472}	09/02/2015 11:01:36	09/01/2015 14:51:41	Linear	1/Conc	0.535938	0.077973	0.000000	1.000000	0.999720	0.023860	6.985314	23.284381	OK	1.000000
Se 206.279 {463}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	None	0.687357	0.030911	0.000000	1.000000	0.999983	1.057188	23.464698	78.215660	OK	1.000000
Tl 190.856 {476}	09/02/2015 11:01:36	09/01/2015 14:47:07	Linear	1/Conc	-0.870892	0.242212	0.000000	1.000000	0.999545	0.034455	2.874874	9.582912	OK	1.000000
Tl 190.856 {477}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	-0.195832	0.065809	0.000000	1.000000	0.998383	0.050953	8.419987	28.066623	OK	1.000000
Tl 276.787 {122}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	None	0.832266	0.021819	0.000000	1.000000	0.999973	0.964696	90.243986	300.813286	OK	1.000000
V 290.882 {116}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Var	10.100180	1.075619	0.000000	1.000000	0.999873	2.236272	2.347941	7.826469	OK	1.000000
V 292.402 {115}	09/02/2015 11:01:36	09/01/2015 14:47:07	Linear	1/Conc	3.164529	16.245877	0.000000	1.000000	0.999930	0.805874	0.369698	1.232326	OK	1.000000
Zn 206.200 {463}	09/02/2015 11:01:36	09/01/2015 14:56:09	Curvlin	1/Conc	1.191560	0.524785	-0.000001	1.000000	0.999968	2.459069	1.704654	5.682179	OK	1.000000
Zn 213.856 {458}	09/02/2015 11:01:36	09/01/2015 14:51:42	Curvlin	None	1.235541	3.010642	-0.000047	1.000000	1.000000	2.211437	0.212377	0.707924	OK	1.000000
Y 224.306 {451}*	09/02/2015 11:01:36	09/01/2015 14:07:37	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 320.332 {105}	09/02/2015 11:01:36	09/01/2015 14:07:37	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Y 371.030 {91}*	09/02/2015 11:01:36	09/01/2015 14:07:37	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000
Na 330.298 {102}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	1.000000	0.000000	432.023807	1440.07935	OK	1.000000
Na 588.995 { 57}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	-0.002458	0.000014	0.000000	1.000000	1.000000	0.000000	3.142164	10.473881	OK	1.000000
Si 251.611 {134}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.000024	0.000001	0.000000	1.000000	0.999949	0.000001	6.124008	20.413361	OK	1.000000
Ti 334.941 {101}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.000010	0.000010	0.000000	1.000000	0.999925	0.000001	0.716258	2.387528	OK	1.000000
Ti 337.280 {100}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	-0.000015	0.000013	0.000000	1.000000	0.999911	0.000002	0.780079	2.600264	OK	1.000000
Sr 407.771 { 83}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	-0.000889	0.000203	0.000000	1.000000	0.999990	0.000004	0.067328	0.224426	OK	1.000000
Sr 421.552 { 80}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	-0.000031	0.000196	0.000000	1.000000	0.999986	0.000004	0.069382	0.231273	OK	1.000000
Sn 189.989 {477}	09/02/2015 11:01:36	09/01/2015 14:51:42	Curvlin	1/Conc	0.000001	0.000001	-0.000000	1.000000	0.999990	0.000000	1.352598	4.508659	OK	1.000000
Sn 189.989 {478}	09/02/2015 11:01:36	09/01/2015 14:51:42	Curvlin	1/Conc	0.000001	0.000000	-0.000000	1.000000	0.999880	0.000000	4.043310	13.477699	OK	1.000000
Sn 283.999 {119}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999962	0.000000	24.407175	81.357251	OK	1.000000
B 249.678 {135}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.123820	0.345541	0.000000	1.000000	0.999935	0.053719	4.569755	15.232516	OK	1.000000
B 249.773 {135}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.993119	0.605402	0.000000	1.000000	0.999972	0.061511	2.453936	8.179787	OK	1.000000
Li 670.784 { 50}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	None	-0.000371	0.000028	0.000000	1.000000	0.999987	0.000735	1.002105	3.340351	OK	1.000000
K 766.490 { 44}	09/02/2015 11:01:36	09/01/2015 14:51:42	Linear	1/Conc	0.000052	0.000002	0.000000	1.000000	1.000000	0.000000	18.593134	61.977114	OK	1.000000
K 769.896 { 44}	09/02/2015 11:01:36	09/01/2015 14:51:43	Linear	1/Conc	0.000098	0.000001	0.000000	1.000000	1.000000	0.000000	36.203442	120.678139	OK	1.000000
P 177.495 {489}	09/02/2015 11:01:36	09/01/2015 14:51:43	Linear	1/Conc	-0.000007	0.000000	0.000000	1.000000	1.000000	0.000000	4.613797	15.379323	OK	1.000000
P 213.618 {457}	09/02/2015 11:01:36	09/01/2015 14:51:43	Linear	1/Conc	-0.000005	0.000000	0.000000	1.000000	1.000000	0.000000	3.978819	13.262729	OK	1.000000
S 180.731 {486}	09/02/2015 11:01:36	09/01/2015 15:00:42	Linear	1/Conc	-0.000005	0.000000	0.000000	1.000000	1.000000	0.000000	156.007537	520.025122	OK	1.000000
S 182.034 {485}	09/02/2015 11:01:36	09/01/2015 15:00:42	Linear	1/Conc	-0.000000	0.000000	0.000000	1.000000	1.000000	0.000000	2309.79434	7699.31447	OK	1.000000
W 239.709 {140}	09/02/2015 11:01:36	09/01/2015 14:47:08	Linear	1/Conc	0.000001	0.000000	0.000000	1.000000	1.000000	0.000000	25.373741	84.579136	OK	1.000000
W 245.148 {137}	09/02/2015 11:01:36	09/01/2015 14:47:08	Linear	1/Conc	0.000003	0.000000	0.000000	1.000000	1.000000	0.000000	225.232609	750.775364	OK	1.000000

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Ag 328.068 {103}	0.000000	1	0
Al 308.215 {109}	0.000000	1	0
Al 309.271 {109}	0.000000	1	0
Al 396.152 {85}	0.000000	1	0
Al 167.079 {502}	0.000000	1	0
As 193.759 {474}	0.000000	1	0
As 189.042 {479}	0.000000	1	0
Ba 455.403 {74}	0.000000	1	0
Ba 493.409 {68}	0.000000	1	0
Be 313.042 {108}	0.000000	1	0
Be 234.861 {144}	0.000000	1	0
Ca 315.887 {107}	0.000000	1	0
Ca 317.933 {106}	0.000000	1	0
Ca 393.366 {86}	0.000000	1	0
Ca 396.847 {85}	0.000000	1	0
Cd 226.502 {149}	0.000000	1	0
Cd 226.502 {449}	0.000000	1	0
Cd 228.802 {447}	0.000000	1	0
Co 228.616 {147}	0.000000	1	0
Co 228.616 {447}	0.000000	1	0
Co 238.892 {141}	0.000000	1	0
Cr 267.716 {126}	0.000000	1	0
Cr 283.563 {119}	0.000000	1	0
Cu 224.700 {450}	0.000000	1	0
Cu 324.754 {104}	0.000000	1	0
Cu 327.396 {103}	0.000000	1	0
Fe 234.349 {144}	0.000000	1	0
Fe 239.562 {141}	0.000000	1	0
Fe 259.940 {130}	0.000000	1	0
Mg 202.582 {466}	0.000000	1	0
Mg 279.079 {121}	0.000000	1	0
Mg 280.270 {120}	0.000000	1	0
Mn 257.610 {131}	0.000000	1	0
Mn 259.373 {130}	0.000000	1	0
Mo 203.844 {465}	0.000000	1	0
Mo 202.030 {467}	0.000000	1	0
Mo 204.598 {465}	0.000000	1	0
Ni 221.647 {452}	0.000000	1	0
Ni 231.604 {146}	0.000000	1	0
Ni 231.604 {445}	0.000000	1	0
Pb 216.999 {455}	0.000000	1	0
Pb 220.353 {153}	0.000000	1	0
Pb 220.353 {453}	0.000000	1	0
Pb 283.306 {119}	0.000000	1	0
Sb 206.833 {463}	0.000000	1	0
Sb 217.581 {455}	0.000000	1	0

Element, Wavelength and Order	Slope	QC Norm	
		Y-int	Offset
Se 196.090 {472}	0.000000	1	0
Se 206.279 {463}	0.000000	1	0
Tl 190.856 {476}	0.000000	1	0
Tl 190.856 {477}	0.000000	1	0
Tl 276.787 {122}	0.000000	1	0
V 290.882 {116}	0.000000	1	0
V 292.402 {115}	0.000000	1	0
Zn 206.200 {463}	0.000000	1	0
Zn 213.856 {458}	0.000000	1	0
Y 224.306 {451}*	0.000000	1	0
Y 320.332 {105}	0.000000	1	0
Y 371.030 {91}*	0.000000	1	0
Na 330.298 {102}	0.000000	1	0
Na 588.995 {57}	0.000000	1	0
Si 251.611 {134}	0.000000	1	0
Ti 334.941 {101}	0.000000	1	0
Ti 337.280 {100}	0.000000	1	0
Sr 407.771 {83}	0.000000	1	0
Sr 421.552 {80}	0.000000	1	0
Sn 189.989 {477}	0.000000	1	0
Sn 189.989 {478}	0.000000	1	0
Sn 283.999 {119}	0.000000	1	0
B 249.678 {135}	0.000000	1	0
B 249.773 {135}	0.000000	1	0
Li 670.784 {50}	0.000000	1	0
K 766.490 {44}	0.000000	1	0
K 769.896 {44}	0.000000	1	0
P 177.495 {489}	0.000000	1	0
P 213.618 {457}	0.000000	1	0
S 180.731 {486}	0.000000	1	0
S 182.034 {485}	0.000000	1	0
W 239.709 {140}	0.000000	1	0
W 245.148 {137}	0.000000	1	0

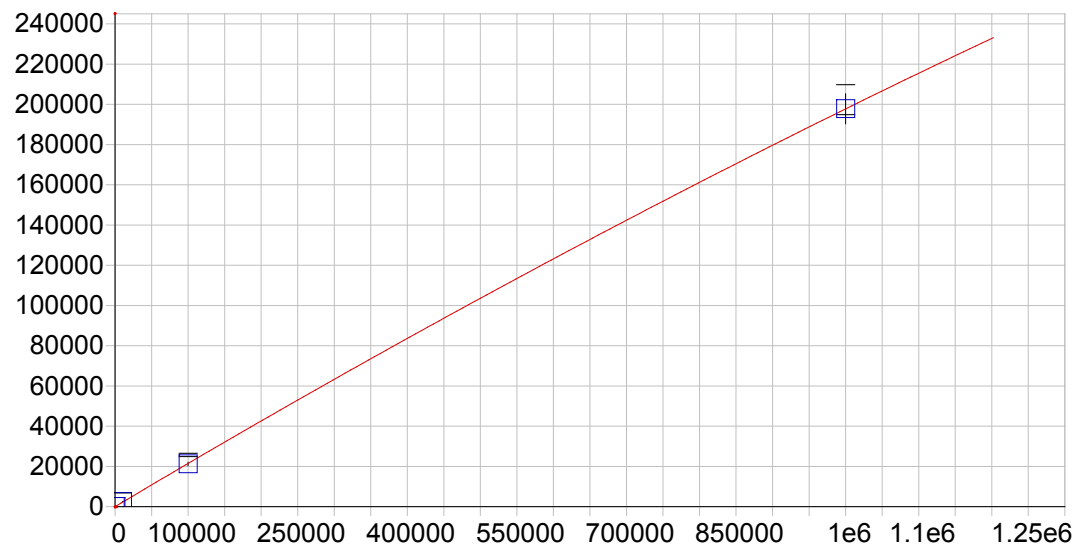


Ag 328.068 {103}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 19.041717 Re-Slope: 1.000000
 A1 (Gain): 8.314647 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998111 Status: OK.
 Std Error of Est: 0.240988
 Predicted MDL: 0.465259
 Predicted MQL: 1.550863

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00025	.000	.000	19.044	4.94	1
CalStd5=10	10.000	8.0665	-1.93	-19.3	86.112	.699	1
CalStd8=100	100.00	102.01	2.01	2.01	867.23	4.46	1
CalStd3=1	1.0000	.92170	-.078	-7.83	26.705	3.31	1

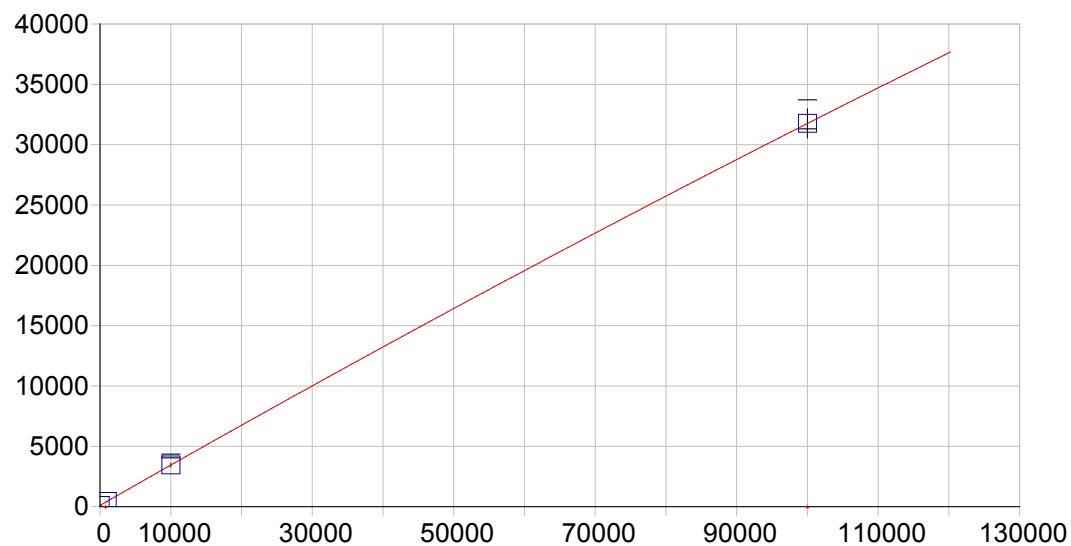


AI 308.215 {109}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 24.421309 Re-Slope: 1.000000
 A1 (Gain): 0.216509 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999919 Status: OK.
 Std Error of Est: 4.221993
 Predicted MDL: 14.812651
 Predicted MQL: 49.375502

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.19342	-.193	.000	24.379	4.28	1
CalStd10=10	10000.	11122.	1120.	11.2	2430.1	112.	1
CalStd9=100	1000.0	1094.7	94.7	9.47	261.41	9.47	1
CalStd12=100	100000.	98640.	-1360.	-1.36	21198.	840.	1
CalStd14=100	1000000.	1000100.	148.	.015	197770.	7440.	1

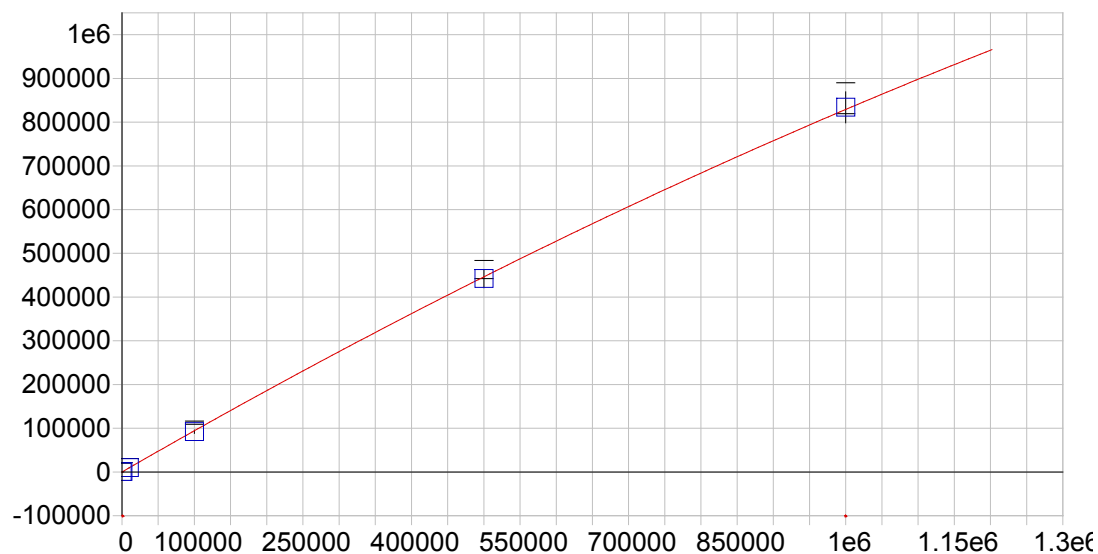


AI 309.271 {109}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: None

A0 (Offset): 104.975842 Re-Slope: 1.000000
 A1 (Gain): 0.336056 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 5.577350
 Predicted MDL: 11.409961
 Predicted MQL: 38.033204

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	11.004	11.0	.000	108.67	2.87	1
CalStd10=10	10000.	10001.	1.37	.014	3446.4	159.	1
CalStd9=100	1000.0	987.64	-12.4	-1.24	436.69	10.8	1
CalStd12=100	100000.	100000.	-.014	.000	31756.	1200.	1

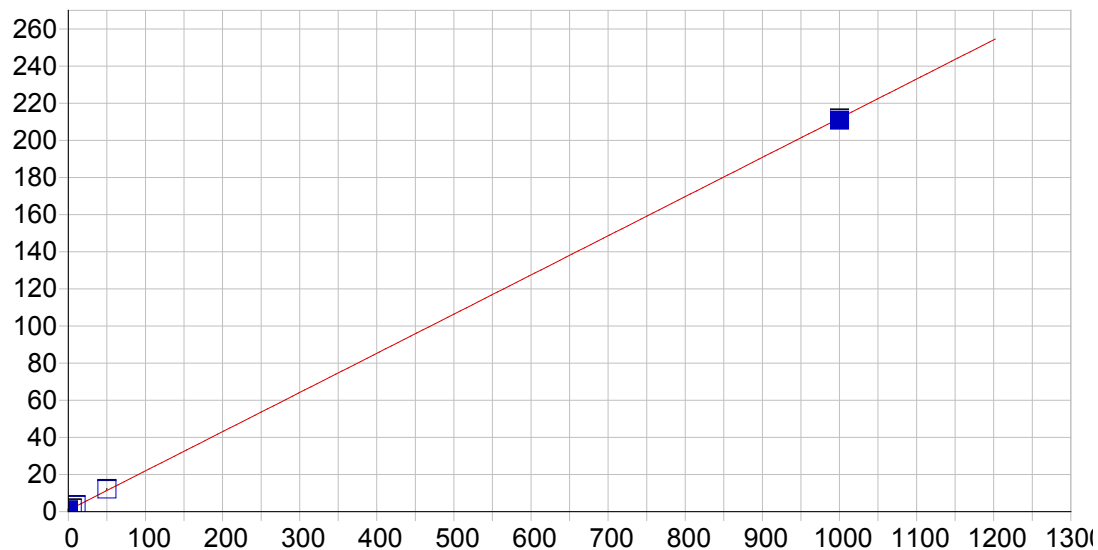


AI 396.152 { 85}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): -2.105025 Re-Slope: 1.000000
 A1 (Gain): 0.955779 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999859 Status: OK.
 Std Error of Est: 5.895445
 Predicted MDL: 6.339500
 Predicted MQL: 21.131668

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.07290	-.073	.000	-2.1747	4.45	1
CalStd14-100 1000000.		1006800.	6790.	.679	833850.	35500.	1
CalStd13=50 500000.		495200.	-4800.	-.961	442230.	20800.	1
CalStd10=10 10000.		10333.	333.	3.33	9860.7	459.	1
CalStd12-100 100000.		97638.	-2360.	-2.36	92110.	3660.	1
CalStd9=100 1000.0		1001.9	1.86	.186	955.33	28.6	1

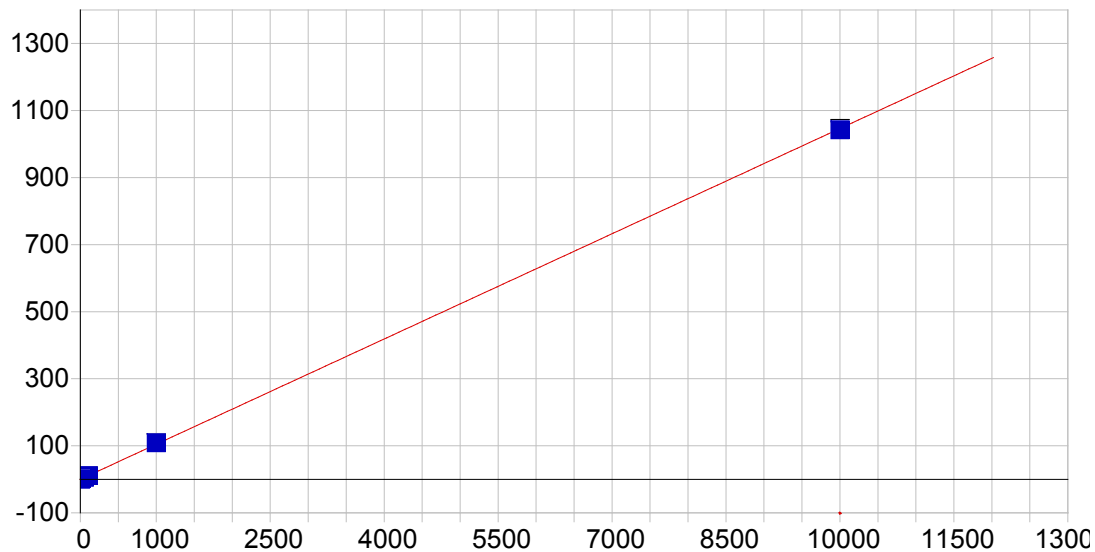


AI 167.079 {502}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.837790	Re-Slope: 1.000000
A1 (Gain):	0.211068	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999552	Status: OK.
Std Error of Est:	0.018828	
Predicted MDL:	1.765445	
Predicted MQL:	5.884817	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00087	-.001	.000	.83761	.514	1
CalStd9=100	1000.0	994.79	-5.21	-.521	210.94	1.01	1
CalStd5=10	10.000	12.457	2.46	24.6	3.4671	.385	1
CalStd4=5	5.0000	4.3268	-.673	-13.5	1.7510	.249	1
CalStd7=50	50.000	53.426	3.43	6.85	12.114	.310	1

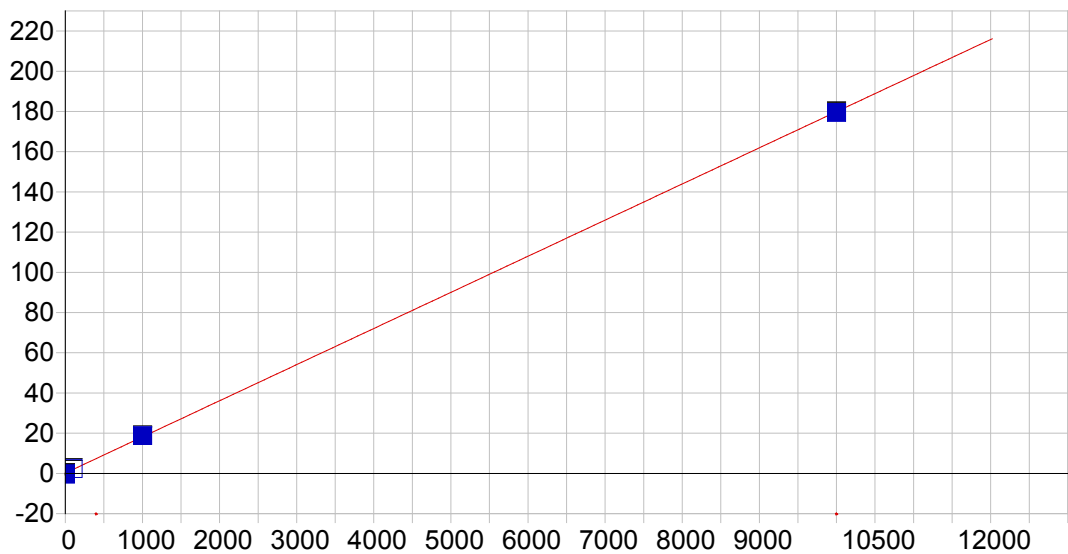


As 193.759 {474}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.017469 Re-Slope: 1.000000
 A1 (Gain): 0.104640 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999770 Status: OK.
 Std Error of Est: 0.019837
 Predicted MDL: 6.301682
 Predicted MQL: 21.005606

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00103	-.001	.000	.01736	.393	1
CalStd9=100	1000.0	1036.1	36.1	3.61	108.53	1.00	1
CalStd7=50	50.000	52.250	2.25	4.50	5.4849	.228	1
CalStd5=10	10.000	5.5357	-4.46	-44.6	.59673	.494	1
CalStd8=100	100.00	103.50	3.50	3.50	10.848	.458	1
CalStd4=5	5.0000	7.7061	2.71	54.1	.82383	.323	1
CalStd10=10	10000.	9959.9	-40.1	-.401	1043.2	3.36	1

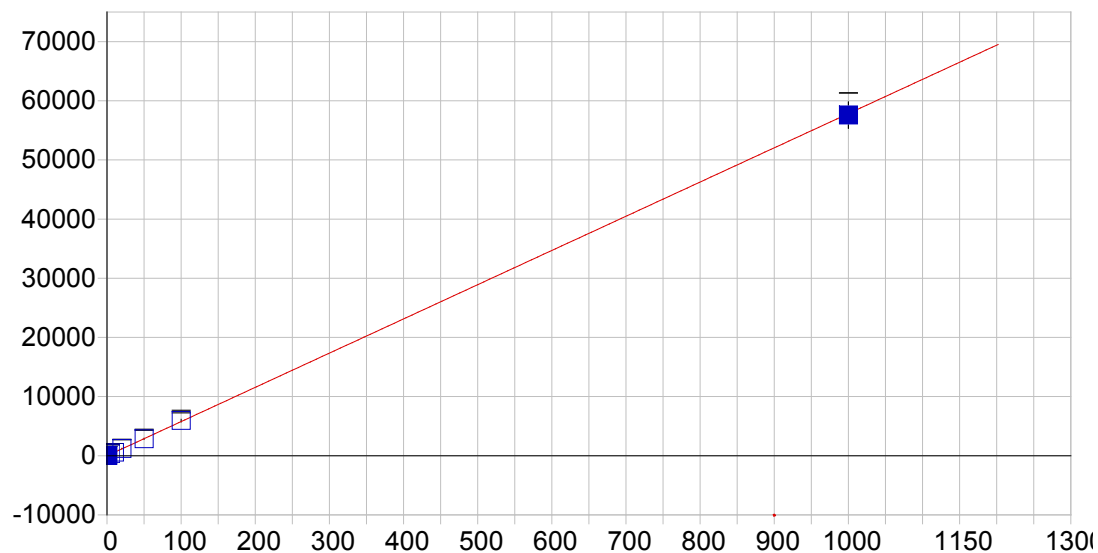


As 189.042 {479}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	0.193095	Re-Slope: 1.000000
A1 (Gain):	0.017969	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999911	Status: OK.
Std Error of Est:	0.616447	
Predicted MDL:	21.929884	
Predicted MQL:	73.099614	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-34.427	-34.4	.000	-.42553	.320	1
CalStd9=100	1000.0	1033.0	33.0	3.30	18.757	.270	1
CalStd10=10	10000.	9975.5	-24.5	-.245	179.47	.727	1
CalStd8=100	100.00	120.34	20.3	20.3	2.3556	.459	1
CalStd4=5	5.0000	-6.5542	-11.6	-231.	.07532	.262	1

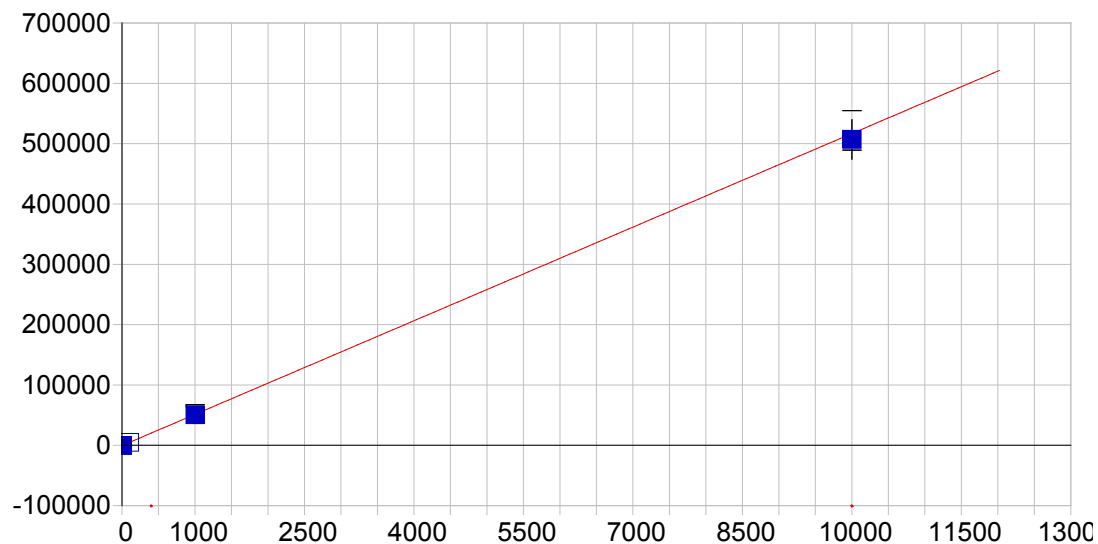


Ba 455.403 { 74 }

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -11.317066 Re-Slope: 1.000000
 A1 (Gain): 57.841257 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999889 Status: OK.
 Std Error of Est: 0.750955
 Predicted MDL: 0.144303
 Predicted MQL: 0.481010

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00030	.000	.000	-11.334	7.86	1
CalStd7=50	50.000	49.618	-.382	-.765	2858.6	99.9	1
CalStd5=10	10.000	10.379	.379	3.79	589.02	27.6	1
CalStd6=20	20.000	20.941	.941	4.70	1199.9	49.4	1
CalStd8=100	100.00	102.76	2.76	2.76	5932.7	232.	1
CalStd4=5	5.0000	5.5176	.518	10.4	307.83	10.8	1
CalStd9=100	1000.0	995.52	-4.48	-.448	57571.	2220.	1
CalStd3=1	1.0000	1.1261	.126	12.6	53.817	12.0	1
CalStd2=0.5	.50000	.63216	.132	26.4	25.248	6.53	1

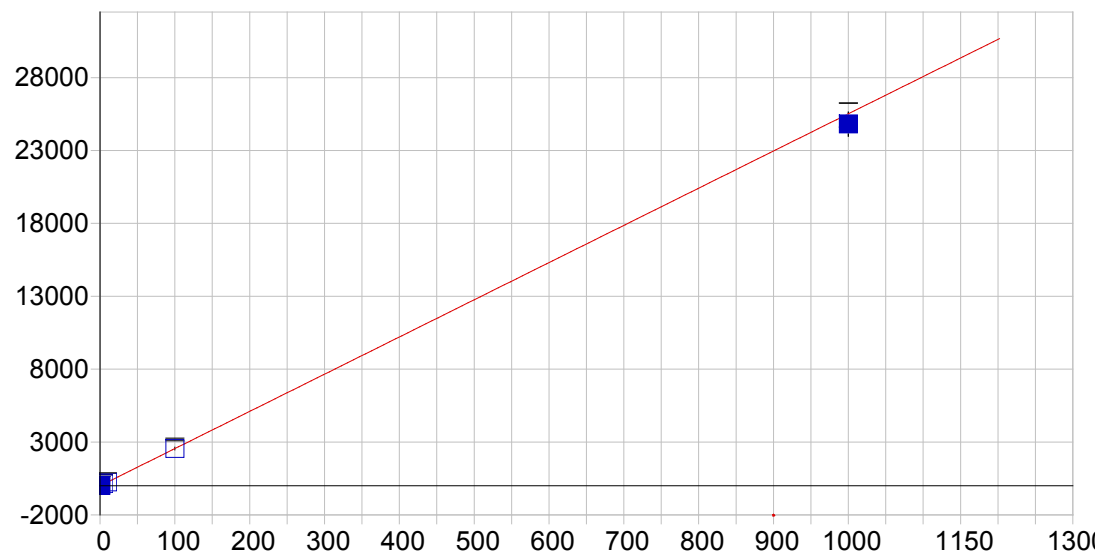


Ba 493.409 { 68}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Var

A0 (Offset):	-439.363558	Re-Slope: 1.000000
A1 (Gain):	51.723917	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999736	Status: OK.
Std Error of Est:	26.407505	
Predicted MDL:	0.494938	
Predicted MQL:	1.649794	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.30042	-.300	.000	-454.90	32.7	1
CalStd9=100	1000.0	984.13	-15.9	-1.59	50474.	1850.	1
CalStd10=10	10000.	9809.5	-190.	-1.90	507050.	32700.	1
CalStd8=100	100.00	101.97	1.97	1.97	4834.9	194.	1
CalStd4=5	5.0000	5.1929	.193	3.86	-170.77	28.7	1

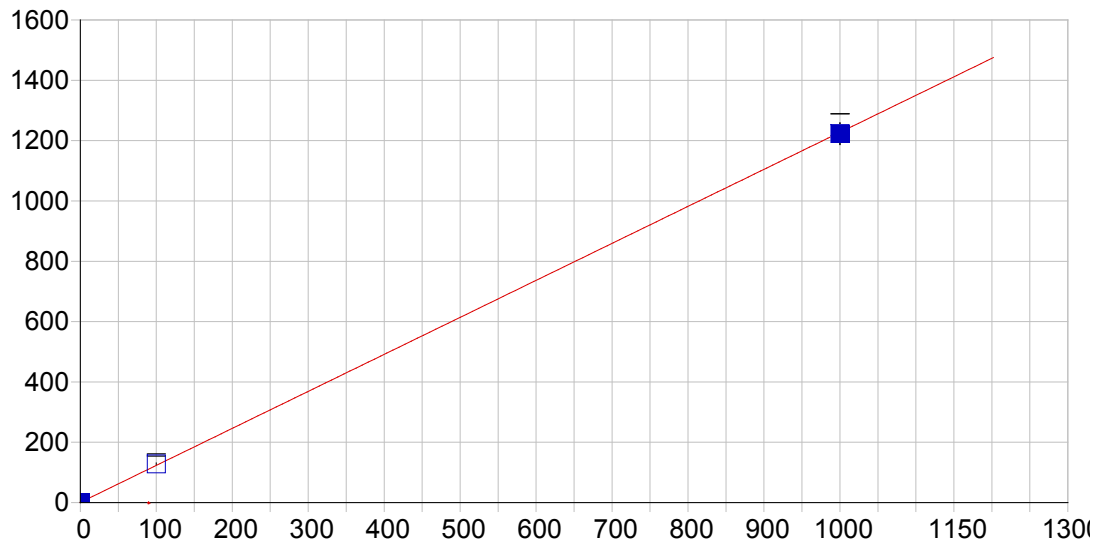


Be 313.042 {108}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): -2.667903 Re-Slope: 1.000000
 A1 (Gain): 25.522178 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999515 Status: OK.
 Std Error of Est: 0.662015
 Predicted MDL: 0.066449
 Predicted MQL: 0.221497

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.07833	.078	.000	-.66881	1.74	1
CalStd5=10	10.000	10.078	.078	.784	254.55	7.34	1
CalStd8=100	100.00	100.11	.108	.108	2552.3	89.2	1
CalStd2=0.5	.50000	.51006	.010	2.01	10.350	1.54	1
CalStd4=5	5.0000	5.0621	.062	1.24	126.53	4.97	1
CalStd1=0.25	.25000	.24385	-.006	-2.46	3.5557	.322	1
CalStd9=100	1000.0	972.29	-27.7	-2.77	24812.	823.	1
CalStd3=1	1.0000	1.0646	.065	6.46	24.503	1.61	1

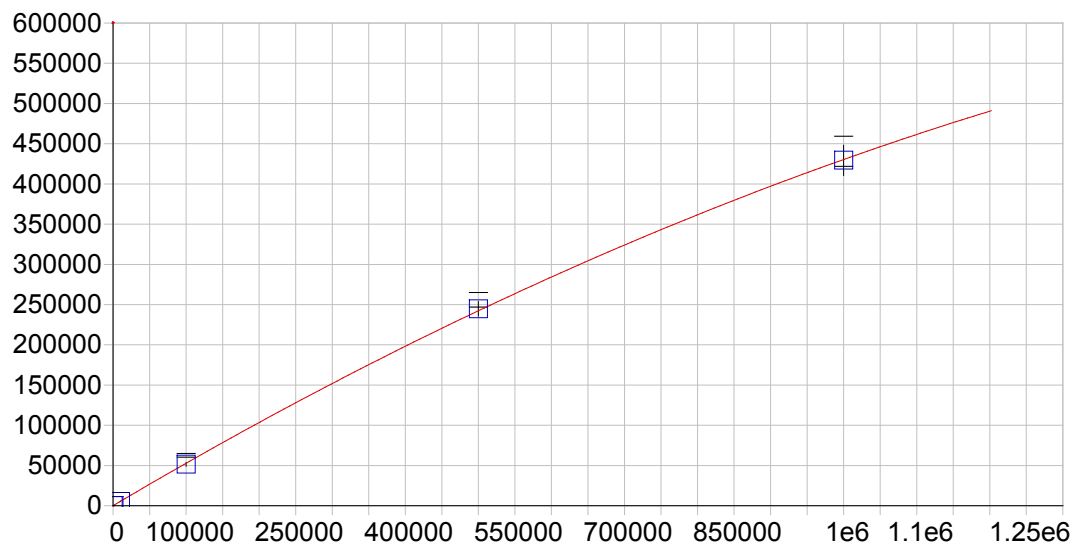


Be 234.861 {144}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.651693 Re-Slope: 1.000000
 A1 (Gain): 1.226734 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999933 Status: OK.
 Std Error of Est: 0.258238
 Predicted MDL: 0.732514
 Predicted MQL: 2.441714

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00330	-.003	.000	.64765	.502	1
CalStd9=100	1000.0	996.33	-3.67	-.367	1222.8	35.7	1
CalStd8=100	100.00	103.67	3.67	3.67	127.82	3.57	1

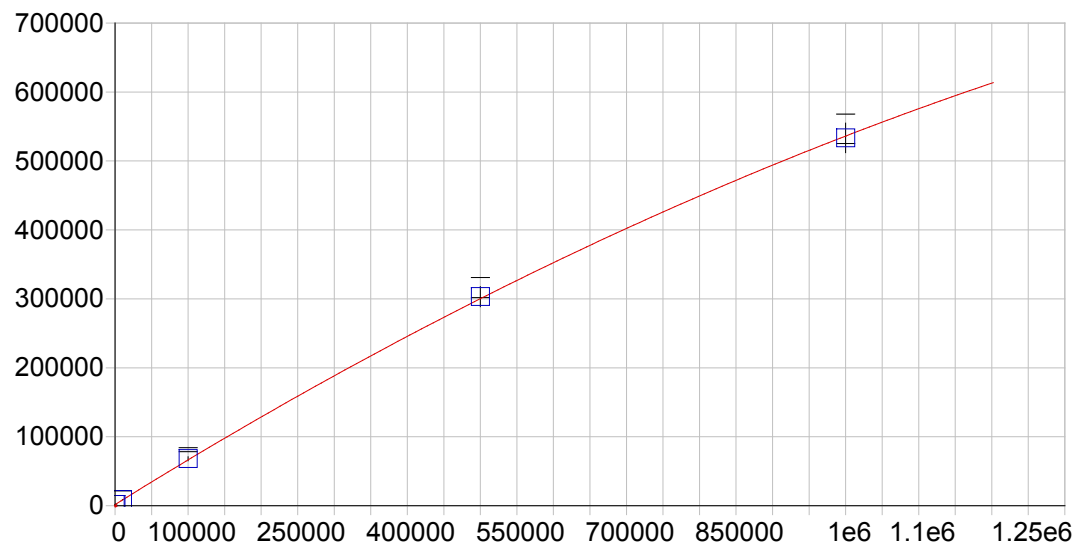


Ca 315.887 {107}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 41.700708 Re-Slope: 1.000000
 A1 (Gain): 0.538734 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999954 Status: OK.
 Std Error of Est: 7.822477
 Predicted MDL: 5.135685
 Predicted MQL: 17.118950

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00921	.009	.000	41.706	2.29	1
CalStd10=10	10000.	10074.	74.3	.743	5458.1	262.	1
CalStd13=50	500000.	505480.	5480.	1.10	244670.	9020.	1
CalStd14=100	1000000.	996770.	-3230.	-.323	429370.	18700.	1
CalStd9=100	1000.0	1001.7	1.70	.170	581.24	15.3	1
CalStd12=100	100000.	97385.	-2610.	-2.61	51479.	2260.	1

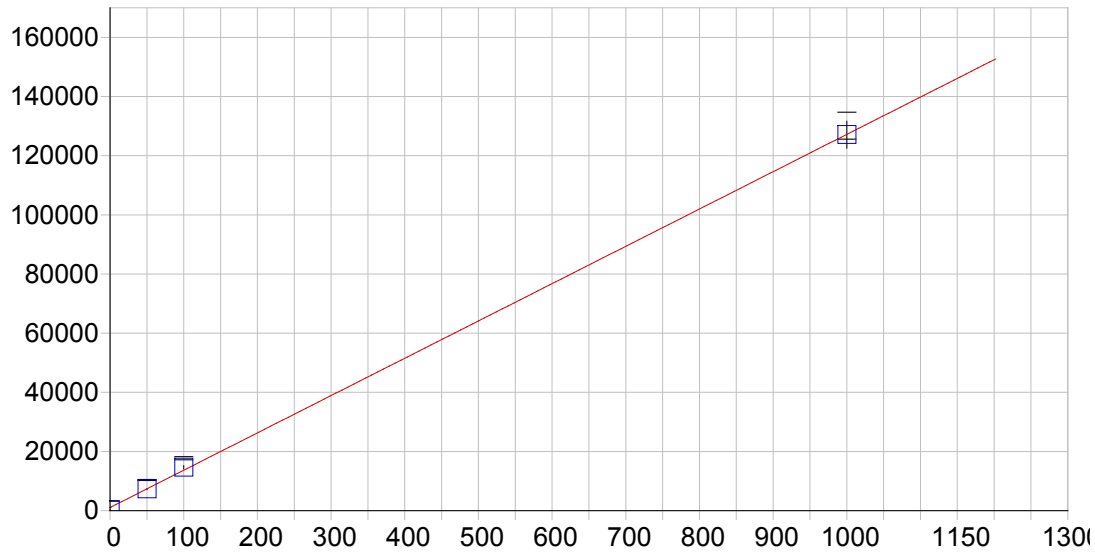


Ca 317.933 {106}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 1714.567565 Re-Slope: 1.000000
 A1 (Gain): 0.659749 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999238 Status: OK.
 Std Error of Est: 33.244487
 Predicted MDL: 3.025794
 Predicted MQL: 10.085981

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	14.828	14.8	.000	1724.4	14.1	1
CalStd10=10	10000.	10589.	589.	5.89	8686.7	355.	1
CalStd13=50	500000.	505480.	5480.	1.10	303180.	14500.	1
CalStd14=100	1000000.	993500.	-6500.	-.650	533480.	21400.	1
CalStd9=100	1000.0	952.59	-47.4	-4.74	2342.9	24.4	1
CalStd12=100	100000.	102650.	2650.	2.65	68118.	2840.	1

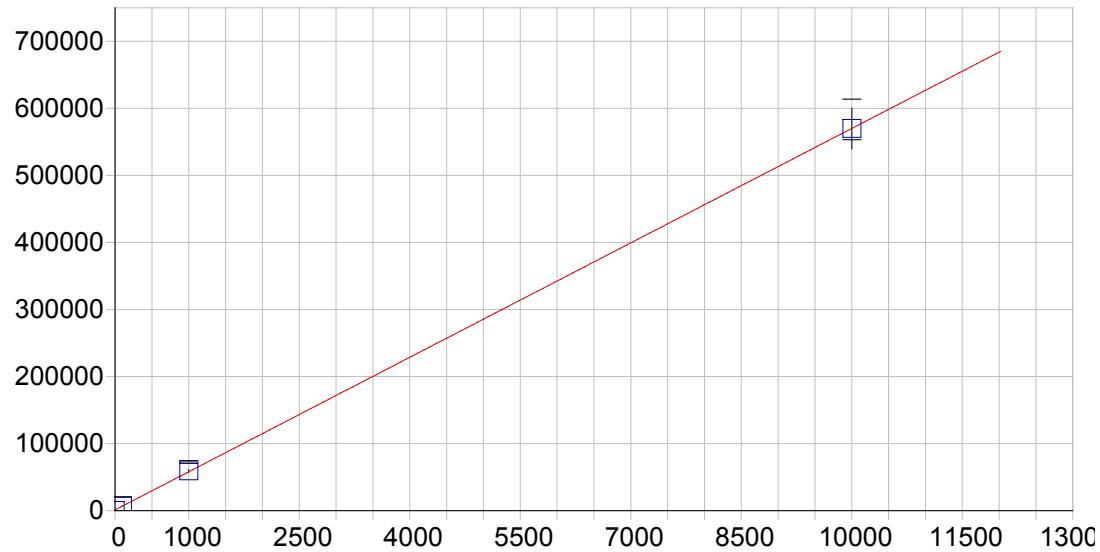


Ca 393.366 { 86}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 1061.877344 Re-Slope: 1.000000
 A1 (Gain): 126.145006 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999923 Status: OK.
 Std Error of Est: 916.192530
 Predicted MDL: 0.034811
 Predicted MQL: 0.116038

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-6.5465	-6.55	.000	236.07	51.6	1
CalStd7=50	50.000	49.446	-.554	-1.11	7299.2	213.	1
CalStd9=100	1000.0	999.24	-.758	-.076	127110.	4560.	1
CalStd8=100	100.00	107.86	7.86	7.86	14668.	542.	1

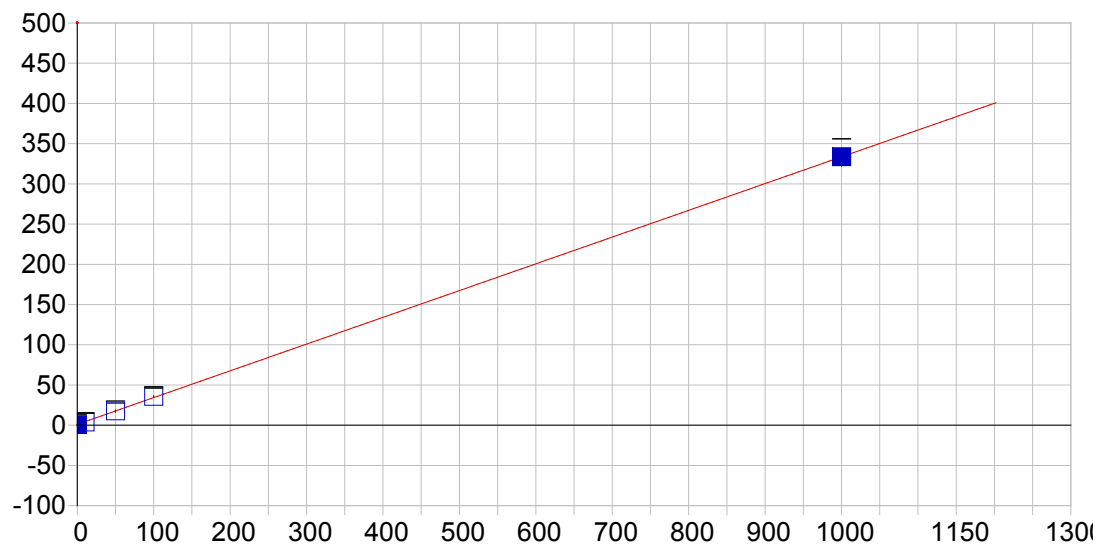


Ca 396.847 { 85}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 1103.416055 Re-Slope: 1.000000
 A1 (Gain): 56.895997 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 1038.004044
 Predicted MDL: 0.065218
 Predicted MQL: 0.217394

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-17.528	-17.5	.000	106.17	24.4	1
CalStd10=10	10000.	9998.1	-1.89	-.019	569960.	30300.	1
CalStd8=100	100.00	100.59	.587	.587	6826.4	243.	1
CalStd9=100	1000.0	1018.8	18.8	1.88	59071.	2100.	1

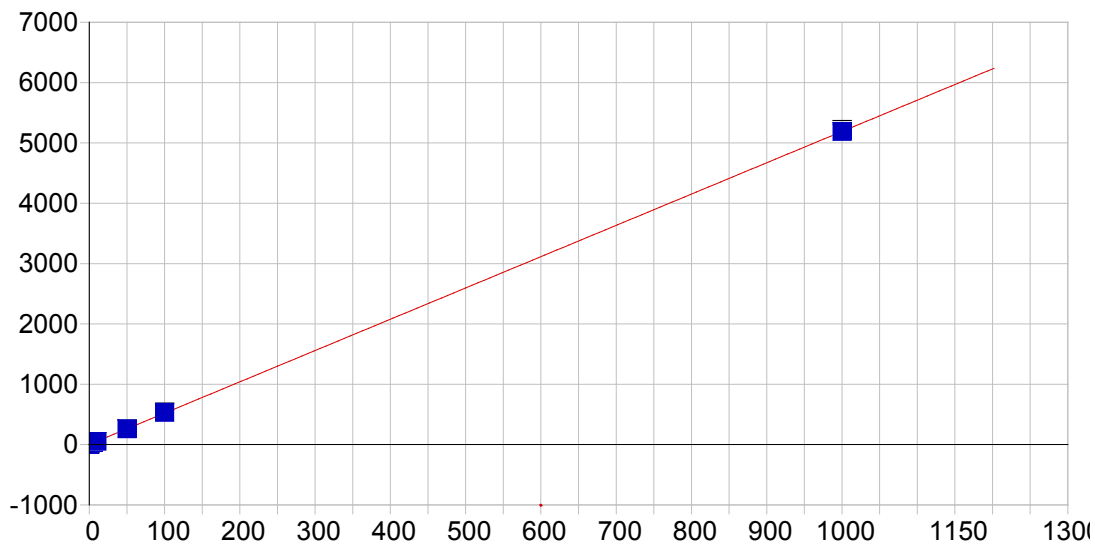


Cd 226.502 {149}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 1.055783 Re-Slope: 1.000000
 A1 (Gain): 0.332592 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999983 Status: OK.
 Std Error of Est: 0.955216
 Predicted MDL: 3.126712
 Predicted MQL: 10.422372

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.9775	-1.98	.000	.39809	1.02	1
CalStd7=50	50.000	49.847	-.153	-.306	17.635	1.28	1
CalStd8=100	100.00	104.22	4.22	4.22	35.718	1.03	1
CalStd5=10	10.000	8.3091	-1.69	-16.9	3.8193	.613	1
CalStd9=100	1000.0	999.60	-.397	-.040	333.54	11.2	1

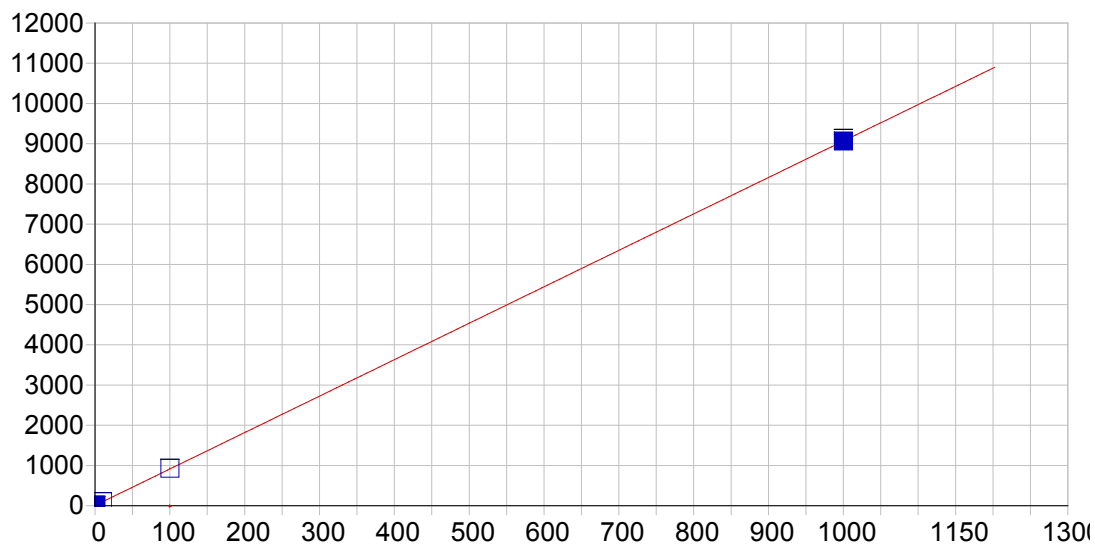


Cd 226.502 {449}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 2.454227 Re-Slope: 1.000000
 A1 (Gain): 5.187433 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999997 Status: OK.
 Std Error of Est: 4.969826
 Predicted MDL: 0.160820
 Predicted MQL: 0.536065

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.39344	-.393	.000	.41327	.525	1
CalStd7=50	50.000	49.820	-.180	-.361	260.89	1.93	1
CalStd3=1	1.0000	.52780	-.472	-47.2	5.1922	.282	1
CalStd2=0.5	.50000	-.04538	-.545	-109.	2.2188	.489	1
CalStd4=5	5.0000	4.8643	-.136	-2.71	27.687	.402	1
CalStd8=100	100.00	102.16	2.16	2.16	532.43	1.10	1
CalStd5=10	10.000	9.7662	-.234	-2.34	53.116	1.11	1
CalStd9=100	1000.0	999.80	-.204	-.020	5189.5	31.9	1

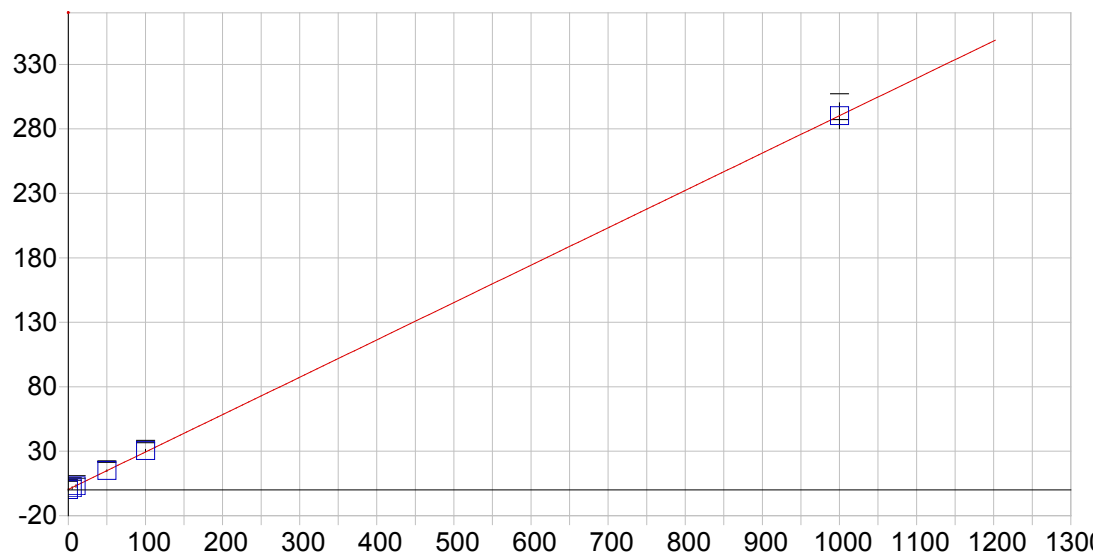


Cd 228.802 {447}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 7.132144 Re-Slope: 1.000000
 A1 (Gain): 9.060042 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 7.689196
 Predicted MDL: 0.128867
 Predicted MQL: 0.429557

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.36605	-.366	.000	3.8157	.181	1
CalStd9=100	1000.0	999.85	-.150	-.015	9065.8	64.1	1
CalStd8=100	100.00	101.54	1.54	1.54	927.08	3.61	1
CalStd2=0.5	.50000	.10491	-.395	-79.0	8.0826	1.05	1
CalStd3=1	1.0000	.71012	-.290	-29.0	13.566	1.14	1
CalStd5=10	10.000	9.6616	-.338	-3.38	94.667	.726	1

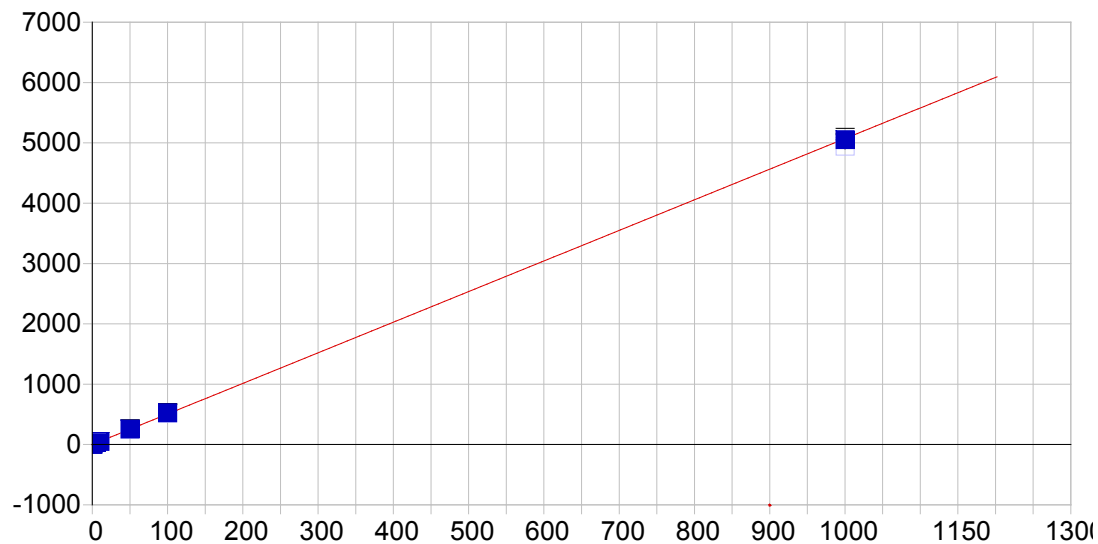


Co 228.616 {147}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 0.420757 Re-Slope: 1.000000
 A1 (Gain): 0.289801 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999989 Status: OK.
 Std Error of Est: 0.610616
 Predicted MDL: 3.666939
 Predicted MQL: 12.223131

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.0413	-1.04	.000	.11899	.782	1
CalStd7=50	50.000	50.023	.023	.046	14.918	.592	1
CalStd5=10	10.000	9.0945	-.905	-9.05	3.0564	.888	1
CalStd4=5	5.0000	3.5771	-1.42	-28.5	1.4574	.926	1
CalStd8=100	100.00	103.70	3.70	3.70	30.474	.887	1
CalStd9=100	1000.0	999.64	-.355	-.036	290.12	10.0	1

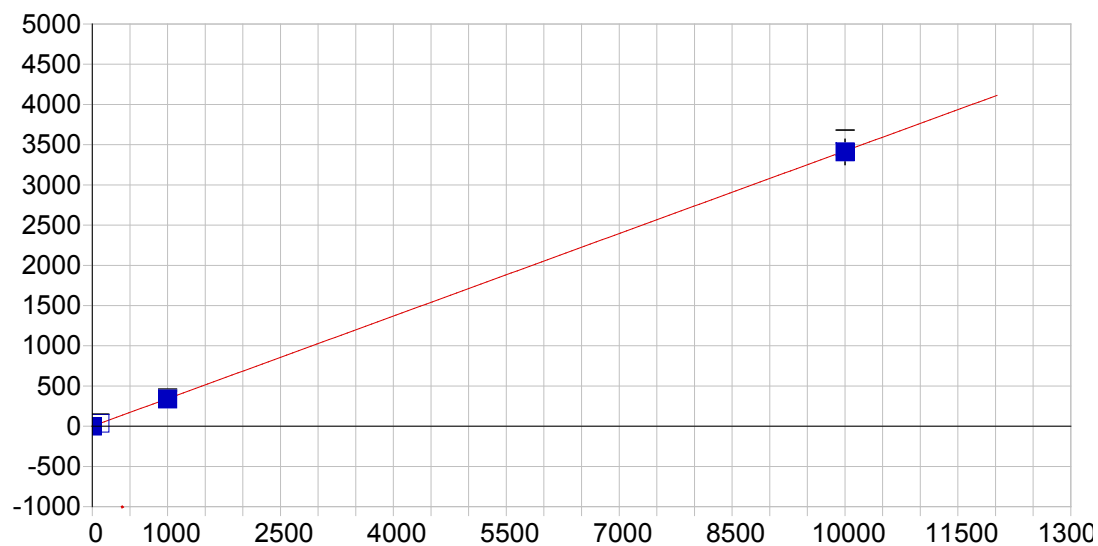


Co 228.616 {447}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -1.231540 Re-Slope: 1.000000
 A1 (Gain): 5.072110 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999926 Status: OK.
 Std Error of Est: 0.077196
 Predicted MDL: 0.206979
 Predicted MQL: 0.689930

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00004	.000	.000	-1.2313	.903	1
CalStd7=50	50.000	50.513	.513	1.03	249.62	2.87	1
CalStd5=10	10.000	10.047	.047	.471	48.658	.306	1
CalStd4=5	5.0000	5.1415	.142	2.83	24.312	.700	1
CalStd8=100	100.00	103.55	3.55	3.55	513.26	2.77	1
CalStd9=100	1000.0	995.87	-4.13	-.413	4942.9	41.6	1
CalStd3=1	1.0000	.88398	-.116	-11.6	3.2521	.711	1

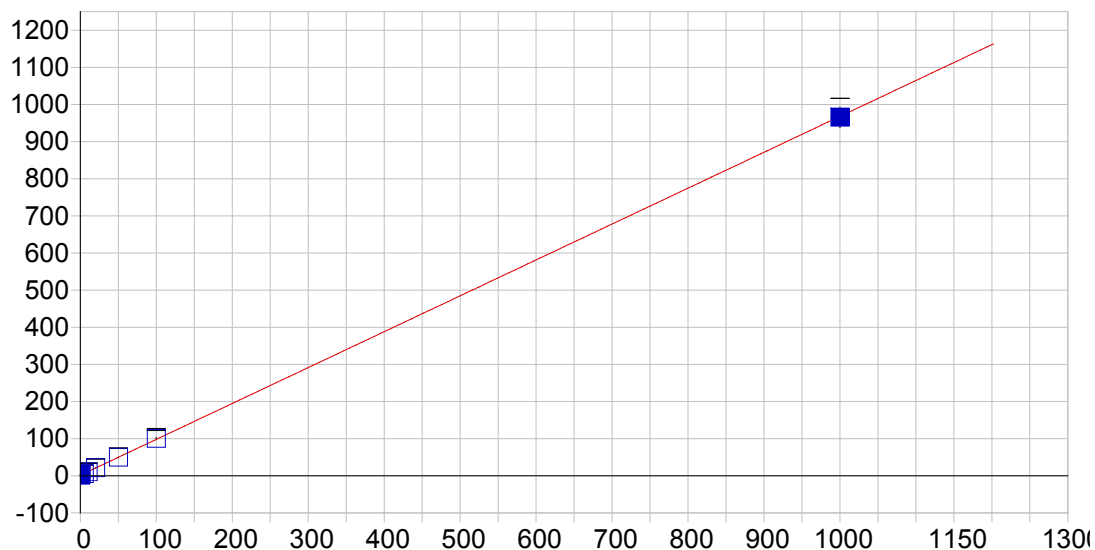


Co 238.892 {141}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 0.504039 Re-Slope: 1.000000
 A1 (Gain): 0.342161 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999565 Status: OK.
 Std Error of Est: 0.718000
 Predicted MDL: 3.891096
 Predicted MQL: 12.970319

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.25688	-.257	.000	.41614	.444	1
CalStd9=100	1000.0	982.57	-17.4	-1.74	336.78	11.7	1
CalStd10=10	10000.	9962.4	-37.6	-.376	3410.1	159.	1
CalStd8=100	100.00	106.32	6.32	6.32	36.883	2.10	1

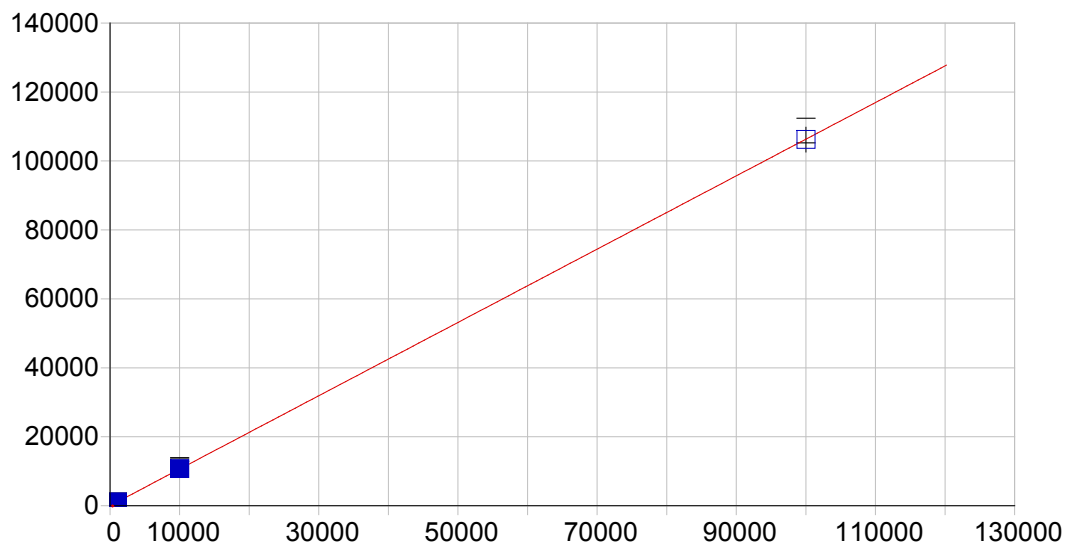


Cr 267.716 {126}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 1.420147 Re-Slope: 1.000000
 A1 (Gain): 0.966443 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999552 Status: OK.
 Std Error of Est: 0.036365
 Predicted MDL: 2.048264
 Predicted MQL: 6.827547

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00080	-.001	.000	1.4194	2.16	1
CalStd5=10	10.000	9.3255	-.675	-6.75	10.433	1.96	1
CalStd7=50	50.000	50.007	.007	.014	49.749	.916	1
CalStd9=100	1000.0	997.49	-2.51	-.251	965.44	26.5	1
CalStd6=20	20.000	20.493	.493	2.47	21.226	.566	1
CalStd8=100	100.00	102.31	2.31	2.31	100.30	2.83	1
CalStd3=1	1.0000	1.9386	.939	93.9	3.2937	.336	1
CalStd4=5	5.0000	4.4336	-.566	-11.3	5.7049	1.66	1

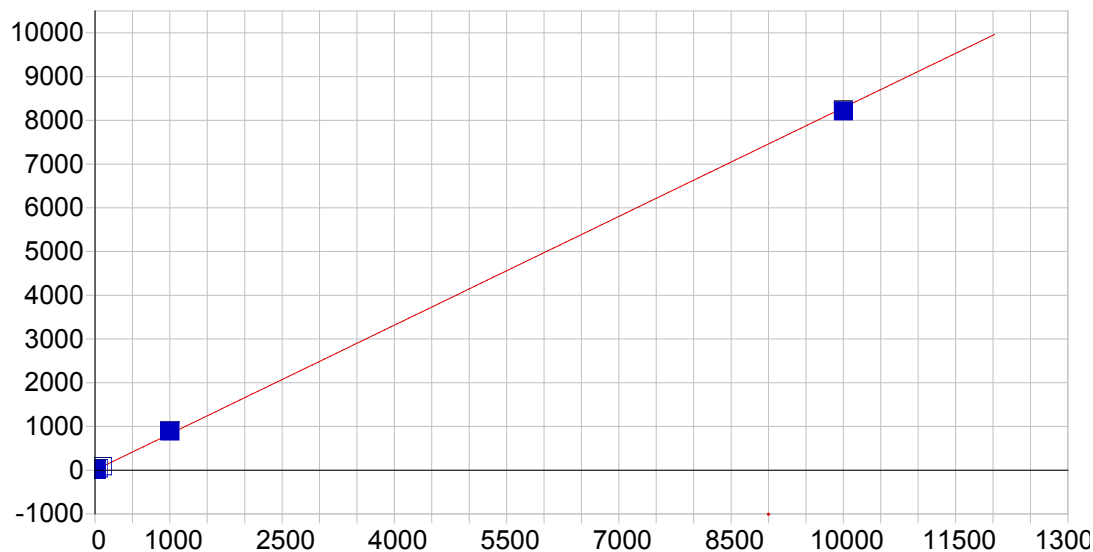


Cr 283.563 {119}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 7.325312 Re-Slope: 1.000000
 A1 (Gain): 1.063044 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999995 Status: OK.
 Std Error of Est: 0.306582
 Predicted MDL: 1.938056
 Predicted MQL: 6.460188

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00227	-.002	.000	7.3229	1.49	1
CalStd7=50	50.000	49.938	-.062	-.125	60.411	2.54	1
CalStd8=100	100.00	103.64	3.64	3.64	117.50	4.13	1
CalStd9=100	1000.0	1002.0	1.98	.198	1074.0	30.3	1
CalStd10=10	10000.	10094.	93.6	.936	10752.	493.	1
CalStd11=100	100000.	99901.	-99.3	-.099	106210.	3580.	1

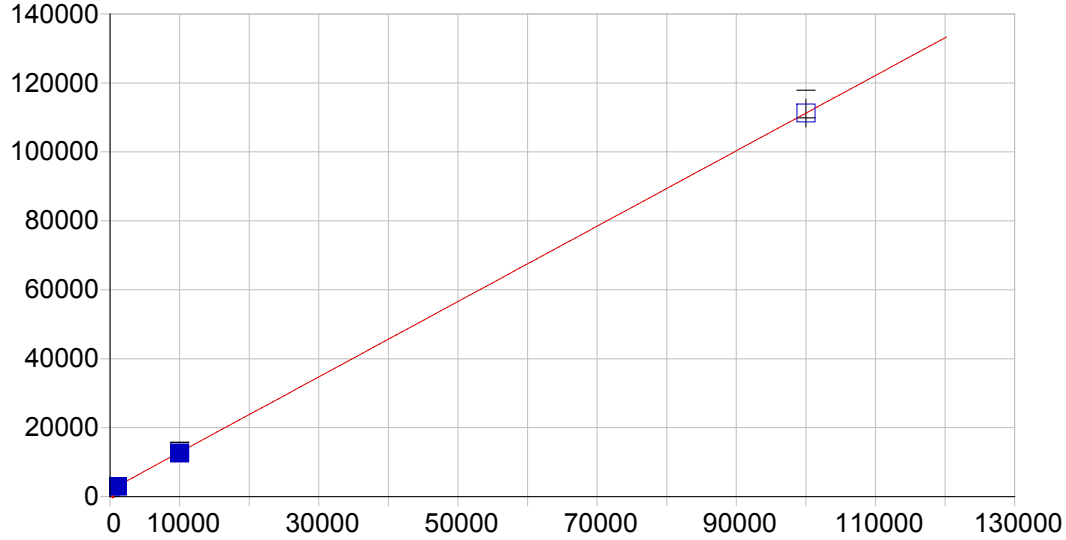


Cu 224.700 {450}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.248924 Re-Slope: 1.000000
 A1 (Gain): 0.828867 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999595 Status: OK.
 Std Error of Est: 0.089448
 Predicted MDL: 1.113161
 Predicted MQL: 3.710538

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00142	-.001	.000	.24774	.638	1
CalStd9=100	1000.0	1074.9	74.9	7.49	891.20	12.8	1
CalStd7=50	50.000	54.220	4.22	8.44	45.190	.590	1
CalStd8=100	100.00	110.26	10.3	10.3	91.636	.917	1
CalStd5=10	10.000	9.9820	-.018	-.180	8.5227	.979	1
CalStd10=10	10000.	9907.1	-92.9	-.929	8212.1	19.9	1
CalStd4=5	5.0000	5.5581	.558	11.2	4.8559	.793	1
CalStd6=20	20.000	22.028	2.03	10.1	18.507	.977	1
CalStd3=1	1.0000	1.9601	.960	96.0	1.8736	.582	1

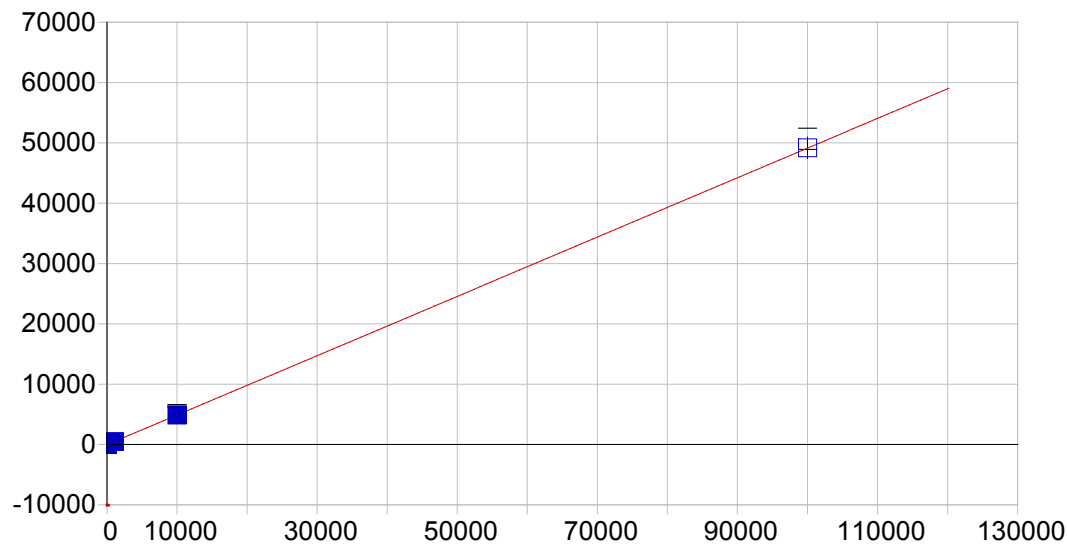


Cu 324.754 {104}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 1945.468918 Re-Slope: 1.000000
A1 (Gain): 1.092957 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999993 Status: OK.
Std Error of Est: 200.149679
Predicted MDL: 2.844607
Predicted MQL: 9.482022

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	177.11	177.	.000	2139.0	52.9	1
CalStd9=100	1000.0	986.03	-14.0	-1.40	3023.1	47.5	1
CalStd8=100	100.00	164.82	64.8	64.8	2125.6	14.7	1
CalStd10=10	10000.	9746.6	-253.	-2.53	12597.	514.	1
CalStd11=100	100000.	100030.	25.4	.025	111270.	4020.	1

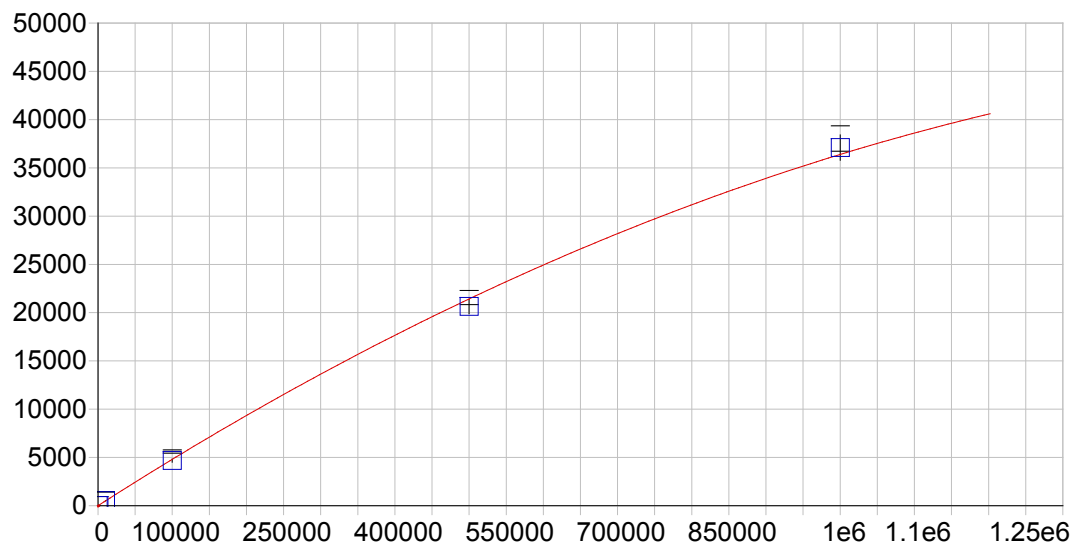


Cu 327.396 {103}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-29.365065	Re-Slope: 1.000000
A1 (Gain):	0.491614	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999990	Status: OK.
Std Error of Est:	0.122111	
Predicted MDL:	7.392771	
Predicted MQL:	24.642571	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00448	-.004	.000	-29.367	3.37	1
CalStd6=20	20.000	22.466	2.47	12.3	-18.320	.798	1
CalStd7=50	50.000	54.026	4.03	8.05	-2.8053	.882	1
CalStd8=100	100.00	105.49	5.49	5.49	22.495	4.23	1
CalStd9=100	1000.0	970.28	-29.7	-2.97	447.65	16.2	1
CalStd10=10	10000.	9942.0	-58.0	-.580	4858.4	229.	1
CalStd11=100	100000.	100080.	75.7	.076	49169.	1750.	1

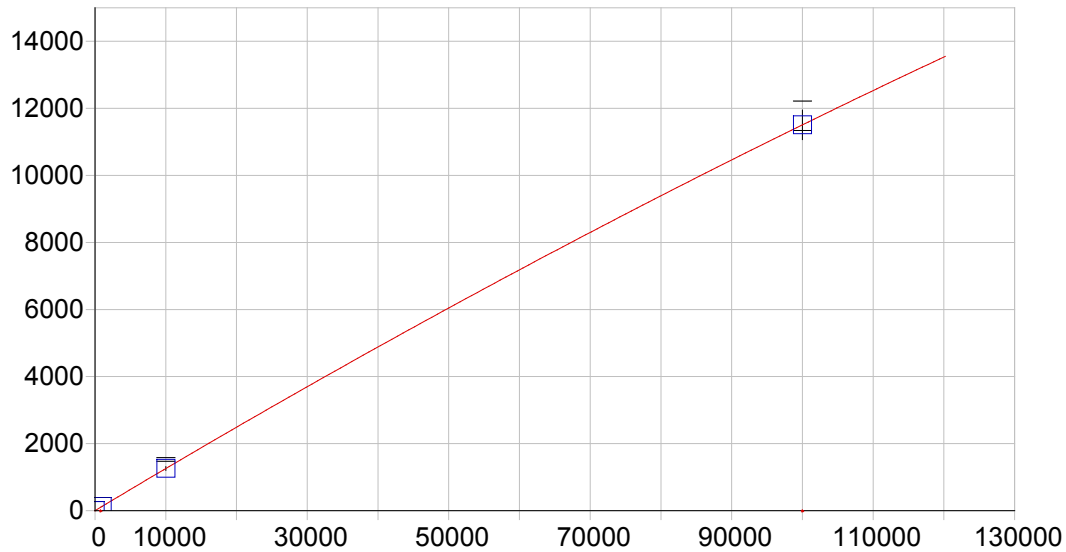


Fe 234.349 {144}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Var

A0 (Offset): 1.412158 Re-Slope: 1.000000
 A1 (Gain): 0.049299 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999553 Status: OK.
 Std Error of Est: 0.611731
 Predicted MDL: 12.468651
 Predicted MQL: 41.562171

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-60572	-.606	.000	1.3823	.241	1
CalStd10=10	10000.	10327.	327.	3.27	509.16	23.3	1
CalStd13=50	500000.	478360.	-21600.	-4.33	20630.	733.	1
CalStd14=100	1000000.	1030600.	30600.	3.06	37095.	1310.	1
CalStd9=100	1000.0	1030.6	30.6	3.06	52.206	1.75	1
CalStd12=100	100000.	97249.	-2750.	-2.75	4673.6	167.	1

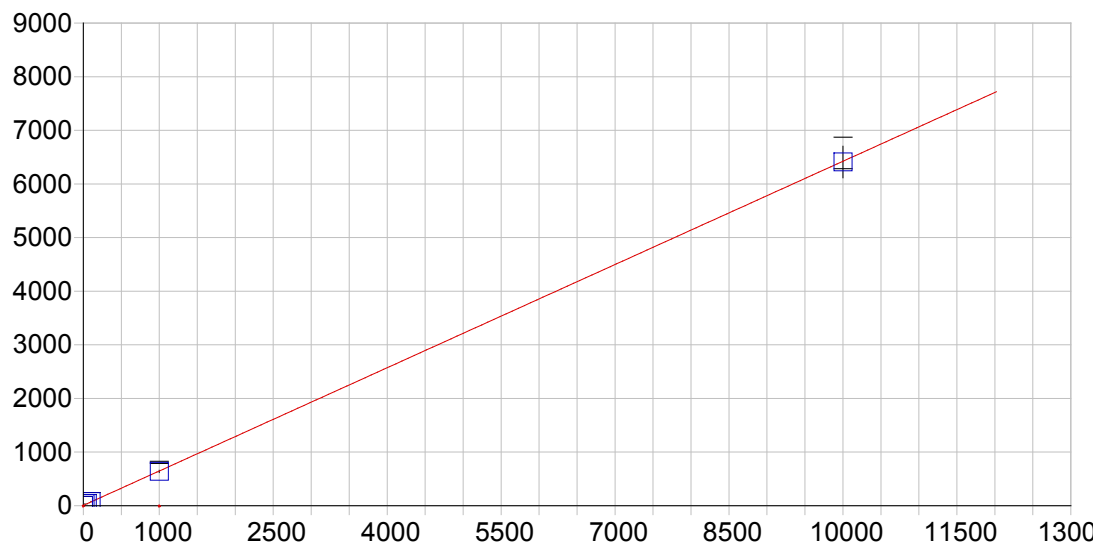


Fe 239.562 {141}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 1.540829 Re-Slope: 1.000000
 A1 (Gain): 0.126666 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.131099
 Predicted MDL: 5.615870
 Predicted MQL: 18.719567

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01377	.014	.000	1.5426	1.04	1
CalStd9=100	1000.0	984.51	-15.5	-1.55	126.13	3.67	1
CalStd10=10	10000.	10017.	17.3	.173	1258.8	54.8	1
CalStd12=100	100000.	99998.	-1.89	-.002	11508.	439.	1

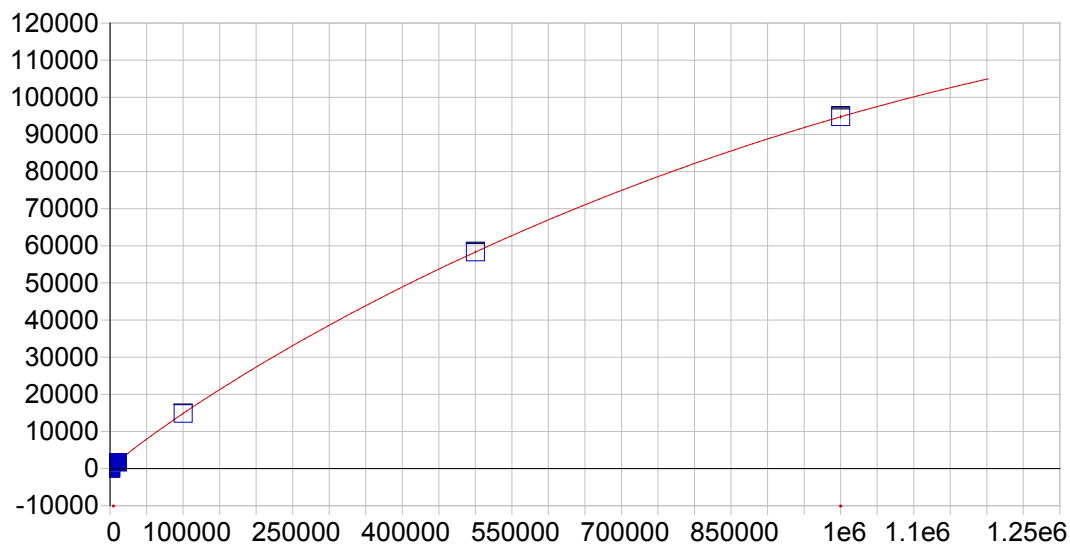


Fe 259.940 {130}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 5.832707 Re-Slope: 1.000000
 A1 (Gain): 0.641695 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.998147 Status: OK.
 Std Error of Est: 0.715464
 Predicted MDL: 2.341162
 Predicted MQL: 7.803872

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02935	-.029	.000	5.8139	2.08	1
CalStd9=100	1000.0	985.77	-14.2	-1.42	638.40	21.1	1
CalStd7=50	50.000	49.074	-.926	-1.85	37.323	.371	1
CalStd8=100	100.00	107.76	7.76	7.76	74.983	3.95	1
CalStd6=20	20.000	48.494	28.5	142.	36.951	1.66	1
CalStd10=10	10000.	9978.9	-21.1	-.211	6409.2	293.	1

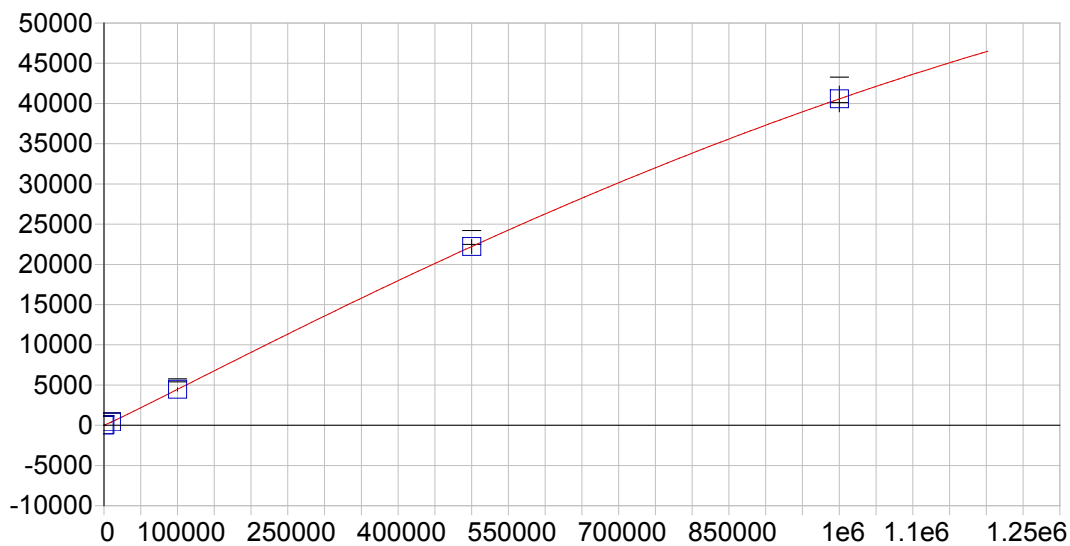


Mg 202.582 {466}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Full Fit Weighting: None

A0 (Offset): -71.298749 Re-Slope: 1.000000
 A1 (Gain): 0.386789 Y-int: 0.000000
 A2 (Curvature): -0.000000
 n (Exponent): 0.920000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 65.123295
 Predicted MDL: 1.729992
 Predicted MQL: 5.766641

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	278.54	279.	.000	-2.6388	.540	1
CalStd13=50	500000.	500110.	111.	.022	58341.	191.	1
CalStd10=10	10000.	9655.3	-345.	-3.45	1714.7	7.59	1
CalStd14=100	1000000.	999950.	-45.4	-.005	94752.	310.	1
CalStd12=100	100000.	99881.	-119.	-.119	14831.	87.1	1
CalStd9=100	1000.0	990.39	-9.61	-.961	149.21	1.33	1

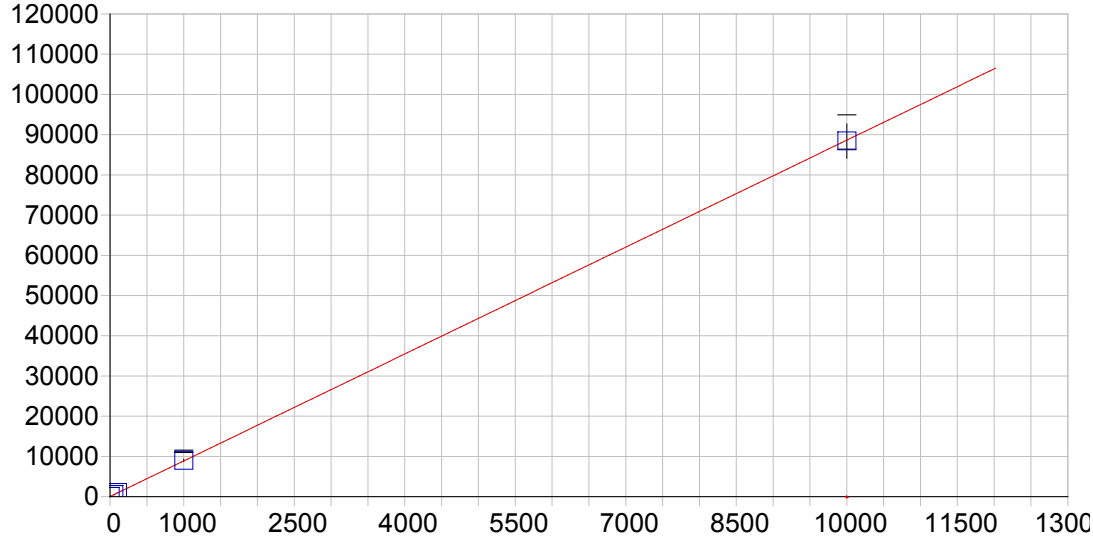


Mg 279.079 {121}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Full Fit Weighting: None

A0 (Offset):	-2.170706	Re-Slope: 1.000000
A1 (Gain):	0.025592	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.050000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	12.854978	
Predicted MDL:	40.252198	
Predicted MQL:	134.173992	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	75.408	75.4	.000	.22471	.964	1
CalStd13=50	500000.	500110.	108.	.022	22217.	868.	1
CalStd10=10	10000.	9934.7	-65.3	-.653	399.99	18.2	1
CalStd14=100	1000000.	999970.	-29.8	-.003	40570.	1590.	1
CalStd12=100	100000.	99703.	-297.	-.297	4451.8	191.	1
CalStd9=100	1000.0	1274.2	274.	27.4	44.444	1.60	1

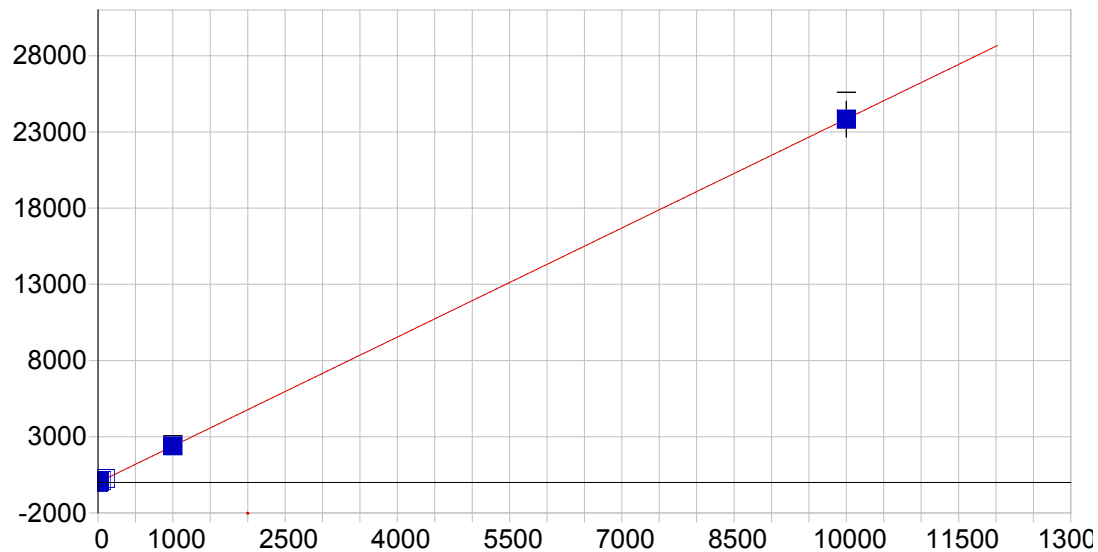


Mg 280.270 {120}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 20.599977 Re-Slope: 1.000000
A1 (Gain): 8.860651 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.999960 Status: OK.
Std Error of Est: 2.402158
Predicted MDL: 0.115066
Predicted MQL: 0.383554

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00602	-.006	.000	20.547	1.87	1
CalStd9=100	1000.0	1014.7	14.7	1.47	9011.5	290.	1
CalStd10=10	10000.	9976.2	-23.8	-.238	88416.	4250.	1
CalStd8=100	100.00	107.44	7.44	7.44	972.55	34.2	1
CalStd7=50	50.000	51.687	1.69	3.37	478.58	13.4	1

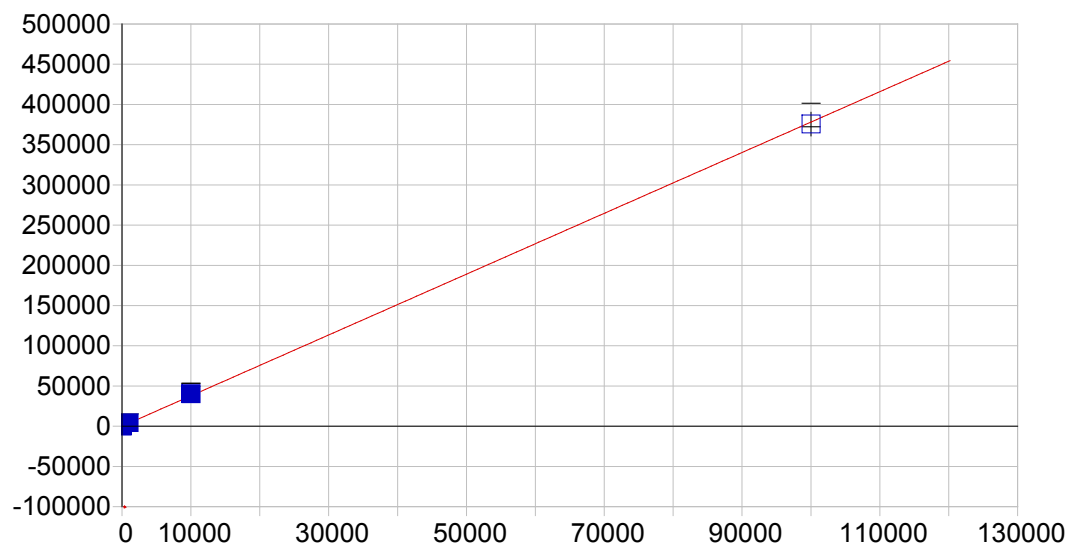


Mn 257.610 {131}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.242617 Re-Slope: 1.000000
 A1 (Gain): 2.385412 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999986 Status: OK.
 Std Error of Est: 0.109307
 Predicted MDL: 0.400305
 Predicted MQL: 1.334350

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00111	-.001	.000	-.24526	.376	1
CalStd5=10	10.000	10.368	.368	3.68	24.490	1.37	1
CalStd7=50	50.000	50.622	.622	1.24	120.51	2.09	1
CalStd6=20	20.000	21.327	1.33	6.64	50.632	1.21	1
CalStd8=100	100.00	104.21	4.21	4.21	248.33	8.24	1
CalStd4=5	5.0000	5.3167	.317	6.33	12.440	1.04	1
CalStd9=100	1000.0	1001.4	1.43	.143	2388.7	72.7	1
CalStd10=10	10000.	9991.7	-8.27	-.083	23835.	1170.	1

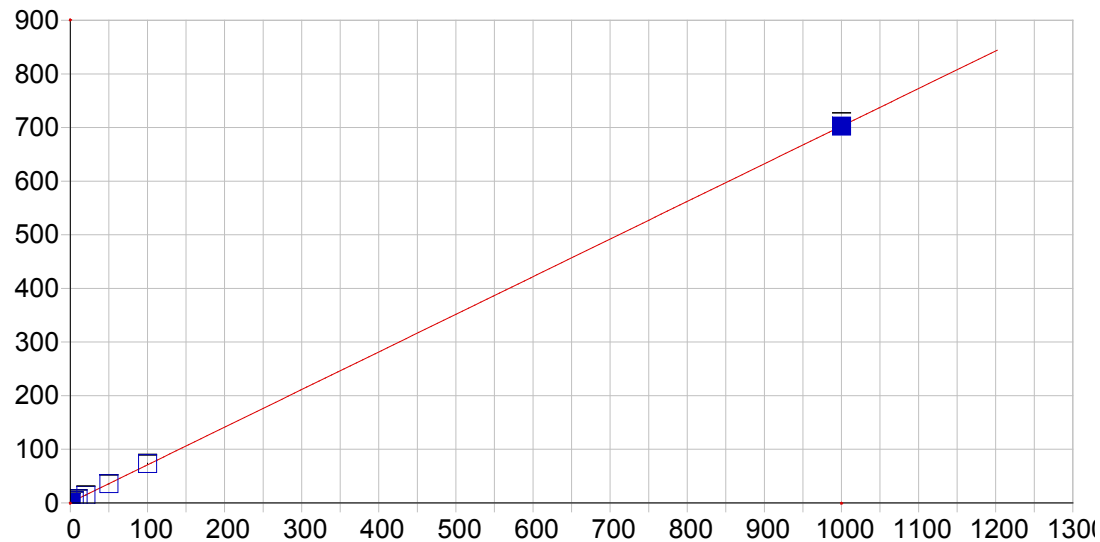


Mn 259.373 {130}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.745241	Re-Slope: 1.000000
A1 (Gain):	3.780825	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999795	Status: OK.
Std Error of Est:	36.069697	
Predicted MDL:	0.462693	
Predicted MQL:	1.542310	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.10815	-.108	.000	.33636	2.13	1
CalStd10=10	10000.	10618.	618.	6.18	40201.	1970.	1
CalStd11=100	100000.	99328.	-672.	-.672	375540.	14600.	1
CalStd9=100	1000.0	1053.1	53.1	5.31	3987.6	123.	1

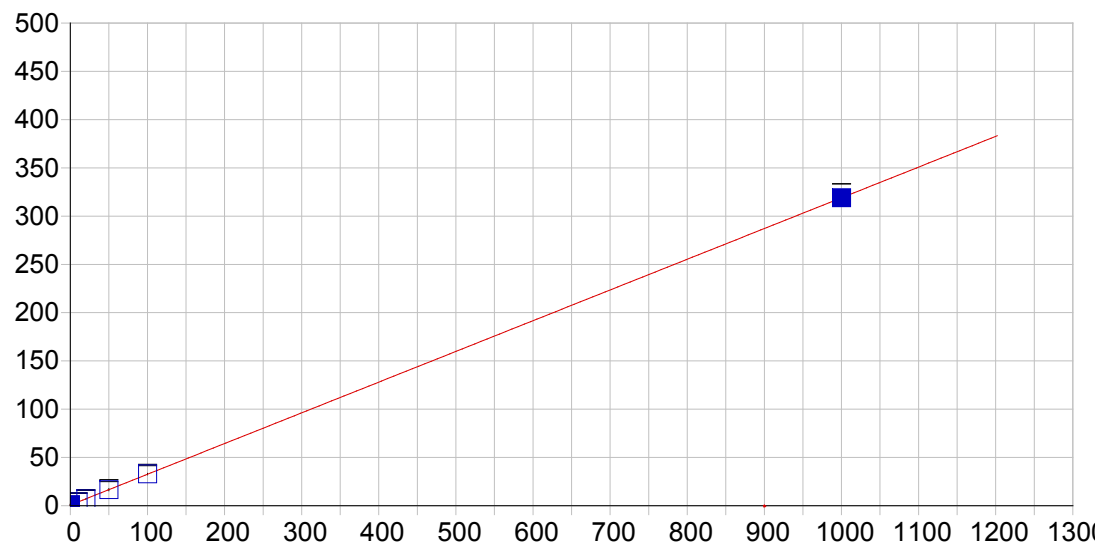


Mo 203.844 {465}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 0.811249 Re-Slope: 1.000000
 A1 (Gain): 0.701723 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999994 Status: OK.
 Std Error of Est: 0.904128
 Predicted MDL: 0.987035
 Predicted MQL: 3.290118

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06247	.062	.000	.85508	.404	1
CalStd7=50	50.000	49.607	-.393	-.787	35.621	.431	1
CalStd3=1	1.0000	.31546	-.685	-68.5	1.0326	.187	1
CalStd6=20	20.000	19.493	-.507	-2.54	14.490	.488	1
CalStd5=10	10.000	9.5667	-.433	-4.33	7.5244	.354	1
CalStd8=100	100.00	102.89	2.89	2.89	73.012	.859	1
CalStd4=5	5.0000	4.3159	-.684	-13.7	3.8398	.465	1
CalStd9=100	1000.0	999.75	-.251	-.025	702.35	8.04	1

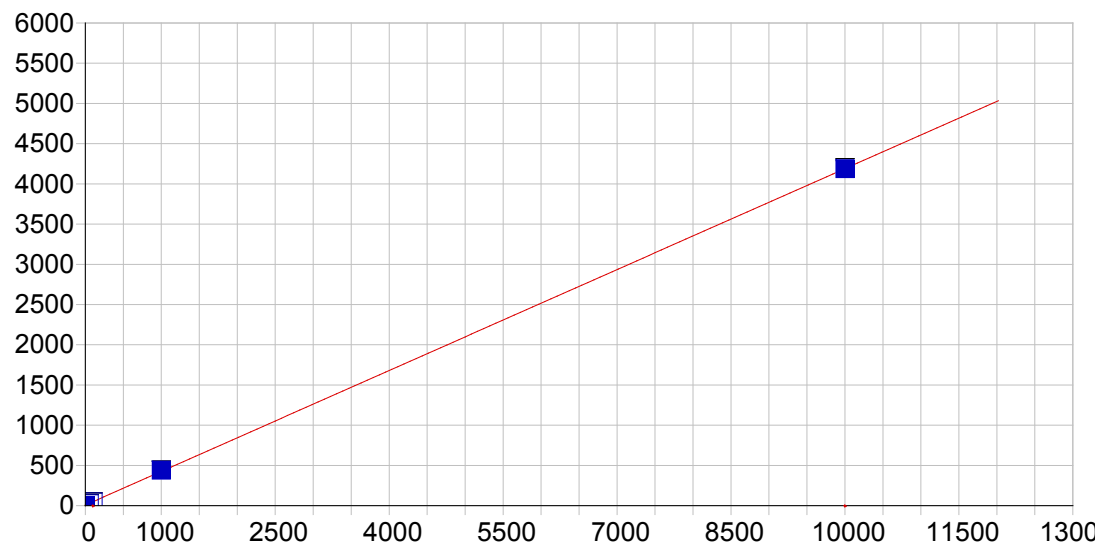


Mo 202.030 {467}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 0.720570 Re-Slope: 1.000000
 A1 (Gain): 0.318249 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999999 Status: OK.
 Std Error of Est: 0.235380
 Predicted MDL: 2.212671
 Predicted MQL: 7.375572

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.73826	.738	.000	.95552	.489	1
CalStd7=50	50.000	49.717	-.283	-.566	16.543	1.04	1
CalStd6=20	20.000	19.265	-.735	-3.68	6.8516	.378	1
CalStd5=10	10.000	9.4713	-.529	-5.29	3.7348	.364	1
CalStd8=100	100.00	100.86	.860	.860	32.819	.715	1
CalStd9=100	1000.0	999.95	-.052	-.005	318.95	5.04	1

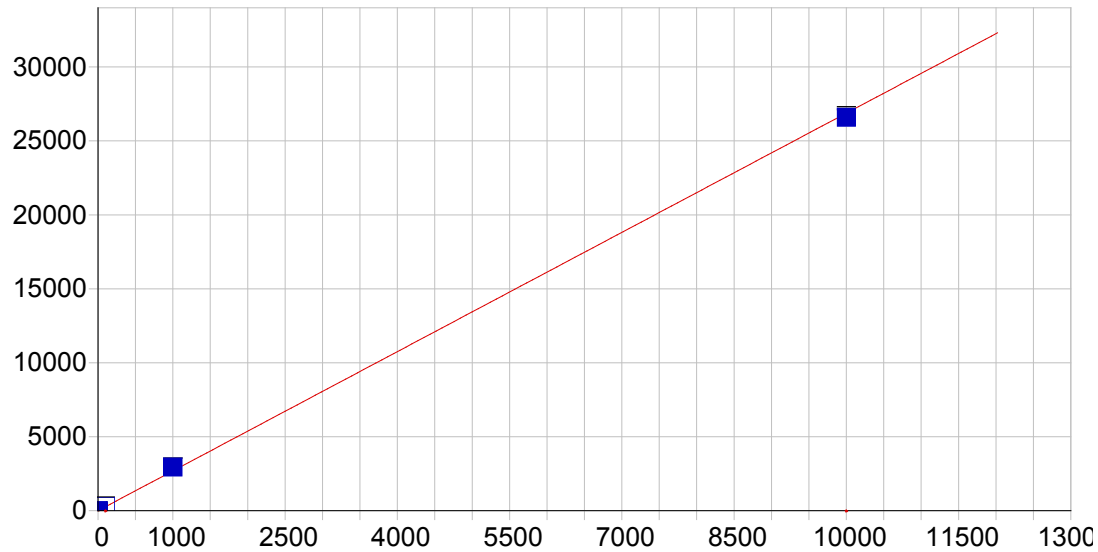


Mo 204.598 {465}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 6.785307 Re-Slope: 1.000000
 A1 (Gain): 0.418271 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999988 Status: OK.
 Std Error of Est: 10.224770
 Predicted MDL: 1.391795
 Predicted MQL: 4.639318

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-14.099	-14.1	.000	.88814	.476	1
CalStd9=100	1000.0	1037.1	37.1	3.71	440.64	4.80	1
CalStd10=10	10000.	9996.4	-3.58	-.036	4188.4	13.1	1
CalStd7=50	50.000	37.835	-12.2	-24.3	22.610	.327	1
CalStd8=100	100.00	92.699	-7.30	-7.30	45.559	.587	1

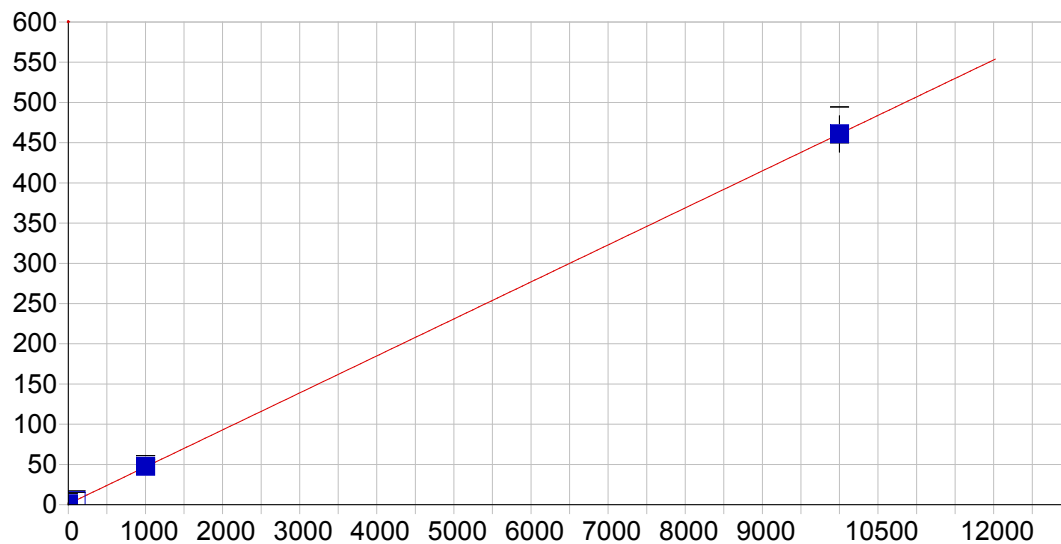


Ni 221.647 {452}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 1.097219 Re-Slope: 1.000000
 A1 (Gain): 2.687533 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999483 Status: OK.
 Std Error of Est: 4.072072
 Predicted MDL: 0.443451
 Predicted MQL: 1.478169

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.02173	-.022	.000	1.0388	.771	1
CalStd10=10	10000.	9894.1	-106.	-1.06	26592.	106.	1
CalStd8=100	100.00	113.55	13.6	13.6	306.28	2.40	1
CalStd9=100	1000.0	1092.3	92.3	9.23	2936.9	22.6	1

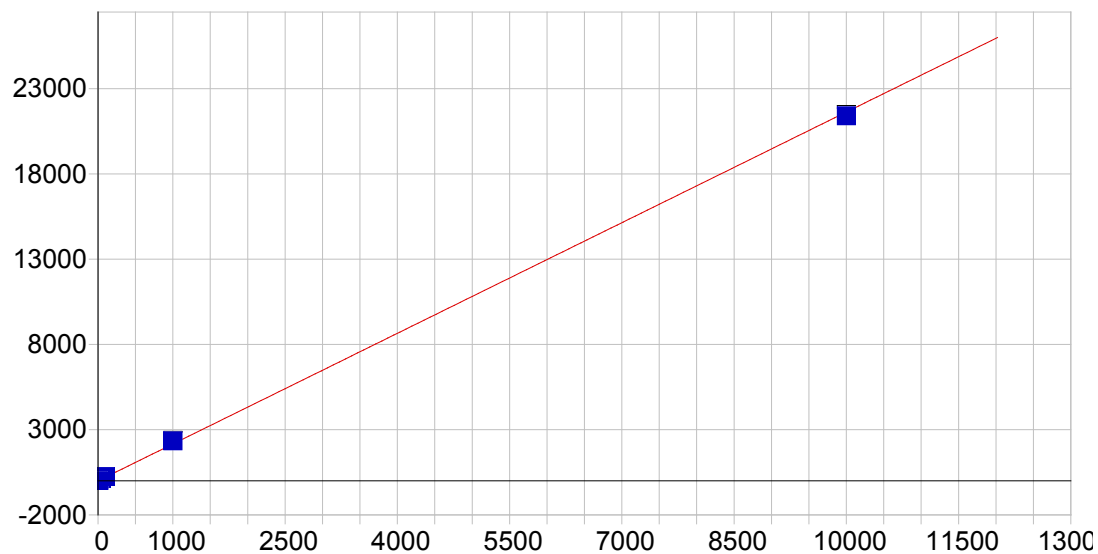


Ni 231.604 {146}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 0.914078 Re-Slope: 1.000000
 A1 (Gain): 0.046000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999998 Status: OK.
 Std Error of Est: 0.606557
 Predicted MDL: 24.479716
 Predicted MQL: 81.599052

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	3.4464	3.45	.000	1.0726	1.04	1
CalStd10=10	10000.	9999.0	-1.03	-.010	460.87	22.3	1
CalStd8=100	100.00	85.908	-14.1	-14.1	4.8659	1.11	1
CalStd9=100	1000.0	1011.7	11.7	1.17	47.451	2.30	1

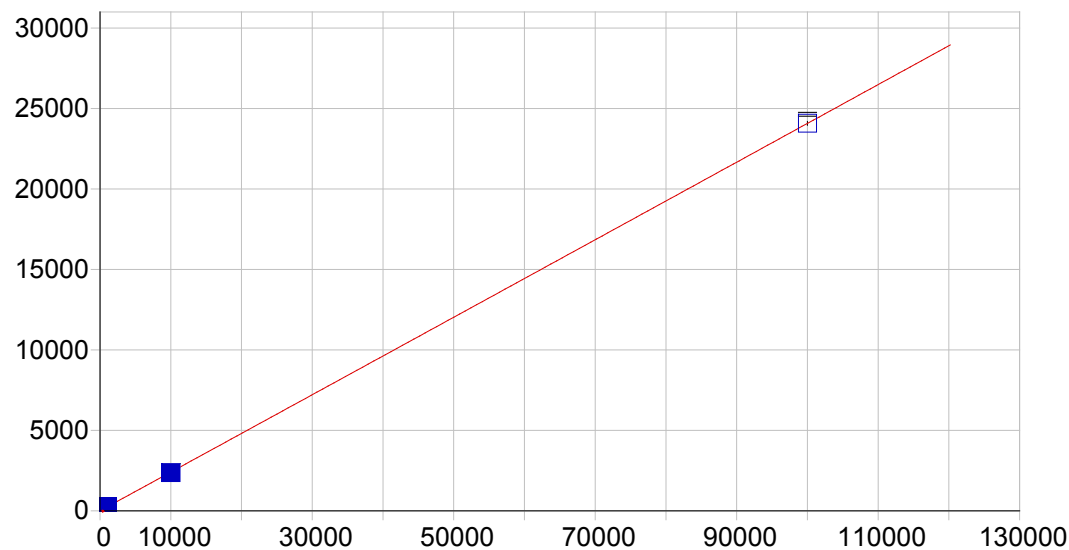


Ni 231.604 {445}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -3.131153 Re-Slope: 1.000000
 A1 (Gain): 2.163561 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999498 Status: OK.
 Std Error of Est: 0.264421
 Predicted MDL: 0.516201
 Predicted MQL: 1.720669

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00141	-.001	.000	-3.1342	.817	1
CalStd7=50	50.000	55.400	5.40	10.8	116.73	.831	1
CalStd5=10	10.000	11.225	1.23	12.3	21.155	.476	1
CalStd8=100	100.00	112.44	12.4	12.4	240.13	1.56	1
CalStd4=5	5.0000	6.2547	1.25	25.1	10.401	.561	1
CalStd9=100	1000.0	1083.6	83.6	8.36	2341.2	23.1	1
CalStd3=1	1.0000	1.7330	.733	73.3	.61834	.463	1
CalStd10=10	10000.	9895.4	-105.	-1.05	21405.	77.7	1

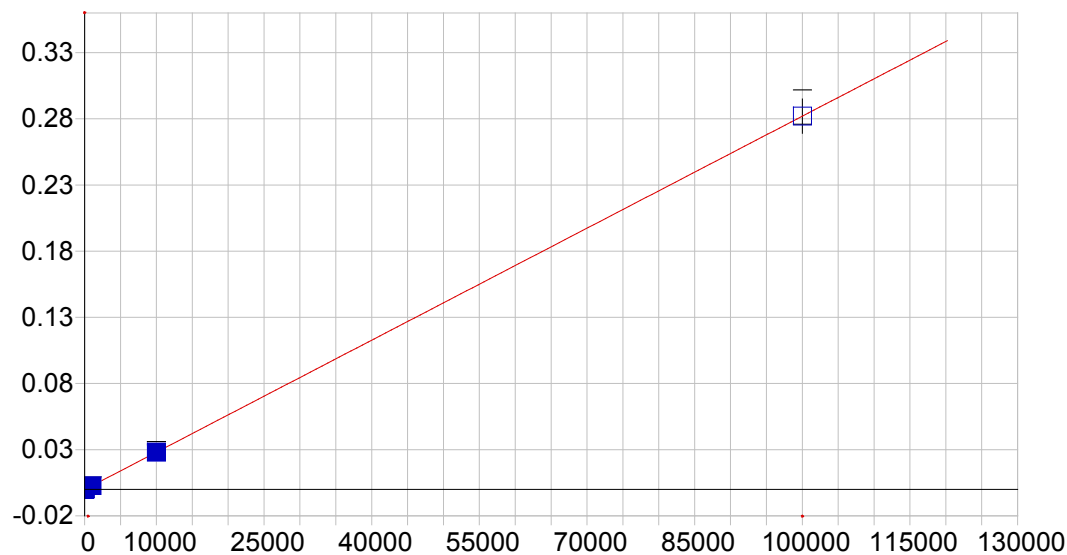


Pb 216.999 {455}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	1.877099	Re-Slope:	1.000000
A1 (Gain):	0.240313	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999892	Status:	Warning Positive Curvature
Std Error of Est:	0.110211		
Predicted MDL:	3.928874		
Predicted MQL:	13.096246		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00106	.001	.000	1.8774	.633	1
CalStd9=100	1000.0	1136.3	136.	13.6	275.21	1.52	1
CalStd10=10	10000.	9838.8	-161.	-1.61	2368.9	5.68	1
CalStd11=100	100000.	100010.	14.7	.015	24078.	117.	1
CalStd8=100	100.00	112.11	12.1	12.1	28.820	1.07	1
CalStd4=5	5.0000	2.3721	-2.63	-52.6	2.4471	.171	1
CalStd5=10	10.000	10.716	.716	7.16	4.4523	.574	1

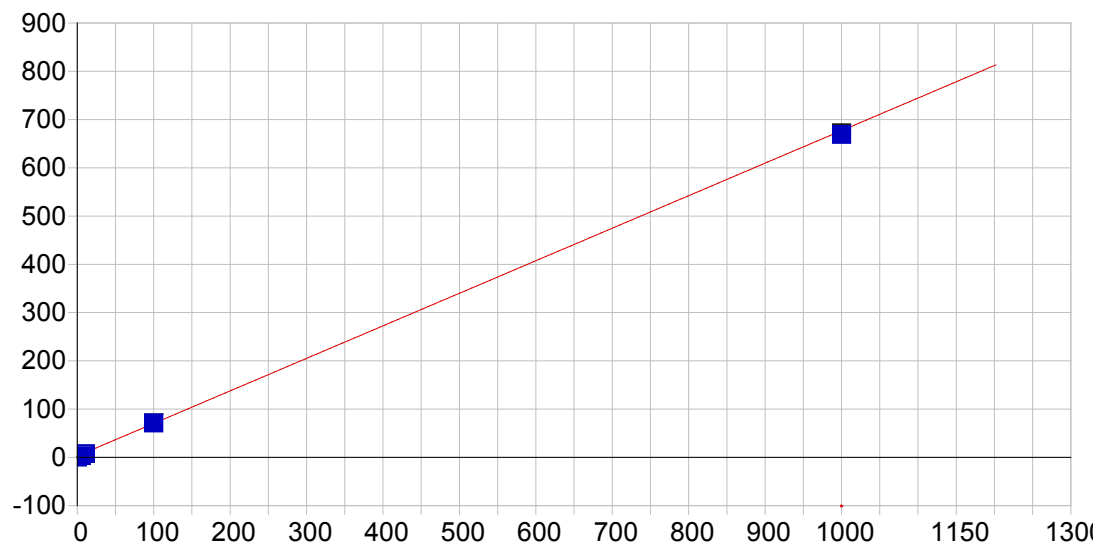


Pb 220.353 {153}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset):	-0.000141	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000091		
Predicted MDL:	37.762120		
Predicted MQL:	125.873735		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	32.542	32.5	.000	-.00005	.000	1
CalStd9=100	1000.0	966.56	-33.4	-3.34	.00259	.000	1
CalStd10=10	10000.	9970.5	-29.5	-.295	.02799	.001	1
CalStd8=100	100.00	144.24	44.2	44.2	.00027	.000	1
CalStd4=5	5.0000	-3.9006	-8.90	-178.	-.00015	.000	1
CalStd5=10	10.000	1.7785	-8.22	-82.2	-.00014	.000	1
CalStd11=100	100000.	100000.	3.24	.003	.28203	.013	1

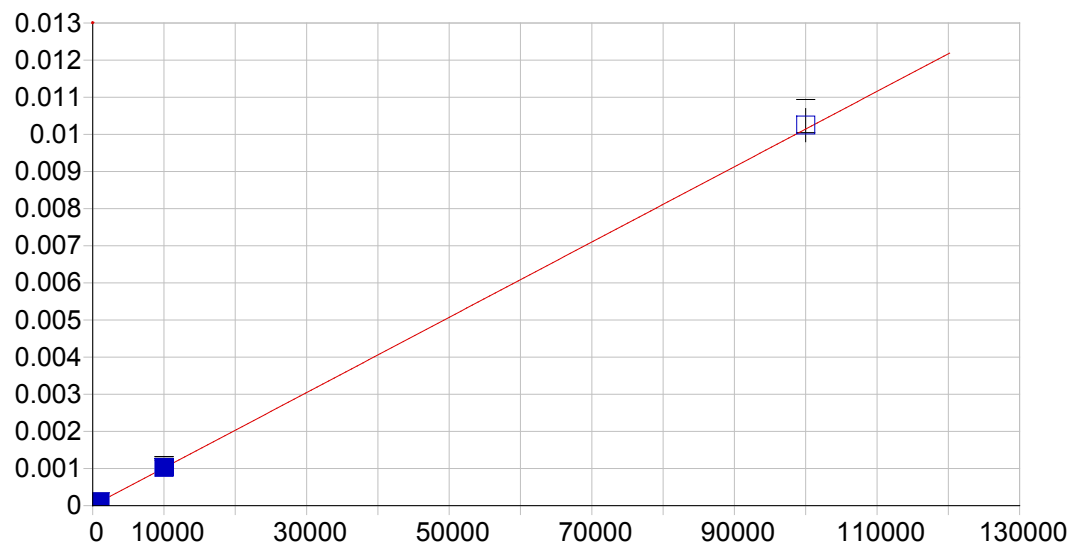


Pb 220.353 {453}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 2.905162 Re-Slope: 1.000000
 A1 (Gain): 0.674162 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999659 Status: OK.
 Std Error of Est: 1.795429
 Predicted MDL: 1.792152
 Predicted MQL: 5.973840

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.6990	-3.70	.000	.41143	1.28	1
CalStd5=10	10.000	6.5826	-3.42	-34.2	7.3429	.775	1
CalStd8=100	100.00	100.92	.924	.924	70.944	.254	1
CalStd4=5	5.0000	.32532	-4.67	-93.5	3.1245	.962	1
CalStd9=100	1000.0	988.02	-12.0	-1.20	668.61	2.98	1

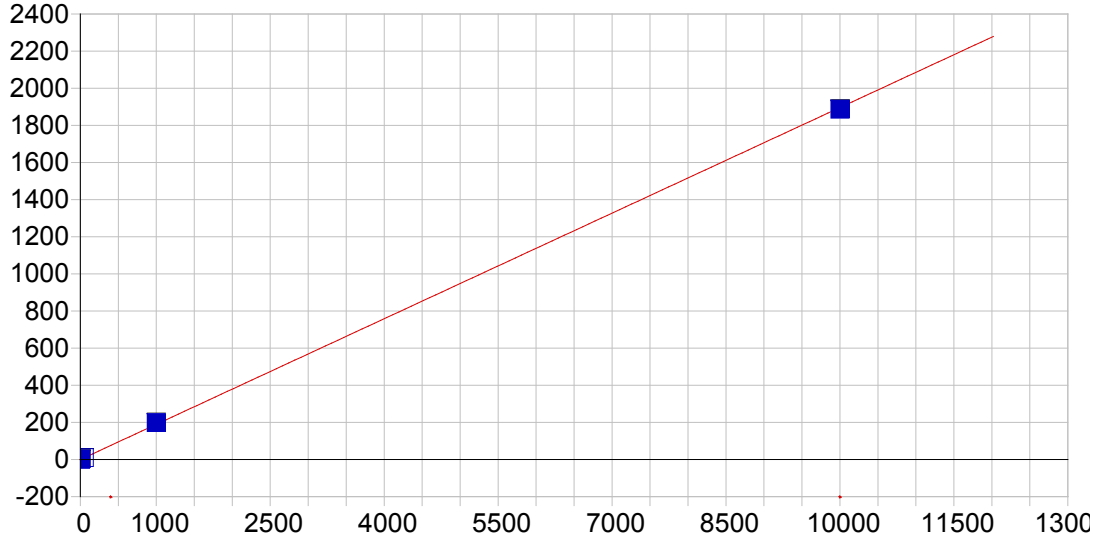


Pb 283.306 {119}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000003	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999949	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	60.837268	
Predicted MQL:	202.790892	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.03433	.034	.000	.00000	.000	1
CalStd9=100	1000.0	978.87	-21.1	-2.11	.00010	.000	1
CalStd10=10	10000.	10070.	70.2	.702	.00103	.000	1
CalStd11=100	100000.	101050.	1050.	1.05	.01025	.000	1
CalStd8=100	100.00	67.202	-32.8	-32.8	.00001	.000	1

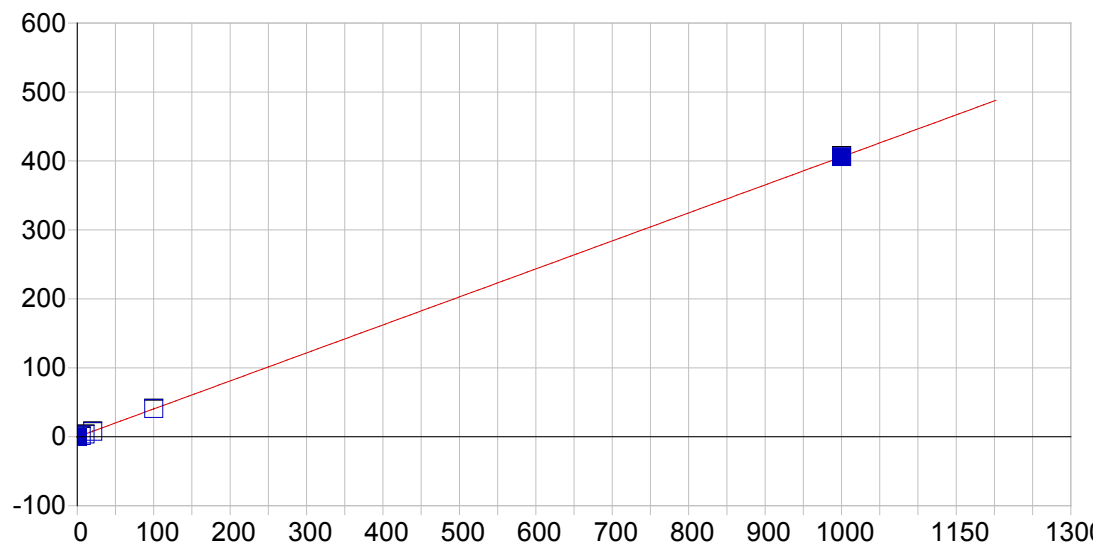


Sb 206.833 {463}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.127875	Re-Slope: 1.000000
A1 (Gain):	0.189621	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999870	Status: OK.
Std Error of Est:	0.041545	
Predicted MDL:	3.238428	
Predicted MQL:	10.794761	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00271	-.003	.000	-.12839	.522	1
CalStd9=100	1000.0	1046.8	46.8	4.68	198.36	1.25	1
CalStd5=10	10.000	12.007	2.01	20.1	2.1489	.222	1
CalStd7=50	50.000	51.454	1.45	2.91	9.6289	.615	1
CalStd10=10	10000.	9949.8	-50.2	-.502	1886.6	2.19	1

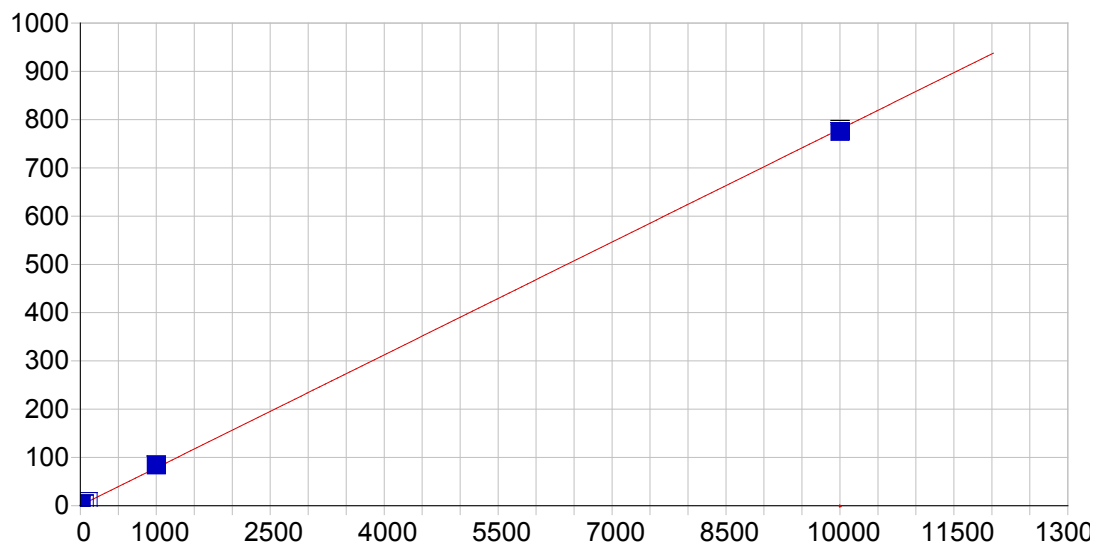


Sb 217.581 {455}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.260902 Re-Slope: 1.000000
 A1 (Gain): 0.406170 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999927 Status: OK.
 Std Error of Est: 0.014324
 Predicted MDL: 2.040125
 Predicted MQL: 6.800415

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00101	.001	.000	-.26049	.432	1
CalStd9=100	1000.0	1000.5	.497	.050	406.08	1.63	1
CalStd6=20	20.000	19.753	-.247	-1.24	7.7620	.544	1
CalStd5=10	10.000	9.7261	-.274	-2.74	3.6896	.214	1
CalStd8=100	100.00	100.88	.882	.882	40.714	.615	1
CalStd4=5	5.0000	4.1417	-.858	-17.2	1.4214	1.04	1

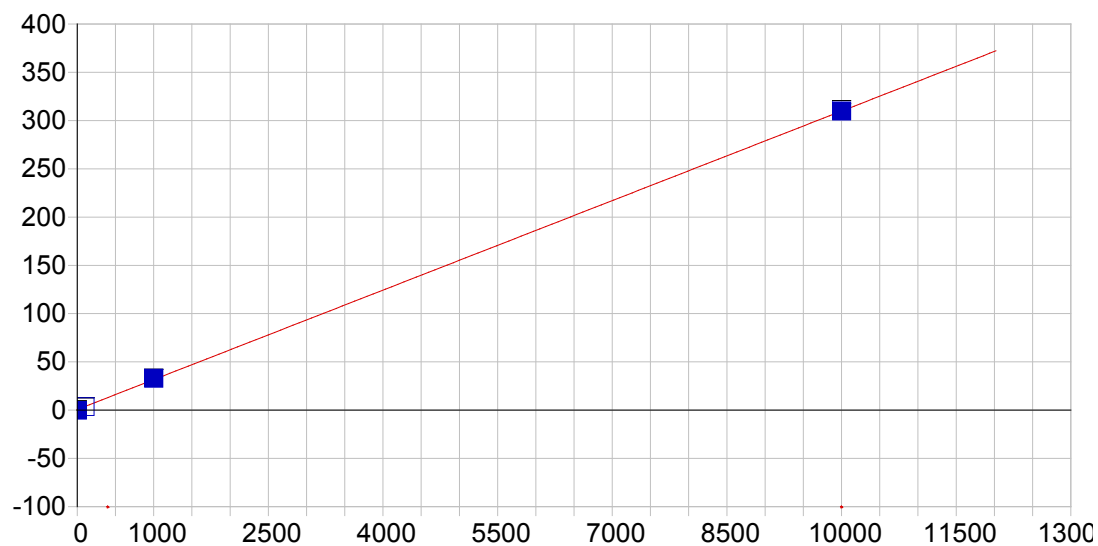


Se 196.090 {472}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.535938 Re-Slope: 1.000000
 A1 (Gain): 0.077973 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999720 Status: OK.
 Std Error of Est: 0.023860
 Predicted MDL: 6.985314
 Predicted MQL: 23.284381

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00061	-.001	.000	.53589	.423	1
CalStd7=50	50.000	45.686	-4.31	-8.63	4.0982	1.03	1
CalStd9=100	1000.0	1072.5	72.5	7.25	84.160	.579	1
CalStd5=10	10.000	11.065	1.06	10.6	1.3987	.260	1
CalStd8=100	100.00	97.544	-2.46	-2.46	8.1417	.198	1
CalStd10=10	10000.	9933.2	-66.8	-.668	775.02	4.40	1

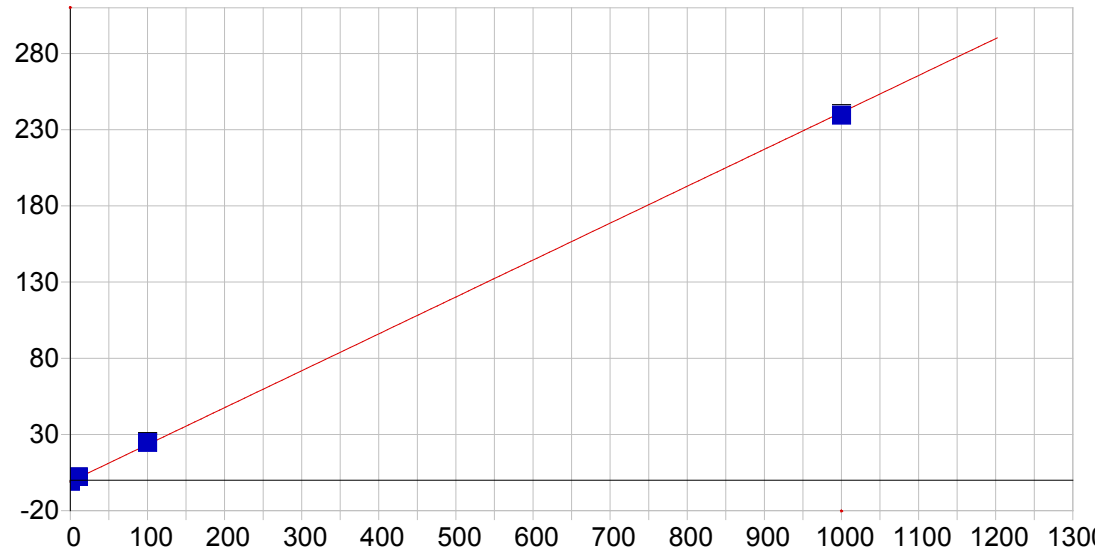


Se 206.279 {463}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 0.687357 Re-Slope: 1.000000
 A1 (Gain): 0.030911 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999983 Status: OK.
 Std Error of Est: 1.057188
 Predicted MDL: 23.464698
 Predicted MQL: 78.215660

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-25.035	-25.0	.000	-.08649	.268	1
CalStd9=100	1000.0	1039.7	39.7	3.97	32.845	.028	1
CalStd10=10	10000.	9996.1	-3.87	-.039	309.86	1.55	1
CalStd8=100	100.00	89.152	-10.8	-10.8	3.4431	.295	1

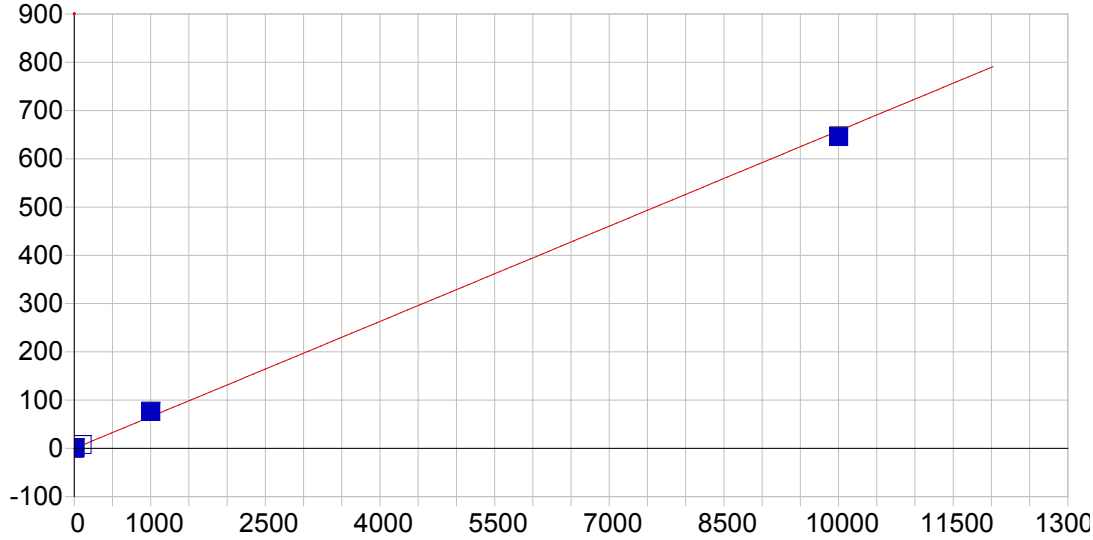


TI 190.856 {476}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.870892 Re-Slope: 1.000000
 A1 (Gain): 0.242212 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999545 Status: OK.
 Std Error of Est: 0.034455
 Predicted MDL: 2.874874
 Predicted MQL: 9.582912

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00304	-.003	.000	-.87163	.605	1
CalStd9=100	1000.0	992.14	-7.86	-.786	239.72	.754	1
CalStd8=100	100.00	105.27	5.27	5.27	24.655	.531	1
CalStd5=10	10.000	12.593	2.59	25.9	2.1807	.521	1

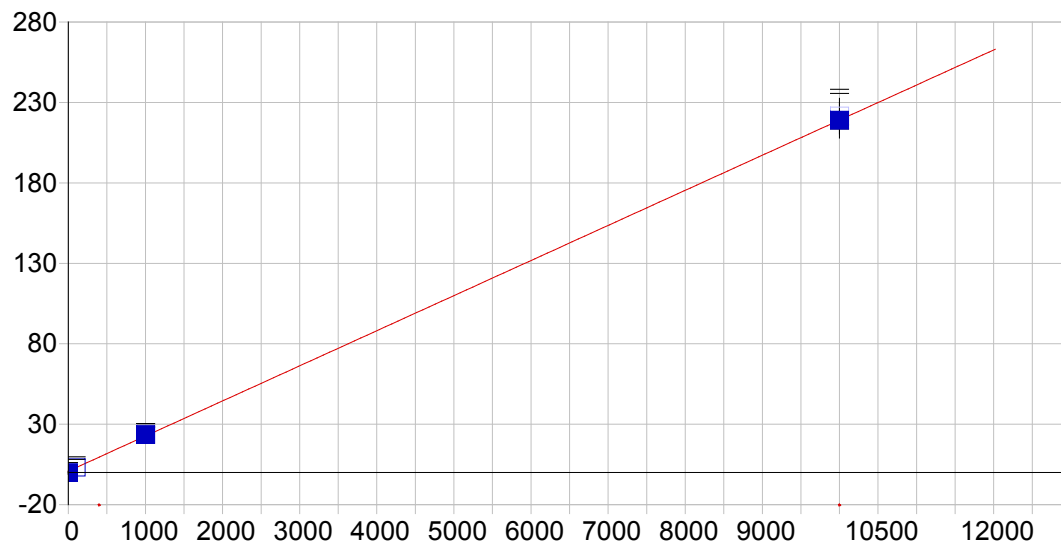


TI 190.856 {477}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.195832 Re-Slope: 1.000000
A1 (Gain): 0.065809 Y-int: 0.000000
A2 (Curvature): 0.000000
n (Exponent): 1.000000
Correlation: 0.998383 Status: OK.
Std Error of Est: 0.050953
Predicted MDL: 8.419987
Predicted MQL: 28.066623

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00878	-.009	.000	-.19641	.391	1
CalStd9=100	1000.0	1159.0	159.	15.9	76.065	.540	1
CalStd8=100	100.00	121.24	21.2	21.2	7.7831	.217	1
CalStd5=10	10.000	15.250	5.25	52.5	.80774	.445	1
CalStd10=10	10000.	9814.5	-186.	-1.86	645.55	1.25	1

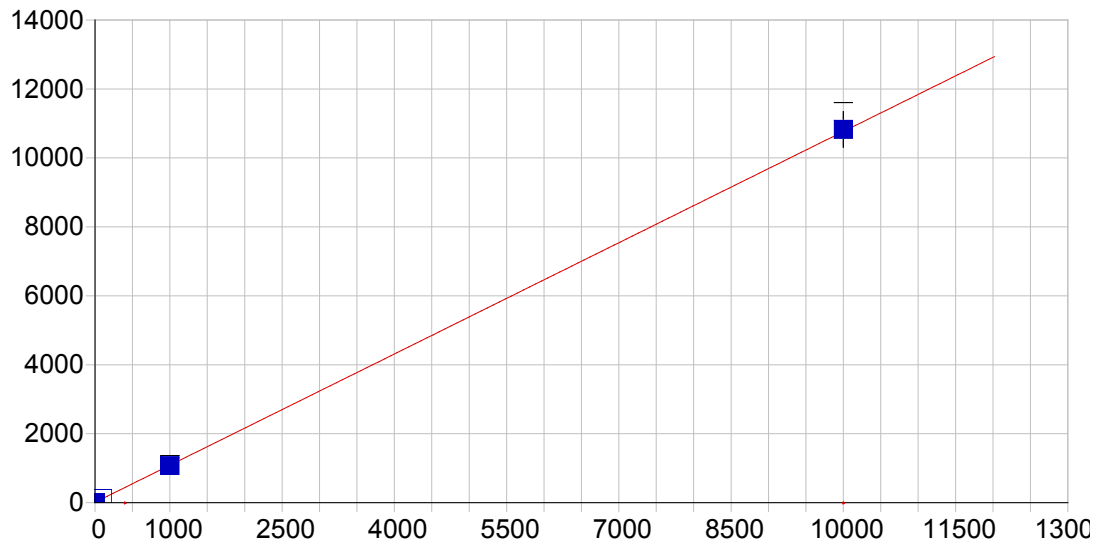


TI 276.787 {122}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): 0.832266 Re-Slope: 1.000000
 A1 (Gain): 0.021819 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999973 Status: OK.
 Std Error of Est: 0.964696
 Predicted MDL: 90.243986
 Predicted MQL: 300.813286

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-46.720	-46.7	.000	-.18713	.923	1
CalStd9=100	1000.0	1039.9	39.9	3.99	23.779	1.03	1
CalStd10=10	10000.	9995.9	-4.10	-.041	221.51	11.0	1
CalStd8=100	100.00	110.94	10.9	10.9	3.2528	.814	1

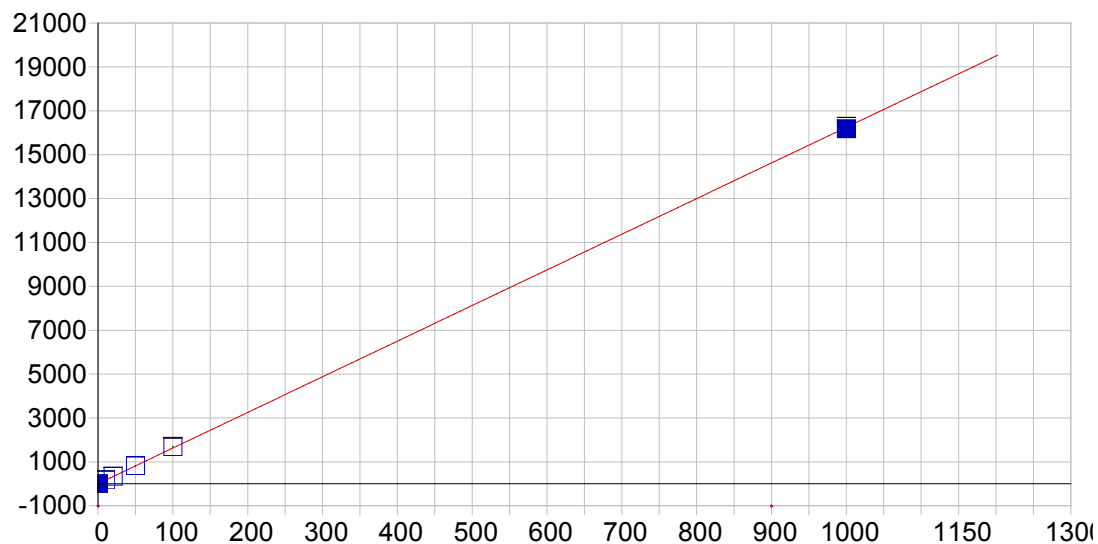


V 290.882 {116}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Var

A0 (Offset): 10.100180 Re-Slope: 1.000000
 A1 (Gain): 1.075619 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999873 Status: OK.
 Std Error of Est: 2.236272
 Predicted MDL: 2.347941
 Predicted MQL: 7.826469

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-64783	-.648	.000	9.4034	2.85	1
CalStd9=100	1000.0	986.11	-13.9	-1.39	1071.0	35.3	1
CalStd10=10	10000.	10055.	55.3	.553	10828.	515.	1
CalStd8=100	100.00	101.77	1.77	1.77	119.57	4.42	1

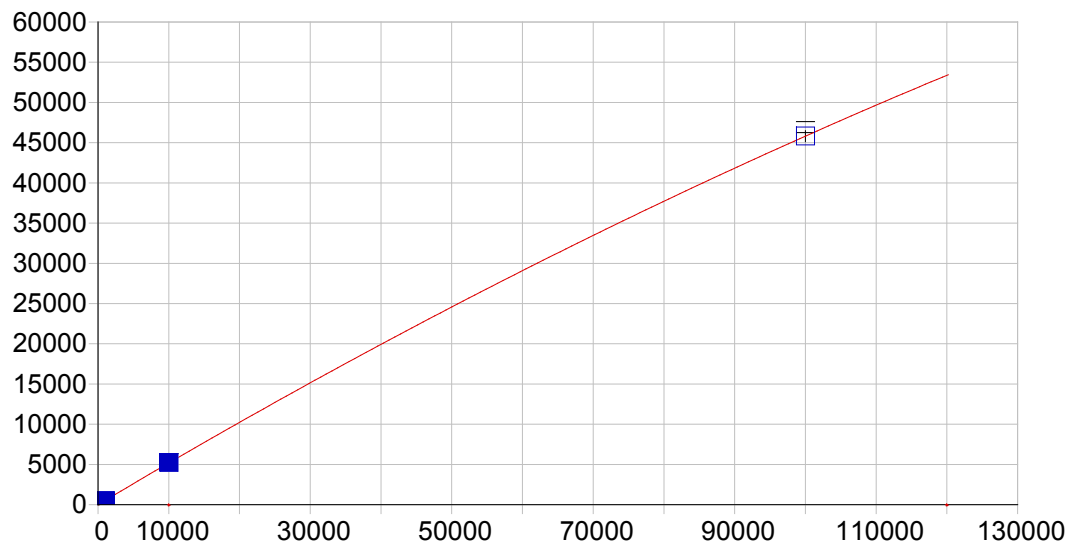


V 292.402 {115}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 3.164529 Re-Slope: 1.000000
 A1 (Gain): 16.245877 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999930 Status: OK.
 Std Error of Est: 0.805874
 Predicted MDL: 0.369698
 Predicted MQL: 1.232326

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00086	-.001	.000	3.1506	6.52	1
CalStd7=50	50.000	50.335	.335	.671	820.91	12.5	1
CalStd9=100	1000.0	995.43	-4.57	-.457	16175.	108.	1
CalStd6=20	20.000	20.456	.456	2.28	335.49	2.91	1
CalStd5=10	10.000	10.254	.254	2.54	169.74	4.71	1
CalStd8=100	100.00	103.53	3.53	3.53	1685.0	16.0	1

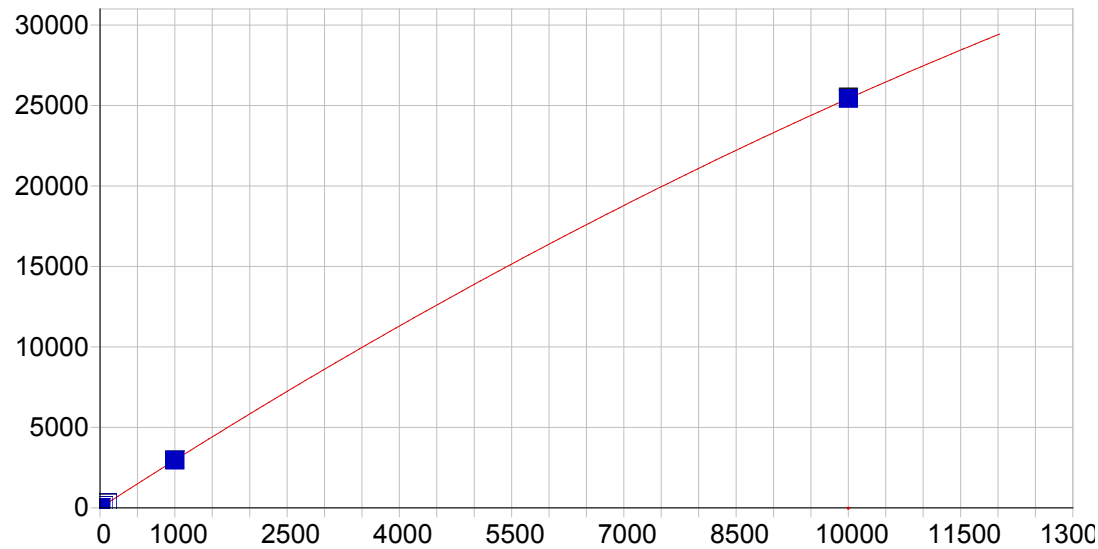


Zn 206.200 {463}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset): 1.191560 Re-Slope: 1.000000
 A1 (Gain): 0.524785 Y-int: 0.000000
 A2 (Curvature): -0.000001
 n (Exponent): 1.000000
 Correlation: 0.999968 Status: OK.
 Std Error of Est: 2.459069
 Predicted MDL: 1.704654
 Predicted MQL: 5.682179

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	10079.	79.0	.790	5222.7	14.2	1
Blank	.00000	.06236	.062	.000	1.2243	.321	1
CalStd9=100	1000.0	929.84	-70.2	-7.02	488.58	1.45	1
CalStd11-100	100000.	99991.	-9.38	-.009	45811.	684.	1

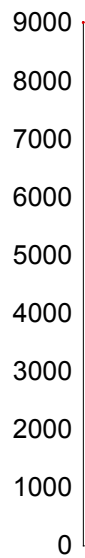


Zn 213.856 {458}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: None

A0 (Offset):	1.235541	Re-Slope:	1.000000
A1 (Gain):	3.010642	Y-int:	0.000000
A2 (Curvature):	-0.000047		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	2.211437		
Predicted MDL:	0.212377		
Predicted MQL:	0.707924		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.18874	.189	.000	1.8038	.791	1
CalStd8=100	100.00	100.41	.411	.411	303.07	1.43	1
CalStd7=50	50.000	48.709	-1.29	-2.58	147.77	1.63	1
CalStd5=10	10.000	10.150	.150	1.50	31.789	.574	1
CalStd9=100	1000.0	1000.0	.022	.002	2965.6	22.3	1
CalStd4=5	5.0000	5.5194	.519	10.4	17.851	.476	1
CalStd10=10	10000.	10000.0	.000	.000	25438.	74.2	1



Y 224.306 {451}*

Date of Fit:	09/02/2015 11:01:36	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000			Re-Slope:	1.000000
A1 (Gain):	0.000000			Y-int:	0.000000
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	7936.7	39.2	1

60000
55000
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0

Y 320.332 {105}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.000000 Status: Warning Zero Gain
 Std Error of Est: 0.000000
 Predicted MDL: n/a
 Predicted MQL: n/a

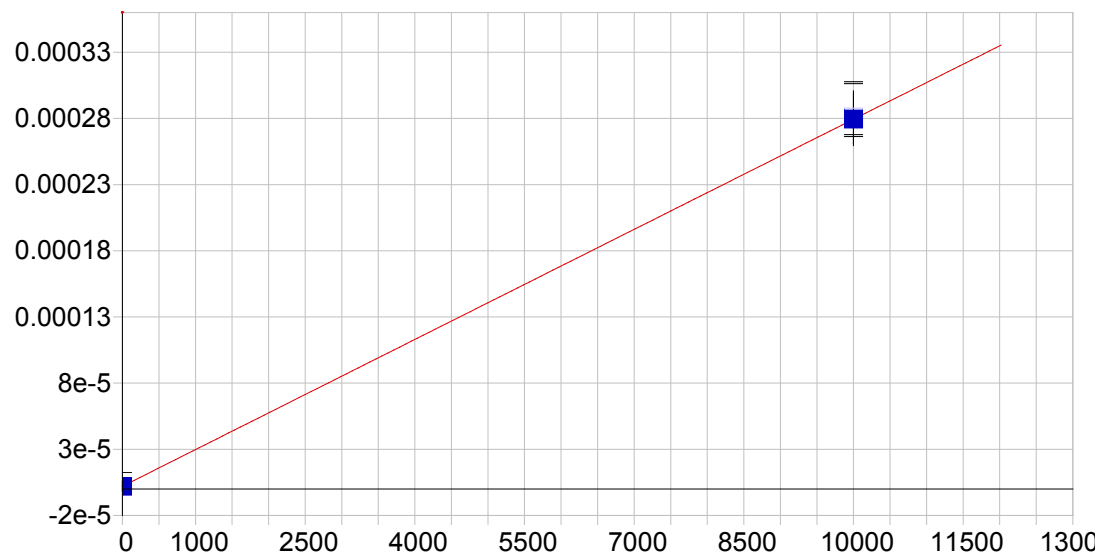
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	53532.	626.	1

500000
450000
400000
350000
300000
250000
200000
150000
100000
50000
0

Y 371.030 { 91}*

Date of Fit:	09/02/2015 11:01:36	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000			Re-Slope:	1.000000
A1 (Gain):	0.000000			Y-int:	0.000000
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

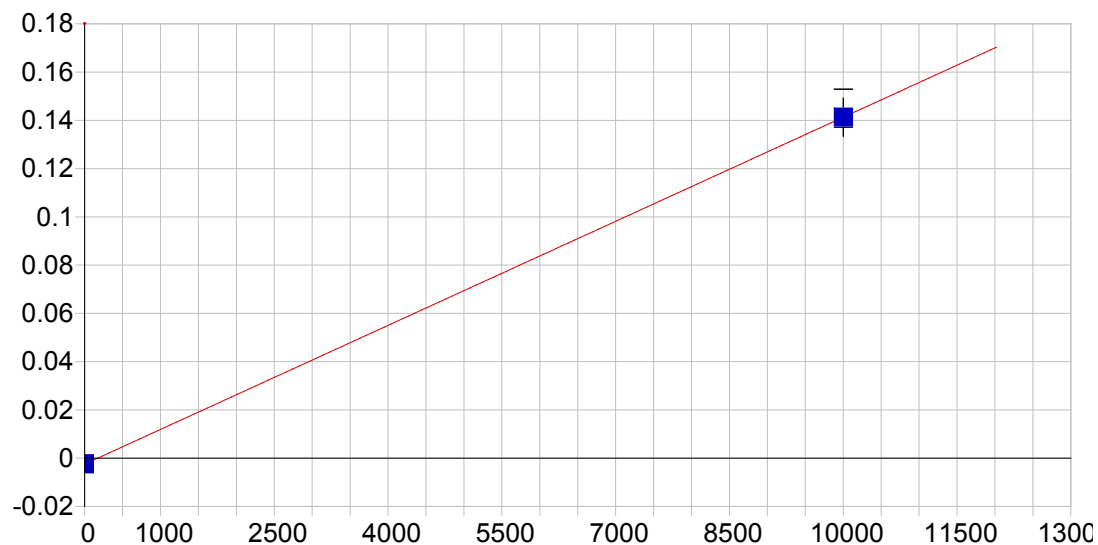
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	389130.	10000.	1



Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000002 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 432.023807
 Predicted MQL: 1440.079358

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00028	.000	1

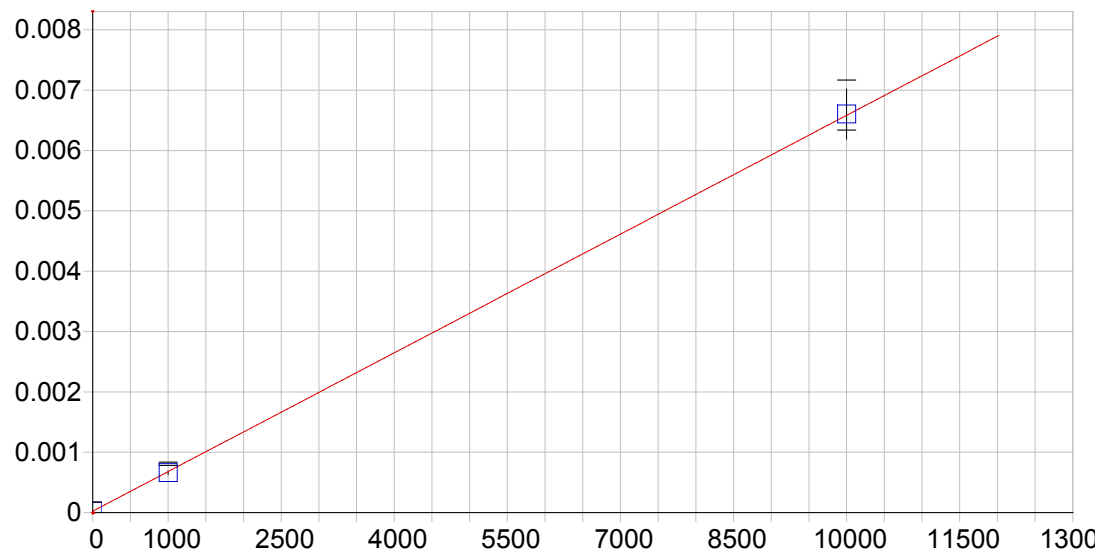


Na 588.995 { 57}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.002458 Re-Slope: 1.000000
 A1 (Gain): 0.000014 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 3.142164
 Predicted MQL: 10.473881

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00246	.000	1
CalStd10=10	10000.	10000.	.000	.000	.14131	.008	1

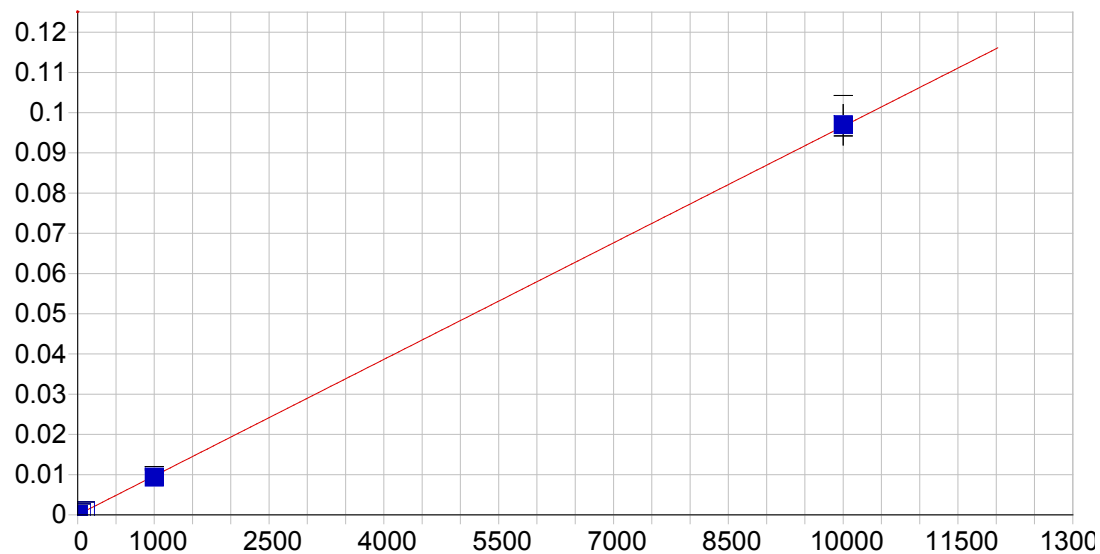


Si 251.611 {134}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000024	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999949	Status: OK.
Std Error of Est:	0.000001	
Predicted MDL:	6.124008	
Predicted MQL:	20.413361	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.02866	.029	.000	.00002	.000	1
CalStd10=10	10000.	10032.	31.8	.318	.00660	.000	1
CalStd9=100	1000.0	968.16	-31.8	-3.18	.00066	.000	1

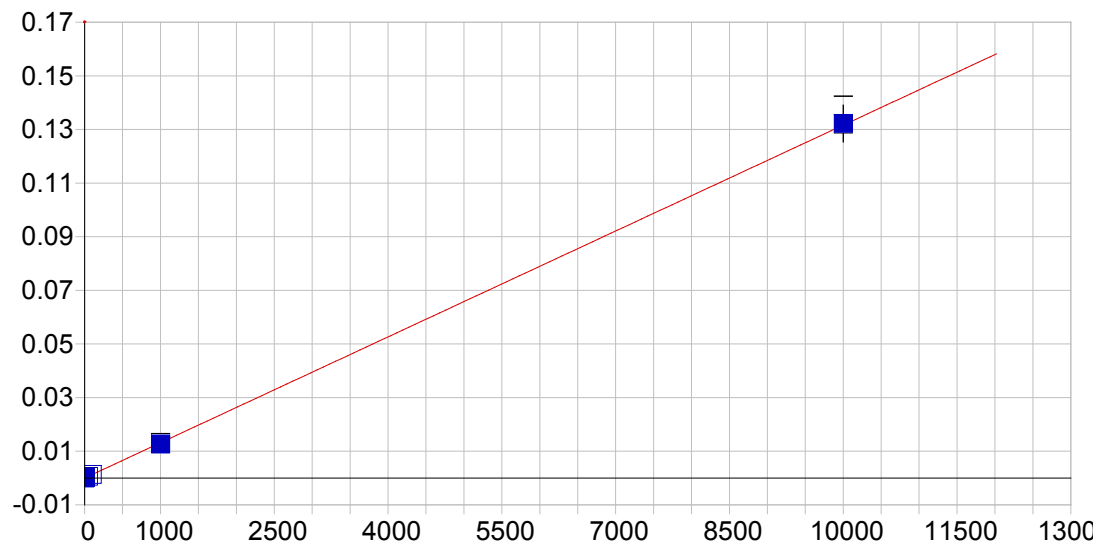


Ti 334.941 {101}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000010 Re-Slope: 1.000000
 A1 (Gain): 0.000010 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999925 Status: OK.
 Std Error of Est: 0.000001
 Predicted MDL: 0.716258
 Predicted MQL: 2.387528

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00177	.002	.000	.00001	.000	1
CalStd5=10	10.000	8.8701	-1.13	-11.3	.00010	.000	1
CalStd8=100	100.00	99.128	-.872	-.872	.00097	.000	1
CalStd9=100	1000.0	965.86	-34.1	-3.41	.00934	.000	1
CalStd10=10	10000.	10039.	39.1	.391	.09699	.005	1
CalStd7=50	50.000	47.782	-2.22	-4.44	.00047	.000	1
CalStd4=5	5.0000	4.2122	-.788	-15.8	.00005	.000	1

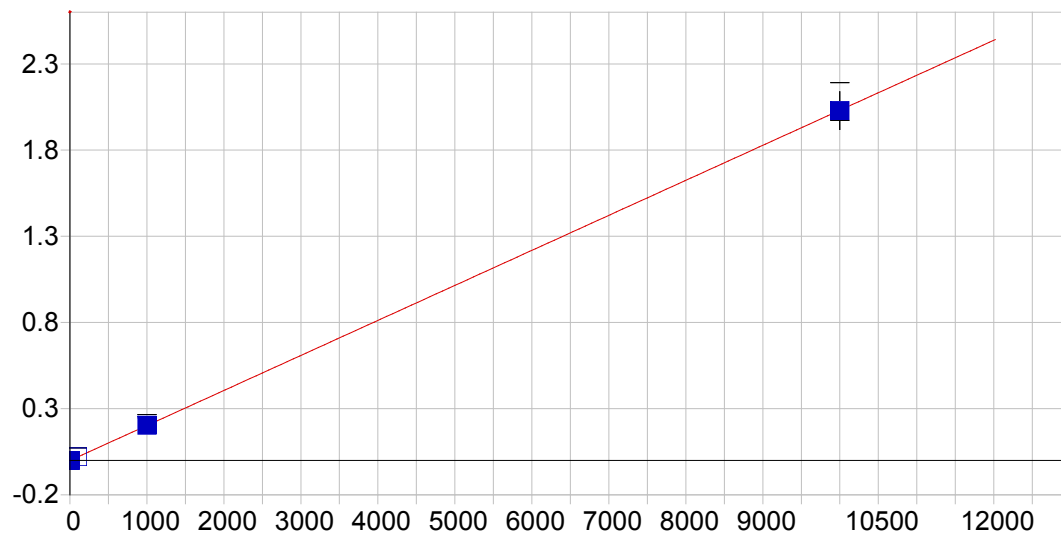


Ti 337.280 {100}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000015 Re-Slope: 1.000000
 A1 (Gain): 0.000013 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999911 Status: OK.
 Std Error of Est: 0.000002
 Predicted MDL: 0.780079
 Predicted MQL: 2.600264

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00090	.001	.000	-.00002	.000	1
CalStd5=10	10.000	9.3963	-.604	-6.04	.00011	.000	1
CalStd8=100	100.00	99.292	-.708	-7.08	.00129	.000	1
CalStd9=100	1000.0	959.30	-40.7	-4.07	.01261	.001	1
CalStd10=10	10000.	10044.	44.2	.442	.13220	.007	1
CalStd7=50	50.000	48.049	-1.95	-3.90	.00062	.000	1
CalStd4=5	5.0000	4.8107	-.189	-3.79	.00005	.000	1

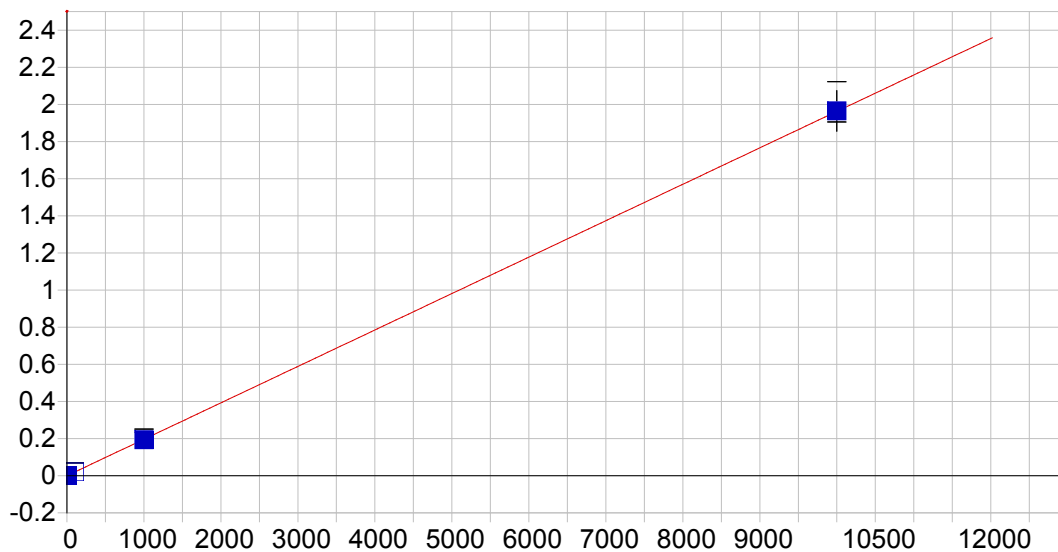


Sr 407.771 { 83}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000889 Re-Slope: 1.000000
 A1 (Gain): 0.000203 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999990 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 0.067328
 Predicted MQL: 0.224426

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00021	.000	.000	-.00089	.000	1
CalStd3=1	1.0000	1.0820	.082	8.20	-.00067	.000	1
CalStd4=5	5.0000	5.2344	.234	4.69	.00017	.000	1
CalStd5=10	10.000	10.353	.353	3.53	.00121	.000	1
CalStd8=100	100.00	104.05	4.05	4.05	.02025	.001	1
CalStd9=100	1000.0	1005.2	5.19	.519	.20336	.010	1
CalStd10=10	10000.	9990.1	-9.91	-.099	2.0290	.109	1

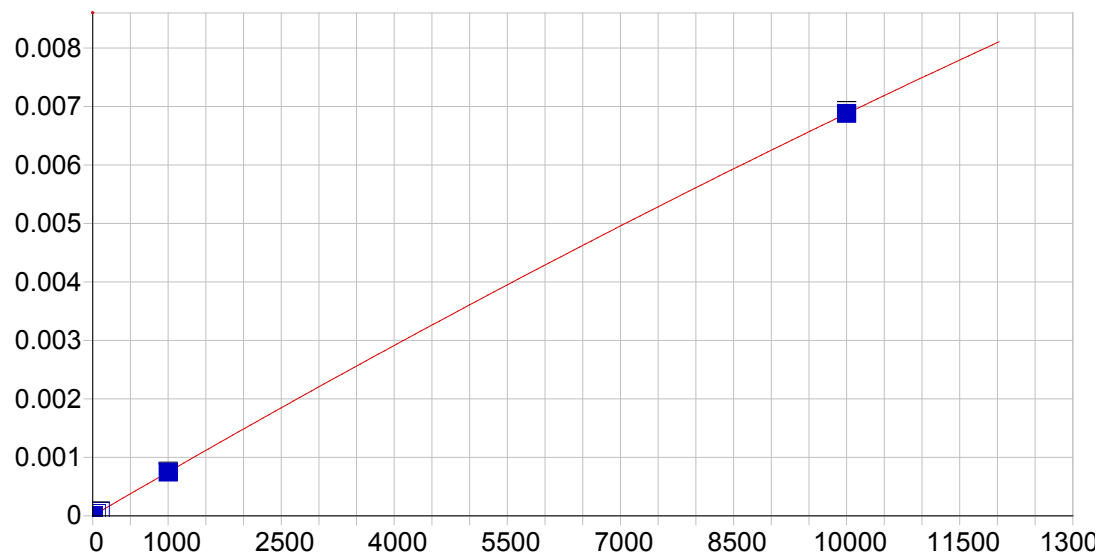


Sr 421.552 { 80}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000031 Re-Slope: 1.000000
 A1 (Gain): 0.000196 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999986 Status: OK.
 Std Error of Est: 0.000004
 Predicted MDL: 0.069382
 Predicted MQL: 0.231273

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00010	.000	.000	-.00003	.000	1
CalStd3=1	1.0000	1.0630	.063	6.30	.00018	.000	1
CalStd4=5	5.0000	5.0607	.061	1.21	.00096	.000	1
CalStd5=10	10.000	10.166	.166	1.66	.00196	.000	1
CalStd8=100	100.00	102.38	2.38	2.38	.02006	.001	1
CalStd9=100	1000.0	984.83	-15.2	-1.52	.19323	.009	1
CalStd10=10	10000.	10013.	12.5	.125	1.9648	.109	1

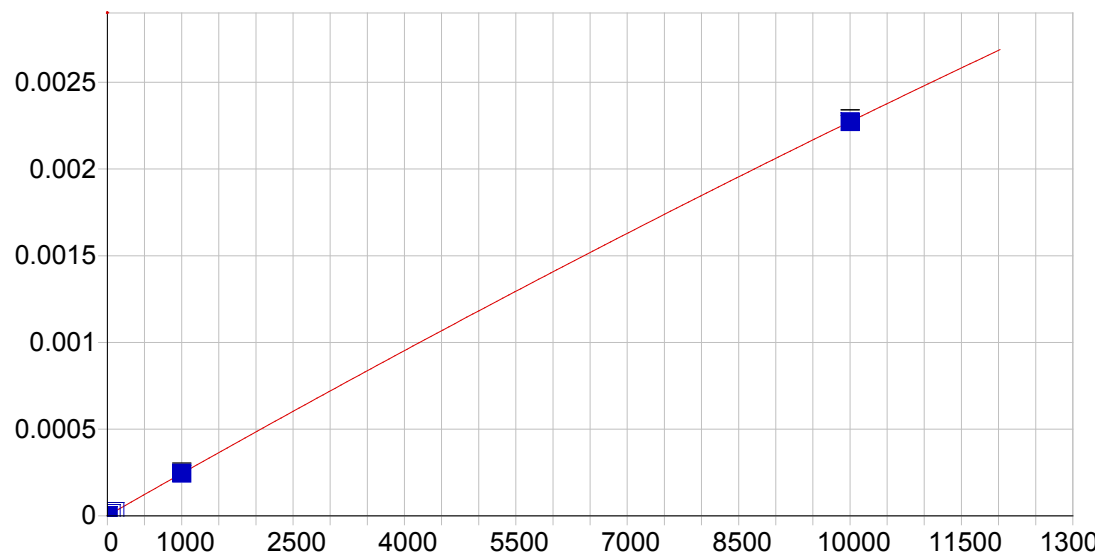


Sn 189.989 {477}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999990	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	1.352598	
Predicted MQL:	4.508659	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00040	.000	.000	.00000	.000	1
CalStd10=10	10000.	10001.	.615	.006	.00688	.000	1
CalStd9=100	1000.0	994.42	-5.58	-.558	.00075	.000	1
CalStd8=100	100.00	103.77	3.77	3.77	.00008	.000	1
CalStd5=10	10.000	10.183	.183	1.83	.00001	.000	1
CalStd7=50	50.000	50.980	.980	1.96	.00004	.000	1
CalStd4=5	5.0000	5.0512	.051	1.02	.00000	.000	1

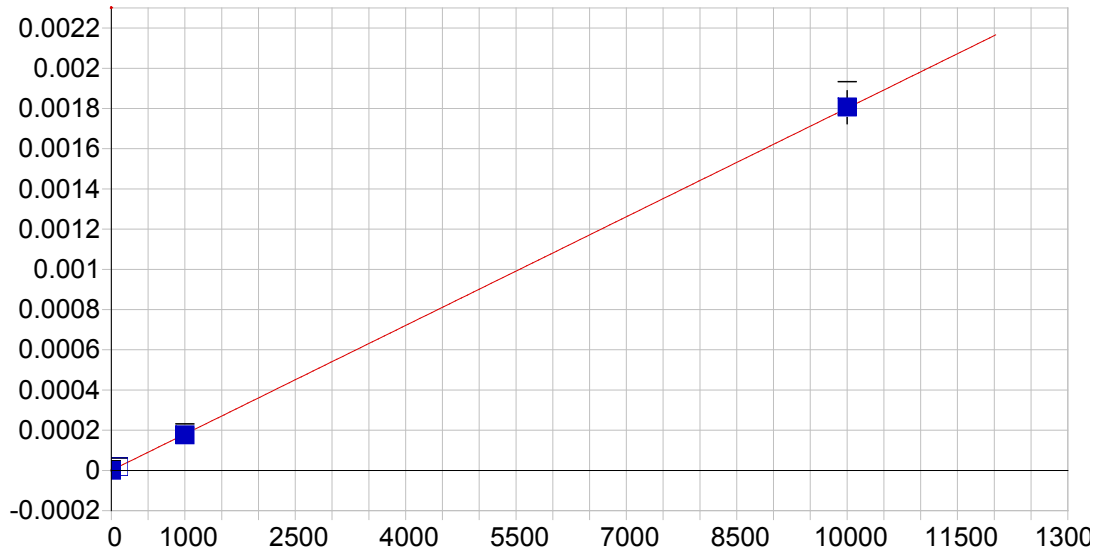


Sn 189.989 {478}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Curvilinear Weighting: 1/Conc

A0 (Offset):	0.000001	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	-0.000000	
n (Exponent):	1.000000	
Correlation:	0.999880	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	4.043310	
Predicted MQL:	13.477699	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00371	.004	.000	.00000	.000	1
CalStd10=10	10000.	9999.3	-.664	-.007	.00227	.000	1
CalStd9=100	1000.0	1005.7	5.74	.574	.00025	.000	1
CalStd8=100	100.00	100.41	.411	.411	.00003	.000	1
CalStd5=10	10.000	5.8841	-4.12	-41.2	.00000	.000	1
CalStd7=50	50.000	50.345	.345	.690	.00001	.000	1
CalStd4=5	5.0000	3.2686	-1.73	-34.6	.00000	.000	1

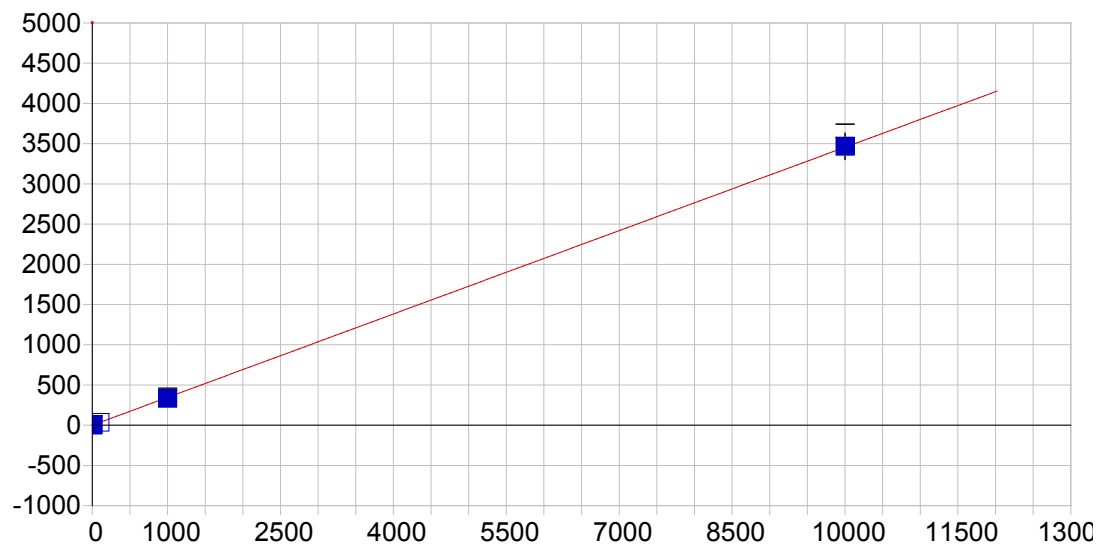


Sn 283.999 {119}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000000 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999962 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 24.407175
 Predicted MQL: 81.357251

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00659	.007	.000	.00000	.000	1
CalStd10=10	10000.	10028.	28.2	.282	.00180	.000	1
CalStd9=100	1000.0	976.35	-23.7	-2.37	.00018	.000	1
CalStd8=100	100.00	95.496	-4.50	-4.50	.00002	.000	1

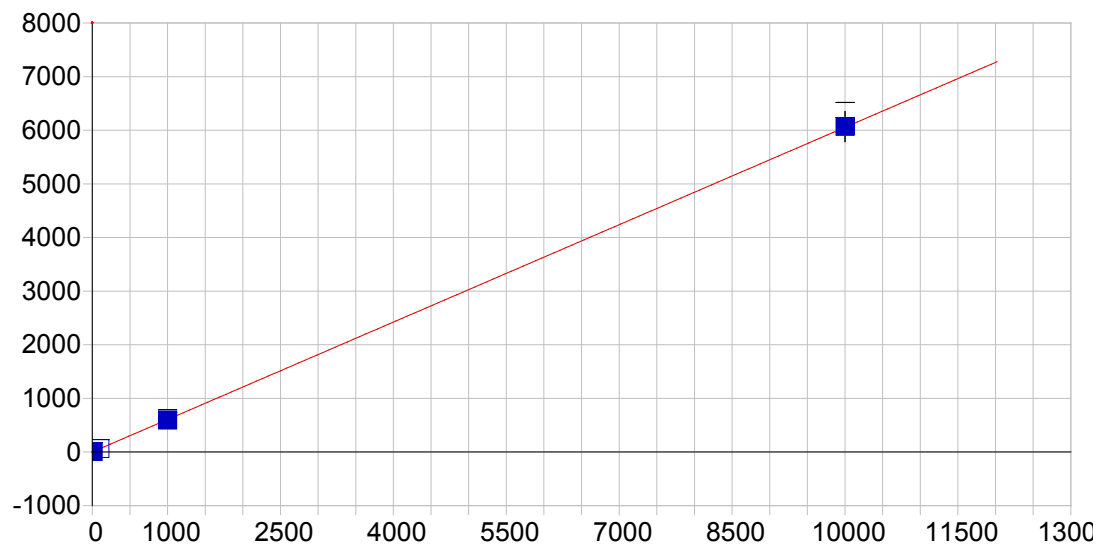


B 249.678 {135}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.123820	Re-Slope: 1.000000
A1 (Gain):	0.345541	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	0.999935	Status: OK.
Std Error of Est:	0.053719	
Predicted MDL:	4.569755	
Predicted MQL:	15.232516	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00021	.000	.000	.12389	1.12	1
CalStd8=100	100.00	102.45	2.45	2.45	35.524	1.77	1
CalStd5=10	10.000	9.8651	-.135	-1.35	3.5326	2.13	1
CalStd9=100	1000.0	964.25	-35.8	-3.58	333.25	13.1	1
CalStd10=10	10000.	10033.	33.4	.334	3466.5	164.	1

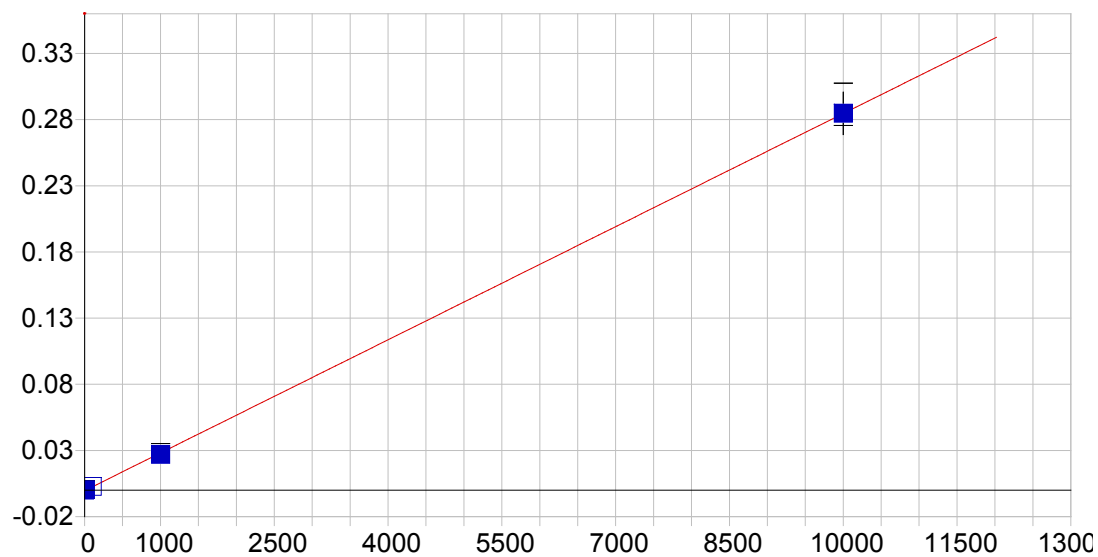


B 249.773 {135}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.993119 Re-Slope: 1.000000
 A1 (Gain): 0.605402 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999972 Status: OK.
 Std Error of Est: 0.061511
 Predicted MDL: 2.453936
 Predicted MQL: 8.179787

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00092	-.001	.000	.99256	1.60	1
CalStd8=100	100.00	99.099	-.901	-.901	60.988	3.53	1
CalStd5=10	10.000	11.198	1.20	12.0	7.7724	1.07	1
CalStd9=100	1000.0	979.34	-20.7	-2.07	594.20	24.0	1
CalStd10=10	10000.	10020.	20.4	.204	6070.5	281.	1

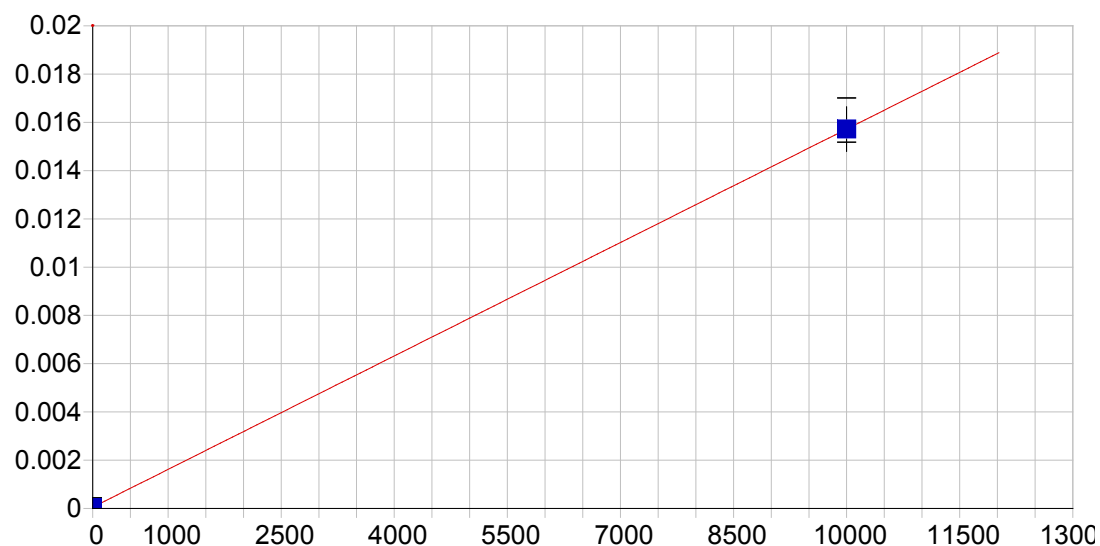


Li 670.784 { 50}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: None

A0 (Offset): -0.000371 Re-Slope: 1.000000
 A1 (Gain): 0.000028 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 0.999987 Status: OK.
 Std Error of Est: 0.000735
 Predicted MDL: 1.002105
 Predicted MQL: 3.340351

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	12.270	12.3	.000	-.00002	.000	1
CalStd5=10	10.000	21.968	12.0	120.	.00026	.000	1
CalStd8=100	100.00	111.40	11.4	11.4	.00280	.000	1
CalStd9=100	1000.0	960.54	-39.5	-3.95	.02701	.001	1
CalStd10=10	10000.	10004.	3.82	.038	.28474	.016	1

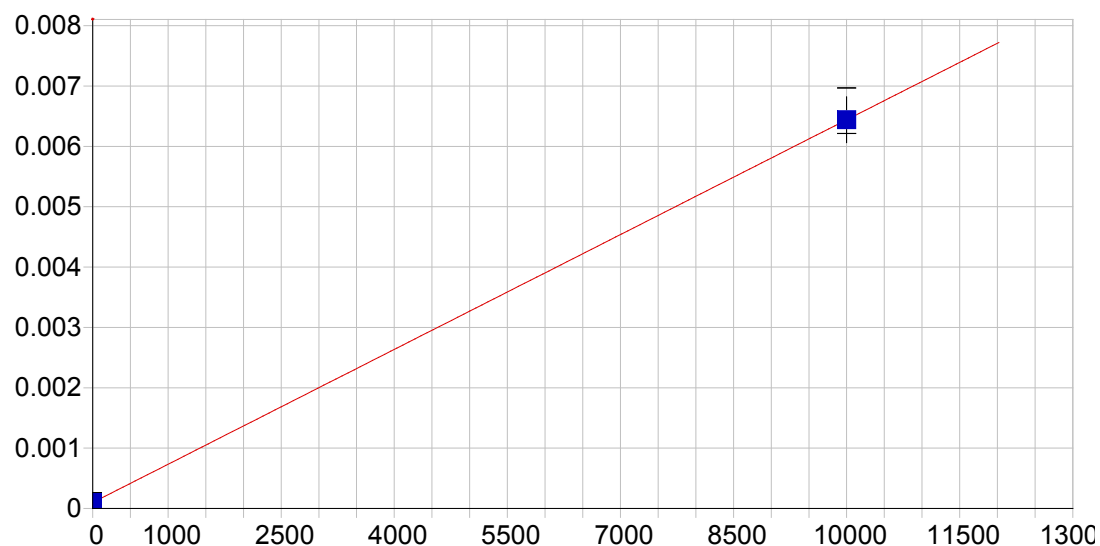


K 766.490 { 44}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000052 Re-Slope: 1.000000
 A1 (Gain): 0.000002 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 18.593134
 Predicted MQL: 61.977114

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00005	.000	1
CalStd10=10	10000.	10000.	.000	.000	.01572	.001	1

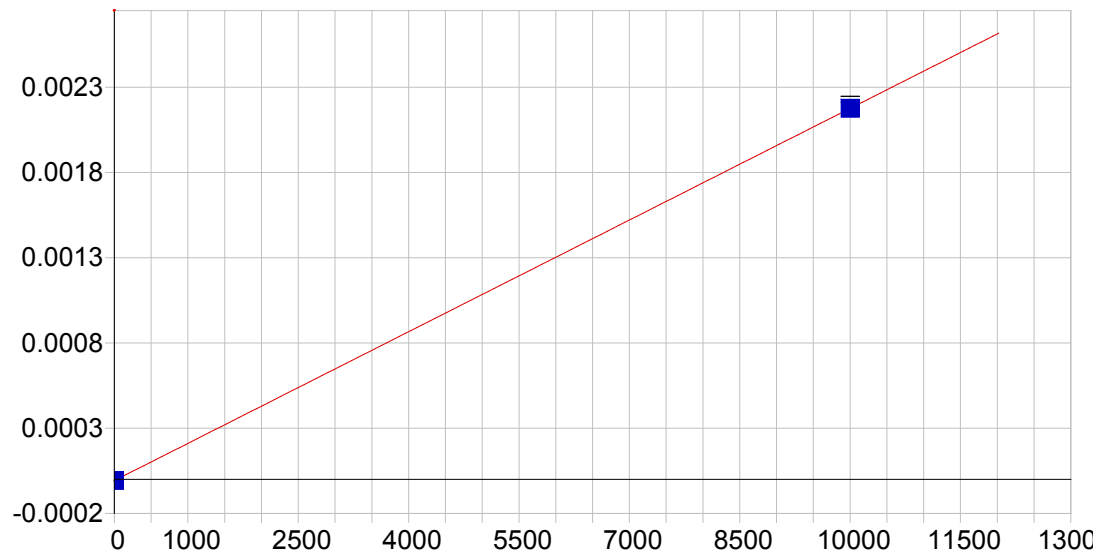


K 769.896 { 44 }

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.000098	Re-Slope: 1.000000
A1 (Gain):	0.000001	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	36.203442	
Predicted MQL:	120.678139	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00010	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00644	.000	1

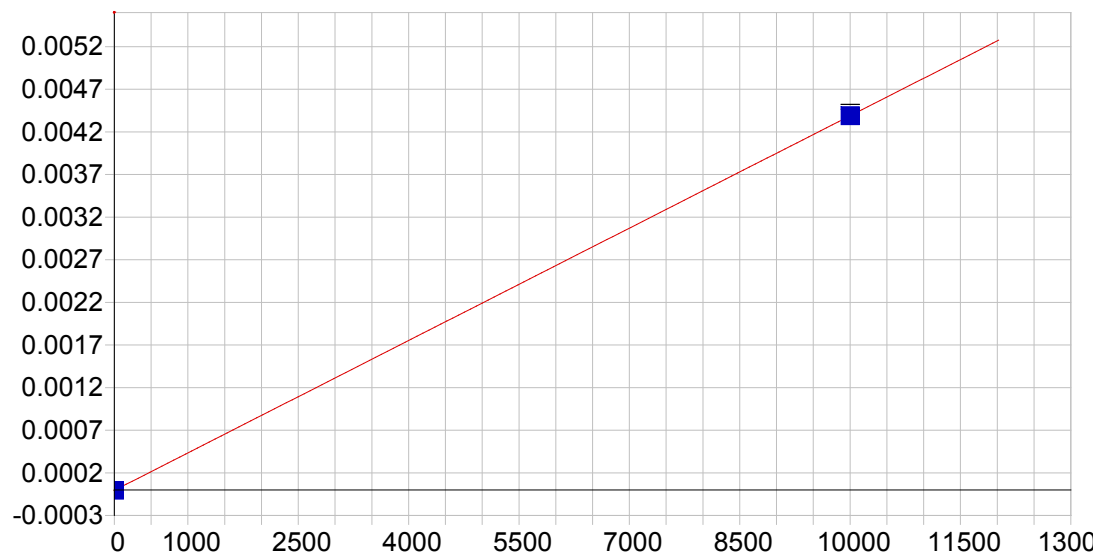


P 177.495 {489}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000007 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 4.613797
 Predicted MQL: 15.379323

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00001	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00218	.000	1

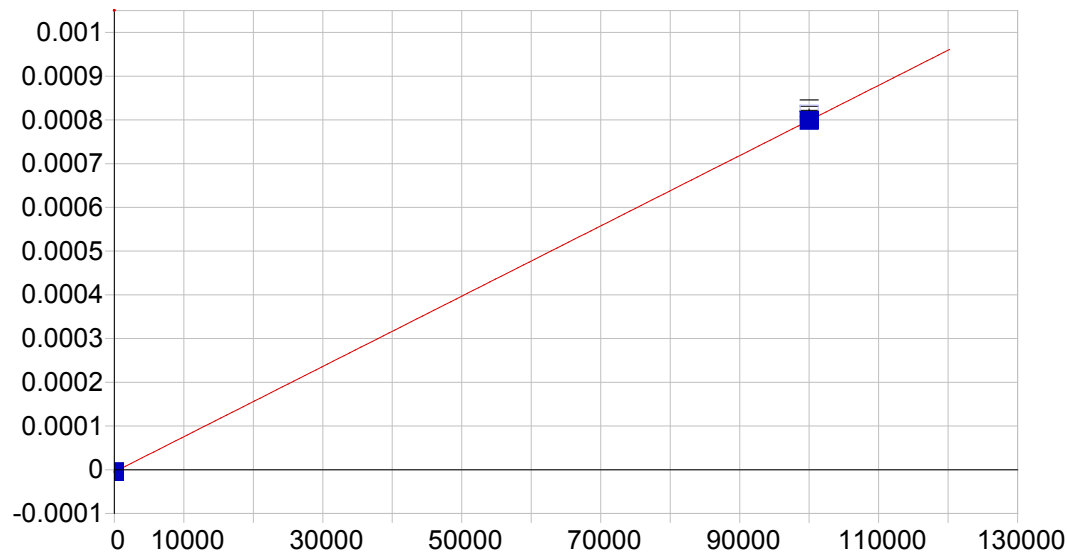


P 213.618 {457}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): -0.000005 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 3.978819
 Predicted MQL: 13.262729

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00001	.000	1
CalStd10=10	10000.	10000.	.000	.000	.00439	.000	1

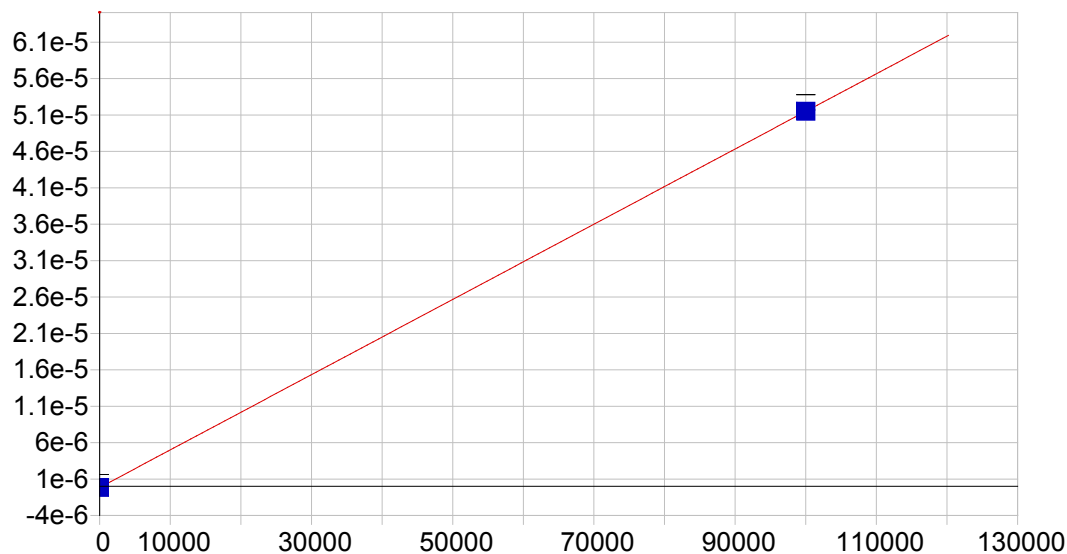


S 180.731 {486}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000005	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	156.007537	
Predicted MQL:	520.025122	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd12-100 100000.	100000.	100000.	.000	.000	.00081	.000	1

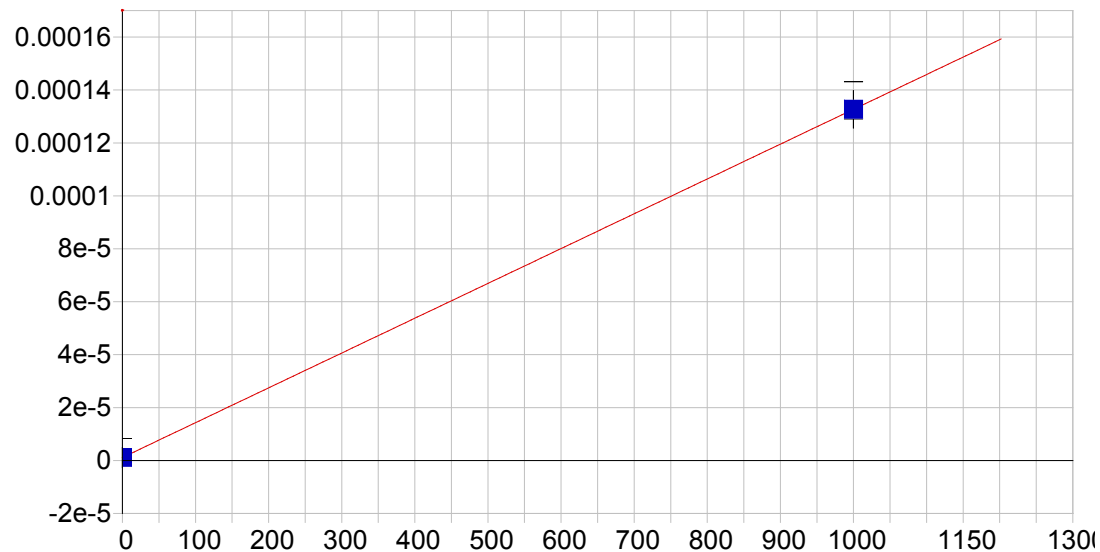


S 182.034 {485}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	-0.000000	Re-Slope: 1.000000
A1 (Gain):	0.000000	Y-int: 0.000000
A2 (Curvature):	0.000000	
n (Exponent):	1.000000	
Correlation:	1.000000	Status: OK.
Std Error of Est:	0.000000	
Predicted MDL:	2309.794343	
Predicted MQL:	7699.314478	

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd12-100 100000.	100000.	100000.	.000	.000	.00005	.000	1

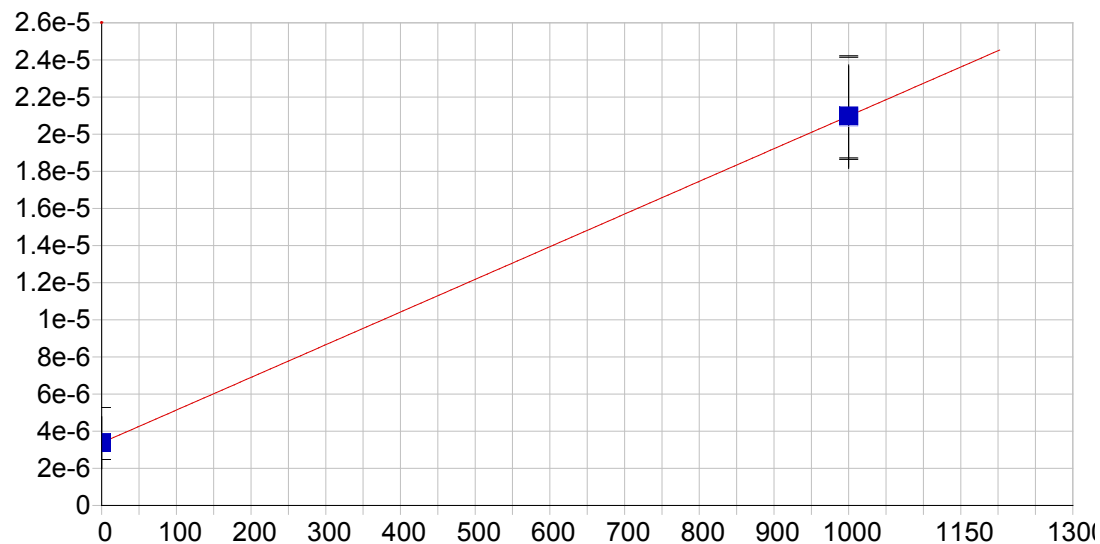


W 239.709 {140}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000001 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 25.373741
 Predicted MQL: 84.579136

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00013	.000	1



W 245.148 {137}

Date of Fit: 09/02/2015 11:01:36 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset): 0.000003 Re-Slope: 1.000000
 A1 (Gain): 0.000000 Y-int: 0.000000
 A2 (Curvature): 0.000000
 n (Exponent): 1.000000
 Correlation: 1.000000 Status: OK.
 Std Error of Est: 0.000000
 Predicted MDL: 225.232609
 Predicted MQL: 750.775364

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00000	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00002	.000	1

Sample Name: Blank Acquired: 09/01/2015 14:03:22 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	Al3961	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3158	Ca3933	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19.0	24.4	-2.17	.017	-.426	-11.3	-455.	-.669	.648	41.7	236.	.413
Stddev	4.9	4.3	4.45	.393	.320	7.9	33.	1.74	.502	2.3	52.	.525
%RSD	25.9	17.5	205.	2260.	75.3	69.3	7.19	260.	77.5	5.49	21.8	127.

Elem	Cd2288	Co2286	Co2388	Cr2677	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Fe2599	Mg2025	Mg2802
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.82	-1.23	.416	1.42	7.32	.248	2140.	1.38	1.54	5.81	-2.64	20.5
Stddev	.18	.90	.444	2.16	1.49	.638	53.	.24	1.04	2.08	.54	1.9
%RSD	4.75	73.3	107.	153.	20.4	258.	2.47	17.4	67.7	35.8	20.4	9.10

Elem	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.245	.336	.956	.888	-3.13	1.88	.411	-.128	-.260	.536	-.086	-.872
Stddev	.376	2.13	.489	.476	.82	.63	1.28	.522	.432	.423	.268	.605
%RSD	153.	633.	51.2	53.6	26.1	33.7	312.	406.	166.	78.9	309.	69.4

Elem	Tl2767	V_2908	V_2924	Zn2062	Zn2138	Sr4215	B_2496	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.187	9.40	3.15	1.22	1.80	.000	.124	.993
Stddev	.923	2.85	6.52	.32	.79	.00	1.12	1.60
%RSD	493.	30.3	207.	26.2	43.8	14.3	908.	162.

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	7936.7	389130.
Stddev	39.2	10039.
%RSD	.49437	2.5798

Sample Name: CalStd1=0.25 Acquired: 09/01/2015 14:07:48 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Be3130
Units	Cts/S
Avg	3.56
Stddev	.32
%RSD	9.07

Sample Name: CalStd2=0.5 Acquired: 09/01/2015 14:12:15 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ba4554	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	25.2	10.3	2.22	8.08
Stddev	6.5	1.5	.49	1.05
%RSD	25.9	14.9	22.0	13.0

Sample Name: CalStd3=1 Acquired: 09/01/2015 14:16:43 Type: Cal
 Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ag3280	Ba4554	Be3130	Cd2265	Cd2288	Co2286	Cr2677	Cu2247	Ni2316	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	12.4	22.4	6.74	5.47	8.30	21.8	10.2	31.1	459.	3.47

Int. Std.	Y_3710
Units	Cts/S
Avg	384860.
Stddev	811.
%RSD	.21066

Sample Name: CalStd4=5 Acquired: 09/01/2015 14:21:09 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1890	Ba4554	Ba4934	Be3130	Cd2265	Co2286	Cr2677	Cu2247	Mn2576	Ni2316	Pb2169
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
Stddev	.000	.000	.000	.00	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	39.7	344.	4.71	15.9	5.35	.668	3.53	30.1	16.9	9.78	3.18	7.79

Elem	Pb2203	Sb2175	Zn2138	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.000	.000	.000	.001
Stddev	.000	.000	.000	.000
%RSD	30.5	74.0	4.26	5.10

Int. Std.	Y_2243	Y_3203	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	7829.1	53337.	384860.
Stddev	38.0	281.	6454.
%RSD	.48559	.52646	1.6769

Sample Name: CalStd5=10 Acquired: 09/01/2015 14:25:37 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba4554	Be3130	Cd2265	Cd2288	Co2286	Cr2677	Cu2247	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	86.1	.597	589.	255.	53.1	94.7	48.7	10.4	8.52	24.5	3.73	21.2
Stddev	.7	.494	28.	7.	1.1	.7	.3	2.0	.98	1.4	.36	.5
%RSD	.811	82.8	4.69	2.88	2.10	.767	.629	18.8	11.5	5.58	9.75	2.25

Elem	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.45	7.34	2.15	3.69	1.40	2.18	170.	31.8	.002	3.53	7.77
Stddev	.57	.78	.22	.21	.26	.52	5.	.6	.000	2.13	1.07
%RSD	12.9	10.6	10.3	5.79	18.6	23.9	2.78	1.80	4.24	60.2	13.8

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	7712.8	376850.
Stddev	60.1	3691.
%RSD	.77936	.97939

Sample Name: CalStd6=20 Acquired: 09/01/2015 14:30:03 Type: Cal
 Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Ba4554	Cr2677	Cu2247	Fe2599	Mn2576	Mo2020	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1200.	21.2	18.5	37.0	50.6	6.85	7.76	335.
Stddev	49.	.6	1.0	1.7	1.2	.38	.54	3.
%RSD	4.12	2.67	5.28	4.49	2.38	5.52	7.01	.866

Sample Name: CalStd7=50 Acquired: 09/01/2015 14:34:28 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	As1937	Ba4554	Ca3933	Cd2265	Co2286	Cr2677	Cr2835	Cu2247	Fe2599	Mg2802	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.48	2860.	7300.	261.	250.	49.7	60.4	45.2	37.3	479.	121.	16.5
Stddev	.23	100.	213.	2.	3.	.9	2.5	.6	.4	13.	2.	1.0
%RSD	4.15	3.49	2.91	.739	1.15	1.84	4.21	1.31	.995	2.80	1.74	6.27

Elem	Mo2045	Ni2316	Sb2068	Se1960	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	22.6	117.	9.63	4.10	821.	148.
Stddev	.3	1.	.61	1.03	13.	2.
%RSD	1.45	.712	6.39	25.0	1.52	1.11

Int. Std.	Y_3710
Units	Cts/S
Avg	372670.
Stddev	4589.
%RSD	1.2314

Sample Name: CalStd8=100 Acquired: 09/01/2015 14:38:52 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3933	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	867.	10.8	2.36	5930.	4830.	2550.	128.	14700.	532.	927.	513.
Stddev	4.	.5	.46	232.	194.	89.	4.	542.	1.	4.	3.
%RSD	.514	4.22	19.5	3.91	4.01	3.49	2.79	3.70	.206	.389	.540

Elem	Co2388	Cr2677	Cr2835	Cu2247	Cu3247	Fe2599	Mg2802	Mn2576	Mo2020	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	36.9	100.	117.	91.6	2130.	75.0	973.	248.	32.8	45.6	240.
Stddev	2.1	3.	4.	.9	15.	4.0	34.	8.	.7	.6	2.
%RSD	5.70	2.82	3.52	1.00	.690	5.27	3.52	3.32	2.18	1.29	.650

Elem	Pb2169	Pb2203	Sb2175	Se1960	Se2062	Tl1908	Tl2767	V_2908	V_2924	Zn2138	Sr4215
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	28.8	70.9	40.7	8.14	3.44	24.7	3.25	120.	1690.	303.	.020
Stddev	1.1	.3	.6	.20	.29	.5	.81	4.	16.	1.	.001
%RSD	3.70	.358	1.51	2.43	8.56	2.15	25.0	3.69	.952	.473	4.76

Elem	B_2496	B_2497
Units	Cts/S	Cts/S
Avg	35.5	61.0
Stddev	1.8	3.5
%RSD	4.98	5.78

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	7635.0	375890.
Stddev	24.7	6135.
%RSD	.32403	1.6321

Sample Name: CalStd9=1000 Acquired: 09/01/2015 14:43:14 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3082	Al3961	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3158	Ca3933	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.001	.003	.000	.000	.155	.136	.067	.003	.002	.341	.014	.024
Stddev	.000	.000	.000	.000	.008	.007	.003	.000	.000	.017	.000	.000
%RSD	4.94	4.31	1.93	1.68	5.11	4.95	4.61	4.12	3.91	4.88	1.97	2.05

Elem	Co2286	Co2388	Cr2677	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395	Fe2599	Mg2025	Mg2802	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.013	.001	.003	.003	.002	.008	.000	.000	.002	.000	.024	.006
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000
%RSD	2.21	4.71	4.01	4.12	2.62	2.93	4.63	4.18	4.58	2.20	4.50	4.32

Elem	Mn2593	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	Tl2767
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.078	.001	.001	.009	.001	.087	.001	.001	.002	.000	.031	.000
Stddev	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.91	2.91	2.41	2.28	1.80	.439	1.99	1.78	.467	1.42	.502	5.59

Elem	V_2908	V_2924	Zn2062	Zn2138	Sr4215	B_2496	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.003	.043	.001	.008	.193	.001	.002
Stddev	.000	.001	.000	.000	.009	.000	.000
%RSD	4.61	1.95	1.15	2.12	4.86	5.19	5.25

Int. Std.	Y_2243	Y_3203	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	7675.3	51066.	372680.
Stddev	18.1	191.	5155.
%RSD	.23622	.37327	1.3831

Sample Name: CalStd10=10000 Acquired: 09/01/2015 14:47:19 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3082	Al3961	As1937	As1890	Ba4934	Ca3158	Co2388	Cr2835	Cu2247	Cu3247	Fe2343	Fe2395
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.007	.027	.003	.004	1.38	.015	.009	.029	.022	.034	.001	.003
Stddev	.000	.001	.000	.000	.09	.001	.000	.001	.000	.002	.000	.000
%RSD	4.87	4.97	.670	.529	6.75	5.13	4.97	4.88	.720	4.41	4.88	4.67

Elem	Fe2599	Mg2025	Mg2802	Mn2576	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Se1960	Se2062	Tl2767
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.018	.005	.241	.065	.798	.011	.085	.006	.005	.015	.001	.001
Stddev	.001	.000	.012	.003	.041	.000	.001	.000	.000	.000	.000	.000
%RSD	4.87	.922	5.13	5.23	5.10	.801	.818	.613	.558	.388	.603	5.29

Elem	V_2908	Zn2062	Zn2138	Sr4215	B_2496	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.030	.014	.069	1.96	.009	.017
Stddev	.002	.000	.000	.11	.000	.001
%RSD	5.08	.653	.689	5.53	5.02	4.95

Int. Std.	Y_3203	Y_3710
Units	Cts/S	Cts/S
Avg	50380.	366200.
Stddev	249.	1880.
%RSD	.49504	.51341

Sample Name: CalStd11-100k Acquired: 09/01/2015 14:51:54 Type: Cal
 Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Cr2835	Cu3247	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.292	.305	7.39	.066	.126
Stddev	.012	.013	.35	.001	.003
%RSD	4.02	4.25	4.78	1.52	2.56

Int. Std.	Y_3203	Y_3710
Units	Cts/S	Cts/S
Avg	50851.	364370.
Stddev	482.	4273.
%RSD	.94882	1.1726

Sample Name: CalStd12-100000 Acquired: 09/01/2015 14:56:20 Type: Cal
 Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
 User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
 Comment:

Elem	Al3082	Al3961	Ca3158	Fe2343	Fe2395	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.059	.256	.143	.013	.032	.041
Stddev	.003	.011	.007	.001	.001	.001
%RSD	4.49	4.49	4.95	4.10	4.36	1.42

Int. Std.	Y_3710
Units	Cts/S
Avg	360210.
Stddev	4011.
%RSD	1.1136

Sample Name: CalStd13=500000 Acquired: 09/01/2015 15:00:54 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2343	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.31	.725	.061	.173
Stddev	.08	.035	.003	.003
%RSD	5.84	4.85	4.69	1.45

Int. Std.	Y_3710
Units	Cts/S
Avg	337610.
Stddev	4485.
%RSD	1.3285

Sample Name: CalStd14-1000k Acquired: 09/01/2015 15:05:39 Type: Cal
Method: DOD Calibration Updated 060614(v797) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Al3082	Al3961	Ca3158	Fe2343	Mg2025
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	198000.	834000.	429000.	37100.	94800.
Stddev	7440.	35500.	18700.	1310.	310.
%RSD	3.76	4.25	4.35	3.53	.328

Sample Name: icv Acquired: 09/01/2015 15:15:20 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Co2388	Cr2677	Cu2247
Avg	48.7	11800.	2040.	2080.	2010.	47.6	9900.	48.5	483.	477.	196.	260.
Stddev	.3	414.	13.	14.	83.	1.7	397.	.4	5.	18.	8.	2.
%RSD	.609	3.50	.612	.669	4.12	3.56	4.00	.821	1.05	3.67	4.19	.783

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Fe2343	Fe2395	Mg2025	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203	Sb2068
Avg	5000.	4850.	9890.	9850.	492.	509.	501.	511.	532.	550.	475.	509.
Stddev	158.	184.	99.	368.	18.	23.	3.	4.	4.	2.	5.	3.
%RSD	3.16	3.78	1.00	3.74	3.62	4.42	.515	.758	.834	.382	.963	.541

Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Sb2175	Se1960	Se2062	Tl2767	V_2908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Avg	491.	2030.	2020.	1950.	487.	501.	482.	538.	486.	489.
Stddev	3.	27.	29.	70.	22.	4.	4.	27.	17.	20.
%RSD	.681	1.33	1.45	3.61	4.48	.876	.916	4.95	3.46	4.04

Check ?	None	None	None	None	None	None	None	None	None	None
Value										
Range										

Sample Name: icv Acquired: 09/01/2015 15:15:20 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3710
Avg	7272.5	355950.
Stddev	13.4	4299.
%RSD	.18476	1.2078

Sample Name: ICVLL Acquired: 09/01/2015 15:19:38 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	Al3961	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247
Avg	70.3	1210.	1170.	64.3	29.7	11.7	1480.	1500.	14.2	28.5	28.9	32.0
Stddev	1.0	47.	36.	6.1	.9	.4	51.	49.	.1	.2	1.0	1.1
%RSD	1.47	3.88	3.07	9.44	3.06	3.28	3.42	3.28	.501	.773	3.61	3.45

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Elem	Fe2343	Fe2395	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924
Avg	894.	880.	888.	1510.	31.2	31.3	32.1	26.2	59.6	61.8	58.9	29.9
Stddev	23.	31.	23.	46.	1.4	1.9	.5	.7	1.5	7.0	1.0	.3
%RSD	2.62	3.52	2.64	3.06	4.39	6.10	1.67	2.85	2.44	11.4	1.72	.953

Check ? **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass** **Chk Pass**
Value
Range

Elem	Zn2138	Sr4215	B_2496	B_2497
Avg	30.5	30.9	61.9	57.4
Stddev	.2	1.1	6.0	1.2
%RSD	.496	3.45	9.75	2.00

Check ? **Chk Pass** None **Chk Pass** **Chk Pass**
Value
Range

Sample Name: ICVLL Acquired: 09/01/2015 15:19:38 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3710
Avg	7322.8	361080.
Stddev	21.6	2933.
%RSD	.29505	.81217

Sample Name: icb Acquired: 09/01/2015 15:28:22 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Avg	.169	9.17	.040	.020	.048	-5.92	-4.98	-.418	-.089	-.495	.048	-1.90
Stddev	.196	16.4	3.75	.105	.038	1.05	.38	.064	.088	1.93	.995	1.85
%RSD	116.	179.	9330.	530.	78.6	17.7	7.64	15.2	98.8	390.	2060.	97.5

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496
Avg	1.12	-.223	-.665	.367	-4.29	-1.51	.541	-.054	.107	.175	-.015	-.741
Stddev	.34	.445	2.16	.242	1.09	1.33	1.21	2.20	.234	.031	.006	3.25
%RSD	29.9	199.	325.	66.0	25.4	88.2	224.	4100.	218.	18.0	39.8	439.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	B_2497
Avg	-1.94
Stddev	1.45
%RSD	74.5

Check ? Value Range	None
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Sample Name: icb Acquired: 09/01/2015 15:28:22 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3710
Avg	7051.4	353890.
Stddev	81.9	7391.
%RSD	1.1609	2.0884

Sample Name: icsab Acquired: 09/01/2015 15:42:00 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4554	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288
Avg	457.	503000.	464.	427.	499.	411.	440.	444.	499000.	418.	427.
Stddev	2.	25200.	19.	35.	21.	17.	17.	17.	22700.	15.	3.
%RSD	.418	5.01	4.14	8.13	4.19	4.16	3.96	3.74	4.54	3.66	.613

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
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Elem	Co2286	Co2388	Cr2677	Cu2247	Fe2343	Mg2025	Mn2576	Mo2020	Mo2045	Ni2316	Pb2169
Avg	F 381.	402.	457.	F 397.	459000.	508000.	459.	406.	406.	F 396.	405.
Stddev	3.	20.	16.	4.	19900.	2440.	19.	6.	4.	3.	18.
%RSD	.734	5.07	3.54	.914	4.34	.481	4.09	1.52	.883	.725	4.46

Check ? Value Range	Chk Fail 500. -20.0%	Chk Pass	Chk Pass	Chk Fail 500. -20.0%	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail 500. -20.0%	Chk Pass
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Elem	Pb2203	Sb2068	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2138	Sr4215	B_2496
Avg	531.	455.	433.	431.	425.	F 334.	418.	448.	426.	F 610.	475.
Stddev	45.	6.	6.	12.	32.	3.	16.	3.	1.	32.	20.
%RSD	8.45	1.38	1.29	2.78	7.63	.994	3.87	.676	.184	5.21	4.29

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail 500. -20.0%	Chk Pass	Chk Pass	Chk Pass	Chk Fail 500. 20.0%	Chk Pass
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Sample Name: icsab Acquired: 09/01/2015 15:42:00 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	B_2497
Avg	480.
Stddev	14.
%RSD	2.81

Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243	Y_3710
Avg	5536.4	305570.
Stddev	21.7	4056.
%RSD	.39236	1.3272

Sample Name: ccv1 Acquired: 09/01/2015 19:22:43 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2388	Cr2677	Cr2835
Avg	507.	5350.	5270.	5100.	488.	487.	5140.	507.	535.	4830.	4980.	5020.
Stddev	3.	155.	13.	247.	15.	15.	158.	2.	2.	149.	150.	151.
%RSD	.507	2.90	.244	4.83	3.00	3.06	3.08	.348	.413	3.08	3.01	3.01

Check ? Value Range	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass
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Elem	Cu2247	Cu3247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175
Avg	5410.	F 4290.	5030.	4890.	5240.	4990.	5150.	5430.	5440.	5340.	5280.	4980.
Stddev	6.	170.	144.	141.	16.	156.	166.	11.	13.	14.	16.	12.
%RSD	.120	3.95	2.86	2.89	.312	3.12	3.22	.203	.241	.257	.307	.242

Check ? Value Range	None	Chk Fail 5000. -10.4%	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
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Elem	Se1960	Se2062	Tl2767	V_2908	Zn2138	Sr4215	B_2496	B_2497
Avg	5240.	5250.	4850.	4990.	5200.	F 6360.	4730.	4830.
Stddev	24.	31.	88.	164.	28.	232.	134.	135.
%RSD	.449	.592	1.82	3.29	.542	3.65	2.84	2.80

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail 5000. 10.4%	Chk Pass	Chk Pass
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Sample Name: ccv1 Acquired: 09/01/2015 19:22:43 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	299620.
Stddev	2362.
%RSD	.78835

Sample Name: ccv2 Acquired: 09/01/2015 19:27:22 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	As1937	Ba4554	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Co2388	Cr2677
Avg	52.9	535.	537.	506.	503.	47.9	482.	509.	52.5	523.	464.	480.
Stddev	.3	14.	9.	14.	14.	1.4	17.	15.	.4	5.	9.	14.
%RSD	.611	2.61	1.70	2.80	2.82	2.99	3.52	2.94	.839	1.03	2.02	2.93

Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
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Elem	Cr2835	Cu2247	Fe2343	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2169	Pb2203
Avg	483.	F 559.	481.	472.	490.	480.	503.	525.	543.	F 564.	570.	516.
Stddev	12.	5.	16.	13.	14.	14.	14.	9.	5.	7.	5.	5.
%RSD	2.42	.958	3.22	2.85	2.94	2.82	2.72	1.79	.898	1.29	.854	.877

Check ? Value Range	None	Chk Fail 500. 10.4%	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail 500. 10.4%	None	Chk Pass
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Elem	Sb2068	Sb2175	Se1960	Se2062	Tl1908	Tl2767	V_2908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Avg	539.	510.	544.	513.	511.	454.	479.	530.	511.	F 614.	464.	463.
Stddev	4.	5.	11.	9.	5.	66.	18.	4.	5.	25.	16.	14.
%RSD	.739	.918	2.06	1.78	1.07	14.6	3.76	.774	1.06	4.00	3.37	3.04

Check ? Value Range	None	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Fail 500. 10.4%	Chk Pass	Chk Pass
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Sample Name: ccv2 Acquired: 09/01/2015 19:27:22 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	305620.
Stddev	4524.
%RSD	1.4802

Sample Name: ccb Acquired: 09/01/2015 19:31:28 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	.121	3.58	.211	.073	-11.0	2.52	-.467	.038	-1.11	-.504	-2.59	2.64
Stddev	.401	4.04	.073	.058	1.9	.10	.115	.123	2.51	.806	1.02	.08
%RSD	333.	113.	34.6	79.9	17.6	3.87	24.6	326.	226.	160.	39.4	2.96

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Avg	.276	3.30	1.04	-3.86	.946	1.65	2.05	.452	.736	.142	1.88	.692
Stddev	.322	1.05	.18	1.06	1.01	6.37	1.44	.172	.265	.068	1.63	3.22
%RSD	116.	31.8	17.5	27.4	106.	385.	70.4	38.1	36.1	48.0	86.4	465.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_2243	Y_3710
Avg	6565.6	306040.
Stddev	20.2	2570.
%RSD	.30735	.83973

Sample Name: mbs53962 Acquired: 09/01/2015 19:49:34 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-.028	1.14	.125	.071	-.227	13.8	-.454	.154	-.367	-.269	3.27	2.73
Stddev	.311	8.06	.072	.036	3.07	.6	.036	.086	1.92	.914	1.67	.16
%RSD	1110.	706.	57.4	50.3	1350.	4.34	7.87	55.7	523.	339.	50.9	6.00

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.311	-1.93	.729	-4.56	-1.39	-4.74	1.58	-.130	.987	.177	-1.30	-1.86
Stddev	.329	1.32	.225	1.09	1.45	2.82	1.23	.251	.105	.086	4.66	4.35
%RSD	106.	68.2	30.9	24.0	104.	59.5	77.9	193.	10.6	48.5	359.	234.

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	6626.8	302430.
Stddev	30.2	12037.
%RSD	.45499	3.9802

Sample Name: 623727 Acquired: 09/01/2015 19:53:59 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-517	.011	-10.8	3.95	.055	388.	416.	-.322	-.173	.170	.997	43.4
Stddev	.713	7.45	2.8	.21	.041	17.	14.	.041	.224	1.57	.249	1.3
%RSD	138.	69000.	25.8	5.37	74.6	4.43	3.23	12.7	129.	927.	25.0	3.03

Elem	Mg2802	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	134.	1.11	.602	-.232	25.2	-2.02	-8.62	-2.21	.111	44.3	1.56	7.63
Stddev	5.	.27	1.30	.238	2.3	1.28	7.59	.93	.359	.4	.13	4.21
%RSD	3.94	24.6	216.	103.	9.27	63.2	88.0	42.0	323.	.851	8.42	55.2

Elem	B_2497
Units	ug/L
Avg	7.80
Stddev	.95
%RSD	12.2

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	6715.7	300610.
Stddev	15.5	3609.
%RSD	.23115	1.2007

Sample Name: 623730 Acquired: 09/01/2015 19:58:21 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2677	Cu2247	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.523	2130.	6.98	918.	-.015	85800.	141.	143.	15.4	76.6	42.1	748.
Stddev	.272	27.	1.41	21.	.057	1150.	1.	1.	.2	3.1	.5	34.
%RSD	51.9	1.26	20.2	2.28	384.	1.34	.699	.958	1.43	3.99	1.18	4.57

Elem	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	734.	3680.	41.3	-.597	1.46	51000.	-23.9	-7.21	-1.64	2.60	4950.	278.
Stddev	14.	52.	.8	1.36	.44	410.	2.3	10.0	1.86	.21	45.	5.
%RSD	1.87	1.42	1.84	228.	30.3	.805	9.59	139.	113.	8.20	.911	1.95

Elem	B_2496	B_2497
Units	ug/L	ug/L
Avg	13.3	4.49
Stddev	.8	2.83
%RSD	5.84	63.0

Int. Std.	Y_2243	Y_3203	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	6443.4	40591.	302640.
Stddev	16.6	371.	6172.
%RSD	.25738	.91509	2.0394

Sample Name: I623730 Acquired: 09/01/2015 20:02:40 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3082	As1937	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.225	486.	5.67	203.	.034	19300.	36.0	3.74	15.0	11.1	151.	835.
Stddev	.527	29.	2.76	10.	.060	912.	.8	.17	2.1	1.0	9.	39.
%RSD	235.	6.03	48.6	5.03	177.	4.74	2.28	4.54	13.9	9.04	5.97	4.63
Elem	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	9.23	-2.00	.416	13500.	-4.66	-4.59	.506	.982	1260.	62.3	1.59	2.73
Stddev	.26	3.95	.328	203.	2.46	3.76	3.14	.246	26.	2.8	5.84	2.36
%RSD	2.82	198.	79.0	1.50	52.7	82.0	622.	25.0	2.05	4.42	369.	86.3
Int. Std.	Y_2243	Y_3203	Y_3710									
Units	Cts/S	Cts/S	Cts/S									
Avg	6455.4	40718.	304390.									
Stddev	19.1	213.	3574.									
%RSD	.29595	.52357	1.1742									

Sample Name: dup623730 Acquired: 09/01/2015 20:07:18 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2677	Cu2247	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	.635	2120.	.952	916.	-.024	84700.	139.	142.	15.3	73.5	42.2	747.
Stddev	.463	22.	7.07	11.	.060	938.	1.	2.	.2	4.4	1.8	4.
%RSD	73.0	1.04	743.	1.17	246.	1.11	1.07	1.17	1.19	5.94	4.16	.515

Elem	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	729.	3630.	40.3	-1.54	1.09	50800.	-23.2	-19.1	.303	2.26	4880.	277.
Stddev	9.	37.	.3	2.82	.52	620.	1.6	5.5	1.48	.14	55.	3.
%RSD	1.27	1.02	.672	183.	48.0	1.22	6.94	28.6	491.	6.01	1.13	1.24

Elem	B_2496	B_2497
Units	ug/L	ug/L
Avg	7.15	7.29
Stddev	4.30	5.29
%RSD	60.2	72.6

Int. Std.	Y_2243	Y_3203	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	6294.6	40287.	302090.
Stddev	34.8	183.	3554.
%RSD	.55221	.45474	1.1765

Sample Name: mss623730 Acquired: 09/01/2015 20:11:36 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba4554	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	6.70	2280.	222.	760.	755.	5.66	74500.	210.	215.	72.1	67.4	69.2
Stddev	.29	42.	4.	18.	19.	.14	1690.	3.	3.	1.1	.9	1.6
%RSD	4.31	1.85	2.01	2.34	2.48	2.49	2.27	1.49	1.37	1.46	1.27	2.31

Elem	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	598.	600.	3530.	96.3	-1.93	63.6	43100.	3.59	254.	216.	64.1	5520.
Stddev	19.	12.	78.	2.7	1.92	.9	504.	2.77	11.	3.	1.3	65.
%RSD	3.25	2.01	2.20	2.82	99.4	1.38	1.17	77.0	4.21	1.28	2.00	1.18

Elem	Sr4215	B_2496	B_2497
Units	ug/L	ug/L	ug/L
Avg	261.	10.3	9.45
Stddev	6.	2.2	3.32
%RSD	2.29	21.5	35.2

Int. Std.	Y_2243	Y_3203	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	6321.2	40157.	297480.
Stddev	23.7	68.	3195.
%RSD	.37464	.16878	1.0740

Sample Name: msds623730 Acquired: 09/01/2015 20:15:53 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	Ba4554	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2286	Cr2677	Cu2247
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	4.31	1850.	165.	618.	613.	4.54	62200.	154.	157.	53.9	54.8	52.1
Stddev	.18	16.	4.	4.	4.	.10	345.	2.	2.	.8	2.1	1.1
%RSD	4.11	.873	2.64	.620	.640	2.29	.554	1.24	1.09	1.46	3.90	2.09

Elem	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	486.	487.	2890.	78.9	-1.50	47.4	32200.	4.00	182.	162.	48.4	4020.
Stddev	16.	4.	14.	.6	1.30	.7	423.	1.54	4.	3.	.1	42.
%RSD	3.22	.783	.466	.815	86.5	1.55	1.31	38.6	2.18	1.94	.275	1.05

Elem	Sr4215	B_2496	B_2497
Units	ug/L	ug/L	ug/L
Avg	261.	9.09	6.33
Stddev	3.	3.15	1.06
%RSD	1.11	34.7	16.7

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	6314.4	299380.
Stddev	23.5	3145.
%RSD	.37179	1.0504

Sample Name: ccv1 Acquired: 09/01/2015 20:20:10 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2388	Cr2835	Cu2247
Avg	499.	5160.	5190.	4900.	473.	462.	4940.	495.	524.	4630.	4830.	5260.
Stddev	3.	222.	16.	297.	22.	22.	247.	1.	1.	215.	215.	17.
%RSD	.545	4.29	.309	6.07	4.57	4.80	5.00	.226	.135	4.64	4.45	.316

Check ? Value Range	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
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Elem	Fe2343	Fe2395	Mg2025	Mg2802	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175	Se1960	Se2062
Avg	4770.	4650.	5130.	4790.	4950.	5300.	5290.	5280.	5180.	4910.	5190.	5180.
Stddev	202.	203.	14.	226.	236.	12.	19.	22.	20.	8.	15.	17.
%RSD	4.24	4.37	.281	4.72	4.77	.231	.366	.411	.385	.157	.298	.327

Check ? Value Range	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	None	Chk Pass
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Elem	Tl2767	V_2908	Zn2138
Avg	4680.	4820.	5100.
Stddev	150.	215.	12.
%RSD	3.21	4.46	.232

Check ? Value Range	Chk Pass	Chk Pass	None
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Sample Name: ccv2 Acquired: 09/01/2015 20:24:50 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	As1937	As1890	Ba4554	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Co2388
Avg	52.3	514.	538.	554.	488.	485.	46.4	468.	494.	52.2	520.	449.
Stddev	.5	26.	6.	14.	19.	18.	1.7	17.	19.	.7	7.	16.
%RSD	.908	4.95	1.16	2.57	3.95	3.69	3.65	3.58	3.84	1.41	1.39	3.48

Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
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Elem	Cr2677	Cu2247	Fe2343	Fe2599	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Pb2203	Sb2175	Se1960
Avg	468.	F 558.	459.	454.	475.	465.	521.	F 447.	572.	518.	509.	542.
Stddev	14.	7.	33.	23.	16.	16.	7.	42.	9.	5.	6.	4.
%RSD	2.91	1.34	7.08	5.10	3.41	3.38	1.44	9.30	1.52	.901	1.16	.647

Check ? Value Range	Chk Pass	Chk Fail 500. 10.4%	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail 500. -10.4%	None	Chk Pass	Chk Pass	Chk Pass
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Elem	Ti1908	Ti2767	V_2908	V_2924	Zn2138	Sr4077	Sr4215
Avg	515.	480.	463.	519.	509.	614.	F 608.
Stddev	4.	96.	14.	6.	7.	34.	33.
%RSD	.714	20.0	2.91	1.10	1.29	5.45	5.45

Check ? Value Range	Chk Pass	None	None	Chk Pass	Chk Pass	None	Chk Fail 500. 10.4%
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Sample Name: ccv2 Acquired: 09/01/2015 20:24:50 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	299270.
Stddev	5217.
%RSD	1.7431

Sample Name: ccb Acquired: 09/01/2015 20:28:55 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	-.496	1.78	.239	.077	-14.0	2.33	-.458	.010	-2.13	.398	-2.07	2.39
Stddev	.434	1.97	.061	.026	6.0	.04	.075	.122	1.29	.666	.25	.09
%RSD	87.5	110.	25.6	33.5	43.3	1.76	16.3	1250.	60.7	167.	12.3	3.71

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Avg	.149	3.38	.588	-1.62	-.365	.301	3.07	.266	1.02	.095	3.25	1.72
Stddev	.476	1.32	.339	1.85	1.14	4.78	3.78	.097	.10	.056	1.42	1.23
%RSD	319.	39.0	57.7	114.	313.	1580.	123.	36.5	9.86	59.0	43.6	71.3

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Int. Std.	Y_2243	Y_3710
Avg	6558.2	298850.
Stddev	25.9	3625.
%RSD	.39446	1.2129

Sample Name: pdss623730 Acquired: 09/01/2015 20:33:20 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2286	Co2388
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	92.2	6350.	3240.	3300.	5560.	107.	107.	75000.	161.	186.	757.	1050.
Stddev	3.3	591.	252.	255.	504.	9.	9.	6360.	12.	14.	55.	82.
%RSD	3.58	9.31	7.77	7.71	9.06	8.58	8.06	8.48	7.37	7.35	7.22	7.82

Elem	Cr2677	Cr2835	Cu2247	Fe2343	Fe2395	Mg2802	Mn2576	Mn2593	Mo2020	Ni2316	Pb2169	Sb2068
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	483.	486.	444.	2720.	2670.	3120.	1110.	1160.	-.770	818.	33000.	811.
Stddev	46.	44.	34.	236.	250.	262.	96.	97.	2.72	58.	2450.	63.
%RSD	9.43	8.98	7.56	8.68	9.36	8.40	8.64	8.36	353.	7.07	7.42	7.70

Elem	Sb2175	Se1960	Se2062	Tl2767	V_2908	Zn2138	Sr4215	B_2496	B_2497
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	747.	3390.	3400.	4420.	1090.	3810.	296.	8.22	8.43
Stddev	59.	258.	254.	409.	95.	278.	25.	6.29	2.62
%RSD	7.93	7.60	7.46	9.24	8.73	7.28	8.46	76.5	31.1

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	6246.4	294090.
Stddev	24.7	1966.
%RSD	.39569	.66851

Sample Name: 623731 Acquired: 09/01/2015 20:37:47 Type: Unk
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 20
Comment:

Elem	Ag3280	Al3082	Al3961	As1937	Ba4554	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2247	Fe2343
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	-065	1090.	1100.	5.29	342.	-062	5310.	2.51	43.4	10.9	43.7	16800.
Stddev	.420	23.	10.	8.19	6.	.025	88.	.13	.3	2.0	1.1	240.
%RSD	649.	2.08	.925	155.	1.67	40.3	1.66	5.36	.756	18.7	2.56	1.43

Elem	Fe2395	Mg2802	Mn2576	Mo2020	Ni2316	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	16600.	979.	272.	.461	6.48	24800.	-9.84	4.10	5.01	7.59	769.	24.4
Stddev	204.	14.	4.	.957	.48	124.	.56	5.41	1.74	.22	2.	.6
%RSD	1.23	1.44	1.62	208.	7.49	.502	5.65	132.	34.7	2.90	.251	2.37

Elem	B_2496	B_2497
Units	ug/L	ug/L
Avg	11.3	9.55
Stddev	2.2	2.53
%RSD	19.1	26.5

Int. Std.	Y_2243	Y_3710
Units	Cts/S	Cts/S
Avg	6421.3	302070.
Stddev	76.7	2561.
%RSD	1.1946	.84778

Sample Name: ccv1 Acquired: 09/01/2015 20:46:39 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	As1890	Ba4934	Be3130	Be2348	Ca3158	Cd2265	Cd2288	Co2388	Cr2677
Avg	500.	5150.	5270.	5270.	4910.	473.	459.	4930.	505.	533.	4620.	4780.
Stddev	.	237.	7.	29.	238.	22.	22.	242.	2.	1.	209.	207.
%RSD	.075	4.60	.125	.554	4.84	4.57	4.70	4.92	.347	.162	4.53	4.33

Check ? Value Range	None	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
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Elem	Cr2835	Cu2247	Fe2343	Fe2395	Mg2025	Mg2802	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175
Avg	4830.	5390.	4750.	4630.	5210.	4790.	4930.	5400.	5420.	5370.	5260.	4970.
Stddev	209.	30.	209.	196.	13.	218.	214.	20.	20.	11.	17.	4.
%RSD	4.33	.548	4.40	4.23	.250	4.56	4.34	.364	.376	.204	.316	.090

Check ? Value Range	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	None
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Elem	Se1960	Se2062	Tl2767	V_2908	Zn2138	Sr4215	B_2496	B_2497
Avg	5240.	5250.	4710.	4800.	5160.	F 6230.	4570.	4620.
Stddev	11.	31.	310.	209.	19.	181.	192.	200.
%RSD	.204	.598	6.58	4.35	.363	2.91	4.20	4.34

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail 5000. 10.4%	Chk Pass	Chk Pass
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Sample Name: ccv1 Acquired: 09/01/2015 20:46:39 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	293770.
Stddev	6362.
%RSD	2.1657

Sample Name: ccv2 Acquired: 09/01/2015 20:51:20 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3082	As1937	As1890	Ba4554	Ba4934	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Co2388
Avg	52.4	508.	542.	513.	490.	486.	46.6	463.	491.	52.6	524.	446.
Stddev	.5	15.	8.	25.	15.	17.	1.6	16.	16.	.6	8.	13.
%RSD	.921	2.87	1.57	4.90	3.12	3.40	3.49	3.42	3.27	1.06	1.54	2.98

Check ? Value Range	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	None
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Elem	Cr2677	Cr2835	Cu2247	Fe2343	Fe2599	Mg2802	Mn2576	Mn2593	Mo2020	Mo2045	Ni2316	Pb2203
Avg	464.	467.	F 561.	460.	459.	474.	466.	488.	526.	545.	452.	519.
Stddev	17.	15.	6.	8.	12.	15.	15.	17.	3.	7.	14.	4.
%RSD	3.71	3.30	1.00	1.81	2.66	3.22	3.17	3.40	.601	1.30	3.10	.843

Check ? Value Range	Chk Pass	None	Chk Fail 500. 10.4%	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
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Elem	Sb2068	Sb2175	Se1960	Tl1908	Tl2767	V_2908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Avg	539.	515.	551.	518.	524.	461.	520.	512.	F 611.	F 447.	449.
Stddev	10.	7.	3.	5.	76.	14.	5.	8.	29.	14.	20.
%RSD	1.86	1.41	.596	.938	14.5	3.06	.998	1.62	4.75	3.09	4.49

Check ? Value Range	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass	Chk Pass	Chk Fail 500. 10.4%	Chk Fail 500. -10.4%	Chk Pass
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Sample Name: ccv2 Acquired: 09/01/2015 20:51:20 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_3710
Avg	296380.
Stddev	5102.
%RSD	1.7215

Sample Name: ccb Acquired: 09/01/2015 20:55:25 Type: QC
Method: DOD Calibration Updated 060614(v797) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: Prep Batch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	As1937	Ba4554	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2247	Fe2599	Mg2802
Avg	-.207	3.77	.232	.057	-12.3	2.25	-.567	.006	-.300	-.324	-2.58	2.31
Stddev	.137	8.02	.117	.061	4.3	.24	.060	.118	1.93	.589	1.36	.07
%RSD	66.1	213.	50.5	107.	35.0	10.5	10.5	2110.	643.	182.	52.8	3.12

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Sr4215	B_2496	B_2497
Avg	.013	3.32	.849	-4.53	.244	1.84	.831	.331	.814	.155	4.49	1.22
Stddev	.357	.63	.541	1.10	.992	5.61	1.49	.303	.154	.111	2.60	1.32
%RSD	2850.	18.9	63.7	24.3	406.	305.	179.	91.8	18.9	71.5	57.8	107.

Check ? Value Range	None	None	None	None	None	None	None	None	None	None	None	None
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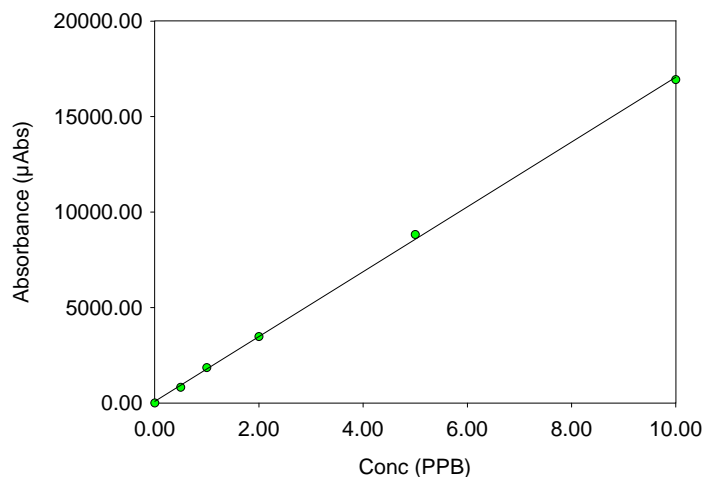
Int. Std.	Y_2243	Y_3710
Avg	6370.5	284800.
Stddev	58.9	5175.
%RSD	.92422	1.8169

Analyst
Date Started 08/26/2015, 11:22:40
Worksheet 7471 Soil (10ppb as high std)
Comment

* All concentrations are dilution corrected.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
Calibration Zero	26-Aug-2015, 11:22	0.00	2780.00	0.04	0	1	1	-2	
Standard #1	26-Aug-2015, 11:24	0.50	6.10	821.00	753	820	843	870	
Standard #2	26-Aug-2015, 11:26	1.00	5.94	1860.00	1697	1883	1903	1947	
Standard #3	26-Aug-2015, 11:28	2.00	6.90	3480.00	3139	3503	3621	3672	
Standard #4	26-Aug-2015, 11:30	5.00	7.18	8820.00	7876	9079	9164	9175	
Standard #5	26-Aug-2015, 11:32	10.00	7.23	16900.00	15153	17158	17625	17827	

Calibration Data



Int. Slope 85.095
Slope 1698.162

Correlation 0.99976

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
ICV	26-Aug-2015, 11:35	3.08	6.21	5310.00	4840	5372	5479	5562	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
ICB	26-Aug-2015, 11:37	-0.05	1.08	3.81	4	5	3	4	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
623529 LCSS53911	26-Aug-2015, 11:39	2.02	5.59	3520.00	3246	3520	3620	3680	
623528 MBS53911	26-Aug-2015, 11:41	-0.05	6.02	1.60	-3	-1	1	9	
623486	26-Aug-2015, 11:43	2.97	5.36	5130.00	4745	5138	5273	5354	
L623486	26-Aug-2015, 11:45	0.57	5.64	1050.00	971	1045	1077	1094	
DUP623486	26-Aug-2015, 11:46	3.24	6.50	5580.00	5091	5557	5808	5882	
MSS623486	26-Aug-2015, 11:48	4.22	5.47	7250.00	6687	7272	7460	7563	
MSDS623486	26-Aug-2015, 11:50	5.11	5.44	8750.00	8078	8796	9017	9128	
PDSS623486	26-Aug-2015, 11:52	4.23	6.89	7270.00	6565	7295	7525	7686	
623488	26-Aug-2015, 11:54	9.55	6.28	16300.00	14834	16476	16801	17130	
624108 LCSS53930	26-Aug-2015, 11:56	1.96	7.98	3410.00	3030	3448	3565	3616	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
CCV	26-Aug-2015, 11:58	3.02	7.08	5210.00	4681	5268	5421	5467	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
CCB	26-Aug-2015, 11:59	-0.05	7.06	-1.05	-9	-3	3	5	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
624107 MBS53930	26-Aug-2015, 12:01	-0.06	6.51	-18.60	-18	-28	-12	-17	
622054	26-Aug-2015, 12:03	1.99	5.31	3460.00	3219	3649	3510	3448	
MSS622054	26-Aug-2015, 12:05	2.92	6.79	5050.00	5334	5337	4823	4694	
MSDS622054	26-Aug-2015, 12:07	2.12	3.89	3690.00	3875	3726	3552	3621	
PDSS622054	26-Aug-2015, 12:09	2.16	1.29	3760.00	3691	3795	3766	3785	
623465	26-Aug-2015, 12:11	0.91	5.98	1630.00	1493	1655	1691	1679	
MSS623465	26-Aug-2015, 12:12	2.86	5.56	4950.00	4562	4972	5081	5176	
MSDS623465	26-Aug-2015, 12:14	2.50	10.30	4340.00	3684	4466	4592	4599	
PDSS623465	26-Aug-2015, 12:16	2.76	7.04	4780.00	4308	4818	4928	5066	
623476	26-Aug-2015, 12:18	0.20	8.84	421.00	381	420	435	450	

Analyst
Date Started
Worksheet
Comment

08/26/2015, 12:20:28
7471 Soil (10ppb as high std)

* All concentrations are dilution corrected.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCV	26-Aug-2015, 12:20	2.99	7.78	5160.00	4570 5343 5349 5386	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCB	26-Aug-2015, 12:22	-0.05	5.81	-5.36	-11 0 -2 -8	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
623477	26-Aug-2015, 12:24	0.68	8.16	1240.00	1099 1259 1279 1309	
623478	26-Aug-2015, 12:26	0.58	7.48	1070.00	966 1081 1109 1132	
623479	26-Aug-2015, 12:28	0.49	9.19	913.00	800 938 948 965	
623480	26-Aug-2015, 12:29	0.59	7.85	1090.00	976 1094 1144 1141	
623481	26-Aug-2015, 12:31	0.80	8.71	1440.00	1261 1506 1498 1484	
623482	26-Aug-2015, 12:33	0.71	8.77	1280.00	1131 1304 1339 1364	
623483	26-Aug-2015, 12:35	0.48	8.99	895.00	789 906 931 953	
623649	26-Aug-2015, 12:37	0.42	6.47	792.00	727 792 825 823	
623524 LCSS53910	26-Aug-2015, 12:39	1.74	8.59	3040.00	2667 3091 3192 3209	
623523 MBS53910	26-Aug-2015, 12:41	-0.05	4.42	-4.68	-9 1 -5 -6	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCV	26-Aug-2015, 12:42	2.73	5.37	4720.00	4351 4836 4828 4877	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCB	26-Aug-2015, 12:44	-0.05	5.73	-3.78	-1 2 -8 -8	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
622010	26-Aug-2015, 12:46	0.52	7.63	967.00	867 1001 1005 996	
L622010	26-Aug-2015, 12:48	0.07	11.20	212.00	192 213 222 221	
DUP622010	26-Aug-2015, 12:50	0.50	4.36	936.00	885 933 961 965	
MSS622010	26-Aug-2015, 12:52	1.90	5.96	3310.00	3024 3383 3409 3429	
MSDS622010	26-Aug-2015, 12:54	1.96	5.36	3410.00	3145 3475 3485 3533	
PDSS622010	26-Aug-2015, 12:56	1.98	4.17	3440.00	3247 3446 3520 3563	
622011	26-Aug-2015, 12:58	0.39	5.32	751.00	702 749 775 779	
622012	26-Aug-2015, 12:59	0.95	3.72	1700.00	1617 1713 1730 1755	
622013	26-Aug-2015, 13:01	1.09	3.14	1930.00	1845 1940 1954 1976	
622014	26-Aug-2015, 13:03	27.30	5.60	46500.00	42951 46028 48515 48326	O

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCV	26-Aug-2015, 13:06	2.49	9.29	4320.00	3767 4317 4556 4642	Q

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCB	26-Aug-2015, 13:08	-0.06	4.74	-9.30	-16 -7 -7 -8	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
622015	26-Aug-2015, 13:09	3.41	6.37	5880.00	5339 5953 6139 6089	
622016	26-Aug-2015, 13:11	4.37	4.68	7500.00	6986 7603 7704 7712	
622017	26-Aug-2015, 13:13	4.21	4.35	7230.00	6783 7267 7401 7473	
622018	26-Aug-2015, 13:15	1.90	3.68	3310.00	3138 3336 3363 3405	
622019	26-Aug-2015, 13:17	1.55	6.39	2720.00	2475 2726 2825 2837	
622020	26-Aug-2015, 13:19	5.68	5.01	9730.00	9005 9959 9957 9996	
622021	26-Aug-2015, 13:21	0.36	9.58	701.00	615 713 728 747	
622022	26-Aug-2015, 13:23	0.62	9.41	1140.00	992 1160 1197 1203	
622023	26-Aug-2015, 13:24	0.39	6.79	739.00	676 743 765 775	
624003 LCSS53928	26-Aug-2015, 13:26	1.97	6.99	3420.00	3095 3449 3509 3641	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCV	26-Aug-2015, 13:28	3.01	8.42	5200.00	4565 5308 5468 5466	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings	Flags
CCB	26-Aug-2015, 13:30	-0.05	6.61	4.95	8 -3 6 8	

Analyst
Date Started 08/26/2015, 13:32:31
Worksheet 7471 Soil (10ppb as high std)
Comment

* All concentrations are dilution corrected.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
624002 MBS53928	26-Aug-2015, 13:32	-0.06	2.48	-11.70	-13	-12	-13	-8	
623727	26-Aug-2015, 13:34	-0.06	6.60	-19.50	-16	-23	-27	-12	
L623727	26-Aug-2015, 13:36	-0.06	4.36	-20.90	-16	-17	-25	-25	
DUP623727	26-Aug-2015, 13:38	-0.05	4.94	3.94	4	-2	5	8	
MSS623727	26-Aug-2015, 13:40	1.82	7.68	3180.00	2839	3214	3286	3381	
MSDS623727	26-Aug-2015, 13:41	1.56	6.98	2740.00	2469	2756	2850	2871	
PDSS623727	26-Aug-2015, 13:43	1.84	7.74	3210.00	2863	3244	3342	3401	
623733	26-Aug-2015, 13:45	Sat'd.	0.00	55600.00	55602	55602	55602	55602	SO
623734	26-Aug-2015, 13:49	Sat'd.	0.00	55400.00	55419	55419	55419	55419	SO
623735	26-Aug-2015, 13:53	0.79	6.88	1430.00	1292	1451	1482	1488	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV	26-Aug-2015, 13:55	2.86	8.58	4940.00	4348	4939	5243	5220	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB	26-Aug-2015, 13:57	-0.06	4.76	-13.50	-14	-20	-12	-8	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
623737	26-Aug-2015, 13:59	-0.04	9.43	10.60	17	0	12	13	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV	26-Aug-2015, 14:01	2.95	8.49	5100.00	4482	5167	5348	5410	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB	26-Aug-2015, 14:03	-0.06	3.52	-16.90	-16	-20	-19	-12	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
622014 X20	26-Aug-2015, 14:06	1.84	7.21	3210.00	2894	3221	3300	3421	
623733 X20	26-Aug-2015, 14:07	20.00	8.13	34000.00	30124	33842	35700	36191	O
623734 X20	26-Aug-2015, 14:10	19.10	6.67	32500.00	29571	32269	34246	34039	O

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV	26-Aug-2015, 14:12	2.89	9.70	4980.00	4283	5101	5248	5307	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB	26-Aug-2015, 14:13	-0.06	2.64	-12.10	-9	-14	-14	-10	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
623733 X50	26-Aug-2015, 14:16	7.93	6.82	13500.00	12251	13620	13959	14369	
623734 X50	26-Aug-2015, 14:18	-0.05	2.98	-1.36	-0	1	-5	-2	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCV	26-Aug-2015, 14:20	2.82	9.94	4880.00	4184	4976	5114	5245	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Readings				Flags
CCB	26-Aug-2015, 14:22	-0.06	1.61	-18.60	-19	-21	-17	-18	

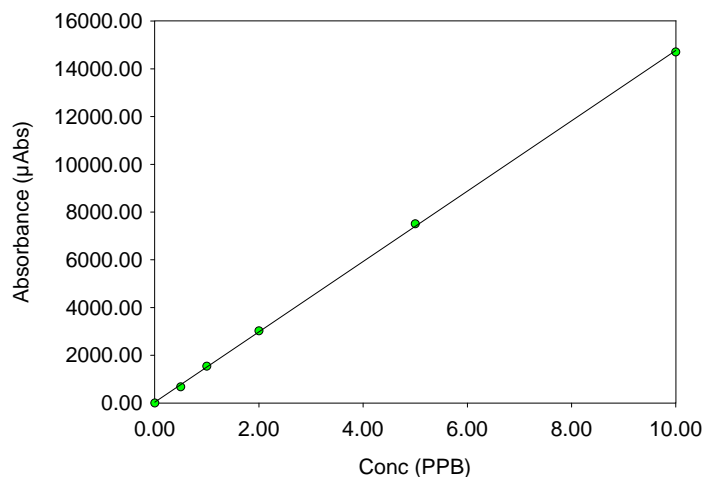
Analyst
Date Started
Worksheet
Comment

08/28/2015, 06:51:08
7471 Soil (10ppb as high std)

* All concentrations are dilution corrected.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
Calibration Zero	28-Aug-2015, 06:51	0.00	47.80	3.49	2	3	6	3	
Standard #1	28-Aug-2015, 06:52	0.50	5.91	684.00	632	676	700	727	
Standard #2	28-Aug-2015, 06:54	1.00	5.97	1540.00	1418	1530	1594	1627	
Standard #3	28-Aug-2015, 06:56	2.00	5.90	3030.00	2778	3017	3127	3181	
Standard #4	28-Aug-2015, 06:58	5.00	7.24	7510.00	6736	7529	7810	7956	
Standard #5	28-Aug-2015, 07:00	10.00	6.83	14700.00	13291	14740	15267	15548	

Calibration Data



Int. Slope 35.546
1473.579

Correlation 0.99992

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
ICV	28-Aug-2015, 07:03	3.08	7.17	4570.00	4105	4587	4750	4832	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
ICB	28-Aug-2015, 07:05	0.00	153.00	39.00	41	46	35	35	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
623734 X50	28-Aug-2015, 07:07	7.93	6.20	11700.00	10748	11632	12138	12389	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
CCV	28-Aug-2015, 07:09	3.12	6.68	4630.00	4195	4639	4803	4881	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. μ Abs	Readings				Flags
CCB	28-Aug-2015, 07:11	0.01	75.30	47.30	51	54	50	34	

**METALS
LOGBOOK
DOCUMENTS**

MICP SOIL QSM Analytical Run
118178 on 09/04/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	626808			ICV			MICP SOIL QSM	0			
	626809			ICVLL			MICP SOIL QSM	0			
	626810			ICB			MICP SOIL QSM	0			
	626812			ICSA			MICP SOIL QSM	0			
	626813			ICSAB			MICP SOIL QSM	0			
	626814			ICVLL			MICP SOIL QSM	0			
	625449			LCSS			ICP QSM	53962			
	625448			MBS			ICP QSM	53962			
RERUN 113433	623727		08/20/2015 0910	MBS	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	53962	M	4	
	626815	WASTE-016-0815					ICP QSM	53962			
	625451		08/20/2015 0910	L 623727			ICP QSM	0			
	625452	WASTE-016-0815	08/20/2015 0910	DUP 623727			ICP QSM	53962			
	625453	WASTE-016-0815	08/20/2015 0910	MSS 623727			ICP QSM	53962			
	626816	WASTE-016-0815		MSDS 625452			ICP QSM	53962			
113433	623728		08/20/2015 0852	PDSS 623727	TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	0	S	4	
	626817	PAINT-008-0815					MICP SOIL QSM	53962			
	626818			CCV1			MICP SOIL QSM	0			
	626819			CCV2			MICP SOIL QSM	0			
				CCB			MICP SOIL QSM	0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
118178 on 09/04/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623729		08/20/2015 0845		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM		S	4	
113433	623732	PAINT-015-0815	08/20/2015 1238		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	53962	S	4	
113433	623733	PAINT-016-0815	08/20/2015 1137		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	53962	M	4	
	626822	WASTE-003-0815					MICP SOIL QSM	53962			
	626823			CCV1			MICP SOIL QSM	0			
	626824			CCV2			MICP SOIL QSM	0			
				CCB				0			
113433	623734		08/20/2015 1137		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM		M	4	
113433	623735	WASTE-003B-0815	08/20/2015 1141		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	53962	M	4	
113433	623737	WASTE-001-0815	08/20/2015 1240		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	53962	M	4	
RERUN		WASTE-016B-0815						53962			
	626825	WASTE-016B-0815						53962			
				CCV1			MICP SOIL QSM	0			
	626826			CCV2			MICP SOIL QSM	0			
	626827			CCB			MICP SOIL QSM	0			
	627466			ICV			MICP SOIL QSM	0			
	627467			ICVLL			MICP SOIL QSM	0			
	627468			ICB			MICP SOIL QSM	0			
	627470			ICSA			MICP SOIL QSM	0			
	627471			ICSAB			MICP SOIL QSM	0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
118178 on 09/04/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	627472							MICP SOIL QSM				
				ICVLL					0			
	627473			CCV1				MICP SOIL QSM	0			
	627474			CCV2				MICP SOIL QSM	0			
	627475			CCB				MICP SOIL QSM	0			
	625448			MBS				ICP QSM	53962			
RERUN 113433	623727		08/20/2015 0910			TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM		M	4	
RERUN 113433	623730	WASTE-016-0815	08/20/2015 0930			TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM	53962	S	4	
		PAINT-018-0815							53962			
	626820			L	623730			ICP QSM	0			
	625460		08/20/2015 0930	DUP	623730			ICP QSM	53962			
	625461	PAINT-018-0815	08/20/2015 0930	MSS	623730			ICP QSM	53962			
	625462	PAINT-018-0815	08/20/2015 0930	MSDS	625461			ICP QSM	53962			
	627476			CCV1				MICP SOIL QSM	0			
	627477			CCV2				MICP SOIL QSM	0			
	627478			CCB				MICP SOIL QSM	0			
	627021			PDSS	623730			ICP QSM				
113433	623731		08/20/2015 1126			TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	ICP QSM		S	4	
		PAINT-004-0815							53962			
	627479			CCV1				MICP SOIL QSM	0			
	627480			CCV2				MICP SOIL QSM	0			

Matrix: S=Soil Slg=Sludge GW=GroundWater M=Misc Waste SW=Surface Water A=Air WW=WasteWater DW=Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
118178 on 09/04/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	627481			CCB			MICP SOIL QSM		0		
56	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

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Page 1 of 1

MERCURY QSM SOIL Analytical Run
118139 on 09/04/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	625374			ICV			MERCURY QSM SOIL	0			
	625375			ICB			MERCURY QSM SOIL	0			
	625382			CCV			MERCURY QSM SOIL	0			
	625383			CCB			MERCURY QSM SOIL	0			
	624003			LCSS			MERCURY QSM	53928			
	625384			CCV			MERCURY QSM SOIL	0			
	625385			CCB			MERCURY QSM SOIL	0			
	624002			MBS			MERCURY QSM	53928			
113433	623727	08/20/2015	0910		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	MERCURY QSM		M	4	
	624004	WASTE-016-0815 08/20/2015	0910				MERCURY QSM	53928			
	624005	WASTE-016-0815 08/20/2015	0910	DUP	623727		MERCURY QSM	53928			
	624006	WASTE-016-0815 08/20/2015	0910	MSS	623727		MERCURY QSM	53928			
	625387	WASTE-016-0815		MSDS	624005		MERCURY QSM	53928			
				PDSS	623727		MERCURY QSM	0			
113433	623735	08/20/2015	1141		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	MERCURY QSM		M	4	
	625388	WASTE-001-0815					MERCURY QSM SOIL	53928			
	625389			CCV			MERCURY QSM SOIL	0			
				CCB			MERCURY QSM SOIL	0			
113433	623737	08/20/2015	1240		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	MERCURY QSM		M	4	
	625390	WASTE-016B-0815					MERCURY QSM SOIL	53928			
				CCV			MERCURY QSM SOIL	0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MERCURY QSM SOIL Analytical Run
118139 on 09/04/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	625391			CCB			MERCURY QSM SOIL	0			
	625392			CCV			MERCURY QSM SOIL	0			
	625393			CCB			MERCURY QSM SOIL	0			
113433	623733	08/20/2015 1137			TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	MERCURY QSM		M	4	
		WASTE-003-0815						53928			
	625394			CCV			MERCURY QSM SOIL	0			
	625395			CCB			MERCURY QSM SOIL	0			
	625774			ICV			MERCURY QSM SOIL	0			
	625775			ICB			MERCURY QSM SOIL	0			
113433	623734	08/20/2015 1137			TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	MERCURY QSM		M	4	
		WASTE-003B-0815						53928			
	625776			CCV			MERCURY QSM SOIL	0			
	625777			CCB			MERCURY QSM SOIL	0			
29	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

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Page 1 of 1

PREP WORKSHEET
on 09/04/2015

Prep Batch 53,962 Date Prepped: 08/27/2015 Prepped By LJF

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	625448	MBS		ICP QSM	SOLID	50	0.50			
	625448	MBS		ICP QSM	SOLID	50	0.50			
	625448	MBS		ICP QSM	SOLID	50	0.50			
	625449	LCSS		ICP QSM	SOLID	50	0.50			
113433	623727			ICP QSM	WASTE	50	0.52		4	
	623727			ICP QSM	WASTE	50	0.52		4	
	623728			ICP QSM	SOIL	50	0.54		4	
	623729			ICP QSM	SOIL	50	0.50		4	
	623730			ICP QSM	SOIL	50	0.59		4	
	623731			ICP QSM	SOIL	50	0.54		4	
	623732			ICP QSM	SOIL	50	0.56		4	
	623733			ICP QSM	WASTE	50	0.60		4	
	623734			ICP QSM	WASTE	50	0.67		4	
	623735			ICP QSM	WASTE	50	0.67		4	
	623737			ICP QSM	WASTE	50	0.53		4	
	623737			ICP QSM	WASTE	50	0.53		4	
	625451	DUP	623727	ICP QSM	WASTE	50	0.55			

PREP WORKSHEET
on 09/04/2015

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	625452	MSS	623727	ICP QSM	WASTE	50	0.53			
	625453	MSDS	625452	ICP QSM	WASTE	50	0.60			
	625460	DUP	623730	ICP QSM	SOIL	50	0.56			
	625461	MSS	623730	ICP QSM	SOIL	50	0.54			
	625462	MSDS	625461	ICP QSM	SOIL	50	0.53			

Notes:_____

PREP WORKSHEET
on 09/04/2015

Prep Batch **53,928** Date Prepped: 08/25/2015 Prepped By LJJ

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	624002	MBS		MERCURY QSM	SOLID	25	0.60			
	624003	LCSS		MERCURY QSM	SOLID	25	0.60			
113433	623727			MERCURY QSM	WASTE	25	0.57		4	
	623733			MERCURY QSM	WASTE	25	0.58		4	
	623734			MERCURY QSM	WASTE	25	0.56		4	
	623735			MERCURY QSM	WASTE	25	0.55		4	
	623737			MERCURY QSM	WASTE	25	0.57		4	
	624004	DUP	623727	MERCURY QSM	WASTE	25	0.57			
	624005	MSS	623727	MERCURY QSM	WASTE	25	0.60			
	624006	MSDS	624005	MERCURY QSM	WASTE	25	0.57			

Notes: _____

(Prep Methods 3010, 3020, 3005, & 3050)

*Matrix: SOIL/WASTE

Prep Batch #:	53962
Prep Method:	3050
Analyst:	LJF
Date:	08/27/2015
Start Time:	06:00

<u>Reagent:</u>	<u>Ref. #</u>
Nitric Acid:	AB.603
Hydrochloric Acid:	AB.604
Hydrogen Peroxide:	AB.602

Prep Analyst: LJF
Balance ID: WXD2200

End Date: 08/27/2015
End Time: 11:00

Digestion Tube Lot #:	J216689-263
Block Used:	A

Cell Position for Temp. Check:	F-4
Initial-DigestionTemp (°C):	93.2
Final-Digestion Temp (°C):	93.2

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
625448	(MB)		0.50		50
625449	(LCS)		0.50		50
623727			0.52		50
623728	Comments:		0.54		50
623729			0.50		50
623730			0.59		50
623731			0.54		50
623732			0.56		50
623733			0.60		50
623734			0.67		50
623735			0.67		50
623737			0.53		50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
625451	(DUP)		0.55		50
625452	(MS)	Parent Sample	0.53		50
625453	(MSD)	623727	0.60		50
625460	(DUP) if applicable		0.56		50
625461	(MS)	Parent Sample	0.54		50
625462	(MSD)	623730	0.53		50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate

*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD	Spike Amount (ml)	Spike Ref. #
	1	M12574

LCS	Spike Amount (ml)	Spike Ref. #
	1	M12574

Reviewed By/Date:

ICAP 6000 / 6500 Data Review Checklist		Analysis Date: 8-31-15		Data File: D:\000000\000000.v794		Date of review: 09/03/15	
Cal Std ID: 112561 LIMS #: 118128		Analyst: JN		Reviewer: Mos		Approved? Yes No	
Is Audit Trail turned on or Manual Manipulations addressed? Yes No (If no, any manual manipulations must be initiated, dated, and reason(s) stated for change)							
QC Parameters :	6010 / 200.7d QSM / Other	YES	NO	YES	NO	Comments:	
1)	Calibration linearity: r > 0.995 / r > 0.998	✓		✓			
2)	ICV: 90-110% / 95-105%	✓		✓			
2)	ICVLL: 70-130% / 80-120%	✓		✓			
3)	ICB: < 3X IDL / < LOD / < LOQ	✓		✓			
4)	ICSA: < ABS LOD	✓		✓			
5)	ICSAB: 80-120%	✓		✓			
6)	MRL: 70-130% / 80-120%						
7)	MDL Check: > LOD						
8)	CCV1/CCB1 (CCV: 90-110%)	✓		✓			
9)	CCV2/CCB2 (CCB: < 3X IDL / < LOD / < LOQ)						
10)	CCV3/CCB3						
11)	CCV4/CCB4						
12)	CCV5/CCB5						
Preparation Batch Parameters		YES	NO	YES	NO		
Prep Batch ID#: 53962 Dig. Meth. 30SD		✓		✓			
LCS - generated limits or project specific limits		✓		✓			
MB - < LOD or ≤ ½ RL		✓		✓			
Spiked samples in batch:							
a)	523727 matrix = SD	✓		✓			
b)	523730 matrix = SD	✓		✓			
c)	matrix =						
PDS: ±15% / 20% / 25% Sample#:							
Prep Batch ID#: Dig. Meth.							
LCS - generated limits or project specific limits							
MB - < LOD or ≤ ½ RL							
Spiked samples in batch:							
a)	matrix =						
b)	matrix =						
c)	matrix =						
PDS: ±15% / 20% / 25% Sample#:							
Prep Batch ID#: Dig. Meth.							
LCS - generated limits or project specific limits							
MB - < LOD or ≤ ½ RL							
Spiked samples in batch:							
a)	matrix =						
b)	matrix =						
c)	matrix =						
PDS: ±15% / 20% / 25% Sample#:							
Prep Batch ID#: Dig. Meth.							
LCS - generated limits or project specific limits							
MB - < LOD or ≤ ½ RL							
Spiked samples in batch:							
a)	matrix =						
b)	matrix =						
c)	matrix =						
PDS: ±15% / 20% / 25% Sample#:							

Page 867





























GFAA (CVAA) Data Review checklist		Method: 200.9		7000 series AA		245.1		7470a (7471a)	
Instrumentation:		THERMO M SERIES AA							
Analysis Date: 08/26/15		Data File: 15087601		Date Review: 8-27-15		CETAC Hg ANALYZER			
Cal Std ID: M12593		LIMS #: 118139		Analyst: SP		Reviewer: [Signature]		Approved? Yes / No	
Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)									
Calibration Parameters -		YES	NO	YES	NO	Comments:			
1) Calibration linearity - $r > 0.995$		✓		✓					
2) ICV: 90-110% 95-105%		✓		✓					
3) ICB: <IDL / <LOD / <LOQ / <1/2 RL		✓		✓					
6) MRL: 70-130%									
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)		✓		✓					
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <1/2 RL)									
9) CCV3/CCB3									
10) CCV4/CCB4									
11) CCV5/CCB5									
12) CCV6/CCB6									
Preparation Batch Parameters		YES	NO	YES	NO				
Prep Batch ID#: 53928 Dig. Meth. 7471A		✓		✓					
LCS - generated limits or project specific limits		✓		✓					
MB - <LOD / <2.2X LOD / ≤ 1/2 RL		✓		✓					
Spiked samples in batch:									
a) 673727 matrix = waste		✓	✓	✓	✓	Modified "M"			
b) matrix =						N/A			
c) matrix =									
d) matrix =									
e) matrix =									
PDS: ±15% (20%) 25% Sample# 673727		✓		✓		N/A			
MSA Performed? Yes No									
Prep Batch ID#: Dig. Meth.									
LCS - generated limits or project specific limits									
MB - <LOD / <2.2X LOD / ≤ 1/2 RL									
Spiked samples in batch:									
a) matrix =									
b) matrix =									
c) matrix =									
d) matrix =									
e) matrix =									
PDS: ±15% / 20% / 25% Sample#									
MSA Performed? Yes No									
Prep Batch ID#: Dig. Meth.									
LCS - generated limits or project specific limits									
MB - <LOD / <2.2X LOD / ≤ 1/2 RL									
Spiked samples in batch:									
a) matrix =									
b) matrix =									
c) matrix =									
d) matrix =									
e) matrix =									
PDS: ±15% / 20% / 25% Sample#									
MSA Performed? Yes No									

Type	Date/Time	Message	User name	Application	Sequence Name
	08/28/2015 11:43:13	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	08/28/2015 11:47:36	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	08/28/2015 11:52:03	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	08/28/2015 11:56:31	Running ICVLL Ag (85)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:00:58	Running lcsw tclp (86)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:05:21	Running mbw tclp (87)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:09:49	Running 625432 (88)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:14:55	Running l625432 (89)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:19:35	Running dup625432 (90)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:24:42	Running msw625432 (91)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:29:44	Running msdw625432 (92)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:34:47	Running pds625432 (93)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:40:00	Running ICSAB (94)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:44:27	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:49:09	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:53:16	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	08/28/2015 12:57:42	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	08/28/2015 13:02:04	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	08/28/2015 13:06:45	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	08/28/2015 13:10:52	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	08/28/2015 13:15:09	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	08/28/2015 13:24:27	Plasma extinguished successfully	NAH	Analyst	
	08/28/2015 13:24:28	Plasma off	NAH	ITEVA Control Center	
	08/31/2015 07:54:45	Plasma On	NAH	ITEVA Control Center	
	08/31/2015 07:54:50	Plasma ignition successful	NAH	Analyst	
	08/31/2015 07:55:37	D33534 - Debug:Wavelength check : x = 1.882, y =0.174	NAH	Analyst	
	08/31/2015 09:52:47	Starting time can not be greater than ending time.	NAH	Analyst	
	08/31/2015 11:16:45	Sequence Started	NAH	Analyst	S_DOD Calibration
	08/31/2015 11:16:45	Autosampler Run Started	NAH	Analyst	
	08/31/2015 11:17:13	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	08/31/2015 11:17:50	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	08/31/2015 11:27:01	Sequence Started	NAH	Analyst	S_DOD Calibration
	08/31/2015 11:27:01	Autosampler Run Started	NAH	Analyst	
	08/31/2015 11:27:29	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	08/31/2015 11:31:58	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	08/31/2015 11:32:46	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:21:14	Sequence Started	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:21:14	Autosampler Run Started	NAH	Analyst	
	08/31/2015 12:21:42	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:26:09	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:30:36	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:35:01	Running CalStd3=1 (4)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:36:29	Closing will close the method and all associated samples.	NAH	Analyst	
	08/31/2015 12:39:26	Running CalStd4=5 (5)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:43:53	Running CalStd5=10 (6)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:48:20	Running CalStd6=20 (7)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:52:38	Running CalStd7=50 (8)	NAH	Analyst	S_DOD Calibration
	08/31/2015 12:56:59	Running CalStd8=100 (9)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:01:17	Running CalStd9=1000 (10)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:05:10	Running CalStd10=10000 (11)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:10:30	Running CalStd11=100k (12)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:14:54	Running CalStd12=100000 (13)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:19:36	Running CalStd13=500000 (14)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	08/31/2015 13:24:21	Running CalStd14-1000k (15)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:29:39	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:34:03	Running icv (16)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:38:20	Running ICVLL (25)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:42:51	Running icb (17)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:47:32	Running icb (17)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:52:02	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	08/31/2015 13:56:22	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:01:07	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:05:35	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:10:08	Running lc553962 (2)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:14:34	Running mbs53962 (3)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:18:58	Running 623727 (4)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:23:18	Running l623727 (5)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:27:43	Running dup623727 (6)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:32:01	Running mss623727 (7)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:36:38	Running msds623727 (8)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:41:01	Running pdss623727 (9)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:46:27	Running 623728 (10)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:51:30	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	08/31/2015 14:56:17	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:02:51	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:07:17	Running 623729 (11)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:11:56	Running 623730 (12)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:17:11	Running l623730 (13)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:21:58	Running dup623730 (14)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:27:09	Running mss623730 (15)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:32:13	Running msdw623730 (16)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:37:20	Running pdsw623730 (17)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:42:29	Running 623731 (18)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:46:52	Running 623732 (19)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:51:18	Running 623733 (20)	NAH	Analyst	S_DOD Calibration
	08/31/2015 15:55:40	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:00:14	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:04:14	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:08:40	Running 623734 (21)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:13:06	Running 623735 (22)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:17:55	Running 623737 (23)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:22:26	Running lc553969 (24)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:27:16	Running mbs53969 (25)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:31:40	Running 625018 (26)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:35:57	Running mss625018 (27)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:40:39	Running msds625018 (28)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:45:19	Running pdss625018 (29)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:50:03	Running 625289 (30)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:54:16	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	08/31/2015 16:58:50	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	08/31/2015 17:02:50	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	08/31/2015 17:07:16	Running mss625289 (31)	NAH	Analyst	S_DOD Calibration
	08/31/2015 17:11:58	Running msds625289 (32)	NAH	Analyst	S_DOD Calibration
	08/31/2015 17:16:39	Running pdss625289 (33)	NAH	Analyst	S_DOD Calibration
	08/31/2015 17:21:00	Running 625290 (34)	NAH	Analyst	S_DOD Calibration
	08/31/2015 17:25:13	Running 625291 (35)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/01/2015 12:24:59	Running 624186 (9)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:30:18	Running 624208 (10)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:35:11	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:39:49	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:43:56	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:48:23	Running msw624208 (11)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:53:24	Running lc553985 (12)	NAH	Analyst	S_DOD Calibration
	09/01/2015 12:54:13	Closing will close the method and all associated samples.	NAH	Analyst	
	09/01/2015 12:54:16	Closing will close the method and all associated samples.	NAH	Analyst	
	09/01/2015 12:57:50	Running mbs53985 (13)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:02:14	Running 625953 (14)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:06:24	Running 625954 (15)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:06:31	Closing will close the method and all associated samples.	NAH	Analyst	
	09/01/2015 13:10:45	Running l625954 (16)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:15:06	Running dup625954 (17)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:19:27	Running mss625954 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:20:25	Closing will close the method and all associated samples.	NAH	Analyst	
	09/01/2015 13:24:02	Running msds625954 (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:28:39	Running pdss625954 (20)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:33:14	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:37:53	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:41:59	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:46:25	Running 625955 (21)	NAH	Analyst	S_DOD Calibration
	09/01/2015 13:46:35	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:02:53	Sequence Started	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:02:53	Autosampler Run Started	NAH	Analyst	
	09/01/2015 14:03:22	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:07:48	Running CalStd1=0.25 (2)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:12:15	Running CalStd2=0.5 (3)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:16:43	Running CalStd3=1 (4)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:17:15	Closing will close the method and all associated samples.	NAH	Analyst	
	09/01/2015 14:21:09	Running CalStd4=5 (5)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:25:37	Running CalStd5=10 (6)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:30:03	Running CalStd6=20 (7)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:34:28	Running CalStd7=50 (8)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:38:52	Running CalStd8=100 (9)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:43:14	Running CalStd9=1000 (10)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:47:19	Running CalStd10=10000 (11)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:51:54	Running CalStd11=100k (12)	NAH	Analyst	S_DOD Calibration
	09/01/2015 14:56:20	Running CalStd12=100000 (13)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:00:54	Running CalStd13=500000 (14)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:05:39	Running CalStd14=1000k (15)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:10:55	Running blkrsn (22)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:15:20	Running icv (16)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:19:38	Running ICVLL (25)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:23:55	Running icb (17)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:28:22	Running icb (17)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:32:49	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:37:11	Running icsa (20)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:42:00	Running icsab (21)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:46:28	Running ICVLL ag (1)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:50:53	Running 625955 (21)	NAH	Analyst	S_DOD Calibration
	09/01/2015 15:55:20	Running 625956 (22)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/01/2015 15:59:46	Running 625957 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:04:01	Running 625958 (24)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:08:17	Running 625959 (25)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:12:42	Running 625961 (26)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:17:07	Running 625962 (27)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:21:32	Running 625963 (28)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:25:58	Running 625964 (29)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:30:24	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:35:03	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:39:08	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:43:34	Running 625965 (30)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:48:01	Running 626219 (31)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:52:25	Running 626220 (32)	NAH	Analyst	S_DOD Calibration
	09/01/2015 16:56:47	Running 626221 (33)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:01:04	Running 626222 (34)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:05:37	Running 626223 (35)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:10:04	Running 626224 (36)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:14:32	Running 626225 (37)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:18:58	Running 626226 (38)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:23:23	Running lc553998 (39)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:27:49	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:32:16	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:36:17	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:40:41	Running mbs53998 (40)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:45:05	Running 625960 (41)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:49:29	Running l625960 (42)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:53:56	Running dup625960 (43)	NAH	Analyst	S_DOD Calibration
	09/01/2015 17:58:23	Running mss625960 (44)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:03:06	Running msds625960 (45)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:07:50	Running pdss625960 (46)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:12:28	Running 626227 (47)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:16:53	Running 626228 (48)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:21:20	Running 626229 (49)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:25:46	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:30:26	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:34:32	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:38:57	Running 626230 (50)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:43:21	Running 626231 (51)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:47:47	Running 626232 (52)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:52:13	Running 626233 (53)	NAH	Analyst	S_DOD Calibration
	09/01/2015 18:56:41	Running 626234 (54)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:01:05	Running 626235 (55)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:05:33	Running 626236 (56)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:09:51	Running 626237 (57)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:14:16	Running 626238 (58)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:18:35	Running 626239 (59)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:22:43	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:27:22	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:31:28	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:35:53	Running 626240 (60)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:40:20	Running mbw53882 (61)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:44:48	Running 622282 (62)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:49:34	Running mbs53962 (2)	NAH	Analyst	S_DOD Calibration

Type	Date/Time	Message	User name	Application	Sequence Name
	09/01/2015 19:53:59	Running 623727 (3)	NAH	Analyst	S_DOD Calibration
	09/01/2015 19:58:21	Running 623730 (4)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:02:40	Running I623730 (5)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:07:18	Running dup623730 (6)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:11:36	Running mss623730 (7)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:15:53	Running msds623730 (8)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:20:10	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:24:50	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:28:55	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:33:20	Running pdss623730 (9)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:37:47	Running 623731 (10)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:42:18	Running MRL (24)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:46:39	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:51:20	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:55:25	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:59:44	Plasma extinguished successfully	NAH	Analyst	S_DOD Calibration
	09/01/2015 20:59:45	Plasma off	NAH	iTEVA Control Center	
	09/01/2015 20:59:46	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	09/02/2015 06:45:21	Plasma On	NAH	iTEVA Control Center	
	09/02/2015 06:45:26	Plasma ignition successful	NAH	Analyst	
	09/02/2015 06:46:12	D33534 - Debug:Wavelength check : x = 1.855, y =0.218	NAH	Analyst	
	09/02/2015 09:07:20	Starting time can not be greater than ending time.	NAH	Analyst	
	09/02/2015 10:02:07	E9006 - : Plasma went out unexpectedly; RF reported over current failu	NAH	iTEVA Control Center	
	09/02/2015 10:03:03	Plasma ignition successful	NAH	Analyst	
	09/02/2015 10:03:15	E1133 - : Plasma went out during the exposure; please refer to error m	NAH	Analyst	
	09/02/2015 10:04:58	Plasma ignition successful	NAH	Analyst	
	09/02/2015 10:05:45	D33534 - Debug:Wavelength check : x = 1.710, y =0.245	NAH	Analyst	
	09/02/2015 10:09:49	Plasma On	NAH	iTEVA Control Center	

		Instrument:	CETAC
Standard Log #:	M12622	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	09/03/15	Expiration Date:	12/09/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.604 and dissolved 100 g Stannous chloride M12549 and brought up to volume.		

Standard Log #:	M12623	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	09/03/15	Expiration Date:	03/03/16
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12270 and 60 g hydroxylamine sulfate M11798 and brought up to volume.		

Standard Log #:	M12624	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	09/03/15	Expiration Date:	03/03/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M12277 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12619	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	09/03/15	Expiration Date:	02/26/15
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12620	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	09/03/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12621	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/03/15	Expiration Date:	04/01/17
Prep:	Carefully mixed 3 parts HCl AB.604 with 1 part HNO ₃ AB.603 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12616	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/03/15	Expiration Date:	02/26/15
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12617	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/03/15	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12618	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	09/03/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard ID#:	M12615	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Custum Assurance Standard
Date Received:	09/01/2015	Lot #:	32-105CR
Expiration Date (if any):	09/20/2015	Catalog #:	XSPIKE-1-250

		Instrument:	ICP 6000
Standard Log #:	M12614	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	08/31/15	Expiration Date:	11/08/15
Prep:	<p>Into a 250 mL volumetric flask, pipetted 25 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12529, 2.5 mL of K (10,000 mg/L) M12474, 2.5 mL of Na (10,000 mg/L) M12010 and 7.5 mL of Fe (10,000 mg/L) M12489 and brought up to volume using Milli-Q H₂O. (2% HNO₃)</p>		

Standard Log #:	M12613	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	08/27/15	Expiration Date:	08/27/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard ID#:	M12612	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 ug/mL
Date Received:	08/27/15	Lot #:	15E153
Expiration Date (if any):	02/20/17	Catalog #:	4400-10M671

Standard Log #:	M12611	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	08/24/15	Expiration Date:	08/24/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard ID#:	M12607	Vendor:	CPI
Analyst:	NAH	Chemical:	SODIUM 1000ug/mL
Date Received:	08/19/2015	Lot #:	15F159
Expiration Date (if any):	02/12/2017	Catalog #:	4400-1000521

Standard ID#:	M12608	Vendor:	CPI
Analyst:	NAH	Chemical:	POTASSIUM 1000ug/mL
Date Received:	08/19/2015	Lot #:	15E009
Expiration Date (if any):	02/12/2017	Catalog #:	4400-1000411

Standard ID#:	M12609	Vendor:	CPI
Analyst:	NAH	Chemical:	POTASSIUM 10000ug/mL
Date Received:	08/19/2015	Lot #:	15E086
Expiration Date (if any):	02/12/2017	Catalog #:	4400-10M411

Standard ID#:	M12610	Vendor:	ALFA AESAR
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	08/20/15	Lot #:	Z16A019
Expiration Date (if any):		Catalog #:	88944

Standard ID#:	M12602	Vendor:	CPI
Analyst:	NAH	Chemical:	ANTIMONY 1000 ug/ml
Date Received:	08-14-2015	Lot #:	15D168
Expiration Date (if any):	02-10-2017	Catalog #:	S4400-100023

Standard ID#:	M12603	Vendor:	CPI
Analyst:	NAH	Chemical:	IRON 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15C057
Expiration Date (if any):	02-10-2017	Catalog #:	4400-10M261

Standard ID#:	M12604	Vendor:	CPI
Analyst:	NAH	Chemical:	CALCIUM 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15G076
Expiration Date (if any):	02-10-2017	Catalog #:	4400-10M91

Standard ID#:	M12605	Vendor:	CPI
Analyst:	NAH	Chemical:	ALUMINUM 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15E015
Expiration Date (if any):	02-10-2017	Catalog #:	4400-10M11

Standard ID#:	M12606	Vendor:	CPI
Analyst:	NAH	Chemical:	MAGNESIUM 10000 ug/ml
Date Received:	08-14-2015	Lot #:	15G077
Expiration Date (if any):	02-10-2015	Catalog #:	4400-10M311

Standard ID#:	M12599	Vendor:	CPI
Analyst:	NAH	Chemical:	SILVER 1000 ug/ml
Date Received:	8-14-2015	Lot #:	15H040
Expiration Date (if any):	02-10-2017	Catalog #:	S4400-1000511

Standard ID#:	M12600	Vendor:	CPI
Analyst:	NAH	Chemical:	SELENIUM 1000 ug/ml
Date Received:	08-14-2015	Lot #:	15E095
Expiration Date (if any):	2-10-2017	Catalog #:	S4400-1000491

Standard ID#:	M12601	Vendor:	CPI
Analyst:	NAH	Chemical:	SILICON 1000 ug/ml
Date Received:	08-14-2015	Lot #:	15F050
Expiration Date (if any):	02-10-2017	Catalog #:	S4400-1000504F

		Instrument:	CETAC
Standard Log #:	M12596	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	08/13/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12597	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	08/13/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12598	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/13/15	Expiration Date:	04/01/17
Prep:	Carefully mixed 3 parts HCl AB.604 with 1 part HNO ₃ AB.603 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12599a	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	08/13/15	Expiration Date:	12/09/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.604 and dissolved 100 g Stannous chloride M12549 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12593	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/13/15	Expiration Date:	02/26/15
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12594	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/13/15	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12595	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	08/13/15	Expiration Date:	06/30/15
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard Log #:	M12592	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	08/12/15	Expiration Date:	08/12/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard Log #:	M12588	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	08/10/15	Expiration Date:	10/23/16
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H ₂ O, pipetted 15 mL Pd Modifier M12584 and 10 mL Mg (10,000 mg/L) M12488 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M12586	Standard:	ICSA
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg
Prep Date:	08/05/15	Expiration Date:	07/16
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529 and 15 mL Fe (10000 mg/L) M12489 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12587	Standard:	ICSAB
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg 500 ug/L Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	08/05/15	Expiration Date:	07/16
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529, 15 mL Fe (10,000 mg/L) M12489, 2.5 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12530 and 2.5 mL Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and brought up to volume with milli-Q H ₂ O.		

Standard ID#:	M12584	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	GFAA Pd Matrix Modifier
Date Received:	08/05/15	Lot #:	1421912
Expiration Date (if any):	07/31/17	Catalog #:	HP1900-100

		Instrument:	ICP 6500
Standard Log #:	M12585	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	12,000 mg/L Al 10,000 mg/L Ca, Mg 5000 mg/L Fe 2000 mg/L As, Ba, Se, Tl 500 mg/L B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn 250 mg/L Cu 200 mg/L Cr 50 mg/L Ag, Be, Cd
Prep Date:	08/05/15	Expiration Date:	11/15
Prep:	<p>Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H₂O.</p> <p>10 mL Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M12574, 2 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12529, 0.5 mL Mo (1000 mg/L) M12008, 0.5 mL B (1000 mg/L) M12471, 0.5 mL Sr (1000 mg/L) M11999, 0.5 mL Li (1000 mg/L) M11998, 0.5 mL Sn (1000 mg/L) M11996 and 0.5 mL Ti (1000 mg/L) M12003.</p>		

		Instrument:	ICP 6500
Standard Log #:	M12582	Standard:	CCV1
Analyst:	NAH	Concentrations:	5000 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 500 µg/L Ag, Be, Cd
Prep Date:	08/03/15	Expiration Date:	7/30/16
Prep:	Into a 1 L volumetric flask, pipetted 50 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and 5.0 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12530 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12583	Standard:	CCV2
Analyst:	NAH	Concentrations:	500 µg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 50 µg/L Ag, Be, Cd
Prep Date:	08/03/2015	Expiration Date:	7/30/16
Prep:	Into a 1 L volumetric flask, pipetted 5 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558 and 0.5 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12530 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12581	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	08/03/15	Expiration Date:	11/2015
Prep:	<p>Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (5% HNO₃, 5% HCl) 1000 ug/L Std. - 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12558, 10 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12530 and 1 mL of Si (1000 mg/L) M11919. 0.25 ug/L Std. - 0.25 mL of the 1000 ug/L Std. 0.5 ug/L Std. - 0.5 mL of the 1000 ug/L Std. 1 ug/L Std. - 1 mL of the 1000 ug/L Std. 5 ug/L Std. - 5 mL of the 1000 ug/L Std. 10 ug/L Std. - 10 mL of the 1000 ug/L Std. 20 ug/L Std. - 20 mL of the 1000 ug/L Std. 50 ug/L Std. - 50 mL of the 1000 ug/L Std. 100 ug/L Std. - 1 mL of Custom Assurance Std. (CAS) #23 and 1 mL of CAS #3 10,000 ug/L Std. - 100 mL CAS #23, 100 mL CAS #3 and 1 mL of K (10,000 mg/L) M12474. 100k ug/L Std. - 10 mL of Cu (10,000 mg/L) M12472, 10 mL of Mn (10,000 mg/L) M12533, 10 mL of Cr (10,000 mg/L) M12470, 10 mL Pb (10,000 mg/L) M12313, 10 mL of Zn (10,000 mg/L) M12005 and 10 mL of Na (10,000 mg/L) M12010. 100,000 ug/L Std. - 10 mL of Mg (10,000 mg/L) M12488, 10 mL of Fe (10,000 mg/L) M12489, 10 mL of Ca (10,000 mg/L) M12490 and 10 mL Al (10,000 mg/L) M12400. 500,000 ug/L Std. - 50 mL of Mg (10,000 mg/L), 50 mL of Fe (10,000 mg/L), 50 mL of Ca (10,000 mg/L) and 50 mL of Al (10,000 mg/L) 1000k ug/L Std. - 100 mL of Mg (10,000 mg/L), 100 mL of Fe (10,000 mg/L), 100 mL of Ca (10,000 mg/L) and 100 mL of Al (10,000 mg/L)</p>		

Standard Log #:	M12580	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	07/30/15	Expiration Date:	07/30/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard Log #:	M12579	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/24/15	Expiration Date:	01/24/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M11285 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M12576	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/23/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12577	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	07/23/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12578	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	07/23/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12505 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

Standard ID#:	M12574	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custum Assurance Std
Date Received:	07/21/2015	Lot #:	31-138CR
Expiration Date (if any):	07/30/2016	Catalog #:	XSPIKE-1-500

Standard ID#:	M12575	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custum Assurance Std
Date Received:	07/21/2015	Lot #:	07-30-2016
Expiration Date (if any):	07/30/2015	Catalog #:	XCTWI-1-500

		Instrument:	ICP 6500
Standard Log #:	M12572	Standard:	DOD MRL
Analyst:	NAH	Concentrations:	4 ug/L: Be. 5 ug/L: Cd. 10 ug/L: Ag, Ba, Co, Cr, Cu, Mn, Mo, Ni, Pb, V, Zn, Sr, and Ti. 20 ug/L: Sb, As, Se, Tl, Li, Sn and B. 50 ug/L: W. 100 ug/L: Si. 300 ug/L: Fe. 400 ug/L Al. 500 ug/L: S, Ca and Mg. 1000 ug/L: K and Na.
Prep Date:	07/20/2015	Expiration Date:	09/20/2015
Prep:	Into a 500 mL volumetric flask, pipetted 10 mL of MRL Base STD M12501 and brought to volume with Milli-Q H ₂ O. (5% HNO ₃ & 5% HCL)		

		Instrument:	ICP 6500
Standard Log #:	M12573	Standard:	ICVLL
Analyst:	NAH	Concentrations:	12 ug/L: Be. 15 ug/L: Cd. 30 ug/L: Ag, Ba, Co, Cr, Cu, Mn, Mo, Ni, Pb, V, Zn, Sr, and Ti. 60 ug/L: Sb, As, Se, Tl, Li, Sn and B. 150 ug/L: W. 300 ug/L: Si. 900 ug/L: Fe. 1200 ug/L Al. 1500 ug/L: S, Ca and Mg. 3000 ug/L: K and Na.
Prep Date:	07/20/2015	Expiration Date:	09/15/2015
Prep:	Into a 500 mL volumetric flask, pipetted 30 mL of MRL Base STD M12501 and brought to volume with Milli-Q H ₂ O. (5% HNO ₃ & 5% HCL)		

MRL BASE STD	M12571	Analyst	NAH
		Prep Date	07/20/2015

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M11908	1000	1	09/2015
Al	400	M12312	10000	2	06/2016
Ba	10	M12473	1000	0.5	10/2015
Be	4	M12006	1000	0.2	11/2015
Cd	5	M12002	1000	0.25	11/2015
Co	10	M12000	1000	0.5	11/2015
Cr	10	M12470	10000	0.05	10/2016
Cu	10	M12472	10000	0.05	10/2016
Mg	500	M12314	10000	2.5	06/2016
Mn	10	M12533	10000	0.05	11/2016
Mo	10	M12008	1000	0.5	11/2015
Ni	10	M12004	1000	0.5	11/2015
Pb	10	M12313	10000	0.05	06/2016
Sb	20	M11909	1000	1	09/2015
V	10	M12009	1000	0.5	11/2015
Zn	10	M12005	10000	0.05	11/2015
K	1000	M12294	10000	5	04/2016
Na	1000	M12010	10000	5	11/2015
As	20	M12315	1000	1	06/2016
Ca	500	M12310	10000	2.5	06/2016
Fe	300	M12311	10000	1.5	06/2016
Se	20	M11911	1000	1	09/2015
Tl	20	M11997	1000	1	11/2015
Si	100	M12007	1000	5	11/2015
B	20	M12471	1000	1	10/2016
Li	20	M11998	1000	1	11/2015
W	50	M12163	1000	2.5	02/2016
Ti	10	M12003	1000	0.5	11/2015
Sr	10	M11999	1000	0.5	11/2015
Sn	50	M11996	1000	2.5	11/2015
S	300	M11350	10000	1.5	01/2016

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expiration Date:

09/2015

Standard Log #:	M12570	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MDS	pH:	4.93 ± 0.05
Prep Date:	07/17/2015	Expiration Date:	06/18/2016
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M12568	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	07/16/15	Expiration Date:	10/23/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.603 and dissolved 100 g Stannous chloride M12478 and brought up to volume.		

Standard Log #:	M12569	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	07/16/15	Expiration Date:	07/16/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M12565	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	07/16/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12566	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	07/16/15	Expiration Date:	02/26/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12563 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12567	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/16/15	Expiration Date:	04/01/17
Prep:	Carefully mixed 3 parts HCl AB.604 with 1 part HNO ₃ AB.603 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12562	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/16/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12563	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/16/15	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12564	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	07/16/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12563 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	ICP 6000
Standard Log #:	M12559	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	07/15/2015	Expiration Date:	11/08/2015
Prep:	<p>Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M12471 and Si (1000 mg/L) M12007 and brought up to volume using milli-Q H₂O.</p> <p>50 ug/L std. - 0.05 mL of each 200 ug/L std. - 0.2 mL of each 1000 ug/L std. - 1.0 mL of each, also used for Continuing Calibration Verification 2000 ug/L std. - 2.0 mL of each 10,000 ug/L std. - 10 mL of each</p>		

		Instrument:	ICP 6000
Standard Log #:	M12560	Standard:	B&Si CCV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	07/15/2015	Expiration Date:	11/08/2015
Prep:	<p>Into a 1 L volumetric flask, pipetted 1.0 mL B (1000 mg/L) M12471 and 1.0 mL Si (1000 mg/L) M12007 and brought up to volume using milli-Q H₂O.</p>		

		Instrument:	ICP 6000
Standard Log #:	M12561	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	07/15/2015	Expiration Date:	11/08/2015
Prep:	<p>Into a 100 mL volumetric flask, pipetted 10 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12529, 0.05 mL of B (1000 µg/mL) M12471, 0.05 mL of Si (1000 µg/mL) M12007 and 3 mL of Fe (10,000 mg/L) M12489 and brought up to volume using Milli-Q H₂O.</p>		

Standard ID#:	M12558	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custum Assurance Standard
Date Received:	07/13/2015	Lot #:	9-105WL
Expiration Date (if any):	07/30/2016	Catalog #:	XCTWI-5-500

		Instrument:	CETAC
Standard Log #:	M12556	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/09/15	Expiration Date:	02/01/17
Prep:	Carefully mixed 3 parts HCl AB.600 with 1 part HNO ₃ AB.601 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12557	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	07/09/15	Expiration Date:	10/23/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.600 and dissolved 100 g Stannous chloride M12478 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12553	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	07/09/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12554	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	07/09/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12555	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	07/09/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12552 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

Standard Log #:	M12550	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/09/15	Expiration Date:	01/09/16
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M11285 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12551	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/09/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 0.5 ug/L Std. - 0.5 mL Hg (100 ug/L) 1 ug/L Std. - 1 mL Hg (100 ug/L) 2 ug/L Std. - 2 mL Hg (100 ug/L) 4 ug/L Std. - 4 mL Hg (100 ug/L) 5 ug/L Std. - 5 mL Hg (100 ug/L) 10 ug/L Std. - 10 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12552	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/09/15	Expiration Date:	06/30/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

Standard ID#:	M12548	Vendor:	Alfa Aesar
Analyst:	LJF	Chemical:	Hydroxylamine Sulfate
Date Received:	07/08/15	Lot #:	Z16A019
Expiration Date (if any):	N/A	Catalog #:	88944

Standard ID#:	M12549	Vendor:	MACRON
Analyst:	LJF	Chemical:	Stannous Chloride
Date Received:	07/08/15	Lot #:	0000111217
Expiration Date (if any):	12/09/15	Catalog #:	8176-04

Standard Log #:	M12545	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/30/15	Expiration Date:	06/30/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard Log #:	M12546	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/30/15	Expiration Date:	06/30/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard Log #:	M12547	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/30/15	Expiration Date:	06/30/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard Log #:	M12543	Reagent:	10N NaOH
Analyst:	LJF		
Prep Date:	06/18/15	Expiration Date:	06/18/16
Prep:	Into a 1 L volumetric flask, added 400 g NaOH M11852 and brought up to volume.		

Standard Log #:	M12544	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	06/18/15	Expiration Date:	06/18/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12543. Dilute to 20 L and mix.		

Standard Log #:	M12541	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	06/16/15	Expiration Date:	12/16/15
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M11285 and brought up to volume.		

Standard Log #:	M12542	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	06/16/15	Expiration Date:	12/16/15
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12270 and 60 g hydroxylamine sulfate M11798 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12534	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/15/15	Expiration Date:	02/26/16
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	CETAC
Standard Log #:	M12535	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/15/15	Expiration Date:	06/30/16
Prep:	<p>Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M12532</p> <p>100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)</p>		

		Instrument:	CETAC
Standard Log #:	M12536	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	06/15/15	Expiration Date:	06/30/16
Prep:	<p>Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12535 and brought up to volume using Milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p>		

		Instrument:	CETAC
Standard Log #:	M12537	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	06/15/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12538	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	06/15/15	Expiration Date:	06/30/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12535 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12539	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/15/15	Expiration Date:	02/01/17
Prep:	Carefully mixed 3 parts HCl AB.600 with 1 part HNO ₃ AB.561 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12540	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	06/15/15	Expiration Date:	10/23/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.600 and dissolved 100 g Stannous chloride M12478 and brought up to volume.		

Standard ID#:	M12529	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Interference-A
Date Received:	06/04/2015	Lot #:	12-101YPX
Expiration Date (if any):	06/30/2016	Catalog #:	INT-A1

Standard ID#:	M12530	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Custom Assurance STD (3) Ag,Be,Cd
Date Received:	06/04/2015	Lot #:	30-152CR
Expiration Date (if any):	06/30/2016	Catalog #:	XCTWI-4-500

Standard ID#:	M12531	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Custom Assurance STD (23)
Date Received:	06/04/2015	Lot #:	30-153CR
Expiration Date (if any):	06/30/2016	Catalog #:	XCTWI-5-500

Standard ID#:	M12532	Vendor:	SPEX Certiprep
Analyst:	NAH	Chemical:	Mercury 1000 mg/L
Date Received:	06/04/2015	Lot #:	CL7-180HGY
Expiration Date (if any):	06/30/2016	Catalog #:	CLHG4-2Y

Standard ID#:	M12533	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 mg/L
Date Received:	06/04/2015	Lot #:	15E180
Expiration Date (if any):	11/29/2016	Catalog #:	P/N S4400-10M321

MRL BASE STD	M12528	Analyst	NAH
		Prep Date	06/02/2015

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M11908	1000	1	09/2015
Al	400	M12400	10000	2	07/2016
Ba	10	M12473	1000	0.5	10/2016
Be	4	M12006	1000	0.2	11/2015
Cd	5	M12002	1000	0.25	11/2015
Co	10	M12000	1000	0.5	11/2015
Cr	10	M12470	10000	0.05	10/2016
Cu	10	M12472	10000	0.05	10/2016
Mg	500	M12314	10000	2.5	10/2016
Mn	10	M11829	10000	0.05	07/2015
Mo	10	M12008	1000	0.5	11/2015
Ni	10	M12004	1000	0.5	11/2015
Pb	10	M12313	10000	0.05	06/2016
Sb	20	M11909	1000	1	09/2015
V	10	M12009	1000	0.5	11/2015
Zn	10	M12005	10000	0.05	11/2015
K	1000	M12474	10000	5	10/2016
Na	1000	M12010	10000	5	11/2015
As	20	M12315	1000	1	06/2016
Ca	500	M12310	10000	2.5	10/2016
Fe	300	M12401	10000	1.5	10/2016
Se	20	M11911	1000	1	09/2015
Tl	20	M11997	1000	1	11/2015
Si	100	M12007	1000	5	11/2015
B	20	M12471	1000	1	10/2016
Li	20	M11998	1000	1	11/2015
W	50	M12001	1000	2.5	11/2015
Ti	10	M12003	1000	0.5	11/2015
Sr	10	M11999	1000	0.5	11/2015
Sn	50	M11996	1000	2.5	11/2015
S	300	M12350	10000	1.5	01/2016

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expiration Date:
07/2015

		Instrument:	ICP 6500
Standard Log #:	M12526	Standard:	ICSA
Analyst:	NAH	Concentrations:	500,000 ug/L Al, Ca, Fe, Mg
Prep Date:	06/01/2015	Expiration Date:	8/2015
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12164 and 15 mL Fe (10000 mg/L) M12401 and brought up to volume with milli-Q H ₂ O.		

		Instrument:	ICP 6500
Standard Log #:	M12527	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	12,000 mg/L Al 10,000 mg/L Ca, Mg 5000 mg/L Fe 2000 mg/L As, Ba, Se, Tl 500 mg/L B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn 250 mg/L Cu 200 mg/L Cr 50 mg/L Ag, Be, Cd
Prep Date:	06/01/2015	Expiration Date:	8/2015
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H ₂ O. 10 mL Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M12502, 2 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M12164, 0.5 mL Mo (1000 mg/L) M12008, 0.5 mL B (1000 mg/L) M12471, 0.5 mL Sr (1000 mg/L) M11999, 0.5 mL Li (1000 mg/L) M11998, 0.5 mL Sn (1000 mg/L) M11996 and 0.5 mL Ti (1000 mg/L) M12003.		

		Instrument:	ICP 6500
Standard Log #:	M12523	Standard:	ICSAB
Analyst:	NAH	Concentrations:	500,000 $\mu\text{g/L}$ Al, Ca, Fe, Mg 500 $\mu\text{g/L}$ Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Ti, V, Zn
Prep Date:	06/01/2015	Expiration Date:	7/2015
Prep:	Into a 500 mL volumetric flask, pipetted 50 mL Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe) M12164, 15 mL Fe (10,000 mg/L) M12401, 2.5 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12125 and 2.5 mL Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12374 and brought up to volume with milli-Q H_2O .		

		Instrument:	ICP 6500
Standard Log #:	M12524	Standard:	CCV1
Analyst:	NAH	Concentrations:	5000 $\mu\text{g/L}$ Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 500 $\mu\text{g/L}$ Ag, Be, Cd
Prep Date:	06/01/2015	Expiration Date:	7/2015
Prep:	Into a 1 L volumetric flask, pipetted 50 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12374 and 5.0 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12125 and brought up to volume with milli-Q H_2O .		

		Instrument:	ICP 6500
Standard Log #:	M12525	Standard:	CCV2
Analyst:	NAH	Concentrations:	500 $\mu\text{g/L}$ Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn 50 $\mu\text{g/L}$ Ag, Be, Cd
Prep Date:	06/01/2015	Expiration Date:	7/2015
Prep:	Into a 1 L volumetric flask, pipetted 5 mL Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12374 and 0.5 mL of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M12125 and brought up to volume with milli-Q H_2O .		

		Instrument:	ICP 6500
Standard Log #:	M12522	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/01/2015	Expiration Date:	7/30/2015
Prep:	<p>Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (5% HNO₃, 5% HCl)</p> <p>1000 ug/L Std. - 10 mL of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M12374, 10 mL of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M12125 and 1 mL of Si (1000 mg/L) M12007.</p> <p>0.25 ug/L Std. - 0.25 mL of the 1000 ug/L Std. 0.5 ug/L Std. - 0.5 mL of the 1000 ug/L Std. 1 ug/L Std. - 1 mL of the 1000 ug/L Std. 5 ug/L Std. - 5 mL of the 1000 ug/L Std. 10 ug/L Std. - 10 mL of the 1000 ug/L Std. 20 ug/L Std. - 20 mL of the 1000 ug/L Std. 50 ug/L Std. - 50 mL of the 1000 ug/L Std. 100 ug/L Std. - 1 mL of Custom Assurance Std. (CAS) #23 and 1 mL of CAS #3 10,000 ug/L Std. - 100 mL CAS #23, 100 mL CAS #3 and 1 mL of K (10,000 mg/L) M12474. 100k ug/L Std. - 10 mL of Cu (10,000 mg/L) M12472, 10 mL of Mn (10,000 mg/L) M11829, 10 mL of Cr (10,000 mg/L) M12470, 10 mL Pb (10,000 mg/L) M12313, 10 mL of Zn (10,000 mg/L) M12005 and 10 mL of Na (10,000 mg/L) M12010. 100,000 ug/L Std. - 10 mL of Mg (10,000 mg/L) M12488, 10 mL of Fe (10,000 mg/L) M12489, 10 mL of Ca (10,000 mg/L) M12490 and 10 mL Al (10,000 mg/L) M12400. 500,000 ug/L Std. - 50 mL of Mg (10,000 mg/L), 50 mL of Fe (10,000 mg/L), 50 mL of Ca (10,000 mg/L) and 50 mL of Al (10,000 mg/L) 1000k ug/L Std. - 100 mL of Mg (10,000 mg/L), 100 mL of Fe (10,000 mg/L), 100 mL of Ca (10,000 mg/L) and 100 mL of Al (10,000 mg/L)</p>		

Standard ID#:	M12518	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	GFAA Nickel Nitrate Modifier
Date Received:	05/29/2015	Lot #:	785159H
Expiration Date (if any):	11/30/2016	Catalog #:	39043

		Instrument:	GFAA
Standard Log #:	M12519	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	05/29/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12520	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	05/29/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M12504 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

		Instrument:	GFAA
Standard Log #:	M12521	Standard:	ICV/Spike Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	05/29/2015	Expiration Date:	06/01/2016
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M12505 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

Standard Log #:	M12515	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/28/15	Expiration Date:	10/28/15
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium permanganate M11285 and brought up to volume.		

Standard Log #:	M12516	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	05/28/15	Expiration Date:	10/28/15
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H ₂ O, dissolved 60 g NaCl M12270 and 60 g hydroxylamine sulfate M12096 and brought up to volume.		

Standard Log #:	M12517	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MDS	pH:	4.93 ± 0.05
Prep Date:	05/28/15	Expiration Date:	06/28/15
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12440. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M12512	Standard:	Hg MRL
Analyst:	LJF	Concentration:	0.2 ug/L Hg
Prep Date:	05/27/15	Expiration Date:	02/26/16
Prep:	Into a 100 mL volumetric flask, pipetted 0.2 mL of Hg (100 ug/L working std.) M12509 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12513	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/27/15	Expiration Date:	11/30/16
Prep:	Carefully mixed 3 parts HCl AB.597 with 1 part HNO ₃ AB.599 in a hood.		

		Instrument:	CETAC
Standard Log #:	M12514	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	05/27/15	Expiration Date:	10/23/15
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H ₂ O, added 70 mL hydrochloric acid AB.597 and dissolved 100 g Stannous chloride M12478 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M12509	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/27/15	Expiration Date:	02/26/16
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL of Hg (1000 mg/L) M11819 100 ug/L Std. - 1 mL of Hg (10,000 ug/L working Std.)		

		Instrument:	CETAC
Standard Log #:	M12510	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	05/27/15	Expiration Date:	02/26/16
Prep:	Into a 100 mL volumetric flask, pipetted 3 mL of Hg (100 ug/L working Std.) M12509 and brought up to volume using Milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M12511	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	05/27/15	Expiration Date:	02/26/16
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H ₂ O. (0.2% HNO ₃ , 0.2% HCl) 10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179 100 ug/L Std. - 1 mL Hg (10,000 ug/L) 3.0 ug/L Std. (CCV) - 3.0 mL Hg (100 ug/L)		

		Instrument:	CETAC
Standard Log #:	M12507	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/27/15	Expiration Date:	02/26/16
Prep:	<p>Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H₂O. (0.2% HNO₃, 0.2% HCl)</p> <p>10,000 ug/L Std. - 1 mL Hg (1000 mg/L) M12179</p> <p>100 ug/L Std. - 1 mL Hg (10,000 ug/L)</p> <p>0.5 ug/L Std. - 0.5 mL Hg (100 ug/L)</p> <p>1 ug/L Std. - 1 mL Hg (100 ug/L)</p> <p>2 ug/L Std. - 2 mL Hg (100 ug/L)</p> <p>4 ug/L Std. - 4 mL Hg (100 ug/L)</p> <p>5 ug/L Std. - 5 mL Hg (100 ug/L)</p> <p>10 ug/L Std. - 10 mL Hg (100 ug/L)</p>		

		Instrument:	ICP 6000
Standard Log #:	M12508	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	05/27/2015	Expiration Date:	08/30/2015
Prep:	<p>Into a 250 mL volumetric flask, pipetted 25 mL of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M12164, 2.5 mL of K (10,000 mg/L) M12474, 2.5 mL of Na (10,000 mg/L) M12010 and 7.5 mL of Fe (10,000 mg/L) M12401 and brought up to volume using Milli-Q H₂O. (2% HNO₃)</p>		

Standard ID#:	M12504	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV Standard
Date Received:	05/26/2015	Lot #:	J2-MEB581070
Expiration Date (if any):	06/01/2016	Catalog #:	CTI-SPK-1

Standard ID#:	M12505	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/Spiking Standard
Date Received:	05/26/2015	Lot #:	J2-MEB581069
Expiration Date (if any):	06/01/2016	Catalog #:	CTI-GFCAL-1

Standard Log #:	M12503	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	LJF	pH:	4.93 ± 0.05
Prep Date:	05/21/15	Expiration Date:	05/21/16
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12440. Dilute to 20 L and mix.		

Standard ID#:	M12502	Vendor:	SpexCertiprep
Analyst:	NAH	Chemical:	Custum assurance standard
Date Received:	05-19-2015	Lot #:	30-096CR
Expiration Date (if any):	05-30-2016	Catelog #:	XSPIKE-1-250

Standard Log #:	M12501	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	05/14/15	Expiration Date:	11/14/15
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H ₂ O, dissolved 50 g potassium persulfate M10987 and brought up to volume.		

		Instrument:	ICP 6000
Standard Log #:	M12500	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	05/13/2015	Expiration Date:	08/13/2015
Prep:	Into a 100 mL volumetric flask, pipetted 1.0 mL of S (10,000 µg/mL) M12371 and brought up to volume using Milli-Q H ₂ O.		

#M12488 5-5-15 - Mg 10,000 mg/L CPI Lot 15C248 ex 10/2016

#M12489 5-5-15 - Fe 10,000 mg/L CPI Lot 15C290 ex 10/16.

#M12490 5-5-15 Ca 10,000 mg/L CPI Lot 15A007 ex 10/16.

#M12491 05/06/15 LSF TClp Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 ml glacial Acetic Acid (AB 579) and 128.6 ml of 10N NaOH (#M12797). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.98 ± 0.05
Exp: 05/06/16

#M12492 05/06/15 LSF SPLP Extraction Fluid #2 west: Fill a 20L carboy with D.I. H₂O and adjust pH to 5.00 ± 0.05 with (#M12457) 60/40 HNO₃, H₂SO₄ mix w/ K₂Cr₂O₇.
Exp: 05/06/16

#M12493 05/11/15 LSF Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12494 05/11/15 LSF Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12495 05/11/15 LSF Hg ICV / LCSW (0.2% HNO₃, HCl)
3.0ml of 100ug/L Hg (#M12494) into 100ml = 3.0ug/L Hg

#M12496 05/11/15 LSF Hg CCV (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12497 05/11/15 LSF Hg MRL: (0.2% HNO₃, HCl)
0.2ml of 100ug/L Hg (#M12494) into 100ml = 0.2ug/L Hg

#M12498 05/11/15 LSF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12499 05/11/15 LSF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12435 04/27/15 SF 1N HCl for TClp: Into a 1L vol. flask partially filled with Milli-Q H₂O add 83ml of conc. HCl (AB: 553) and bring up to vol. with Milli-Q H₂O.

#M12476 04/28/15 SF TClp Extraction Fluid #1: Fill a 20L carboy with 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml of 10N NaOH (#M12297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05

#M12477 04/28/15 SF TClp Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic acid (AB: 579) and 128.6ml of 10N NaOH (#M12297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05

#M12478 04/28/15 SF Stannous Chloride (Macron) Cat# 000061329

#M12479 04/29/15 SF TClp Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml of 10N NaOH (#M12297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05

#M12480 ^{04/29/15 SF} 04/29/15 SF TClp Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml of 10N NaOH (#M12297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05

#M12481 05/04/15 SF Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12482 05/04/15 SF Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12483 05/04/15 SF Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12482) into 100ml = 3.0ug/L Hg

#M12484 05/04/15 SF Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12485 05/04/15 SF Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12482) into 100ml = 0.2ug/L Hg

#M12486 05/04/15 SF Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12487 05/04/15 SF Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water

#M12468
4/22/15
MDS

		Instrument:	ICP 6000
Standard Log #:	M12468	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	04/22/2015	Expiration Date:	11/8/2015
Prep:	Into a 500 mL volumetric flask, pipetted 0.15 mL of Na (10,000 µg/mL) M12010 and 0.15 mL K (10,000 µg/mL) M12294 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

#M12469
4/22/15
MDS

		Instrument:	ICP 6000
Standard Log #:	M12469	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	04/22/2015	Expiration Date:	04/29/2016
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 mL of Na (1000 µg/mL) M12296 and 0.5 mL K (1000 µg/mL) M12295 and brought to volume with Milli-Q H ₂ O. (2% HNO ₃)		

M12470 ⁴⁻²⁴⁻¹⁵ Cr 10,000 mg/L ⁴⁻²⁴⁻¹⁵ CPI lot # 13D123. ex oct/2016

M12471 ⁴⁻²⁴⁻¹⁵ Br 1000 mg/L CPI lot # 15D007. ex oct/2016

M12472 ⁴⁻²⁴⁻¹⁵ Cu 10,000 mg/L CPI lot # 15B087. ex oct/2016

M12473 ⁴⁻²⁴⁻¹⁵ Ba 1000 mg/L CPI lot # 15C142. ex oct/2016

M12474 ⁴⁻²⁴⁻¹⁵ K 10,000 mg/L CPI lot # 15D114. ex oct/2016

#M12475
04/24/15
MDS

Standard Log #:	M12475	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/24/2015	Expiration Date:	08/07/2015
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H ₂ O, pipetted 15 mL Pd Modifier M12158 and 10 mL Mg (10,000 mg/L) M12314 and brought up to volume.		

#M12459 04/20/15 Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12460 04/20/15 Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12461 04/20/15 Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12460) into 100ml = 3.0ug/L Hg

#M12462 04/20/15 Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12463 04/20/15 Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12460) into 100ml = 0.2ug/L Hg

#M12464 04/20/15 Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12465 04/20/15 Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12466 04/22/15 NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine sulfate (#M12090) in 500mL of Milli-Q H₂O.
Exp: 10/22/15

#M12467

04/22/15

MDS

		Instrument:	ICP 6000
Standard Log #:	M12467	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	04/22/2015	Expiration Date:	04/29/2016
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M12296 and K (1000 µg/mL) M12295 and brought up to volume using milli-Q H ₂ O. (2% HNO ₃) 0.5 mg/L std. - 0.1 mL of each 1.0 mg/L std. - 0.2 mL of each 5.0 mg/L std. - 1.0 mL of each 10 mg/L std. - 2.0 mL of each 50 mg/L std. - 10 mL of each 100 mg/L std. - 20 mL of each, also used for Continuing Calibration Verification 200 mg/L std. - 40 mL of each		

#M12453 04/07/15 13F

16Q Check

3050 QSM DOD

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	2640	M12294	10000	13.2
Na	960	M12010	10000	4.8

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 8-Nov

#M12454 04/07/15 13F

16Q Check

3050 QSM DOD

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	52	M11763	1000	2.6
Si	192	M12007	1000	9.6

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 13-May

#M12455 4/8/15 7A Environmental Express 4, 10,000mg/L lot# 1418108.
exp. 10/1/16#M12456 04/14/15 13F potassium permanganate Soln: 5.0g potassium permanganate (#M11285) dissolve into 1,000mL of D.I. H₂O.#M12457 04/15/15 13F SPLP Ext. Fluid Acid mixture: Into a 200 mL Vol. Flask, add 12g H₂SO₄ (AB. 598) and 8g conc. HNO₃ (AB. 596). Bring up to volume with D.I. H₂O.#M12458 04/16/15 13F SPLP Extraction Fluid West #2: Fill a 20L carboy with D.I. H₂O and adjust pH to 5.00 ± 0.05 with (#M12457) 60/40 HNO₃, H₂SO₄ mix w/v mix.

#M12449 04/07/15 13F
 106 Check
 3010 QSM DOD

3010 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	16	M11763	1000	0.8
Si	200	M12007	1000	10

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 13-May

#M12450 04/07/15 13F
 106 Check
 3050 QSM DOD

3050 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4	M11998	1000	0.72
Sn	20	M11996	1000	1
Sr	3.2	M11999	1000	0.16
Ti	9.6	M12003	1000	0.48
W	24	M12001	1000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 8-Nov

#M12451 04/07/15 13F
 106 Check
 3050 QSM DOD

3050 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11908	1000	0.2
Al	9.6	M12312	10000	0.048
As	32	M12315	1000	1.6
Ba	2	M11768	1000	0.1
Be	1.6	M12006	1000	0.08
Ca	56	M12310	10000	0.28
Cd	1.6	M12002	1000	0.08
Co	9.6	M1200	1000	0.48
Cr	5.6	M11767	10000	0.028
Cu	16	M11764	10000	0.08
Fe	72	M1231	10000	0.36
Mg	32	M12314	10000	0.16
Mn	6	M11829	10000	0.03
Mo	9.6	M12008	1000	0.48
Ni	4.8	M12004	1000	0.24
Pb	10	M12313	10000	0.05
Sb	32	M11909	1000	1.6
Se	16	M11911	1000	0.8
Tl	19	M11997	1000	0.95
V	3.2	M12009	1000	0.16
Zn	12	M12005	10000	0.06

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 13-May

#M12452 04/07/15 13F
 106 Check
 3050 QSM DOD

3050 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
S	240	M11679	10000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

#M12447
705
04/07/15

Instrument:		GFAA
Standard Log #:	M12447	Standard:
Analyst:		MDS
Concentrations:		150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	04/07/2015	Expiration Date:
Prep: Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H ₂ O. 1.5 mL of Sb (1000 mg/L) M11909 1.0 mL of As (1000 mg/L) M12315 2.0 mL of Se (1000 mg/L) M11911 0.045 mL of Pb (10,000 mg/L) M12313 0.4 mL of Tl (1000 mg/L) M11997 From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H ₂ O to make the spiking solution. (1% HNO ₃) *Pipette 1 mL spiking solution into 50 mL H ₂ O for LOD (3 ug/L Sb, 2 ug/L As, 4 ug/L Se, 0.9 ug/L Pb, 0.8 ug/L Tl) and 2 mL spiking solution for LOQ (6 ug/L Sb, 4 ug/L As, 8 ug/L Se, 1.8 ug/L Pb, 1.6 ug/L Tl)		

#M12448
705
04/07/15

Instrument:		GFAA
Standard Log #:	M12448	Standard:
Analyst:		MDS
Concentrations:		60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	04/07/2015	Expiration Date:
Prep: Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H ₂ O. 1.2 mL of Sb (1000 mg/L) M11909 3.2 mL of As (1000 mg/L) M12315 3.2 mL of Se (1000 mg/L) M11911 0.08 mL of Pb (10,000 mg/L) M12313 1.0 mL of Tl (1000 mg/L) M11997 From this diluted standard solution, pipetted 10 mL into a 1 L volumetric flask and brought up to volume with Milli-Q H ₂ O to make the spiking solution. (1% HNO ₃) *Pipette 1 mL spiking solution into 50 mL H ₂ O for LOD (1.2 ug/L Sb, 3.2 ug/L As, 3.2 ug/L Se, 0.8 ug/L Pb, 1 ug/L Tl) and 2 mL spiking solution for LOQ (2.4 ug/L Sb, 6.4 ug/L As, 6.4 ug/L Se, 1.6 ug/L Pb, 2 ug/L Tl)		

Into a 1000 mL Volumetric Flask, pipet the following:

[illegible]

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 8-Nov

3010 GSM DDD

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M12294	10000	2.5
Na	600	M12010	10000	3

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 8-Nov

#M12442

04/02/15

MDS

Instrument:		GFAA	
Standard Log #:	M12442	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/02/2015	Expiration Date:	06/01/2015
Prep:	Into a 1 L volumetric flask, pipetted 0.1 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M11978 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

#M12443

04/02/15

MDS

Instrument:		GFAA	
Standard Log #:	M12443	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/02/2015	Expiration Date:	06/01/2015
Prep:	Into a 1 L volumetric flask, pipetted 1.0 mL of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M11979 and brought to volume with Milli-Q DI H ₂ O. (1% HNO ₃)		

#M12444 04/06/15 TSF

log check 3010GSM DOD

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11908	1000	0.2
Al	36	M11914	10000	0.18
As	24	M11912	1000	1.2
Ba	1.8	M11768	1000	0.09
Be	0.6	M12006	1000	0.03
Ca	100	M11910	10000	0.5
Cd	2	M12002	1000	0.1
Co	4	M17000	1000	0.2
Cr	4	M11767	10000	0.02
Cu	7	M11764	10000	0.035
Fe	100	M11915	10000	0.5
Mg	40	M11976	10000	0.2
Mn	4	M11829	10000	0.02
Mo	7	M12008	1000	0.35
Ni	6	M12004	1000	0.3
Pb	4	M11682	10000	0.02
Sb	12	M11682	1000	0.6
Se	13	M11911	1000	0.65
Tl	15	M11997	1000	0.75
V	5	M12009	1000	0.25
Zn	10	M12005	10000	0.05

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 13-May

#M12432 03/31/15 ~~13~~ Potassium persulfate: 50g potassium persulfate (#M10987) dissolve into 1,000mL of D.I. H₂O.
Exp: 09/30/15

#M12433 03/31/15 ~~15~~ Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12434 03/31/15 ~~15~~ Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12435 03/31/15 ~~15~~ Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12434) into 100ml = 3.0ug/L Hg

#M12436 03/31/15 ~~15~~ Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12437 03/31/15 ~~15~~ Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12434) into 100ml = 0.2ug/L Hg

#M12438 03/31/15 ~~15~~ Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12439 03/31/15 ~~15~~ Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12440 03/31/15 ~~15~~ 10N NaOH: Into 1 L flask, add 400g NaOH (#M11145) and bring up to volume with D.I. H₂O.
Exp: 10/01/15

		Instrument:	GFAA
Standard Log #:	M12441	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/02/2015	Expiration Date:	06/01/2015
Prep:	Into a 1 L volumetric flask, pipetted 0.25 mL of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M11978 and brought to volume with Milli-Q H ₂ O. (1% HNO ₃)		

#M12441
04/02/15
MDS

#M12421 03/19/15 TCLP Extraction Fluid #1: Fill a 20 L carboy w/19 L D.I. H₂O. Add 114 ml Glacial Acetic Acid (AB 579) and 128.6 ml of 10N NaOH (#M12292). Dilute to 20 L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 03/19/16

#M12422 03/20/15 15F NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine sulfate (#M12096) in 500 ml of milli-Q H₂O.
Exp: 09/20/15

#M12423
MBS
03/24/15

Standard Log #:	M12423	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	MDS	pH:	4.93 ± 0.05
Prep Date:	03/24/2015	Expiration Date:	09/24/2015
Prep:	Into a 20 L carboy filled with 19 L of DI H ₂ O, add 114 mL Glacial acetic acid AB.579 and 128.6 mL 10N NaOH M12292. Dilute to 20 L and mix.		

#M12424 03/24/15 15F

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12425 03/24/15 15F

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12426 03/24/15 15F

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12425) into 100ml = 3.0ug/L Hg

#M12427 03/24/15 15F

Hg CCV.
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12428 03/24/15 15F

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12425) into 100ml = 0.2ug/L Hg

#M12429 03/24/15 15F

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12430 03/24/15 15F

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12431 03/25/15 15F potassium permanganate sol'n: 50g potassium permanganate (#M11785)
Exp: 09/25/15 dissolve into 1000ml of D.I. H₂O.

#M12406 03/06/15 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M12409 03/06/15 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M12408 03/06/15 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M12407) into 100ml = 3.0ug/L Hg
#M12409 03/06/15 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M12410 03/06/15 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M12407) into 100ml = 0.2ug/L Hg
#M12411 03/06/15 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
#M12412 03/06/15 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
#M12413 03/17/15 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M12414 03/17/15 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M12415 03/17/15 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M12414) into 100ml = 3.0ug/L Hg
#M12416 03/17/15 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M12417 03/17/15 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M12414) into 100ml = 0.2ug/L Hg
#M12418 03/17/15 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
#M12419 03/17/15 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12420 03/19/15 SF TCP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 mL glacial Acetic Acid (AB: 554) and 128.6 mL of 10N NaOH (#M1297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 03/19/16

List 2 MRL/ICVLL Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MRL (ug/L)	ICVLL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) pipet into 1	Expired Date
Li	20	60	M11998	1000	1	11/08/2015
W	100	300	M12163	1000	5	02/06/2016
Ti	10	30	M12003	1000	0.5	11/08/2015
Sr	10	30	M11999	1000	0.5	11/08/2015
Sn	20	60	M11996	1000	1	11/08/2015

Pipette 10 mL into a 500 mL volumetric flask to create a working MRL std. or 1 mL into a 50 mL digestion tube for a digested MRL working standard. Pipette 30 mL into 500 mL For ICVLL Working.

List 2 MRL

Into a 500 mL volumetric flask, pipetted 10 mL of #M12395 and brought to volume with milli-Q H₂O.
Exp. 11/08/2015 0.5% HNO₃, 0.5% HCl

List 2 ICVLL

Into a 500 mL volumetric flask, pipetted 30 mL of #M12395 and brought to volume with milli-Q H₂O.
Exp. 11/08/2015 0.5% HNO₃, 0.5% HCl

#M12398 02/23/15 13F NaCl Hydroxylamine sulfate Reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine sulfate (#M11798) in 500 mL of milli-Q H₂O.
Exp: 08/23/15

#M12399 02/24/15 13F potassium permanganate soln: 50g potassium permanganate (#M11785) dissolve into 1000 mL of D.I. H₂O.
Exp: 08/24/15

#M12400 2-25-15 Al 10,000 mg/L CPI lot# 14K153. ex 7/2014

#M12401 2-25-15 Fe 10,000 mg/L CPI lot# H5165, 7/2014
02/26/15 13F

#M12402 02/26/15 13F stannous chloride (Amcrun) lot# 0000096553

#M12403 02/26/15 13F sodium chloride (Fisher) lot# 145475
02/26/15 13F

#M12404 03/04/15 13F TCLP Extraction Fluid #1: Fill a 20L carboy w/192 D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB-579) and 178.6 mL of 10N NaOH (#M12392). Dilute to 20L w/D.I. H₂O and mix.
pH = 4.93 ± 0.05

#M12405 03/04/15 13F TCLP Extraction Fluid #1: Fill a 20L Carboy w/191 D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB-579) and 178.6 mL of 10N NaOH (#M12392). Dilute to 20L w/D.I. H₂O and mix.
pH = 4.93 ± 0.05

#M12383 02/19/15 SF TCLP Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114 mL of Glacial Acetic Acid (AB: 554) and 128 mL of 100% H₂SO₄. Dilute to 20 L w/ D.I. H₂O and mix.
pH = 4.88 ± 0.05

#M12384 02/19/15 SF Hg Working Stds: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12385 02/19/15 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12386 02/19/15 SF Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M12385) into 100ml = 3.0ug/L Hg

#M12387 02/19/15 SF Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12388 02/19/15 SF Hg MRL: (0.2% HNO₃, HCl) 0.2ml of 100ug/L Hg (#M12385) into 100ml = 0.2ug/L Hg

#M12389 02/19/15 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12390 02/19/15 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M12299) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

ICAP Working Standards List 2

.5% HNO₃

.5% HCl

#M12391 7
02/23/15 mbs

Standard
name

Pipetted the following respectively:

1
10
100
1000
10000

0.01mL of #M12316 and 0.001mL #M12001 into 1L = 1 ug/L
0.10mL of #M12316 and 0.01mL #M12001 into 1L = 10 ug/L
1mL of #M12316 and 0.1mL #M12001 into 1L = 100 ug/L
2 mL of #M12316 and 0.2 mL #M12001 into 200 mL = 1000 ug/L
20mL of #M12316 and 2mL #M12001 into 200mL = 10000 ug/L
Brought up to mark with milli-Q H₂O Exp. 11/08/2015

#M12392
02/23/15 mbs

Continuing Calibration Standard (CCV)

Into a 200mL volumetric flask pipetted 2mL of #M12316 and 0.2mL #M12001 = 1000 ug/L
Brought up to mark with milli-Q H₂O Exp. 11/08/2015 0.5% HNO₃, 0.5% HCl

#M12393
02/23/15 mbs

Initial Calibration Standard (ICV) List 2

Into a 1 liter volumetric flask pipetted 1mL of #M12003, M11999, M11996, M11998, M12163
Brought up to mark with milli-Q H₂O Exp. 11/08/2015 0.5% HNO₃, 0.5% HCl

#M12394
02/23/15 mbs

ICASB List 2

Into a 200 mL volumetric flask, pipetted 20 mL Interferents A #M12164, 6 mL Fe (10,000 ug/mL) #M12311, and 0.1 mL of 1000mg/L Ti, Sr, Sn, Li, and W #M12003, M11999, M11996, M11998, and M12001 respectively.
Brought up to mark with milli-Q H₂O Exp. 08/30/2015 0.5% HNO₃, 0.5% HCl

M12378 2-10-15 K-1000mg/L CRI Cat# 14L1754 7/16.

Standard Log #:	M12379	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 22 µg/L Tl 24 µg/L Sb, Se 0.8 µg/L Ag
Prep Date:	02/17/2015	Expiration Date:	09/18/2015

M12379

MDS

02/17/15

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H₂O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M12315	10,000
Pb	0.1	10,000	M12313	10,000
Tl	1	1000	M11997	10,000
Se	1	1000	M11911	10,000
Sb	1	1000	M11909	10,000
Ag	0.1	1000	M11908	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H₂O. (1% HNO₃)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	Final Conc. (µg/L)
As	1	10,000	10
Pb	0.6	10,000	6
Tl	2.2	10,000	22
Se	2.4	10,000	24
Sb	2.4	10,000	24
Ag	0.8	1000	0.8

M12380 - Custom Assurance Std. Spex Certiprep
2-17-15

M12381 02/17/15 TClP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB 579) and 128 mL of 10N NaOH (# M12292). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/17/16

M12382 02/17/15 TClP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB 579) and 128 mL of 10N NaOH (# M12292). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/17/16

#M12364 02/04/15 LSF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M12365 02/04/15 LSF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M12366 02/04/15 LSF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M12365) into 100ml = 3.0ug/L Hg
#M12367 02/04/15 LSF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M12368 02/04/15 LSF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M12365) into 100ml = 0.2ug/L Hg
#M12369 02/04/15 LSF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M12370 02/04/15 LSF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12371 2-5-15 21 Sulfur 10,000mg/L SPC Science lot #
S140717006 ex 4/16.

#M12372 02/05/15 LSF TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6 ml of 10N NaOH (#M17297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/05/16

#M12373 02/05/15 LSF TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6 ml of 10N NaOH (#M17297). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/05/16

#M12374 2/5/15 Chromium Assurance Std 100ug/ml 23 lot # 8-91WL ex 1/16

#M12375 02/10/15 LSF 10N NaOH: Into a 1L flask, add 400g NaOH (#M11352) and bring up to volume with D.I. H₂O.
Exp: 08/10/15

#M12376 02/10/15 LSF Potassium permanganate soln: 50g potassium permanganate (#M11285) dissolve into 1000 ml of D.I. H₂O.
Exp: 08/10/15

#M12377 2-10-15 Na 1000mg/L CFI lot # 142083. ex 7/16.

#M12352 01/20/15 13F Potassium permanganate Soln: 50g potassium permanganate (#M11285)
exp: 07/20/15 dissolve into 1,000 mL of D.I. H₂O

#M12353 01-22-15 MOS SICAL - Into 4, 100 mL vol. Flasks, pipetted the following and brought up to volume with milli-Q H₂O. exp. 01-30-16

0.01 mL S (10,000 µg/mL) # M12350 = 1000 µg/L S
0.1 mL S (10,000 µg/mL) # M12350 = 10,000 µg/L S
Used as CCV → 1.0 mL S (10,000 µg/mL) # M12350 = 100,000 µg/L S
10 mL S (10,000 µg/mL) # M12350 = 1000K µg/L S

#M12354 01-22-15 MOS S IGV - Into a 100 mL vol. flask, pipetted 1.0 mL S (10,000 µg/mL) #M11828 and brought to volume with milli-Q H₂O. exp. 01-30-15

#M12355 01/27/15 13F Hg Working Stds:
(0.2% HNO₃, HCl)

1.0 mL of 1000 mg/L Hg (#M10563) into 100 mL = 10 mg/L Hg
1.0 mL of 10 mg/L Hg into 100 mL = 100 µg/L Hg
0.5 mL of 100 µg/L Hg into 100 mL = 0.5 µg/L Hg
1.0 mL of 100 µg/L Hg into 100 mL = 1.0 µg/L Hg
2.0 mL of 100 µg/L Hg into 100 mL = 2.0 µg/L Hg
4.0 mL of 100 µg/L Hg into 100 mL = 4.0 µg/L Hg
5.0 mL of 100 µg/L Hg into 100 mL = 5.0 µg/L Hg
10.0 mL of 100 µg/L Hg into 100 mL = 10.0 µg/L Hg

#M12356 01/27/15 13F Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0 mL of 1000 mg/L Hg (#M9063) into 100 mL = 10 mg/L Hg
1.0 mL of 10 mg/L into 100 mL = 100 µg/L Hg

#M12357 01/27/15 13F Hg IGV / LCSW
(0.2% HNO₃, HCl)

3.0 mL of 100 µg/L Hg (#M12356) into 100 mL = 3.0 µg/L Hg

#M12358 01/27/15 13F Hg CCV
(0.2% HNO₃, HCl)

1.0 mL of 1000 mg/L Hg (#M10563) into 100 mL = 10 mg/L Hg
1.0 mL of 10 mg/L Hg into 100 mL = 100 µg/L Hg
3.0 mL of 100 µg/L Hg into 100 mL = 3.0 µg/L Hg

#M12359 01/27/15 13F Hg MRL:
(0.2% HNO₃, HCl)

0.2 mL of 100 µg/L Hg (#M12356) into 100 mL = 0.2 µg/L Hg

#M12360 01/27/15 13F Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12361 01/27/15 13F Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12362 01/27/15 13F NaOH Hydroxylamine Sulfate Reagent: Dissolve 60g NaOH (#M11799) and 60g hydroxylamine sulfate (#M11798) in 500 mL of Milli-Q H₂O.
exp: 07/27/15

#M12363 01/30/15 13F TCLP Extraction Fluid #1: Fill a 20 L carboy w/ 19 L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB: 579) and 12.8 mL of 10N NaOH (#M1279). Dilute to 20 L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
exp: 01/30/16

#M12340 1-9-15
5% HCL
5% #1203

3050 MDL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	#M12294	10000	2.5
Na	500	#M12010	10000	2.5

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

EXPIRES

11/15

#M12341 01-14-15 MMS GFAA LOD/LOQ check water Working Std. (Ag Only) - Take a 100ml vol. Flask, pipetted 0.1ml Ag (10000ug/ml) #M11008 and brought up to volume using milli-Q H₂O exp. 09-18-15

#M12342 01-14-15 MMS GFAA LOD/LOQ Water Spiking Solution (Ag Only) - Take a 1L vol. Flask, pipetted 10ml #M12341 and brought up to volume using milli-Q H₂O (1% HNO₃) exp. 09-18-15

#M12343 01/19/15/5F Hg Working Stds: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12344 01/19/15/5F Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12345 01/19/15/5F Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M12344) into 100ml = 3.0ug/L Hg

#M12346 01/19/15/5F Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12347 01/19/15/5F Hg MRL: (0.2% HNO₃, HCl) 0.2ml of 100ug/L Hg (#M12344) into 100ml = 0.2ug/L Hg

#M12348 01/19/15/5F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12349 01/19/15/5F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#MU995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12350 1-19-15A Spex Centiprep S 10,000 ng/L Lot # AH15-85SY ex 1/16

#M12351 01/19/15/5F TCE Extraction Fluid #1 Filed a 20L carboy w/192 D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml of 10N NaOH (#M12292). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp. 01/19/16
01/19/15/5F

#M12334 6/18/15 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12334) into 100ml = 0.2ug/L Hg

#M12335 6/18/15 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12336 6/18/15 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11985) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12337 1-9-15

5% HNO₃

5% HCL

MDL Spiking Solution
Base SPIKE PREPARATION 50x

B, Si, S

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	20	#M11763	1000	1
Si	100	#M12007	1000	5
S	200	#M11679	10000	1

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

EXPIRES 5/15

#M12338 1-9-15

5

5% HNO₃

5% HCL

MDL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	5	#M11908	1000	0.25
Al	10	#M12312	10000	0.05
As	20	#M12315	1000	1
Ba	2	#M11768	1000	0.1
Be	0.5	#M12006	1000	0.025
Ca	50	#M12310	10000	0.25
Cd	0.5	#M12002	1000	0.025
Co	2.5	#M12000	1000	0.125
Cr	50	#M11767	10000	0.25
Cu	10	#M11764	10000	0.05
Fe	40	#M12311	10000	0.2
Mg	25	#M12314	10000	0.125
Mn	5	#M11829	10000	0.025
Mo	2.5	#M12008	1000	0.125
Ni	5	#M12004	1000	0.25
Pb	10	#M12313	10000	0.05
Sb	20	#M11909	1000	1
Se	20	#M11911	1000	1
Ti	20	#M11997	1000	1
V	5	#M12009	1000	0.25
Zn	5	#M12005	10000	0.025

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

EXPIRES

15-Feb

#M12339 (1-9-15)

5% HNO₃

5% HCL

MDL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	20	#M11998	1000	1
Sn	20	#M11996	1000	1
Sr	20	#M11999	1000	1
Ti	20	#M12003	1000	1
W	20	#M11679	1000	1

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

EXPIRES 5/15

M12328 1-8-15

24

Continuing Calibration Standard 2(CCV2)

Into a one liter volumetric flask pipet 5 mls of # M12316 (ex 12/15)
and 0.5 ml of #M12125(ex 07/15).

ex 07/15

Bring up to mark with DI H₂O

M12329 - 1-8-15

24

MRL
Stock
Std

MRL Std
Base SPIKE PREPARATION 50x

into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MRL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	#M11908	1000	1	9/15
Al	400	#M12312	10000	2	9/16
Ba	10	#M11768	1000	0.5	5/15
Be	4	#M12005	1000	0.2	11/15
Cd	5	#M12002	1000	0.25	11/15
Co	10	#M12000	1000	0.5	11/15
Cr	10	#M11767	10000	0.05	5/15
Cu	10	#M11764	10000	0.05	5/15
Mg	500	#M12314	10000	2.5	8/16
Mn	10	#M11829	10000	0.05	7/16
Mo	10	#M12008	1000	0.5	11/15
Ni	10	#M12004	1000	0.5	11/15
Pb	10	#M12313	10000	0.05	6/16
Sb	20	#M11909	1000	1	8/15
V	10	#M12009	1000	0.5	11/15
Zn	10	#M12005	10000	0.05	11/15
K	1000	#M12294	10000	5	4/16
Na	1000	#M12010	10000	5	11/15
As	10	#M12315	1000	0.5	6/16
Ca	500	#M12310	10000	2.5	6/16
Fe	300	#M12311	10000	1.5	6/16
Se	10	#M11911	1000	0.5	9/15
Tl	20	#M11997	1000	1	11/15
Sr	10	#M11999	1000	0.5	11/15
Ti	10	#M12003	1000	0.5	11/15
Li	20	#M11998	1000	1	11/15
Sn	20	#M11996	1000	1	11/15
B	20	#M11763	1000	1	5/15
Si	100	#M12007	1000	5	11/15
W	50	#M11679	1000	2.5	5/15
S	500	#M11679	10000	2.5	5/15

Of this Base standard pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

M12329 1-8-15

2% HCl

5% HNO₃

MRL working std into 500 ml vol flask pipet
10 ml of # M12329 Bring up to mark with
DI H₂O

M12331 01/08/15 (SF)

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

M12331 01/08/15 (SF)

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

M12332 01/08/15 (SF)

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12331) into 100ml = 3.0ug/L Hg

M12333 01/08/15 (SF)

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12324 01/01/15 SE potassium persulfate: 50g potassium persulfate #M10987 dissolve into 1000ml
Exp: 07/01/15 of D.I. H₂O.

#M12325 01-08-15 MOS

Spiking Solution calc

Base SPIKE PREPARATION 50x GFAA MDL Waters

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	0.2	M11908	1000	0.01
As	2	M11912	1000	0.1
Pb	2	M12313	10000	0.01
Sb	2	M11909	1000	0.1
Se	2	M11911	1000	0.1
Tl	2	M11997	1000	0.1

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires 09-18-15

2% HNO₃

#M12326 1-8-15 JA

ICAP Working Standards

5% HNO₃ 5% HCL

Standard name Std #

Pipet the following respectively:

- 0.25 1 0.25 mls of standard 1000 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
- 0.5 2 0.50 mls of standard 1000 ug/L into 1000ml volumetric flask = 0.50 ug/L std
- 1 3 1.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 1.00 ug/L std
- 5 4 5.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 5.00 ug/L std
- 10 5 10.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 10.0 ug/L std
- 20 6 20.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 20.0 ug/L std
- 50 7 50.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 50.0 ug/L std
- 100 8 1.0 mls of #M12316(ex 12/15) and 1.0 mls of #M12125 (ex 07/15) into 1000 ml volumetric flask = 100 ug/L std
- 1000 9 10.0 mls of #M12316(ex 12/15) and #M12125 (ex 07/15) and 1 mL of #M12007 Si into 1000 ml volumetric flask = 1000 ug/L std
- 10,000 10 100 mls #M12316 (ex 12/15), 100 mls #M12125 (ex 07/15)
- 100k 11 10 mls of #M11764 Cu (ex 5/15), 10 mls of #M11829 Mn (ex 7/15), 10 mls of #M11767 Cr (ex 5/15), 10 mls #M12313 Pb (ex 6-16), 10 mls zn #M12005(ex 8-15), 10 mls #M12010 Na (ex 11/15), 10 mls = 100,000 ug/L - ~~also 10 mls #M12213 As (ex 3/16)~~
- 100,000 12 10 mls of #M12314 Mg (ex 6/16), 10 mls of #M121311 Fe (ex 06/16), 10 mls of #M12310 Ca (ex 6/16), 10 mls #M12312 AL (ex 6/16), 1.0 mls #12294 K (ex 4/16) into 1000 ml vol flask = 100,000 ug/l std
- 500,000 13 50 mls of #M12314 Mg (ex 6/16), 50 mls of #M121311 Fe (ex 6/16), 50 mls of #M12310 Ca (ex 6/16), 50 mls #M12312 AL (ex 6/16) into 1000 ml vol flask = 500,000 ug/l std
- 1000k 14 100 mls of #M12314 Mg (ex 6/16), 100 mls of #M121311 Fe (ex 6/16), 100 mls of #M12310 Ca (ex 6/16), 100 mls #M12312 AL (ex 6/16) into 1000 ml vol flask = 1,000,000 ug/l std
- Bring the 1000 ml volumetric up to mark with DI H₂O

ex 05/15

#M12327

Continuing Calibration Standard 1(CCV1)

1-8-15

Into a one liter volumetric flask pipet 50mls of # M12316 (ex 12/15) and 5 ml of #M12125 (ex 07/15).
ex 07/15
Bring up to mark with DI H₂O

- # M12310 12-9-14 J 10,000 mg/L Ca CPI Lot # 14K204 ex 6/16
- # M12311 12-9-14 J 10,000 mg/L Fe CPI Lot # 14J1165 ex 6/16
- # M12312 12-9-14 J 10,000 mg/L Al CPI Lot # 14H211 ex 6/16
- # M12313 12-9-14 J 10,000 mg/L Pb CPI Lot # 14D135 ex 6/16
- # M12314 12-9-14 J 10,000 mg/L mg CPI Lot # 14K161 ex 6/16
- # M12315 12-9-14 J 1000 mg/L As CPI Lot # 131994 ex 6/16
- # M12316 12-9-14 J Custom Assurance Std CPEx Certiprep lot 27-185CR 12/15
- # M12317 12-09-14 MMS GFAA Se Spike (10ug/ml). Into a 100ml vol. flask, pipetted 1.0ml Se (1000ug/ml) #M11811 + brought to volume with DI H₂O. (3% HNO₃) exp. 09/18/15
- # M12318 12/09/14 JF TCEP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB579) and 128.6ml of 10N NaOH (#M11292). Dilute to 20L with DI H₂O and mix. pH=4.93±0.05 exp. 12/09/15
- # M12319 12/12/14 JF potassium permanganate soln. 50g potassium permanganate (#M1185) dissolve into 1000ml of D.I. H₂O. exp. 12/12/15
- # M12320 J 12-15-14 Custom Assurance Std Spex Certiprep lot 27-232CR XCTWT-1-500
- # M12321 J 12-15-14 Custom Assurance Std Spex Certiprep lot 27-231CR X spike-1-250
- # M12322 12/15/14 JF TCEP Extraction Fluid #1: Fill a 20L Carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB579) and 128.6ml of 10N NaOH (#M11292). Dilute to 20L with DI H₂O and mix. pH=4.93±0.05 exp. 12/15/15
- # M12323 12-22-14 MMS GFAA Pd/Mg Matrix Modifier - Into a 50ml vol. flask, pipetted 15.0ml of Pd Modifier #M12158 + 10ml of Mglucosamine (#M12113) + brought up to volume using milli-Q H₂O. (2% HNO₃) exp. 8/7/15

#M12295 11-21-14 K 1000ug/ml CPI lot 141165 ex 4/16

#M12296 11-21-14 Na 1000ug/L CPI lot 141167 ex 4/16

#M12297 11/21/14 3F potassium permanganate soln: 56g potassium permanganate (#M11285) dissolved
exp: 05/12/15 into 1000ml of D.I. H₂O.

#M12298 11/24/14 3F Stannous chloride (macron) lot# 0000082282

#M12299 11-25-14 2I ICV 1 As+Pb. into 1 liter vol flask pipet 5ml
#M11912, 0.5ml #M11682 bring up to mark w/ D.I. H₂O.

^{12300 11/25/14 3F}
#M12299 11/25/14 3F Stannous chloride (Macron) lot# 0000090643

#M12301 12/02/14 3F TClp Extraction Fluid #1 fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml glacial
Exp: 12/02/15 Acetic Acid (AB 559) and 128.6ml of 10N NaOH (#M12292).
Dilute to 20L with D.I. H₂O and mix pH = 9.93 ± 0.05.

#M12302 12/05/14 3F Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12303 12/05/14 3F Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12304 12/05/14 3F Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12303) into 100ml = 3.0ug/L Hg

#M12305 12/05/14 3F Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12306 12/05/14 3F Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12303) into 100ml = 0.2ug/L Hg

#M12307 12/05/14 3F Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12308 12/05/14 3F Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

^{12309 12/09/14 3F}
#M12309 12/09/14 3F NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11999) and 60g
exp: 06/09/15 hydroxylamine sulfate (#M11798) in 500ml of milli-Q H₂O.

ICASB List 2

#M12282

11-13-14 MAS

Into a 200 mL volumetric flask, pipetted 20 mL Interferents A #M12082 and 0.1 mL of 1000mg/L Ti, Sr, Sn, Li, and W #M12003, M11999, M11996, M11998, and M12001 respectively.
Brought up to mark with milli-Q H2O Exp. 06/30/2015

#M12283

11-14-14

Yttrium 10,000 ug/mL Environmental Express Lot #1418108

#M12284 11/14/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12285 11/14/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12286 11/14/14 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12285) into 100ml = 3.0ug/L Hg

#M12287 11/14/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12288 11/14/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12285) into 100ml = 0.2ug/L Hg

#M12289 11/14/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12290 11/14/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12291 11/15/14 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine sulfate (#M11798) in 500ml of milli-Q H₂O.
Exp: 05/15/15

#M12292 11/20/14 SF 10N NaOH: Into a 1L flask, add 400g NaOH (#M11145) and bring up to volume with D.I. H₂O.
Exp: 05/20/15

#M12293 11/20/14 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml of 10N NaOH (#M12292). Dilute to 20L with D.I. H₂O and mix pH = 4.93 ± 0.05
Exp: 11/20/15

#M12294 11-21-14 K 10,000 ug/mL CFI Lot 146213 ex 4/29/16
A

11/04/14 SF
 #M12271 TClp Extraction Fluids #1: Fill a 20L carboy w/ 192 D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10N NaOH (#M11955). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M12272 11/05/14 SF

Hg Working Stds:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12273 11/05/14 SF

Hg Alt Source Working Std:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12274 11/05/14 SF

Hg ICV / LCSW
 (0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12273) into 100ml = 3.0ug/L Hg

#M12275 11/05/14 SF

Hg CCV
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12276 11/05/14 SF

Hg MRL:
 (0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12273) into 100ml = 0.2ug/L Hg

#M12277 11/05/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12276 11/05/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11285) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12277 11/07/14 SF

Potassium permanganate (Fisher) Lot # 138740A

#M12278 11/13/14 SF

Potassium permanganate soln: 50g potassium permanganate (#M11285) dissolve into 1000ml of D.I. H₂O.
 Exp: 05/13/15

ICAP Working Standards List 2

#M12279

.5% HNO₃

.5% HCL

11-13-14 MOS

Standard
 name

Pipetted the following respectively:

1	0.01mL of #M12165 and 0.001mL #M12001 into 1L = 1 ug/L
10	0.10mL of #M12165 and 0.01mL #M12001 into 1L = 10 ug/L
100	1mL of #M12165 and 0.1mL #M12001 into 1L = 100 ug/L
1000	2mL of #M12165 and 0.2mL #M12001 into 200mL = 1000 ug/L
10000	20mL of #M12165 and 2mL #M12001 into 200mL = 10000 ug/L
	Brought up to mark with milli-Q H ₂ O Exp. 08/30/2015

#M12280

Continuing Calibration Standard (CCV)

11-13-14 MOS

Into a 200mL volumetric flask pipetted 2mL of #M12165 and 0.2mL #M12001 = 1000 ug/L
 Brought up to mark with milli-Q H₂O Exp. 08/30/2015

#M12281

Initial Calibration Standard (ICV) List 2

11-13-14 MOS

Into a 1 liter volumetric flask pipetted 1mL of #M12003, M11999, M11996, M11998 and M12163
 Brought up to mark with milli-Q H₂O Exp. 11/08/2015

#M12258 10/22/14 SF potassium permanganate soln: 50g potassium permanganate (#M1128) dissolve into 1000ml of D.I. H₂O.
Exp: 04/12/15

#M12259 10/27/14 SF stannous chloride (Macron) lot# 000087461

M12260 10/28/14 ICV/LCS boron and silicon

Into a one liter volumetric flask pipet 10ml of #M12165 and 1.0 ml #M11919

Bring up to mark with DI H₂O

#M12261 10/28/14 SF Hg Working Stds: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12262 10/28/14 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12263 10/28/14 SF Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M12262) into 100ml = 3.0ug/L Hg

#M12264 10/28/14 SF Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12265 10/28/14 SF Hg MRL: (0.2% HNO₃, HCl) 0.2ml of 100ug/L Hg (#M12262) into 100ml = 0.2ug/L Hg

#M12266 10/28/14 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12267 10/28/14 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12268 10/29/14 SF potassium permanganate soln: 50g potassium permanganate (#M12285) dissolve into 1000ml of D.I. H₂O.
Exp: 04/12/15

#M12269 10/29/14 SF NaCl Hydroxylamine sulfate reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine sulfate (#M11798) in 500ml of milli-Q H₂O.
Exp: 04/12/14

#M12270 11/04/14 SF sodium chloride (fisher) lot# 142463

#M12244 13F 10/13/14 13F

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12241) into 100ml = 0.2ug/L Hg

#M12245 13F 10/13/14 13F

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12246 13F 10/13/14 13F

Stannous Chloride Reagent:

Into a 1000-mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12247 13F 10/16/14 13F

Potassium persulfate

Exp: 04/16/15

50g potassium persulfate (#M10987) dissolve into 1000 mL of D.I. H₂O.

#M12248 10/16/14 13F

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12249 10/16/14 13F

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12250 10/16/14 13F

Hg ICV / LCSW:
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12249) into 100ml = 3.0ug/L Hg

#M12251 10/16/14 13F

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12252 10/16/14 13F

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12249) into 100ml = 0.2ug/L Hg

#M12253 10/16/14 13F

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12254 10/16/14 13F

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12255 10/16/14 13F

NaOH Hydroxylamine Sulfate Reagent Dissolve 60g NaOH (#M11797) and 60g hydroxylamine sulfate (#M11798) in 500ml of milli-Q H₂O.
Exp: 04/16/15

#M12256 10/16/14 13F

TCLP Extraction Fluid #1: Fill a 20L carboy with 19L DI H₂O Add
 exp. 10/21/14 114ml Glacial Acetic Acid AB: 579 and 128.6ml
 10N #NaOH #M11955. Dilute to 20L with
 DI H₂O + Mix. pH = 4.93

#M12257 10/21/14 13F

GFAA As Spike (10ug/mL) - Into a 100mL volumetric flask, pipetted 1.0mL
 As (1000ug/mL) #M11912 + brought up to volume using milli-Q H₂O.
 (3% HNO₃) exp. 9/18/15

M12235 LOQ ✓
 10-9-14 3050
 DOD
 QSM

3050 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
S	240	M11679	10000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-May

M12236 LOQ ✓
 10-9-14 DOD
 QSM

3010 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
S	200	M11679	10000	1
				#VALUE!

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-May

M12237 MOS 10-09-14

GFAA Base Std (25ug/L) - Into a 1L vol. Flask, pipetted 0.25 mL #M11978 and brought up to vol. using milli-Q H₂O. (1% HNO₃) exp 06/01/15

M12238 MOS 10-09-14

GFAA CCV (10ug/L) - Into a 1L vol. Flask, pipetted 0.10 mL #M11978 and brought up to volume using milli-Q H₂O. (1% HNO₃) exp 06/01/15

M12239 MOS 10-09-14

GFAA ICV (10ug/L) - Into a 1L vol. Flask, pipetted 1.0 mL #M11979 and brought up to volume using milli-Q H₂O. (1% HNO₃) exp 06/01/15

M12240 LSF 10/13/14 LSF

Hg Working Stds:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

M12241 LSF 10/13/14 LSF

Hg Alt Source Working Std:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

M12242 LSF 10/13/14 LSF

Hg ICV / LCSW
 (0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12241) into 100ml = 3.0ug/L Hg

M12243 LSF 10/13/14 LSF

Hg CCV
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

M12231 A
10-9-14 LOQ ✓
3050 QSM
DOD

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	2640	M12011	10000	13.2
Na	960	M12010	10000	4.8

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

M12232 A
10-9-14 3050
LOQ ✓ QSM DOD
3010

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M12011	10000	2.5
Na	600	M12010	10000	3

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

M12233 A
10-9-14 3050
LOQ ✓
QSM
DOD

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	52	M11763	1000	2.6
Si	192	M12007	1000	9.6

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

M12234 A
10-9-14 3010
LOQ ✓ QSM
DOD

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	16	M11763	1000	0.8
Si	200	M12007	1000	10

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

M12228 LOQ check
10-9-14 3010 QSM
DOD

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11908	1000	0.2
Al	36	M11914	10000	0.18
As	24	M11912	1000	1.2
Ba	1.8	M11768	1000	0.09
Be	0.6	M12006	1000	0.03
Ca	100	M11910	10000	0.5
Cd	2	M12002	1000	0.1
Co	4	M17000	1000	0.2
Cr	4	M11767	10000	0.02
Cu	7	M11764	10000	0.035
Fe	100	M11915	10000	0.5
Mg	40	M11976	10000	0.2
Mn	4	M11829	10000	0.02
Mo	7	M12008	1000	0.35
Ni	6	M12004	1000	0.3
Pb	4	M11682	10000	0.02
Sb	12	M11682	1000	0.6
Se	13	M11911	1000	0.65
Tl	15	M11997	1000	0.75
V	5	M12009	1000	0.25
Zn	10	M12005	10000	0.05

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

M12229 #
10-9-14

LOQ check
QSM
DOD
3010

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	10	M11998	1000	0.5
Sn	10	M11996	1000	0.5
Sr	2	M11999	1000	0.1
Tl	8	M12003	1000	0.4
W	36	M12001	1000	1.8

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

M12230 #
10-9-14 3050

LOQ check
QSM

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4	M11998	1000	0.72
Sn	20	M11996	1000	1
Sr	3.2	M11999	1000	0.16
Tl	9.6	M12003	1000	0.48
W	24	M12001	1000	1.2

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

#M12224 10-7-14 JA

TCLP Extraction Fluid #1

Into a 20L carboy, pipetted the following respectively:

114.0 mls Glacial Acetic Acid (# AB586) and # 128.6 mls (#M11955) 10N NaOH bring up to 20L with DI H₂O. pH 4.93 +/- 0.05

#M12225 10-7-14 JA

TCLP Extraction Fluid #1

Into a 20L carboy, pipetted the following respectively:

114.0 mls Glacial Acetic Acid (# AB586) and # 128.6 mls (#M11955) 10N NaOH bring up to 20L with DI H₂O. pH 4.93 +/- 0.05

#M12226 10-7-14 JA

SPLP Extraction Fluid East #1

Fill a 20L carboy with DI and adjust pH to 4.20 +/- .05 with (#M10857) 60/40 HNO₃, H₂SO₄ mix w/v mix.#M12227 3050 LOQ
JA 10-9-14 QSM
DOD3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11908	1000	0.2
Al	9.6	M11914	10000	0.048
As	32	M11912	1000	1.6
Ba	2	M11768	1000	0.1
Be	1.6	M12006	1000	0.08
Ca	56	M11910	10000	0.28
Cd	1.6	M12002	1000	0.08
Co	9.6	M17000	1000	0.48
Cr	5.6	M11767	10000	0.028
Cu	16	M11764	10000	0.08
Fe	72	M11915	10000	0.36
Mg	32	M11976	10000	0.16
Mn	6	M11829	10000	0.03
Mo	9.6	M12008	1000	0.48
Ni	4.8	M12004	1000	0.24
Pb	10	M11682	10000	0.05
Sb	32	M11682	1000	1.6
Se	16	M11911	1000	0.8
Ti	19	M11997	1000	0.95
V	3.2	M12009	1000	0.16
Zn	12	M12005	10000	0.06

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 15-Feb

#M12210 10/02/14/5F TCLP Extraction Fluid #1 ^{Fill 100mL/5F} Into a 20L carboy w/ 19.7 D.I. H₂O. Add 114mL Glacial Acetic Acid (#M1195) and 128.6mL 10N NaOH (#M1195). Dilute to 20L with D.I. H₂O and mix pH = 4.93 ± 0.05
Exp: 10/02/15

#M12211 10/6/14 Custom Assurance Std Spec Certifying Lab # 26-201CR
ex 9/15

#M12212 10/6/14 Potassium 10,000 CPI Lot# 146213 ex 3/16
A

#M12213 10/6/14 Arsenic 10,000 CPI Lot# 132089 ex 3/16
A

#M12214 10/06/14/5F Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12215 10/06/14/5F Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12216 10/06/14/5F Hg ICV / LCSW (0.2% HNO₃, HCl)
3.0ml of 100ug/L Hg (#M12215) into 100ml = 3.0ug/L Hg

#M12217 10/06/14/5F Hg CCV (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12218 10/06/14/5F Hg MRL: (0.2% HNO₃, HCl)
0.2ml of 100ug/L Hg (#M12215) into 100ml = 0.2ug/L Hg

#M12219 10/06/14/5F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12220 10/06/14/5F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1195) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12221 10/06/14/5F Potassium Permanganate Sol'n: 50g potassium permanganate (#M11785) dissolve into 1000mL of D.I. H₂O.
Exp: 04/06/15

#M12222 10/06/14 mos GFAA LOD/LOQ Check Water Working Std (Ag only) - Into a 100mL vol. flask, pipetted 0.1mL Ag (1000ug/mL) #M11908 and brought up to volume using milli-Q H₂O (1% HNO₃) exp. 09/18/15

#M12223 10/06/14 mos GFAA LOD/LOQ Water Spiking Sol'n (Ag only) - Into a 1L vol. flask, pipetted 10mL #M12222 and brought up to volume using milli-Q H₂O (1% HNO₃) exp. 09/18/15

#M12200 cont.

Into a 1L volumetric flask, pipetted 1mL As (10mg/L), 0.6mL Pb (10mg/L), 2.4mL Se (10mg/L), 2.4mL Sb (10mg/L), 2.2mL Tl (10mg/L) and 0.8mL Ag (1mg/L) to and brought up to volume using milli-Q H₂O (1% HNO₃) exp. 2/15/15

Concentrations: 10ug/L As, 6ug/L Pb, 24ug/L Se, 24ug/L Sb, 22ug/L Tl, 0.8ug/L Ag

#M12201 MMS 09-24-14

6FAA ICV (10ug/L) - Into a 100mL volumetric flask, pipetted the following:

1mL As (1000ug/mL) # M11912 = 10ug/mL As

0.1mL Pb (10,000ug/mL) # M11682 = 10ug/mL Pb

1mL Tl (1000ug/mL) # M11997 = 10ug/mL Tl

1mL Se (1000ug/mL) # M11911 = 10ug/mL Se

1mL Sb (1000ug/mL) # M11909 = 10ug/mL Sb

0.1mL Ag (1000ug/mL) # M11908 = 1ug/mL Ag

and brought up to volume with milli-Q H₂O. From this mix, pipetted 1mL into a 1L volumetric flask and brought up to volume using milli-Q H₂O. Final ICV concentrations are 10ug/L As, Pb, Tl, Se, Sb and 1ug/L Ag. (1% HNO₃) exp. 2/15/15

#M12202 MMS 09-25-14

6FAA As/Se Spike (10ug/mL) - Into a 100mL vol. flask, pipetted 1mL As (1000ug/mL) # M11912 and 1mL Se (1000ug/mL) # M11911 and brought to volume using milli-Q H₂O (3% HNO₃) exp. 9/18/15

#M12203 09/26/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg

1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg

0.5mL of 100ug/L Hg into 100mL = 0.5ug/L Hg

1.0mL of 100ug/L Hg into 100mL = 1.0ug/L Hg

2.0mL of 100ug/L Hg into 100mL = 2.0ug/L Hg

4.0mL of 100ug/L Hg into 100mL = 4.0ug/L Hg

5.0mL of 100ug/L Hg into 100mL = 5.0ug/L Hg

10.0mL of 100ug/L Hg into 100mL = 10.0ug/L Hg

#M12204 09/26/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10mg/L Hg

1.0mL of 10mg/L into 100mL = 100ug/L Hg

#M12205 09/26/14 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0mL of 100ug/L Hg (#M12204) into 100mL = 3.0ug/L Hg

#M12206 09/26/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg

1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg

3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

#M12207 09/26/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2mL of 100ug/L Hg (#M12204) into 100mL = 0.2ug/L Hg

#M12208 09/26/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12209 09/26/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11915) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12188 09/16/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12189 09/16/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12190 09/16/14 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12189) into 100ml = 3.0ug/L Hg

#M12191 09/16/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12192 09/16/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12189) into 100ml = 0.2ug/L Hg

#M12193 09/16/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12194 09/16/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in
 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12195 09/17/14 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11797) and 60g
 hydroxylamine Sulfate (#M11798) in 500ml
 of Milli-Q H₂O.
 Exp: 03/17/15

#M12196 09/19/14 MMS

GFAA Pd/Mg Matrix Modifier - Into a 50 mL vol. flask, pipetted
 15 mL of # M11843 + 10 mL # M11976 + brought to volume with
 milli-Q H₂O. (2% HNO₃) expires: 01/28/15

#M12197 09-23-14 MMS

GFAA Base Std (25ug/L) - Into a 1L vol. flask, pipetted 0.25 mL M11978
 and brought to volume using milli-Q H₂O. (1% HNO₃) exp 06/15

#M12198 09-23-14 MMS

GFAA CCV (10ug/L) - Into a 1L volumetric flask, pipetted 0.1 mL M11978
 and brought to volume using milli-Q H₂O. (1% HNO₃) exp 06/15

#M12199 09-23-14 MMS

GFAA ICV (10ug/L) - Into a 1L vol flask, pipetted 1.0 mL M11979
 and brought to volume using milli-Q H₂O. (1% HNO₃) exp 06/15

#M12200 09-24-14 MMS

GFAA Instrument check - Into 100mL flasks, pipetted the following + brought
 to volume using milli-Q H₂O.

1.0 mL As (1000ug/mL) # M11912 = 10mg/L As
 0.1 mL Pb (1000ug/mL) # M11982 = 10mg/L Pb
 1.0 mL Tl (1000ug/mL) # M11997 = 10mg/L Tl
 1.0 mL Se (1000ug/mL) # M11911 = 10mg/L Se
 1.0 mL Sb (1000ug/mL) # M11909 = 10mg/L Sb
 0.1 mL Ag (1000ug/mL) # M11908 = 1mg/L Ag

~~#M12179 08/28/14 SF~~ ~~Stannous chloride lot #~~ ~~08/28/14 SF~~

#M12179 9-4-15 Hg 1000 ug/ml CFI lot # 14 F110

#M12180 09/10/15 Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12181 09/10/15 Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12182 09/10/15 Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12181) into 100ml = 3.0ug/L Hg

#M12183 09/10/15 Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12184 09/10/15 Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12181) into 100ml = 0.2ug/L Hg

#M12185 09/10/15 Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12186 09/10/15 Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1195) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12185 09/05/15 TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L DI H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10N NaOH (#M1195). Dilute to 20L with DI H₂O and mix. pH = 4.93 ± 0.05
Exp: 09/05/15

#M12186 9-9-14 Stabl Cal Standard 200 ntu turbidity Hach lot #A4216 8/16

#M12187 9-9-14 Turbidity Working Stds → into 3 Hach Vials →
Pipet 1, 5, 9 ml 9-9-14
1ml → 9ml DI H₂O 9-9-14

1 ml #M12186 → 9mls DI H₂O = 20 ntu
5 mls #M12186 → 5 mls DI H₂O = 100 ntu
10 ml #M12186 → 0 ml DI H₂O = 200 ntu

#M12166 08/15/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12167 08/15/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12168 08/15/14 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12167) into 100ml = 3.0ug/L Hg

#M12169 08/15/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12170 08/15/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12167) into 100ml = 0.2ug/L Hg

#M12171 08/15/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12172 08/15/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11915) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12173 08/18/14 SF

potassium persulfate 50g potassium persulfate (#M10987) dissolve into
 Exp: 02/18/15 1000ml of D.I. H₂O.

#M12174 08-22-14 MMS

GFAA Base Std. - Into a 1L volumetric flask, pipetted 0.25ml of #M11978
 (1% HNO₃) and brought to volume with milli-Q H₂O. Exp. 06/15

#M12175 08-22-14 MMS

GFAA CCV - Into a 1L volumetric flask, pipetted 0.1ml of #M11978
 (1% HNO₃) and brought to volume with milli-Q H₂O. Exp. 06/15

#M12176 08-22-14 MMS

GFAA ICV - Into a 1L volumetric flask, pipetted 1.0ml #M11979
 (1% HNO₃) and brought to volume with milli-Q H₂O. Exp. 06/15

#M12177 08/17/14 SF

Tclp Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml
 Glacial Acetic Acid (AB571) and 12.8ml bromine (#M11955).
 Exp: 08/17/15 pH=4.93±0.05 (#M11955). Dilute to 20L with D.I. H₂O and mix.

#M12178 08/17/14 SF

Tclp Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic
 Acid (AB571) and 12.8ml bromine (#M11955). Dilute
 Exp: 08/17/15 to 20L with D.I. H₂O and mix. pH=4.93±0.05

#M12157 MAS

08-06-14

ICAP Working Standards Boron & Silicon

Standard
name

Into a 1L volumetric flask, pipetted the following respectively:

50	0.05mL of #M11763 and 0.05mL #M12007 = 50 ug/L
200	0.2mL of #M11763 and 0.2mL #M12007 = 100 ug/L
1000	1.0mL of #M11763 and 1.0mL #M12007 = 1000 ug/L
2000	2.0mL of #M11763 and 2.0mL #M12007 = 1000 ug/L
10000	10.0mL of #M11763 and 10.0mL #M12007 = 10000 ug/L

Expires: 05/13/2015

Continuing Calibration Standard (CCV)

Into a 1L volumetric flask, pipetted 1.0mL of #M11763 and 1.0mL #M12007 = 1000 ug/L
Brought up to volume with DI H2O. Expires 05/13/2015

#M12158 MAS 08/11/14: 1% Pd GFAA matrix modifier. Environmental Express Lot# 1421912
Expires: 08/07/15

#M12159 MAS 08/11/14: 1% Nickel Nitrate GFAA matrix modifier. Alfa Aesar Lot# 41-553987D

#M12160 08/12/14 15F FriscoLyt (Mettler Toledo) Lot# 12134C

#M12161 08/12/14 15F TCLP Extraction Fluid #1: Into a 70L Carboy w/19L DI H2O. Add 114mL
Glacial Acetic Acid (AB579) and 128.6mL
Exp: 08/12/15 10N NaOH (#M11955). Dilute to 70L with DI H2O
and mix pH = 4.93 ± 0.05

#M12162 8-13-14 Potassium 1000 mg/L CPI Lot# 14F193 ex 2/16
J

#M12163 8-13-14 Tungsten std. CPI Lot# 14F230 ex 2/16
J

#M12164 8-13-14 Interference A Spex Certiprep Lot# 11-384PX ex 8/15
J

#M12165 8-13-14 Custom Assurance Std Spex Certiprep Lot# 7-93WL
ex 8/15

#M12149
5% HCL, 5% HNO₃
8-1-14
A

Initial Calibration Standard (ICV) Alt source

Into one liter volumetric flask pipet 10 mls of M12020 (ex 5/15)
2.0 mls of #M12082 (ex 6/15) and 0.5 mls #M12008 Mo (ex 11/15) and 0.5 mls
of #M11763 B (ex 5/15), 0.5 #m11999 Sr (ex 11/15), 0.5 #m11998 mls Li (ex 11/15),
0.5 mls sn # m11996 (ex 11/15), 0.5 mls ti #m12003 (ex 11/15) and bring up to mark with DI H₂O
ex 5/15

#M12150
5% HCL, 5% HNO₃
8-1-14
A

Continuing Calibration Standard 3 (CCV3)

Into a one liter volumetric flask pipet 10 mls of # M119531 (ex 4/15)
and 1.0 ml of #M11585 (ex 07/15).
ex. 04/15
Bring up to mark with DI H₂O

#M12151
5% HCL, 5% HNO₃
8-1-14
A

Interfering element check std. (Icsab)

Into 500 ml volumetric flask pipet 50 mls of #M12082 (ex 6/15), 15 mls #m11915 (ex 8/15),
2.5 mls #M1215 (ex 7/15) and 2.5 mls #M11953 (ex 4/15) bring up to mark with DI H₂O.
ex 4/15

#M12152 8-5-14. Hydroxylamine solution. Into 200 ml vol flask dissolve
24.0 g Hydroxylamine hydrochloride ($\text{NH}_2\text{OH} \cdot \text{HCl}$) #M12060.
in DI H₂O. Bring up to mark with DI H₂O.

#M12153 8-5-14 Stannous Chloride soln. 10ml HCL (#B-583) is Added
to 400 ml DI H₂O in a 1 liter vol flask and dissolve 20 g of
Stannous Chloride (#M11995) in the flask. Bring up to mark
with DI H₂O.

#M12154 8-5-14 1:1 HCL Into 1 liter vol flask pour 500 ml HCL
(#AB-583) & Bring up to mark

#M12155 02/06/14 15F potassium permanganate soln. 50g potassium permanganate (#M11285) dissolve into
1000ml of DI H₂O.
Exp: 02/06/15

#M12156 02/06/14 15F NaCl Hydroxylamine sulfate Reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine
sulfate (#M11798) in 500ml of milli-Q H₂O.
Exp: 02/06/15

#M12143 07/30/15F

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12139) into 100ml = 0.2ug/L Hg

#M12143 07/30/15F

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12144 07/30/15F

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g ~~stannous chloride~~ #M11955 in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12145 07/31/15F

exp: 07/31/15

TCLP extraction fluid #1: Into a 20L carboy w/ 197 D.I. H₂O. Add 114 mL
 Glacial Acetic Acid (#M11957) and 128.6 mL
 10N NaOH (#M11955). Dilute to 20L with D.I. H₂O
 and mix. pH = 4.93 ± 0.05

#M12146 8/1/14

ICP working stds

ICAP Working Standards

5% HNO₃ 5% HCL

Standard Std #

name Pipet the following respectively:

0.25	1 0.25 mls of standard 1000 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	2 0.50 mls of standard 1000 ug/L into 1000ml volumetric flask = 0.50 ug/L std
1	3 1.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 1.00 ug/L std
5	4 5.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 5.00 ug/L std
10	5 10.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 10.0 ug/L std
20	6 20.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 20.0 ug/L std
50	7 50.0 mls of standard 1000ug/L into 1000 ml volumetric flask = 50.0 ug/L std
100	8 1.0 mls of #M11953(ex 05/15) and 1.0 mls of #M12125 (ex 07/15) into 1000 ml volumetric flask = 100 ug/L std
1000	9 10.0 mls of #M11953(ex 05/15) and #M11585 (ex 07/15) and 1 mL of #M12007 Si into 1000 ml volumetric flask = 1000 ug/L std
10,000	10 100 mls #M11953 (ex 05/15), 100 mls #M11585 (ex 07/15), 1.0 mls (K) #M12011 ex 11/15
100k	11 10 mls of #M11764 Cu (ex 5/15), 10 mls of #M11829 Mn (ex 7/15), 10 mls of #M11767 Cr (ex 5/15), 10 mls #M11682 Pb (ex 2-15), 10 mls Zn #M12005(ex 8-15), 10 mls #M12010 Na (ex 11/15), 10 mls = 100,000 ug/L
100,000	12 10 mls of #M11976 Mg (ex 10/15), 10 mls of #M11915 Fe (ex 09/15), 10 mls of #M11910 Ca (ex 9/15), 10 mls #M11914 AL (ex 9/15), into 1000 ml vol flask = 100,000 ug/l std
500,000	13 50 mls of #M11976 Mg (ex 10/15), 50 mls of #M11915 Fe (ex 9/15), 50 mls of #M11910 Ca (ex 9/15), 50 mls #M11914 AL (ex 9/15) into 1000 ml vol flask = 500,000 ug/l std
1,000k	14 100 mls of #M11976 Mg (ex 10/15), 100 mls of #M11915 Fe (ex 9/15), 100 mls of #M11910 Ca (ex 9/15), 100 mls #M11914 AL (ex 9/15) into 1000 ml vol flask = 1,000,000 ug/l std

Bring the 1000 ml volumetric up to mark with DI H₂O

ex 2/15

#M12147 8/1/14

Continuing Calibration Standard 1(CCV1)

5% HCL, 5% HNO₃
8-1-14

Into a one liter volumetric flask pipet 50mls of # M11953 (ex 4/15)
 and 5 ml of #M12125 (ex 07/15).
 ex. 04/15
 Bring up to mark with DI H₂O

#M12148 8-1-14

Continuing Calibration Standard 2(CCV2)

5% HCL, 5% HNO₃

Into a one liter volumetric flask pipet 5 mls of # M11953 (ex 04/15)
 and 0.5 ml of #M12125(ex 07/15).
 ex. 4/15
 Bring up to mark with DI H₂O

#M12134 7MOS

07-21-14

Working Standards for Sodium and Potassium - Into seven, 200 mL volumetric flasks, pipetted the following from #M11719 and #M11722 and brought up to volume using milli-Q H₂O. (2% HNO₃)

0.5 mg/L std - 0.1 mL of each

1.0 mg/L std - 0.2 mL of each

5.0 mg/L std - 1.0 mL of each

10.0 mg/L std - 2.0 mL of each

50.0 mg/L std - 10 mL of each

100 mg/L std - 20 mL of each, used for Continuing Calibration Standard (CCV)

200 mg/L std - 40 mL of each

Expires: 04/24/15

#M12135 7MOS

07-21-14

Initial Calibration Standard (ICV) - Into a 250 mL volumetric flask, pipetted 2.5 mL of #M12010 and #M12011 and brought up to volume using milli-Q H₂O. (2% HNO₃)
Expires: 11/08/2015

#M12136 7MOS

07-21-14

ICAP 6000 ICSAB Standard for Sodium and Potassium - Into a 250 mL volumetric flask, pipetted 25 mL of #M11776 and 2.5 mL of each #M12010 & #M12011 and brought to volume using milli-Q H₂O. (2% HNO₃)
Expires: 12/30/14

7.5 mL of #M11715

#M12137 7MOS

07-22-14

TCLP Extraction Fluid #1 - Into a 201 Carboy, added 114 mL Glacial Acetic acid #A.B.586 + 128.6 mL 10N NaOH #M12086 + brought to volume w/ D.I H₂O. Mix pH = 4.93 ± 0.05

#M12138 07/30/14SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12139 07/30/14SF

Hg Alt-Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12140 07/30/14SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12139) into 100ml = 3.0ug/L Hg

#M12141 07/30/14SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

~~#M1213~~ 07/15/14 SF Potassium permanganate soln: seg potassium permanganate (#M11285) dissolve into
 #M12121 Exp: 01/15/15 1,000ml of D.I. H₂O.

#M12122 07-16-14 MDS GFAA Base Std (25ug/L) - Into a 1L vol. Flask, pipetted 0.25ml of M11978 + brought
 exp. 06/01/15 to volume with mili-Q H₂O. (1% HNO₃)

#M12123 07-16-14 MDS GFAA CV (10ug/L) - Into a 1L vol. Flask, pipetted 0.1 mL of M11978 + brought to volume
 exp. 06/01/15 with mili-Q H₂O. (1% HNO₃)

#M12124 07-16-14 MDS GFAA ICV (10ug/L) - Into a 1L vol. Flask, pipetted 1.0mL of M11979 + brought to
 exp. 06/01/15 volume with mili-Q H₂O. (1% HNO₃)

#M12125 7-17-14 ~~21~~ Spex Certiprep lot # 11-124 P (Custom Assurance Std)
 XCTWI-4-500

#M12126 7-17-14 ~~21~~ Spex Certiprep lot # 11-114 P (Custom Assurance Std)
 X Spi Ke-1-500

#M12127 07/18/14 SF

Hg Working Stds:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12128 07/18/14 SF

Hg Alt Source Working Std:
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12129 07/18/14 SF

Hg ICV / LCSW
 (0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12128) into 100ml = 3.0ug/L Hg

#M12130 07/18/14 SF

Hg CCV
 (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12131 07/18/14 SF

Hg MRL:
 (0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12128) into 100ml = 0.2ug/L Hg

#M12132 07/18/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12133 07/18/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in
 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12105 07/08/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12106 07/08/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12107 07/08/14 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12106) into 100ml = 3.0ug/L Hg

#M12108 07/08/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12109 07/08/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12106) into 100ml = 0.2ug/L Hg

#M12110 07/08/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12111 07/08/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1195) in
 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12112 7-10-14 Ca 10,000 mg/L CPI Cat # 14D176 ex 1/16
 D

#M12113 7-10-14 Mg 10,000 mg/L CPI Cat # 14F190 ex 1/16

#M12114 07/11/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12115 07/11/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12116 07/11/14 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12115) into 100ml = 3.0ug/L Hg

#M12117 07/11/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12118 07/11/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12115) into 100ml = 0.2ug/L Hg

#M12119 07/11/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12120 07/11/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1195) in
 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12099 7-1-14 MRL into 500 ml vol flask pipet 10 mls ^{#7-1-14}
 5% HCL #M12098 bring up to mark w/DI H₂O ex 2/15
 50% HNO₃

#M12100 7-1-14 ICLVLL into 500 ml vol flask pipet 30 mls
 5% HCL #M12098 bring up to mark w/DI H₂O ex 2/15
 5% HNO₃

#M12101 7-1-14 ICSAB into 500 ml vol flask pipet 50 mls
 5% HCL #M12082 15 mls #M11915 2.5 mls #M11953
 5% HNO₃ 2.5 mls M11585, bring up to mark w/DI H₂O.
 ex 7/15.

#M12102 7-1-14

ICAP Working Standards
 5% HNO₃ 5% HCL

Standard
 name

Pipet the following respectively:

0.25	0.25 mls of standard 1000 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 1000 ug/L into 1000 ml volumetric flask = 0.50 ug/L std
1	1.0 mls of standard 1000 ug/L into 1000 ml volumetric flask = 1.00 ug/L std
5	5.0 mls of standard 1000 ug/L into 1000 ml volumetric flask = 5.00 ug/L std
10	10.0 mls of standard 1000 ug/L into 1000 ml volumetric flask = 10.0 ug/L std
20	20.0 mls of standard 1000 ug/L into 1000 ml volumetric flask = 20.0 ug/L std
50	50.0 mls of standard 1000 ug/L into 1000 ml volumetric flask = 50.0 ug/L std
100	1.0 mls of #M11953 (ex 05/15) and 1.0 mls of #M11585 (ex 07/14) into 1000 ml volumetric flask = 100 ug/L std
1000	10.0 mls of #M11953 (ex 05/15) and #M11585 (ex 07/14) and 1 mL of #M12007 Si into 1000 ml volumetric flask = 1000 ug/L std
10,000	100 mls #M11953 (ex 05/15), 100 mls #M11585 (ex 07/14), 1.0 mls (K) #M12011 ex 11/15
100k	10 mls of #M11764 Cu (ex 5/15), 10 mls of #M11829 Mn (ex 7/15), 10 mls of #M11767 Cr (ex 5/15), 10 mls #M11682 Pb (ex 2-15), 10 mls Zn #M12005 (ex 8-15), 10 mls #M12010 Na (ex 11/15), 10 mls = 100,000 ug/L
100,000	10 mls of #M11976 Mg (ex 10/15), 10 mls of #M11915 Fe (ex 09/15), 10 mls of #M11910 Ca (ex 9/15), 10 mls #M11914 AL (ex 9/15), into 1000 ml vol flask = 100,000 ug/L std
500,000	50 mls of #M11976 Mg (ex 10/15), 50 mls of #M11915 Fe (ex 9/15), 50 mls of #M11910 Ca (ex 9/15), 50 mls #M11914 AL (ex 9/15) into 1000 ml vol flask = 500,000 ug/L std
1000k	100 mls of #M11976 Mg (ex 10/15), 100 mls of #M11915 Fe (ex 9/15), 100 mls of #M11910 Ca (ex 9/15), 100 mls #M11914 AL (ex 9/15) into 1000 ml vol flask = 1,000,000 ug/L std

Bring the 1000 ml volumetric up to mark with DI H₂O

ex 7/14

#M12103 07/03/15 F NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11799) and
 Exp: 01/03/15 60g hydroxylamine Sulfate (#M11798) in 500 ml
 of milli-Q H₂O.

#M12104 07/03/15 F TCEP Extraction Fluid #1: Fill a 20L carboy w/ 19L DI H₂O. Add 114 ml Glacial
 Acetic Acid (AB-549) and 11.8 ml 10N NaOH (#M11955).
 Exp: 07/03/15 Dilute to 20L with DI H₂O and mix pH = 4.93 ± 0.05

#M12088 06/25/14 SF Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12089 06/25/14 SF Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12090 06/25/14 SF Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M 12089) into 100ml = 3.0ug/L Hg

#M12091 06/25/14 SF Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12092 06/25/14 SF Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M 12089) into 100ml = 0.2ug/L Hg

#M12093 06/25/14 SF Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M12094 06/25/14 SF Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12095 06/27/14 SF TClp Extraction Fluid #1: Fill a 20L carboy w/ 92 D.I. H₂O. Add 114mL Glacial Acetic Acid (AB: 579) and 128.6mL 10N NaOH (#M1955).
Exp: 06/27/15 Dilute to 20L with D.I. H₂O and mix, pH = 4.93 ± 0.05

#M12096 06/27/14 SF Hydroxylamine Sulfate (Fisher) Lot #134692A

#M12097 06/30/14 SF Stannous Chloride (Macron) Lot #000079133

#M12098 7-1-14 Into 1 Liter Volumetric pipet →

Into a 1000 mL Volumetric Flask, pipet the following:

5% HCl
5% HNO₃

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	20	M11908	1000	1
Al	400	M11914	10000	2
Ba	10	M11768	1000	0.5
Be	4	M12006	1000	0.2
Cd	5	M12002	1000	0.25
Co	10	M17000	1000	0.5
Cr	10	M11767	10000	0.05
Cu	10	M11764	10000	0.05
Mg	500	M11976	10000	2.5
Mn	10	M11829	10000	0.05
Mo	10	M12008	1000	0.5
Ni	10	M12004	1000	0.5
Pb	10	M11682	10000	0.05
Sb	20	M11909	1000	1
V	10	M12009	1000	0.5
Zn	10	M12005	10000	0.05

K	1000	M12011	10000	5
Na	1000	M12010	10000	5
As	20	M11912	1000	1
Ca	500	M11910	10000	2.5
Fe	300	M11915	10000	1.5
Se	20	M11911	1000	1
Ti	20	M11997	1000	1
Si	100	M12007	1000	5
B	20	M11763	1000	1
Li	20	M11998	1000	1
W	50	M12001	1000	2.5
Tl	10	M12003	1000	0.5
Sr	10	M11999	1000	0.5
Sn	50	M11996	1000	2.5
S	100	M11679	10000	0.5

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

et
2/15

#M12079 06/18/14 SF NaCl Hydroxylamine sulfate reagent: Dissolve 60g NaCl (#M11799) and 60g hydroxylamine sulfate (#M11798) in 500mL of milli-Q H₂O
Exp: 12/18/14

ICAP Working Standards W Only

.5% HNO₃ .5% HCL

#M12080 06/19/14
YMS

Standard
name

Pipetted the following respectively:

100 0.1mL #M12001 into 1L = 100 ug/L
1000 1mL #M12001 into 1L = 1000 ug/L
10000 10mL #M12001 into 1L = 10000 ug/L
Bring up to mark with milli-Q H₂O Exp. 11/08/15

Continuing Calibration Standard (CCV) M12080

Into a 1L volumetric flask pipetted 1mL #M12001 = 1000 ug/L
Bring up to mark with milli-Q H₂O Exp. 11/08/15

#M12081 06/19/14
YMS

Initial Calibration Standard (ICV) W Only M12081

Into a 1 liter volumetric flask pipetted 1mL of #M11365
Bring up to mark with milli-Q H₂O Exp. 04/23/15- 08/20/14
YMS 06/19/14

#M12082 6-23-14 Speer Contiprep INT-A lot # 11-38 YPX ex 6/15,
JA

#M12083 6-23-14 Speer Centprot Cust. Assurance std THardness Na ex 6/15.

#M12084 6-23-14 TCLP Extraction fluid into 20 liter carboy, Add 114mL
Glacial acetic Acid (AB-580) + 128.6 mls 10N NaOH #M11955
Dilute up to 20L with DI H₂O + mix pH=4.93±.05

#M12085 6-23-14 TCLP Extraction fluid into 20 liter carboy add 114mL
Glacial acetic Acid (AB-580), + 128.6 mls 10N NaOH
#M11955 Dilute up to 20L with DI H₂O + mix pH=4.93±.05

#M12086 6-23-14 10N NaOH into 1 liter val dissolve 400g
Sodium Hydroxide #M11145. Bring up to mark w/DI
H₂O ex 6-23-15.

06/25/14 SF
#M12087 SF Potassium permanganate sol'n: 50g potassium permanganate (#M11785) dissolve into 1,000mL of
exp: 12/15/14 D.I. H₂O.

#M12067 06/11/15F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)
 #M12068 06/11/15F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12068 06/12/14 15F potassium permanganate sol'n: 50g potassium permanganate (#M11285) dissolve into 1000ml of D.I. H₂O.
 Exp: 12/12/14

#M12069 06/18/14 15F Hg Working Stds: (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12070 06/18/14 15F Hg Alt Source Working Std: (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12071 06/18/14 15F Hg ICV / LCSW (0.2% HNO₃, HCl)
 3.0ml of 100ug/L Hg (#M12071) into 100ml = 3.0ug/L Hg

#M12072 06/18/14 15F Hg CCV (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12073 06/18/14 15F Hg MRL: (0.2% HNO₃, HCl)
 0.2ml of 100ug/L Hg (#M12071) into 100ml = 0.2ug/L Hg

#M12074 06/18/14 15F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12076 06/18/14 15F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11995) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12077 06/18/14 mas

ICAP Working Standards List 2

.5% HNO₃ .5% HCL

Standard name	Pipetted the following respectively:
1	0.01mL of #M11953 and 0.001mL #M11365 into 1L = 1 ug/L
10	0.10mL of #M11953 and 0.01mL #M11365 into 1L = 10 ug/L
100	1mL of #M11953 and 0.1mL #M11365 into 1L = 100 ug/L
1000	2mL of #M11953 and 0.2mL #M11365 into 200mL = 1000 ug/L
10000	20mL of #M11953 and 2mL #M11365 into 200mL = 10000 ug/L
	Bring up to mark with milli-Q H ₂ O Exp. 08/20/2014

Continuing Calibration Standard (CCV) M12077

Into a 200mL volumetric flask pipetted 2mL of #M11953 and 0.2mL #M11365 = 1000 ug/L
 Bring up to mark with milli-Q H₂O Exp. 08/20/2014

Initial Calibration Standard (ICV) List 2 M12078

Into a 1 liter volumetric flask pipetted 1mL of #M11999, M11364, M11362, M11359 and M11826.
 Bring up to mark with milli-Q H₂O Exp. 08/20/2014

#M12078 06/18/14 mas

#M12053 06/04/14 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M12054 06/04/14 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M12055 06/04/14 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M) into 100ml = 3.0ug/L Hg
#M12056 06/04/14 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M12057 06/04/14 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M) into 100ml = 0.2ug/L Hg
#M12058 06/04/14 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M12059 06/04/14 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12060 6/11/14 2 Hydroxylamine hydrochloride Alpha Aesar lot# F212025

#M12061 6/11/14 2 Hydroxylamine hydrochloride sel. Hg into 100 ml vol flask dissolve 12g NH₂OH·HCl #M12060 Bring up to mark with DI H₂O.

#M12062 06/11/14 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M12063 06/11/14 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M12064 06/11/14 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M12063) into 100ml = 3.0ug/L Hg
#M12065 06/11/14 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M12066 06/11/14 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M12063) into 100ml = 0.2ug/L Hg

#M12046 06/02/14 MBS 6FAA 100/100 Soil Working Std: Into a 200ml vol. Flask, pipetted the following and brought the volume up using milli-Q H₂O.
(1% HNO₃) exp. 02/15/15

1.2 ml Sb	1000 µg/ml (M11909)	= 6000 µg/l Sb
3.2 ml As	1000 µg/ml (M11912)	= 16,000 µg/l As
3.2 ml Se	1000 µg/ml (M11911)	= 16,000 µg/l Se
0.08 ml Pb	10,000 µg/ml (M11682)	= 4000 µg/l Pb
1.0 ml Tl	1000 µg/ml (M11997)	= 5000 µg/l Tl

#M12047 06/02/14 MBS 6FAA 100/100 Soil Spiking Soln: Into a 1L vol. Flask, pipetted 10ml of #M12046 + brought to volume using milli-Q H₂O.
(1% HNO₃) exp. 02/15/15

#M12048 06/02/14 MBS 6FAA 100/100 Water Working Std: Into a 100ml vol. Flask, pipetted the following + brought to volume using milli-Q H₂O.
(1% HNO₃) exp. 02/15/15

1.5 ml Sb	1000 µg/ml (M11909)	= 15,000 µg/l Sb
1.0 ml As	1000 µg/ml (M11912)	= 10,000 µg/l As
2.0 ml Se	1000 µg/ml (M11911)	= 20,000 µg/l Se
0.045 ml Pb	10,000 µg/ml (M11682)	= 4500 µg/l Pb
0.4 ml Tl	1000 µg/ml (M11997)	= 4000 µg/l Tl
0.1 ml Ag	1000 µg/ml (M11908)	= 1000 µg/l Ag

#M12049 06/02/14 MBS 6FAA 100/100 Water Spiking Soln: Into a 1L vol. Flask, pipetted 10ml of #M12048 + brought to volume with milli-Q H₂O.
(1% HNO₃) exp. 02/15/15

#M12050 06/02/14 (SF TCEP Extraction Fluid #1) Fill a 70L carboy with 19.2 D.I. H₂O. Add 114 ml Glacial Acetic Acid (AB-579) and 12.86 ml 10N NaOH (#M11955). Dilute to 70L with D.I. H₂O and mix.
Exp: 06/02/15 pH = 4.93 ± 0.05

#M12051 06/02/14 (SF TCEP Extraction Fluid #1) Fill a 70L carboy with 19.2 D.I. H₂O. Add 114 ml Glacial Acetic Acid (AB-579) and 12.86 ml 10N NaOH (#M11955). Dilute to 70L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 06/02/15

#M12052 06/03/14 (SF Potassium persulfate) 50g potassium persulfate (#M12987) dissolve into 1000ml D.I. H₂O.
Exp: 12/03/14

#M12032 05/27/14 MSF

Hg Std

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12033 05/27/14 MSF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12034 05/27/14 MSF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12033) into 100ml = 3.0ug/L Hg

#M12035 05/27/14 MSF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12036 05/27/14 MSF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12033) into 100ml = 0.2ug/L Hg

#M12037 05/27/14 MSF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12038 05/27/14 MSF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11779) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12039 05-27-14 MS

GFAA Base STD (25ug/L) - Into a 1L vol. Flask, pipetted 0.25mL of M11978 + brought to volume with milli-Q H₂O. (1% HNO₃) exp 06/01/15

#M12040 05-27-14 MS

GFAA CCV (10ug/L) - Into a 1L vol. Flask, pipetted 0.1mL of M11978 + brought to volume with milli-Q H₂O. (1% HNO₃) exp 06/01/15

#M12041 05-27-14 MS

GFAA ICV (10ug/L) - Into a 1L vol. Flask, pipetted 1.0mL of M11979 + brought to volume with milli-Q H₂O. (1% HNO₃) exp 06/01/15

#M12042 05/28/14 MSF

Potassium Permanganate soln: 50g potassium permanganate (#M11285) dissolve into 1,000mL of D.I. H₂O.
Exp: 11/28/14

#M12043 05/28/14 MSF

NaCl Hydroxylamine Sulfate Reagent: Dissolve 100g NaCl (#M11799) and 50g hydroxylamine Sulfate (#M11798) in 500mL Milli-Q H₂O.
Exp: 11/28/14

#M12044 06/02/14 MS

GFAA LOD/LOQ Soil Ag Working Std: Into a 200mL vol. Flask, pipetted 0.12 mL Ag 1000mg/L (M11908) (1% HNO₃) exp. 09/18/15 + brought to volume using milli-Q H₂O to give make 600ug/L Ag.

#M12045 06/02/14 MS

GFAA LOD/LOQ Soil Spiking Soln: Into a 1L vol. Flask, pipetted 1mL of #M12044 + brought to volume using milli-Q H₂O. (1% HNO₃) exp. 09/18/15

#M12020 5-19-14 Spec Cont prep Custom Assurance Std. ex 5/2015

#M12021 05/20/14 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M12022 05/20/14 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M12023 05/20/14 SF

Hg ICV/ LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M12022) into 100ml = 3.0ug/L Hg

#M12024 05/20/14 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M12025 05/20/14 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M12022) into 100ml = 0.2ug/L Hg

#M12026 05/20/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M12027 05/20/14 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1179) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M12028 5-20-14

Potassium Bromide

Alfa Aesar Lot# 10175161 ex 5/15

#M12029 5-20-14

Potassium Bromate

Alfa Aesar Lot# F27X076 ex 5/15

#M12030 5-21-14

into 500ml vol flask dissolve 2.78g KBrO₃ + 11.90g KBr bring up to mark with DI H₂O ex 5/15

#M12031 05/22/14

Stannous Chloride (Macron) Lot# 00000

#M12031 5-23-14

Mercury stock soln 1.0ug/ml

Teledyne Lot# 1358601
ex 4/15

- #M12002 05/13/14 LSF Cadmium 1,000mg/L CPT Lot#14A402 Exp: 11/08/15
- #M12003 05/13/14 LSF Titanium 1,000mg/L CPT Lot#13H001 Exp: 11/08/15
- #M12004 05/13/14 LSF Nickel 1,000mg/L CPT Lot#14D214 Exp: 11/08/15
- #M12005 05/13/14 LSF Zinc ^{10,000}~~1,000~~mg/L CPT Lot#14A199 Exp: 11/08/15
- #M12006 05/13/14 LSF Beryllium 1,000mg/L CPT Lot#14D241 Exp: 11/08/15
- #M12007 05/13/14 LSF Silicon 1,000mg/L CPT Lot#13L019 Exp: 11/08/15
- #M12008 05/13/14 LSF Molybdenum 1,000mg/L CPT Lot#14B183 Exp: 11/08/15
- #M12009 05/13/14 LSF Vanadium 1,000mg/L CPT Lot#14A107 Exp: 11/08/15
- #M12010 05/13/14 LSF Sodium 10,000mg/L CPT Lot#14B243 Exp: 11/08/15
- #M12011 05/13/14 LSF Potassium 10,000mg/L CPT Lot#14C131 Exp: 11/08/15
- #M12012 05/14/14 LSF Potassium permanganate soln: 50g potassium permanganate (#M11785)
Exp: 11/14/14 dissolve into 1,000ml of D.I. H₂O.

- #M12013 05/14/14 LSF Hg Working Stds:
(0.2% HNO₃, HCl)
- 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 - 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 - 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 - 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 - 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 - 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 - 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 - 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

- #M12014 05/14/14 LSF Hg Alt Source Working Std:
(0.2% HNO₃, HCl)
- 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 - 1.0ml of 10mg/L into 100ml = 100ug/L Hg

- #M12015 05/14/14 LSF Hg ICV / LCSW
(0.2% HNO₃, HCl)
- 3.0ml of 100ug/L Hg (#M12014) into 100ml = 3.0ug/L Hg

- #M12016 05/14/14 LSF Hg CCV
(0.2% HNO₃, HCl)
- 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 - 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 - 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

- #M12017 05/14/14 LSF Hg MRL:
(0.2% HNO₃, HCl)
- 0.2ml of 100ug/L Hg (#M12014) into 100ml = 0.2ug/L Hg

- #M12018 05/14/14 LSF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

- #M12019 05/14/14 LSF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11771) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11986 05/08/14 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M11999) and 60g Hydroxylamine Sulfate (#M11998) in 500ml Milli-Q H₂O.
Exp: 11/08/14

#M11987 05/09/14 SF Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11988 05/09/14 SF Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11989 05/09/14 SF Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11988) into 100ml = 3.0ug/L Hg

#M11990 05/09/14 SF Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11991 05/09/14 SF Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11988) into 100ml = 0.2ug/L Hg

#M11992 05/09/14 SF Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11993 05/09/14 SF Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11999) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11994 05/12/14 SF Telp Extraction Fluid #1: Fill a 70L carboy w/ 19.2 D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10N NaOH (#M11955), dilute to 70L with D.I. H₂O and mix.
Exp: 05/12/15
pH = 9.93 ± 0.05

#M11995 05/13/14 SF Stannous Chloride (Macron) lot #00000946357 Exp: 02/14/15

#M11996 05/13/14 SF Tin 1,000 mg/L CPT lot #13H238 Exp: 11/08/15

#M11997 05/13/14 SF Thallium 1,000mg/L CPT lot #13I105 Exp: 11/08/15

#M11998 05/13/14 SF Lithium 1,000 mg/L CPT lot #14E049 Exp: 11/08/15

#M11999 05/13/14 SF Strontium 1,000mg/L CPT lot #14C002 Exp: 11/08/15

#M12000 05/13/14 SF Cobalt 1,000mg/L CPT lot #14D005 Exp: 11/08/15

#M12001 05/13/14 SF Tungsten 1,000mg/L CPT lot #13H199 Exp: 11/08/15

M11980 05-06-14 GFAA Base STD (25ug/L) - Into a 1L vol. Flask, pipetted 0.25ml of M11978 + brought to volume with milli-Q H₂O. (1% HNO₃) exp. 06/01/15

M11981 05-06-14 GFAA CCV (10ug/L) - Into a 1L vol. Flask, pipetted 0.1 mL of M11978 + brought to volume with milli-Q H₂O. (1% HNO₃) exp. 06/01/15

M11982 05-06-14 GFAA ICV (10ug/L) - Into a 1L vol. Flask, pipetted 1.0 mL of M11979 + brought to volume with milli-Q H₂O. (1% HNO₃) exp. 06/01/15

M11983 5-7-14

21
Stock MRL,
5% HCL
5% HNO₃

Spiking Solution calc
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	20	m11908	1000	1
Al	400	m11914	10000	2
Ba	10	m11768	1000	0.5
Be	4	m11239	1000	0.2
Cd	5	m11242	1000	0.25
Co	10	m11355	1000	0.5
Cr	10	m11767	10000	0.05
Cu	10	m11764	10000	0.05
Mg	500	m11976	10000	2.5
Mn	10	m11829	10000	0.05
Mo	10	m11357	1000	0.5
Ni	10	m11358	1000	0.5
Pb	10	m11682	10000	0.05
Sb	20	m11909	1000	1
V	10	m11241	1000	0.5
Zn	10	m11240	10000	0.05
K	1000	m11765	10000	5
Na	1000	m11366	10000	5
As	20	m11912	1000	1
Ca	500	m11910	10000	2.5
Fe	300	m11915	10000	1.5
Se	20	m11911	1000	1
Ti	20	m11361	1000	1
Si	100	m11919	1000	5
B	20	m11763	1000	1
Li	20	m11362	1000	1
W	50	m11826	1000	2.5
Tl	10	m11364	1000	0.5
Sr	10	m11360	1000	0.5
Sn	50		1000	2.5
S	100	m11679	10000	0.5

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

ex 6/14

M11984 5-7-14 Into 500 ml val flask pipet 10 mls #M11983.
A working MRL Brng up to mark with DI H₂O. ex 6/14
5% HCL
5% HNO₃

M11985 5-7-14 Into 500 ml val flask pipet 30 mls #M11983.
A LL ICV Brng up to mark with DI H₂O ex 6/14
5% HCL
5% HNO₃

- #M11967 04/30/14 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)
- #M11968 04/30/14 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11144) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
- #M11969 05-02-14 MOS GFAA Base STD (25 µg/L) (NO Ag) - Into a 1 L volumetric flask, pipetted 0.25 mL of M11752 + brought to volume with milli-Q H₂O.
exp. 11-30-14 (1% HNO₃)
- #M11970 05-02-14 MOS GFAA CCV (10 µg/L) (No Ag) - Into a 1 L vol. flask, pipetted 0.10 mL M11752 + brought to volume with milli-Q H₂O.
exp. 11-30-14 (1% HNO₃)
- #M11971 05-02-14 MOS GFAA ICV (10 µg/L) (Pb, Sn, 40 µg/L As, Se, Ti + 1 µg/L Ag) - Into a 1 L vol. flask, pipetted 0.2 mL M11827 + brought to volume with milli-Q H₂O.
exp. 01-30-15 (1% HNO₃)
- #M11972 05-02-14 MOS GFAA ICV (10 µg/L As, Se, Ti) - Into a 100 mL vol. flask, pipetted 25.0 mL M11971 + brought to volume with milli-Q H₂O.
exp. 01-30-15 (1% HNO₃)
- #M11973 05-05-14 MOS GFAA Mixed STD (10 µg/mL) - Into a 100 mL vol. flask, pipetted 1.0 mL of the M11361, M11911, M11912, M11708, + M11909 + brought to volume with milli-Q H₂O. (2% HNO₃) exp. 08/20/14
- #M11974 05-05-14 MOS GFAA Base STD (25 µg/L) - Into a 1 L vol. flask, pipetted 2.5 mL of M11973 + brought to volume with milli-Q H₂O. (1% HNO₃) exp. 08/20/14
- #M11975 05-05-14 MOS GFAA CCV (10 µg/L) - Into a 1 L vol. flask, pipetted 1.0 mL M11973 + brought to volume with milli-Q H₂O. (1% HNO₃) exp. 08/20/14
- #M11976 5-6-14 24 Mg 10,000 mg/L CPI international Lot # 14A231 ex 11/15
- #M11977 5-6-14 Initial Calibration Standard (ICV)
5% HCl
5% HNO₃
Into one liter volumetric flask pipet 10 mL of M11827 (ex 1/15), 2.0 mL of #m11776 (ex 12/14) and 0.5 mL #M11357 Mo (ex 08/14) and 0.5 mL of #M11763 B (ex 5/15), 0.5 #m11360 Sr (ex 8/14), 0.5 #m11362 mls Li (ex 8/14), 0.5 mL Sn # m11359 (ex 8/14), 0.5 mL Ti #m11364 (ex 8/14) and bring up to mark with DI H₂O
- #M11978 05-06-14 MOS Custom Solution Inorganic Ventures Lot# H2-MEB527024 exp. 06/01/15
- #M11979 05-06-14 MOS Custom Solution Inorganic Ventures Lot# H2-MEB527023 exp. 06/01/15

ICAP Working Standards

5% HNO₃ 5% HCLStandard
Name

Pipet the following respectively:

0.25	0.25 mls of standard 1000 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 1000 ug/L into 1000ml volumetric flask= 0.50 ug/L std
1	1.0 mls of standard 1000ug/L into 1000 ml volumetric flask =1.00 ug/L std
5	5.0 mls of standard 1000ug/L into 1000 ml volumetric flask =5.00 ug/L std
10	10.0 mls of standard 1000ug/L into 1000 ml volumetric flask =10.0 ug/L std
20	20.0 mls of standard 1000ug/L into 1000 ml volumetric flask =20.0 ug/L std
50	50.0 mls of standard 1000ug/L into 1000 ml volumetric flask =50.0 ug/L std
100	1.0 mls of #M11752(ex 11/14) and 1.0 mls of #M11585 (ex 07/14) into 1000 ml volumetric flask= 100 ug/L std
1000	10.0 mls of #M11752(ex 11/14) and #M11585 (ex 07/14) and 1 mL of #M11356 Si into 1000 ml volumetric flask= 1000 ug/L std
10,000	100 mls #M11752 (ex 11/14), 100 mls #M11585 (ex 07/14),
100k	10 mls of #M11764 Cu (ex 5/15), 10 mls of #M11829 Mn (ex 7/15), 10 mls of #M11767 Cr (ex 5/15), 10 mls #M11682 Pb (ex 2-15), 10 mls Zn #M11240(ex 6-14), 10 mls #M11366 Na (ex 8/14), 10 mls #M11312 Fe (ex 3/15) = 100,000 ug/L
100,000	10 mls of #M11771 Mg (ex 5/15), 10 mls of #M11724 Fe (ex 4/15), 10 mls of #M11766 Ca (ex 5/15), 10 mls #M11769 AL (ex 5/15), into 1000 ml vol flask = 100,000 ug/L std
500,000	50 mls of #M11771 Mg (ex 5/15), 50 mls of #M11724 Fe (ex 4/15), 50 mls of #M11766 Ca (ex 5/15), 50 mls #M11769 AL (ex 5/15) into 1000 ml vol flask = 500,000 ug/L std
1000k	100 mls of #M11771 Mg (ex 5/15), 100 mls of #M11724 Fe (ex 4/15), 100 mls of #M11766 Ca (ex 5/15), 100 mls #M11769 AL (ex 5/15) into 1000 ml vol flask = 1,000,000 ug/L std

Bring the 1000 ml volumetric up to mark with DI H₂O

ex 6/14

#M11960

4-29-14 IGV B, Si into 500 ml vol flask pipet 25mls M11752
 21 + 2.5mls M11919 bring up to mark with
 DI H₂O ex 11/14

#M11961 ICSAB B Si into 500 ml vol flask pipet 0.25mls of
 4-29-14 + 50mls #M11771 + #M11356 + #M11763 Bring up to mark with
 D + 15mls #M11724 DI H₂O ex 8/14
 #M11961 4-29-14

#M11962 04/30/14/15F

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11963 04/30/14/15F

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11964 04/30/14/15F

Hg IGV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11963) into 100ml = 3.0ug/L Hg

#M11965 04/30/14/15F

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11966 04/30/14/15F

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11963) into 100ml = 0.2ug/L Hg

4-30-14
OK

#M11946 04/21/14 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11947 04/21/14 SF

Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11490) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11948 04/22/14 SF

Potassium permanganate soln: 50g Potassium permanganate (#M11285) dissolve into 1000ml of D.I. H₂O.
Exp: 10/21/14

#M11949 4/22/14

Yttrium 10,000

Environmental Express lot # 1401501

OK 10/15

#M11950 mms

04/22/14

GFAA Base STD (25ug/L) - Into a 1L vol. flask, pipetted 0.25ml of #M11430 + bring to volume with milli-Q H₂O. Exp 05/01/14

#M11951 mms

04/22/14

GFAA CCV STD (10ug/L) - Into a 1L vol. flask, pipetted 0.10 ml of #M11430 + brought to volume with milli-Q H₂O. Exp 05/01/14

#M11952 mms

04/22/14

GFAA ILV (alt. source, 10ug/L) - Into a 1L vol. flask, pipetted 1.0ml #M11431 + brought to volume with milli-Q H₂O. Exp. 05/14 ← 05/01/14

#M11953 A

4-24-14

Custom Assurance Std 100mg/L
OK April 30 2015.

Spec cert prep lot # 6-10111

#M11954 SF 04/25/14 SF 1N HCl for TCLP: Into a 1L vol. flask pour totally filled with milli-Q H₂O
Exp: 04/25/15 add 83ml of conc. HCl (AB: 583) and bring up to volume with milli-Q H₂O.#M11955 SF 04/29/14 SF 10N NaOH: Into a 1L flask, add 400g NaOH (#M11145) and bring up to volume with D.I. H₂O.
Exp: 10/29/14#M11956 SF 04/29/14 SF TCLP Extraction Fluid #1: Fill a 20L carboy with 19L of D.I. H₂O.
Exp: 04/29/15 Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10N NaOH (#M11837). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05#M11957 SF 04/29/14 SF TCLP Extraction Fluid #1: Fill a 20L carboy with 19L of D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10N NaOH (#M11837). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 04/29/15#M11958 4-29-14 CCV3 into 1000 ml vol flask pipet 10mls #M11752
OK 10mls #M11585 bring up & mark with DI H₂O.
OK 7/14.

#M11932 04/11/45F	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11931) into 100ml = 3.0ug/L Hg
#M11933 04/11/45F	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11934 04/11/45F	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11931) into 100ml = 0.2ug/L Hg
#M11935 04/11/45F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M11936 04/11/45F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11970) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11937 04/11/45F	GFAA working stds - (1% HNO ₃)	0.05ml of M11931 (GFAA multi spec) into 100ml = 5ug/L As, Pb, Se, Ti, Sb + 0.75ug/L Ag 0.10ml of M11931 into 100ml = 10ug/L As, Pb, Se, Ti, Sb + 1.5ug/L Ag 0.15ml of M11931 into 100ml = 15ug/L As, Pb, Se, Ti, Sb + 2.25ug/L Ag 0.20ml of M11931 into 100ml = 20ug/L As, Pb, Se, Ti, Sb + 3.0ug/L Ag 0.25ml of M11931 into 100ml = 25ug/L As, Pb, Se, Ti, Sb + 3.75ug/L Ag 0.50ml of M11931 into 100ml = 50ug/L As, Pb, Se, Ti, Sb + 7.5ug/L Ag
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#M11938 04/11/45F	GFAA CCV (rough) - (1% HNO ₃)	0.10ml of M11931 into 100ml of mili-Q H ₂ O = 10ug/L As, Pb, Se, Ti, Sb + 1.5ug/L Ag
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#M11939 04/11/45F	GFAA ICV (alt. source rough) - (1% HNO ₃)	0.1ml of M11930 (rough As, Pb, Se, Ti, Sb + 1.5ug/L Ag) into a 1L volumetric flask + brought to volume with mili-Q H ₂ O
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#M11940 04/11/45F TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 579) and 128.6ml 10.0N NaOH (#M11939). Dilute to 20L with D.I. H₂O, pH = 4.93 ± 0.05

#M11941 04/11/45F	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
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#M11942 04/11/45F	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
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#M11943 04/11/45F	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11942) into 100ml = 3.0ug/L Hg
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#M11944 04/11/45F	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
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#M11945 04/11/45F	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11942) into 100ml = 0.2ug/L Hg
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#M11917 4-1-14 S ICV¹⁰ ent 100 ml vol flask pipet M111679 10ml = 100,000
= 100,000ug/L S. ex 5/15

#M11918 04/02/14 SF Potassium Permanganate soln: 50g potassium permanganate (#M11285)
Exp 04/02/14 dissolve into 1,000ml of D.I. H₂O.
04/02/14 SF

#M11919 4-2-14 Si 1000 ug/L Std Fisher Lot # 141902 ex 3/16

#M11920 4-2-14 Amco Clear turbidity Std 2.0 ntu ex
Lot # C467460 ex 3/15.

#M11921 04/03/14 SF Potassium persulfate: 50g potassium persulfate (#M10987) dissolve into
Exp 04/03/14 1,000 ml of D.I. H₂O.
04/03/14 SF

#M11922 04/04/14 SF Hg Working Stds: (0.2% HNO₃, HCl)

- 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
- 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
- 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
- 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
- 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
- 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
- 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
- 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11923 04/04/14 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl)

- 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
- 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11924 04/04/14 SF Hg ICV / LCSW (0.2% HNO₃, HCl)

- 3.0ml of 100ug/L Hg (#M11923) into 100ml = 3.0ug/L Hg

#M11925 04/04/14 SF Hg CCV (0.2% HNO₃, HCl)

- 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
- 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
- 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11926 04/04/14 SF Hg MRL: (0.2% HNO₃, HCl)

- 0.2ml of 100ug/L Hg (#M11923) into 100ml = 0.2ug/L Hg

#M11927 04/04/14 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554).

#M11928 04/04/14 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11990) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11929 04/10/14 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M11991) mixed (0.2% HNO₃, HCl)
Exp 10/10/14 hydroxylamine sulfate (#M11798) in 500ml 1M HCl

#M11930 04/11/14 SF Hg Working Stds: (0.2% HNO₃, HCl)

- 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
- 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
- 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
- 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
- 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
- 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
- 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
- 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11931 04/11/14 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl)

- 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
- 1.0ml of 10mg/L into 100ml = 100ug/L Hg

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11901) into 100ml = 3.0ug/L Hg

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11901) into 100ml = 0.2ug/L Hg

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1170) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11907 03/27/14 ~~Exp: 03/27/15~~ TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 1.4ml Glacial Acetic Acid (AB: 570) and 12.6ml 6N NaOH (#M11879). Dilute to 20L with D.I. H₂O. pH = 4.93 ± 0.05

#M11908 04/10/14 15F Silver 1,000mg/L CPT Lot #13J247 Exp: 09/18/15

#M11909 04/10/14 15F Antimony 1,000mg/L CPT Lot #13F111 Exp: 09/18/15

#M11910 04/10/14 15F Calcium 10,000mg/L CPT Lot #13J146 Exp: 09/18/15

#M11911 04/10/14 15F Selenium 1,000mg/L CPT Lot #13J044 Exp: 09/18/15

#M11912 04/10/14 15F Arsenic 1,000mg/L CPT Lot #14B013 Exp: 09/18/15

#M11913 04/10/14 15F Silver 10,000mg/L CPT Lot #10F108 Exp: 09/18/15

#M11914 04/10/14 15F Aluminum 10,000mg/L CPT Lot #14A005 Exp: 09/18/15

#M11915 04/10/14 15F Iron 10,000mg/L CPT Lot #14B014 Exp: 09/18/15

#M11916 4/1/14 S Working Stds. into 4 100ml vol flasks pipet respectively from #M11828 S 10,000 mg/L
0.01ml → = 1000 ug/L S, 0.1 ml → = 10,000 ug/L S
1.0 ml → = 100,000 ug/L S, 1.0 ml → = 1000 K ug/L S bring up to mark with DI H₂O. exp 1/15

M11891 3-7-1422
19% HNO₃
7% HCl

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11780	1000	0.2
Al	9.6	M11769	10000	0.048
As	32	M11173	1000	1.6
Ba	2	M11768	1000	0.1
Be	1.8	M11239	1000	0.08
Ca	56	M11766	10000	0.28
Cd	1.8	M11242	1000	0.08
Co	9.6	M11355	1000	0.48
Cr	5.6	M11767	10000	0.028
Cu	16	M11764	10000	0.08
Fe	72	M11723	10000	0.36
Mg	32	M11771	10000	0.16
Mn	8	M11829	10000	0.03
Mo	9.6	M11357	1000	0.48
Ni	4.8	M11358	1000	0.24
Pb	10	M11708	10000	0.05
Sb	32	M11172	1000	1.6
Se	16	M11171	1000	0.8
Ti	19	M11361	1000	0.95
V	3.2	M11241	1000	0.16
Zn	12	M11240	10000	0.06

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Apr

M11892 03/07/14 SF Hg Working Stds:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
0.5mL of 100ug/L Hg into 100mL = 0.5ug/L Hg
1.0mL of 100ug/L Hg into 100mL = 1.0ug/L Hg
2.0mL of 100ug/L Hg into 100mL = 2.0ug/L Hg
4.0mL of 100ug/L Hg into 100mL = 4.0ug/L Hg
5.0mL of 100ug/L Hg into 100mL = 5.0ug/L Hg
10.0mL of 100ug/L Hg into 100mL = 10.0ug/L Hg

M11893 03/07/14 SF Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10mg/L Hg
1.0mL of 10mg/L into 100mL = 100ug/L Hg

M11894 03/07/14 SF Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0mL of 100ug/L Hg (#M) into 100mL = 3.0ug/L Hg

M11895 03/07/14 SF Hg CCV
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

M11896 03/07/14 SF Hg MRL:
(0.2% HNO₃, HCl)

0.2mL of 100ug/L Hg (#M) into 100mL = 0.2ug/L Hg

M11897 03/07/14 SF Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

M11898 03/07/14 SF Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

M11899 03/10/14 SF TCEP Extraction Fluid #1: Fill a 200 mL carboy with 9 L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB: 559) and 178.6 mL 6N NaOH (AB: 554). Dilute to 20 L with D.I. H₂O. pH = 9.93 ± 0.05

EXP: 09/03/14
 (Hydroxylamine Sulfate Reagent: Dissolve into 600 mL (#M11787) and
 600 mL hydroxylamine sulfate (#M11788) in 500 mL
 Milli-Q H₂O.

#M11851 03/01/14 SF Potassium Permanganate Soln: 50g potassium permanganate (#M11785)
 Exp: 09/07/14 Dissolve into 1,000 mL of D.I. H₂O.

3010 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11780	1000	0.2
Al	36	M11769	10000	0.18
As	24	M11173	1000	1.2
Ba	1.8	M11768	1000	0.09
Be	0.6	M11239	1000	0.03
Ca	100	M11768	10000	0.5
Cd	2	M11242	1000	0.1
Co	4	M11355	1000	0.2
Cr	4	M11767	10000	0.02
Cu	7	M11764	10000	0.035
Fe	100	M11723	10000	0.5
Mg	40	M11771	10000	0.2
Mn	4	M11829	10000	0.02
Mo	7	M11357	1000	0.35
Ni	6	M11358	1000	0.3
Pb	4	M11708	10000	0.02
Sb	12	M11172	1000	0.6
Se	13	M11171	1000	0.65
Tl	15	M11361	1000	0.75
V	5	M11241	1000	0.25
Zn	10	M11240	10000	0.05

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Apr

3010 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	10	M11362	1000	0.5
Sn	10	M11359	1000	0.5
Sr	2	M11380	1000	0.1
Ti	8	M11364	1000	0.4
W	36	M11826	1000	1.8

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Apr

3050 LOQ Spiking Solution
 Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4	M11362	1000	0.72
Sn	20	M11359	1000	1
Sr	3.2	M11360	1000	0.16
Ti	9.6	M11364	1000	0.48
W	24	M11826	1000	1.2

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

#M11889 3-7-14

1% HCL
 1% HNO₃

#M11889 3-7-14

1% HCL
 1% HNO₃

#M11890 3-7-14

1% HCL
 1% HNO₃

stock

#M11881 3-3-14 MRL Std

2)

Spiking Soln

Spiking Solution calc
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	20	m11708	1000	1
Al	400	m11789	10000	2
Ba	10	m11768	1000	0.5
Be	4	m11239	1000	0.2
Cd	5	m11242	1000	0.25
Co	10	m11365	1000	0.5
Cr	10	m11767	10000	0.05
Cu	10	m11764	10000	0.05
Mg	500	m11771	10000	2.5
Mn	10	m11829	10000	0.05
Mo	10	m11357	1000	0.5
Ni	10	m11358	1000	0.5
Pb	10	m11708	1000	0.5
Sb	20	m11172	1000	1
V	10	m11241	1000	0.5
Zn	10	m11240	10000	0.05
K	1000	m11765	10000	5
Na	1000	m11366	10000	5
As	20	m11173	1000	1
Ca	500	m11768	10000	2.5
Fe	300	m11723	10000	1.5
Se	20	m11171	10000	0.1
Tl	20	m11361	1000	1
Si	100	m11366	1000	5
B	20	m11763	1000	1
Li	20	m11362	1000	1
W	60	m11826	1000	2.5
Ti	10	m11364	1000	0.5
Sr	10	m11360	1000	0.5
Sn	50	m11359	1000	2.5
S	100	m11828	1000	5

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

#M11882 3-3-14 MRL working Std:

1% HCL 2)

1% HNO₃Into 500 ml val flask pipet 10 ml of #M11881. Bring up to mark w/DT H₂O.

#M11883 3-3-14

1% HCL 2)

1% HNO₃ICVLL Std into 500 ml val flask pipet 10 ml of #M11881 (MRL stock std) Bring up to mark w/DT H₂O.

#M11884 3-3-14

1% HCL

1% HNO₃ICSA into 500 ml val flask pipet 50 ml of #M11881 & 15 ml of #M11724 bring up to mark w/DT H₂O.

#M11885 3-3-14

1% HCL

1% HNO₃ICSA into 500 ml val flask pipet 50 ml of #M11881 & 15 ml of #M11724 & 2.5 ml of #M11752 bring up to mark w/DT H₂O.

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11871) into 100ml = 0.2ug/L Hg

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11790) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

ICAP Working Standards

5% HNO₃ 5%HCL

Standard
Name

Pipet the following respectively:

0.25	0.25 mls of standard 100 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 100 ug/L into 1000ml volumetric flask= 0.50 ug/L std
1	1.0 mls of standard 100 ug/L into 1000 ml volumetric flask =1.00 ug/L std
5	5.0 mls of standard 100 ug/L into 1000 ml volumetric flask =5.00 ug/L std
10	10.0 mls of standard 100 ug/L into 1000 ml volumetric flask =10.0 ug/L std
20	20.0 mls of standard 100 ug/L into 1000 ml volumetric flask =20.0 ug/L std
50	50.0 mls of standard 100 ug/L into 1000 ml volumetric flask =50.0 ug/L std
100	1.0 mls of #M11752(ex 11/14) and 1.0 mls of #M11585 (ex 07/14) into 1000 ml volumetric flask= 100 ug/L std
1000	10.0 mls of #M11752(ex 11/14) and #M11585 (ex 07/14) and 1 mL of #M11356 Si into 1000 ml volumetric flask= 1000 ug/L std
10000	100 mls #M11752 (ex 11/14), 100 mls #M11585 (ex 07/14),
100k	10 mls of #M11764 Cu (ex 5/15) , 10 mls of #M11829 Mn (ex 7/15) , 10 mls of #M11767 Cr (ex 5/15), 10 mls #M11682 Pb (ex 2-15), 10 mls zn #M11240(ex 6-14), 10 mls #M11366 Na (ex 8/14), 10 mls #M11173 As (ex 4/14)= 100,000 ug/L
100,000	10 mls of #M11771 Mg (ex 5/15) , 10 mls of #M11724 Fe (ex 4/15) , 10 mls of #M11766 Ca (ex 5/15), 10 mls #M11769 AL (ex 5/15) , into 1000 ml vol flask = 100,000 ug/l std
500,000	50 mls of #M1171 Mg (ex 5/15) , 50 mls of #M11724 Fe (ex 4/15) , 50 mls of #M11766 Ca (ex 5/15), 50 mls #M11769 AL (ex 5/15) into 1000 ml vol flask = 500,000 ug/l std
1000k	100 mls of #M11771 Mg (ex 5/15) , 100 mls of #M11724 Fe (ex 4/15) , 100 mls of #M11766 Ca (ex 5/15), 100 mls #M11769 AL (ex 5/15) into 1000 ml vol flask = 1,000,000 ug/l std

Bring the 1000 ml volumetric up to mark with DI H₂O

ex 4/4

#M11878 Continuing Calibration Standard 1(CCV1)

Into a one liter volmetric flask pipet 50mls of # M11752 (ex 11/14)
and 5 ml of #M11585 (ex 07/14).
ex. 07/14
Bring up to mark with DI H₂O

#M11879 Continuing Calibration Standard 2(CCV2)

Into a one liter volmetric flask pipet 5 mls of # M11752 (ex 11/14)
and 0.5 ml of #M11585 (ex 07/14).
ex. 7/14
Bring up to mark with DI H₂O

#M11880 Initial Calibration Standard (ICV)

Into one liter volumetric flask pipet 10 mls of M11827 (ex 1/15)
2.0 mls of #m11776 (ex 12/14) and 0.5 mls #M11357 Mo (ex 08/14) and 0.5 mls
of #M11763 B (ex 5/15), 0.5 #m11360 Sr (ex 8/14), 0.5 #m11362 mls, Li (ex 8/14) and bring up to mark with DI H₂O

#M11860 02/19/15 TCLP Extraction Fluid #1: Fill a 20L carboy w/ 192 D.I. H₂O. Add 114ml Glacial Acetic Acid (AB:579) and 178.6ml 10N NaOH (#M11839). Dilute to 20L with D.I. H₂O. pH = 9.93 ± 0.05

#M11861 02/22/14/15 TCLP Extraction Fluid #1: Fill a 20L carboy w/ 192 D.I. H₂O. Add 114ml Glacial Acetic Acid (AB:579) and 178.6ml 10N NaOH (#M11839). Dilute to 20L with D.I. H₂O. pH = 9.93 ± 0.05

#M11862 02/24/14/15 Hg Working Stds: (0.2% HNO₃, HCl) 4.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11863 02/24/14/15 Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11864 02/24/14/15 Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M11863) into 100ml = 3.0ug/L Hg

#M11865 02/24/14/15 Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11866 02/24/14/15 Hg MRL: (0.2% HNO₃, HCl) 0.2ml of 100ug/L Hg (#M11863) into 100ml = 0.2ug/L Hg

#M11867 02/24/14/15 Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11868 02/24/14/15 Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11890) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11869 2-24-14 2A Spent Lead prep 2.25M Hg 1000 mg/L 1000 mg/L 1000 mg/L

#M11870 03/03/14/15 Hg Working Stds: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11871 03/03/14/15 Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11872 03/03/14/15 Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M11871) into 100ml = 3.0ug/L Hg

#M11873 03/03/14/15 Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

Plasma Pure Teledyne Lemmon Lab Cooney and 4 Lot# 020829 ex name

#M11847 02-11-14 MMS Hg Working Stds: 1.0ml of 1000mg/L Hg (#M11409) into 100mls = 10mg/L Hg
(0.2% HNO₃, HCl) 1.0ml of 10mg/L Hg into 100mls = 100ug/L Hg
0.5ml of 100ug/L Hg into 100mls = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100mls = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100mls = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100mls = 4.0ug/L Hg
10.0ml of 100ug/L Hg into 100mls = 10.0ug/L Hg
12.5ml of 100ug/L Hg into 25ml = 50.0ug/L Hg

#M11848 02-11-14 MMS Hg Alt. Source Working Std: 1.0ml of 100ug/ml Hg (#M11945) into 10ml = 10ug/ml = 10mg/L
(0.2% HNO₃, HCl) 0.1ml of 10mg/L Hg into 10mls = 100ug/L Hg

#M11849 02-11-14 MMS Hg ICV/LCSW: 6.0ml of 100ug/L Hg (#M11848) into 200ml = 3.0ug/L Hg
(0.2% HNO₃, HCl)

#M11850 02-11-14 MMS Hg CCV: 1.0ml of 1000mg/L Hg (#M11949) into 100ml = 10mg/L Hg
(0.2% HNO₃, HCl) 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
6.0ml of 100ug/L Hg into 200ml = 3.0ug/L Hg

#M11851 02-11-14 MMS Hg MRL: 0.2ml of 100ug/L (#M11848) into 100ml = 0.2ug/L Hg
(0.2% HNO₃, HCl)

#M11852 2-14-14 Sodium hydroxide fisher lot# B7159 exp 2-14-15

#M11853 02/11/15F Hg Working Stds: 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
(0.2% HNO₃, HCl) 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11854 02/13/15F Hg Alt Source Working Std: 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
(0.2% HNO₃, HCl) 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11855 02/13/15F Hg ICV / LCSW 3.0ml of 100ug/L Hg (#M11854) into 100ml = 3.0ug/L Hg
(0.2% HNO₃, HCl)

#M11856 02/17/15F Hg CCV 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
(0.2% HNO₃, HCl) 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11857 02/13/15F Hg MRL: 0.2ml of 100ug/L Hg (#M11854) into 100ml = 0.2ug/L Hg
(0.2% HNO₃, HCl)

#M11858 02/14/15F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M11859 02/14/15F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1190) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11831 01-27-14 M05 - 6FAA Nickel Nitrate Matrix Modifier Lot # 91-5308100E Alpha Mesaz

#M11832 01/27/14 SF Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11833 01/27/14 SF Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg

#M11834 01/27/14 SF Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M 11833) into 100ml = 3.0ug/L Hg

#M11835 01/27/14 SF Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11836 01/27/14 SF Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M 11833) into 100ml = 0.2ug/L Hg

#M11837 01/27/14 SF Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11838 01/27/14 SF Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M 11799) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11839 02-03-14 M05 10N NaOH - Into a 1L flask, add 400g NaOH (#M1185) & bring to volume w/ DI

#M11840 02-03-14 M05 TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L DI water. Add 114 mL Glacial Acetic acid (AB: 579) and 128.6 mL 10N NaOH (#M11839). Dilute to 20L with DI water. pH 4.95 ± 0.05
Exp: 02/08/15

#M11841 02/05/14 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB: 579) and 128.6 mL 10N NaOH (#M11839). Dilute to 20L with D.I. H₂O. pH = 4.95 ± 0.05
Exp: 02/05/15

#M11842 02/06/14 SF potassium permanganate Sol'n: 50g potassium permanganate (#M11785) dissolve into 1000mL of D.I. H₂O.
Exp: 08/06/14

#M11843 02-06-14 M05 1% Pd Matrix Modifier (6FAA) Lot # 1234818 (Environmental Express)
Exp: 01-23-15

#M11844 2-9-14 2 Diatomaceous Earth Leaman Labs Lot # 1347503 exp 1/15
2-6-14

#M11845 2-9-14 2 Plasma Pure Teflon Leaman Labs 100 ug/ml Lot 1347501 exp 1/15

#M11815 MMS 01/15/14 - 6FAA Base Std (25ug/L): Into a 1 Liter volumetric Flask, pipet 0.25ml
exp. 05/01/14 1% HNO₃ of M11430 + bring up to volume w/ DI

#M11816 MMS 01/15/14 - 6FAA CCV - Into a 1L vol. Flask, pipet 0.1ml M11430 + bring up to volume w/ DI
exp. 05/01/14 1% HNO₃

#M11817 MMS 01/15/14 - 6FAA ICV - Into a 1L vol. Flask, pipet 1ml M11431 + bring up to volume w/ DI water
exp. 05/14 1% HNO₃

#M11818 SF 01/16/14 Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11819 SF 01/16/14 Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9053) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11820 SF 01/16/14 Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11819) into 100ml = 3.0ug/L Hg

#M11821 SF 01/16/14 Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11822 SF 01/16/14 Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11819) into 100ml = 0.2ug/L Hg

#M11823 SF 01/16/14 Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11824 SF 01/16/14 Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11790) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11825 SF 01/23/14 NaCl Hydroxylamine Sulfate Reagent: Dissolve into bag NaCl (#M11791)
and bag hydroxylamine Sulfate (#M11792)
in 500ml Milli-Q H₂O.
Exp: 07/23/14

#M11826 SF 1-23-14 Tungsten 1000mg/L SPC Science Lot # 5130819014 ex 1/15

#M11827 SF 1-23-14 Custom Assurance Std Lot 22-13 CR ex 1/15

#M11828 SF 1-23-14 Sulfur 10,000 mg/L Lot AF14-116354 (Spec Ensign) ex 1/15

#M11829 SF 1-23-14 Mn 10,000 mg/L Lot 136091 (CPI) July/2015

#M11830 SF 7CpS Acetic Acid: Fill a 20L Carboy with 19L D.I. H₂O. Add 114ml
Glacial Acetic Acid (AB: 549) and 126ml 10N NaOH
(#M11552) Dilute to 20L with D.I. H₂O and mix.
Exp: 01/15/15

#M11811 1-13-14

MDL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	m11785	10000	0.5
Na	500	m11365	10000	2.5

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

EXPIRES

14-Aug

#M11812

1-13-14

MDL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	5	m11362	1000	0.25
Sn	5	m11359	1000	0.25
Sr	5	m11360	1000	0.25
Ti	5	m11364	1000	0.25
W	10	m11365	1000	0.5

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

EXPIRES

8/14

#M11813

1-13-14

MDL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	20	m11763	1000	1
Si	100	m11356	1000	5

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

EXPIRES

14-Aug

#M11814

GFAA MDL
Spiking
Solutions

7/10/05

01/14/14

Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	0.2	M11170	1000	0.01
Pb	2	M11708	1000	0.1
Sb	2	M11172	1000	0.1
As	2	M11173	1000	0.1
Se	2	M11171	1000	0.1
Tl	2	M11361	1000	0.1

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

EXPIRES: 04/24/2014

#M11800 01/08/14 15F Potassium permanganate sol'n of potassium permanganate (#M11785) dissolve
Exp: 02/08/14 into 1000ml of DI H₂O.

#M11801 01/10/14

ICAP Working Standards List 2

.5% HNO₃ .5% HCL

Standard
name

Pipet the following respectively:

1	0.01 ml of #M11752 and .001ml #M11365 = 1 ug/L
10	0.10 ml of #M11752 and .01ml #M11365 = 10 ug/L
100	1 ml of #M11752 and 0.1ml #M11365 = 100 ug/L
1000	10 ml of #M11752 and 1.0ml #M11365 = 1000 ug/L
10000	100 ml of #M11752 and 10ml #M11365 = 10000 ug/L

ex-8-14

Initial Calibration Standard (ICV) List 2

Into 1 liter vol flask pipet 1 ml of #M11360, M11364, M11362, M11359, and M11056
bring up to mark with DI H₂O ex 8/14

Continuing Calibration Standard (CCV)

Into 1 liter vol flask pipet 10 ml of #M11752 and 1.0ml #M11365 = 1000 ug/L
bring up to mark with DI H₂O ex 8-14

#M11809 1/10/14

Into 500 ml vol flask pipet 50ml #M11776
and 50ml #M11365 + 5.0 #M11765 bring up
to mark with DI H₂O

MDL Spiking Solution Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MDL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	5	m11170	1000	0.25
Al	10	m11769	10000	0.05
As	20	m11173	1000	1
Ba	2	m11768	1000	0.1
Be	0.5	m11239	1000	0.025
Ca	50	m11766	10000	0.25
Cd	0.5	m11242	1000	0.025
Co	2.5	m11355	1000	0.125
Cr	5	m11767	10000	0.025
Cu	10	m11764	10000	0.05
Fe	20	m11724	10000	0.1
Mg	25	m11771	10000	0.125
Mn	5	m11054	10000	0.025
Mo	2.5	m11357	1000	0.125
Ni	5	m11358	1000	0.25
Pb	10	m11682	10000	0.05
Sb	20	m11172	1000	1
Se	20	m11171	1000	1
Ti	20	m11361	1000	1
V	5	m11241	1000	0.25
Zn	5	m11240	10000	0.025

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a
working std or 1 ml into 50 ml digestion tube for a digested working
standard.

EXPIRES

14-Feb

01/03/14 SF
 #M11794 01/03/14 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)
 #M11795 01/03/14 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11750) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

Working Standards for Sodium and Potassium; into seven, 500 ml volumetric flasks
 pipette from #M11621 and #M11720.

For the 0.5 mg/L std - 0.25 mls of each
 1.0 mg/L std - 0.50 mls of each
 5.0 mg/L std - 2.5 mls of each
 10.0 mg/L std - 5.0 mls of each
 50.0 mg/L std - 25.0 mls of each
 100 mg/L std - 50.0 mls each also used for Continuing Calibration Standard (CCV)
 200 mg/L std - 100.0 mls of each
 Bring up to mark with DI H₂O. Expires April 24, 2015.

#M11797 01/03/14 SF Total Calibration Standard (T.C.S.) - Into a 500 ml volumetric flask, pipet 5 mls of
 #M11366 + #M11765 + bring up to volume with DI H₂O.
 exp 8/20/14

#M11798 01/06/14 SF Hydroxylamine Sulfate (Fisher) Lot # 134692

#M11799 01/06/14 SF Sodium Chloride (Fisher) Lot # 132895

#M11800 01/07/14 SF TCLP Extraction Fluid #1: Fill a 20L carboy with 19L D.I. H₂O. Add 114 mL Glacial
 Acetic Acid (16.5%) and 118.6 mL 6N NaOH (#M11587).
 Exp: 01/07/15 Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11801 01/08/14 SF Potassium Persulfate: 50g potassium persulfate (#M10987) dissolve into 1,000 mL of
 D.I. H₂O.
 Exp: 02/08/14

#M11802 01/08/14 MMS GFAA 100/100 Ag⁺ Working Std: Into a 200 mL vol. flask, partially filled with D.I. water,
 pipet 0.12 mL Ag⁺ (1000 µg/L) #M1170 = (600 µg/L) + bring up
 to volume with D.I.
 ex 4/24/14

#M11803 01/08/14 MMS GFAA 100/100 Soil Ag Spiking Soln: Into a 1L vol. flask partially filled w/ D.I. water,
 pipet 10 mL of #M11802 + bring up to volume.
 ex 4/24/14

#M11804 01/09/14 MMS GFAA 100/100 Water Working Std Agonly: Into a 100 mL vol. flask partially filled w/ D.I. water,
 pipet 0.1 mL Ag⁺ (1000 µg/L) #M1170 = 100 µg/L + bring
 up to volume with D.I.
 ex 4/24/14

#M11805 01/09/14 MMS GFAA 100/100 Water Spiking Soln Agonly: Into a 1L vol. flask, pipet 10 mL #M11804 + bring up to volume
 ex 4/24/14 (1% HNO₃)

#M11492 12/18/13 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11382 12/18/13 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11783 12/18/13 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11782) into 100ml = 3.0ug/L Hg
#M11794 12/18/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11785 12/18/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11782) into 100ml = 0.2ug/L Hg
#M11936 12/18/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
#M11786 12/18/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11786) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
#M11787 12/18/13 SF	TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H ₂ O. Add 114ml Exp 12/18/14 Glacial Acetic Acid (AB: 554) and 12.86ml 10N NaOH (#M11557). Dilute to 20L w/ D.I. H ₂ O and mix. pH = 4.93 ± 0.05	
#M11788 12/18/13 SF	NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M19574) and 60g Hydroxylamine Sulfate (#M11376) in 500 mL Milli-Q H ₂ O. Exp: 06/18/14	
#M11789 01/16/14 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11790 01/16/14 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11791 01/16/14 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11790) into 100ml = 3.0ug/L Hg
#M11792 01/16/14 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11793 01/16/14 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11790) into 100ml = 0.2ug/L Hg

- #M11761 12/02/13/5F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)
- #M11762 12/03/13/5F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11450) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
- #M11763 12/03/13/5F Boron 1,000mg/L CPT Lot#13I130 Exp: 05/13/15
- #M11764 12/03/13/5F Copper 10,000mg/L CPT Lot#13B062 Exp: 05/13/15
- #M11765 12/03/13/5F Potassium 10,000mg/L CPT Lot#13I116 Exp: 05/13/15
- #M11766 12/03/13/5F Calcium 10,000mg/L CPT Lot#13I209 Exp: 05/13/15
- #M11767 12/03/13/5F Chromium 10,000mg/L CPT Lot#13D123 Exp: 05/13/15
- #M11768 12/03/13/5F Barium 1,000mg/L CPT Lot#13I127 Exp: 05/13/15
- #M11769 12/03/13/5F Aluminum 10,000mg/L CPT Lot#13I229 Exp: 05/13/15
- #M11770 12/03/13/5F Iron 10,000mg/L CPT Lot#13I037 Exp: 05/13/15
- #M11771 12/03/13/5F Magnesium 10,000mg/L CPT Lot#13H270 Exp: 05/13/15
- #M11772 12/06/13/5F Spex ^{See L1 prep 12/06/13/5F} Exp: prep Lot# 4-35604 Custom Assurance Std Exp: 12/30/14
- #M11773 12/10/13 mms Alpha Aesar Specture 1% Nickel Nitrate Matrix modifier (GFAA) Lot: 33-4578928
- #M11774 12/11/13/5F Stannous chloride (Macven) Lot# 0000064492
- #M11775 12/12/13/5F Potassium Permanganate Soln: Sog potassium permanganate (#M11285) dissolve Exp: 06/12/14 Into 1,000 mL of D.I. H₂O.
- #M11776 12/17/13 mms Spex Certiprep Interferents A Lot# 10-5471X Exp: 12/30/14
- #M11777 12/17/13 mms GFAA Base Std ^(50mg/L) Into a 1L vol. Flask, pipet 0.50 mL M11430 + bring up to volume w/ D.I.
- #M11778 12/17/13 mms GFAA CCV (20mg/L) Into a 500mL vol. Flask, pipet 1mL #M11431 + Bring to volume with D.I. water.
- #M11779 12/17/13 mms GFAA CCV (20mg/L) Into a 500mL vol. Flask, pipet 0.1mL #M11430 + Bring to vol. w/ D.I.
- #M11780 12/18/13 mms GFAA Base Std (20mg/L) Into a 1L vol. Flask, pipet 0.25mL M11430 + bring to volume w/ D.I. water.

Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11558) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M1175 11/9/13 SF Potassium persulfate (Fisher) lot #132059

#M1174 11/21/13 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9574) and 60g hydroxylamine sulfate (#M11376) in 500mL Milli-Q H₂O.
Exp: 05/19/14

#M11750 11/22/13 SF Stannous chloride (Macron) lot #000055565

#M11751 11/22/13 MAS GFAA Base Std: Into a 1L vol. flask, pipet 0.25mL M11430 and bring up to volume with DI.
Exp: 05/01/14

#M11752 11-25-13 NY Custom Assurance STD Spex Certmap lot #4-3116 NY
ex Nov 30, 2014

#M11753 12-02/13 MAS GFAA ICV (alt source) Into a 1 liter vol. flask, pipet 1mL #M11431 + bring up to volume w/ DI
exp: 05/14

#M11754 12/02/13 SF TCEP Extraction Fluid #1: Fill a 20L carboy w/ 19L DI H₂O. Add 114mL Glacial Acetic acid (AB: 579) and 138.6mL 16N NaOH (#M11509). Dilute to 20L w/ DI H₂O and mix. pH = 4.93 ± 0.05
Exp: 12/02/14

#M11755 12/02/13 MAS GFAA CCV - Into a 1L vol. flask, pipet 0.1mL #M11430 + bring to volume.
exp: 05/14

#M11756 12/03/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
0.5mL of 100ug/L Hg into 100mL = 0.5ug/L Hg
1.0mL of 100ug/L Hg into 100mL = 1.0ug/L Hg
2.0mL of 100ug/L Hg into 100mL = 2.0ug/L Hg
4.0mL of 100ug/L Hg into 100mL = 4.0ug/L Hg
5.0mL of 100ug/L Hg into 100mL = 5.0ug/L Hg
10.0mL of 100ug/L Hg into 100mL = 10.0ug/L Hg

#M11757 12/03/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10mg/L Hg
1.0mL of 10mg/L into 100mL = 100ug/L Hg

#M11758 12/03/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0mL of 100ug/L Hg (#M11757) into 100mL = 3.0ug/L Hg

#M11759 12/03/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

#M11760 12/03/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2mL of 100ug/L Hg (#M11757) into 100mL = 0.2ug/L Hg

LANNERY

050-147B

#M11736 11/11/13 SE potassium permanganate gain 50g potassium permanganate (#M11785)
 Exp 05/11/14 dissolve into 1000ml of DI H₂O

#M11746 11/19/13 SE

#M11747 11/19/13 SE

#M11748 11/19/13 SE

#M11749 11/19/13 SE

#M11750 11/22/13 SE

#M11751 11/22/13

Exp 05/01/14

#M11752 11-25-13

#M11753 12-02-13

Exp. 05/14

#M11754 12/02/13

Exp 12/10

#M11755 12/02/13

Exp. 05/14

#M11756 12/03/13 SE

#M11757 12/03/13 SE

#M11758 12/03/13 SE

#M11759 12/03/13 SE

#M11760 12/03/13 SE

ICAP Working Standards Boron & Silicon

Standard name

Into 1 liter Pipet the following respectively:

50	0.05 mls of #M11205 and .05mls #M11356 = 50 ug/L
100	.1 mls of #M11205 and 0.1mls #M11356 = 100 ug/L
1000	1.0 mls of #M11205 and 1.0mls #M11356 = 1000 ug/L
2000	2.0 mls of #M11205 and 2.0mls #M11356 = 1000 ug/L
10000	10.0 mls of #M11205 and 10mls #M11356 = 10000 ug/L

ex 5/14

Initial Calibration Standard (ICV) B, Si

Into 1 liter vol flask pipet 1 ml of #M10860, 10 mls #M11584b
 bring up to mark with DI H₂O ex 12/13

Continuing Calibration Standard (CCV)

Into 1 liter vol flask pipet 1.0 mls of #M11205 and 1.0mls #M11356 = 1000 ug/L
 bring up to mark with DI H₂O ex 5-14

#M11739 11/14/13 SE TCEP Extraction Fluid #1: Fill a 20L carboy w/ 18L DI H₂O. Add 114ml Glacial Acetic acid (CAS 64-19-7) and 12.6ml 6N NaOH (#M11507).
 Dilute to 20L w/ DI H₂O and mix pH = 4.75 ± 0.05
 Exp: 11/14/14

#M11740 11/18/13 Spex Certpure Cesium Assurance Std. Lot # 4-286N4
 Exp NOV 2014

#M11741 11/19/13 SE Hg Working Sds: (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11742 11/19/13 SE Hg Alt Source Working Std: (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M8063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11743 11/19/13 SE Hg ICV / LCSW (0.2% HNO₃, HCl)
 3.0ml of 100ug/L Hg (#M11742) into 100ml = 3.0ug/L Hg

#M11744 11/19/13 SE Hg CCV (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11745 11/19/13 SE Hg MRL: (0.2% HNO₃, HCl)
 0.2ml of 100ug/L Hg (#M11742) into 100ml = 0.2ug/L Hg

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11170	1000	0.2
Al	9.6	M11363	10000	0.048
As	32	M11173	1000	1.6
Ba	2	M11052	1000	0.1
Be	1.6	M11239	1000	0.08
Ca	56	M11539	10000	0.28
Cd	1.6	M11242	1000	0.08
Co	9.6	M11355	1000	0.48
Cr	5.6	M11503	10000	0.028
Cu	16	M11051	10000	0.08
Fe	72	M11724	10000	0.36
Mg	32	M11636	10000	0.16
Mn	6	M11054	10000	0.03
Mo	9.6	M11357	1000	0.48
Ni	4.8	M11358	1000	0.24
Pb	10	M11682	10000	0.05
Sb	32	M11172	1000	1.6
Se	16	M11171	1000	0.8
Ti	10	M11361	1000	0.95
V	3.2	M11241	1000	0.16
Zn	12	M11240	10000	0.06

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Feb

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4	M11362	1000	0.72
Sn	20	M11359	1000	1
Sr	3.2	M11360	1000	0.16
Tl	9.6	M11364	1000	0.48
W	24	M11365	1000	1.2

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Feb

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	52	M11205	1000	2.6
Si	192	M11358	1000	9.6

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Aug

#M11744 11/07/13 Lp TELP Extraction Fluid #1: Fill a 70L Carboy with DI H₂O. Add 114 mL Glacial Acetic Acid (CAB 547) and 128 mL 10 N NaOH (M 11567). Dilute to 70L with DI H₂O and mix. pH = 4.93 ± 0.05
Exp: 11/09/14

#M11736 11-5-13

2

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	18	M11205	1000	0.8
Si	200	M11356	1000	10

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Aug

#M11737

2

11-5-13

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	10	M11362	1000	0.5
Sn	10	M11359	1000	0.5
Sr	2	M11360	1000	0.1
Ti	8	M11364	1000	0.4
W	36	M11365	1000	1.8

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Feb

#M11738

2

11-5-13

3010
Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
S	200	M11343	1000	10

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Aug

#M117389

2

11-5-13

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
S	240	M11343	1000	12

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Aug

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	2640	M11623	10000	13.2
Na	980	M11366	10000	4.8

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 14-Aug

#M11740

11-5-13

2

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11726) into 100ml = 0.2ug/L Hg

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11558) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11732 11/05/13 15F NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M11574) and 60g Hydroxylamine Sulfate (#M11376) in 500 mL Milli-Q H₂O.
(exp 05/05/14)

#M11733 11-5-13 ^{11/05/13} Turbidity Working Stds into 20ml pipet from #M11115:
(200) NTU 2.0 ml into 18 mL D.I. H₂O = 200 NTU
G.P. Std = 4.30 10.0 ml into 10 mL D.I. H₂O = 100 NTU
= 48.1 20.0 ml into 0 mL D.I. H₂O = 200 NTU
= 513 (exp Aug 2014)

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11170	1000	0.2
Al	38	M11363	10000	0.18
As	24	M11173	1000	1.2
Ba	1.8	M11052	1000	0.09
Be	0.6	M11239	1000	0.03
Cd	100	M11539	10000	0.5
Cd	2	M11242	1000	0.1
Co	4	M11355	1000	0.2
Cr	4	M11503	10000	0.02
Cu	7	M11051	10000	0.035
Fe	100	M11724	10000	0.5
Mg	40	M11636	10000	0.2
Mn	4	M11054	10000	0.02
Mo	7	M11357	1000	0.35
Ni	6	M11358	1000	0.3
Pb	4	M11682	10000	0.02
Sb	12	M11172	1000	0.6
Se	13	M11171	1000	0.65
Ti	15	M11381	1000	0.75
V	5	M11241	1000	0.25
Zn	10	M11240	10000	0.05

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 14-Feb

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M11623	10000	2.5
Na	600	M11366	10000	3

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 10-Aug-14

M11735
11-5-13
28

#M11715 11/04/13 MOS potassium permanganate Soln: 5.0g potassium permanganate (#M11715) dissolve into 1000ml of Dist H₂O
exp: 04/29/14

#M11716 11/01/13 MOS 10% Pd Matrix modifier For GFAA. Environmental Express Lot# 1234818
exp: 10/25/14

#M11717 11/04/13 MOS Yttrium (Y) 10,000ug/ml Env. Express Lot# 1311349
exp: 4/17/2015

#M11718 11/04/13 MOS Spex CertiPrep Lot# 4-153NY Custom Assurance Std
exp: 10/30/2014

#M11719 11/04/13 MOS Na 1000 ug/ml CPI Lot# 13E225
exp: 4/24/2015

#M11720 11/04/13 MOS K 1000 ug/ml CPI Lot# 13E108
exp: 4/24/2015

#M11721 11/04/13 MOS Na 1000 ug/ml CPI Lot# 13E225
exp: 4/24/2015

#M11722 11/04/13 MOS K 1000 ug/ml CPI Lot# 13E108
exp: 4/24/2015

#M11723 11/04/13 MOS Fe 10,000 ug/ml CPI Lot# 12J093
exp: 4/24/2015

#M11724 11/04/13 MOS Fe 10,000 ug/ml CPI Lot# 12J093
exp: 4/24/2015

#M11725 11/05/13 LSF Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11726 11/05/13 LSF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11727 11/05/13 LSF

Hg IGV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11726) into 100ml = 3.0ug/L Hg

#M11728 11/05/13 LSF

Hg GCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

certiprep
SPX Lot # 18-131ASX ex 8/30/14

SPX certiprep Lot # 19-01PBX ex 8/30/14

fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114mL
Glacial Acetic Acid (AB: 565) and 128.6mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix.
pH = 4.93 ± 0.05

hydrogenate soln: 50g potassium permanganate (#M11285)
dissolve into 1000mL of D.I. H₂O.

SPX Certiprep Lot # 18-131ASX Exp: 09/30/14

SPX Certiprep Lot # 19-01PBX Exp: 09/30/14

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
0.5mL of 100ug/L Hg into 100mL = 0.5ug/L Hg
1.0mL of 100ug/L Hg into 100mL = 1.0ug/L Hg
2.0mL of 100ug/L Hg into 100mL = 2.0ug/L Hg
4.0mL of 100ug/L Hg into 100mL = 4.0ug/L Hg
5.0mL of 100ug/L Hg into 100mL = 5.0ug/L Hg
10.0mL of 100ug/L Hg into 100mL = 10.0ug/L Hg

Std: 1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg

3.0mL of 100ug/L Hg (#M 11699) into 100mL = 3.0ug/L Hg

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

0.2mL of 100ug/L Hg (#M 11699) into 100mL = 0.2ug/L Hg

nt: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

agent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11558) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

50g potassium persulfate (#M10573) dissolve into 1000mL of D.I. H₂O.

hydroxylamine sulfate reagent: Dissolve into 60g NaCl (#M9574) and 60g hydroxylamine sulfate (#M11376) in 500mL D.I. H₂O.

#M11907 09/23/13LF AS 1000mg/L SPX certiprep Lot # 18-131ASX Exp: 09/30/14

#M11908 09/23/13LF Pb 1000mg/L SPX certiprep Lot # 19-01PBX Exp: 09/30/14

#M11709 10/02/13LF Potassium permanganate soln: 50g potassium permanganate (#M11285)
Exp: 09/10/14 dissolve into 1000mL of D.I. H₂O.

#M11710 10/10/13LF Stannous chloride (Macron) - Lot No. 0000052471

#M11711 10/10/13LF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114mL
Exp: 10/10/14 Glacial Acetic Acid (AB: 565) and 128.6mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11712 10/10/13LF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114mL Glacial Acetic
Exp: 10/10/14 Acid (AB: 565) and 128.6mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11713 10/14/13LF Potassium permanganate soln: 50g potassium permanganate (#M11285)
Exp: 09/14/14 dissolve into 1000mL of D.I. H₂O.

#M11707 10/14/13LF Hydroxylamine sulfate reagent: Dissolve into 60g NaCl (#M9574) and 60g
Exp: 09/14/14 hydroxylamine sulfate (#M11376) in 500mL D.I. H₂O.

#M11708 10/14/13LF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
0.5mL of 100ug/L Hg into 100mL = 0.5ug/L Hg
1.0mL of 100ug/L Hg into 100mL = 1.0ug/L Hg
2.0mL of 100ug/L Hg into 100mL = 2.0ug/L Hg
4.0mL of 100ug/L Hg into 100mL = 4.0ug/L Hg
5.0mL of 100ug/L Hg into 100mL = 5.0ug/L Hg
10.0mL of 100ug/L Hg into 100mL = 10.0ug/L Hg

#M11709 10/14/13LF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M9063) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg

#M11710 10/14/13LF

Hg IGV / LCSW
(0.2% HNO₃, HCl)

3.0mL of 100ug/L Hg (#M11709) into 100mL = 3.0ug/L Hg

#M11711 10/14/13LF

Hg CCV
(0.2% HNO₃, HCl)

1.0mL of 1000mg/L Hg (#M10563) into 100mL = 10mg/L Hg
1.0mL of 10mg/L Hg into 100mL = 100ug/L Hg
3.0mL of 100ug/L Hg into 100mL = 3.0ug/L Hg

#M11712 10/14/13LF

Hg MRL:
(0.2% HNO₃, HCl)

0.2mL of 100ug/L Hg (#M 11709) into 100mL = 0.2ug/L Hg

#M11713 10/14/13LF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11714 10/14/13LF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11558) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11692 09/04/13 AS 1000mg/L SPEX certiprep Lot # 18-131AS ex 8/30/14

#M11693 09/04/13 Pb 1000mg/L SPEX certiprep Lot # 19-01PBY ex. 8/30/14

#M11694 09/05/13 SE TCLP Extraction Fluid #1: Fill a 20L Carboy with D.I. H₂O. Add 114 mL of Glacial Acetic Acid (AB: 565) and 18.6 mL 10N NaOH (#M1507). Dilute to 20L with D.I. H₂O and stir. pH = 4.93 ± 0.05

#M11695 09/05/13 SE potassium permanganate soln: 50g potassium permanganate (#M11295) dissolve into 1000mL of D.I. H₂O.

#M11696 09/12/13 SE AS 1000mg/L SPEX certiprep Lot # 18-131AS ex 09/30/14

#M11697 09/12/13 SE Pb 1000mg/L SPEX certiprep Lot # 19-01PBY exp: 09/30/14

#M11698 09/17/13 SE Hg Working Stds: (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11699 09/17/13 SE Hg Alt Source Working Std: (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11700 09/17/13 SE Hg ICV/LCSW (0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11699) into 100ml = 3.0ug/L Hg

#M11701 09/17/13 SE Hg CCV (0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11702 09/17/13 SE Hg MRL: (0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11699) into 100ml = 0.2ug/L Hg

#M11703 09/17/13 SE Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11704 09/17/13 SE Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1550) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11705 09/18/13 SE potassium persulfate: 50g potassium persulfate (#M10573) dissolve into 1,000mL of D.I. H₂O.

#M11706 09/19/13 SE NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M9594) and 60g Hydroxylamine Sulfate (#M1336) in 500mL distilled H₂O.

#M11707 09/23/13 SE AS 1000mg/L SPEX certiprep Lot # 18-131AS ex 8/30/14

#M11708 09/23/13 SE Pb 1000mg/L SPEX certiprep Lot # 19-01PBY ex 8/30/14

#146	N#	M11677 8-20-13	As 1000mg/L	Spec Cert Prep Lot # 18-131ASD	ex 8/30/14
		M11678 8-20-13	Pb 1000mg/L	Spec Cert Prep Lot # 19-01PBY	ex 8/30/14
		M11679 8-20-13	S 10,000 mg/L	SPC Science Lot # S130724021	8/5/15
		M11680 08/22/13 SF	(Fish) Hydroxylamine Sulfate	Lot # 127466	Exp: 08/22/14
		M11681 8-22-13	Spec Cert Prep	Lot # 4-20NP	ex 8/14 (Custom Ass. Std)
		M11682 8-22-13	CPI Pb, 10,000 mg/L	Lot # 11J007	ex 2/15
		M11683 08/22/13 SF	TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H ₂ O. Add 114ml Glacial Acetic Acid (AB: 565) and 178.6ml 16N NaOH (#M110507). Dilute to 20L with D.I. H ₂ O and mix. pH=4.95±0.0		
			Exp: 08/22/14		
		M11684 08/22/13 SF	TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H ₂ O. Add 114ml Glacial Acetic Acid (AB: 565) and 178.6ml 16N NaOH (#M110507). Dilute to 20L with D.I. H ₂ O and mix. pH=4.95±0.05		
			Exp: 08/22/14		
net 10mls		M11685 08/29/13 SF	Hg Working Stds:	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg	
WT DI H ₂ O			(0.2% HNO ₃ , HCl)	1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg	
30 8-20-13				0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg	
p: pet 50mls				1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg	
task WT DI H ₂ O				2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg	
				4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg	
				5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg	
				10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	
2/15		M11686 08/29/13 SF	Hg Alt Source Working Std:	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg	
			(0.2% HNO ₃ , HCl)	1.0ml of 10mg/L into 100ml = 100ug/L Hg	
3/15		M11687 08/29/13 SF	Hg ICV / LCSW	3.0ml of 100ug/L Hg (#M11686) into 100ml = 3.0ug/L Hg	
			(0.2% HNO ₃ , HCl)		
2/15		M11688 08/29/13 SF	Hg CCV	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg	
			(0.2% HNO ₃ , HCl)	1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg	
2/15				3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	
		M11689 08/29/13 SF	Hg MRL:	0.2ml of 100ug/L Hg (#M11686) into 100ml = 0.2ug/L Hg	
			(0.2% HNO ₃ , HCl)		
amato (#M11285)		M11690 08/29/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)	
f D.I. H ₂ O					
(#M11493) and		M11691 08/29/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11552) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.	
M11336) in 500ml					

M11618 8-13-13 MRL/FEVLL into 1000 ml val flask pipet the following
 # Master Standard

M11617 8-20-13

0.5% HCl, HNO₃

Bring up to mark
 with DI H₂O.

ex 2/15

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	20	M11170	1000	1
Al	400	M11537	10000	2
Ba	10	M11052	1000	0.5
Be	4	M11239	1000	0.2
Cd	5	M11242	1000	0.25
Co	10	M11355	1000	0.5
Cr	10	M11053	10000	0.05
Cu	10	M11051	10000	0.05
Mg	500	M11536	10000	2.5
Mn	10	M11054	10000	0.05
Mo	10	M11357	1000	0.5
Ni	10	M11358	1000	0.5
Pb	10	M11400	1000	0.5
Sb	20	M11172	1000	1
V	10	M11241	1000	0.5
Zn	10	M11240	10000	0.05
K	1000	M11243	10000	5
Na	1000	M11366	10000	5
As	20	M11173	1000	1
Ca	500	M11539	10000	2.5
Fe	300	M11535	10000	1.5
Se	20	M11171	10000	0.1
Ti	20	M11361	1000	1
Si	100	M11356	1000	5
B	20	M11205	1000	1
Li	20	M11362	1000	1
W	50	M11365	1000	2.5
Tl	10	M11364	1000	0.5
Sr	10	M11360	1000	0.5
Sn	50	M11359	1000	2.5
S	100	M11343	1000	5

M11618 8-20-13

M11619 8-20-13

M11620 8/12/13

M11621 8-20-13

M11622 8-20-13

M11623 8/12/13

M11624 8/12/13

M11619 8-13-13 MRL into 500 ml val flask pipet 10mls
 0.5% HCl, HNO₃ of Master std # M11618. Bring up to mark with DI H₂O

M11620 8-13-13 ICVLL into 500 ml val flask pipet 50mls
 0.5% HCl, HNO₃ of Master std # M11618. Bring up to mark with DI H₂O

M11621 8-19-13 Na 1000 mg/L CPI Lot 13E226 ex 2/15

M11622 8-19-13 Fe 10,000 mg/L CPI Lot 13H100 ex 2/15

M11623 8-19-13 K 10,000 mg/L CPI Lot 13H099 ex 2/15

M11624 8-19-13 K 1000 mg/L CPI Lot 13E108 ex 2/15

M11625 8/12/13 15F Potassium permanganate soln: 50g potassium permanganate (#M11285)
 Exp: 02/10/14 dissolve into 1000ml of D.I. H₂O.

M11626 8/12/13 15F NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M11493) and
 60g hydroxylamine sulfate (#M11376) in 500ml Milli-Q H₂O.
 Exp: 02/10/14

	M11606	Continuing Calibration Standard 1(CCV1)	
	8-7-13		
	5% HCL		
	5% HNO ₃		

INO3 (AB: 554)

Chloride (#M11558) in

3-19SNP

ug/L std

bic flask= 1000 ug/L std

10 mls #M11400 Pb (ex 3-14)

1,10 mls #M11537 AL (ex 12/14)

), 50 mls #M11537 AL (ex 12/14)

2/14), 100 mls #M11537 AL (ex 12/14)

ex 2-14

Continuing Calibration Standard 1(CCV1)

Into a one liter volumetric flask pipet 50mls of # M11584b (ex 07/14)
and 5 ml of #M11585 (ex 07/14).
ex. 07/14
Bring up to mark with DI H₂O

Continuing Calibration Standard 2(CCV2)

Into a one liter volumetric flask pipet 5 mls of # M11584b (ex 7/14)
and 0.5 ml of #M11585 (ex 07/14).
ex. 7/14
Bring up to mark with DI H₂O

Initial Calibration Standard (ICV)

Into one liter volumetric flask pipet 10 mls of M11542 (ex 6/14)
2.0 mls of #m11399 (ex 03/14) and 0.5 mls #M11357 Mo (ex 08/14) and 0.5 mls
of #M11205 B (ex 5/14) bring up to mark with DI H₂O

ICSA B (DOOCAL) into 500ml vol flask pipet 50 mls #m11399
2.5 mls #M11584b, 2.5 mls #m11585, 15 mls #M11535. Bring up to mark
w/ DI H₂O. ex 3/14.

ICSA (DOOCAL) into 500 ml vol flask pipet 50 mls #m11399
15 mls #M11535 bring up to mark with DI H₂O ex 3/14

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11612) into 100ml = 3.0ug/L Hg

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11612) into 100ml = 0.2ug/L Hg

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11558) in
70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11597 08/05/13/5F	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11598 08/05/13/5F	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11599 08/05/13/5F	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M 11598) into 100ml = 3.0ug/L Hg
#M11600 08/05/13/5F	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11601 08/05/13/5F	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M 11598) into 100ml = 0.2ug/L Hg
#M11602 08/05/13/5F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M11603 08/05/13/5F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11558) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11604 8-6-13 *Spec Centrep Cerstam Assurance std Lot # 3-195NY*
ex Aug 2014.

#M11605 8-7-13 X ICAP Working Standards 5% HNO₃ 5%HCL

Standard
name

Pipet the following respectively:

0.25	0.25 mls of standard 100 ug/L into 1000 ml volumetric flask = 0.25 ug/L std
0.5	0.50 mls of standard 100 ug/L into 1000ml volumetric flask = 0.50 ug/L std
1	1.0 mls of standard 100ug/L into 1000 ml volumetric flask = 1.00 ug/L std
5	5.0 mls of standard 100ug/L into 1000 ml volumetric flask = 5.00 ug/L std
10	10.0 mls of standard 100ug/L into 1000 ml volumetric flask = 10.0 ug/L std
20	20.0 mls of standard 100ug/L into 1000 ml volumetric flask = 20.0 ug/L std
50	50.0 mls of standard 100ug/L into 1000 ml volumetric flask = 50.0 ug/L std
100	1.0 mls of #M11584b(ex 07/14) and 1.0 mls of #M11585 (ex 07/14) into 1000 ml volumetric flask = 100 ug/L std
1000	10.0 mls of #M11584b(ex 07/14) and #M11585 (ex 07/14) and 1 mL of #M11356 Si into 1000 ml volumetric flask = 1000 ug/L std
10,000	100 mls #M11584b (ex 07/14), 100 mls #M11585 (ex 07/14),
100k	10 mls of #M11051 Cu (ex 2/14), 10 mls of #M11054 Mn (ex 2/14), 10 mls of #M11053 Cr (ex 2/14), 100 mls #M11400 Pb (ex 3-14), 10 mls Zn #M11240(ex 6-14), 10 mls #M11366 Na (ex 8/14) = 100,000 ug/L <i>10mls #11607 AS Cex 2/14</i>
100,000	10 mls of #M11536 Mg (ex 12/14), 10 mls of #M11535 Fe (ex 12/14), 10 mls of #M11539 Ca (ex 12/14), 10 mls #M11537 AL (ex 12/14), into 1000 ml vol flask = 100,000 ug/L std
500,000	50 mls of #M11536 Mg (ex 12/14), 50 mls of #M11535 Fe (ex 12/14), 50 mls of #M11539 Ca (ex 12/14), 50 mls #M11537 AL (ex 12/14), into 1000 ml vol flask = 500,000 ug/L std
1000k	100 mls of #M11536 Mg (ex 12/14), 100 mls of #M11535 Fe (ex 12/14), 100 mls of #M11539 Ca (ex 12/14), 100 mls #M11537 AL (ex 12/14), into 1000 ml vol flask = 1,000,000 ug/L std Bring the 1000 ml volumetric up to mark with DI H ₂ O

#M11606 C
8-7-13
5% HCL
5% HNO₃

#M11607 C
8-7-13
5% HCL + HNO₃

#M11608
8-7-13
5% HCL
+ HNO₃

#M11609 I
5% HCL 8-7-13
5% HNO₃

#M11610
5% HCL 8-7-13
5% HNO₃

#M11611 08/13/13/5F

#M11612 08/13/13/5F

#M11613 08/13/13/5F

#M11614 08/13/13/5F

#M11615 08/13/13/5F

#M11616 08/13/13/5F

#M11617 08/13/13/5F

H₂O. Add 114 mL and 128.6 mL Dilute to 20 L with 0.05
 #M11584b 7-29-13 Custom Assurance Std 100mg/L (23) Spec Cert prep Lot # 20-105CR
 ex 7/14
 #M11585 7-29-13 Custom Assurance Std 100mg/L (3) Spec Cert prep Lot # 20-104CR
 ex 7/14

193E, product # 39043

#M11586 07/30/13 5F

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10963) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#10-70YP

Expect 50 mL

11573 M11085

9/13

#M11587 07/30/13 5F

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

10 Add 114 mL

#M11588 07/30/13 5F

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11587) into 100ml = 3.0ug/L Hg

10 Add 114 mL

#M11589 07/30/13 5F

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

10 Add 114 mL

#M11590 07/30/13 5F

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11587) into 100ml = 0.2ug/L Hg

#M11591 07/30/13 5F

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11592 07/30/13 5F

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11492) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11593 07/31/13 5F NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M11493) and 60g hydroxylamine Sulfate (#M11376) in 500mL Milli-Q H₂O.
 Exp: 01/31/13

#M11594 07/31/13 7805 TCLP Extraction Fluid #1: Fill a 20L Carboy with 19L D.I. H₂O. Add 114mL Glacial Acetic (AB: 555) and 128.6mL 10N NaOH (M11507). Dilute to 20L with D.I. H₂O & mix.
 pH = 4.93 ± 0.05

#M11595 07/31/13 7805 TCLP Extraction Fluid #1: Fill a 20L Carboy with 19L D.I. H₂O. Add 114mL Glacial Acetic (AB: 555) and 128.6mL 10N NaOH (M11507). Dilute to 20L with D.I. H₂O & mix.
 pH = 4.93 ± 0.05

#M11596 08/02/13 5F Potassium permanganate Soln: 50g Potassium permanganate (#M11285) dissolve into 1000mL of D.I. H₂O.
 Exp: 02/02/14

#M11571 07/16/13 SE TCLP Extraction Fluid #1: Fill a 20L Carboy with 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB 565) and 128.6 mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 07/16/14

#M11572 07/16/13 MOS Nickel Nitrate Matrix Modifier Soln Alfa Aesar - Specpure Lot # 32-441193E, product # 39043
Exp: 07/14

#M11573 07/16/13 J4 Spex Certiprep Custom Assurance Std Lot # 10-70PP
Exp: 7/30/14

#M11574 7-17-13 J4 ICSAB onto 500 mL vol flask pipet 50 mL of 8/13 #M11599 15 mL #M11535 2.5 mL of #M11573 + M11585 Bring up to mark with DI H₂O of 9/13

#M11575 07/23/13 SE TCLP Extraction Fluid #1: Fill a 20L Carboy with 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB 565) and 128.6 mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 07/23/14

#M11576 07/24/13 SE Hg Working Stds: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11577 07/24/13 SE Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11578 07/24/13 SE Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M11577) into 100ml = 3.0ug/L Hg

#M11579 07/24/13 SE Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11580 07/24/13 SE Hg MRL: (0.2% HNO₃, HCl) 0.2ml of 100ug/L Hg (#M11577) into 100ml = 0.2ug/L Hg

#M11581 07/24/13 SE Hg Aqua Regia Reagent: "Carefully" in hood; mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11582 07/24/13 SE Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11470) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11583 07/25/13 MOS GFAA Base Std. Into a 1 Liter Vol. Flask, pipet 0.25 mL #M11430. Bring up to volume w/ D.I. H₂O.
Exp: 05/14

#M11584 07/25/13 MOS GFAA ICV (alt source) - Into a 1 Liter Vol. Flask, pipet 1 mL #M11431. Bring up to volume with D.I. H₂O.

#M11584 7-29-13 Custom Assurance Std 100mg/L (2) Spex Certiprep
Exp: 7/14

#M11585 7-29-13 Custom Assurance Std 100mg/L (3) Spex Certiprep
Exp: 7/14

#M11586 07/30/13 SE Hg Working Stds: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11587 07/30/13 SE Hg Alt Source Working Std: (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11588 07/30/13 SE Hg ICV / LCSW (0.2% HNO₃, HCl) 3.0ml of 100ug/L Hg (#M11587) into 100ml = 3.0ug/L Hg

#M11589 07/30/13 SE Hg CCV (0.2% HNO₃, HCl) 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11590 07/30/13 SE Hg MRL: (0.2% HNO₃, HCl) 0.2ml of 100ug/L Hg (#M11587) into 100ml = 0.2ug/L Hg

#M11591 07/30/13 SE Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11592 07/30/13 SE Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11470) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11593 07/31/13 SE NaCl Hydroxylamine Sulfate Reagent: Dissolve into 100g NaCl hydroxylamine Sulfate (#M11470) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
Exp: 01/31/13

#M11594 07/31/13 MOS TCLP Extraction Fluid #1: Fill a 20L Carboy with 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB 565) and 128.6 mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11595 07/31/13 MOS TCLP Extraction Fluid #1: Fill a 20L Carboy with 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB 565) and 128.6 mL 10N NaOH (#M11507). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

	#M1554 07/10/13 LF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
	#M1555 07/10/13 LF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11554) into 100ml = 0.2ug/L Hg
mate (#M11285) - D.I. H ₂ O.	#M1556 07/10/13 LF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
	#M1557 07/10/13 LF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1105) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
- Prep lot # 3-80XL	#M1558 07/08/13 LF	Stannous Chloride (Maroon) - Lot # 0000045932	
0mg/L Hg	#M1559 07/10/13 M05	GFAA Base Std. -	Into a 1-Liter vol. Flask, pipet 0.25ml #M11430. Bring up to volume with D.I. water.
	#M1560 07/10/13 M05	GFAA ICV (Alt. Source) -	Into a 1-Liter vol. Flask, pipet 1ml #M11431 + bring up to volume with D.I. water.
10mg/L Hg	#M1561 07/10/13 M05	GFAA CCV -	Into a 1-Liter vol. Flask, pipet 0.1ml #M11430 + bring up to volume with D.I. water.
3.0ug/L Hg	#M1562 07/10/13 LF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
10mg/L Hg	#M1563 07/10/13 LF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
0.2ug/L Hg	#M1564 07/10/13 LF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11563) into 100ml = 3.0ug/L Hg
with 1part HNO ₃ (AB: 554) g Stannous Chloride (#M1105) in h D.I. Water.	#M1565 07/10/13 LF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
1311349 e. 12/14	#M1566 07/10/13 LF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11563) into 100ml = 0.2ug/L Hg
110563) into 100ml = 10mg/L Hg 30ml = 100ug/L Hg 00ml = 0.5ug/L Hg 00ml = 1.0ug/L Hg 00ml = 2.0ug/L Hg 00ml = 4.0ug/L Hg 00ml = 5.0ug/L Hg 100ml = 10.0ug/L Hg	#M1567 07/10/13 LF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
/9063) into 100ml = 10mg/L Hg ml = 100ug/L Hg	#M1568 07/10/13 LF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11492) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
1552) into 100ml = 3.0ug/L Hg	#M1569 07/15/13 LF	Potassium permanganate soln: 50g potassium permanganate (#M11085)	Dissolve into 1000ml of D.I. H ₂ O.
	#M1570 07/16/13 LF	TCLP Extraction fluid #1: Fill a 20L carboy with D.I. H ₂ O. Add 100ml 6M acetic acid (AB: 554) and 12.5ml 10N NaOH (#M11344). Dilute to 20L	

#M11538 06/24/13 13F No 1000mg/L CP2 Lot#13E225 Exp: 12/14/14

#M11539 06/24/13 13F Ca 10,000mg/L CP2 Lot#13B105 Exp: 12/14/14

#M11540 06/24/13 13F K 1000mg/L CP2 Lot#13E108 Exp: 12/14/14

#M11541 06/25/13 13F potassium permanganate soln: 50g potassium permanganate (#M11285)
Exp: 12/25/13 dissolve into 1000ml of D.I. H₂O.

#M11542 06/26/13 Custom Assurance std Spex Cmtaprep lot # 3-80
7/6/14

#M11543 06/26/13 13F	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11544 06/26/13 13F	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11545 06/26/13 13F	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11544) into 100ml = 3.0ug/L Hg
#M11546 06/26/13 13F	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11547 06/26/13 13F	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11544) into 100ml = 0.2ug/L Hg
#M11548 06/26/13 13F	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M11549 06/26/13 13F	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11045) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11550 06-26-13 2A 10,000 ug/ml Env Express lot #1311349 e 12/14

#M11551 07/02/13 13F	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
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#M11552 07/02/13 13F	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
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#M11553 07/02/13 13F	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11552) into 100ml = 3.0ug/L Hg
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#M11523 06/13/13 MDS GEAA LOD/LOQ Water Spiking Soln: Into a 1L vol. Flask, pipet 10 mL of #M11522 (1% HNO_3) and bring up to volume with D.I. water.

#M11524 06/13/13 LSF Potassium persulfate: 50g potassium persulfate (#M9903) dissolve into 1,000 mL D.I. H_2O .
Exp: 12/13/13

#M11525 06/14/13 MDS GEAA LOD/LOQ Soil Working Std: Into a 200 mL vol. Flask, partially filled with D.I. H_2O , pipet the following and bring up to volume with D.I. H_2O .
 1.2 mL Sb 1000 mg/L (#M11172) = 6000 $\mu\text{g/L}$ Sb
 3.2 mL As 1000 mg/L (#M11173) = 16,000 $\mu\text{g/L}$ As
 3.2 mL Se 1000 mg/L (#M11171) = 16,000 $\mu\text{g/L}$ Se
 0.08 mL Pb 10000 mg/L (#M1057A) = 4,000 $\mu\text{g/L}$ Pb
 1.0 mL Tl 1000 mg/L (#M11361) = 5000 $\mu\text{g/L}$ Tl

#M11526 06/14/13 MDS GEAA LOD/LOQ Soil Spiking soln: Into a 1L vol. Flask, pipet 10 mL of #M11525 + bring up to volume with D.I. H_2O .

#M11527 06/14/13 LSF Hg Working Stds: (0.2% HNO_3 , HCl)

1.0 mL of 1000 mg/L Hg (#M10563) into 100 mL = 10 mg/L Hg
 1.0 mL of 10 mg/L Hg into 100 mL = 100 $\mu\text{g/L}$ Hg
 0.5 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 0.5 $\mu\text{g/L}$ Hg
 1.0 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 1.0 $\mu\text{g/L}$ Hg
 2.0 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 2.0 $\mu\text{g/L}$ Hg
 4.0 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 4.0 $\mu\text{g/L}$ Hg
 5.0 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 5.0 $\mu\text{g/L}$ Hg
 10.0 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 10.0 $\mu\text{g/L}$ Hg

#M11528 06/14/13 LSF Hg Alt Source Working Std: (0.2% HNO_3 , HCl)

1.0 mL of 1000 mg/L Hg (#M9063) into 100 mL = 10 mg/L Hg
 1.0 mL of 10 mg/L into 100 mL = 100 $\mu\text{g/L}$ Hg

#M11529 06/14/13 LSF Hg ICV / LCSW (0.2% HNO_3 , HCl)

3.0 mL of 100 $\mu\text{g/L}$ Hg (#M11528) into 100 mL = 3.0 $\mu\text{g/L}$ Hg

#M11530 06/14/13 LSF Hg CCV (0.2% HNO_3 , HCl)

1.0 mL of 1000 mg/L Hg (#M10563) into 100 mL = 10 mg/L Hg
 1.0 mL of 10 mg/L Hg into 100 mL = 100 $\mu\text{g/L}$ Hg
 3.0 mL of 100 $\mu\text{g/L}$ Hg into 100 mL = 3.0 $\mu\text{g/L}$ Hg

#M11531 06/14/13 LSF Hg MRL: (0.2% HNO_3 , HCl)

0.2 mL of 100 $\mu\text{g/L}$ Hg (#M11528) into 100 mL = 0.2 $\mu\text{g/L}$ Hg

#M11532 06/14/13 LSF Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO_3 (AB: 554)

#M11533 06/14/13 LSF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11534 06/14/13 LSF NaCl Hydroxylamine Sulfate Reagent: Dissolve into 60g NaCl (#M11493) and 60g hydroxylamine sulfate (#M11376) in 500 mL Mill-Q H_2O .
Exp: 12/20/13

#M11535 06/14/13 LSF Fe 10,000 mg/L CPT Lot# 13D144 Exp: 12/14/14

#M11536 06/14/13 LSF Mg 10,000 mg/L CPT Lot# 13B063 Exp: 12/14/14

#M11537 06/14/13 LSF Al 10,000 mg/L CPT Lot# 13A129 Exp: 12/14/14

#M11511 06/10/13 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M11493) and 60g hydroxylamine sulfate (#M11376) in 500ml Milli-Q H₂O.
Exp: 12/10/13

#M11523 06/13/13 m

#M11512 06/10/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11524 06/13/13 L

EX

#M11513 06/10/13 SF

Hg Air Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11514 06/10/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11573) into 100ml = 3.0ug/L Hg

#M11515 06/10/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11516 06/10/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11573) into 100ml = 0.2ug/L Hg

#M11517 06/10/13 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11518 06/10/13 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11519 06/12/13 mms

Pb/Hg Modifier

Into a 50ml vol. flask, pipet 15ml #M11411 and 5ml #M10551. Bring up to volume with milli-Q H₂O.

#M11520 06/13/13 mms

GFAA LOD/LOQ Soil Ag Spiking Soln:

(1% HNO₃)

exp 04/24/14

Into a 1L vol. flask, pipet 10ml of #M11521 and bring up to volume w/ D.I. water.

#M11521 06/13/13 mms

GFAA LOD/LOQ Soil Ag Working Std:

(1% HNO₃)

exp 04/24/14

Into a 200ml vol. flask, partially filled w/ D.I. water, pipet the following and bring up to volume w/ D.I. H₂O.
0.12 mL Ag 1000mg/L (#M11170) = 600ug/L Ag

#M11522 06/13/13 mms

GFAA LOD/LOQ Water Working Std:

(1% HNO₃)

Into a 100ml vol. flask, partially filled with D.I. H₂O, pipet the following + bring up to volume w/ D.I. H₂O.

1.5mL Sb 1000mg/L (#M11172) = 15,000ug/L Sb

1.0mL As 1000mg/L (#M11173) = 10,000ug/L As

2.0mL Se 1000mg/L (#M11171) = 20,000ug/L Se

0.045mL Pb 10,000mg/L (#M10831) = 4500ug/L Pb

0.4mL Tl 1000mg/L (#M11361) = 400ug/L Tl

0.1mL Ag 1000mg/L (#M11170) = 1000ug/L Ag

#M11497 05/18/13 15F TCLP Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB 554) and 128.6ml 10N NaOH (#M11344). Dilute to 20 L with D.I. H₂O and mix. pH = 4.93 ± 0.05
 Exp: 05/18/14

#M11498 05/31/13 15F Potassium permanganate soln: 50g potassium permanganate (#M11285) dissolve into 1,000ml of D.I. H₂O.
 Exp: 05/31/13

#M11499 06/03/13 15F Hg Working Stds: (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11500 06/03/13 15F Hg Alt Source Working Std: (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11501 06/03/13 15F Hg ICV / LCSW (0.2% HNO₃, HCl)
 3.0ml of 100ug/L Hg (#M11560) into 100ml = 3.0ug/L Hg

#M11502 06/03/13 15F Hg CCV (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11503 06/03/13 15F Hg MRL: (0.2% HNO₃, HCl)
 0.2ml of 100ug/L Hg (#M11560) into 100ml = 0.2ug/L Hg

#M11504 06/03/13 15F Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11505 06/03/13 15F Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11506 06/04/13 1005 TCLP Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB 554) and 128.6ml 10N NaOH (#M11344). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05
 Exp: 06/04/13

#M11507 06/04/13 1005 10N NaOH: Into a 1L Flask, add 400g NaOH (#M1145) and bring to volume w/ D.I. H₂O.

#M11508 06/04/13 1005 TCLP Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB 554) and add 128.6ml 10N NaOH (#M11469). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11509 06/04/13 1005 TCLP Extraction Fluid #1: Fill a 20L Carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB 554) and add 128.6ml 10N NaOH (#M11507). Dilute to 20L w/ D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11510 06/07/13 15F Potassium permanganate soln: 50g potassium permanganate (#M11285) dissolve into 1,000ml of D.I. H₂O.
 Exp: 06/07/13

IO3 (AB: 554)

chloride (#M11075)

Add 114ml

6ml 10N NaOH

2.0ml mix

add 60g

1m Stchl

d Acetic Acid

1 with D.I. H₂O

d Acetic Acid

to 20L with

1 Glacial Acetic

44). Dilute to

#M11483 05/17/13 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	#M11493 05/18/13 SF
#M11484 05/17/13 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	#M11498 05/31/13 SF
#M11485 05/17/13 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M 11484) into 100ml = 3.0ug/L Hg	#M11499 06/03/13 SF
#M11486 05/17/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	#M11500 06/03/13 SF
#M11487 05/17/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M 11484) into 100ml = 0.2ug/L Hg	#M11501 06/03/13 SF
#M11488 05/17/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)	#M11502 06/03/13 SF
#M11489 05/17/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M 1105) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.	#M11503 06/03/13 SF
#M11490 05/20/13 SF	TCLP Extraction Fluid #1:	Fill a 20L carboy with 19L D.I. H ₂ O. Add 114ml Glacial Acetic Acid (AB534) and 128.6ml 10N NaOH (#M11344). Dilute to 20L with D.I. H ₂ O and mix. pH = 4.93 ± 0.05	#M11504 06/03/13 SF
#M11491 05/21/13 SF	NaCl Hydroxylamine Sulfate Reagent:	Dissolve 60g NaCl (#M9574) and 60g hydroxylamine Sulfate (#M11039) in 500ml Milli-Q H ₂ O.	#M11505 06/03/13 SF
#M11492 05/28/13 SF	Stannous Chloride (Macron)	-Lot #0000040028	#M11506 06/04/13 mds
#M11493 05/28/13 SF	Sodium Chloride Fisher	Lot NO. 126180 F.W. 58.44	#M11507 06/04/13 mds
#M11494 05/28/13 SF	TCLP Extraction Fluid #1:	Fill a 20L carboy with 19L D.I. H ₂ O. Add 114ml Glacial Acetic Acid (AB534) and 128.6ml 10N NaOH (#M11344). Dilute to 20L with D.I. H ₂ O and mix. pH = 4.93 ± 0.05	#M11508 06/04/13 mds
#M11495 05/28/13 SF	TCLP Extraction Fluid #1:	Fill a 20L carboy with 19L D.I. H ₂ O. Add 114ml Glacial Acetic Acid (AB534) and 128.6ml 10N NaOH (#M11344). Dilute to 20L with D.I. H ₂ O and mix. pH = 4.93 ± 0.05	#M11509 06/04/13 mds
#M11496 05/29/13 SF	TCLP Extraction Fluid #1:	Fill a 20L carboy with 19L D.I. H ₂ O. Add 114ml Glacial Acetic Acid (AB534) and 128.6ml 10N NaOH (#M11344). Dilute to 20L with D.I. H ₂ O and mix. pH = 4.93 ± 0.05	#M11510 06/07/13

4.93[±] 0.05
 #M11344
 114ml Glacial
 #M11344
 4.93[±] 0.05
 generate
 1ml of D.T. H₂O
 #M11471
 5/13/78 Boron + Silicon ICV into 200 ml val flask pipet 0.2mls
 1% HCl #M11205 & #M11356 bring up to mark with DI
 H₂O. ex 5/14.
 #M11371
 #M11472 ICSA List 2 into 500 ml val flask pipet 50mls #M11225
 & 0.25mls of #M11359, #M11362, #M11364, #M110512, #M11360
 bring up to mark with DI H₂O. ex 12/13
 #M11473 05/09/13/5F Hg Working Stds:
 (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
 #M11474 05/09/13/5F Hg Alt Source Working Std:
 (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg
 #M11475 05/09/13/5F Hg ICV / LCSW
 (0.2% HNO₃, HCl)
 3.0ml of 100ug/L Hg (#M11474) into 100ml = 3.0ug/L Hg
 #M11476 05/09/13/5F Hg CCV
 (0.2% HNO₃, HCl)
 1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
 #M11477 05/09/13/5F Hg MRL:
 (0.2% HNO₃, HCl)
 0.2ml of 100ug/L Hg (#M11474) into 100ml = 0.2ug/L Hg
 #M11478 05/09/13/5F Hg Aqua Regia Reagent:
 "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)
 #M11479 05/09/13/5F Stannous Chloride Reagent:
 Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11075) in
 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
 (#M11075) in
 #M11480 05/09/13/5F Potassium Persulfate: 50g potassium persulfate (#M10573) dissolve into 1,000ml of
 Exp: 11/10/13 D.I. H₂O.
 4.5/10/13/5F
 1 and 60g #M11481 05/13/13/5F Potassium Permanganate Soln: 50g potassium permanganate (#M11073) dissolve into
 500ml Milli-Q H₂O. Exp: 11/13/13 1,000ml of D.I. H₂O.
 to volume with #M11482 05/15/13/5F Telp Extractor Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114ml Glacial Acetic Acid
 Exp: 05/15/14 (AB: 534) and 128.6ml 10N NaOH (#M11469). Dilute to 20L with D.I. H₂O
 and mix pH: 4.93[±] 0.05.
 pipet 5mls
 DEE H₂O
 2014

#M11458 04/24/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114mL Glacial Acetic Acid (AB: 5534) and 128.6mL 10N NaOH (#M11344).
Exp: 04/24/14 Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11459 04/30/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114mL Glacial Acetic Acid (AB: 5534) and 128.6mL 10N NaOH (#M11344).
Exp: 04/30/14 Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11460 05/01/13 SF Potassium permanganate soln: 50g potassium permanganate (#M9903) dissolve into 1000mL of D.I. H₂O.
Exp: 11/01/13

#M11461 05/01/13 SF Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11462 05/01/13 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg

#M11463 05/01/13 SF Hg IGV / LCSW (0.2% HNO₃, HCl)
3.0ml of 100ug/L Hg (#M11462) into 100ml = 3.0ug/L Hg

#M11464 05/01/13 SF Hg CCV (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11465 05/01/13 SF Hg MRL: (0.2% HNO₃, HCl)
0.2ml of 100ug/L Hg (#M11462) into 100ml = 0.2ug/L Hg

#M11466 05/01/13 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11467 05/01/13 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11675) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11468 05/01/13 SF NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9903) and 60g hydroxylamine sulfate (#M11039) in 500mL Milli-Q H₂O.
Exp: 11/01/13

#M11469 05/03/13 SF 10N NaOH: Into a 1L flask add 400g NaOH (#M1146) and bring up to volume with D.I. H₂O.
Exp: 11/03/13

#M11470 5-1-13 IGV Sodium & Potassium: Into a 500 mL vol flask pipet 5mL #M11473 & 5mL Milli-Q H₂O. Bring up to mark with D.I. H₂O.
Exp: Jun/2014

#M11471 5-1-13 Boron 1% HCL 1000-1-13

#M11472 5-1-13

#M11473 05/09/13 SF

#M11474 05/09/13 SF

#M11475 05/09/13 SF

#M11476 05/09/13 SF

#M11477 05/09/13 SF

#M11478 05/09/13 SF

#M11479 05/09/13 SF

#M11480 05/10/13 SF

#M11481 05/13/13

#M11482 05/15/13 SF

(AB: 554)

de (#M1075) in

Exp 04/10/14

25 04/10/14

pct
H₂OVol flask
ask DTPask pipet
E with DI H₂O

IO3 (AB: 554)

chloride (#M1075) in

#M11442 04/09/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/ 19L D.I. H₂O. Add 119 mL Glacial Acetic Acid (AB: 553) and 128.6 mL 10N NaOH (#M11344) Dilute to 20L with D.I. H₂O and mix pH = 4.93 ± 0.05

Exp 04/10/14

#M11443 04/12/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11444 04/12/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11445 04/12/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11444) into 100ml = 3.0ug/L Hg

#M11446 04/12/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11447 04/12/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11444) into 100ml = 0.2ug/L Hg

#M11448 04/12/13 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M11449 04/12/13 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1065) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11450 04/12/13 SF

Potassium permanganate Soln: Sog potassium permanganate (#M9903) dissolve into 1,000ml of D.I. H₂O.

#M11451 04/12/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11452 04/12/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11453 04/12/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11452) into 100ml = 3.0ug/L Hg

#M11454 04/12/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11455 04/12/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11452) into 100ml = 0.2ug/L Hg

#M11456 04/12/13 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO₃ (AB: 554)

#M11457 04/12/13 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1065) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11427 04/04/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11424) into 100ml = 0.2ug/L Hg	#M11442 04/09/13 SF
#M11428 04/01/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)	Ex
#M11429 04/01/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11475) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.	#M11443 04/12/13 SF
#M11430 04/01/13 SF	Custom Solution Inorganic Ventures Lot# G2-MEB471044 Exp: 04/01/14		
#M11431 04/01/13 SF	Custom Solution Inorganic Ventures Lot# G2-MEB471043 Exp: 04/01/14		
#M11432 04-02-13	GFAA Base Std. Into 1 liter Vol flask pipet 2 0.5% HNO ₃ 0.25 ml of #M11430 bring up to mark with DI H ₂ O ex 5/14		#M11444 04/12/13 SF
#M11433 4-2-13	GFAA ICV (Alt Source) Into 1 liter Vol flask 2 0.5% HNO ₃ pipet 1ml #M11431 bring up to mark with DI H ₂ O ex 5/14		#M11445 04/12/13 SF
#M11434 4-2-13	GFAA CCV - Into 1 liter Vol flask pipet 2 0.5% HNO ₃ 0.1 ml #M11430 bring up to mark with DI H ₂ O ex 5/14		#M11446 04/12/13 SF
#M11435 04/05/13 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg	#M11447 04/12/13 SF
#M11436 04/05/13 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg	#M11448 04/12/13 SF
#M11437 04/05/13 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11436) into 100ml = 3.0ug/L Hg	#M11449 04/12/13 SF
#M11438 04/05/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg	#M11450 04/12/13 SF
#M11439 04/05/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11436) into 100ml = 0.2ug/L Hg	Ex
#M11440 04/05/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)	#M11451 04/22/13 SF
#M11441 04/05/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11475) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.	#M11452 04/22/13 SF
			#M11453 04/22/13 SF
			#M11454 04/22/13 SF
			#M11455 04/22/13 SF
			#M11456 04/22/13 SF
			#M11457 04/22/13 SF

03/21/13 SF
#M11413 03/21/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11414 03/21/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11415 03/21/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11414) into 100ml = 3.0ug/L Hg

#M11416 03/21/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11417 03/21/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11414) into 100ml = 0.2ug/L Hg

#M11418 03/21/13 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11419 03/21/13 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1105) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11420 03/25/13 SF

Potassium permanganate Soln: 5.0g Potassium permanganate (#M9763) dissolve into 1000ml of D.I. H₂O
Exp: 09/25/13

#M11421 03/29/13 SF

Potassium persulfate: 5.0g Potassium persulfate (#M10573) dissolve into 1000ml D.I. H₂O
Exp: 09/29/13

#M11422 03/29/13 SF

NaCl Hydroxylamine Sulfate Reagent: Dissolve 6.0g NaCl (#M9574) and 6.0g hydroxylamine sulfate (#M11039) in 500mL Milli-Q H₂O.
Exp: 09/29/13

#M11423 04/10/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11424 04/10/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11425 04/10/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11424) into 100ml = 3.0ug/L Hg

#M11426 04/10/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

*M11398 03/15/13 SF Custom Assurance Standard. Spex CertiPrep Lot# 1-222XL Exp: 03/30/14
Cat#: XCTW7-5-500

*M11399 03/15/13 SF Interferents A Standard. Spex CertiPrep Lot# 6-126YP Exp: 03/30/14

*M11400 03/15/13 SF Pb 1000mg/L Spex CertiPrep Lot# 18-129PBX Exp: 03/30/14

*M11401 03/15/13 SF As 1000mg/L Spex CertiPrep Lot# 18-131ASY Exp: 03/30/14

*M11402 03/18/13 SF Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

*M11403 03/18/13 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

*M11404 03/18/13 SF Hg ICV / LCSW (0.2% HNO₃, HCl)
3.0ml of 100ug/L Hg (#M11403) into 100ml = 3.0ug/L Hg

*M11405 03/18/13 SF Hg CCV (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

*M11406 03/18/13 SF Hg MRL: (0.2% HNO₃, HCl)
0.2ml of 100ug/L Hg (#M11403) into 100ml = 0.2ug/L Hg

*M11407 03/18/13 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

*M11408 03/18/13 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

*M11409 03/19/13 SF Hg 1000 mg/L CPT Lot# 12H328 Exp: 09/13/14

*M11410 3/21/13 ZI ICD 2 ICD 2 cal into 1 liter val flask pipet 5mls #11410
5% HCl + #11400. Bring up to mark with DI H₂O ex 3/14
5% HNO₃ = 5000 ug/L As + Pb

*M11411 3-21-13 ZI Pd No3 Env Express Lot# 1234818 ex 3/14

*M11412 03/21/13 SF TCLP Extraction Fluid #11412 0.2ol carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB: 534) and 173.6ml 16N NaOH (#M11344). Dilute to 70L with D.I. H₂O and mix. pH = 4.93 AS 03/21/13 SF

0.4 ml
0.6 ml
0.4 ml

#M11388 03/08/13 LSF GFAA LoQ

Spiking Solution

Spiking Solution calc
Base SPIKE PREPARATION 50x Exp: 4/13

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag water	0.4	M11170	1000	0.02
As water	4	M11173	1000	0.2
Pb water	1.8	M10839	1000	0.09
Sb water	6	M11172	1000	0.3
Se water	8	M11171	1000	0.4
Te water	1.8	M10566	1000	0.09

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

#M11389 03/08/13 LSF GFAA soil LoQ

Spiking Solution

Spiking Solution calc
Base SPIKE PREPARATION 50x Exp: 4/13

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag soil	0.48	M11170	1000	0.024
As soil	6.4	M11173	1000	0.32
Pb soil	1.8	M10839	1000	0.09
Sb soil	2.4	M11172	1000	0.12
Se soil	6.4	M11171	1000	0.32
Te soil	2	M10566	1000	0.1

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

0.4 ml
0.6 ml
0.4 ml

#M11390 03/11/13 LSF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0 ml of 1000 mg/L Hg (#M10563) into 100 ml = 10 mg/L Hg
1.0 ml of 100 ug/L Hg into 100 ml = 1.0 ug/L Hg
0.5 ml of 100 ug/L Hg into 100 ml = 0.5 ug/L Hg
1.0 ml of 100 ug/L Hg into 100 ml = 1.0 ug/L Hg
2.0 ml of 100 ug/L Hg into 100 ml = 2.0 ug/L Hg
4.0 ml of 100 ug/L Hg into 100 ml = 4.0 ug/L Hg
5.0 ml of 100 ug/L Hg into 100 ml = 5.0 ug/L Hg
10.0 ml of 100 ug/L Hg into 100 ml = 10.0 ug/L Hg

#M11391 03/11/13 LSF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0 ml of 1000 mg/L Hg (#M9063) into 100 ml = 10 mg/L Hg
1.0 ml of 10 mg/L into 100 ml = 100 ug/L Hg

#M11392 03/11/13 LSF

Hg CCV / LCSW
(0.2% HNO₃, HCl)

3.0 ml of 100 ug/L Hg (#M10563) into 100 ml = 3.0 ug/L Hg

#M11393 03/11/13 LSF

Hg CCV
(0.2% HNO₃, HCl)

1.0 ml of 1000 mg/L Hg (#M10563) into 100 ml = 10 mg/L Hg
1.0 ml of 10 mg/L Hg into 100 ml = 100 ug/L Hg
3.0 ml of 100 ug/L Hg into 100 ml = 3.0 ug/L Hg

#M11394 03/11/13 LSF

Hg MRL:
(0.2% HNO₃, HCl)

0.2 ml of 100 ug/L Hg (#M10563) into 100 ml = 0.2 ug/L Hg

#M11395 03/11/13 LSF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11396 03/11/13 LSF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11397 03/11/13 LSF TELP Extraction Fluid: Fill a 20L carboy w/ 19L D.I. H₂O. Add 114 mL Glacial Acetic Acid (AB: 534) and 173 mL 10N NaOH (#M11344). Dilute to 20 L with D.I. H₂O and mix. pH = 4.93 ± 0.05

Exp: 03/11/14

#M11381 03/04/13 15F TCLP Extraction Fluid #1: Fill a 20L Carboy w/19L D.I. H₂O. Add 114 ml Glacial Acetic Acid (AB-534) and 128.6 ml 10N NaOH (#M11344) Dilute to 20L with D.I. H₂O and mix pH=4.93±0.05
Exp: 03/04/14

#M11382 Working Stds 1st 2 into 4 200 ml val flasks pipet
3-5-13 D

1% HNO₃ 10 0.02 ml #M11203 + .002 ml #M11365
1% HCL 100 µl 0.2 ml #M11203 + .02 ml #M11365
1000 µl 2 ml #M11203 + 2 ml #M11365
10,000 µl 20 ml #M11203 + 2 ml #M11365

Bring up to mark with DI H₂O on Nov 2013

#M11383 3-5-13 JCV L2 into a 200 ml val flask pipet 0.2 ml of
1% HNO₃ #M11356, #M11365, #M11359, #M11360 and #M11356
1% HCL Bring up to mark with DI H₂O 9-12/13

#M11384 03/07/13 15F 10.0, 1.0 & check (3050) into 1 liter volumetric flask pipet 1 ml
Exp: 01/28/14 M11343. Bring up to mark with D.I. H₂O x50 dilution use 1 ml in
50 or 10 into 500 ml for = 240 µg/L or 6 mg/kg.
(306)

#M11385 03/07/13 15F 10.0, 1.0 & check 5 H₂O. into a 1 liter volumetric flask pipet 1 ml
Exp: 01/28/14 M11343. Bring up to mark with D.I. H₂O x50 dilution use 1 ml in
50 or 10 into 500 ml for = 240 µg/L or 6 mg/kg.

#M11386 03/08/13 15F Hg²⁺ Spiking Solution

Spiking Solution calc
Base SPIKE PREPARATION 50x

Exp: 04/13

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(µg/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Hg water	0.12	M10563	1000	0.006

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

#M11387 03/08/13 15F Hg soil Spiking Solution

Spiking Solution calc
Base SPIKE PREPARATION 50x

Exp: 04/13

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(µg/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Hg soil	0.2	M10563	1000	0.01

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

#M11368 02/26/13 SF Fe 10,000mg/L CD1 Lot# 13B029 Exp: 08/20/14

#M11369 02/28/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11370 02/28/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11371 02/28/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M 11370) into 100ml = 3.0ug/L Hg

#M11372 02/28/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11373 02/28/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M 11370) into 100ml = 0.2ug/L Hg

#M11374 02/28/13 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11375 02/28/13 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11375) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11376 03/04/13 SF (Fisher) Hydroxylamine Sulfate Lot# 116718A

Exp: 03/10/14

#M11377

3-1-13

Working Stds. into 4 100 ml vol flask pipet respectively
from #M 11343 10,000 mg/L S. from Certificate Lot# AG14-1755 Y Std
0.01 ml → = 1000 ug/L S
0.1 ml → = 10,000 ug/L S
1.0 ml → = 100,000 ug/L S
10 ml → = 1,000,000 ug/L S

Bring up to mark w/ DI H₂O ex 2/14

#M11378

3-1-13

ICV (ALT) into 1 100 ml flask pipet from #M10773
plasma cal lot S120116017 0.01 ml = 1000 ug/L S. ex 10/13
bring up to mark w/ DI.

#M11379 03/04/13 SF stannous chloride (Macron) - Lot #0000017403

#M11380 3/4/13

ICV into 1 liter val flask pipet 10ml M11342, 2ml M11357, 0.5ml M11357. Bring up to mark with DI H₂O. ex Nov 2013.

#M11349 02/19/13^{5F} Hg MRL: 0.2ml of 100ug/L Hg (#M11349) into 100ml = 0.2ug/L Hg
(0.2% HNO₃, HCl)

#M11350 02/19/13^{5F} Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11351 02/19/13^{5F} Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11351) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11352 02/22/13^{5F} Potassium permanganate Soln: 50g potassium permanganate (#M11352) dissolved into 1000mL of D.I. H₂O.
Exp: 08/22/13

#M11353 02/22/13^{5F} NaCl Hydroxylamine Sulfate Reagent: Dissolve 10g NaCl (#M11353) and 10g hydroxylamine sulfate (#M11353) in 500mL milli-Q H₂O.
Exp: 08/22/13

#M11354 02/22/13^{5F} TCE Extraction Fluid #1: Fill a 20L carboy with 19L D.I. H₂O. Add 114mL Glacial Acetic Acid (AB: 534) and 128.6mL 10N NaOH (#M11354). Dilute to 20L with D.I. H₂O and mix.
pH = 4.98 ± 0.05
Exp: 02/22/14

#M11355 2-26-13 CPT Co 1000 mg/L CPT Lot # 12 Hole 7 ex. 8/28/14
2A

#M11356 02/26/13^{5F} Si 1000 mg/L CPT Lot # 13A 214 Exp: 08/20/14

#M11357 02/26/13^{5F} Mn 1000 mg/L CPT Lot # 12K 060 Exp: 08/20/14

#M11358 02/26/13^{5F} Ni 1000 mg/L CPT Lot # 13A 215 Exp: 08/20/14

#M11359 02/26/13^{5F} Sn 1000 mg/L CPT Lot # 12I 125 Exp: 08/20/14

#M11360 02/26/13^{5F} Sr 1000 mg/L CPT Lot # 12L 094 Exp: 08/20/14

#M11361 02/26/13^{5F} TL 1000 mg/L CPT Lot # 12G 229 Exp: 08/20/14

#M11362 02/26/13^{5F} Li 1000 mg/L CPT Lot # 12A 008 Exp: 08/20/14

#M11363 02/26/13^{5F} Al 10000 mg/L CPT Lot # 12K 049 Exp: 08/20/14

#M11364 02/26/13^{5F} Ti 10000 mg/L CPT Lot # 12K 061 Exp: 08/20/14

#M11365 02/26/13^{5F} W 10000 mg/L CPT Lot # 12H 257 Exp: 08/20/14

#M11366 02/26/13^{5F} Na 10000 mg/L CPT Lot # 13A 194 Exp: 08/20/14

#M11367 02/26/13^{5F} Ca 10000 mg/L CPT Lot # 12L 059 Exp: 08/20/14

#M11336 02/07/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy with 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB-534) and 128.6ml 10N NaOH (#M10910). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/07/14

#M11337 02/08/13 SF Potassium permanganate soln: 50g Potassium permanganate (#M9905) dissolve into 1,000ml of D.I. H₂O.
Exp: 08/08/13

#M11338 02/11/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy with 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB-534) and 128.6ml 10N NaOH (#M10910). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/11/14

#M11339 2-13-13 TCLP Extraction Fluid #1: Fill a 20 Liter w 19L DI H₂O. Add 114ml Glacial Acetic Acid (AB-534) and 128.6ml 10N NaOH (#M10910) dilute to 20L with DI H₂O & mix. pH = 4.93 ± .05
(2-13-13)

#M11340 02/16/13 SF Sp/p Extraction Fluid #1: Into a 20L carboy add D.I. H₂O to mark and adjust pH to 4.20 ± 0.05 with M10857.
Exp: 08/16/13

#M11341 02/16/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy with 19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB-534) and 128.6ml 10N NaOH (#M10910). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp: 02/16/14

#M11342 2-18-13 Custom Assurance Std. Xspike-1-250 Spac Cont prep lot# 18-157CR.

#M11343 2-18-13 Salpa 10,000mg/L Spac Cont prep lot# 18-177S

#M11344 02/18/13 SF 10N NaOH: Into a 1L flask add 400g NaOH (#M11145) and bring up to Volume with D.I. H₂O.
Exp: 08/18/13

#M11345 02/19/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11346 02/19/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11347 02/19/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11340) into 100ml = 3.0ug/L Hg

#M11348 02/19/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11321 01/29/13 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11320) into 100ml = 3.0ug/L Hg
#M11322 01/29/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11323 01/29/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11320) into 100ml = 0.2ug/L Hg
#M11324 01/29/13 SF	Hg Aqua Regia Reagent:	"Carefully" In hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M11325 01/29/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11045) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
#M11326 01/30/13 SF	TCLP Extraction Fluid #1: Fill a 20L carboy w/ 119L D.I. H ₂ O. Add 114mL Glacial Acetic Acid (AB: 534) and 128.6mL 10N NaOH (#M10910). Dilute to 20L with D.I. H ₂ O and mix pH=9.93±0.05 Exp: 01/30/14	
#M11327 02/05/13 SF	1N HCl for TCLP: Into a 12 Vol. flask, partially filled with Milli-Q H ₂ O, add 83ml of conc. HCl (AB: 550) and bring up to volume with Milli-Q H ₂ O. Exp: 02/05/14	
#M11328 02/06/13 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11329 02/06/13 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11330 02/06/13 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11329) into 100ml = 3.0ug/L Hg
#M11331 02/06/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11332 02/06/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11329) into 100ml = 0.2ug/L Hg
#M11333 02/06/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO ₃ (AB: 554)
#M11334 02/06/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11045) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
#M11335 02/07/13 SF	NaCl Hydroxylamine Sulfate Reagent: Dissolve 60g NaCl (#M9574) and 60g hydroxylamine Sulfate (#M10730) in 500mL Milli-Q H ₂ O. Exp: 02/07/13	

#M11368 01/17/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB 534) and 128.6ml 16N NaOH (#M11792). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp. 01/13/14

#M11369 01/21/13 SF TCLP Extraction Fluid #1: Fill a 20L carboy w/19L D.I. H₂O. Add 114ml Glacial Acetic Acid (AB 534) and 128.6ml 16N NaOH (#M11792). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05
Exp. 01/21/14

#M11310 1-22-13 Custom Assurance Standard Spex Cont. prep lat 18-068CR ex 1/14

#M11311 01/22/13 SF Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11312 01/22/13 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11313 01/22/13 SF Hg ICV / LCSW (0.2% HNO₃, HCl)
3.0ml of 100ug/L Hg (#M11312) into 100ml = 3.0ug/L Hg

#M11314 01/22/13 SF Hg CCV (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11315 01/22/13 SF Hg MRL: (0.2% HNO₃, HCl)
0.2ml of 100ug/L Hg (#M11312) into 100ml = 0.2ug/L Hg

#M11316 01/22/13 SF Hg Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11317 01/22/13 SF Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11075) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11318 01/23/13 SF Potassium permanganate solution potassium permanganate (#M9928)
Exp. 01/23/13 Dissolve into 1,000ml of D.I. H₂O

#M11319 01/29/13 SF Hg Working Stds: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11320 01/29/13 SF Hg Alt Source Working Std: (0.2% HNO₃, HCl)
1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
1.0ml of 10mg/L into 100ml = 100ug/L Hg

1/24/13

#M11292 01/07/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11293 01/07/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11290) into 100ml = 0.2ug/L Hg
#M11294 01/07/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
#M11295 01/07/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11015) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.
#M11296 01/08/13 SF 10N NaOH: Into a 1L flask add 400g NaOH (#M10571) and bring up to volume with D.I. H ₂ O. Exp: 01/08/14		
#M11297 01/10/13 SF Potassium persulfate: 50g potassium persulfate (#M10573) dissolve into 1000mL D.I. H ₂ O. Exp: 07/10/13		
#M11298 01/11/13 SF	Hg Working Stds: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg
#M11299 01/11/13 SF	Hg Alt Source Working Std: (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg 1.0ml of 10mg/L into 100ml = 100ug/L Hg
#M11300 01/11/13 SF	Hg ICV / LCSW (0.2% HNO ₃ , HCl)	3.0ml of 100ug/L Hg (#M11299) into 100ml = 3.0ug/L Hg
#M11301 01/11/13 SF	Hg CCV (0.2% HNO ₃ , HCl)	1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg
#M11302 01/11/13 SF	Hg MRL: (0.2% HNO ₃ , HCl)	0.2ml of 100ug/L Hg (#M11299) into 100ml = 0.2ug/L Hg
#M11303 01/11/13 SF	Hg Aqua Regia Reagent:	"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1part HNO ₃ (AB: 554)
#M11304 01/11/13 SF	Stannous Chloride Reagent:	Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M11015) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

2024-13

#M11284 5/2/13
5% NaCl 1-4-13

3050 LOQ Spiking Solution Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	14.4	M10587	1000	0.72
Sn	20	M10582	1000	1
Sr	3.2	M10589	1000	0.16
Ti	8.8	M10709	1000	0.48
W	24	M10559	1000	1.2

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard.

Expires: 4/13

#M11285 01/04/13 SF
01/04/13 SF ~~Stamper chloride (Mason) - Lot. No.~~

#M11285 Potassium permanganate (Fisher) - Lot. No. 123302
01/04/13 SF

#M11286 01/07/13 SF NaCl Hydroxylamine Sulfate Reagent Dissolve (bag NaCl (#M9574) and bag hydroxylamine sulfate (#M1026) in 500 mL Milli-Q H₂O)
Exp 07/07/13

ICAP Working Standards Boron & Silicon

#M11287 1-13

Standard name

Into 1 liter Pipet the following respectively:

50	0.5 mL of #M11203 and 0.5 mL #M10860 = 50 ug/L
100	1 mL of #M11203 and 0.5 mL #M10860 = 100 ug/L
1000	10 mL of #M11203 and 1.0 mL #M10860 = 1000 ug/L
2000	20 mL of #M11203 and 2.0 mL #M10860 = 1000 ug/L
10000	100 mL of #M11203 and 10 mL #M10860 = 10000 ug/L

*M 1-13

ex 12-13

#M11288 1-13

Initial Calibration Standard (ICV) B, Si

Into 1 liter vol flask pipet 1 mL of #M11205 & M10564
bring up to mark with DI H₂O ex 4/13

#M11289 01/07/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0 mL of 1000 mg/L Hg (#M10563) into 100 mL = 10 mg/L Hg
1.0 mL of 10 mg/L Hg into 100 mL = 100 ug/L Hg
0.5 mL of 100 ug/L Hg into 100 mL = 0.5 ug/L Hg
1.0 mL of 100 ug/L Hg into 100 mL = 1.0 ug/L Hg
2.0 mL of 100 ug/L Hg into 100 mL = 2.0 ug/L Hg
4.0 mL of 100 ug/L Hg into 100 mL = 4.0 ug/L Hg
5.0 mL of 100 ug/L Hg into 100 mL = 5.0 ug/L Hg
10.0 mL of 100 ug/L Hg into 100 mL = 10.0 ug/L Hg

#M11290 01/04/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0 mL of 1000 mg/L Hg (#M9063) into 100 mL = 10 mg/L Hg
1.0 mL of 10 mg/L Hg into 100 mL = 100 ug/L Hg

#M11291 01/07/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0 mL of 100 ug/L Hg (#M11290) into 100 mL = 3.0 ug/L Hg

#M11280 71 1-4-13

5% HCL, 5% HNO₃3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	2640	M11243	10000	13.2
Na	980	M10570	10000	4.8

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 4/13

#M11281 71 1-4-13

5% HCL, 5% HNO₃3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	52	M11205	1000	2.6
Si	192	M10564	1000	9.6

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 4/13

#M11282 71 1-4-13

5% HCL, 5% HNO₃3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
B	18	M11205	1000	0.8
Si	200	M10564	1000	10

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 13-Apr

#M11283 71 1-4-13

5% HCL

5% HNO₃3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Li	10	M10567	1000	0.5
Sn	10	M10562	1000	0.5
Sr	2	M10569	1000	0.1
Ti	8	M10709	1000	0.4
W	36	M10559	1000	1.8

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 13-Apr

24-13 71

#M11278 1-4-13
5% HCL 5% HNO₃
21

3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11170	1000	0.2
Al	38	M11228	10000	0.18
As	24	M11173	1000	1.2
Ba	1.8	M11052	1000	0.09
Be	0.6	M11239	1000	0.03
Ca	100	M11227	10000	0.5
Cd	2	M11242	1000	0.1
Co	4	M10561	1000	0.2
Cr	4	M11053	10000	0.02
Cu	7	M11051	10000	0.035
Fe	100	M11228	10000	0.5
Mg	40	M11228	10000	0.2
Mn	4	M11054	10000	0.02
Mo	7	M10580	1000	0.35
Ni	6	M10585	1000	0.3
Pb	4	M10869	10000	0.02
Sb	12	M11172	1000	0.6
Se	13	M11171	1000	0.65
Ti	15	M10586	1000	0.75
V	5	M11241	1000	0.25
Zn	10	M11240	10000	0.05

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 13-Apr

#M11279 1-4-13
5% HCL, 5% HNO₃

3050 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	4	M11170	1000	0.2
Al	9.6	M11228	10000	0.048
As	32	M11173	1000	1.6
Ba	2	M11052	1000	0.1
Be	1.6	M11239	1000	0.08
Ca	56	M11227	10000	0.28
Cd	1.6	M11242	1000	0.08
Co	9.6	M10561	1000	0.48
Cr	5.6	M11053	10000	0.028
Cu	16	M11051	10000	0.08
Fe	72	M11228	10000	0.36
Mg	32	M11228	10000	0.16
Mn	6	M11054	10000	0.03
Mo	9.6	M10580	1000	0.48
Ni	4.8	M10585	1000	0.24
Pb	10	M10869	10000	0.05
Sb	32	M11172	1000	1.6
Se	16	M11171	1000	0.8
Ti	19	M10586	1000	0.95
V	3.2	M11241	1000	0.16
Zn	12	M11240	10000	0.06

Of this Base standard, pipet 10 ml into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 4/13

2/2/13

#M112108 01/12/13

1-2-13

ICV Na, K

5% HCL 5% HNO₃Initial Calibration Standard (ICV) Into 500 ml volumetric pipette 5 mls of #M10570 and #M11243 and bring up to mark with DI H₂O. expires april 2013.

#M11269 01/03/13 SF

Hg Working Stds:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 0.5ml of 100ug/L Hg into 100ml = 0.5ug/L Hg
 1.0ml of 100ug/L Hg into 100ml = 1.0ug/L Hg
 2.0ml of 100ug/L Hg into 100ml = 2.0ug/L Hg
 4.0ml of 100ug/L Hg into 100ml = 4.0ug/L Hg
 5.0ml of 100ug/L Hg into 100ml = 5.0ug/L Hg
 10.0ml of 100ug/L Hg into 100ml = 10.0ug/L Hg

#M11270 01/03/13 SF

Hg Alt Source Working Std:
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M9063) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L into 100ml = 100ug/L Hg

#M11271 01/03/13 SF

Hg ICV / LCSW
(0.2% HNO₃, HCl)

3.0ml of 100ug/L Hg (#M11270) into 100ml = 3.0ug/L Hg

#M11272 01/03/13 SF

Hg CCV
(0.2% HNO₃, HCl)

1.0ml of 1000mg/L Hg (#M10563) into 100ml = 10mg/L Hg
 1.0ml of 10mg/L Hg into 100ml = 100ug/L Hg
 3.0ml of 100ug/L Hg into 100ml = 3.0ug/L Hg

#M11273 01/03/13 SF

Hg MRL:
(0.2% HNO₃, HCl)

0.2ml of 100ug/L Hg (#M11270) into 100ml = 0.2ug/L Hg

#M11274 01/03/13 SF

Hg Aqua Regia Reagent:

"Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

#M11275 01/03/13 SF

Stannous Chloride Reagent:

Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M105) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11276 01/03/13 SF TCLP Extraction Fluid #1

Exp: 01/03/14

Fill a 20L Carboy with 9L D.I. H₂O. Add 114mL Glacial Acetic Acid (AB: 534) and 1286mL 10N NaOH (#M10910). Dilute to 20L with D.I. H₂O and mix. pH = 4.93 ± 0.05

#M11277 1-4-13

5% HCL, 5% HNO₃3010 LOQ Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	LOQ (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
K	500	M11243	10000	2.5
Na	600	M10570	10000	3

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expires: 13-Apr

2-2-13

#M11263 12/27/12 SF
#M11264 12/27/12 SF

Hg. Aqua Regia Reagent: "Carefully" in hood, mix 3 parts HCl (AB: 553) with 1 part HNO₃ (AB: 554)

Stannous Chloride Reagent: Into a 1000 mL volumetric flask, dissolve 100g Stannous Chloride (#M1105) in 70 mL HCl (AB: 553). Bring up to volume with D.I. Water.

#M11265 12/28/12 SF

Potassium Permanganate Soln: 50g potassium permanganate (#M1103) dissolved into 1000ml of D.I. H₂O.
Exp: 06/28/13

#M11266 12-13

MRL Spiking Solution
Base SPIKE PREPARATION 50x

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	MRL (ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L
Ag	20	M11170	1000	1
Al	400	M11228	10000	2
Ba	10	M11052	1000	0.5
Be	4	M11239	1000	0.2
Cd	5	M11242	1000	0.25
Co	10	M10581	1000	0.5
Cr	10	M11053	10000	0.05
Cu	10	M11051	10000	0.05
Mg	500	M11228	10000	2.5
Mn	10	M11054	10000	0.05
Mo	10	M10580	1000	0.5
Ni	10	M10585	1000	0.5
Pb	10	M10839	10000	0.05
Sb	20	M11172	1000	1
V	10	M11241	1000	0.5
Zn	10	M11240	10000	0.05
K	5000	M11243	10000	25
Na	1000	M10570	10000	5
As	20	M11173	1000	1
Ca	500	M11227	10000	2.5
Fe	300	M11228	10000	1.5
Se	20	M11171	1000	1
Ti	20	M10586	1000	1
Si	100	M10584	1000	5
B	20	M11205	1000	1
Li	20	M10567	1000	1
W	50	M10559	1000	2.5
Tl	10	M10709	1000	0.5
Sr	10	M10569	1000	0.5
Sn	50	M10562	1000	2.5
S	100	M10773	1000	5

Of this Base standard, pipet 10 mL into 500 mL volumetric to create a working std or 1 mL into 50 mL digestion tube for a digested working standard, EX 4-13

#M11267 1-2-13

NAK WORKING STDs

Working Standards for Sodium and Potassium; into seven, 200 mL volumetric flasks pipette from #M11245 and #M11244.

For the 0.5 mg/L std - 0.1 mL of each

1.0 mg/L std - 0.2 mL of each

5.0 mg/L std - 1.0 mL of each

10.0 mg/L std - 2.0 mL of each

50.0 mg/L std - 10.0 mL of each

100 mg/L std - 20.0 mL each also used for Continuing Calibration Standard (CCV)

200 mg/L std - 40.0 mL of each

Bring up to mark with DI H₂O. Expires June 5 2014.

**INORGANIC
CLP FORMS
DOCUMENTS**

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-004-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623731</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118074</u>	Analysis Date/Time	<u>08/24/2015 00:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-008-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623728</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118074</u>	Analysis Date/Time	<u>08/24/2015 00:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-015-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623729</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118074</u>	Analysis Date/Time	<u>08/24/2015 00:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623732</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118074</u>	Analysis Date/Time	<u>08/24/2015 00:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

PAINT-018-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>113433</u>
% Solids:	<u>100</u>	Lab Sample ID:	<u>623730</u>
Analytical Method:	<u>EPA 8000C</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118074</u>	Analysis Date/Time	<u>08/24/2015 00:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>%</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	100		0.1	0.1	0.1	0.1

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-001-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623735</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.51					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-003-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623733</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.49					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-003B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623734</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.69					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-004-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623736</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.52					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-004-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623736</u>
Analytical Method:	<u>EPA 1010</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118112</u>	Analysis Date/Time	<u>08/25/2015 13:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>Deg. F</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
FLASHPT	Flashpoint	>140					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-008-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623650</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	10.94	X				

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-008-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623650</u>
Analytical Method:	<u>EPA 1010</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118112</u>	Analysis Date/Time	<u>08/25/2015 13:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>Deg. F</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
FLASHPT	Flashpoint	>140					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623727</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	9.66					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623727</u>
Analytical Method:	<u>EPA 1010</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118112</u>	Analysis Date/Time	<u>08/25/2015 13:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>Deg. F</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
FLASHPT	Flashpoint	>140					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>
% Solids:	<u></u>	Lab Sample ID:	<u>623737</u>
Analytical Method:	<u>EPA 9045D</u>	Date Received:	<u>08/21/2015</u>
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>
Analytical Run #:	<u>118263</u>	Analysis Date/Time	<u>08/31/2015 13:00</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>S.U.</u>

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
PH	pH	7.42					

INORGANIC ANALYSIS DATA SHEET

Sample Description

WASTE-016B-0815

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>TETRA TECH-KEWAUNEE MARQUETTE SCHOOL</u>	
Matrix (soil/water):	<u>WASTE</u>	SDG No.:	<u>113433</u>	
% Solids:	<u></u>	Lab Sample ID:	<u>623737</u>	
Analytical Method:	<u>EPA 1010</u>	Date Received:	<u>08/21/2015</u>	
Dilution Factor:	<u>1</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>118112</u>	Analysis Date/Time	<u>08/25/2015</u>	<u>13:30</u>
Analytical Prep Batch #:	<u></u>	Prep. Date/Time:	<u></u>	
ICAL Calibration #:	<u></u>	Concentration Units:	<u>Deg. F</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
FLASHPT	Flashpoint	79.3					

6

Sample Description

DUPLICATES

PAINT-016-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: 100

Concentration Units: %

Analytical Prep Batch # 1

Analytical Preparation Date/Time 0

Analytical Run #: 118074

ICAL Calibration #:

Sample #: 624668

Parent Sample #: 623732

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Solids, Percent	08/24/2015 00:00	8	100		100		0		GRA

6

Sample Description

DUPLICATES

WASTE-016B-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: _____

Concentration Units: Deg. F

Analytical Prep Batch # 1

Analytical Preparation Date/Time _____

Analytical Run #: 118112

ICAL Calibration #: _____

Sample #: 625038

Parent Sample #: 623737

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Flashpoint	08/25/2015 13:30	5	79.3		79.3		0		

6

Sample Description

DUPLICATES

WASTE-008-0815

Lab Name: CT Laboratories

Contract: TETRA TECH-KEWAUNEE MARQUETTE SCHOOL

Matrix: SOLID

SDG No.: 113433

% Solid for Sample: _____

Concentration Units: S.U.

Analytical Prep Batch # 1

Analytical Preparation Date/Time _____

Analytical Run #: 118263

ICAL Calibration #: _____

Sample #: 627065

Parent Sample #: 623650

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim	RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
pH	08/31/2015 13:00	1	10.94		10.94		0		ELEC

Sample No:

LCS

LCS Source: SPEX and Ultra SDG No.: 113433

Concentration Units: Deg. F

Analytical Prep Batch #: Preparation Date/Time:

ICAL Calibration #:

Initial Analysis

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Flashpoint	08/25/2015	13:30	90-110	81.2		79.8	102		

**INORGANICS
RAW DATA
DOCUMENTS**

FWC34-02 Flashpoint

DATE: 8/25/15ANALYST: MERRUN: 118112Time: 13:30

METHOD: EPA 1010

	SAMPLE#	DATE SAMPLED	MATRIX	FLASHPOINT (F°)	COMMENTS
1	LCSS			81.2°	Xylene W36939
2	623650	8/20/15	M	>140°	
3	623727	I	I	>140°	
4	623736	I	I	>140°	
5	623737	I	I	79.3°	Room Temp. No heat
6	DUP 623737	I	I	79.3°	
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FWC20,21-02 pH Bench Sheet

Date: 08/31/2015Analyst: LJSInstrument: Mettler Toledo Seven EasyLIMS#: 118263Time: 13:00Slope (%): 97

	SAMPLE#	MATRIX	pH	TEMP (°C)	COMMENTS:
1	623650	M	10.94 9.66 ^{8/31/15}	16.5	x flag
2	DUP623650	M	10.94	17.0	
3	623727	M	9.66	11.3	
4	623733	M	7.49	19.0	
5	623734	M	7.69	18.3	
6	623735	M	7.51	18.7	
7	623736	M	7.52	19.6	
8	623737	M	7.42	19.4	
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

TOTAL SOLIDS (PERCENT)							LIMS #:	118074
Start Date:	08/24/2015	Start Time:	0:00		Analyst:	ABS		
	Sample ID#	Dish#	Tared Weight g (D)	Wet Weight g (E)	Dry Weight g (F)	RESULTS % TOTAL SOLIDS		
1)	623728					100.0%		
2)	623729					100.0%		
3)	623730					100.0%		
4)	623731					100.0%		
5)						0.0%		
6)						0.0%		
7)						0.0%		
8)						0.0%		
9)						0.0%		
10)						0.0%		
11)						0.0%		
12)						0.0%		
13)						0.0%		
14)						0.0%		
15)						0.0%		
16)						0.0%		
17)						0.0%		
18)						0.0%		
19)						0.0%		
*20)	623732					100.0%		
Dup 20)	623732					100.0%		
Dry Weight = Sample + Dish (gms)					* 2nd Reading,			
Wet Weight = Sample + Dish (gms)					Set RPD:	0%		
Balance: BD-202								
					*mg Difference	0		
Stop Date:		8/24/2015						
Stop Time:		0						
*2nd reading must be within 50mg of the 1st			Calculations % Total Solids = $((F-D)/(E-D))*100$ RPD, % = Absolute value of $((\text{Sample-Dup \% TS})/(\text{Average\%TS}))*100$					

**INORGANICS
LOGBOOK
DOCUMENTS**

WFLASHPOINT Analytical Run
118112 on 8/26/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DECRPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623650		8/20/2015 0850		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	FLASHPOINT		M	4	
113433	623727	WASTE-008-0815	8/20/2015 0910		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	FLASHPOINT		M	4	
113433	623736	WASTE-016-0815	8/20/2015 1120		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	FLASHPOINT		M	4	
113433	623737	WASTE-004-0815	8/20/2015 1240		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	FLASHPOINT		M	4	
		WASTE-016B-0815									
	624784						WFLASHPOINT				
				LCSS							
	625038		8/20/2015 1240				FLASHPOINT				
		WASTE-016B-0815		DUP 623737							
6	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution:

C:\LIMSREPS\ANALYTICALRUN.RPT

Page 1 of 1

Flashpoint Data Validation Checklist

FWC34-01

LIMS #: 118112	Method: Flashpoint EPA Method 1010			
Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved
8/25/15	MER	Geo	8/25/15	<input checked="" type="radio"/> Yes ... No

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	Acceptance Criteria	Analyst Review		Independent Review		Comments: (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. Was LCS within acceptable limits?	77.9-81.9 F	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
2. Were duplicates analyzed at the appropriate frequency	1 every 20 samples of the same matrix	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
3. Were the duplicates within acceptable limits?	Differ by ≤ 5 F	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
2. Are all samples on the job lists accounted for?	---	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		

LPWC-04
WetChem Prep Logbook
Logbook Created 07/07/15

NOTEBOOK VIEW: LTN_WetChem_4_Default, NOTEBOOK: WetChem_4, PAGE: 24

Page is Locked

Author: mradske on: 11.08.2015 08:26:50

Witness: LSILVERS on: 12.08.2015 13:06:55

Project: Unassigned

Page Title: 081015

Standard ID#:	W37403	Vendor:	J.T. BAKER
Analyst:	LJS	Chemical:	P-XYLENE
Date Received:	8/6/15	Lot #:	108175
Expiration Date (if any):	12/19/2018	Catalog #:	X528-07

1

CT Laboratories, LLC

WetChem Logbook 3

02/04/2015

NOTEBOOK VIEW: LTN_WetChem_3_Default, NOTEBOOK: WetChem_3, PAGE: 72

Page is Locked

Author: mradske on: 27.05.2015 17:25:30

Witness: sroth on: 14.07.2015 16:35:52

Project: Unassigned

Page Title: 052615

Standard ID#:	W36939	Vendor:	FISHER
Analyst:	LJS	Chemical:	P-XYLENE
Date Received:	4/27/15	Lot #:	146880
Expiration Date (if any):	N/A	Catalog #:	O5082-500

1

Ct Laboratories LLC

WPH Analytical Run
118263 on 9/1/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623650		8/20/2015 0850		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
113433	623727	WASTE-008-0815	8/20/2015 0910		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
113433	623733	WASTE-016-0815	8/20/2015 1137		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
113433	623734	WASTE-003-0815	8/20/2015 1137		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
113433	623735	WASTE-003B-0815	8/20/2015 1141		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
113433	623736	WASTE-001-0815	8/20/2015 1120		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
113433	623737	WASTE-004-0815	8/20/2015 1240		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	PH		M	4	
	627065	WASTE-016B-0815	8/20/2015 0850				PH				
		WASTE-008-0815		DUP 623650							
8	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: C:\LIMSREPS\ANALYTICALRUN.RPT

Page 1 of 1

FWC20,21-01

Data Validation Checklist

LIMS #: 118243	Method: pH EPA 150.1			
Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved
01/31/15	VS / OS	ES	9/2/15	Yes ... No

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	Acceptance Criteria	Analyst Review		Independent Review		Comments: (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. Was the calibration slope recorded on the bench sheet?	---	X		X		
2. Were duplicates analyzed at the appropriate frequency?	1 every 20 samples of the same matrix	X		X		
3. Were the duplicates within acceptable limits?	Differ by ≤ 0.10 pH units	X		X		
4. Are all samples on the job lists accounted for?	---	X		X		

WetChem Logbook 1**06/03/2014**

NOTEBOOK VIEW: LTN_WetChem_1_Default, NOTEBOOK: WetChem_1, PAGE: 86

Page is Locked

Author: CSTIEVE1 on: 07.07.2014 16:46:39

Witness: cstieve1 on: 11.07.2014 14:41:01

Project: Unassigned

Page Title: 070314E

Standard ID#:	W34786	Vendor:	RICCA
Analyst:	MER	Chemical:	PH 10 BUFFER
Date Received:		Lot #:	4403813
Expiration Date (if any):	SEPT 2015	Catalog #:	1601-1

1**CT Laboratories LLC**

WetChem Logbook 3

02/04/2015

NOTEBOOK VIEW: LTN_WetChem_3_Default, NOTEBOOK: WetChem_3, PAGE: 16

Page is Unlocked

Page is not Witnessed

Project: Unassigned

Page Title: 022615

Standard ID#:	W36459	Vendor:	MG SCIENTIFIC
Analyst:	MER	Chemical:	PH 7 BUFFER
Date Received:	11/8/14	Lot #:	4408476
Expiration Date (if any):	08/2016	Catalog #:	1551-1

Standard Log #:	W36460	Standard:	RESIDUAL CL LCS
Analyst:	MER	Concentration:	1mg/L
Prep Date:	2/26/15	Expiration Date (2 Years):	2/26/17
Prep:	Into a 100 mL volumetric flask, pipette 0.1mL potassium permanganate stock (1000 mg/L) W33725 and fill to volume with DI H ₂ O.		

Standard Log #:	W36461	Standard:	TKN/TPHOS Spiking Solution
Analyst:	MER	Concentration:	200mg/L NH ₃ as N and PO ₄ ⁻³ as P
Prep Date:	2/26/15	Expiration Date (1 month):	3/26/15
Prep:	Into a 100mL volumetric flask, pipetted 20mL of TPHOS ICV/LCS Stock Standard (1000mg/L) W36090 and 20mL NH ₃ /TKN ICV/LCS Stock Standard (1000mg/L) W35823 and brought to volume with DI H ₂ O.		

Ct Laboratories LLC

WetChem Logbook 3

02/04/2015

NOTEBOOK VIEW: LTN_WetChem_3_Default, NOTEBOOK: WetChem_3, PAGE: 77

Page is Locked

Author: mradске on: 03.06.2015 09:18:44

Page is not Witnessed

Project: Unassigned

Page Title: 060215

Standard Log #:	W36993	Standard:	LCS/ICV Working
Analyst:	MML	Concentration:	10 mg/L
Prep Date:	6/2/15	Expiration Date (1 Week):	6/9/15
Prep:	Into a 100 mL volumetric flask pipette 1 mL CN LCS/ICV stock (1000mg/L) W36845 and fill to volume with 0.25N NaOH W36990 .		
Standard Log #:	W36994	Standard:	CN SOLID LCS/ICV
Analyst:	MML	Concentration:	50 pg/L
Prep Date:	6/2/15	Expiration Date (1 Week):	6/9/15
Prep:	Into a 200 mL volumetric flask pipetted 1 mL CN LCS/ICV WORKING STD 10,000 µg/L W36993 and brought to volume with 0.25 M NaOH W36990		
Standard ID#:	W36995	Vendor:	RICCA
Analyst:	MER	Chemical:	PH 4 BUFFER
Date Received:	5/29/15	Lot #:	4505426
Expiration Date (if any):	5/31/17	Catalog #:	1501-1

Daily pH Calibration & Maintenance Logbook

		pH Buffer Reference ID #			---3 Point Calibration---					
Date	Analyst	pH 7	pH 4	pH 10	1 st Buffer	2 nd Buffer	3 rd Buffer	Slope %	Temp. °C	Comments / Maintenance Performed (if any)
5/26/15	MER	W36459	W33064	W34786	7.02	4.00	10.06	95	20.4	
6/2/15	MER	W36459	W36995	W34786	7.02	4.00	10.06	97	19.9	
6/9/15	MER	W36459	W36995	W34786	7.01	4.00	10.03	96	23.5	
6/10/15	MER	W36459	W36995	W34786	7.02	4.00	10.05	96	21.6	
6/16/15	SEK	W36459	W36995	W34786	7.02	4.00	10.06	96	20.5	
6/17/15	SEK	W36459	W36995	W34786	7.02	4.00	10.06	96	20.5	
6/26/15	MER	W36459	W36995	W34786	7.02	4.00	10.05	96	20.9	
7/30/15	WJS	W36459	W36995	W34786	7.02	4.00	10.08	95	20.0	
7/1/15	WJS	W36459	W36995	W34786	7.02	4.00	10.07	95	20.1	
7/2/15	SEK	W36459	W36995	W34786	7.02	4.00	10.06	95	20.4	
7/8/15	SEK	W36459	W36995	W34786	7.01	4.00	10.04	96	22.2	
7/13/15	MER	W36459	W36995	W34786	7.02	4.00	10.05	96	21.2	
7/22/15	MER	W36459	W36995	W34786	7.02	4.00	10.05	96	21.0	
7/29/15	MER	W36459	W36995	W34786	7.02	4.00	10.07	96	21.2	
8/4/15	SEK	W36459	W36995	W34786	7.02	4.00	10.06	96	20.0	
8/12/15	WJS	W36459	W36995	W34786	7.01	4.00	10.07	95	21.1	
8/21/15	WJS	W36459	W36995	W34786	7.02	4.00	10.06	95	20.1	
8/28/15	MER	W36459	W36995	W34786	7.03	4.00	10.08	97	18.8	
8/31/15	WJS	W36459	W36995	W34786	7.02	4.00	10.08	97	19.0	

Mettler Toledo (Easy Seven) Instrument Run Logbook

[illegible]

WSOLIDS Analytical Run
118074 on 8/25/2015

Date Analyzed: _____

Date Reviewed: _____

Date Entered: _____

Date Validated: _____

COC	ORDER	SAMPLE DESCRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
113433	623728		8/20/2015 0852		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	SOLIDS,PERCENT		S	4	
113433	623729	PAINT-008-0815	8/20/2015 0845		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	SOLIDS,PERCENT		S	4	
113433	623730	PAINT-015-0815	8/20/2015 0930		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	SOLIDS,PERCENT		S	4	
113433	623731	PAINT-018-0815	8/20/2015 1126		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	SOLIDS,PERCENT		S	4	
113433	623732	PAINT-004-0815	8/20/2015 1238		TETRA TECH	KEWAUNEE MARQUETTE SCHOOL	SOLIDS,PERCENT		S	4	
		PAINT-016-0815									
5	SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC										

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

Distribution: Volatiles

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Page 1 of 1

FWC26-10 Data Review Checklist

		Method: Percent Solids SW846-8000C	Independent Data Review Checklist		
LIMS Run #(s)	Analysis Date	Analyst / Data Interpreter	Independent Reviewer	Date of Review	Approved? (Yes or No)
118071, 118072, 118073, 118074	08/24/15	ABS/ABS	RLD	08/25/15	Yes

Instructions: Complete one checklist per *analytical run*. Enter the appropriate response for each question.

Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	Acceptance Criteria	Analyst Review		Independent Review		Comments:
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Were samples analyzed within hold time?	14 days or program/project specific	Yes		Yes		Qualify data prepared after hold time
2. Were samples dried overnight?	> 8hours	Yes		Yes		If No: place samples back into oven for mimium of 8 hours of total dry time.
3. Were drying start and stop times recorded?	---	Yes		Yes		If No: record times and temperatures
4. Were duplicates analyzed at the appropriate frequency?	1 per 20 of similar matrix or at program/project specific frequency	Yes		Yes		If No: reprep samples with appropriate frequency for a duplicate.
5. Were the duplicates within acceptable limits?	Within in-house or program/project specific QC limits	Yes		Yes		If No: reprep and reanalyze samples or qualify parent sample result (Y).
6. Are all samples on the job lists accounted for?	---	Yes		Yes		If No: analyze samples that were were missed.
7. Were nonconformities (if applicable) documented in the NCR spreadsheet?		Yes		Yes		If No: Enter nonformities into the NCR spreadsheet before data review/validation.

**CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS**

Company: TETRA TECH
 Project Contact: Robert Kondrack (T
 Telephone: (312) 201.7479

Project Name:
 Project #: Kewaunee - Marquette School
 Location: Kewaunee, WI
 Sampled By: Rob Kondrack / Katrin Halen

Folder #: 113433Company: TETRA TECHProject: KEWAUNEE MARQUETLogged By: TKR PM PM

1230 Lange Court, Baraboo, WI 53913

608-356-2760 Fax 608-356-2766

www.ctlaboratories.com

rogram:

ISM RCRA SDWA NPDES

Solid Waste Other CERCLA

O #

Report To:

EMAIL: Robert.Kondrack@tetra-tech.comCompany: TETRA TECHAddress: 1 S Jackie DrSuite 3700Chicago IL 60606

Invoice To:*

EMAIL:

Company: As Above

Address:

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

ANALYSES REQUESTED

Turnaround Time

Normal RUSH*

Date Needed: _____

Rush analysis requires prior
CT Laboratories' approval

Surcharges:

24 hr 200%

2-3 days 100%

4-9 days 50%

Matrix:

GW - groundwater SW - surface water WW - wastewater DW - drinking water
 S - soil/sediment SL - sludge A - air M - misc/waste

Filtered? Y/N

PCBs

Lead

PH

PAHs

Flammability/Combustibility

Metals - RCRA

Water Reactivity

Total # Containers

Designated MS/MSD

Collection		Matrix	Grab/Comp	Sample #	Sample ID Description	Filtered? Y/N	Fill in Spaces with Bottles per Test																CT Lab ID # Lab use only
Date	Time						PCBs	Lead	PH	PAHs	Flammability/Combustibility	Metals - RCRA	Water Reactivity										
8/20/15	0850	M	Grab		Waste - 008 - 0815				X	X													U23450
8/20/15	0910	M	Grab		Waste - 016 - 0815		X		X	X	X	X											U23727
8/20/15	0852	M	Grab		Paint - 008 - 0815		X	X															U23728
8/20/15	0845	M	Grab		Paint - 015 - 0815		X	X															U23729
8/20/15	0930	M	Grab		Paint - 018 - 0815		X	X															U23730
8/20/15	1126	M	Grab		Paint - 004 - 0815		X	X															U23731
8/20/15	1238	M	Grab		Paint - 016 - 0815		X	X															U23732
8/20/15	1137	M	Grab		Waste - 003 - 0815		X		X			X											U23733
8/20/15	1137	M	Grab		Waste - 003B - 0815		X		X			X											U23734
8/20/15	1141	M	Grab		Waste - 001 - 0815		X		X			X											U23735
8/20/15	1120	M	Grab		Waste - 004 - 0815				X		X		X										U23736
8/20/15	1240	M	Grab		Waste - 016B - 0815		X		X		X	X											U23737

Relinquished By: [Signature]

Date/Time

8-20-15 / 1700Received By: [Signature]

Date/Time

8/21/15 1024Received by: [Signature]

Date/Time

Received for Laboratory by: [Signature]

Date/Time

8/21/15 1330

Lab Use Only

Ice Present (Yes) NoTemp 1.6 IR Gun # 11Cooler # 5522

CT Laboratories Terms and Conditions

Where a purchaser (Client) places an order for laboratory, consulting or sampling services from CT Laboratories (CTL), CTL shall provide the ordered services pursuant to these Terms and Conditions, and the related Quotation, or as agreed in a negotiated contract. In the absence of a written agreement to the contrary, the Order constitutes an acceptance by the Client of CTL's offer to do business under these Terms and Conditions, and an agreement to be bound by these Terms and Conditions. No contrary or additional terms and conditions expressed in a Client's document shall be deemed to become a part of the contract created upon acceptance of these Terms and Conditions, unless accepted by CTL in advance of the start of the project and in writing.

1. ORDERS AND RECEIPT OF SAMPLES (Sample Acceptance Policy)

1.1 The Client may place the Order (i.e., specify a Scope of Work) either by submitting a purchase order to CTL in writing, by telephone (confirmed in writing) or by negotiated contract. Whichever option the Client selects for placing the Order, the Order shall not be valid unless it contains sufficient specification to enable CTL to carry out the Client's requirements. It is the policy of CT Laboratories that samples not meeting the acceptance criteria, outlined in the NELAP standards and Section 5.8.3.2 of the DOD QSM, will not be accepted by the laboratory or will be qualified on the final report. All samples submitted to the laboratory must: (1) be accompanied by proper, full and complete documentation, including sample identification, location, date and time of collection, the collector's name, type of preservation (if any), type of sample, any special comments concerning the sample and any additional pertinent fields on the chain-of-custody. In the absence of any of the required information, the laboratory will attempt to contact the client to obtain the information; if unable to obtain the necessary information, the final report will be qualified. (2) be labeled appropriately with a unique sample identification written with indelible ink on water resistant labels. If the laboratory cannot determine the identity of a sample, it will be rejected and the client will be contacted for further instructions or resampling. (3) be in an appropriate sample container. If the container is inappropriate, the client will be contacted for further instructions or resampling. If analysis is possible, the final report will be qualified. CT Laboratories can provide a sampling guide containing approved containers and preservations for analytical methods requested. (4) adhere to specified holding times. If samples are received with less than 1/2 the holding time remaining for the requested test, CT Laboratories will make its best effort to analyze the samples and notify the client. If holding times are exceeded, the final report will be qualified. (5) contain adequate sample volume to perform the necessary testing. If sufficient volume is not present, the sample will be rejected and the client will be contacted for further instructions or resampling. If preservation, the client will be notified. If analysis can be performed, the final report will be qualified. If not, the samples will be rejected and the client notified for further instructions or resampling.

1.2 CT Laboratories must be supplied with complete written disclosure of any known or suspected presence of any hazardous substances, as defined by applicable federal or state law. Where any samples which were not accompanied by the required disclosure, cause interruptions in the lab's ability to process work due to contamination of instruments or work areas, the Client will be responsible for the costs of clean up and recovery.

1.3 Prior to Sample Acceptance, the entire risk of loss or damage to samples remains with the Client. In no event will CTL have any responsibility or liability for the action or inaction of any carrier shipping or delivering any sample to or from CTL's premises. Client is responsible to assure that any sample containing any hazardous substance which is to be delivered to CTL's premises will be packaged, labeled, transported and delivered properly and in accordance with applicable laws.

2. PAYMENT TERMS

2.1 Services performed by CTL will be in accordance with prices quoted and later confirmed in writing or as stated in the Price Schedule. Invoices may be submitted to Client upon completion of any sample delivery group. Payment in advance is required for all Clients except those whose credit has been established with CTL. For Clients with approved credit, payment terms are net 30 days from the date of invoice by CTL. All overdue payments are subject to an additional interest and service charge of one and one-half percent (1.5%) (or the maximum rate permissible by law, whichever is lesser) per month or portion thereof from the due date until the date of payment. All fees are charged or billed directly to the Client. The billing of a third party will not be accepted without a statement, signed by the third party that acknowledges and accepts payment responsibility. CTL may suspend work and withhold delivery of data under this order at any time in the event Client fails to make timely payment of its invoices. Client shall be responsible for all costs and expenses of collection including reasonable attorney's fees. CTL reserves the right to refuse to proceed with work at any time based upon an unfavorable Client credit report.

3. CHANGE ORDERS, TERMINATION

3.1 Changes to the Scope of Work, price, or result delivery data may be initiated by CTL after Sample Acceptance due to any condition which conflicts with analytical, QA or other protocols warranted in these Terms and Conditions. CTL will not proceed with such changes until an agreement with the Client is reached on the amount of any cost, schedule change or technical change to the Scope of Work, and such agreement is documented in writing.

3.2 Changes to the Scope of Work, including but not limited to increasing or decreasing the work, changing test and analysis specification or acceleration in the performance of the work may be initiated by the Client after sample acceptance. Such a change will be documented in writing and may result in a change in cost and turnaround time commitment. CTL's acceptance of such changes is contingent upon technical feasibility and operational capacity.

3.3 Suspension or termination of all or any part of the work may be initiated by the Client. CTL will be compensated consistent with Section 2 of these Terms and Conditions. CTL will complete all work in progress and be paid in full for all work completed.

4. WARRANTIES AND LIABILITY

4.1 Where applicable, CTL will use analytical methodologies which are in substantial conformity with published test methods. CTL has implemented these methods in its Laboratory Quality Manuals and referenced Standard Operating Procedures and where the nature or composition of the sample requires it, CTL reserves the right to deviate from these methodologies as necessary or appropriate, based on the reasonable judgment of CTL, which deviations, if any, will be made on a basis consistent with recognized standards of the industry and/or CTL's Laboratory Quality Manuals. Client may request that CTL perform according to a mutually agreed Quality Assurance Project Plan (QAPP). In the event that samples arrive prior to agreement on a QAPP, CTL will proceed with analyses under its standard Quality Manuals then in effect, and CTL will not be responsible for any resampling or other charges if work must be repeated to comply with a subsequently finalized QAPP.

4.2 CTL shall start preparation and/or analysis within holding times provided that Sample Acceptance occurs within 48 hours of sampling or 1/2 of the holding time for the test, whichever is less. Where resubmission of samples leading to Sample Acceptance does not occur within this period, CTL will use its best efforts to meet holding times and will proceed with the work provided that, in CTL's judgment, the chain-of-custody or definition of the Scope of Work provide sufficient guidance. Reanalysis of samples to comply with CTL's Quality Manuals will be deemed to have met holding times provided the initial analysis was performed within the applicable holding time. Where reanalysis demonstrates that sample matrix interference is the cause of failure to meet any Quality Manual requirements, the warranty will be deemed to have been met.

4.3 CTL warrants that it possesses and maintains all licenses and certifications which are required to perform services under these Terms and Conditions provided that such requirements are specified in writing to CTL prior to Sample Acceptance. CTL will notify the Client in writing of any deactivation or revocation of any license, or notice of either, which affects work in progress.

4.4 The warranty obligations set forth in Sections 4.1, 4.2 and 4.3 are the sole and exclusive warranties given by CTL in connection with any services performed by CTL or any Results generated from such services, and CTL gives and makes NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. No representative of CTL is authorized to give or make any other representation or warranty or modify this warranty in any way.

4.5 Client's sole and exclusive remedy for the breach of warranty in connection with any services performed, contingent on the Client's providing, at the request of CTL and at the Client's expense, additional sample(s) if necessary. Any reanalysis requested by the Client generating results consistent with the original Results will be at the Client's expense. If resampling is necessary, CTL's liability for resampling costs will be limited to actual cost of one hundred or one hundred fifty dollars (\$150) per sample, whichever is less.

4.6 CTL's liability for any and all causes of action arising hereunder, whether based in contract, tort, warranty, negligence or otherwise, shall be limited to the lesser amount of compensation for the services performed or \$100,000. All claims, including those for negligence, shall be deemed waived unless suit thereon is filed within one year after CTL's completion of the services. Under no circumstances, whether arising in contract, tort (including negligence), or otherwise, shall CTL be responsible for loss of use, loss of profits, or for any special, indirect, incidental or consequential damages occasioned by the services performed or by application or use of the reports prepared.

4.7 In no event shall CTL have any responsibility or liability to the Client for any failure or delay in performance by CTL which results, directly or indirectly, in whole or in part, from any cause or circumstance beyond the reasonable control of CTL. Such causes and circumstances shall include, but not be limited to, acts of God, acts of Client, acts or orders of any governmental authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, equipment breakdown, matrix interference or unknown highly contaminated samples that impact instrument operation, unavailability of supplies from usual suppliers, difficulties or delays in transportation, mail or delivery services, or any other cause beyond CTL's reasonable control.

5. RESULTS, WORK PRODUCT

5.1 Data or information provided to CTL or generated by services performed under this agreement shall only become the property of the Client upon receipt in full by CTL of payment for the whole Order. Ownership of any analytical method, QA/QC protocols, software programs or equipment developed by CTL for performance of work will be retained by CTL, and Client shall not disclose such information to any third party.

5.2 Data and sample materials provided by Client or at Client's request, and the result obtained by CTL shall be held in confidence (unless such information is generally available to the public or is in the public domain or Client has failed to pay CTL for all services rendered or is otherwise in breach of these Terms and Conditions), subject to any disclosure required by law or legal process.

5.3 Should the Results delivered by CTL be used by the Client or Client's client, even though subsequently determined not to meet the warranties described in these Terms and Conditions, then the compensation will be adjusted based upon mutual agreement. In no case shall the Client unreasonably withhold CTL's right to independently defend its data.

5.4 CTL reserves the right to subcontract services ordered by the Client to another laboratory or laboratories, if, in CTL's sole judgment, it is reasonably necessary, appropriate or advisable to do so, and with the Client's permission. CTL will in no way be liable for any subcontracted services and all applicable warranties, guarantees and insurance are those of the subcontracted laboratory.

5.5 CTL shall dispose of the Client's samples 30 days after the analytical report is issued, unless instructed to store them for an alternate period of time or to return such samples to the Client, in a manner consistent with U.S. Environmental Protection Agency regulations or other applicable Federal, state or local requirements. Any samples for projects that are canceled or not accepted, or for which return was requested, will be returned to the Client at their own expense. CTL reserves the right to return to the Client any sample or unused portion of a sample that is not within CTL's permitted capability or the capabilities of CTL's designated waste disposal vendor(s).

5.6 Unless a different time period is agreed to in any order under these Terms and Conditions, CTL agrees to retain all records for five (5) years.

5.7 In the event that CTL is required to respond to legal process related to services for Client, Client agrees to reimburse CTL for hourly charges for personnel involved in the response and attorney fees reasonably incurred in obtaining advice concerning the response, preparation to testify, and appearances related to the legal process, travel and all reasonable expenses associated with the litigation.

6. INSURANCE

6.1 CTL shall maintain in force during the performance of services under these Terms and Conditions, Workers' Compensation and Employer's Liability Insurance in accordance with the laws of the states having jurisdiction over CTL's employees who are engaged in the performance of the work. CTL shall also maintain during such period, Comprehensive General and Contractual Liability (limit of \$2,000,000 per occurrence/aggregate), Comprehensive Automobile Liability, owned and hired, (\$1,000,000 combined single limit), and Professional/Pollution Liability Insurance (limit of \$5,000,000 per occurrence/aggregate). Any Client required changes to these limits or conditions may result in a change in cost to the Client.

7. AUDIT

7.1 Upon prior notice to CTL, the Client may audit and inspect CTL's records and accounts covering reimbursable costs related to work done for the Client, for a period of one (1) year after completion of the work. The purpose of any such audit shall be only for verification of such costs, and CTL shall not be required to provide access to cost records where prices are expressed as fixed fees or published unit prices.

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

Folder #: 113433**PM LOGIN CONFIRMATION**

Contract #: 2829

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOOL

Proj #:

Project Phase:

PO Number: 1111200

Invoice #: 113930

Project Manager: PML

Date Received: 08/21/15

Log Date: 08/21/2015

Report To: ROBERT KONDRACK

CC:

Invoice To :ACCOUNTS PAYABLE

CC:

1 S WACKER DRIVE

1 S WACKER DRIVE

SUITE 3700

SUITE 3700

CHICAGO, IL 60606

CHICAGO, IL 60606

Phone: :

Fax:

Phone:

Fax:

Rep. E-Mail

EMail:

Collected By:

Arrival Temperature: 1.6 oC

Collector's Phone:

SAMPLE #: 623650 DESCR: WASTE-008-0815**PRIMARY / DETAILED MATRIX: SOLID / WASTE****SAMPLED: 8/20/2015****Time: 0850****CLIENT SAMPLE #:****DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
-------	------	-------------	---------	------------	----------------------	-----------	--------------	------	--------

203 PH (EPA 9045D)

9/2/2015

Logged

618 FLASHPOINT (EPA 1010)

8/30/2015

9/2/2015

Logged

SAMPLE #: 623727 DESCR: WASTE-016-0815**PRIMARY / DETAILED MATRIX: SOLID / WASTE****SAMPLED: 8/20/2015****Time: 0910****CLIENT SAMPLE #:****DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
-------	------	-------------	---------	------------	----------------------	-----------	--------------	------	--------

203 PH (EPA 9045D)

9/2/2015

Logged

618 FLASHPOINT (EPA 1010)

8/30/2015

9/2/2015

Logged

780 SVOC 8270 QSM (EPA 8270D)

Y

9/2/2015

NeedPrep

817 ICP QSM (EPA 6010C)

2/16/2016

9/2/2015

NeedPrep

Arsenic

Barium

Cadmium

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

SAMPLE #: 623727		DESCR: WASTE-016-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 0910	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

Chromium

Lead

Selenium

Silver

833	MERCURY QSM	(EPA 7471B)				9/17/2015	9/2/2015		NeedPrep
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep

SAMPLE #: 623728		DESCR: PAINT-008-0815		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 8/20/2015		Time: 0852	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				9/3/2015	9/2/2015		Logged
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep
			Lead						
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep

SAMPLE #: 623729		DESCR: PAINT-015-0815		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 8/20/2015		Time: 0845	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				9/3/2015	9/2/2015		Logged
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep
			Lead						
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep

SAMPLE #: 623730		DESCR: PAINT-018-0815		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 8/20/2015		Time: 0930	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

SAMPLE #: 623730		DESCR: PAINT-018-0815		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 8/20/2015		Time: 0930	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				9/3/2015	9/2/2015		Logged	
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep	
			Lead							
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep	

SAMPLE #: 623731		DESCR: PAINT-004-0815		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 8/20/2015		Time: 1126	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				9/3/2015	9/2/2015		Logged	
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep	
			Lead							
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep	

SAMPLE #: 623732		DESCR: PAINT-016-0815		PRIMARY / DETAILED MATRIX: SOLID / SOIL			SAMPLED: 8/20/2015		Time: 1238	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

8	SOLIDS,PERCENT	(EPA 8000C)				9/3/2015	9/2/2015		Logged	
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep	
			Lead							
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep	

SAMPLE #: 623733		DESCR: WASTE-003-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1137	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

203	PH	(EPA 9045D)					9/2/2015		Logged	
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep	
			Arsenic							

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

SAMPLE #: 623733		DESCR: WASTE-003-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1137	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

Barium

Cadmium

Chromium

Lead

Selenium

Silver

833	MERCURY QSM	(EPA 7471B)				9/17/2015	9/2/2015		NeedPrep
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep

SAMPLE #: 623734		DESCR: WASTE-003B-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1137	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

203	PH	(EPA 9045D)					9/2/2015		Logged
817	ICP QSM	(EPA 6010C)				2/16/2016	9/2/2015		NeedPrep

Arsenic

Barium

Cadmium

Chromium

Lead

Selenium

Silver

833	MERCURY QSM	(EPA 7471B)				9/17/2015	9/2/2015		NeedPrep
855	PCB QSM	(EPA 8082A)					9/2/2015		NeedPrep

SAMPLE #: 623735		DESCR: WASTE-001-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1141	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

SAMPLE #: 623735		DESCR: WASTE-001-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1141		
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:							
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS	
203	PH	(EPA 9045D)						9/2/2015		Logged	
817	ICP QSM	(EPA 6010C)					2/16/2016	9/2/2015		NeedPrep	
			Arsenic								
			Barium								
			Cadmium								
			Chromium								
			Lead								
			Selenium								
			Silver								
833	MERCURY QSM	(EPA 7471B)					9/17/2015	9/2/2015		NeedPrep	
855	PCB QSM	(EPA 8082A)						9/2/2015		NeedPrep	

SAMPLE #: 623736		DESCR: WASTE-004-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1120	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9045D)						9/2/2015		Logged
618	FLASHPOINT	(EPA 1010)					8/30/2015	9/2/2015		Logged

SAMPLE #: 623737		DESCR: WASTE-016B-0815		PRIMARY / DETAILED MATRIX: SOLID / WASTE			SAMPLED: 8/20/2015		Time: 1240	
CLIENT SAMPLE #:				DETAILED SITE/POINT ID INFORMATION:						
TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS		HOLD DATE	ANALYSIS DUE	RUSH	STATUS
203	PH	(EPA 9045D)						9/2/2015		Logged
618	FLASHPOINT	(EPA 1010)					8/30/2015	9/2/2015		Logged
817	ICP QSM	(EPA 6010C)					2/16/2016	9/2/2015		NeedPrep
			Arsenic							
			Barium							
			Cadmium							

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

SAMPLE #: 623737 DESCR: WASTE-016B-0815

PRIMARY / DETAILED MATRIX: SOLID / WASTE

SAMPLED: 8/20/2015 Time: 1240

CLIENT SAMPLE #:

DETAILED SITE/POINT ID INFORMATION:

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
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Chromium

Lead

Selenium

Silver

833 MERCURY QSM (EPA 7471B)

9/17/2015

9/2/2015

NeedPrep

855 PCB QSM (EPA 8082A)

9/2/2015

NeedPrep

Invoice Number: 113930

Preliminary Invoice Estimate: \$ 1,085.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
FLASHPOINT	WASTE	4	\$ 25.00	0.00	\$ 100.00
ICP QSM Arsenic	WASTE	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Barium	WASTE	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Cadmium	WASTE	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Chromium	WASTE	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Lead	SOIL	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Lead	WASTE	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Selenium	WASTE	5	\$ 5.00	0.00	\$ 25.00
ICP QSM Silver	WASTE	5	\$ 5.00	0.00	\$ 25.00
MERCURY QSM	WASTE	5	\$ 15.00	0.00	\$ 75.00
PCB QSM	SOIL	5	\$ 55.00	0.00	\$ 275.00
PCB QSM	WASTE	5	\$ 55.00	0.00	\$ 275.00
PH	WASTE	7	\$ 10.00	0.00	\$ 70.00
SOLIDS,PERCENT	SOIL	5	\$ 0.00	0.00	\$ 0.00
SVOC 8270 QSM	WASTE	1	\$ 90.00	0.00	\$ 90.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					\$ 0.00

Folder #: 113433

Company: TETRA TECH

Project: KEWAUNEE MARQUETTE SCHOO

Bottle Information

Container	# Containers	Tests
UNPRES GL	6	PCB,pH,FLASH,HG,ICP
UNPRES PL	6	PCB,%SOL,ICP

Sample Condition Report

Folder #: 113433 Print Date / Time: 08/21/2015 13:36
Client: TETRA TECH Received Date / Time / By: 08/21/2015 1026 TKR

Project Name: KEWAUNEE MARQUETTE SCHOOL Log-In Date / Time / By: 08/21/2015 1330 TKR
Project Phase: Project #: PM: PML

Coolers: 5522 Temperature: 1.6 C On Ice: Y
Custody Seals Present : Y COC Present?: Y Complete? Y

Seal Intact? Y Numbers: DATED AND SIGNED
Ship Method: FEDEX EXPRESS Tracking Number: 8055 7890 9018
Adequate Packaging: Y Temp Blank Enclosed? Y

Notes: SAMPLES RECEIVED IN GOOD CONDITION ON ICE.

2 CUSTODY SEALS PRESENT AND INTACT ON COOLER, DATED AND SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
623650 WASTE-008-0815	UNPRES PL	1	/	pH,FLASH
Total # of Containers of Type (UNPRES PL) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
623727 WASTE-016-0815	UNPRES GL	1	/	8270,PCB,FLASH,HG,ICP
Total # of Containers of Type (UNPRES GL) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
623728 PAINT-008-0815	UNPRES PL	1	/	PCB,%SOL,ICP
Total # of Containers of Type (UNPRES PL) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
623729 PAINT-015-0815	UNPRES PL	1	/	PCB,%SOL,ICP
Total # of Containers of Type (UNPRES PL) = 1				

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
623730 PAINT-018-0815				

UNPRES PL 1 / PCB,%SOL,ICP
Total # of Containers of Type (UNPRES PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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623731 PAINT-004-0815
 UNPRES GL 1 / PCB,%SOL,ICP
Total # of Containers of Type (UNPRES GL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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623732 PAINT-016-0815
 UNPRES PL 1 / PCB,%SOL,ICP
Total # of Containers of Type (UNPRES PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
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623733 WASTE-003-0815
 UNPRES GL 1 / PCB,HG,ICP,pH
Total # of Containers of Type (UNPRES GL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
-------------------------	----------------	------------	---------------------	-------

623734 WASTE-003B-0815
 UNPRES GL 1 / PCB,HG,ICP,pH
Total # of Containers of Type (UNPRES GL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
-------------------------	----------------	------------	---------------------	-------

623735 WASTE-001-0815
 UNPRES GL 1 / PCB,HG,ICP,pH
Total # of Containers of Type (UNPRES GL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
-------------------------	----------------	------------	---------------------	-------

623736 WASTE-004-0815
 UNPRES PL 1 / pH,FLASH
Total # of Containers of Type (UNPRES PL) = 1

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
-------------------------	----------------	------------	---------------------	-------

623737 WASTE-016B-0815
 UNPRES GL 1 / PCB,pH,FLASH,HG,ICP
Total # of Containers of Type (UNPRES GL) = 1

<i>Condition Code</i>	<i>Condition Description</i>
1	Sample Received OK

Tetra Tech, Inc. (IL)

Final Report

RES 330159

September 10, 2015

Table of Contents

	Page
Cover Sheet	1
Letter	2
Case Narrative	3
Report / Data	4
Quality Control Data	Appendix A
Chain of Custody	Appendix B
Count Sheets	Appendix C
Refractive Index Calibration	Appendix D



Reservoirs Environmental, Inc.

September 10, 2015

Laboratory Code: RES
Subcontract Number: NA
Laboratory Report: RES 330159
Project Number / PO #: 103X902600015051507202
Project Description: Kewaunee Marquette School

Tetra Tech, Inc. (IL)
1 S. Wacker, 37th Flr.
Chicago IL 60606

Dear Mr. Burns,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code # 101896 and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - Accreditation Certificate #480. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Reservoirs Environmental, Inc. has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

RES 330159 is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to contact me at 303-964-1986.

Sincerely,

A handwritten signature in blue ink that reads "Jeanne Spencer". The signature is fluid and cursive, with the first name "Jeanne" being more prominent than the last name "Spencer".

Jeanne Spencer
President

Case Narrative

RES 330159

Samples were relinquished to the laboratory in appropriately sealed containers. The customer Chain of Custody containing all client information is signed upon receipt, then transferred to Reservoirs Environmental, Inc Chain of Custody. The sample set was assigned a unique batch RES job number and EM sample number respectively. Client data information was entered into the Laboratory's Information Management System.

Samples were then prepared and analyzed in general accordance with methodology as stated below.

Samples were analyzed by PCM NIOSH 7400 (Issue 2), TEM NIOSH 7402, ISO 10312:1995 (E) and PLM EPA 600 Carb 435 Point Count and associated project specific modifications.

AA-001
AA-002
ABS-001-H
ABS-002-H
ABS-003-H
ABS-004-H
EQP Blank
Field Blank
Bulk-016B-0815
Bulk-011A-0815
Bulk-010B-0815
Bulk-014-0815
Bulk-001C-0815
Bulk-016-0815
Bulk-011A-0815
Bulk-010A-0815
Bulk-001B-0815
Waste-001-0815
Waste-003-0815

RESERVOIRS ENVIRONMENTAL INC.

AIHA Certificate of Accreditation #480, Lab ID 101533

TABLE: FIBER COUNT ANALYSIS IN AIR

RES Job Number: **RES 330159-1**
 Client: **Tetra Tech, Inc. (IL)**
 Client Project Number / P.O.: **103X902600015051507202**
 Client Project Description: **Kewaunee Marquette School**
 Date Samples Received: **August 25, 2015**
 Method: **REI-SOP Fibers in Air / NIOSH 7400A**
 Turnaround: **3-5 Day**
 Date Samples Analyzed: **August 25, 2015**

Client ID Number	Lab ID Number	Air Volume Sampled (L)	Fields Analyzed	Fiber Count	Reporting Limit (F/mm ²)	Fiber Density (F/mm ²)	Reporting Limit (F/cc)	Fiber Concentration (F/cc)
AA-001	EM 1478279	4500	100	8.5	7.01	7.96	0.001	0.001
AA-002	EM 1478280	4800	100	8	7.01	7.32	0.001	0.001
EQP Blank	EM 1478285	0	100	1	7.01	BRL	---	---
Field Blank	EM 1478286	0	100	3.5	7.01	BRL	---	---

* Unless otherwise stated sample analyses have been blank corrected.
 ND= None Detected

BRL = Below Reporting Limit
 CBR = Cannot Be Read

Laboratory Quarterly Coefficient Variation (CV) by Fiber Count Range - October 1st, 2014 - December 31st, 2014

5-20 CV = 0.39

>20-50 CV = 0.32

>50-100 CV = 0.25


 Brendan O'Brien

Analyst / Data QA

RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0; TDH: #30-0015

TABLE : TEM AIR FILTER SAMPLE DATA AND ANALYTICAL RESULTS

RES Job Number: RES 330159-2
Client: Tetra Tech, Inc. (IL)
Client Project Number / P.O.: 103X902600015051507202
Client Project Description: Kewaunee Marquette School
Date Samples Received: August 25, 2015
Method: TEM, NIOSH 7402
Turnaround: 3-5 Day
Date Samples Analyzed: August 25, 2015

Client ID Number	Lab ID Number	Area Analyzed	Air Volume Sampled	Number of Asbestos Structures Detected	Analytical Sensitivity	Asbestos Concentration
		(mm ²)	(L)		(f/cc)	(f/cc)
AA-001	EM 1478279	0.4000	4500	ND	0.00021	BAS
AA-002	EM 1478280	0.4000	4800	ND	0.00020	BAS

NA = Not Analyzed
ND = None Detected
BAS = Below Analytical Sensitivity
Average Grid Opening in mm² = 0.010

Filter Material = Mixed Cellulose Ester
Filter Diameter = 25 mm
Effective Filter Area = 385 sq mm


Gina Vettrano

RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0; TDH: #30-0015

TABLE I. TEM AIR FILTER SAMPLE DATA AND ANALYTICAL RESULTS

RES Job Number: RES 330159-3
Client: Tetra Tech, Inc. (IL)
Client Project Number / P.O.: 103X902600015051507202
Client Project Description: Kewaunee Marquette School
Date Samples Received: August 25, 2015
Method: ISO 10312, Air
Turnaround: 3-5 Day
Date Samples Analyzed: August 31, 2015

Client ID Number	Lab ID Number	Area Analyzed	Air Volume Sampled	Number of Asbestos Structures Detected	Analytical Sensitivity	Asbestos Concentration	Filter Loading
		(mm ²)	(L)		(s/cc)	(s/cc)	(s/mm ²)
ABS-001-H	EM 1478281	1.8200	510	42	0.00041	0.0174	23.1
ABS-002-H	EM 1478282	1.8500	550	17	0.00038	0.0064	9.2
ABS-003-H	EM 1478283	0.9200	1073	23	0.00039	0.0090	25.0
ABS-004-H	EM 1478284	0.0000	1785	NA	Sample Rejected - Support Pad was Above Filter		

NA = Not Analyzed

ND = None Detected

BAS = Below Analytical Sensitivity

Average Grid Opening in mm² = 0.010

Filter Material = Mixed Cellulose Ester

Filter Diameter = 25 mm

Effective Filter Area = 385 sq mm

Data QA:


Gina Vettraino

RESERVOIRS ENVIRONMENTAL INC.

NVLAP Lab Code 101896-0

TABLE: PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: **RES 330159-4**
 Client: **Tetra Tech, Inc. (IL)**
 Client Project Number / P.O.: **103X902600015051507202**
 Client Project Description: **Kewaunee Marquette School**
 Date Samples Received: **August 25, 2015**
 Method: **EPA 600/R-93/116 - Short Report, Bulk**
 Turnaround: **3-5 Day**
 Date Samples Analyzed: **September 04, 2015**

ND=None Detected
 TR=Trace, <1% Visual Estimate
 Trem/Act=Tremolite/Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
					Mineral	Visual Estimate (%)		
Bulk-016B-0815	EM 1478287	A	Brown/multi-colored rock fragments w/ multi-colored debris	100		ND	TR	100
Bulk-011B-0815	EM 1478288	A	Black mastic w/ tan mastic	3		ND	TR	100
		B	Brown/multi-colored floor tile	97		ND	3	97
Bulk-010B-0815	EM 1478289	A	Black mastic	3	Chrysotile	10	TR	90
		B	Tan floor tile	97	Chrysotile	12	0	88
Bulk-014-0815	EM 1478290	A	Gray insulation w/ white fibrous woven material	100	Chrysotile	70	5	25
Bulk-001C-0815	EM 1478291	A	Yellow insulation w/ multi-colored debris	100		ND	90	10
Bulk-016-0815	EM 1478292	A	Gold/brown vermiculite	100	Trem/Act Point Count	TR <0.25	0	100
Bulk-034-0815	EM 1478293	A	White paper	100		ND	99	1
Bulk-011A-0815	EM 1478294	A	Black mastic	3		ND	TR	100
		B	Green floor tile	97	Chrysotile	7	0	93
Bulk-010A-0815	EM 1478295	A	Beige/white ceiling tile	100		ND	85	15

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.

RESERVOIRS ENVIRONMENTAL INC.

NVLAP Lab Code 101896-0

TABLE: PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: **RES 330159-4**
 Client: **Tetra Tech, Inc. (IL)**
 Client Project Number / P.O.: **103X902600015051507202**
 Client Project Description: **Kewaunee Marquette School**
 Date Samples Received: **August 25, 2015**
 Method: **EPA 600/R-93/116 - Short Report, Bulk**
 Turnaround: **3-5 Day**
 Date Samples Analyzed: **September 04, 2015**

ND=None Detected
 TR=Trace, <1% Visual Estimate
 Trem/Act=Tremolite/Actinolite

Client Sample Number	Lab ID Number	L A Y E R	Physical Description	Sub Part (%)	Asbestos Content		Non Asbestos Fibrous Components (%)	Non- Fibrous Components (%)
					Mineral	Visual Estimate (%)		
Bulk-001B-0815	EM 1478296	A	Yellow insulation w/ rusty metal	100		ND	85	15
Waste-001-0815	EM 1478297	A	Brown soil debris	100		ND	5	95
Waste-003-0815	EM 1478298	A	Dark gray soil	100		ND	TR	100

TEM Analysis recommended for organically bound material (i.e. floor tile) if PLM results are <1%.



Brett S. Colbert

Analyst / Data QA

APPENDIX A

QC Results Summary

Reprep and Recount Analysis

RES 330159

Quality Control Analyses were conducted in general accordance with Reservoirs Environmental, Inc's established program for Reprep and Recount analyses. Quality control samples are listed below. Sample Quality Control Data fell statistically within the acceptance / rejection criteria.

QC Results Tally

Client Sample ID	REI EM Number	Original Count	QC Count
ABS-003-H	330159-1478283	23 (In 92 GO's)	17 (In 14 GO's)

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

ANALYTICAL REPORT

FILE NAME: 103X902600015051507202_RESI_ABS-003-H_09-03-15_330159_TEM_D_RS.xls

SAMPLE/ANALYSIS INFORMATION				ANALYSIS PARAMETERS	
Media	Air	Lab Sample Number	330159-1478283	Effective filter area (mm2)	385
Sample Type	Field Sample	Field Sample Number	ABS-003-H	F-factor	1.00E+00
Air Volume (L)	1075	Preparation	Direct	Grid opening area (mm2)	0.0100
QA Sample Type	RS	Analysis Date	09/03/2015	# GOs counted High Magnification	14
Sample Status	Analyzed	Method SOP	Modified ISO 10312	# GOs counted Low Magnification	0
Maximum Area Examined				# Gos counted High + Low	14
High Magnification	1.4E-01			Magnification	
Low Magnification	0.0E+00			Sensitivity (1/cc)	
Stopping Rule(s):	Max Area = 0.1, Structures = 50, Sensitivity = 0.00E+00			Total Asbestos	0.0025581
Recording Rule(s):	Min Aspect Ratio = >= 3:1, Min Length = 0.5µm, Min Width = 0µm			PCME/User Defined	0.0025581

Number of Structures with Fatal Data Entry Errors **1** (Structures with fatal errors are excluded from calculations below)

Mineral Class	Number of Structures (a)	Loading on Filter (b) (s/mm ²)	Air Conc (c) (s/cc)	95% Poisson Confidence Interval for this Sample	Desired Confidence Interval (%):
Total TEM Structures					95
Total Asbestos	17	1.2E+02	4.3E-02	2.5E-02 - 7.0E-02	Binning Rule Description: Apply to fibers (F) only: L ≥ 0.5µm, AR ≥ 3 No restrictions for other structure types.
Total Chrysotile (CH)	5	3.6E+01	1.3E-02	4.2E-03 - 3.0E-02	
Total Amphibole	12	8.6E+01	3.1E-02	1.6E-02 - 5.4E-02	
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
anthophyllite (AN)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
tremolite (TR)	12	8.6E+01	3.1E-02	1.6E-02 - 5.4E-02	
winchite/richterite/tremolite/a					
ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
Solid Soln: Trem-Act	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
PCM Equivalent Structures (PCME)					Binning Rule Description: Apply to all structures where Total column > 0 L > 5µm, W ≥ 0.25µm and W ≤ 3µm, AR ≥ 3 ChiSq test for even filter loading for PCMe Structures (see Annex F2 in ISO 10312) Filter loading is OK p value: 5.3E-01
Total Asbestos	1	7.1E+00	2.6E-03	6.5E-05 - 1.4E-02	
Total Chrysotile (CH)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
Total Amphibole	1	7.1E+00	2.6E-03	6.5E-05 - 1.4E-02	
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
anthophyllite (AN)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
tremolite (TR)	1	7.1E+00	2.6E-03	6.5E-05 - 1.4E-02	
winchite/richterite/tremolite/a					
ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
Solid Soln: Trem-Act	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 9.4E-03	

- (a) Based on countable structures only.
 (b) Loading on Filter (s/mm²) = N structures / (GOs Counted * GO Area). Results for indirect samples are based on the secondary filter.
 (c) Air Concentration (s/cc) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Air Volume * 1000).
 Dust Loading (s/cm2) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Dust Collection Area).

FILE NAME: 103X902600015051507202_RESI_ABS-003-H_09-03-15_330159_TEM_D_RS.xls

FILE TYPE: Original

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

Site or Project Name:	Tetra Tech-Kewaunee Marquette School
State/Federal Site or Project Identifier:	103X9026000150515072 02

Tetra Tech-Kewaunee Marquette School
103X9026000150515072 02

Site/Project Identifier Code:

103X90260001 5051507202

Laboratory name:	RESI
Instrument:	JEOL 100 CX (N)
Voltage (kV):	100
Magnification: [Enter one or both here (a)]	20000x
Grid opening area (mm ²):	0.01

	High Mag:	Low Mag:
Scale: 1L =	0.28	
Scale: 1D =	0.056	
Filter Size (mm):	25	
Filter Pore Size (um):	0.8	
Method:	Modified ISO 10312	
Grid Storage Location:	330159	
Archive filter(s) storage location:	330159	

Client Sample Number:	ABS-003-H
Date received by lab:	8/25/2015
Lab Job Number:	330159
Lab Sample Number:	330159-1478283
Chain of Custody Number:	103X902600015 051507202

Sample Type:	Field Sample
QC Sample Type:	Recount Same
Media:	Air
Air volume (L), dust area (cm ²), or dustfall container area (cm ²):	1075

Number of grids prepared:	5
Prepared by:	SPF
Preparation date:	08/25/2015
Preparation Type:	Direct
If sample type = air, is there loose material or debris in the cowl?	No

Primary filter area (mm ²):	385
Secondary Filter Area (mm ²):	
F- factor: [proposed value shown, cell formula can be over-written if neccessary]	1.000
Filter Status:	Analyzed
Analyzed by:	N. Zimbelman
Analysis date:	09/03/2015

F-factor Input Parameters:**Indirect Prep Inputs**

Fraction of primary filter used for indirect prep or :
[For dust and dustfall, enter 1.0]
First resuspension volume or
rinsate volume (mL)
Volume applied to secondary filter (mL) or used f
dilution

Inputs for Serial Dilutions

Second resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution
Third resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution

Input for Ashing of Secondary Filter

Fraction of secondary filter used for
ashing

COMMENTS

Prior to analysis microscope alignment and calibration was performed and EDS peak location was verified by analyst.

V	Grid opening traverse direction
---	---------------------------------

(a) Enter one or both magnifications (high and/or low) in this box. Examples: 20,000x OR 5,000x OR 20,000/5,000x

☐ Check box if this sample was analyzed using more than one instrument, by
more than one analyst, or across multiple analysis dates

If sample was analyzed using more than one TEM instrument,
enter TEM Instrument details below.

	Instrument #2	Instrument #3
Instrument:		
Voltage (KV):		

If sample was analyzed by more than one analyst
or across multiple analysis dates, enter analysis details below.

	Analyst/Date #2	Analyst/Date #3
Analyzed by:		
Analysis date:		

Tetra Tech-Kewaunee Marquette School
National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

FILE NAME	103X902600015051507202_RESI_ABS-003-H_09-03-15_330159_TEM_D_RS.xls
-----------	--

CLIENT SAMPLE ID: ABS-003-H
LAB SAMPLE ID: 330159-1478283

Media	Air
Sample Prep	Direct

Sample Type	Field Sample
QC Sample Type	RS
Sample Status	Analyzed
Analysis Date	09/03/2015

Data Entry by:	N. Zimbelmab
Data Entry Date:	9/3/2015

QA by:	G. Vettrai
QA Date:	9/9/2015

One or more stopping rules have been met, no additional grid openings need to be evaluated.

[illegible]

Appendix B

Chain of Custody

Due Date: 9-4-15
Due Time: 9:00am



Reservoirs Environmental, Inc.

5001 Logan St, Denver, CO 80216 • Ph: 303.964.1966 • Fax: 303.477.4215 • Toll Free: 866-RES-ENV

RES 330159
Job #
Page 1 of 2

After Hours Cell Phone: 720-339-9228

INVOICE TO: (IF DIFFERENT)

Company: Tetra Tech	Contact: Chris Burns
Address: 15 Wacker 37th Flr. Chicago IL 60606	Phone: 570 412 1280
	Fax:
Project Number and/or P.O. #: 103X902600015051507202	Cell pager: 570 412 1280
Project Description/Location: Kewanee Marguerite School	Final Data Deliverable Email Address: Chris.Burns@tetra-tech.com

CONTACT INFORMATION:

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm & Sat. 8am - 5pm PLM / PCM / TEM RUSH (Same Day) PRIORITY (Next Day) STANDARD (3-5 Day)	VALID MATRIX CODES: Air = A Bulk = B Dust = D Paint = P Soil = S Wipe = W Swab = SW F = Food Drinking Water = DW Waste Water = WW O = Other **ASTM E1792 approved wipe media only**	LAB NOTES:
CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm Metal(s) / Dust** RUSH 24 hr. 3-5 Day RCRA 8 / Metals & Welding Fume Scan / TCLP** RUSH (3 Day) 5 Day 10 Day Organics 24 hr. 3 day 5 Day	REQUESTED ANALYSIS: MICROBIOLOGY: Pathogens: Salmonella, E. coli O157:H7, Listeria, S. aureus, Campylobacter, +/- or Quantification E. coli and/or Coliforms: +/- or Quantification Microbial Growth: Aerobic Plate Count, Bacteria or Y & M, +/- or Quantification Legionella: +/- or Quantification Other: Bioburden, LAL or Environmental Mold: Spore Trap or Bulk +/-, Identification, Quantification	SAMPLER'S INITIALS OR OTHER NOTES:
MICROBIOLOGY LABORATORY HOURS: Weekdays: 9am - 6pm E. coli and/or Coliforms* 24-48 Hour Other: Pathogens* 24-48 Hour Microbial Growth* 5-10 Day Legionella 10 Day Mold RUSH 24 Hr 48 Hr 3 Day 5 Day **Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.**	ORGANICS - METH, TSS METALS - Analyte(s) RCRA 8, TCLP, Welding Fume, Metals Scan, pH DUST - Total, Respirable PCM - 7400A, 7400B, OSHA TEM - AHERA, Level II, 7402, ISO +/- (Air, Bulk or Dust), Quant, Semi-Quant, Micro-vac, ISO-Indirect Preps	
Special Instructions:		

Client sample ID number		(Sample ID's must be unique)		PLM - S	TEM - S	PCM	DUST	METALS	ORGANIS	MICROBIOLOGY				SAMPLE	Sample	Matrix	# Cont	Date Collected	Time Collected	EM Number
				Quant, Semi-Quant, Micro-vac, ISO-Indirect Preps	Quant, Semi-Quant, Micro-vac, ISO-Indirect Preps			RCRA 8, TCLP, Welding Fume, Metals Scan, pH		Pathogens: Salmonella, E. coli O157:H7, Listeria, S. aureus, Campylobacter, +/- or Quantification	E. coli and/or Coliforms: +/- or Quantification	Microbial Growth: Aerobic Plate Count, Bacteria or Y & M, +/- or Quantification	Legionella: +/- or Quantification	Other: Bioburden, LAL or Environmental	Mold: Spore Trap or Bulk +/-, Identification, Quantification		mm/dd/yyyy	hh:mm ap	(Laboratory Use Only)	
1	AA-001 (7400 + 7402)					X									4500L A	1	8/20/15	1630	147-82779	
2	AA-002 (7400 + 7402)					X									4800L A	1	8/20/15	1630	82	
3	ABS-001-H (ISO 10312)		X												510L A	1	8/20/15	1400	81	
4	ABS-002-H (ISO 10312)		X												550L A	1	8/20/15	1400	82	
5	ABS-003-H (ISO 10312)		X												1075L A	1	8/20/15	1400	83	
6	ABS-004-H (ISO 10312)		X												1785L A	1	8/20/15	1400	84	
7	Exp Blank (7400)					X									NA A	1	8/20/15	1400	85	
8	Field Blank (7400)					X									NA A	1	8/20/15	1400	86	
9	Bulk-016B-0815 (WRGrue Zonolite) (EPA 600 (400 pft)	X													NA B	1	8/20/15	1235	87	
10	Bulk-011A-0815 (Green Floor Tile) (EPA 600 (400 pft)	X													NA B	1	8/20/15	1205	88	

Number of samples received: 24 (Additional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information provided and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days. Failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: Chris Burns	Date/Time: Aug 24 2015 1300	Sample Condition: On Ice	Sealed	Intact
Laboratory Use Only	Date/Time: 8/25/15 9:42	Temp. (F°)	Yes / No	Yes / No
Results:	Contact: Phone Email Fax	Date	Time	Initials
	Contact: Phone Email Fax	Date	Time	Initials



33218

Page 2 of 2

Submitted by: C. Burns (TetraTech)

[illegible]

Appendix C

NADES Spread Sheets

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

ANALYTICAL REPORT

FILE NAME: 103X902600015051507202_RESI_ABS-001-H_08-27-15_330159_TEM_D.xls

SAMPLE/ANALYSIS INFORMATION				ANALYSIS PARAMETERS	
Media	Air	Lab Sample Number	330159-1478281	Effective filter area (mm2)	385
Sample Type	Field Sample	Field Sample Number	ABS-001-H	F-factor	1.00E+00
Air Volume (L)	510	Preparation	Direct	Grid opening area (mm2)	0.0100
QA Sample Type	Not QC	Analysis Date	08/27/2015	# GOs counted High Magnification	182
Sample Status	Analyzed	Method SOP	Modified ISO 10312	# GOs counted Low Magnification	0
Maximum Area Examined				# Gos counted High + Low	182
High Magnification	1.8E+00			Magnification	
Low Magnification	0.0E+00			Sensitivity (1/cc)	
Stopping Rule(s):	Max Area = 4, Structures = 50, Sensitivity = 4.00E-04			Total Asbestos 0.0004148	
Recording Rule(s):	Min Aspect Ratio = >= 3:1, Min Length = 0.5µm, Min Width = 0µm			PCME/User Defined 0.0004148	

Number of Structures with Fatal Data Entry Errors (Structures with fatal errors are excluded from calculations below)

Mineral Class	Number of Structures (a)	Loading on Filter (b) (s/mm ²)	Air Conc (c) (s/cc)	95% Poisson Confidence Interval for this Sample	Desired Confidence Interval (%):	95
Total TEM Structures					Binning Rule Description:	
Total Asbestos	42	2.3E+01	1.7E-02	1.3E-02 - 2.4E-02	Apply to fibers (F) only: L ≥ 0.5µm, AR ≥ 3 No restrictions for other structure types.	
Total Chrysotile (CH)	42	2.3E+01	1.7E-02	1.3E-02 - 2.4E-02		
Total Amphibole	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
anthophyllite (AN)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
tremolite (TR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
winchite/richterite/tremolite/a	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
Solid Soln: Trem-Act	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
PCM Equivalent Structures (PCME)					Binning Rule Description:	
Total Asbestos	3	1.6E+00	1.2E-03	2.6E-04 - 3.6E-03	Apply to all structures where Total column > 0 L > 5µm, W ≥ 0.25µm and W ≤ 3µm, AR ≥ 3	
Total Chrysotile (CH)	3	1.6E+00	1.2E-03	2.6E-04 - 3.6E-03		
Total Amphibole	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
anthophyllite (AN)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
tremolite (TR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
winchite/richterite/tremolite/a	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
Solid Soln: Trem-Act	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.5E-03		
					ChiSq test for even filter loading for Total TEM Structures (see Annex F2 in ISO 10312)	
					Filter loading appears uneven. Quantitation may be uncertain.	
					ChiSq test for even filter loading for PCM Structures (see Annex F2 in ISO 10312)	
					Filter loading is OK	

- (a) Based on countable structures only.
(b) Loading on Filter (s/mm²) = N structures / (GOs Counted * GO Area). Results for indirect samples are based on the secondary filter.
(c) Air Concentration (s/cc) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Air Volume * 1000).
Dust Loading (s/cm2) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Dust Collection Area).

FILE NAME: 103X902600015051507202_RESI_ABS-001-H_08-27-15_330159_TEM_D.xls

FILE TYPE: Original

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

Site or Project Name:	
State/Federal Site or Project Identifier:	

Tetra Tech-Kewaunee Marquette School
103X9026000150515072 02

Site/Project Identifier Code:

103X90260001 5051507202

Laboratory name:	RESI
Instrument:	JEOL 100 CX (N)
Voltage (kV):	100
Magnification: [Enter one or both here (a)]	20000x
Grid opening area (mm ²):	0.01

	High Mag:	Low Mag:
Scale: 1L =	0.28	
Scale: 1D =	0.056	
Filter Size (mm):	25	
Filter Pore Size (um):	0.8	
Method:	Modified ISO 10312	
Grid Storage Location:	330159	
Archive filter(s) storage location:	330159	

Client Sample Number:	ABS-001-H
Date received by lab:	08/25/2015
Lab Job Number:	330159
Lab Sample Number:	330159-1478281
Chain of Custody Number:	103X902600015 051507202

Sample Type:	Field Sample	
QC Sample Type:	Not QC	
Media:	Air	
Air volume (L), dust area (cm ²), or dustfall container area (cm ²):	510	

Number of grids prepared:	3	
Prepared by:	SPF	
Preparation date:	08/24/2015	
Preparation Type:	Direct	
If sample type = air, is there loose material or debris in the cowl?	No	

Primary filter area (mm ²):	385	
Secondary Filter Area (mm ²):		
F- factor: [proposed value shown, cell formula can be over-written if neccessary]	1.000	
Filter Status:	Analyzed	
Analyzed by:	N. Zimbelman	
Analysis date:	08/27/2015	

F-factor Input Parameters:**Indirect Prep Inputs**

Fraction of primary filter used for indirect prep or :
[For dust and dustfall, enter 1.0]
First resuspension volume or
rinsate volume (mL)
Volume applied to secondary filter (mL) or used f
dilution

Inputs for Serial Dilutions

Second resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution
Third resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution

Input for Ashing of Secondary Filter

Fraction of secondary filter used for
ashing

COMMENTS

Prior to analysis microscope alignment calibration and EDS peak location was verified by analyst.

V	Grid opening traverse direction
---	---------------------------------

(a) Enter one or both magnifications (high and/or low) in this box. Examples: 20,000x OR 5,000x OR 20,000/5,000x

☐ Check box if this sample was analyzed using more than one instrument, by
more than one analyst, or across multiple analysis dates

If sample was analyzed using more than one TEM instrument,
enter TEM Instrument details below.

	Instrument #2	Instrument #3
Instrument:		
Voltage (kV):		

If sample was analyzed by more than one analyst
or across multiple analysis dates, enter analysis details below.

	Analyst/Date #2	Analyst/Date #3
Analyzed by:		
Analysis date:		

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

FILE NAME 103X902600015051507202_RESI_ABS-001-H_08-27-15_330159_TEM_D.xls

CLIENT SAMPLE ID: ABS-001-H

LAB SAMPLE ID: 330159-1478281

Air

Direct

Field Sample

Not QC

Analyzed

08/27/2015

N. Zimbelman

G. Vettrai

08/27/2015

9/3/2015

[illegible]

	G3-3	ND												
	F3-6	ND												
	F3-3	ND												
	E3-6	ND												
	C3-6	ND												
	C3-3	ND												
	B3-6	ND												
	L4-1	ND												
	A3-6	ND												
	A4-1	MD10	2		17	33	CD	CH		1				
	A4-1	MF		2	4	1	CD	CH		1				
	A4-1	MD32	3		58	134	CD	CH		1				
	A4-1	MF		3	32	1	CD	CH		1				
	A4-1	MF		4	4.5	1	CD	CH		1				
	A4-1	MF		5	22	1	CD	CH		1				
	A4-1	MD10	4		16	31	CD	CH		1				
	A4-1	MF		6	4.5	1	CD	CH		1				
	A4-4	MD10	5		22	70	CD	CH		1				
	A4-4	MF		7	6	1	CD	CH		1				
	K4-4	ND												
	K4-1	ND												
	H4-4	ND												
	H4-1	ND												
	G4-4	ND												
	G4-1	ND												
	F4-4	ND												
	F4-1	ND												
	E4-4	ND												
	C4-4	ND												
	C4-1	ND												
	B4-4	ND												
	B4-1	ND												
	G4-3	MD11	6		46	26	CD	CH		1				
	G4-3	MF		8	22	1	CD	CH		1				Bridge
	G4-3	F	7	9	4	1	CD	CH		1				
	G4-3	MD10	8		22	35	CD	CH		1				
	G4-3	MF		10	8	1	CD	CH		1				
	G4-3	F	9	11	2	1	CD	CH		1				
	G4-3	F	10	12	4	1	CD	CH		1				
	L4-3	ND												
	K4-6	ND												
	K4-3	ND												
	H4-6	ND												
	H4-3	ND												
	G4-6	ND												
	F4-6	ND												
	F4-3	ND												
	E4-6	ND												
	E4-3	ND												
	C4-3	ND												
	C4-6	ND												
	B4-6	ND												
	B4-3	ND												
	E5-1	F	11	13	8	1	CD	CH		1				
	F5-4	F	12	14	14	1	CD	CH		1				
	L5-1	ND												
	K5-4	ND												

[illegible]



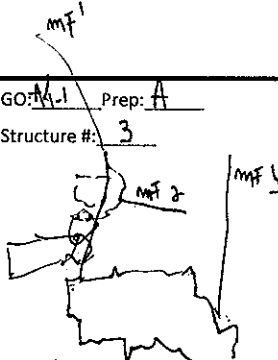


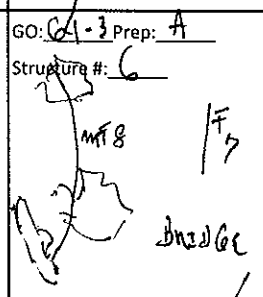
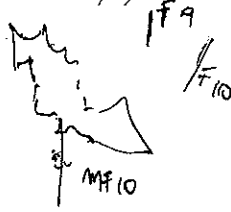




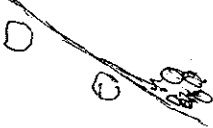

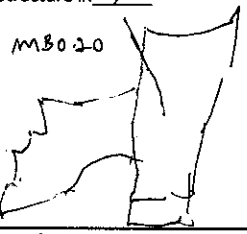
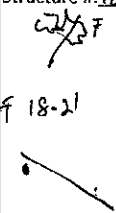
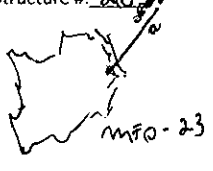
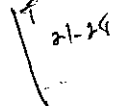

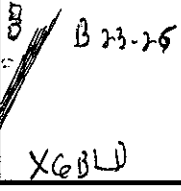
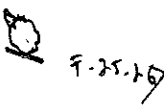
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	G2-3	ND													
	F2-6	ND													
	E2-3	ND													
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	C2-3	ND													
	C3-1	B	25	28	32	2.5	CD	CH		1					XGBLD
	C3-4	MD10	26		12	20	CD	CH		1					
	C3-4	MFO		29	4	1	CD	CH		1					
	K3-1	MD11	27		36	26	CD	CH		1					
	K3-1	MF		30	19.5	1	CD	CH		1					
	H3-4	ND													
	H3-1	ND													
	G3-1	ND													
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	F3-1	ND													
	E3-4	ND													
	E3-1	ND													
	B3-4	ND													
	G3-3	CC+1	28	31	34	46	CD	CH		1					
	G3-6	F	29	32	18.5	1	CD	CH		1					
	K3-3	ND													
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	H3-3	ND													
	F3-6	ND													
	F3-3	ND													
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	E3-3	ND													
	C3-6	ND													
	C3-3	ND													
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	B3-3	ND													
	A3-6	ND													
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	E4-4	MF		34	3	1	CD	CH		1					
	F4-4	MD10	32		33	54	CD	CH		1					
	F4-4	MFO		35	4	1	CD	CH		1					
	F4-4	MD10	33		28	37	CD	CH		1					
	F4-4	MF		36	3	1	CD	CH		1					
	K4-1	ND													
	H4-4	ND													
	G4-4	ND													
	C4-4	ND													
	E4-1	ND													
	C4-1	ND													
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	B5-4	F	35	38	6	1	CD	CH		1					
	H5-4	MD11	36		29	14	CD	CH		1					
	H5-4	MF		39	18	1	CD	CH		1					
	K5-1	MD10	37		15	31	CD	CH		1					
	K5-1	MF		40	3	1	CD	CH		1					
	K5-1	MD10	38		37	68	CD	CH		1					
	K5-1	MF		41	16	1	CD	CH		1					
	K5-1	F	39	42	12	1	CD	CH		1					
	K5-4	ND													

[illegible]

TEM Structure Sketch Sheet

RES # 330159-3 EM # 1478281

Sample Number: ABS-001-H

GO: <u>B3-3</u> Prep: <u>A</u> Structure #: <u>1</u> 	GO: <u>A4-1</u> Prep: <u>A</u> Structure #: <u>2</u> 	GO: <u>A4-1</u> Prep: <u>A</u> Structure #: <u>3</u> 	GO: <u>A4-1</u> Prep: <u>A</u> Structure #: <u>4</u> 
GO: <u>A4-4</u> Prep: <u>A</u> Structure #: <u>5</u> 	GO: <u>G4-3</u> Prep: <u>A</u> Structure #: <u>6</u> 	GO: <u>G4-3</u> Prep: <u>A</u> Structure #: <u>8, 9, 10</u> 	GO: <u>E5-1</u> Prep: <u>A</u> Structure #: <u>11</u> 
GO: <u>E5-1</u> Prep: <u>A</u> GO: <u>F5-4</u> Structure #: <u>12</u> 	GO: <u>E5-6</u> Prep: <u>A</u> MB 15 Structure #: <u>13</u> 	GO: <u>E5-3</u> Prep: <u>A</u> Structure #: <u>14</u> 	GO: <u>G5-6</u> Prep: <u>A</u> Structure #: <u>15</u> 
GO: <u>H5-3</u> Prep: <u>A</u> Structure #: <u>16</u> 	GO: <u>X5-6</u> Prep: <u>A</u> Structure #: <u>17</u> 	GO: <u>B6-1</u> Prep: <u>A</u> Structure #: <u>18, 19</u> 	GO: <u>H6-1</u> Prep: <u>A</u> Structure #: <u>20-23</u> 
GO: <u>T2-1</u> Prep: <u>B</u> Structure #: <u>21</u> 	GO: <u>E2-6</u> Prep: <u>B</u> Structure #: <u>22</u> 	GO: <u>T2-3</u> Prep: <u>B</u> Structure #: <u>23</u> 	GO: <u>G2-6</u> Prep: <u>B</u> Structure #: <u>24</u> 

Analyst: JS

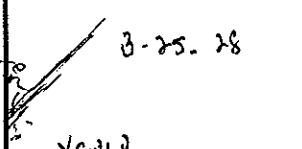
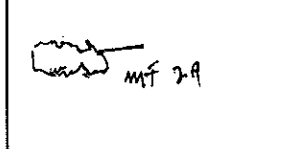
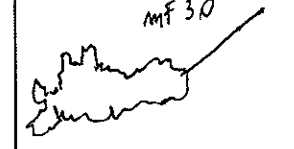
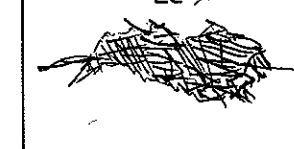
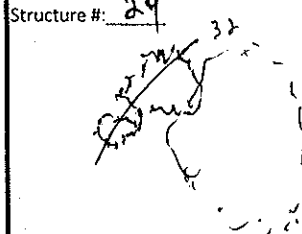
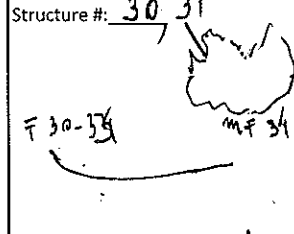
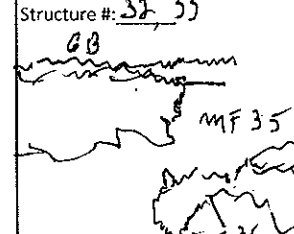
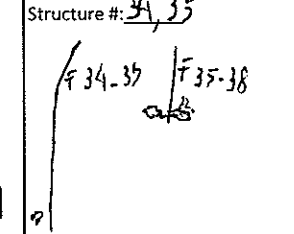


Page 1 of 2

From Te Atlas, Macroscopic Alignment, EDS Peak Location was verified by August.

TEM Structure Sketch Sheet

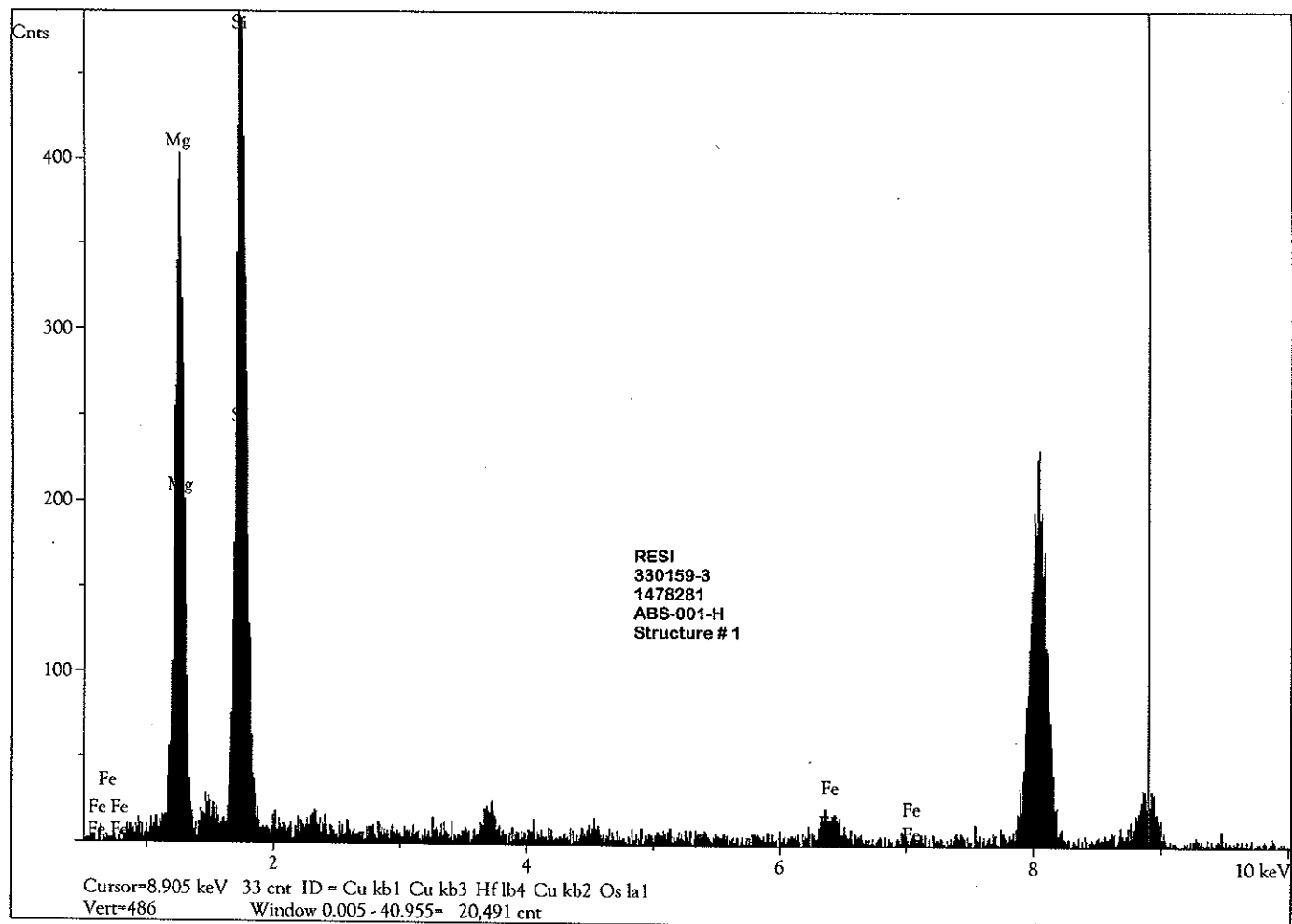
RES # 330159-3 EM # 1478281

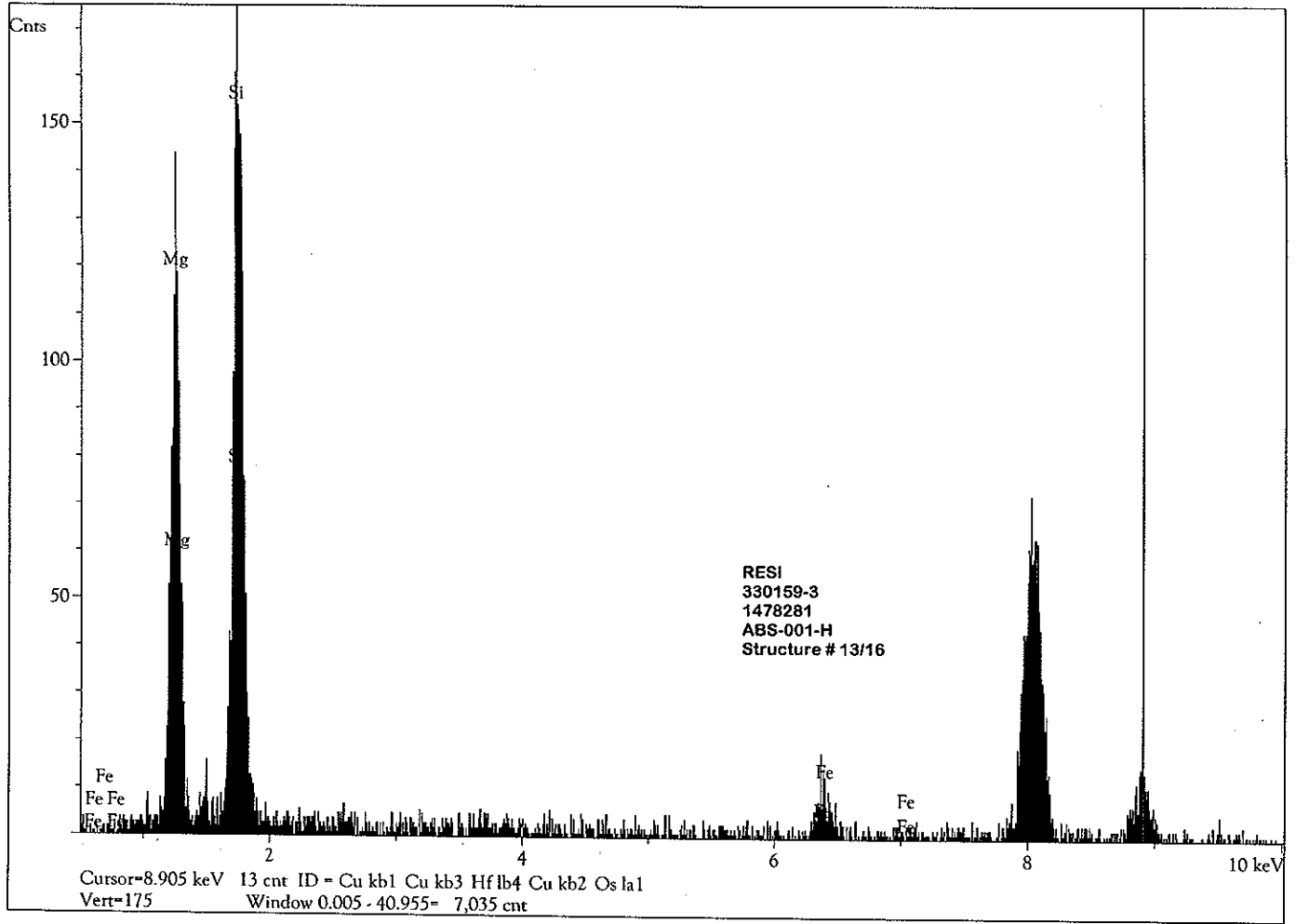
Sample Number: ABS-001-4

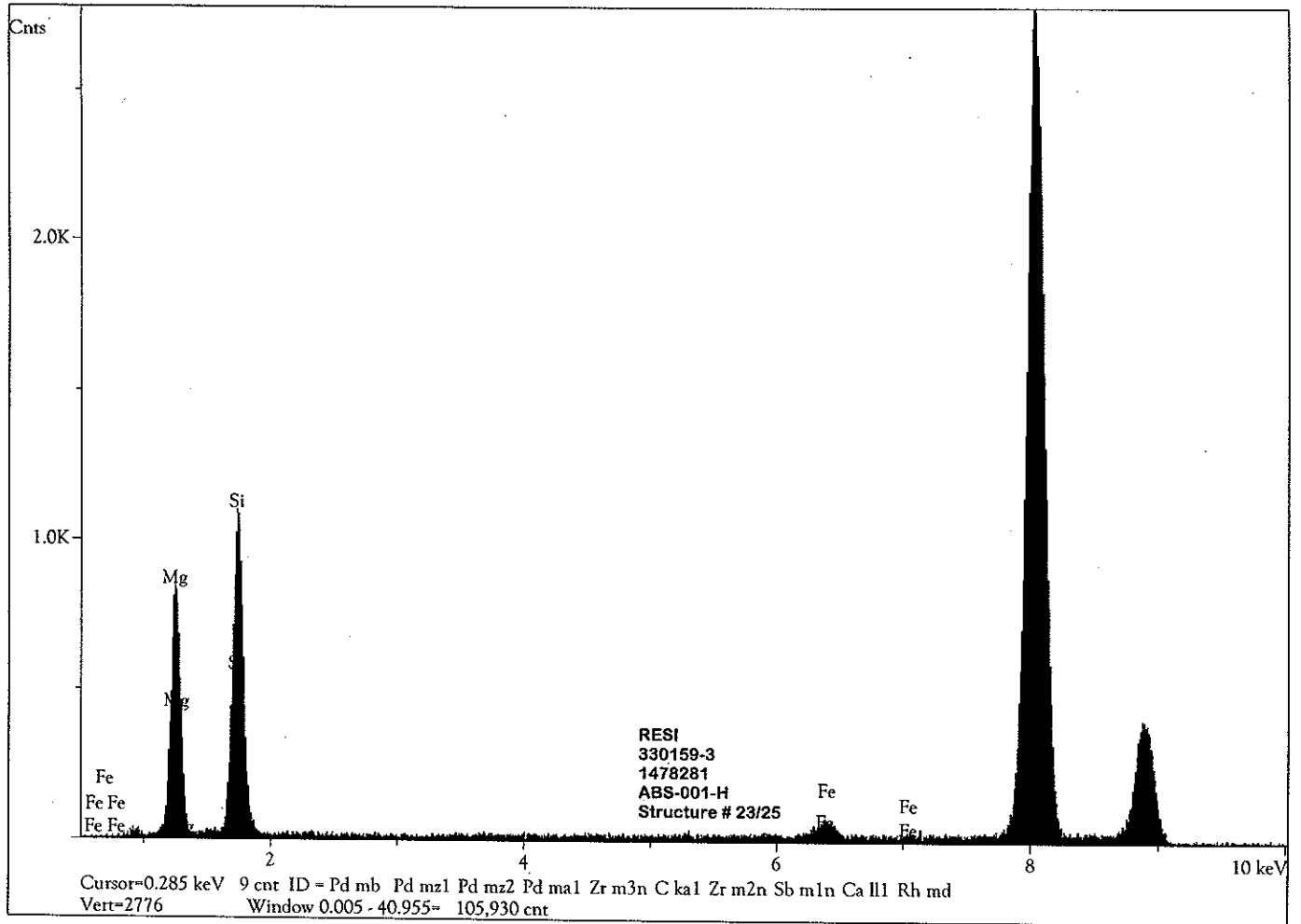
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GO: <u>G3-6</u> Prep: <u>B</u> Structure #: <u>29</u> 	GO: <u>E4-6</u> Prep: <u>B</u> Structure #: <u>30, 31</u> 	GO: <u>F4-4</u> Prep: <u>B</u> Structure #: <u>32, 33</u> 	GO: <u>B5-4</u> Prep: <u>B</u> Structure #: <u>34, 35</u> 
GO: <u>H5-4</u> Prep: <u>B</u> Structure #: <u>36</u> 	GO: <u>K5-1</u> Prep: <u>B</u> Structure #: <u>37, 38, 39</u> 	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____
GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____
GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____

Analyst: NT

Page 2 of 2







National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

ANALYTICAL REPORT

FILE NAME: 103X902600015051507202_RESI_ABS-002-H_08-28-15_330159_TEM_D.xls

SAMPLE/ANALYSIS INFORMATION				ANALYSIS PARAMETERS	
Media	Air	Lab Sample Number	330159-1478282	Effective filter area (mm2)	385
Sample Type	Field Sample	Field Sample Number	ABS-002-H	F-factor	1.00E+00
Air Volume (L)	550	Preparation	Direct	Grid opening area (mm2)	0.0100
QA Sample Type	Not QC	Analysis Date	08/28/2015	# GOs counted High Magnification	185
Sample Status	Analyzed	Method SOP	Modified ISO 10312	# GOs counted Low Magnification	0
Maximum Area Examined				# Gos counted High + Low	185
High Magnification	1.9E+00			Magnification	
Low Magnification	0.0E+00			Sensitivity (1/cc)	
Stopping Rule(s):	Max Area = 4, Structures = 50, Sensitivity = 4.00E-04			Total Asbestos	0.0003784
Recording Rule(s):	Min Aspect Ratio = >= 3:1, Min Length = 0.5µm, Min Width = 0µm			PCME/User Defined	0.0003784

Number of Structures with Fatal Data Entry Errors (Structures with fatal errors are excluded from calculations below)

Mineral Class	Number of Structures (a)	Loading on Filter (b) (s/mm ²)	Air Conc (c) (s/cc)	95% Poisson Confidence Interval for this Sample	Desired Confidence Interval (%):	95
Total TEM Structures					Binning Rule Description:	
Total Asbestos	17	9.2E+00	6.4E-03	3.7E-03 - 1.0E-02	Apply to fibers (F) only: L ≥ 0.5µm, AR ≥ 3	
Total Chrysotile (CH)	15	8.1E+00	5.7E-03	3.2E-03 - 9.4E-03		
Total Amphibole	2	1.1E+00	7.6E-04	9.2E-05 - 2.7E-03	No restrictions for other structure types.	
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
anthophyllite (AN)	1	5.4E-01	3.8E-04	9.6E-06 - 2.1E-03		
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
tremolite (TR)	1	5.4E-01	3.8E-04	9.6E-06 - 2.1E-03		
winchite/richterite/tremolite/a ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03	ChiSq test for even filter loading for Total TEM Structures (see Annex F2 in ISO 10312)	
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03	Filter loading is OK	
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Solid Soln: Trem-Act	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
PCM Equivalent Structures (PCME)					Binning Rule Description:	
Total Asbestos	1	5.4E-01	3.8E-04	9.6E-06 - 2.1E-03	Apply to all structures where Total column > 0	
Total Chrysotile (CH)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Total Amphibole	1	5.4E-01	3.8E-04	9.6E-06 - 2.1E-03	L > 5µm, W ≥ 0.25µm and W ≤ 3µm, AR ≥ 3	
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
anthophyllite (AN)	1	5.4E-01	3.8E-04	9.6E-06 - 2.1E-03		
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
tremolite (TR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
winchite/richterite/tremolite/a ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03	ChiSq test for even filter loading for PCM Structures (see Annex F2 in ISO 10312)	
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03	Filter loading is OK	
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Solid Soln: Trem-Act	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		

- (a) Based on countable structures only.
- (b) Loading on Filter (s/mm²) = N structures / (GOs Counted * GO Area). Results for indirect samples are based on the secondary filter.
- (c) Air Concentration (s/cc) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Air Volume * 1000).
- Dust Loading (s/cm2) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Dust Collection Area).

FILE NAME: 103X902600015051507202_RESI_ABS-002-H_08-28-15_330159_TEM_D.xls

Original

FILE TYPE: Orig

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

Site or Project Name:	Tetra Tech-Kewaunce Marquette School	Site/Project Identifier Code:	103X90260001 5051507202
State/Federal Site or Project Identifier:	103X9026000150515072 02		

Laboratory name:	RESI
Instrument:	JEOL 100 CX (N)
Voltage (kV):	100
Magnification: [Enter one or both here (a)]	20000x
Grid opening area (mm ²):	0.01

Scale: 1L =	0.28	Low Mag:
Scale: 1D =	0.056	
Filter Size (mm):	25	
Filter Pore Size (um):	0.8	
Method:	Modified ISO 10312	
Grid Storage Location:	330159	
Archive filter(s) storage location:	330159	

Client Sample Number:	ABS-002-H
Date received by lab:	08/25/2015
Lab Job Number:	330159
Lab Sample Number:	330159-1478282
Chain of Custody Number:	103X902600015 051507202

Sample Type:	Field Sample
QC Sample Type:	Not QC
Media:	Air
Air volume (L), dust area (cm ²), or dustfall container area (cm ²):	550

Number of grids prepared:	5
Preparation Type:	Direct
Preparation date:	08/24/2015
If sample type = air, is there loose material or debris in the cowl?	No

Primary filter area (mm ²):	385
Secondary Filter Area (mm ²):	
F- factor: [proposed value shown, cell formula can be over-written if neccessary]	1.000
Filter Status:	Analyzed
Analyzed by:	N. Zimbelman
Analysis date:	08/28/2015

F-factor Input Parameters:**Indirect Prep Inputs**

Fraction of primary filter used for indirect prep or :
[For dust and dustfall, enter 1.0]
First resuspension volume or
rinsate volume (mL)
Volume applied to secondary filter (mL) or used f
dilution

Inputs for Serial Dilutions

Second resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution
Third resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution

Input for Ashing of Secondary Filter

Fraction of secondary filter used for
ashing

V	Grid opening traverse direction
---	---------------------------------

COMMENTS

Prior to analysis microscope alignment calibration and EDS peak location was verified by analyst.

(a) Enter one or both magnifications (high and/or low) in this box. Examples: 20,000x OR 5,000x OR 20,000/5,000x

Check box if this sample was analyzed using more than one instrument, by
more than one analyst, or across multiple analysis dates

If sample was analyzed using more than one TEM instrument,
enter TEM Instrument details below.

	Instrument #2	Instrument #3
Instrument:		
Voltage (kV):		

If sample was analyzed by more than one analyst
or across multiple analysis dates, enter analysis details below.

	Analyst/Date #2	Analyst/Date #3
Analyzed by:		
Analysis date:		

Tetra Tech-Kewaunce Marquette School

FILE NAME	103X902600015051507202 RESI ABS-002-H 08-28-15 330159 TEM D.xls
-----------	---

CLIENT SAMPLE ID:	ABS-002-H
LAB SAMPLE ID:	330159-1478282

Media	Air
Sample Prep	Direct

Sample Type	Field Sample
QC Sample Type	Not QC
Sample Status	Analyzed
Analysis Date	08/28/2015

Data Entry by:	N. Zimbelman
Data Entry Date:	08/28/2015

QA by:	G. Vettrai
QA Date:	4-Sep

Analysis Date	08/28/2015
---------------	------------

One or more stopping rules have been met, no additional grid openings need to be evaluated.

[illegible]

[illegible]


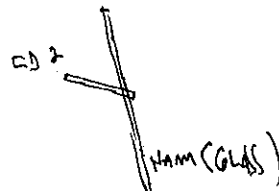
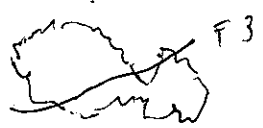





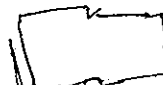






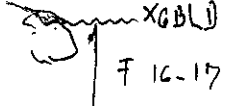
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	K6-1	ND													
	H6-4	ND													
	H6-1	ND													
	G6-4	ND													
	G6-1	ND													
	E6-4	ND													
	F6-1	ND													
	E6-1	ND													
	C6-4	ND													
	C6-1	ND													
B	H1-6	ND													
	H1-3	ND													
	G1-6	ND													
	G1-3	ND													
	F1-6	ND													
	F1-3	ND													
	E1-6	ND													
	E1-3	ND													
	H2-1	MD10	6		29	30	CD	CH		1					
	H2-1	MF		6	5	1	CD	CH		1					
	G2-4	ND													
	G2-1	ND													
	E2-1	ND													
	C2-4	ND													
	K2-6	MC+1	7	7	80	211	CD	CH		1					
	K2-3	ND													
	G2-3	ND													
	F2-6	ND													
	F2-3	ND													
	E2-6	ND													
	B3-1	F	8	8	3	1	CD	CH		1					
	C3-4	B	9	9	8	1.5	CD	CH		1					
	L3-1	MD20	10		40	111	CD	CH		1					
	L3-1	MF		10	7	1	CD	CH		1					
	L3-1	MF		11	8	1	CD	CH		1					
	G3-4	ND													
	H3-1	ND													
	G3-1	ND													
	F3-4	ND													
	F3-1	ND													
	E3-4	ND													
	E3-1	ND													
	G3-3	ND													
	C3-1	ND													
	B3-4	ND													
	F3-6	ND													
	G3-6	MD11	11		42	24	CD	CH		1					
	G3-6	MF		12	18	1	CD	CH		1					
	F3-3	ND													
	E3-6	ND													
	E3-3	ND													
	C3-6	ND													

[illegible]

TEM Structure Sketch Sheet

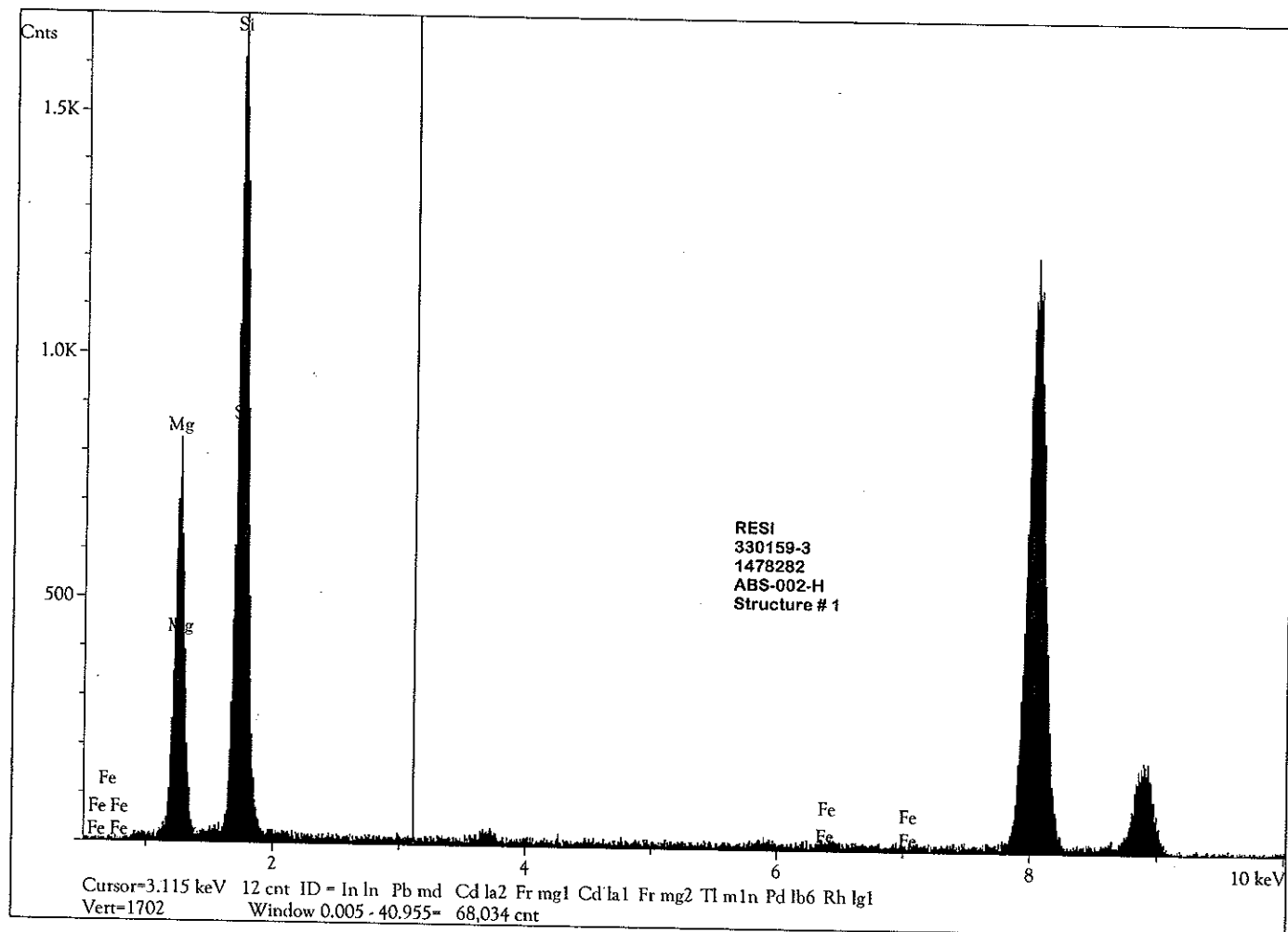
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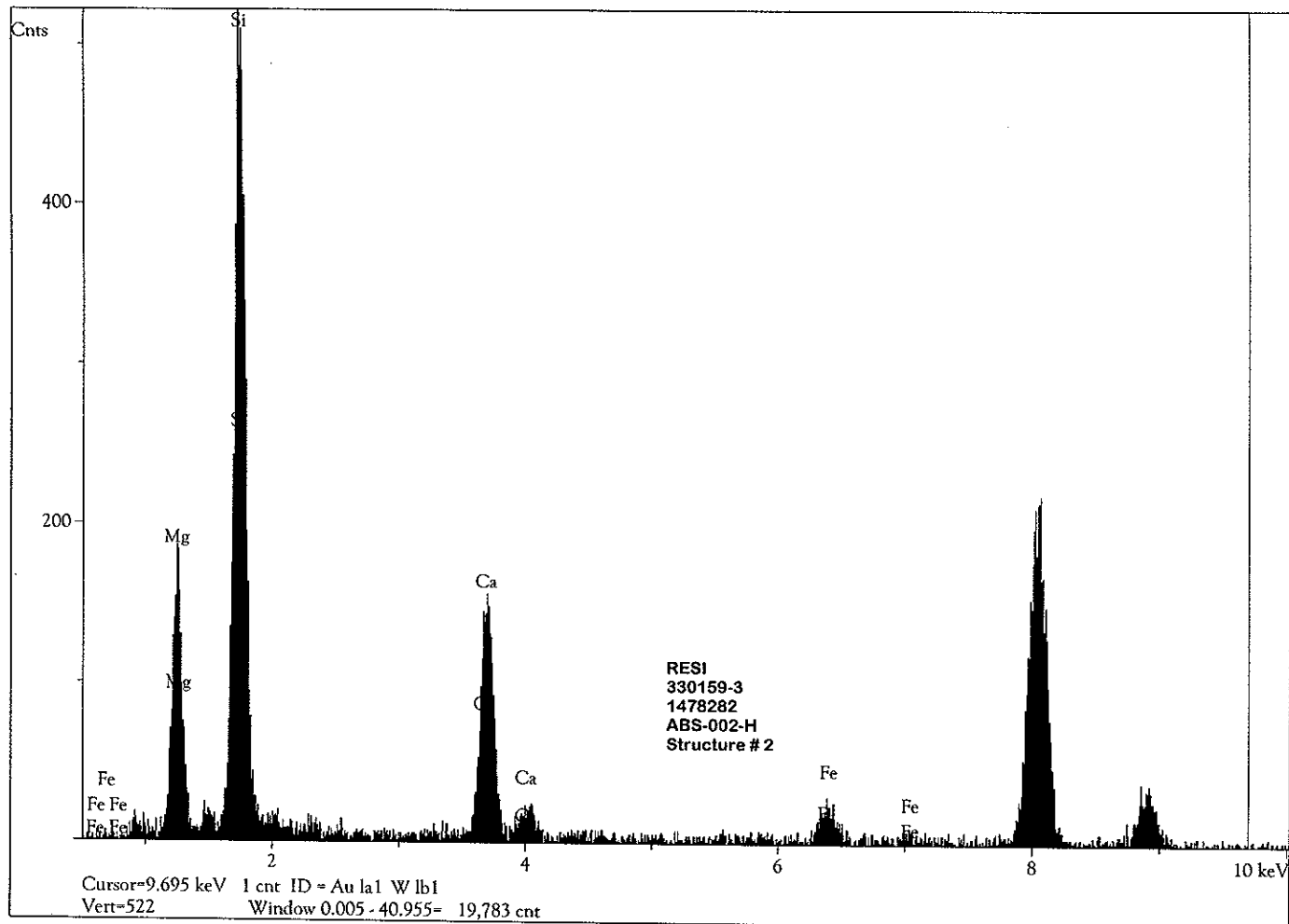
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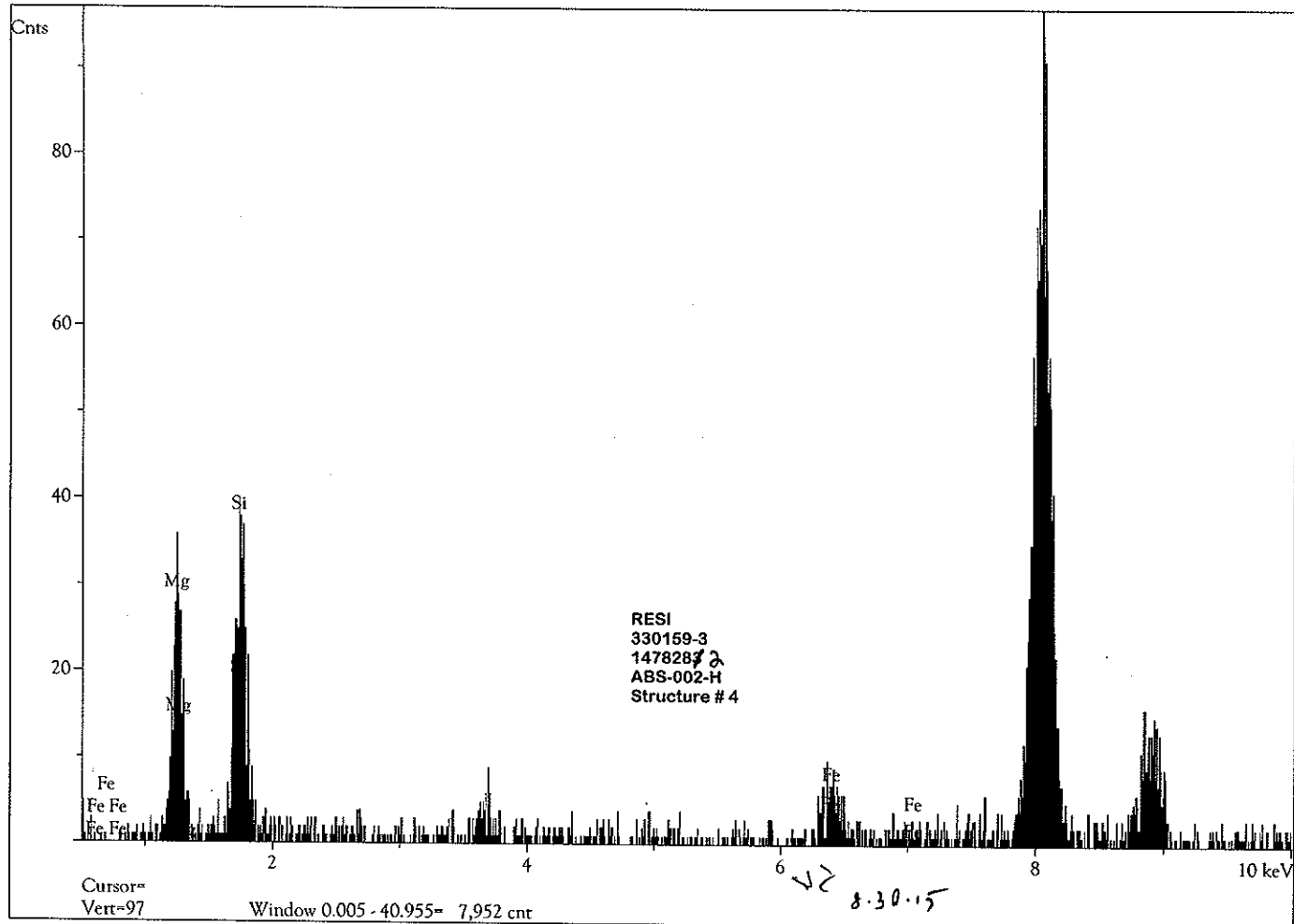
<p>GO: <u>B3-6</u> Prep: <u>A</u> Structure #: <u>1</u></p> <p>8.19.15</p> 	<p>GO: <u>E3-3</u> Prep: <u>A</u> Structure #: <u>2</u></p> 	<p>GO: <u>A4-3</u> Prep: <u>A</u> Structure #: <u>3</u></p> 	<p>GO: <u>G5-6</u> Prep: <u>A</u> Structure #: <u>4</u></p> 
<p>GO: <u>F6-4</u> Prep: <u>A</u> Structure #: <u>5</u></p> 	<p>GO: <u>H2-1</u> Prep: <u>B</u> Structure #: <u>6</u></p> 	<p>GO: <u>K2-6</u> Prep: <u>B</u> Structure #: <u>7</u></p> 	<p>GO: <u>B3-4</u> Prep: <u>B</u> Structure #: <u>8</u></p> 
<p>GO: <u>E3-4</u> Prep: <u>B</u> Structure #: <u>9</u></p> 	<p>GO: <u>L3-1</u> Prep: <u>B</u> Structure #: <u>10</u></p> 	<p>GO: <u>G3-6</u> Prep: <u>B</u> Structure #: <u>11</u></p> 	<p>GO: <u>H4-4</u> Prep: <u>B</u> Structure #: <u>12</u></p> 
<p>GO: <u>E4-6</u> Prep: <u>B</u> Structure #: <u>13</u></p> 	<p>GO: <u>F5-3</u> Prep: <u>B</u> Structure #: <u>14</u></p> 	<p>GO: <u>B2-3</u> Prep: <u>E</u> Structure #: <u>15</u></p> 	<p>GO: <u>H3-1</u> Prep: <u>E</u> Structure #: <u>16</u></p> 
<p>GO: _____ Prep: _____ Structure #: _____</p>	<p>GO: _____ Prep: _____ Structure #: _____</p>	<p>GO: _____ Prep: _____ Structure #: _____</p>	<p>GO: _____ Prep: _____ Structure #: _____</p>

Analyst: P. J. Zimbalman

Page 1 of 1







National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

ANALYTICAL REPORT

FILE NAME: 103X902600015051507202_RESI_ABS-003-H_08-29-15_330159_TEM_D.xls

SAMPLE/ANALYSIS INFORMATION				ANALYSIS PARAMETERS	
Media	Air	Lab Sample Number	330159-1478283	Effective filter area (mm2)	385
Sample Type	Field Sample	Field Sample Number	ABS-003-H	F-factor	1.00E+00
Air Volume (L)	1073	Preparation	Direct	Grid opening area (mm2)	0.0100
QA Sample Type	Not QC	Analysis Date	08/29/2015	# GOs counted High Magnification	92
Sample Status	Analyzed	Method SOP	Modified ISO 10312	# GOs counted Low Magnification	0
Maximum Area Examined				# Gos counted High + Low	92
High Magnification	9.2E-01			Magnification	
Low Magnification	0.0E+00			Sensitivity (1/cc)	
Stopping Rule(s):	Max Area = 4, Structures = 50, Sensitivity = 4.00E-04			Total Asbestos	0.00039
Recording Rule(s):	Min Aspect Ratio = >= 3:1, Min Length = 0.5µm, Min Width = 0µm			PCME/User Defined	0.00039

Number of Structures with Fatal Data Entry Errors (Structures with fatal errors are excluded from calculations below)

Mineral Class	Number of Structures (a)	Loading on Filter (b) (s/mm ²)	Air Conc (c) (s/cc)	95% Poisson Confidence Interval for this Sample	Desired Confidence Interval (%):	95
Total TEM Structures					Binning Rule Description:	
Total Asbestos	23	2.5E+01	9.0E-03	5.7E-03 - 1.3E-02	Apply to fibers (F) only: L ≥ 0.5µm, AR ≥ 3	
Total Chrysotile (CH)	11	1.2E+01	4.3E-03	2.1E-03 - 7.7E-03		
Total Amphibole	12	1.3E+01	4.7E-03	2.4E-03 - 8.2E-03	No restrictions for other structure types.	
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
anthophyllite (AN)	1	1.1E+00	3.9E-04	9.9E-06 - 2.2E-03		
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
tremolite (TR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
winchite/richterite/tremolite/a ctinolite (WRTA)	2	2.2E+00	7.8E-04	9.4E-05 - 2.8E-03		
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Solid Soln: Trem-Act	9	9.8E+00	3.5E-03	1.6E-03 - 6.7E-03		
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03	ChiSq test for even filter loading for Total TEM Structures (see Annex F2 in ISO 10312)	
					Filter loading appears uneven. Quantitation may be uncertain.	
PCM Equivalent Structures (PCME)					Binning Rule Description:	
Total Asbestos	1	1.1E+00	3.9E-04	9.9E-06 - 2.2E-03	Apply to all structures where Total column > 0	
Total Chrysotile (CH)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Total Amphibole	1	1.1E+00	3.9E-04	9.9E-06 - 2.2E-03	L > 5µm, W ≥ 0.25µm and W ≤ 3µm, AR ≥ 3	
actinolite (AC)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
amosite (AM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
anthophyllite (AN)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
crocidolite (CR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
tremolite (TR)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
winchite/richterite/tremolite/a ctinolite (WRTA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
other amphibole (OA)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Solid Soln: Amosite	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03		
Solid Soln: Trem-Act	1	1.1E+00	3.9E-04	9.9E-06 - 2.2E-03		
other mineral class (OM)	0	0.0E+00	0.0E+00	0.0E+00 - 1.4E-03	ChiSq test for even filter loading for PCM Structures (see Annex F2 in ISO 10312)	
					Filter loading is OK	

- (a) Based on countable structures only.
(b) Loading on Filter (s/mm²) = N structures / (GOs Counted * GO Area). Results for indirect samples are based on the secondary filter.
(c) Air Concentration (s/cc) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Air Volume * 1000).
Dust Loading (s/cm2) = (N structures * EFA) / (GOs Counted * GO Area * F-factor * Dust Collection Area).

FILE NAME:

103X902600015051507202_RESI_ABS-003-H_08-29-15_330159_TEM_D.xls

Original

FILE TYPE:

Orig

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

Site or Project Name:	Tetra Tech-Kewaunee Marquette School
State/Federal Site or Project Identifier:	103X9026000150515072 02

Tetra Tech-Kewaunee Marquette School
103X9026000150515072 02

Site/Project Identifier Code:

103X90260001 5051507202

Laboratory name:	RESI
Instrument:	JEOL 100 CX (N)
Voltage (kV):	100
Magnification: [Enter one or both here (a)]	20000x
Grid opening area (mm ²):	0.01

Scale: 1L =	0.28	Low Mag:
Scale: 1D =	0.056	
Filter Size (mm):	25	
Filter Pore Size (um):	0.8	
Method:	Modified ISO 10312	
Grid Storage Location:	330159	
Archive filter(s) storage location:	330159	

Client Sample Number:	ABS-003-H
Date received by lab:	08/25/2015
Lab Job Number:	330159
Lab Sample Number:	330159-1478283
Chain of Custody Number:	103X902600015 051507202

Sample Type:	Field Sample
QC Sample Type:	Not QC
Media:	Air
Air volume (L), dust area (cm ²), or dustfall container area (cm ²):	1073

Number of grids prepared:	5
Preparation by:	SPF
Preparation date:	08/24/2015
Preparation Type:	Direct
If sample type = air, is there loose material or debris in the cowl?	No

Primary filter area (mm ²):	385
Secondary Filter Area (mm ²):	
F- factor: [proposed value shown, cell formula can be over-written if neccessary]	1.000
Filter Status:	Analyzed
Analyzed by:	N. Zimbelman
Analysis date:	08/29/2015

F-factor Input Parameters:**Indirect Prep Inputs**

Fraction of primary filter used for indirect prep or :
[For dust and dustfall, enter 1.0]

First resuspension volume or
rinsate volume (mL)

Volume applied to secondary filter (mL) or used f
dilution

Inputs for Serial Dilutions

Second resuspension volume (mL)

Volume applied to secondary filter (mL)
or used for serial dilution

Third resuspension volume (mL)

Volume applied to secondary filter (mL)
or used for serial dilution

Input for Ashing of Secondary Filter

Fraction of secondary filter used for
ashing

V	Grid opening traverse direction
---	---------------------------------

COMMENTS

Prior to analysis microscope alignment calibration and EDS peak location was verified by analyst.

(a) Enter one or both magnifications (high and/or low) in this box. Examples: 20,000x OR 5,000x OR 20,000/5,000x

Check box if this sample was analyzed using more than one instrument, by
more than one analyst, or across multiple analysis dates

If sample was analyzed using more than one TEM instrument,
enter TEM Instrument details below.

	Instrument #2	Instrument #3
Instrument:		
Voltage (kV):		

If sample was analyzed by more than one analyst
or across multiple analysis dates, enter analysis details below.

	Analyst/Date #2	Analyst/Date #3
Analyzed by:		
Analysis date:		

Tetra Tech-Kewaunee Marquette School

FILE NAME 103X902600015051507202 RESI ABS-003-H 08-29-15 330159 TEM D.xls

CLIENT SAMPLE ID: ABS-003-H

LAB SAMPLE ID: 330159-1478283

Media	Air
Sample Prep	Direct

Sample Type	Field Sample
-------------	--------------

QC Sample Type	Not QC
----------------	--------

Sample Status	Analyzed
---------------	----------

Analysis Date	08/29/2015
---------------	------------

Data Entry by: N. Zimbelman

QA by: G. Vettraino

Data Entry Date:	08/29/2015
------------------	------------

QA Date:	9/4/2015
----------	----------

One or more stopping rules have been met, no additional grid openings need to be evaluated.

[illegible]

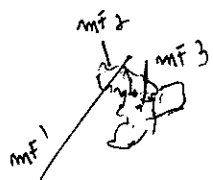
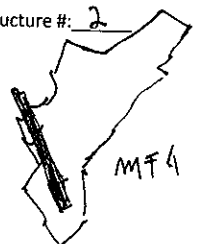


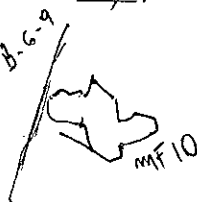

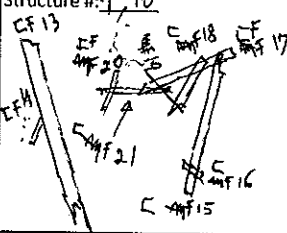


	B3-6	ND												
	B3-3	ND												
	A3-6	ND												
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	B4-1	MF		4	9.5	5	ADX	AN		1		1		
	B4-4	F	3	5	2	1	CD	CH		1				
	L4-4	ND												
	K4-4	ND												
	K4-1	ND												
	H4-4	ND												
	H4-1	ND												
	G4-4	ND												
	G4-1	ND												
	F4-4	ND												
	F4-1	ND												
	E4-4	ND												
	E4-1	ND												
	C4-4	ND												
	C4-1	ND												
B	H2-6	CD20	4		3.5	3.5	CD	CH		1				
	H2-6	CB		6	3.5	1	CD	CH		1				
	H2-6	CF		7	3	3.5	CD	CH		1				
	H2-6	F	5	8	2	1	CD	CH		1				
	K2-3	ND												
	K2-6	ND												
	G2-6	ND												
	G2-3	ND												
	E2-6	ND												
	G2-1	ND												
	F2-4	ND												
	F2-1	ND												
	E2-1	ND												
	H1-3	ND												
	G1-6	ND												
	G1-3	ND												
	F1-6	ND												
	F1-3	ND												
	E1-6	ND												
	E1-3	ND												
	K3-4	B	6	9	16.5	1.5	CD	CH		1				
	K3-4	MD10	7		10	22	CD	CH		1				
	K3-4	MF		10	4	1	CD	CH		1				
	L3-1	ND												
	H3-4	ND												
	K3-1	ND												
	H3-1	ND												
	C3-1	ND												
	E3-6	MD20	8		19	17	ADX	WRTA		1				Nak
	E3-6	MF		11	16	5.5	ADX	WRTA		1				Nak
	E3-6	MF		12	14	3	ADX	WRTA		1		1		Nak
	F3-6	CD21	9		30	32	ADX	Trem-Act		1				
	F3-6	CF		13	30	10	ADX	Trem-Act		1		1		
	F3-6	CF		14	3.5	2.5	ADX	Trem-Act		1				
	F3-6	CD70	10		14	15	ADX	Trem-Act						
	F3-6	CF		15	14	5	ADX	Trem-Act		1		1		
	F3-6	CF		16	2	1.5	ADX	Trem-Act		1				
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[illegible]

TEM Structure Sketch Sheet

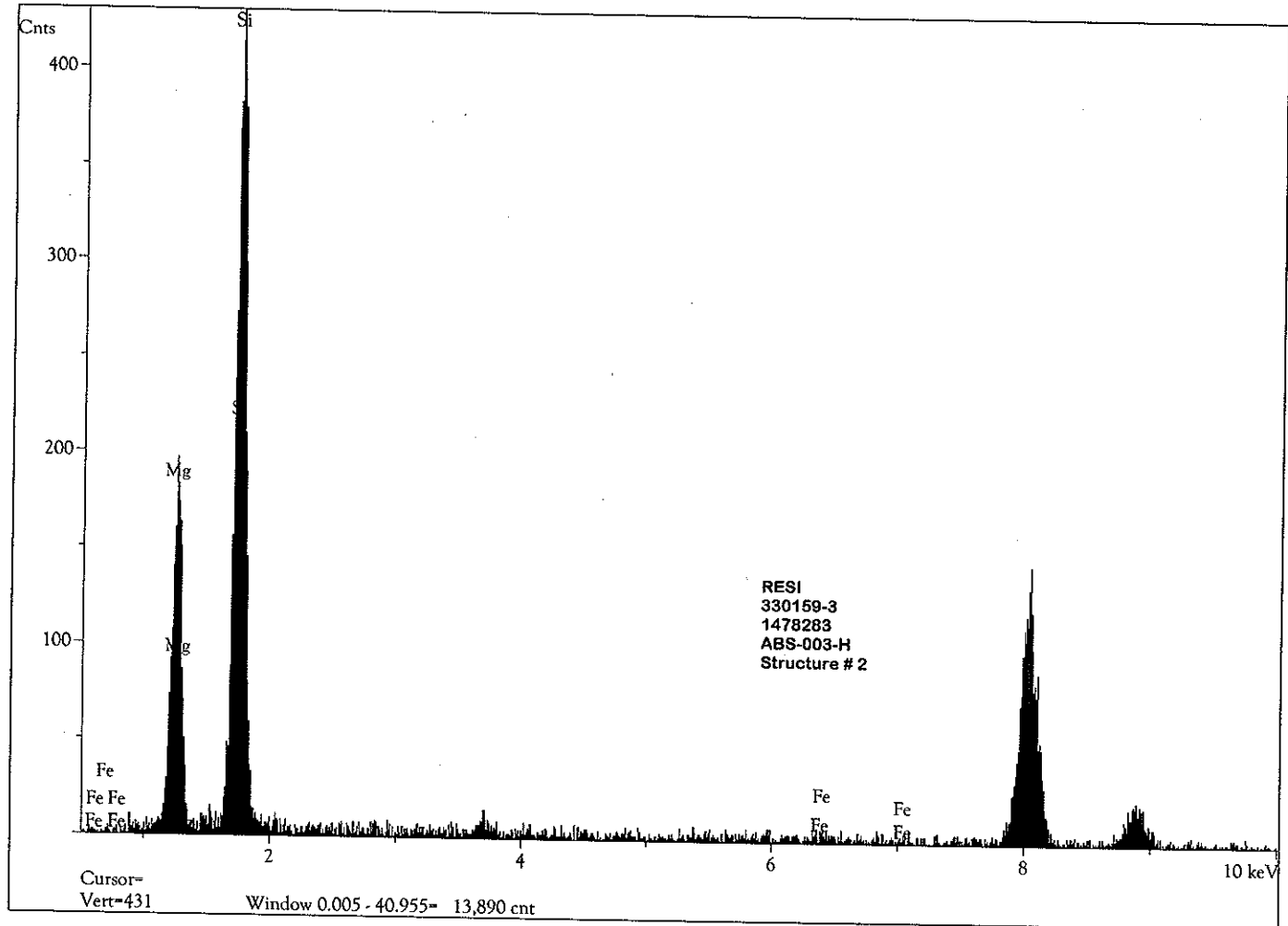
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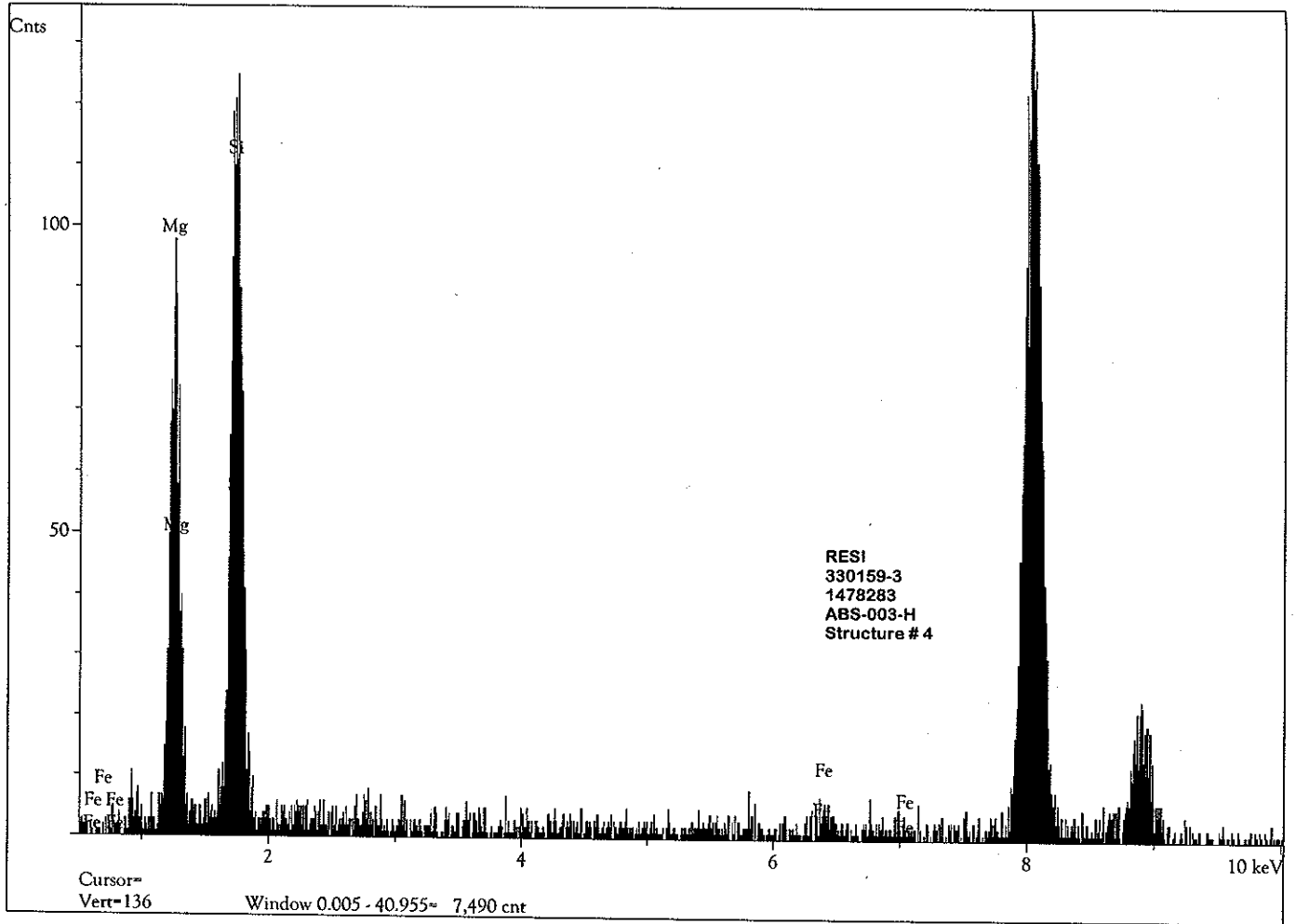
Sample Number: ABS-003-H

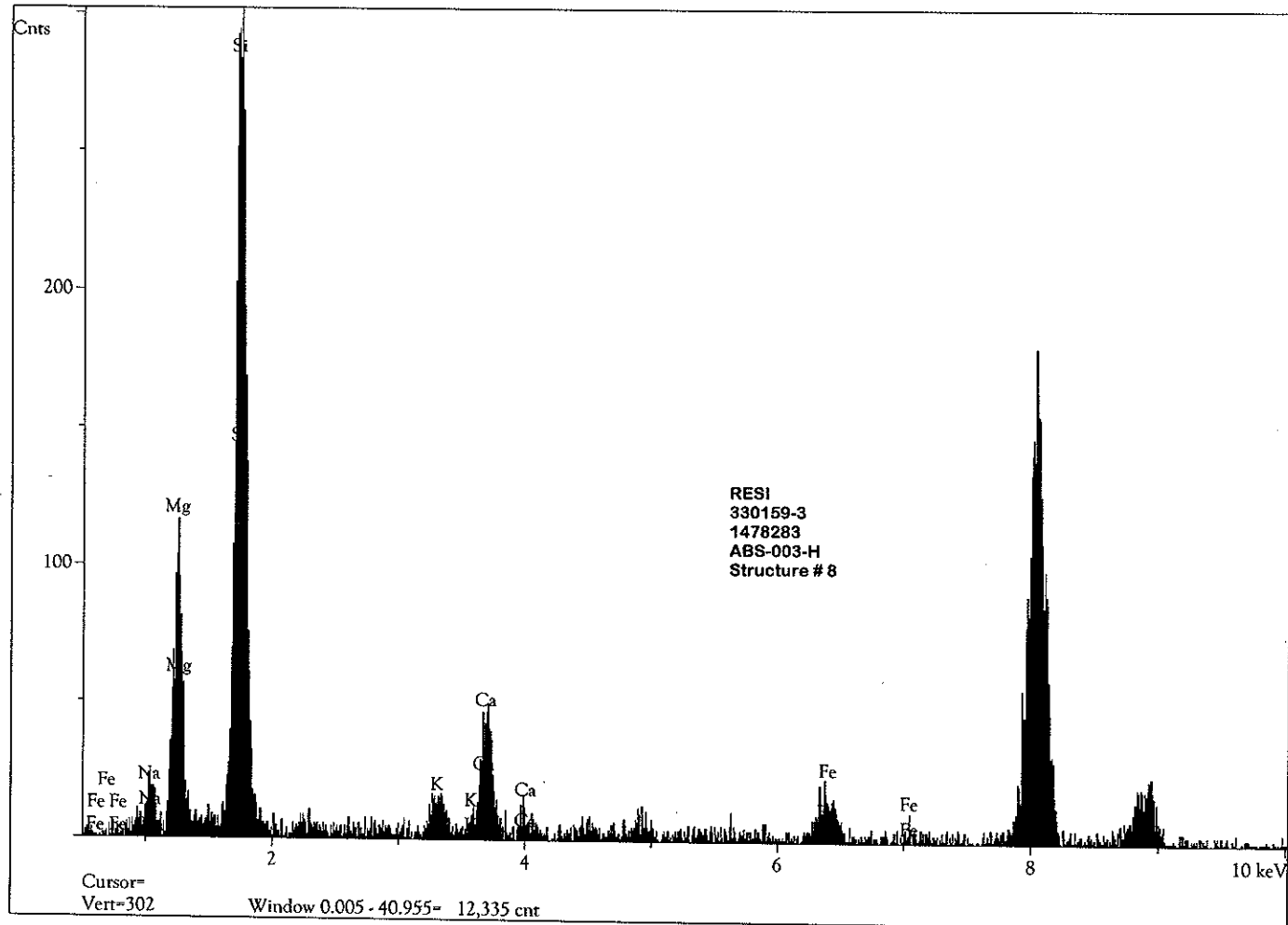
GO: <u>E3-1</u> Prep: <u>A</u> Structure #: <u>1</u> 	GO: <u>B4-1</u> Prep: <u>A</u> Structure #: <u>2</u> 	GO: <u>B4-1</u> Prep: <u>A</u> Structure #: <u>3</u> F-5 1 	GO: <u>H2-6</u> Prep: <u>B</u> Structure #: <u>4, 5</u>  1 F 5-8
GO: <u>K3-4</u> Prep: <u>B</u> Structure #: <u>6, 7</u> 8-30-15 	GO: <u>E3-6</u> Prep: <u>B</u> Structure #: <u>8</u> 	GO: <u>F3-6</u> Prep: <u>B</u> Structure #: <u>9, 10</u> 	GO: <u>H3-3</u> Prep: <u>B</u> Structure #: <u>11</u> 
GO: <u>L3-6</u> Prep: <u>B</u> Structure #: <u>12</u> 	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____
GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____
GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____	GO: _____ Prep: _____ Structure #: _____

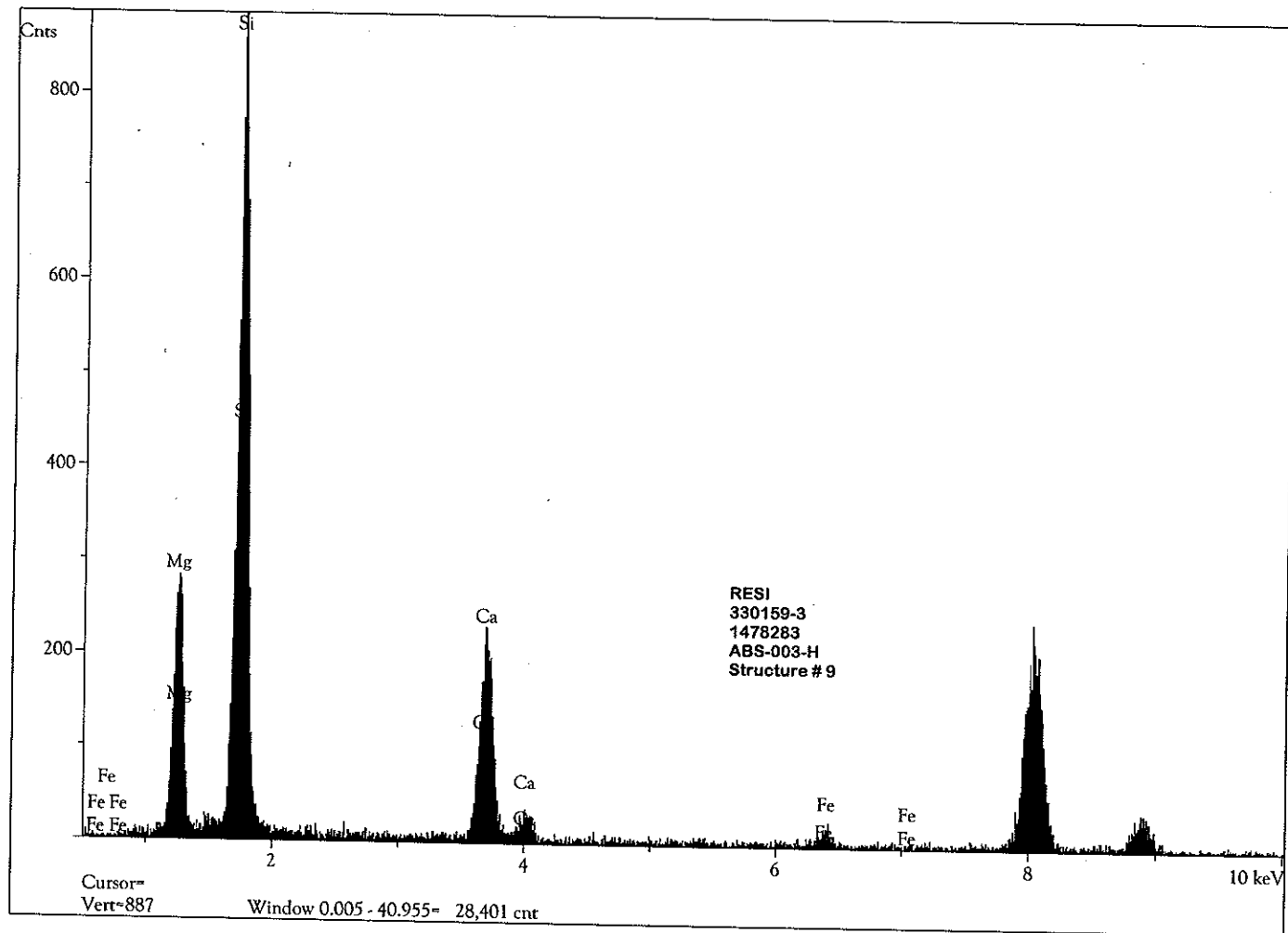
Analyst: NZ

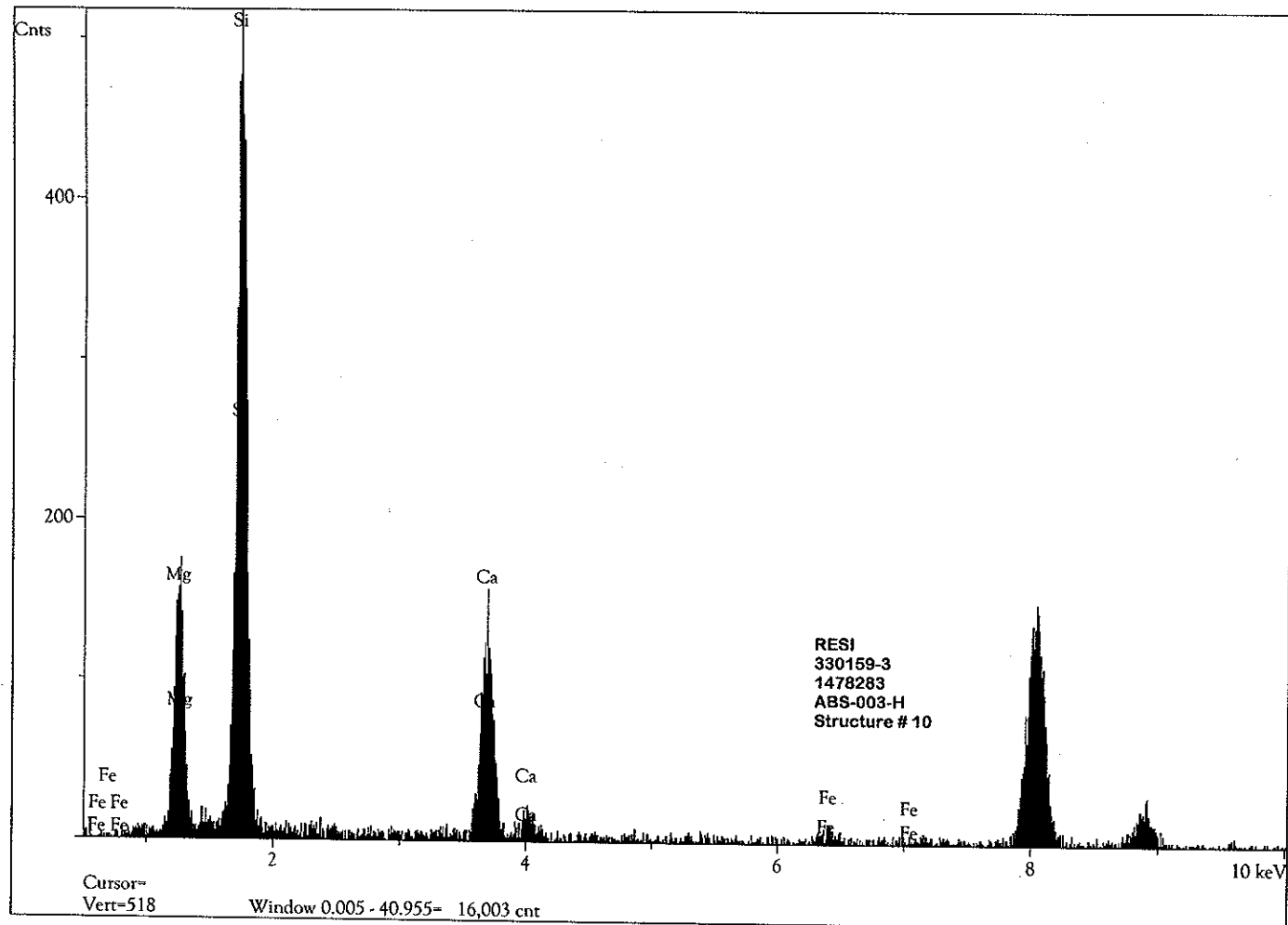
Page 1 of 1











FILE NAME: 103X902600015051507202_RESI_ABS-004-H_08-29-15_330159_TEM_D.xls

FILE TYPE: Original

National Asbestos Data Entry Spreadsheet (NADES) for Air & Dust Analysis by Superfund TEM

Site or Project Name:	
State/Federal Site or Project Identifier:	

Tetra Tech-Kewaunee
Marquette School
103X9026000150515072
02

Site/Project
Identifier Code:

103X90260001
5051507202

Laboratory name:	RESI
Instrument:	JEOL 100 CX (N)
Voltage (kV):	100
Magnification: [Enter one or both here (a)]	20000x
Grid opening area (mm ²):	0.01

	High Mag:	Low Mag:
Scale: 1L =	0.28	
Scale: 1D =	0.056	
Filter Size (mm):	25	
Filter Pore Size (um):	0.8	
Method:	Modified ISO 10312	
Grid Storage Location:	330159	
Archive filter(s) storage location:	330159	

Client Sample Number:	ABS-004-H
Date received by lab:	08/25/2015
Lab Job Number:	330159
Lab Sample Number:	330159-1478284
Chain of Custody Number:	103X902600015 051507202

Sample Type:	Field Sample	
QC Sample Type:	Not QC	
Media:	Air	
Air volume (L), dust area (cm ²), or dustfall container area (cm ²):	1785	

Number of grids prepared:	None	
Prepared by:	SPF	
Preparation date:	08/24/2015	
Preparation Type:	Direct	
If sample type = air, is there loose material or debris in the cowl?	No	

Primary filter area (mm ²):	385	
Secondary Filter Area (mm ²):		
F- factor: [proposed value shown, cell formula can be over-written if neccessary]	1.000	
Filter Status:	Damaged	
Analyzed by:	N. Zimbelman	
Analysis date:	08/29/2015	

F-factor Input Parameters:**Indirect Prep Inputs**

Fraction of primary filter used for indirect prep or :
[For dust and dustfall, enter 1.0]
First resuspension volume or
rinsate volume (mL)
Volume applied to secondary filter (mL) or used f
dilution

Inputs for Serial Dilutions

Second resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution
Third resuspension volume (mL)
Volume applied to secondary filter (mL)
or used for serial dilution

Input for Ashing of Secondary Filter

Fraction of secondary filter used for
ashing

COMMENTS

Rejected sample; support pad was above filter.

V	Grid opening traverse direction
---	---------------------------------

(a) Enter one or both magnifications (high and/or low) in this box. Examples: 20,000x OR 5,000x OR 20,000/5,000x

☐ Check box if this sample was analyzed using more than one instrument, by
more than one analyst, or across multiple analysis dates

If sample was analyzed using more than one TEM instrument,
enter TEM Instrument details below.

	Instrument #2	Instrument #3
Instrument:		
Voltage (kV):		

If sample was analyzed by more than one analyst
or across multiple analysis dates, enter analysis details below.

	Analyst/Date #2	Analyst/Date #3
Analyzed by:		
Analysis date:		

Appendix E

Calibration Documentation

Attachment I

Key to Count Sheets
Count Sheets
Analytical Procedures

Structures identifications consist of an Asbestos Type followed by a Structure Type

Asbestos Type

A = Amosite
An = Anthophyllite
C = Chrysotile
Cr = Crocidolite
Trem-Act = Tremolite-Actinolite

Structure Types

F = Fiber
B = Bundle
C = Cluster
M = Matrix

ND = no structures detected
M = other structure associated with a matrix
NAM = Non Asbestos Mineral
XGB = partly obscured by a grid bar

Sizing Conversion

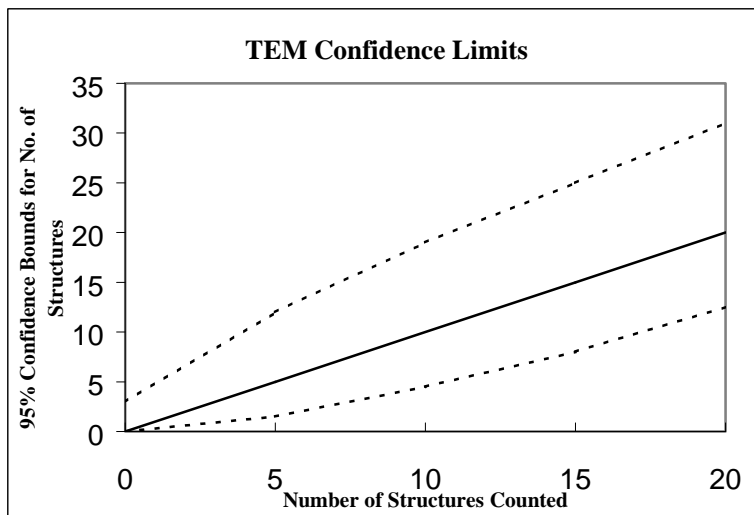
1 length unit = 5 mm on screen = 0.278 micron
1.80 length units = 0.5 micron
18.0 length units = 5 microns

1 width unit = 1 mm on screen = 0.0556 micron

TEM Analysts

Jeanne Spencer
Norberto Zimbleman
Nik Merrill

Paul D. LoScalzo
Sean Flynn
Cameron Powers



Upper and lower 95% confidence bounds for the number of structures counted assuming a Poisson distribution.

Analytical Procedures

Transmission electron microscopy/energy dispersive X-ray spectrometry / selected area electron diffraction (TEM /EDX / SAED) was employed in the analysis of the sample. The water was homogenized in an ultrasonic bath and an aliquot was drawn. The aliquot was diluted as needed (indicated by screening) and an aliquot of the diluted sample was then drawn through a 0.22 micron pore size mixed cellulose ester filter. A portion of the filter was collapsed, etched, and then coated with a thin layer of carbon in a carbon evaporator. A small piece of the coated filter was placed onto a 3mm diameter copper TEM grid with the carbon side down. The sample was then placed inside a condensation washer and treated with acetone to remove the filter matrix and expose and inert material.

For each sample, ten grid openings on a 200 mesh TEM grid are searched for fibrous structures which, if present, are analyzed by SAED and EDX (elemental analysis). Level II protocol requires SAED confirmation of all asbestos identifications. EDX confirmation is also required for the first 5 chrysotile structures, the first 10 amphibole structures and every tenth structure after the 5 or 10 structure minimum is met. The morphology of each structure is determined and the length and diameter of any asbestos structures is recorded. Asbestos fibers, bundles, clusters and matrices were identified and recorded. These asbestos structures have been defined in Yamate et al., as follows:

Fiber: is a structure having an aspect ratio of 3:1 or greater with substantially parallel sides.

Bundle: is a structure composed of three or more fibers in a parallel arrangement, with each fiber closer than the diameter of one fiber.

Cluster: is a structure with fibers in a random arrangement such that all fibers are intermixed and no single fiber is isolated from the group.

Matrix: is a fiber or fibers with one end free and the other end embedded or hidden by a particulate.

If more than 100 asbestos structures are identified and confirmed on a sample, Level II analysis may be terminated after completion of the grid opening which contains the 100th structure.

Equations Used for Calculations

$$\frac{\# \text{Asbestos Structures}}{\# \text{TEM GO Counted}} \times \frac{\text{Eff. Filter Area (mm}^2\text{)}}{\text{Average TEM GO Area (mm}^2\text{)}} \times \frac{1}{\text{Original Dilution / Dilution Factors}} \times \frac{1000 \text{ ml}}{1 \text{ L}}$$

GO = TEM Grid Opening

Attachment I

Key to Count Sheets
Count Sheets
Analytical Procedures

Structures identifications consist of an Asbestos Type followed by a Structure Type

Asbestos Type

A = Amosite
An = Anthophyllite
C = Chrysotile
Cr = Crocidolite
Trem-Act = Tremolite-Actinolite

Structure Types

F = Fiber
B = Bundle
C = Cluster
M = Matrix

ND = no structures detected
M = other structure associated with a matrix
NAM = Non Asbestos Mineral
XGB = partly obscured by a grid bar

Sizing Conversion

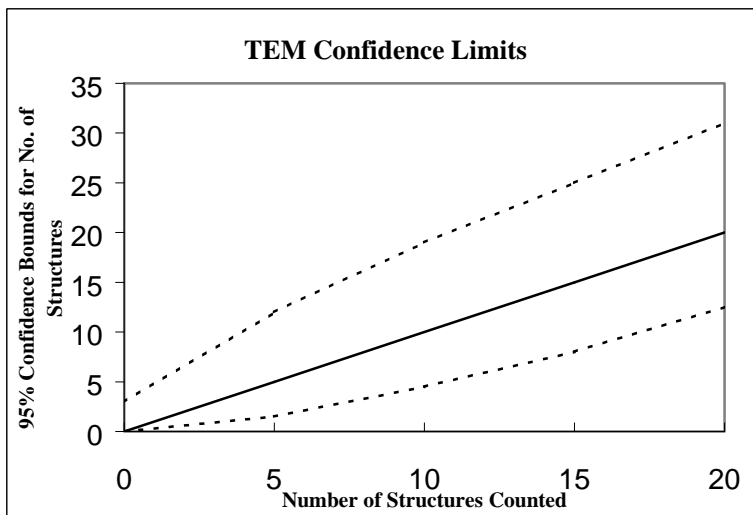
1 length unit = 5 mm on screen = 0.278 micron
1.80 length units = 0.5 micron
18.0 length units = 5 microns

1 width unit = 1 mm on screen = 0.0556 micron

TEM Analysts

Jeanne Spencer
Norberto Zimbleman
Nik Merrill

Paul D. LoScalzo
Sean Flynn
Cameron Powers



Upper and lower 95% confidence bounds for the number of structures counted assuming a Poisson distribution.

Analytical Procedures – AHERA

Transmission electron microscopy/energy dispersive X-ray spectrometry/selected area electron diffraction (TEM/EDX/SAED) was employed in the analysis of the samples, which were collected on 25 mm mixed cellulose ester air filters. A portion of each filter was collapsed with acetone and etched in a plasma asher. The etched filter was then coated with a thin layer of carbon in a carbon side down. The sample was then placed inside a condensation washer and treated with acetone to remove the filter matrix and expose any inert material.

For each sample, enough grid openings on a 200 mesh TEM grid are analyzed to ensure an analytical sensitivity of at least 0.005 structures/cc. A minimum of four grid openings from two preparations are analyzed for each sample. The grid openings are searched for fibrous structures which, if present are analyzed by SAED and/or EDX (elemental analysis). The AHERA protocol requires SAED confirmation of enough chrysotile asbestos structures on each sample to cause the sample to exceed 70 structures/mm² (usually 4 or 5 structures). Both SAED and EDX confirmation are required of enough amphibole structures on each sample to cause the sample to exceed 70 structures/mm² (usually 4 or 5 structures) per sample. Either SAED or EDX is required for the remaining asbestos structures of either type. The morphology of each structure is determined and the length and the diameter of any asbestos structures are recorded. Asbestos fibers, bundles, cluster and matrices were identified and recorded. The asbestos structures have been defined in AHERA as follows:

- Fiber:** is a structure having a minimum length greater than or equal to 0.5 micron with an aspect ratio of 5:1 or greater with substantially parallel sides.
- Bundle:** is a structure composed of three or more fibers in parallel arrangement, with each fiber closer than the diameter of one fiber.
- Cluster:** is a structure with fibers in random arrangements such that all fibers are intermixed and no single fiber is isolated from the group.
- Matrix:** is a fiber or fibers with one end free and the other end embedded or hidden by a particulate. The exposed fiber end must meet the fiber definition given above.

If more than 50 asbestos structures are identified and confirmed on a sample, AHERA analysis may be terminated after completion of the grid opening, which contains the 50th structure. AHERA protocol requires the laboratory to reject any clearance sample which contains in excess of 25% total particulate loading or which appears to be unevenly loaded.

The AHERA protocol includes specific sampling requirements, including minimum numbers of samples and minimum air volumes. Specifically, the 70 structures/mm² clearance criteria is only allowed for sets five inside samples (collected in a group of 13 samples including: five outsides and three blanks) with volumes greater than 1200 liters (40 CFR Part 763, page 41894). Deviation from the AHERA sampling protocol may affect the validity of the analytical results. Analysis of samples collected by non-protocol methods are not accredited by NVLAP

Equations Used for Calculations

$$\text{Area Analyzed, mm}^2 = \# \text{ GO counted} \times \text{Average GO Area (mm)}$$

$$\text{Concentration, s/cc} = \frac{\# \text{ Asbestos Structures}}{\# \text{ GO Counted}} \times \frac{1}{\text{Volume (L)}} \times \frac{\text{Eff. Filter Area (mm}^2\text{)}}{\text{Average GO area (mm}^2\text{)}} \times \frac{1\text{L}}{1000\text{cc}}$$

$$\text{Filter loading, s/mm}^2 = \frac{\# \text{ Asbestos structures}}{\text{Area Analyzed (mm}^2\text{)}}$$

GO = TEM grid opening

Reservoirs Environmental, Inc.
TEM Calibration
Scope JEOL 100CX North

Date 8/5/15
Technician CRP

Magnification Calibration:

Indicated Mag	Indicated Screen Mag		Calculated Mag = rings x 5 x 2160/# lines	Negative Number	Negative Measurement		Calculated Mag = mm x 2160/# lines
	Rings	Lines			mm	lines	
10K	13	16	8775	93185	68	13	11298
20K	10	6	18000	93186	75	7	23143

Ring Unit Calibration:

Is 1.5 ring units < one .49 um sphere < 2 ring units?	YES
---	-----

Camera Length Calibration:

Camera Length	Negative Number	Negative Diameter (mm) (average 3 Measurements)	Average radius(mm)	Calculated Camera Constant (mmA) = radius x 2.355A
25cm	93187	7.83	3.915	9.22

Spot Size Calibration:

At spot size 4 measure the spot size on the viewing screen (Must be <250nm)			
Average spot size(mm) =	2.5	x 57.8 =	144.5

Peak Resolution and Location Calibration:

Peak	Center (eV)	FWHM	Mn FWHM (calculated)
Al	1.486	86.4	136.0
Cu	8.036	152.7	134.0
Calculate Mn FWHM must be <175		Pass	< 5% difference Pass

Relative Sensitivity Calibration:

Crocidolite Sodium peak resolved?	YES
-----------------------------------	-----

K-factor Calibration:

BIR-1G spectra obtained?	YES
Orthoclase spectra obtained?	YES
Albite spectrum obtained?	
2063a spectrum obtained?	

Beam Dose Calibration:

Chrysotile Diffraction Pattern Remains Visible for at Least 15 Seconds?	YES
Chrysotile Diffraction?	YES
Negative Number	93188

Water Chiller Maintenance:

Water Condition	Good
Temperature	Chilled

Reservoirs Environmental, Inc.
TEM Calibration
Scope JEOL 100CX South

Date 8/12/15
Technician CRP

Magnification Calibration:

Indicated Mag	Indicated Screen Mag		Calculated Mag = rings x 5 x 2160/# lines	Negative Number	Negative Measurement		Calculated Mag = mm x 2160/# lines
	Rings	Lines			mm	lines	
10K	8	9	9600	3256/3265	79	14	12189
20K	10	6	18000	3257/3265	85	8	22950

Ring Unit Calibration:

Is 1.5 ring units < one .49 um sphere < 2 ring units?	YES
---	------------

Camera Length Calibration:

Camera Length	Negative Number	Negative Diameter (mm) (average 3 Measurements)	Average radius(mm)	Calculated Camera Constant (mmA) = radius x 2.355A
25cm	3258/3266	7.66	3.83	9.02

Spot Size Calibration:

At spot size 4 measure the spot size on the viewing screen (Must be <250nm)			
Average spot size(mm) =	2.5	x 57.8 =	144.5

Peak Resolution and Location Calibration:

Peak	Center (eV)	FWHM	Mn FWHM (calculated)
Al	1.483	115.6	156.2
Cu	8.031	166.7	149.7
Calculate Mn FWHM must be <175		Pass	< 5% difference Pass

Relative Sensitivity Calibration:

Crocidolite Sodium peak resolved?	YES
-----------------------------------	------------

K-factor Calibration:

BIR-1G spectra obtained?	YES
Orthoclase spectra obtained?	YES
Albite spectrum obtained?	
2063a spectrum obtained?	

Beam Dose Calibration:

Chrysotile Diffraction Pattern Remains Visible for at Least 15 Seconds?				YES
Chrysotile Diffraction?	YES	Negative Number	3259/3267	3278

Water Chiller Maintenance:

Water Condition	Good
Temperature	Chilled

K-Factors

Per Libby Lab Modification Form LB-000085A, collect 5 spectra from the BIR-1G standard and 5 spectra from the Madagascar orthoclase standard per quarter. Enter the K-alpha peak areas (expressed as the number of counts) into the appropriate boxes below.

This spreadsheet is provided as a courtesy to the Libby Labs and the labs are free to modify it as they see fit. The cells that contain formulas are protected to prevent unintentional modification. The password to unprotect the sheet is Montana.

TEM	JEOL 100 CX (N)
-----	-----------------

BIR-1G					
Spectrum Number	1	2	3	4	5
Analyst	CRP	CRP	CRP	CRP	CRP
Date	09-Jul-15	09-Jul-15	11-Aug-15	11-Aug-15	01-Sep-15
Na K-Series Area	73	95	39	42	67
Mg K-Series Area	397	492	191	235	366
Al K-Series Area	748	966	356	408	811
Si K-Series Area	2356	3109	1122	1204	2416
Ca K-Series Area	875	1179	390	393	1012
Fe K-Series Area	509	638	214	249	596
K NaSi	1.945	1.972	1.734	1.728	2.173
K MgSi	1.563	1.664	1.547	1.349	1.739
K AlSi	1.161	1.187	1.162	1.088	1.099
K CaSi	1.143	1.120	1.221	1.301	1.014
K FeSi	1.622	1.708	1.837	1.695	1.421
K MgFe	0.964	0.975	0.842	0.796	1.224

Acceptance Limits

1.0 to 4.0

1.0 to 2.0

1.0 to 1.75

1.0 to 1.75

1.0 to 2.0

< 1.5

Orthoclase					
Spectrum Number					
Analyst	CRP	CRP	CRP	CRP	CRP
Date	09-Jul-15	09-Jul-15	11-Aug-15	11-Aug-15	01-Sep-15
K K-Series Area	540	325	388	415	947
Al K-Series Area	422	276	253	312	626
Si K-Series Area	1606	1089	1108	1183	2517
K AlSi	1.124	1.166	1.294	1.120	1.188
K KSi	1.304	1.469	1.252	1.249	1.165

Acceptance Limits

1.0 to 1.75

1.0 to 1.75

Analyst: _____ CRP _____

Date: ____ 9/1/15 _____



Quality Assurance Manual

Effective: January 1, 2015

Approved By:

A handwritten signature in blue ink that reads "Robin S. Klover".

Robin S. Klover
Lab Manager
QA Officer / Safety Officer

A handwritten signature in blue ink that reads "Jeanne Spencer".

Jeanne Spencer
Lab Manager
QA Officer / Safety Officer

A handwritten signature in blue ink that reads "Paul D. LoScalzo".

Paul D. LoScalzo
Lab Manager
QA Officer / Safety Officer

I. INTRODUCTION	1
II. PURPOSE.....	1
III. ORGANIZATION AND STAFF	2
A. JOB DESCRIPTIONS & TRAINING	2
B. PERSONNEL QUALIFICATIONS AND AUTHORIZING SIGNATURES	5
1. Personnel.....	5
2. Signature Authorizations.....	5
3. Laboratory Certifications / Accreditation.....	5
IV. SAMPLE HANDLING AND TRACKING.....	6
A. SAMPLE RECEIVING, COC, ACCEPTANCE / REJECTION CRITERIA	6
B. SAMPLE LABELING	6
C. SAMPLE PROCESSING / STORAGE	7
D. SAMPLE DISPOSAL	7
V. DATA HANDLING AND REPORTING.....	7
A. DATA COLLECTION AND REPORT GENERATION	7
B. DATA VALIDATION	7
C. REPORTING / CORRECTIONS	8
D. RECORD RETENTION	8
VI. SAFETY AND HEALTH.....	8
A. TRAINING	8
B. EQUIPMENT	8
C. LABORATORY CLEANING AND CONTAMINATION CONTROL.....	9
D. CHEMICAL HYGIENE / BIOLOGICAL SAFETY PLAN	9
E. MATERIAL SAFETY DATA SHEETS (MSDS)	9
F. VENTILATION VELOCITIES	9
G. WASTE DISPOSAL	9
VII. FACILITIES AND EQUIPMENT - MAINTENANCE AND CALIBRATION	9
A. FLOOR PLAN-.....	10
B. EQUIPMENT / MAINTENANCE	10
<i>Inorganic Analytical Instruments</i>	10
<i>Organics Analytical Instruments</i>	11
<i>Chemistry Laboratory Equipment</i>	11
<i>PCM Laboratory</i>	12
<i>Microbiology Laboratory</i>	13
<i>PLM Laboratory</i>	15
<i>TEM Laboratory</i>	15
C. Chemicals.....	16
1. Reagents / Chemicals.....	16
2. Standards – Trace-ability.....	16
3. Gases.....	17
4. Water.....	17
D. Glassware.....	17
VIII. QUALITY SYSTEM	17
A. ACCURACY AND PRECISION	17
B. MEASUREMENT OF UNCERTAINTY	18
C. ACCEPTANCE / REJECTION LIMITS	18
D. QUALITY ASSURANCE	18
1. <i>Quality Control Procedures</i>	18
<i>Inorganics/Organics Laboratory</i>	18
<i>Airborne Particulates</i>	21
<i>PCM Laboratory</i>	22
<i>PLM Laboratory</i>	23

TEM Laboratory	24
TEM Laboratory	26
E. INTERNAL AUDIT / ANNUAL REVIEW OF MANAGEMENT	27
F. AREAS OF NON-CONFORMANCE	27
G. PREVENTIVE / CORRECTIVE ACTION-QC DATA	28
H. CLIENT INTERACTION	28
I. CONTRACTS	29
J. SUBCONTRACTING	29
K. PROFICIENCY PROGRAMS	29
1. AIHA – IHPAT	29
2. AIHA – ELPAT	29
3. PCM – Inter-Lab Program.....	30
4. ERA – PT Samples.....	30
5. API – PAT.....	30
6. NVLAP – PAT.....	30
7. AIHA - EMPAT	30
8. ERA - PT.....	30
L. IMPROVEMENTS	30
IX. METHODS AND DOCUMENTATION / DOCUMENT CONTROL.....	30
A. IN-HOUSE DOCUMENTS	32
1. Organization Chart (Appendix III.A)	32
2. Statement of Qualification (Appendix III.B.1a)	32
3. Employee Qualifications and Signature Authorizations (Appendix III.B.1b).....	32
4. Chain of Custody (Appendix IV.A).....	32
5. Laboratory Reports (Appendix V.A.1).....	32
6. Floor Plan (Appendix VII.A).....	32
7. Quality Control Reports – (Appendix VIII).....	32
8. Internal Audit (Appendix VIII.E.1).....	32
9. Review of Management (Appendix VIII.E.2)	32
10. Training Manuals (Appendix IX.1).....	32
11. Standard Operating Procedures (Appendix IX.2).....	32
12. Master Document List (Appendix IX.3).....	32
B. ISO 17025	32
C. NIOSH	32
D. EPA	33
E. OSHA	33
F. OTHER	33

ASBESTOS TEM 10312 DELIVERABLES REQUIREMENTS

- I. Please be advised that samples are not to be subcontracted to other laboratories without written consent from Lockheed Martin/REAC.
- II. Checklists for applicable sample analyses are attached for your use. **Please complete and return checklists along with the data package.**

All other data packages are to include the following (where applicable):

- ✓ **Case Narrative:** Detailing **ALL** deviations to the laboratory SOP or Analytical Method. Include an explanation of all un-resolvable NADES error codes and any modifications to the method/counting rules and/or mineral identification criteria. The un-resolvable error code explanations must be entered into the NADES Data Entry 1 comment section of each reviewed sample.
- ✓ Copy of the current laboratory SOP (including indirect analysis SOP, if performed) used for analysis and QC SOP if QC requirements are not included in the analytical SOP.
- ✓ Chain of Custody
- ✓ Copies of all analyst notebooks and handwritten bench sheets
- ✓ Tabulated sample results in NADES format, including Excel, pdf files, and Certificate of Analysis.
- ✓ Tabulated QA/QC results including QC limits/acceptance criteria, results of statistical evaluations,
- ✓ Tabulated TEM and EDX instrument calibrations including, instrument #, date analyzed, QC acceptance criteria and required QC frequencies.
- ✓ Tabulated Laboratory Blank results including QC limits/acceptance criteria and required QC frequencies
- ✓ Calculation sheet (at least one example of the calculation per analyte must be provided)
- ✓ Copies of all raw data including:
- ✓ Mn resolution check (<180ev)
- ✓ EDX resolution checks:
- ✓ Cu peak
- ✓ Crocidolite: NIST Standard 1866 or equivalent, Na peak
- ✓ Chrysotile: Si and Mg peak
- ✓ Chrysotile confirmation by ED, amphibole by ED or Xray
- ✓ Grid opening measurement
- ✓ Magnification 20000x for structures <5um, 5000-10000x for >5um, 80-120Kv
- ✓ 2 grids per sample, separate grid preparation for each grid
- ✓ Filtration filter and process blanks (including indirect lab blanks as required); minimum 2 media blank/100 filters
- ✓ Spectra provided for confirmation.
- ✓ Worksheets documenting number of grids analyzed, structure type, morphology and size.

✓ **Calibration Results for:**

- ✓ Calibration of TEM magnification at magnifications typically used for counting both on-screen and in the negative mode.
- ✓ Calibration of Camera Constant both negative and on screen.
- ✓ Beam Dose Check for 90% of pattern.
- ✓ K factors for:
- ✓ Mg-Si
- ✓ Ca-Si
- ✓ Fe-Si
- ✓ Mg-Fe
- ✓ Na-Si
- ✓ Al-Si

<input checked="" type="checkbox"/>	Spot Size measurements.
<input checked="" type="checkbox"/>	Detector Resolution Check
<input checked="" type="checkbox"/>	Resolvable Mg, Si and Na peaks.
<input checked="" type="checkbox"/>	Calibration of 0.5 and 5.0 micron measuring aids.
<input checked="" type="checkbox"/>	Daily TEM EDXA system calibrations of low energy and high energy peaks usually Al and Cu.
<input checked="" type="checkbox"/>	Prep Blanks and Raw Data
<input checked="" type="checkbox"/>	Inter and Intra analyst, re-preparation and verification QC samples, QC Summary Table with results of statistical evaluations, QC acceptance criteria, required frequency, raw data and bench sheets.
<input checked="" type="checkbox"/>	Spectra confirmation for all hits as required.

III. Electronic Data Deliverable

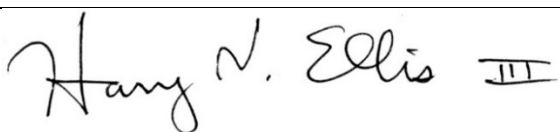
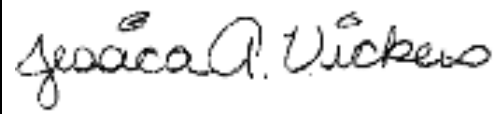
- ☒ Results reported in the latest version of the National Asbestos Data Entry Spreadsheet (NADES) for TEM
- ☒ ISO 10312 in ExCel for all samples, QC samples and blanks including all required laboratory blanks.
- ☒ A final report in pdf format including all of the above preferably in a single file

TURN AROUND TIME

The turnaround time begins with the date your laboratory takes custody of the samples. If the receipt of the samples is after 10:30AM, the turn-around time will begin on the following day, unless fast turnaround is specified in writing.

APPENDIX F
DATA VALIDATION

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Site Name	Kewaunee Marquette School	TDD No.	0001-1507-202
Document Tracking No.	0366		
Data Reviewer (signature and date)	 16 September 2015	Technical Reviewer (signature and date)	 September 30, 2015
Laboratory Report No.	113433	Laboratory	CT Laboratories, LLC
Analyses	Polychlorinated biphenyls (PCBs) (8082B), polynuclear aromatic hydrocarbons (PAHs) (8270D), metals (6010C and 7471B), pH (9045D), and flashpoint (1010)		
Samples and Matrix	Six waste samples and five paint samples		
Field Duplicate Pairs	Waste-003-0815/Waste-003B-0815		
Field Blanks	None		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) and the EPA *CLP NFG for Inorganic Superfund Data Review* (August 2014).

OVERALL EVALUATION

On the whole, analyses went well with no results rejected. High concentrations and irregular distributions of some analytes led to some qualifications. All results may be used as qualified.

Data completeness:

Within Criteria	Exceedance/Notes
Y	Summary report was submitted, as requested.

DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
N	Metals blank yielded low concentrations of chromium (0.046 mg/kg) and silver (0.030 mg/kg). The chromium result for sample WASTE-016-0815 and the silver result for sample WASTE-003B-0815 were raised to the RL and qualified as non-detect (U).

Field blanks:

Within Criteria	Exceedance/Notes
NA	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	

MS/MSD:

Within Criteria	Exceedance/Notes
N	<p>In metals MS/MSD analyses on sample Waste-016-0815, selenium recoveries were below limits from MS and MSD, apparently due to matrix interference; and the mercury recovery was below limit from MSD but within limits from MS. Therefore, mercury and selenium in that sample were qualified as estimated (UJ).</p> <p>In MS/MSD analyses on sample Paint-018-0815, lead recovery could not be determined because unspiked sample contained much more than spike. No qualification is required per the NFGs. Also, PCB spikes yielded recoveries above the QC limits for Aroclor-1016 and Aroclor-1260 due to unspiked concentrations of other mixtures. No qualifications were applied because the associated results were not-detect.</p>

DATA VALIDATION CHECKLIST – STAGE 2A EPA REGION 5 START CONTRACT

Laboratory duplicates:

Within Criteria	Exceedance/Notes
N	Duplicate precision was outside QC limits for barium, chromium, and lead for sample Waste-016-0815. The barium and lead results were qualified as estimated (J). No flag was required for chromium because it was flagged as non-detect due to method blank contamination.

Field duplicates:

Within Criteria	Exceedance/Notes
Y	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
N	The following dilutions were required to bring high concentration results within calibration range: 10x for PCBs – PAINT-004-0815, PAINT-018-0815, and WASTE-016B-0815 20x for lead – PAINT-004-0815 and PAINT-018-0815 50x for mercury – WASTE-003-0815 and WASTE-003B-0815 100x for PCBs – PAINT-008-0815, PAINT-015-0815, and PAINT-016-0815

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	



**DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT**

MDLs/RLs:

Within Criteria	Exceedance/Notes
N	Diluted PCB analyses resulted in higher RLs for non-detects. One pH result was above 10, the highest calibration standard. This extrapolation was qualified as estimated (J).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [Mixture identification]:

Within Criteria	Exceedance/Notes
N	Aroclor 1260 results for samples PAINT-015-0815, PAINT-016-0815, and WASTE-016-815 yielded excessive quantitative variation from the two columns, indicating matrix interference on one or both columns. The laboratory flags (P) were converted to estimated qualifications (J).

DATA VALIDATION CHECKLIST – STAGE 2A EPA REGION 5 START CONTRACT

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

Kewaunee Marquette School
Waste and Paint Results
CT Laboratories Report No. 113433

Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	MDL	RL	Units	Val. Results	Val. Qualifier
WASTE-008-0815	623650	pH	10.94		1		S.U.	10.94	J
WASTE-008-0815	623650	Flashpoint	>140				Deg. F	>140	
WASTE-016-0815	623727	Cadmium	0	U	0.023	0.15	mg/kg	0.15	U
WASTE-016-0815	623727	Selenium	0	U	0.23	1.5	mg/kg	1.5	UJ
WASTE-016-0815	623727	Arsenic	0	U	0.50	3.1	mg/kg	3.1	U
WASTE-016-0815	623727	Silver	0	UB	0.065	0.38	mg/kg	0.38	U
WASTE-016-0815	623727	Chromium	0.11	JB	0.088	0.54	mg/kg	0.54	U
WASTE-016-0815	623727	Barium	0.36		0.035	0.19	mg/kg	0.36	J
WASTE-016-0815	623727	Lead	2.4	M	0.15	0.96	mg/kg	2.4	J
WASTE-016-0815	623727	Mercury	0	UM	0.0022	0.0087	mg/kg	0.0087	UJ
WASTE-016-0815	623727	pH	9.66		1		S.U.	9.66	
WASTE-016-0815	623727	Flashpoint	>140				Deg. F	>140	
WASTE-016-0815	623727	Aroclor-1016	0	U	50	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1268	0	U	50	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1248	0	U	69	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1242	0	U	69	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1221	0	U	69	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1262	0	U	69	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1232	0	U	89	300	ug/kg	300	U
WASTE-016-0815	623727	Aroclor-1254	861		89	300	ug/kg	861	
WASTE-016-0815	623727	Aroclor-1260	99.0	JP	59	300	ug/kg	99	J
WASTE-016-0815	623727	Naphthalene	0	U	2100	12000	ug/kg	12000	U
WASTE-016-0815	623727	Benzo(g,h,i)perylene	0	U	2200	12000	ug/kg	12000	U
WASTE-016-0815	623727	Dibenzo(a,h)anthracene	0	U	2200	12000	ug/kg	12000	U
WASTE-016-0815	623727	Benzo(a)pyrene	0	U	2300	12000	ug/kg	12000	U
WASTE-016-0815	623727	Acenaphthene	0	U	2400	12000	ug/kg	12000	U
WASTE-016-0815	623727	Acenaphthylene	0	U	2400	12000	ug/kg	12000	U
WASTE-016-0815	623727	Anthracene	0	U	2400	12000	ug/kg	12000	U
WASTE-016-0815	623727	1-Methylnaphthalene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	2-Methylnaphthalene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Benzo(a)anthracene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Chrysene	0	U	2500	12000	ug/kg	12000	U

Kewaunee Marquette School
Waste and Paint Results
CT Laboratories Report No. 113433

Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	MDL	RL	Units	Val. Results	Val. Qualifier
WASTE-016-0815	623727	Benzo(b)fluoranthene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Benzo(k)fluoranthene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Fluorene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Fluoranthene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Pyrene	0	U	2500	12000	ug/kg	12000	U
WASTE-016-0815	623727	Phenanthrene	0	U	2500	12000	ug/kg	12000	U
PAINT-008-0815	623728	Solids, Percent	100		1	0.1	PERCENT	100	
PAINT-008-0815	623728	Lead	2510		0.15	0.93	mg/kg	2510	
PAINT-008-0815	623728	Aroclor-1016	0	U	4900	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1268	0	U	4900	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1260	0	U	5800	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1248	0	U	6800	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1242	0	U	6800	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1221	0	U	6800	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1232	0	U	8700	29000	ug/kg	29000	U
PAINT-008-0815	623728	Aroclor-1254	158000		8700	29000	ug/kg	158000	
PAINT-008-0815	623728	Aroclor-1262	95100		6800	29000	ug/kg	95100	
PAINT-015-0815	623729	Solids, Percent	100		1	0.1	PERCENT	100	
PAINT-015-0815	623729	Lead	2430		0.16	1.0	mg/kg	2430	
PAINT-015-0815	623729	Aroclor-1016	0	U	5000	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1268	0	U	5000	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1248	0	U	6900	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1242	0	U	6900	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1221	0	U	6900	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1262	0	U	6900	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1232	0	U	8900	30000	ug/kg	30000	U
PAINT-015-0815	623729	Aroclor-1254	109000		8900	30000	ug/kg	109000	
PAINT-015-0815	623729	Aroclor-1260	24800	JP	5900	30000	ug/kg	24800	J
PAINT-018-0815	623730	Solids, Percent	100		1	0.1	PERCENT	100	
PAINT-018-0815	623730	Lead	86400	M	2.7	17	mg/kg	86400	
PAINT-018-0815	623730	Aroclor-1016	0	U	480	2900	ug/kg	2900	U
PAINT-018-0815	623730	Aroclor-1268	0	U	480	2900	ug/kg	2900	U

Kewaunee Marquette School
Waste and Paint Results
CT Laboratories Report No. 113433

Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	MDL	RL	Units	Val. Results	Val. Qualifier
PAINT-018-0815	623730	Aroclor-1260	0	U	570	2900	ug/kg	2900	U
PAINT-018-0815	623730	Aroclor-1248	0	U	670	2900	ug/kg	2900	U
PAINT-018-0815	623730	Aroclor-1242	0	U	670	2900	ug/kg	2900	U
PAINT-018-0815	623730	Aroclor-1221	0	U	670	2900	ug/kg	2900	U
PAINT-018-0815	623730	Aroclor-1232	0	U	860	2900	ug/kg	2900	U
PAINT-018-0815	623730	Aroclor-1254	15900		860	2900	ug/kg	15900	
PAINT-018-0815	623730	Aroclor-1262	16300		670	2900	ug/kg	16300	
PAINT-004-0815	623731	Solids, Percent	100		1	0.1	PERCENT	100	
PAINT-004-0815	623731	Lead	45900		3.0	19	mg/kg	45900	
PAINT-004-0815	623731	Aroclor-1016	0	U	480	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1268	0	U	480	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1260	0	U	580	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1248	0	U	670	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1242	0	U	670	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1221	0	U	670	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1232	0	U	870	2900	ug/kg	2900	U
PAINT-004-0815	623731	Aroclor-1254	12200		870	2900	ug/kg	12200	
PAINT-004-0815	623731	Aroclor-1262	9520		670	2900	ug/kg	9520	
PAINT-016-0815	623732	Solids, Percent	100		1	0.1	PERCENT	100	
PAINT-016-0815	623732	Lead	3670		0.14	0.89	mg/kg	3670	
PAINT-016-0815	623732	Aroclor-1016	0	U	4700	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1268	0	U	4700	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1248	0	U	6600	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1242	0	U	6600	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1221	0	U	6600	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1262	0	U	6600	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1232	0	U	8500	28000	ug/kg	28000	U
PAINT-016-0815	623732	Aroclor-1254	182000		8500	28000	ug/kg	182000	
PAINT-016-0815	623732	Aroclor-1260	95300	P	5700	28000	ug/kg	95300	J
WASTE-003-0815	623733	Silver	0.34		0.057	0.33	mg/kg	0.34	
WASTE-003-0815	623733	Cadmium	1.0		0.020	0.13	mg/kg	1	
WASTE-003-0815	623733	Arsenic	105		0.43	2.7	mg/kg	105	

Kewaunee Marquette School
Waste and Paint Results
CT Laboratories Report No. 113433

Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	MDL	RL	Units	Val. Results	Val. Qualifier
WASTE-003-0815	623733	Chromium	13.0		0.077	0.47	mg/kg	13	
WASTE-003-0815	623733	Selenium	17.2		0.20	1.3	mg/kg	17.2	
WASTE-003-0815	623733	Lead	27.2		0.13	0.83	mg/kg	27.2	
WASTE-003-0815	623733	Barium	34.0		0.030	0.17	mg/kg	34	
WASTE-003-0815	623733	Mercury	17.1		0.11	0.43	mg/kg	17.1	
WASTE-003-0815	623733	pH	7.49		1		S.U.	7.49	
WASTE-003-0815	623733	Aroclor-1016	0	U	46	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1268	0	U	46	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1260	0	U	56	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1248	0	U	65	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1242	0	U	65	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1221	0	U	65	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1232	0	U	83	280	ug/kg	280	U
WASTE-003-0815	623733	Aroclor-1262	537		65	280	ug/kg	537	
WASTE-003-0815	623733	Aroclor-1254	713		83	280	ug/kg	713	
WASTE-003B-0815	623734	Silver	0.21	JB	0.051	0.30	mg/kg	0.3	U
WASTE-003B-0815	623734	Cadmium	0.91		0.018	0.12	mg/kg	0.91	
WASTE-003B-0815	623734	Chromium	10.8		0.069	0.42	mg/kg	10.8	
WASTE-003B-0815	623734	Selenium	13.8		0.18	1.2	mg/kg	13.8	
WASTE-003B-0815	623734	Lead	19.6		0.12	0.75	mg/kg	19.6	
WASTE-003B-0815	623734	Barium	28.5		0.027	0.15	mg/kg	28.5	
WASTE-003B-0815	623734	Arsenic	94.0		0.39	2.4	mg/kg	94	
WASTE-003B-0815	623734	Mercury	17.7		0.11	0.44	mg/kg	17.7	
WASTE-003B-0815	623734	pH	7.69		1		S.U.	7.69	
WASTE-003B-0815	623734	Aroclor-1016	0	U	50	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1268	0	U	50	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1260	0	U	59	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1248	0	U	69	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1242	0	U	69	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1221	0	U	69	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1232	0	U	89	300	ug/kg	300	U
WASTE-003B-0815	623734	Aroclor-1262	386		69	300	ug/kg	386	

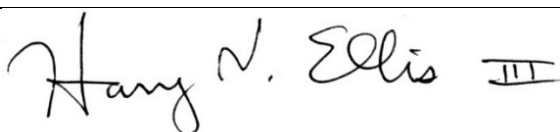
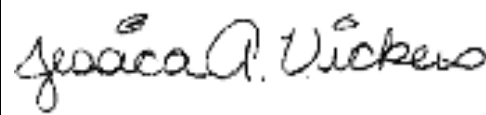
Kewaunee Marquette School
Waste and Paint Results
CT Laboratories Report No. 113433

Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	MDL	RL	Units	Val. Results	Val. Qualifier
WASTE-003B-0815	623734	Aroclor-1254	505		89	300	ug/kg	505	
WASTE-001-0815	623735	Selenium	0	U	0.18	1.2	mg/kg	1.2	U
WASTE-001-0815	623735	Silver	1.4		0.051	0.30	mg/kg	1.4	
WASTE-001-0815	623735	Arsenic	11.3		0.39	2.4	mg/kg	11.3	
WASTE-001-0815	623735	Lead	21.9		0.12	0.75	mg/kg	21.9	
WASTE-001-0815	623735	Chromium	287		0.069	0.42	mg/kg	287	
WASTE-001-0815	623735	Cadmium	5.6		0.018	0.12	mg/kg	5.6	
WASTE-001-0815	623735	Barium	53.4		0.027	0.15	mg/kg	53.4	
WASTE-001-0815	623735	Mercury	0.036		0.0023	0.0091	mg/kg	0.036	
WASTE-001-0815	623735	pH	7.51		1		S.U.	7.51	
WASTE-001-0815	623735	Aroclor-1016	0	U	48	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1268	0	U	48	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1260	0	U	57	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1248	0	U	67	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1242	0	U	67	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1221	0	U	67	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1232	0	U	86	290	ug/kg	290	U
WASTE-001-0815	623735	Aroclor-1254	333		86	290	ug/kg	333	
WASTE-001-0815	623735	Aroclor-1262	448		67	290	ug/kg	448	
WASTE-004-0815	623736	pH	7.52		1		S.U.	7.52	
WASTE-004-0815	623736	Flashpoint	>140				Deg. F	>140	
WASTE-016B-0815	623737	Barium	1.1		0.034	0.19	mg/kg	1.1	
WASTE-016B-0815	623737	Silver	0	U	0.064	0.38	mg/kg	0.38	U
WASTE-016B-0815	623737	Selenium	0	U	0.23	1.5	mg/kg	1.5	U
WASTE-016B-0815	623737	Arsenic	0	U	0.49	3.0	mg/kg	3	U
WASTE-016B-0815	623737	Cadmium	1.7		0.023	0.15	mg/kg	1.7	
WASTE-016B-0815	623737	Chromium	1.7		0.087	0.53	mg/kg	1.7	
WASTE-016B-0815	623737	Lead	25.3		0.15	0.94	mg/kg	25.3	
WASTE-016B-0815	623737	Mercury	0	U	0.0022	0.0087	mg/kg	0.0087	U
WASTE-016B-0815	623737	pH	7.42		1		S.U.	7.42	
WASTE-016B-0815	623737	Flashpoint	79.3				Deg. F	79.3	
WASTE-016B-0815	623737	Aroclor-1016	0	U	490	2900	ug/kg	2900	U

Kewaunee Marquette School
Waste and Paint Results
CT Laboratories Report No. 113433

Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	MDL	RL	Units	Val. Results	Val. Qualifier
WASTE-016B-0815	623737	Aroclor-1268	0	U	490	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1260	0	U	580	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1248	0	U	680	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1242	0	U	680	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1221	0	U	680	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1262	0	U	680	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1232	0	U	870	2900	ug/kg	2900	U
WASTE-016B-0815	623737	Aroclor-1254	6310		870	2900	ug/kg	6310	

**DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT**

Site Name	Kewaunee Marquette School	TDD No.	0001-1507-202
Document Tracking No.	0367		
Data Reviewer (signature and date)	 16 September 2015	Technical Reviewer (signature and date)	 September 30, 2015
Laboratory Report No.	330159	Laboratory	Reservoirs Environmental, Inc./Denver
Analyses	Asbestos by (1) NIOSH 7400A and ISO 10312 for air samples and (2) EPA 600/R-93/116 for bulk and waste samples		
Samples and Matrix	Six air samples, ten bulk samples, two waste samples		
Field Duplicate Pairs	None		
Field Blanks	Two air blanks		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Superfund Data Review* (August 2014).

OVERALL EVALUATION

The analyses were properly performed, with the usual associated controls included. The only significant problem was that the filter for sample ABS-004-H was loaded backward, so the laboratory could not analyze it. All results may be used as reported.

Data completeness:

Within Criteria	Exceedance/Notes
Y	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	



**DATA VALIDATION CHECKLIST – STAGE 2A
EPA REGION 5 START CONTRACT**

Method blanks:

Within Criteria	Exceedance/Notes
NA	

Field blanks:

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
NA	

MS/MSD:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
Y	

Field duplicates:

Within Criteria	Exceedance/Notes
NA	



DATA VALIDATION CHECKLIST – STAGE 2A **EPA REGION 5 START CONTRACT**

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
NA	

Sample dilutions:

Within Criteria	Exceedance/Notes
NA	

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

DATA VALIDATION CHECKLIST – STAGE 2A EPA REGION 5 START CONTRACT

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

ATTACHMENT 1
EAGLE ENVIRONMENTAL TESTING FIGURE

FORMER MARQUETTE SCHOOL
LEVEL 1
ASBESTOS SURVEY DIAGRAM MARCH 2011

