Investigation of PCB Contamination

in the

USEPA Region 10 Field Equipment Room (19A)

March, 2008

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Acknowledgements

Special thanks go to the project team for their diligence and professionalism in assessing the PCB contamination in the field equipment room. Each member brought a unique set of talents and knowledge to this project which allowed for an evaluation process that was both comprehensive and highly focused. Their contributions proved invaluable. The support provided by those managers who made this project a priority and allowed their staff to be recruited at a moments notice is also recognized and appreciated.

Project Team

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Abstract

The recent discovery of contamination in PCB sampling pads stored in the EPA Region 10 field equipment room occurred during a routine quality control analysis of these materials. An investigation to determine the source of contamination revealed that both airborne particulates and PCBs had migrated into the field equipment room over an extended period of time. Further investigation of the area showed a pattern of coincidental particulate accumulation and PCBs that is greatest in the first floor parking garage and extends into the lower parking areas in decreasing amounts. Air monitoring confirmed the coincidence of airborne particulates and PCBs. Additional wipe samples and observation could find no other likely sources, such as spills. While airborne particulates were found to be associated with the PCBs, a definitive source of contamination remains unknown. Efforts to clean the equipment room, implement dust control measures and remove the gauze pads and other equipment from this area are recommended.

Background

Polychlorinated Biphenyls (PCBs) are a group of organic chemicals that persist in the environment and are known to cause serious health effects. Generally, PCBs are made up of a biphenyl molecule containing anywhere from 1 to10 chlorine atoms. An individual PCB molecule is classified as a "Congener" and is given a specific name. Formulated mixtures of PCBs are known by the trade name "Aroclor" and are classified by a number (e.g., Aroclor 1254). Because PCBs are highly stable, non-flammable and insulate well, they were manufactured and used in a variety of commercial and industrial applications for 50 years until their ban in the late 1970's.

The EPA Region 10 field equipment room is located on the first level of the Park Place Building parking garage. The room is a locked storage area comprised of shelves, stainless countertops, lockers, refrigeration and a large sink (Figures 1-2, page 6). For many years, the room has served as storage for field equipment, as a personal changing area, and as space for conducting respirator fit tests. Entry is controlled through electronic key cards of which 100 employees have access. Air ventilation to the room is provided through a passive air vent connected to the parking garage along with a second exhaust vent that is shared with the dive team room. Ventilation to the parking garage is provided by vents that supply outside air to each parking level with the main air intake located on the building's east side, second floor area.

During a recent PCB inspection, gauze pads from the field equipment room were used for the collection of wipe samples. Routine quality control analysis of the pads showed them to be contaminated with PCBs as Aroclor 1254. Follow-up analysis indicated that the entire lot of pads contained PCBs in the range of 5-10 micrograms per pad. The cardboard storage box for the pads was also tested and showed contamination. Replacement pads from the Manchester Lab equipment warehouse were tested and PCBs were not detected. An investigation to determine possible sources of PCB contamination in the sampling pads and the field equipment room was initiated.

Investigation

The Region 10 TSCA-PCB Site-Specific Inspection Plan (PSSIP), originally designed for PCB inspections, was employed for this study. Surface wipe and air filter samples were collected in the field equipment room and adjoining parking garage. Samples were submitted under custody to the Region 10 Manchester Laboratory for analysis of PCBs. Sample collection was initiated on

January 22, 2008 and occurred in three phases. Phase 1 focused primarily on the collection of surface wipes in the equipment room. Phase 2 expanded the sampling effort into the parking garage. Phase 3 saw the addition of monitoring for airborne particulates in both the equipment room and parking garage. For field quality control, blank gauze pads or air filters were submitted to the lab during each respective phase. The final QA reviewed data package was completed by the lab on February 22, 2008. All positive PCB results reported by the lab were identified as Aroclor 1254. The summary of sampling activities follows.

Phase 1 of the investigation centered on the collection of wipe samples in areas where concentrated sources of PCBs were likely to occur inside the equipment room. These areas included the floor, lighting and shelf where the contaminated pads were stored. Other areas or items such as the lockers, piping, refrigerator and custody seals were sampled due to concerns over direct exposure, proximity to old light ballasts or the distribution of items to EPA contractors. Based on preliminary lab results, follow-up sampling was conducted on the locker tops (versus the locker doors), the passive air vent leading into the equipment room, and an air respirator mask. The air vent data showed higher PCB concentrations over the entire vent area on the outside the equipment room versus the inside. This trend in the data was also accompanied by a similar trend in the observed accumulation of dust on the vent covers.

Phase 2 targeted locations of dust accumulation in the parking garage. Specifically, sprinkler pipes located on the Northeast corner of floors P1-P3 of the parking garage in addition to the height-limit bar located near the outside entrance and leading down into the garage. Following the previous round of sampling, it was observed that dust accumulation on these pipes appeared relatively undisturbed and tended to decrease in the lower floors. Here wipe samples were collected from the tops of the pipes at a distance between the sprinklers (approximately 3 meters). The objective was to confirm if measurable PCBs were present and followed the same trend as the dust accumulation. Separate from the sprinkler pipes, the height limit bar was sampled to determine if both visible dust and PCBs could be detected on a deposition surface nearer the garage entrance where outside air was more readily available.

The Phase 3 sample collection consisted of air monitoring for particulates in the 1st floor parking garage and equipment room. This effort was initiated due to the observation of surface dust and PCB content. Sampling occurred during both traffic hours and when the areas were undisturbed (i.e. overnight). The monitoring equipment consisted of mini-volumetric samplers equipped with micro-fiber quartz filters for collecting airborne particulates (Figures 16-17, page 11). Because these filters are designed to trap small particulates, data from this sampling round was to determine if the coincidence of airborne particulates and PCBs could be confirmed.

Results and Discussion

Analytical results for the surface wipe and air filter samples are provided below. Data tabulation and assessment have been segregated in accordance with each phase of the investigation. From the onset of the investigation, source attribution based on observations of the area proved difficult. Throughout the entire investigation, the greatest weight of evidence appeared to be the consistent identification of PCBs as Aroclor 1254. As the investigation progressed toward comparing aggregate dust accumulation and PCB content, the physical evidence supporting this trend relied upon photographic comparisons of the wipe sample pads and PCB results. The photographic comparisons are provided in the attached figures (Appendix A).

All samples were analyzed for PCB Aroclors at the EPA Region 10 Manchester Laboratory using EPA method 8082. For these data, quality control indicators, including sample blanks, were within the method criteria. No data were rejected for non-compliant quality control (see QA Review, Appendix B). All results were reported in micrograms (μ g) of Aroclors. PCBs were detected in several samples at concentrations below the lowest instrument linear calibration standard. These data were qualified as "estimates" by the lab and are viewed as "detected" but not "quantified".

Field Equipment Room Samples – Phase 1

PCB results for wipe samples collected in the field equipment room were in the range of non-detect to 16 μ g. For all areas, surfaces were over sampled (greater than the standard10 square centimeters) to ensure confirmation on the presence or absence of PCBs (see Table 1). Results for the custody seal, respirator mask and shelf (where the contaminated gauze pads were stored) were not detected. For these samples, it was also noted that the custody seals were purchased within the past year, the respirator masks are routinely cleaned and the shelf location had also been cleaned within the past year. PCBs in samples taken from the sides of the light fixture were split between detected and not detected. Other detected (but not quantified) values represented areas on the refrigerator top, locker composite and locker doors. When the locker tops were sampled separately (Figures 4-5, page 7), the PCB content was quantified. The top of the pipe (near ceiling) and floor were the other areas where PCBs were quantified.

In addition to the PCB data, the equipment room appeared free of any containers that may contain solvents or lubricants that may contain PCBs. Signs of a visible spill or staining on the floor, lighting, ceiling, walls or area around the storage shelf were not observed. Although the overall wipe sampling effort could not find a definitive source of contamination it was observed that the majority of detected PCBs were accompanied by visible dust on the gauze pads.

Sample Description	Aroclor 1254 (µg)	Qualifier*	Area (m ²)**	μg/m ^{2**}
Respirator Face Mask	2.5	U		
Custody Seal	5	U		
Gauze Pad Storage Shelf	5	U		
Light Fixture (front of equip. room)	5	U		
Light Fixture (back of equip. room)	0.65	J		
Refrigerator Top	2.4	J		
Lockers - Composite (front & tops)	1.5	J		
Locker Door Front	0.3	J		
Locker Top	11			
Floor - Composite of several areas	16			
Top of Pipe	5			

Table 1. PCB Results in Equipment Room

* The "J" qualifier represents values that were detected below the instrument's lowest calibration standard and are estimates. Quantitative comparisons of "J" qualified data cannot be performed. The "U" qualifier is a "non-detect". ** Area measurements were not recorded as surfaces were over-sampled (i.e., > 10cm²) or not applicable.

Parking Garage Samples – Phase 2

The sampling effort in the parking garage resulted in two major trends which can be seen in Table 2 below. The first of these is the greater amount of PCBs found on the air vent cover in the parking garage when compared to the opposite cover in the equipment room (Figures 7-9, page 8). Here the PCBs recovered from vent in the parking garage were approximately three times greater than those found in the equipment room. The dust on the vent louvers was also noticeably thicker in the parking garage compared to the equipment room.

The second trend could be found in the comparison of samples retrieved from the tops of sprinkler pipes within the different floors of the parking garage. Sampling occurred at the northeast corner locations where a similar physical setting could be found on each floor. From the data it appears that both the amount of dust (Figures 10-12, page 9) and PCB content were lowest on the 3rd (P3) floor and highest on the 1st floor. The trend in dust accumulation between the floors was also noted by several members of the project team during a walk through of the parking garage. The final sample taken from the height limit bar near the garage entrance (Figures 13-15, page 10) also provided confirmation of the trend between dust accumulation and PCBs. Due to the difference in physical setting for this location however, a direct comparison to the sprinkler pipes and vent covers was not performed.

Table 2. PCB Results in the Parking Garage

Sample Description	Aroclor 1254 (µg)	Qualifier	Area (m ²)*	μg/m ²
Air Vent Cover (inside equipment room)	6.2		0.150	41
Air Vent Cover (outside equipment room)	20		0.150	130
P1 Level Sprinkler Pipe	6.2		0.105	59
P2 Level Sprinkler Pipe	3.4		0.130	26
P3 Level Sprinkler Pipe	1.9		0.138	14
Entrance "Height Limit" Bar	4.9		0.292	17

* Surface areas for pipes/bar were estimated based on a sampling of the top ¹/₄ of the circumference multiplied by the recorded length. Diameters were 5.08 cm for sprinkler pipes and 15.24 cm for the height limit bar.

Particulate Air Filters – Phase 3

The results for particulate air samples (Figures 16-17) were able to detect PCBs at 0.005 and 0.011 micrograms per cubic meter ($\mu g/m^3$). Though the results were not quantitative the detection of PCBs in these samples confirms the association between trace level PCB contamination and airborne particulates.

Table 3. PCB Results for Air Filters

Sample Description	Aroclor 1254 (µg)	Qualifier	Volume (m ³)	μg/m ³
Inside Equipment Room	0.092	J	8.60	0.011
Outside Equipment Room	0.05	J	9.32	0.005

Samples were acquired with mini-volumetric samplers operating for approximately 21-23 hours (depending on battery life) at 7 liters per minute. Filters were comprised of Whatman high purity quartz micro-fiber. The "J" qualifier represents values that were detected below the instrument's lowest calibration standard and are estimates. Quantitative comparisons of "J" qualified data cannot be performed.

Conclusions and Recommendations

An assessment of the data indicates a coincidence of airborne particulates and PCBs that have migrated from the parking garage into the field equipment room at trace level concentrations. The build up of particulates in the equipment room and air vent suggest that this has been occurring over an extended period. While the consistent identification of Aroclor 1254 would suggest a single source for the PCBs, the data do not provided for definitive source attribution. A few examples of possible sources include gasoline and diesel engines, transmission fluids, transformers, light ballasts, old caulks, paints and expansion joints. In addition, the coincidence between particulates and PCBs may either be an indication that these parameters follow similar deposition patterns and are commingling in the air, or that the PCBs originated in particulate form. Additional investigation of the particulates would be needed to provide more insight.

The location of the field equipment room is adjacent to the payment kiosk of the parking garage. Here automobiles, routinely idle while tenants pay in order to leave the garage. During commuting hours, a line of vehicles will often form past the equipment room. Under these circumstances, exhaust from the cars can build up near the entrance and intake vent to the equipment room for short periods of time. Auto exhaust is a suspected major contributor to particulates in the parking garage.

Given the prospect that the migration of particulates and PCBs into the equipment room will continue, certain housekeeping measures and changes are recommended. These are as follows:

- Clean out and install a micro-pore filter in the equipment room air vent
- Install a seal on the bottom of the equipment room door
- Tile/paint the floor and paint the walls, ceiling and external pipes in the equipment room
- Remove clean expendables from the equipment room and store in another area
- Annually clean and wipe down all internal surfaces and field equipment, boots, hats, etc.
- Store small items in sealable clear plastic containers



Figure 1 Equipment Room (facing entrance leading into parking garage)

Figure 2 Equipment Room (rear area)



Figure 3 Shelf where Gauze Pads were stored



Figure 4 Equipment Room Locker Tops

Figure 5 Equipment Room Locker Top Wipe Sample (11 µg PCBs)





Figure 6 Equipment Room Locker Door Wipe Sample (0.3 µg PCBs)



Figure 7 Equipment Room Vent (outside equipment room 133 µg/m² PCBs)

Figure 8 Equipment Room Vent (inside equipment room 41 µg/m² PCBs)





Figure 9 Vent Cover Wipe Samples (#3-inside room, #4-outside room)



Figure 10 Sprinkler Pipe Parking Level 1 (60 µg/m² PCBs*)

*Gauze Pad in this image was refolded during sampling to avoid loss of dust

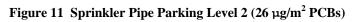




Figure 12 Sprinkler Pipe Parking Level 3 (14 µg/m² PCBs)





Figure 13 Parking Entrance Height Limit Bar

Figure 14 Sampling of Height Limit Bar (some dust visible)



Figure 15 Gauze Pad for Height Limit Bar (17 µg/m² PCBs)

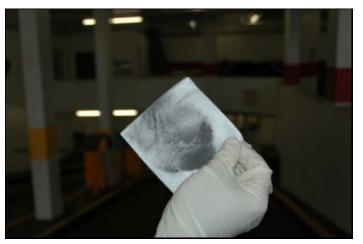




Figure 16 Mini-volumetric Sampler in Equipment Room

Figure 17 Mini-volumetric Sampler in the Garage Area



Appendix B – Mini-Volumetric Calibration

Qind	Qcalc-stp	Qcalc-ltp	Qtri-ltp	Qtri-stp	Man-ind	Qman-ltp	Qman-stp	<mark>% diff</mark>
7.0	6.78	6.72	8.35	8.40	3.18	6.69	6.73	-0.80%
6.0	5.77	5.74	6.85	6.89	2.33	5.75	5.78	0.27%
5.0	4.77	4.74	5.00	5.03	1.60	4.80	4.82	1.19%
4.0	3.76	3.74	3.89	3.91	1.02	3.86	3.89	3.24%
Mvol =	1.0057		Mflo =	5.8015				
Bvol =	-0.2575		Bflo =	0.1731				
Tact =	290.25	airmetrics	294.85	garage				
Pact =	753.8	airmetrics	743.25	garage				
Tstd =	298							
Pstd =	760							
time =	1278	minutes						
tot vol =	8.60	m ³						

Field Equipment Room Sampler

Parking Garage Area Sampler

Qind	Qcalc-stp	Qcalc-ltp	Qtri-ltp	Qtri-stp	Man-ind	Qman-ltp	Qman-stp	<mark>% diff</mark>
7.0	6.71	6.64	9.46	9.41	3.18	6.69	6.73	0.30%
6.0	5.72	5.68	6.92	6.88	2.35	5.77	5.81	1.58%
5.0	4.77	4.74	5.04	5.01	1.63	4.84	4.87	2.04%
4.0	3.76	3.74	3.89	3.87	1.04	3.90	3.92	4.11%
Mvol =	0.9779		Mflo =	5.8015				
Bvol =	-0.1386		Bflo =	0.1731				
-	200.25		2 0405					
Tavg =	290.25	airmetrics	294.85	garage				
Pavg =	753.8	airmetrics	743.25	garage				
T 4 1	200.15							
Tstd =	298.15							
Pstd =	760							
time =	1386	minutes						
tot vol =	9.32	m ³						

Appendix C – Laboratory Data



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY **REGION 10 LABORATORY** 7411 Beach Dr. East Port Orchard, Washington 98366

QUALITY ASSURANCE MEMORANDUM FOR ORGANIC CHEMICAL ANALYSES

Date:	February 22, 2008
То:	Keven McDermott, Project Officer USEPA Region 10, Office of Environmental Assessment
From:	Steven Reimer, Chemist Office of Environmental Assessment, USEPA Region 10 Laboratory
cc:	Cathe Bell, Industrial Hygienist USEPA Region 10, Office of Management Programs
Subject:	Quality Assurance Review for the PCB Analysis of Samples from EPA Region 10 Room 19A
	Project Code: ESD-141A Account Code: 0809B10P501E50C
	The following is a quality assurance review of the data for PCB analysis of wipe and filter samples from EPA Region 10 Room 19A. The analyses were performed by EPA chemists at the US EPA Region 10 Laboratory in Port Orchard, WA, following US EPA Laboratory guidelines.
This review w	as conducted for the following samples:

laucted for the ig samples

08044050	08044051	08044052	08044053	08044054	08044055	08044056
08044057	08044058	08044059	08044060	08044061	08044062	08044063
08044064	08044065	08044066	08054200	08054201	08054202	08054203
08054204	08054205	08054208	08054209	08054210		

Data Qualifications

Comments below refer to the quality control specifications outlined in the Laboratory's current Quality Assurance Manual, Standard Operating Procedures (SOPs) and the Quality Assurance Project Plan (QAPP).

The quality control measures which did not meet Laboratory/QAPP criteria are annotated in the title of each affected subsection with "Laboratory/QAPP Criteria Not Met". Additional information which may affect data usage is discussed in a "NOTE:" which concludes the affected section.

The Region 10 Laboratory's Quality System has been accredited to the standards of the National Environmental Laboratory Accreditation Conference (NELAC).

1. Sample Transport and Receipt

Upon sample receipt no conditions were noted that would impact data quality for this project.

2. Sample Holding Times

The concentration of an analyte in a sample or extract of a sample may increase or decrease over time depending on the nature of the analyte. For this reason, holding time limits are recommended for samples and extracts. No qualification of the data was required based on method holding times.

3. Sample Preparation

Samples were prepared and analyzed according to SOP# Or_C082 and method 8082. No qualification of the data was required based on sample preparation.

4. Initial Calibration and Calibration Verification

Initial calibrations were done for 2μ L injections. The calibration functions generated for the initial calibration met SOP criteria. The Minimum Reporting Level (MRL) is the lowest point for which the calculated value for the standard tests within laboratory specified criteria. All calibration verification checks met the frequency and recovery criteria on the day of analysis. No qualification was required based on calibration or calibration.

5. Laboratory Control Samples

All laboratory control sample results met the recovery acceptance criteria for the SOP. No qualification was required based on laboratory control sample analysis.

6. Blank Analysis

The method blanks did not contain detectable levels of target analytes which would require data qualification.

7. Surrogate Spikes

All surrogate recoveries met SOP recovery criteria. No qualification is required.

8. Matrix Spike/Matrix Spike Duplicate Analysis

No Matrix spike analyses are performed on wipe samples.

9. Duplicate Analysis

No duplicate analyses are performed on wipe samples.

10. Instrument Peak Integrations

All integrations have been reviewed and found to comply with acceptable integration practices.

11. Identification

The RRTs and response patterns for all detected target compounds were within acceptable limits of the initial or continuing calibration standards.

Data Review of Room 19A Project Code: ESD-141A Page 3 of 4

Aroclor 1254 was detected in sixteen of the samples.

12. Reporting Limits

Reporting limits are based on the lowest standard analyzed, final extract volume and overall background from the matrix.

13. Preliminary Data

Preliminary data were reported on the 23rd and 25th of Jan 08 for the week 04 samples and on the 1st of Feb for the week 05 samples. The results have not changed.

14. Data Qualifiers

The U qualifier was attached to some results. The J qualifier was attached to five results. The definition for the data qualifiers are as follows:

- U The analyte was not detected at or above the reported value.
- J The analyte was detected but the reported value is an estimate.

The usefulness of qualified data should be treated according to the severity of the qualifier in light of the project's data quality objectives. Should questions arise regarding the data, contact Steven Reimer at the Region 10 Laboratory, phone number (360) 871- 8718.

15. Definitions

Accuracy - the degree of conformity of a measured or calculated quantity to its actual value.

Laboratory Control Sample (LCS) - a clean matrix spiked with known quantities of analytes. The LCS is processed with samples through every step of preparation and analysis. Measuring percent recovery of each analyte in the LCS provides a measurement of accuracy for the analyte in the project samples. A laboratory control sample is prepared and analyzed at a frequency no less than one for every 20 project samples.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - Sample analyses performed to provide information about the effect of the sample matrix on analyte recovery and measurement within the project samples. To create the MS/MSD, a project sample is spiked with known quantities of analytes and the percent recovery is determined.

Method Blank- An analytical control that is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background and reagent contamination. A method blank is prepared and analyzed for every batch of samples at a minimum frequency of one per every 20 samples. To produce unqualified data, the result of the method blank analysis is required to be less than the MRL and less than 5 times the amount of analyte found in any project sample.

Minimum Reporting Level (MRL) - the smallest measured concentration of a substance that can be reliably measured using a given analytical method.

Peak Integrations - The output of many analytical instruments is a peak which represents the quantity of analyte in the sample. The instrument automatically integrates the peak area to provide the concentration

of the analyte; however, sometimes these peaks need to be manually integrated by the analyst.

Precision – the degree of mutual agreement or repeatability among a series of individual results.

Relative Percent Difference – The difference between two sample results divided by their mean and expressed as a percentage.

Surrogate Spikes compounds similar to the target analytes in behavior and not typically found in the environment. They are used to help evaluate laboratory preparation and analysis performance for individual samples. The surrogate spike differs from the LCS (above) in that it is placed in each project sample to assess preparation and analytical efficiency.

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044050
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	uner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	0.65	ug	J
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	98	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044051
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	uner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs	congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	U
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044052
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs	congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	U
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044053
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs	congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	U
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044054
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Date	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	110	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044055
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	ainer ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs	/congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	U
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	93	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044056
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	ainer ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs	/congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	U
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044057
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCB	s/congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	16	ug	
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	110	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044058
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs	/congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	2.4	ug	J
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	110	%Rec	

Project Code:	ESD-141A	Collected:	1/22/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044059
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	1.5	ug	J
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	110	%Rec	

Manchester Environmental Laboratory Report by Parameter for Project ESD-141A

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044060
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	uner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCB	s/congeners) by GC	Analysis Dat	e: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	2.5	ug	U
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

08044060 Reg sample

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044061
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	ainer ID : N1
Method :	8082	Polychlorinated Biphenyls (PCBs/c	congeners) by GC	Analysis Dat	e: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	2.5	ug	U
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	110	%Rec	

Manchester Environmental Laboratory Report by Parameter for Project ESD-141A

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044062
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCB	s/congeners) by GC	Analysis Date	e: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	6.2	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	93	%Rec	

08044062 Reg sample .

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044063
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/congeners) b	y GC	Analysis Date	e: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution	-	Prep Date	e:
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	20	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	75	%Rec	

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044064
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter : Polychlorinated Biphenyl			Container ID: N1		
Method :	8082	Polychlorinated Biphenyls (PCBs/congeners) by GC		Analysis Date : 1/24/2008	
Prep Method :	3580A	3580A Serial Dilution		Prep Date :	
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	11	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	83	%Rec	

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044065
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Cont	ainer ID : N1
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Da	te: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Da	te :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	0.3	ug	J
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	90	%Rec	

Project Code:	ESD-141A	Collected:	1/23/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08044066
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	2.5	ug	U
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

Manchester Environmental Laboratory **Report by Parameter for Project ESD-141A**

Qlfr

Project Code:	ESD-141A	Collected:	1/29/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08054200
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:	B.G.		

		Result	Units
ion Description:	B.G.		
ount Code:	0809B10P501E50C	Туре:	Reg sample
ject Officer:	KEVEN MCDERMOTT	Sample Number:	08054200
ject Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
ject Code:	ESD-141A	Collected:	1/29/08

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Parameter :	Polychlorinate	d Biphenyl		Contain	ner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCBs/congene	ers) by GC	Analysis Date	: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	:
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	2.5	ug	U
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

Manchester Environmental Laboratory **Report by Parameter for Project ESD-141A**

Project Code: Project Name: Project Officer: Account Code: Station Description:	ESD-141A EPA REGION 10, RM 19A PCB KEVEN MCDERMOTT 0809B10P501E50C P1 SPRINKLER PIPE	Collected: Matrix: Sample Number: Type:	1/29/08 Swab 08054201 Reg sample	
		Result	Units	Qlfr
GC				
Parameter : Poly	chlorinated Biphenyl		Contai	ner ID: N1
Method : 8082	2 Polychlorinated Biphenyls (PCB	Ss/congeners) by GC	Analysis Date	: 1/31/2008
Prep Method : 3580	0A 3580A Serial Dilution	-	Prep Date	:
Analytes(s): 1267	74112 PCB-1016	2.5	ug	U
1110	04282 PCB-1221	2.5	ug	U
1114	41165 PCB-1232	5.0	ug	U
5346	59219 PCB-1242	2.5	ug	U
1267	72296 PCB-1248	2.5	ug	U
1109	97691 PCB-1254	6.2	ug	
1109	96825 PCB-1260	2.5	ug	U
Surrogate(s): *205	51243 Decachlorobiphenyl	90	%Rec	

Project Code:	ESD-141A	Collected:	1/29/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08054202
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:	P2 SPRINKLER PIPE		
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			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	3.4	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	90	%Rec	

Project Code:	ESD-141A	Collected:	1/29/08	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab	
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08054203	
Account Code:	0809B10P501E50C	Туре:	Reg sample	
Station Description:	P3 SPRINKLER PIPE			
		Result	Units	Qlfr
				-

GC					
Parameter :	Polychlorinate	ed Biphenyl		Cont	ainer ID : N1
Method :	8082	Polychlorinated Biphenyls (P	CBs/congeners) by GC	Analysis Dat	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e:
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	1.9	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	95	%Rec	

Project Code:	ESD-141A	Collected:	1/29/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08054204
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:	GARAGE ENTRANCE		
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			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/congeners) by	y GC	Analysis Date	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e:
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	4.9	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	85	%Rec	

Project Code:	ESD-141A	Collected:	1/30/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Air Filter
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08054205
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:	BLANK		
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			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	ainer ID : N1
Method :	8082	Polychlorinated Biphenyls (PCBs	/congeners) by GC	Analysis Dat	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	0.50	ug	U
	11104282	PCB-1221	0.50	ug	U
	11141165	PCB-1232	1.0	ug	U
	53469219	PCB-1242	0.50	ug	U
	12672296	PCB-1248	0.50	ug	U
	11097691	PCB-1254	0.50	ug	U
	11096825	PCB-1260	0.50	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	90	%Rec	

Manchester Environmental Laboratory **Report by Parameter for Project ESD-141A**

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Project Code: Project Name: Project Officer: Account Code: Station Description:	ESD-141A EPA REGION 10, RM 19A PCB KEVEN MCDERMOTT 0809B10P501E50C INSIDE RM 3 / 3178	Collected: Matrix: Sample Number: Type:	1/30/08 Air Filter 08054208 Reg sample	2
		Result	Units	Qlfr
GC				
Parameter : Poly	chlorinated Biphenyl		Contai	ner ID: N1
Method : 8082	2 Polychlorinated Biphenyls (PC	Bs/congeners) by GC	Analysis Date	: 1/31/2008
Prep Method : 3580	0A 3580A Serial Dilution	-	Prep Date	:
Analytes(s): 1267	74112 PCB-1016	0.50	ug	U
1110	04282 PCB-1221	0.50	ug	U
1114	41165 PCB-1232	1.0	ug	U

0.50

0.50

0.092

0.50

95

ug

ug

ug

ug

%Rec

53469219

12672296

11097691

11096825

Surrogate(s): *2051243

PCB-1242

PCB-1248

PCB-1254

PCB-1260

Decachlorobiphenyl



Station Description:	0809B10P501E50C OUTSIDE RM 21 / 3177	Туре:	Reg sample	
		Result	Units	Olfr

Parameter :	Polychlorinate	ed Biphenyl		Container	ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/congeners) by	GC	Analysis Date : 1	/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date :	
Analytes(s):	12674112	PCB-1016	0.50	ug	U
	11104282	PCB-1221	0.50	ug	U
	11141165	PCB-1232	1.0	ug	U
	53469219	PCB-1242	0.50	ug	U
	12672296	PCB-1248	0.50	ug	U
	11097691	PCB-1254	0.050	ug	J
	11096825	PCB-1260	0.50	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	95	%Rec	

Project Code:	ESD-141A	Collected:	1/31/08
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	08054210
Account Code:	0809B10P501E50C	Туре:	Reg sample
Station Description:	P1 CO-LOCATED SPRINKLER PIPE		

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: N1
Method :	8082	Polychlorinated Biphenyls (PCBs/d	congeners) by GC	Analysis Dat	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	9.7	ug	
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	90	%Rec	

Manchester Environmental Laboratory Report by Parameter for Project ESD-141A

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8022B1
Account Code:	0809B10P501E50C	Туре:	Blank
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCBs,	congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	5.0	ug	U
	11104282	PCB-1221	5.0	ug	U
	11141165	PCB-1232	10	ug	U
	53469219	PCB-1242	5.0	ug	U
	12672296	PCB-1248	5.0	ug	U
	11097691	PCB-1254	5.0	ug	U
	11096825	PCB-1260	5.0	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	90	%Rec	

OBO8022B1 Blank

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8022F1
Account Code:	0809B10P501E50C	Туре:	LCS
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PC	Bs/congeners) by GC	Analysis Dat	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	
	12674112	PCB-1016	100	%Rec	
	11096825	PCB-1260	120	%Rec	

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8022F2
Account Code:	0809B10P501E50C	Туре:	LCSD
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCBs	s/congeners) by GC	Analysis Date	e: 1/22/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e :
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	
	12674112	PCB-1016	99	%Rec	
	11096825	PCB-1260	110	%Rec	

Manchester Environmental Laboratory Report by Parameter for Project ESD-141A

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8024B1
Account Code:	0809B10P501E50C	Туре:	Blank
Station Description:			

			Result	Units	Qlfr
C					
Parameter :	Polychlorina	ted Biphenyl		Cont	ainer ID: 0
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/24/200
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e:
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	2.5	ug	U
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	

OBO8024B1 Blank

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8024F1
Account Code:	0809B10P501E50C	Туре:	LCS
Station Description:			

		Result	Units	Qlfr
GC				
Parameter : Polych	orinated Biphenyl		Conta	iner ID: 0
Method : 8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/24/2008
Prep Method : 3580A	3580A Serial Dilution		Prep Dat	e :
Surrogate(s): *20512	43 Decachlorobiphenyl	100	%Rec	
126741	12 PCB-1016	92	%Rec	
110968	25 PCB-1260	120	%Rec	

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8024F2
Account Code:	0809B10P501E50C	Туре:	LCSD
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorinat	ed Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCB	s/congeners) by GC	Analysis Date	e: 1/24/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e :
Surrogate(s):	*2051243	Decachlorobiphenyl	110	%Rec	
	12674112	PCB-1016	91	%Rec	
	11096825	PCB-1260	120	%Rec	

Manchester Environmental Laboratory Report by Parameter for Project ESD-141A

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8031B1
Account Code:	0809B10P501E50C	Туре:	Blank
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCBs/	congeners) by GC	Analysis Dat	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Analytes(s):	12674112	PCB-1016	2.5	ug	U
	11104282	PCB-1221	2.5	ug	U
	11141165	PCB-1232	5.0	ug	U
	53469219	PCB-1242	2.5	ug	U
	12672296	PCB-1248	2.5	ug	U
	11097691	PCB-1254	2.5	ug	U
	11096825	PCB-1260	2.5	ug	U
Surrogate(s):	*2051243	Decachlorobiphenyl	95	%Rec	

OBO8031B1 Blank

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8031F1
Account Code:	0809B10P501E50C	Туре:	LCS
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ated Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCBs/co	ongeners) by GC	Analysis Date	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e:
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	
	12674112	PCB-1016	87	%Rec	
	11096825	PCB-1260	116	%Rec	

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8031F2
Account Code:	0809B10P501E50C	Туре:	LCSD
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCB	s/congeners) by GC	Analysis Dat	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Dat	e :
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	
	12674112	PCB-1016	86	%Rec	
	11096825	PCB-1260	117	%Rec	

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8031F3
Account Code:	0809B10P501E50C	Туре:	LCS
Station Description:			

			Result	Units	Qlfr
GC					
Parameter : H	Polychlorinat	ed Biphenyl		Conta	iner ID: 0
Method : 8	3082	Polychlorinated Biphenyls (PCBs	s/congeners) by GC	Analysis Date	e: 1/31/2008
Prep Method : 3	3580A	3580A Serial Dilution		Prep Date	e:
Surrogate(s): *	*2051243	Decachlorobiphenyl	105	%Rec	
1	2674112	PCB-1016	88	%Rec	
1	1096825	PCB-1260	117	%Rec	

Project Code:	ESD-141A	Collected:	
Project Name:	EPA REGION 10, RM 19A PCB	Matrix:	Swab
Project Officer:	KEVEN MCDERMOTT	Sample Number:	OBO8031F4
Account Code:	0809B10P501E50C	Туре:	LCSD
Station Description:			

			Result	Units	Qlfr
GC					
Parameter :	Polychlorina	ted Biphenyl		Conta	iner ID: 0
Method :	8082	Polychlorinated Biphenyls (PCB	s/congeners) by GC	Analysis Date	e: 1/31/2008
Prep Method :	3580A	3580A Serial Dilution		Prep Date	e :
Surrogate(s):	*2051243	Decachlorobiphenyl	100	%Rec	
	12674112	PCB-1016	89	%Rec	
	11096825	PCB-1260	110	%Rec	