Self-Implementing TSCA Cleanup Substation V-94 Removal and Disposal North Boeing Field Seattle, Washington

January 28, 2015

Prepared for

The Boeing Company



TABLE OF CONTENTS

		<u>Page</u>
1.0	INTRODUCTION	1-1
	1.1 BACKGROUND	1-2
2.0	SUBSTATION REMOVAL AND DISPOSAL ACTIVITIES	2-1
	2.1 RUNOFF CONTROL	2-1
	2.2 MANAGEMENT OF WASTE	2-2
	2.3 DECONTAMINATION	2-2
3.0	CONFIRMATION SAMPLE COLLECTION PROCEDURES	3-1
	3.1 SAMPLE DOCUMENTATION, HANDLING, AND ANALYSIS	3-2
	3.2 CHEMICAL ANALYSES	3-2
	3.3 SAMPLE LABELING, SHIPPING, AND CHAIN-OF-CUSTODY	3-2
4.0	USE OF THIS REPORT	4-1
5.0	REFERENCES	5-1

FIGURES

<u>Figure</u>	<u>Title</u>
1	Vicinity Map
2	Substation V-94 and PCB Characterization Sample Locations
3	Substation V-94 Excavation Confirmation Sample Locations and Results

TABLES

<u>Table</u> <u>Title</u>

1 Soil Analytical Data

APPENDICES

<u>Appendix</u>	<u>Title</u>
A	Waste Manifests
В	Laboratory Data Reports

1.0 INTRODUCTION

This report documents cleanup activities conducted in November 2014 for the removal and disposal of Substation V-94 at North Boeing Field (NBF) located in Seattle, Washington (Figure 1). Sampling results for the surface debris at the western edge of the concrete transformer pad at Substation V-94 indicated the presence of polychlorinated biphenyls (PCBs). Surface debris was sampled as part of the environmental sampling efforts supporting the demolition of the 3-818 building, located east of the substation. Boeing began demolition of the 3-818 building in March 2014; the Substation V-94 cleanup was conducted in November 2014. This report describes the methods that were employed for removal of PCB-containing concrete, asphalt, soil, and surface debris, as well as removal of two catch basins and an associated storm drain line, in the vicinity of Substation V-94.

PCBs were detected at a concentration greater than 50 milligrams per kilogram (mg/kg; up to 280 mg/kg) in a composite sample of the surface debris accumulated on the asphalt at the western edge of the concrete transformer pad at Substation V-94. Therefore, the removal and disposal of the concrete and surface debris associated with Substation V-94 was conducted in accordance with the Toxic Substances Control Act (TSCA) under the requirements of the self-implementing procedures for the cleanup and disposal of PCB remediation waste [40 C.F.R. § 761.61 (a)]. Removal and disposal of the concrete, asphalt, soil, and surface debris was conducted in accordance with the *Self-Implementing TSCA Work Plan, Substation V-94 Removal and Disposal, North Boeing Field, Seattle, Washington* (Work Plan, Landau Associates 2014), which was approved by the U.S. Environmental Protection Agency on April 18, 2014 (EPA 2014).

All material (concrete and surface debris) was assumed to have concentrations of PCBs greater than 50 mg/kg, thus, additional characterization sampling was not conducted prior to removal and disposal of Substation V-94, with the exception of asphalt samples from the perimeter of the substation and storm drain solid samples collected from adjacent catch basins, as described in Section 2.0. Confirmation sampling was performed in the soil footprint of Substation V-94 following removal and disposal of the concrete and surface debris associated with the substation. The Substation V-94 concrete pad area and the samples collected prior to cleanup activities are shown on Figure 2. The final excavation cleanup area and final confirmation soil sample locations are shown on Figure 3. All confirmation samples representing soil remaining in place were below the target remediation level of 1.0 mg/kg.

This report provides a description of the procedures used for removal and disposal of Substation V-94 (Section 2.0) and the procedures used for confirmation sampling and confirmation sample results (Section 3.0).

1.1 BACKGROUND

As described in Section 1.0, PCBs were detected at a concentration greater than 50 mg/kg in a composite sample of surface debris accumulated on the asphalt at the western edge of the concrete transformer pad at Substation V-94. While there have been no known spills or releases from the Substation V-94 transformer, it is assumed that the transformer is the source of PCBs in the Substation V-94 cleanup area, and that minor releases occurred prior to removal of the transformer. Based on the result of the composite surface debris sample collected adjacent to the Substation V-94 transformer pad, all substation pad and curb concrete, and associated surface debris, was disposed of as TSCA material under the self-implementing procedures described in this report.

Additional characterization samples were collected in February 2014 from the asphalt surrounding the perimeter of the substation. Two asphalt samples were collected from each side of the substation. All asphalt samples results were below 1.0 mg/kg with the exception of one sample on the north side of the substation where PCBs were detected at 1.2 mg/kg (sample location Asphalt-N02). This section of asphalt was mechanically broken-up and disposed of as TSCA material as required in 40 C.F.R. § 761.61 (a)(4)(i) for disposal of bulk PCB remediation waste with PCB concentrations greater than 1.0 mg/kg. This area of removed asphalt was included in the confirmation sample area described in Section 3.0 below.

Storm drain solids from two catch basins (CB278 and CB279) located adjacent to the concrete transformer pad of Substation V-94 were also sampled in February 2014. PCBs were not detected at CB278. Total PCBs were detected at a concentration below 1.0 mg/kg at CB279 (0.22 mg/kg as-received and 0.54 mg/kg dry weight). Based on total PCB results in confirmation soil samples collected during cleanup activities adjacent to CB278 and CB279 and development plans related to the 3-818 building demolition, CB278 and CB279 and the associated storm drain line connecting the two structures were removed during TSCA cleanup activities and disposed of as TSCA material in accordance with the waste handling procedures described in this report.

Locations of the PCBs characterization samples (surface debris, asphalt, and storm drain solids) described above are shown on Figure 2. PCBs characterization sample data is presented in detail in the Work Plan.

2.0 SUBSTATION REMOVAL AND DISPOSAL ACTIVITIES

Removal and disposal of the concrete transformer pad, surface debris, and subsurface soil associated with Substation V-94 was conducted in November 2014 in accordance with the Work Plan. The removal and disposal was conducted in a manner that minimized the release of PCBs to the environment and allowed for proper disposal of the material. The removal and disposal was performed by qualified construction contractors selected by Boeing. The contractor worked with Boeing prior to beginning removal and disposal activities to initiate procedures that were used to reduce the potential for deposition of PCB-contaminated construction debris on nearby paved surfaces that could potentially be discharged to the stormwater drainage system. The contractor placed plastic sheeting or other protective barriers over paved surfaces adjacent to the cleanup area to eliminate the need for decontamination of paved areas and decontamination of cleaning equipment (such as street sweepers and vacuums) following cleanup. Plastic sheeting and barriers were monitored for rips and tears and were replaced immediately if damage was observed. No evidence of oil stains or discolored soil was observed during excavation activities.

The transformer, associated electrical equipment, and underground electrical lines and conduit were removed prior to removal and disposal of the concrete transformer pad. The concrete pad thickness varied from approximately 18 to 24 inches. There was no observed visual staining or indication of contamination associated with electrical lines or conduit in the soil beneath the concrete transformer pad. The transformer and associated electrical equipment were cut into pieces to allow for removal and transportation, and will be stored in a staging area at Boeing's facility in Auburn, Washington. The transformer oil was tested prior to removal, and did not contain detectable levels of PCBs above the laboratory reporting limit of 1.0 mg/kg per Aroclor. Since PCBs were not detected in the transformer oil, it was disposed of by Boeing in the on-site recycle oil tank.

2.1 RUNOFF CONTROL

Control measures were implemented to capture wastewater, slurry, and debris generated during removal of concrete and surface debris, and to prevent potentially contaminated construction debris from entering the stormwater drainage system. The control measures that were implemented include the following:

- Weather Restrictions. Removal of PCB-containing material was not conducted during periods of significant rain.
- Catch Basin Seals or Other Control Devices. Prior to removal of the substation, the two catch basins in the vicinity of Substation V-94 (CB278 and CB279) were blocked off with catch basin seals to eliminate the potential for debris to enter the storm drain system.

- Catch Basin Seals or Other Control Devices. Prior to removal of the substation, the two catch basins in the vicinity of Substation V-94 (CB278 and CB279) were blocked off with catch basin seals to eliminate the potential for debris to enter the storm drain system.
- Plastic Sheeting and Sand Bags. At the end of each work day, the excavation area was covered with plastic sheeting held in place by sand bags to prevent stormwater runoff from entering the open excavation area.

The use of air-powered vacuums was not required as the concrete was broken into pieces using a concrete breaker and excavator bucket, and saw cutting work was not performed.

2.2 MANAGEMENT OF WASTE

All solid waste containing PCBs equal to or greater than 50 mg/kg, and PCBs remediation waste containing PCBs greater than 1.0 mg/kg, was shipped in Washington State Department of Transportation-compliant containers and disposed of at Chemical Waste Management, a Subtitle C landfill in Arlington, Oregon (a chemical waste landfill permitted under 40 C.F.R. § 761.75 to accept TSCA waste). Approximately 106 tons of solid waste was shipped from NBF to the Chemical Waste Management Subtitle C landfill in Arlington, Oregon, which is consistent with field observations and waste manifests maintained by Boeing for this cleanup. Waste manifests are provided in Appendix A. Solid waste that was removed from the Substation V-94 area consisted of concrete, asphalt, surface debris, soil, two concrete catch basin structures, and the associated storm drain line.

2.3 DECONTAMINATION

Non-disposable and nonporous equipment such as concrete breakers, excavators, and other construction tools that came into contact with PCB-contaminated concrete, soil, and surface debris were decontaminated by the construction contractor after cleanup activities were completed. Decontamination after removal of the substation concrete, soil, and surface debris containing PCBs greater than or equal to 50 mg/kg was performed using hand-wiping with an appropriate solvent in accordance with the decontamination procedures required under 40 C.F.R. § 761.79. Only parts of the equipment that were reasonably likely to have been in contact with PCB-containing materials were decontaminated.

3.0 CONFIRMATION SAMPLE COLLECTION PROCEDURES

Confirmation soil samples conformed to 40 C.F.R. § 761.61(a)(6) and were collected from the footprint of the area where Substation V-94 was removed. The footprint of the cleanup was expanded from the original footprint of Substation V-94 where side-wall confirmation sample results exceeded the target remediation level of 1.0 mg/kg; the original footprint of Substation V-94 and the final excavation area are shown on Figure 3. Self-implementing cleanup was considered to be complete when verification sampling yielded total PCBs results less than or equal to the target remediation level of 1.0 mg/kg, which is the TSCA cleanup level for bulk PCBs remediation waste in high occupancy areas and the interim action level previously determined by Ecology for NBF soil in areas where PCBs are not present in groundwater [based on the lowest direct contact Applicable or Relevant and Appropriate Requirements (ARARs)]. When confirmation sampling yielded concentrations greater than this target remediation level, additional excavation and removal of soil was initiated per 40 C.F.R. § 761.61(a)(6)(ii)(B). Excavation activities, as demonstrated by confirmation sample results, were successful in achieving the target remediation level of 1.0 mg/kg for total PCBs throughout the excavation area. Additional contingency measures for high occupancy areas with PCBs remediation waste remaining at concentrations greater than 1.0 mg/kg and less than 10 mg/kg under the requirements of 40 C.F.R. §761.61(a) were not required to be implemented.

Confirmation soil samples were collected according to a 1.5-meter grid overlay system, oriented to magnetic north, as defined in 40 C.F.R. § 761.280(b)(2). A sample was collected from each grid intersection in the area of soil excavation. Additional soil samples were collected from the sidewalls of the excavation footprint. The original excavation grid overlay was extended into the southeast corner of the excavation to facilitate grid sampling in the larger extended excavation area. When the excavation proceeded in the horizontal or vertical direction, new sidewall and grid samples were collected. Confirmation soil samples were collected using a clean, stainless-steel spoon. Soil samples were placed into an 8-ounce glass sample jar, labeled, and stored on ice.

When confirmation samples yielded total PCBs concentrations greater than the target remediation level of 1.0 mg/kg, additional soil excavation was initiated vertically and horizontally to the extent practicable, and the confirmation sampling procedures were repeated. The final excavation depths range from 0.0 to 3.0 ft below the bottom of the concrete pad. Confirmation sample results are provided in Table 1. Confirmation soil sample locations and depths of soil remaining in place are shown on Figure 3. As shown on Figure 3, all confirmation samples representing soil remaining in place are below the target remediation level of 1.0 mg/kg for total PCBs.

3.1 SAMPLE DOCUMENTATION, HANDLING, AND ANALYSIS

A complete record of all field activities was maintained. All recordkeeping conformed to 40 C.F.R. § 761.61(a)(9) and 40 C.F.R. § 761.125(c)(5). Documentation included field logbooks, field sampling forms, photographs, sample labels, chain-of-custody (COC) forms, and data management file copies. Field logbooks were used to record all field activities. Confirmation sample locations were photo-documented with a digital camera, with identification of the sample location in the photograph. Sample possession and handling was documented so that the sample was traceable from the time of sample collection, to the laboratory, and through data analysis. Records will be maintained for at least 5 years as required by 40 C.F.R. 761.125(c)(5).

3.2 CHEMICAL ANALYSES

Confirmation samples were transported to Boeing's contracted analytical laboratory, Analytical Resources Inc. (ARI), in Tukwila, Washington, within 24 hours of sample collection. All samples were analyzed for PCB aroclors by U.S. Environmental Protection Agency (EPA) Method 8082 in accordance with 40 C.F.R. § 761.272. Samples were submitted to the analytical laboratory on a 24-hour requested turnaround time. Laboratory data packages are provided in Appendix B.

3.3 SAMPLE LABELING, SHIPPING, AND CHAIN-OF-CUSTODY

Each soil sample was assigned a unique alphanumeric identifier that included the sampling event identifier 3-818-V94, the sample location identification, the depth of the sample from below the bottom of the concrete pad, and the date in month-day-year format. For example, the first soil sample collected from location S01, at 0.0 ft below the concrete pad (i.e., the soil immediately below the removed concrete pad), on November 6, 2014, was identified as 3-818-V94-S01-0.0-110614.

Sample container labels were completed immediately before sample collection. Container labels and COC forms included the project name (Boeing NBF); the Boeing project manager's name (Carl Bach); the project number (025082.214.005); the sample ID; the initials of the person who collected the sample; the date and time of collection; and the analysis required. Samples were placed on ice in a sealed cooler immediately after collection and delivered to the contracted analytical laboratory by Landau Associates within 24 hours of sample collection. All samples submitted for analysis were accompanied by a COC form.

4.0 USE OF THIS REPORT

This report has been prepared for the exclusive use of The Boeing Company and applicable regulatory agencies for specific application to the NBF locality. No other party is entitled to rely on the information and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

Rosemary W. Trimmer

Senior Staff Environmental Specialist

Colette M. Gaona Senior Project Engineer

Kristy J. Hendrickson, P.E.

Principal

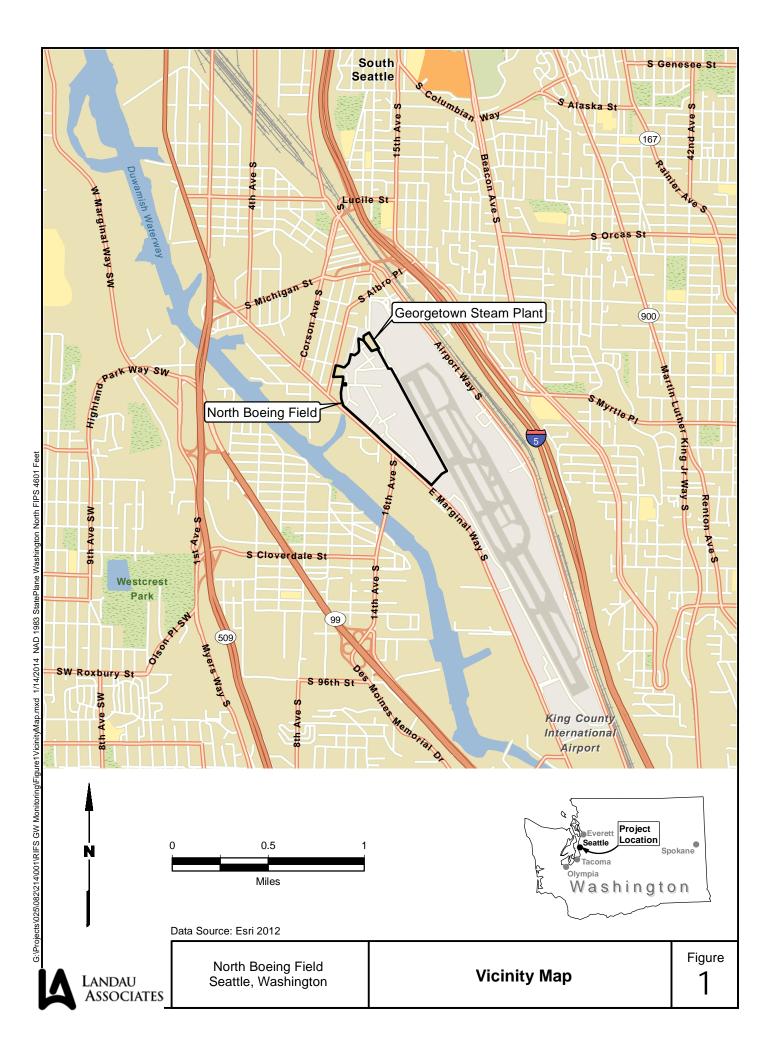
RWT/CMG/KJH/tam

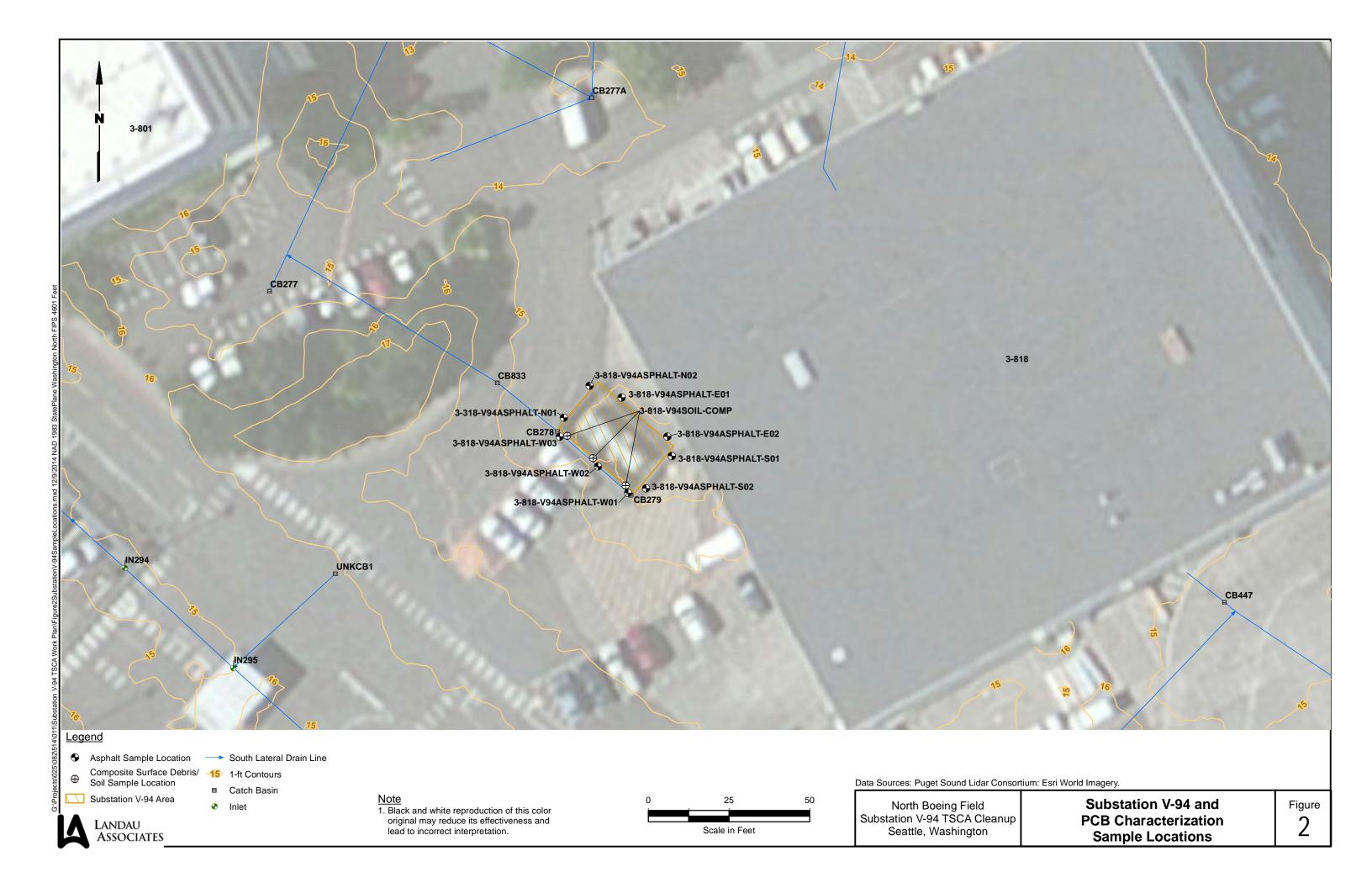
Genduckson

5.0 REFERENCES

EPA. 2014. Letter: *Notification of Self-Implementing polychlorinated biphenyl (PCB) Cleanup for a North Boeing Field Substation Removal.* From Kelly McFadden, U.S. Environmental Protection Agency, Region 10, to Carl Bach, The Boeing Company. April 18.

Landau Associates. 2014. Self-Implementing TSCA Work Plan, Substation V-94 Removal and Disposal, North Boeing Field, Seattle, Washington. Prepared for The Boeing Company. April 16.





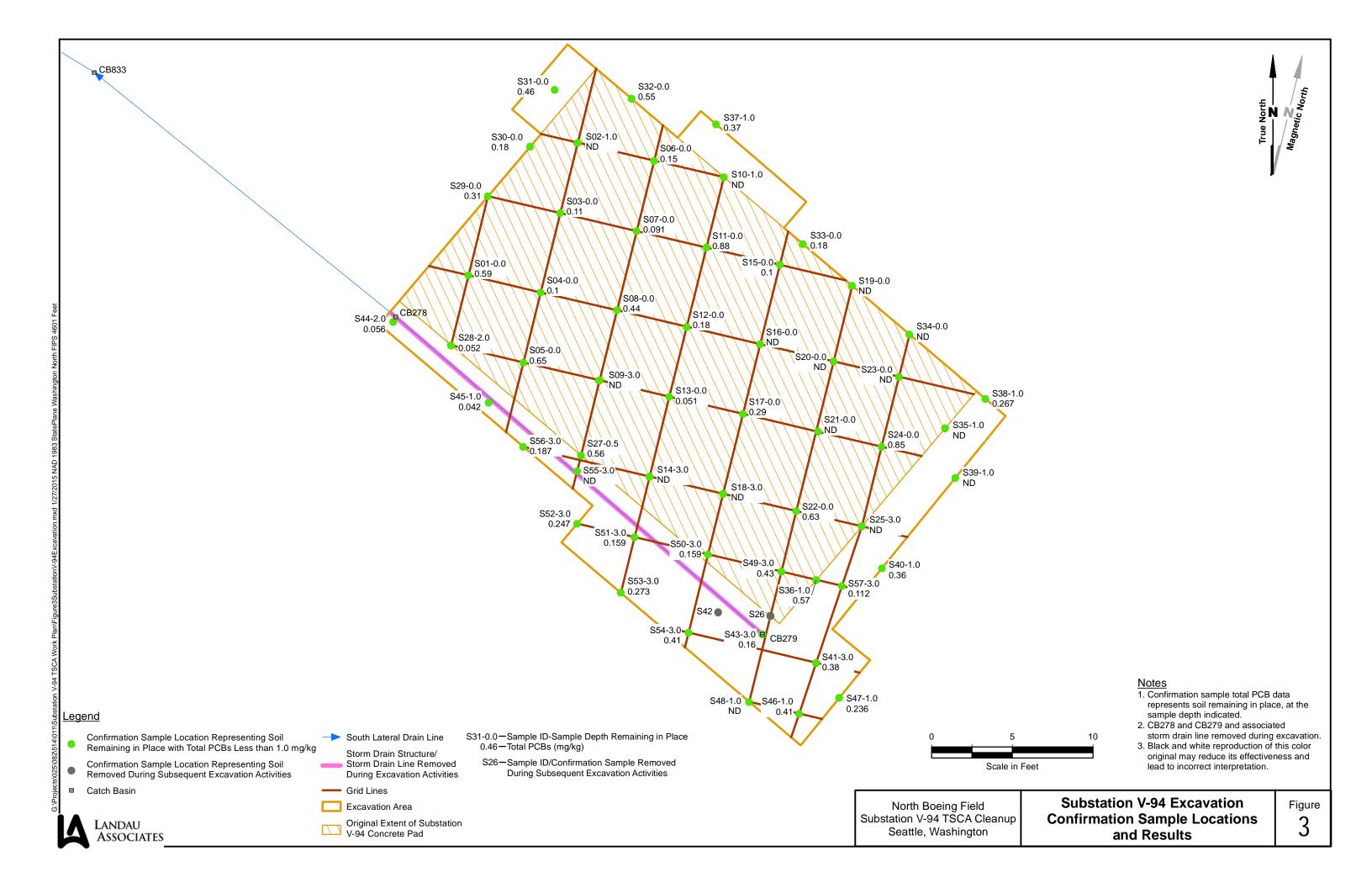


TABLE 1
SOIL ANALYTICAL DATA
SUBSTATION V-94 TSCA CLEANUP— CONFIRMATION SAMPLING

	3-818-V94-																		
	S01-0.0	S02-0.0	S02-1.0	S03-0.0	S04-0.0	S05-0.0	S06-0.0	S07-0.0	S08-0.0	9-0.0	9-1.5	S09-3.0	S10-0.0	S10-1.0	S11-0.0	S12-0.0	S13-0.0	S14-0.5	S14-1.5
	ZJ41A	ZJ41B	ZK42A	ZJ41C	ZJ41D	ZJ41E	ZJ41F	ZJ41G	ZJ41H	ZJ41I	ZK42Q	ZL09O	ZJ41J	ZK42C	ZJ41K	ZJ41L	ZJ41M	ZJ41N	ZK42P
	11/6/2014	11/6/2014	11/14/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/14/2014	11/19/2014	11/6/2014	11/14/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/14/2014
		(a)								(a)	(a)		(a)					(a)	(a)
PCBs (mg/kg))																		
Aroclor 1016	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	0.16 U
Aroclor 1242	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	0.16 U
Aroclor 1248	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	0.16 U
Aroclor 1254	0.12 U	0.22 U	0.03 U	0.032 U	0.032 U	0.19 U	0.031 U	0.033 U	0.063 U	0.48 U	0.37	0.028 U	0.26 U	0.029 U	0.26 U	0.063 U	0.031 U	0.26 U	0.64 U
Aroclor 1260	0.59	1.3	0.03 U	0.11	0.1	0.65	0.15	0.091	0.44	1.4	0.6	0.028 U	1.6	0.029 U	0.88	0.18	0.051	1.1	2.1
Aroclor 1221	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	0.16 U
Aroclor 1232	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	0.16 U
Aroclor 1262	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	0.16 U
Aroclor 1268	0.031 U	0.032 U	0.03 U	0.032 U	0.032 U	0.032 U	0.031 U	0.033 U	0.032 U	0.032 U	0.031 U	0.028 U	0.032 U	0.029 U	0.032 U	0.031 U	0.031 U	0.032 U	<u>0.16</u> U
Total PCBs	0.59	1.3	ND	0.11	0.1	0.65	0.15	0.091	0.44	1.4	0.97	ND	1.6	ND	0.88	0.18	0.051	1.1	2.1

TABLE 1
SOIL ANALYTICAL DATA
SUBSTATION V-94 TSCA CLEANUP— CONFIRMATION SAMPLING

	3-818-V94-																		
	S14-3.0	S15-0.0	S16-0.0	S17-0.0	S18-0.0	S18-1.5	S18-3.0	S19-0.0	S20-0.0	S21-0.0	S22-0.0	S23-0.0	S24-0.0	S25-0.0	S25-1.0	S25-3.0	S26-0.5	S26-1.0	S27-0.5
	ZL09N	ZJ41O	ZJ41P	ZJ41Q	ZJ41R	ZK42O	ZL09I	ZJ42A	ZJ42B	ZJ42C	ZJ42D	ZJ42E	ZJ42F	ZJ42G	ZK42G	ZL09A	ZJ42H	ZK42K	ZJ42I
	11/19/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/14/2014	11/19/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/14/2014	11/19/2014	11/6/2014	11/14/2014	11/6/2014
					(a)	(a)								(a)	(a)		(a)	(a)	
PCBs (mg/kg)																		
Aroclor 1016	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.032 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Aroclor 1242	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.032 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Aroclor 1248	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.064 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Aroclor 1254	0.028 U	0.032 U	0.032 U	0.097 U	1.3 U	1.5	0.029 U	0.032 U	0.032 U	0.033 U	0.21	0.032 U	0.43	1.6	1.2 U	0.031 U	0.38	1.2	0.13 U
Aroclor 1260	0.028 U	0.1	0.032 U	0.29	3	2.1	0.029 U	0.032 U	0.032 U	0.033 U	0.42	0.032 U	0.42	3	2.6	0.031 U	0.77	5.6	0.56
Aroclor 1221	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.032 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Aroclor 1232	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.032 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Aroclor 1262	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.032 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Aroclor 1268	0.028 U	0.032 U	0.032 U	0.032 U	0.033 U	0.15 U	0.029 U	0.032 U	0.032 U	0.033 U	0.031 U	0.032 U	0.031 U	0.032 U	0.03 U	0.031 U	0.033 U	0.15 U	0.032 U
Total PCBs	ND	0.1	ND	0.29	3	3.6	ND	ND	ND	ND	0.63	ND	0.85	4.6	2.6	ND	1.15	6.8	0.56

TABLE 1
SOIL ANALYTICAL DATA
SUBSTATION V-94 TSCA CLEANUP— CONFIRMATION SAMPLING

	3-818-V94-																		
	S28-0.5	S28-2.0	S29-0.0	S30-0.0	S31-0.0	S32-0.0	S33-0.0	S34-0.0	S35-0.0	S35-1.0	S36-0.0	S36-1.0	S37-1.0	S38-1.0	S39-1.0	S40-1.0	S41-1.0	S41-3.0	S42-0.0
	ZJ42J	ZK42S	ZJ42K	ZJ42L	ZJ42M	ZJ42N	ZJ42O	ZJ42P	ZJ42Q	ZK42E	ZJ42R	ZK42I	ZK42B	ZK42D	ZK42F	ZK42H	ZK42J	ZL09C	ZK42N
	11/6/2014	11/14/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/14/2014	11/6/2014	11/14/2014	11/14/2014	11/14/2014	11/14/2014	11/14/2014	11/14/2014	11/19/2014	11/14/2014
	(a)								(a)		(a)						(a)		(a)
PCBs (mg/kg)																		
Aroclor 1016	0.032 U	0.031 U	0.032 U	0.033 U	0.029 U	0.032 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	0.16 U					
Aroclor 1242	0.032 U	0.031 U	0.032 U	0.033 U	0.029 U	0.032 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	0.16 U					
Aroclor 1248	0.032 U	0.031 U	0.032 U	0.26 U	0.029 U	0.064 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	0.65 U					
Aroclor 1254	0.48 U	0.031 U	0.079 U	0.04 U	0.096 U	0.095 U	0.048 U	0.032 U	4.6	0.029 U	2 U	0.15	0.088 U	0.22	0.033 U	0.12	0.93	0.13	11
Aroclor 1260	1.3	0.052	0.31	0.18	0.46	0.55	0.18	0.032 U	1.6	0.029 U	8.1	0.42	0.37	0.047	0.033 U	0.24	1.7	0.25	9.3
Aroclor 1221	0.032 U	0.031 U	0.032 U	0.033 U	0.029 U	0.032 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	0.16 U					
Aroclor 1232	0.032 U	0.031 U	0.032 U	0.033 U	0.029 U	0.032 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	0.16 U					
Aroclor 1262	0.032 U	0.031 U	0.032 U	0.033 U	0.029 U	0.032 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	0.16 U					
Aroclor 1268	0.032 U	0.031 U	0.032 U	0.033 U	0.029 U	0.032 U	0.03 U	0.029 U	0.03 U	0.033 U	0.03 U	0.15 U	0.033 U	<u>0.16</u> U					
Total PCBs	1.3	0.052	0.31	0.18	0.46	0.55	0.18	ND	6.2	ND	8.1	0.57	0.37	0.267	ND	0.36	2.63	0.38	20.3

TABLE 1
SOIL ANALYTICAL DATA
SUBSTATION V-94 TSCA CLEANUP— CONFIRMATION SAMPLING

	3-818-V94-	3-818-V94-	3-818-V94-	3-818-V94-	3-818-V94-	3-818-V94-	3-818-V94-	3-818-V94-	3-818-V94-							
	S43-1.0	S43-3.0	S44-2.0	S45-1.0	S46-1.0	S47-1.0	S48-1.0	S49-3.0	S50-3.0	S51-3.0	S52-3.0	S53-3.0	S54-3.0	S55-3.0	S56-3.0	S57-3.0
	ZK42L	ZL09G	ZK42M	ZK42R	ZL09E	ZL09D	ZL09F	ZL09H	ZL09J	ZL09M	ZL09Q	ZL09L	ZL09K	ZL09P	ZL09R	ZL09B
	11/14/2014	11/19/2014	11/14/2014	11/14/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014	11/19/2014
	(a)															
PCBs (mg/kg)																
Aroclor 1016	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.032 U	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Aroclor 1242	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.032 U	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Aroclor 1248	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.032 U	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Aroclor 1254	2.2	0.084	0.03 U	0.03 U	0.17	0.048 U	0.03 U	0.18 U	0.074	0.057	0.077	0.18	0.41	0.029 U	0.11	0.04
Aroclor 1260	3.1	0.076	0.056	0.042	0.24	0.2	0.03 U	0.43 ∪	0.085	0.028	0.17	0.093	0.06 U	0.029 U	0.077	0.072
Aroclor 1221	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.032 U	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Aroclor 1232	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.032 U	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Aroclor 1262	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.032 U	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Aroclor 1268	0.15 U	0.034 U	0.03 U	0.03 U	0.028 U	0.036	0.03 U	0.029 U	0.029 U	0.028 U	0.027 U	0.03 U	0.03 U	0.029 U	0.028 U	0.029 U
Total PCBs	5.3	0.16	0.056	0.042	0.41	0.236	ND	0.43	0.159	0.085	0.247	0.273	0.41	ND	0.187	0.112

Notes: TSCA screening level is 1 mg/kg.

U = Indicates the compound was not detected at the reported concentration.

Bold = Detected compound.

Box = Exceedance of cleanup level.

⁽a) Represents soil removed during excavation activities. Does not represent soil remaining in place.

Waste Manifests

ł	UNIFORM HAZARDOUS 1. Generator ID Number	2. Page 1 of 3. En	nergency Respons	e Phone	4. Manifes	t Tracking	Number	d. OMB No.	-LE
1.5	WAD86098203/		0-424-9300 ator's Site Address	o (it different th		,	<u> 107</u>	0 ~1	<u>- L C</u>
	5. Generator's Name and Mailing Address THE BOEING CO. P.O. BOX 3707 (MC 3U4-26) SEATTLE, WA 96124 Generator's Phone: 2 0 6 5 4 4 2 0 0 6	7	SOO E. MAR EATTLE, W	GINAL W	A Comment	-,·•)			•
6	6. Transporter 1 Company Name				U.S. EPA ID				
1	CLEAN HARBORS ENV. SERVICES INC						93227	250	
	7. Transporter 2 Company Name UNION PACIFIC RAILROAD					E000	17828	1 6	• _
	8. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT 17629 CEDAR SPRINGS LANE ARLRIGTON, OR 97612 Facility's Phone: 5 4 1 - 4 5 4 - 2 6 4 3				U.S. EPA ID	·	9452	353	
9	9a. Policy Striction 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID No. and Packing Group (if any))	ımber,	10, Conta	iners Type	11. Total Quantity	12. Uni Wt./Vol		3. Waste Cod	es
۲	X (POLYCHLORINATED BIPHENYLS, SOLID, 9- (POLYCHLORINATED BIPHENYLS)	PC II, RQ	1	GM	30006	K	X002		
_	(PCLYCHAGINATED BITTENTES)			_		<u> </u> "			
	2. 2/	, , , , , , , , , , , , , , , , , , ,	ļ			ļ.			
r	3.	<u> </u>							
ŀ	4.		-	 					1
	14. Special Handling Instructions and Additional Information							v	
	OSD-11-05-2014 CHTU 15 2-00+ 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents marked and labeled/placarded, and are in all respects in proper condition for transp	ort according to applicable in attached EPA Acknowledgms	ternational and na	gonal governo	iensai regulationi	hipping nar s, If export	ne, and are o	50k/ 13k dassified, pac I I am the Prin	kageő,
L	Exporter, I certify that the contents of this consignment conform to the terms of the a I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I an	n a large quantity generator)	or (b) (if I am a sm	iaii quantity ge	noratory to troo.		- \	lanth Day	7 Yes
-	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I an Generator's/Offeror's Printed/Typed Name	n a large quantity generator) Signature	or (b) (if I am a sm		الاستار دم سامت			fanth 0ay 1110	
L	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name	n a large quantity generator) Signature	or (b) (if I am a sm	4. 4	01M2			lenth Day	
1	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name AND 4	n a large quantity generator)	or (b) (if I am a sm	4. 4	oure				
1 1	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name AUD 4 16. International Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter Acknowledgment of Receipt of Materials	n a large quantity generator) Signature Export from U.S.	or (b) (if I am a sm	A A	314×2	-		110	<i>5</i> 1 /
1 T	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name August	n a large quantity generator) Signature Export from U.S. Signature	or (b) (if I am a sm	A A	014×2				<i>5</i> 1 /
1 1 1 T	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name 16. Informational Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name	n a large quantity generator) Signature Export from U.S.	or (b) (if I am a sm	A A	<u> </u>				<i>5</i> 1 /
11 Ti	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name 16. International Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name	Export from U.S. Signature Signature Signature	Port of & Date leav	ing U.S.:	Partial Re				5 / Yea
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name 16. International Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name 18. Discrepancy 18. Discrepancy Indication Space Quantity 18. Discrepancy Indication Space Quantity 18. Alternate Facility (or Generator)	Export from U.S. Signature Signature Signature	Port of et Date leav	ing U.S.:	Partial Re	714	N N	I I O	Yea
1 7 1 T T T T T T T T T T T T T T T T T	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name 16. Informational Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name 18. Discrepancy 18a. Discrepancy Indication Space Quantity 17 C.L. A. (2016) 18b. Alternate Facility (or Generator) Facility's Phone: 18c. Signature of Alternate Facility (or Generator)	Signature Export from U.S. Signature Signature	Port of el Date leav	ing U.S.:	Partial Re	714	N N	III O	Yea
1 T T T	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name 16. Infernational Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name 18. Discrepancy 18a. Discrepancy Indication Space Quantity 17. C.L. A. L.	Signature Export from U.S. Signature Signature	Port of el Date leav	ing U.S.:	Partial Re	714	N N	I I O	Yea
11 Ti	I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I and Generator's/Offeror's Printed/Typed Name 16. Informational Shipments Import to U.S. Transporter signature (for exports only): 17. Transporter 1 Printed/Typed Name Transporter 2 Printed/Typed Name 18. Discrepancy 18a. Discrepancy Indication Space Quantity 17 C.L. A. (2016) 18b. Alternate Facility (or Generator) Facility's Phone: 18c. Signature of Alternate Facility (or Generator)	Export from U.S. Signature Signature Signature At a signature Signature Signature Signature Signature	Port of & Date leav	ntry/exit:	Partial Re	714	N N	I I O	Yea

)las	3	interpretation (Form de	signed for use on elite	(3.2-nitch) (vnewriter)	43	>71(03			Form	Approved.	OMB No.	2050-0039
1	UNII	FORM HAZARDOUS (Continuation	B WASTE MANIFEST on Sheet)	(12-pitch) typewriter.) 21. Generator ID Number 100 A D 9	80788	037	22. Page 9-/2	23. Manife	est Tracking Nu	76	/	-7/	- =
11													
	25.	Transporter 3	Boeing Company Name C	DIPL			· · · · · · · · · · · · · · · · · · ·	-	U.S. EPAID	Number) 98	フノクミ	345	7
		Fransporter C			•				U.S. EPA ID	Number		.,	
	27a. HM	27b. U.S. DOT Descri and Packing Group (if		pping Name, Hazard Class.	ID Number,		28. Contair No.	ners Ty <u>p</u> e	29. Total Quantity	30. Unit Wt./Vol.	31. V	Vaste Code:	s .
		·							. 5	-			
	-		•		<u></u>					 			
 }							_						
GENERAL UK										<u> </u>			
5													
					H	_		. 1					
				, <u></u>	<u></u>							<u>.</u>	
			2 7						•				
					-11								
							<u> </u>			<u> </u>			
					'			!		T .	•		
	32. S	pecial Handling Instruct	ions and Additional Inform	ilion.	•		<u> </u>		11				<u> </u>
									4				
<u>۱</u>	33. Tr	ransporter 5 Ack	nowledgment of Receipt of	Materials				a*			Mor	nth Day	Year
KANSPUKIEK	Printe			na		Signature	KAR	au			/	1/0	4/9/
2		ens <u>porter Ack</u> ed/Typed Name	nowledgment of Receipt of	Materials		Signature					Mor	nth Day	Year
\dashv	35. D	iscrepancy										<u> </u>	
3													
DESIGNALED FACILITY	36. H	azardous Waste Report	t Management Method Co	les (i.e., codes for hazardou	s waste treatment, dis	posal, and rec	yding systems)			1			
			()	-10 0		,	B. P.	. c :	. 9		• •	14 J	<u> </u>

	17	V	· w.#			H	3	716	4		En	- Annewin	CONTO NO	. 2050-0039
lea ∱	_	ikor type. (Form design	ed for use on elite (1) 1. Generator ID Number		er.)	2. Page 1 of	3. Emer	gency Respons	e Phone	4. Manifest	Tracking	Number		FI F
L	1	ASTE MANIFEST herator's Name and Mailing	Address WADE	80982037		12		474-9300 vis Site Address	if different th	an mailing addre		<u> </u>	- (
	THI P.O SE/	E SOEING CO. BOX 3707 (MC: ATTLE, WA 96124 ator's Phone:	9U4-20)	5544200		ı	75	OO E. MAR(ATTLE, W/	GINAL W	4 Y 8 .	•			
l		isporter 1 Company Name						"	•	U.S. EPA ID				
1		AN HARBORS EI		<u> </u>						U.S. EPA ID I		93222	50	
		isporter 2 Company Name								h		17929	10	
l		ignated Facility Name and								U.S. EPA ID				-
	176 ARI	EMICAL WASTE II 129 CEDAR SPRIN LINGTON, OR 978 /s Phone: 5 4	IGS LANE	43							RDOS	94523	53	
ĺ	9a.	9b. U.S. DOT Description		ing Name, Hazard	Class, ID Number	г,		10. Contai		11. Total Quantity	12. Unit	1.3	. Waste Co	ies
ŀ	НМ	and Packing Group (if an		1-11			_	No.	Туре	Quantity	VVE.FVCI.		1	1
ENERALUK	×	RO, UN3432, POL (POLYCHLORINA)	YCHLORINATED (TEO BIPHENYLS)	SIPHENYLS, S	SOLID, 9, PG	II, RQ		1	CM	30000	к	KT)02		
<u> </u>	. :	2.					VT 18 -	*						
ļ,		3,												
						,						ľ		
1	H	4.	·,	1										
	'											••••		
*	15 G	D-11-06-2014	S CERTIFICATION: If ed, and are in all respectively of this consignment identified Name	CHEMITAL Liver by declare that is in proper condition of conform to the to	the contents of the for transport accepting of the attach	nis consignment coording to applicated EPA Acknowing quantity gen	cable inter Jedgment	national and nat of Consent.	ional governm	iental regulations	nan pniqoin	nipment and	262	mary
ıı	16. Inte	ernational Shipments	Import to, U.S		Ĺ	Export from	U.S.	Port of e						
<u> </u>		oorter signature (f <u>or exports</u> naporter Acknowledgment (Date (ea <u>v</u>	ing U.S.;	_ .				·
I K ANSPUKIE	Transp	orter 1 Printed/Typed Nam orter 2 Printed/Typed Nam	nnie C	- 1-10	14	l_	nature	Sort	All.			Ŀ	onth Da II O onth Da // /k	y Year S 14, y • Year 1 / (/
١		crepancy			 3									 ::
		iscrepancy Indication Space o change in		weight,	LType Der Mar	y To Do	ا اعتدره Ma	Residue 	ing 9				Full R	ejection
	18b. Ai	ternate Facility (or General	(or)							U.S. EPAID (10118721			
į	F acilit∨	's Phone:				_	· .							
3	18c. Si	gnature of Alternate Facility	y (or Generator)		'	•							lonta D L	ay Year
1	10.77	zardous Waste Report Mar	danmar u a Mari	Gio Booder for be-	kardo la Woode tro	etment disposi	Eanit som	rcling, svetěmě i	(04.	00	> =		-
100	19. Haz	zardous Waste Report Mar	agement Method Codes	(i.e., codes for ha	zerdous waste tre	зипелі, аіврова 3.	s, and rec)	omigrayatems)		4.	<u> </u>	<u>/</u>		
֓֞֜֞֜֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֜֜֜֓֓֡֓֡֜֜֜֡֓֓֡֓֡֓֡֡֡֡֓֡֓֡֓֡֡֡֡֡֡	1	りろみ				<u> </u>								
		signated Facility Owner or	Operator: Certification of	receipt of hazardo	us materials cove	ered by the manif	fest excep natu ç ê	t as noted in Iter	n 18a			M	onth Da	y Year
	Ennted:	(Typed Name	DISON			وره 	The second	ma	W	einen		1	111	1114
<u>.</u>		0700 00 (Dov. 2 05) Pr	ravious aditions are a	neolete	-		- 24	PECH	CNATER F	ACILITY TO	GENER	ATOP ST	TE /IE O	EUIIBED)

e print or type. (Form designed for use on elite (12-pitch) typewriter.) UNIFORM HAZARDOUS WASTE MANIFEST (21. Generator ID Number (Continuation Sheet) 4. Generator's Name	43716	23. Ma	nifest Tracking N	Forr	n Approved	OMB No.	2050-0
(Continuation Sheet) 12. Generator D Normalis (Continuation Sheet)	3037 3/	2 0	06/6/	07	7 F	LE	
The Control of the Control				•	1 11		
The Boeing Co.							
The Boeing Co. 25. Transporter 3 Company Name CRLRC	•	•	U.S. EPA IC	19	8 7/2	34	رمرسی، ارماسی
26. Transporter Company Name	· -		Ų,S. EPA ID) Number			
7a. 27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number,	28	Containers	29. Total	30. Unit	31.	Waste Code	-
M and Packing Group (if any))	No.	Туре	Quantity	Wt./Vol.		l	1 .
					······		-
		<u> </u>				<u> </u>	\vdash
							\vdash
			-	†			╅
							\top
			 			 	\vdash
							T
			-				П
				1.			Γ
							Π
* * * * * * * * * * * * * * * * * * * *	<u> </u>				• :	;	
*	75.					4	
					.		Ł.
							<u> </u>
·							igspace
							<u> </u>
				<u> </u>	11		<u> </u>
2. Special Handling Instructions and Additional Information							
	v						
Transporter Acknowledgment of Receipt of Materials						eth Day	
BONNIC ShAW	Signature A. J.	how			Mo	nth Day	y γ 2 /
4. TransporterAcknowledgment of Receipt of Materials		<u> </u>			Mo	nth Day	y Y
rinted/Typed Name	Signature				.		,
5. Discrepancy		"					
	dianocal and recycling over	stems)	<u> </u>	•	_		
6. Hažardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, o	oraposer, end recycling by:		<u> </u>				
						161	,

						1 1	2-1	~~	,		7			
Ple		int or type. (Form desig	: ghed for use on elit	e (12-pitch) typewri	ter.)	•	<u>37</u>		·				OMB No	. 2050-0039
\bigcap	UNI	FORM HAZARDOUS VASTE MANIFEST	1. Generator ID Nur			2. Page 1 of	3. Emergen	4-9300			779	<u> 466</u>	1	<u>FLE</u>
	P.C SE	enerator's Name and Mailin IE BOEING, CO. D. BOX 3707 (MC ATTLE, WX 96124	9U4-20)	08544200			7500		SINAL W/	nan mailing addres	s) · · · · › /~	**************************************		
M	6. Tra	erator's Phone: ansporter 1 Company Nam	ne .						_	U.S. ËPA ID N		3222	E 0	
$\ $		EAN HARBORS E		5 INC						U.S. EPA ID N		3222		·-
$\ $		ION PACIFIC RAI					. ,			U.S. EPÁ ID N		7929	1 0	
	CH 176 AR	esignated Facility Name ar EMICAL WASTE 529 CEDAR SPRII LINGTON, OR 97 bitys Phone:	MANAGEMEN NGS LANE		,							4523	53	<u>.</u>
	9a.	9b, U.S. DOT Descripti		Shipping Name, Hazar	d Class, IO Number,			10. Conta	iners Type	11. Total	12. Unit Wt./Vol.	13.	. Waste Co	des
	НМ	NO, UN3432, POI		D BIPHENYLS,	SOLID, 9, PG II	. RQ			, ,,,,,,,	12.00		(802		1
GENERATOR	×	POLYCHLORINA						1	CMF	-23000	K H	,	1182	
RE	┝╌	2.		";		<u> </u>		,		11/2-51				
1										1				
		3.	,			<u>.</u>		'		- UI				
	N								1					
	Į.	4.				"								
$\ $		}						7 1					<u>L</u>	<u> </u>
]	44	Special Handling Instruction		mation ENTREC# CCN:	22118 NBF	·-	·	_		_		2	7,84	OP
			tra	-605L		_ 14	,	C	HIU	250	25	O_{la}	162	8 K
$\ \ $	15.	GENERATOR'S/OFFERO	OR'S CERTIFICATION	de I basabu daging the	at the contents of thi	is consignment	t are fully and a	eccurately de	escribed abov	e by the proper shi	pping name	, and are ob	assifiéd, pad	ckaged,
וו		marked and labeled/place Exporter, I certify that the I certify that the waste min	contants of this conti	rement conform to the	torms of the attach	ed EPA Acknov	MRGGMENT OF L	Jonsent.			e export an	ipinera and	1 2 (17. 12.	
		erator's/Offeror's Printed/Ty	/ped Name		22.27(4) (11.011) 4 141	Sig	gnature	1.	11			Mc	onth Da	
Ų	118 14	ANDY nemational Shipments	HOWE		·		<u> </u>	rey.		MC		1	1 119	<u> </u>
NT		nsporter signature (for expo	import to orts only):	U.S.		Export from	10.S.	Date Isa	ving U.S.:					
TER		ransporter Acknowledgmes sporter 1 Printed/Typed Na	nt of Receipt of Materi	als		/ Siç	gnature					Mo	onth Da	ıy Year
SPOR			Bonn	ie C	<u>·</u>	u_		\sim	ÜÜ	<u> </u>			1 1/2	<u> </u>
TR ANSPORTER	Trans	sporter 2 Printed/Typed Na		irientes		, si	gnature	SA	4 80	de		ĮĨ.	115	8114
Ī	18. D	Discrepancy											_	
	180	Discrepancy Indication Sp	ace X Quant	ifested,	selght	bur ho	as 4 L	Residue O Doni est Referenc	nelli// ce Numb <u>er:</u>	□ Partial Reju BOE IN Sy	-\$n	~11-Q	∟Fu∏R 0-14	ejection
È	18b.	Alternate Facility (or Gene	rator)							U.S. EPA ID N	lumber			
FACILITY	Facil	≂ lity's Phone:								ľ				
TED	18c.	Signature of Alternate Fac	itity (or Generator)	;	<u>-</u>							I M	ionth D	ey <u>Yeşr</u>
DESIGNATED	19. H	tazardous Waste Report N	Management Method (Codes (i.e., codes for h	nazėrdous waste frei		al, and recyclin	ng systems)						
ä	1.]	1120		2.		3.			,	4.				
		Designated Facility Owner	or Operator: Certifical	ion of receipt of hazen	dous materials cove			s noted in Ite	m 18a				lonth Da	av Year
	Print	Cina U	Deiser			Si 	ignature)	na	We	iser				0/4
♦	i i	(IY LEX V		3										

*		1312	5		•	Fолт	Approved. OMB No. 205	50-0039
<u>1e</u> ↑	uniform HAZARDOUS WASTE MANIFEST (Continuation Sheet) Continuation Sheet	37 22.P	9ge (2	23. Manif	est Tracking Nun		I FLE	
Ì	24, Generator's Name	<u> </u>				_	<u> </u>	
	The Boling Co 25: Transporter 3 Company Name CRURC				Ü.S. EPA IO N	lumber	*	
	25: Transporter 5 Company Name CRURC				U.S. EPA ID N	<u>98</u>	7173457	<u>'</u>
	26. Transporter Company Name				1			
	27a. 27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	2 N	8. Contain o.	ers Type	29. Total Quantity	30. Unit Wt./Vol.	31, Waste Codes	
				v .**		İ		
								_
					<u> </u>		-	
					1.12			
TOR								
GENERATOR						_		,
9								
1		. <u>.</u>	. ·	Zm.			A STATE	f i
			·				10/12/4	K
			_					
		_	_					
1	32. Special Handling Instructions and Additional Information							
							,	
* e	33: Transporter Acknowledgment of Receipt of Materials Printed/Typed Name	Signature	- ·				Month Day	Year
PORTE	Sherrie Wilkins	Signature Aller	URI	n		_	111_119_1	14
TRANSPORTER	34, TransporterAcknowledgment of Receipt of Materials Printed/Typed Name	Signature		_			Month Day	Year
	35 Discrepancy		<u>. </u>			_	ı L	
ACH IT				•				
TEN E	36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment,	disposal, and recycling	systems)					- '
DESIGNATED SACILITY								
Ë	The state of the s		√.3. ±	·	ay ay ay o		18 Dec	14

437397

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved, OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone 4. Manifest Tracking Number **WASTE MANIFEST** WAD980982037 800-424-9300 94664 Generator's Name and Making Address Generator's Site Address (if different than mailing address) THE BOEING OO. 7500 E. MARGENAL WAY S. P.O. BOX 3707 (MC 9U4-20) SEATTLE, WA 88168 SEATTLE, WA 98124 2065442000 Generator's Phone 6. Transporter 1 Company Name U.S. EPAID Number CLEAN HARBORS ENV. SERVICES INC MAD039322250 7. Transporter 2 Company Name U.S. EPA ID Number UNION PACIFIC RAILROAD NED001792810 8. Designated Facility Name and Site Address U.S. EPA ID Number CHEMICAL WASTE MANAGEMENT 17629 CEDAR SPRINGS LANE ARLINGTON, OR 97812 ORD089452353 541-454-2643 9b. U.S. DOT Description (including Proper Shipping Name, Hazard € lass, ID Number, 9a. 10. Containers 11. Total 12. Unit 13. Waste Codes НМ and Packing Group (if any)) No. Quantity WL/Vol. Туре RQ. UN3432, POLYCHLORINATED BIPHENYLS, SCILID, B, PG II, RQ x GENERATOR 003 (POLYCHLORINATED BIPHENYLS) f CM 22000 K 14. Special Handling Instructions and Additional Information 1. #NON00066-00., CHEMITREC# CCN22118 NBF -2014 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and a courately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shir ment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Act nowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.2"(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's Chieror's Printed Typed Name 40WE Export from U.S. Port of entry/exit Transporter signature (for exports only). Date leaving U.S 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name TR ANSPOR 18. Discrepancy 18a. Discrepancy Indication Space Partial Rejection Full Rejection m-12-2-14/ Manifest Reference Numb FACILITY 18b. Alternate Facility (or Generator) U.S. EPA ID Number Facility's Phone 18c. Signature of Alternate Facility (or Generator) Month Day Year 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest expens as noted in Item 18a Printed/Typed Name Day Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

sá 🖳

ease pr	int or type. (Form desig	ned for use on elite (12-pitch) typewr			<u> </u>					i. OMB No.	2050-0039
UNI	FORM HAZARDOUS ASTE MANIFEST	t. Generator ID Number WADOROOR2037		2. Page 1 of 3. Er	D-42 4-9300		00		466 466	5 F	FLE
P.C. SE.	emerator's Name and Maillin E BOEING CO. D. BOX 3707 (MC. ATTLE, WA 98124 erator's Phone:	9U4-20) 2 0 6 5 4 4 2 0 9	0 (1	7	ator's Site Address 500 E. MARC EATTLE, W/	BINAL WA	•		ea		
8 35,550	ensporter 1 Company Nam CAN MADDODO CE	NV. SERVICES INC								F A	
	EAN HARBORS EF ansporter 2 Company Nam			***************************************	***************************************		U.S. EPA ID		3222	<u>bu</u>	
2 9390 68	ION PACIFIC RAI						1		7829	10	
8. De	rsignated Facility Name are	d Ske Address				 	U.S. EPA ID		. ````	***************************************	
176	EMICAL WASTE I 229 CEDAR SPRIN LINGTON, OR 878 itys Phone; 5 4	IGS LANE					1 0	RD086	4523	53	
Sa.		on (including Proper Shipping Name, Haza	nd Class, tO Number,	******	10. Conta	iners	11, Total	12. Unit]	::: 1. Ad	
HM	and Packing Group (If a			unconditor and	No.	Туре	Quantity	Wt./Vol.	13	, Waste Cod	es
X	RQ, UN3432, POL (POLYCHLORINA)	YCHLORINATED BIPHENYLS, TED BIPHENYLS)	SCILID, 9, PG II, I	R.C)	1	CM	ZZ2000	ĸ	(602		
	2.			***************************************					**************************************		
	<u> </u> 3:									i i	
		Marketing Control							************	 	-
49.42										1	
		l.								į.	
			<i>.</i>					1		1	
	marked and labeled/placar Exporter, I certify that the o	R'S CERTIFICATION: I hereby declare the ded, and are in all respects in proper conductrents of this consignment conform to the imization statement identified in 40 CFR 2	nat the contents of this dition for transport account terms of the attached	consign ment are full rding to applicable in EPAA: knowledom	nternational and na ent of Consent.	escribed above tional government	e by the proper s nental regulation	hipping nam s. If export si	hipment and	assified, pac I am the Prin	nary
	AND	T HOWE		34,422	a	ules	Hoa	٠			9 /4
Tran	nternational Shipments sporter signature (for expo			Export from U.S.	Port of e Date leav	ntry/elin: ving U.S.:	under gestäggertaten 1905 est specialisterin	医精神的 植物 医水杨 经申请贷款 电电流 化二氢苯酚	***************************************	ar empresidad i de calas, de c	
Trans	ransporter Acknowledgmen pogtar 1 Printed Typed Nar		Water State of the	Signature		·			Mo	onida Cuar	/ Year
Trans	That P	Bateman.			1.1/				1	1 16	1111
Trans	sporter 2 Printed Typed Nar	th mo	****	Signature		The same	***************************************		- ', ,(11 80	Year 1 / \(\sqrt{1} \)
4	iscrepancy				->		(*************************************				
18a. I	Discrepancy Indication Spa	SCOL CHANGE	ish per t	lary JoI	Flesidue Con Pull 4/ Manihist Reference	Boein	Partial Re	ejection 12-2-1	4	Full Re	jection
18b.	Alternate Facility (or General	ator)					U.S. EPA ID	Number		_:	
							1				
	ly's Phone: Signature of Alternate Facil.	ily (or Generator)			, , , , , , , , , , , , , , , , , , , ,		***************************************		M	lonth Da	y Year
19. H	azardous Waste Report Ma	anagement Method Codes (i.e., codes for I	haz intous waste treatm	nent, dir posal, and r	ecyclir q systems)						
		2.		3,			4.	**************************************		•	
20. D	esignated Facility Owner or Affyped Name	r Operator: Certification of receipt of hazan	dous materials covered	by the manifest ex	A.		-11) ₄	orth Oay	y Year
<u>ا ا</u>	30e M	4thren			Nel.	11-4	Me		- 1/	20	317

Form Approved. OMB No. 2050-0039 Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 3. Emergency Response Phone 4. Manifest Tracking Number 1, Generator ID Number UNIFORM HAZARDOUS 007794666 7 800-424-9300 **WASTE MANIFEST** WAD980982037 Generator's Site Address (if different than mailing address) Generator's Name and Mailing Address THE BOEING CO. 7500 E. MARGINAL WAY S. P.O. BOX 3707 (MC 9U4-20) SEATTLE, WA 95106 SEATTLE, WA 98124 2065442000 Generator's Phone: U.S. EPA ID Number 6. Transporter 1 Company Name MAD038322250 CLEAN HARBORS ENV. SERVICES INC U.S. EPA ID Number 7. Transporter 2 Company Name NED001792918 UNION PACIFIC RAILROAD U.S. EPA ID Number 8. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT 17629 CEDAR SPRINGS LANE ARLINGTON, OR 97812 ORD088452353 541-454-2643 10. Containers 12. Unit 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 11. Total 13. Waste Codes and Packing Group (if any)) Quantity Wt./Vol. No. Туре НМ RO, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, PG II, RO **1002** × CM 22000 (POLYCHLORINATED BIPHENYLS) 1 1-000 14. Special Handling Instructions and Additional Information 11231K BTN=Y3785 1. RXN00066-00., CHENTREC# CCN22118 NSF 24760P GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and tabeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. Locatify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's/@##pgs Printed/Typed Name Port of entry/exit: Export from U.S. Date leaving U.S. Transporter signaturê (for exports only) 17. Transporter Acknowledgment of Receipt of Materials Signature Transporter 1 Printed/Typed Name ARBE Transporter 2 Printed/Typed Name K 18. Discrepancy 18a. Discrepancy Indication Space Quantity ☐ Partial Rejection __ Full Rejection No change in manifested weight per Mory To Donnelly / Boeing -Ju-12-10-14 Manifest Reference Numbe U.S. EPA IO Number 18b. Alternate Facility (or Generator) Facility's Phone: Month Day Year 뎶 18c. Signature of Alternate Facility (or Generator) GNA 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

121501

Printed/Typed Name

9

12

437560

3144	ase print or type. (Fo <u>rm designed for use on elite (</u>	2-oitch) progwriter)				Form	Approved. OMB No. 2050-0039
†	UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet) k.	21, Generator 10 Number WAD980 982037	22: Page 242	23. Mani	lest Tracking Nu	H60	6FLE
	24. Generalor's Name	·					
	The Bound C	irc		*.	U.S. EPA ID LORD U.S. EPA ID	987	173457
	26. Transporter Company Name						
	27a. 27b. U.S. DOT Description (including Proper Ship and Packing Group (if any))	ping Name, Hazard Class, ID Number,	28. Contair No,	Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes
					"		
ŀ					ı		
ATOR -						-	
GENERATOR			"				
	***					-	
				"		/	1 31K 3
		<u> </u>		_			
				_			
	32. Special Handling Instructions and Additional Informat	ion					
	,						
* *	33. Transporter Acknowledgment of Receipt of M Printed/Typed Name	Signatu	re J	<u> </u>			Month Day Year
TRANSPORTER	Borne Sho	<u> </u>		110	u)		11215114
TRAN	34. Transporter Acknowledgment of Receipt of M Printed/Typed Name	Signatu	e				Month Day Year
SILITY	35. Discrepancy						
/DESIGNATED FACILITY	36 Hazarthus Watte Report Management Mathod Code	s (i.e., codes for hazardous waste treatment, disposal, and	d recycling systems)				
SIGNA	VV. 1 (Decisions 1440):E 1/chort Management wearen over			<u> </u>			
_	Form 0700 220 (Ray 2 05) Provious editions are		<u>, .</u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·	 IGNATED	FÀCILITY TO GENERATOR

•		* *		ŧ	15	15	= 0	7					
Plea	ise pri		ed for use on elite (12-pitch) typewriter)						(Manifest	Fon Tracking N	n / pproved	. OMB No.	2050-0039
1		ORM RAZARUUDD }	, Generator ID Number	1		3. Emergen:		e Prione			466	7 F	ELE
	1	ASTE MANIFEST nerator's Name and Mailing	WADQB08R2037		<u> </u>	800-424 Generator's	-9300 le Address	(if different th	an mailing addin	15S)			Name and the second
	l	E BOEING CO.						VIHAL WA					
	P.O	BOX 3707 (MC 9	U4-20)					168108	74 434				
	SE/	NTTLE, WA 60124 milor's Phone:	206544200(
		insporter I Company Name							U.S. EPAID	Number			
	2: - Max	AN HARBORS EN				***************************************					3222	50	
		nsporter 2 Company Name							U S. EPAID				
		OM PACIFIC RAILL skingled Facility Name and	The state of the s	**************************************	uphousement von	idhkusoobalaaaaaaa =			U.S. EPAID	NAMES OF TAXABLE PARTY.	7929	<u> </u>	***************************************
	1	sgrates facility value and EMICAL WASTE M							U.U. LIPIU	100111001			
	175	29 CEDAR SPRIM	GS LANE										
		L MAGTON, OPR 975 ° Ivs Phone:	12 1 - 454 - 2643						0	RDOS	34523	53	
	95.	Statement of the statem	(including Proper Shipping Name, Hazard Clas	s, iD Number	ansaranaanaan eengiigi	*****************	10. Conta	iners	11_Total	12, Unit	T	Waste Code	
	HM	and Packing Group (if an				 	No.	Type	Quantity	Wt.Noi.	13	Waste Cots	75
		NO IMMAD POLY	CHLORINATED BUTHENMES, SAL	n a pau	30		Marining In				L	T. T. WATER	
6	×	(POLYCHLORNHAT		p, v, .	4407		1	CM	22000	K	Q102	Torontorontorontoronto.	
8								4			_	<u> </u>	
GENERATOR		2.									1		
Ĭ													
	*******			***************************************	-		*************			-		<u> </u>	
		4.										error all the	
												, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	:
	14 €	pedal Handling Instructions	and Additional Internation	<u></u>	······································			<u> </u>	L		1	<u> </u>	1 1
			00005-00., CHEMTREC# CCN2211	m rede					4		0	106	K
	D 1 11	LINE COMPANY	•			-			400				
		05	D 11-19-	20	14		4/(12	520	95.	24		
	15.	GENERATOR'S/OFFEROR	S CERTIFICATION: Thereby declare that the	contents of this	consignment	are fully and ac	curately de	scribed above	by the propers	nipping nam	e, and are cla	issiñed, paci	aged,
	Ĭ	Exporter, I certify that the co	ed, and are in all respects in proper condition for interts of this consignment conform to the term	s of the attached	EPA Action	dedgment of Co	nsent.		·	s. n export 5	udz issis siso i	विशासास है है ।	iaiy
			rization statement identified in 40 CFR 262.17(a	a) (// i am a large			lam a sm	all quantity ge	nerator) is true.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		ns Da	, 4691,
	Gene	rator's Meroy Printed 150	. A W	1.	32%	nature	17	12	1/		1 1	ana (190)	
+	16 15	(THU)	9 HOWE	(Table 1		***************************************		war.	/ARX	<u> </u>		114	штт
E			L_Import to U.S.	L	Expentiron	U,S,	Port of ex		**************************************	~~ £3.£3.£4.£62.£16.9£6\$4.74	erana arabahan Teberter	(1) 10 mm	~~~~~~~~
8		gorier signature (for export anaporter Acknowledgment		disas and in the latter or a second	***************************************		Date leav	ಸಕ್ಷು ಟ್ ವ ್ಗ	and the second second second second	***************************************		·	***************************************
	Trans.	porter I panied Typed Nam		······································	······································	nature 🥜			· · · · · · · · · · · · · · · · · · ·		Ma	nin Day	Year
ANSPORT		MRBE	v ferko			Il.						2 W2	- 14
A	Trans	porter 2 Printed/Typed Nam	8		. 90	natu 4 /		V 1000 100 100 100 100 100 100 100 100 1	A 17 17 17 17 17 17 17 17 17 17 17 17 17		Mo	inth Day	Year
Œ		***	Contraction of the Contraction o			ALE!					/	214	$\mathcal{L}\mathcal{L}$
t		screpancy				- %		· · · · · · · · · · · · · · · · · · ·					*
	18a.6	Discrepancy Indication Space	manifested weight	Туре_	, .	T Re	sidue //	11000	Pantai Ro	ejection	1" _1 ~ .1	Full Re	ection
	νe	changein	manite steel weight	-pur	ians.				J SI	700	a 7		
2	18b./	Mariate Facility (or General	tar)		popphysicale lends and distributed	Manifes	t Referenc	a number.	U.S. EPA ID	Number	out the second		
FACILITY													
Z.	Facili	y's Phone											
	18c. 3	Signature of Atternate Facility	y (or Generator)	MATOROT O KOPARET ON CPCTO KOPC	1 10000				181011111111111		M	onth Da	y Year
DESIGNATED	L								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
386	19. H	azardous Wasle Report Mar	nagement Method Codes (i.e., codes for haz and	lous waste treats	nent, disposa	u, and recycling	systems)	Manie de Annos - 11 - 12 - 12 - 12 - 1				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
ľã	1.	41.92	*		Ţ				4.				
	20.0	nonmulari Equility Ourse	Operator: Certification of receipt of hazardors s	natodale assassa	thuthe nec	fact agents on	votant in Sta	m 18a		(11111) (11111) (11111) (11111) (11111)	······································		
	***********	esignated inactify Owner or diffyred Name	upperson. Uppersoner of Home of Higgs 1901 S.	HEREITOIS CAMIEN	and the second second second	nesi except as i matuge	with at 165	· 100	······································		Mi	onth Day	Year
		Tha w	OISSY			Sin	20	dei	124			12/1	1 14
EP/	\Form	The second secon	revious editions are obsolete.				School of the second		ACILITY TO	OESTIN/	ATION STA	TE (IF RE	QUIRED)

437557

Form Approved, OMB No. 2050-0039 Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 4. Manifest Tracking Number 1. Générator ID Number 3. Emergency Response Phone UNIFORM HAZARDOUS 007 94669 WASTE MANIFEST WAE1680682037 Generator's Site Address (if different than mailing address) 5. Generator's Name and Mailing Address THE BOEING CO. 7500 E. MARGINAL WAY S. P.O. BOX 3707 (MC 9U4-20) SEATTLE, WA 98108 SEATTLE, WA 98124 2066442000 U.S. EPA ID Number 6. Transporter 1 Company Name CLEAN HARBORS ENV. SERVICES INC MAD039322250 U.S. EPA (D Number 7. Transporter 2 Company Name NEO001792910 UNION PACIFIC RAILROAD U.S. EPA ID Number 8. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT 17629 CEDAR SPRINGS LANE ARLINGTON, OR 97812 ORD089452353 541-454-2543 Facility's Phone: 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 10. Containers 11. Total 12. Unit 13. Waste Codes and Packing Group (if any)) Quantity Wt./Vol. Νo Турв ΗМ RO, UN3432, POLYCHLORINATED BIPHENYLS, SOLID, 9, PG II, RO (002 GENERATOR ¥ (POLYCHLORINATED BIPHENYLS) CM. 22000 ĸ 10242K 15. Special Handling Instructions and Additional Information 1. RXN00056-90., CHEMTREC# CCN22118 NOF CHIV 252004 22580P 11-19-2014 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. Locatify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true Generator's/Offeror's Printed/Typed Nam Signature AND916. International Shipments Export from U.S. Date leaving U.S.: Transporter signature (for exports only): 17. Transporter Acknowledgment of Receipt of Materials Signature Transporter 1 Printed/Typed Name t8. Discrepancy 18a. Discrepancy Indication Space Full Rejection weight per Hary To Denelly Beeing Partial Rejection Manifest Reference Number U.S. EPA ID Number 18b. Attemate Facility (or Generator) NITO Facility's Phone: Month Dav Year 18c. Signature of Alternate Facility (or Generator) 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Day (2) Welsen

•			4379	55	7		Form	Approved.	OMB No	2050-0039
<u>Ple</u> ↑	uni uni	int or type. (Form designed for use official (12-pitch) typewriter.) FORM HAZARDOUS WASTE MANIFEST (Continuation Sheet) 21. Generator ID Number (Continuation Sheet)	82037	22. Page / 20 6	23. Manif	est Tracking Nu	mber - 166	9 F	Œ	
	24. 0	Generator's Name The Boeking Co Transporter Company Namper C		<u> </u>			<u> </u>			
	25.	Transporter S Company Name REPRC				U.S. EPAID CR.C U.S. EPAID		7173	345	7
	26. ·	Transporter Company Name				0.3. EFAID	IVGHUEI			
	27a.	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Numbi and Packing Group (if any))	er,	28. Conta No.	iners Type	29. Total Quantity	30, Unit Wt./Vol.	31. V	Vaste Codes	1
				•		_				
1000										
GENERATOR		<u> </u>								
					. "		7.		₩	
	_									
										······
				"		"				
]					
	32.S	pecial Handling Instructions and Additional Information								
<u> </u>	** *	Asian pladent and all Descript of Malaciata								
TRANSPORTER	Printe	ansporter Acknowledgment of Receipt of Materials ad/Typed Name Bonne Shaw	Signature	KSI	aw		•	Mon S		Year
TRANSF		ansporterAcknowledgment of Receipt of Materials d/Typed Name	Signature	***			*1	Mon	nth Day	Year
	35. D	screpancy	!		,	•			•	
DEAC		· <u> </u>				. .				
DESIGNATED FACILITY	36. H	ázardous Waste Report Management Method Codes (i.e., codes for hazardous waste tr	reatment, disposal, and rec	ycling systems)					· ——	
띪		r Balanta Nasara (n. 1817)	-	. l . :		6.	ı	1	, ,	<u>.</u>

Laboratory Data Reports



November 10, 2014

Anne Halvorsen Landau Associates, Inc., 130 – 2nd Avenue Edmonds, WA 98020

RE: Project: NBF 3-822 Main Fuel Farm

ARI Job: ZJ41

Dear Anne:

Please find enclosed original Chain of Custody (COC) records and analytical results for the above referenced project. Analytical Resources, Inc. accepted eighteen samples in good condition on November 6, 2014.

The samples were analyzed for PCBs, as requested on the COC.

No analytical complications were noted.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC

Kelly Bottem

Client Services Manager

(206) 695-6211

Enclosure

cc: Carl Bach, The Boeing Company, P.O. Box 3707, M/S 1W-12, Seattle, WA 98124-2207

re 201

XAccelerated TAT X-NWTPH-Dx - TOT acid wash silies gel cleanup Dissolved metal water samples field filtered Turnaround Time X Allow water samples to settle, collect deliverto lab aliquet from olear portion Observations/Comments Analyze for EPH if no specific preserved w/sodium bisulfate Time run samples standardized to preserved w/methanol Date product Freeze upon receipt VOC/BTEX/VPH (soll) non-preserved product identified Received by Printed Name Signature Company Date Other Method of Shipment **Testing Parameters** Time Chain-of-Custody Record Relinquished by Printed Name Signature Company Date 1502 Project Name 3-818 V94 Substation Period No. 0025082, 214,005 Time 1513 Send Results To Carl Each, Colette Garag, Annethalversen No. of Matrix Containers Printed Name (Complete) Sampler's Name AISTAVI, Ruse Luay Tringue 1.00 Date 11 10 114 Received by Project Location/Event NBF/V94 Substation 1055 1215 1225 子二 150 220 5021 20 22 200 **Seattle/Edmonds (425) 778-0907 (30 5 52 135 Time 0 145 155 Colete Grana ☐ Spokane (509) 327-9737 ナ ☐ Tacoma (253) 926-2493 ☐ Portland (503) 542-1080 3 10 Date grand (Kare - muc anday Associate 1513 818-191-012-00-11614 1-10-10-010-010-100-1 813-194-516-0.0-110614 418-194-508-0,0-110619 -818-194-509-0.0-11814 417011-0'0-485-167-818-2 2-818-194-507-0,0-11201t 818-194- SII -0,0- 110,14 418-194-514-05-11614 3-818-V94-505-0,0-1106 H 818-194-50-0-0-110CIT 818-194-512-0,0-110419 419011-0'0-813-44-818 419011-00-F12-4PV-818 8-194-518-0,0-110614 3-818-194-503-0.0-110/17 38/8-VI4-501-0.0-110614 818-194-502-0.0-110614 Time Special Shipment/Handling or Storage Requirements Sample I.D. Loscuray LANDAU Date 11 6/17 Relinquished by Project Contact

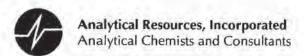
141:00002

Rev 8/09

PINK COPY - Client Representative

YELLOW COPY - Laboratory

WHITE COPY - Project File



Cooler Receipt Form

COC No(s):	NA	Delivered by: Fed	Ex UPS Courier Há	nd Delivere	d Other	
Assigned ARI Job No: ZXX	<u> </u>	Tracking No:				NA
reliminary Examination Phase:		Tracking Ito.				-0,
Were intact, properly signed and dated custody	v seals attached to	the outside of to cooler	,	YE	S	(NO
Were custody papers included with the cooler?				(E		NO
					3	163
Were custody papers properly filled out (ink, single control of Cooler(s) (°C) (recommended Time:	주었다면서, 보고 있었다고 있다. 그렇다		5.3	Ć	S	NO
If cooler temperature is out of compliance fill or	ut form 00070F		Temp	Gun ID#:_	908	7795
cooler Accepted by:		Date. 11/11/14	Time 15	:13		
	e custody forms :	and attach all shipping		2110		
og-In Phase:	ousloay roms	and attach an ampping	documents			
Was a temperature blank included in the coole					YES	(NO
What kind of packing material was used?		Wet Ide Gel Packs Ba	23 30 Pm 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		<u> </u>	
Was sufficient ice used (if appropriate)?				NA (YES	NO
Were all bottles sealed in individual plastic bag					YES	NO
Did all bottles arrive in good condition (unbroke					YES	NO
Nere all bottle labels complete and legible?			***		YES	NO
Did the number of containers listed on COC ma	atch with the numb	er of containers received	1?		ES	NO
Did all bottle labels and tags agree with custod	y papers?				(ES	NO
Were all bottles used correct for the requested	analyses?		****		YES	NO
Do any of the analyses (bottles) require presen	vation? (attach pre	servation sheet, excluding	ng VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	nt	eric extrates extraction () contacts		NA.	YES	NO
Nas sufficient amount of sample sent in each b	oottle?	se a sajemnamannin		_	YES	NO
Date VOC Trip Blank was made at ARI				NA .		
Was Sample Split by ARI: NA YES	Date/Time	Equipme	Andrew Market Control of the		plit by	
Ç,		1 1		6	1	
amples Logged by:	Date:	11/4/14	Time1.5	15		
** Notify	/ Project Manage	r of discrepancies or c	oncerns **			
Sample ID on Bottle Sampl	le ID on COC	Sample ID on	Bottle	Sample	D on Co	ЭС
44/4						
Additional Notes, Discrepancies, & Resoluti	ons:					
By: Date.		Small → "sm" (<2 mm	11			-
Small Air Bubbles Peabubbles LAR	GE Air Bubbles > 4 mm	Peabubbles → "pb" (2				
A CONTRACT OF THE PARTY OF THE	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	LADUUDUICS 7 DU LA	10 ~ 4 mm)			
		Large → "lg" (4 to < 6 t	nm \			

0016F 3/2/10 Cooler Receipt Form

Revision 014

ZJIII MAMAMA

Sample ID Cross Reference Report



ARI Job No: ZJ41

Client: The Boeing Company Project Event: 0025082.214.005

Project Name: 3-818 V94 Substation Removal

		RI b ID	ARI LIMS II	Matrix	Sample Date/Time	VTSR
1.	3-818-V94-S01-0.0-110614ZJ	41A	14-2430	2 Soil	11/06/14 10:55	11/06/14 15:13
2.	3-818-V94-S02-0.0-110614ZJ	41B	14-2430	3 Soil	11/06/14 11:05	11/06/14 15:13
3.	3-818-V94-S03-0.0-110614ZJ	41C	14-2430	04 Soil	11/06/14 11:10	11/06/14 15:13
4.	3-818-V94-S04-0.0-110614ZJ	41D	14-2430	5 Soil	11/06/14 11:15	11/06/14 15:13
5.	3-818-V94-S05-0.0-110614ZJ	41E	14-2430	6 Soil	11/06/14 11:20	11/06/14 15:13
6.	3-818-V94-S06-0.0-110614ZJ	41F	14-2430	7 Soil	11/06/14 11:25	11/06/14 15:13
7.	3-818-V94-S07-0.0-110614ZJ	41G	14-2430	8 Soil	11/06/14 11:30	11/06/14 15:13
8.	3-818-V94-S08-0.0-110614ZJ	41H	14-2430	9 Soil	11/06/14 11:35	11/06/14 15:13
9.	3-818-V94-S09-0.0-110614ZJ	411	14-2431	0 Soil	11/06/14 11:40	11/06/14 15:13
10.	3-818-V94-S10-0.0-110614ZJ	41J	14-2433	1 Soil	11/06/14 11:45	11/06/14 15:13
11.	3-818-V94-S11-0.0-110614ZJ	41K	14-2431	2 Soil	11/06/14 11:50	11/06/14 15:13
12.	3-818-V94-S12-0.0-110614ZJ	41L	14-243	3 Soil	11/06/14 11:55	11/06/14 15:13
13.	3-818-V94-S13-0.0-110614ZJ	41M	14-2433	4 Soil	11/06/14 12:00	11/06/14 15:13
14.	3-818-V94-S14-0.5-110614ZJ	41N	14-2431	5 Soil	11/06/14 12:05	11/06/14 15:13
15.	3-818-V94-S15-0.0-110614ZJ	410	14-2431	6 Soil	11/06/14 12:10	11/06/14 15:13
16.	3-818-V94-S16-0.0-110614ZJ	41P	14-2433	7 Soil	11/06/14 12:15	11/06/14 15:13
17.	3-818-V94-S17-0.0-110614ZJ	410	14-2433	8 Soil	11/06/14 12:20	11/06/14 15:13
18.	3-818-V94-S18-0.0-110614ZJ	41R	14-243	19 Soil	11/06/14 12:25	11/06/14 15:13

Printed 11/06/14 Page 1 of 1

Lab Sample ID: ZJ41A LIMS ID: 14-24302

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 15:25
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

SAMPLE

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 8.4%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	120	< 120 Y
11096-82-5	Aroclor 1260	31	580 E
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	90.2%
Tetrachlorometaxylene	78.2%

Sample ID: 3-818-V94-S01-0.0-110614

DILUTION

Lab Sample ID: ZJ41A LIMS ID: 14-24302

Matrix: Soil

Data Release Authorized: MAN

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 08:35 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 8.4%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	< 160 U
11096-82-5	Aroclor 1260	160	590
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	103%
Tetrachlorometaxylene	78.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S02-0.0-110614 SAMPLE

Lab Sample ID: ZJ41B LIMS ID: 14-24303

Matrix: Soil
Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 15:45
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.8%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	220	< 220 Y
11096-82-5	Aroclor 1260	32	1,100 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	76.8%
Tetrachlorometaxylene	74.2%

Page 1 of 1

Lab Sample ID: ZJ41B LIMS ID: 14-24303

Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 08:54 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

DILUTION

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 10.0 Silica Gel: No

Percent Moisture: 9.8%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	320	< 320 U
53469-21-9	Aroclor 1242	320	< 320 U
12672-29-6	Aroclor 1248	320	< 320 U
11097-69-1	Aroclor 1254	320	< 320 U
11096-82-5	Aroclor 1260	320	1,300
11104-28-2	Aroclor 1221	320	< 320 U
11141-16-5	Aroclor 1232	320	< 320 U
37324-23-5	Aroclor 1262	320	< 320 U
11100-14-4	Aroclor 1268	320	< 320 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	99.8%
Tetrachlorometaxylene	85.0%

Sample ID: 3-818-V94-S03-0.0-110614 SAMPLE

Lab Sample ID: ZJ41C LIMS ID: 14-24304

QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

Matrix: Soil Data Release Authorized: TW

0025082.214.005

Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 16:04 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.6 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No

Dilution Factor: 1.00 Silica Gel: No

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 9.7%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	110
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.0%
Tetrachlorometaxvlene	75.0%

Sample ID: 3-818-V94-S03-0.0-110614 MATRIX SPIKE

Lab Sample ID: ZJ41C LIMS ID: 14-24304

Matrix: Soil

Data Release Authorized: TW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 16:24 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.7%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	222
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	125
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.8%
Tetrachlorometaxylene	82.2%

Sample ID: 3-818-V94-S03-0.0-110614 MATRIX SPIKE DUP

Lab Sample ID: ZJ41C LIMS ID: 14-24304

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 16:43
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.7%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	224
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	81.2%

SAMPLE

Lab Sample ID: ZJ41D LIMS ID: 14-24305

LIMS ID: 14-24305 Matrix: Soil

Data Release Authorized: NWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 17:03
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082,214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	100
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	76.2%
Tetrachlorometaxvlene	77.2%

Sample ID: 3-818-V94-S05-0.0-110614 SAMPLE

Lab Sample ID: ZJ41E LIMS ID: 14-24306

Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 17:23
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.1%

Analyte	FOO	Result
Aroclor 1016	32	< 32 U
Aroclor 1242	32	< 32 U
Aroclor 1248	32	< 32 U
Aroclor 1254	190	< 190 Y
Aroclor 1260	32	610 E
Aroclor 1221	32	< 32 U
Aroclor 1232	32	< 32 U
Aroclor 1262	32	< 32 U
Aroclor 1268	32	< 32 U
	Aroclor 1016 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1221 Aroclor 1232 Aroclor 1262	Aroclor 1016 32 Aroclor 1242 32 Aroclor 1248 32 Aroclor 1254 190 Aroclor 1260 32 Aroclor 1221 32 Aroclor 1232 32 Aroclor 1262 32

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.2%
Tetrachlorometaxylene	78.0%

Sample ID: 3-818-V94-S05-0.0-110614 DILUTION

Lab Sample ID: ZJ41E LIMS ID: 14-24306

Matrix: Soil

Data Release Authorized: WWw

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 09:14
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 10.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	240	< 240 Y
11096-82-5	Aroclor 1260	160	650
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	85.6%
Tetrachlorometaxylene	79.4%

Sample ID: 3-818-V94-S06-0.0-110614

SAMPLE

Lab Sample ID: ZJ41F LIMS ID: 14-24307

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 17:42 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.9 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 14.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	150
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	65.5%
Tetrachlorometaxylene	63.5%

Sample ID: 3-818-V94-S07-0.0-110614 SAMPLE

Lab Sample ID: ZJ41G LIMS ID: 14-24308

Matrix: Soil

Data Release Authorized: MW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 18:02
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 12.5%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	91
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	65.0%
Tetrachlorometaxvlene	63.0%

Sample ID: 3-818-V94-S08-0.0-110614 SAMPLE

Lab Sample ID: ZJ41H LIMS ID: 14-24309

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WW Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14

Sample Amount: 12.7 g-dry-wt

Date Analyzed: 11/08/14 18:21 Instrument/Analyst: ECD5/JGR

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 9.3%

Analyte	LOQ	Result
Aroclor 1016	32	< 32 U
Aroclor 1242	32	< 32 U
Aroclor 1248	32	< 32 U
Aroclor 1254	63	< 63 Y
Aroclor 1260	32	400 E
Aroclor 1221	32	< 32 U
Aroclor 1232	32	< 32 U
Aroclor 1262	32	< 32 U
Aroclor 1268	32	< 32 U
	Aroclor 1016 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1221 Aroclor 1232 Aroclor 1262	Aroclor 1016 32 Aroclor 1242 32 Aroclor 1248 32 Aroclor 1254 63 Aroclor 1260 32 Aroclor 1221 32 Aroclor 1232 32 Aroclor 1262 32

Reported in µg/kg (ppb)

Decachlorobiphenyl	77.2%
Tetrachlorometaxylene	75.5%

Lab Sample ID: ZJ41H LIMS ID: 14-24309

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 09:33 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S08-0.0-110614 DILUTION

QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 9.3%

CAS Number	Analyte		LOQ	Re	sult	
12674-11-2	Aroclor 101	.6	160	<	160	U
53469-21-9	Aroclor 124	2	160	<	160	U
12672-29-6	Aroclor 124	8	160	<	160	U
11097-69-1	Aroclor 125	4	160	<	160	U
11096-82-5	Aroclor 126	0	160		440	
11104-28-2	Aroclor 122	1	160	<	160	U
11141-16-5	Aroclor 123	2	160	<	160	U
37324-23-5	Aroclor 126	2	160	<	160	U
11100-14-4	Aroclor 126	8	160	<	160	U

Reported in µg/kg (ppb)

Decachlorobiphenyl	95.5%
Tetrachlorometaxylene	79.5%

Sample ID: 3-818-V94-S09-0.0-110614 SAMPLE

Lab Sample ID: ZJ41I LIMS ID: 14-24310

QC Report No: ZJ41-The Boeing Company

Matrix: Soil

Project: 3-818 V94 Substation Removal 0025082.214.005

Data Release Authorized:

Date Sampled: 11/06/14

Reported: 11/10/14

Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 18:41 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.6 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No

Dilution Factor: 1.00 Silica Gel: No

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 10.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	410	< 410 YE
11096-82-5	Aroclor 1260	32	1,200 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	78.2%

ZJU1: BBB19

Sample ID: 3-818-V94-S09-0.0-110614 DILUTION

Lab Sample ID: ZJ41I LIMS ID: 14-24310

QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

Matrix: Soil Data Release Authorized: WWW 0025082.214.005

Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 09:53 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.6 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No Sulfur Cleanup: Yes Dilution Factor: 10.0 Silica Gel: No

Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 10.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	320	< 320 U
53469-21-9	Aroclor 1242	320	< 320 U
12672-29-6	Aroclor 1248	320	< 320 U
11097-69-1	Aroclor 1254	480	< 480 Y
11096-82-5	Aroclor 1260	320	1,400
11104-28-2	Aroclor 1221	320	< 320 U
11141-16-5	Aroclor 1232	320	< 320 U
37324-23-5	Aroclor 1262	320	< 320 U
11100-14-4	Aroclor 1268	320	< 320 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	103%
Tetrachlorometaxylene	82.5%

IJUL CAMARICA

Sample ID: 3-818-V94-S10-0.0-110614

SAMPLE

Lab Sample ID: ZJ41J LIMS ID: 14-24311

Matrix: Soil

Data Release Authorized: WM

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 19:00 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.9%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	260	< 260 Y
11096-82-5	Aroclor 1260	32	1,300 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.2%
Tetrachlorometaxylene	77.5%

Sample ID: 3-818-V94-S10-0.0-110614 DILUTION

Lab Sample ID: ZJ41J LIMS ID: 14-24311 Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 10:12
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 10.0 Silica Gel: No

Percent Moisture: 10.9%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	320	< 320 U
53469-21-9	Aroclor 1242	320	< 320 U
12672-29-6	Aroclor 1248	320	< 320 U
11097-69-1	Aroclor 1254	320	< 320 U
11096-82-5	Aroclor 1260	320	1,600
11104-28-2	Aroclor 1221	320	< 320 U
11141-16-5	Aroclor 1232	320	< 320 U
37324-23-5	Aroclor 1262	320	< 320 U
11100-14-4	Aroclor 1268	320	< 320 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	95.2%
Tetrachlorometaxylene	81.2%

Sample ID: 3-818-V94-S11-0.0-110614 SAMPLE

Lab Sample ID: ZJ41K LIMS ID: 14-24312 Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 19:59
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.9%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	260	< 260 Y
11096-82-5	Aroclor 1260	32	820 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.0%
Tetrachlorometaxylene	78.0%

Lab Sample ID: ZJ41K LIMS ID: 14-24312

Matrix: Soil

Data Release Authorized: NW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 10:32 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

DILUTION

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 10.9%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	320	< 320 Y
11096-82-5	Aroclor 1260	160	880
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	89.9%
Tetrachlorometaxylene	80.4%

Sample ID: 3-818-V94-S12-0.0-110614 SAMPLE

Lab Sample ID: ZJ41L LIMS ID: 14-24313

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal

LIMS ID: 14-24313 Matrix: Soil

0025082.214.005

Data Release Authorized: WW Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 20:19

Sample Amount: 12.8 g-dry-wt Final Extract Volume: 4.00 mL

Instrument/Analyst: ECD5/JGR

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 9.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	63	< 63 Y
11096-82-5	Aroclor 1260	31	180
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	71.8%
Tetrachlorometaxylene	69.8%

Sample ID: 3-818-V94-S13-0.0-110614

SAMPLE

Lab Sample ID: ZJ41M LIMS ID: 14-24314

Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 20:38 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.3%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	51
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.0%
Tetrachlorometaxvlene	74.2%

Zilia: Grana-25

Sample ID: 3-818-V94-S14-0.5-110614 SAMPLE

Lab Sample ID: ZJ41N LIMS ID: 14-24315

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 20:58
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.5%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	260	< 260 Y
11096-82-5	Aroclor 1260	32	940 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

<u></u>	
Decachlorobiphenyl	80.2%
Tetrachlorometaxylene	82.2%

Sample ID: 3-818-V94-S14-0.5-110614 DILUTION

Lab Sample ID: ZJ41N LIMS ID: 14-24315

Matrix: Soil Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/10/14 07:17
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 10.0 Silica Gel: No

Percent Moisture: 12.5%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	320	< 320 U
53469-21-9	Aroclor 1242	320	< 320 U
12672-29-6	Aroclor 1248	320	< 320 U
11097-69-1	Aroclor 1254	320	< 320 U
11096-82-5	Aroclor 1260	320	1,100
11104-28-2	Aroclor 1221	320	< 320 U
11141-16-5	Aroclor 1232	320	< 320 U
37324-23-5	Aroclor 1262	320	< 320 U
11100-14-4	Aroclor 1268	320	< 320 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	100%
Tetrachlorometaxylene	90.5%

Page 1 of 1

Lab Sample ID: ZJ410 LIMS ID: 14-24316

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 21:17 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

SAMPLE

QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	100
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	80.0%
Tetrachlorometaxylene	80.2%

Sample ID: 3-818-V94-S16-0.0-110614 SAMPLE

Lab Sample ID: ZJ41P LIMS ID: 14-24317

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 21:37
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.5%
Tetrachlorometaxylene	72.8%

Lab Sample ID: ZJ41Q LIMS ID: 14-24318 Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 21:57 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No SAMPLE

QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.9%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	97	< 97 Y
11096-82-5	Aroclor 1260	32	290
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	76.5%
Tetrachlorometaxylene	77.2%

Sample ID: 3-818-V94-S18-0.0-110614 SAMPLE

Lab Sample ID: ZJ41R LIMS ID: 14-24319

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 22:16
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.2 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 13.4%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	990	< 990 YE
11096-82-5	Aroclor 1260	33	2,600 ESP
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.5%
Tetrachlorometaxylene	72.0%

Sample ID: 3-818-V94-S18-0.0-110614 DILUTION

Lab Sample ID: ZJ41R LIMS ID: 14-24319

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WW Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 11:11 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.2 g-dry-wt Final Extract Volume: 4.00 mL Dilution Factor: 20.0

GPC Cleanup: No Sulfur Cleanup: Yes Silica Gel: No

Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 13.4%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	660	< 660 U
53469-21-9	Aroclor 1242	660	< 660 U
12672-29-6	Aroclor 1248	660	< 660 U
11097-69-1	Aroclor 1254	1,300	< 1,300 Y
11096-82-5	Aroclor 1260	660	3,000
11104-28-2	Aroclor 1221	660	< 660 U
11141-16-5	Aroclor 1232	660	< 660 U
37324-23-5	Aroclor 1262	660	< 660 U
11100-14-4	Aroclor 1268	660	< 660 U

Reported in µg/kg (ppb)

Decachlo	robiphenyl	97.5%
Tetrachlo	prometaxylene	89.0%



Sample ID: MB-110714 METHOD BLANK

Lab Sample ID: MB-110714

LIMS ID: 14-24304 Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/08/14 14:26
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount: 12.0 g
Final Extract Volume: 4.00 mL
Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.5%
Tetrachlorometaxylene	81.0%



SW8082/PCB SOIL/SOLID/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal 0025082.214.005

Client ID		DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OTT
CIIGHT ID	_	JAA 6	псп-осп	Jan o	TCT-OCT	101 00.
3-818-V94-S01-0.0-110614		90.2%	47-120	78.2%	53-116	0
3-818-V94-S01-0.0-110614	DL	103%	47-120	78.6%	53-116	0
3-818-V94-S02-0.0-110614		76.8%	47-120	74.2%	53-116	0
3-818-V94-S02-0.0-110614	DL	99.8%	47-120	85.0%	53-116	0
MB-110714		79.5%	59-115	81.0%	58-112	0
LCS-110714		75.8%	59-115	75.8%	58-112	0
LCSD-110714		81.5%	59-115	80.5%	58-112	0
3-818-V94-S03-0.0-110614		78.0%	47-120	75.0%	53-116	0
3-818-V94-S03-0.0-110614	MS	79.8%	47-120	82.2%	53-116	0
3-818-V94-S03-0.0-110614	MSD	78.2%	47-120	81.2%	53-116	0
3-818-V94-S04-0.0-110614		76.2%	47-120	77.2%	53-116	0
3-818-V94-S05-0.0-110614		79.2%	47-120	78.0%	53-116	0
3-818-V94-S05-0.0-110614	DL	85.6%	47-120	79.4%	53-116	0
3-818-V94-S06-0.0-110614		65.5%	47-120	63.5%	53-116	0
3-818-V94-S07-0.0-110614		65.0%	47-120	63.0%	53-116	0
3-818-V94-S08-0.0-110614		77.2%	47-120	75.5%	53-116	0
3-818-V94-S08-0.0-110614	DL	95.5%	47-120	79.5%	53-116	0
3-818-V94-S09-0.0-110614		77.5%	47-120	78.2%	53-116	0
3-818-V94-S09-0.0-110614	DL	103%	47-120	82.5%	53-116	0
3-818-V94-S10-0.0-110614		73.2%	47-120	77.5%	53-116	0
3-818-V94-S10-0.0-110614	DL	95.2%	47-120	81.2%	53-116	0
3-818-V94-S11-0.0-110614		79.0%	47-120	78.0%	53-116	0
3-818-V94-S11-0.0-110614	DL	89.9%	47-120	80.4%	53-116	0
3-818-V94-S12-0.0-110614		71.8%	47-120	69.8%	53-116	0
3-818-V94-S13-0.0-110614		77.0%	47-120	74.2%	53-116	0
3-818-V94-S14-0.5-110614		80.2%	47-120	82.2%	53-116	0
3-818-V94-S14-0.5-110614	DL	100%	47-120	90.5%	53-116	0
3-818-V94-S15-0.0-110614		80.0%	47-120	80.2%	53-116	0
3-818-V94-S16-0.0-110614		73.5%	47-120	72.8%	53-116	0
3-818-V94-S17-0.0-110614		76.5%	47-120	77.2%	53-116	0
3-818-V94-S18-0.0-110614		73.5%	47-120	72.0%	53-116	0
3-818-V94-S18-0.0-110614	DL	97.5%	47-120	89.0%	53-116	0

Microwave (MARS) Control Limits PCBSMI Prep Method: SW3546

Log Number Range: 14-24302 to 14-24319

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page 1 of 1

Sample ID: 3-818-V94-S03-0.0-110614 MS/MSD

Lab Sample ID: ZJ41C LIMS ID: 14-24304

QC Report No: ZJ41-The Boeing Company Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted MS/MSD: 11/07/14

Sample Amount MS: 12.7 g-dry-wt

Date Analyzed MS: 11/08/14 16:24

MSD: 12.7 g-dry-wt

MSD: 11/08/14 16:43

Final Extract Volume MS: 4.0 mL MSD: 4.0 mL

Instrument/Analyst MS: ECD5/JGR

Dilution Factor MS: 1.00

MSD: ECD5/JGR

MSD: 1.00

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

Silica Gel: No

Florisil Cleanup: No

Percent Moisture: 9.7%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 32 U	122	158	77.2%	124	158	78.5%	1.6%
Aroclor 1260	110	199	158	56.3%	194	158	53.2%	2.5%

Results reported in µg/kg (ppb) RPD calculated using sample concentrations per SW846.



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A

Page 1 of 1

Lab Sample ID: LCS-110714

LIMS ID: 14-24304

Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted LCS/LCSD: 11/07/14

Date Analyzed LCS: 11/08/14 14:46

LCSD: 11/08/14 15:06

Instrument/Analyst LCS: ECD5/JGR LCSD: ECD5/JGR

GPC Cleanup: No

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: LCS-110714

LCS/LCSD

QC Report No: ZJ41-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount LCS: 12.0 g-dry-wt

LCSD: 12.0 g-dry-wt

Final Extract Volume LCS: 4.00 mL

LCSD: 4.00 mL

Dilution Factor LCS: 1.00

LCSD: 1.00

Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	120	167	71.9%	132	167	79.0%	9.5%
Aroclor 1260	123	167	73.7%	132	167	79.0%	7.1%

PCB Surrogate Recovery

	LCS	LCSD	
Decachlorobiphenyl	75.8%	81.5%	
Tetrachlorometaxylene	75.8%	80.5%	

Results reported in µg/kg (ppb) RPD calculated using sample concentrations per SW846.



November 10, 2014

Anne Halvorsen Landau Associates, Inc., 130 – 2nd Avenue Edmonds, WA 98020

RE: Project: NBF 3-822 Main Fuel Farm

ARI Job: ZJ42

Dear Anne:

Please find enclosed original Chain of Custody (COC) records and analytical results for the above referenced project. Analytical Resources, Inc. accepted eighteen samples in good condition on November 6, 2014.

The samples were analyzed for PCBs, as requested on the COC.

No analytical complications were noted.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC

Kelly Bottem

Client Services Manager

(206) 695-6211

Enclosure

cc: Carl Bach, The Boeing Company, P.O. Box 3707, M/S 1W-12, Seattle, WA 98124-2207

1 OF 35

Freeze upon receipt VOC/BTEX/VPH (soll) non-preserved product identified Other **Testing Parameters** Chain-of-Custody Record 433 Project Name -818 VAY Substation Percoval BOZ 5082, 214, 005 Send Results To Car | Bally, Colette Cama, Anne Hallower (D) Sampler's Name A Star Laseurary Triumen Project Location/Event N&F /v94 Substation 1340 240 7451 305 335 1355 200 410 1350 Seattle/Edmonds (425) 778-0907 250 25 300 405 345 Project Contact Colotte Gara Spokane (509) 327-9737 ☐ Tacoma (253) 926-2493 ☐ Portland (503) 542-1080 4-818-V94-535-0,0-110614 418-194-523-0.0-110614 1918-144-529-0,0-110614 3-818-V94-521-0,0-110614 -818-194-536-0.5-1106.14 1818-194-527-0.5-110614 3-818-194-519-00-110614 3-18/8-V94-520-0.0-110614 3+818-474-532-0.0-110619 418-1941-533-0.0-110614 4-1818-194-534-0.0-110614 1-818-V94-523-0,0-110614 418-1794-S78-0,5-110614 41901-0:0- HZS-H6V-818-1 818-194-530-00-110614 1818-194-535-00-11061 4-818-194-531-0,0-110614 Sample I.D. LANDAU
ASSOCIATES 2342:

X NMTPH Dx - non acid wash fellica gel cleanup Dissolved metal water samples field filtered X-coelerated X X Allow water samples to settle, collect **Turnaround Time** ☐ Standard aliquot from clear portion Observations/Comments Analyze for EPH if no specific preserved w/sodium bisulfate Time run samples standardized to Shipment deliver to lab preserved w/methanol product Received by Printed Name Signature Company Date Time Relinquished by Printed Name Signature Company Date Time 15/3 Signature | VCICLAXCAISED | Printed Name | Date UK Received by 420 Company tirner M 16 time Date 11 6 14 Time 1513 Asocate 1818-1949-536-0-0-110619 Special Shipment/Handling or Storage Requirements Reinquished by Losemany Printed Name

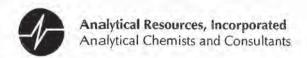
WHITE COPY - Project File

MINEMENT P

PINK COPY - Client Representative

YELLOW COPY - Laboratory

Rev 8/09



Cooler Receipt Form

ARI Client: Brine		Project Name: 3 - 16	VALL SI	District	11011	
COC No(s):) NA	Delivered by: Fed-Ex UPS Co				
Assigned ARI Job No: 7	542	Tracking No.			(NA	
Preliminary Examination Phase	e:	(reduing rio.			1,00	
Were intact, properly signed an	d dated custody seals attached	to the outside of to cooler?		YES	NO	
Were custody papers included				(ES	NO	
Were custody papers properly f				YES	NO	
Temperature of Cooler(s) (°C) (.,		
If cooler temperature is out of c	ompliance fill out form 00070F		Temp Gun ID	#: "70 8	7795	
ooler Accepted by	7	Date//Tim	e: 1513			
	Complete custody form.	s and attach all shipping documents				
og-In Phase:						
Nas a temperature blank includ	ded in the cooler?			YES	(NO.	
이렇게 아이를 살아 있었다면 하나 아니다.		ap Wet Ice Gel Packs Baggies Foam	Block Paper (Circ	
			NA.	YES	NO	
Vere all bottles sealed in individ	dual plastic bags?			YES	NÒ	
				YES	NO	
Vere all bottle labels complete	and legible?	manufacture of the continuous		YES	NO	
oid the number of containers lis	sted on COC match with the nur	mber of containers received?		YES	NO	
oid all bottle labels and tags ag	ree with custody papers?	NEED TO THE THEORY CONTROL OF THE THEORY (A.T.		YES	NO	
Vere all bottles used correct for	r the requested analyses?	***************************************		(YES	NO	
o any of the analyses (bottles)	require preservation? (attach p	preservation sheet, excluding VOCs)	NA	YES	NO	
Vere all VOC vials free of air bu	ubbles?		NA	YES	NO	
Vas sufficient amount of sample	e sent in each bottle?	11311 3111 3111 14 14 14 14 1 1 1 1 1 1		YES	NO	
Date VOC Trip Blank was made	at ARI		NA			
Was Sample Split by ARI:	NA YES Date/Time	Equipment:		Split by:_		
amples Logged by:	** Notify Project Manage	teTime:Time:	1515			
- Company of the Comp	noun, royeet maneg	ger of disorparities of contents	-			
Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Samp	ole ID on Co	ОС	
Additional Motes, Discrepance	ies & Resolutions					
D D	ate					
Small Air Bubbles Peabub	bles' LARGE Air Bubbles	Small → "sm" (<2 mm)				
-2mm 2-4 m	m >4 mm	Peabubbles → "pb" (2 to < 4 mm)				
9 , 0 0 0	9 9 9	Large → "lg" (4 to < 6 mm)				
		Headspace → "hs" (>6 mm)				

Sample ID Cross Reference Report



ARI Job No: ZJ42

Client: The Boeing Company Project Event: 0025082.214.005

Project Name: 3-818 V94 Substation Removal

		RI b ID	ARI LIMS		Matrix	Sample Da	te/Time	VTS	R
1.	3-818-V94-S19-0.0-110614ZJ	42A	14-24	320	Soil	11/06/14	12:30	11/06/14	15:13
2.	3-818-V94-S20-0.0-110614ZJ	42B	14-24	321	Soil	11/06/14	12:35	11/06/14	15:13
3.	3-818-V94-S21-0.0-110614ZJ	42C	14-24	322	Soil	11/06/14		11/06/14	
4.	3-818-V94-S22-0.0-110614ZJ	42D	14-24	323	Soil	11/06/14		11/06/14	15:13
5.	3-818-V94-S23-0.0-110614ZJ	42E	14-24	324	Soil	11/06/14	12:50	11/06/14	15:13
6.	3-818-V94-S24-0.0-110614ZJ	42F	14-24	325	Soil	11/06/14	12:55	11/06/14	15:13
7.	3-818-V94-S25-0.0-110614ZJ	42G	14-24	326	Soil	11/06/14	13:00	11/06/14	15:13
8.	3-818-V94-S26-0.5-110614ZJ	42H	14-24	327	Soil	11/06/14	13:05	11/06/14	
9.	3-818-V94-S27-0.5-110614ZJ	42I	14-24	328	Soil	11/06/14	13:35	11/06/14	15:13
10.	3-818-V94-S28-0.5-110614ZJ	42J	14-24	329	Soil	11/06/14	13:40	11/06/14	15:13
11.	3-818-V94-S29-0.0-110614ZJ	42K	14-24	330	Soil	11/06/14	13:45	11/06/14	15:13
12.	3-818-V94-S30-0.0-110614ZJ	42L	14-24	331	Soil	11/06/14	13:50	11/06/14	
13.	3-818-V94-S31-0.0-110614ZJ	42M	14-24	332	Soil	11/06/14	13:55	11/06/14	
14.	3-818-V94-S32-0.0-110614ZJ	42N	14-24	333	Soil	11/06/14	14:00	11/06/14	15:13
15.	3-818-V94-S33-0.0-110614ZJ	420	14-24	334	Soil	11/06/14		11/06/14	
16.	3-818-V94-S34-0.0-110614ZJ	42P	14-24	335	Soil	11/06/14	14:10	11/06/14	
17.	3-818-V94-S35-0.0-110614ZJ	420	14-24	336	Soil	11/06/14	14:15	11/06/14	15:13
	3-818-V94-S36-0.0-110614ZJ		14-24	337	Soil	11/06/14		11/06/14	

Printed 11/06/14 Page 1 of 1

2342:00004



Lab Sample ID: MB-110714

LIMS ID: 14-24320

Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/08/14 23:15 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: MB-110714 METHOD BLANK

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount: 12.0 g Final Extract Volume: 4.00 mL Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	88.5%

Sample ID: 3-818-V94-S19-0.0-110614 SAMPLE

Lab Sample ID: ZJ42A

LIMS ID: 14-24320 Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 00:14
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.8%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	77.8%
Tetrachlorometaxvlene	87.2%

Sample ID: 3-818-V94-S19-0.0-110614 MATRIX SPIKE

Lab Sample ID: ZJ42A LIMS ID: 14-24320

QC Report No: ZJ42-The Boeing Company Project: 3-818 V94 Substation Removal

0025082.214.005

Matrix: Soil Data Release Authorized:

Reported: 11/10/14

Date Sampled: 11/06/14

Date Extracted: 11/07/14

Date Received: 11/06/14

Date Analyzed: 11/09/14 00:33 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.4 g-dry-wt Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 11.8%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	32	
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.2%
Tetrachlorometaxylene	74.8%

Sample ID: 3-818-V94-S19-0.0-110614 MATRIX SPIKE DUP

Lab Sample ID: ZJ42A LIMS ID: 14-24320

Matrix: Soil

Data Release Authorized: WReported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 00:53
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.8%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	32	
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.2%
Tetrachlorometaxylene	89.5%

Page 1 of 1

Lab Sample ID: ZJ42B LIMS ID: 14-24321

Matrix: Soil Data Release Authorized: NW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 01:13 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S20-0.0-110614 SAMPLE

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.2%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U
		0.40-2.10	

Reported in µg/kg (ppb)

Decachlorobiphenyl	90.0%
Tetrachlorometaxylene	93.0%

Sample ID: 3-818-V94-S21-0.0-110614 SAMPLE

Lab Sample ID: ZJ42C LIMS ID: 14-24322

Matrix: Soil

Data Release Authorized: MW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 01:32
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.2 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 13.3%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	72.2%
Tetrachlorometaxylene	74.2%

Sample ID: 3-818-V94-S22-0.0-110614 SAMPLE

Lab Sample ID: ZJ42D LIMS ID: 14-24323

Matrix: Soil

Data Release Authorized: MW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 01:52 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 15.3%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	210
11096-82-5	Aroclor 1260	31	420 E
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.5%
Tetrachlorometaxylene	89.2%

2342:00011

Sample ID: 3-818-V94-S22-0.0-110614 DILUTION

Lab Sample ID: ZJ42D LIMS ID: 14-24323

LIMS ID: 14-24323 Matrix: Soil

Data Release Authorized: MW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 12:10
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00

Silica Gel: No

Percent Moisture: 15.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	200
11096-82-5	Aroclor 1260	160	420
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.8%
Tetrachlorometaxvlene	79.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S23-0.0-110614 SAMPLE

Lab Sample ID: ZJ42E LIMS ID: 14-24324

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WW Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 02:11 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.4 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No

Dilution Factor: 1.00 Silica Gel: No

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 11.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	75.8%
Tetrachlorometaxylene	76.8%

Sample ID: 3-818-V94-S24-0.0-110614 SAMPLE

Lab Sample ID: ZJ42F LIMS ID: 14-24325

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 02:31 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 15.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	380 E
11096-82-5	Aroclor 1260	31	380 E
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	72.2%
Tetrachlorometaxylene	79.0%

FORM I

FIND: MANAGE

Sample ID: 3-818-V94-S24-0.0-110614

DILUTION

Lab Sample ID: ZJ42F LIMS ID: 14-24325

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 12:30
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 15.1%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	430
11096-82-5	Aroclor 1260	160	420
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	88.5%
Tetrachlorometaxylene	77.9%

Sample ID: 3-818-V94-S25-0.0-110614 SAMPLE

Lab Sample ID: ZJ42G LIMS ID: 14-24326

Matrix: Soil

Data Release Authorized: MW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 02:51
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 16.9%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	64	< 64 Y
11097-69-1	Aroclor 1254	32	1,600 ES
11096-82-5	Aroclor 1260	32	2,100 ES
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.8%
Tetrachlorometaxylene	77.0%

Sample ID: 3-818-V94-S25-0.0-110614 DILUTION

Lab Sample ID: ZJ42G LIMS ID: 14-24326

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/10/14 07:37
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 25.0 Silica Gel: No

Percent Moisture: 16.9%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	800	< 800 U
53469-21-9	Aroclor 1242	800	< 800 U
12672-29-6	Aroclor 1248	800	< 800 U
11097-69-1	Aroclor 1254	800	1,600
11096-82-5	Aroclor 1260	800	3,000
11104-28-2	Aroclor 1221	800	< 800 U
11141-16-5	Aroclor 1232	800	< 800 U
37324-23-5	Aroclor 1262	800	< 800 U
11100-14-4	Aroclor 1268	800	< 800 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	106%
Tetrachlorometaxvlene	82.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S26-0.5-110614 SAMPLE

Lab Sample ID: ZJ42H LIMS ID: 14-24327

Matrix: Soil

Data Release Authorized: NVW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 03:10
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.1 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 19.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	340 E
11096-82-5	Aroclor 1260	33	580 E
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	75.8%
Tetrachlorometaxylene	79.8%

ANALYTICAL RESOURCES INCORPORATED Sample ID: 3-818-V94-S26-0.5-110614

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Lab Sample ID: ZJ42H LIMS ID: 14-24327

Matrix: Soil

Data Release Authorized: MAN

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 13:09 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No DILUTION

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.1 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 19.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	380
11096-82-5	Aroclor 1260	160	770
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	120%
Tetrachlorometaxylene	78.9%

Sample ID: 3-818-V94-S27-0.5-110614 SAMPLE

Lab Sample ID: ZJ42I LIMS ID: 14-24328

Matrix: Soil
Data Release Authorized:

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 03:30
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

20001020 2520 062

Percent Moisture: 17.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	130	< 130 Y
11096-82-5	Aroclor 1260	32	480 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.0%
Tetrachlorometaxylene	78.8%

Sample ID: 3-818-V94-S27-0.5-110614 DILUTION

Lab Sample ID: ZJ42I LIMS ID: 14-24328

QC Report No: ZJ42-The Boeing Company Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WW Reported: 11/10/14

Date Sampled: 11/06/14 Date Received: 11/06/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 13:28

Sample Amount: 12.4 g-dry-wt Final Extract Volume: 4.00 mL

Instrument/Analyst: ECD5/JGR

Dilution Factor: 5.00 Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 17.6%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	< 160 U
11096-82-5	Aroclor 1260	160	560
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	99.9%
Tetrachlorometaxvlene	84.1%

- GILTS : IMPAGE PO

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S28-0.5-110614

SAMPLE

Lab Sample ID: ZJ42J LIMS ID: 14-24329

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 03:50 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 17.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	390	< 390 YE
11096-82-5	Aroclor 1260	32	1,000 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.2%
Tetrachlorometaxylene	79.0%

Sample ID: 3-818-V94-S28-0.5-110614 DILUTION

Lab Sample ID: ZJ42J LIMS ID: 14-24329

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 13:48 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 17.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	480	< 480 Y
11096-82-5	Aroclor 1260	160	1,300
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	98.9%
Tetrachlorometaxylene	85.0%

Sample ID: 3-818-V94-S29-0.0-110614 SAMPLE

Lab Sample ID: ZJ42K LIMS ID: 14-24330

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 04:48
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.2%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	79	< 79 Y
11096-82-5	Aroclor 1260	32	310
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	72.8%
Tetrachlorometaxylene	78.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S30-0.0-110614 SAMPLE

Lab Sample ID: ZJ42L LIMS ID: 14-24331

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 05:08
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.1%

CAS Number	Analyte	rod	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	40	< 40 Y
11096-82-5	Aroclor 1260	32	180
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.8%
Tetrachlorometaxylene	82.2%

ZIND MARIETS

Sample ID: 3-818-V94-S31-0.0-110614 SAMPLE

Lab Sample ID: ZJ42M LIMS ID: 14-24332

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 05:27
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.7%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	96	< 96 Y
11096-82-5	Aroclor 1260	32	420 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	78.8%

Sample ID: 3-818-V94-S31-0.0-110614 DILUTION

Lab Sample ID: ZJ42M LIMS ID: 14-24332

Matrix: Soil

Data Release Authorized: NW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 14:08
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 11.7%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	< 160 U
11096-82-5	Aroclor 1260	160	460
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	100%
Tetrachlorometaxvlene	80.4%

Sample ID: 3-818-V94-S32-0.0-110614 SAMPLE

Lab Sample ID: ZJ42N LIMS ID: 14-24333

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 05:47
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	95	< 95 Y
11096-82-5	Aroclor 1260	32	450 E
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	85.0%
Tetrachlorometaxylene	82.2%

Sample ID: 3-818-V94-S32-0.0-110614 DILUTION

Lab Sample ID: ZJ42N LIMS ID: 14-24333

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 14:27
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 10.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	< 160 U
11096-82-5	Aroclor 1260	160	550
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

-	
Decachlorobiphenyl	101%
Tetrachlorometaxylene	89.0%

FILE SAFATA

ANALYTICAL RESOURCES INCORPORATED Sample ID: 3-818-V94-S33-0.0-110614

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZJ420 LIMS ID: 14-24334

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 06:06 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

SAMPLE

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	48	< 48 Y
11096-82-5	Aroclor 1260	32	180
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	80.0%
Tetrachlorometaxylene	81.2%

2142 90936

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S34-0.0-110614 SAMPLE

Lab Sample ID: ZJ42P LIMS ID: 14-24335

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 06:26
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.5%

CAS Number	Analyte	LOQ	Result
	20002002002	100	1000
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	32	< 32 U
11096-82-5	Aroclor 1260	32	< 32 U
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	81.2%

ZJU2: 00021

Sample ID: 3-818-V94-S35-0.0-110614 SAMPLE

Lab Sample ID: ZJ42Q LIMS ID: 14-24336

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 06:46
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	260	< 260 Y
11097-69-1	Aroclor 1254	33	3,800 ES
11096-82-5	Aroclor 1260	33	1,000 ES
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

-	
Decachlorobiphenyl	95.5%
Tetrachlorometaxylene	83.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZJ42Q LIMS ID: 14-24336

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/10/14

Date Extracted: 11/07/14 Date Analyzed: 11/09/14 14:47 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S35-0.0-110614 DILUTION

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 25.0 Silica Gel: No

Percent Moisture: 12.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	820	< 820 U
53469-21-9	Aroclor 1242	820	< 820 U
12672-29-6	Aroclor 1248	820	< 820 U
11097-69-1	Aroclor 1254	820	4,600
11096-82-5	Aroclor 1260	820	1,600
11104-28-2	Aroclor 1221	820	< 820 U
11141-16-5	Aroclor 1232	820	< 820 U
37324-23-5	Aroclor 1262	820	< 820 U
11100-14-4	Aroclor 1268	820	< 820 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

FORM I

7142: 89833

Sample ID: 3-818-V94-S36-0.0-110614

SAMPLE

Lab Sample ID: ZJ42R LIMS ID: 14-24337

Matrix: Soil

Data Release Authorized: \M

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/09/14 07:05
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 17.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	64	< 64 Y
11097-69-1	Aroclor 1254	1,600	< 1,600 YE
11096-82-5	Aroclor 1260	32	3,700 ES
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	< 32 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	NR
Tetrachlorometaxylene	86.8%

Sample ID: 3-818-V94-S36-0.0-110614 DILUTION

Lab Sample ID: ZJ42R LIMS ID: 14-24337

Matrix: Soil

Data Release Authorized: WW

Reported: 11/10/14

Date Extracted: 11/07/14
Date Analyzed: 11/10/14 07:56
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount: 12.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 50.0 Silica Gel: No

Percent Moisture: 17.3%

CAS Number	Analyte	LOQ	Result		
12674-11-2	Aroclor 1016	1,600	< 1,600 U		
53469-21-9	Aroclor 1242	1,600	< 1,600 U		
12672-29-6	Aroclor 1248	1,600	< 1,600 U		
11097-69-1	Aroclor 1254	2,000	< 2,000 Y		
11096-82-5	Aroclor 1260	1,600	8,100		
11104-28-2	Aroclor 1221	1,600	< 1,600 U		
11141-16-5	Aroclor 1232	1,600	< 1,600 U		
37324-23-5	Aroclor 1262	1,600	< 1,600 U		
11100-14-4	Aroclor 1268	1,600	< 1,600 U		

Reported in µg/kg (ppb)

Decachlorobiphenyl	D
Tetrachlorometaxylene	D



SW8082/PCB SOIL/SOLID/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Salar Salar		DCBP	DCBP	TCMX	TCMX	
Client ID		% REC	rcr-ncr	% REC	LCL-UCL	TOT OUT
MB-110714		86.2%	59-115	88.5%	58-112	0
LCS-110714		84.2%	59-115	83.5%	58-112	0
LCSD-110714		84.5%	59-115	86.8%	58-112	0
3-818-V94-S19-0.0-110614		77.8%	47-120	87.2%	53-116	0
3-818-V94-S19-0.0-110614	MS	73.2%	47-120	74.8%	53-116	0
3-818-V94-S19-0.0-110614	MSD	86.2%	47-120	89.5%	53-116	0
3-818-V94-S20-0.0-110614		90.0%	47-120	93.0%	53-116	0
3-818-V94-S21-0.0-110614		72.2%	47-120	74.2%	53-116	0
3-818-V94-S22-0.0-110614		80.5%	47-120	89.2%	53-116	0
3-818-V94-S22-0.0-110614	DL	86.8%	47-120	79.6%	53-116	0
3-818-V94-S23-0.0-110614		75.8%	47-120	76.8%	53-116	0
3-818-V94-S24-0.0-110614		72.2%	47-120	79.0%	53-116	0
3-818-V94-S24-0.0-110614	DL	88.5%	47-120	77.9%	53-116	0
3-818-V94-S25-0.0-110614		73.8%	47-120	77.0%	53-116	0
3-818-V94-S25-0.0-110614	DL	106%	47-120	82.5%	53-116	0
3-818-V94-S26-0.5-110614		75.8%	47-120	79.8%	53-116	0
3-818-V94-S26-0.5-110614	DL	120%	47-120	78.9%	53-116	0
3-818-V94-S27-0.5-110614		79.0%	47-120	78.8%	53-116	0
3-818-V94-S27-0.5-110614	DL	99.9%	47-120	84.1%	53-116	0
3-818-V94-S28-0.5-110614		73.2%	47-120	79.0%	53-116	0
3-818-V94-S28-0.5-110614	DL	98.9%	47-120	85.0%	53-116	0
3-818-V94-S29-0.0-110614		72.8%	47-120	78.5%	53-116	0
3-818-V94-S30-0.0-110614		78.8%	47-120	82.2%	53-116	0
3-818-V94-S31-0.0-110614		77.5%	47-120	78.8%	53-116	0
3-818-V94-S31-0.0-110614	DL	100%	47-120	80.4%	53-116	0
3-818-V94-S32-0.0-110614		85.0%	47-120	82.2%	53-116	0
3-818-V94-S32-0.0-110614	DL	101%	47-120	89.0%	53-116	0
3-818-V94-S33-0.0-110614		80.0%	47-120	81.2%	53-116	0
3-818-V94-S34-0.0-110614		78.2%	47-120	81.2%	53-116	0
3-818-V94-S35-0.0-110614		95.5%	47-120	83.2%	53-116	0
3-818-V94-S35-0.0-110614	DL	D	47-120	D	53-116	0
3-818-V94-S36-0.0-110614		NR	47-120	86.8%	53-116	0
3-818-V94-S36-0.0-110614	DL	D	47-120	D	53-116	0

Microwave (MARS) Control Limits PCBSMI Prep Method: SW3546

Log Number Range: 14-24320 to 14-24337

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page

1 of 1

Lab Sample ID: ZJ42A LIMS ID: 14-24320 Matrix: Soil

Data Release Authorized:

Reported: 11/10/14

Date Extracted MS/MSD: 11/07/14

Date Analyzed MS: 11/09/14 00:33

MSD: 11/09/14 00:53 Instrument/Analyst MS: ECD5/JGR MSD: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S19-0.0-110614 MS/MSD

QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/06/14 Date Received: 11/06/14

Sample Amount MS: 12.4 g-dry-wt

MSD: 12.4 g-dry-wt

Final Extract Volume MS: 4.0 mL

MSD: 4.0 mL

Dilution Factor MS: 1.00

MSD: 1.00

Silica Gel: No

Percent Moisture: 11.8%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 32 U	119	162	73.5%	139	162	85.8%	15.5%
Aroclor 1260	< 32 U	117	162	72.2%	142	162	87.7%	19.3%

Results reported in µg/kg (ppb) RPD calculated using sample concentrations per SW846.



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page 1 of 1

Sample ID: LCS-110714 LCS/LCSD

Lab Sample ID: LCS-110714

LIMS ID: 14-24320

Matrix: Soil

Data Release Authorized: MM

Reported: 11/10/14

Date Extracted LCS/LCSD: 11/07/14

Date Analyzed LCS: 11/08/14 23:35

LCSD: 11/08/14 23:54

Instrument/Analyst LCS: ECD5/JGR

LCSD: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZJ42-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount LCS: 12.0 g-dry-wt

LCSD: 12.0 g-dry-wt

Final Extract Volume LCS: 4.00 mL

LCSD: 4.00 mL

Dilution Factor LCS: 1.00 LCSD: 1.00

Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	133	167	79.6%	140	167	83.8%	5.1%
Aroclor 1260	132	167	79.0%	135	167	80.8%	2.2%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	84.2%	84.5%
Tetrachlorometaxylene	83.5%	86.8%

Results reported in $\mu g/kg$ (ppb) RPD calculated using sample concentrations per SW846.

FORM III

2142:00038



November 17, 2014

Anne Halvorsen Landau Associates, Inc., 130 – 2nd Avenue Edmonds, WA 98020

RE: Project: NBF 3-818 V94 Substation Removal ARI Job: ZK42

Dear Anne:

Please find enclosed original Chain of Custody (COC) records and analytical results for the above referenced project. Analytical Resources, Inc. accepted nineteen samples in good condition on November 14, 2014.

The samples were analyzed for PCBs, as requested on the COC.

No analytical complications were noted.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC

Kelly Bottem

Client Services Manager

(206) 695-6211

Enclosure

cc: Carl Bach, The Boeing Company, P.O. Box 3707, M/S 1W-12, Seattle, WA 98124-2207

1 45 45 06 605 6201 fax

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 2K42	イール 大 Inrn-around Requested: 24ート	4- 26-h	(Page:	2	٦	Analytical Chem	Analytical Kesources, Incorporated Analytical Chemists and Consultants
ARI Client Company: Boeing/landay	Phone	010-845-514 010	401	Date: 14	Ice Present?	7	Tukwila, WA 98168	4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200, 206-695-6201 (522)
Client Contact.				No. of Coolers:	Cooler Temps:	2.8	www.arilabs.com	200-023-0201 (lax
Client Project Name: 045 Substation Removed	hoy Remova	8	H		Ar	Analysis Requested	Ž	Notes/Comments
Client Project #: OOLS 582.214, OO S	Samplers: Pasemary Trimme	Trimme		Sg				
Sample ID	Date Time	e Matrix	a. Containers	28				
3-818-VAY-502-1,0-111414 11/14/14 0940	11/14/14 094	o soil	1	×				
44111-01-ES-10-11144	SH60 ,1,	1 5	1-1	×				T T
3-818-194-SIB-1.0-111414	0001	0	1	X				
3-818-194-538-1,0-111414	5001 / 1	1	1	×				14
3-818-1994-S35-1,0-111414	0101	0	U. T.	×				
7-818-V94-539-1,0-111414	07.0)	Oi.		×				
YH111-01-SZS-10-111414		1025	1 1	×				
3-818-194-54B-1.0-111414	0801 /	0	1	X				
4-1114-1-158-16-11-418-5	5801	ک		×				
7-818-1914-S41-1.0-111914	ohol 1	70		X	1 4			
Comments/Special Instructions	Relinquished by (Signature)	esemeny Three	Received by: (Signature)	1 July	(S) #	Relinquished by: (Signature)	Received by: (Signature)	
Colothe Gard, Carl	Priged Name:	hymen	Printed Name:	with Mr	Trans	Printed Name:	Printed Name;	
Buch, Anne Halversey	Company:	ander Asside	Company	4C1	8	Сотралу:	Company:	
	Date & Time:	8041 414	Date & Time:	1 pll	る文人	Date & Time:	Date & Time:	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or consigned agreement between ARI and the Client.

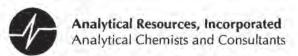
Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless atternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Client Company:				Analytical Chemists and Consultants
Boeing/anday	7060-8+2-52h	7 Date: 114/14 Ice	y y	4611 South 134th Place, Suite 100 Tukwila, WA 98168
Client Contacts of Cama		No. of 1 Cooler Coolers: 7 Temps:	78	www.arilabs.com
Not 3 - KIS UTY Substation Removed	station Removed		Analysis Requested	Notes/Comments
Client Project #: 214,005	Samplers: Reserrant Trimmer	zg.		
Sample ID	Date Time Matrix N	Na. Containers		
3818-194-526-1.0-111414 11/14/14	1/14/14 1045 Soil	>		
3-818-194-548-1,0-111414	1 5711 / 1	<\ <u>\</u>		
3-818-794-344-2.0-111414	0071	\ \ -		
3-818-194-542-0.0-111414	0121 / 1	X		
7-818-194-S18-15-111414	1220	X		
3-818-194-51-1.5-111414	1225	×		
3-818-194-509-4,5-111414	1230	7		
3-818-194-545-1,0-11414	2572)	×		
1818-194-528-20 -111914	1 1 ShZI 1 1	× -		
	+ Pert + tank	×		
Comments/Special Instructions	Relinquished by: (Signature) Actual (Signature)	Burk /	Relinquished by: (Signature)	Received by: (Signature)
Colotte Grana,	Prince Name: Princer Princer	med Name Colver Per Millson	Printed Name:	Printed Name:
	2	Company: HYC	Company:	Company:
Anne Halvorsen	-	Date & Tyle: 1/19 1403	Date & Time:	Date & Tme:

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for Said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or cosigned agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Cooler Receipt Form

R		10- 0	and 11911 C	lack
ARI Client:		Project Name: 18 F 3	The second secon	MOS JA
COC No(s):	(NA)	Delivered by: Fed-Ex UPS Cour	ier Hand Delivered Other:	Kovi
Assigned ARI Job No:	142	Tracking No:		(NA)
Preliminary Examination Phase:				
Were intact, properly signed and	dated custody seals attached t	to the outside of to cooler?	YES	(NO)
Were custody papers included wi	th the cooler?		YES	NO
Were custody papers properly filling Temperature of Cooler(s) (°C) (re			(YES)	NO
Time: If cooler temperature is out of con	npliance fill out form 00070F	7	Temp Gun ID#: 708	(18)
Cooler Accepted by:	_/I.V/	Date: ((/,4//4 Time	1111121	
cooler Accepted by.	Complete custody forms	and attach all shipping documents	1108	
Log-In Phase:	complete custody forms	and attach an simpping decoments		
9				
Was a temperature blank included	d in the cooler?		YES	(NO)
What kind of packing material v	vas used? Bubble Wra	Wet Ice Gel Packs Baggies Foam	Block Paper Other:	
Was sufficient ice used (if approp	riate)?	***************************************	NA (YES)	NO
Were all bottles sealed in individu	al plastic bags?		YES	NO
Did all bottles arrive in good cond	lition (unbroken)?		(YES)	NO
			(YES)	NO
		ber of containers received?	(YES)	NO
			(YES)	NO
			YES	
Were all bottles used correct for the				NO
		reservation sheet, excluding VOCs)	NA YES	NO
Were all VOC vials free of air bub	bles?	***************************************	(NA) YES	NO
Was sufficient amount of sample	sent in each bottle?		YES	NO
Date VOC Trip Blank was made a	t ARI		(NA)	
Was Sample Split by ARI : (NA	YES Date/Time:	Equipment:	Split by:	
	in	1 1/11/	11/10	
Samples Logged by:	Date	e: 11/14/14 Time:	1410	
	** Notify Project Manag	er of discrepancies or concerns **		
Samula ID on Ballia	Samula ID on COC	Cample ID on Dottle	Sample ID on CC	· ·
Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on CC	,,
Additional Notes, Discrepancie	- P. Daniel Manage			
Additional Notes, Discrepancie	s, a Resolutions.			
By: Dat	ie:	C-11 N 11-11 (122-122)		
Small Air Bubbles Peabubble	Chicoc in Brosonia	Small → "sm" (<2 mm)		
2mm 2-4 mm	> 4 mm	Peabubbles → "pb" (2 to < 4 mm)		
		Large → "lg" (4 to < 6 mm)		
		Headspace → "hs" (>6 mm)		

0016F 3/2/10 Cooler Receipt Form

Revision 014

ZK42:00004

Sample ID Cross Reference Report



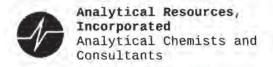
ARI Job No: ZK42

Client: The Boeing Company Project Event: 0025082.214.005

Project Name: NBF 3-818 V94 Substation Removal

	Sample ID Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	3-818-V94-S02-1.0-111414ZK42A	14-24828	Soil	11/14/14 09:40	11/14/14 14:08
2.	3-818-V94-S37-1.0-111414ZK42B	14-24829	Soil	11/14/14 09:45	11/14/14 14:08
3.	3-818-V94-S10-1.0-111414ZK42C	14-24830	Soil	11/14/14 10:00	11/14/14 14:08
4.	3-818-V94-S38-1.0-111414ZK42D	14-24831	Soil	11/14/14 10:05	11/14/14 14:08
5.	3-818-V94-S35-1.0-111414ZK42E	14-24832	Soil	11/14/14 10:10	11/14/14 14:08
6.	3-818-V94-S39-1.0-1114142K42F	14-24833	Soil	11/14/14 10:20	11/14/14 14:08
7.	3-818-V94-S25-1.0-111414ZK42G	14-24834	Soil	11/14/14 10:25	11/14/14 14:08
8.	3-818-V94-S40-1.0-111414ZK42H	14-24835	Soil	11/14/14 10:30	11/14/14 14:08
9.	3-818-V94-S36-1.0-111414ZK42I	14-24836	Soil	11/14/14 10:35	11/14/14 14:08
10.	3-818-V94-S41-1.0-111414ZK42J	14-24837	Soil	11/14/14 10:40	11/14/14 14:08
11.	3-818-V94-S26-1.0-111414ZK42K	14-24838	Soil	11/14/14 10:45	11/14/14 14:08
12.	3-818-V94-S43-1.0-111414ZK42L	14-24839	Soil	11/14/14 11:45	11/14/14 14:08
13.	3-818-V94-S44-2.0-111414ZK42M	14-24840	Soil	11/14/14 12:00	11/14/14 14:08
14.	3-818-V94-S42-0.0-111414ZK42N	14-24841	Soil	11/14/14 12:10	11/14/14 14:08
15.	3-818-V94-S18-1.5-111414ZK42O	14-24842	Soil	11/14/14 12:20	11/14/14 14:08
16.	3-818-V94-S14-1.5-111414ZK42P	14-24843	Soil	11/14/14 12:25	11/14/14 14:08
17.	3-818-V94-S09-1.5-111414ZK42Q	14-24844	Soil	11/14/14 12:30	11/14/14 14:08
18.	3-818-V94-S45-1.0-111414ZK42R	14-24845	Soil	11/14/14 12:35	11/14/14 14:08
19.	3-818-V94-S28-2.0-111414ZK42S	14-24846	Soil	11/14/14 12:45	11/14/14 14:08

Printed 11/19/14 Page 1 of 1



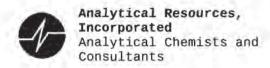
Data Reporting Qualifiers Effective 12/31/13

Inorganic Data

- U Indicates that the target analyte was not detected at the reported concentration
- Duplicate RPD is not within established control limits
- B Reported value is less than the CRDL but ≥ the Reporting Limit
- N Matrix Spike recovery not within established control limits
- NA Not Applicable, analyte not spiked
- H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
- L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

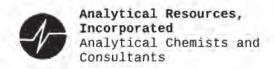
- U Indicates that the target analyte was not detected at the reported concentration
- * Flagged value is not within established control limits
- B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
- J Estimated concentration when the value is less than ARI's established reporting limits
- D The spiked compound was not detected due to sample extract dilution
- E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.



- Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).</p>
- S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
- NA The flagged analyte was not analyzed for
- NR Spiked compound recovery is not reported due to chromatographic interference
- NS The flagged analyte was not spiked into the sample
- M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"
- Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.
- EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" (Dioxin/Furan analysis only)
- C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column
- P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference
- Analyte signal includes interference from polychlorinated diphenyl ethers. (Dioxin/Furan analysis only)
- Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. (Dioxin/Furan analysis only)

Laboratory Quality Assurance Plan

Page 2 of 3



Geotechnical Data

- A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
- F Samples were frozen prior to particle size determination
- SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
- SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
- W Weight of sample in some pipette aliquots was below the level required for accurate weighting

RESOURCES INCORPORATED Sample ID: 3-818-V94-S02-1.0-111414

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZK42A LIMS ID: 14-24828

Matrix: Soil

Data Release Authorized: N

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/15/14 21:50 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

SAMPLE

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.8%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	< 30 U
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	75.8%
Tetrachlorometaxylene	74.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S37-1.0-111414

SAMPLE

Lab Sample ID: ZK42B LIMS ID: 14-24829

Matrix: Soil

Data Release Authorized:

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/15/14 22:48 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	88	< 88 Y
11096-82-5	Aroclor 1260	29	340 E
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.8%
Tetrachlorometaxylene	79.2%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S37-1.0-111414

DILUTION

Lab Sample ID: ZK42B LIMS ID: 14-24829

Matrix: Soil

Data Release Authorized: No.

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 08:17 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 9.3%

Analyte	LOQ	Result
Aroclor 1016	150	< 150 U
Aroclor 1242	150	< 150 U
Aroclor 1248	150	< 150 U
Aroclor 1254	150	< 150 U
Aroclor 1260	150	370
Aroclor 1221	150	< 150 U
Aroclor 1232	150	< 150 U
Aroclor 1262	150	< 150 U
Aroclor 1268	150	< 150 U
	Aroclor 1016 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1221 Aroclor 1232 Aroclor 1262	Aroclor 1016 150 Aroclor 1242 150 Aroclor 1248 150 Aroclor 1254 150 Aroclor 1260 150 Aroclor 1221 150 Aroclor 1232 150 Aroclor 1262 150

Reported in µg/kg (ppb)

Decachlorobiphenyl	97.5%
Tetrachlorometaxylene	87.9%

RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S10-1.0-111414

SAMPLE

Lab Sample ID: ZK42C LIMS ID: 14-24830

Matrix: Soil

Data Release Authorized: Now

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/15/14 23:07 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	29	< 29 U
11096-82-5	Aroclor 1260	29	< 29 U
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	85.8%
Tetrachlorometaxylene	74.5%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S38-1.0-111414 SAMPLE

Lab Sample ID: ZK42D LIMS ID: 14-24831

Matrix: Soil

Data Release Authorized: WA

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/15/14 23:27 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.3 g-dry-wt Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.7%

CAS Number	Analyte	roo	Result
CAS NUMBEL	Analyce	DOQ	Kesuit
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	220
11096-82-5	Aroclor 1260	30	47
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	70.8%
Tetrachlorometaxylene	73.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S35-1.0-111414 SAMPLE

Lab Sample ID: ZK42E

LIMS ID: 14-24832 Matrix: Soil

Data Release Authorized: Www

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/15/14 23:46
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.8 g-dry-wt Final Extract Volume: 4.00 mL

Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: 8.4%

CAS Number	Analyte	FOG	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	29	< 29 U
11096-82-5	Aroclor 1260	29	< 29 U
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.0%
Tetrachlorometaxylene	73.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S39-1.0-111414 SAMPLE

QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.1 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 19.4%

Lab Sample ID: ZK42F LIMS ID: 14-24833

Matrix: Soil

Data Release Authorized: Now

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 00:06 Instrument/Analyst: ECD5/JGR GPC Cleanup: No

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

CAS Number Analyte LOQ Re	sult
12674-11-2 Aroclor 1016 33	33 U
53469-21-9 Aroclor 1242 33	33 U
12672-29-6 Aroclor 1248 33	33 U
11097-69-1 Aroclor 1254 33	33 U
11096-82-5 Aroclor 1260 33	33 U
11104-28-2 Aroclor 1221 33	33 U
11141-16-5 Aroclor 1232 33	33 U
37324-23-5 Aroclor 1262 33	33 U
11100-14-4 Aroclor 1268 33	33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	71.2%
Tetrachlorometaxylene	72.2%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S25-1.0-111414

SAMPLE

Lab Sample ID: ZK42G LIMS ID: 14-24834

Matrix: Soil

Data Release Authorized: Yww

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 00:25 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.2 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.9%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	1,200	< 1,200 EY
11096-82-5	Aroclor 1260	30	910 ES
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	75.2%
Tetrachlorometaxylene	79.0%

ANALYTICAL RESOURCES INCORPORATED
Sample ID: 3-818-V94-S25-1.0-111414

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZK42G LIMS ID: 14-24834

Matrix: Soil

Data Release Authorized: Www

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 08:37 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No DIEGIION

DILUTION

QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.2 g-dry-wt Final Extract Volume: 4.00 mL

Dilution Factor: 10.0 Silica Gel: No

Percent Moisture: 11.9%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	300	< 300 U
53469-21-9	Aroclor 1242	300	< 300 U
12672-29-6	Aroclor 1248	300	< 300 U
11097-69-1	Aroclor 1254	1,200	< 1,200 Y
11096-82-5	Aroclor 1260	300	2,600
11104-28-2	Aroclor 1221	300	< 300 U
11141-16-5	Aroclor 1232	300	< 300 U
37324-23-5	Aroclor 1262	300	< 300 U
11100-14-4	Aroclor 1268	300	< 300 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	116%
Tetrachlorometaxylene	83.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S40-1.0-111414 SAMPLE

Lab Sample ID: ZK42H LIMS ID: 14-24835

LIMS ID: 14-24835 Matrix: Soil

Data Release Authorized: WWW

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/16/14 00:44
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.2 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.5%

Analyte	LOQ	Result
Aroclor 1016	30	< 30 U
Aroclor 1242	30	< 30 U
Aroclor 1248	30	< 30 U
Aroclor 1254	30	120
Aroclor 1260	30	240
Aroclor 1221	30	< 30 U
Aroclor 1232	30	< 30 U
Aroclor 1262	30	< 30 U
Aroclor 1268	30	< 30 U
	Aroclor 1016 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1221 Aroclor 1232 Aroclor 1262	Aroclor 1016 30 Aroclor 1242 30 Aroclor 1248 30 Aroclor 1254 30 Aroclor 1260 30 Aroclor 1221 30 Aroclor 1232 30 Aroclor 1262 30

Reported in µg/kg (ppb)

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	77.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S36-1.0-111414 SAMPLE

Lab Sample ID: ZK42I

LIMS ID: 14-24836 Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/16/14 01:42
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	150
11096-82-5	Aroclor 1260	30	450 E
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	80.0%

ANALYTICAL RESOURCES INCORPORATED Sample ID: 3-818-V94-S36-1.0-111414

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZK42I LIMS ID: 14-24836

Matrix: Soil

Data Release Authorized:

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 08:56 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

QC Report No: ZK42-The Boeing Company Project: NBF 3-818 V94 Substation Removal

DILUTION

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 10.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	150	200
11096-82-5	Aroclor 1260	150	420
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	84.4%
Tetrachlorometaxylene	76.9%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S41-1.0-111414

SAMPLE

Lab Sample ID: ZK42J LIMS ID: 14-24837

Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 02:02

Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00

Silica Gel: No

Percent Moisture: 11.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	150	930
11096-82-5	Aroclor 1260	150	1,700 E
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	88.1%
Tetrachlorometaxylene	76.6%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S41-1.0-111414 DILUTION

DILOTION

Lab Sample ID: ZK42J LIMS ID: 14-24837

Matrix: Soil

Data Release Authorized: NW

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 09:15 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 25.0 Silica Gel: No

Percent Moisture: 11.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	750	< 750 U
53469-21-9	Aroclor 1242	750	< 750 U
12672-29-6	Aroclor 1248	750	< 750 U
11097-69-1	Aroclor 1254	750	1,000
11096-82-5	Aroclor 1260	750	1,700
11104-28-2	Aroclor 1221	750	< 750 U
11141-16-5	Aroclor 1232	750	< 750 U
37324-23-5	Aroclor 1262	750	< 750 U
11100-14-4	Aroclor 1268	750	< 750 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	106%
Tetrachlorometaxylene	79.4%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S26-1.0-111414

SAMPLE

Lab Sample ID: ZK42K LIMS ID: 14-24838

Matrix: Soil

Data Release Authorized: Www

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 02:21 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.0 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 13.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	150	1,200
11096-82-5	Aroclor 1260	150	5,500 ES
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	99.6%
Tetrachlorometaxylene	82.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S26-1.0-111414 DILUTION

Lab Sample ID: ZK42K LIMS ID: 14-24838

Matrix: Soil

Data Release Authorized: Thw

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 09:35 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.0 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 50.0 Silica Gel: No

Percent Moisture: 13.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	1,500	< 1,500 U
53469-21-9	Aroclor 1242	1,500	< 1,500 U
12672-29-6	Aroclor 1248	1,500	< 1,500 U
11097-69-1	Aroclor 1254	1,500	< 1,500 U
11096-82-5	Aroclor 1260	1,500	5,600
11104-28-2	Aroclor 1221	1,500	< 1,500 U
11141-16-5	Aroclor 1232	1,500	< 1,500 U
37324-23-5	Aroclor 1262	1,500	< 1,500 U
11100-14-4	Aroclor 1268	1,500	< 1,500 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S43-1.0-111414

SAMPLE

Lab Sample ID: ZK42L LIMS ID: 14-24839

Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 02:41 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.0 g-dry-wt Final Extract Volume: 4.00 mL

> Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 13.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	150	2,100 E
11096-82-5	Aroclor 1260	150	3,200 ES
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	101%
Tetrachlorometaxylene	84.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S43-1.0-111414

DILUTION

Lab Sample ID: ZK42L LIMS ID: 14-24839

Matrix: Soil

Data Release Authorized: Www

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/17/14 09:54
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.0 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 25.0 Silica Gel: No

Percent Moisture: 13.5%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	770	< 770 U
53469-21-9	Aroclor 1242	770	< 770 U
12672-29-6	Aroclor 1248	770	< 770 U
11097-69-1	Aroclor 1254	770	2,200
11096-82-5	Aroclor 1260	770	3,100
11104-28-2	Aroclor 1221	770	< 770 U
11141-16-5	Aroclor 1232	770	< 770 U
37324-23-5	Aroclor 1262	770	< 770 U
11100-14-4	Aroclor 1268	770	< 770 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	119%
Tetrachlorometaxylene	83.1%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S44-2.0-111414

SAMPLE

Lab Sample ID: ZK42M LIMS ID: 14-24840

LIMS ID: 14-24840 Matrix: Soil

Data Release Authorized:

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/16/14 03:00
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 11.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	56
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	80.0%
Tetrachlorometaxylene	77.5%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S42-0.0-111414

SAMPLE

Lab Sample ID: ZK42N LIMS ID: 14-24841

LIMS ID: 14-24841 Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/16/14 03:20
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.3 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 18.3%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	650	< 650 Y
11097-69-1	Aroclor 1254	160	10,000 ES
11096-82-5	Aroclor 1260	160	7,100 ES
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	114%
Tetrachlorometaxylene	83.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S42-0.0-111414 DILUTION

Lab Sample ID: ZK42N LIMS ID: 14-24841

QC Report No: ZK42-The Boeing Company

Matrix: Soil

Project: NBF 3-818 V94 Substation Removal

Data Release Authorized: NW

0025082.214.005

Reported: 11/17/14

Date Sampled: 11/14/14 Date Received: 11/14/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 10:14 Instrument/Analyst: ECD5/JGR

Sample Amount: 12.3 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No Sulfur Cleanup: Yes Dilution Factor: 50.0 Silica Gel: No

Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 18.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	1,600	< 1,600 U
53469-21-9	Aroclor 1242	1,600	< 1,600 U
12672-29-6	Aroclor 1248	1,600	< 1,600 U
11097-69-1	Aroclor 1254	1,600	11,000
11096-82-5	Aroclor 1260	1,600	9,300
11104-28-2	Aroclor 1221	1,600	< 1,600 U
11141-16-5	Aroclor 1232	1,600	< 1,600 U
37324-23-5	Aroclor 1262	1,600	< 1,600 U
11100-14-4	Aroclor 1268	1,600	< 1,600 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	D
Tetrachlorometaxylene	D

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S18-1.5-111414 SAMPLE

Lab Sample ID: ZK420 LIMS ID: 14-24842

Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/16/14 03:39
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 10.0%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	150	1,500 E
11096-82-5	Aroclor 1260	150	2,000 E
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	NR
Tetrachlorometaxylene	109%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZK420 LIMS ID: 14-24842

Matrix: Soil

Data Release Authorized: W

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 10:33 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S18-1.5-111414

DILUTION

QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 25.0 Silica Gel: No

Percent Moisture: 10.0%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	740	< 740 U
53469-21-9	Aroclor 1242	740	< 740 U
12672-29-6	Aroclor 1248	740	< 740 U
11097-69-1	Aroclor 1254	740	1,500
11096-82-5	Aroclor 1260	740	2,100
11104-28-2	Aroclor 1221	740	< 740 U
11141-16-5	Aroclor 1232	740	< 740 U
37324-23-5	Aroclor 1262	740	< 740 U
11100-14-4	Aroclor 1268	740	< 740 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	NR.
Tetrachlorometaxylene	83.1%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S14-1.5-111414

SAMPLE

Lab Sample ID: ZK42P LIMS ID: 14-24843

Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 03:58 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 16.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	640	< 640 Y
11096-82-5	Aroclor 1260	160	2,100 E
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	103%
Tetrachlorometaxylene	84.9%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S14-1.5-111414

DILUTION

Lab Sample ID: ZK42P

LIMS ID: 14-24843 Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 10:53 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 25.0 Silica Gel: No

Percent Moisture: 16.5%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	800	< 800 U
53469-21-9	Aroclor 1242	800	< 800 U
12672-29-6	Aroclor 1248	800	< 800 U
11097-69-1	Aroclor 1254	800	< 800 U
11096-82-5	Aroclor 1260	800	2,100
11104-28-2	Aroclor 1221	800	< 800 U
11141-16-5	Aroclor 1232	800	< 800 U
37324-23-5	Aroclor 1262	800	< 800 U
11100-14-4	Aroclor 1268	800	< 800 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	108%
Tetrachlorometaxylene	85.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S09-1.5-111414

SAMPLE

Lab Sample ID: ZK42Q LIMS ID: 14-24844

LIMS ID: 14-24844 Matrix: Soil

Data Release Authorized: WW

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/16/14 04:18
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 14.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	370 E
11096-82-5	Aroclor 1260	31	600 E
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	75.8%
Tetrachlorometaxylene	79.8%

ANALYTICAL RESOURCES INCORPORATED Sample ID: 3-818-V94-S09-1.5-111414

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

DILUTION

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.8 g-dry-wt Final Extract Volume: 4.00 mL

Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 14.5%

Date Extracted: 11/14/14 Date Analyzed: 11/17/14 11:12 Instrument/Analyst: ECD5/JGR

Data Release Authorized: Nww

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Lab Sample ID: ZK42Q

LIMS ID: 14-24844

Reported: 11/17/14

Matrix: Soil

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	160	< 160 U
53469-21-9	Aroclor 1242	160	< 160 U
12672-29-6	Aroclor 1248	160	< 160 U
11097-69-1	Aroclor 1254	160	370
11096-82-5	Aroclor 1260	160	600
11104-28-2	Aroclor 1221	160	< 160 U
11141-16-5	Aroclor 1232	160	< 160 U
37324-23-5	Aroclor 1262	160	< 160 U
11100-14-4	Aroclor 1268	160	< 160 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.9%
Tetrachlorometaxylene	76.4%



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZK42R LIMS ID: 14-24845

Matrix: Soil

Data Release Authorized: WW

Reported: 11/19/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 04:37 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

SAMPLE

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.2 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	42
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	76.8%
Tetrachlorometaxylene	76.2%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZK42S LIMS ID: 14-24846

Matrix: Soil

Data Release Authorized: W

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/16/14 04:56 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S28-2.0-111414

SAMPLE

QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 12.9 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 13.8%

CAS Number	Analyte	LOQ	Result
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	52
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobipheny1	77.0%
Tetrachlorometaxylene	74.0%



SW8082/PCB SOIL/SOLID/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Soil QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Client ID		DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-111414		87.2%	59-115	82.8%	58-112	0
LCS-111414		93.5%	59-115	93.0%	58-112	0
LCSD-111414		82.0%	59-115	81.8%	58-112	0
3-818-V94-S02-1.0-111414		75.8%	47-120	74.0%	53-116	0
3-818-V94-S02-1.0-111414	MS	77.0%	47-120	76.0%	53-116	0
3-818-V94-S02-1.0-111414	MSD	78.2%	47-120	75.5%	53-116	0
3-818-V94-S37-1.0-111414		78.8%	47-120	79.2%	53-116	0
3-818-V94-S37-1.0-111414	DL	97.5%	47-120	87.9%	53-116	0
3-818-V94-S10-1.0-111414		85.8%	47-120	74.5%	53-116	0
3-818-V94-S38-1.0-111414		70.8%	47-120	73.8%	53-116	0
3-818-V94-S35-1.0-111414		78.0%	47-120	73.8%	53-116	0
3-818-V94-S39-1.0-111414		71.2%	47-120	72.2%	53-116	0
3-818-V94-S25-1.0-111414		75.2%	47-120	79.0%	53-116	0
3-818-V94-S25-1.0-111414	DL	116%	47-120	83.0%	53-116	0
3-818-V94-S40-1.0-111414		77.5%	47-120	77.0%	53-116	0
3-818-V94-S36-1.0-111414		78.2%	47-120	80.0%	53-116	0
3-818-V94-S36-1.0-111414	DL	84.4%	47-120	76.9%	53-116	0
3-818-V94-S41-1.0-111414		88.1%	47-120	76.6%	53-116	0
3-818-V94-S41-1.0-111414	DL	106%	47-120	79.4%	53-116	0
3-818-V94-S26-1.0-111414		99.6%	47-120	82.8%	53-116	0
3-818-V94-S26-1.0-111414	DL	D	47-120	D	53-116	0
3-818-V94-S43-1.0-111414		101%	47-120	84.0%	53-116	0
3-818-V94-S43-1.0-111414	DL	119%	47-120	83.1%	53-116	0
3-818-V94-S44-2.0-111414		80.0%	47-120	77.5%	53-116	0
3-818-V94-S42-0.0-111414		114%	47-120	83.8%	53-116	0
3-818-V94-S42-0.0-111414	DL	D	47-120	D	53-116	0
3-818-V94-S18-1.5-111414		NR	47-120	109%	53-116	0
3-818-V94-S18-1.5-111414	DL	NR	47-120	83.1%	53-116	0
3-818-V94-S14-1.5-111414		103%	47-120	84.9%	53-116	0
3-818-V94-S14-1.5-111414	DL	108%	47-120	85.0%	53-116	0
3-818-V94-S09-1.5-111414		75.8%	47-120	79.8%	53-116	0
3-818-V94-S09-1.5-111414	DL	86.9%	47-120	76.4%	53-116	0
3-818-V94-S45-1.0-111414		76.8%	47-120	76.2%		0
3-818-V94-S28-2.0-111414		77.0%	47-120	74.0%	53-116	0

Microwave (MARS) Control Limits PCBSMI Prep Method: SW3546

Log Number Range: 14-24828 to 14-24846

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page 1 of 1

Sample ID: 3-818-V94-S02-1.0-111414 MS/MSD

Lab Sample ID: ZK42A LIMS ID: 14-24828 QC Report No: ZK42-The Boeing Company Project: NBF 3-818 V94 Substation Removal

Matrix: Soil

0025082,214.005

Data Release Authorized: NW Reported: 11/17/14

Date Sampled: 11/14/14 Date Received: 11/14/14

Date Extracted MS/MSD: 11/14/14

Sample Amount MS: 13.4 g-dry-wt

Date Analyzed MS: 11/15/14 22:09

MSD: 13.4 g-dry-wt Final Extract Volume MS: 4.0 mL

MSD: 11/15/14 22:28 Instrument/Analyst MS: ECD5/JGR MSD: 4.0 mL

MSD: ECD5/JGR

Dilution Factor MS: 1.00 MSD: 1.00

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes MSD: 1.00 Silica Gel: No

Acid Cleanup: Yes Percent Moisture: 10.8% Florisil Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 30 U	117	149	78.5%	118	149	79.2%	0.9%
Aroclor 1260	< 30 U	121	149	81.2%	126	149	84.6%	4.0%

Results reported in µg/kg (ppb) RPD calculated using sample concentrations per SW846.

Sample ID: 3-818-V94-S02-1.0-111414 MATRIX SPIKE

Lab Sample ID: ZK42A LIMS ID: 14-24828

Matrix: Soil

Data Release Authorized: Www

Reported: 11/17/14

Date Extracted: 11/14/14 Date Analyzed: 11/15/14 22:09 Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/14/14 Date Received: 11/14/14

Sample Amount: 13.4 g-dry-wt Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 10.8%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	30	2.2
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	444
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	77.0%
Tetrachlorometaxylene	76.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S02-1.0-111414 MATRIX SPIKE DUP

Lab Sample ID: ZK42A LIMS ID: 14-24828

QC Report No: ZK42-The Boeing Company Project: NBF 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WAN Reported: 11/17/14

Date Sampled: 11/14/14 Date Received: 11/14/14

Date Extracted: 11/14/14

Sample Amount: 13.4 g-dry-wt

Date Analyzed: 11/15/14 22:28 Instrument/Analyst: ECD5/JGR

Final Extract Volume: 4.00 mL Dilution Factor: 1.00

GPC Cleanup: No Sulfur Cleanup: Yes Silica Gel: No

Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 10.8%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	-44
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	75.5%



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page 1 of 1

Lab Sample ID: LCS-111414

LIMS ID: 14-24828

Matrix: Soil

Data Release Authorized: W

Reported: 11/17/14

Date Extracted LCS/LCSD: 11/14/14

Date Analyzed LCS: 11/15/14 21:11

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes

Florisil Cleanup: No

Sample ID: LCS-111414 LCS/LCSD

QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount LCS: 12.0 g-dry-wt

LCSD: 12.0 g-dry-wt

Final Extract Volume LCS: 4.00 mL

LCSD: 4.00 mL

Dilution Factor LCS: 1.00

LCSD: 1.00

Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	155	167	92.8%	136	167	81.4%	13.1%
Aroclor 1260	158	167	94.6%	138	167	82.6%	13.5%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	93.5%	82.0%
Tetrachlorometaxylene	93.0%	81.8%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.



ME.

Sample ID: MB-111414 METHOD BLANK

Lab Sample ID: MB-111414

LIMS ID: 14-24828

Matrix: Soil

Data Release Authorized:

Reported: 11/17/14

Date Extracted: 11/14/14
Date Analyzed: 11/15/14 20:51
Instrument/Analyst: ECD5/JGR

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZK42-The Boeing Company

Project: NBF 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount: 12.0 g
Final Extract Volume: 4.00 mL
Dilution Factor: 1.00
Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U
A Development of the Control of the			

Reported in µg/kg (ppb)

Decachlorobiphenyl	87.2%
Tetrachlorometaxylene	82.8%



November 21, 2014

Colette Gaona Landau Associates, Inc. 130 – 2nd Avenue Edmonds, WA 98020

RE: Project: NBF 3-818 V94 Substation Removal ARI Job: ZL09

Dear Colette:

Please find enclosed original Chain of Custody (COC) records and analytical results for the above referenced project. Analytical Resources, Inc. accepted eighteen samples in good condition on November 19, 2014.

The samples were analyzed for PCBs, as requested on the COC.

No analytical complications were noted.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely

ANALYTICAL RESOURCES, INC

Kelly Bottem

Client Services Manager

(206) 695-6211

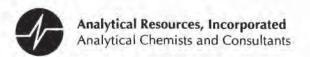
Enclosure

cc: Carl Bach, The Boeing Company, P.O. Box 3707, M/S 1W-12, Seattle, WA 98124-2207

1 OF 30

Rev 8/09 X MMATHI-Dx - run acid wash/siliea gel cleanup Dissolved metal water samples field filtered X Scelerated A X Allow water samples to settle, collect **Turnaround Time** □ Standard Shipment de live Polat aliquetham clear portion Observations/Comments Analyze for EPH if no specific preserved w/sodium bisulfate Time run samples standardized to preserved w/methanol product Freeze upon receipt VOC/BTEX/VPH (soll) non-preserved product identified Received by Printed Name Signature Company Date PINK COPY - Client Representative Other **Testing Parameters** Time Chain-of-Custody Record Relinquished by Printed Name Signature Company **VELLOW COPY - Laboratory** Date 3-818 V94 Substation Removal 0025082, 214, 005 Project Name Send Results To Kar (Bach, Colette Guna, Anne Halvorsen Time 1135 No. of Matrix Containers Project Location/Event NBF 3-818 V94 Substation Sampler's Name Poseurary Trimmer/Ken Brown H. VOJQATA 105 Date 1119114 WHITE COPY - Project File Received by Company 09.60 3-8/8-V94-525-3.0-111914 11914 0920 0630 0935 6950 0955 1030 070 1035 040 500 00 000 018 520 Seattle/Edmonds (425) 778-0907 Time Spokane (509) 327-9737 ☐ Portland (503) 542-1080 ☐ **Tacoma** (253) 926-2493 dethorna gr is anday Associates osemant inde wennery Trimma Date 1119/14 Time 1135 1-194-SS6-310-11914 V -555-3.0-111914 418-11-0,5-4-5.0-418-3-818-194-843-3,0-111917 3-818-174-549-3,0-111917 -3.0-111914 3-818-M4-S18-30-1119114 118-1914-353-3,0-111914 -V9 4-552-3.0 -11191 416111-01-845-1-61-118-174-514-3,0-111914 1-549-3.0-111914 -V94-SQR-3.0-111914 -546-1,0-111914 18-194-547-1.0-111914 41611-016 HS-461-818pecial Shipment/Handling or Storage Requirements Sample I.D. ASSOCIATES Project Contact 18-194-551 Relinquished by LANDAU pted Name, ŽLØ9

:00002



Cooler Receipt Form

ARI Client BORING		Project Name: 3-818	V94 SU	ostati	ON
COC No(s):	(NA)	Delivered by: Fed-Ex UPS Co	urier Hand Deli	vered Other:	
Assigned ARI Job No 2009	()	Tracking No:			(NA)
reliminary Examination Phase:					
Were intact, properly signed and dated	d custody seals attached t	to the outside of to cooler?		YES	(NO
Were custody papers included with the			1	YE\$	NO
Were custody papers properly filled ou				WES	NO
Temperature of Caoler(s) (°C) (recommendation)					
If cooler temperature is out of complia	nce fill out form 00070F		Temp Gun II	0#. <u>908</u>	1795
Cooler Accepted by:	A	Date: 111914 Tin	ne: 1135		
	Complete custody forms	and attach all shipping documents			
.og-In Phase:			*		
Was a temperature blank included in t	he cooler?			YES	(NO
What kind of packing material was u		(Wet Ice) Gel Packs Baggies Foar	n Block Paner	-	-
Was sufficient ice used (if appropriate)			NA NA	(YES)	NO
Were all bottles sealed in individual pla				YES	(NO)
Did all bottles arrive in good condition				(YES)	NO
Were all bottle labels complete and leg				YES	NO
and the Colonia Colonia Colonia Colonia Colonia Colonia		ber of containers received?		YES	NO
			••	(YES)	NO
Were all bottles used correct for the re				YES	NO
	그런데 어떻게 됐습니다 되게 하고 있습니다.	reservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles			(NA)	YES	NO
Was sufficient amount of sample sent				YES	NO
Date VOC Trip Blank was made at AR			, NA	(-5)	
Was Sample Split by ARI: (NA)		Equipment:	()	Split by:_	
amples Logged by	A Date	ulizatori	1159	орж бу	
amples cogged by		er of discrepancies or concerns **			
Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sam	ple ID on C	oc
Additional Notes, Discrepancies, &	Resolutions:	2			
By: Date:					
Small Air Bubbles Peabubbles'	TARCE AND AND	Small → "sm" (<2 mm)			
-2mm 2-4 mm	LARGE Air Bubbles > 4 mm	Peabubbles → "pb" (2 to <4 mm)			
		Large > "lg" (4 to < 6 mm)			
		Headspace → "hs" (>6 mm)			

0016F 3/2/10 Cooler Receipt Form

Revision 014

ZL09:00003

Sample ID Cross Reference Report



ARI Job No: ZL09

Client: The Boeing Company Project Event: 0025082.214.005

Project Name: 3-818 V94 Substation Removal

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date	/Time	VTSF	2
1.	3-818-V94-S25-3.0-11191	4ZLO9A	14-25063	Soil	11/19/14 0:	9:20	11/19/14	11:35
2.	3-818-V94-S57-3.0-11191	4ZL09B	14-25064	Soil	11/19/14 0	9:25	11/19/14	11:35
3.	3-818-V94-S41-3.0-11191	42L09C	14-25065	Soil	11/19/14 0	9:30	11/19/14	11:35
4.	3-818-V94-S47-1.0-11191	4ZL09D	14-25066	Soil	11/19/14 0	9:35	11/19/14	11:35
5.	3-818-V94-S46-1.0-11191	4ZL09E	14-25067	Soil	11/19/14 0	9:40	11/19/14	11:35
6.	3-818-V94-S48-1.0-11191	4ZLO9F	14-25068	Soil	11/19/14 0	9:45	11/19/14	11:35
7.	3-818-V94-S43-3.0-11191	4ZL09G	14-25069	Soil	11/19/14 0	9:50	11/19/14	11:35
8.	3-818-V94-S49-3.0-11191	4ZLO9H	14-25070	Soil	11/19/14 0	9:55	11/19/14	11:35
9.	3-818-V94-S18-3.0-11191	4ZL09I	14-25071	Soil	11/19/14 1	0:00	11/19/14	11:35
10.	3-818-V94-S50-3.0-11191	4ZL09J	14-25072	Soil	11/19/14 1	0:05	11/19/14	11:35
11.	3-818-V94-S54-3.0-11191	4ZLO9K	14-25073	Soil	11/19/14 1	0:10	11/19/14	11:35
12.	3-818-V94-S53-3.0-11191	4ZLO9L	14-25074	Soil	11/19/14 1	0:15	11/19/14	11:35
13.	3-818-V94-S51-3.0-11191	4ZL09M	14-25075	Soil	11/19/14 1	0:20	11/19/14	11:35
14.	3-818-V94-S14-3.0-11191	4ZLO9N	14-25076	Soil	11/19/14 1	0:25	11/19/14	11:35
15.	3-818-V94-S09-3.0-11191	4ZL090	14-25077	Soil	11/19/14 1	0:30	11/19/14	11:35
16.	3-818-V94-S55-3.0-11191	42L09P	14-25078	Soil	11/19/14 1	0:35	11/19/14	11:35
17.	3-818-V94-S52-3.0-11191	4ZL09Q	14-25079	Soil	11/19/14 1	0:40	11/19/14	11:35
18.	3-818-V94-S56-3.0-11191	4ZLO9R	14-25080	Soil	11/19/14 1	0:45	11/19/14	11:35

Printed 11/19/14 Page 1 of 1

ZL09:00004

Sample ID: 3-818-V94-S25-3.0-111914 SAMPLE

Lab Sample ID: ZL09A LIMS ID: 14-25063

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/20/14 14:26
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14
Date Received: 11/19/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 20.1%

CAS Number	Analyte	POÖ	Result
12674-11-2	Aroclor 1016	31	< 31 U
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	< 31 U
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	81.8%
Tetrachlorometaxylene	79.2%

Sample ID: 3-818-V94-S25-3.0-111914 MATRIX SPIKE

Lab Sample ID: ZL09A LIMS ID: 14-25063

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 14:48 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 12.8 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 20.1%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	31	
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	82.0%
Tetrachlorometaxylene	80.0%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S25-3.0-111914 MATRIX SPIKE DUP

Lab Sample ID: ZL09A LIMS ID: 14-25063

QC Report No: ZL09-The Boeing Company

Matrix: Soil

Project: 3-818 V94 Substation Removal

Data Release Authorized: WWV

0025082.214.005 Date Sampled: 11/19/14

Reported: 11/21/14

Date Received: 11/19/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 15:10 Instrument/Analyst: ECD7/PK

Sample Amount: 12.8 g-dry-wt Final Extract Volume: 4.00 mL Dilution Factor: 1.00

GPC Cleanup: No Sulfur Cleanup: Yes Silica Gel: No

Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 20.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	31	
53469-21-9	Aroclor 1242	31	< 31 U
12672-29-6	Aroclor 1248	31	< 31 U
11097-69-1	Aroclor 1254	31	< 31 U
11096-82-5	Aroclor 1260	31	
11104-28-2	Aroclor 1221	31	< 31 U
11141-16-5	Aroclor 1232	31	< 31 U
37324-23-5	Aroclor 1262	31	< 31 U
11100-14-4	Aroclor 1268	31	< 31 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	81.2%
Tetrachlorometaxylene	80.8%

ZL09:00007

Sample ID: 3-818-V94-S57-3.0-111914 SAMPLE

Lab Sample ID: ZL09B LIMS ID: 14-25064

Matrix: Soil

Data Release Authorized: \www

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/20/14 15:32
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 13.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 15.4%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	29	40
11096-82-5	Aroclor 1260	29	72
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	79.0%
Tetrachlorometaxvlene	76.8%

ZLØ9:00008

Sample ID: 3-818-V94-S41-3.0-111914 SAMPLE

Lab Sample ID: ZL09C LIMS ID: 14-25065

QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: Whr Reported: 11/21/14

Date Sampled: 11/19/14 Date Received: 11/19/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 15:54

Sample Amount: 12.1 g-dry-wt Final Extract Volume: 4.00 mL

Instrument/Analyst: ECD7/PK

Dilution Factor: 1.00 Silica Gel: No

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 24.7%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	130
11096-82-5	Aroclor 1260	33	250
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.5%
Tetrachlorometaxylene	82.5%

Sample ID: 3-818-V94-S47-1.0-111914

SAMPLE

Lab Sample ID: ZL09D LIMS ID: 14-25066

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 20:17 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 12.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 22.0%

CAS Number	Analyte	rod	Result
12674-11-2	Aroclor 1016	32	< 32 U
53469-21-9	Aroclor 1242	32	< 32 U
12672-29-6	Aroclor 1248	32	< 32 U
11097-69-1	Aroclor 1254	48	< 48 Y
11096-82-5	Aroclor 1260	32	200
11104-28-2	Aroclor 1221	32	< 32 U
11141-16-5	Aroclor 1232	32	< 32 U
37324-23-5	Aroclor 1262	32	< 32 U
11100-14-4	Aroclor 1268	32	36

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.8%
Tetrachlorometaxylene	86.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S46-1.0-111914

SAMPLE

Lab Sample ID: ZL09E LIMS ID: 14-25067

Matrix: Soil

Data Release Authorized: NW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/20/14 20:38
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.6 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.0%

200 30 30 5 20 5	Service Address		
CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	28	< 28 U
11097-69-1	Aroclor 1254	28	170
11096-82-5	Aroclor 1260	28	240
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U
37324-23-5	Aroclor 1262	28	< 28 U
11100-14-4	Aroclor 1268	28	< 28 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	75.5%
Tetrachlorometaxvlene	79.8%

ZL09:00011

ANALYTICAL RESOURCES INCORPORATED Sample ID: 3-818-V94-S48-1.0-111914

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZL09F LIMS ID: 14-25068

Matrix: Soil

Data Release Authorized: \WW

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 21:00 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

SAMPLE

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 13.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 16.6%

CAS Number	Analyte	POO	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	< 30 U
11096-82-5	Aroclor 1260	30	< 30 U
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	75.8%
Tetrachlorometaxylene	75.8%

Sample ID: 3-818-V94-S43-3.0-111914 SAMPLE

Lab Sample ID: ZL09G LIMS ID: 14-25069

LIMS ID: 14-25069 Matrix: Soil

Data Release Authorized:

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/20/14 21:22
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 11.9 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 26.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	34	< 34 U
53469-21-9	Aroclor 1242	34	< 34 U
12672-29-6	Aroclor 1248	34	< 34 U
11097-69-1	Aroclor 1254	34	84
11096-82-5	Aroclor 1260	34	76
11104-28-2	Aroclor 1221	34	< 34 U
11141-16-5	Aroclor 1232	34	< 34 U
37324-23-5	Aroclor 1262	34	< 34 U
11100-14-4	Aroclor 1268	34	< 34 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.2%
Tetrachlorometaxvlene	77.0%

Sample ID: 3-818-V94-S49-3.0-111914 SAMPLE

Lab Sample ID: ZL09H LIMS ID: 14-25070

QC Report No: ZL09-The Boeing Company Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WWW Reported: 11/21/14

Date Sampled: 11/19/14 Date Received: 11/19/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 21:44 Instrument/Analyst: ECD7/PK

Sample Amount: 13.7 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No

Dilution Factor: 1.00

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Silica Gel: No

Percent Moisture: 14.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	180	< 180 Y
11096-82-5	Aroclor 1260	29	420 E
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	77.0%
Tetrachlorometaxylene	75.0%

Sample ID: 3-818-V94-S49-3.0-111914 DILUTION

Lab Sample ID: ZL09H LIMS ID: 14-25070

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/21/14 06:11
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 13.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 5.00 Silica Gel: No

Percent Moisture: 14.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	290	< 290 Y
11096-82-5	Aroclor 1260	150	430
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	86.1%
Tetrachlorometaxylene	87.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S18-3.0-111914 SAMPLE

Lab Sample ID: ZL09I LIMS ID: 14-25071

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/20/14 22:06
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 13.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 14.7%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	29	< 29 U
11096-82-5	Aroclor 1260	29	< 29 U
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

PCB Surrogate Recovery

Decachlorobiphenyl	77.5%
Tetrachlorometaxylene	76.5%

ZL09:00016

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546

Page 1 of 1

Lab Sample ID: ZL09J LIMS ID: 14-25072

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 22:28 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: 3-818-V94-S50-3.0-111914

SAMPLE

QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.0 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 13.2%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	29	74
11096-82-5	Aroclor 1260	29	85
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	79.0%
Tetrachlorometaxvlene	77.8%

Sample ID: 3-818-V94-S54-3.0-111914 SAMPLE

Lab Sample ID: ZL09K LIMS ID: 14-25073

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/20/14 22:50
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 13.4 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 16.5%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	340 E
11096-82-5	Aroclor 1260	60	< 60 Y
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	82.2%
Tetrachlorometaxvlene	76.5%

Sample ID: 3-818-V94-S54-3.0-111914 DILUTION

Lab Sample ID: ZL09K LIMS ID: 14-25073

QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

Matrix: Soil

0025082.214.005

Data Release Authorized: WW Reported: 11/21/14

Date Sampled: 11/19/14 Date Received: 11/19/14

Date Extracted: 11/19/14 Date Analyzed: 11/21/14 06:33 Instrument/Analyst: ECD7/PK

Sample Amount: 13.4 g-dry-wt Final Extract Volume: 4.00 mL

GPC Cleanup: No

Dilution Factor: 5.00 Silica Gel: No

Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No

Percent Moisture: 16.5%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	150	< 150 U
53469-21-9	Aroclor 1242	150	< 150 U
12672-29-6	Aroclor 1248	150	< 150 U
11097-69-1	Aroclor 1254	150	410
11096-82-5	Aroclor 1260	150	< 150 U
11104-28-2	Aroclor 1221	150	< 150 U
11141-16-5	Aroclor 1232	150	< 150 U
37324-23-5	Aroclor 1262	150	< 150 U
11100-14-4	Aroclor 1268	150	< 150 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	89.5%
Tetrachlorometaxylene	85.9%

Sample ID: 3-818-V94-S53-3.0-111914 SAMPLE

Lab Sample ID: ZL09L LIMS ID: 14-25074

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 23:11 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 13.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 15.7%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	30	< 30 U
53469-21-9	Aroclor 1242	30	< 30 U
12672-29-6	Aroclor 1248	30	< 30 U
11097-69-1	Aroclor 1254	30	180
11096-82-5	Aroclor 1260	30	93
11104-28-2	Aroclor 1221	30	< 30 U
11141-16-5	Aroclor 1232	30	< 30 U
37324-23-5	Aroclor 1262	30	< 30 U
11100-14-4	Aroclor 1268	30	< 30 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	73.0%
Tetrachlorometaxylene	76.5%

Sample ID: 3-818-V94-S51-3.0-111914 SAMPLE

Lab Sample ID: ZL09M LIMS ID: 14-25075

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/21/14 00:17 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.6%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	28	< 28 U
11097-69-1	Aroclor 1254	28	57
11096-82-5	Aroclor 1260	28	28
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U
37324-23-5	Aroclor 1262	28	< 28 U
11100-14-4	Aroclor 1268	28	< 28 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	83.2%
Tetrachlorometaxylene	81.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S14-3.0-111914 SAMPLE

Lab Sample ID: ZL09N LIMS ID: 14-25076

Matrix: Soil

Data Release Authorized: WW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/21/14 05:49
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.1 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.1%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	28	< 28 U
11097-69-1	Aroclor 1254	28	< 28 U
11096-82-5	Aroclor 1260	28	< 28 U
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U
37324-23-5	Aroclor 1262	28	< 28 U
11100-14-4	Aroclor 1268	28	< 28 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	81.0%
Tetrachlorometaxylene	80.8%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S09-3.0-111914 SAMPLE

Lab Sample ID: ZL090 LIMS ID: 14-25077

LIMS ID: 14-25077 Matrix: Soil

Data Release Authorized: WWW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/21/14 01:01
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.1 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.0%

CAS Number	Analyte	roo	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	28	< 28 U
11097-69-1	Aroclor 1254	28	< 28 U
11096-82-5	Aroclor 1260	28	< 28 U
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U
37324-23-5	Aroclor 1262	28	< 28 U
11100-14-4	Aroclor 1268	28	< 28 U
Street and Street and Street and Street			

Reported in µg/kg (ppb)

Decachlorobiphenyl	81.5%
Tetrachlorometaxylene	78.2%

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Extraction Method: SW3546 Page 1 of 1

Sample ID: 3-818-V94-S55-3.0-111914 SAMPLE

Lab Sample ID: ZL09P LIMS ID: 14-25078

LIMS ID: 14-25078 Matrix: Soil

Data Release Authorized: WWW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/21/14 01:22
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.0 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 12.9%

CAS Number	Analyte	FOO	Result
12674-11-2	Aroclor 1016	29	< 29 U
53469-21-9	Aroclor 1242	29	< 29 U
12672-29-6	Aroclor 1248	29	< 29 U
11097-69-1	Aroclor 1254	29	< 29 U
11096-82-5	Aroclor 1260	29	< 29 U
11104-28-2	Aroclor 1221	29	< 29 U
11141-16-5	Aroclor 1232	29	< 29 U
37324-23-5	Aroclor 1262	29	< 29 U
11100-14-4	Aroclor 1268	29	< 29 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	78.2%
Tetrachlorometaxylene	73.2%

Sample ID: 3-818-V94-S52-3.0-111914

SAMPLE

Lab Sample ID: ZL09Q LIMS ID: 14-25079

Matrix: Soil

Data Release Authorized: What

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/21/14 01:44 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.7 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: 8.2%

50 ALIS 112 TO	A. T. P. A. C. A. C. A.		
CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	27	< 27 U
53469-21-9	Aroclor 1242	27	< 27 U
12672-29-6	Aroclor 1248	27	< 27 U
11097-69-1	Aroclor 1254	27	77
11096-82-5	Aroclor 1260	27	170
11104-28-2	Aroclor 1221	27	< 27 U
11141-16-5	Aroclor 1232	27	< 27 U
37324-23-5	Aroclor 1262	27	< 27 U
11100-14-4	Aroclor 1268	27	< 27 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	80.8%
Tetrachlorometaxylene	77.8%

Sample ID: 3-818-V94-S56-3.0-111914 SAMPLE

Lab Sample ID: ZL09R LIMS ID: 14-25080

Matrix: Soil

Data Release Authorized: WWW

Reported: 11/21/14

Date Extracted: 11/19/14
Date Analyzed: 11/21/14 02:06
Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082,214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount: 14.5 g-dry-wt

Final Extract Volume: 4.00 mL Dilution Factor: 1.00 Silica Gel: No

Percent Moisture: 9.3%

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	28	< 28 U
53469-21-9	Aroclor 1242	28	< 28 U
12672-29-6	Aroclor 1248	28	< 28 U
11097-69-1	Aroclor 1254	28	110
11096-82-5	Aroclor 1260	28	77
11104-28-2	Aroclor 1221	28	< 28 U
11141-16-5	Aroclor 1232	28	< 28 U
37324-23-5	Aroclor 1262	28	< 28 U
11100-14-4	Aroclor 1268	28	< 28 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	76.5%
Tetrachlorometaxylene	72.0%



Page 1 of 1

Lab Sample ID: MB-111914

LIMS ID: 14-25063 Matrix: Soil

Data Release Authorized: W

Reported: 11/21/14

Date Extracted: 11/19/14 Date Analyzed: 11/20/14 13:21 Instrument/Analyst: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample ID: MB-111914 METHOD BLANK

QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: NA Date Received: NA

Sample Amount: 12.0 g Final Extract Volume: 4.00 mL Dilution Factor: 1.00

Silica Gel: No

Percent Moisture: NA

CAS Number	Analyte	LOQ	Result
12674-11-2	Aroclor 1016	33	< 33 U
53469-21-9	Aroclor 1242	33	< 33 U
12672-29-6	Aroclor 1248	33	< 33 U
11097-69-1	Aroclor 1254	33	< 33 U
11096-82-5	Aroclor 1260	33	< 33 U
11104-28-2	Aroclor 1221	33	< 33 U
11141-16-5	Aroclor 1232	33	< 33 U
37324-23-5	Aroclor 1262	33	< 33 U
11100-14-4	Aroclor 1268	33	< 33 U

Reported in µg/kg (ppb)

Decachlorobiphenyl	95.2%
Tetrachlorometaxylene	88.5%



SW8082/PCB SOIL/SOLID/SEDIMENT SURROGATE RECOVERY SUMMARY

QC Report No: ZL09-The Boeing Company Project: 3-818 V94 Substation Removal Matrix: Soil

0025082.214.005

Client ID	DCBP % REC	DCBP LCL-UCL	TCMX % REC	TCMX LCL-UCL	TOT OUT
MB-111914	95.2%	59-115	88.5%	58-112	0
LCSD-111914	83.5%	59-115	78.2%	58-112	0
3-818-V94-S25-3.0-111914	81.8%	47-120	79.2%	53-116	0
3-818-V94-S25-3.0-111914 MS	82.0%	47-120	80.0%	53-116	0
3-818-V94-S25-3.0-111914 MSD	81.2%	47-120	80.8%	53-116	0
3-818-V94-S57-3.0-111914	79.0%	47-120	76.8%	53-116	0
3-818-V94-S41-3.0-111914	86.5%	47-120	82.5%	53-116	0
3-818-V94-S47-1.0-111914	86.8%	47-120	86.8%	53-116	0
3-818-V94-S46-1.0-111914	75.5%	47-120	79.8%	53-116	0
3-818-V94-S48-1.0-111914	75.8%	47-120	75.8%	53-116	0
3-818-V94-S43-3.0-111914	79.2%	47-120	77.0%	53-116	0
3-818-V94-S49-3.0-111914	77.0%	47-120	75.0%	53-116	0
3-818-V94-S49-3.0-111914 DL	86.1%	47-120	87.8%	53-116	0
3-818-V94-S18-3.0-111914	77.5%	47-120	76.5%	53-116	0
3-818-V94-S50-3.0-111914	79.0%	47-120	77.8%	53-116	0
3-818-V94-S54-3.0-111914	82.2%	47-120	76.5%	53-116	0
3-818-V94-S54-3.0-111914 DL	89.5%	47-120	85.9%	53-116	0
3-818-V94-S53-3.0-111914	73.0%	47-120	76.5%	53-116	0
3-818-V94-S51-3.0-111914	83.2%	47-120	81.8%	53-116	0
3-818-V94-S14-3.0-111914	81.0%	47-120	80.8%	53-116	0
3-818-V94-S09-3.0-111914	81.5%	47-120	78.2%	53-116	0
3-818-V94-S55-3.0-111914	78.2%	47-120	73.2%	53-116	0
3-818-V94-S52-3.0-111914	80.8%	47-120	77.8%	53-116	0
3-818-V94-S56-3.0-111914	76.5%	47-120	72.0%	53-116	0

Microwave (MARS) Control Limits PCBSMI Prep Method: SW3546

Log Number Range: 14-25063 to 14-25080



ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page 1 of 1

Sample ID: LCS-111914 LCS/LCSD

Lab Sample ID: LCS-111914

LIMS ID: 14-25063

Matrix: Soil

Data Release Authorized:

Reported: 11/21/14

Date Sampled: NA Date Received: NA

Date Extracted LCS/LCSD: 11/19/14

Date Analyzed LCS: 11/20/14 13:42

LCSD: 11/20/14 14:04

Instrument/Analyst LCS: ECD7/PK LCSD: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No Sample Amount LCS: 12.0 g-dry-wt

Project: 3-818 V94 Substation Removal

0025082.214.005

LCSD: 12.0 g-dry-wt

Final Extract Volume LCS: 4.00 mL

QC Report No: ZL09-The Boeing Company

LCSD: 4.00 mL

Dilution Factor LCS: 1.00 LCSD: 1.00

Silica Gel: No

Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Aroclor 1016	138	167	82.6%	130	167	77.8%	6.0%
Aroclor 1260	147	167	88.0%	140	167	83.8%	4.9%

PCB Surrogate Recovery

	LCS	LCSD
Decachlorobiphenyl	87.2%	83.5%
Tetrachlorometaxylene	82.2%	78.2%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ORGANICS ANALYSIS DATA SHEET PCB by GC/ECD Method SW8082A Page 1 of 1 ANALYTICAL RESOURCES INCORPORATED

Sample ID: 3-818-V94-S25-3.0-111914 MS/MSD

Lab Sample ID: ZL09A

LIMS ID: 14-25063 Matrix: Soil

Data Release Authorized:

Reported: 11/21/14

Date Extracted MS/MSD: 11/19/14

Date Analyzed MS: 11/20/14 14:48 MSD: 11/20/14 15:10

Instrument/Analyst MS: ECD7/PK
MSD: ECD7/PK

GPC Cleanup: No Sulfur Cleanup: Yes Acid Cleanup: Yes Florisil Cleanup: No QC Report No: ZL09-The Boeing Company

Project: 3-818 V94 Substation Removal

0025082.214.005

Date Sampled: 11/19/14 Date Received: 11/19/14

Sample Amount MS: 12.8 g-dry-wt

MSD: 12.8 g-dry-wt

Final Extract Volume MS: 4.0 mL

MSD: 4.0 mL

Dilution Factor MS: 1.00

MSD: 1.00

Silica Gel: No

Percent Moisture: 20.1%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Aroclor 1016	< 31 U	122	156	78.2%	125	156	80.1%	2.4%
Aroclor 1260	< 31 U	150	156	96.2%	154	156	98.7%	2.6%

Results reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.