POST WOOLSEY FIRE PCB AIR AND WIPE SAMPLING REPORT

Juan Cabrillo Elementary School
Building A, B, and C
30237 Morning View Drive
Malibu, California 90265

Prepared for:

Santa Monica-Malibu Unified School District
Facilities Improvements Projects
2828 4th Street
Santa Monica, California 90405

Project No.: SMSD-18-8148
Reported Date: March 4, 2019

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EXECUTIVE SUMMARY

On behalf of the Santa Monica-Malibu Unified School District (District), Alta Environmental (Alta) has prepared this report summarizing the air and wipe sampling activities completed for Juan Cabrillo Elementary School Buildings A, B, and C located at 30237 Morning View Drive in Malibu, California. The sampling activities were conducted to investigate the potential presence of detectable polychlorinated biphenyl compounds (PCBs) following the Woolsey Fire that burned through the Juan Cabrillo Elementary School area. Our sampling locations within each of the buildings were selected to replicate Ramboll Corporation's earlier sampling event.

PCB Air Sampling Results

Based on the laboratory results, concentrations of PCBs were not detected in any of the air samples collected during this investigation.

PCB Wipe Sampling Results

Based on the laboratory results, concentrations of PCBs were not detected in any of the wipe samples collected during this investigation.

CONTENTS

REPORTED: March 4, 2019 **PROJECT NO.:** SMSD-18-8149

CLIENT: Santa Monica-Malibu Unified School District
Facility Improvements Projects
2828 4th Street
Santa Monica, California 90405

ATTENTION: Mr. Carey Upton

REF: Post Woolsey Fire PCBs Air and wipe Report
Building A, B and C
Juan Cabrillo Elementary School
30237 Morning View Drive, Malibu, CA, 90265

1 PROJECT BACKGROUND

The Santa Monica-Malibu Unified School District (District) retained Alta Environmental (Alta) to provide clearance sampling services for Juan Cabrillo Elementary School, located at 30237 Morning View Drive, Malibu, CA 90265.

2 PURPOSE OF INSPECTION AND SAMPLING

The objective of the sampling was to investigate the potential presence of polychlorinated biphenyls (PCBs) within select buildings on the Juan Cabrillo Elementary School campus, following the Woolsey Fire clean up.

3 SCOPE OF SERVICES

On behalf of the District, Alta replicated a previous PCB clearance sampling event conducted by Ramboll Corporation. During the course of our investigation, Alta collected eight air samples (including two field-blank samples and two ambient/background samples) and 13 wipe samples (including two field-blank samples) within Buildings A, B, and C.

4 METHODOLOGY

Prior to conducting air and wipe sampling, Alta representatives inspected the sampling areas for visual indications of significant heat impacts to building materials related to the Woolsey Fire, such as warping of door structures and window caulking. Indications of warping were not observed at the time of our inspection.

4.1 Air Sampling

Alta deployed six air sampling units at various locations within Buildings A, B, and C. The air samples were collected utilizing a calibrated pump to draw air through laboratory supplied polyurethane foam cartridges at a flow rate of approximately five liters per minute, for approximately 24 hours (1,440 minutes). The air samples were collected at breathing zone height, without the use of pre-filters.

Following collection, each sample was properly packaged, labeled, and recorded on a chain-of-custody for transported to ALS Environmental, in Salt Lake City, Utah. Samples were analyzed using EPA Method T0-10A.

4.2 Wipe Sampling

Alta collected a total of 13 wipe samples at various locations within Buildings A,B, and C. Each wipe sample was collected on laboratory supplied gauze pads (or similar sampling media) in general accordance with the *Standard Wipe Test* procedure described in 40 CFR 761.123. Following collection, each sample was properly packaged, labeled, and recorded on a chain-of-custody for transport to ALS Environmental. All samples were prepared for analysis by the laboratory using EPA Method 3540 (Soxhlet extraction) and were analyzed for PCBs using EPA Method 8082A.

5 RESULTS

5.1 Air Sampling

Based on the reported laboratory results, concentrations of PCBs were not detected in any of the analyzed air samples.

5.2 Wipe Sampling

Based on the reported laboratory results, concentrations of PCBs were not detected in any of the analyzed wipe samples.

6 QUALITY CONTROL

Quality control (QC) duplicate samples were collected during this investigation as methods to evaluate sampling and analytical precision. Alta collected a total of four duplicate sample during the course of this investigation. Laboratory results of the duplicate samples were reported within acceptable limits.

Sample extraction and analysis was completed by ALS Environmental, located at 960 West Le Voy Drive, Salt Lake City, Utah. ALS Environmental is a laboratory accredited by the AIHA Laboratory Accreditation Program and the National Environmental Laboratory Accreditation Conference. Based on a review of the laboratory quality control data associated with the sample analysis, the recovery and precision are within the acceptable limits of the laboratory.

7 CONCLUSIONS

No PCBs were detected above the laboratory detection limit in either the air samples or the wipe samples collected during this investigation.

8 ASSUMPTIONS AND LIMITATIONS

This report was prepared exclusively for use by Santa Monica Malibu Unified School District and may not be relied upon by any other person or entity without Alta Environmental's express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Alta Environmental cannot be responsible for the impact of any changes in environmental standards, practices or regulations after performance of services.

In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Alta Environmental has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Alta Environmental accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Alta Environmental will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Alta Environmental makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

Alta Environmental' s investigation and the conclusions and recommendations generated as a result reflect a subjective evaluation of limited data and thus may not be representative of all conditions present at the site. If you have any questions, please feel free to call the undersigned at (562) 495-5777.

9 SIGNATORY

Respectfully submitted by:

Alta Environmental

Jonathan Barkman
Project Manager / Senior I

Respectfully submitted by:

Alta Environmental

David Schack
VP, Site Assessment

Appendix A
Sample Inventories

Summary of Post Fire Air Sampling Results

CLIENT: SMMUSD
PROJECT SMSD-18-8148
PROJECT: Juan Cabrillo Elementary School
Date: 11/29/18 - 11/30/18

Building	Room Placard ID	Floor Plan Room ID	Room Description	Sampling Date[a]	Sample ID	Total PCBs (ng/m^3)
A	Main Office	100L, 100E	Main Office	11/29/2018	112918-JCES-BA-R100L-A6	ND (<28)
B	R3	3	1st grade classroom	11/29/2018	112918-JCES-BB-R3-A7	ND (<28)
			1st grade classroom (duplicate)		112918-JCES-BB-R3-A8	ND (<28)
C	R9	9	2nd/3rd grade classroom	11/29/2018	112918-JCES-BC-R9-A9	ND (<28)
Field Blanks and Ambient				11/29/2018	112918-AOD1	ND (<28)
					112918-AOD2	ND (<28)
					112918-AFB1	ND
					112918-AFB2	ND

Notes:
1. Analytical reports 34-1833504 were provided by the laboratory, ALS Environmental.
2. If no PCBs were detected above the laboratory reporting limit, totals are shown as less than (<) the highest analyte method reporting limit.
3. Duplicate samples were collected adjacent to the primary sample.
4. Example of sample ID:
112918 (Date) - MHS (School ID) - B200 (Building) - R201 (Room ID) - A1 (Air Sample Code)

[a] Air samples were collected over a 24-hour period with the lights on, windows and door closed, and ventilation off. Start date given.

Abbreviations:
ng/m^3 = nanograms per cubic meter
FB = field blank
JCES = Juan Cabrillo Elementary School
NA = not applicable
ND = not detected above the laboratory reporting limit
OD = outdoor
PCB = polychlorinated biphenyl

Summary of Post Fire Wipe Sampling Results

CLIENT: SMMUSD
PROJEC SMSD-18-8148
PROJEC Juan Cabrillo Elementary School
Date: 11/29/18

Building	Room Placard ID	Floor Plan Room ID	Room Description	Suggested Sample Location	Surface Description	Sampling Date	Sample ID	Total PCB Surface Wipe Concentration (µg/100cm^2)
A	Main Office	100L, 100E	Main Office	Bookshelf	Painted wood	11/29/2018	112918-JCES-BA-R100L-W1	ND (<0.20)
				Counter top (sink adjacent)	Laminate		112918-JCES-BA-R100L-W2	ND (<0.20)
				Table	Wood		112918-JCES-BA-R100L-W3	ND (<0.20)
B	R3	3	1st grade classroom	Counter top (sink adjacent)	Laminate	11/29/2018	112918-JCES-BB-R3-W1	ND (<0.20)
				Counter top (sink adjacent) (replicate)	Laminate		112918-JCES-BB-R3-W2	ND (<0.20)
				Student desk	Wood		112918-JCES-BB-R3-W3	ND (<0.20)
				Bookshelf	Wood		112918-JCES-BB-R3-W4	ND (<0.20)
C	R9	9	2nd/3rd grade classroom	Counter top (sink adjacent)	Laminate	11/29/2018	112918-JCES-BC-R9-W1	ND (<0.20)
				Teacher desk	Wood		112918-JCES-BC-R9-W2	ND (<0.20)
				Student desk	Wood		112918-JCES-BC-R9-W3	ND (<0.20)
				Student desk (duplicate)	Wood		112918-JCES-BC-R9-W4	ND (<0.20)
Field Blanks						11/29/2018	112918-WFB-HEX	ND
							112918-WFB-HEX	ND

Notes:

1. Samples were analyzed by USEPA method SW 8082. Sample area = 100 cm^2.
2. If no Aroclors were detected above the laboratory reporting limit, total PCBs are shown as less than (<) the highest method reporting limit.
3. Duplicate samples were collected adjacent to the primary sample.
Replicate samples were collected in the same location as the primary sample, after the primary sample was collected.
4. Example of sample ID: 112918 (Date) - MHS (School ID) - B200 (Building) - R201 (Room ID) - W1 (Sample Code)

Abbreviations:

µg/100cm^2 = microgram per 100 square centimeters
HEX = hexane
JCES = Juan Cabrillo Elementary School
ND = analyte not detected above the reporting limit
PCB = polychlorinated biphenyl
USEPA = United States Environmental Protection Agency

Appendix B
Laboratory Reports

ANALYTICAL REPORT

Report Date: December 06, 2018

Scott Fan
ALTA Environmental
3777 Long Beach Blvd.
Long Beach, CA 90807

Phone: (562) 495-5777

E-mail: Scott.Fan@altaenviron.com

Workorder: **34-1833504**
Project ID: Juan Cabrillo E.S.
Purchase Order: SMSD-18-8148
Project Manager Paul E. Pope

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
112918-JCES-BA-R100L-A6	1833504001	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BB-R3-A7	1833504002	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BB-R3-A8	1833504003	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BC-R9-A9	1833504004	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-A0D1	1833504005	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-AFB1	1833504006	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-A0D2	1833504007	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-AFB2	1833504008	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BA-R100L-W1	1833504009	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BA-R100L-W2	1833504010	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BA-R100L-W3	1833504011	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BB-R3-W1	1833504012	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BB-R3-W2	1833504013	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BB-R3-W3	1833504014	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BB-R3-W4	1833504015	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BC-R9-W1	1833504016	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BC-R9-W2	1833504017	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BC-R9-W3	1833504018	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-JCES-BC-R9-W4	1833504019	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-WFB-HEX	1833504020	11/29/18	12/01/18	Juan Cabrillo E.S.
112918-WFB-HEX	1833504021	11/29/18	12/01/18	Juan Cabrillo E.S.

ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BA-R100L-A6** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504001 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: Air Volume 7192.8 L

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: **112918-JCES-BB-R3-A7** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504002 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: Air Volume 7178.4 L

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BB-R3-A8** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504003 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: Air Volume 7200 L

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: **112918-JCES-BC-R9-A9** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504004 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: Air Volume 7185.6 L

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-A0D1** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504005 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: Air Volume 7178.4 L

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: **112918-AFB1** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504006 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	NA	0.20	1	
Aroclor 1232	ND	NA	0.10	1	
Aroclor 1016	ND	NA	0.10	1	
Aroclor 1242	ND	NA	0.10	1	
Aroclor 1248	ND	NA	0.10	1	
Aroclor 1254	ND	NA	0.10	1	
Aroclor 1260	ND	NA	0.10	1	
Aroclor 1262	ND	NA	0.10	1	
Aroclor 1268	ND	NA	0.10	1	

ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-A0D2** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504007 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: Air Volume 7200 L

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<28	0.20	1	
Aroclor 1232	ND	<14	0.10	1	
Aroclor 1016	ND	<14	0.10	1	
Aroclor 1242	ND	<14	0.10	1	
Aroclor 1248	ND	<14	0.10	1	
Aroclor 1254	ND	<14	0.10	1	
Aroclor 1260	ND	<14	0.10	1	
Aroclor 1262	ND	<14	0.10	1	
Aroclor 1268	ND	<14	0.10	1	

Sample ID: **112918-AFB2** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504008 | Media: PUF Tube | Received: 12/01/2018
Matrix: Air | Sampling Parameter: NA

Analysis Method - EPA TO-10A, PCBs

Preparation:	EPA 3540 Soxhlet Ext., EPA TO-10A	**Weight/Volume**	**Analysis:**	EPA TO-10A, PCBs Air	**Instrument ID:** GCE03
Batch:	ENVX/28131 (HBN: 228501)	**Initial:** 1 mL	**Batch:**	EGC/7599 (HBN: 228683)	**Percent Solid:** NA
Prepared:	12/04/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ng/m³)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	NA	0.20	1	
Aroclor 1232	ND	NA	0.10	1	
Aroclor 1016	ND	NA	0.10	1	
Aroclor 1242	ND	NA	0.10	1	
Aroclor 1248	ND	NA	0.10	1	
Aroclor 1254	ND	NA	0.10	1	
Aroclor 1260	ND	NA	0.10	1	
Aroclor 1262	ND	NA	0.10	1	
Aroclor 1268	ND	NA	0.10	1	

ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BA-R100L-W1** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504009 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Sample ID: **112918-JCES-BA-R100L-W2** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504010 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

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Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BA-R100L-W3** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504011 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Sample ID: **112918-JCES-BB-R3-W1** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504012 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BB-R3-W2** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504013 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Sample ID: **112918-JCES-BB-R3-W3** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504014 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

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Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BB-R3-W4** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504015 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Sample ID: **112918-JCES-BC-R9-W1** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504016 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

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Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BC-R9-W2** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504017 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Sample ID: **112918-JCES-BC-R9-W3** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504018 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

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Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-JCES-BC-R9-W4** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504019 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Sample ID: **112918-WFB-HEX** | Sampling Site: Juan Cabrillo E.S. | Collected: 11/29/2018
Lab ID: 1833504020 | Media: Wipe | Received: 12/01/2018
Matrix: Wipe | Sampling Parameter: Volume 100 cm²

Analysis Method - SW 8082

Preparation:	EPA 3540 Soxhlet Ext., ARO Wipe	**Weight/Volume**	**Analysis:**	SW 8082, Wipe	**Instrument ID:** GCE03
Batch:	ENVX/28132 (HBN: 228502)	**Initial:** 1 wipe	**Batch:**	EGC/7598 (HBN: 228682)	**Percent Solid:** NA
Prepared:	12/02/2018	**Final:** 10 mL	**Analyzed:**	12/04/2018 00:00	**Report Basis:** Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

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Project Manager: Paul E. Pope

Analytical Results

Sample ID: **112918-WFB-HEX**
Lab ID: 1833504021
Matrix: Wipe
Sampling Site: Juan Cabrillo E.S.
Media: Wipe
Sampling Parameter: Volume 100 cm²
Collected: 11/29/2018
Received: 12/01/2018

Analysis Method - SW 8082

Preparation: EPA 3540 Soxhlet Ext., ARO Wipe
Batch: ENVX/28132 (HBN: 228502)
Prepared: 12/02/2018
Weight/Volume
Initial: 1 wipe
Final: 10 mL
Analysis: SW 8082, Wipe
Batch: EGC/7598 (HBN: 228682)
Analyzed: 12/04/2018 00:00
Instrument ID: GCE03
Percent Solid: NA
Report Basis: Wet

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)	Dilution	Qual
Aroclor 1221	ND	<0.20	0.20	1	
Aroclor 1232	ND	<0.10	0.10	1	
Aroclor 1016	ND	<0.10	0.10	1	
Aroclor 1242	ND	<0.10	0.10	1	
Aroclor 1248	ND	<0.10	0.10	1	
Aroclor 1254	ND	<0.10	0.10	1	
Aroclor 1260	ND	<0.10	0.10	1	
Aroclor 1262	ND	<0.10	0.10	1	
Aroclor 1268	ND	<0.10	0.10	1	

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-10A, PCBs	/S/ Mila V. Potekhin 12/05/2018 13:48	/S/ Lyle Edwards 12/05/2018 15:20
SW 8082	/S/ Mila V. Potekhin 12/05/2018 12:31	/S/ Lyle Edwards 12/05/2018 13:21

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ANALYTICAL REPORT

Workorder: 34-1833504
Client: ALTA Environmental
Project Manager: Paul E. Pope

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body	Certificate Number	Website
Environmental	PJLA (DoD ELAP)		
	Utah (TNI)		
	Nevada		
	Oklahoma		
	Iowa		

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< This testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.